
**THE SB01 SPLICE ENCLOSURE NOW
INCLUDES A LID GASKET THAT DOES
NOT REQUIRE RTV APPLICATION.**

**DO NOT APPLY RTV TO THE GASKET
WHEN SEALING THE SB01 SPLICE
ENCLOSURE.**

SEE [SEALING THE SPLICE BOX](#)

[SECTION 10](#)

FOR UPDATED INSTRUCTIONS.

Instructions for Preparing ALUMACORE OPTICAL GROUND WIRE IN THE SB01 SPLICE ENCLOSURE

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List of Materials

ITEM	DESCRIPTION	QTY
1	Splice Box (consisting of the following):	
	Splice Box Body	1
	CSM Termination Eye Bolt	2 or 4
	Center Shaft	1
	Cover Gasket	1
	Connector Assemblies (consisting of the following items for 1 connector):	2 or 4
	Connector Body	1
	Cable Retainer	1
	Nut Retainer	1
	Entry Bushing	1
	Set Screw – 5/16 – 18 UNC	2
	O-Ring	1
2	Organizer Tray Assembly (consisting of the following items for 1 tray):	2 to 8
	Tray	1
	Cover	1
	Splice Protector Holders (6 Splices / Holder)	2
	Manifold (MCI Tray Only)	1
3	Splice Box Cover	1
4	RTV – 108 Adhesive	1
5	Spanner Nut or Hex Nut	1
6	O-Ring or Self-Sealing Washer	1
7	Retaining Rings	2
8	Tension Screw	0 to 4
9	Tension Nut	0 to 4
10	Humi – Sorb	1
11	Range-Taking Flanged Sleeve (used with FRP strength member)	0 to 4
12	Mounting Plate	1
13	Slotted Sleeve (used with OPT/GW FRP strength member)	0 to 4
14	Spacer	1
15	Splice Protector Sleeves	10 to 56

Remove all loose parts, top retaining ring, spacer, mounting plate with tray assemblies from the box. Confirm all parts are present (see List of Materials above), then place in a convenient location.

Please see supplemental instruction sheet for ST1-72 Tray installation instructions.

Items Supplied by Customer:

- Lag screws and washers (1/2 in. dia.) or hardware for attachment of assembly to pole or tower
- Silicone sealant for splice protection
- Splicer equipment

1.0 Purpose of Installation

The purpose of installing an Optical Ground Wire (OPGW) into a splice box is to connect one OPGW to another, and protect the connection in a sealed enclosure.

2.0 Scope

This document describes and illustrates the installation of Optical Ground Wire into the AFL SB01 splice box. This Splice Box has the following advantages:

1. Capable of storing 25 to 40 feet of optical units per cable inside of the splice box for immediate or future splicing.
2. The SB01 splice box can be pre-mounted because of its internal unit storage capacity. Typically the Splice Box is mounted to the pole or tower 15 to 25 ft. (4.5 to 7.6 meters) from the ground.
3. Creates a neater installation of the routing of the OPGW cables into the SB01 splice box. This eliminates the necessity of coiling extra OPGW cable onto the pole or tower.

3.0 Precautions

3.1 Health

Optical fibers are very thin, fragile and sharp. Therefore, careful handling is required to avoid either damage to the delicate glass fibers, or more importantly, injury to the technician or bystander. Small fiber scraps should be deposited on strips of adhesive tape, placed in a bottle or vinyl bag and properly disposed. Do not eat, or drink when working with optical fibers as small pieces of glass may inadvertently be ingested. Never look directly at the end of a fiber unless certain that no Laser Light is being transmitted through the fiber.

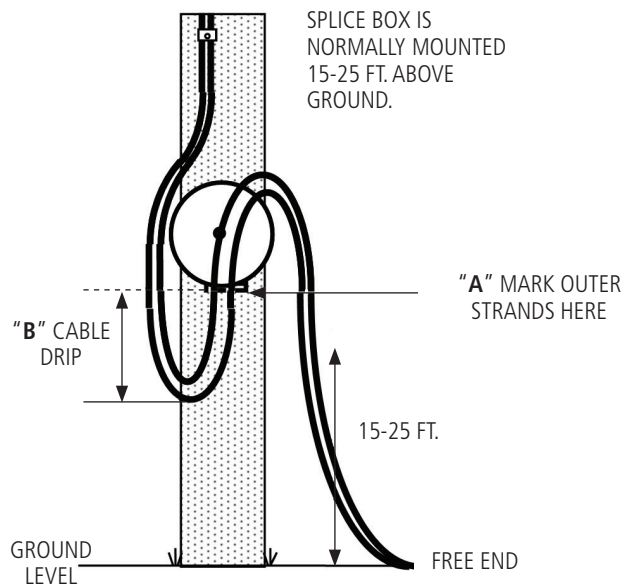
3.2 Work Environment

Handle optical fiber and fiber cable carefully, taking care to impose no damage by physical shock or sharp bends. During the actual splicing, care must be taken to keep hands and work area clean in order that the fibers may be kept clean. Dirty fibers mean poor splices! Keep all tools and equipment in their proper cases or storage pouches when not in use. Consideration should be given to the work area in which the Isolator will be organized. A clean, snag free horizontal surface is necessary.

4.0 Cable Preparation

- 4.1 After the stringing procedure, the ends of the optical unit(s) must be located. It is recommended that this occur prior to the cable being cut free from the payoff to ensure proper length remains for splicing. In some OPGW designs there could be some pull back of the optical unit(s) during the stringing installation. "Pullback" is a term used when the optical unit(s) or core appears to migrate inside the pipe due to elongation of the metallic components during the stringing procedure. When this happens, the core must be located so that the proper amount of optical unit(s) is available for the installation. Cut back 3-5 feet at a time until the optical unit(s) is found.
- 4.2 Form the OPGW cables into drip loops where they will enter the splice box. Mark the individual cables at these points. These Marks will be referenced as mark "A". Mark "A" is eventually where the outer strands of the OPGW cables will enter the splice box. The diameter of the drip loops should be 30 x the Diameter of the OPGW or not less than 15 inches for a cable that is less than or equal to 0.5 inches in diameter (See Fig. 1).

