CORNING

Sheath Removal of 3456-Fiber RocketRibbon™ Extreme-Density Cable

P/N 004-290-AEN
Issue 1

related literature | Search www.corning.com/opcomm. Click on "Resources/Standard Recommended Procedures."	
003-1032-AEN	Ultra Density Optical Splice Enclosure
003-1036-AEN	Cable Entry Kit for OSE-UD
003-1042-AEN	Furcation of a 288-Fiber Ribbon Subunit into an Optical Splice Enclosure Splice Tray
004-098	Instruction, Ribbon Splitting Tool (RST-000)
004-283-AEN	Furcation of a 1728/3456-Fiber Corning © RocketRibbon™ Extreme-Density Cable for EDGE™ Splice Cassettes and Splice-On Connectors
004-285-AEN	Splicing a 288-Fiber RocketRibbon Subunit into a Single Splice Tray in an Ultra Density Optical Splice Enclosure
005-011	Duct Installation of Fiber Optic Cable
AEN049	Air-Assisted Cable Installation Techniques (Cable Blowing)
AEN165	Applications Engineering Note165 Cable Handling: Squirting, Tangling, and Storage
AEN166	Applications Engineering Note166 RocketRibbon Extreme-Density Cable Installation Checklist
AEN167	Split Duct Cable Installation Guidelines
AEN168	Cable Placing in Duct - Methods and Equipment for Manholes and Vaults
CRR-0258V-AEN	Separating 36-Fiber and 24-Fiber Ribbons into 12-Fiber Ribbons
CRR-0259V-AEN	Accessing a 288-Fiber Subunit in a RocketRibbon Extreme-Density Cable
CRR-0298V-AEN	Routing: Installing RocketRibbon 1,728-Fiber Extreme-Density Cable in a 2178-XL Closure
Video	Teardrop Storage Method for Mid-Span Slack Management
Video	Railroad Method for Backfeeding Cable

1. General

This document describes handling practices for dielectric 3456-fiber gel-free ribbon cable. Cable-end and mid-span access procedures are outlined in this document. Links to other reference material are provided in the "related literature" table.

The cable illustrated in this procedure is a non-armored cable manufactured with subunits. Four glass-reinforced plastic (GRP) rods provide tensile strength for the cable (Figure 1).

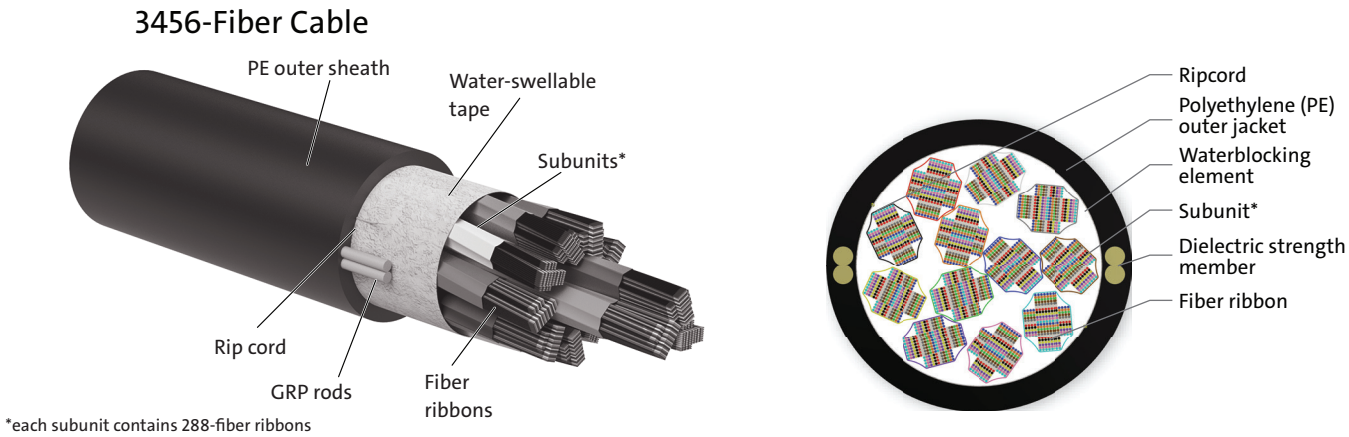


Figure 1

2. Precautions

2.1 Cable and Subunit Handling Precautions

NOTE: *Fiber optic cables and their internal subunits are sensitive to excessive pulling, bending, and crushing forces. Consult the cable specification sheet for the cable you are installing. Do not bend the cable or its subunits more sharply than the minimum recommended bend radius. Do not apply more pulling force to the cable than specified. Do not crush the cable or subunits or allow them to kink. Doing so may cause damage that can alter the transmission characteristics of the cable; the cable may have to be replaced.*

2.2 Laser Handling Precautions

WARNING

Never look directly into the end of a fiber that may be carrying laser light. Laser light can be invisible and can damage your eyes. Viewing it directly does not cause pain. The iris of the eye will not close involuntarily as when viewing a bright light. Consequently, serious damage to the retina of the eye is possible. Should accidental eye exposure to laser light be suspected, arrange for an eye examination immediately.

