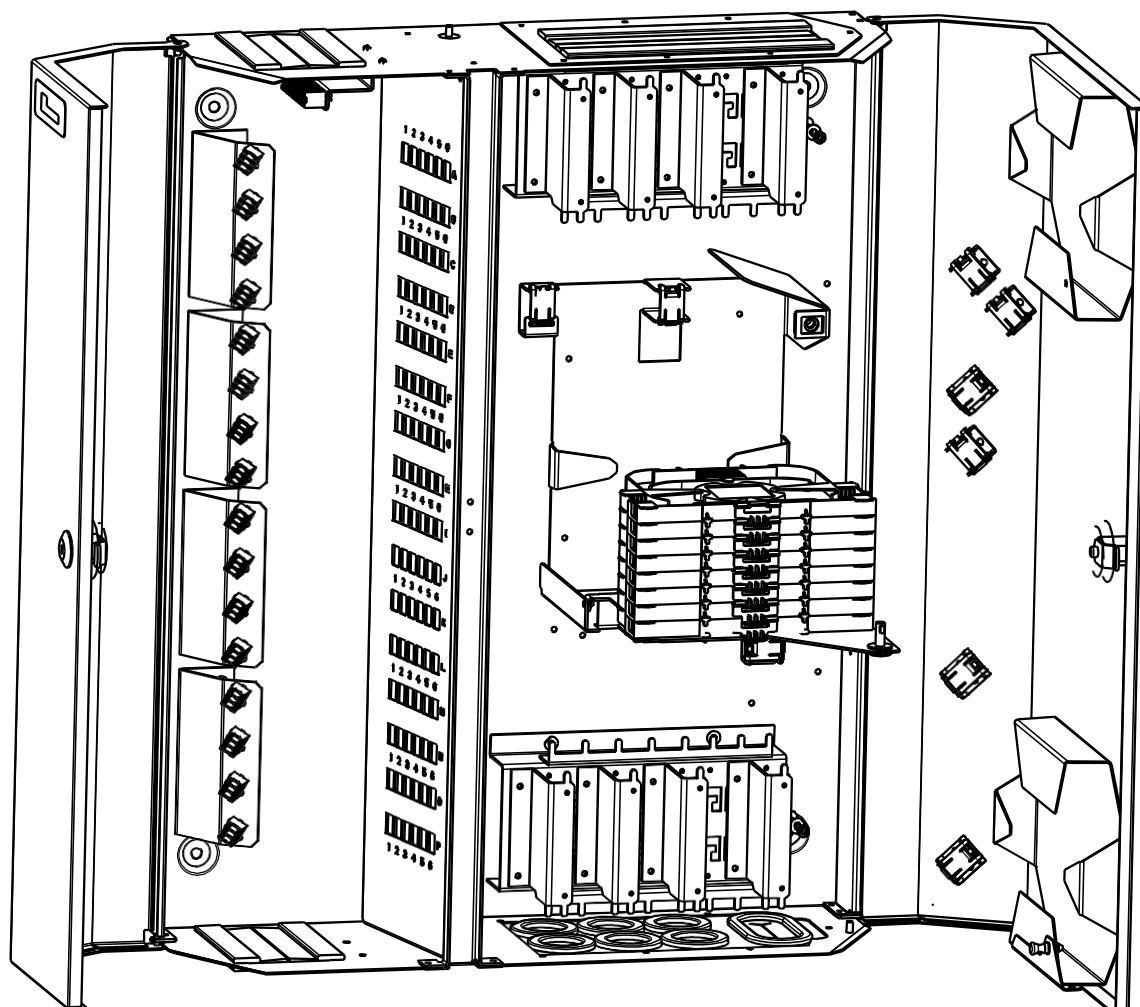


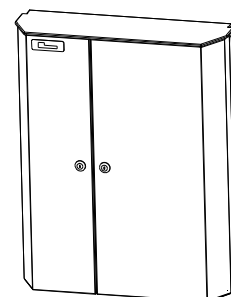
#smartconnection

NOTICE / INSTRUCTIONS



CROS PLUS 2 SPLICE TRAYS

IP30-IP54



SUMMARY

1. PRODUCT DESCRIPTION	⇒ 4
2. CABLING ARCHITECTURE	⇒ 6
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10. OVAL PORTS SEALING CABLES	⇒ 28
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CROS PLUS II

96 version

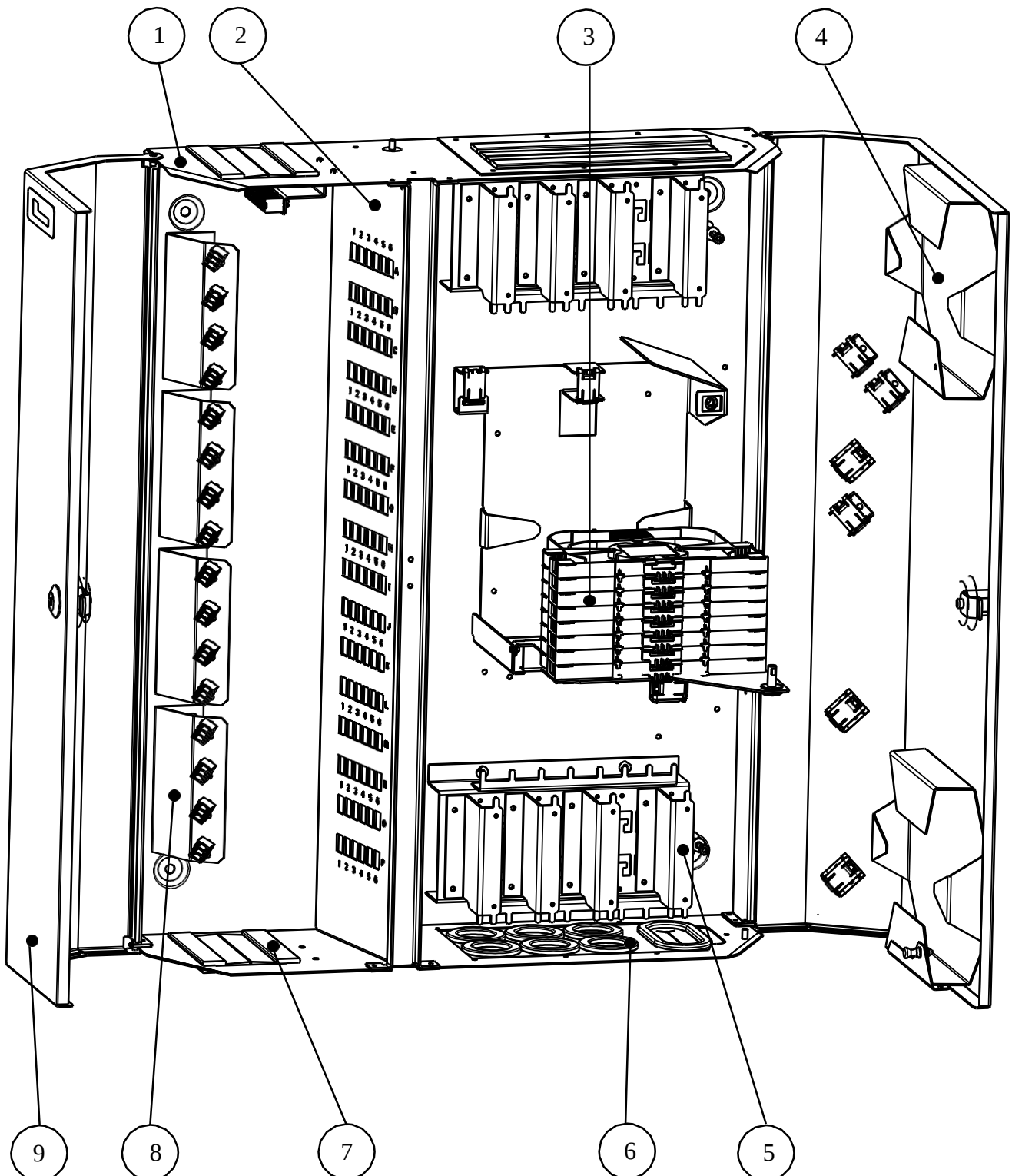


Fig. 1

1 **PRODUCT DESCRIPTION**

The CROS PLUS II is a connection device for subscriber with 2 functions splicing and patching (96 splices and adapters).

In function of the order : IP50 or IP54 Normalisation.

The box include :

A CROS PLUS II (1),

A patch panel of 24,36,48,72 or 96 adapters SC/FC screw type (2),

1 to 8 splice trays, see Fig.1

An «operator» security door with key, and coiling the tubes (4),

A cable fixing device plate (5),

A support for incoming cables (6),

A guiding device for the output jumpers (7),

Some supports of guiding of the jumpers (8),

An «user» security door with key (9),

TECHNICAL CHARACTERISTICS

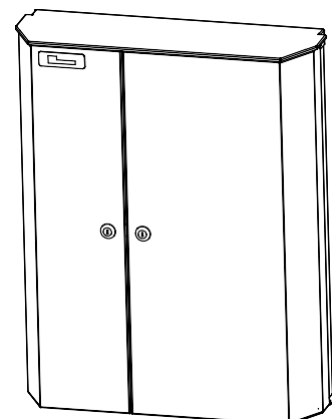
Height : 598 mm / **23.5 inches**

Width : 470 mm / **18.5 inches**

Depth : 145 mm / **5.5 inches**

Weight : 12 kg / **6.5 pounds**

Finition : **Polyester epoxy paint grey RAL 9002**



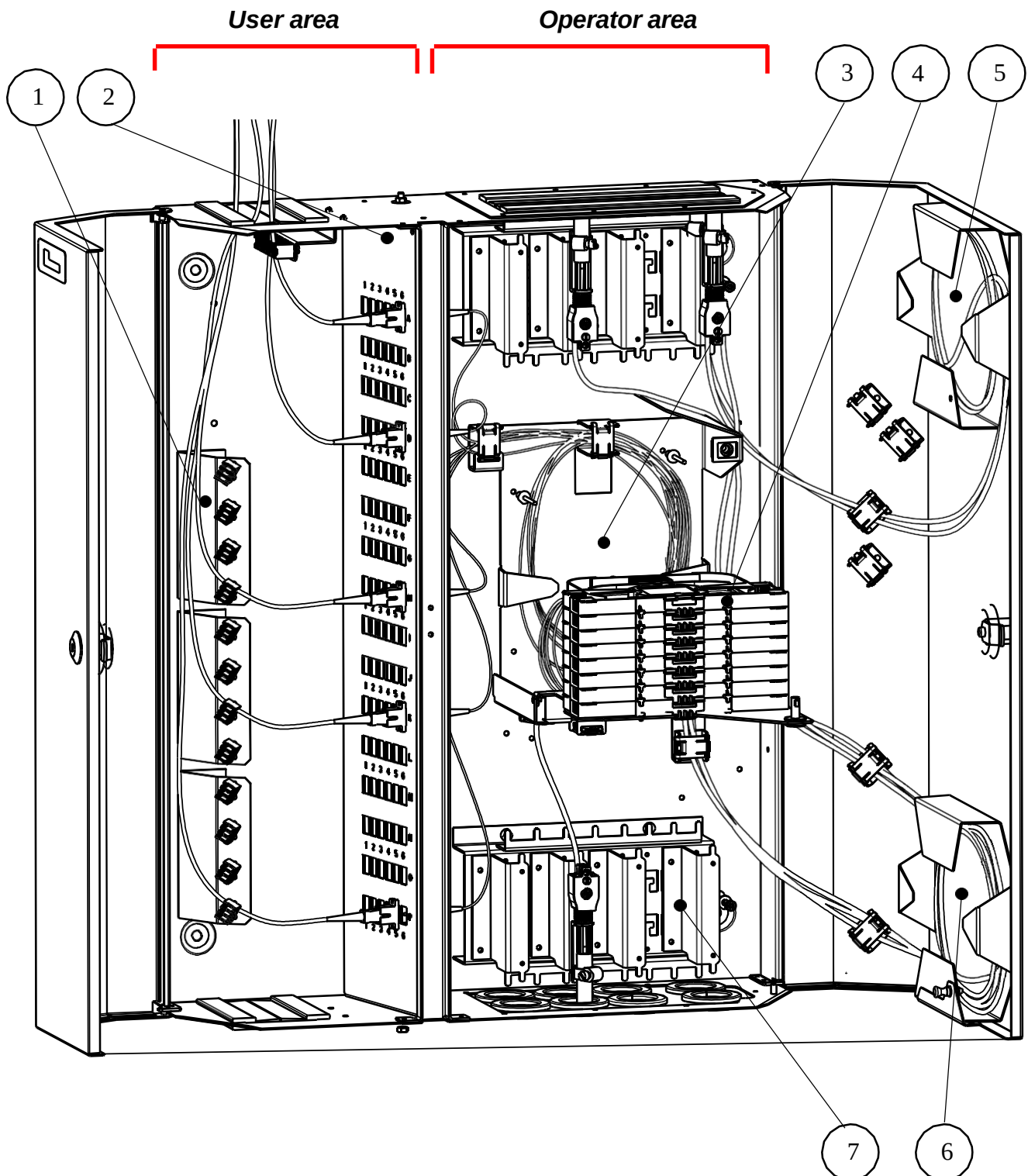


Fig. 3

96 version Splice tray

2. CABLING ARCHITECTURE

An «user» area secured by key for jumpers access (picture 3) :

Maintain support of jumpers with combs (1)

-

A adapter patching panel (2)

An «operator» area secured by key

- A patching panel for operator

An pigtails storage support

A Splices trays assembly

A storage tube system for derivation tube in the door

A storage tube system for midspan tube in the door

A polyvalent fixation support for fixing system

KIT CONTENT

Extract the CROS PLUS II out of the packaging :

The CROS PLUS II box is delivered fully fitted with an adapter patching panel and some FiberArt™, Splice trays module according to the selection mode.

