Prysmian Group

INSTALLATION INSTRUCTION

Int/External Splice only Flexibox - Installation

Description

The Flexibox is for Fibre to the Premises [FTTP] applications. The box houses splice and storage for excess fibre element lengths.

This version of the box can accept up to 24 cables via 8 entry ports using both the top and bottom faces of the box, with space for up to 144 fibre splices.

The box can be supplied with excess storage (when a loop through is not required) or a loop storage basket for a pass through and splice off scenario.

Tools & Additional Items Required

Tools:
Cable /tube stripping tools, adjustable spanner (optional), electric drill, M5 drill bit, pozi screwdriver, fibre splicing equipment, hammer.

Additional items	**Part Number**
Splice protectors (12 x2.2mm)	XKTSC00050
Single way gland – 5 to 9mm	XKTSC02335
Single way gland – 6 to 12mm	XKTSC02471
Dual way gland – 4 to 6mm	XKTSC02542
3-way gland – 2.5 to 4.5mm	XKTSC02774

CONTENTS

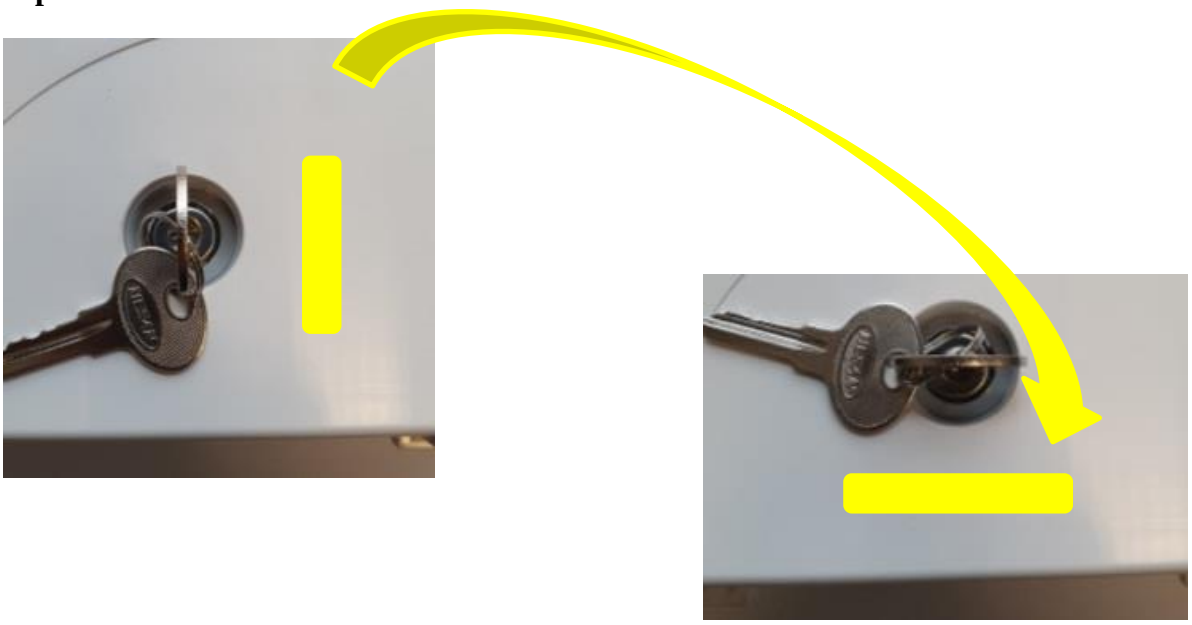
1.0 BOX OPENING

Step 1

- If installing an external Flexibox (this will be black in colour) then using a flathead screwdriver, pivot the 4 toggles into the open position.
- For an internal Flexibox, skip to step 2.

1.0 BOX OPENING

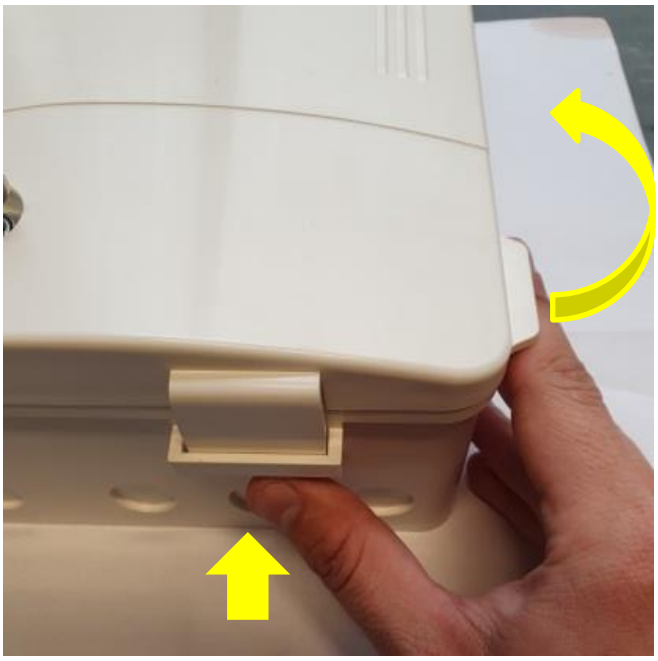
Step 2



- If using a lock, use the key provided, insert into lock, and turn 90° clockwise so the key is in the horizontal unlock position.
- If not, skip to step 3.

