

## Sheath Removal Procedure for FREEDM ONE™ Cables

### 1. General

**1.1** This document describes the procedure for removing the sheath of single layer FREEDM ONE™ indoor/outdoor tight buffered cable.

**1.2** Corning Cable Systems FREEDM ONE cable is a rugged, high performance cable designed for various indoor/outdoor distribution applications (Figure 1).

**1.3** If document is reissued, a summary of changes will appear in this paragraph.

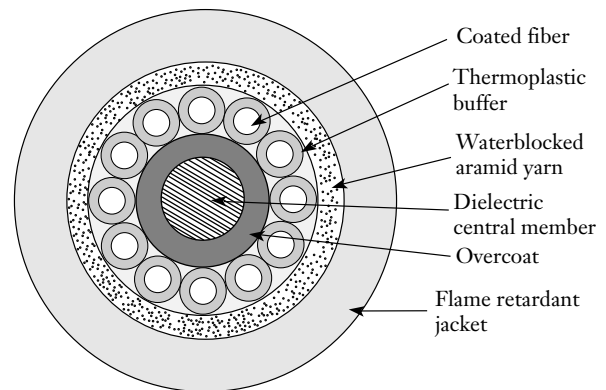


Figure 1

### 2. Precautions

#### 2.1 General Precautions



##### Safety Glasses

**WARNING:** The wearing of **safety glasses** to protect the eyes from accidental injury is strongly recommended when handling chemicals and cutting fiber. Pieces of glass fiber are very sharp and can easily damage the cornea of the eye.



##### Safety Gloves

**WARNING:** The wearing of **safety gloves** to protect your hands from accidental injury when using sharp-bladed tools is strongly recommended. Use extreme care when the tool is open and its blades are exposed. Dispose of used blades properly.

#### 2.2 Cable Handling Precautions



**CAUTION:** Fiber optic cables are sensitive to excessive pulling, bending and crushing forces. Excessive bending will cause kinking which may damage the fibers inside – the cable may have to be replaced.

#### 2.3 Fiber Handling Precautions



**WARNING:** Cleaved glass fibers are very sharp and can easily pierce the skin. Do not let cut pieces of fiber stick to your clothing or drop in the work area where they can cause injury later. Use tweezers to pick up cut or broken pieces of the glass fibers and place them on a loop of tape kept for that purpose alone. Good housekeeping is very important.

#### 2.4 Chemical Precautions



##### ISOPROPYL ALCOHOL

**DANGER:** Flammable. Flashpoint below 73°F. Keep away from heat, sparks and open flame. Can cause irritation to eyes on contact. In case of eye contact, flush eyes with water for at least 15 minutes. Inhaling fumes may induce mild narcosis. In case of ingestion, consult a physician.

### 3. Tools and Materials

**3.1** The following tools and materials are required for this procedure:

- Ideal® model 45-164 coaxial stripper (p/n 3204002-01) *or* Utility knife with hook blade
- Scissors \*
- Isopropyl alcohol \*
- Vinyl tape \*
- Side cutters (diagonal cutting pliers) \*
- Tape measure \*
- Lint-free tissues \*
- 203  $\mu$ m No-Nik® Stripping Tool \*

\* Items available in the M67-003 Fusion Splicer Tool Kit

### 4. Sheath Removal

**4.1** Refer to the documentation with the product you are installing to obtain the proper sheath removal lengths. Use a measuring tape and a felt tip pen to measure and mark the overall strip length (Figure 2).

*For strip lengths over 3 m (9.8. ft.), remove the jacket in multiple sections.*

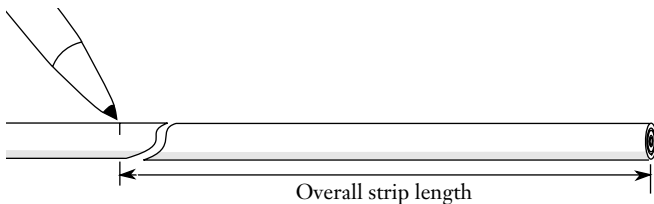


Figure 2

**Note:** If you do not have a large Ideal stripper, the jacket may be carefully scored at the strip length mark with a utility knife equipped with a hook blade. DO NOT cut through the jacket, or the 900  $\mu$ m tight-buffered fibers might be damaged. If you are using a hook blade, skip to step 4.4.

**4.2** Use a screwdriver to adjust *one* of the blades on the side of the Ideal tool so that it seats against the pocket on its side of the lower jaw but does not force the jaw open. The front and other side blade should be fully retracted.

