

**Prysmian**  
Group  
**INSTALLATION INSTRUCTION**

## LMJ MECHANICAL OVAL RIBBON CABLE SEAL

### Description

How to prepare and install a ribbon loop of cable into the mechanical oval port of the closure.

### Tools Required

**Tools:**  
Large Screwdriver, File, Pliers, Allen key, Pen.

<b>1 Rubber Seal – 11.5mm to 14mm</b>	<b>Qty 1</b>	<b>6 Metal Anchor Bracket</b>	<b>Qty 1</b>
<b>2 External Plate</b>	<b>Qty 2</b>	<b>7 Cable Tie</b>	<b>Qty 2</b>
<b>3 Internal Plate</b>	<b>Qty 2</b>	<b>8 Foam Tape</b>	<b>Qty 2</b>
<b>4 Screw M6x50mm</b>	<b>Qty 2</b>	<b>9 Jubilee Clips</b>	<b>Qty 2</b>
<b>5 Grease Sachet</b>	<b>Qty 1</b>	<b>10 Flex tube Manager</b>	<b>Qty 1</b>

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### Step 1



- Knock out the oval port end plate of the Joint from the inside using a large screwdriver and remove any burrs using a file.

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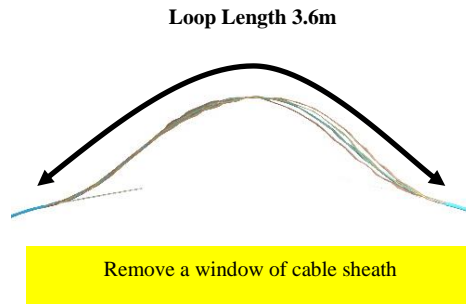
### Step 2

**Mark centre point of mid span window**

- Remove the cables from the footway box and apply a reference mark to the cable where the centre of the window cut will be made.

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### Step 3



- Apply two butt marks back either side of the mid span mark 1.8 metres to total a loop length of 3.6m overall. Before removing the sheath, double check the two butt marks are the correct distance apart.
- Remove the cable sheath between the two butt marks using approved practices.

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### Step 4



- Do not cut/remove the colour binders.
- Only cut the binding strings and the water swellable tape.

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### Step 5



- Use pliers to knock out external plate section.
- Repeat with internal plates.
- Ensure all 4 plate pieces are knocked out.

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### Step 6



- Attach rubber seal over the cables.

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### Step 7



- Assemble 2 parts of external plate to cable butt end.



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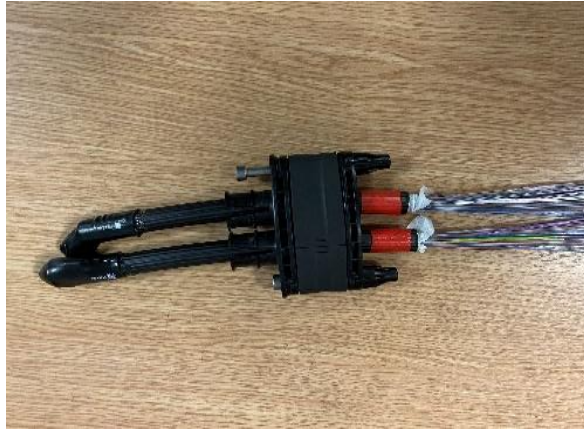
### Step 8



- Assemble 2 parts of internal plate to cable butt end.

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### Step 9



- Insert screws into assembly and lightly screw together in place.

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### Step 10



- Add grease to cable butt end.
- Ensure you spread the grease evenly.

**NOTE:** Ensure no grease is applied to external side of the seal.

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### Step 11



- Push assembly towards cable butt end.

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### Step 12



- Feed the loop through metal bracket as shown.

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### Step 13



- Slide the metal plate along the cables and fix the cable ties at 16mm from the cable butt ends.

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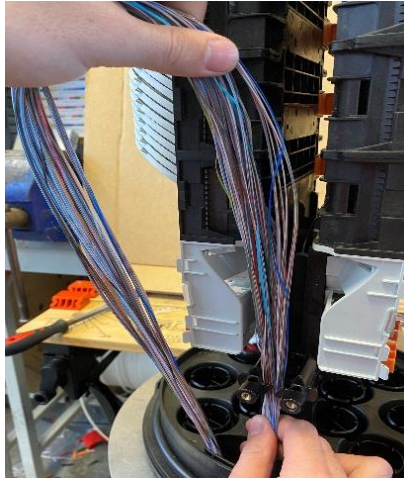
### Step 14



- Feed the loop through the oval port hole.