1.0 BOX OPENING

Step 3



With the key [and toggles] remaining in the **unlock** position:

- Simultaneously push the two clips on the bottom face and lift to open the cover using the small tabs on either side.

1.0 BOX OPENING

Step 4

To remove cover, follow step 5, to retain cover in open position, follow step 6.

1.0 BOX OPENING

Step 5

- With the cover open at around 90°, push the tab on the top face as indicated and slide the cover right horizontally to remove.
- Set cover aside until box needs to be closed and secured.

1.0 BOX OPENING

Step 6

- If you are unable to remove cover and set aside, for example in aerial installations, push the cover to just over 180° where the cover will support itself.
- You will hear an audible click when the cover snaps over the bump on the base.

2.0 BOX WALL MOUNTING

Step 1

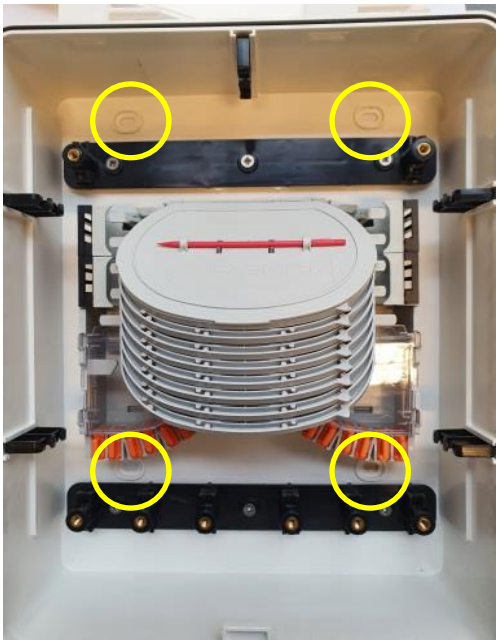
For mounting using INTERNAL mounting positions, follow section 1 to open box and remove cover, then follow steps 2 and 3.

For mounting using EXTERNAL mounting positions, follow steps 4 and 5.

Note: Internal mounting is only suitable for internal environments where moisture ingress is highly unlikely.

2.0 BOX WALL MOUNTING

Step 2



- Using the correct tools and practises, knockout the 4 plastic surfaces on the base as shown.
- Place the box in the desired position on the wall and mark all 4 knocked out positions with a marker.

NOTE: mark the centre of the opening.

2.0 BOX WALL MOUNTING

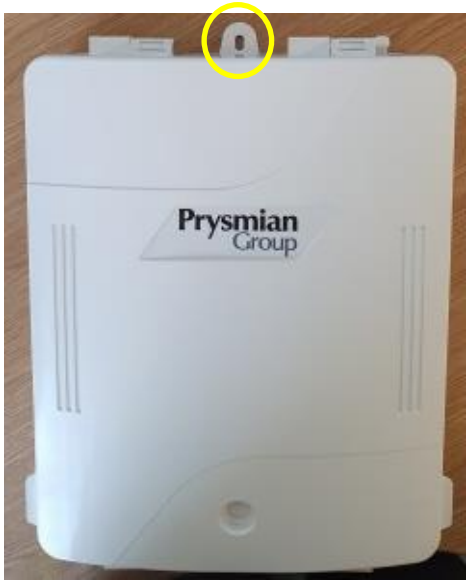
Step 3

- Remove box and drill each marked position using an M5 drill bit.
- Fit a wall plug to each drilled hole.
- Place box back into position and use the M5 x 25 wood screws to secure box in all 4 positions.

NOTE: Ensure box cover hinge is at the top of the box when secured in its final position.

2.0 BOX WALL MOUNTING

Step 4



- Place the box in the desired position on the wall and mark all 3 external feet positions with a marker.

2.0 BOX WALL MOUNTING

Step 5

- Remove box and drill each marked position using an M5 drill bit.
- Fit a wall plug to each drilled hole.
- Place box back into position and use the M5 x 25 wood screws to secure box in all 3 positions.

NOTE: Ensure box cover hinge is at the top of the box when secured in its final position.

3.0 CABLE/GLAND INSTALLATION

Step 1

Open box and remove cover

To access box, follow all steps in section 1 to open and remove cover.