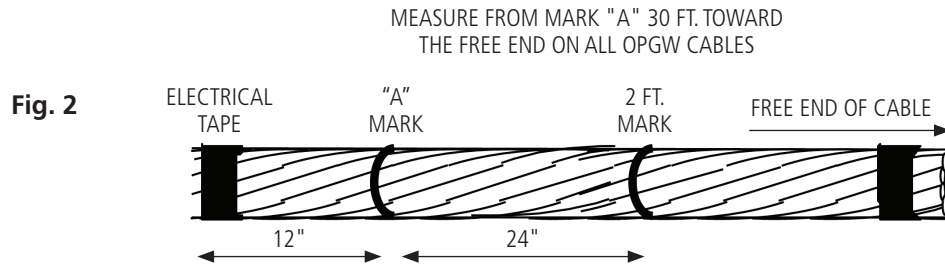
Fig. 1



- 4.3 Measure 30 feet from each individual OPGW cable mark "A" toward the Free End. Mark and cut the cables at this point. This will give 30 feet of optical units for splicing. Unlay the wire strands from the free end about 1 foot back. Score the pipe with a tubing cutter. Do not cut completely through the pipe. Gently flex the pipe until it breaks. Cut the optical units between the sections of pipe that have been separated. This step is necessary so that the optical unit(s) will be able to move freely within the pipe when the pipe is removed.

NOTE: These measurements are based on the splice box being mounted 20 feet on the structure.

- 4.4** Apply electrical tape 12 inches behind mark "A" (See Fig. 2), THEN PREPARE THE OPGW CABLES ONE AT A TIME. Starting at steps 4.1 to 4.3. Cut the outer strands at the 2-foot mark, which is 24 inches from the "A" mark. Be careful not to damage or cut the pipe.



NOTE: A tie-wrap can be used in place of electrical tape.

- 4.5** Once all of the marks have been established, insert a screwdriver in between the outer strands at the two-foot mark on one of the OPGW cables being careful not to dent the pipe with screwdriver. Pry up one strand at a time and cut it. Then unlay the strand back to the electrical tape. Cut each strand at the Mark "A" (See Fig. 3a and 3b).

Fig. 3a

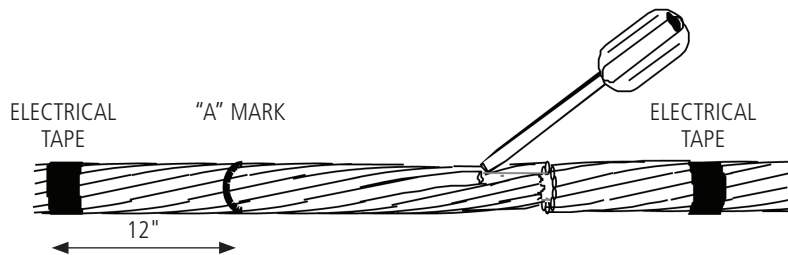
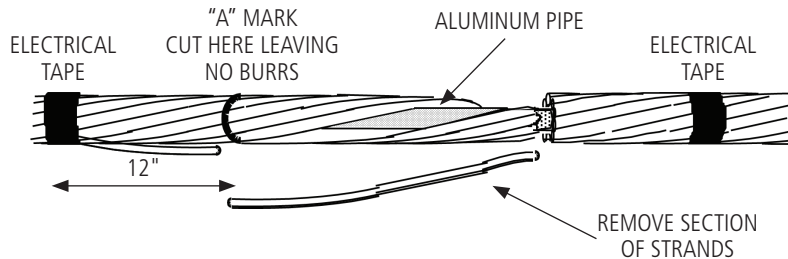
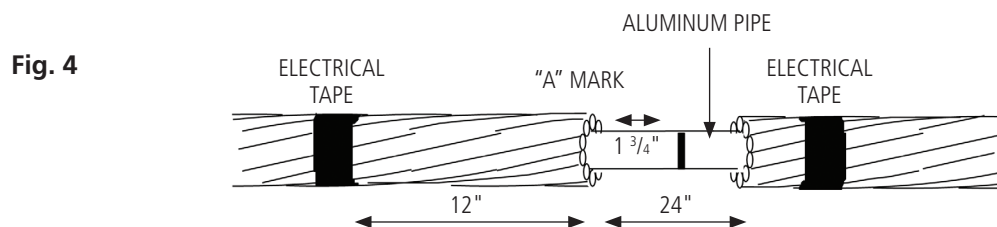


Fig. 3b

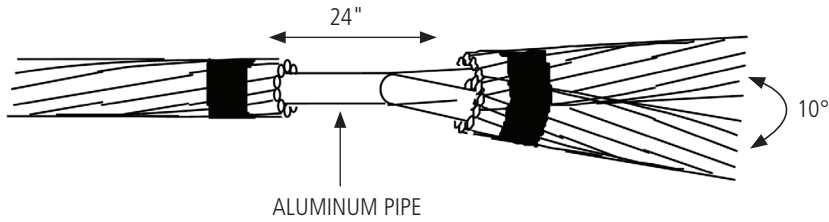


- 4.6** Measure $1\frac{3}{4}$ inches from the "A" mark. Using a felt marker pen, make a mark on the aluminum pipe. Then score the aluminum pipe with small pipe cutter. Try 2 or 3 rotational passes around the pipe first. Then try to bend the pipe back and forth. If the pipe does not move easily, try a few more passes. Do not score too deeply or completely through the pipe. If unsure, cut a small piece of pipe, 2 feet from the free end of the cable and practice cutting the pipe. The number of rotational passes can vary depending on the pipe size and design of the cable (See Fig. 4).



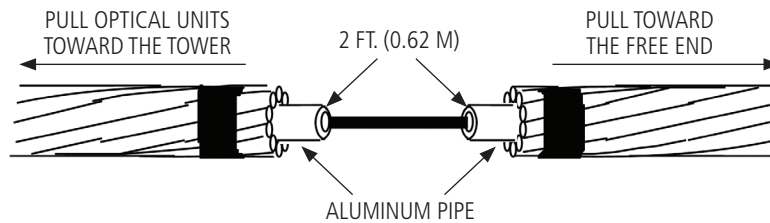
4.7 The pipe may now be broken by bending it back and forth gently and by not more than 10 degrees (See Fig. 5).

Fig. 5



4.8 Slide the outer strands with pipe intact about 2 feet toward the free end of the cable. While holding the cable pull the optical units completely out of the pipe by pulling toward the tower. Be careful not to kink the optical unit(s) (See Fig. 6).

Fig. 6



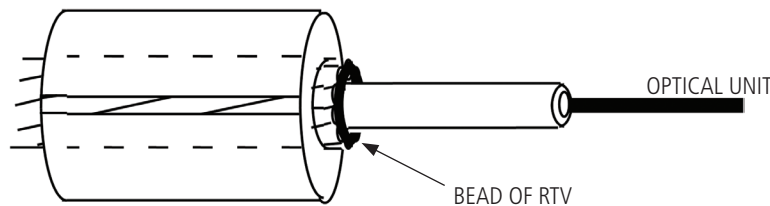
4.9 Immediately tape the end of the optical units when the end clears the aluminum pipe. This will hold the core intact for ease in performing the next steps.