2.3 Safety Glasses

CAUTION

Recommend the use of safety glasses (spectacles) conforming to ANSI Z87, for eye protection from accidental injury when handling chemicals, cables or fiber. Pieces of glass fiber are very sharp and have the potential to damage the eye.

2.4 Safety Gloves

CAUTION

The wearing of cut-resistant safety gloves to protect your hands from accidental injury is strongly recommended when using sharp-bladed tools.

3. Tools and Materials

The following tools and materials are required for the cable stripping sections of this procedure:

- Gloves
- Ripley RCS-158 tool or equivalent
- Diagonal cutting pliers (Side cutters) (P/N 100300-01)
- Ribbon splitting tool (P/N RST-000)
- Straight blade utility knife
- Cable sheath knife
- Needle nose pliers
- Friction tape-wrapped screwdriver
- Scissors (P/N 100294-01)
- Tape measure (P/N 100305-01)
- Permanent marking pen (P/N 2102003-01)
- Hook blade utility knife

4. Cable-End Sheath Removal

Method A

Step 1A: Determine the proper sheath removal length for the hardware being used. Mark a point at this distance from the end of the cable with a wrap of tape (Figure 2).

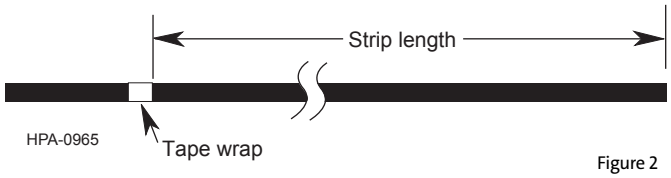
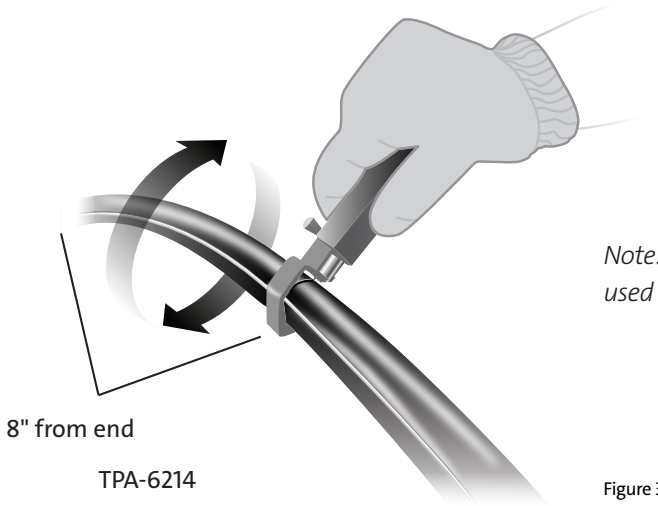


Figure 2

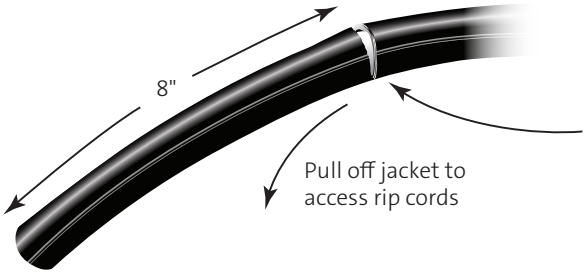
Step 2A: Position the Ripely RCS-158 tool (or equivalent) approximately eight inches from the end of the cable. Perform a ring cut through the GRP rods and jacket, rotate 3 or 4 times.



Note: A hook blade or similar knife can be used instead of the Ripley RCS-158 tool.

Figure 3

Step 3A: Flex the cable and break through the GRPs, use scissors to cut through any remaining GRP.



Note: Rip cords can also be accessed by using a small screwdriver to pull out.

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Figure 4

Alternate Method B

Step 1B: Determine the proper sheath removal length for the hardware being used. Mark a point at this distance from the end of the cable with a wrap of tape (Figure 5).

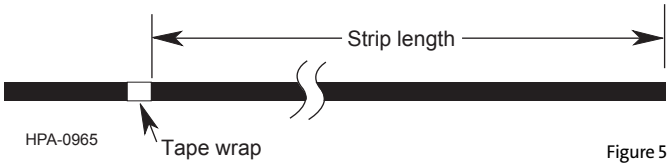

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Figure 5

Step 2B: With a straight razor blade knife, make a straight cut 6 in from the end of the cable on both sides about 90 degrees from the GRP rods.