3.0 CABLE/GLAND INSTALLATION

Step 2

Single entry gland

Dual entry gland with & without blank

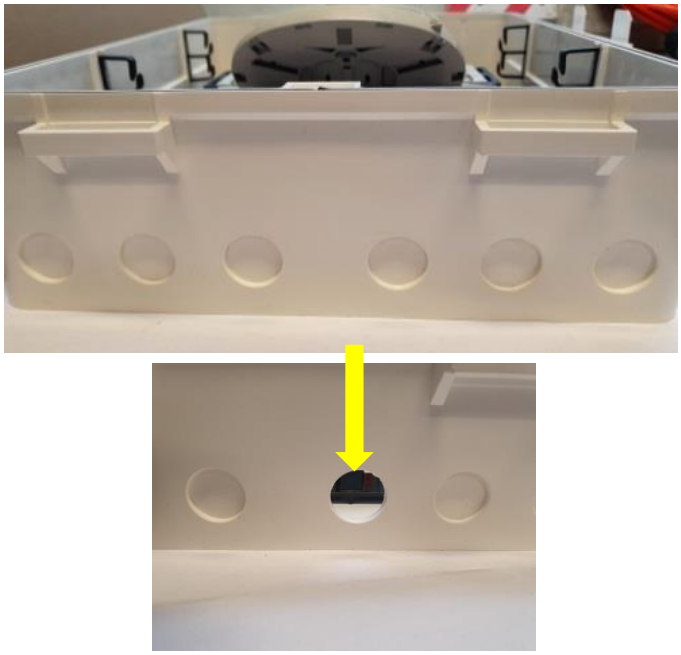
- Select gland as required for the cable being installed:

  Single way gland – 5 to 9mm
  Single way gland – 6 to 12mm
  Dual way gland – 4 to 6mm
  3-way gland – 2.5 to 4.5mm

- If installing an additional cable into a pre-existing gland, go to step 4.

3.0 CABLE/GLAND INSTALLATION

Step 3



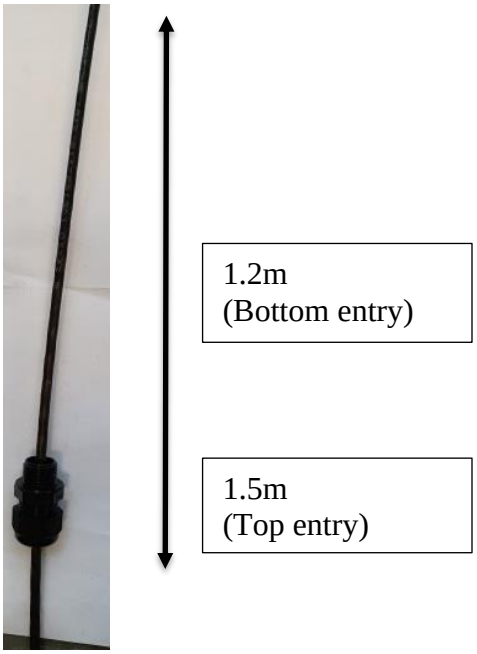
- Locate and select the required entry position to be used for installing the gland.

NOTE: This can be on top or bottom face of the box.

- Knockout the plastic from the selected position to allow the gland to be inserted using approved practises and tools.

3.0 CABLE/GLAND INSTALLATION

Step 4



- Remove any existing blanks if necessary and feed 1.2m (1.5m if using a top entry position) of cable through the gland and gland seal as indicated and tighten nut enough to stop cable slipping out.
- Add blank to empty cable position if required.
- Skip step 5 if installing an additional cable into a pre-existing gland.

3.0 CABLE/GLAND INSTALLATION

Step 5

- Push gland into knocked-out hole position and feed nut over cable on inside of the box. Ensure any rubber seal is securely on the thread of the gland.
- Securely tighten nut on inside of the box.

NOTE: Use adjustable spanner to fully tighten if necessary.

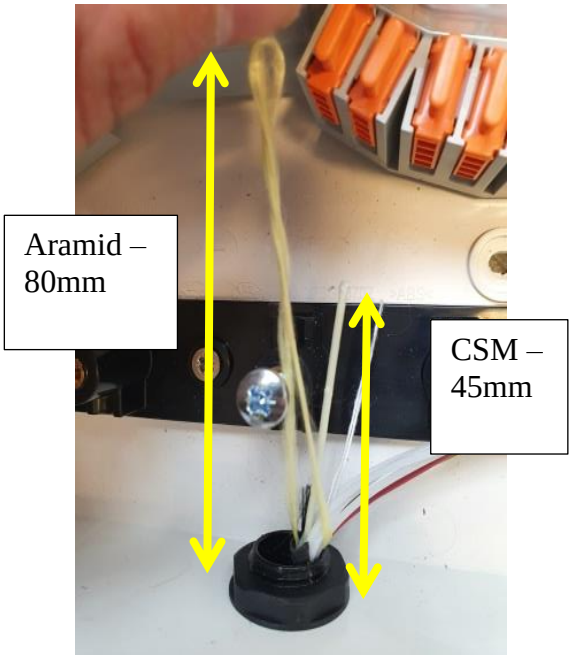
3.0 CABLE/GLAND INSTALLATION

Step 6

- Mark the cable sheath in the position as indicated in the picture above. This is the total cable length to strip.
- Loosen the gland nut on the outside of the box and feed through an additional 15mm of cable.

