Fiber Optic Termination Kit • User Guide

This guide provides instructions for the Extron Fiber Optic Termination Kit. The kit contains the necessary tools required for an experienced technician to properly terminate LC single or multimode 2 mm fiber optic cable.

**NOTE:** Visit the fiber optic termination kit page at [www.extron.com](http://www.extron.com) for an interactive video describing how to terminate an LC connector using this kit.

The following items are included in this kit:

- Fiber Preparation Fluid
- Fiber Stripper
- Visual Fault Locator (VFL)
- Lint-free Cloth Wipes
- Installation Instructions
- Cable Grip Tool
- Assembly Tool
- Mark Cable Boot 2mm and 3mm Fiber
- Fiber Cable Strip 40 mm
- Strip 70 mm
- 11.5 mm (LC)
- Buffer
- Buffer Kevlar Strans
- Glass Fiber Core

**WARNING:** To prevent eye damage, always wear eye protection when handling optical fibers. Do not touch the glass fiber. Dispose of cut or cleaved ends properly.

**To Terminate a Fiber Cable**

1. Lay the required tools and components out on a clean work surface. Begin by placing the cable clamp about 10 inches from the end of the cable. This will prevent the inner cable from being pulled out as the cable is stripped.

2. Slide the appropriate size boot onto the cable with the threads toward the end to be terminated.

3. Set a connector with wedge clip into the assembly tool.

**NOTE:** The wedge clip is engaged at shipment. If it has become dislodged, squeeze the top and bottom ensuring the wedge clip is inserted into the connector body. A click will be heard.
4. Measure, mark, and strip the outer cable.
   a. With the included strip gauge, measure and mark the cable outer jacket 65 mm from the end.
   b. Using the first (top) position of the stripper, remove the outer jacket to expose the buffer.
   c. Strip and peel back the Kevlar strands and wind them into two equal bundles.

5. Again using the included strip gauge, place a mark on the buffer 35 mm from the end. Place a second mark 11.5 mm further back.

6. Using the second (middle) position of the stripper, remove 35 mm of buffer. To avoid stretching the cable or breaking the optic fiber, carefully remove the buffer 10 mm at a time.

7. Using the third (inner) position of the stripper, strip the same length (35 mm) of fiber a second time to remove the thin acrylic coating around the fiber core.

8. Gently flex the glass fiber core. If it has been damaged during stripping, it may break. If it flexes and returns, clean the acrylic coating remnants from the stripped fiber. Use a lint-free cloth wipe lightly soaked with fiber preparation fluid.

9. Set the stripped fiber onto the cleaver with the edge of the buffer at the 10.5 mm position. See the cleaving instructions in the included “Fiber Cleaver User Guide” and cleave the fiber.

10. Use the included Visual Fault Locator (VFL 101) as an aid to determine when the cleaved fiber is properly seated in the connector.
   a. Remove the dust caps from the VFL 101 and connector, then insert the connector and cable tool. Turn the VFL 101 on. Position 1 of the wedge clip will glow (or blink) red.

   **WARNING:** Do not look directly into the VFL light.
11. Remove the cable from the assembly tool cable grip long enough to slide the boot past the grip. Straighten the cable and return it to the cable grip.

12. Place the two Kevlar strand bundles into the grips on each side of the assembly tool. Tug the strands lightly to ensure they are taught while ensuring the buffered fiber is not bent.

13. Grip the strands on both sides of the tool to maintain tension. Screw the boot onto the back of the connector to fix the strands firmly.

14. Remove the connector from the assembly tool, then remove the wedge clip by squeezing the sides and rolling it off the connector.

b. Carefully insert the cleaved fiber into the rear of the connector until the red glow of the wedge clip dims. The mark placed at 11.5 mm in step 5 should be very close to the edge of the connector.

c. Place the cable into the assembly tool cable grip as shown. Form a slight bend in the cable that will maintain tension on the connection.

**NOTE:** Be certain the fiber bend does not exceed the top of the wedge clip.

d. To secure the connection, be certain the position 1 indicator is still dim, then release the wedge clip by squeezing both sides until it dislocates from the connector body. A click will be heard. Remove the VFL 101 from the connector and replace both dust caps.
15. Trim excess strands using the Kevlar scissors.
16. Remove the cable clamp to complete the termination.
17. Clean the work surface and properly dispose of all scrap material.

**Reuseable Connectors**

The connectors can be used a second time. Replace the dust cover, then orient the wedge clip so the position 1 indicator is towards the dust cover. Place the wedge clip back on by reversing step 14. Squeeze the wedge down onto the connector until two distinct clicks are heard. Unscrew the boot and pull it from the connector. The optic cable should easily slide out and the connector is ready for a second use.

**Accessories**

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
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<tbody>
<tr>
<td>QLC SM/10, Singlemode, (Qty. 10)</td>
<td>101-017-01</td>
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<tr>
<td>QLC MM/10, Multimode, (Qty. 10)</td>
<td>101-018-01</td>
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<tr>
<td>SM P/2K, plenum, 2 km (6,562 feet) spool</td>
<td>22-223-02</td>
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<tr>
<td>OM4 MM P/2K, plenum, 2 km (6,562 feet) spool</td>
<td>22-225-02</td>
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**Included Parts**

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td>Visual Fault Locator (VFL 101)</td>
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<tr>
<td>Cleaver with case</td>
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<tr>
<td>Fiber Stripper</td>
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<tr>
<td>Strip/Cleave Length Template</td>
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<tr>
<td>Cable Clamp</td>
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<tr>
<td>Cable Grip Assembly Tool</td>
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<tr>
<td>Kevlar Scissors</td>
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<tr>
<td>Fiber Preparation Fluid</td>
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<td>Lint-free Cloth Wipes</td>
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<tr>
<td>Marker Pen</td>
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<td>Carrying Case</td>
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