5.0 Cable to Splice Box Preparation

The section will explain how to install the cable into the splice box. This should be performed when the individual OPGW cable has been properly prepared.

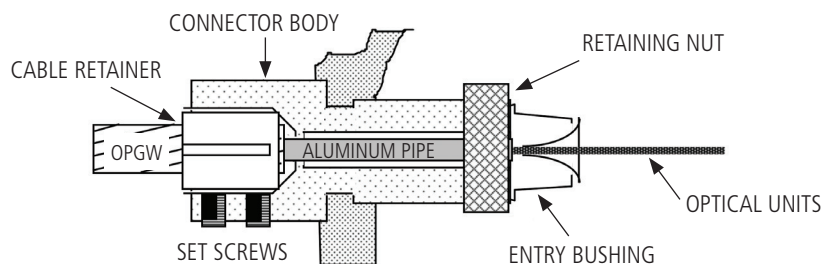
5.1 After the individual OPGW end has been prepared slide the cable retainer over the optical unit(s) and over all outer-strands of wires. Then place a bead of RTV silicone on the wire tips and around the pipe (See Fig. 7).

Fig. 7



5.2 Below (See Fig. 8) is a cross-section of the cable connection inside the splice box plus a three-step procedure for securing the cable to the splice box. Do not unwrap the binder tape and expose the yarn and unit(s) at this time. (**NOTE:** Use the ports on the right side of the splice box first, when two cables are being spliced.)

Fig. 8

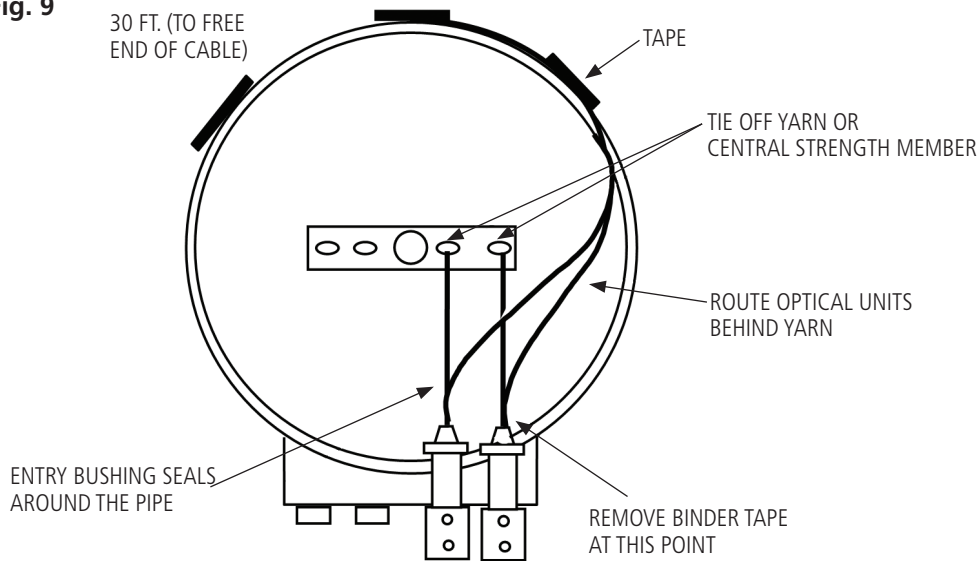


- 5.3 Feed the optical units from the OPGW cable through the connector body and entry bushing. Route the optical unit(s) so that they lay on the center shaft of the splice box during the feeding process. This will keep the optical unit(s) from kinking.
- 5.4 After all of the unit(s) have been fed into the enclosure, insert the OPGW cable with the cable retainer into the connector body of the splice box. Make sure that the cable retainer is aligned properly and inserted completely. Tighten setscrews.
- 5.5 Each of the fiber unit(s) should be supported and attached with tape to the outer diameter of the splice enclosure (See Fig. 9) as soon as the OPGW cable has been secured into the connector body. This will secure the optical unit(s) to the splice box and prevent them from kinking.
- 5.6 If a Dielectric Cable is being spliced, the connector body may have a conduit fitting attached to it. To verify that the cable retainer on the dielectric cable has been aligned properly, remove the top Allen (hex socket head) screw and visually align and tighten setscrews. This type of Splice Box configuration (OPGW spliced to a dielectric cable) should be located on the TAKE-OFF structures or designated splice locations where this type of splice box applies.
- 5.7 Repeat all of the previous steps for the remaining OPGW cables that are to be installed into this particular splice location. Remember to prep only one cable at a time.

6.0 Anchoring the Optical Units

- 6.1 Place a piece of electrical tape on the individual optical units, 14 to 18 inches from the entry bushing of the splice box. Working with one optical unit at a time, cut the binder tape at this mark, on the entry bushing side. Unwrap the binder tape back to the entry bushing and cut the binder tape. Cut the yarn at the electrical tape and use the yarn to anchor the optical unit by threading the yarn through the eyebolt and tying in a series of half hitches. Make sure that the yarn is tied off in line and to the eyebolt in the proper position from where the individual OPGW cable enters the splice box. If the cable does not contain yarn, the central strength member should be anchored into the box. Repeat the previous steps for the remaining OPGW cable(s). Tape the optical units together after they have been secured to the eye-bolts (See Fig. 9).

Fig. 9



NOTE: There should be 30 ft. of optical unit(s) prepped for each individual OPGW cable that is to be inserted into the Splice Box. The 30 ft. of optical unit(s) is divided into two sections:

1. 20 ft. from box to ground, and
2. 10 ft. for storing and splicing.

Should the Splice Box be mounted at a different height, then adjust the amount of OPGW cable to be prepped, stored and spliced.

- 6.2 Temporarily tape the units to the top outside radius of the box (See Fig. 9). This will help support the units and prevent damage of the units at the bushing. Also explained in section 5.5.
- 6.3 Tighten the retaining nut so that the bushing is sealed around the pipe.
- 6.4 Tape all of the optical units together every 2 feet. Stop taping the optical units 6 feet from the free end. Tape each individual group of optical unit(s) up to 4 feet 10 inches from the free end. Remove the yarn and binder tape from the optical unit(s) along the 4 foot 10 inch section toward the free end.

7.0 Optical Unit Preparation

- 7.1 Starting at the free end of one of the OPGW cables, separate the individual colored units one at a time by unlaying them back to the 4 foot 10 inch tape mark. (This only applies to the multiple unit configurations). Now proceed to the other OPGW units and repeat the same step
- 7.2 Mark the individual colored unit(s) 4 feet from the free end with a permanent marker. In case of multiple units, pair the like colored buffer tubes together. (For example, take the blue units from each of the OPGW cables and match them up. Continue with orange to orange, green to green, etc.).

