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Pretium™ Solutions

# Installation Instructions for UniCam® Pretium™- Performance Connectors

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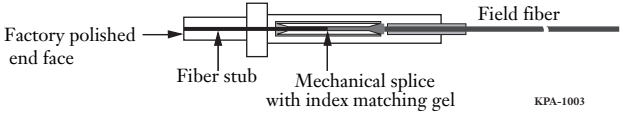
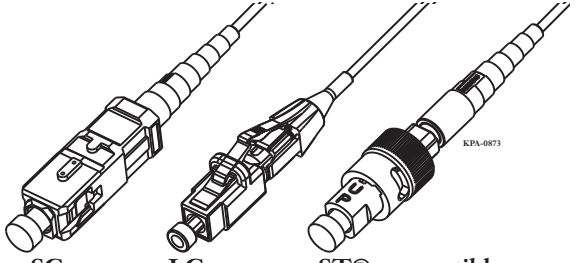
## INTRODUCTION

This manual describes how to assemble Corning Cable Systems multimode and single-mode SC, LC and ST®-compatible UniCam® connectors.




The patented UniCam connector incorporates a “mini-pigtail” housed in a connector body. There is a fiber stub bonded into the ferrule in the factory, where the end-face of the ferrule is polished to a PC, UPC or APC finish. The other end of the fiber is cleaved and fully protected inside the connector. The field fiber is cleaved and inserted into the connector until it makes positive contact with the fiber stub. A simple rotating cam actuation process completes the connector with no epoxy or field polishing required. After strain-relieving the fiber to the connector, it is ready to be mated to another connector inside an adapter.

The primary advantage of a UniCam connector, when compared to other field-installable connector methods, is the time savings. Because no epoxy or polishing is required in the field, a UniCam can be installed very quickly, leading to labor cost savings and the ability to increase the volume of installations. This provides installers, contractors, and end users the ability complete installations more quickly, bringing critical systems on line, and moving on to the next revenue-generating opportunity.

An important advantage of the UniCam connector design over other no-cure connectors is that the fiber is fully protected from the environment. The epoxy and polishing process are carefully performed in a controlled factory environment to make certain the UniCam connector will last the entire life of the network.

Another significant advantage of the UniCam connector can be attained when using it for installations at the desk outlet or other areas with limited physical space. The only tools required are a stripper, cleaver, installation tool, Fiber Wipes, and Fiber Optic

Cleaning Fluid. As a result, assembly space can be kept to a minimum, set-up is quick, and assembly is fast and easy with no epoxy or polishing films.

When taking into account the material, labor and consumables of connectorization, the UniCam connector is one of the most cost-effective methods of terminating fibers in the field.

Based on economics, performance, and ease of use, the UniCam connector is recommended as the connector of choice for the MC, IC, HC, and the Work Area Telecommunications Outlet. In addition, the UniCam connector is recommended as the connector of choice for the end-user when performing moves, adds, changes, or repairs in the network.

Please become familiar with the entire manual before beginning UniCam installations.

## SAFETY PRECAUTIONS

### Safety Glasses

**CAUTION:** *Wear safety glasses to protect your eyes from accidental injury when handling chemicals and cutting fiber. Pieces of glass fiber are very sharp and can damage the eye easily.*

### Fiber Precautions

**WARNING:** *Cleaved glass fibers are very sharp and can pierce the skin easily. Do not let cut pieces of fiber stick to your clothing or drop in the work area where it can cause injury later. Dispose of cut or broken pieces of glass fibers properly in a trash container or in the scrap bin provided in the cleaver.* ***Good housekeeping is very important.***

### Cable Handling Precautions

**NOTE:** *Fiber optic cable is sensitive to excessive pulling, bending, and crushing forces. Consult the cable specification sheet for the cable you are installing.* ***Do not bend the cable more sharply than the minimum recommended bend radius. Do not apply more pulling force to the cable than specified. Do not crush the cable or allow it to kink.*** *Doing so may cause damage that can alter the transmission characteristics of the cable; the cable may have to be replaced.*

**Chemical Precautions**

**CAUTION:** *Fiber Optic Cleaning Fluid can cause irritation to eyes on contact. In case of eye contact, immediately flush eyes with water for at least 15 minutes. Inhaling fumes may be harmful. Use with adequate ventilation. In case of ingestion, consult a physician.*

**Laser Handling Precautions**

**WARNING:** ***Never look directly into the end of a fiber that may be carrying laser light.*** *Laser light is invisible and can damage your eyes. Viewing it directly does not cause pain. The iris of the eye will not close involuntarily as when viewing a bright light. Consequently, serious damage to the retina of the eye is possible. Should accidental eye exposure to laser light be suspected, arrange for an eye examination immediately.*

**WARNING:** *DO NOT use magnifiers in the presence of laser radiation. Diffused laser light can cause eye damage if focused with optical instruments. Should accidental eye exposure to laser light be suspected, arrange for an eye examination immediately.*

**Laser Safety**

The Pretium UniCam Installation tool conforms to the requirements contained in IEC 60825-1:1993 plus Amendments 1:1997 and 2:2001. $P_{max}$ < 1.0 mW, λ=635nm

**LASER LIGHT**
**DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS (MAGNIFIERS).**
**CLASS 1M LASER PRODUCT**

**WARNING:** *Viewing the laser output with certain optical instruments (for example, eye loupes, magnifiers and microscopes) within a distance of 100mm may pose an eye hazard.*

**CAUTION:** *Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.*

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# 1. GETTING STARTED

## 1.1 General

This section provides an overview of the items found in the Pretium™ UniCam Toolkit.
Please become familiar with the appropriate sections of this manual before starting to install a connector.

## 1.2 Pretium UniCam Toolkit Contents

Table 1 describes the contents of the Corning Cable Systems Pretium UniCam Toolkit:

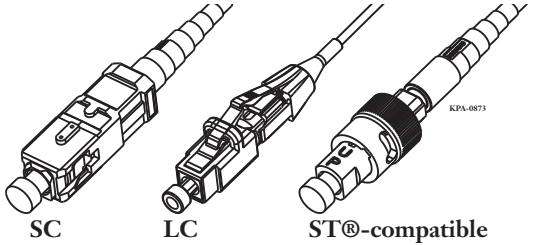
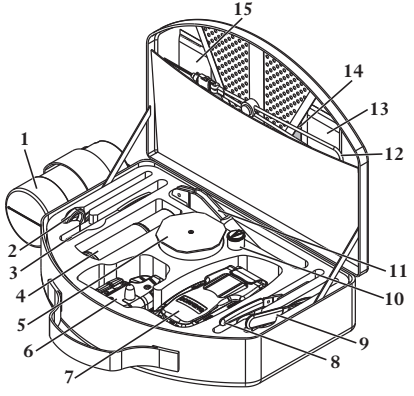



Figure 1 —Connectors Used with Pretium UniCam Toolkit




| Number | Item | Part Number |
|---|---|---|
| 1 | UniCam Toolkit Trash Container | 2104498-01 |
| 2 | Scissors | 100294-01 |
| 3 | Retractable Black Permanent Marker | 2104499-01 |
| 4 | Fiber Optic Cleaning Fluid | * |
| 5 | Fiber Wipes | * |
| 6 | Pretium Cleaver | FBC-015 |
| 7 | Pretium UniCam Installation Tool | TL-UCP |
| 8 | Cable Jacket Stripping Tool | 3206001-01 |
| 9 | Dual-hole Stripping Tool | 2104502-01 |
| 10 | 1.25 mm Ferrule Adapter | VFL-A125 ** |
| 11 | UniCam Crimp Tool | 3201007-01 |
| 12 | Lanyards (2) | 02-002853-001 |
| 13 | Cleaning Stick - Size 1.25 mm | * |
| 14 | Strip Length Gauge | 02-001757-001 |
| 15 | Cleaning Stick - Size 2.5 mm | * |
| Not Shown | Installation Instructions for SC, LC, ST-compatible Connectors | 006-369 |
| Not Shown | 2.5 mm Ferrule Adapter (ships in the Installation Tool) | VFL-A250 ** |
| Not Shown | Critical Steps Card for UniCam Connectors | 006-368 |

* Available as an item in TKT-FCC
** Order both Ferrule Adapters by referencing VFL-AKIT

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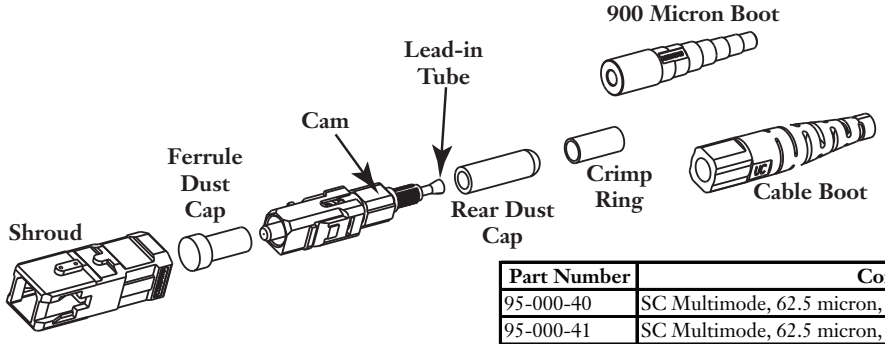
Table 1 — Pretium UniCam Toolkit Contents

## 1.3 Compatible Connectors and Ordering Information

### 1.3.1 SC Connector




| Part Number | Connectors |
|---|---|
| 95-000-40 | SC Multimode, 62.5 micron, composite ferrule |
| 95-000-41 | SC Multimode, 62.5 micron, ceramic ferrule |
| 95-000-41P | SC Multimode, 62.5 micron, 250 micron |
| 95-050-41 | SC Multimode, 50 micron, ceramic ferrule |
| 95-050-41-X | SC Multimode, 50 micron, SX+, ceramic ferrule |
| 95-050-41P | SC Multimode, 50 micron, 250 micron |
| 95-050-41P-X | SC Multimode, 50 micron, SX+, 250 micron |
| | |
| 95-200-41 | SC Single-mode, Super PC |
| 95-200-42 | SC Single-mode, Ultra PC |
| 95-200-42P | SC Single-mode, 250 micron, Ultra PC |
| 95-200-44 | SC Single-mode, APC |
| 95-200-44P | SC Single-mode, 250 micron, APC |

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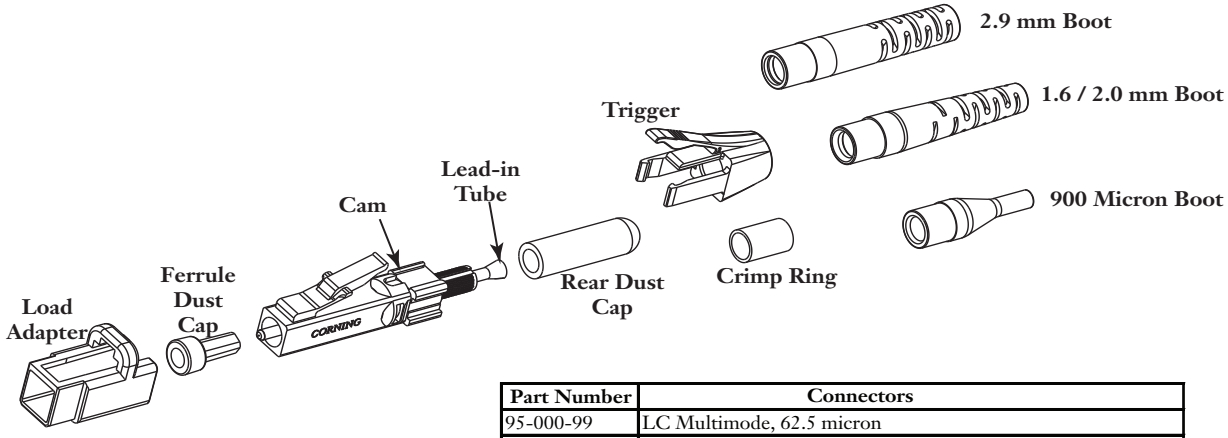
**NOTE:** To order the organizer pack, add -Z to the desired part number above (for example, 95-000-40-Z).