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### Step 15

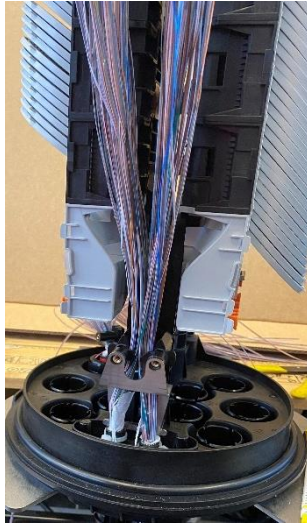


- When installing the ribbon cable into the oval port, make sure to store the fibres into the storage section of the closure.



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### Step 16



- Bring the oval port seal towards the closure and ensure that the metal plate is aligned with the screw holes.

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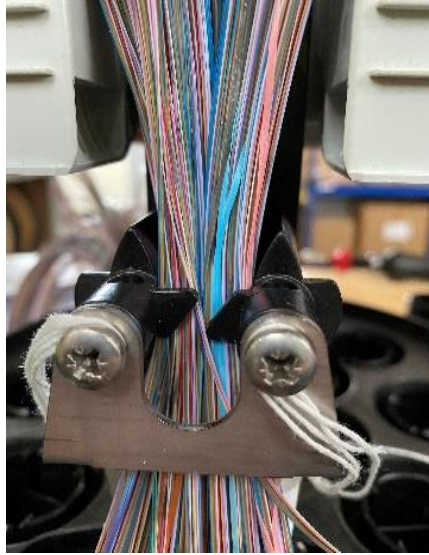
### Step 17



- Place the screws into the metal plate then wrap the binding strings around the screw to ensure the ribbon cable into position.

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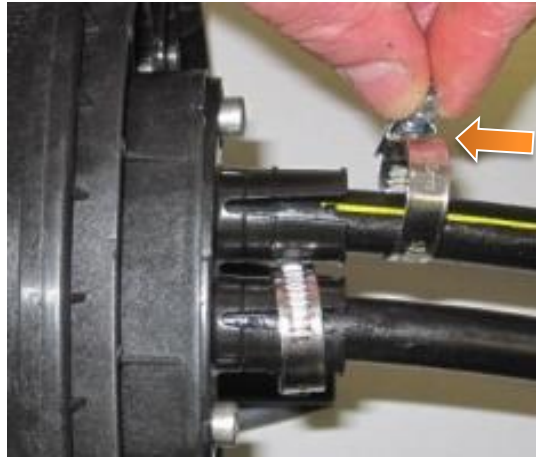
### Step 18



- Fully tighten the screws.

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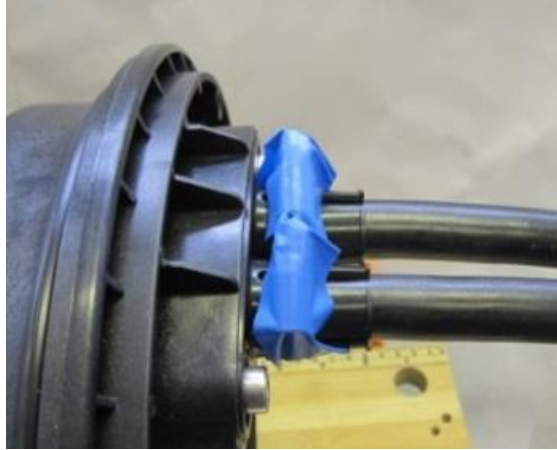
### Step 19



- Tighten screws using a 5mm Allen Key.
- Ensure you tighten each screw evenly and in small increments until resistance is met.
- Ensure the port seal has not been damaged or cracked during installation of the screws.
- Assemble jubilee clips and tighten using a screwdriver.

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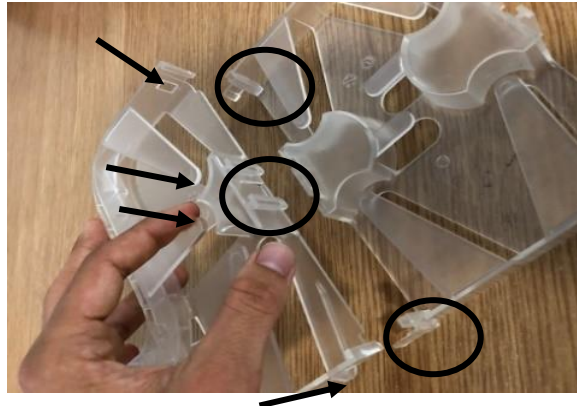
### Step 20



- Apply 2 turns or electric tape around the jubilee clip.

