

Part Numbers: FLCSMCXAQY, FLCDMCXAQY, FLCSMC5BLY, FLCSSCBUY,
FLCDMC5BLY, FLCSMC6BLY, FLCDMC6BLY, FLCDSCBUY
Keyed Part Numbers: SEE TABLE BELOW

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INSTALLATION INSTRUCTIONS

FS014

READ ALL INSTRUCTIONS COMPLETELY BEFORE PROCEEDING COMPONENT IDENTIFICATION

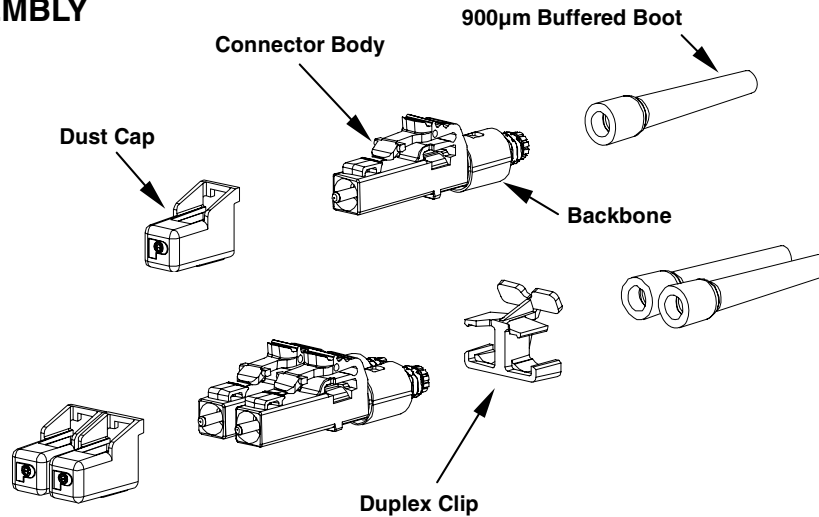
CONNECTOR ASSEMBLY

SIMPLEX

FLCSMCXAQY
FLCSMC5BLY
FLCSMC6BLY
FLCSSCBUY

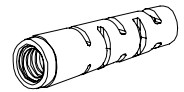
DUPLEX

FLCDMCXAQY
FLCDMC5BLY
FLCDMC6BLY
FLCDSCBUY



Jacketed Boots
Available Separately

3.0mm Boot
FMCBT3AQ-X
FMCBT3BL-X
FSCBT3BU-X



1.6 - 2.0mm Boot
FMCBT2AQ-X
FMCBT2BL-X
FSCBT2BU-X

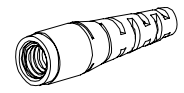


Table 1

Standard LC OptiCam Connectors*		
Fiber Type	Backbone Color	Boot Color
10Gig 50µm	Aqua	Aqua
50µm	Black	Black
62.5µm	Electric Ivory	Black
Singlemode	Blue	Blue

*Part numbers shown above

Table 2

Keyed LC OptiCam Simplex Connector Part Numbers [‡] and Configurations						
Key Type - Backbone Color	A - Black	B - Red	C - Green	D - Yellow	E - Orange	F - Dark Blue
Multimode Part Numbers	FLCSMC^ABL	FLCSMC^BRD	FLCSMC^CGR	FLCSMC^DYL	FLCSMC^EOR	FLCSMC^FDB
Singlemode Part Numbers	FLCSCCABL	FLCSCCBRD	FLCSCCCGR	FLCSCCDYL	FLCSCCEOR	FLCSCCFDB
Key Type - Backbone Color	G - Violet	H - Aqua	J - Rose	K - Slate	L - Brown	P - White
Multimode Part Numbers	FLCSMC^GVL	FLCSMC^HAQ	FLCSMC^JRO	FLCSMC^KIG	FLCSMC^LLB	FLCSMC^PWT
Singlemode Part Numbers	FLCSCCGVL	FLCSCCHAQ	FLCSCCJRO	FLCSCCKIG	FLCSCCLLB	FLCSCCPWT
Key Type - Backbone Color	Q - Charcoal	R - Lavender	S - Peach	T - Steel Blue	V - Maroon	W - Mint
Multimode Part Numbers	FLCSMC^QCG	FLCSMC^RLV	FLCSMC^SPE	FLCSMC^TSB	FLCSMC^VMA	FLCSMC^WMI
Singlemode Part Numbers	FLCSCCQCG	FLCSCCRLV	FLCSCCSPE	FLCSCCTSB	FLCSCCVMA	FLCSCCWMI

[‡]For duplex connectors, replace the first S in the part number (FLCSCCABL) with a D (FLCDSCABL).

[^]Substitute for multimode fiber type: 6 = 62.5/125µm OM1, 5 = 50/125µm OM2, or X = 10Gig 50/125µm OM3.

ITEMS REQUIRED FOR TERMINATION

ITEM	PART NUMBER	DESCRIPTION
1	OCTT	OptiCam Termination Tool
2	FLCC	LC Cradle for OptiCam Termination Tool (OCTT)
3	FVFLPC-1.25SMY	1.25mm Universal Patch Cord for OptiCam Termination Tool (OCTT)
4	CST-115	Fiber Cable Jacket Stripper
5	FALC	Alcohol Bottle (empty)
6	FBFSP	Fiber Buffer Stripper
7	FJQCVR	Fiber Cleaver Tool
8	FGLS	Safety Glasses
9	FKS	Fiber Kevlar Shears
10	FSTY	Fiber Safety Tab Stickers for fiber scraps
11	FSWB-C	Cleaning Swabs
12	FWP-C	Lint-Free Wipes
13	PFX-0	Fine-Tip Marking Pen
14	--	Isopropyl Alcohol (Reagent Grade, 90% minimum concentration; not available from Panduit)
OPTIONAL	PN400**	LC OptiCam Connector Stripping Template
OPTIONAL	FJQCVRB	Replacement Blade for Fiber Cleaver

**Denotes revision letter.

For Technical Support: www.panduit.com/resources/install_maintain.asp

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SAFETY PRECAUTIONS

1. SAFETY GLASSES

WARNING: IT IS STRONGLY RECOMMENDED THAT SAFETY GLASSES BE WORN WHEN HANDLING BARE OPTICAL FIBER. THE BARE FIBER IS VERY SHARP AND CAN EASILY DAMAGE THE EYE.

2. ISOPROPYL ALCOHOL

WARNING: ISOPROPYL ALCOHOL IS FLAMMABLE. CONTACT WITH THE ALCOHOL CAN CAUSE IRRITATION TO THE EYES. IN CASE OF CONTACT WITH THE EYES, FLUSH WITH WATER FOR AT LEAST 15 MINUTES. ALWAYS USE ISOPROPYL ALCOHOL WITH PROPER LEVELS OF VENTILATION. IN CASE OF INGESTION, CONSULT A PHYSICIAN IMMEDIATELY.

3. DISPOSAL OF BARE FIBERS

WARNING: PICK UP AND DISCARD ALL PIECES OF BARE FIBER WITH STICKY TABS. DO NOT LET CUT PIECES OF FIBER STICK TO CLOTHING OR DROP IN THE WORK AREA WHERE THEY ARE HARD TO SEE AND CAN CAUSE INJURY.

