FASTConnect® CONNECTOR TERMINATION AND ASSEMBLY INSTRUCTIONS

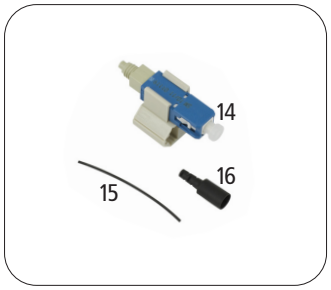
This document provides termination instructions for AFL's FASTConnect® SC, LC and ST connectors. Read these instructions carefully before proceeding. Termination instructions are provided for 250 µm, 900 µm, 2 mm and 3 mm fiber/cable. Different termination options after cleaving the fiber are provided for each fiber type. Please choose the best option for your application.

WARNING: Avoid direct eye exposure to laser beams and components that may be directly coupled to an active laser. Always wear eye protection when handling optical fibers. Dispose of any cut or cleaved ends properly. Do not touch the cleaver wedge with bare hands.



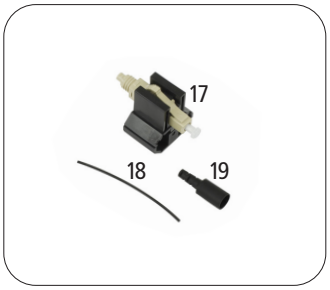
FAST Connector Universal Tool Kit

1. Blue Tool Bag
2. Fiber Preparation Fluid
3. Lint-free Wipes
4. CT16 Cleaver & Case
5. Strip template
6. FAST Assembly Tool
7. 0.25/0.9 mm Cable Clamp
8. 2 mm Cable Clamp
9. 3 mm Cable Clamp
10. Marker
11. Kevlar® Scissors
12. Fiber Stripper
13. FAST Termination Instructions



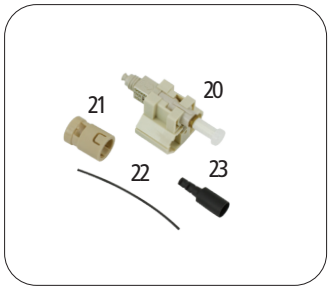
FAST SC Connector Kit

14. FAST SC Connector
15. 250 µm Black Tubing
(NOTE: additional 250 µm clear tubing is provided with the FASTConnect SC/APC connector)



FAST LC Connector Kit

16. 900 µm Boot
17. FAST LC Connector
18. 250 µm Black Tubing
19. 900 µm Boot



FAST ST Connector Kit

20. FAST ST Connector
21. ST Connector Housing
22. 250 µm Black Tubing
23. 900 µm Boot

ORDERING INFORMATION

SC CONNECTORS

Fiber Type	Color	AFL No.	
		Pack of 6	Pack of 100
Multimode 62.5/125 µm, OM1	Beige	FAST-SC-MM62.5-6	FAST-SC-MM62.5-100
Multimode 50/125 µm, OM2	Black	FAST-SC-MM50-6	FAST-SC-MM50-100
Multimode 50/125 µm 10G, OM3	Aqua	FAST-SC-MM50L-6	FAST-SC-MM50L-100
Single-mode, UPC	Blue	FAST-SC-SM-6	FAST-SC-SM-100
Single-mode, APC-AU	Green	FAST-SC-SMAU-6	FAST-SC-SMAU-100

LC CONNECTORS

Fiber Type	Color	AFL No.	
		Pack of 6	Pack of 100
Multimode 62.5/125 µm, OM1	Beige	FAST-LC-MM62.5-6	FAST-LC-MM62.5-100
Multimode 50/125 µm, OM2	Black	FAST-LC-MM50-6	FAST-LC-MM50-100
Multimode 50/125 µm 10G, OM3	Aqua	FAST-LC-MM50L-6	FAST-LC-MM50L-100
Single-mode, UPC	Blue	FAST-LC-SM-6	FAST-LC-SM-100

ST CONNECTORS

Fiber Type	Color	AFL No.	
		Pack of 6	Pack of 100
Multimode 62.5/125 µm, OM1	Beige	FAST-ST-MM62.5-6	FAST-ST-MM62.5-100
Multimode 50/125 µm, OM2	Black	FAST-ST-MM50-6	FAST-ST-MM50-100
Multimode 50/125 µm 10G, OM3	Aqua	FAST-ST-MM50L-6	FAST-ST-MM50L-100
Single-mode, UPC	Blue	FAST-ST-SM-6	FAST-ST-SM-100