Figure 2 — SC Connector

### 1.3.2 LC Connector




| Part Number | Connectors |
|---|---|
| 95-000-99 | LC Multimode, 62.5 micron |
| 95-000-99P | LC Multimode, 62.5 micron, 250 micron |
| 95-050-99 | LC Multimode, 50 micron |
| 95-050-99P | LC Multimode, 50 micron, 250 micron |
| 95-050-99-X | LC Multimode, 50 micron, SX+ |
| 95-050-99P-X | LC Multimode, 50 micron, SX+, 250 micron |
| | |
| 95-200-99 | LC Single-mode, Ultra PC |
| 95-200-99P | LC Single-mode, 250 micron, Ultra PC |

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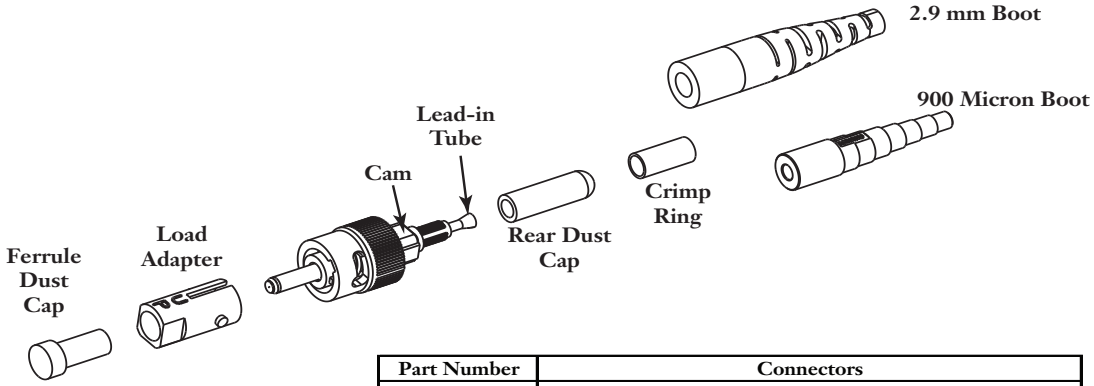
**NOTE:** To order the organizer pack, add -Z to the desired part number above (for example, 95-000-99-Z).

Figure 3 — LC Connector

### 1.3.3 ST-compatible Connector




| Part Number | Connectors |
|---|---|
| 95-000-50 | ST-compatible Multimode, 62.5 micron, composite ferrule |
| 95-000-51 | ST-compatible Multimode, 62.5 micron, ceramic ferrule |
| 95-050-51 | ST-compatible Multimode, 50 micron, ceramic ferrule |
| 95-050-51-X | ST-compatible Multimode, 50 micron, SX+, ceramic ferrule |
| | |
| 95-200-51 | ST-compatible Single-mode, Super PC |
| 95-200-52 | ST-compatible Single-mode, Ultra PC |

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**NOTE:** To order the organizer pack, add -Z to the desired part number above (for example, 95-000-50-Z).

Figure 4 — ST-compatible Connector

# 2. OVERVIEW OF INSTALLATION TOOLS

This chapter provides an overview of the tools required for installing SC, LC, and ST®-compatible UniCam connectors.

## 2.1 Pretium UniCam Installation Tool

### 2.1.1 General

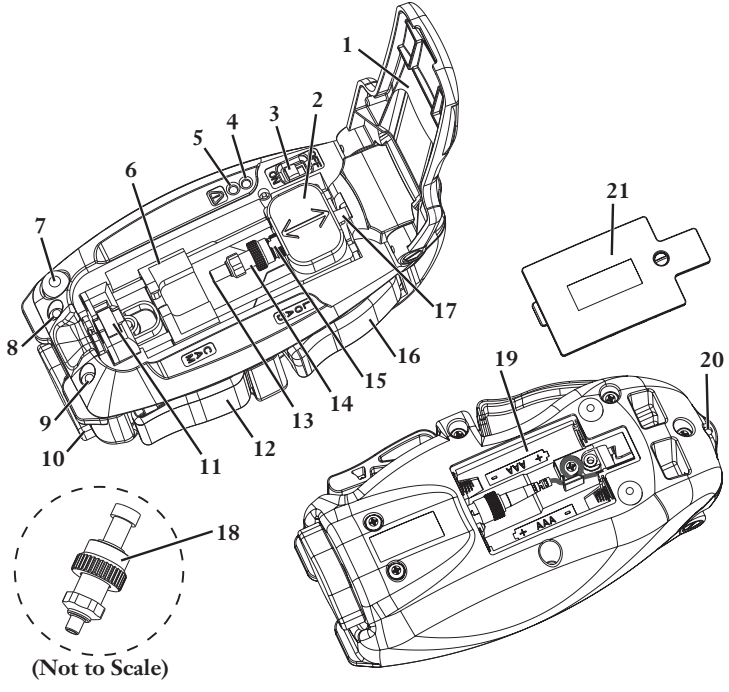
This section describes the components of the Pretium UniCam Installation Tool (Figure 5).

**NOTE:** *With the exception of the Ferrule Adapter, this tool operates independent of the connector or fiber type. SC and ST-compatible connectors require use of the 2.5 mm adapter and LC connectors require the 1.25 mm adapter.*

Please read through this entire chapter before using the installation tool to install UniCam connectors. Refer to Chapters 3 and 6 for complete operating instructions.

### 2.1.2 Features and Components

Shown in Figure 5.




| Number | Component |
|---|---|
| 1 | Cover |
| 2 | VFL Coupler |
| 3 | Power Switch |
| 4 | Power Light |
| 5 | Error Light |
| 6 | Connector Cradle |
| 7 | Reset Button |
| 8 | Red Light |
| 9 | Green Light |
| 10 | Crimp Knob |
| 11 | Wrench |
| 12 | CAM Button |
| 13 | Laser Aperture |
| 14 | 2.50 mm Ferrule Adapter (ships in the tool) |
| 15 | Ferrule Adapter Port |
| 16 | LOAD Button |
| 17 | Jumper |
| 18 | 1.25 mm Ferrule Adapter (ships in the toolkit) |
| 19 | Battery Compartment |
| 20 | Lanyard Attachment |
| 21 | Battery Cover |

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Figure 5 — Pretium UniCam Installation Tool Components

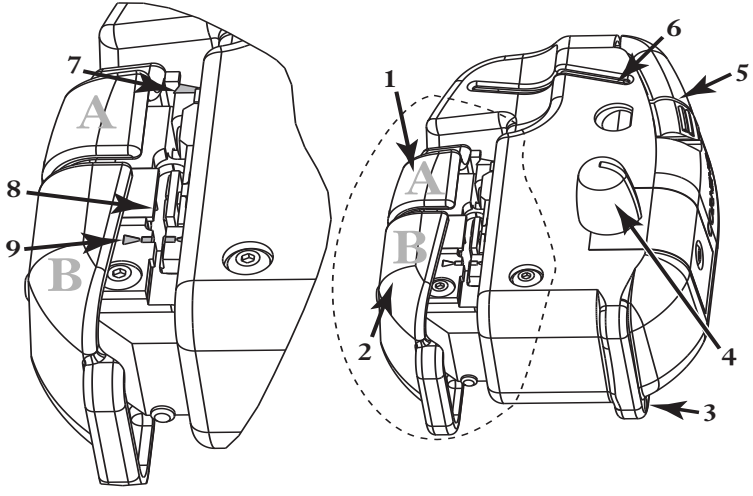
## 2.2 FBC-015 Cleaver

### 2.2.1 General

This section describes the components of the FBC-015 Cleaver (Figure 6). Please read through this entire chapter, the Fiber Preparation chapter, and Fiber Cleaving chapter before using the cleaver. Refer to Chapter 5 for complete operating instructions and precautions.

### 2.2.2 Features and Components

Shown in Figure 6.




| Number | Components |
|---|---|
| 1 | Button A |
| 2 | Button B |
| 3 | Lanyard Hole |
| 4 | Blade Knob |
| 5 | Scrap Bin |
| 6 | Scrap Fiber Slot |
| 7 | V-Groove |
| 8 | Blade |
| 9 | Alignment Mark |

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Figure 6 — FBC-015 Cleaver Components

## 2.3 Jacket Stripping Tool

### 2.3.1 General

This procedure describes how to use the Corning Cable Systems stripping tool (Figure 7) for cable jackets. The notches in the tool's jaws are marked with both AWG (American Wire Gauge) and metric hole sizes.

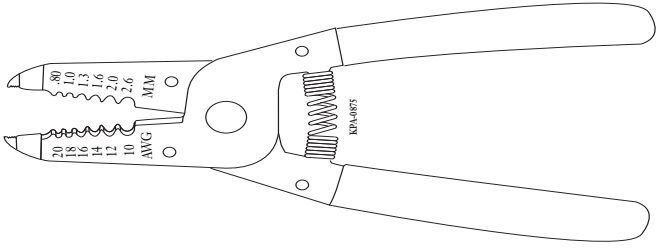


Figure 7 — Stripping Tool

### 2.3.2 Precautions

**CAUTION:** *Wear safety glasses to protect your eyes from accidental injury when handling chemicals and cutting fiber. Pieces of glass fiber are very sharp and can damage the eye easily.*

**WARNING:** *Cleaved glass fibers are very sharp and can pierce the skin easily. Do not let cut pieces of fiber stick to your clothing or drop in the work area where it can cause injury later. Dispose of cut or broken pieces of glass fibers properly in a trash container or in the scrap bin provided in the cleaver.* ***Good housekeeping is very important.***

**CAUTION:** *When using this tool to strip buffers, do NOT attempt to slide severed tube or jacket off the fibers with the sliding motion commonly used to strip copper wire with this tool. Doing so may break the fibers.*

### 2.3.3 Stripping Procedures

Select the correct AWG size notch for the jacket you are stripping from Table 2.

| Cable Jacket Diameter | AWG Size |
|---|---|
| 1.6 mm | 20 |
| 2.0 mm | 18 |
| 2.9 mm | 16 |

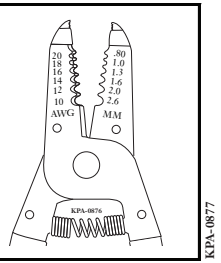


Table 2 — Jacket Stripping Diameters

**Step 1:** Close the jaws over the buffer. For consistent results, hold the tool perpendicular to the buffer.

**Step 2:** Squeeze the jaws shut to cut the jacket (Figure 8). If the material is not cleanly cut with the first effort, rotate the tool slightly and complete the cut. Remove the tool and carefully side the jacket off the yarn by hand.

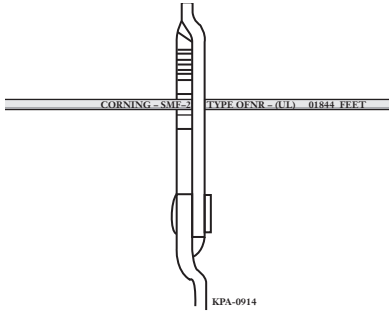


Figure 8 — Cut the Jacket

## 2.4 Dual-Hole Fiber Optic Stripping Tool

### 2.4.1 General

This procedure describes how to use the Corning Cable Systems Dual-Hole fiber stripping tool (Figure 9). This fiber stripping tool has been factory adjusted to strip both:

- 900 micron tight buffer from 250 micron coated fiber and
- 250 micron coated fiber from 125 micron optical fiber.

