Tyco Electronics

FOSC-500-AA

INSTALLATION INSTRUCTION

Cold applied Inline Splice Closure for small Fiber Optic Cables (maximum 48 splices)

Contents

1 Introduction

1.1 Product Description

The FOSC-500-AA is a cold applied re-enterable splice closure for small fiber optic cables. It provides a mechanical and environmental protection for fiber optic splices and permits easy access by the customer. The closure is applicable underground, direct buried and aerial. The closure can handle maximum 48 splices and can be used in-line and in butt configuration. The closure has 4 cable entry ports (two on each side). The cable sealing is secured by gel-end pieces under compression on both of the closure ends.

2 General

2.1 Tools

Flat screwdriver
Marker pen
Fiber guiding pin
FACC- TUBE STRIPPER-02 to strip the loose tubes

2.2 Kit contents

Depending on the network layout and the construction of the cables, the kit content may be different.
Some of the components will be pre-assembled in the closure depending on the selection and the ordering.
The minimum content will be: the joint body & cover with

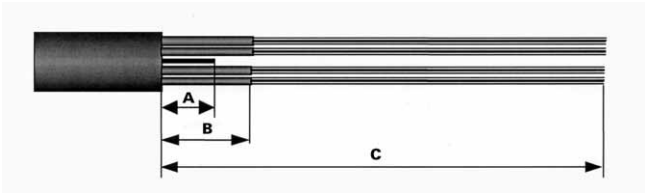
- Pre installed
  - 1 splicing tray (24/48)
  - 1 splicing tray cover
  - 2 step splice holders
  - 2/4 splice holders
  - 2 longitudinal rubber seals
  - 2 external cable strain relieves
  - 1 re-entry label
- 2 Cable attachment brackets (different type depending on the cable type)
- 2 Stainless steel cable clamps
- 2 Cable plugs
- 1 Cleaning tissue
- 1 Installation instruction

Optional a shield continuity or grounding wire with eyelets.

3 Cable preparation

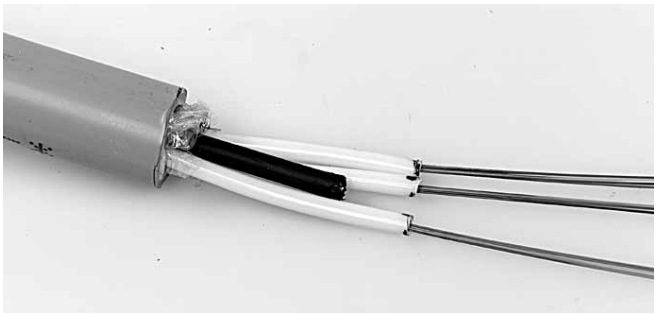
Cable diameter: minimum 5 mm (0.20"), maximum 15 mm (0.60").

3.1 Loose tube cable preparation



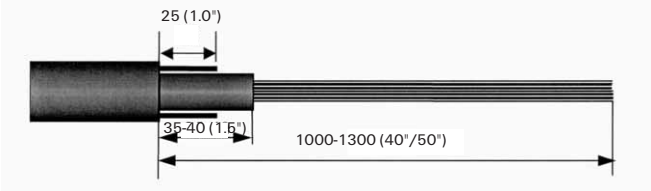
Splice capacity	24	48
A	25 (1.0")	25 (1.0")
B	35 (1.5")	60 (2.5")
C	1000 (40")	1300 (50")

3.1.1 Prepare the cable according to the drawing, remove the outer cable jacket over a length of 1000/1300 mm (40"/50") and cut the strength member at 25 mm (1.0") length.



3.1.2 Remove the loose tubes up to 35/60 mm (1.5"/2.5") from the cable cut.
A maximum of 4 loose tubes can be terminated.
Remark: for the 48 splice tray is at the hinge side maximum of 4 loose tubes possible, on the front side only 2 loose tubes.

3.2 Central core cable preparation



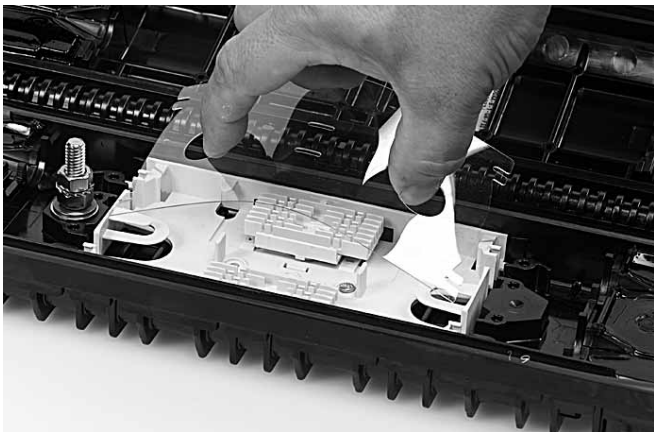
3.2.1 Prepare the cable according to the drawing. Strip the cable over a length of 1000 mm (40") for the 24 splice tray, 1300 mm (50") for the 48 splice tray and remove the central core up to 35 mm (1.5") from the cable cut.

4 Cable installation

4.1 All the fibers should be cleaned and free from cable grease or dirt.

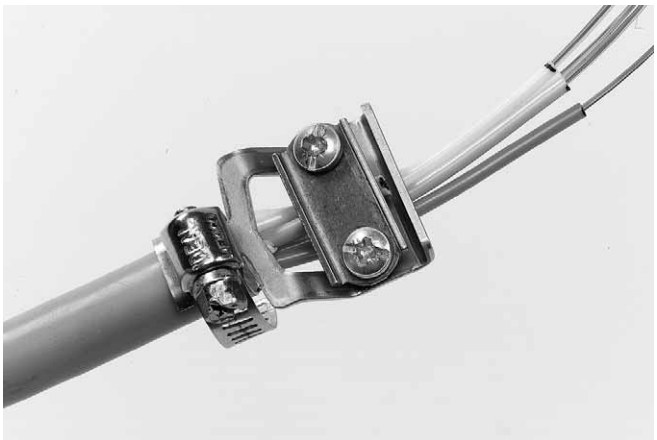
4.2 Remove the protection foil from the gel sealing blocks of the closure.

