

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



NOTE:

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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

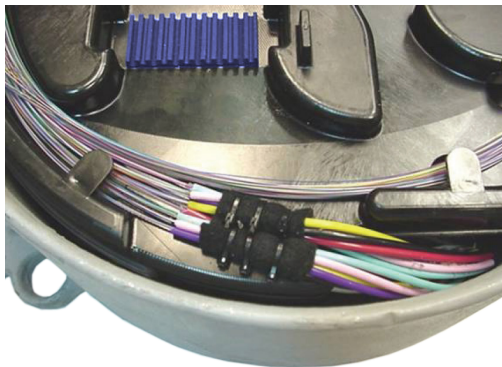
Fig. 2



- 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

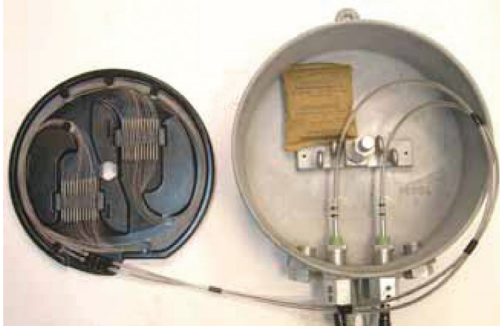
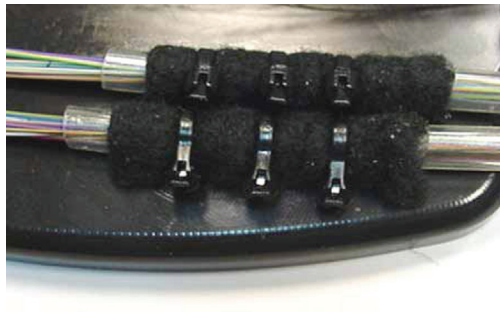


Fig. 4b



- 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

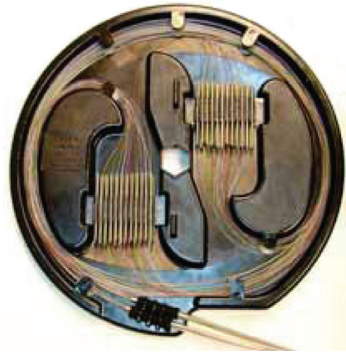
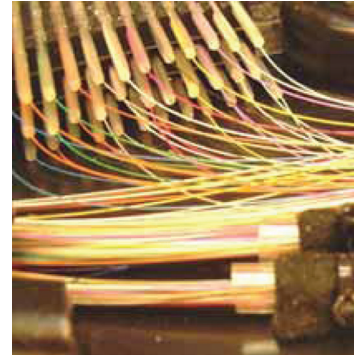


Fig. 6b



- 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.

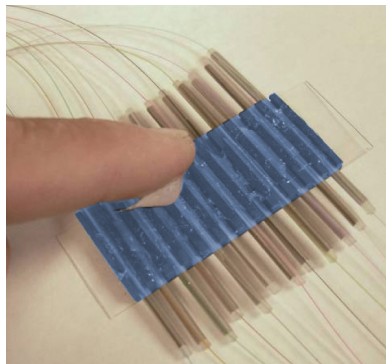
5.1.2 Each set of optical fibers should be separated by unit and individually measured and cut to length.

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.

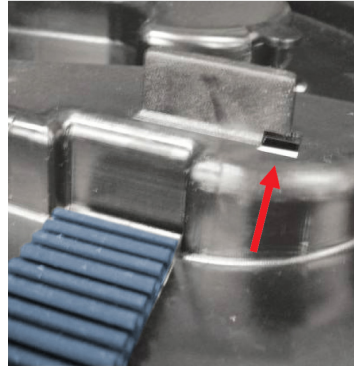
- 6.1 NOTE:** To ensure that the recommended sleeves are being used, all contractors should check the tightness of their splice sleeves within each of the manifolds used. If necessary, a small bead of RTV can be placed and spread evenly over the splice sleeves to help secure them in place. If this method 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

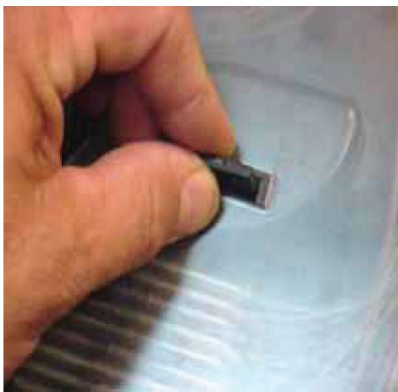


- 8.1** Route the fiber units back into the SB01 enclosure in a clockwise direction. If longer lengths of fiber unit were required, remove any excess torque by rotating the tray during the routing process. Always install the tray with the lid of the tray facing the lid of the SB01 enclosure.

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.