4. LASER LIGHT PROTECTION

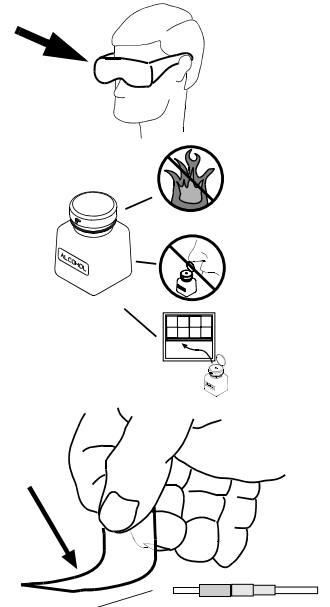
USE OF CONTROLS OR PERFORMANCE OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. THE POWER OF EMISSION OF THE LASER BEAM EXCEEDS 1MW IN CLASS II AND IS LESS THAN 5MW IN CLASS IIIa/3R, SO THE FOLLOWING WARNINGS MUST BE FOLLOWED TO AVOID INJURY:

- NEVER POINT THE LASER INTO THE EYES OF OTHERS.
- DO NOT STARE DIRECTLY AT THE LASER BEAM.
- DO NOT SET UP TOOL TO WORK AT EYE LEVEL OR OPERATE THE TOOL ON A REFLECTIVE SURFACE AS THE LASER COULD BE PROJECTED INTO YOUR EYES OR THE EYES OF OTHERS.

ALWAYS TURN THE LASER OFF WHEN IT IS NOT IN USE OR IS LEFT UNATTENDED FOR A PERIOD OF TIME. REMOVE THE BATTERIES WHEN STORING FOR AN EXTENDED PERIOD OF TIME TO AVOID DAMAGE TO THE TOOL SHOULD THE BATTERIES DETERIORATE. NEVER LOOK INTO THE PATH OF THE VISUAL FAULT LOCATOR OR ANY OTHER LASER BEAM. NEVER LOOK INTO THE END OF A FIBER WHICH MAY HAVE ANY VISUAL FAULT LOCATOR, OR ANY OTHER LASER, COUPLED TO IT. NEVER LAUNCH ANY VISUAL FAULT LOCATOR INTO ACTIVE EQUIPMENT OR MICROSCOPE. MAKE SURE THAT THE END OPPOSITE THE VISUAL FAULT LOCATOR IS NOT CONNECTED TO ANY ELECTRONICS OR ACTIVE EQUIPMENT DURING TERMINATION.

5. CABLE HANDLING

WARNING: FIBER OPTIC CABLE CAN BE DAMAGED BY EXCESSIVE PULLING, TWISTING, CRUSHING OR BENDING STRESSES. CONSULT THE APPROPRIATE SPECIFICATION SHEETS AS PROVIDED BY YOUR CABLE VENDOR. ANY DAMAGE MAY DECREASE OPTICAL PERFORMANCE.



OptiCam Termination Tool Patch Cord Maintenance

Clean both ends of the FVFLPC-1.25SMY after 50 matings or sooner if performance diminishes.

1. Clean ST connector ferrule endface with a lint-free wipe (FWP-C) soaked with alcohol (reagent grade isopropyl alcohol, with a minimum 90% concentration).
2. Clean ferrule adapter end by unscrewing housing and removing split sleeve. Clean the ferrule endface with an alcohol soaked lint-free wipe. Refer to Visual Inspection and Cleaning of Fiber Optic Components Best Practices document PN446* at www.panduit.com. Make sure that the split sleeve is clean. Replace the split sleeve onto ferrule and screw housing into place securely.

NOTE: Replace the split sleeves if the FVFLPC-1.25SMY continues to have diminished performance after three cleanings. Additional split sleeves for the FVFLPC-1.25SMY are located in the FVFLPC-1.25SMY package.

* Denotes revision letter.

Instructions For Terminating Panduit Fiber Optic Connectors onto 250 Micron Coated Fiber

Part Number: F250BT-C

When terminating any Panduit fiber optic connector onto 250µm coated fiber, follow the 900µm Tight-Buffered Termination procedure in the appropriate connector installation instructions with the following modifications:

OptiCam Connectors Refer to Stripping Template PN400* for LC and PN374* for SC and ST

1. After placing the 900µm boot onto the 250µm fiber, place one build-up tube (F250BT) onto the fiber and slide it back out of the way.
2. Place an insertion mark on the build-up tube 15mm for LC and 11mm for SC or ST from the end of the tube closest to the end of the fiber.
3. Use the buffer stripper to strip at least 30mm of coating and wipe the bare fiber clean with an alcohol soaked wipe.
4. Place an insertion mark on the coated fiber 15mm for LC and 11mm for SC or ST from the end of the stripped coating.
5. Cleave the fiber 7mm from the end of the coating and slide up the build-up tube so that the end is even with the cleaved fiber end.
6. While holding the fiber and build-up tube together behind the build-up tube, insert them into the back of the connector until the build-up tube bottoms out within the connector. The insertion mark on the build-up tube should be hidden within the back of the connector.
7. Now slide just the fiber forward using constant light pressure until it bottoms out within the connector on the fiber stub. The insertion mark should be visible through the build-up tube and located near the back end of the connector.
8. Squeeze both clamp arms to open the clamp pads. Place the fiber between the open clamp pads and release the clamp arms while creating a slight bow in the fiber. The bow is intended to provide appropriate glass-to-glass mating pressure. DO NOT shuttle the cradle forward, as this may create an excessive bow behind the build-up tube.
9. Turn on the laser and complete the connector termination as described in the appropriate instruction sheet.

* Denotes revision letter.

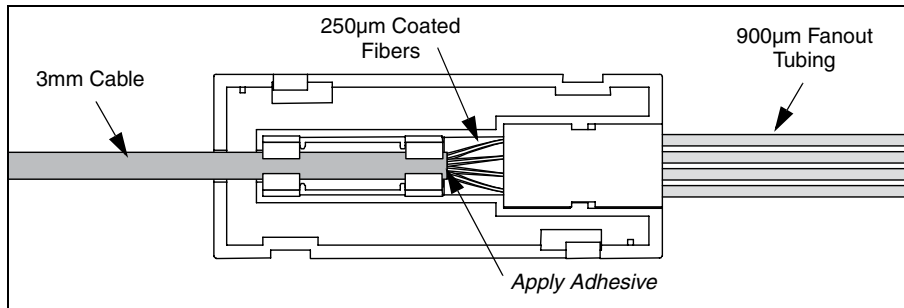
Instructions For Terminating Panduit OptiCam Connectors using OptiCom Fanout Kit

INDOOR PREMISE APPLICATION

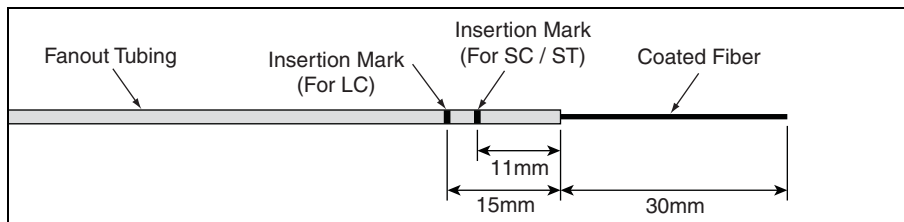
Fanout Kit Part Numbers: FO6CB, FO12CB

IMPORTANT! TURN OFF "FIT TO PAGE" WHEN PRINTING

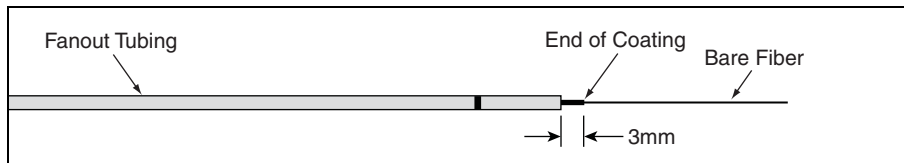
1. Install the Fanout Kit according to the installation instructions PN166*.
2. Feed the 250 μ m coated fibers through the 900 μ m fanout tubing until at least 30mm of fiber protrudes from the end of the tubing. Trim the coated fibers to length at 30mm.
3. To reduce the amount of fiber movement, place a drop of adhesive (Loctite 401 or equivalent Cyanoacrylate adhesive) at the point that the coated fibers exit the 3mm cable jacket.