4.3 Turn the top part of the outer strain relief clamps 90 degrees to facilitate the cable fixing on the cable termination point.



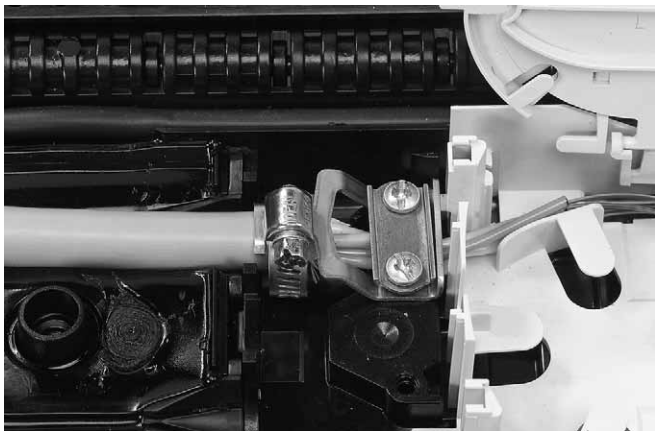
4.4 Remove the cover of the splicing cassette.

A Loose tube cable



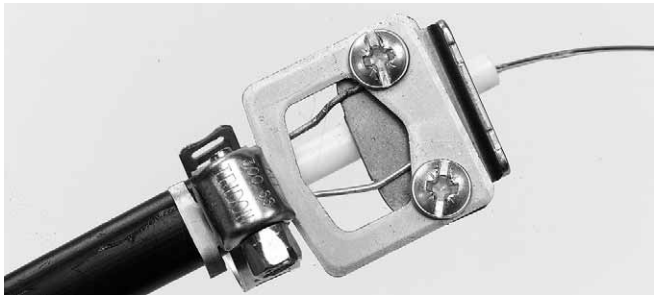
4.5 Hold the cable in the correct position and slide the strength member in the base part of the cable attachment bracket. The loose tubes should protrude underneath the cable attachment bracket.
Note: the tubes should be oriented in such a way that they are at the bottom of the cable.

4.6 Secure the cable attachment bracket with a stainless steel cable clamp to the cable.

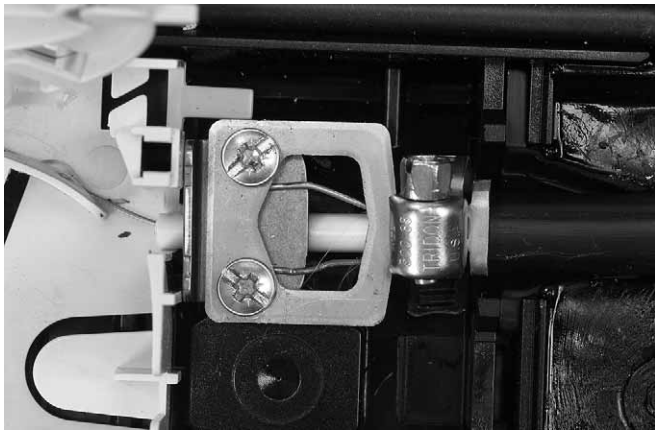


4.7 Install the cable with the cable attachment plate in the closure body on the cable termination point.

B Central core cable



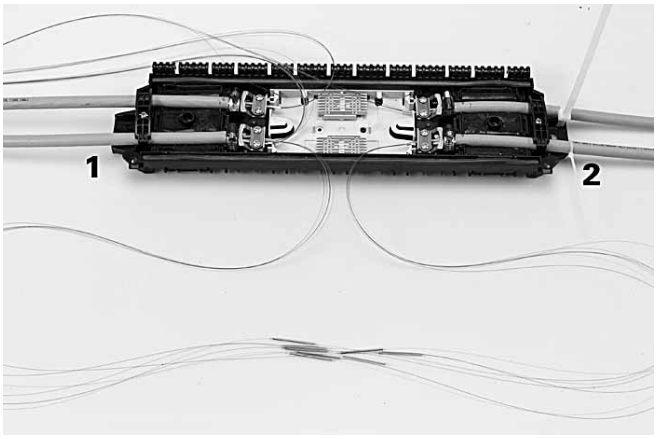
4.8 Hold the cable in the correct position and secure the cable attachment bracket with the stainless steel cable clamp to the cable. Position the strength members between the plates.



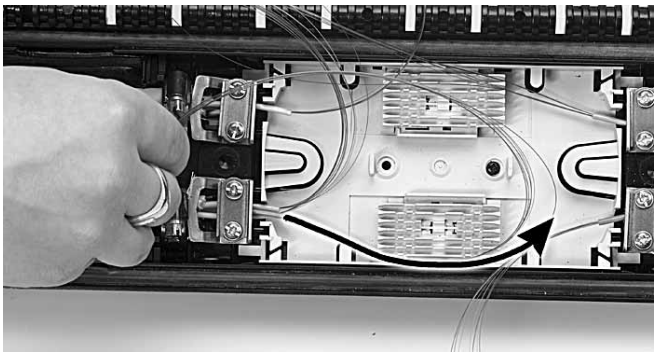
4.9 Install the cable with the cable attachment plate in the closure body on the cable termination point.

