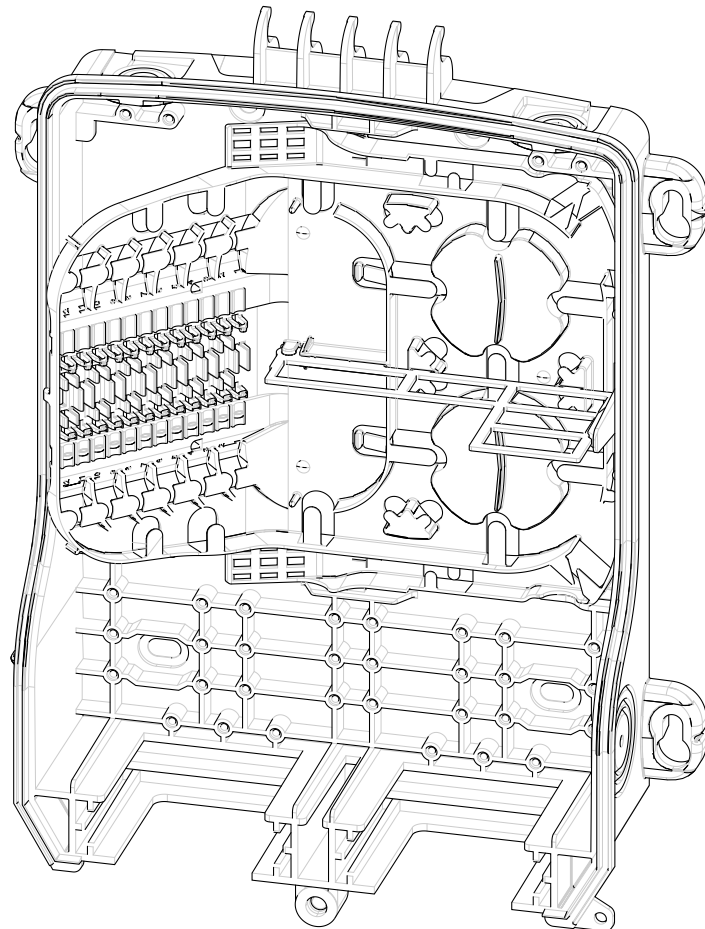


## IFEB20 - Patch Application

### 1 About this manual

This publication provides user information for the installation of the IFEB. The Indoor Fiber Entrance Box is ideal for small to medium size buildings. It provides a flexible fiber management system for transitioning outside plant cable to indoor cable via splicing or with connectorized cable assemblies. It incorporates proven fiber routing procedures, cable termination accessories and splice trays resulting in consistent, high-quality fiber management. Images in this manual are for reference only and are subject to change.

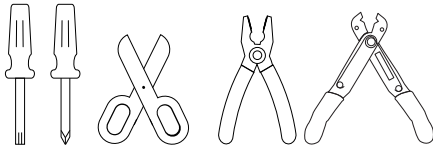
### 2 Product image



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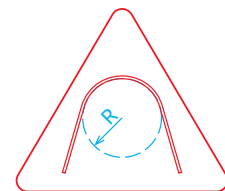
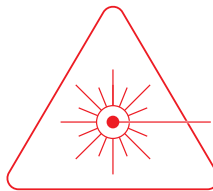
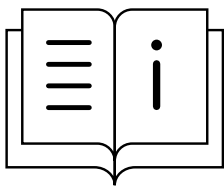
## 3 Tools



From left to right:

- Torx screwdriver
- Phillips screwdriver
- Scissors
- Pliers
- Stripping pliers

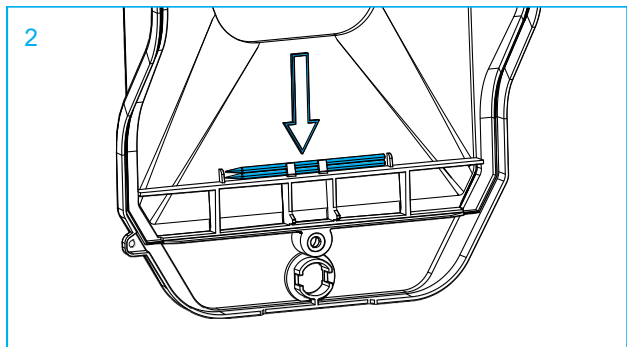
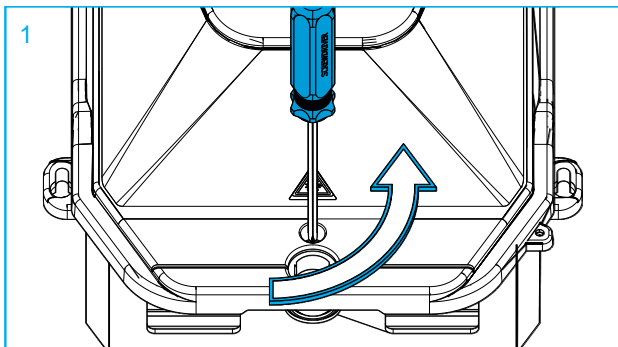
## 4 Warnings and Cautions



- Follow the installation instruction steps to ensure the performance of the closure. It is necessary to take precautions and keep the working space clean to protect the closure sealing materials and splices.
- Exposure to laser radiation can seriously damage the retina of the eye. Do not look into the ends of any optical fiber. Do not assume the laser power is turned off or that the fiber is disconnected at the other end. Looking into the ends of any optical fiber is entirely at your own risk. A protective cap or hood **MUST** be immediately placed over any radiating adapter or optical fiber connector to avoid the potential of dangerous amounts of radiation exposure. This practice also prevents dirt particles from entering the connector and adapter.
- Fiber optic cables may be damaged if bent or curved to a radius that is less than the recommended minimum bend radius. Always observe the recommended bend radius limit when installing fiber optic cables, subunits and patch cords.