For Tight Structure Type Alumacore, follow steps **7.3 to 7.4**.
For Loose Tube Type Alumacore, follow steps **7.5 to 7.6**.
- 7.3 Place the AFL sheath stripper on one of the blue units at the 4-foot mark with the arrow on the sheath stripper pointing toward the free end. Grip down tightly and pull the sheath stripper in one continuous motion toward the free end. Remove the colored sheath.
- 7.4 Carefully remove the clear epoxy coating from the entire 4 feet by starting at the free end and peeling back. Slowly remove the fibers from the fiberglass reinforced plastic central member (FRP). Count the fibers to make sure that all the fibers are identified before proceeding. Continue separating the fibers for the remainder of the 4 feet. Cut the FRP as close as possible to the core of the optical unit without damaging any fibers. Clean and remove the silicone from all the fibers. Proceed to step **7.7**.
- 7.5 For loose tube units, using a buffer tube cutter, carefully score and snap the buffer tubes at the 4-foot mark, then gently pull the tube straight away from the fibers.
- 7.6 If the buffer tubes contain 12 fibers or less, gently wipe them with a clean towel to remove the excess gel. Then clean them with an approved gel-removing solvent. The fibers are ready to be loaded into the splice tray(s). Proceed to Step **7.7**.

If the buffer tubes contain more than 12 fibers each, follow the below instructions pertaining to the colored thread binders.

- 7.6.1 Starting at the end closest to the stainless steel tube, separate the fibers until you identify one of the colored string binders (See Fig. 10).
- 7.6.2 Lightly pull on the binder until the bundle starts to separate from the other fibers.
- 7.6.3 Once a single bundle has been identified, inspect the bundle for the matching color prior to separating the fibers from the other bundles. Once you have identified that both binders are around the same fiber group, separate the unit from the other fibers (See Fig. 11).

Fig. 10

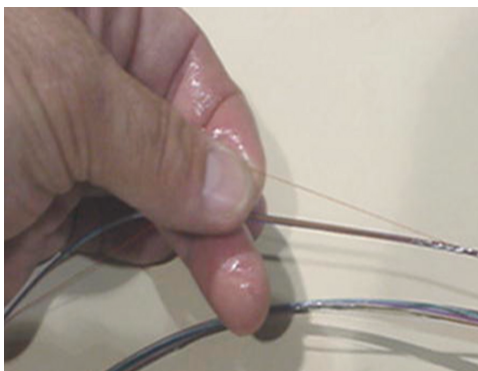


Fig. 11



7.6.4 Repeat steps 7.6.1 through 7.6.2 on each of the fiber bundles. Separate each group of bundled fibers to assure easy identification (See Fig. 12).

7.6.5 On each of the fiber bundles, confirm that the fibers meet the proper color code and specified fiber amount (See Fig. 13).

Fig. 12

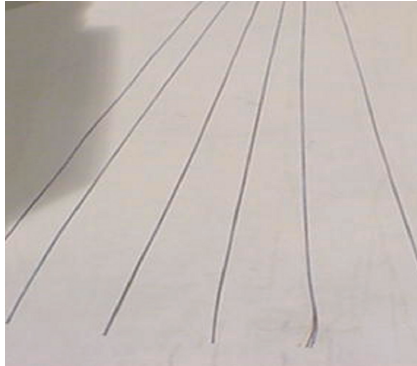
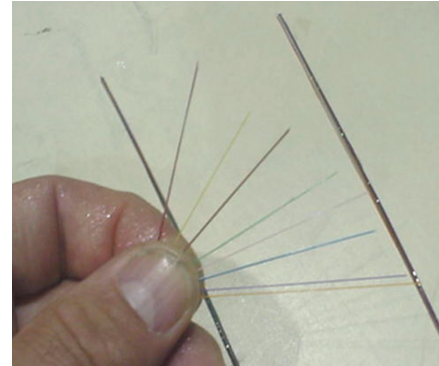


Fig. 13



7.6.6 After all of the fiber bundles have been checked, return to the fiber end closest to the buffer tube. Separate and cut both string binders approximately 12 inches from the buffer tube. Remove and dispose of the excess binder from the optical fibers (See Fig. 14). Take both remaining binders and loosely loop it through itself to form a small slipknot around the bundle they mark. Repeat this process 4 to 5 times. Cut the excess binder, approximately 1.5 inches above the knot (See Fig. 15).

Fig. 14

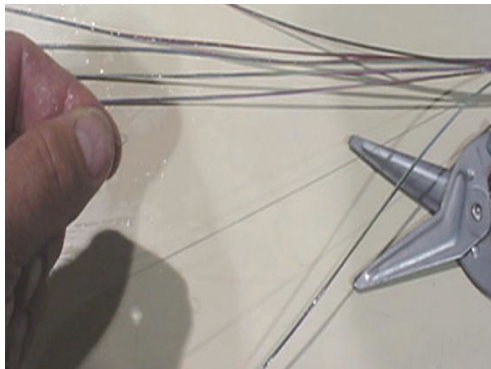
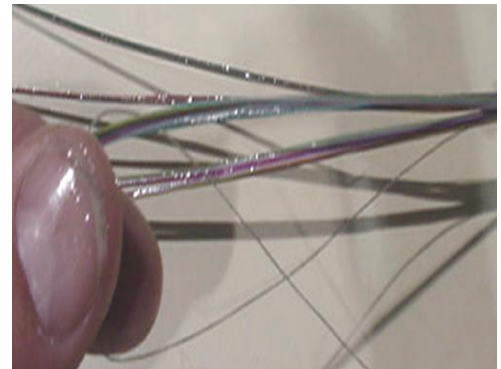


Fig. 15



7.6.7 Assure that each bundle is identifiable before continuing on to the next.

7.6.8 After all fiber bundles have been identified, clean each individual fiber group with a standard gel removal cleaner (See Figs. 16 and 17).