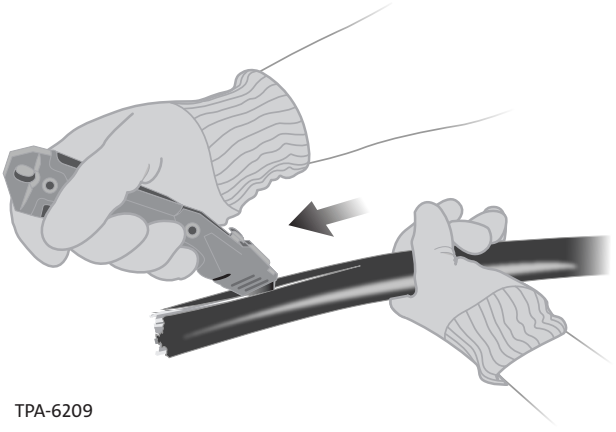

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Figure 6

Step 3B: Pry open end of cable using hands or with sheath knife or pliers to assist (Figure 7). Locate ripcords below the water-blocking tape. Place the rip cords on each side of the cable.

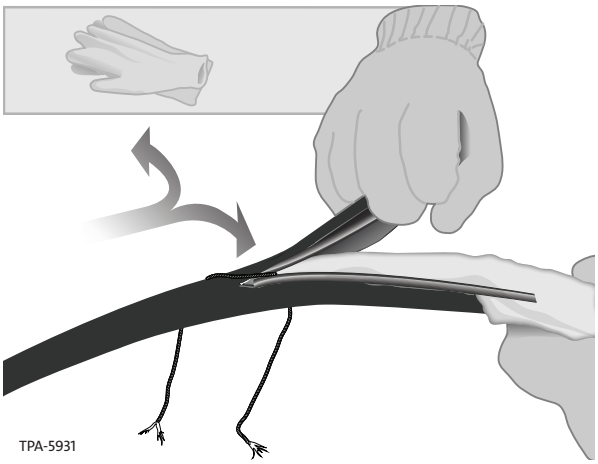


Figure 7

Alternate Method C

Step 1C: Determine the proper sheath removal length for the hardware being used. Mark a point at this distance from the end of the cable with a wrap of tape (Figure 8).

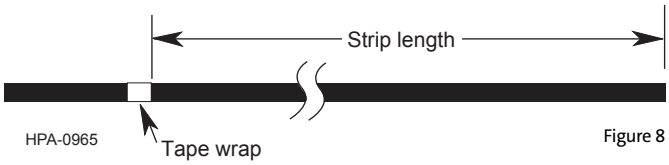


Figure 8

Step 2C: Remove jacket material directly above the GRP rods on both sides of cable with a razor knife for a total of approximately 36 in.

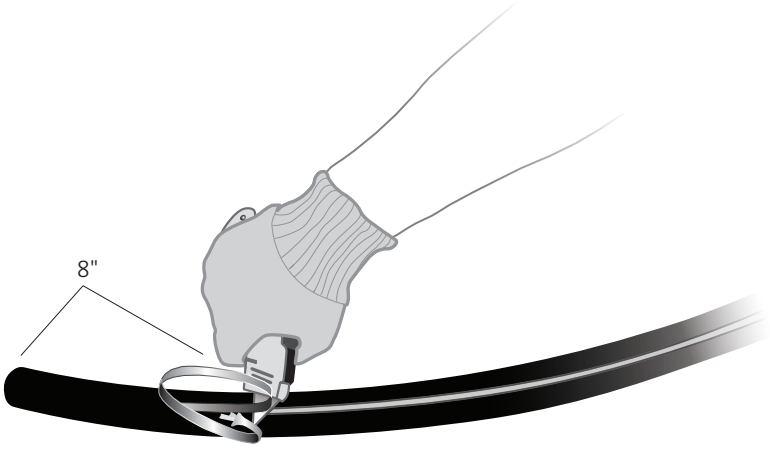
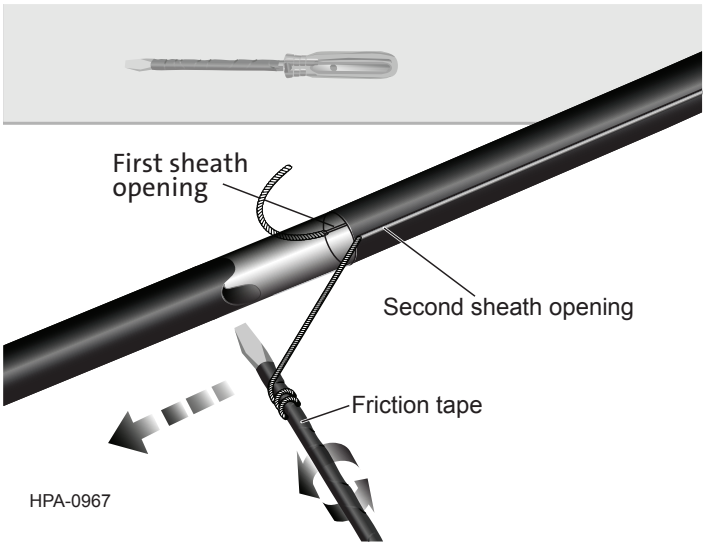


Figure 9

Step 3C: Using a screwdriver or needle nose pliers, pry open the cable jacket to access the rip cords.

