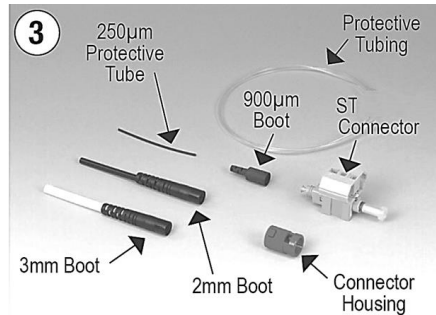
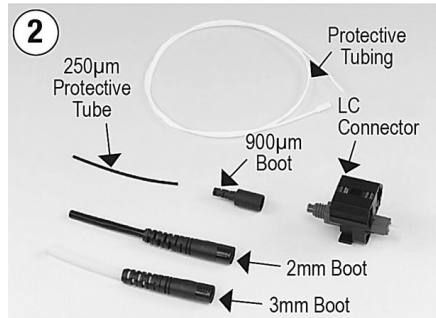
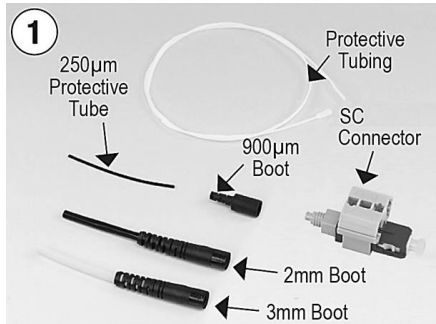


Connector Installation & Assembly Instructions

FASTCAM® SC, LC, & ST Connectors



WARNING: Always wear eye protection when handling optical fibers. Dispose of any cut or cleaved ends properly.

NOTE: These instructions should not be used with previous versions of the FastCAM connectors which are only used to terminate 250µm and 900µm fiber.

1.0 The following installation instructions describe the assembly procedure for FastCAM connectors which allow termination on 250µm, 900µm, 2.0mm, and 3.0mm fiber/cable.

2.0 Identify components of the connector kit. (See **Figures 1, 2 and 3**)

FIBER TERMINATION- 250µm

3.0 Tools required for installation are the Opt-X™ or CT-30A Cleaver and a fiber stripper.

3.1 Slide the protective tubing, 250µm protective tube and 900µm boot (in order) onto the fiber. (See **Figure 4**)

3.2 Strip the fiber to a length of 40mm. (See **Figure 5**)

3.3 Clean the stripped fiber with an alcohol wipe to remove any debris. Check the fiber integrity by bending the stripped end slightly at 60 degrees.

3.4 Set fiber onto cleaver such that 250µm coating edge is at 10.5mm position and cleave. (See **Figure 6**)

3.5 The wedge clips are engaged at shipment. If they have become dislodged, squeeze the top and bottom of the wedge clip, insuring it is inserted in the connector body. A click will be heard for each wedge. (See **Figure 7**)

3.6 Slide the 250µm protective tubing towards the end 250µm coating. (See **Figure 8**)

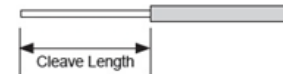
Note: The 250µm protective tube should come attached to protective tubing.

Fiber Cleave Specifications

(Illustrations are NOT to scale)

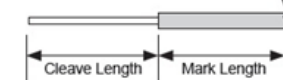
Cleave Length for 250µm Coated Fiber

TYPE	CLEAVE LENGTH
SC/ST LC	10.5mm



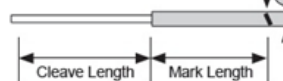
Cleave Length for 900µm Buffered Fiber or Fanout Tubing

TYPE	CLEAVE LENGTH	MARK LENGTH
SC/ST	10.5mm	15.5mm
LC	10.5mm	11.5mm



Cleave Length for 2.0mm or 3.0mm Cable

TYPE	CLEAVE LENGTH	MARK LENGTH
SC/ST	10.5mm	15.5mm
LC	10.5mm	11.5mm



*Alternative cleavers were also tested. Those with a guaranteed maximum 1° cleave angle for single-mode fibers and a maximum 2° cleave angle for multimode fibers provided acceptable results.

3.7 Insert the cleaved fiber into the rear of the connector until the connection is made. Make a bend in the fiber to maintain connection. (See **Figure 9**)

3.8A OPTIONAL: Use the Visual Fault Locator (VFL) as an aid to determine the cleaved fiber and stubbed fiber are connected properly.