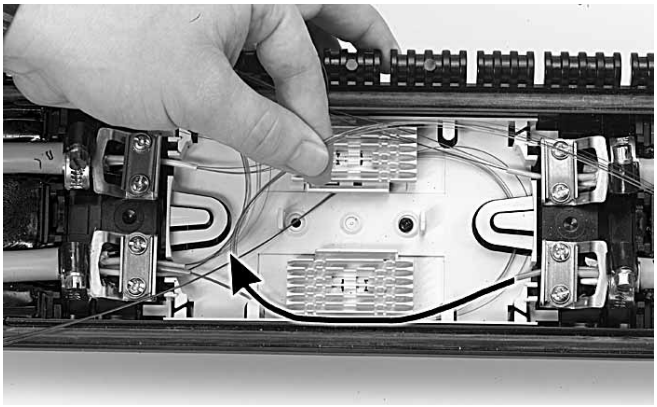
5 Fiber organisation

A 24 splice tray

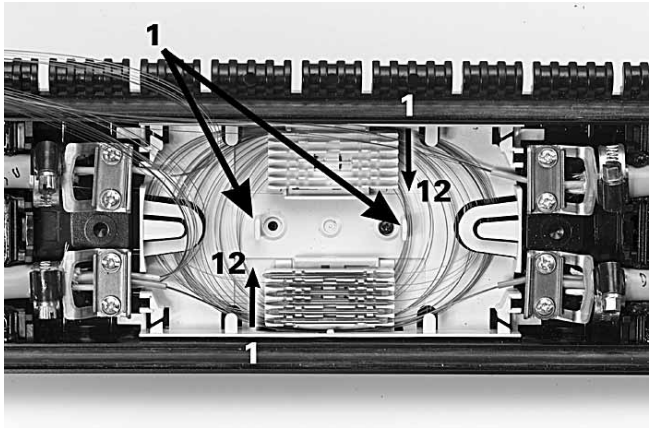


5.1 Splicing cable 1 to cable 2.

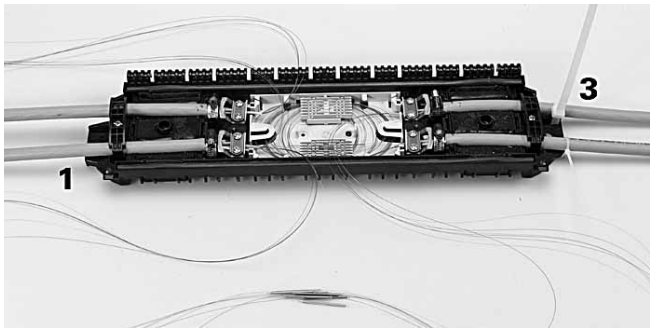




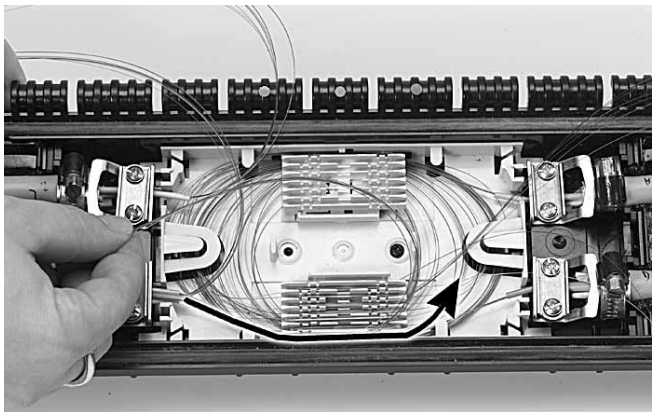
5.2 Route first the incoming fiber from both sides into the groove behind the splice holder. Be sure the fibers are beneath all the lips.

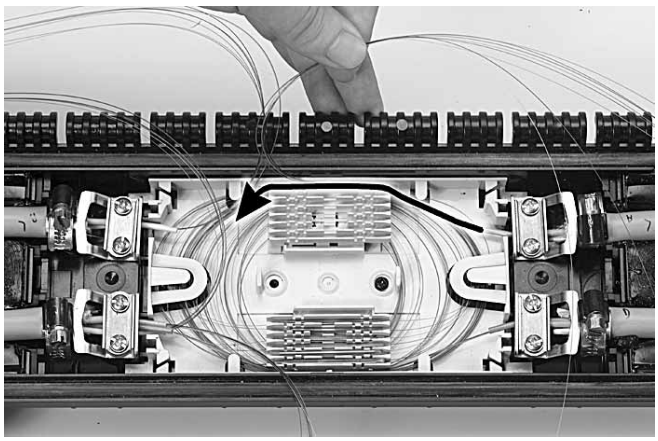


5.3 Install the splice protectors in the splice holder and route the fibers underneath the splice holders and around the tabs (1) in the tray, first one side and then the other side.