Step 4: Using the friction tape wrapped shaft of a screwdriver as a handle, pull one ripcord at a time through the sheath to the wrap of tape.

Step 5: Migrate ripcord from center to adjacent of the GRP rods by pulling direction, then pull ripcord parallel and close to the GRP rods to the tape location (Figure 10).



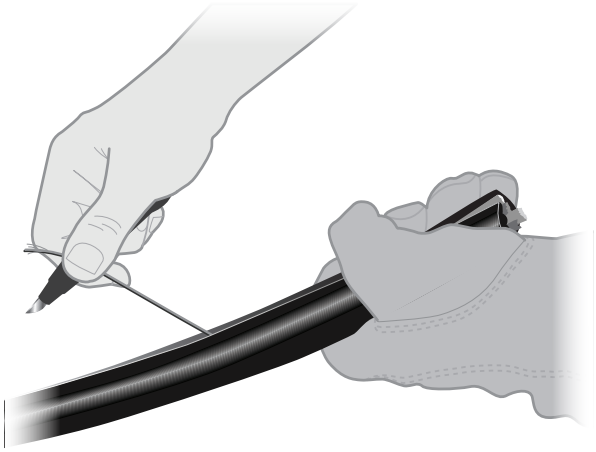


Figure 10

Step 6: Pull the outer jacket open to the tape mark. Bend the jacket back.

Step 7: After jacket is bent back, cut off the jacket and GRP rods (Figure 11). Then remove water-blocking tape with scissors.

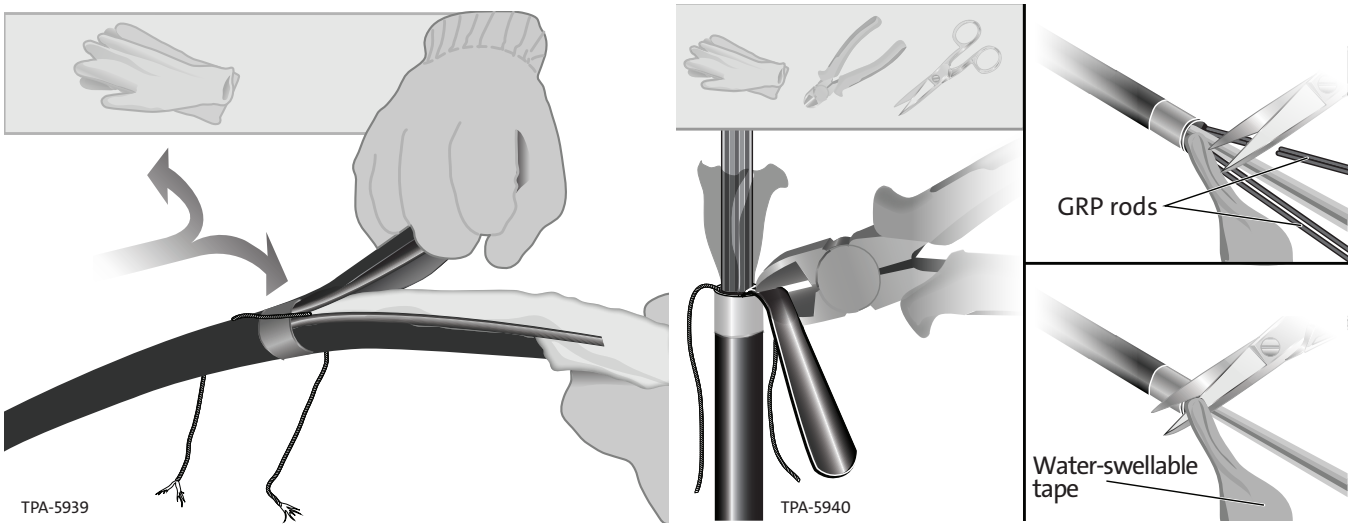


Figure 11

Step 8: Figure 12 shows the open cable with color-coded subunits.

