OCTOBER 1990

FIBERLIGN®
FIBER OPTIC SPLICE ORGANIZER

(FOR 4" SPLICE CASE)

Be sure to read and completely understand this procedure before applying product. Be sure to select the proper PREFORMED™ product before application.

CONTENTS PAGE

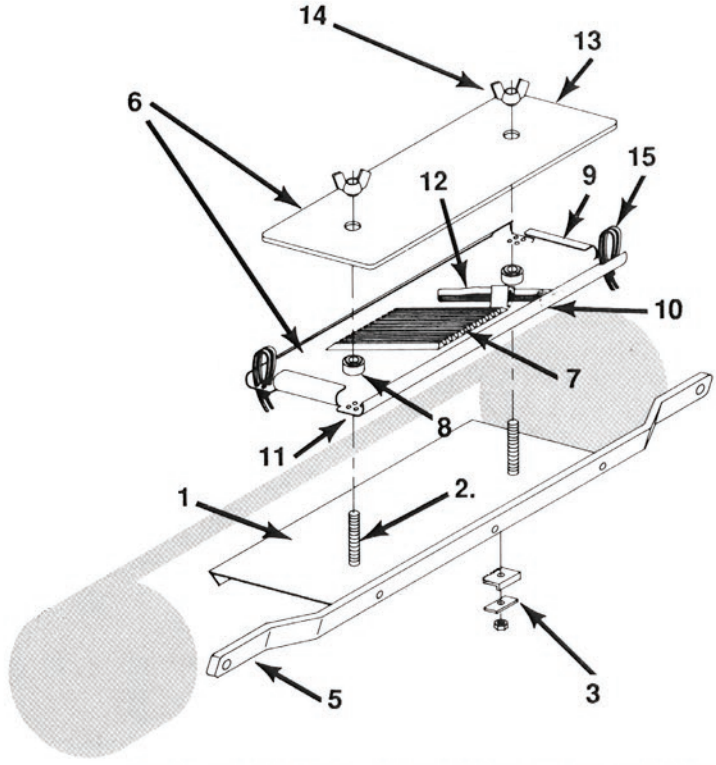

FIGURE 1- MAINFRAME ASSEMBLY (8000193)

1.00 NOMENCLATURE

1. Mainframe Assembly
2. Stud (2)
3. Strength Member Clamp
4. Velcro Hook Tape (Not Shown)
5. Torque Bar
6. Splice Tray Assembly
7. Grooved Splice Block
8. Spacer (2)
9. Splice Tray End Retainer
10. Splice Tray Side Retainer
11. Cable Tie Hole Sets
12. Felt Adhesive Strips
13. Snap-on-Lid (1 per tray)
14. Wing Nuts (2)
15. Tie Wraps (4)

SPLICE TRAY ASSEMBLY OPTIONS	
CATALOG NUMBER	DESCRIPTION
8000192	for protected fusion or mechanical splices (up to 12)
8000182	for unprotected fusion splices (up to 12)
8001051	for Rotary splices (up to 12)
8001050	for Fibrlok* splices (up to 12)

*Fibrlok is a trademark of 3M Company

2.00 DESCRIPTION

2.01 This Preformed Line Products' FIBERLIGN® Fiber Optic Organizer is designed to help organize the delicate optical fibers, facilitate the splicing operation and store the surplus fiber. It is recommended for use with the 4" FIBERLIGN Splice Case, and will accommodate three Splice Tray Assemblies.

2.02 For Safety Considerations, refer to the end of this application procedure .

3.00 DRILLING END PLATE

3.01 Measure each cable at the location the End Plates will be applied using the Fiber Optic Measure Tape included with the FIBERLIGN Splice Case.

3.02 To use the Fiber Optic Measure Tape, hold the tape so the index line is facing you. Then wrap the tape around the cable to obtain the reference number (see Figure 2).

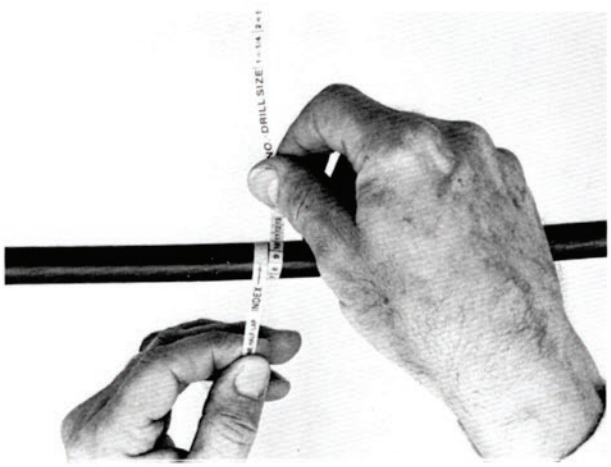

FIGURE 2

If the index line falls on a line between two numbers, use the number to the right of the line, Figure 3.