3.0 CABLE/GLAND INSTALLATION

Step 7



- Strip the cable from open end to where the sheath is marked from step 6 down to fibre elements using approved practises, exposing the strength member as below:

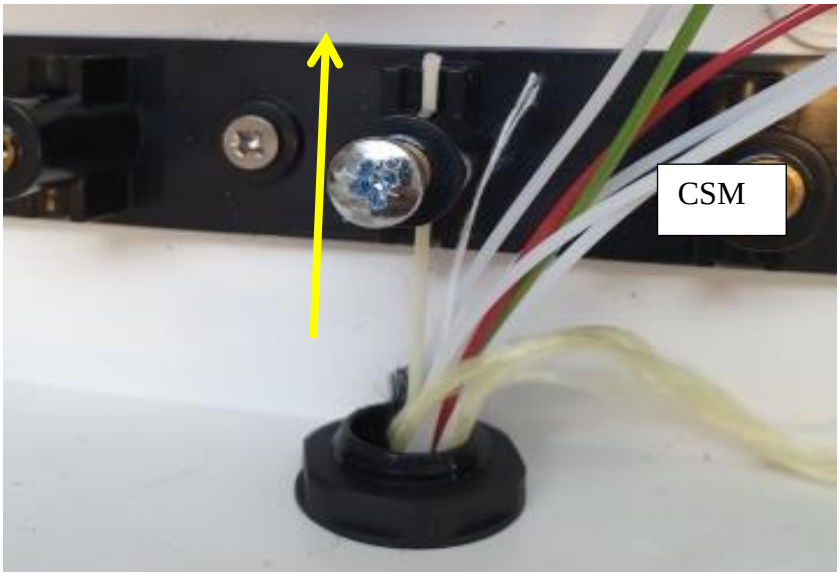
  CSM – 45mm
  Aramid – 100mm

- Pull cable butt back in line with end of the cable gland once stripped.

NOTE: if installing a cable with a CSM, thread this through the hole on the retention bracket at this point.

3.0 CABLE/GLAND INSTALLATION

Step 8 **Central strength member**



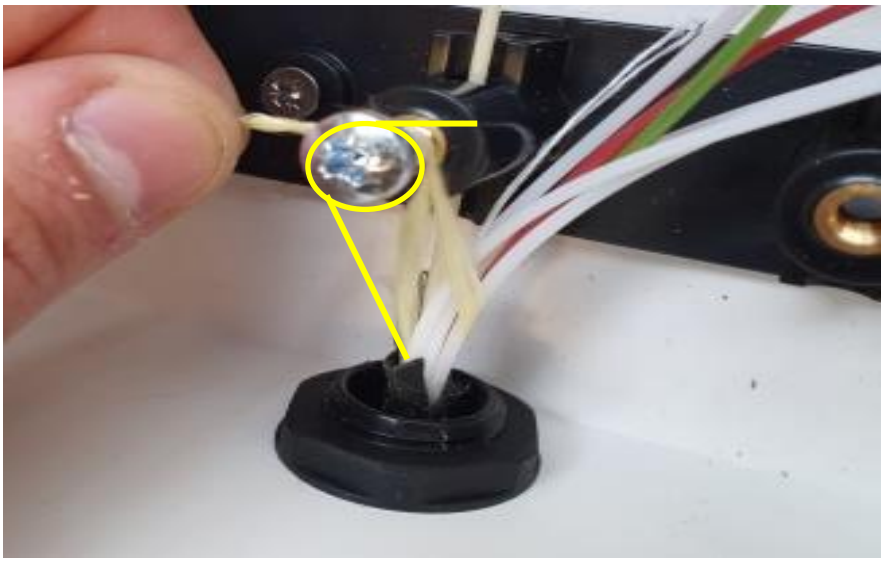
- If the cable contains a CSM, already placed through the hole, tighten screw to clamp CSM.

NOTE: If installing a second cable into an existing entry, you should follow the same steps as above ensuring the original cable retention is not compromised.

- Fully tighten the nut on the outside of the gland, ensuring any blanks are used at this point for any empty holes in gland seals.

3.0 CABLE/GLAND INSTALLATION

Step 9 **Aramid strength member**



- If the cable contains an aramid strength member, wrap the aramid around the screw thread as many times as possible and tighten screw.

NOTE: If installing a second cable into an existing entry, you should follow the same steps as above ensuring the original cable retention is not compromised.

- Fully tighten the nut on the outside of the gland, ensuring any blanks are used at this point for any empty holes in gland seals.