A fixing kit (screws and pins).

A CROS PLUS II cabling practice.

3. CABLES PORTS CONFIGURATION AND JUMPERS OUTPUT CONFIGURATION

COFFRET TYPE IP55 / IP55 VERSION BOX

TYPE B1 IP50 / B1 TYPE

INCOMING CABLES BY UPPER OR LOWER WITH :

- STANDARD FAN-OUT WITH COLLARS
- BRUSHES FOR INCOMING CABLES

JUMPERS OUTPUT BY UPPER AND LOWER WITH :

- BRUSHES FOR OUTGOING JUMPERS

TYPE T1 IP50 / T1 TYPE

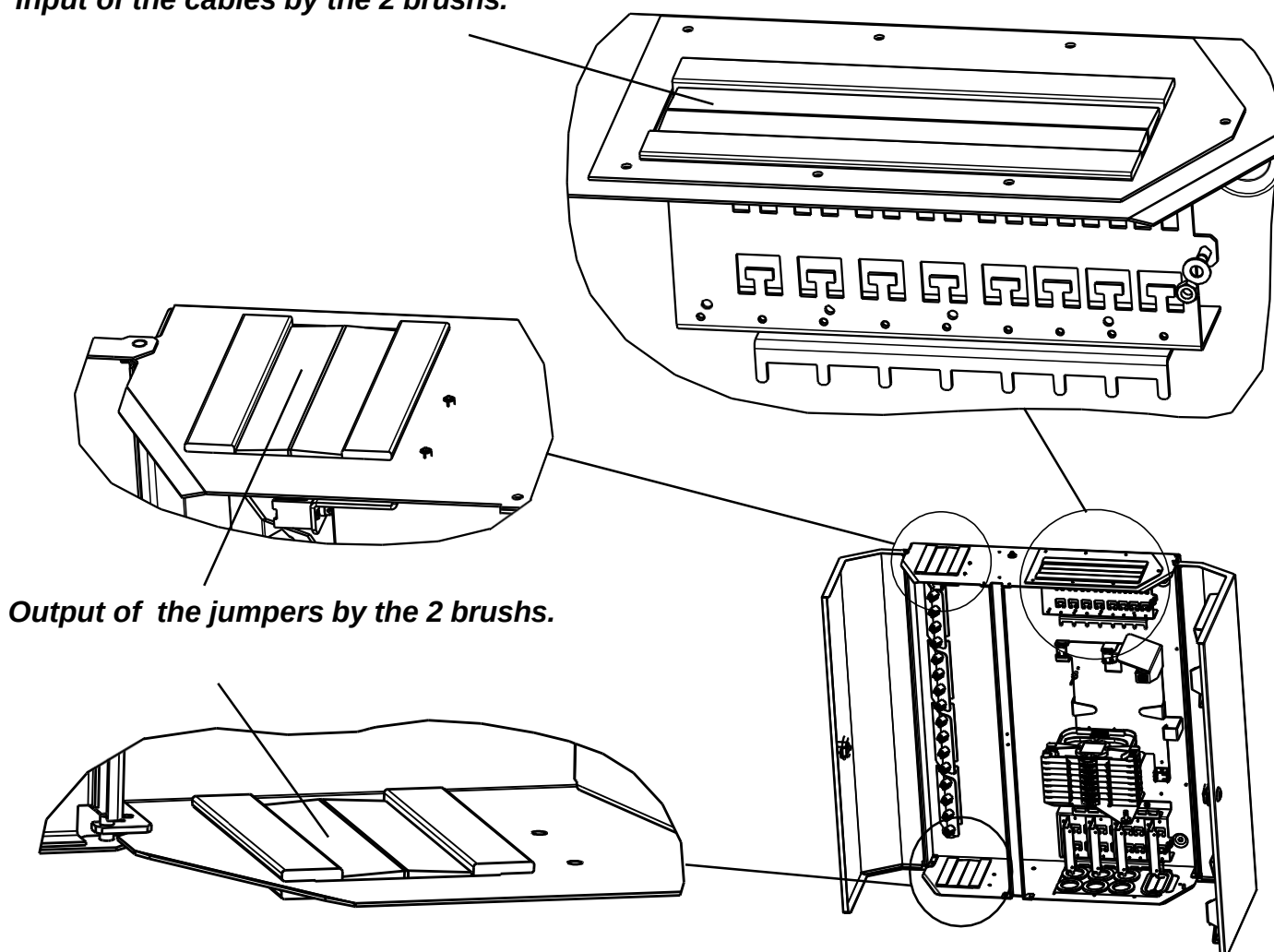
INCOMING CABLES BY UPPER WITH :

- STANDARD FAN-OUT WITH COLLARS
- BRUSH FOR INCOMING CABLES

JUMPERS OUTPUT BY UPPER OR LOWER WITH :

- BRUSH FOR OUTGOING JUMPERS

Input of the cables by the 2 brushes.



VERSION BOX

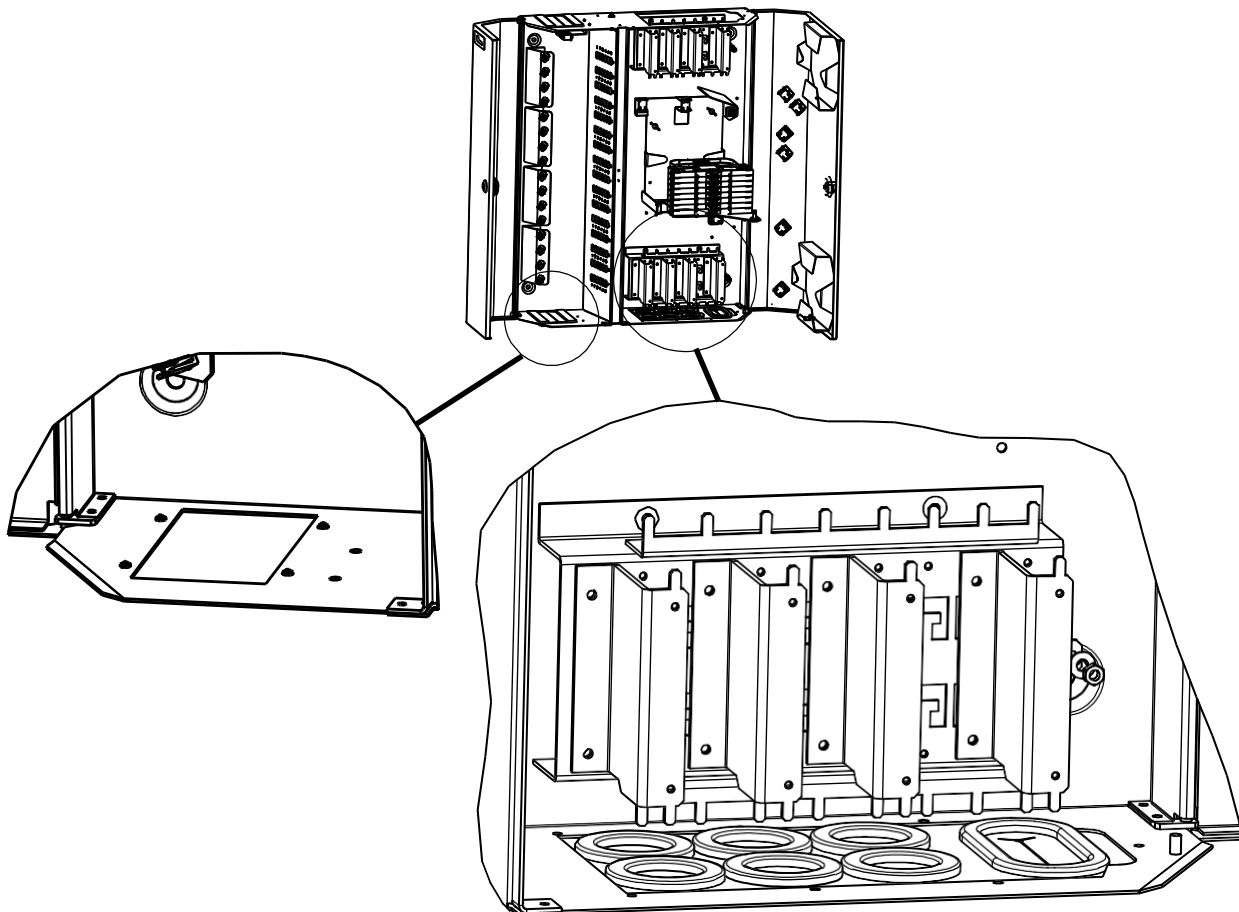
TYPE B2 IP54 / B2 TYPE

INCOMING CABLES BY LOWER WITH :

- A FAN-OUT DEVICE WITH 2 LEVELS
- AN INPUT PLATE EQUIPPED FOR 6 CABLES AND 1 OVAL PORT

JUMPERS OUTPUT BY LOWER WITH :

- A SEAL DEVICE FOR OUTGOING JUMPERS



TYPE T2 IP54 / T2 TYPE

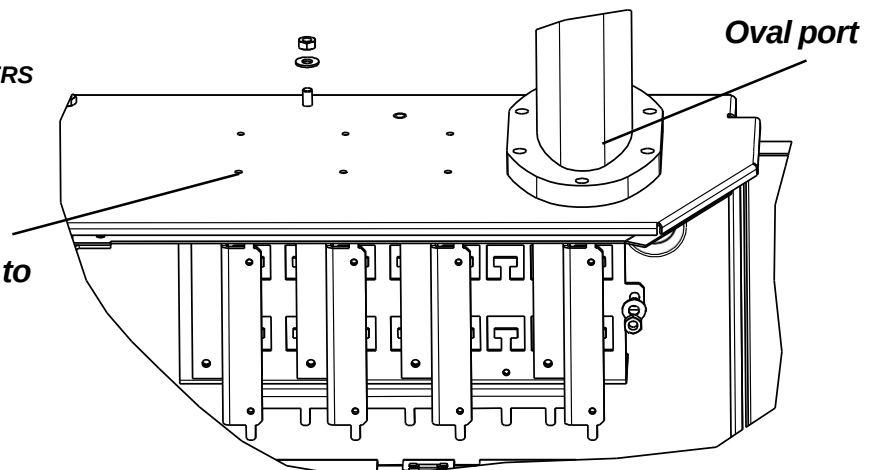
INCOMING CABLES BY UPPER WITH :

- A FAN-OUT DEVICE WITH 2 LEVELS
- AN OVAL PORT OF SEALING

JUMPERS OUTPUT BY LOWER WITH :

- A SEAL DEVICE FOR OUTGOING JUMPERS

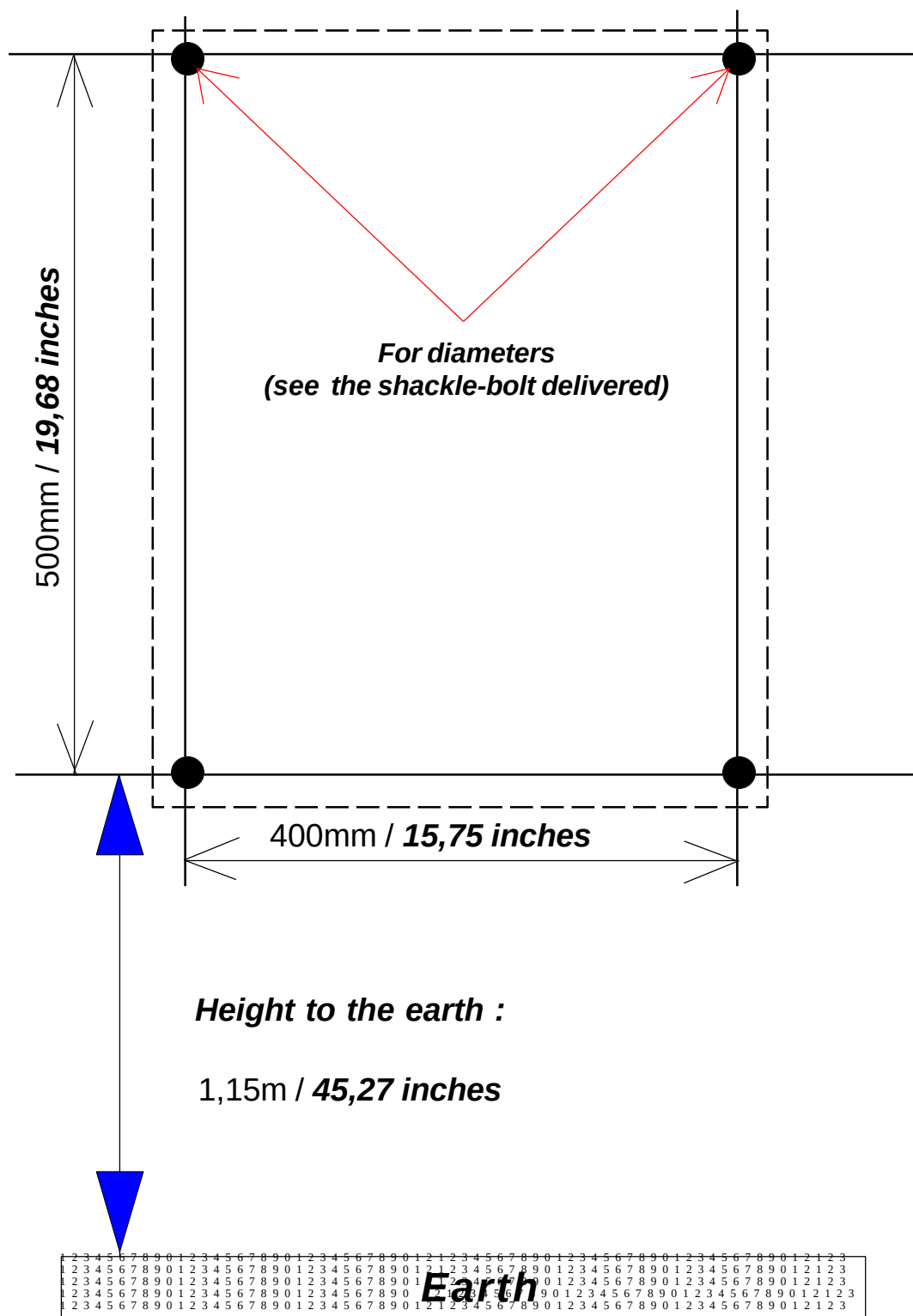
Positions for cable guide. Holes to be made by the operator.