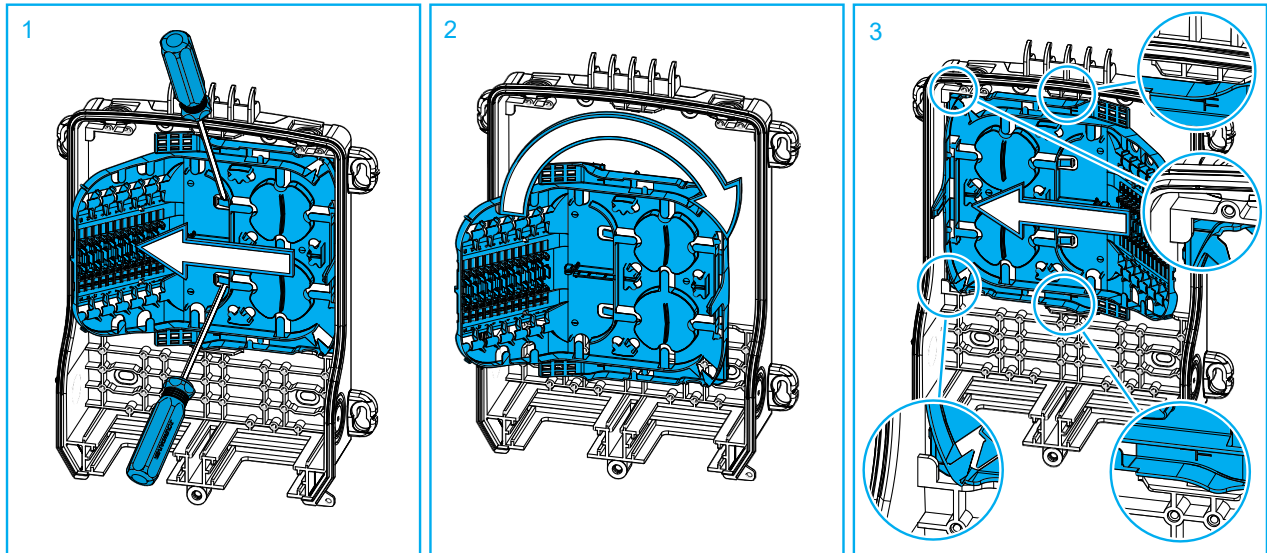
## 5 IFEB preparation

### 5.1 Open the box




- 1 Open the box.
- 2 Locate the fiber guidance pens from inside the box cover. These pens can be used to easily & quickly disassemble the seal ports to allow a wrap around cable installation and to handle fibers.

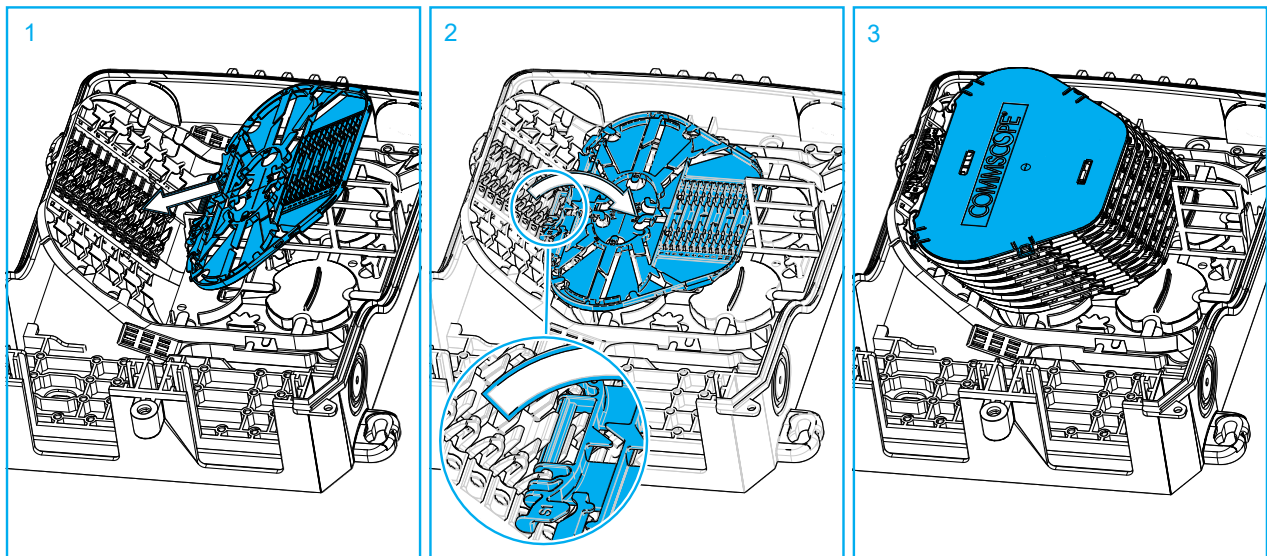
## 5.2 Optional: Swap organizer



- 1 Use a screwdriver to elevate the locking lips and push the organizer to the side to release.
- 2 Rotate the organizer 180 degrees.
- 3 Slide the organizer back in the box and make sure the organizer is locked under the 4 lips.