3.0 ROUTING FIBRES FOR SPLICING

Step 1

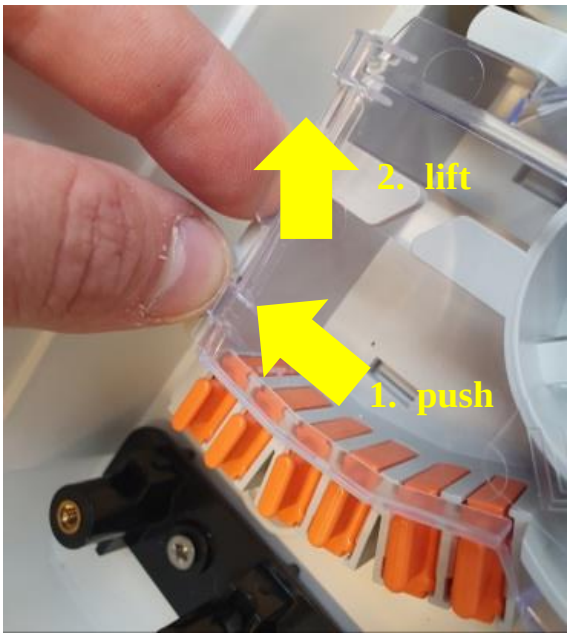
For routing fibres to be spliced from inputs on the bottom face, go to step 2.

For routing fibres to be spliced from inputs on the top face, go to step 4.

- Locate the fibre element(s) for splicing.

3.0 ROUTING FIBRES FOR SPLICING

Step 2



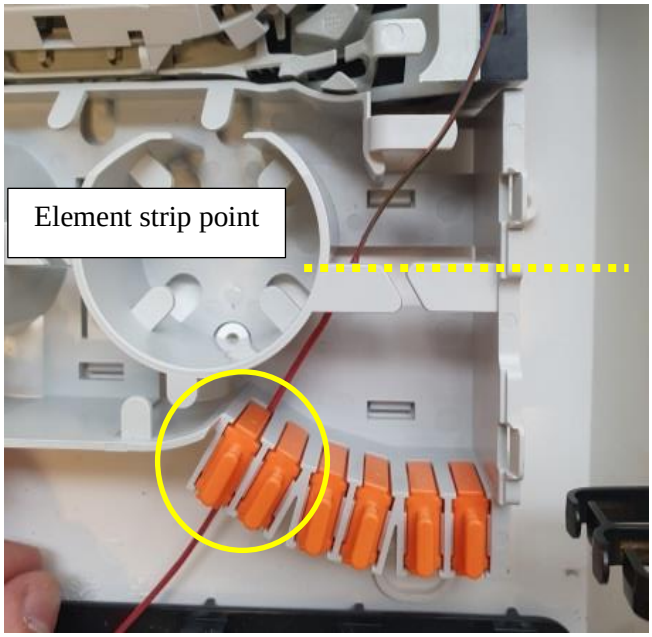
Installing fibre elements from the bottom input positions

- Remove manifold cover by unclipping one side and applicable orange tube retention block from manifold.

NOTE: Use the tabs on the manifold to remove orange clips. Pliers if necessary.

3.0 ROUTING FIBRES FOR SPLICING

Step 3



- Strip tube down to bare fibres up to point as marked, using approved practises.
- Repeat for all fibre element(s) to be spliced and replace orange tube retention blocks to hold tubes in position.
- Go to step 6.

3.0 ROUTING FIBRES FOR SPLICING

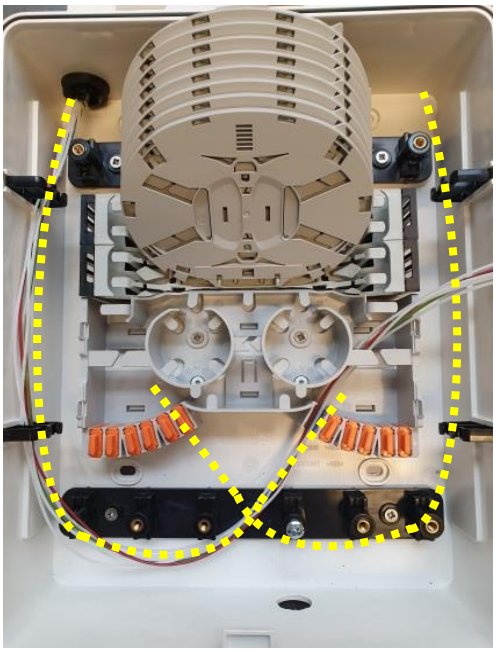
Step 4

Installing fibre elements from the top input positions

- If installing fibre elements AFTER the excess fibre storage is already in place, follow section 4 step 3 prior to completing next step.
- If no excess storage in place, continue to step 5.