4. SECURING OF THE BOX ON THE WALL

Use the under template to mark the 4 mounting holes.

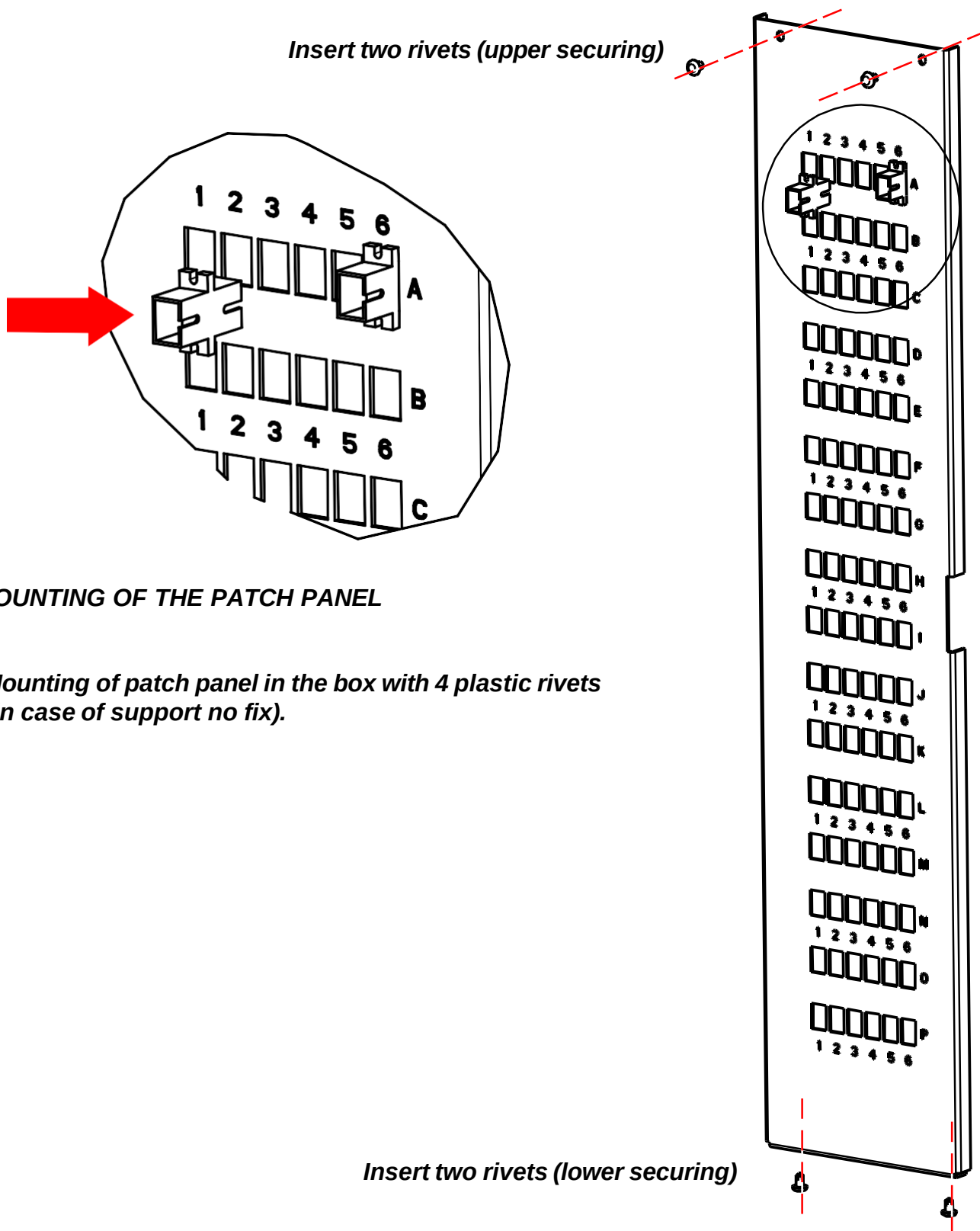
Drill the holes and fix the box to the wall using the four screws included.



5. PREPARATION OF THE BOX (BY THE OPERATOR)

1. MOUNTING OF THE SC ADAPTERS INTO THE PATCH PANEL

Insert the SC adapters in the same position.



MOUNTING OF THE PATCH PANEL

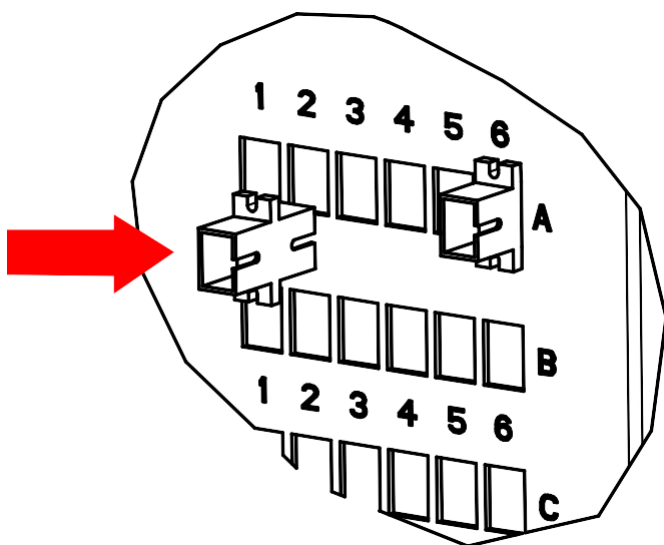
Mounting of patch panel in the box with 4 plastic rivets (in case of support no fix).

5. PREPARATION OF THE BOX (BY THE OPERATOR)

1. MOUNTING OF THE SC ADAPTERS INTO THE PATCH PANEL

Insert the SC adapters in the same position.

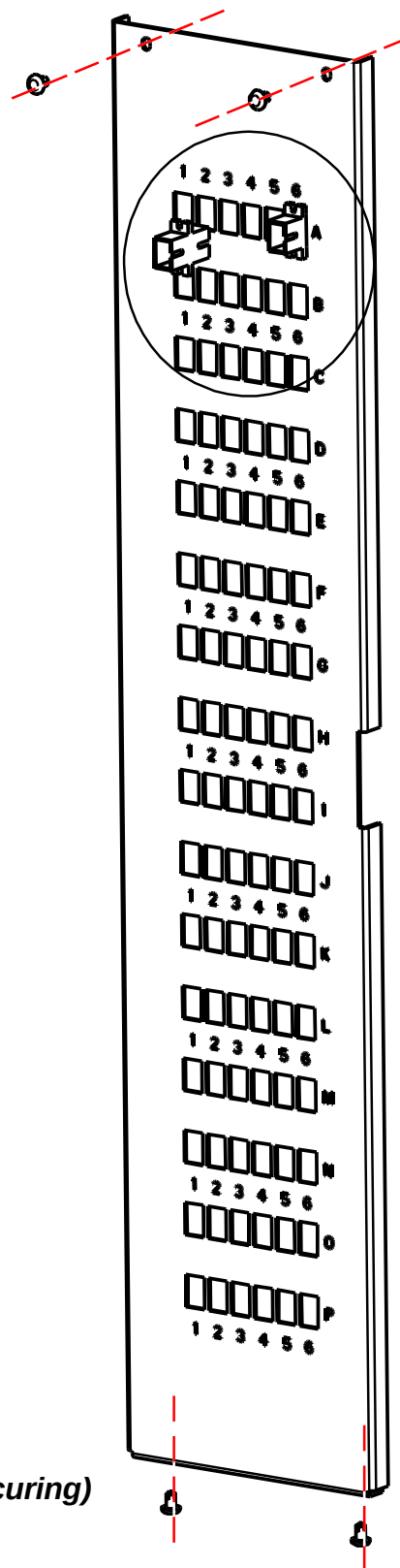
Insert two rivets (upper securing)



MOUNTING OF THE PATCH PANEL

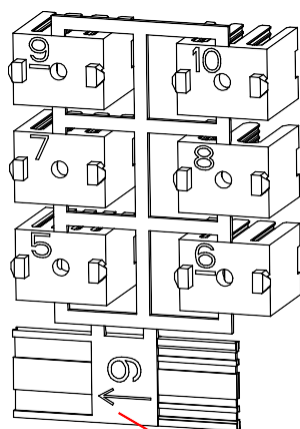
Mounting of patch panel in the box with 4 plastic rivets (in case of support no fix).

Insert two rivets (lower securing)