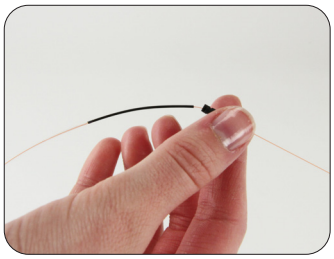
BOOT KITS

Item Description	AFL No.	
	Pack of 6	Pack of 100
2 mm Boot Kit, SC/LC/ST	FAST-BOOT-2MM-6	FAST-BOOT-2MM-100
3 mm Boot Kit, SC/LC/ST	FAST-BOOT-3MM-6	FAST-BOOT-3MM-100

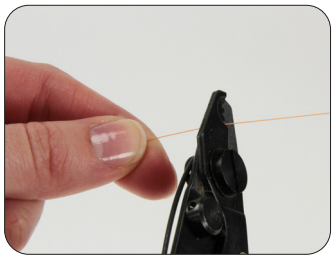
TOOL KITS

Item Description	AFL No.
FAST Universal Tool Kit with CT-16 Cleaver	CS010975

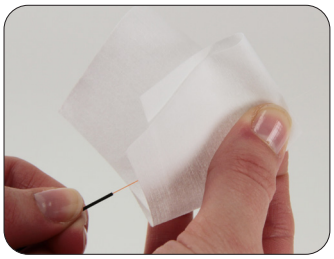
250 µm FIBER TERMINATION



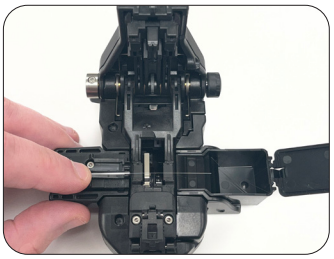
1: Insert the black protective tubing, 250 µm protective tubing and 900 µm boot onto the fiber.



2: Strip 35 mm of 250 µm coating from the fiber. (Refer to template image on bottom of page 3 for length references or use actual cleave length template card for measurements.)

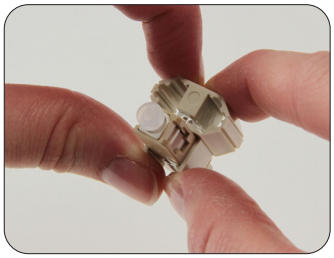


3: Clean the fiber with a lint-free wipe and fiber preparation fluid.

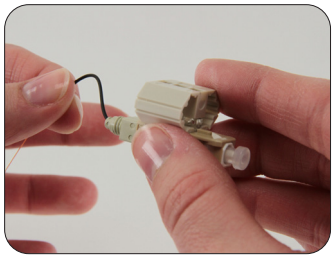


4: Set the fiber on the cleaver at the 10.5 mm recommended cleave length (minimum 10 mm). Cleave the fiber.

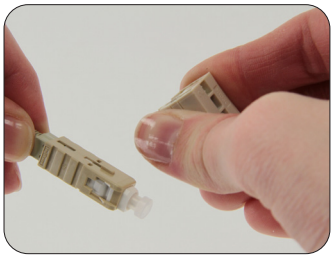
TERMINATION OPTION A: MANUAL



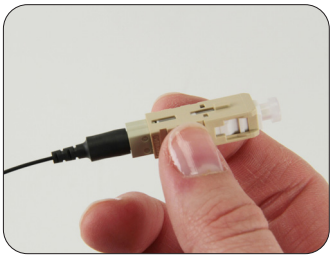
1: Squeeze top and bottom of the wedge to ensure that it is engaged.



2: Insert fiber into connector. Bring 250 µm protective tubing forward. Create a slight bend in the fiber to maintain connection.



3: Release the wedge clip by squeezing both sides. Remove the wedge clip.



4: Slide the boot onto the connector body. Bring the clear protective tubing over the end of the 250 µm protective tubing. Termination is complete.

OPTIONAL: VISUAL FAULT IDENTIFIER (VFI)

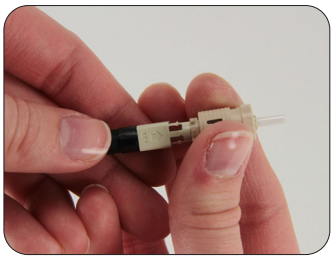


5b: Remove the dust cap. Insert the connector into the VFI. Window 1 of the wedge clip will glow red.