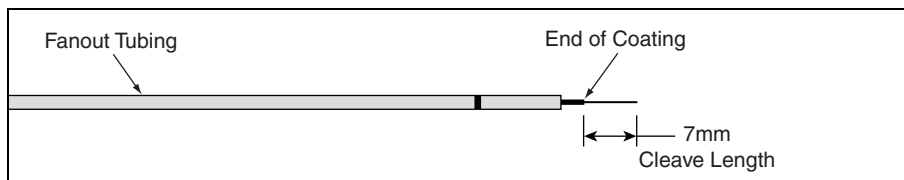
4. Place the 900 μ m boots onto the fanout tubing and slide them back out of the way.
5. Place an insertion mark on the fanout tubing, 15mm for LC and 11mm for SC or ST, back from the end of the tubing.



6. Place a coating removal mark on the coated fiber 3mm from the end of the fanout tubing. Strip the coating up to the coating removal mark. Note: The 3mm of coating extending from the end of the tubing is intended to compensate for fiber movement within the fanout tubing during termination.



7. Clean the bare fiber using an alcohol soaked lint-free wipe to ensure the fiber is free of all debris.
8. Cleave the fiber 7mm from the end of the fiber coating. Note: Cleave length from end of tubing is approx. 10mm.



9. With the connector mounted in the OptiCam termination tool, insert the cleaved fiber into the connector using constant light pressure until the fiber bottoms out on the fiber stub within the connector. The insertion mark on the fanout tubing should be in close proximity to the back of the connector.
10. Squeeze both clamp arms to open the clamp pads of the OptiCam termination tool. Place the fanout tubing between the open clamp pads and release the clamp arms. Slide the cradle holder towards the cable to create a bow in the fiber providing appropriate glass-to-glass mating pressure. Cam the connector to secure the fiber.
11. Turn on the laser and complete the termination as described in the appropriate OptiCam instruction sheet.

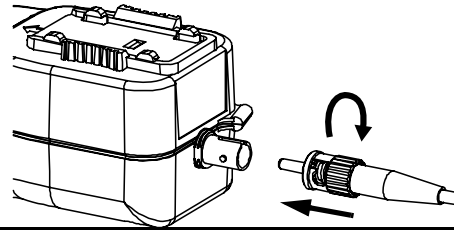
* Denotes revision letter.

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900 μ m Tight-Buffered Fiber Termination

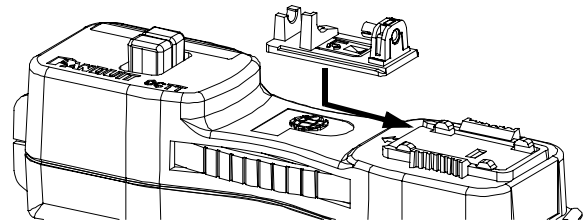
1. Attach Patch Cord to OCTT

Make sure laser switch is in the "O" (OFF) position. Remove protective dust cover from laser. Insert ST end of FVFLPC-1.25SMY patch cord into laser aperture making sure to align tabs. Rotate barrel of ST connector clockwise to lock in place.



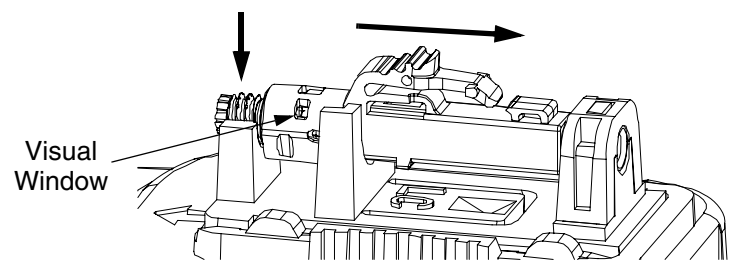
2. Insert Connector Cradle

Align LC Cradle with OCTT cradle holder and slide cradle under tabs of cradle holder until it stops. Grip cradle holder by grip pads and slide cradle holder to the pre-termination position (towards the laser aperture).



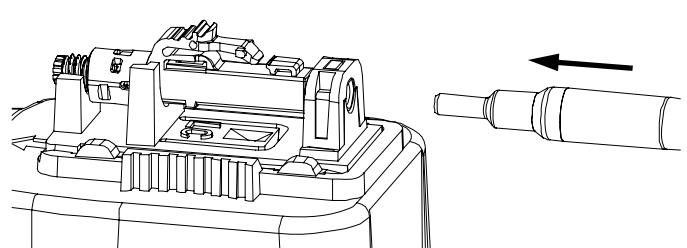
3. Insert Connector into Cradle

Remove both dust caps from the connector body. If green is visible in the visual window on the backbone then the connector must be un-cammed before use (refer to Step 20 to un-cam the connector). Hold the connector body with the latch facing up and slide the connector body into the LC Cradle. The connector is inserted fully when the backbone threads rest completely on the cradle flange as shown.



4. Attach Patch Cord to Connector Ferrule

Note: During insertion, the ferrule adapter end must be in-line with the connector ferrule, NOT at an angle. While holding the connector still, gently slide the ferrule adapter end over the connector ferrule until it stops. To maximize VFL patch cord life, avoid side-loading the ferrule adapter end during insertion and testing.



5. Strip 900 μ m Tight-Buffered Fiber

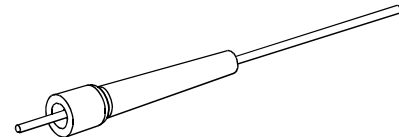
5.1 Insert the fiber end through the small end of the 900 μ m boot. Slide the boot back out of the way.

5.2 Use buffer stripper to strip at least 1.18" (30mm) of buffer.

5.3 Use the marking pen to place an insertion mark 0.59" (15mm) back from the end of the stripped buffer.

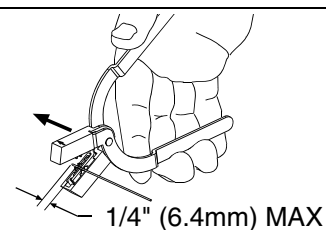
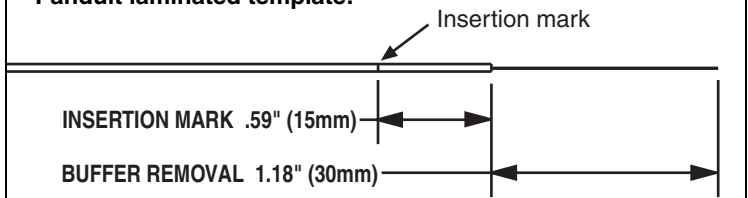
Buffer Stripping Guidelines

- Remove no more than 1/4" (6mm) of buffer at a time to avoid breaking the fiber. Refer to cable manufacturer's buffer stripping guidelines for specific recommendations.
- Hold the buffer stripper such that the arrow on the tool points in the direction of buffer removal.
- Position the fiber in the tool's V-notches. Squeeze the handles firmly and pull tool in the direction of the arrow on the tool.
- Clean the buffer stripper blades after each strip by holding the handles open then pulling the casings back and letting them snap back against the blades.