5.3 MOUNTING OF THE JUMPERS MANAGEMENT KITS

A) **Choice the comb corresponding to the diameter of the jumpers.**

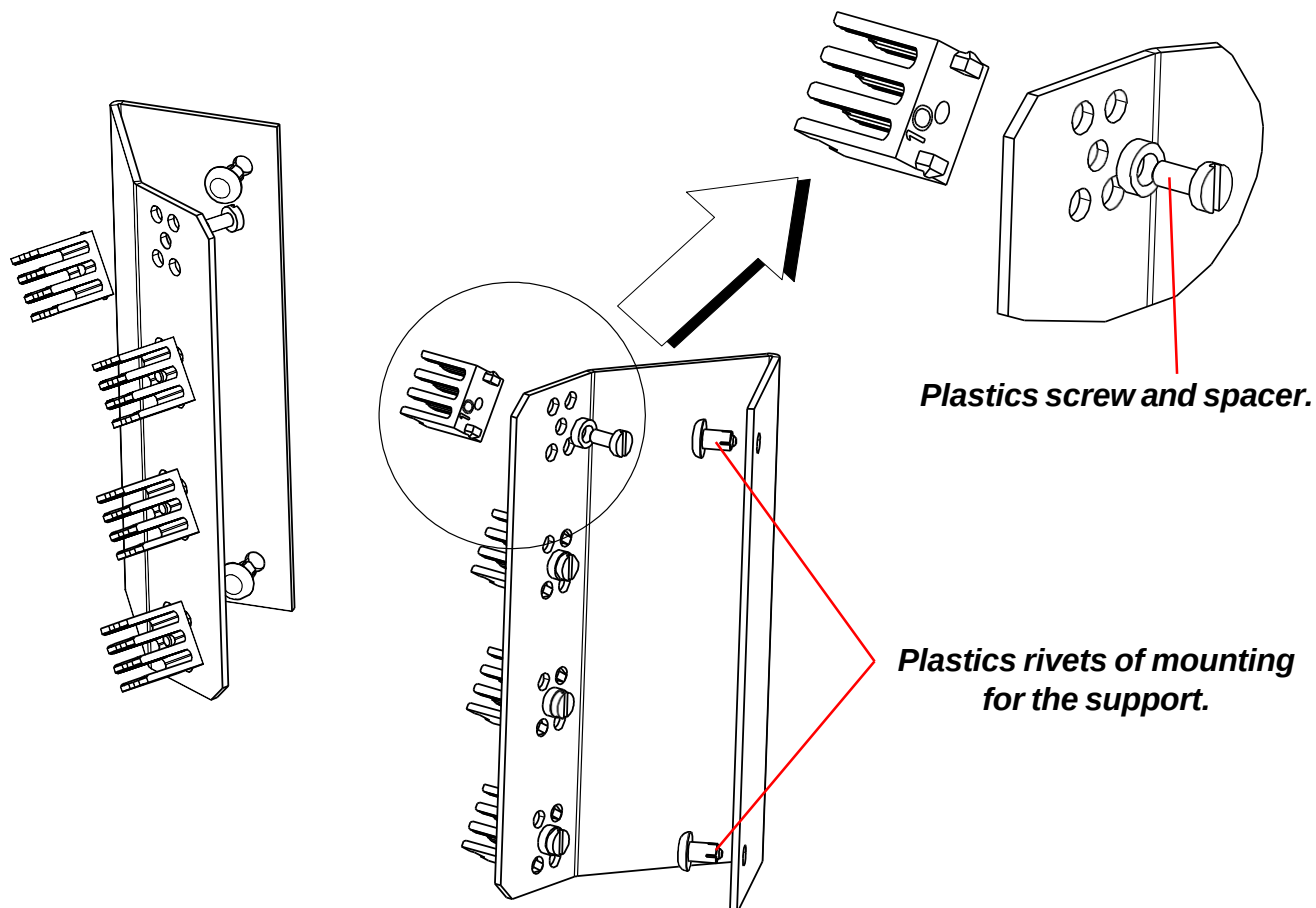


Cabling tools

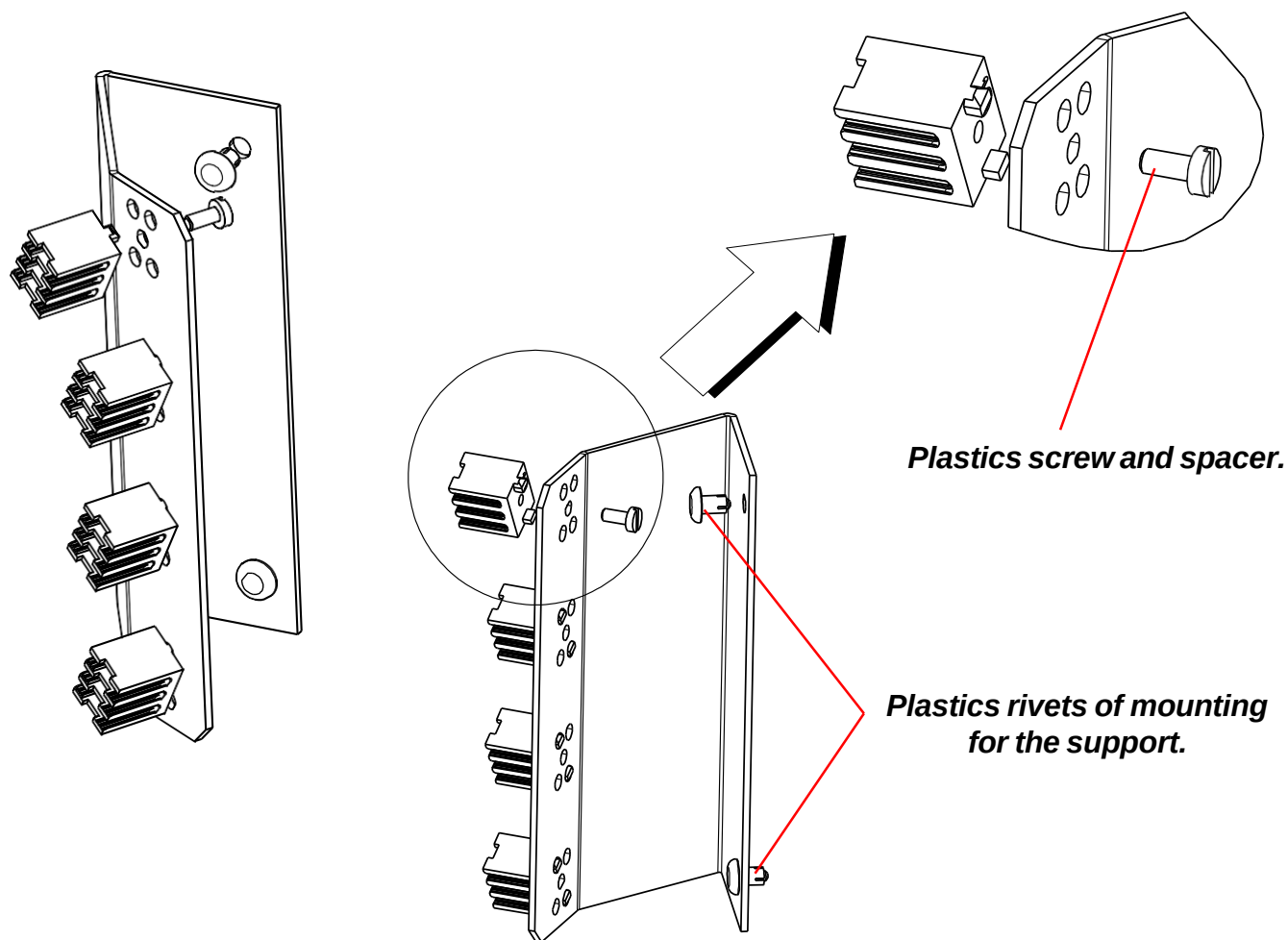
Comb number	Ø of jumpers	Max of jumpers by comb
5	1,1 mm ou 900 µm	36
6	1,6 mm	18
7	2,4 mm	12
8	4 mm	4
9	2 mm	15
10	2,8 mm	12

B) **In function of the output of the jumpers at the upper or at the lower, orientate the 4 combs on the support and secure them with the screw and the washer include.**

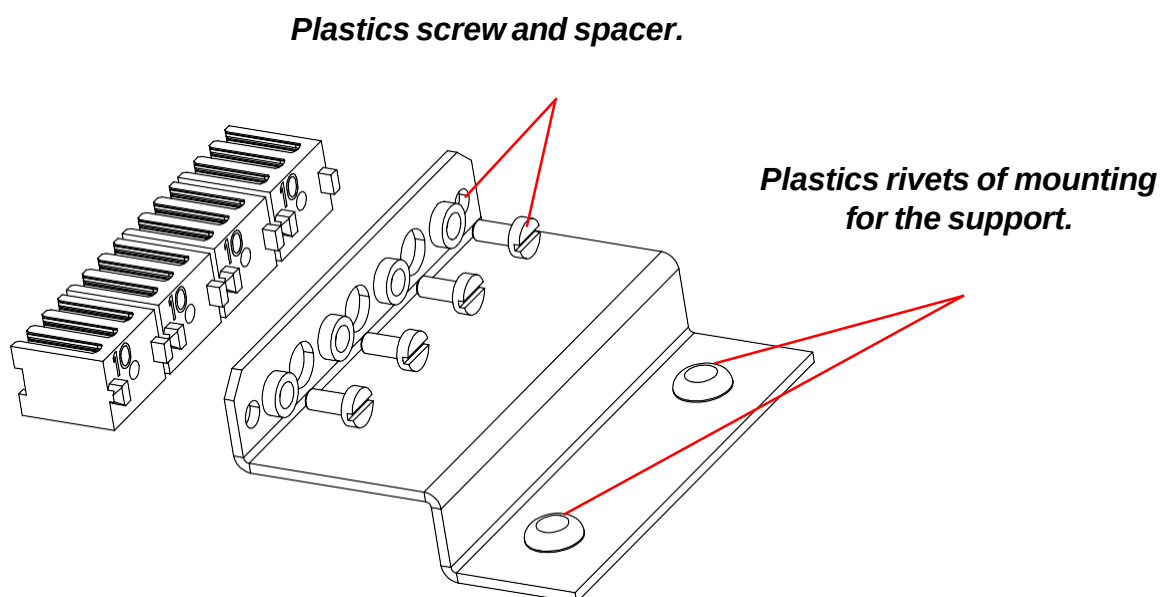
LOWER ORIENTATION FOR JUMPERS



UPPER ORIENTATION FOR JUMPERS

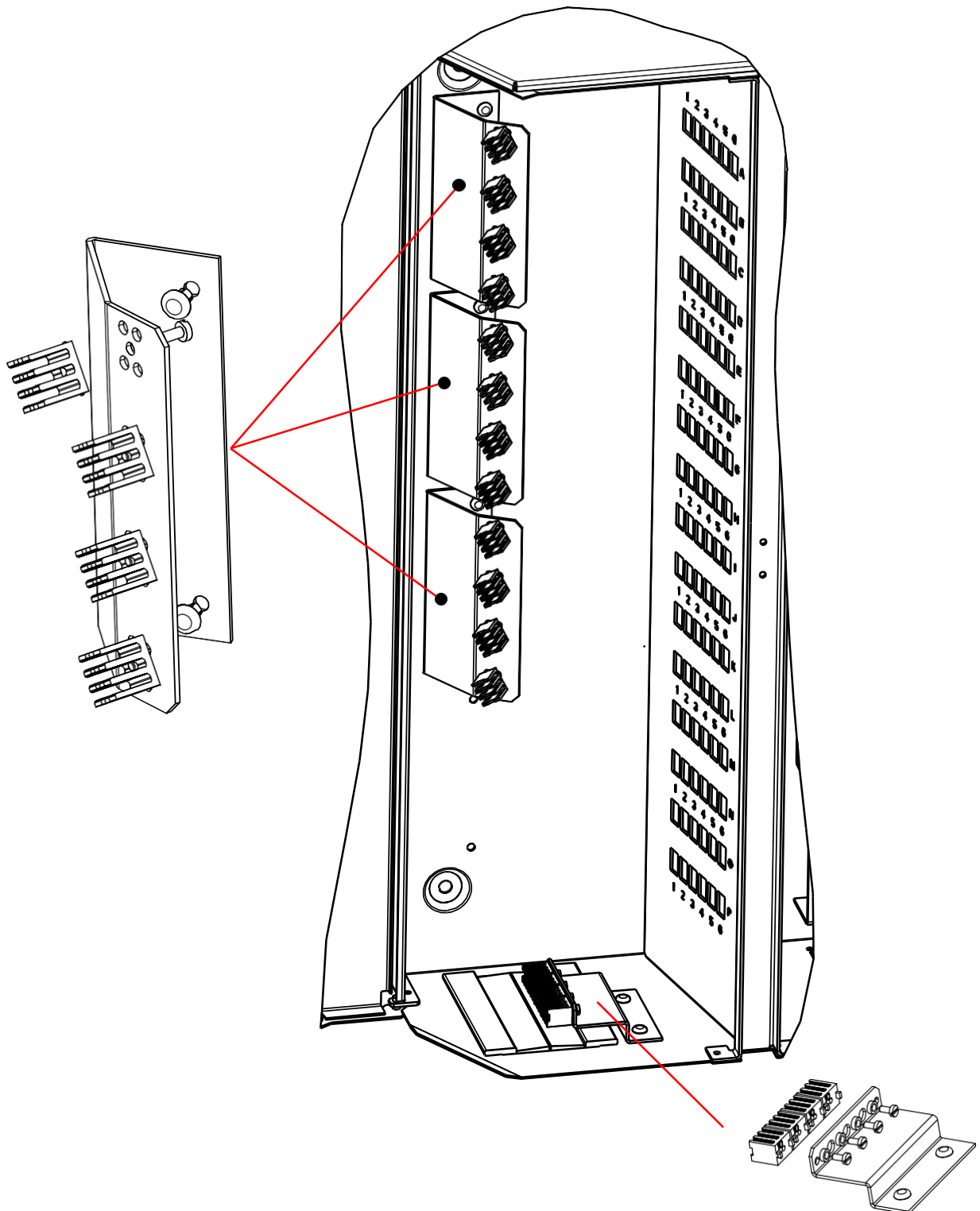


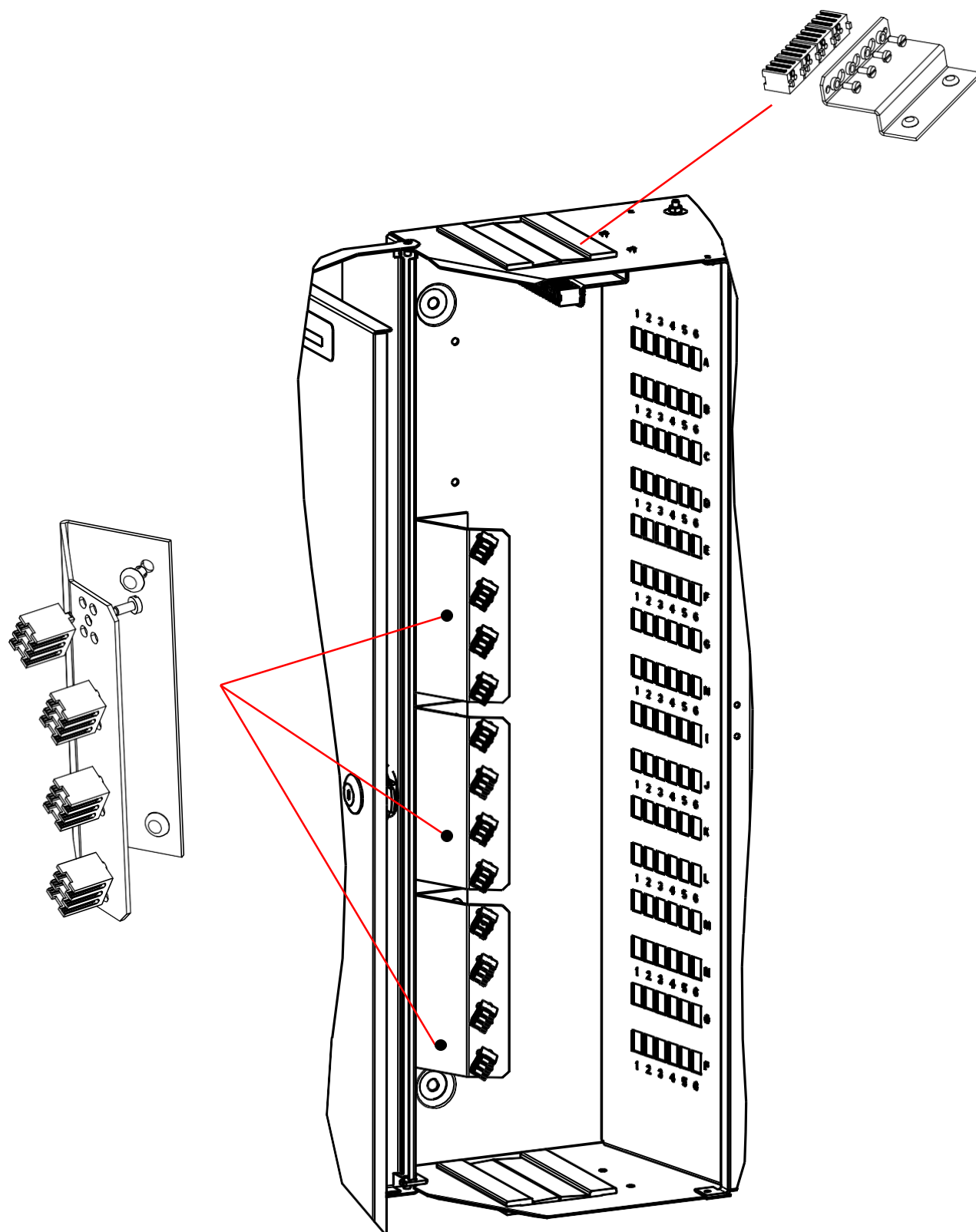
- C) Equip the support with combs and mount it near the ouptput brushes of the jumpers.