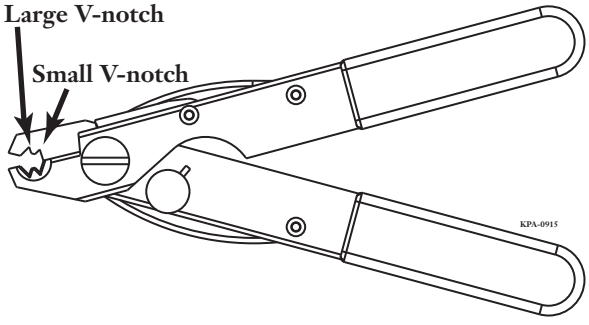


Figure 9 — Stripping Procedure with Dual-Hole Tool

### 2.4.2 Precautions

**CAUTION:** *Wear safety glasses to protect your eyes from accidental injury when handling chemicals and cutting fiber. Pieces of glass fiber are very sharp and can damage the eye easily.*

**WARNING:** *Cleaved glass fibers are very sharp and can pierce the skin easily. Do not let cut pieces of fiber stick to your clothing or drop in the work area where it can cause injury later. Dispose of cut or broken pieces of glass fibers properly in a trash container or in the scrap bin provided in the cleaver.* ***Good housekeeping is very important.***

### 2.4.3 Stripping Procedure

This procedure will give the most consistent results when stripping buffer or coating from fiber.

**Step 1:** Hold the tool perpendicular to the fiber (Figure 10).

**Step 2:** Make sure the fiber is in the correct V-notch.

- To remove 900 micron tight buffer, use the large V-notch
- To remove 250 micron coating, use the small V-notch

**Step 3:** Gently squeeze the tool shut.

**Step 4:** Strip the 900 micron buffer in two 20 mm increments with smooth straight pulls (Figure 10).

**Step 5:** Strip the 250 micron coating in one smooth straight pull.

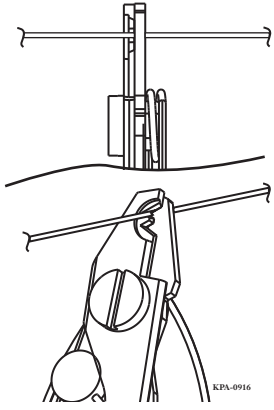


Figure 10 — Stripping Procedure

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# 3. TOOL AND CONNECTOR PREPARATION

## 3.1 Tool Preparation

### 3.1.1 Open the Cover

**Step 1:** Ensure the components are in the starting position (Figure 11). If not:

- Slide the VFL Coupler back toward the cover hinge until it locks.
- Verify the Load Button is released and the Connector Cradle is against its travel stop.
- Depress the Reset Button to return the Wrench to the start position (see Figure 12).

**Step 2:** Ensure that the correct Ferrule Adapter is installed.

- 2.5 mm for SC and ST connectors
- 1.25 mm for LC connectors
- To change the adapter, refer to the maintenance section (Chapter 7) of this manual.

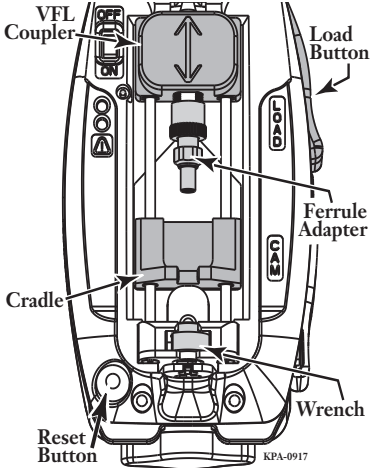
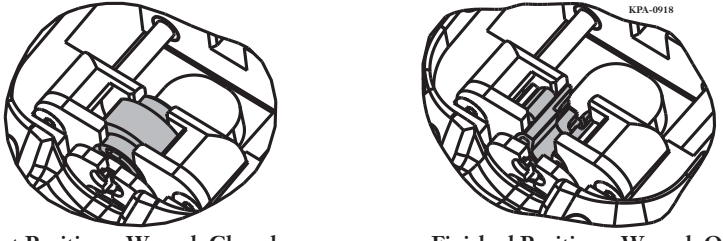



Figure 11 — Start Position of Components




**Start Position - Wrench Closed** **Finished Position - Wrench Open**

Figure 12 — Wrench in Start Position

### 3.1.2 Switch Power On

The power switch and light are located in the upper left corner of the tool. Move the switch to the ON position. Once the tool is on, the Power Light will glow (Figure 13).

If the Power Light flashes or does not glow, the batteries need to be replaced. Refer to Chapter 7, Maintenance and Troubleshooting, for battery replacement instructions.

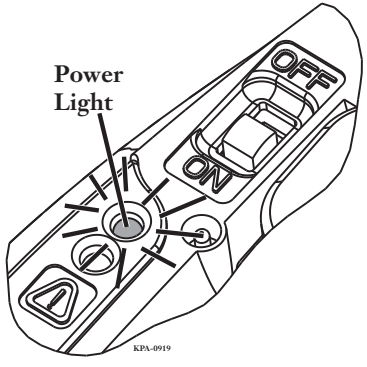



Figure 13 — Power Light

## 3.2 Connector Preparation

### 3.2.1 Verify Cam Position

Because the connector cam may rotate slightly during shipment, verify that the connector cam is in the open position (Figure 14). The cam is open when the cam key is 90 degrees from:

- SC connectors - the date code when it is facing up
- LC connectors - the latch when it is facing up
- ST-compatible connectors - the "UP" label molded on the load adapter

**NOTE:** *If the cam is not in the open position, the connector will not fit correctly into the installation tool.*

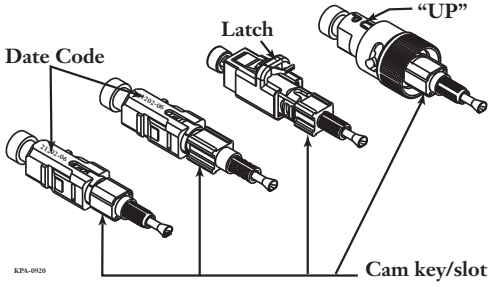



Figure 14 — Cam Position for each Connector Type

### 3.2.2 Prepare Connector for Loading

**Step 1:** Remove the rear dust cap.

**Step 2:** Remove the clear ferrule dust cap and visually inspect the connector for damage.

**Step 3:** Leave the black load adapter on LC and ST-compatible connectors until after termination.

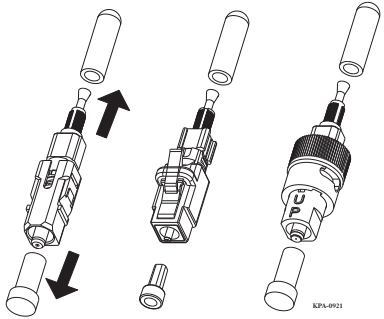



Figure 15 — Remove Dust Caps

## 3.3 Connector Loading

**Step 1:** Squeeze the LOAD Button (Figure 16) to move the Connector Cradle away from the Wrench.

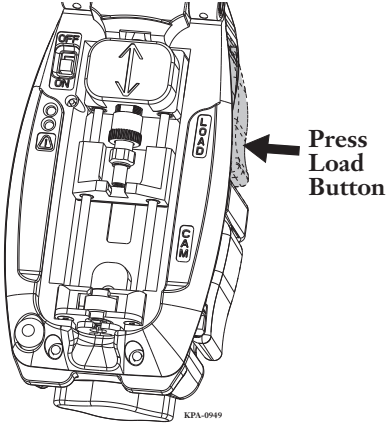



Figure 16 — Squeeze LOAD Button

**Step 2:** With the connector oriented up (as shown in Figure 14), load the connector into the tool by inserting it, lead-in tube first, into the Wrench (Figure 17).

**NOTE:** *Ensure that the cam is completely seated in the Wrench and the lead-in tube protrudes through the crimp arms. The flare of the lead-in tube should be visible beyond the crimp arms.*

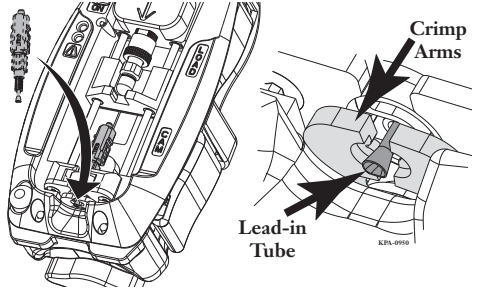



Figure 17 — Load Connector

**Step 3:** Slowly release the LOAD button while guiding the connector into the Connector Cradle (Figure 18). Ensure the connector is firmly seated in the Cradle.

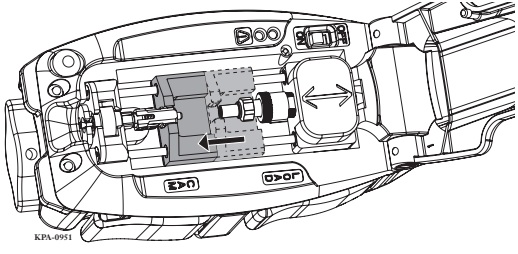



Figure 18 — Guide Connector into Cradle

**Step 4:** Slide the VFL Coupler down until the Ferrule Adapter is seated on the connector.

**Step 5:** Close the cover and check for the Error Light.

- If the Error Light remains off, there are no problems. Proceed to Chapter 4, Fiber Preparation.
- If the Error Light flashes, refer to the troubleshooting section in Chapter 7 of this manual.

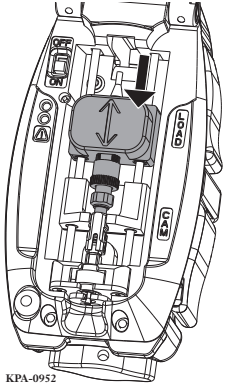



Figure 19 — Seat Adapter on Connector

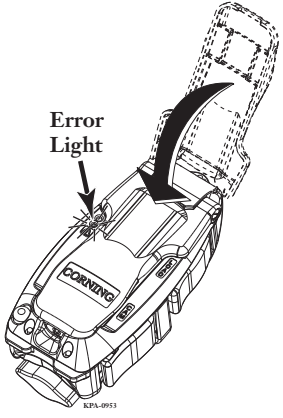



Figure 20 — Close Cover and Check for Error Light

**Step 6:** Set the installation tool aside and prepare the field fiber for termination.

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# 4. FIBER PREPARATION

## 4.1 General

This chapter explains how to prepare the fiber for termination with Corning Cable Systems UniCam connectors. With the exception of the visual mark, the fiber preparation steps are identical for each type of fiber/cable, regardless of connector type.

## 4.2 Fiber Preparation - All Fiber/Cable Types

Slide the appropriate boot onto the fiber/cable (Figure 21).

- Use the 900 micron boot for 900 micron Tight-buffered, 900 micron Furcated, or 250 micron Direct Termination applications.
- Use the 1.6, 2.0, or 2.9 mm cable boot for Jacketed Cable applications.
- For LC connectors, also slide the trigger onto the fiber/cable after installing the boot.