Fig. 16

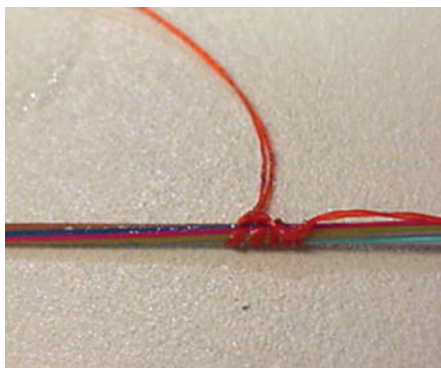
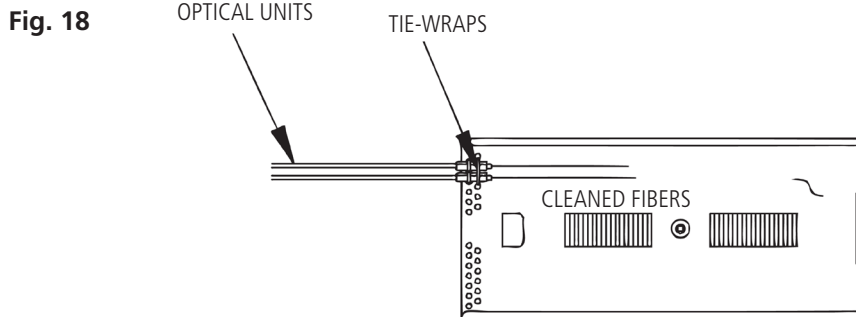


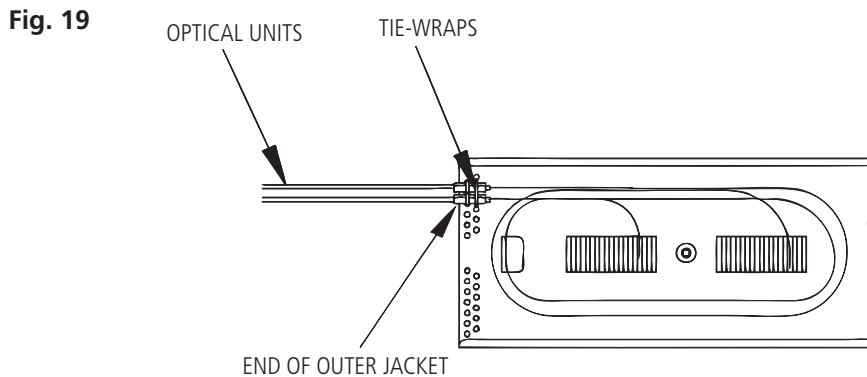
Fig. 17



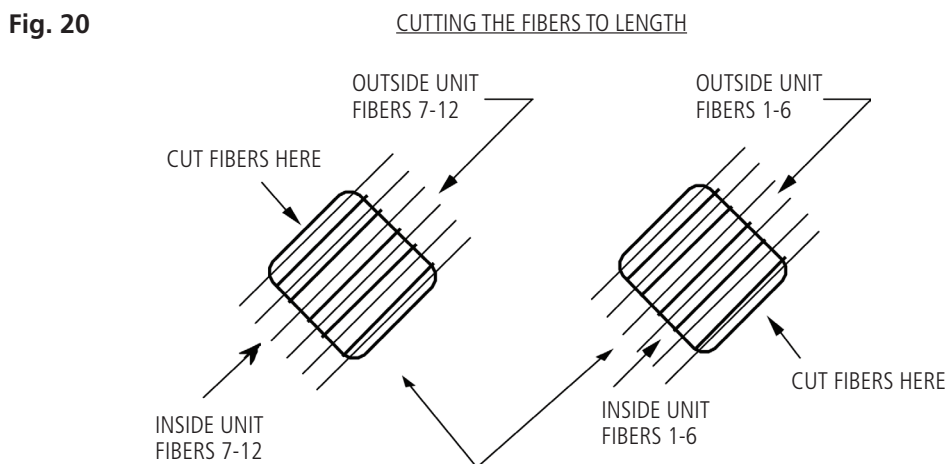
7.7 After same color optical units have been stripped, cleaned, and separated, tape the like units together by placing a piece of double-back tape ¼ inch from the end of the outer jacket material of the optical units. Place the double-back tape units onto the splice tray and secure them to the tray with tie wraps (see Fig. 18).



7.8 When cutting fibers to length, wrap the 4 feet of fibers of the inside units around the tray in a clockwise direction. Cut the fibers so that the spliced section will fit into the splice protector sleeve holders. Be sure that the fibers are cut and positioned in color code order. Prepare the outside unit in the same manner. The first six fibers will be shorter than the last six fibers in the outside unit. In the inside unit, the first six fibers will be longer than the last six fibers, based on a 12-fiber unit design. Place the cover onto the splice tray making sure that all of the fibers are wrapped inside the tray (see Fig. 19).



7.9 Prep all trays in the same manner as in detailed in Fig. 20 before any splicing is performed. (**NOTE:** The exact arrangement may vary due to fiber count configurations.)



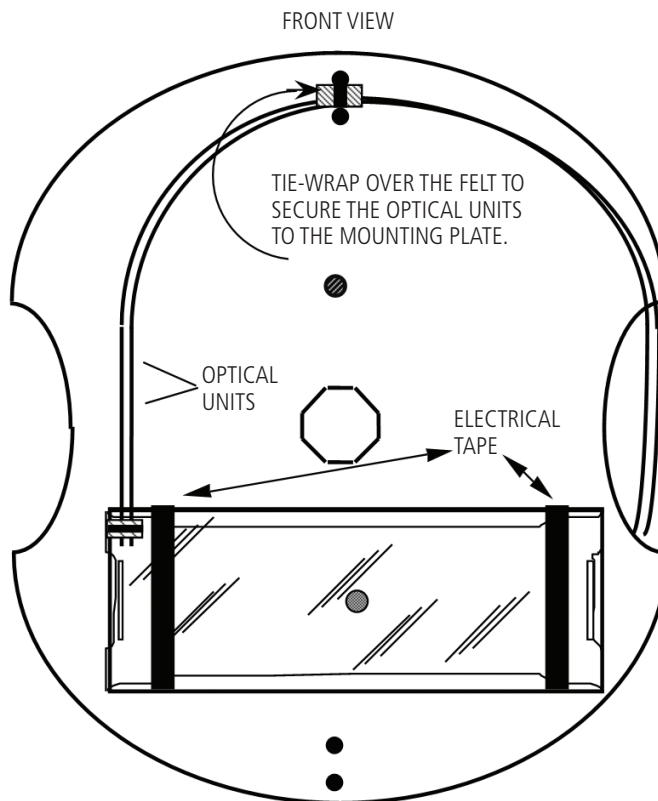
Lay the fibers across their appropriate Splice Protector Holder and cut the fibers at the mid-point of the Splice Protector Holder.

