**Step-by-Step Plastic Cable Connectoring Instructions**
The following step-by-step guide describes how to terminate plastic fiber optic cable. It is ideal for both field and factory installation. Connectors can be easily installed on cable ends with wire strippers, cutters and crimping tool.

Finishing the cable is accomplished with the FiberFin ST Polishing Kit, consisting of a Polishing Fixture, 1500 grit abrasive paper and 3 μm pink lapping film (3M Company OC3-14). The connector can be used immediately after polishing.
Materials needed for plastic fiber termination are:

POF Cable 1mm core 2.2mm jacket, recommended Mitsubishi ESKA® POF Cable

1. FF-HTFO-UNV-2 Industrial Razor Blade or Wire Cutters
2. FF-HTSTRP-ID-LT (16 Gauge Wire Strippers)
3. FF-CRMP-1 Crimping Tool
4. FF-LCP-STPOL-KIT Polishing Kit
5. One of the following connectors:
    a) LS-ST1000
    b) LS-ST1500
    c) LS-ST0750

**Step 1**
The zip cord structure of the duplex cable permits easy separation of the channels. The channels should be separated approximately 100mm (4.0 in.) back from the ends to permit connectoring and polishing.

After cutting the cable to the desired length, strip off approximately 10-11mm (0.4 in.) of the outer jacket with the 16 gauge wire strippers. Excess webbing on the duplex cable may have to be trimmed to allow the simplex or simplex latching connector to slide over the cable.

When using the duplex cable, separate the duplex cable and then must be stripped to equal lengths on each cable. This allows easy and proper seating of the cable into the duplex connector.

**Step 2**
The fiber should protrude about 1-2 mm (0. 08 in.) through the end of the connector. Carefully crimp the connector, one crimp tool is used for all POF connector crimping requirements.

For industrial applications or ones that require the best of retention to the cable attachment can be achieved with the use of 2 part epoxy part # FF-GMEPXY-1656. The adhesive is placed into the connector prior to insertion of the fiber and the fiber is crimped normally. The connector can be polished after the epoxy has cured (normally 24 hours for full cure) and is then ready for use.

**Step 3**
Any excess fiber protruding from the connector end may be cut off; however, the trimmed fiber should extend at least 1.0 mm (0.04 in.) from the connector end.

Insert the connector fully into the polishing fixture with the trimmed fiber protruding from the bottom of the fixture. This plastic polishing fixture can be used to polish simplex connectors.

**Note:** *Typically, the polishing fixture can be used 100 times*

Place the 1500 grit abrasive paper on a flat smooth surface, pressing down on the connector; polish the fiber and the connector using a figure eight pattern of strokes until the connector is flush with the bottom of the polishing fixture. Wipe the connector and fixture with a clean cloth or tissue.

**Step 4**
Place the flush connector and polishing fixture on the dull side of the 3 μm pink lapping film and continue to polish the fiber and connector for approximately 25 strokes. The fiber end should be flat, smooth and clean.

**This cable is now ready for use!**

**Note:** *Use of pink lapping film fine polishing step results in approximately 2 dB improvement in coupling performance of either a transmitter receiver link or a bulkhead/splice over a 1500 grit polish alone. This fine polishing step may be omitted where an extra 2 dB of optical power is not essential, as with short link lengths.*

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