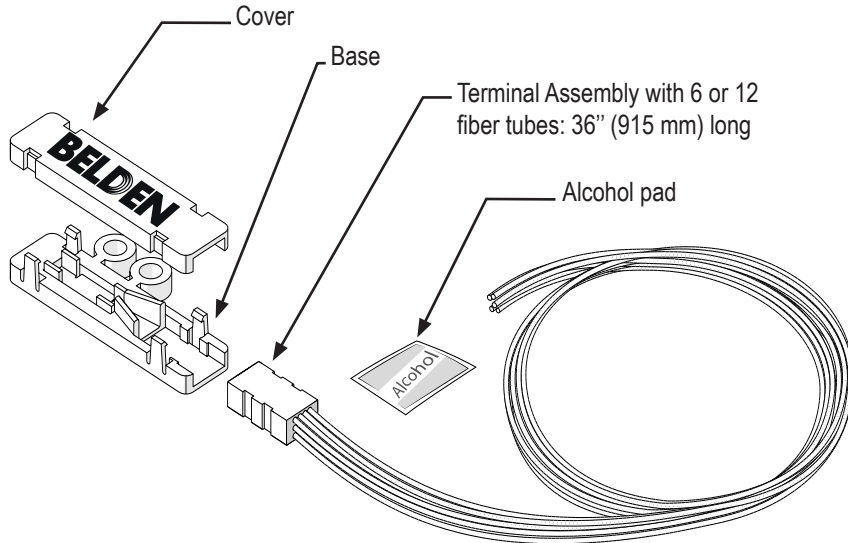INSTALLATION OF FIBER BREAKOUT KIT ON CABLE
WITH A FIELD INSTALLABLE CONNECTOR
INSTALLATION GUIDE
PX101701 - RELEASE 03.00

BELDEN

Page 1 of 4

Breakout Kit components

Cover

Base

Terminal Assembly with 6 or 12
fiber tubes: 36'' (915 mm) long

Alcohol pad

Standard tools and materials

- Electrical or masking tape
- Lint free wipes
- Indelible marker
- Wire stripper
- Gel cleaner
- Needle nose pliers
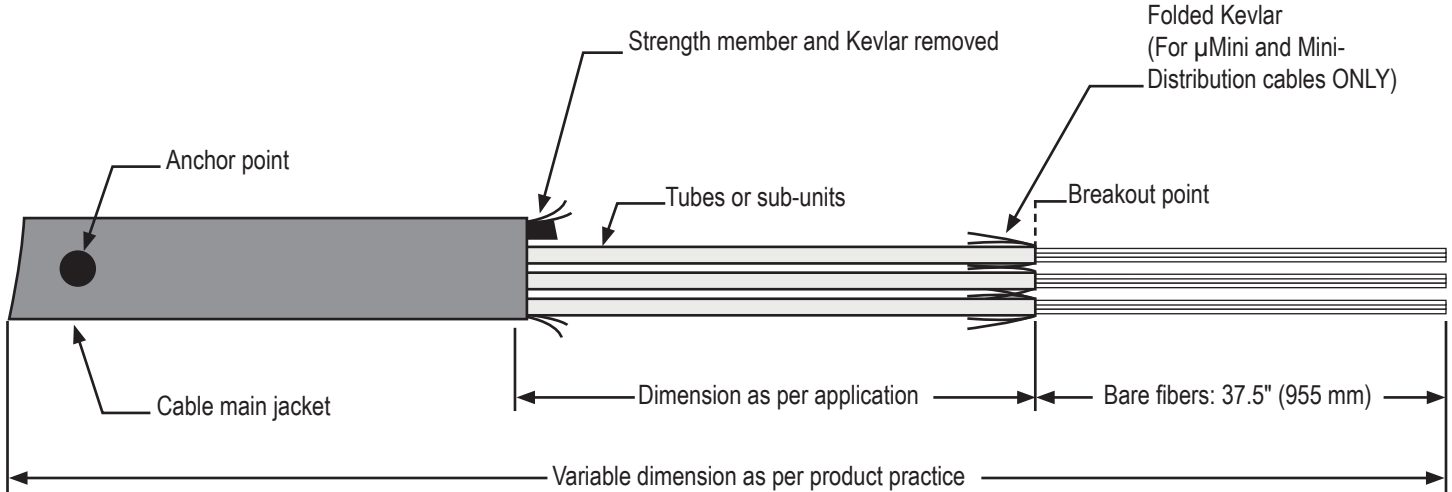- Fiber stripper
- Tweezers
- Fiber waste bottle