8.0 Splicing Fibers

When splicing, follow these steps:

- 8.1 Splicing will be easier if the splice tray is level with the top of the splicer.
- 8.2 Lay out only enough fiber to cleave and place into the splicer.
- 8.3 Slide one splice protector sleeve over each of the fibers before making splices.
- 8.4 After splicing is completed and the splicing technician has accepted the splice, slide the splice protector over the spliced area and place in the tube heater. Once the splice protector has cooled and has become rigid, place and center it into splice protector holder in the tray.
- 8.5 After all of the fibers have been spliced, protected and positioned, make sure that all fibers are stored on the inside of the splice tray. Place the splice tray cover onto the splice tray. Secure the splice tray cover to the splice tray by wrapping both ends of the splice tray with electrical tape (See Fig. 20a).
- 8.6 If multiple splice trays are required, work only with one splice tray at a time.
- 8.7 Place the splice tray(s) on the mounting plate bolt. If multiple splice trays are present, be sure to stack all splice tray(s) on the same side of the mounting plate. Place the tension nut on the bolt and tighten it down snug. This will keep the splice tray(s) secured to the mounting plate.

Fig. 20a



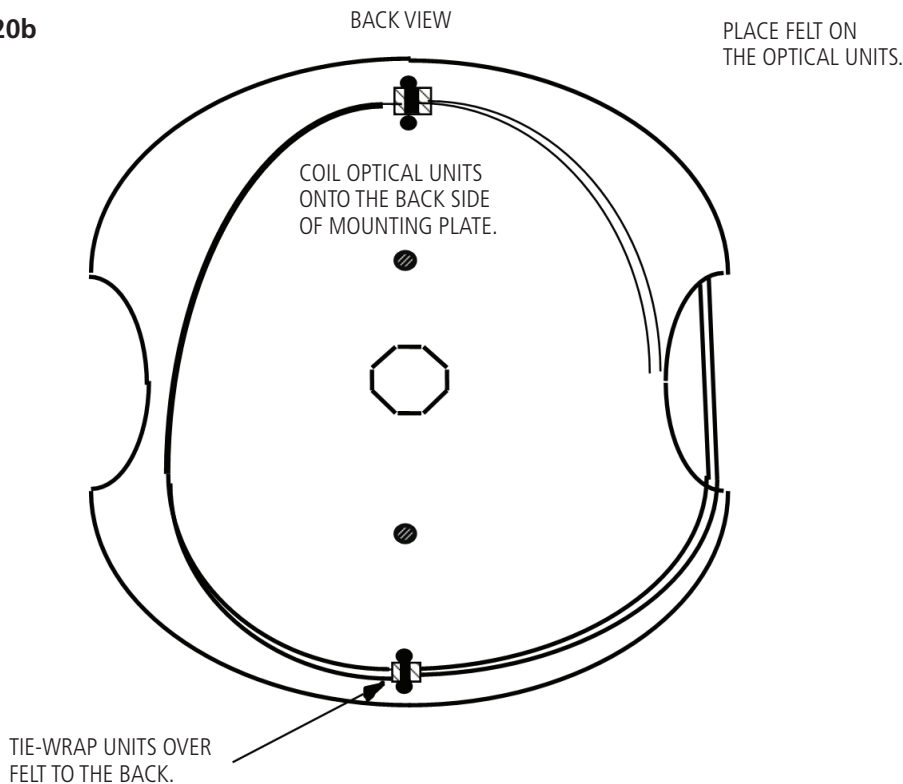
- 8.8 Place felt around the mylar tape on both units and tie-wrap as shown in Fig. 20a above.

9.0 Installing Mounting Plate to Splice Box

- 9.1 Using felt around the mylar tape, secure the optical units to the back side of the mounting plate. Tie-wrap the optical units (snug) as shown in Fig. 20b.
- 9.2 Coil the optical units in a counter-clockwise direction on to the back side of the mounting plate. Coil just enough of the optical units so that the mounting plate would lie on the ground. (The reason for this is to prevent a tremendous mechanical shock to the optical units in the event that the technician drops the mounting plate while coiling the optical units as he climbs the tower.)
- 9.3 After coiling as much of the optical units (while on the ground tie-wrap the units snug, but not too tight), continue to coil the optical units around the back side of the mounting plate about 1 inch from the edge until the splice box has been reached. Remove the temporary tape from the top front rim of the splice box. Proceed to coil the small section of optical units in a counter-clockwise direction and by aligning and positioning the mounting plate to the center shaft.

NOTE: Coiling the optical units should be done by rotating the mounting plate. This avoids twisting and stressing the fiber units (See Back View, below).

Fig. 20b



- 9.4 When all of the slack is coiled and stored behind the mounting plate, align the mounting plate and secure it to the center shaft by placing the spacer on the center shaft, and installing the outside retaining "clip" ring. (See Fig. 21a on following page.)

Fig. 21a

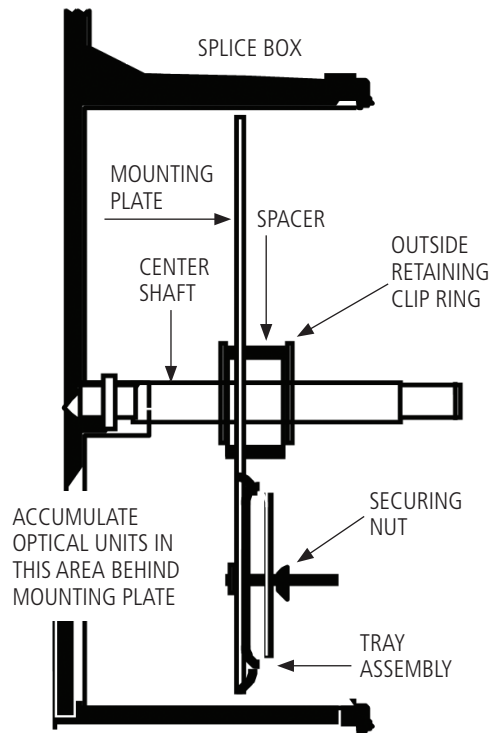
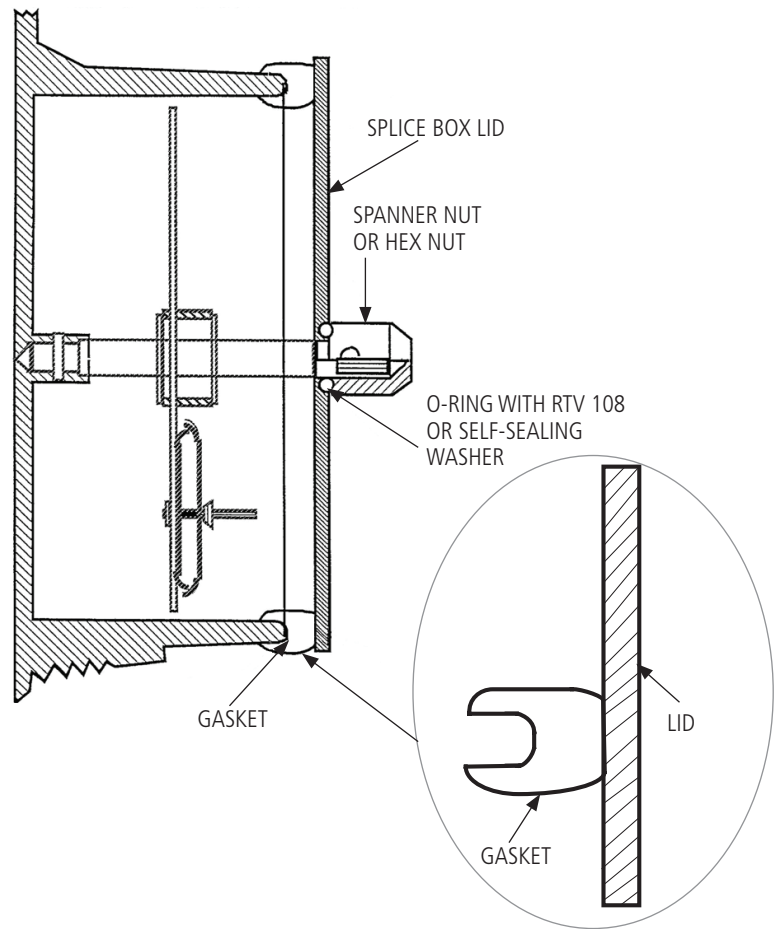