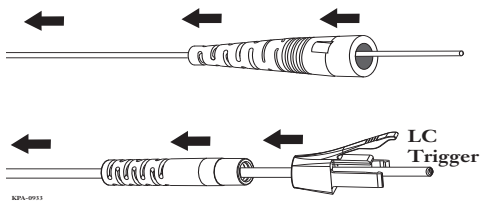


Figure 21 — Install Boot onto Fiber/Cable

## 4.3 Fiber Preparation - 900 micron Tight-buffered Fibers

**Step 1:** Using the Strip Length Gauge and permanent marker, measure and mark 40 mm from the end of the buffered fiber (Figure 22).

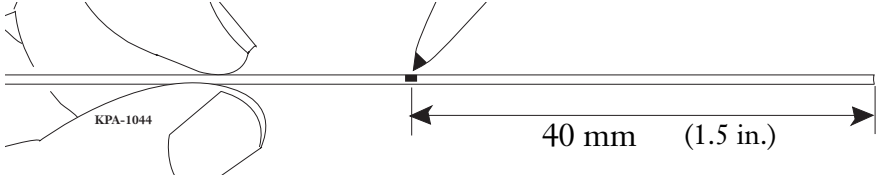


Figure 22 — Measure and Mark the Fiber

**Step 2:** For SC and ST-compatible connectors, measure and place a visual mark on the buffer an additional 11 mm back from the 40 mm mark. For LC connectors, measure and mark the buffer 9 mm back (Figure 23).

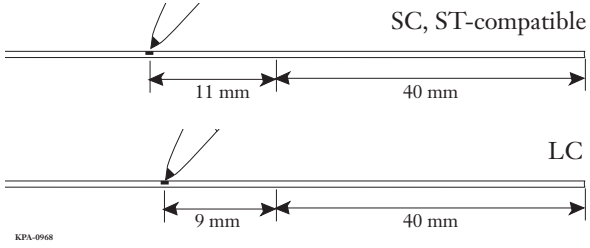


Figure 23 — Make Additional Mark on Buffer

**Step 3:** To expose bare glass, remove the 40 mm section of buffer and coating in two steps using the Dual-Hole Stripping Tool (Figure 24).

- For the 900 micron buffer, use the large V-notch.
- For the 250 micron coating, use the small V-notch.

**Step 4:** Clean the bare fiber with two passes of a Fiber Wipe dampened with Fiber Optic Cleaning Fluid.
Do not touch the bare fiber after cleaning it. Do not remove the visual mark.

**Step 5:** Proceed to Chapter 5, Fiber Cleaving.

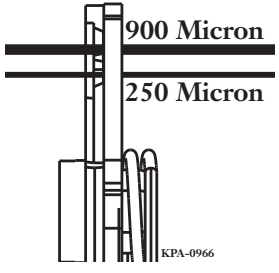


Figure 24 — Strip 900 Micron Buffer

## 4.4 Fiber Preparation - Jacketed Cable

**NOTE:** *Take your time to do the following four steps correctly. Excessive yarn length will have to be trimmed later. Yarn too short may result in weak strain-relief for the connector.*

**Step 1:** Measure and mark 40 mm from the end of the cable's outer jacket (Figure 25).

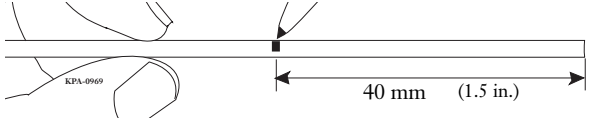


Figure 25 — Measure and Mark Outer Jacket

**Step 2:** Measure and mark an additional 13 mm from the 40 mm mark (Figure 26).

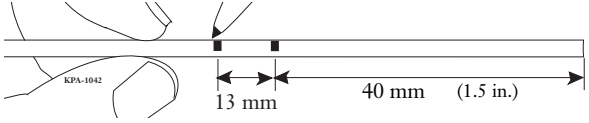


Figure 26 — Add Mark at 13 mm from First Mark

**Step 3:** Refer to Table 2 on page 9. for the correct AWG opening for the cable being used and strip off the 40 mm section of outer jacket with the Jacket Stripping Tool (Figure 27).

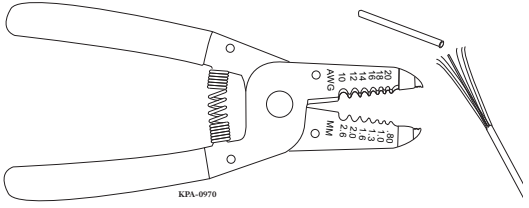


Figure 27 — Strip Outer Jacket

**Step 4:** Use scissors to trim the aramid yarn flush with the end of the outer jacket (Figure 28).

**Step 5:** Strip off the 13 mm section of outer jacket, exposing 13 mm of aramid yarn using the Jacket Stripping Tool.

**Step 6:** Fold the aramid yarn back over the cable jacket and slide the crimp ring about 5mm down the yarn to hold it out of the way.

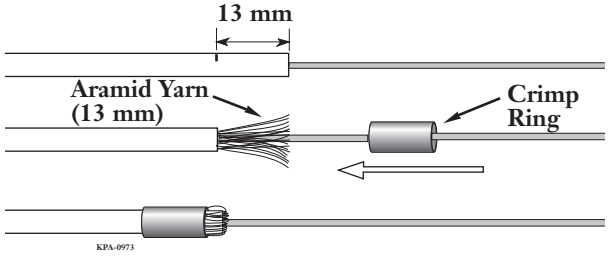


Figure 28 — Trim Yarn and Fold Back with Crimp Ring

**Step 7:** Mark the 900 micron buffer:

- For SC and ST-compatible connectors, mark 900 micron buffer 11 mm from the end of the cable jacket and at the edge of the cable jacket (Figure 29).
- For LC connectors, mark the 900 micron buffer 11 mm and 2 mm from the edge of the cable jacket.

**NOTE:** *The second mark is a visual aid to indicate when the field fiber contacts the fiber stub.*

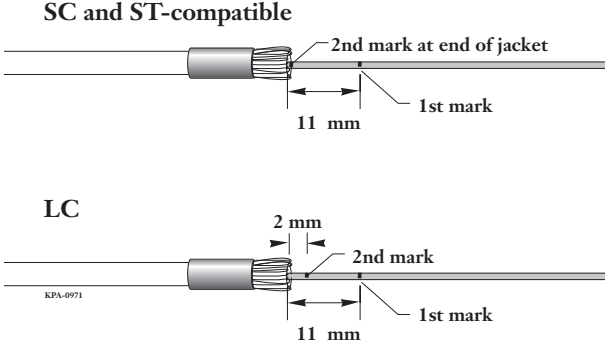


Figure 29 — Mark Buffer Coating

**Step 8:** Remove approximately 40 mm of buffer and coating to the first mark using the Dual-Hole Buffer Stripper. Use the large V-notch to remove the 900 micron buffer in two 20 mm increments and the small V-notch to strip the coating (Figure 30).

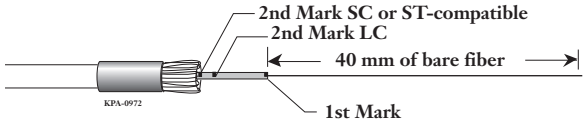


Figure 30 — Remove 900 micron Coating

**NOTE:** *It is IMPORTANT to check the locations of the second mark after stripping. For SC and ST-compatible connectors, the mark must be near the edge of the jacket; for LC connectors, the mark must be within 2 mm from the edge of the jacket. If necessary, work the buffer back into its original position in the jacket as follows (Figure 31):*

- Grasp the cable about 60 cm (24 inches) behind the strip point.
- Pull the cable until the second mark is near its starting position -
  SC and ST-compatible: near the edge of the jacket.
  LC: within 2 mm of the edge of the jacket.

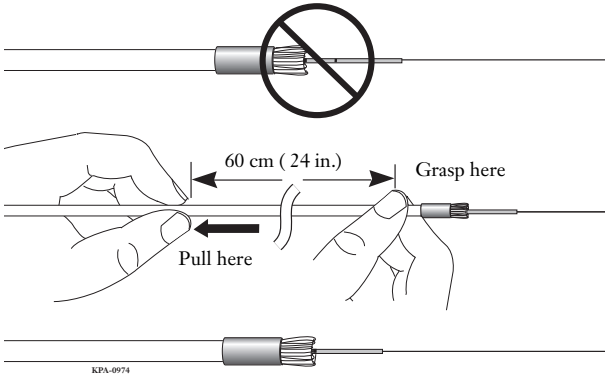


Figure 31 — Adjust Visual Mark, if Necessary

**Step 9:** Clean the bare fiber with two passes of a Fiber Wipe dampened with Fiber Optic Cleaning Fluid. Do not touch the bare fiber after cleaning it. Do not remove the visual mark.

**Step 10:** Proceed to Chapter 5, Fiber Cleaving.

## 4.5 Fiber Preparation - 250 micron Furcated Fibers

**Step 1:** After installing the fan-out according to the instructions provided with it, feed the 250 micron coated fiber through the fan-out tubing. Remove the 900 micron tubing or trim back the fiber so that 44 mm of fiber protrudes from the 900 micron tubing (Figure 32).

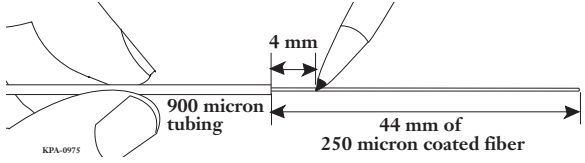


Figure 32 — Feed Fiber through Fan-out Tubing

**Step 2:** Measure and mark the 250 micron coated fiber 4 mm from the end of the fan-out tubing.

**Step 3:** Measure and mark the fan-out tube:

- SC and ST-compatible connectors: 11 mm back from the end of the 900 micron tubing.
- LC connectors: 9 mm back from the end of the 900 micron tubing.

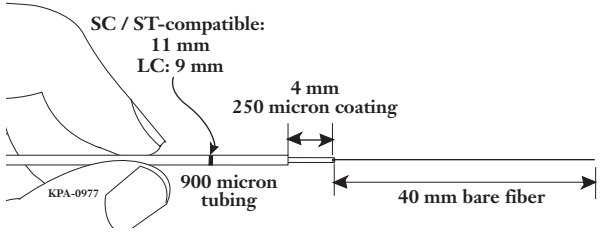


Figure 33 — Mark Fan-out Tubing

**Step 4:** Remove the 250 micron coating to the 4 mm mark using the small V-notch on the Dual-Hole Buffer Stripping Tool. It is important to leave 4 mm of 250 micron fiber extending beyond the 900 micron tubing to allow the fibers to touch before the 900 micron tubing bottoms out inside the connector.

**Step 5:** Clean the bare fiber with two passes of a Fiber Wipe dampened with Fiber Optic Cleaning Fluid. Do not touch the bare fiber after cleaning it. Do not remove the visual mark.

**Step 6:** Proceed to Chapter 5, Fiber Cleaving.

## 4.6 Fiber Preparation - 250 micron Direct Terminations

**Step 1:** For direct termination on 250 micron fiber, slide on the piece of furcation tubing provided with the connector, until it is out of the way.

**Step 2:** Measure and mark 40 mm from the end of the 250 micron coated fiber (Figure 34).

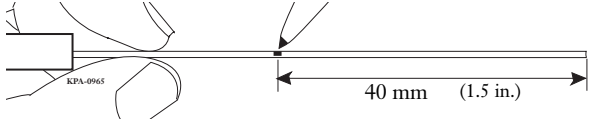


Figure 34 — Measure and Mark Coated Fiber

**Step 3:** Measure and place a visual mark on the coating an additional 14 mm back from the 40 mm mark. **Critical Step:** *This mark must be made on the coating. It is a visual aid to indicate when the field fiber contacts the fiber stub.*

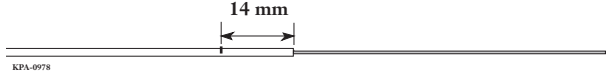


Figure 35 — Measure and Mark Buffer

**Step 4:** Remove the 250 micron coating from the 40 mm mark using the small V-notch on the Dual-Hole Buffer Stripping Tool. After the coating is removed, the bare fiber is exposed.