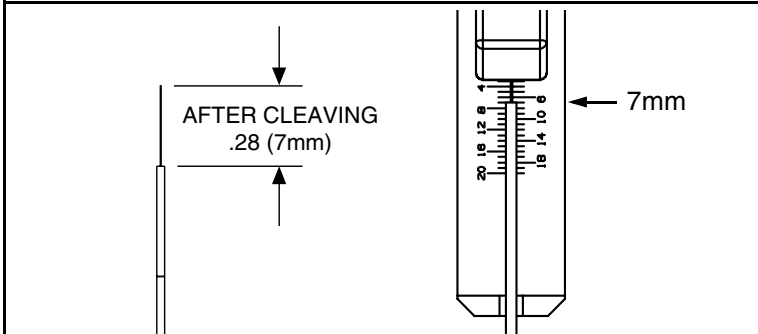
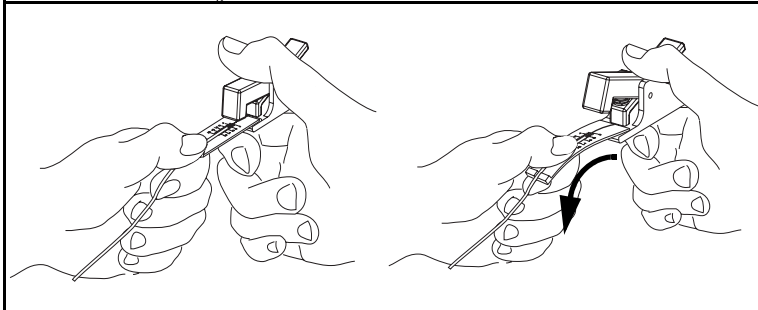
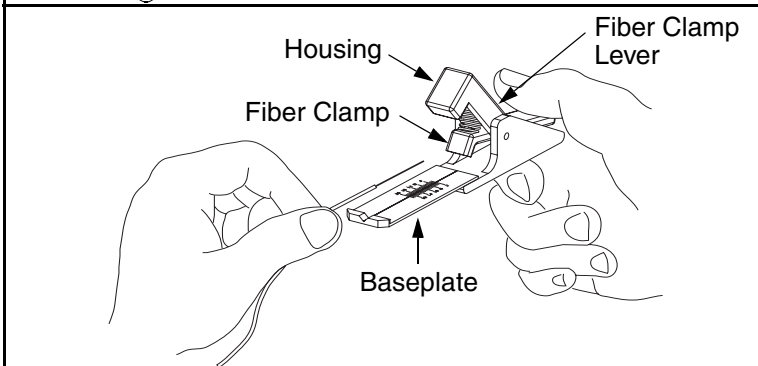
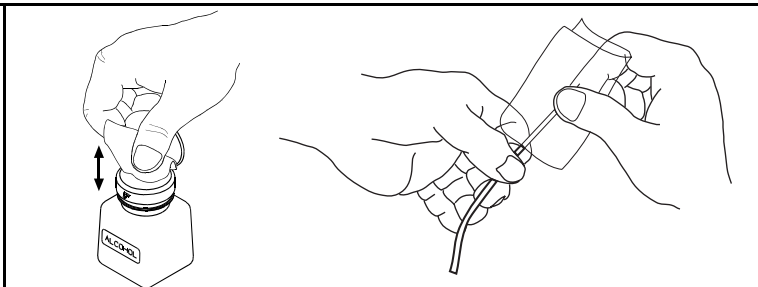
900 μ m TIGHT-BUFFERED STRIPPING DIMENSIONS

IMPORTANT! Due to printing variations, use a rigid scale for stripping dimensions, or the appropriate Panduit laminated template.



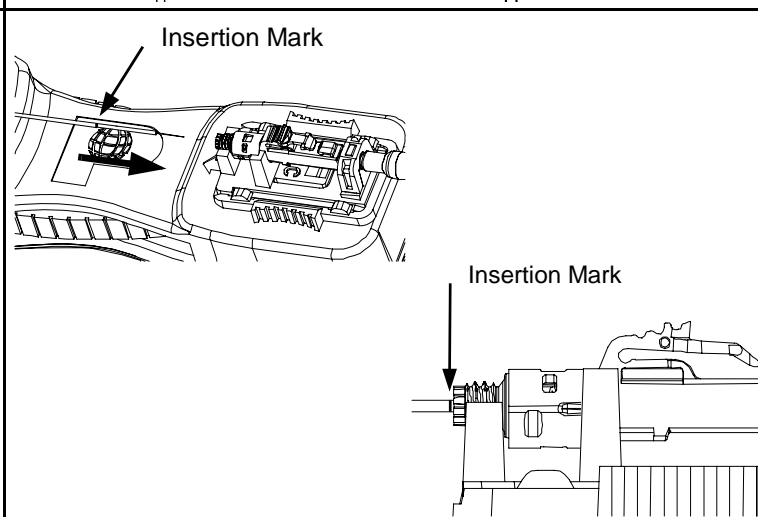
6. Cleave 900µm Tight-Buffered Fiber

- 6.1 Remove and dispose of any remaining fiber scraps in the cleaving tool.
- 6.2 Clean bare fiber using an isopropyl alcohol (90% minimum concentration) soaked lint-free wipe. The fiber should be free of all coating and residue. To prevent contamination, do not set fiber down or allow it to touch anything after cleaning.
- 6.3 Depress the fiber clamp lever and insert the end of the fiber under the fiber clamp and in the V-groove. Hold the cleaving tool in your hand and depress the fiber clamp lever to raise the fiber clamp. Insert the end of the fiber into the V-groove and under the fiber clamp. Release the fiber clamp lever when the end of the buffer is located at the 7mm mark ($\pm 0.5\text{mm}$).
- 6.4 **This is a critical step for successful termination.** Gently hold the buffered fiber against the groove in the base plate using thumb and forefinger of your free hand. With your other thumb, **gently** push down on the housing until the ceramic blade contacts the fiber and the end of the housing contacts the rubber coating on the base plate. **DO NOT** cut the fiber with the ceramic blade. Release the housing so that the blade is no longer contacting the fiber.
- 6.5 Hold the tool in one hand while still holding the fiber against the base plate. Bend the base plate down until the fiber breaks. To prevent contamination, do not set fiber down or allow it to touch anything after cleaving. **IMPORTANT:** Do not clean fiber after cleaving. Replace the ceramic blade in the cleaving tool after every 1000 cleaves, or if installation yield decreases.
- 6.6 Replacement blade (FJQCVRB) is available.



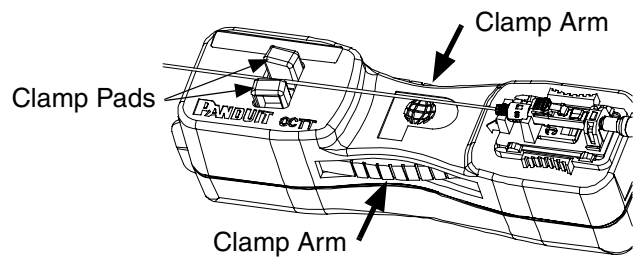
7. Insert Fiber

Insert fiber into the connector body using constant light pressure until it stops on the fiber stub. Excessive force during insertion may break the fiber. The fiber should be guided in straight, not at an angle. If resistance is felt before the fiber insertion mark is in close proximity to the back of the connector then retract the fiber a small amount and continue inserting. If the fiber insertion mark is not in close proximity to the back of the connector then withdraw the fiber completely out of the connector. Inspect fiber cleave length. If the fiber cleave length is less than 7mm then discard the connector and return to step 5. If the fiber cleave length is 7mm then slightly rotate the fiber before repeating this step.

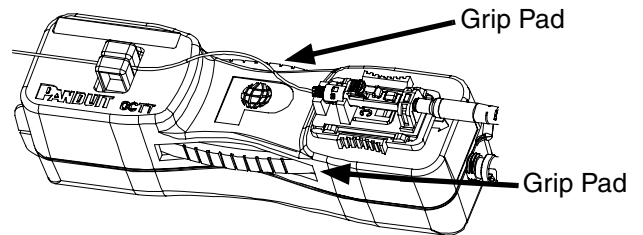


8. Clamp Cable

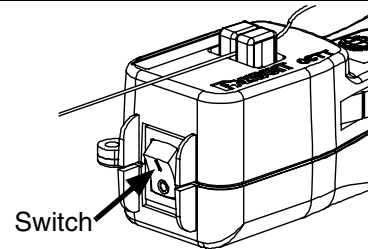
Squeeze both clamp arms to open clamp pads. Place cable between the clamp pads and release clamp arms. The fiber should be straight and the insertion mark should still be in close proximity to the back of the connector.