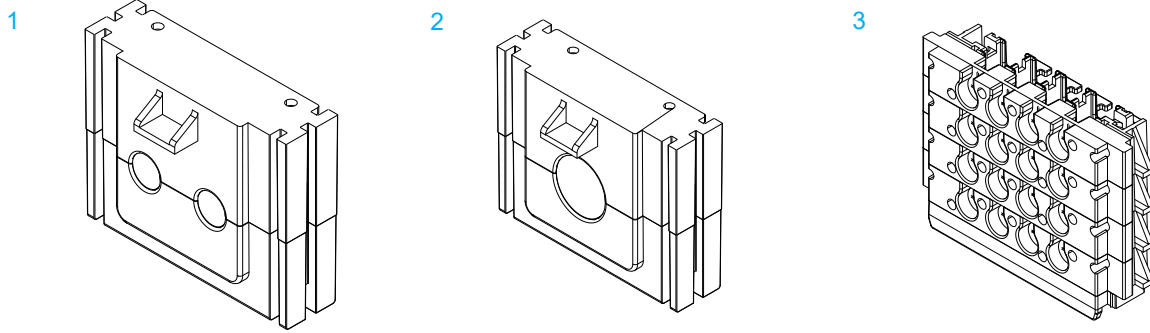
 **Note:** You can hear a "click" when the organizer is placed correctly.

## 5.3 Install trays



- 1 Install the first tray above the patch panel.
- 2 Lower the tray.
- 3 Install the remaining trays, stacking them upwards and place the cover on the top tray.

## 5.4 Seals



N°	Description
1	Sealblock 2 x 15mm (feeder cable)
2	Sealblock 1 x 20mm (feeder cable)
3	Sealblock 16 x 7mm (drop cable)

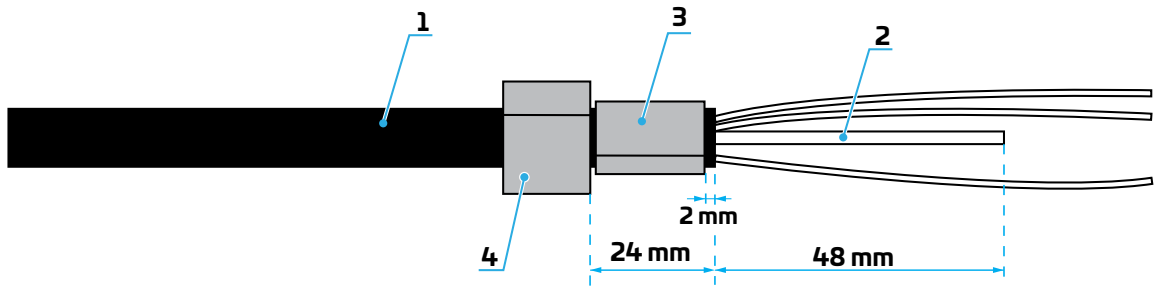
**!** *Important:* Install foam to thicken cable to seal the port:

**Table 1: Foam length per cable diameter**

Sealblock 2 x 15mm		Sealblock 1 x 20mm	
Cable diameter (mm)	Foam length ( $\pm 5$ mm)	Cable diameter (mm)	Foam length ( $\pm 5$ mm)
5	170	14	155
6	160	15	140
7	150	16	125
8	140	17	110
9	125	18	95
10	115	19	85
11	105	20	70
12	95		
13	85		
14	70		
15	60		