6b: Insert the fiber into the connector. Bring 250 µm protective tubing forward. Create a slight bend in the fiber to maintain connection. The light will dim when a connection is made.

FOR ST ONLY



Before applying the connector housing to the connector body, ensure optical connection by the VFI or other suitable method. After the ST housing is applied, you will not be able to release/re-engage the wedge clip if resetting the fiber is required.

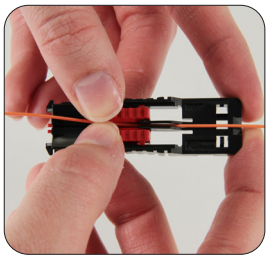
FIBER RE-TERMINATION

IMPORTANT: If during termination the fiber breaks inside the connector body, the connector cannot be re-terminated.

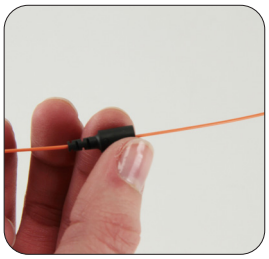
Using the following steps, the fiber may be re-terminated in the connector up to 5 times:

1. Place the wedge-clip back on the connector body, with window #1 on the wedge-clip oriented toward the connector ferrule.
2. Squeeze top and bottom of the wedge to ensure that it is re-engaged, thereby releasing the fiber.
3. Restart the FASTConnect procedure.

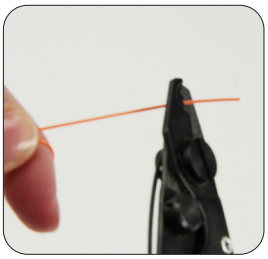
900 µm FIBER TERMINATION



1: If you are using a 900 µm fanout/breakout kit, place into 900 µm cable clamp about 10" from the end of the cable.



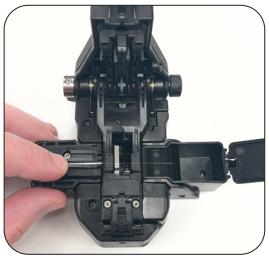
2: Place the 900 µm boot on the cable.



3: Strip 35 mm of 900 µm and 250 µm coating off. (Refer to template image below for length references or use actual cleave length template card for measurements.)

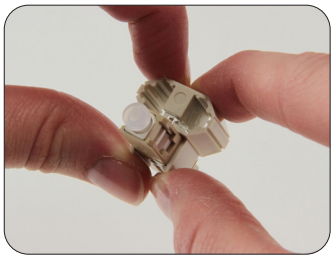


4: Clean the fiber with a lint-free wipe and fiber preparation fluid.

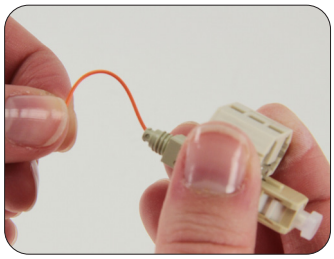


5: Set the fiber on the cleaver at the 10.5 mm recommended cleave length (minimum 10 mm). Cleave the fiber.

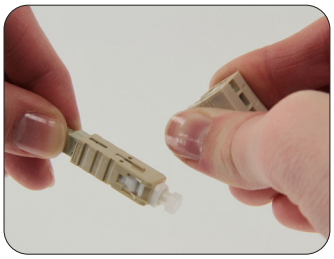
TERMINATION OPTION A: MANUAL



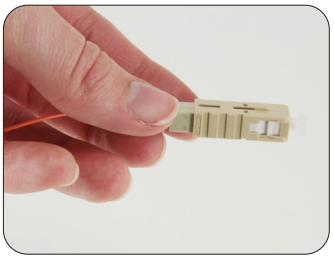
1: Squeeze top and bottom of the wedge to ensure that it is engaged.



2: Insert the fiber into the connector with the mark facing up. (Reference the strip template for mark placement specific to connector type, SC/ST or LC). Create a slight bend in the connector to maintain connection. (If using the optional VFI Method, see step 6b on page 2.)