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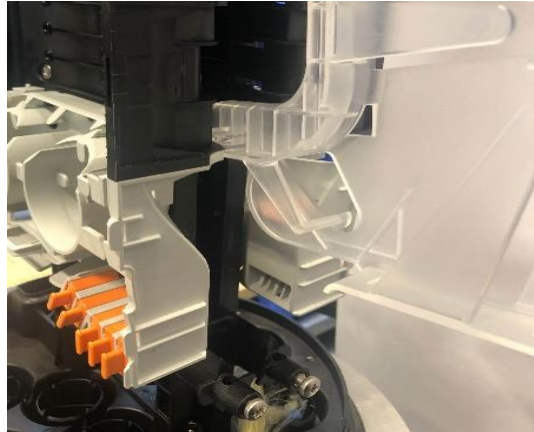
### Step 21



- Conclude which size manager is going to be assembled.
- Slide each section of the LOOP MANAGER together by lining up all 4 slots. **NOTE:** Make sure that the three clips are secured highlighted by the black circles.

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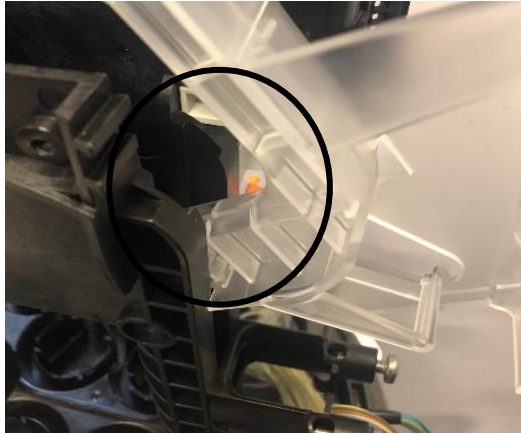
### Step 22



- Once the LOOP MANAGER is assembled, you must align the PIVOT PIN of the manager and slot of the LMJ spine.
- NOTE: The orientation of the Loop manager.

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### Step 23

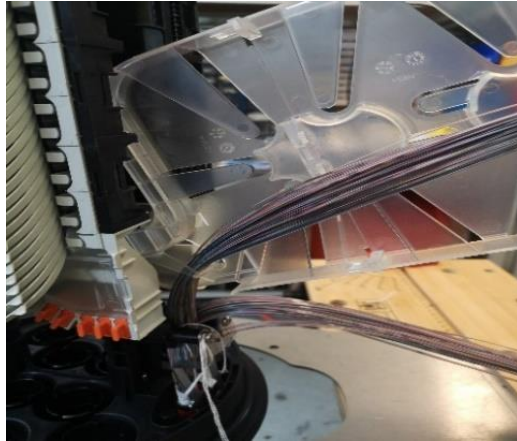


- Push the loop manager downwards until the boss bottoms out on the slot, as shown in the picture above.
- NOTE: The boss is shown fully installed into the slot in the black circle.



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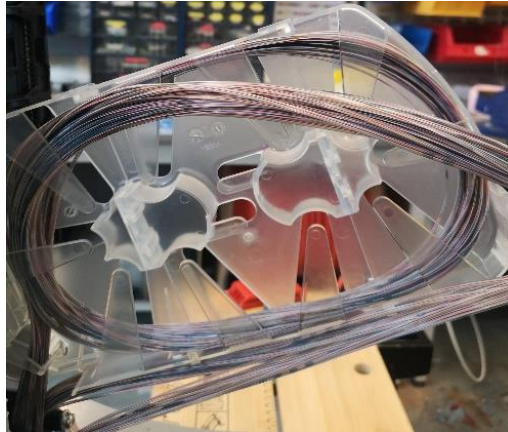
### Step 24



- With the loop manager in its loading position, start to route the elements around the outside of the Anti – pull tab shown with the black circle.

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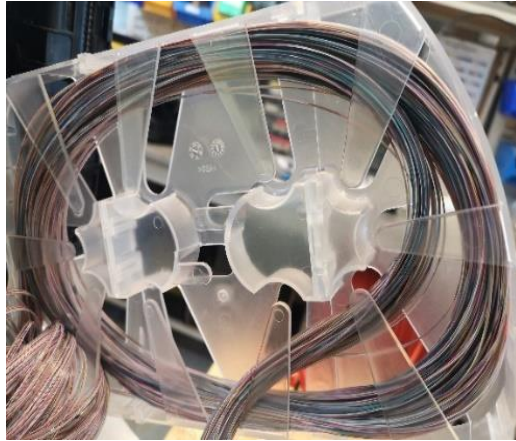
### Step 25



- Route the elements around the outside of the mid span loop manager in a clockwise direction.