- D) *In function of the jumpers cabling to lower or upper, position the supports of combs and secure them with the 2 plastics rivets.*

LOWER ORIENTATION FOR JUMPERS



UPPER ORIENTATION FOR JUMPERS

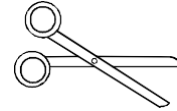
6- PREPARATION OF THE INCOMING CABLE

Preparation of the derivation cable

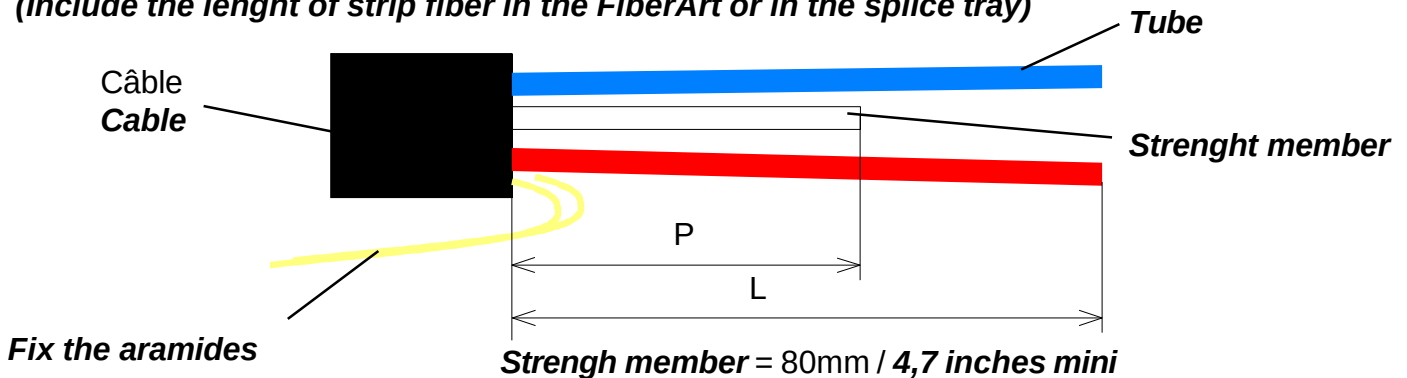
Direct cable of the tubes

Strip the cable on the L lenght

$L_{\text{mini}} = 1,5 \text{ m} / 60 \text{ inches}$



(Include the lenght of strip fiber in the FiberArt or in the splice tray)

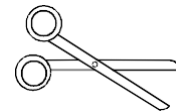


Preparation of Mid-span cable

Mid-span cabling

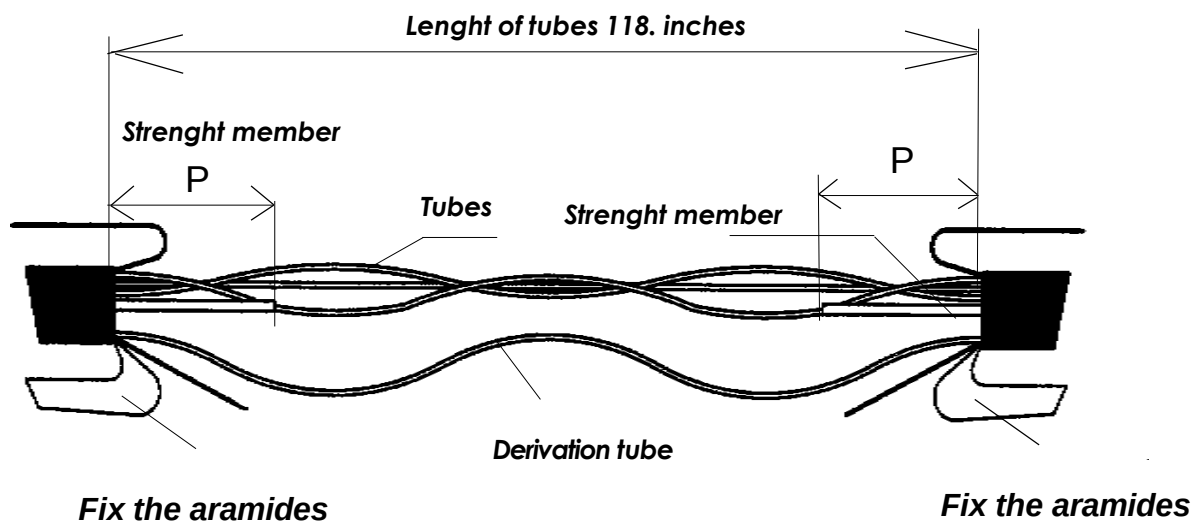
Strip the cable on the L lenght

$L_{\text{mini}} = 3\text{m} / 118 \text{ inches}$



Strip the cable and take out the tube which has to be shunted from the bundle

Flange the cable on the 2 fixing devices, see instruction of fixing system



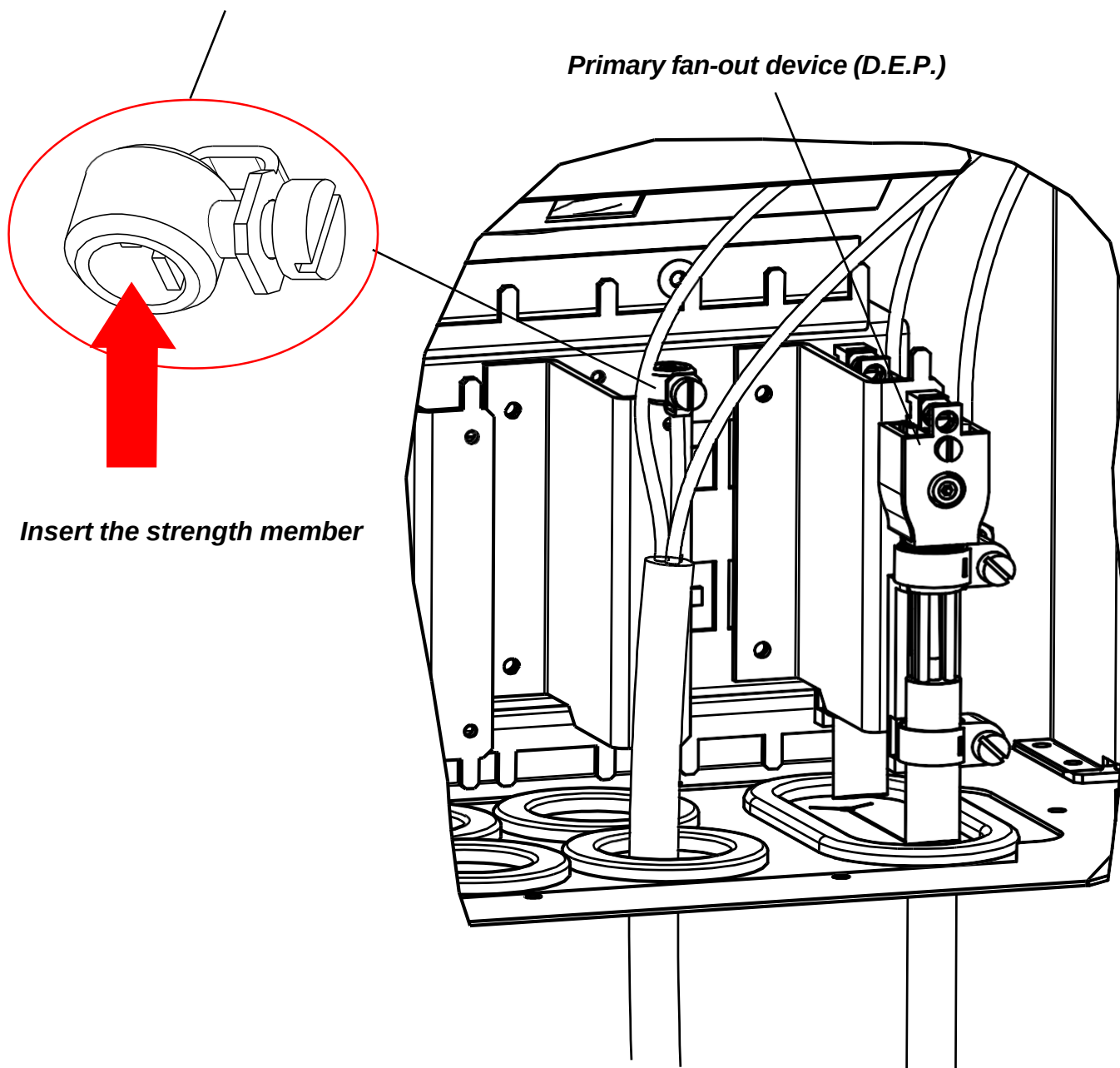
Prepare the extremities and cut the lenght P of strenght member with the fixing system.

7. MOUNTING OF THE FAN-OUT DEVICE FOR INCOMING CABLE

Position the D.E.P. on the anchorage plate at the upper or lower of the box.

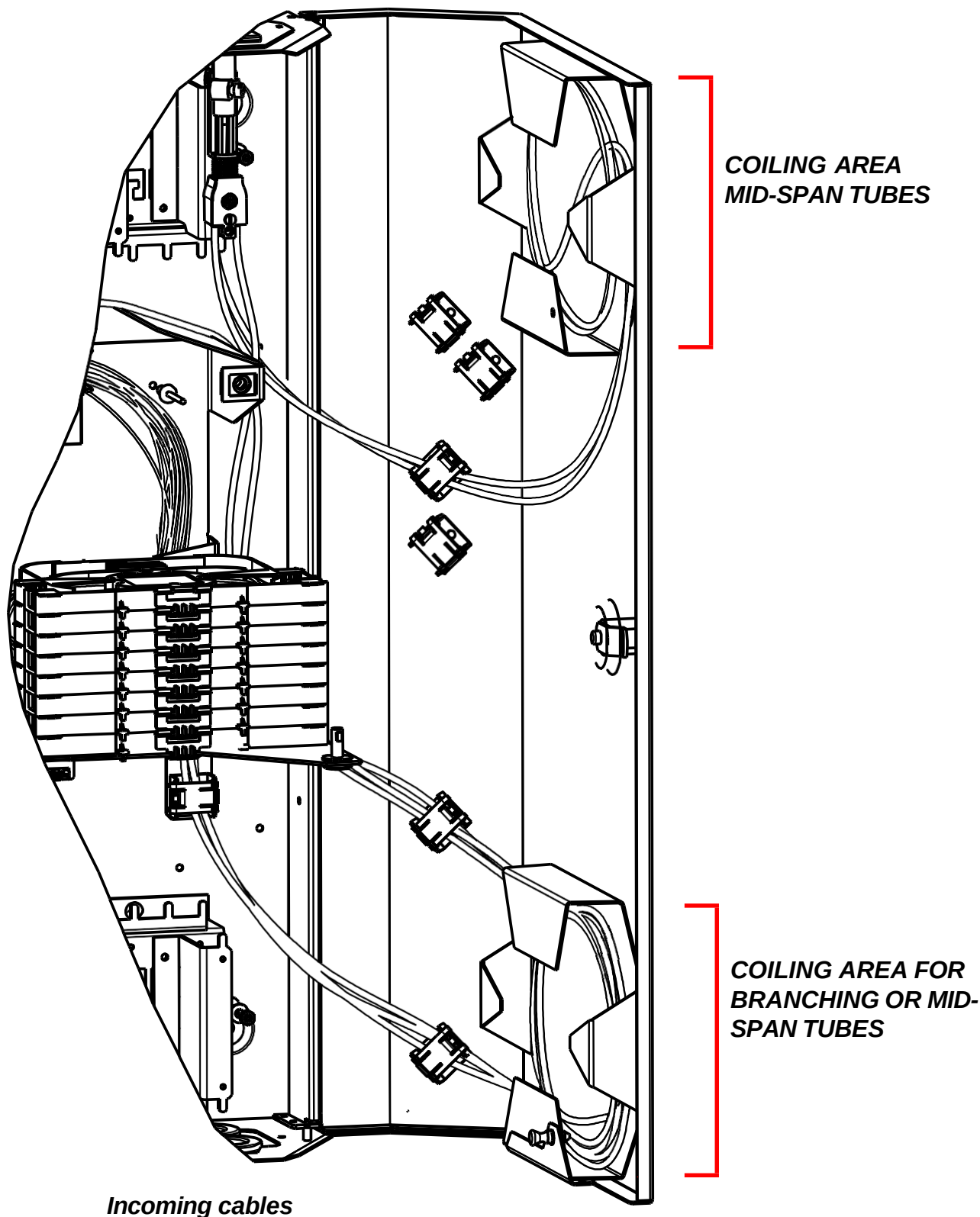
Ring equipped to lock the strength member.

Primary fan-out device (D.E.P.)



8. CABLING OF THE CROS PLUS II

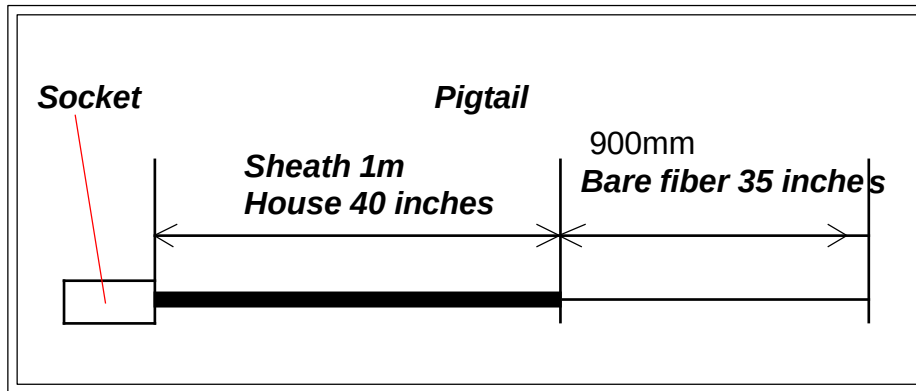
COILING OF THE INCOMING TUBES



In case of incoming cable by upper, invert the 2 coiling area.