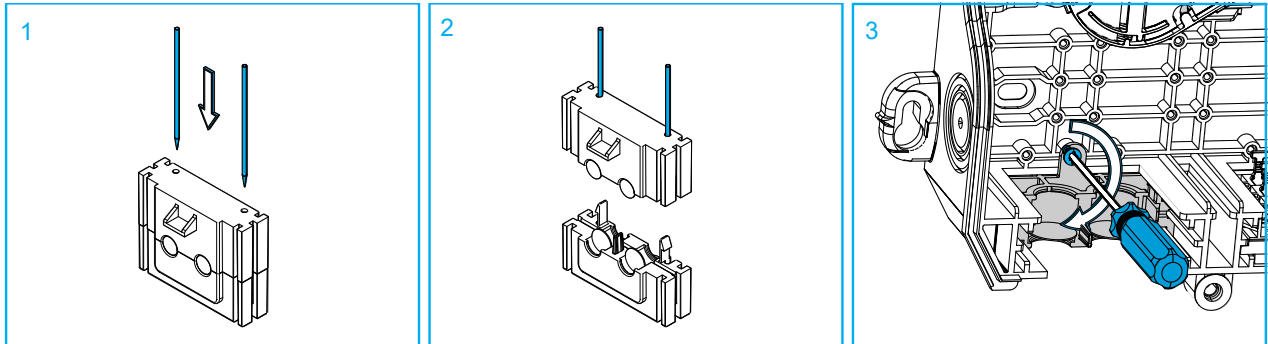
## 6 Feeder cable

### 6.1 Feeder cable preparation

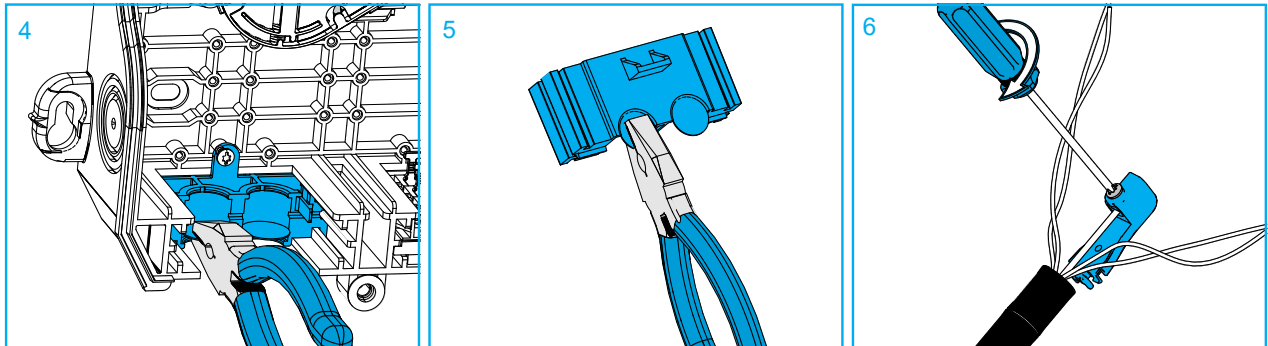


N°	Description	Preparation
1	Jacket	Remove 1.5 m from the jacket of the cable.
2	Rigid strength member	Cut the strength member to a length of 48 mm.
3	Protection tape	Wrap a piece of protection tape around the cable jacket at a distance of 2 mm from the jacket end.
4	Foam	Cut a piece of foam (length according to <b>Table 1: Foam length</b> ). Wrap it around the cable at a distance of 24 mm from the jacket end. At this place the cable will touch the cable seal.


### 6.2 Feeder cable installation



- 1 Use two guiding pens to open the ports.
- 2 Once the latches are disengaged, pull the sections apart.
- 3 Secure the bottom part to the box.

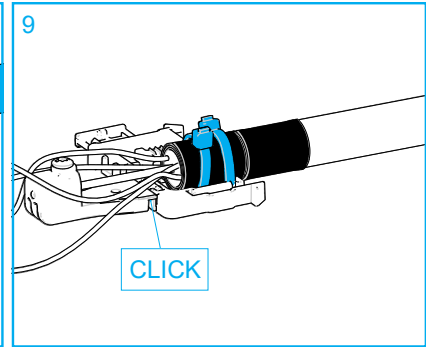
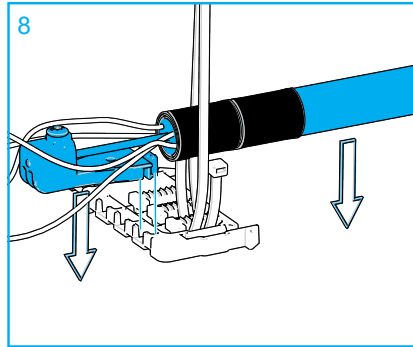
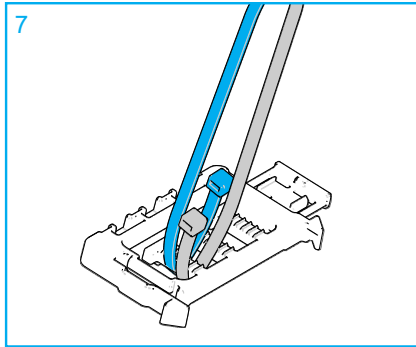


- 4 Determine where the cable will enter and use a pair of pliers to remove the thin plastic knockout from the bottom entry part.
- 5 Remove the corresponding knock out in the second section of the cable entry plate.

 **Note:** Remove all sharp edges and burrs.

6 Secure the strength member to the strength member adapter. Make sure the strength member is placed and aligned in the middle of the gap for optimal fixation.

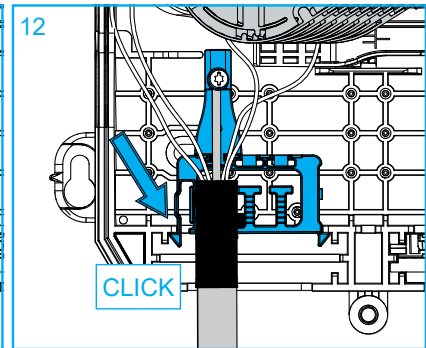
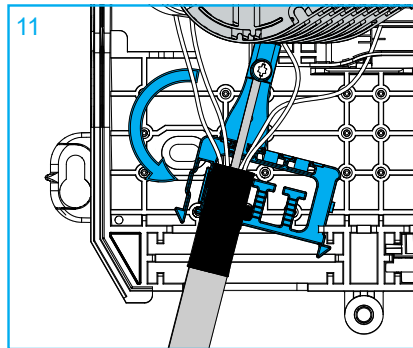
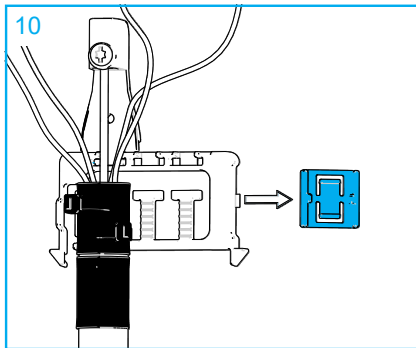
 **Note:** Be careful to not "overturn" the screw into the plastic.



7 Place 2 medium cable ties in opposite directions over the T-shape of the feeder base plate.

8 Place the cable with strength member adapter in position and slide the strength member adapter in the feeder base plate.