Special tools

- Fiber cleaver
- Fiber connector preparation guide (**LC**/**SC**/**ST**)

Safety precautions

⚠ Wear safety glasses.

⚠ Put all fiber scrap in waste bottle.

⚠ Dot not look into fiber end.

NOTE: Read these instructions carefully before installing a Fiber Breakout Kit.

## Typical cable preparation, ready for Breakout Kit installation

Strength member and Kevlar removed

Folded Kevlar
(For µMini and Mini-
Distribution cables ONLY)

Anchor point

Tubes or sub-units

Breakout point

Cable main jacket

Dimension as per application

Bare fibers: 37.5" (955 mm)

Variable dimension as per product practice

1. Cable preparation

1. Determine the cable anchor point (per product practice).
Measure back 37.5" (955 mm) and add application length.

Dimension as per application
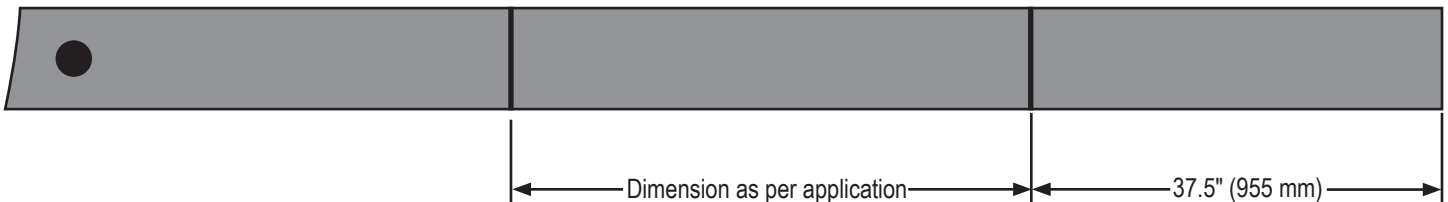
37.5" (955 mm)

2. Cut and strip off the main jacket.
Remove the strength member and the Kevlar.

Cable main jacket
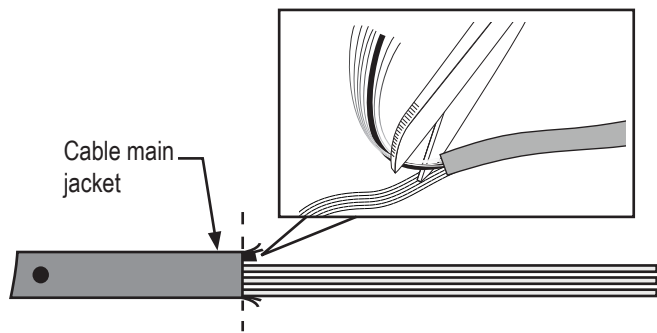
3. When applicable and using alcohol pads (or your own approved gel cleaner) remove all gel and throughly clean tubes.
Measure back 37,5" (955 mm) and mark the tubes or sub-units.

Dimension as per application
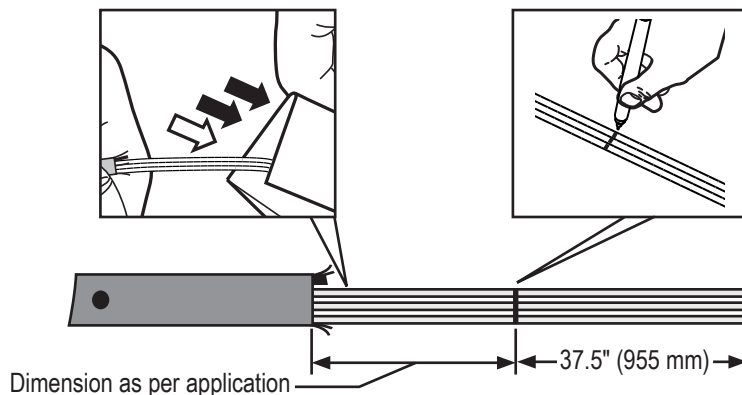
37.5" (955 mm)