**Step 5:** Clean the bare fiber with two passes of a Fiber Wipe dampened with Fiber Optic Cleaning Fluid. Do not touch the bare fiber after cleaning it. Do not remove the visual mark.

**Step 6:** Proceed to Chapter 5, Fiber Cleaving.

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# 5. FIBER CLEAVING WITH FBC-015 CLEAVER

## 5.1 General

This section describes using the FBC-015 Cleaver in UniCam connector installations. The FBC-015 Cleaver is suitable for single-fiber, single-mode and multimode, connectors. This procedure assumes that the fiber has been stripped and cleaned according to the appropriate fiber stripping procedure.

## 5.2 Cleaving Procedure

**Step 1:** Ensure that both clamps are clean and free of fiber (Figure 36). Refer to Chapter 7, Maintenance and Troubleshooting for instructions on cleaning the clamps.

**Step 2:** Squeeze buttons A and B at the same time to open the clamps.

**Step 3:** Place the fiber in the slot (Figure 37) so the:

- Bare fiber is in the V-groove,
- The buffer or coating is aligned with the alignment mark, and
- The fiber rests under the tab.

**NOTE:** *When terminating furcated fiber, align the 250 micron coated fiber with the alignment mark.*

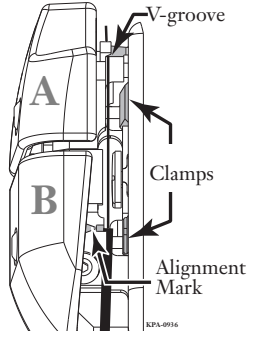


Figure 36 — Prepare Cleaver

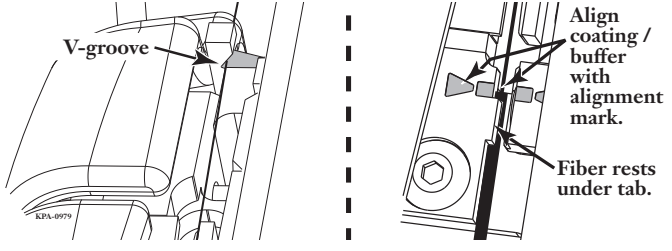


Figure 37 — Place Fiber in the Cleaver

**Step 4:** Fully release Button B, then release Button A. Ensure that both the bare and coated fiber is secured by the clamps.

**Step 5:** Slowly turn the knob 360 degrees to cleave the fiber.

**Step 6:** Squeeze Button A, remove the scrap fiber, and place it in the scrap fiber bin (Figure 37).

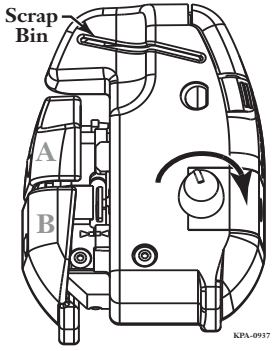


Figure 38 — Cleave and Dispose of Scrap Fiber

**Step 7:** While holding onto the fiber, squeeze Button B and remove the cleaved fiber (Figure 38).

**NOTE:** *Once the fiber is cleaved, do not clean the fiber or allow it to contact anything. If the cleaved fiber does contact something, repeat fiber preparation and re-cleave.*

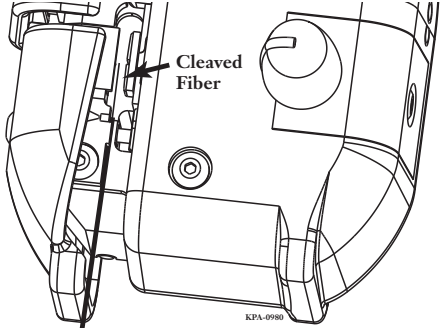


Figure 39 — Remove Cleaved Fiber

# 6. CONNECTOR TERMINATION

## 6.1 Termination Process

**NOTE:** *THE COVER MUST BE CLOSED FOR THE SYSTEM TO FUNCTION.*

**Step 1:** Insert a cleaved fiber into the back of the lead-in tube. Insert the fiber until you feel it firmly stop against the fiber stub. The visual mark on the fiber should be within 2 mm of the lead-in tube (Figure 40).

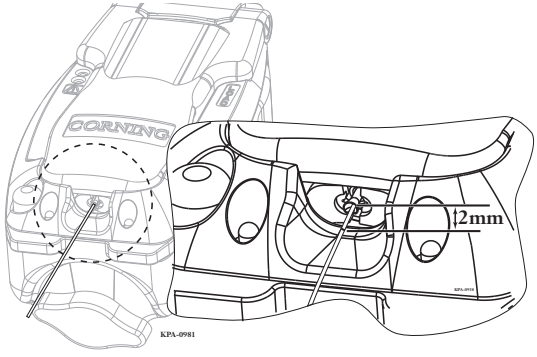


Figure 40 — Insert Fiber into Lead-in Tube

**Step 2:** While maintaining enough inward pressure to create a slight bend in the fiber, squeeze the CAM button in until it locks (Figure 41).

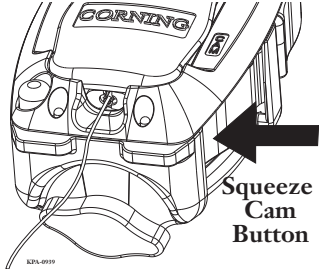


Figure 41 — Press Cam Button

**Step 3:** Check the termination lights (Figure 42).

- If the green light is illuminated, the termination was successful. Proceed to Step 4.
  **NOTE:** ***Do NOT press the reset button until the connector is removed from the tool.***
- If the red light is illuminated, the termination was not successful.
  a Press the Reset Button and remove the fiber. Repeat the termination process at Step 1 on page 27.
  b If the red light continues to illuminate after two termination attempts, press the Reset Button and remove the fiber. Repeat steps starting at appropriate fiber preparation step in "Fiber Preparation" on page 19.
  c If unable to achieve a successful termination, refer to the Troubleshooting section in Chapter 7 of this manual.

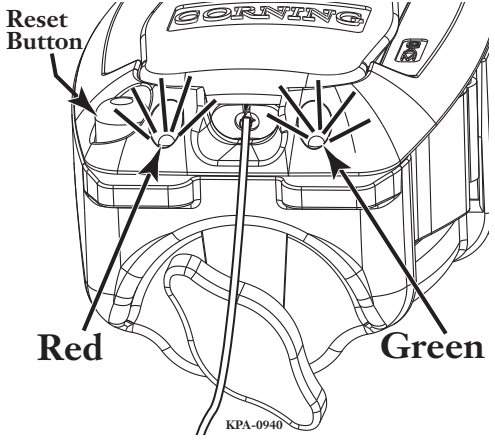


Figure 42 — Check Termination Lights

**NOTE:** *When terminating directly on 250 micron fiber, slide the furcation tubing up until it stops inside the lead-in tube.*

**Step 4:** Turn the Crimp Knob 180 degrees in either direction (Figure 42).

- There may be slight resistance while turning the knob; this is normal.
- Turning the Crimp Knob crimps the lead-in tube onto the fiber, thus locking the connector to the fiber.
  **NOTE:** ***Do NOT press the reset button until the connector is removed from the tool.***

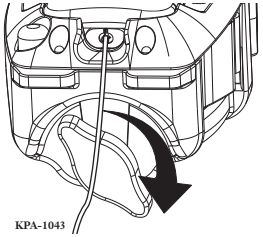


Figure 43 — Turn Crimp Knob

**Step 5:** Open the cover and slide the VFL Coupler back into its starting position (Figure 44).

**Step 6:** Slightly squeeze the LOAD Button to remove the connector. Lift straight up on the connector and reinstall the clear female dust cap.

**Step 7:** Press the Reset Button (Figure 44) to make the tool ready for the next connector. If the cover is closed at this point without a connector loaded, the Error Light will flash. This is an indication that there is no connector in the tool. Once a connector is correctly loaded and the cover closed, the light will stop flashing.

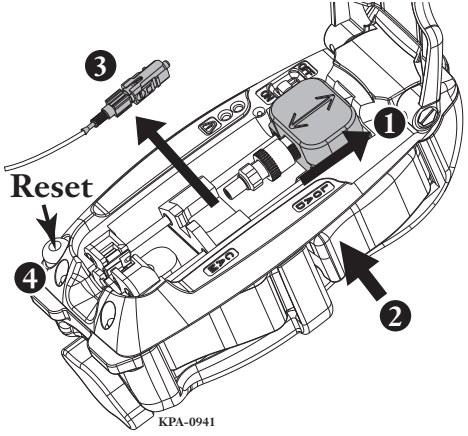


Figure 44 — Remove Connector from Tool

**Step 8:** When finished installing connectors, press the Reset Button, slide the Power Switch to the OFF position, close the cover, and return the tool to the toolkit (Figure 45).

**NOTE:** *The green light ensures proper termination of the connector.* ***However, it is not a substitute for system testing.***

## 6.2 Completing the Connector Assembly

Complete the connector assembly process by following the appropriate steps below for your connector type.

- In applications with Jacketed Cable, follow the steps in Section 6.2.1 first, then proceed to the section describing your connector type to complete the assembly.
- If not installing a connector on Jacketed Cable, proceed directly to the section describing your connector type to complete the assembly.

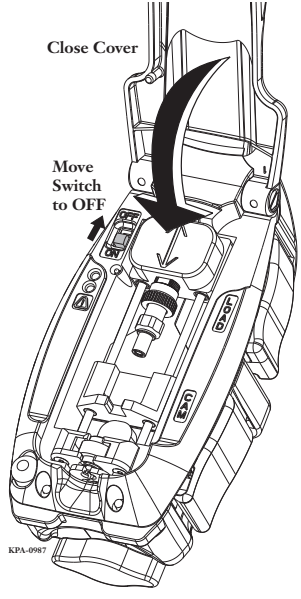


Figure 45 — Store Tool After Use

### 6.2.1 Jacketed Cables (SC shown for illustration)

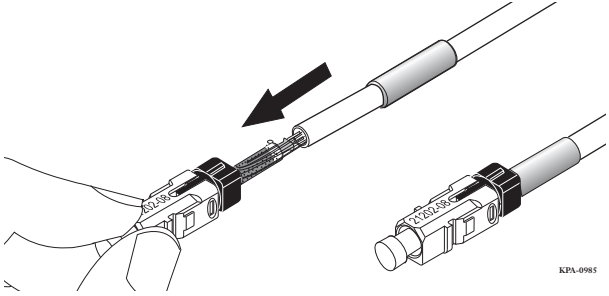


Figure 46 — Strain-relieve Jacketed Cable

**Step 1:** Ensure the ferrule dust cap is installed.

**Step 2:** Hold the cable and slide the crimp ring back along the cable jacket to free the aramid yarn.

**Step 3:** Flare the yarn around the connector (Figure 46). The ends of the yarn should just touch the back of the square cam. If the yarn is too long, trim it now.

**Step 4:** Hold the connector and push the crimp ring over the aramid yarn and against the back of the connector's cam.

> ⚠ Use only the crimp tool supplied with the UniCam toolkit (p/n 3201007-01). Other similar-appearing crimp tools (such as tools with part numbers 3201001-01 and 3201002-01) will over-crimp causing increased attenuation.