**9. Shuttle Cradle Holder**

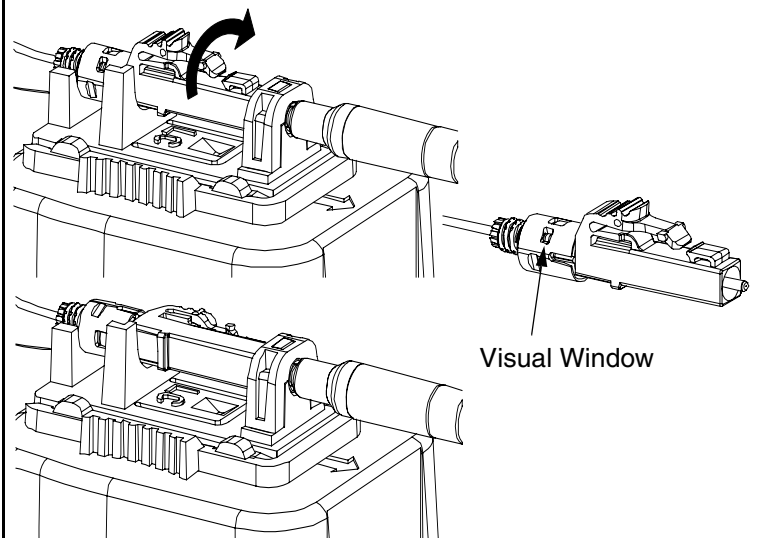
Grip cradle holder by grip pads and slide cradle holder towards the cable until it stops. This will create a bow in the fiber.

**10. Turn On Laser**

On the end of the OCTT tool, toggle the switch to the "I" (ON) position. If the fiber is in the correct position after this step, a multimode connector typically will either be dark or glow very dimly; a singlemode connector will typically glow moderately.

**11. Cam the Connector**

Apply downward pressure, in the direction of the tool, while rotating the connector body 90° counterclockwise around the center axis until it stops on the cradle (when looking from rear of connector). Ensure the connector body remains seated in the cradle during camming. The glow coming from the connector cam region should dim or remain dark. If not, turn the laser off and un-cam the connector. Pull the fiber back slightly and then gently urge it forward until it stops on the stub fiber. (Re-check to make sure the insertion mark is near the back of the connector.) Turn the laser on and re-cam the connector, it should dim or remain dark. If not, turn off the laser and repeat the process starting at step 5. The small visual window on the backbone will be green to indicate that the connector is in the cam position.

**12. Turn Off Laser**

Toggle the OCTT switch to the "O" (OFF) position. While holding connector in place, remove ferrule adapter end of patch cord from connector.

13. Place the Dust Cover on the Patch Cord (Optional)**14. Unclamp Cable**

Squeeze both clamp arms to open the clamp pads. Remove cable from between the clamp pads and release clamp arms. **CAUTION: DO NOT** pull on cable while the connector is still held in place by the cradle. Doing so could break the fiber or create an unacceptable termination.

15. Remove Connector from Cradle

Remove the connector from the cradle by lifting the back of the connector up while sliding it out of the cradle.

16. Reposition Cradle Holder

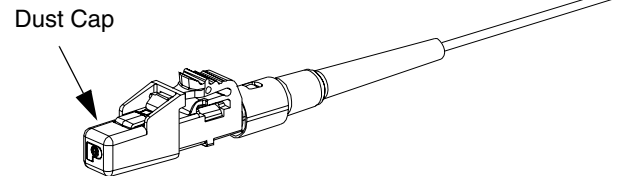
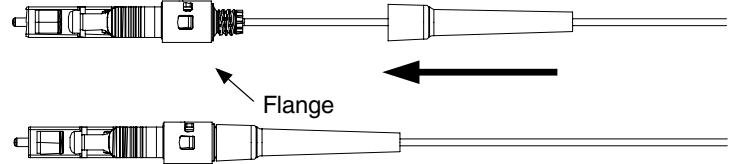
Grip cradle holder by grip pads and slide cradle holder back to the pre-termination position (towards the laser aperture).

17. Remove Fiber from Cleaver Tool

Depress the fiber clamp lever then remove and properly dispose of the fiber scrap.

18. Assemble Connector and Boot

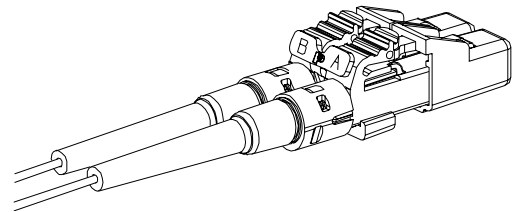
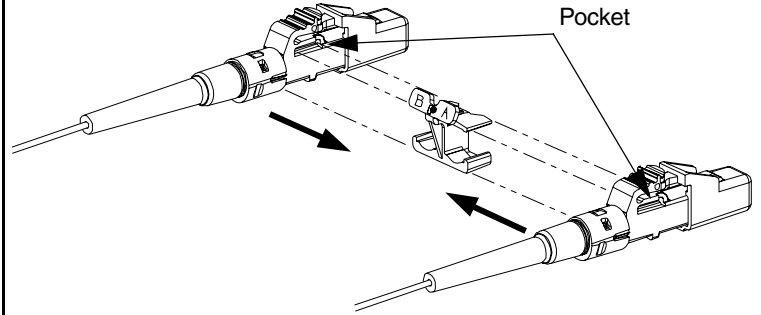
- 18.1 Push the boot forward onto the grooved area of the backbone until it is against the flange.
- 18.2 Clean the ferrule end face with an alcohol soaked wipe, and then a dry wipe. Refer to Visual Inspection and Cleaning of Fiber Optic Components Best Practices document PN446* at www.panduit.com. Place dust cap over the ferrule end.

**19. Attach Duplex Clip (Optional)**

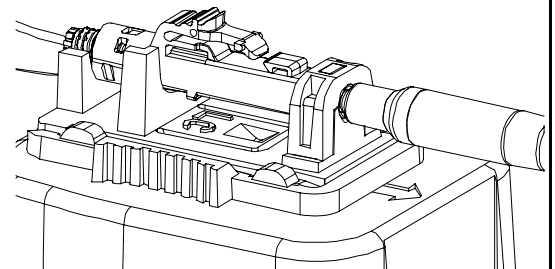
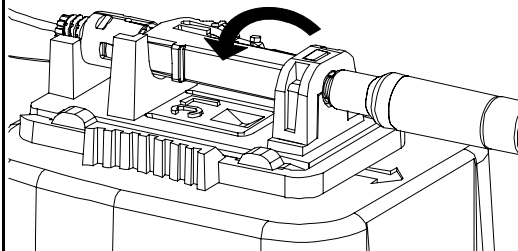
- 19.1 With a connector held as shown (latch on top, ferrule facing away), insert the connector into one side of the duplex clip as shown (clip held with the 'A->B' polarity marking upright and facing forward). The upper tab of the clip should slide into the pocket underneath the latch of the connector, and the lower tab should slide under the connector housing and "snap", locking it into place.

- 19.2 Repeat this procedure for the other connector, completing the duplexing step.

Note: When making cable assemblies, be sure to follow the correct 'A->B' polarity cross-over between connectors.