2. Preparing tubes or sub-units

1. Strip all tubes or sub-units at the 37.5'' (955 mm) mark to expose fibers. For µMini and Mini-Distribution cables **ONLY** leave 7/8" (22.23 mm) of Kevlar.
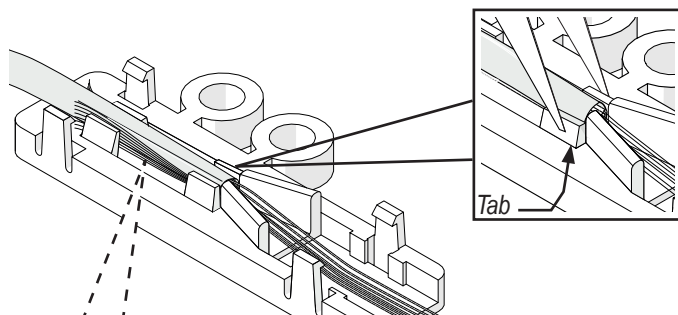
7/8"

Fiber waste
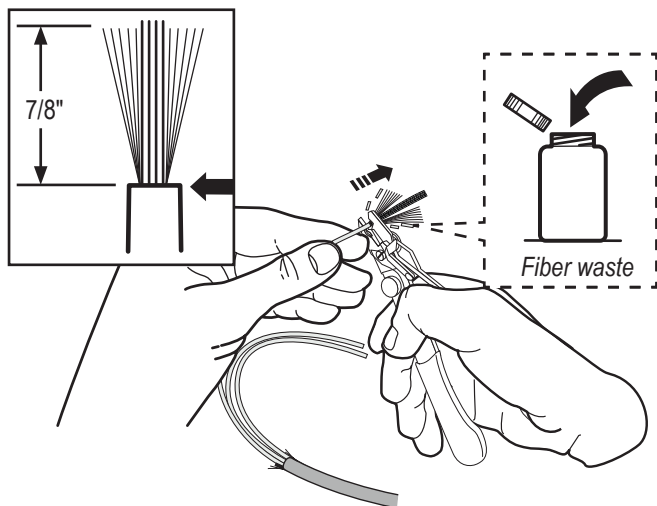
2. Tape each tubes or sub-units on a work surface and using alcohol pads, throughly clean all fibers.

Tape

*Kevlar*

réf. 37.5" (955mm)
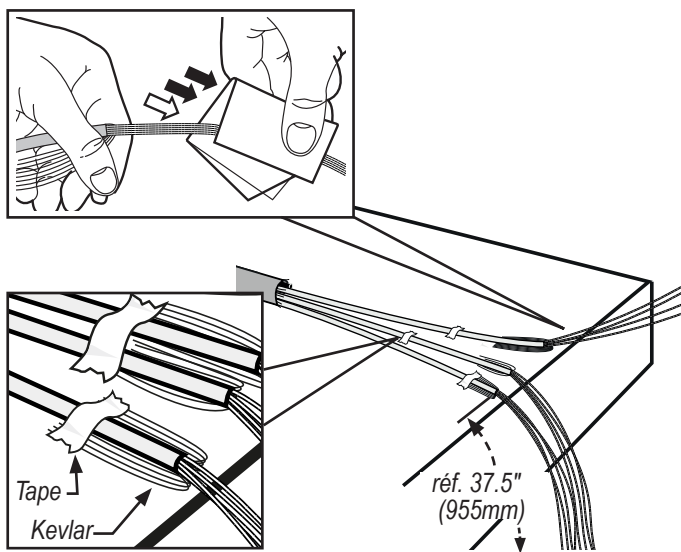
3. Fiber insertion

**1**. Align the tubes or sub-units with the front tabs and crimp tabs until tubes or sub-units deform.

Tab

NOTE: For µMini and the Mini-Distribution cables the Kevlar must always be folded back before crimping the tabs.