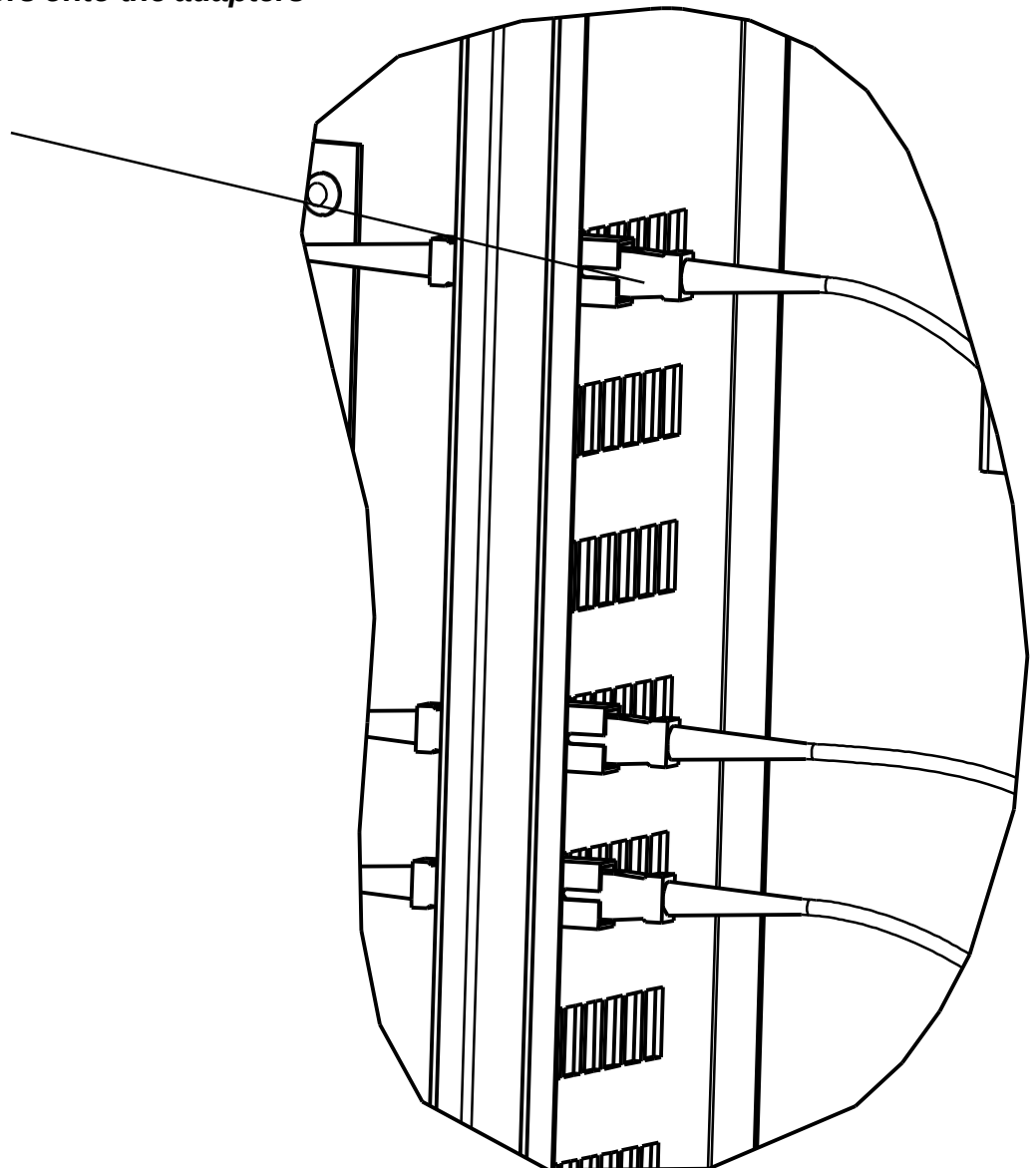
PREPARATION OF THE PIGTAILS

Pigtail example

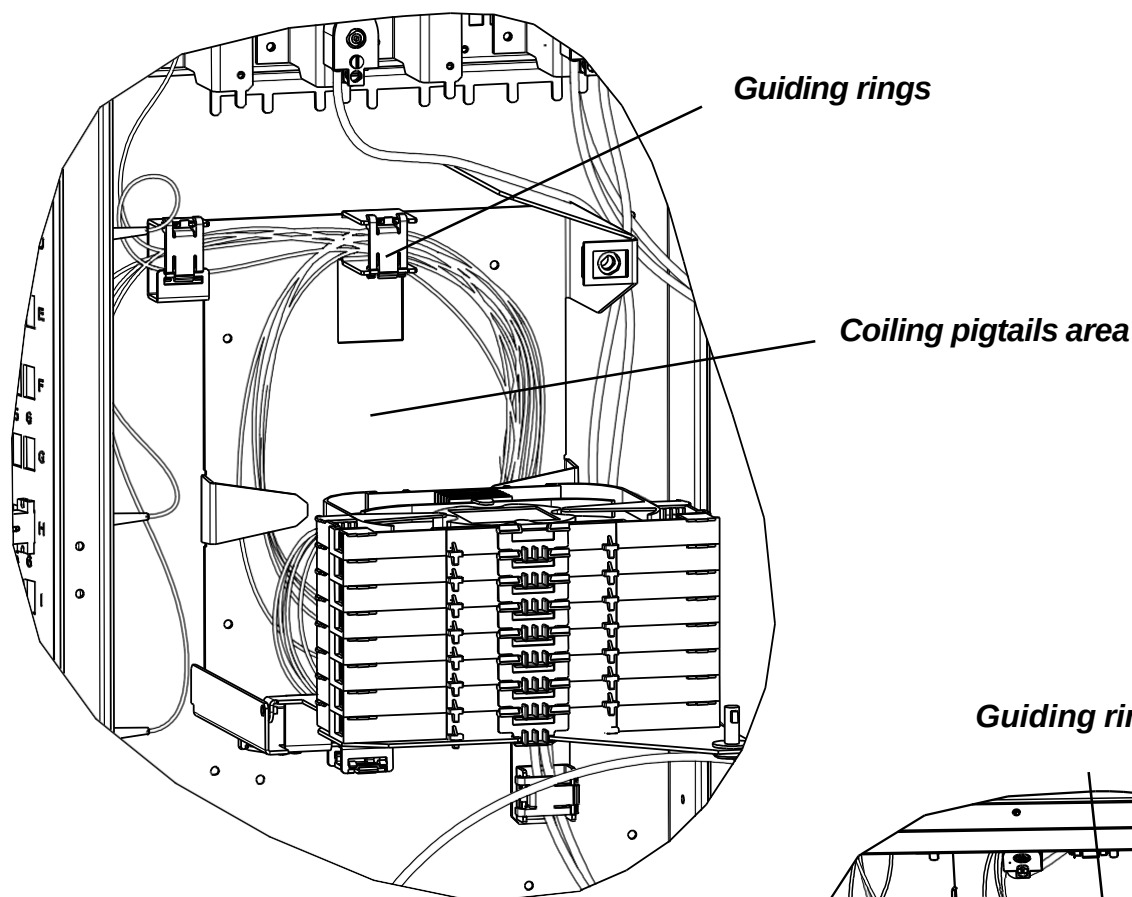


1- Plug the connectors onto the adapters

Patching adapters



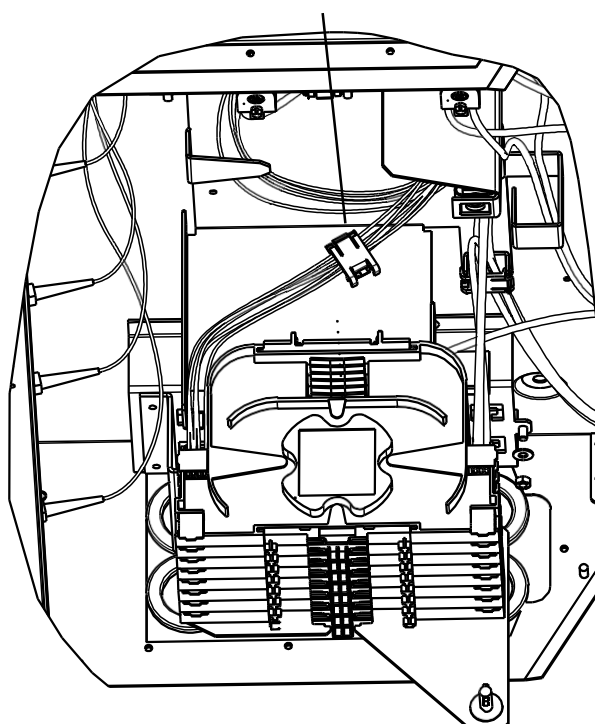
Store pigtails on support, made two laps for each and guide the bundles of pigtails toward the metal chassis FiberArt or splice tray.



Guiding rings



WARNING : Don't nippe the jumpers when closing the clips.



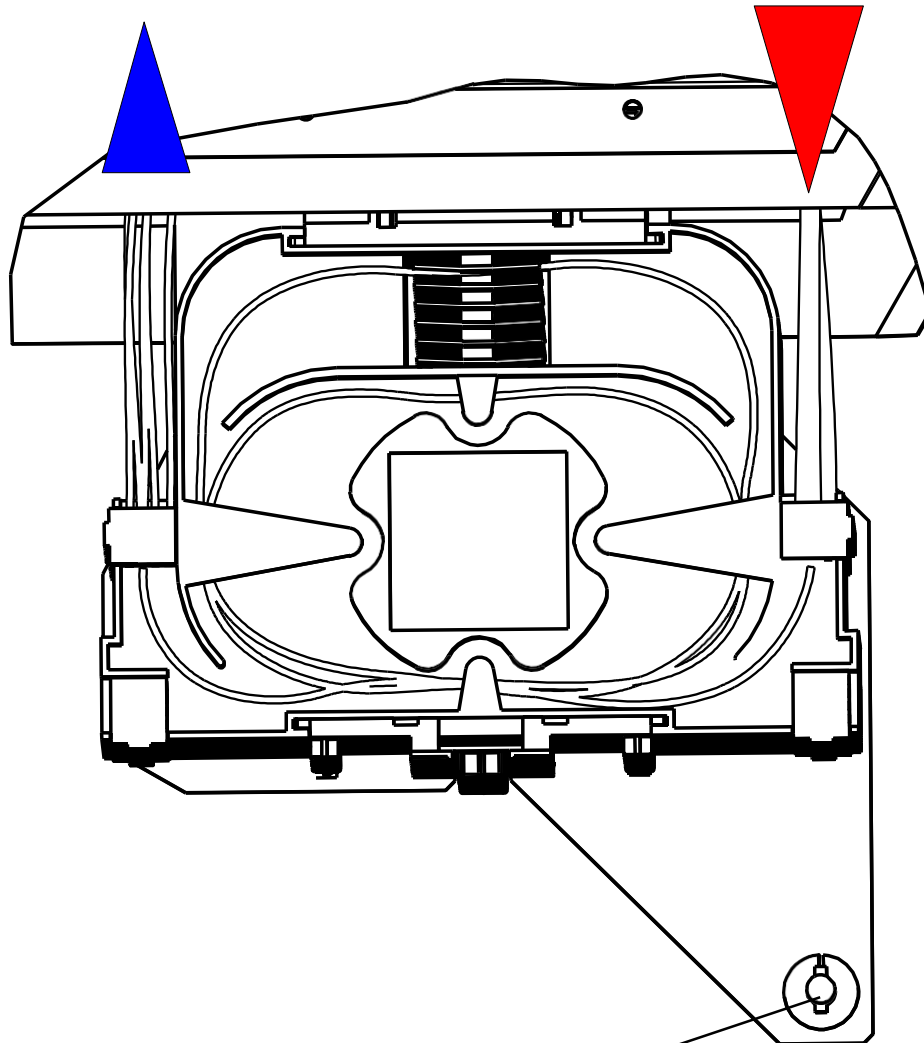
After cabling

Close the metal chassis in the bottom of the box.

Lock with the locking button.

Output of the pigtails toward the adapters.

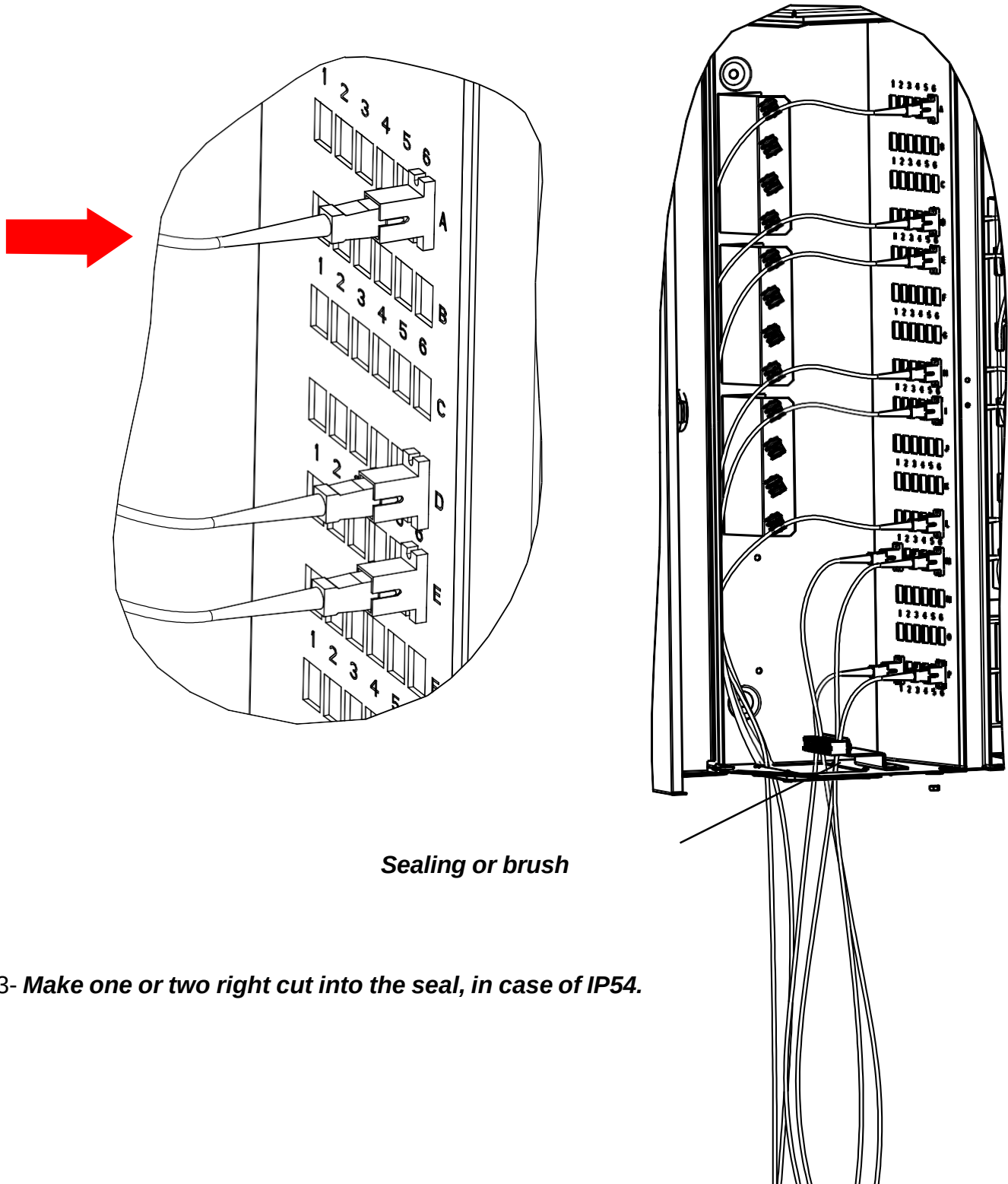
Input of the tubes or sheath.