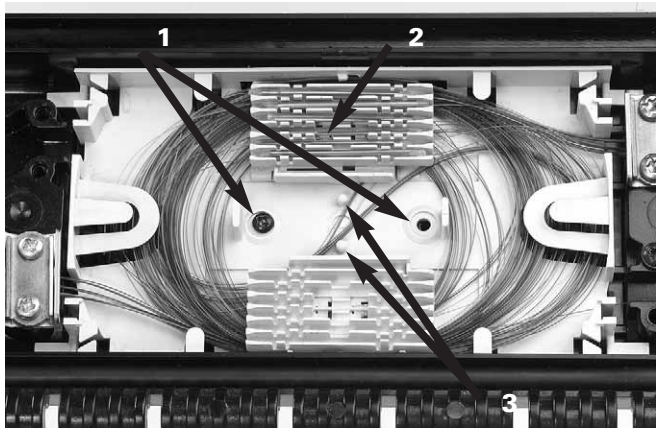


5.4 Splicing cable 1 to 3.

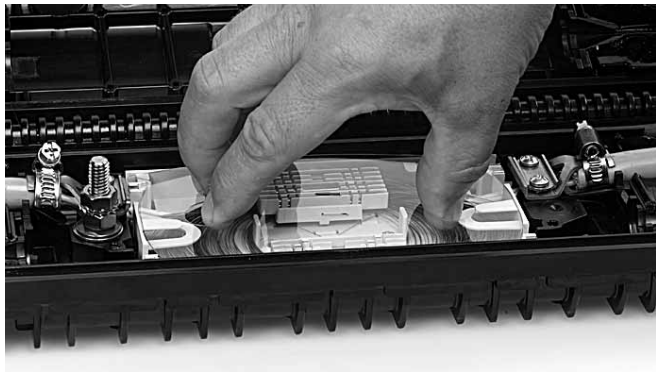




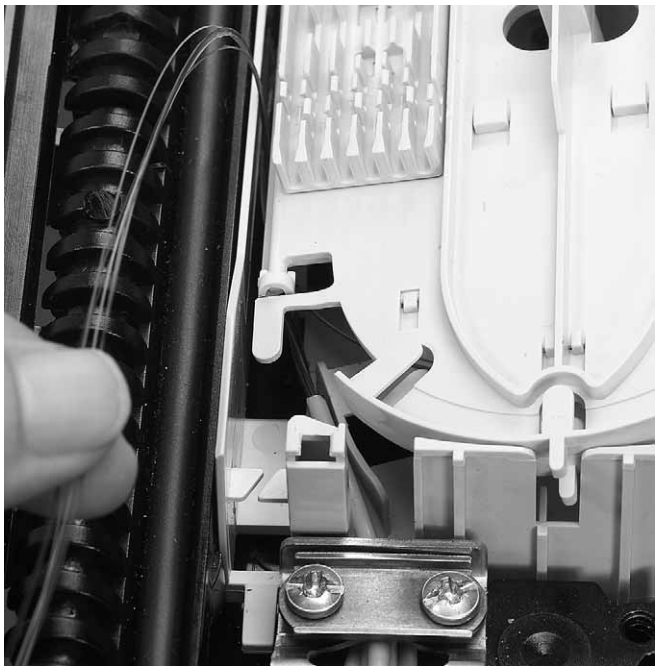
5.5 Route first the incoming fiber from both sides into the groove behind the splice holder.



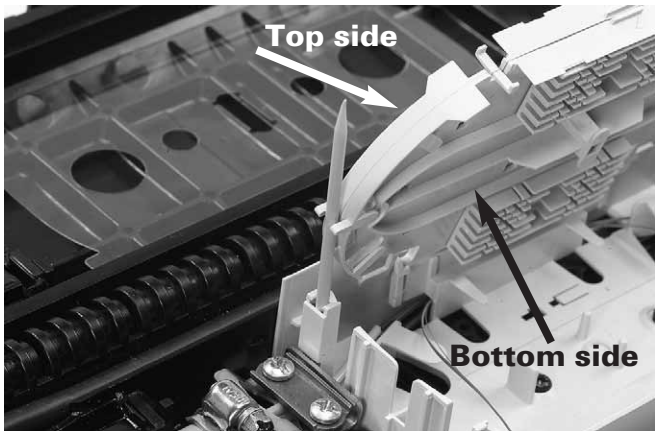
5.6 Install the splice protectors in the splice holder (2) and route the fiber underneath the splice holders and around the tabs (1) in the tray, fibers at one side of the splice protector you have to make an S to store them as shown on the picture (3).



5.7 Install the splicing tray cover.

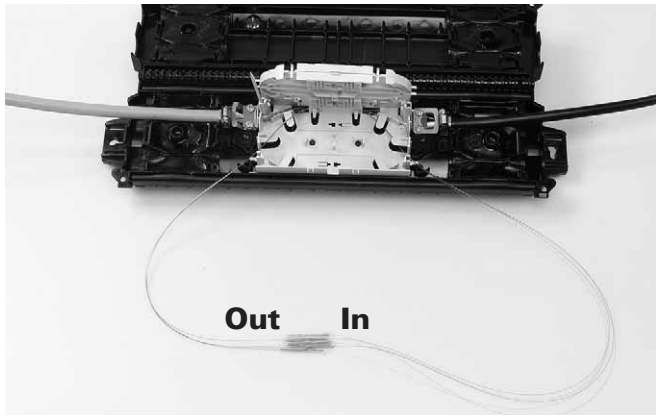


5.8 Route the incoming fiber into the groove behind the hinge of the tray to the storage area.

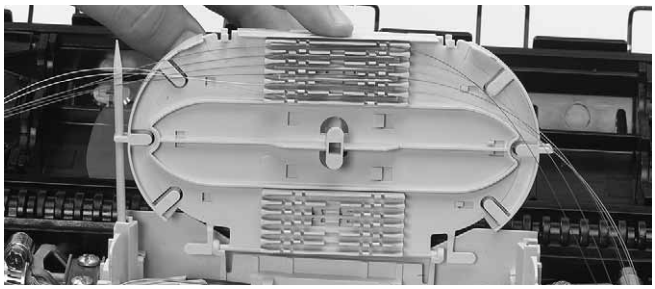


5.9 Use the fiber guiding pin to hold the tray in the open position.
Remark: first use the SMOUV holders at the bottom side of the tray. When fully populated, use the SMOUV holders at the top side of the tray.

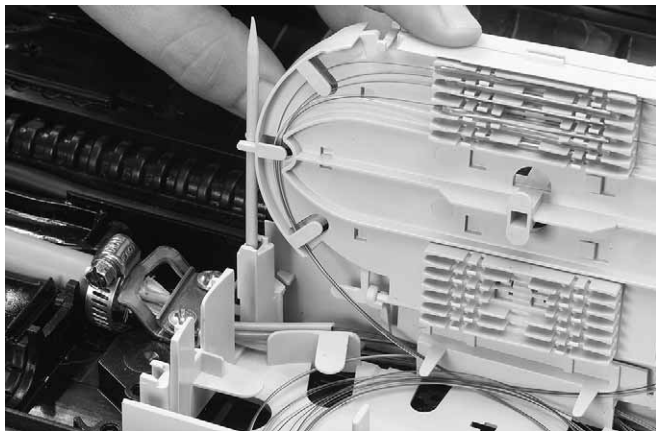
Bottom, non-hinged side



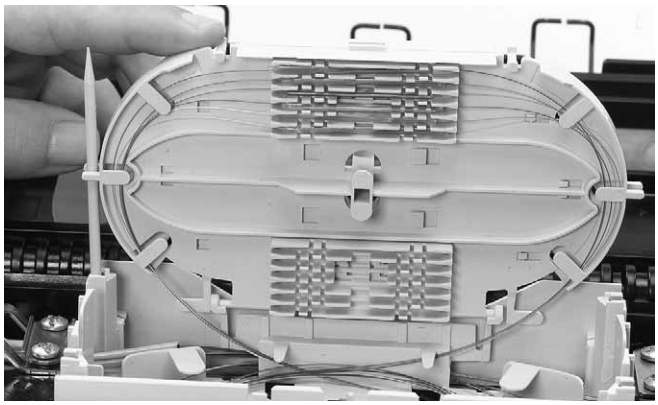
5.10 Splice the fibers, maximum 12 at once.