Fig. 21b



10.0 Sealing the Splice Box

- 10.1** Using alcohol $\geq 91\%$ and a clean cloth, wipe down the inside groove (both sides) of the gasket and the inside of the splice box lid.
- 10.2** Place the gasket on the splice box with the beveled side on the lip of the splice box.
- 10.3** Place the splice box lid on the splice box.

WITH SPANNER NUT

- 10.5** Place the O-Ring over shaft. Cover the O-Ring with RTV. Screw the spanner nut on the shaft.
- 10.6** Tighten the spanner nut on the center shaft until the lid bottoms out (typically 45 ft-lbs).

WITH JAM NUT

- 10.5** Place the self-sealing washer over the shaft. Screw the nut on the shaft.
- 10.6** Tighten the spanner nut on the center shaft until the lid bottoms out (typically 45 ft-lbs).

Fig. 22

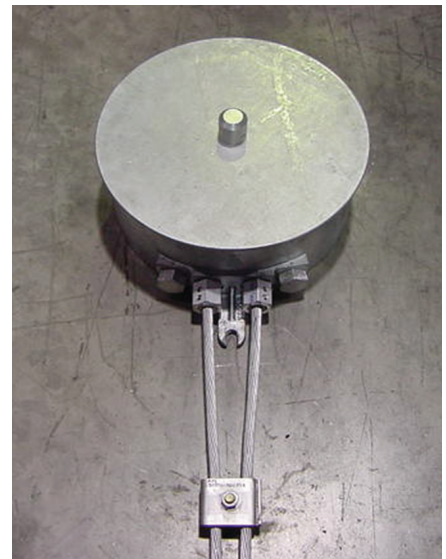
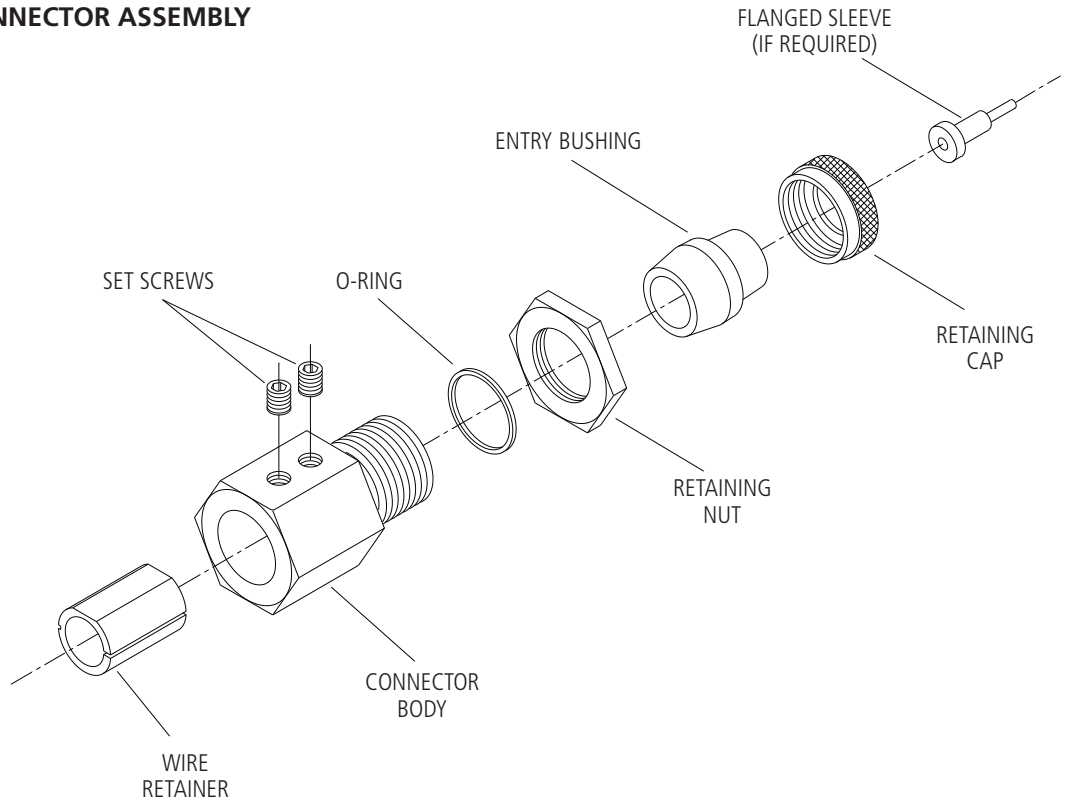


Fig. 23 CONNECTOR ASSEMBLY



Instructions for Preparing AFL ST1-72 FIBER SPLICE TRAY INTO THE AFL SB01 SPLICE ENCLOSURE



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1.0 Tray Description

Fig. 1



- 1.1** The AFL ST1-72 Splice Tray is capable of holding up to 72 individual splices per tray. The circular tray is constructed of high impact resistant Lexan with a black base and a clear lid. Each tray assembly contains eight, twelve fiber manifolds. Of the eight manifolds, only six are used in the splicing process with the remaining two manifolds being placed in the top positions to help secure the fibers within the tray.