3.0 ROUTING FIBRES FOR SPLICING

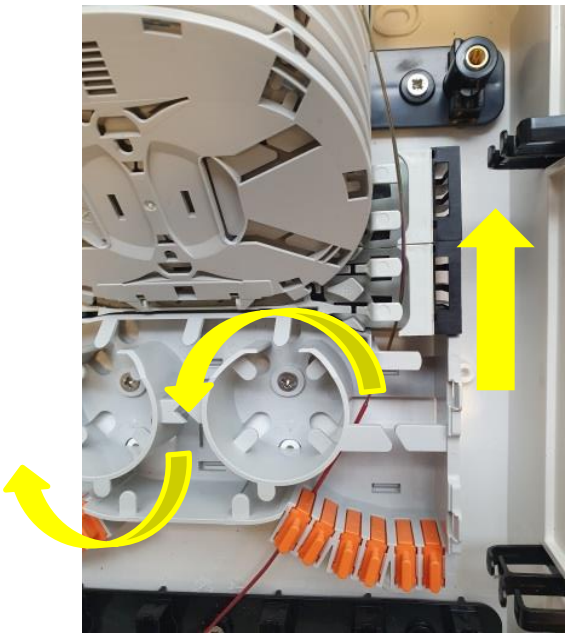
Step 5



- To route fibre element(s) from top input positions, follow picture above to correctly route fibres, holding fibres in place using the lower bung of the storage catches.
- Ensure minimum bend radii for the fibre elements are adhered to when laid in position.
- Continue from Step 2.

3.0 ROUTING FIBRES FOR SPLICING

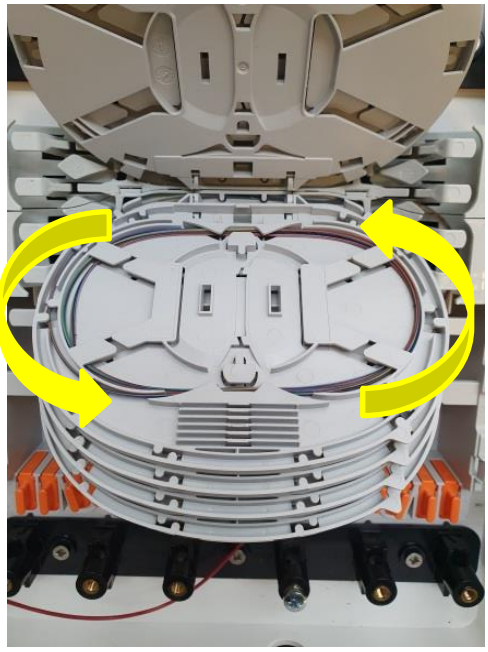
Step 6



- Route fibres to desired tray using raceways at sides of tray modules.
- Fibres can be routed to other side of manifold using mandrels in centre of manifold.

3.0 ROUTING FIBRES FOR SPLICING

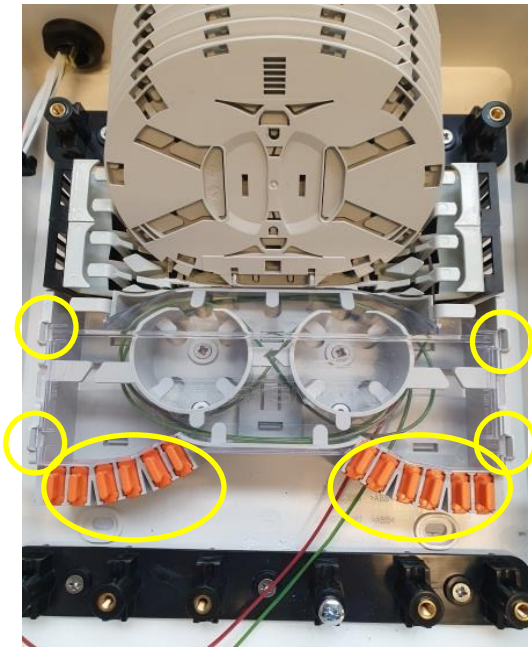
Step 7



- Route fibres onto trays as shown and splice.
- Repeat steps until all splicing is completed.

3.0 ROUTING FIBRES FOR SPLICING

Step 8



- Ensure all orange retention clips are placed back into the manifold to hold tubes in position.
- Replace manifold and tray cover once finished splicing.

4.0 ROUTING & STORING EXCESS/LOOP FIBRE

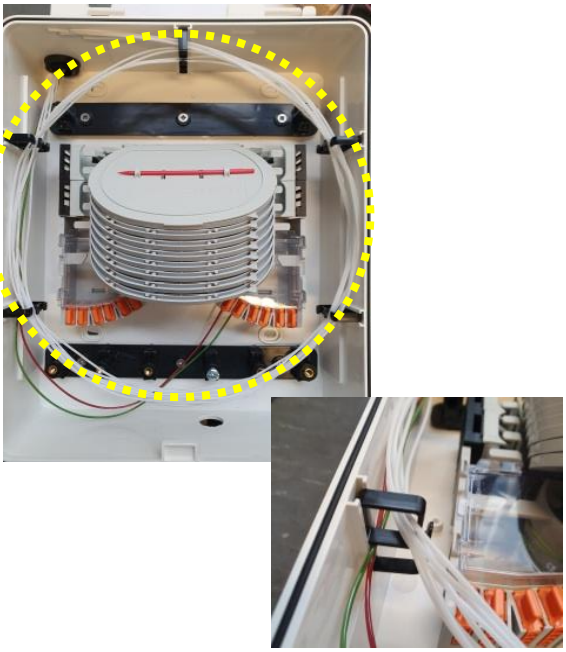
Step 1

If loop catches are included, follow steps 2 to 4.