NOTE: *For µMini-distribution cable (with sub-unit of 2 mm)* ***ONLY****, and before the Kevlar is folded back, the sub-unit must be covered with a piece of 1" long of electrical tape, 3/4" wide.*

IMPORTANT: A 3/4" wide tape must be used to get a diameter of a sufficient size to hold between the tabs.
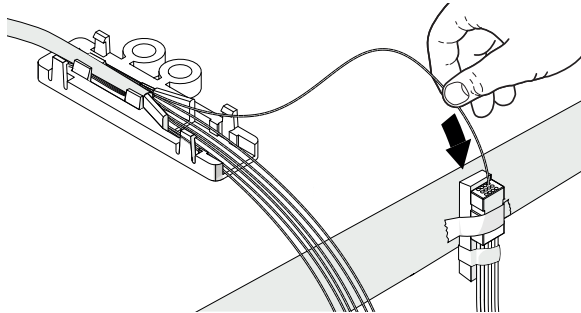
3/4"

Kevlar

Electrical tape
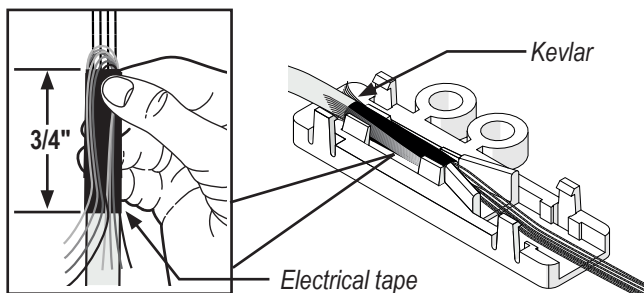
**2.** Uncoil Terminal Assembly tubes and tape the unit onto a side of the work area.
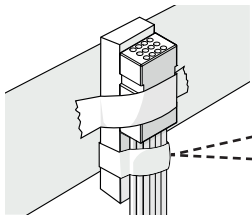
Installation tip:
To aid fiber insertion, straighten tubes and tape Terminal Assembly to a one-meter ruler, and tape unit to the work area.

3. Use alcohol and lint free tissues to clean each fiber, **one by one.**

4. Thread each fiber approx. 1/2" (1.5 cm) into the tube.

⚠ Make sure that fibers do not cross over each other.
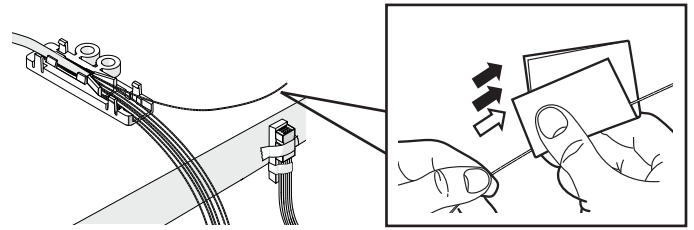
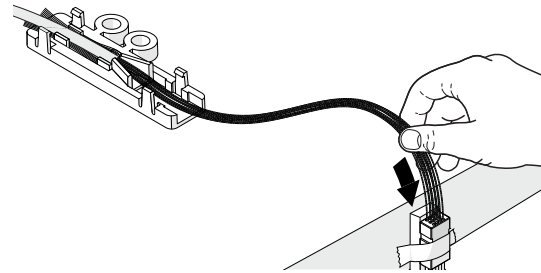**5.** Push the fibers as a group, into the tubes.
⚠ If a resistance is felt on one fiber, sligthy back up the group and push again.
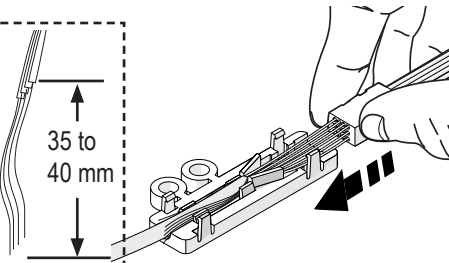
Alternate method: Push each fiber, **one at a time**, until fully inserted