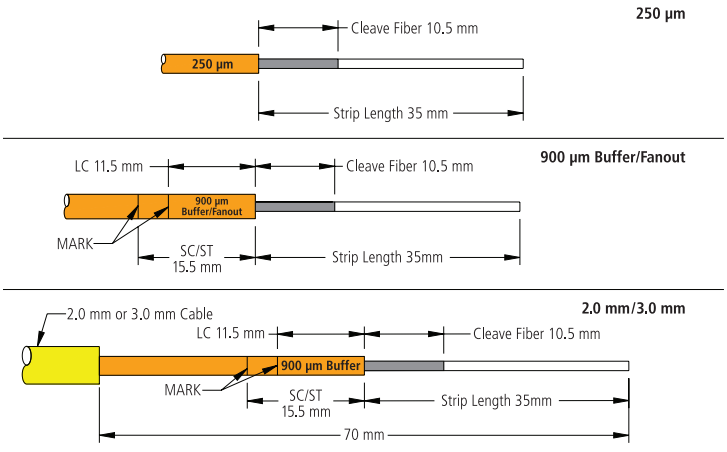
3: Release the wedge clip by squeezing both sides. Remove the wedge clip.



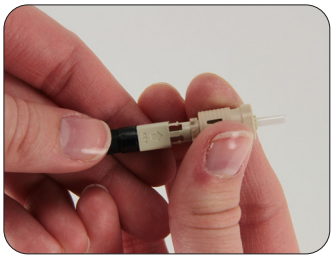
4: Slide the boot onto the connector body. Termination is complete.

NOTE: TEMPLATE IS NOT TO SCALE.

FAST SC/LC/ST STRIP/CLEAVE LENGTH



FOR ST ONLY



Before applying the connector housing to the connector body, ensure optical connection by the VFI or other suitable method. After the ST housing is applied, you will not be able to release/re-engage the wedge clip if resetting the fiber is required.

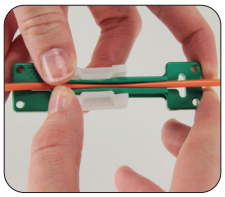
FIBER RE-TERMINATION

IMPORTANT: If during termination the fiber breaks inside the connector body, the connector cannot be re-terminated.

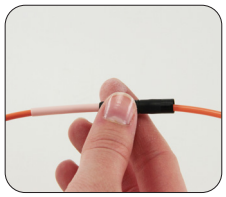
Using the following steps, the fiber may be re-terminated in the connector up to 5 times:

1. Place the wedge-clip back on the connector body, with window #1 on the wedge-clip oriented toward the connector ferrule.
2. Squeeze top and bottom of the wedge to ensure that it is re-engaged, thereby releasing the fiber.
3. Restart the FASTConnect procedure.

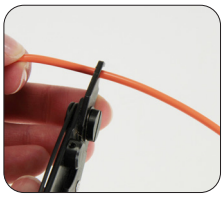
2 MM AND 3 MM FIBER TERMINATION



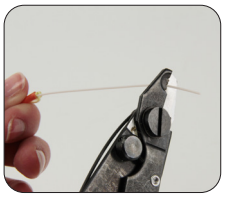
1: Place the cable into the appropriate cable clamp about 10" from the end of the cable.



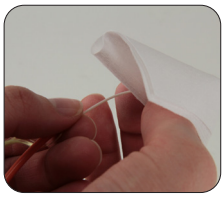
2: Insert the appropriate boot onto the cable.



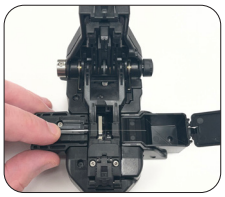
3: Remove 70 mm of cable jacket. (Refer to template image on bottom of page 3 for length references or use actual cleave length template card for measurements.)



4: Strip off 35 mm of 900 µm and 250 µm coating. (Refer to template image on bottom of page 3 for length references or use actual cleave length template card for measurements.)

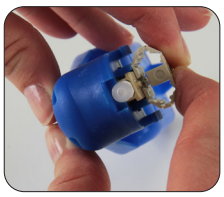


5: Clean the fiber with a lint-free wipe and fiber preparation fluid.

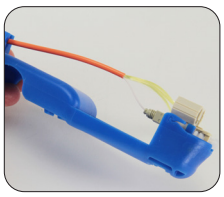


6: Set the fiber on the cleaver at the 10.5 mm recommended cleave length (minimum 10 mm). Cleave the fiber.