PLP® FIBER OPTIC MEASURE TAPE

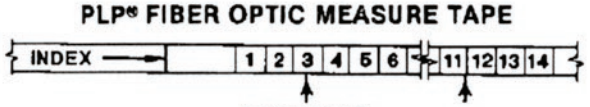

FIGURE 3

Once you have obtained the cable diameter reference number, use the drill size table to the right of the tape and locate the drill size.

If using the Blade Kit with A-Z blades, use CABLE Mea-SURE™ Tape and select proper blade size.

3.03 Drill End Plates in accordance with Section 6 of the Application Procedure provided with the FIBERLIGN Splice Case.

PLP® TIP: If a Power End Plate Cutter is not available, then a drill press or some other method of keeping the drill bit vertical must be used.

4.00 PREPARATION OF FIBER OPTIC CABLE

4.01 Measure and mark the cables to remove a minimum 108" of sheath.

4.02 Scuff the cable for a length of 6" where the End Plate is to be placed. Use the emery cloth provided. Always scuff around the cable, never scuff lengthwise. Make sure all deep grooves are removed.

4.03 Cover the scuffed area with vinyl tape (the vinyl tape is applied to prevent any filling compound from getting onto the sheath during the cable opening procedure).

4.04 Remove the cable sheath to the cable opening mark. Remove any other coverings to expose the buffer tubes.

4.05 Cut the cable central strength member, leaving a minimum length of 6".

4.06 Thoroughly remove all filling compound from the buffer tubes and central strength member using your company's standard procedures.

5.00 APPLICATION OF 3/4" LOCK-TAPE™ SEALANT TO CABLE

5.02 Remove the vinyl tape from the scuffed area of the cable.

5.02 Coat the scuffed area of the cable with C-Cement and allow to dry to a tacky base.

5.03 Half-lap 3/4" LOCK-TAPE™ Sealant around the cable (black side up) in area of cable coated with C-Cement. Stretch tape enough to reduce its width to 1/2" while applying (Figure 4). Be sure to remove backing from white side while applying tape. Figure 5 shows the completed application of one half-lap of LOCK-TAPE Sealant.

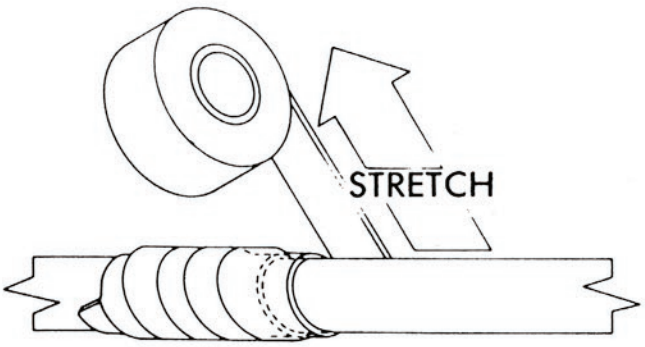

FIGURE 4

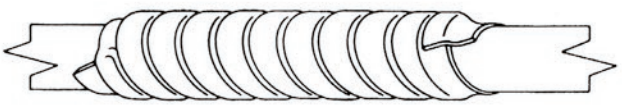

FIGURE 5

6.00 END PLATE ASSEMBLY

6.01 Prepare the drilled End Plate and install it on the cable in accordance with Section 9 of the Application Procedure provided with the FIBERLIGN Splice Case.

6.02 For butt splices, be sure to seal the opposing End Plate by sandwiching two layers of LOCK-TAPE™ Sealant between the End Plate halves.

7.00 ORGANIZER MAINFRAME ASSEMBLY

7.01 Secure the Torque Bar of the Mainframe Assembly to the End Plates with the bolts provided. For butt splices, be sure the Mainframe Assembly is positioned so the Strength Member Clamp (on the underside) is nearest the cable entry End Plate.

7.02 Clamp the cable central strength members between the base and the pressure plate of the Strength Member Clamp (one central strength member on either side of stud).

8.00 FIBER SPLICING & SPLICE TRAY ASSEMBLY

8.01 Remove 48" of buffer tube from the fibers, and thoroughly remove all filling compound from the fibers.

8.02 "Squeaky" clean the buffer tube of any compound for a width of 2 inches in from the fiber. With the ends of the buffer tubes held evenly, wrap two layers of felt tape around each buffer tube, Figure 6.