5.11 Install splices in the SMOUV holder (the non-hinged side).

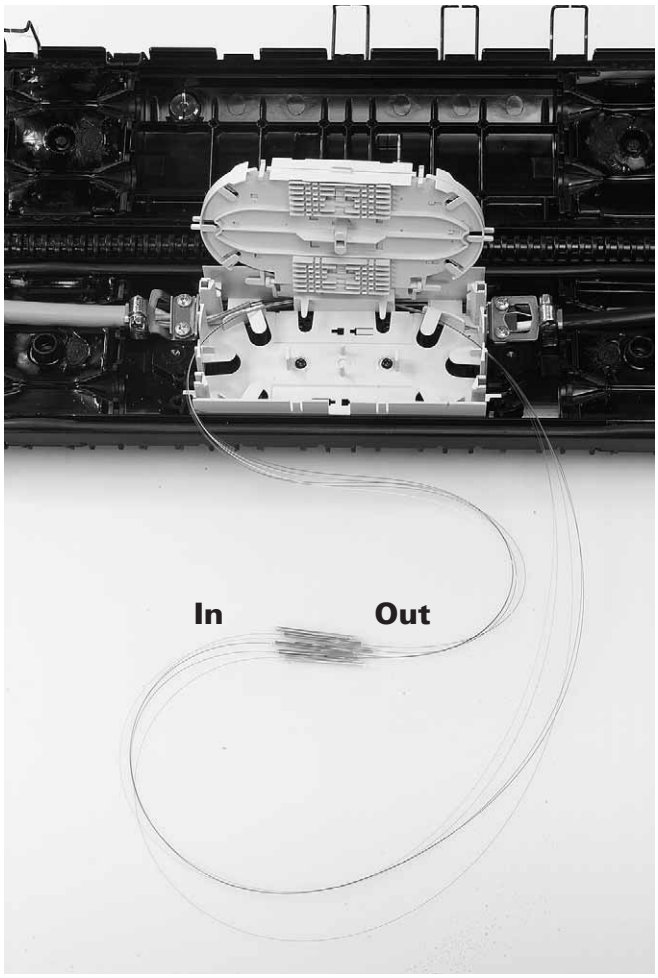


5.12 Route the fibers, starting at the SMOUV leaving no slack, to the storage area.

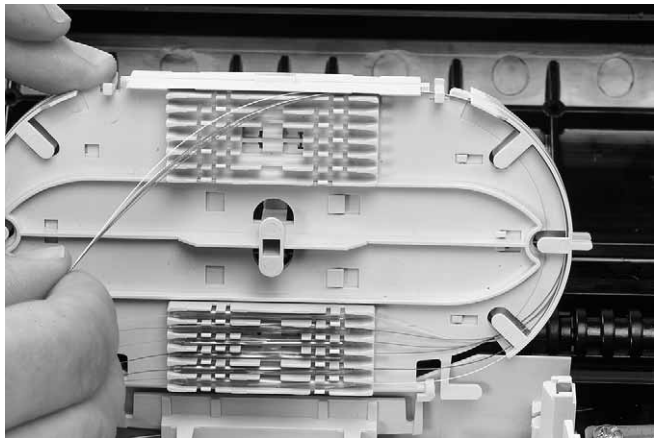


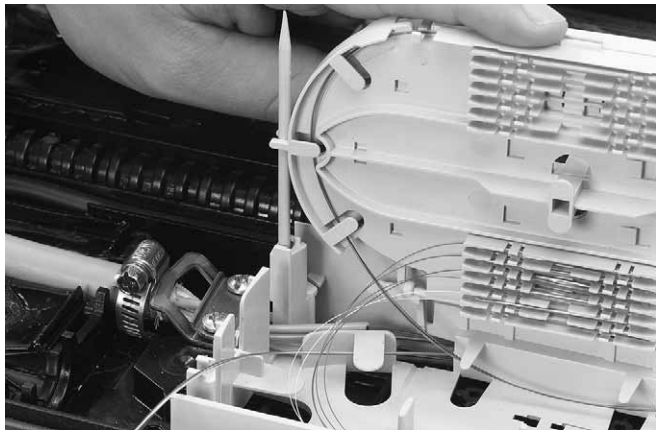
5.13 Both sides.

Bottom, hinged side

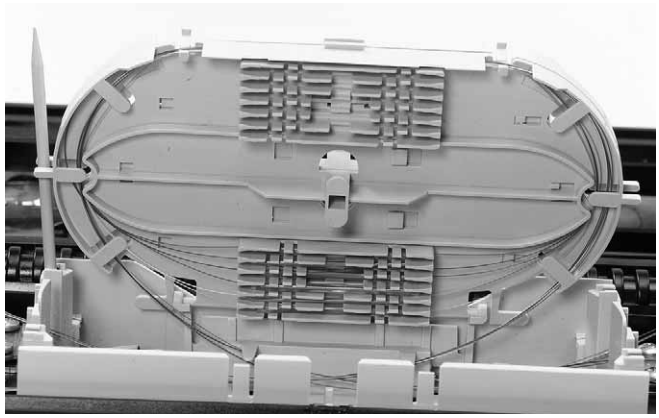


5.14 Turn the splices 180° if using the SMOUV holder at the hinge side.



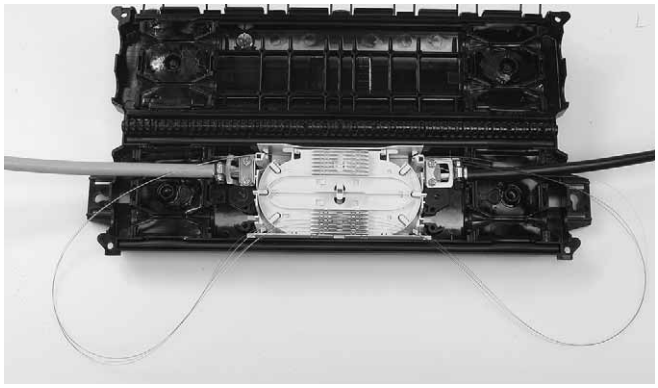


5.15 Install the splices in the SMOUV holder. Route the fiber inside the tray and behind the SMOUV holder at the non-hinged side to the storage area.