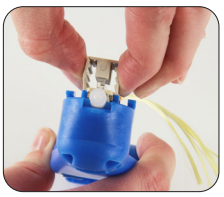
TERMINATION OPTION A: FAST ASSEMBLY TOOL



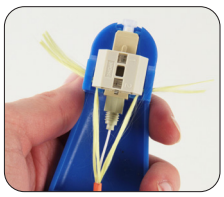
7: Place the connector into the assembly tool. Squeeze top and bottom of the wedge to ensure that it is engaged. (If using the optional VFI Method, see step 5b on page 2.)



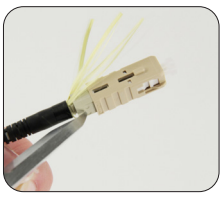
8: Insert the fiber into the connector with the mark facing up. (Reference the strip template for mark placement specific to connector type, SC/ST or LC). Create a slight bend in the connector to maintain connection. (See step 6b on page 2.)



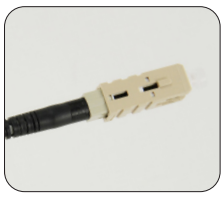
9: Disengage the wedge by squeezing both sides while the connector remains in the assembly tool.



10: Divide the Kevlar® into two portions and place them in the Kevlar® grips. Bring boot forward and screw on halfway. The assembly tool has a holder to maintain the 2 mm/3 mm cordage alignment.

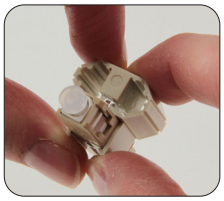


11: Remove from assembly tool. Remove wedge clip completely. Trim excess Kevlar® using the Kevlar® scissors.

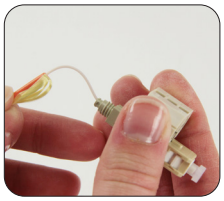


12: Screw the boot on completely. Termination is complete.

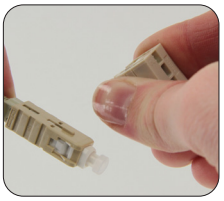
TERMINATION OPTION B: MANUAL



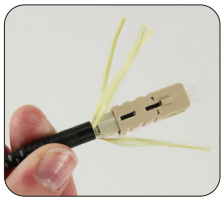
7: Place the connector into the assembly tool. Squeeze top and bottom of the wedge to ensure that it is engaged. (If using the optional VFI Method, see step 5b on page 2.)



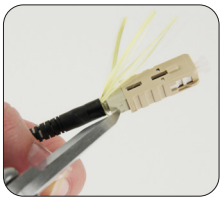
8: Insert the fiber into the connector with the mark facing up. (Reference the strip template for mark placement specific to connector type, SC/ST or LC). Create a slight bend in the connector to maintain connection. (If using the optional VFI Method, see step 6b on page 2.)



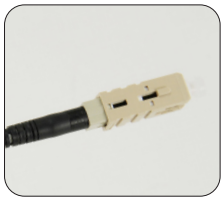
9: Release the wedge clip by squeezing both sides. Remove the wedge clip.



10: Divide the Kevlar® evenly on both sides. Screw the boot on halfway.



11: Trim excess Kevlar® using the Kevlar® scissors.



12: Screw the boot on completely. Termination is complete.

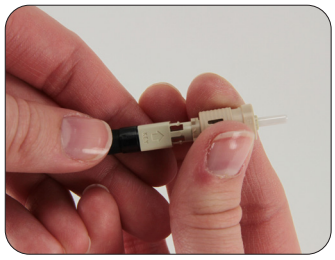
FIBER RE-TERMINATION

IMPORTANT: If during termination the fiber breaks inside the connector body, the connector cannot be re-terminated.

Using the following steps, the fiber may be re-terminated in the connector up to 5 times:

1. Place the wedge-clip back on the connector body, with window #1 on the wedge-clip oriented toward the connector ferrule.
2. Squeeze top and bottom of the wedge to ensure that it is re-engaged, thereby releasing the fiber.
3. Restart the FASTConnect procedure.

FOR ST ONLY



Before applying the connector housing to the connector body, ensure optical connection by the VFI or other suitable method. After the ST housing is applied, you will not be able to release/re-engage the wedge clip if resetting the fiber is required.