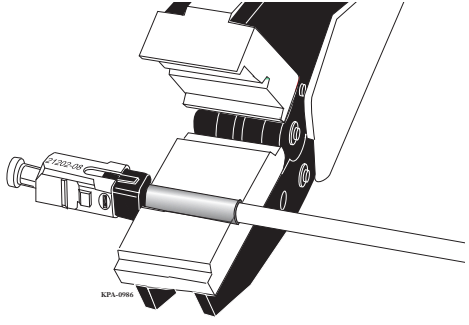


Figure 47 — Use UniCam Crimp Tool to Crimp Ring onto Connector

**Step 5:** Place the connector crimp ring into the opening of the crimp tool jaws (Figure 47).

**Step 6:** Squeeze the handles shut until they automatically release, indicating completion of the crimp. Remove the connector and cable from the tool.

**Step 7:** Proceed to the description for your connector type below to complete the connector assembly.

### 6.2.2 SC Connectors

**Step 1:** Ensure the clear ferrule dust cap is installed (Figure 48).

**Step 2:** Slide the boot up the back of the connector until it reaches the cam.

**Step 3:** Install the outer shroud by lining up the date code with the key-side of the outer shroud. Using the boot, push the UniCam assembly into the outer shroud until it snaps into place.

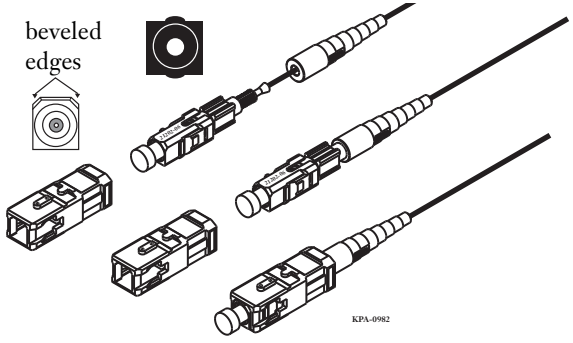


Figure 48 — SC Connector Completed Assembly

### 6.2.3 LC Connectors

**Step 1:** Ensure the clear ferrule dust cap is installed (Figure 49).

**Step 2:** Remove the black load adapter.

**Step 3:** Slide the trigger up to the back of the connector and latch its arms into the windows of the housing.

**Step 4:** While holding the connector by the front dust cap, slide the correct strain-relief boot up the back of the connector and under the trigger until it stops.

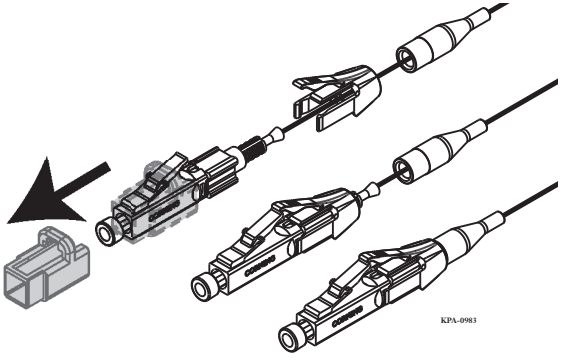


Figure 49 — LC Connector Completed Assembly

### 6.2.4 ST-compatible Connectors

**Step 1:** Remove the black load adapter (Figure 50).

**Step 2:** Reinstall the clear ferrule dust cap.

**Step 3:** Slide the boot up the back of the connector until it reaches the cam.

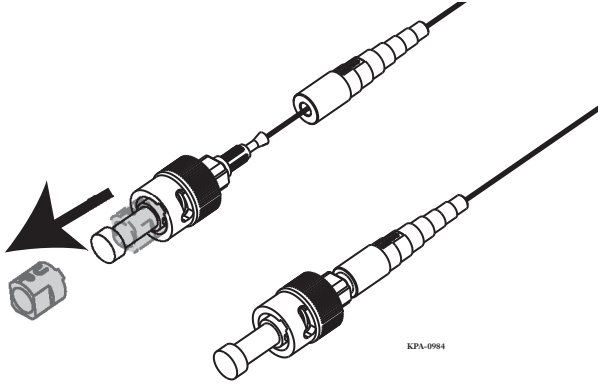


Figure 50 — ST-compatible Completed Connector Assembly

# 7. MAINTENANCE AND TROUBLESHOOTING

This section provides maintenance and troubleshooting information for the Pretium Installation Tool, FBC-015 Cleaver, and UniCam connectors.

## 7.1 Pretium Installation Tool

### 7.1.1 Changing the Batteries

**Step 1:** Verify the tool is turned off.

**NOTE:** *Be careful not to disturb the jumper.*

**Step 2:** Locate the battery cover on the bottom of the tool (Figure 51).

**Step 3:** Remove the battery cover using a standard flat-head screwdriver.

**Step 4:** Replace the two AAA batteries following the polarity indicators.

**Step 5:** Replace the battery cover and tighten the screw, being careful not to overtighten.

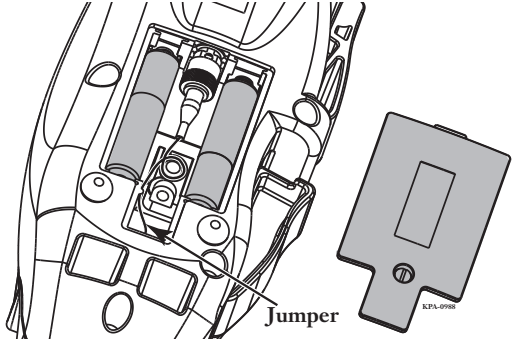


Figure 51 — Replace Batteries

### 7.1.2 Ferrule Adapter

- **Cleaning the Ferrule Adapter**

NOTE: *It is recommended to clean the Ferrule Adapter after every 100 connector installations. Use the adapter cleaning sticks provided in the toolkit.*

**Step 1:** Select the correct size stick:
1.25 mm adapter - Small stick
2.5 mm adapter - Large stick

**Step 2:** Insert the stick into the adapter opening and rotate the tip clockwise 10 revolutions (Figure 52).

**Step 3:** Apply varying pressures to create a gentle pumping action.

**Step 4:** Dispose of each cleaning stick after use. Do not use sticks more than once.

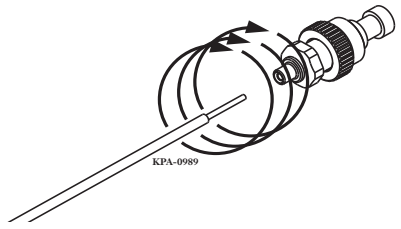


Figure 52 — Use Cleaning Stick on Ferrule Adapter

- **Replacing the Ferrule Adapter**

**Step 1:** Verify the tool is turned off.

**Step 2:** Unscrew the Adapter Coupling Nut from the Ferrule Adapter Port (Figure 53).

- Remove the adapter by pulling it straight out.
- Install the clear ferrule dust cap and place the adapter in the vial.

**Step 3:** Locate the replacement adapter, remove the ferrule dust cap and clean the ferrule on the ferrule adapter per the instructions given in Section 7.3.

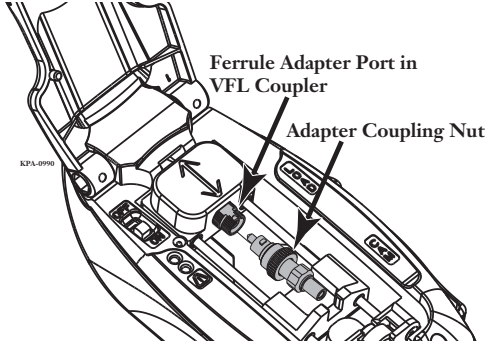


Figure 53 — Remove Ferrule Adapter

**Step 4:** Install the new Ferrule Adapter onto the Ferrule Adapter Port in the VFL Coupler (Figure 54).

**Step 5:** Be sure the key on the Ferrule Adapter is aligned with the keyway on the Ferrule Adapter Port, and then tighten firmly.

- **Replacement Parts for the Installation Tool**
  Use the part numbers below to order replacements.
  - VFL Adapter and Cleaning Sticks:
    1.25 mm adapter: p/n VFL-A125
    2.5 mm adapter: p/n VFL-A250
    To order both adapters: p/n VFL-AKIT

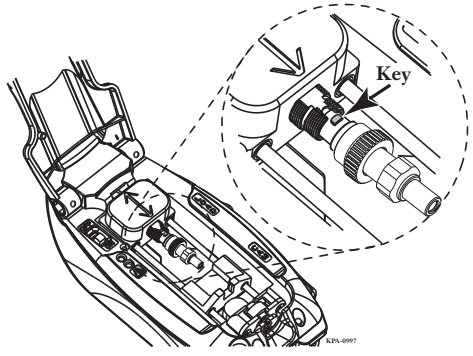


Figure 54 — Install New Ferrule Adapter

## 7.2 Maintaining the FBC-015 Cleaver

The FBC-015 Cleaver requires little maintenance; however, keeping the clamps and blade clean and periodically replacing the blade will ensure good cleaves.

### 7.2.1 Cleaning the Clamps

**Step 1:** Fold one of the provided Fiber Wipes in half.
**Step 2:** Press the button of the first clamp to be cleaned.
**Step 3:** Insert the wipe in the clamp and release the button.
**Step 4:** Gently pull the wipe out.
**Step 5:** Repeat for the second clamp.
**Step 6:** Dispose of the used wipe after use. Do not use wipe more than once.

### 7.2.2 Cleaning the Blade

**Step 1:** Dampen the tip of one of the 1.25 mm cleaning sticks with Fiber Optic Cleaning Fluid.
**Step 2:** Gently drag the tip of the stick across the diamond blade.
**Step 3:** Dispose of the cleaning stick after use. Do not use the stick more than once.

### 7.2.3 Changing the Blade Assembly

Replacement blades can be ordered from Corning Cable Systems.