Ordering Information

SC CONNECTORS			
FIBER TYPE	HOUSING COLOR	CABLE SIZE	SC PART NUMBER
Multimode 50/125	BLACK	0.25mm, 0.9mm, 2.0mm, 3.0mm	49991-5SC
Multimode 62.5/125	BEIGE	0.25mm, 0.9mm, 2.0mm, 3.0mm	49991-MSC
Single-mode	BLUE	0.25mm, 0.9mm, 2.0mm, 3.0mm	49991-SSC
LO Multimode 50/125	AQUA	0.25mm, 0.9mm, 2.0mm, 3.0mm	49991-LSC

LC CONNECTORS			
FIBER TYPE	HOUSING COLOR	CABLE SIZE	LC PART NUMBER
Multimode 50/125	BLACK	0.25mm, 0.9mm, 2.0mm, 3.0mm	49991-5LC
Multimode 62.5/125	BEIGE	0.25mm, 0.9mm, 2.0mm, 3.0mm	49991-MLC
Single-mode	BLUE	0.25mm, 0.9mm, 2.0mm, 3.0mm	49991-SLC
LO Multimode 50/125	AQUA	0.25mm, 0.9mm, 2.0mm, 3.0mm	49991-LLC

TOOL KIT

Kit Consisting of Opt-X Cleaver, Stripping tool & Consumable	49800-MSK
Kit Consisting of Opt-X Cleaver, Stripping tool, LED, Tray & Consumable	49800-LAK
Kit Consisting of CT-30A Cleaver, Stripping tool & Consumable	49800-SMK

A.1 Remove the FastCAM connector dust cap and insert the connector into the VFL. Turn the VFL power on and there will be a red glow in Position 1 of the wedge clip. (See **Figure 11**)

A.2 Insert the cleaved fiber into the rear of the connector until the red glow dims in Position 1 of the wedge clip. Make a bend in the fiber to maintain connection. (See **Figure 12**)

A.3 Maintaining a slight force on the fiber, release the wedge clip by squeezing both sides until the wedge clip dislocates itself from the connector body. Remove the wedge clip. Remove the VFL from the connector and place the dust cap back onto the connector's ferrule.

3.8B Maintaining a slight force on the fiber, release the wedge clip by squeezing both sides until the wedge clip dislocates itself from the connector body. Remove the wedge clip. (See **Figure 10**)

3.9 Slide the boot up and over the rear of the connector body. Slide the clear 900µm protective tubing - over the black 250µm protective tubing - to the back of the connector's boot. Termination is complete. (See **Figure 13**)

3.10 ST Connector ONLY: Install the connector housing onto the connector. (See **Figure 14**)

Note: The ferrule's dust cap should remain in place until you are ready to insert the connector.



Fiber Termination – 900µm

4.0 Note: When using a 900µm Fan-out/Breakout kit to unjacketed 250µm fiber, follow the manufacturer's instructions. After the kit is installed properly, the following procedures for FastCAM termination are applicable. Tools required for installation are the Opt-X or CT30A Cleaver and a fiber stripper.

4.1 Slide the 900µm boot onto the fiber. (See **Figure 15**)

4.2 Strip the fiber to a length of 40mm by removing 10 mm at a time. (See **Figure 16**)

4.3 From the end of the 900µm buffered fiber, place a mark at 15.5mm for SC or ST or a mark at 11.5mm for LC.

4.4 Clean the stripped fiber with an alcohol wipe to remove any debris. Check the fiber integrity by bending the stripped end slightly at 60 degrees. (See **Figure 17**)

4.5 Set the stripped fiber onto the cleaver such that the 900µm buffered fiber's edge is at the 10.5mm position and cleave. (See **Figure 18**)

4.6 The wedge clips are engaged at shipment. If they have become dislodged, squeeze the top and bottom of the wedge clip, insuring it is inserted in the connector body. A click will be heard for each wedge. (See **Figure 19**)

4.7A OPTIONAL: Use the Visual Fault Locator (VFL) as an aid to determine the cleaved fiber and stubbed fiber are connected properly.

A.1 Remove the FastCAM connector dust cap and insert the connector into the VFL. Turn the VFL power on and there will be a red glow in Position 1 of the wedge clip. (See **Figure 23**)

A.2 Insert the cleaved fiber into the rear of the connector (see **Figure 20**) until the red glow dims in Position 1 of the wedge clip (See **Figure 24**). Make a bend in the fiber to maintain connection. (See **Figure 21**)

A.3 Maintaining a slight force on the fiber, release the wedge clip by squeezing both sides until the wedge clip dislocates itself from the connector body. Remove the VFL from the connector and place the dust cap back onto the connector's ferrule.

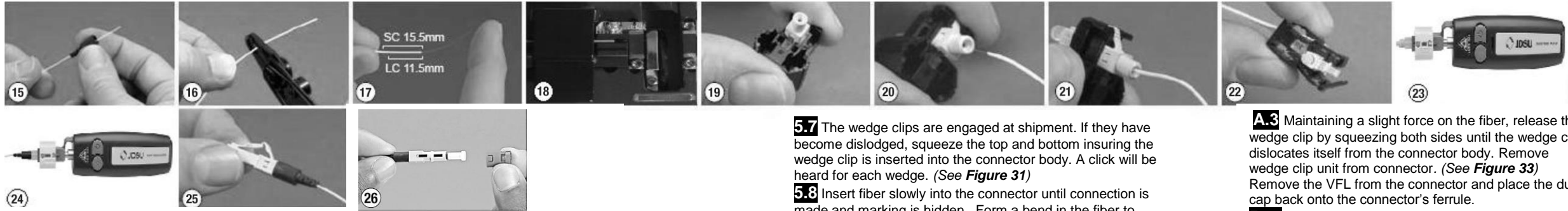
4.8 Insert the cleaved fiber into the rear of the connector until the connection is made and the mark is inside the connector. Make a bend in the fiber to maintain connection. (See **Figure 21**)

