

# RECOMMENDED Procedure

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## SP-F01-016 Pre-terminated Drop Cable Installation (with Pulling Sock), Issue 3

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### 1.0 General

This installation document describes the proper installation procedures for removing the pulling sock from pre-terminated fiber optic drop cables.

### 2.0 Construction

Sumitomo's service drop cables contain up to 12 optical fibers and are optimized for low cost installation. The color-coded fibers are housed in a plastic buffer tube with dielectric strength members surrounded by a sheath with an optional copper messenger running along the cable core. The cable sheath is composed of a flame-retardant PVC jacket to meet NESC requirements for cable attachment to residential homes. In some drop cable designs a copper messenger is provided for locatability and is easily split away from the dielectric cable core. This cable meets all the requirements of indoor/outdoor cables and can enter the customer premise eliminating the need for additional splice points.

The drop cable has been connectorized on at least one-end to provide a quick and easy method for connecting the cable to existing fiber optic plant. A pulling sock has been installed so that the cable can be immediately installed. After installation the pulling sock is removed, the cable is placed, and the connector can be mated. These types of drop cables can be direct buried, lashed or pulled through duct.

### 3.0 Safety Precautions

The use of safety equipment is strongly recommended during the installation and handling of optical fiber cable.

## 4.0 Reference Documents

*FTTH Dielectric Optical Drop Cable Product Specification*  
*FTTH Aerial Optical Drop Cable Product Specification*  
*FTTH Locatable Optical Drop Cable Product Specification*

## 5.0 Tools Required

The following is a list of tools and materials required to complete this procedure.

- 1.0 Gloves
- 2.0 Safety Glasses
- 3.0 Splicer's Scissors
- 4.0 Needle Nose Pliers

## 6.0 Methods to Coil Cables

Coiling is the most common method of preparing cable slack length for storage or staging prior to splicing. Applying coils at each end of the cable during installation is recommended.

Some coiling techniques can impart twists to the cable. These twists are not a problem for cable performance but in some cases can inhibit smooth handling and produce irregular coils. Twists are more apparent in cables with a preferred bending direction. A variety of methods are available for coiling any cable type without inducing twists.

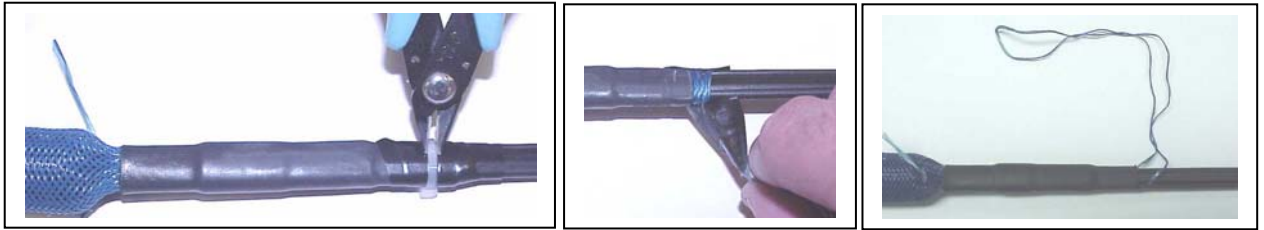
It is recommended to follow standard practices based on the application for placing break loops/coils. For end coiling with no twists, simply create a loop at the cable end and then roll the cable into a coil. The coil should be between 10 and 20x the cable diameter. The end coil should then be secured using tie wraps.

## 7.0 Removing the Pulling Sock

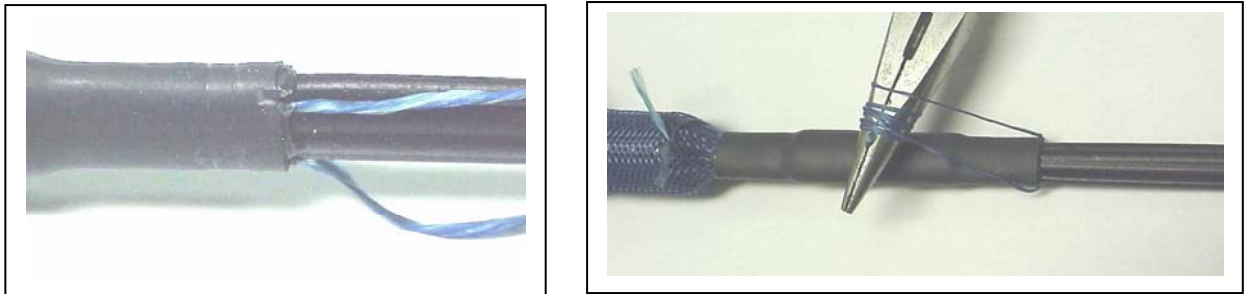
After the cable has been pulled through the duct, using standard pulling procedures, the pulling sock should be removed so the connector can be accessed. The pulling sock serves two purposes in this application. The first is to allow for the cable to be pulled through an existing duct pathway and the second is to provide protection for the connector. The cable assembly is shown in the figure below. Also described is the proper procedure for removing the pulling sock.



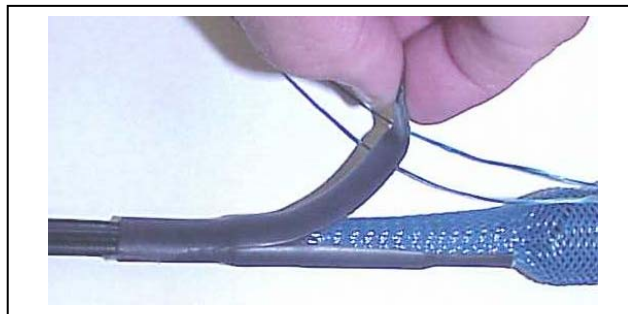
**7.1** Locate the tie wrap, which has been applied over the heat shrink ripcord. The ripcord is located underneath the black tape. Carefully cut the tie wrap being sure not to damage the ripcord.



**7.2** The ripcord is placed along either side of the heat shrink, so that after the ripcord has been pulled the heat shrink is easily removed. To ease the pulling process, cut the heat shrink in two places and align the ripcord with these two notches. Wrap the ripcord around the tip of needle nose pliers to ease the pulling of the ripcord.



**7.3** After the ripcord has been pulled the heat shrink can be removed.



**7.4** The pulling sock can now be removed to access the connector.