- Blade Assembly: p/n FBC-14-15-16-BLADE

**Step 1:** Remove Button B as shown in Figure 55 using a $^{1}/_{16}$-inch Allen wrench.

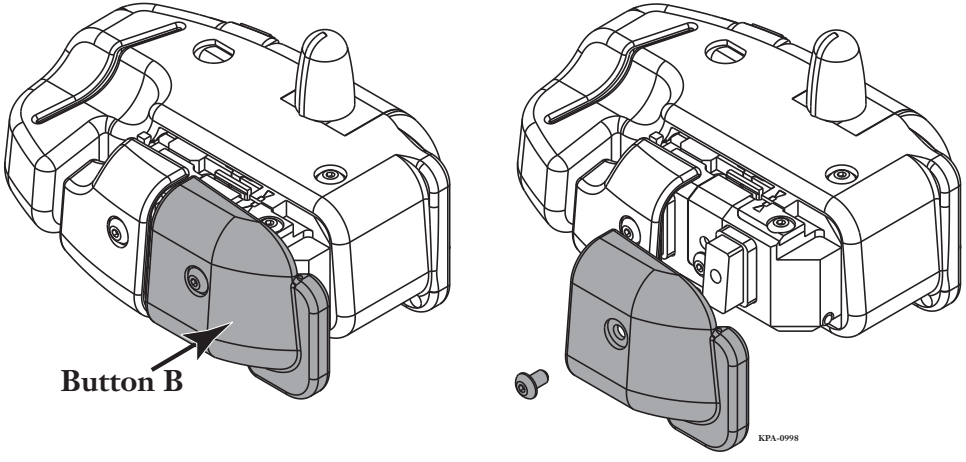


Figure 55 — Remove Button B from Cleaver

**Step 2:** Remove the Blade Capture Block (Figure 56) using a $^{1}/_{16}$-inch Allen wrench.

**Step 3:** Use tweezers to remove the Blade Assembly. **NOTE:** *Be careful not to damage the blade.*

**NOTE:** ***Be careful not to overtighten the screw in the Blade Capture Block.***

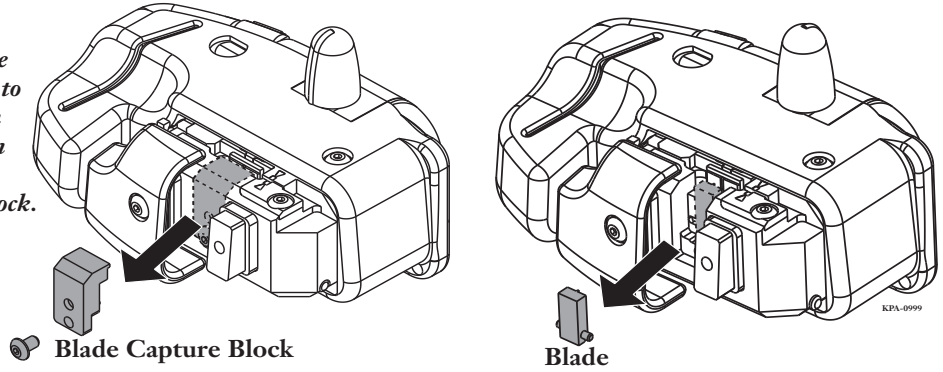


Figure 56 — Remove Blade Capture Block and Blade Assembly

**Step 4:** Slide out the Blade Pin. Locate the replacement blade assembly from the packaging and insert the Blade Pin into the new blade (Figure 57).

**Step 5:** Using tweezers, place the new blade assembly into the cleaver with the blade facing toward the cleaver as shown in Figure 56. **NOTE:** *Be careful not to damage the blade.*

**Step 6:** Replace the Blade Capture Block.

**Step 7:** Replace Button B (Figure 55).

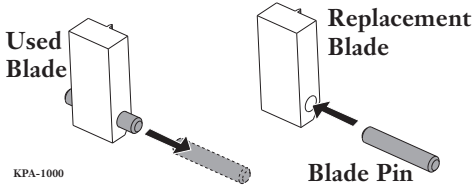


Figure 57 — Insert Blade Pin into Replacement Blade

## 7.3 Connector Cleaning

Clean UniCam connectors with Fiber Wipes and Fiber Optic Cleaning Fluid. ***Corning Cable Systems recommends using this cleaning procedure every time a connector is unmated or the connector is excessively dirty.***

**Step 1:** Take a Fiber Wipe (Figure 58) and fold once to make a square.

**Step 2:** Place the wipe on saturator top of the Fiber Optic Cleaning Fluid and press two to three times to wet the wipe.

**Step 3:** Wipe the connector end-face with the wet wipe to remove dirt and debris. It is not necessary to follow this step with a dry wipe.

**Step 4:** If the connector is satisfactorily clean, immediately mate it in the appropriate adapter or sleeve, or replace the dust cap over the end-face.


Figure 58 — Connector Cleaning Supplies

## 7.4 Troubleshooting

This section provides solutions to common problems. Consult the table below before sending the tool in for repair.

| Problem | Possible Causes | Solutions (Actions) |
|---|---|---|
| Power Light flashes or does not come on. | Batteries need to be replaced. | Replace batteries following the instructions in the section "Changing the Batteries" on page 37. |
| Connector will not load easily. | 1. Wrench is not in starting position.<br>2. Connector cam is not in open position. | 1. Press Reset Button and try loading connector again.<br>2. Check to see that the connector cam is in the open position, page 13. |
| Error Light flashes<br><br>NOTE: The cover must be open to complete each action. After each action, close the cover to see if Error Light has cleared. | 1. Ferrule Adapter is not fully seated on connector.<br><br><br><br>2. Connector loaded incorrectly.<br><br><br><br><br><br>3. Ferrule Adapter or connector may be dirty. | 1. Ensure that the:<br>• Proper Ferrule Adapter is installed in the tool.<br>• Ferrule Adapter is fully seated on the UniCam connector.<br>• Clear ferrule dust cap is removed from the connector.<br>2. Ensure the connector is loaded into the tool correctly.<br>• The date code on SC, the LC latch, or the "UP" on the ST-compatible load adapter must be up.<br>• The lead-in tube must protrude past the crimp arms with the flare visible beyond the crimp arms.<br>• With no fiber inserted in the connector, press the CAM button and then press the Reset Button.<br>3. Clean the adapter and connector following the instructions in Sections 7.1.2 and 7.3, respectively. |

| Problem | Possible Causes | Solutions (Actions) |
|---|---|---|
| Error Light flashes (continued)<br><br>NOTE: The cover must be open to complete each action. After each action, close the cover to see if Error Light has cleared. | 4. Ferrule Adapter is not properly secured to the Ferrule Adapter Port.<br><br>5. The photo detector is dirty.<br><br>6. Weak batteries | 4. Ensure the coupling nut on the Ferrule Adapter is tight.<br><br>5. Clean the photo detector using a dry wipe.<br><br>6. Replace the batteries per Section 7.1.1. |
| Cleaver is producing bad cleaves or breaking fibers. | 1. Debris in the clamps<br>2. Blade is dirty.<br>3. Blade is worn or damaged. | 1. Clean the clamps per the instructions in Section 7.2.1.<br>2. Clean the blade per the instructions in Section 7.2.2.<br>3. Replace the blade per the instructions in Section 7.2.3. |
| Unable to achieve a successful termination. (Green termination light will not illuminate.) | 1. Cover not closed<br><br>2. Error light not cleared<br>3. Fiber is not inserted correctly into the connector.<br>4. Improper fiber preparation<br><br>5. Bad cleave due to debris in the clamps. | 1. Ensure that you have closed the cover before inserting the fiber.<br><br>2. See Problem “Error Light Flashes” above.<br>3. While holding onto the fiber, press the Reset Button and try re-seating the fiber.<br>4. Ensure that the appropriate sections in Chapters 4 and 5 were followed. If unsure, press the Reset Button, remove the fiber, and start again at Chapter 4.<br><br>5. Refer to the “Cleaver is producing bad cleaves...” troubleshooting problem above. |

| Problem | Possible Causes | Solutions (Actions) |
|---|---|---|
| Unable to achieve a successful termination. (Green termination light will not illuminate.) | 6. Broken fiber while inserting into connector. | 6. While holding onto the fiber, press the Reset Button and remove fiber. Get a new connector and re-strip, re-cleave, and insert the fiber again. |
| | 7. Wrong fiber type | 7. Ensure that the connector and fiber type match. |
| | 8. Damaged connector | 8. While holding onto the fiber, press the Reset Button and remove fiber. Get a new connector, go back to Chapter 4, and start over, including re-cleaving the fiber. |
| | 9. Weak batteries | 9. Replace the batteries per Section 7.1.1. |

If unable to successfully troubleshoot the installation tool using the table above, please call Corning Cable Systems Engineering Services at 1-800-743-2671.

## 7.5 Testing UniCam Connectors

If you have questions about proper testing and required equipment, etc., call Corning Cable Systems Engineering Services at 1-800-743-2671.

# 8. CRITICAL STEPS

This section identifies **CRITICAL STEPS** that must be performed correctly to ensure successful installation of SC, LC, and ST-compatible UniCam connectors. *This section is only a guide. After noting these critical steps, refer to the appropriate sections of this manual for complete instructions and precautions.*

## 8.1 Tool Preparation

**Step 1:** Turn on the tool. The Power Light will illuminate (Figure 59).

**NOTE:** *If the Power Light flashes, the batteries need to be replaced.*

**Step 2:** Verify that the VFL Coupler and the Wrench are in their starting positions. If not, press the Reset Button.

- VFL Coupler is locked back (Figure 59).
- Wrench is closed as seen in Figure 60.

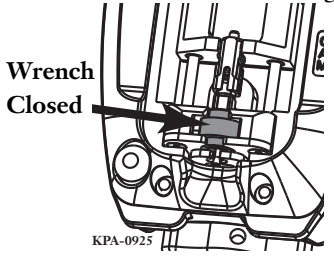


Figure 60 — Wrench in Starting Position

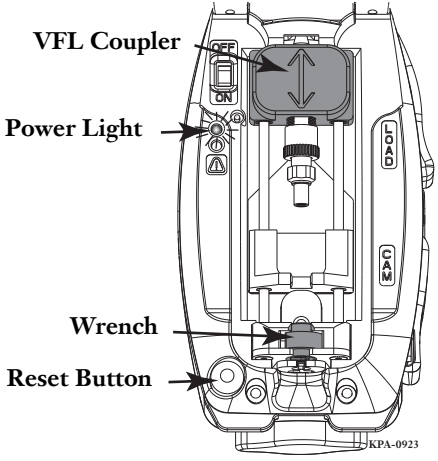


Figure 59 — Tool in Starting Position

**Step 3:** Verify that the correct Ferrule Adapter is installed.

- 1.25 mm for LC
- 2.5 mm for SC and ST-compatible

**Step 4:** Remove dust cap from the connector ferrule. Visually inspect the connector for damage.

**NOTE:** *For LC and ST-compatible connectors, leave the black Load Adapters on the connectors until after termination.*

## 8.2 Connector Preparation

Connector cam may move slightly in shipment, so verify that the connector is in its open position:

- SC connectors are in their open position when the key is 90 degrees from the date code.
- LC connectors are in their open position when the key is 90 degrees from the latch which secures the load adapter.
- ST-compatible connectors are in their open position when the key is 90 degrees from the "UP" of the load adapter.

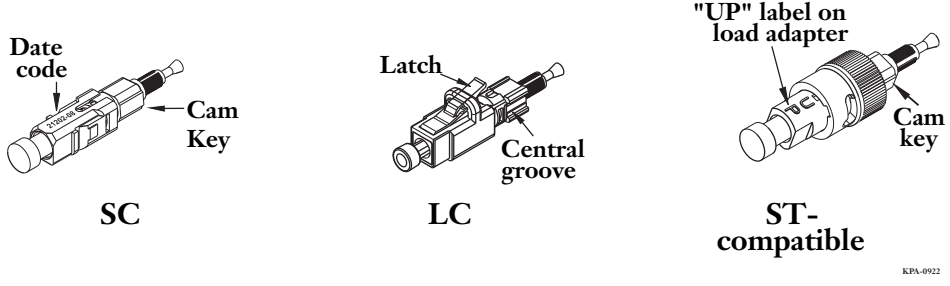


Figure 61 — Connector Cam Position

## 8.3 Load Connector

**Step 1:** Press the LOAD Button.

**Step 2:** Insert the connector lead-in tube first into the tool (Figure 62) so that:

- SC date code, LC latch, or ST-compatible load adapter is in the up position.
- Lead-in tube is between the crimp arms.
- Connector is firmly seated in the cradle.

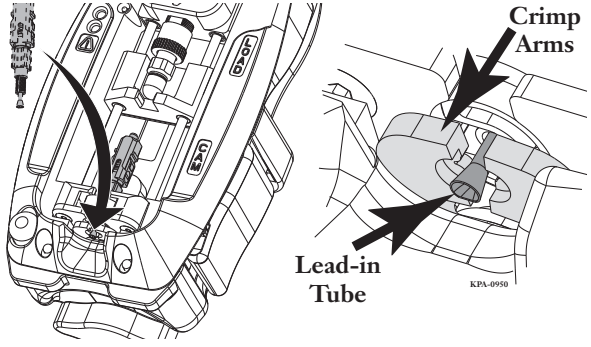


Figure 62 — Loading Connector into Pretium Tool

**Step 3:** Slide the VFL Coupler down until the Ferrule Adapter is completely seated on the connector (Figure 63).

**Step 4:** Close the cover and check for an Error Light.

- If no Error Light appears, proceed to Fiber Preparation.
- If Error Light flashes, refer to the Troubleshooting section of this manual.