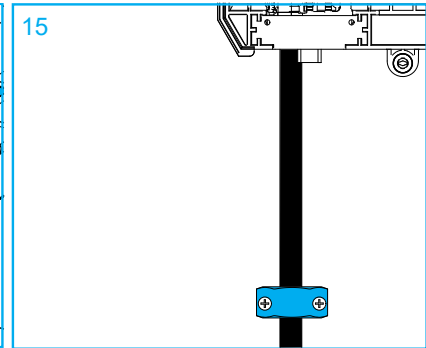
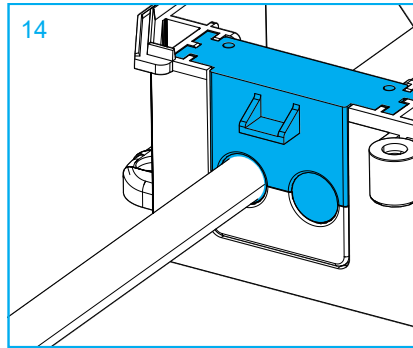
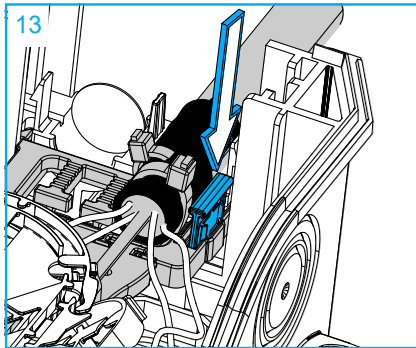
9 Secure the cable ties.



10 Break off the wig.

11 Insert the bottom hook of the base plate behind the side of the seal block and turn the whole assembly.

12 The other hook will also clicks into place.

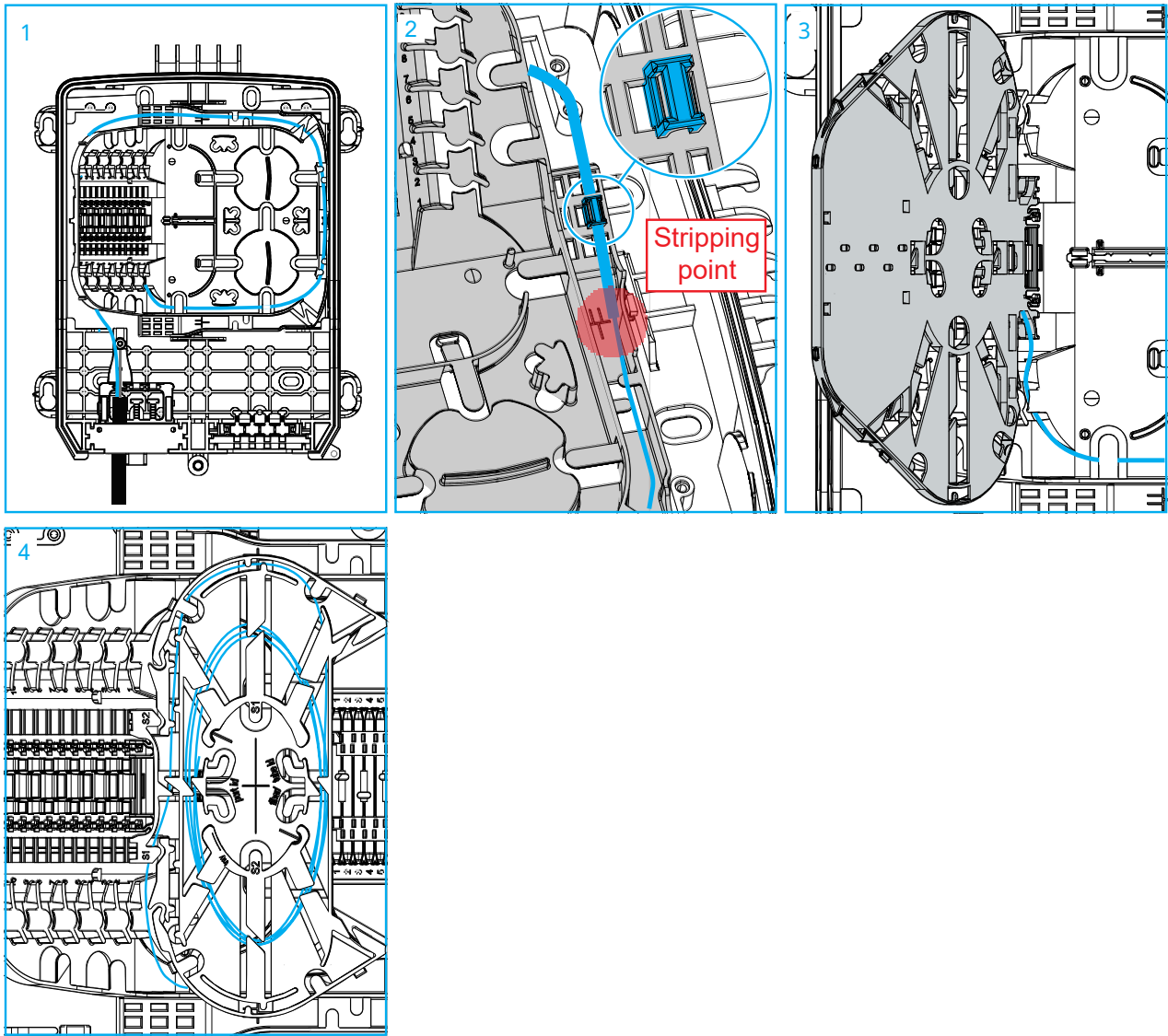


13 Install the wig to lock the assembly in place.


14 Reassemble the front section of the cable seal port.

15 Secure the feeder cable to the wall below the box. Verify that the strength member adapter plate remains securely connected to the feeder base plate.