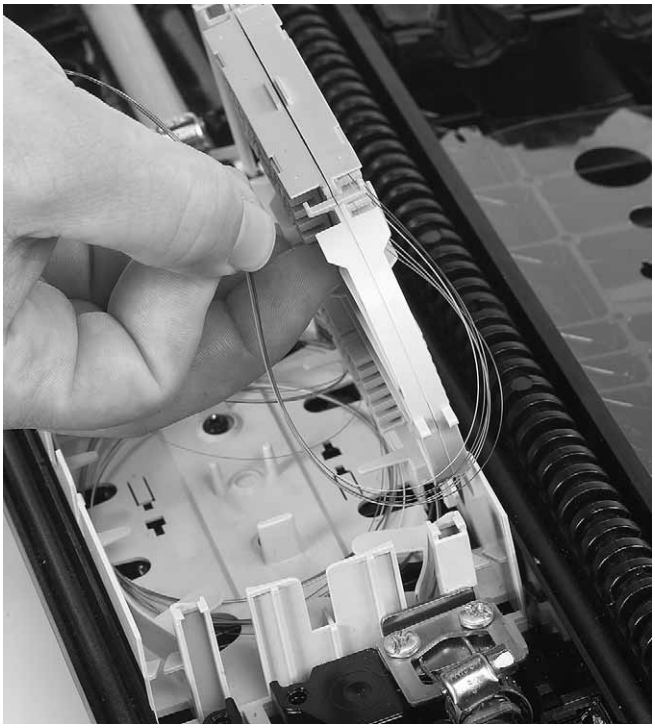


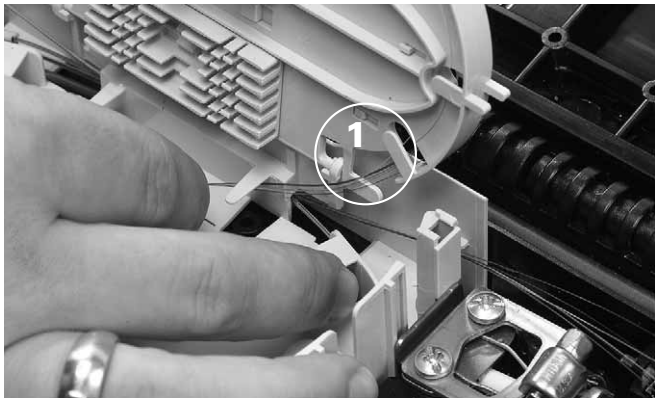
5.16 Both sides.

Top, non-hinged side

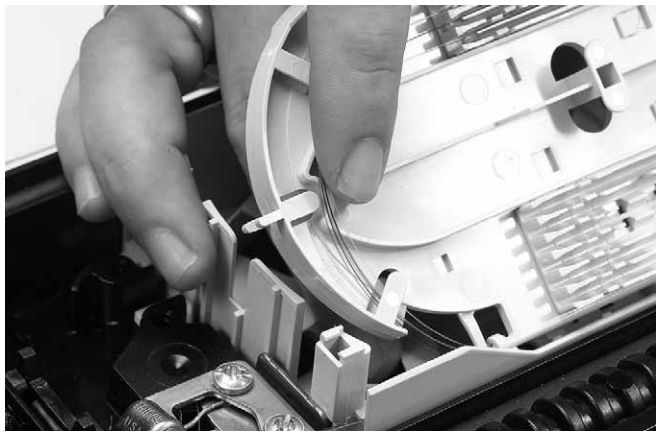


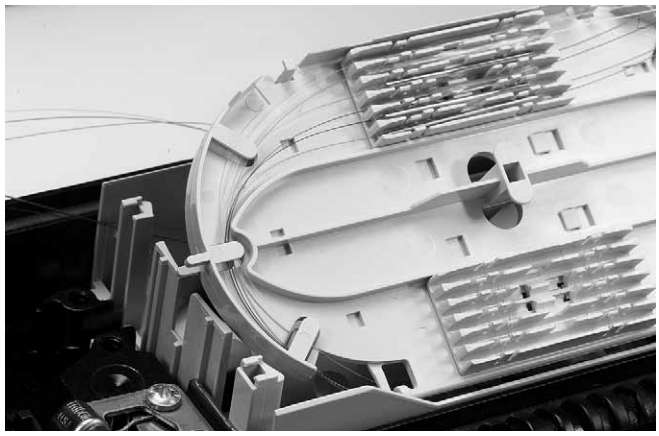
5.17 Install the splices in the SMOUV holder (non hinged side).





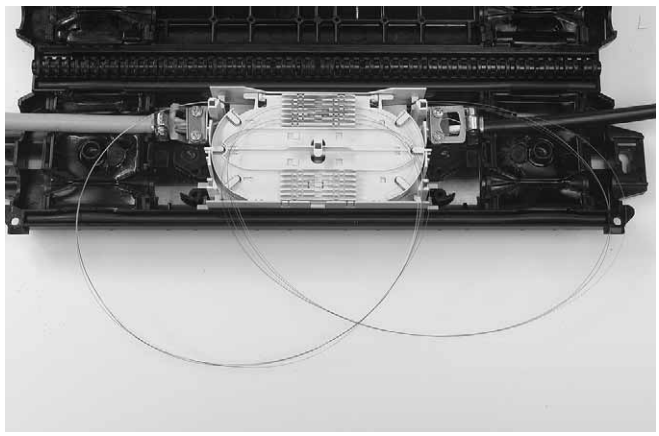
5.18 Route the fiber from the SMOUV holder to the storage area over the edge of the cassette leaving no slack through the opening (1).