4. Base and Cover Assembly

1. Untape Terminal Assembly and **gently slide** unit into base.
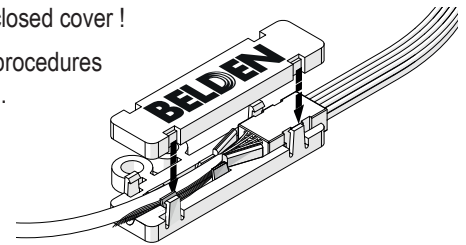
*NOTE***:**
The bare fibers should extend at least 35 to 40mm out of the tube ends.

35 to 40 mm

2. Align tabs, and press the cover onto the base.

⚠ Do not remove the closed cover !
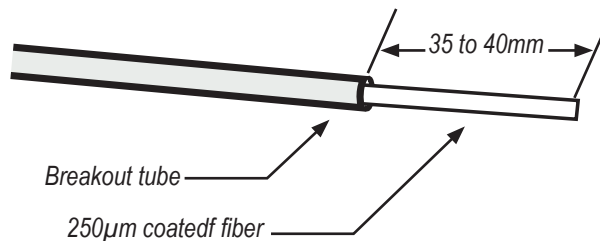
IMPORTANT: Repeat procedures for the remaining tubes.
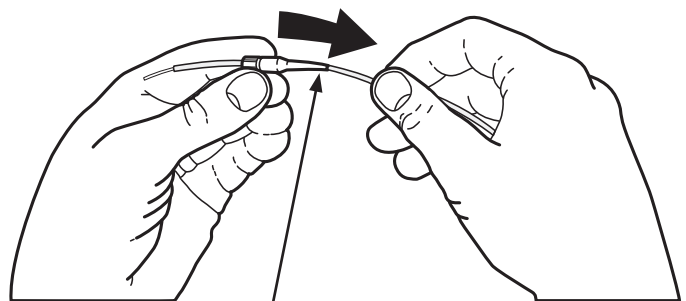
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Installing connectors on cable

1. Fiber preparation

1. Check if the 250µm fiber is extending out at least **35 to 40 mm** from the tube.
If the extended fiber is short, strip the tube to create the appropriate length.

← 35 to 40mm →

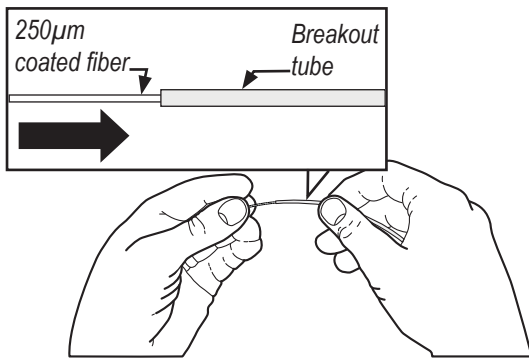Breakout tube

250µm coatedf fiber

2. Slide the connector boot and rear housing (when applicable) onto tube

Narrow end first

**3.** Push the fiber back as far as possible inside the tube.

250µm coated fiber

Breakout tube

4. Position the fiber stripper against the end of the tube and remove the 250µm coating in **one stripping motion**.

Stripper

Original cut

Residue

NOTE: *If the coating is not completely stripped, remove residue by applying one pass and **starting just after the original cut.***
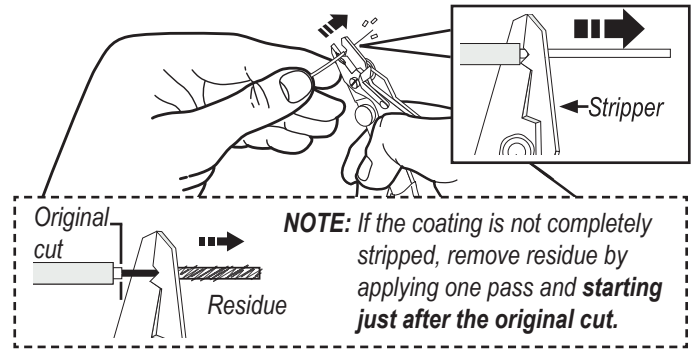
5. With alcohol carefully and throughly clean the bare fiber. **Use two or three passes.**