## 6.3 Route feeder fibers to tray



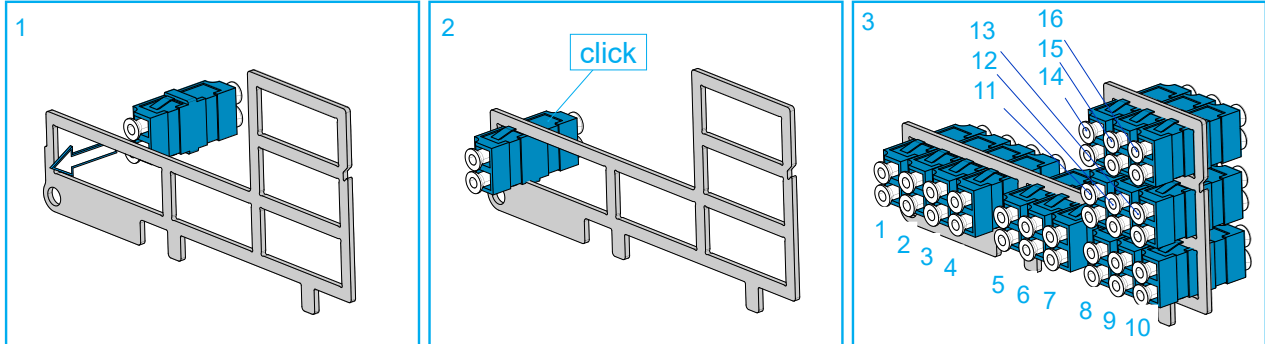
- 1 Route the feeder fibers as shown in the illustration.
- 2 In case of a few feeder tube's attach them with the small "bridge" as shown in the illustration, in case of more feeder tubes use a cable tie and protection tape.
- 3 Route the fibers to the tray.
- 4 Route the fibers on the tray

 **Note:** Use the correct feeder tube's length to avoid the tube's can be damaged between the box and cover when closing.