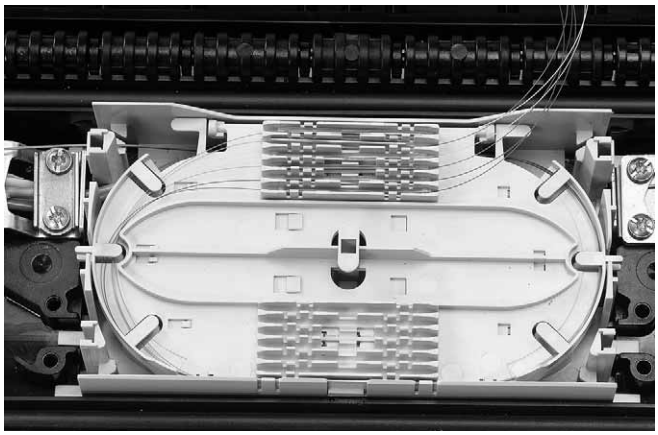


5.19 Place the fibers underneath the lips.

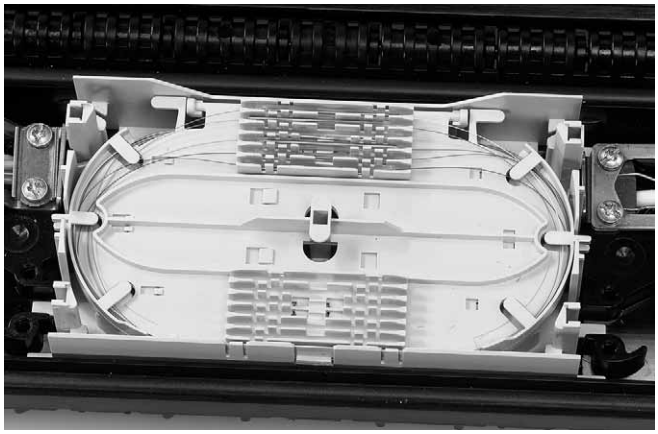
Top, hinged side



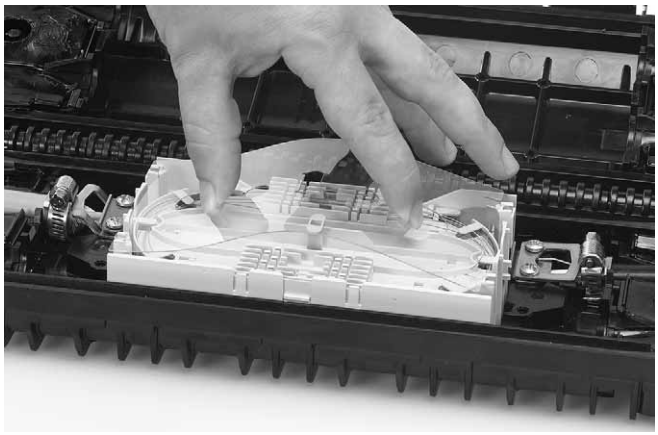
5.20 Turn the splices 180° and install the splices in the SMOUV holder (hinged side).



5.21 Route the fibers inside the tray and behind the SMOUV holder to the storage area. Repeat steps 5.18 en 5.19 to go to the storage area.



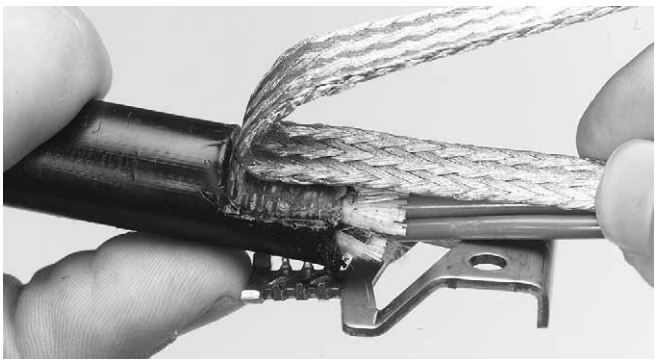
5.22 Both sides.



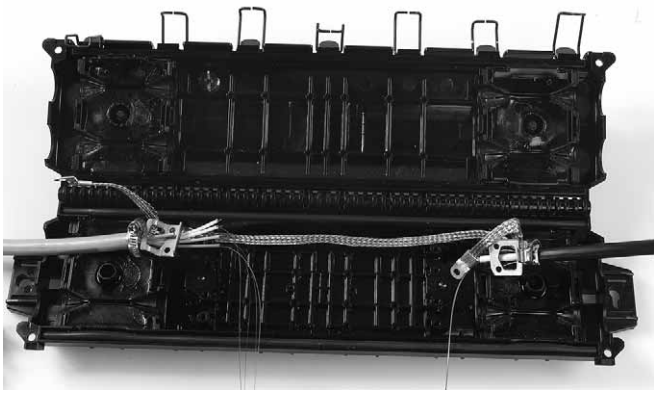
5.23 Install the splicing tray cover.

6 Shield continuity or grounding

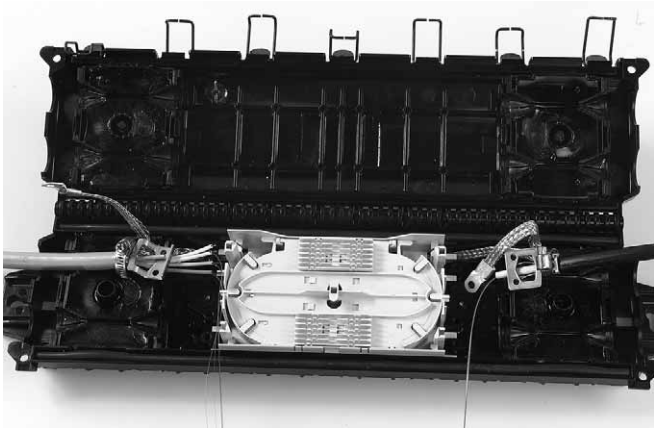
6.1 Loose tube and central core cable



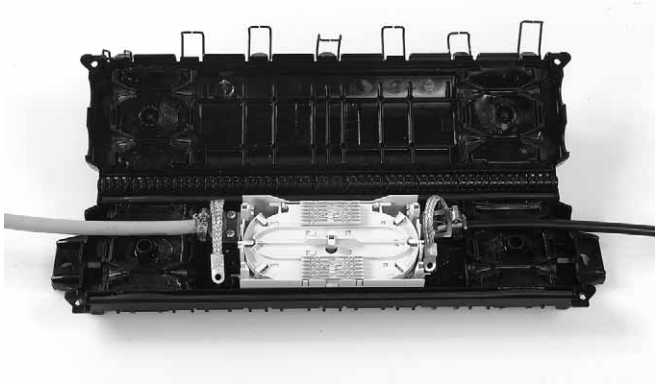
6.1.1 Remove 15 mm (0.6") extra of the outer jacket as shown on the picture and leave the shield. Install the cable attachment bracket on the outer jacket. Place the braid (double layer) on top of the shield. Use the standard steel cable clamp to fix everything on the cable.