Locking pin for closing the metal chassis.

PREPARATION OF JUMPERS IN THE USERS AREA

- 1 Connect the jumpers sockets on the patch panel.
- 2 Put the jumpers in the comb of guiding.

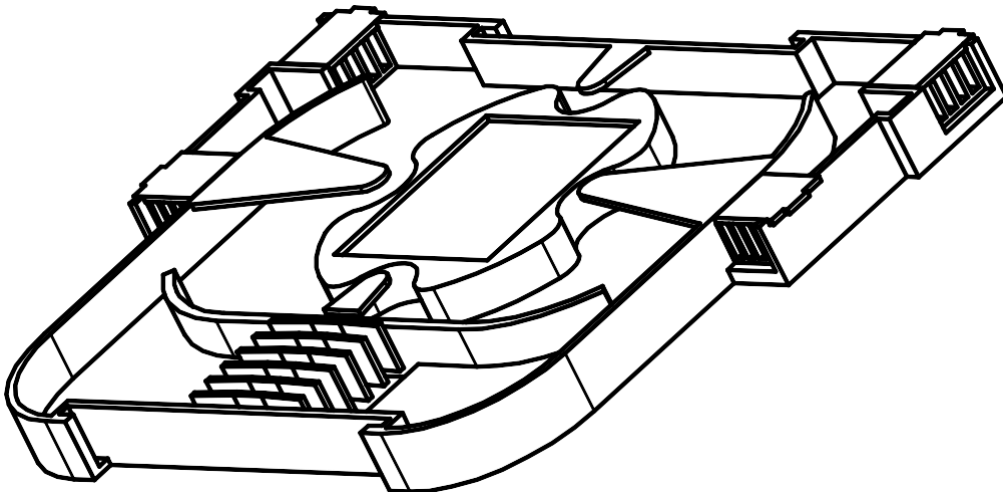


- 3- Make one or two right cut into the seal, in case of IP54.

9. CONNECTION OF FIBERS IN A SPLICE TRAY

SPLICE TRAY

Installing and Cabling practice

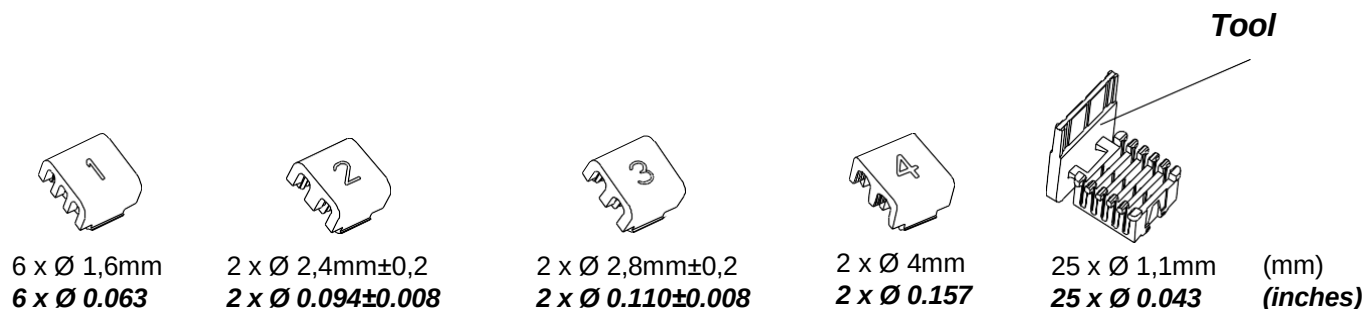


CHOICE THE COMB FOR THE BLOCKING OF THE TUBES OR OF THE PIGTAILS

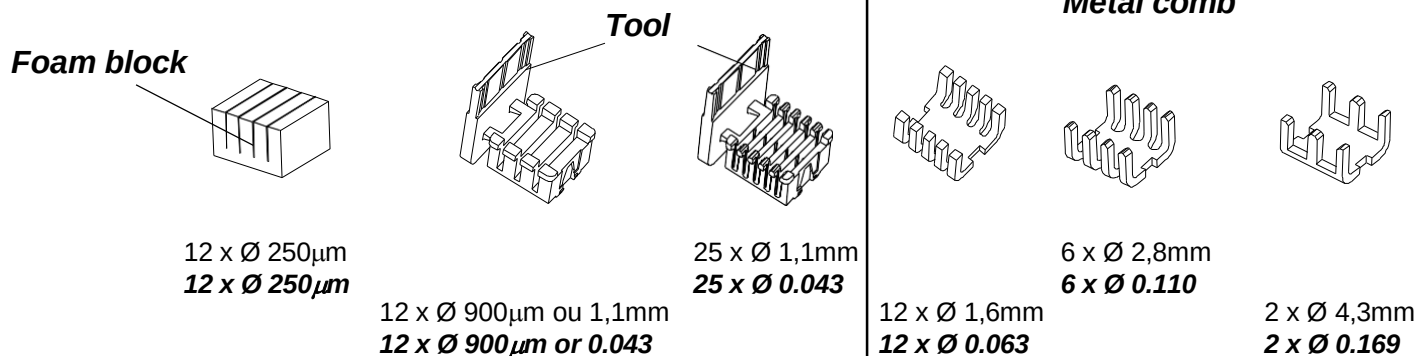
1- *Select the combs to suit the diameters of the sheaths or tubes and pigtails.*

Plastic combs

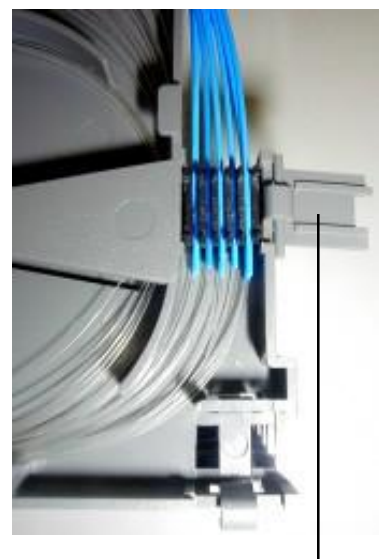
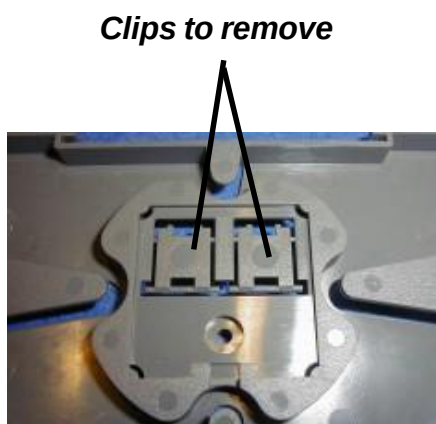
Comb number	Ø of tubes or pigtails	Max of tubes or pigtails by comb
1	1,6 mm	6
2	2,4 mm	4
3	2,8 mm	2
4	4 mm	2
PIGTAILS	1,1 mm ou 900µm	25



Metal combs

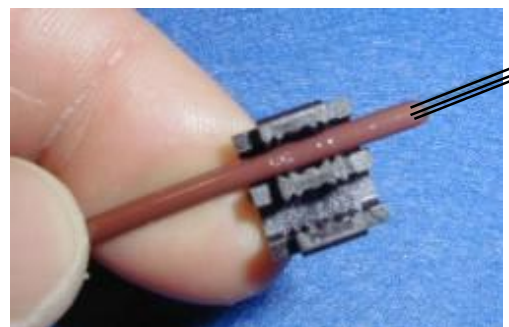


- 2- **Locate and remove the clips from the cassette, and clip them on the left and right input of the cassette.**



- 3- **Insert the tubes, sheath or pigtails in the combs.**
- **Mount the comb with the pigtail in the splice trays.**
 - **Close the clip on the comb (1).**