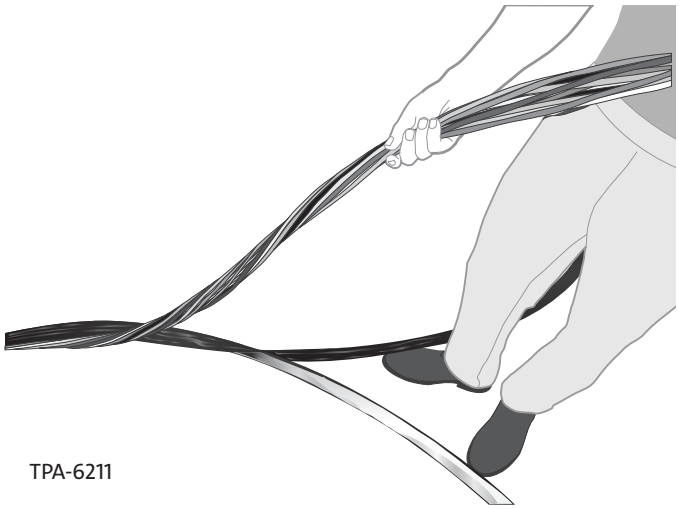


Figure 12

NOTE: *Do not install split jacket into a splice closure entry port. Always leave cable jacket intact.*

4.1 Accessing 288-Fiber Subunits

Step 1: Peel subunit with fingernail to expose ribbons (Figure 13).
Step 2: Continue to peel subunit jacket away from ribbons as indicated in Figure 14.

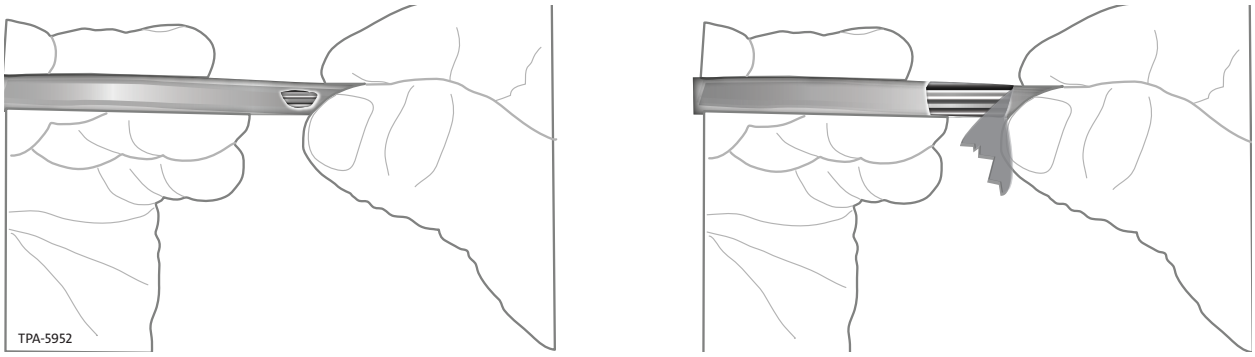


Figure 13

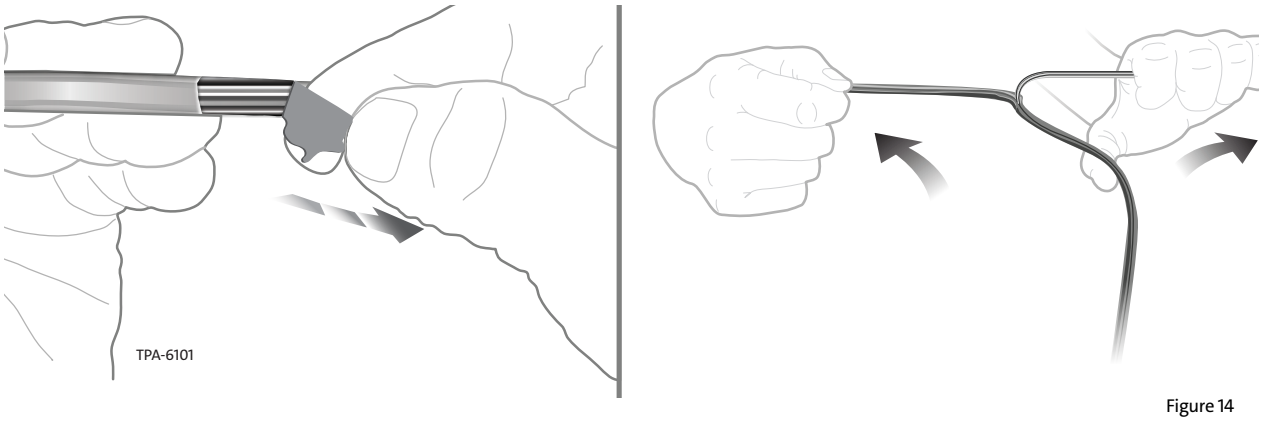


Figure 14

4.2 Accessing 24-Fiber Ribbons — 250 µm fiber only*

**If 200 µm fiber, separate ribbons by hand into 12 and 4 fiber counts. See AE Note 171.*

Step 1: Use the RST-000 ribbon splitting tool to start the split on the 24-fiber ribbon.