**20. Re-Termination**

The connector can be re-terminated if needed. Slide the boot off the backbone and remove the dust cap. Hold the connector body with the latch facing to the side and slide the connector body into the LC Cradle. The connector is inserted fully when the backbone threads rest completely on the cradle flange as shown. Rotate the connector body 90° clockwise until it stops (when looking from rear of connector). The visual window should not be green. Remove the fiber and repeat from step 1.

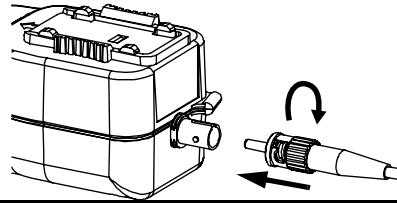


*Denotes revision letter.

Jacketed Cable Termination

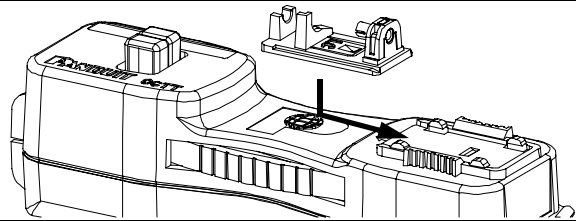
1. Attach Patch Cord to OCTT

Make sure laser switch is in the "O" (OFF) position. Remove protective dust cover from laser. Insert ST end of FVFLPC-1.25SMY patch cord into laser aperture making sure to align tabs. Rotate barrel of ST connector clockwise to lock in place.



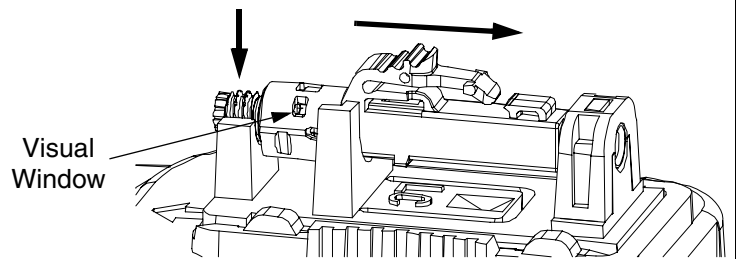
2. Insert Connector Cradle

Align LC Cradle with OCTT cradle holder and slide cradle under tabs of cradle holder until it stops. Grip cradle holder by grip pads and slide cradle holder to the pre-termination position (towards the laser aperture).



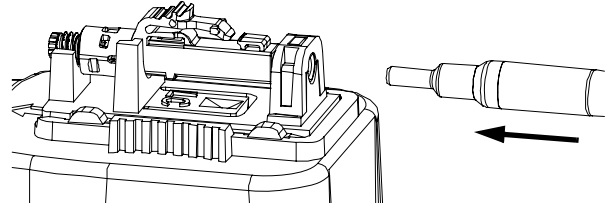
3. Insert Connector into Cradle

Remove both dust caps from the connector body. If green is visible in the visual window on the backbone then the connector must be un-cammed before use (refer to Step 18 to un-cam the connector). Hold the connector body with the latch facing up and slide the connector body into the LC Cradle. The connector is inserted fully when the backbone threads rest completely on the cradle flange as shown.



4. Attach Patch Cord to Connector Ferrule

Note: During insertion, the ferrule adapter end must be in-line with the connector ferrule, NOT at an angle. While holding the connector still, gently slide the ferrule adapter end over the connector ferrule until it stops. To maximize VFL patch cord life, avoid side-loading the ferrule adapter end during insertion and testing.

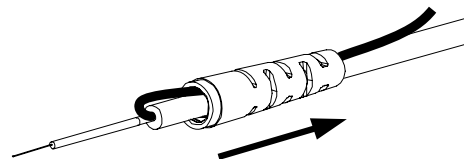
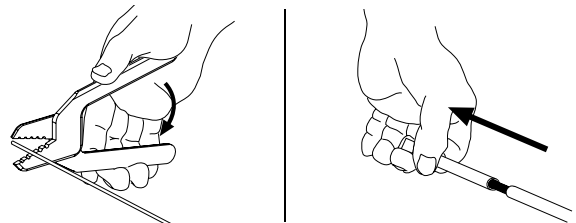
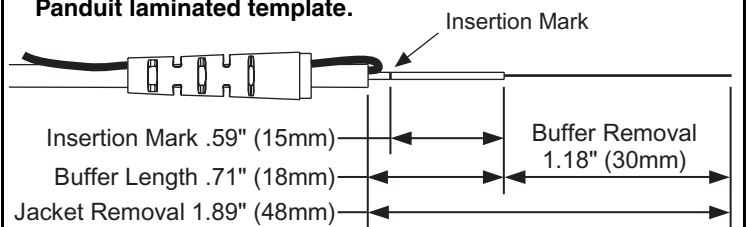


5. Strip Jacketed Cable

- 5.1 If using duplex cable, split the two cables approximately 6" (152mm) or as needed.
- 5.2 Following the stripping dimensions, use the marking pen to mark the cable jacket 1.89" (48mm) from the end.
- 5.3 Strip off the cable at the jacket removal mark. To reduce wear on the jacket stripper blades, do not slide the blades along the aramid yarn. Instead, use the tool to cut through the jacket, then pull off the jacket by hand. For 3.0mm jacketed fiber, use the third hole (marked "1.3mm" or #16AWG) from the tip of the jacket stripper. For 1.6mm - 2.0mm jacketed fiber, use the first hole (marked "0.8mm" or #20AWG) from the tip of the jacket stripper.
- 5.4 Insert fiber through the small end of appropriate boot for your specific cable type. Use the boot to fold the aramid yarn back over the jacket, holding it out of the way.
- 5.5 Use the marking pen to place a buffer length mark on the buffer 0.71" (18mm) from the edge of the jacket. Place an insertion mark 0.59" (15mm) back from the first mark.
- 5.6 Use the marking pen to place a mark on the buffer at the edge of the jacketing.
- 5.7 Use the buffer stripper to strip the buffer to the buffer length mark.

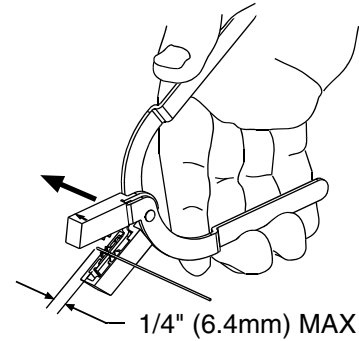
Jacketed Cable STRIPPING DIMENSIONS

IMPORTANT! Due to printing variations, use a rigid scale for stripping dimensions, or the appropriate Panduit laminated template.