4.9 Maintaining a slight force on the fiber, release the wedge clip by squeezing both sides until the wedge clip dislocates itself from the connector body. Remove the wedge clip. (See **Figure 22**)

Note: The ferrule's dust cap should remain in place until you are ready to insert the connector.

4.10 Slide the boot up and over the rear of the connector body. Termination is complete. (See **Figure 25**)

4.11 ST Connector ONLY: Install the connector housing onto the connector. (See **Figure 26**)



Fiber Termination – 2mm and 3mm

5.0 Tools required for installation are the Opt-X or CT30A Cleaver and a fiber stripper.

5.1 Slide 2mm or 3mm boot onto cable. (See **Figure 27**)

5.2 Remove 70mm of cable jacket. (See **Figure 28**)

5.3 Strip the fiber to a length of 40mm by removing 10mm at a time. (See **Figure 29**)

5.4 From the end of the 900µm buffered fiber, place a mark at 15.5mm for SC or ST or a mark at 11.5mm for LC. (See **Figure 29**)

5.5 Clean the stripped fiber with an alcohol wipe to remove any debris. Check the fiber integrity by bending the stripped end slightly at 60 degrees.

5.6 Set the stripped fiber onto the cleaver such that the 900µm buffered fiber's edge is at the 10.5mm position and cleave. (See **Figure 30**)

5.7 The wedge clips are engaged at shipment. If they have become dislodged, squeeze the top and bottom insuring the wedge clip is inserted into the connector body. A click will be heard for each wedge. (See **Figure 31**)

5.8 Insert fiber slowly into the connector until connection is made and marking is hidden. Form a bend in the fiber to maintain connection. Be sure fiber bend does not exceed top of wedge clip. (See **Figure 32**)

5.9A OPTIONAL: Use the Visual Fault Identifier (VFL) as an aid to determine the cleaved fiber and stubbed fiber are connected properly.

A.1 Remove the FastCAM connector dust cap and insert the connector into the VFL. Turn the VFL power on and there will be a red glow in Position 1 of the wedge clip. (See **Figure 34**)

A.2 Insert the cleaved fiber into the rear of the connector until the red glow dims in Position 1 of the wedge clip. Make a bend in the fiber to maintain connection. (See **Figure 35**)

A.3 Maintaining a slight force on the fiber, release the wedge clip by squeezing both sides until the wedge clip dislocates itself from the connector body. Remove wedge clip unit from connector. (See **Figure 33**) Remove the VFL from the connector and place the dust cap back onto the connector's ferrule.

5.10 Fan Kevlar around connector. (See **Figure 36**)

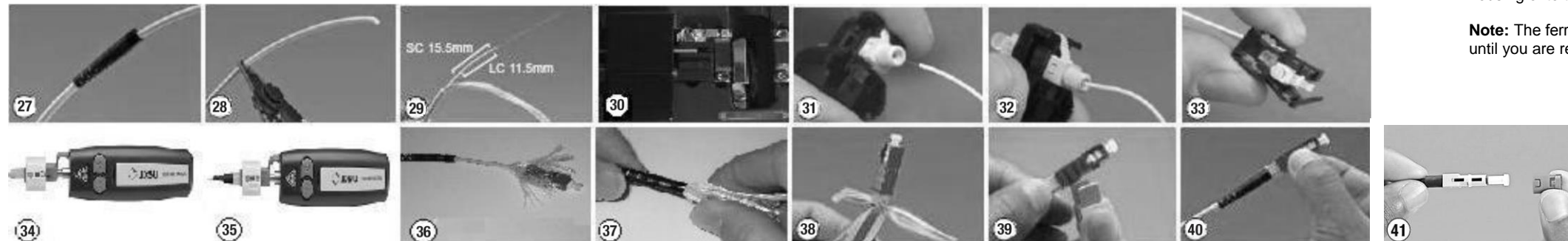
5.11 Grip Kevlar on both side of the connector to maintain tension. Screw boot onto back of connector to fix Kevlar family. (See **Figure 37**)

5.12 Cut Kevlar from around the connector. (See **Figure 38**)

5.13 Termination is complete. (See **Figure 39 & 40**)

5.14 ST Connector ONLY: Install the connector housing onto the connector. (See **Figure 41**)

Note: The ferrule's dust cap should remain in place until you are ready to insert the connector.



For Technical Assistance Call:
1-800-722-2082
www.leviton.com/ns