6. From the end of the tube mark the tube such as indicated in the installation guide of each specific connector type.


"A"
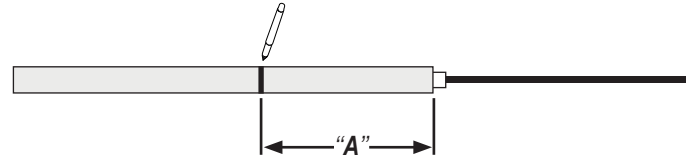
2. Cleave the fiber

1. Make sure to align the coating, **and not the tube**, with the stop of the cleaver. Keeping a steady tension on the fiber will help to obtain a good cleave.

** Follow carefully the instructions supplied with your cleaver.*

Coating

Fiber

Tube

Apply tension when cleaving
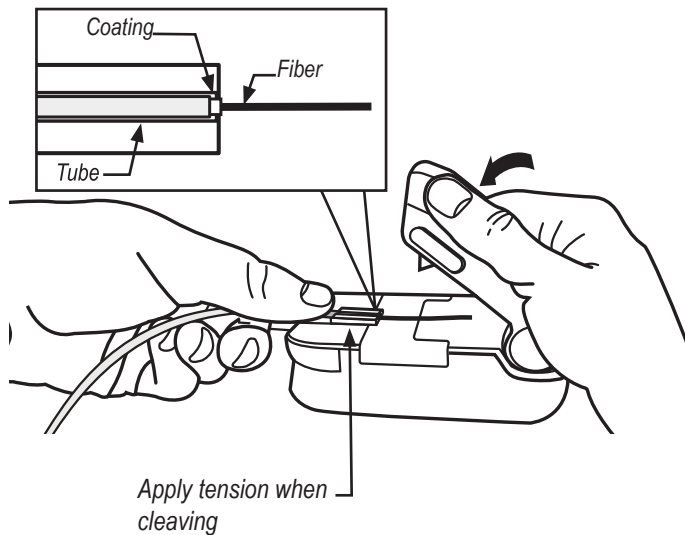
2. Use the tweezers to push back the fiber into the tube and check that the end of the 250µm coating extends out of the tube, **from 0.5 to 1.5 mm**.
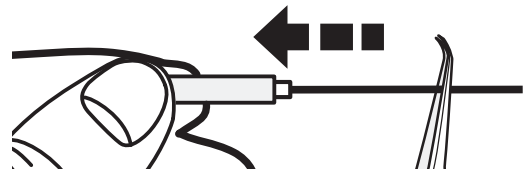
IMPORTANT: The end of the coating shall not be inside the tube.

3. If one of the dimensions below is not within tolerances, start again at step #1.

Dimensions:

"A" *"B"*

Mark *Tube* *Fiber*

Coating: 0.5 to 1.5 mm

"A" and "B" *per installation guide of each connector type*
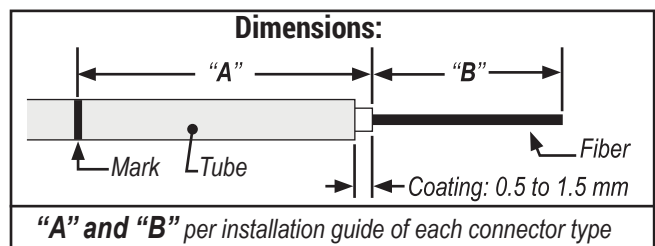
3. Connector termination

1. Follow the standard 900µm fiber installation procedure to finish terminating the connector.

Installation of Fiber Breakout kit on cable with a field Installable connector - Installation Guide

This document is also available at our webiste **www.belden.com**

For additional technical information on the Breakout Kit or our others connecting products, call **1-800-858-7954**

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