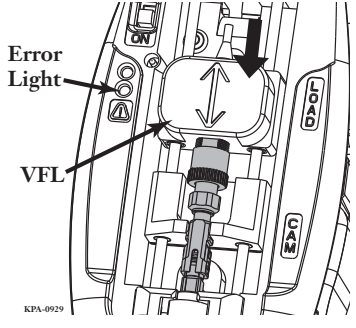


Figure 63 — Seat Connector in Ferrule Adapter

## 8.4 Fiber Preparation

**Step 1:** Slide the strain-relief boot onto the fiber/cable. For LC connectors also slide the trigger on (Figure 64).

**Step 2:** In all applications, mark, strip, and clean the cable or tubing to 40 mm from the end of the cable.

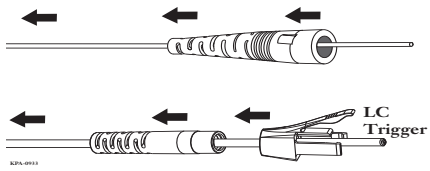


Figure 64 — Slide Boot onto Fiber/Cable

- Direct Termination on 250 micron Coated Fiber:
  - After installing the boot, slide the furcation tubing onto the fiber/cable and move it out of the way.
  - Make a visual mark 14 mm from edge of coated fiber (Figure 65).

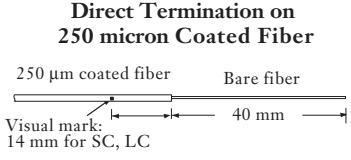


Figure 65 — Mark from Edge of Coated Fiber

- 900 micron Buffer Applications:
  - Make a visual mark from edge of coated fiber (Figure 66):
    -- LC Connectors -- 9 mm
    -- SC and ST-compatible Connectors -- 11 mm

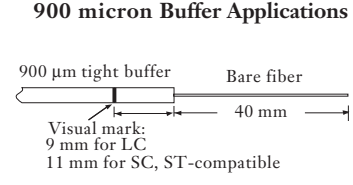


Figure 66 — Mark from Edge of Coated Fiber

- 900 micron Fan-out Applications:
  - Strip 900 micron coating an additional 4 mm, leaving 250 micron coating exposed (Figure 67).
  - Make a visual mark from edge of coated fiber:
    -- LC Connectors -- 9 mm
    -- SC and ST-compatible Connectors -- 11 mm

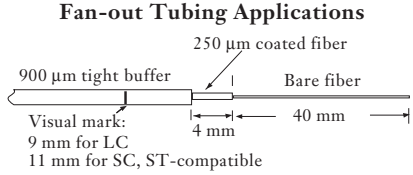


Figure 67 — Mark from Edge of Coated Fiber

- Jacketed Cable Installations:
  - After stripping 40 mm of cable, cut yarn at end of cable sheath.
  - Strip an additional 13 mm of cable.
  - Fold aramid yarn back and secure with the crimp ring (Figure 68).
  - Make a visual mark from edge of cable:
    -- LC Connectors -- 2 mm from edge of cable
    -- SC and ST-compatible Connectors -- at edge of cable

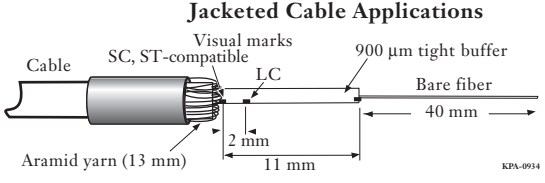


Figure 68 — Mark from Edge of Jacket

**Step 3:** Clean the bare glass using the provided Fiber Wipes and Fiber Optic Cleaning Fluid.

**NOTE:** *Some fibers have a clear coating over the glass that is difficult to see. Ensure all coatings are removed and the fiber is clean.*

## 8.5 Fiber Cleaving

**Step 1:** Ensure that both clamps are clean and free of fiber (Figure 69).

**Step 2:** Press and hold both buttons to open the clamps.

**Step 3:** Place the fiber in the slot (Figure 70) so that the:

- Bare fiber is in the V-groove,
- Coating/buffer is aligned with the alignment mark, and
- Fiber rests under the tab.

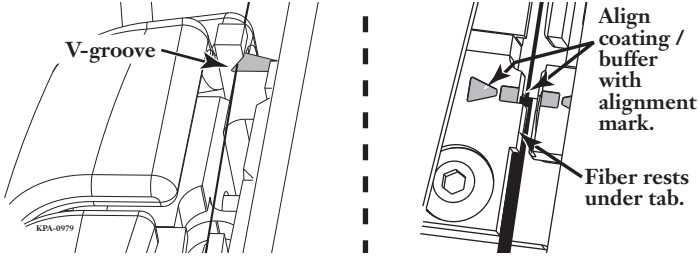


Figure 70 — Place Fiber in Slot in Cleaver

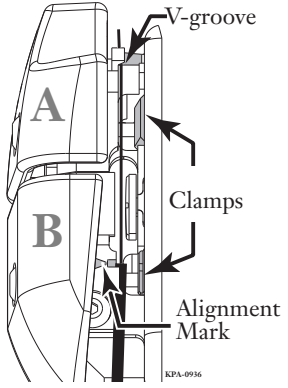


Figure 69 — Open Clamps

**Step 4:** Release both buttons, ensuring the fiber is held by both clamps.

**Step 5:** Slowly turn the knob 360 degrees in either direction (Figure 71).

**Step 6:** Press Button A and remove the scrap fiber. Place the fiber in the scrap bin.

**Step 7:** While holding onto the fiber, press Button B and remove the cleaved fiber.

**Step 8:** Once the fiber is cleaved, do not clean the fiber or allow it to contact anything.

**NOTE:** *If the cleaved fiber does contact something, repeat fiber preparation and re-cleave the fiber.*

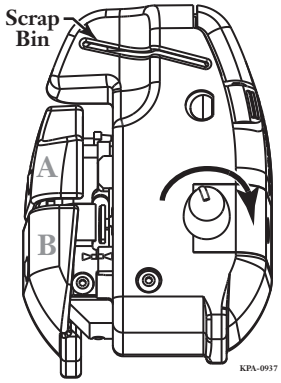


Figure 71 — Cleave the Fiber

## 8.6 Termination

**Step 1:** Insert the newly cleaved fiber into the lead-in tube (Figure 72) until the fiber stops. The visual mark must be within 2 mm of the lead-in tube.

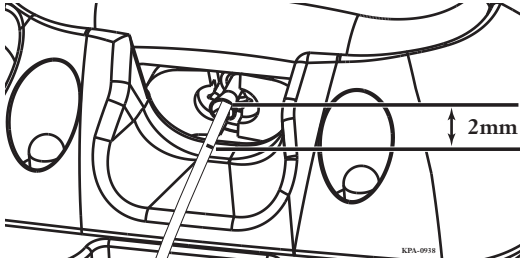


Figure 72 — Insert Fiber into Lead-in Tube

**Step 2:** Maintain inward pressure, forming a slight bow in the fiber (Figure 73). Press the CAM Button until it locks and a Termination Light illuminates.

**Step 3:** Check the Termination Lights (Figure 74).

- If the Green light is illuminated, proceed to Step 4. DO NOT PRESS THE RESET BUTTON UNTIL THE CONNECTOR IS REMOVED.
- If the red light is illuminated:
  - Press the Reset Button and try reinserting the fiber. If the red light illuminates again, re-cleave the fiber and repeat termination from Step 1 above.
  - If still unable to achieve a successful termination, refer to Chapter 7, Maintenance and Troubleshooting.

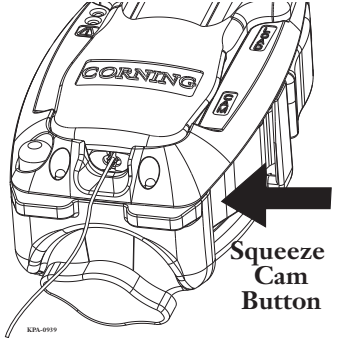


Figure 73 — Press CAM Button

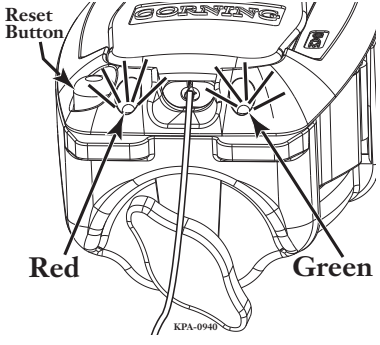


Figure 74 — Check Termination Lights

**Step 4:** Rotate the Crimp Knob 180 degrees (Figure 75).

- There will be a slight resistance when turning the knob.
- The crimping action will lock the connector to the fiber.

**NOTE:** *DO NOT PRESS THE RESET BUTTON UNTIL THE CONNECTOR IS REMOVED.*

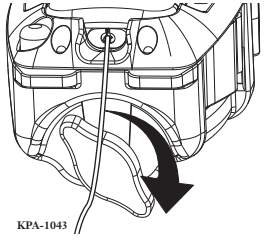


Figure 75 — Rotate Crimp Knob

**Step 5:** Open the cover and slide the VFL Coupler back. Slightly press the LOAD Button to remove the connector (Figure 76).

**Step 6:** Once the connector is removed, press the Reset Button to reset the tool for the next termination.

**NOTE:** *DO NOT PRESS THE RESET BUTTON UNTIL THE CONNECTOR IS REMOVED.*

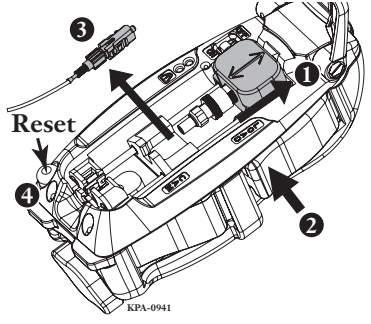


Figure 76 — Open Cover and Remove Connector

**Step 7:** Depending on the connector types shown in Figure 77, reinstall the clear ferrule dust cap, remove the black load adapter, and add the appropriate hardware, additional strain-relief, and connector boot.

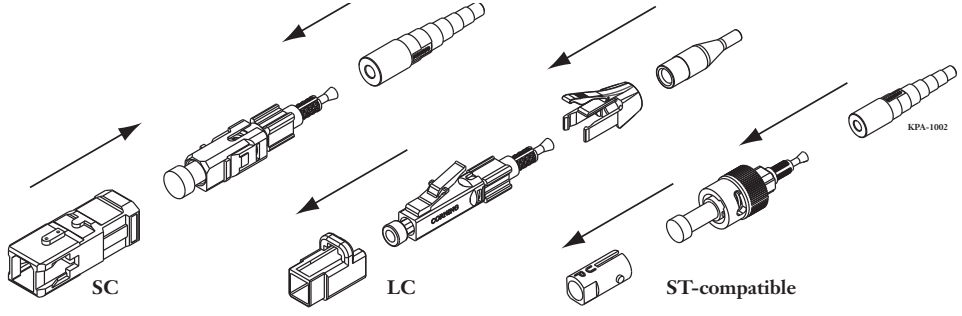


Figure 77 — Complete Assembly Based on Connector Type