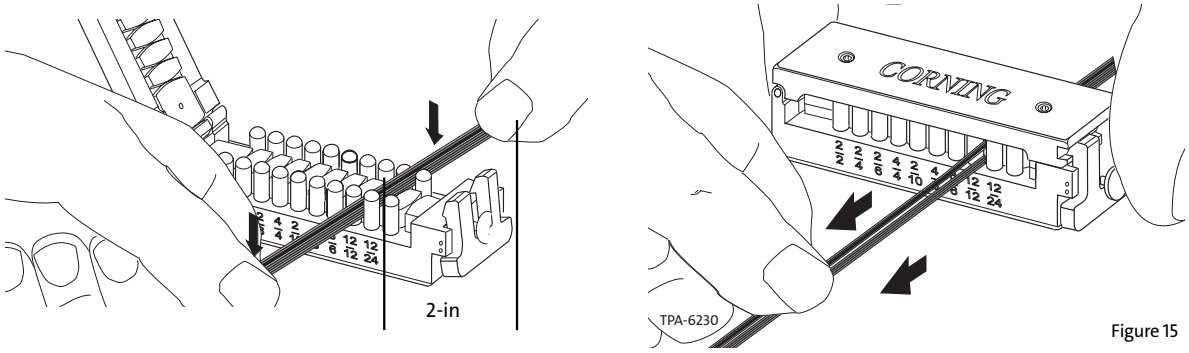


Figure 15

Step 2: Insert the ribbon into the 12/12 slot to allow 2 inches to extend out on one side (Figure 15). Close the door. Push in and hold the slider button on the end of the tool, then pull ribbon through the tool to split only 2 inches.

Step 3: Remove the ribbon from the tool.

Step 4: By hand, split the entire length of ribbon required for the application where the ribbon is being used. Alternate the direction of split every 12-18 inches until complete (Figure 16).

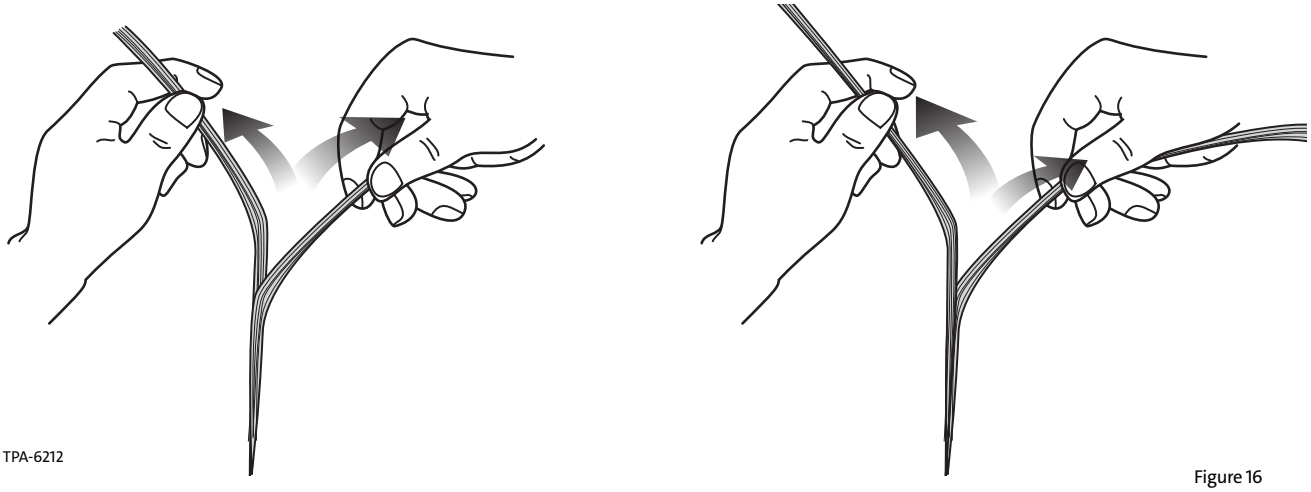


Figure 16

5. Mid-Span Access Cable Removal

Step 1: Tape both sides of cable at the applicable lengths for the mid-span access opening. Locate the center of the opening.

Step 2: Remove jacket material directly above the GRP rods on both sides of cable with a razor knife for a total of approximately 36 in.