FIGURE 6

8.03 Lay the buffer tubes onto the tray so the felt taped area will stay within the tie wraps. Securely tighten the tie wraps to hold each buffer tube to the tray, Figure 7.

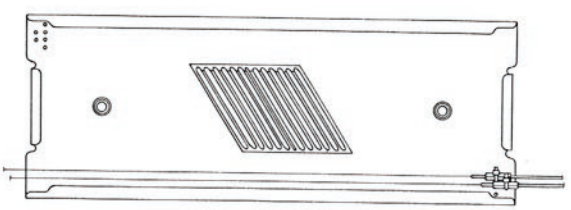

FIGURE 7

8.04 Select the fibers from one direction of transmission and route them around the tray (under the retainer lips) until the fibers have made one-and-a-half loops in the tray, Figure 8.

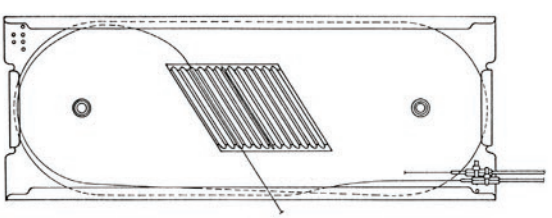

FIGURE 8

8.05 Select the fibers from the opposite direction of transmission and route them around the tray, until the fibers have made one complete loop, Figure 9.

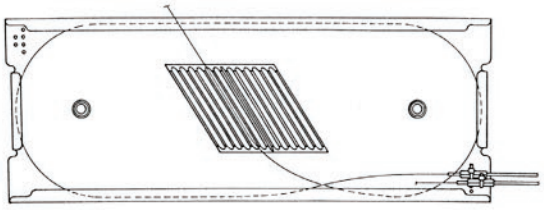

FIGURE 9

8.06 Splice the fibers according to your accepted company practices.

8.07 Position each splice into the grooved splice block. Use a small amount of RTV sealant (if required) to secure the splice in place. Secure the fiber slack inside the splice tray with the felt adhesive strips, Figure 10.

PLP® TIP: As an alternative, a length of felt adhesive strip over the splices can be used to secure the splices in place.

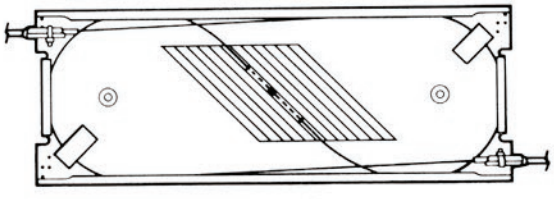

FIGURE 10

PLP TIP: If removal or re-application of the felt adhesive strips is necessary, remove them at 45° angles as shown (Fig. 11). This lessens the chance that the fiber will be pulled out with the strip.

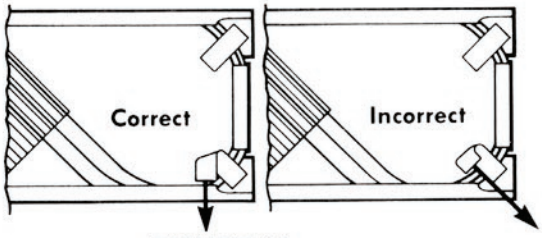

FIGURE 11

8.08 Snap on the tray cover. Loop the excess buffer tubes under the Mainframe Assembly, making one-and-a-half loops. Position the buffer tubes under the folded lips of the Mainframe Assembly, maintaining at least a 1-3/4" bending radius. Hold buffer tubes in place with velcro hook tape.

8.09 Secure the Splice Tray Assembly(s) to the Mainframe studs with the wing nuts.

9.00 SPLICE CASE SHELL ASSEMBLY

9.01 Install the Splice Case shells and LOCKBAR™ Fastening in accordance with Section 10 of the Application Procedure provided with the FIBERLIGN Splice Case.

PLP TIP: Be sure to install the Aerial Suspension Plates to the back LOCKBAR Fastener prior to final assembly.

10.00 SAFETY CONSIDERATIONS

1. This application procedure is not intended to supersede any company construction or safety standards. This procedure is offered only to illustrate safe application for the individual. Failure to follow these procedures may result in personal injury.

2. When working in the area of energized lines, extra care should be taken to prevent accidental electrical contact.

3. For proper performance and personal safety, be sure to select the proper size PREFORMED Products before application.

4. This product is intended for use by trained craftspeople only. This product should not be used by anyone who is not familiar with, and not trained to use it.