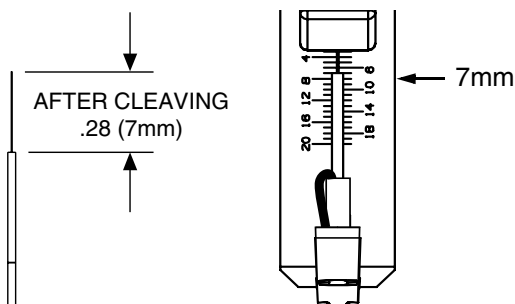
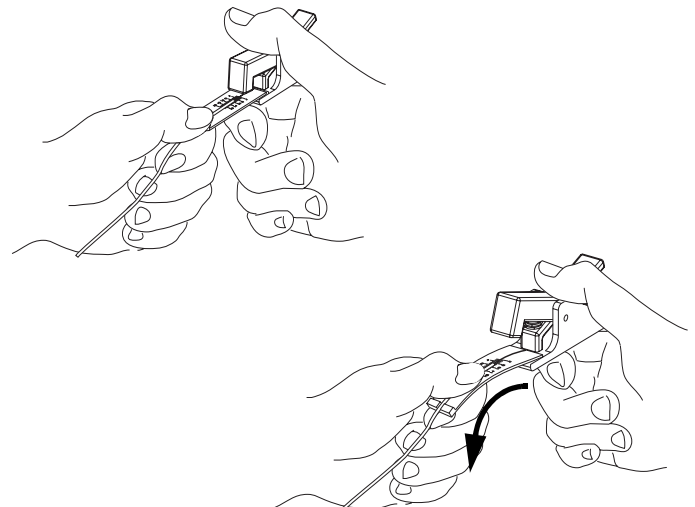
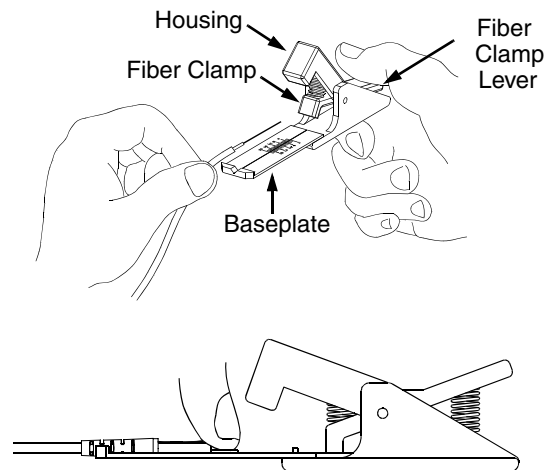
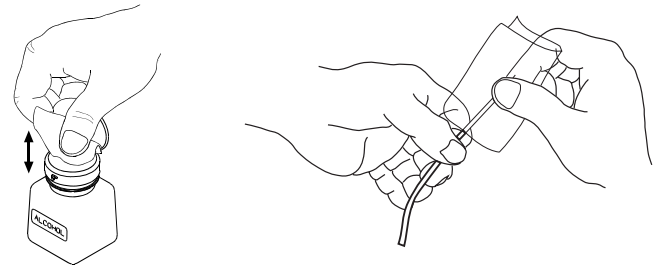


(Step 5 cont'd)**Buffer Stripping Guidelines**

- Remove no more than 1/4" (6mm) of buffer at a time to avoid breaking the fiber. Refer to cable manufacturer's buffer stripping guidelines for specific recommendations.
- Hold the buffer stripper such that the arrow on the tool points in the direction of buffer removal.
- Position the fiber in the tool's V-notches. Squeeze the handles firmly and pull tool in the direction of the arrow on the tool.
- Clean the buffer stripper blades after each strip by holding the handles open then pulling the casings back and letting them snap back against the blades.

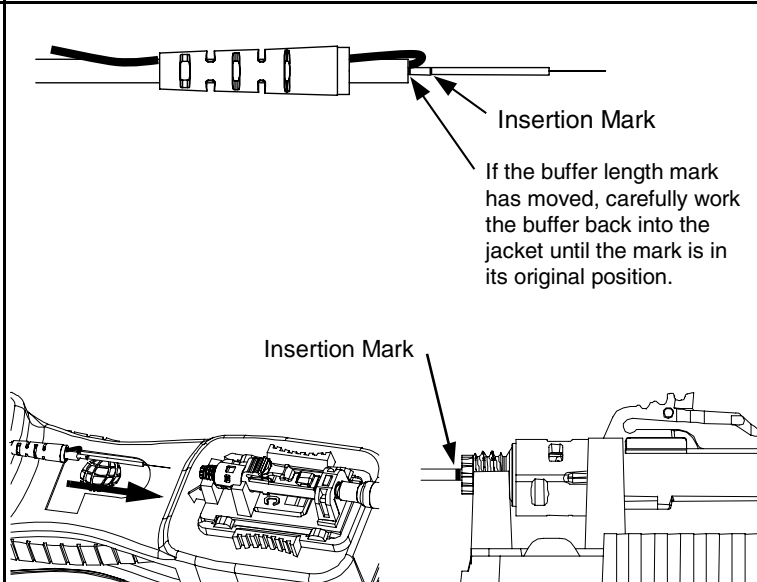
**6. Cleave 900µm Tight-Buffered Fiber**

- 6.1 Remove and dispose of any remaining fiber scraps in the cleaving tool.
- 6.2 Clean bare fiber using an isopropyl alcohol (90% minimum concentration) soaked lint-free wipe. The fiber should be free of all coating and residue. To prevent contamination, do not set fiber down or allow it to touch anything after cleaning.
- 6.3 Depress the fiber clamp lever and insert the end of the fiber under the fiber clamp and in the V-groove. Hold the cleaving tool in your hand and depress the fiber clamp lever to raise the fiber clamp. Insert the end of the fiber into the V-groove and under the fiber clamp. Release the fiber clamp lever when the end of the buffer is located at the 7mm mark ($\pm 0.5\text{mm}$).
- 6.4 **This is a critical step for successful termination.** Gently hold the buffered fiber against the groove in the base plate using thumb and forefinger of your free hand. With your other thumb, **gently** push down on the housing until the ceramic blade contacts the fiber and the end of the housing contacts the rubber coating on the base plate. **DO NOT** cut the fiber with the ceramic blade. Release the housing so that the blade is no longer contacting the fiber.
- 6.5 Hold the tool in one hand while still holding the fiber against the base plate. Bend the base plate down until the fiber breaks. To prevent contamination, do not set fiber down or allow it to touch anything after cleaving. **IMPORTANT:** Do not clean fiber after cleaving. Replace the ceramic blade in the cleaving tool after every 1000 cleaves, or if installation yield decreases.
- 6.6 Replacement blade (FJQCVRB) is available.



7. Insert Fiber

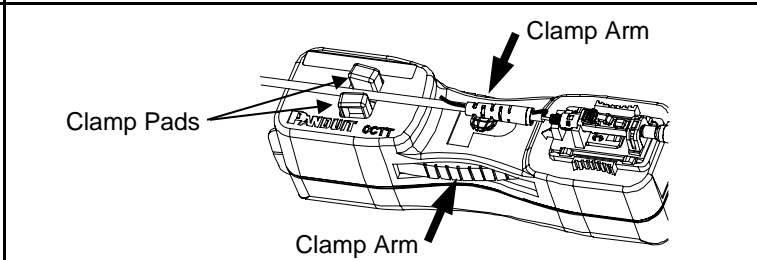
- 7.1 Check the location of the buffer length mark to make sure it is at the edge of the jacket. If necessary, carefully work the fiber back in until the mark is at the edge of the jacket.
- 7.2 Insert fiber into the connector body using constant light pressure until it stops on the fiber stub. Excessive force during insertion may break the fiber. The fiber should be guided in straight not at an angle. If resistance is felt before the fiber insertion mark is in close proximity to the back of the connector then retract the fiber a small amount and continue inserting. If the fiber insertion mark is not in close proximity to the back of the connector then withdraw the fiber completely out of the connector. Inspect fiber cleave length. If the fiber cleave length is less than 7mm then discard the connector and return to step 5. If the fiber cleave length is 7mm then slightly rotate the fiber before repeating this step.



8. Clamp Cable

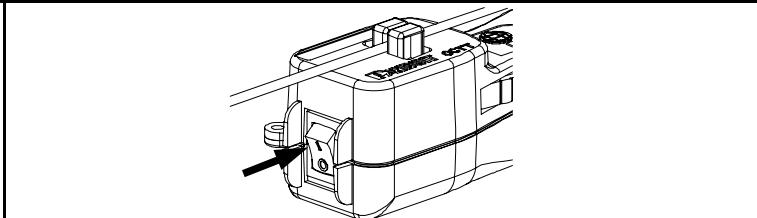
Squeeze both clamp arms to open clamp pads. Place cable between the clamp pads and release clamp arms. The fiber should be straight and the insertion mark should still be in close proximity to the back of the connector.