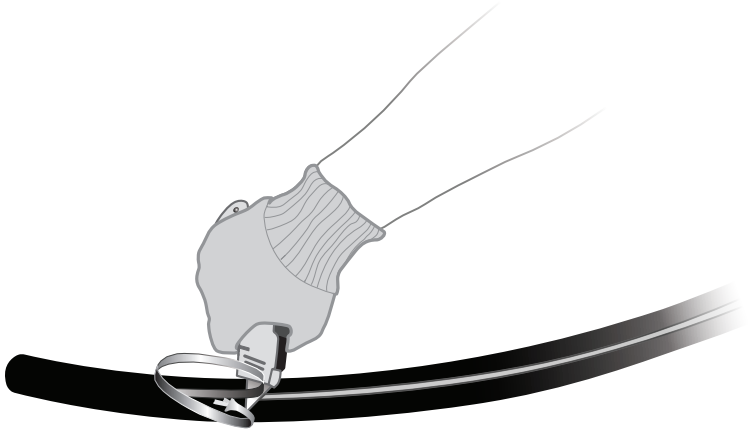


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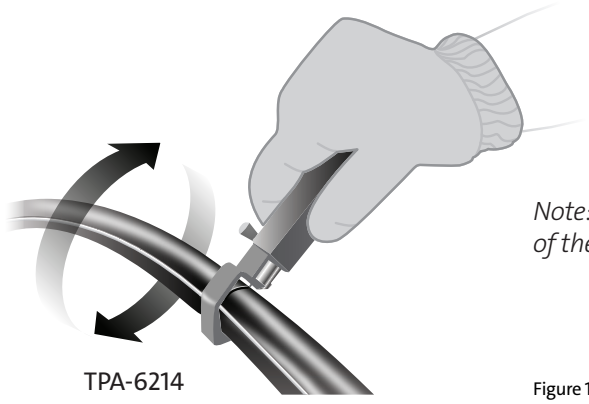
Figure 17

Step 3: Using a Ripley RCS-158 tool (or equivalent), first calibrate the blade depth of the tool by using it on the end of the cable or a scrap piece of cable. Make sure that the blade does not cut too deeply causing damage to the subunit and fibers.

Step 4: Position the Ripley RCS-158 tool (or equivalent) in the center of the area where the jacket material was removed. Perform a ring cut through the GRP rods and jacket.



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Note: A hook blade can be used instead of the Ripley RCS-158 tool.

Figure 18

Step 5: Flex the cable slightly to open a small crack for accessing inside the cable.

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Figure 19

Step 6: Use needle nose pliers to pry up one side of the jacket.

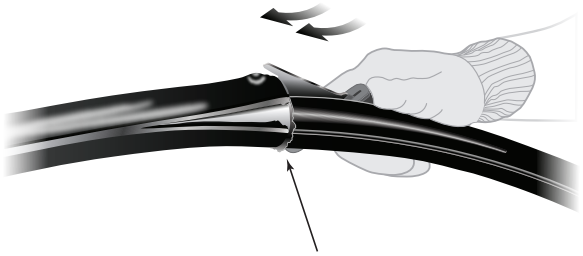

Figure 20

Step 7: Using your hand, pry off the side of the jacket started by the pliers.

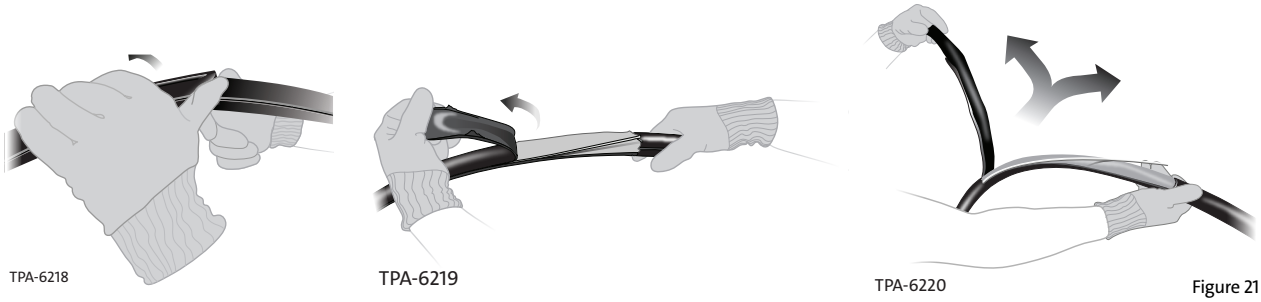

Figure 21

Step 8: Continue to remove the jacket on the opposite side by hand. Both ripcords should now be exposed.