NOTE: All eight manifolds must remain within the tray

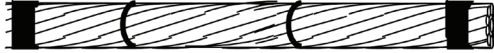
2.0 Maximum Fiber Capacity

- 2.1** A maximum fiber count of 144 splices (two ST1-72 trays) can be stored within the AFL SB01 Splice Enclosure.

NOTE: Prior to installing any cable combination, be sure to verify that the required splice lay out can be contained within each of the two 72 fiber trays without the need to furcate the fibers from one tray to the other. If the customer requires more than the AFL recommended unit storage, confirm that the storage area is adequate prior to splicing the cable.

3.0 ADSS or Loose Tube Installation

Fig. 2



- 3.1 When installing an ADSS or Loose Tube cable into the SB01 enclosure and ST1-72 tray, it requires a minimum of 10.5 feet of optical unit. A minimum of 4 feet (48 inches) of optical unit is stored within the enclosure with an additional 6.5 feet (78 inches) of open fiber being placed within the splice tray. The aramid yarn or central strength member shall be secured within the enclosure with the optical units being routed in a clockwise direction.

NOTE: Fig. 2 above shows an AFL 144 fiber ADSS design. Storage of Loose Tube or ADSS cables can be increased in length (over 4 feet) depending on the customer's required cable design. If the customer requires more than the AFL recommended unit storage, confirm that the storage area is adequate prior to splicing the cable.

Fig. 3



- 3.2 Each bundle of optical units shall be wrapped with an adhesive backed felt tape and secured within the tray with black UV cable ties. Once the excess has been cut from the cable tie, move the connection point away from the fibers and towards the edge of the enclosure.

4.0 Stainless Steel Tube Installation

Fig. 4a

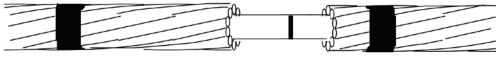
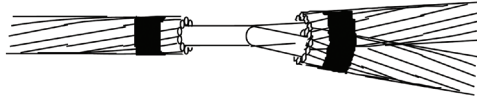


Fig. 4b



- 4.1** When installing a Stainless Steel Tube cable design (CentraCore design shown) into the AFL SB01 enclosure and ST1-72 tray, it requires a minimum of 10.5 feet of optical fiber. A minimum of 4 feet (48 inches) of transition tubing (with fiber) is stored within the enclosure with an additional 6.5 feet (78 inches) of open fiber being placed within the splice tray. The transition tubing (with fiber) shall be routed within the enclosure in a clockwise direction.

Fig. 5



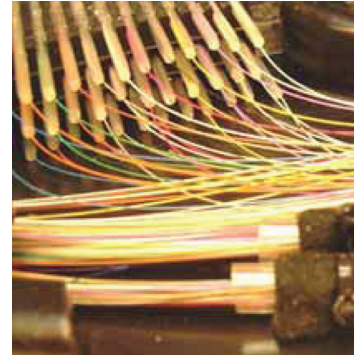
- 4.2** Each transition tube containing optical fibers shall be wrapped with an adhesive backed felt and then secured within the tray with black UV cable ties. (**NOTE:** Once the excess has been cut from the cable tie, move the connection point away from the fibers and towards the edge of the enclosure.)

5.0 Routing of Optical Fibers

Fig. 6a



Fig. 6b



5.1 Route all of the fibers into the tray by using the following procedure: (36F on Left / 36F on Right)

5.1.1 A length of 6.5 feet of fiber is used in order to complete two full wraps within the splice tray.

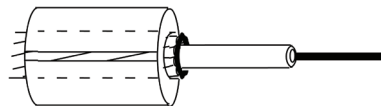
5.1.2 Each set of optical fibers should be separated by unit and individually measured and cut to length.

EXAMPLE: If cutting the fibers to length within the blue units, one of the two units would be measured from the top left side of the manifold facing down with the other unit being measure from the bottom left side facing up. All fibers should be stacked in sequence with the lowest number being placed on the bottom. Fibers 1-36 are to be placed on the left hand side of the tray with fibers 37-72 being placed on the right.

NOTE: Each tray assembly contains eight, twelve fiber manifolds. Of the eight manifolds, only six are used in the splicing process with the remaining two manifolds being placed in the top positions to help secure the fibers within the tray.

6.0 Fiber Splice Sleeves

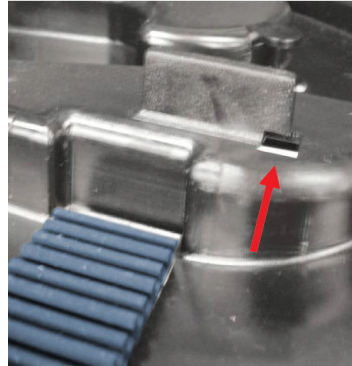
Fig. 7



6.1 AFL recommends using the Fujikura 60 mm (#500065) splice sleeves for this application.

6.1 **NOTE:** To ensure that the recommended sleeves are being used, all contractors should check the tightness of their splice sleeves within each of the manifolds used. If necessary, a small bead of RTV can be placed and spread evenly over the splice sleeves to help secure them in place. If this method is used, allow a few minutes for the RTV to begin curing so that the manifolds will not stick together within the tray.

7.0 Closing the ST1-72 Tray

Fig. 8a**Fig. 8b**

7.1 After splicing, ensure that all of the fibers are located under the tabs and are free of any pinch points that may be caused from securing the lid.

7.2 Apply the lid as follows:

7.2.1 Align the open portion of the lid with the fiber entry location on the tray.

7.2.2 Place the lid under the locking portion of the tray (above photos).

7.2.3 Secure the lid in place by pressing down on the center of the tray.

8.0 Routing and Securing the ST1-72 Tray

Fig. 9a**Fig. 9b**

8.1 Route the fiber units back into the SB01 enclosure in a clockwise direction. If longer lengths of fiber unit were required, remove any excess torque by rotating the tray during the routing process. Always install the tray with the lid of the tray facing the lid of the SB01 enclosure.

Fig. 10a**Fig. 10b**

- 8.2** Place the center of the tray over the center shaft of the SB01 enclosure.
- 8.3** Place the aluminum spacer ring over the center shaft and onto the tray lid.
- 8.4** Secure the tray by installing the retainer ring above the spacer and onto the center shaft of the enclosure.
- 8.5** Seal the SB01 enclosure according to the AFL standard procedure.

9.0 Removing the ST1-72 Tray

Fig. 11

- 9.1** To remove the tray from within the enclosure, place two fingers on each of the two raised taps and slightly move the tray to the left (against the torque of the tray) and lift upward.



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