Note: Do not shuttle cradle holder for jacketed cable terminations.



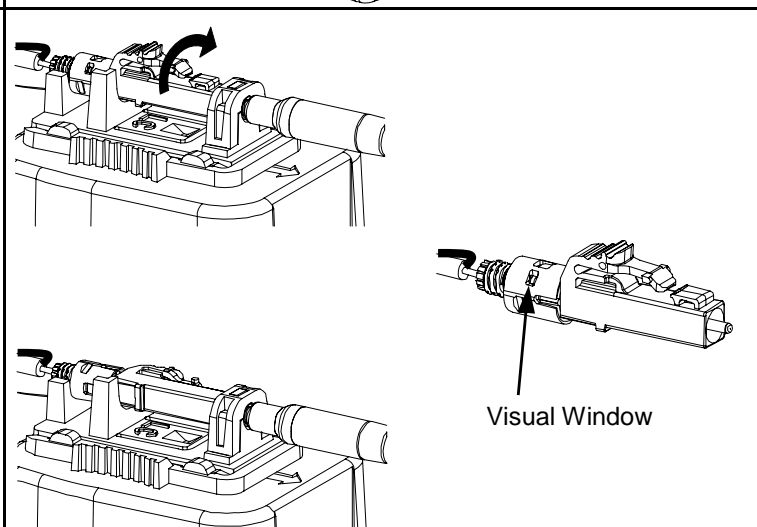
9. Turn On Laser

On the end of the OCTT tool, toggle the switch to the "I" (ON) position. If the fiber is in the correct position after this step, a multimode connector typically will either be dark or glow very dimly; a singlemode connector will typically glow moderately.



10. Cam the Connector

Apply downward pressure, in the direction of the tool, while rotating the connector body 90° counterclockwise around the center axis until it stops on the cradle (when looking from rear of connector). Ensure the connector body remains seated in the cradle during camming. The glow coming from the connector cam region should dim or remain dark. If not, turn the laser off and un-cam the connector. Pull the fiber back slightly and then gently urge it forward until it stops on the stub fiber. (Re-check to make sure the insertion mark is near the back of the connector.) Turn the laser on and re-cam the connector, it should dim or remain dark. If not, turn off the laser and repeat the process starting at step 5. The small visual window on the backbone will be green to indicate that the connector is in the cam position.



11. Turn Off Laser

Toggle the OCTT switch to the "O" (OFF) position. While holding connector in place, remove ferrule adapter end of patch cord from connector.

12. Place the Dust Cover on the Patch Cord (Optional)

13. Unclamp Cable

Squeeze both clamp arms to open the clamp pads. Remove cable from between the clamp pads and release clamp arms. **CAUTION: DO NOT** pull on cable while the connector is still held in place by the cradle. Doing so could break the fiber or create an unacceptable termination.

14. Remove Connector from Cradle

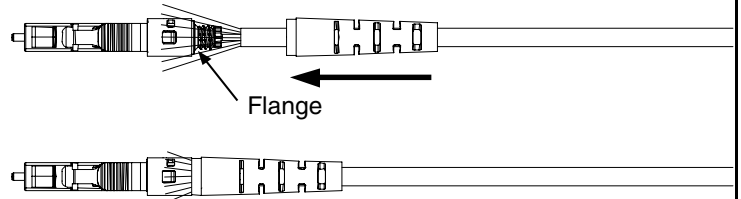
Remove the connector from the cradle by lifting the back of the connector straight up and sliding it out of the cradle.

15. Remove Fiber from Cleaver Tool

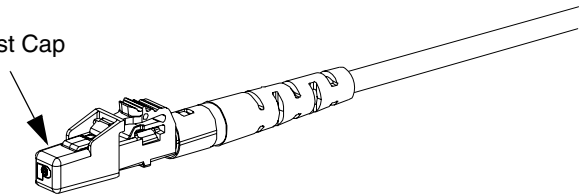
Depress the fiber clamp lever then remove and properly dispose of the fiber scrap.

16. Assemble Connector and Boot

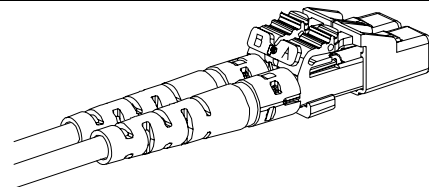
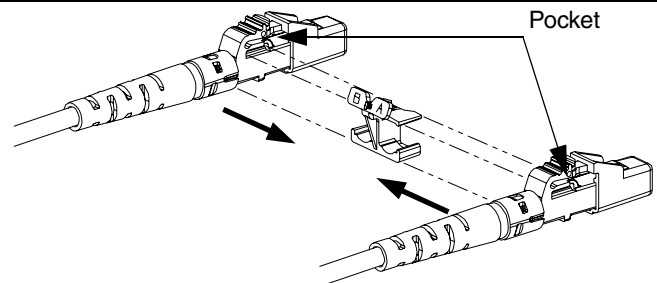
- 16.1 Slide the boot back to release the aramid yarn. Cut the aramid yarn approximately 0.20" (5mm) past the flange.
- 16.2 Flare the aramid yarn **evenly** around the perimeter of the grooved area of the backbone. Use tweezers for best results. There will be a slight gap between the cable jacket and the backbone.
- 16.3 Push the boot forward and thread clockwise onto the grooved area of the backbone until it seats against the flange. Best cable retention is achieved when the aramid yarn protrudes slightly from the flange area.
- 16.4 Clean the ferrule end face with an alcohol soaked wipe, and then a dry wipe. Refer to Visual Inspection and Cleaning of Fiber Optic Components Best Practices document PN446* at www.panduit.com. Place dust cap over the ferrule end.



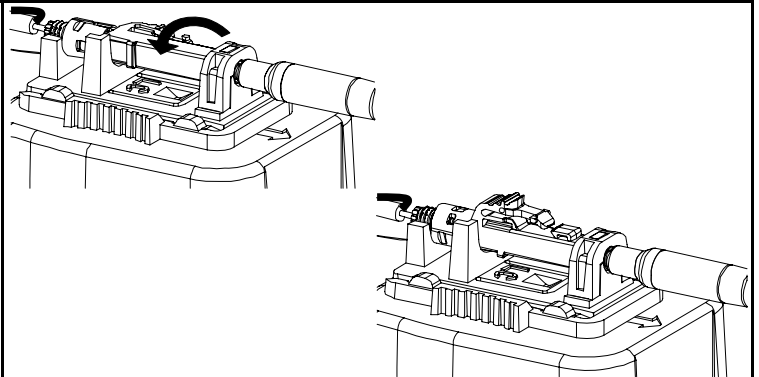
Dust Cap

**17. Attach Duplex Clip (Optional)**

- 17.1 With a connector held as shown (latch on top, ferrule facing away), insert the connector into one side of the duplex clip as shown (clip held with the 'A->B' polarity marking upright and facing forward). The upper tab of the clip should slide into the pocket underneath the latch of the connector, and the lower tab should slide under the connector housing and "snap", locking it into place.
 - 17.2 Repeat this procedure for the other connector, completing the duplexing step.
- Note: When making cable assemblies, be sure to follow the correct 'A->B' polarity cross-over between connectors.**

**18. Re-Termination**

The connector can be reterminated if needed. Unscrew the boot from the backbone and remove the dust cap. Hold the connector body with the latch facing to the side and slide the connector body into the LC Cradle. The connector is inserted fully when the backbone threads rest completely on the cradle flange as shown. Rotate the connector body 90° clockwise until it stops (when looking from rear of connector). The visual window should not be green. Remove the fiber and repeat from step 1.



*Denotes revision letter.

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