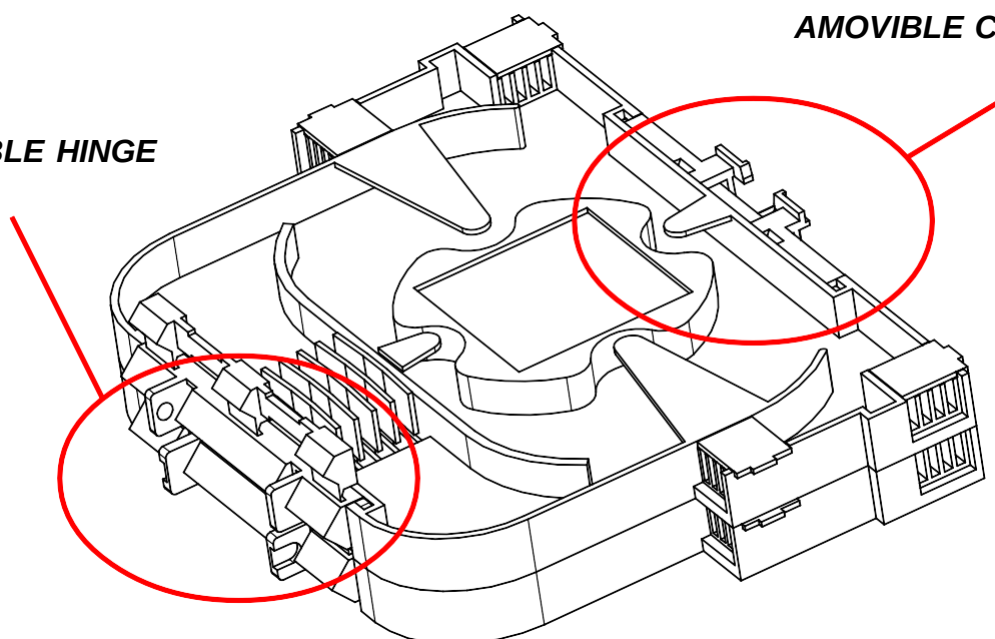
Clip



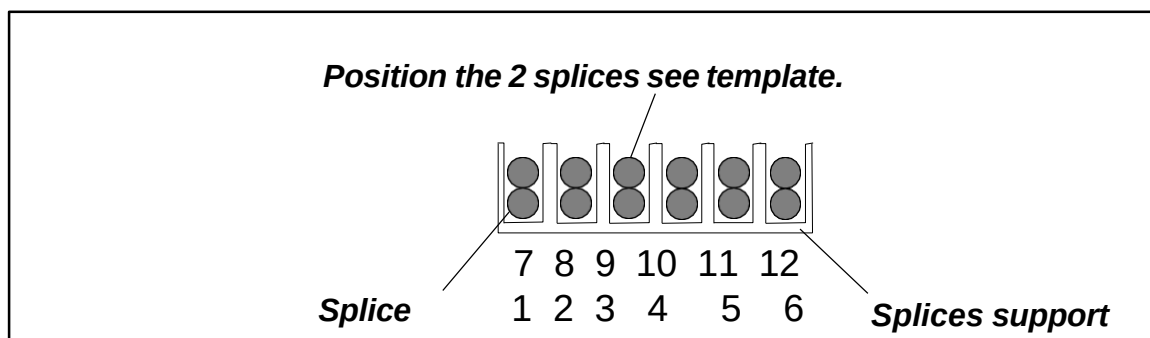
MOUNTING OF THE ACCESSORIES

AMOVIBLE HINGE

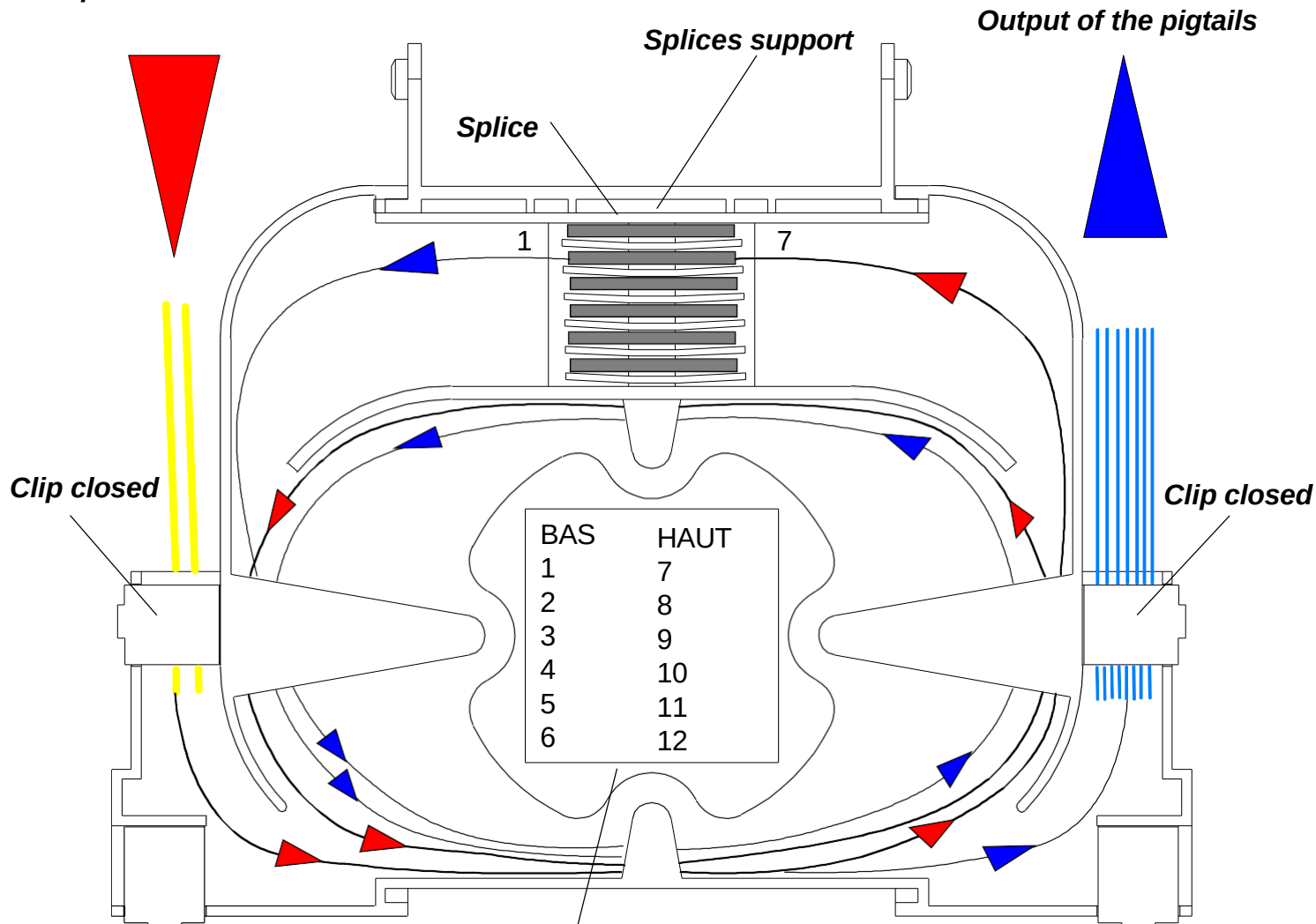
AMOVIBLE CLOSING PART



EXAMPLE OF CABLING IN THE SPLICE TRAYS



Input of the sheaths or of the tubes



Position the splice 1, on the outside of the cassette.

Labelling the fibers in the cassette.

Position the mark label of splices.



After the splices are realise, position the translucide plastic protection on the splice tray.

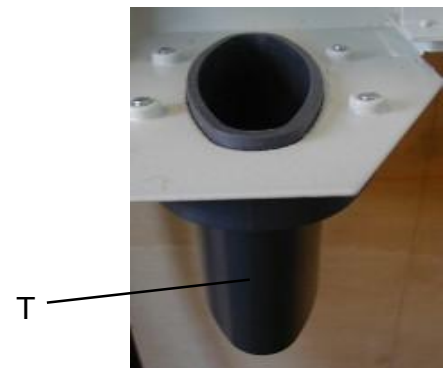
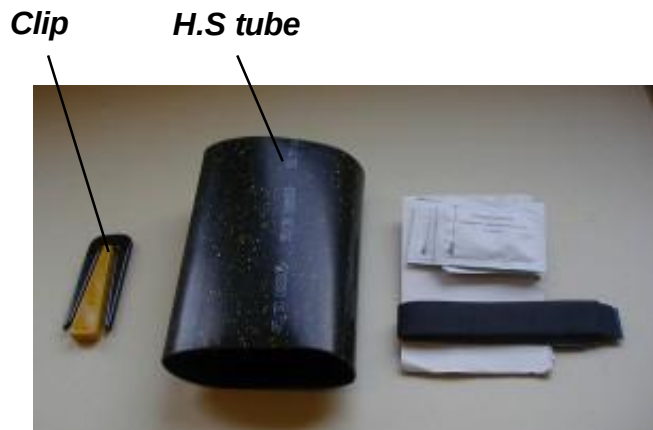
The process is the same for the cabling of the other cassettes.

10. OVAL PORTS SEALING CABLES (IP54)

Break up the oval port

Slip on the Heatshrink tube on the cable

Prepare the câble and realise the permeability

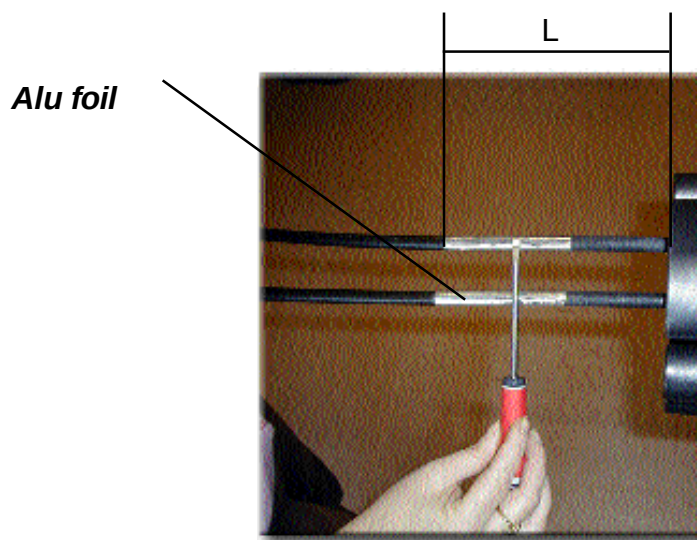


Abrade the circumference of the cable 160mm (6,3 inches) from the end of the port

Abrade the outer surface of the port using the abrasive strips

Degrease the port and the cable 500mm (20 inches) from the exit using the cleaning wipes.

Apply a least two round of alu foil around the cable 160mm (6,3 inches) from the end of the port. Smooth the foil using a suitable tool .



Before shrinking the H.S tube on the cables, insert the clip between the two cables. The clip should be pushed fully home, with heatshrink tube captured between the 2 “wings” of the clip.

Clip



Hold the cables movement. Shrink the tube on the cable, heating from the end of the port to the cable, ensuring that the paint is transformed

Plastic collar

Gaine métallique
Metallic armor

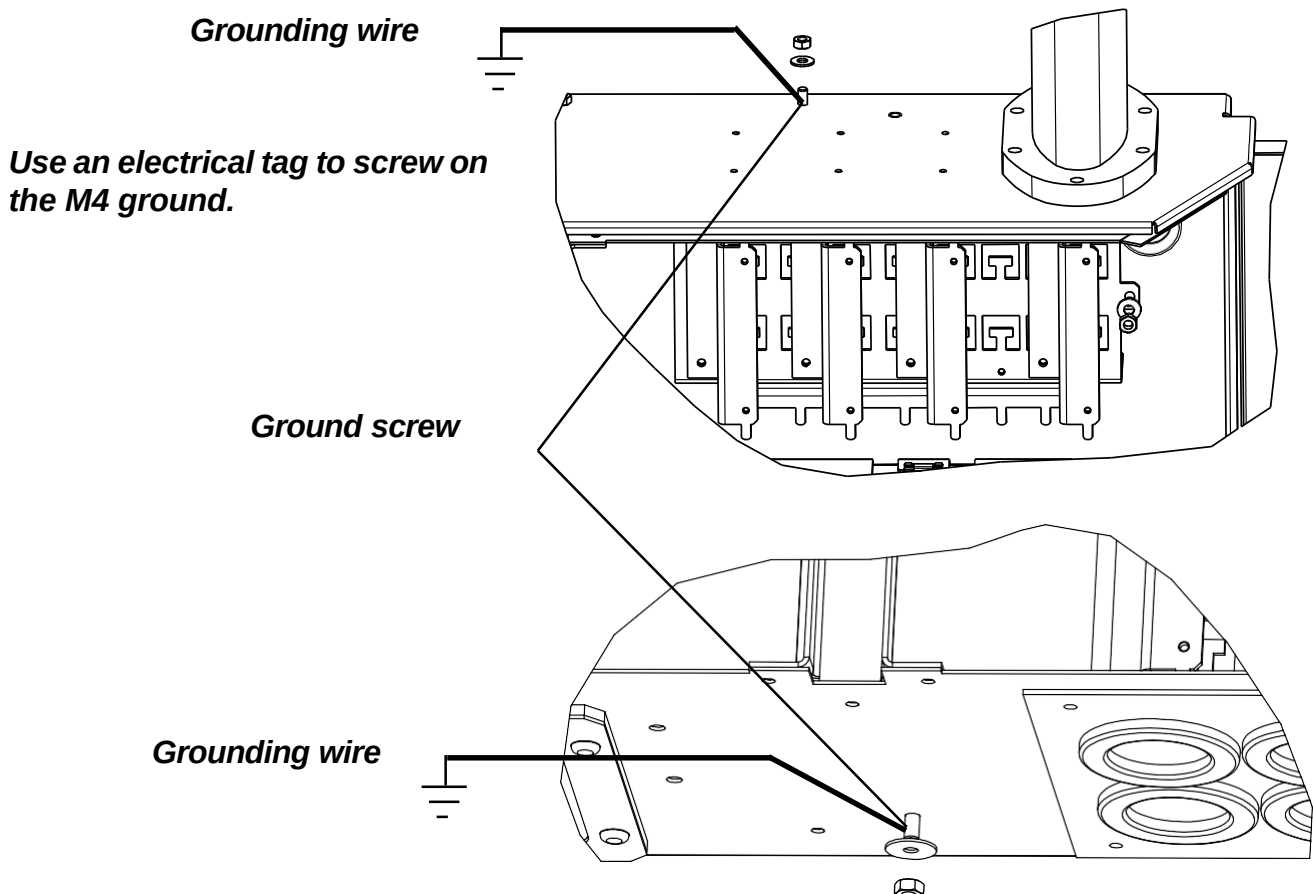
Renforts rigides
Rigid aramid yarn

Shrink the tube on the cable, heating from the end of the port to the cable, ensuring that the paint is transformed. Insist on the clip until adhesive starts to extrude. Allow to cool for 5 minutes.



GROUNDING BOX

Use the M4 screw to grounding at upper and lower of the box.



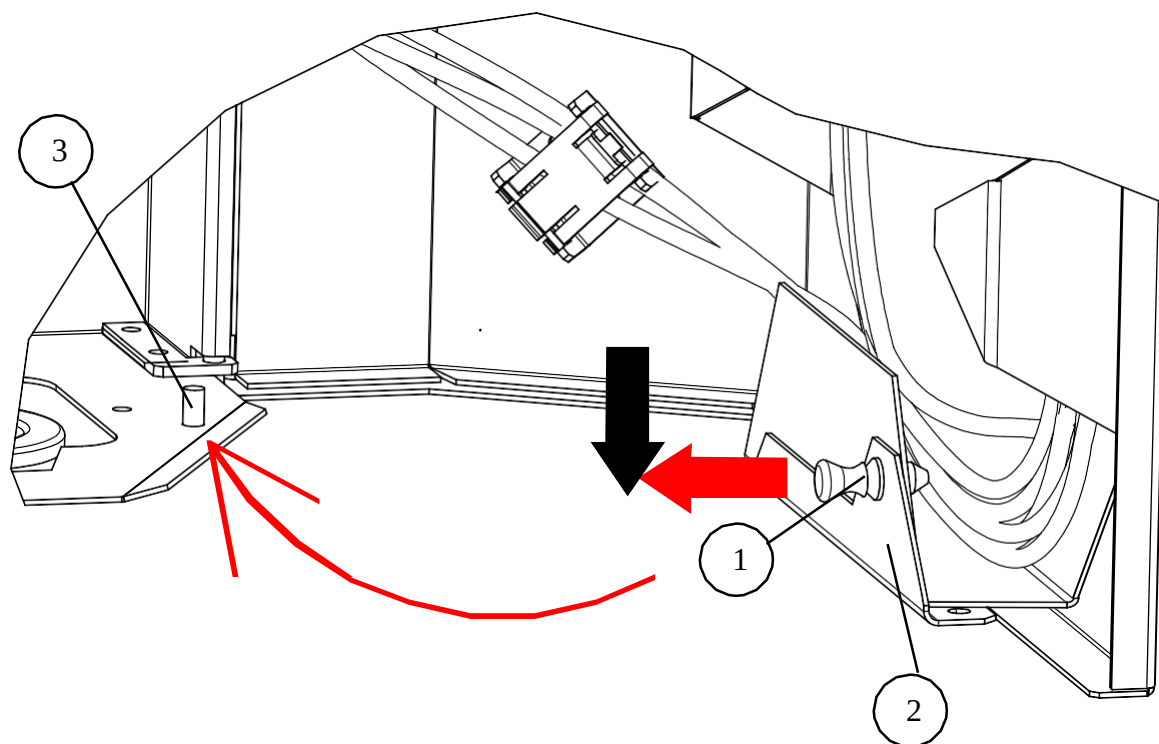
LOCKING SYSTEM

Deliver with 2 standard locking system.

OPENING AND SECURING THE DOOR «OPERATOR»

Pull on the locking pin Rep.1 of the bracket Rep.2.

Tip up the bracket to the securing part Rep.3.



9. END LIFE INSTRUCTIONS