**4.3** Place the Ideal tool over the mark made in step 4.1. Rotate the tool around the cable to *score* the jacket (Figure 3). DO NOT cut through the jacket, or the 900  $\mu$ m tight-buffered fibers might be damaged.

Adjustment of the cutting blade may be necessary.

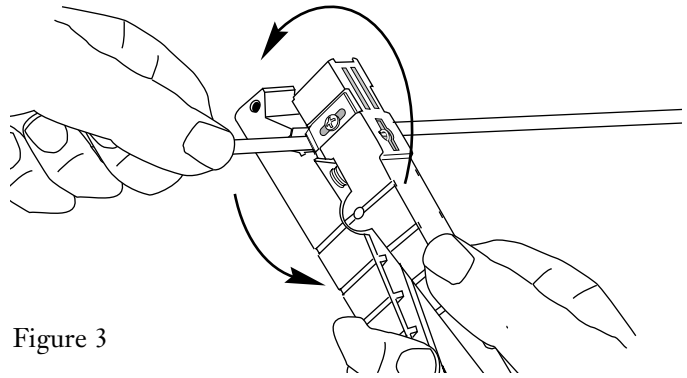


Figure 3

**4.4** Flex the cable causing the outer jacket to separate (Figure 4).

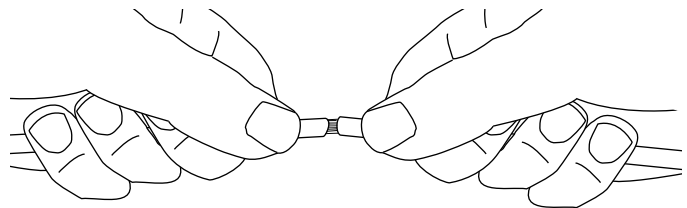


Figure 4

**4.5** Slide the jacket off the cable core (Figure 5).



Figure 5

**4.6** Separate the aramid yarn from the fibers.

**4.7** Use scissors to cut the aramid yarn and side cutters to cut the central member to the lengths recommended in the documentation for the product you are installing (Figure 6).

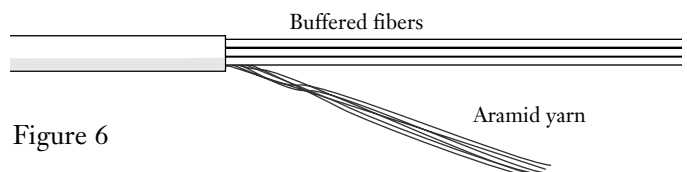


Figure 6

**4.8** Separate the fibers and select one to strip.

**4.9** Using the No-Nik stripping tool, remove the tight-buffered coating until the desired length is obtained (Figure 7).

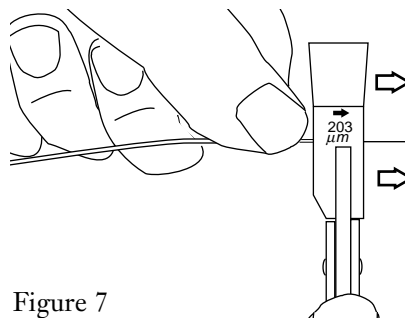


Figure 7

**4.10** Using a lint-free tissue soaked with alcohol, clean the stripped fiber (Figure 8). Avoid handling the cleaned area of fiber.

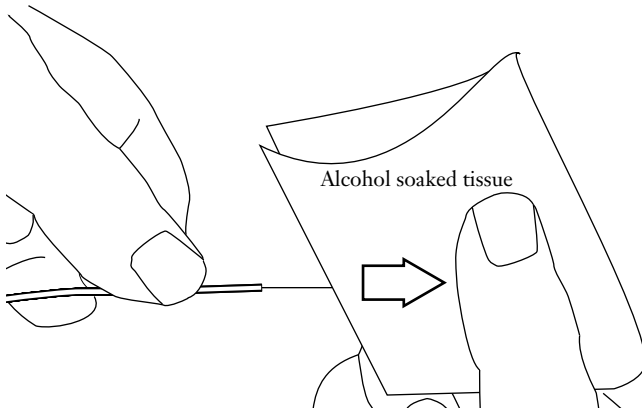


Figure 8

**4.11** Terminate the fiber according to the instructions provided with the connector or splice hardware you are installing, or appropriate to the splicing method you are using.

*Special Note:  
Fiber Optic  
Training  
Programs*



*Corning Cable Systems offers comprehensive, integrated training programs. Courses are structured for: Telephony, CATV, LAN, Intelligent Transportation Systems and Power Utilities.*

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