If a loop storage basket is included, follow step 5.

4.0 ROUTING & STORING EXCESS/LOOP FIBRE

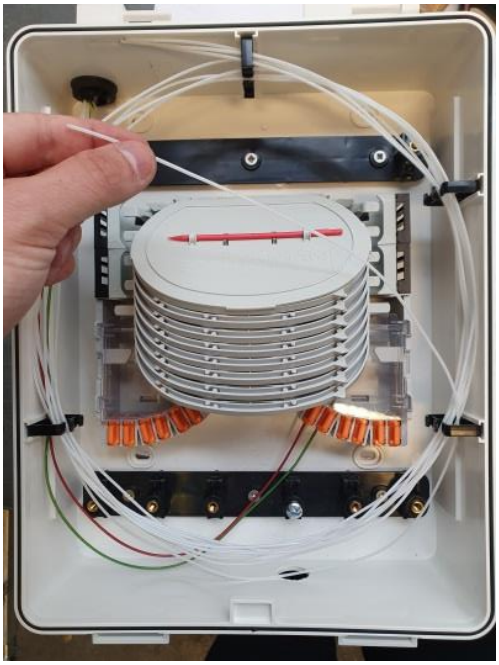
Step 2



- To store excess fibre lengths, group all fibre element(s) together and route as shown.
- Use the top section of the storage catches to avoid disturbing any live fibres routed from the top inputs.

4.0 ROUTING & STORING EXCESS/LOOP FIBRE

Step 3

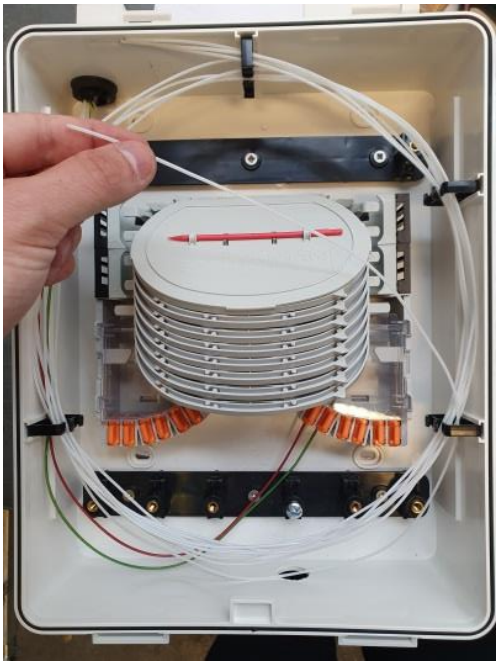


To remove a fibre element from excess storage for splicing

- Locate the end of the fibre element and carefully remove from the storage loop, working backwards and removing from one storage catches at a time.
- Go to section 3, step 2 to complete splicing process.

4.0 ROUTING & STORING EXCESS/LOOP FIBRE

Step 4



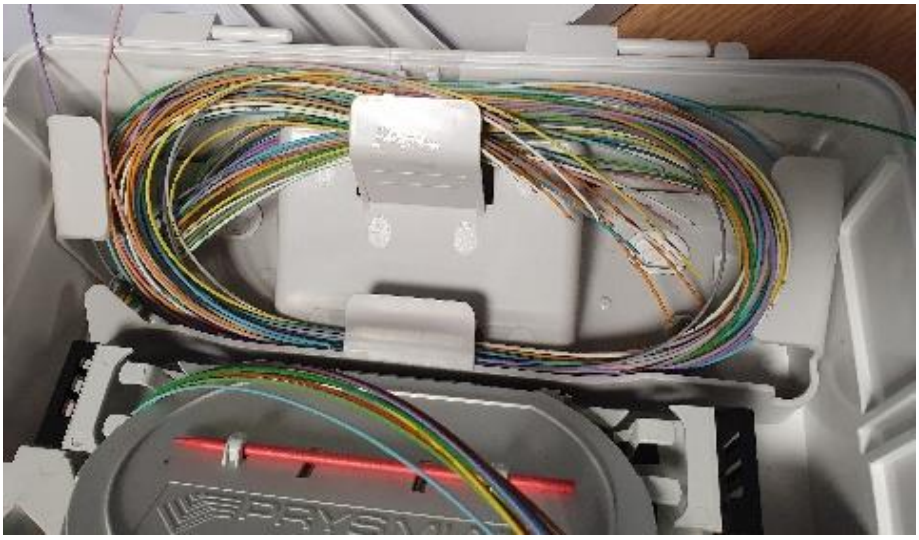
To remove all excess storage elements to input a cable from the top gland positions of the box

- Locate the end of the fibre elements and work backwards removing all elements from the storage catches one at a time.