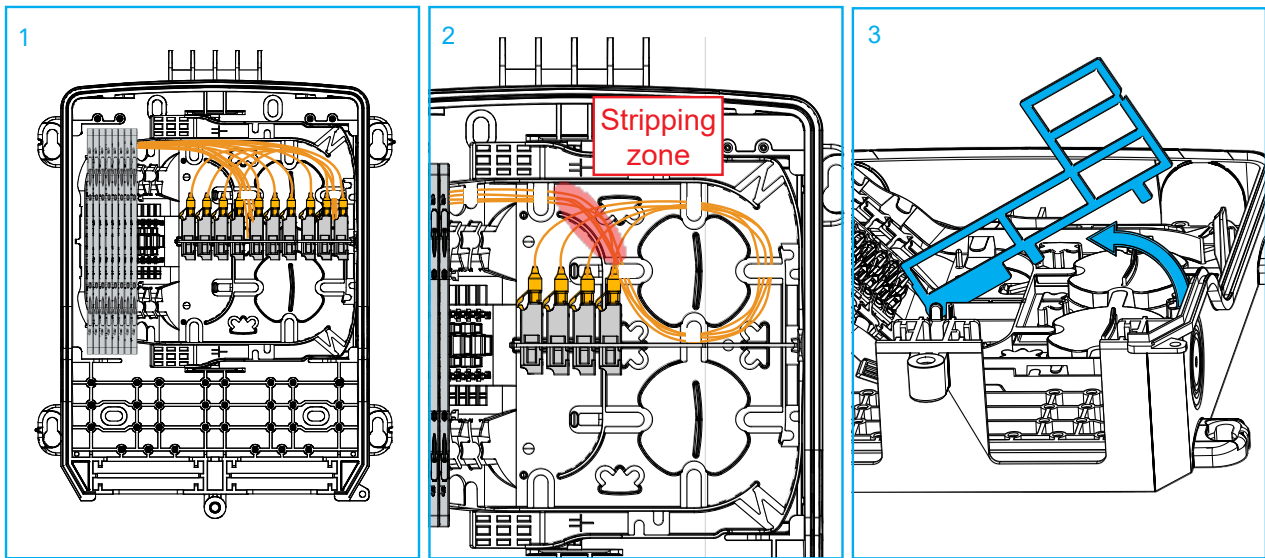
## 7 Install 900µm pigtails

### 7.1 Install adapters

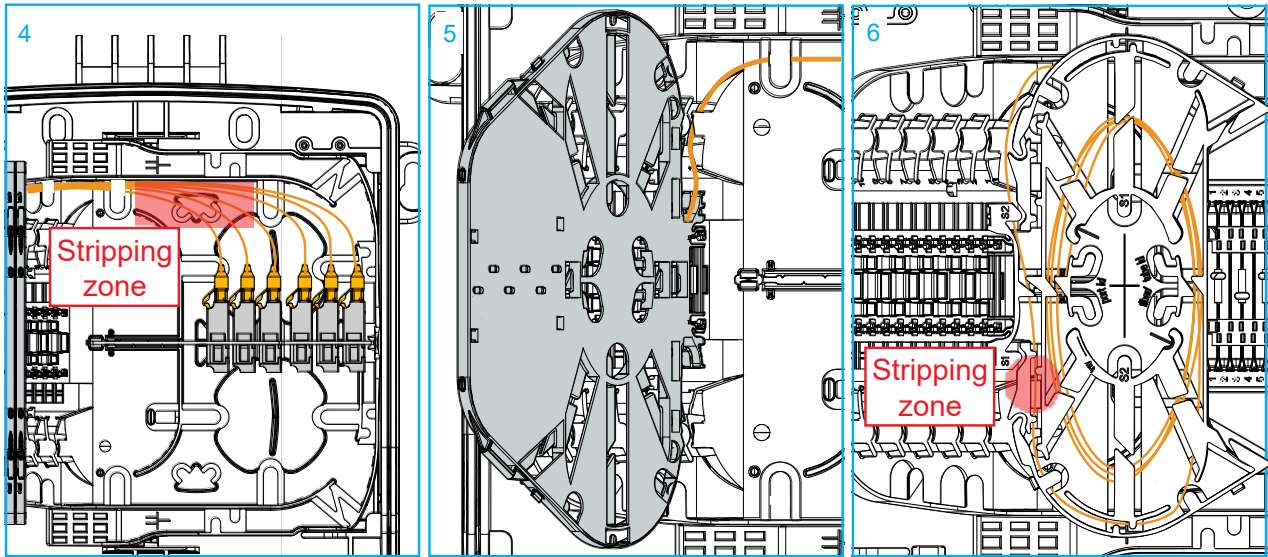
#### 7.1.1 SC/LC/Duplex adapters



### 7.2 Route from adapter to organizer

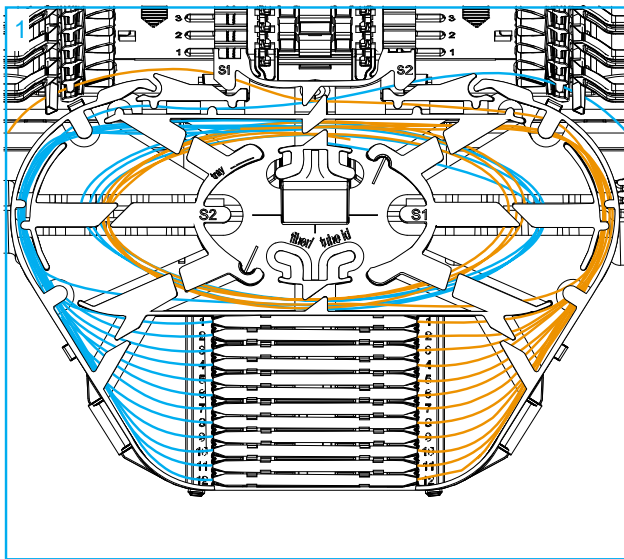


- 1 Insert the connector into the port until you hear a click, indicating a secure connection.
- 2 Route the pigtails to the tray and strip them in the stripping zone, as indicated in Illustration 2.
- 3 The adapter bracket is hingeable. Easier to access or route pigtails that run under the bracket.



- 4 Route the pigtails to the tray and strip them in the stripping zone, as shown in illustration 4.
- 5 Route the pigtails to the tray.
- 6 Store the fibers on the tray and alternatively the pigtails can be stripped in the stripping zone as shown in illustration 6.

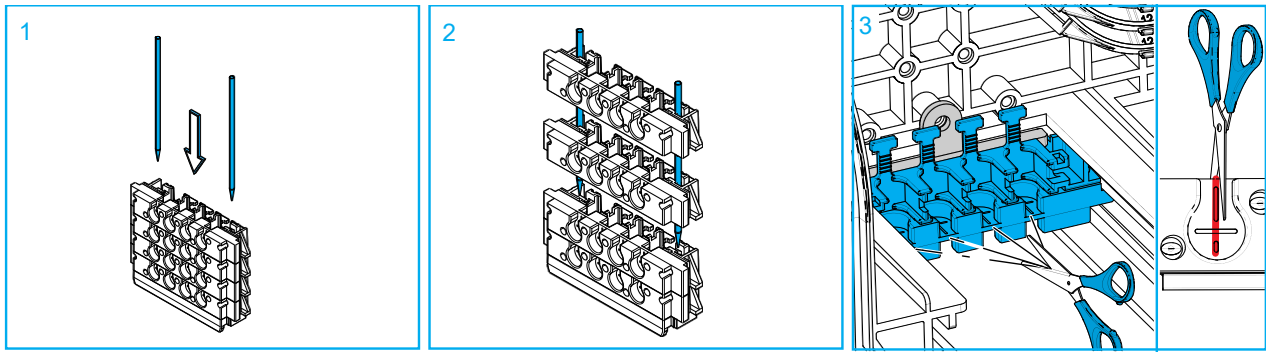
## 8 Splicing



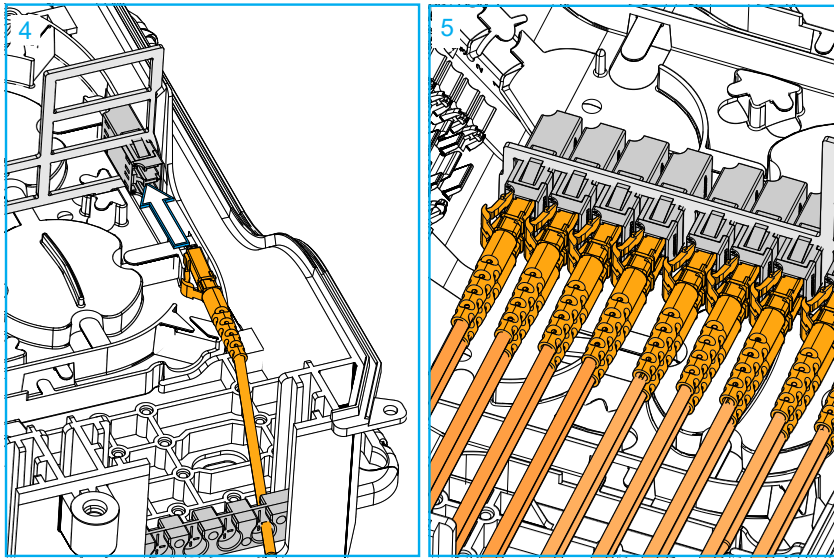
- 1 Make splice per local practice and store the splice protector in the splice protector holder. Store the over lengths in loops in the over length storage area.