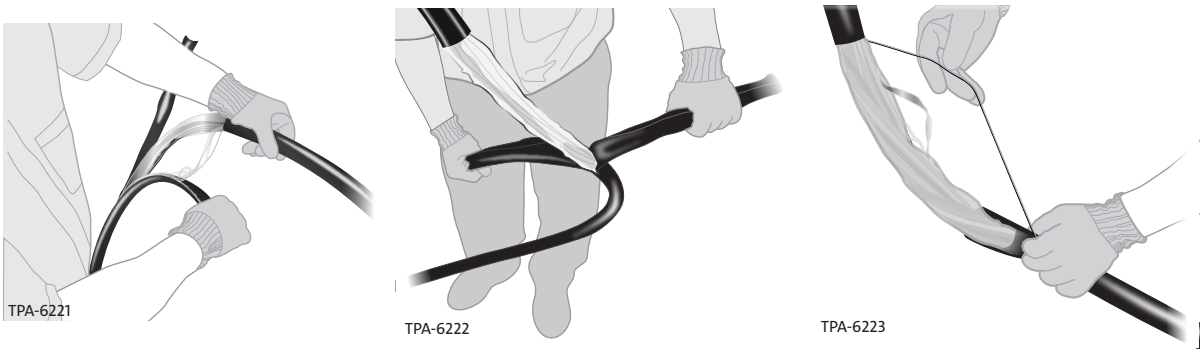

Figure 22

Step 9: Remove the peeled back portion of the water-packing tape, GRP rods, and jacket to create a window to access the ripcords. Cut the two ripcords in half to allow both sides of the cable to be accessed by pulling the ripcords.

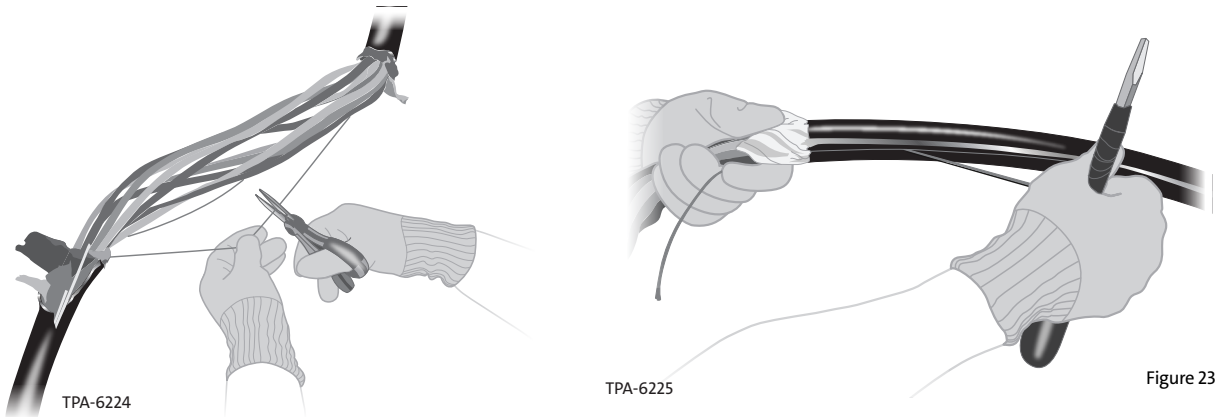

Figure 23

Step 10: Pull ripcords to the tape locations on both sides of the access point and open the cable.

Figure 24

Step 11: Remove remaining jackets and water-blocking tape to the tape locations with side cutters and scissors. Mid-span opening is completed.

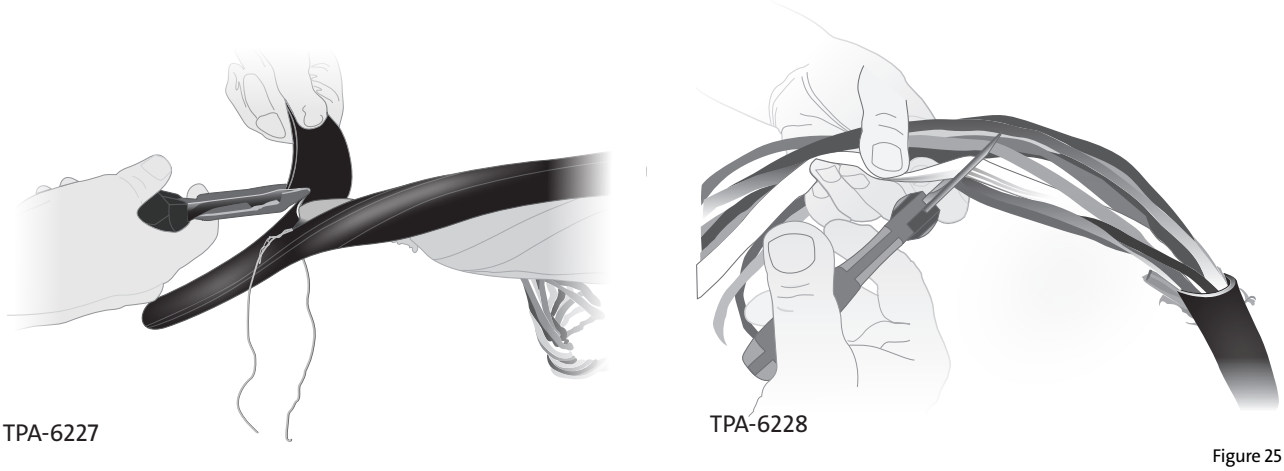

Figure 25

NOTES:

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