Go back to section 3, step 5.

4.0 ROUTING & STORING EXCESS/LOOP FIBRE

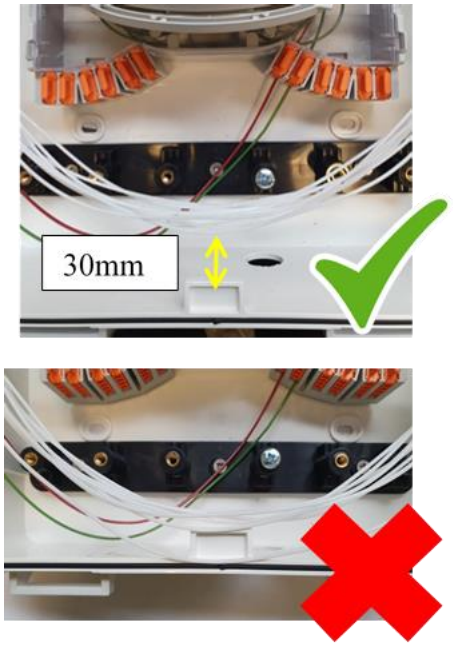
Step 5



- To install a loop, route the fibred down the side of the trays and coil the fibre units around the loop storage area as shown.
- Hold the fibres in position with the Velcro.

5.0 BOX CLOSEDOWN AND SECURE

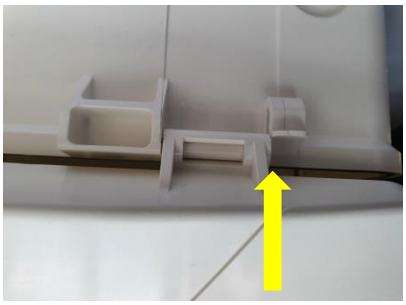
Step 1



- To close box, first ensure all excess fibre elements are stored appropriately inside the storage catches particularly that the elements do not sit above the tab as indicated.
- Allow a minimum of 30mm distance between stored elements and end of tab.

5.0 BOX CLOSEDOWN AND SECURE

Step 2



If cover was removed

- To add cover, slide horizontally along hinge axis until an audible click is heard.
- Ensure the cover hinge has passed the base tab, as indicated.

5.0 BOX CLOSEDOWN AND SECURE

Step 3

If cover was not removed

- Snap the cover over the bump on the base and gently bring down to the close position.

Do not allow the cover to slam shut.

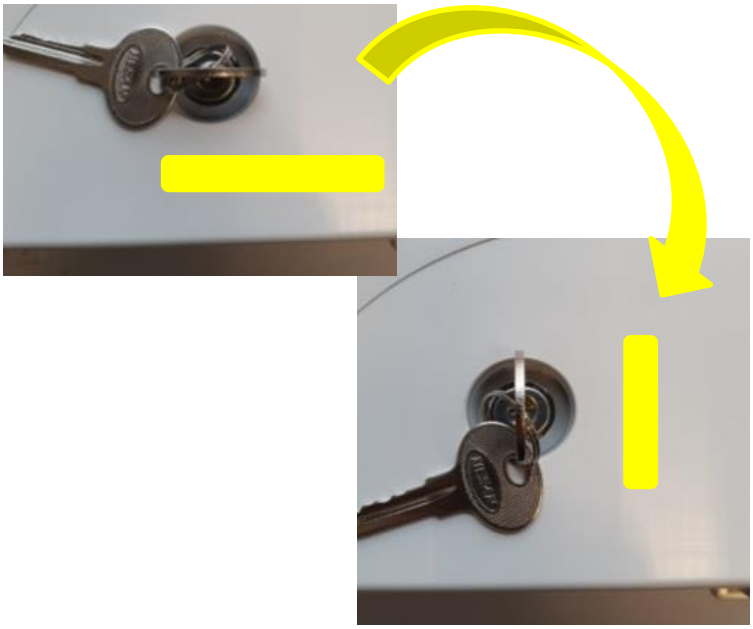
5.0 BOX CLOSEDOWN AND SECURE

Step 4

- Ensure the two clips are fully engaged at the front.

5.0 BOX CLOSEDOWN AND SECURE

Step 5



- If using a lock, turn the key 90° to secure and remove key.

5.0 BOX CLOSEDOWN AND SECURE

Step 6

- If using an external box, ensure all 4 toggles are snapped into the close position. An audible click should be heard.

Note: failure to do this may result in moisture ingress.

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