## 9

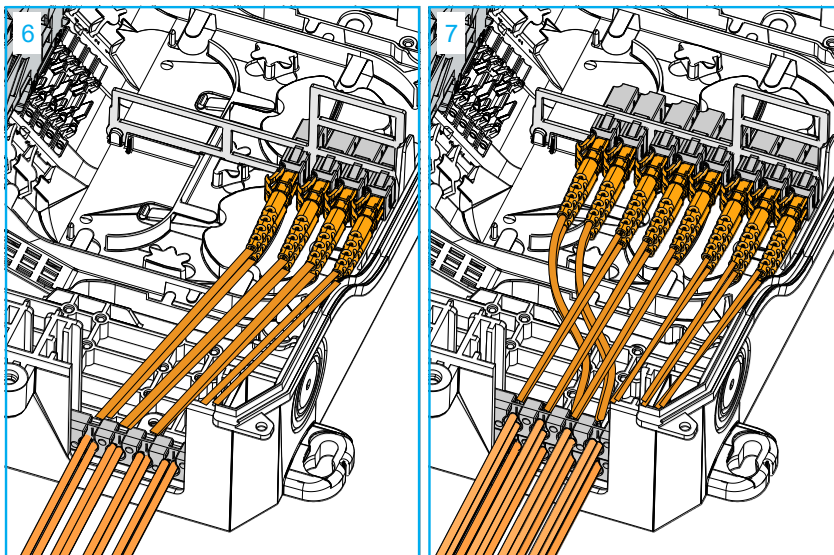
## Drop cable installation




- 1 Use two guiding pens to open the ports.
- 2 Once the latches are disengaged, pull the sections apart.
- 3 Place the bottom part in the box and install the first part of the seal port and open the ports by making a cut in each port. Ensure the cut is sufficiently deep and extends below the center of the hole.




- 4 Align the connector with the port, ensuring the correct orientation. Insert the connector into the port until you hear a click, indicating a secure connection.
- 5 Start inserting the connector sequence as explained in chapter **6.1 Install adapters**.




6 Guide the pigtails (cables) through the port.


 **Note:** Be careful not to damage the pigtails (cables) when pushing through the rubber port.


7 Proceed with the same approach for the subsequent layers if needed, or simply assemble the parts together.

 **Note:** When using SC connectors (16) use 1 drop per seal. When using LC connectors (32) use 2 drops per seal!

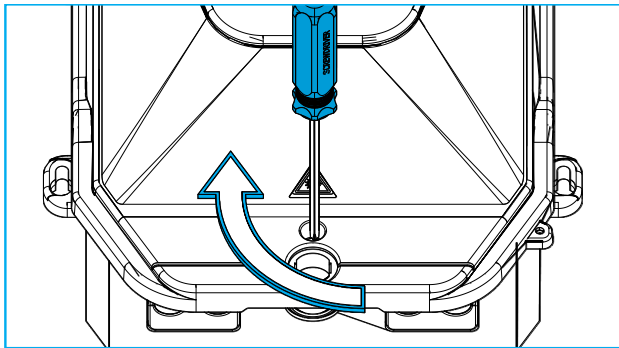
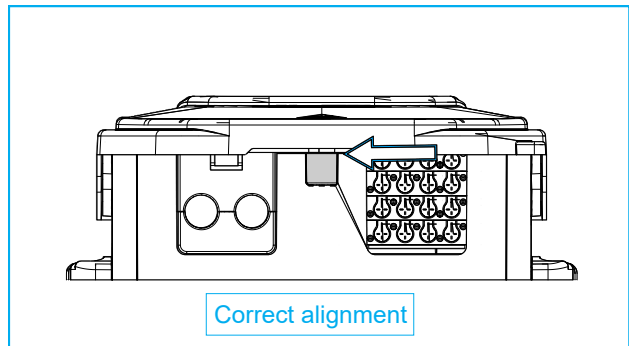
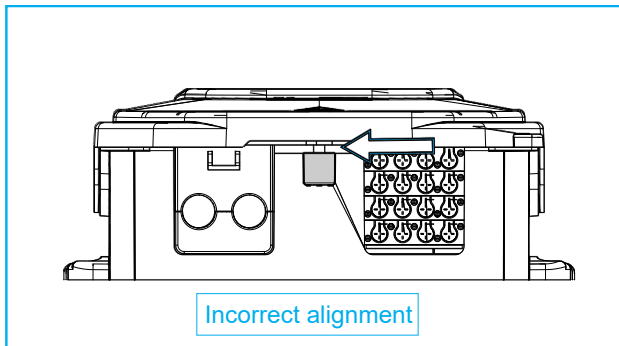
## 10 Close the box

 **Note:** Use a blindplate in case of an un-used seal port.

 **CAUTION:** Ensure all cables are properly positioned inside the box to avoid damaging them when closing the cover.

 **CAUTION:** Secure all cables to the wall below the box before bending.

Verify that the cover is installed properly with no space between the housing and cover as shown.



1 Secure by turning the locking screw.

## **11 Disclaimer**

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