6.1.2 Install the continuity braid in the closure as shown on the picture at the backside of the closure.

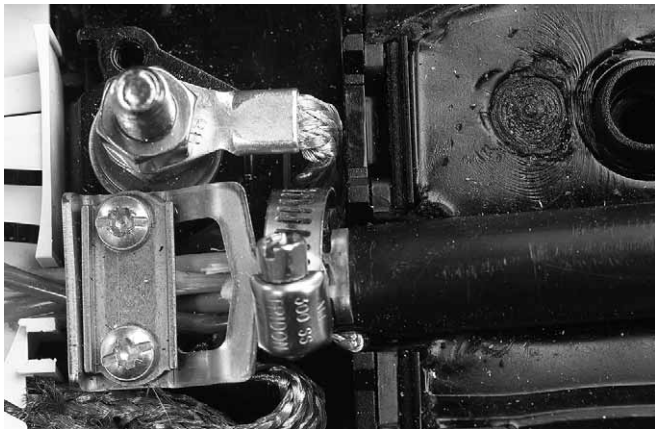


6.1.3 Install the tray back in place.



6.1.4 Installation of the cables: see section 4 “Cable installation”.

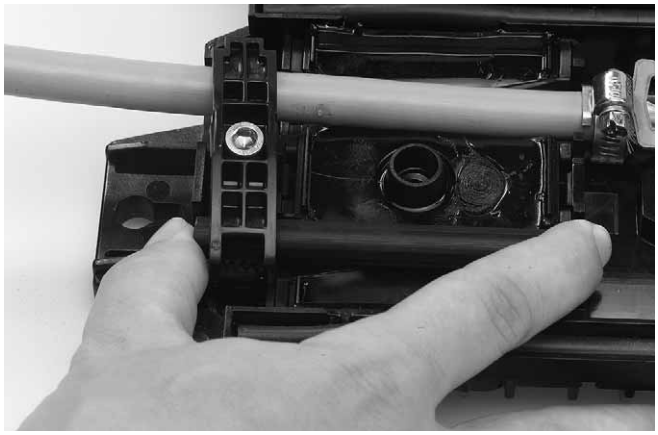
6.2 Grounding



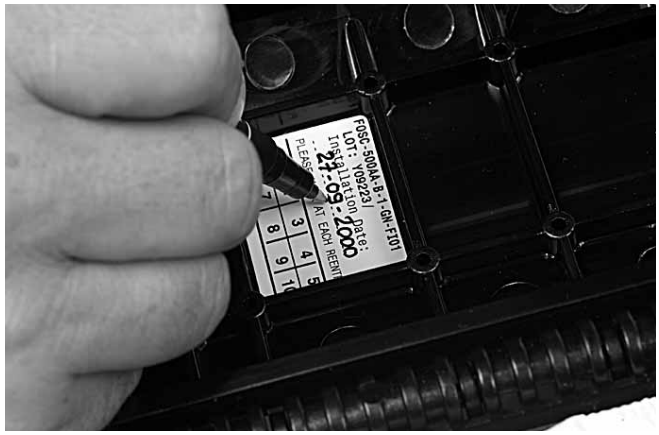
6.2.1 Secure the grounding wire with the eyelet to the grounding bolt.

6.2.2 Connect the outer grounding wire onto the outer grounding feed through of the closure.

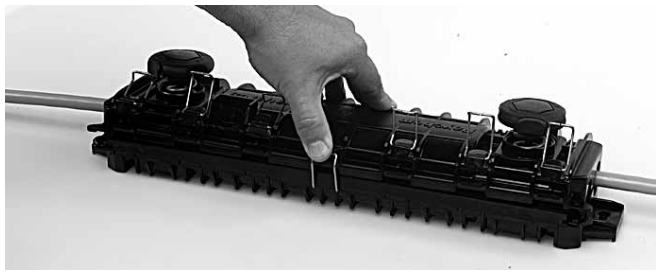
7 Closing the closure



7.1 Insert the plugs between the outer strain relief in the unused cable ports.



7.2 Write down the installation date on the re-entry label in the cover of the closure.



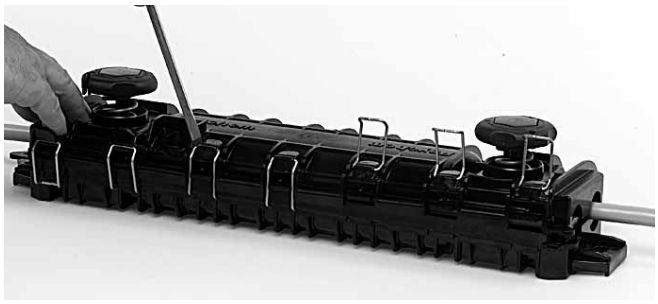
7.3 Close the cover by closing the latches starting with the middle latch of the closure.

7.4 Rotate the knob 2-3 times clockwise without pushing on it. Position the two marking holes of the knob and the closure cover in line before pushing the locking knob down.

7.5 Push the knob down and turn the knob clockwise until the locking lip is behind the stop.

8 Re-opening

8.1 Push the locking lip and turn the knob till all the tension is released from the knob.



8.2 Using a screwdriver release all the latches, start in the middle and work out to the end of the closure.

9 Important steps during installations

- Clean the fibers.
- Make sure not to loose ID.
- No tube should protrude in the splicing cassette.
- Insert the plugs in the unused cable ports.
- Start closing the latches from the middle.
- Position the two marking holes of the knob and the closure cover well before pushing the knob down.
- Do not forget to mark the re-entry label.

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