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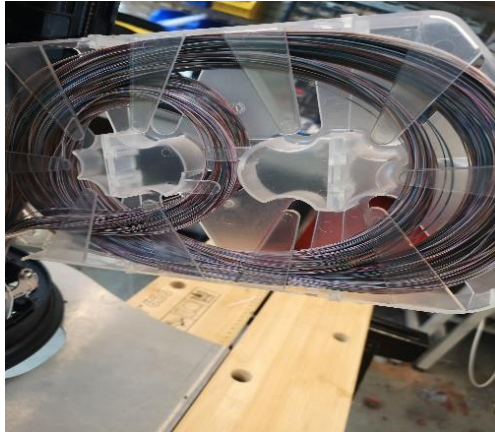
### Step 26



- Ensure each loop is routed tightly within the previous.
- Continue to route the elements until all elements are inside of the loop manager.

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### Step 27



- You can route elements around the central mandrel to take up slack.

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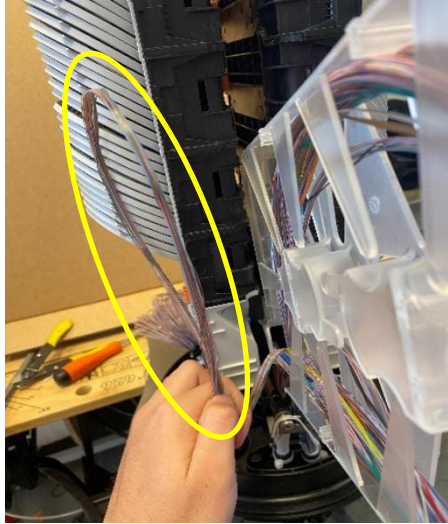
### Step 28



- Separate the elements going into the manager from the elements going out of the manager using the cable anchor plate.
- Flex the anti - pull tab to retain the elements, using this ensures elements are not strained.

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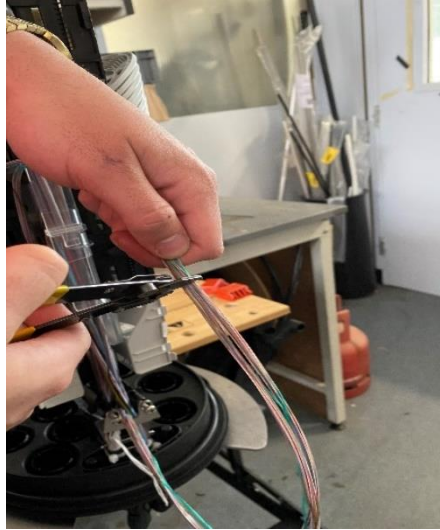
### Step 29



- Routing from the loop storage into splice trays.
- Begin by identifying the cable that you want to route.

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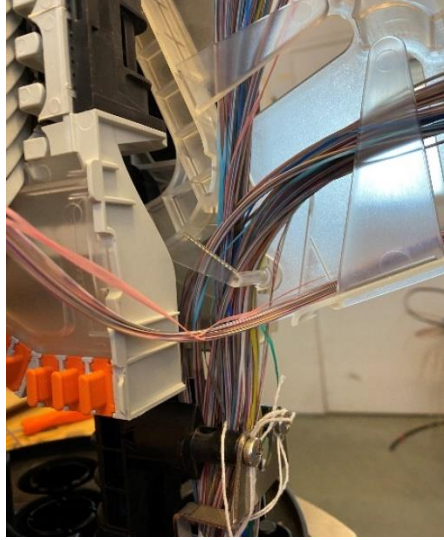
### Step 30



- After you have identified what cable to bring from the loop storage to the splice tray, remove the complete loop of fibre and cut in the middle. Route the live side to the splice trays.

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### Step 31



- After identifying the cable and cutting it, remove it from loop storage.



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### Step 32



- Begin spiral wrapping the cable to protect the fibres.

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### Step 33



- Add collets onto the spiral wrap to help identify the cable.

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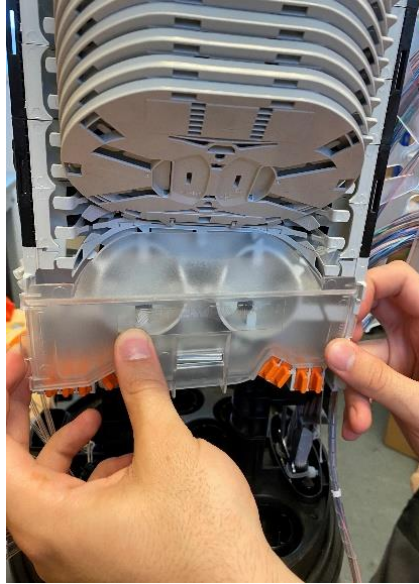
### Step 34



- After preparing the cable for fibre routing remove the retaining block from the closure.

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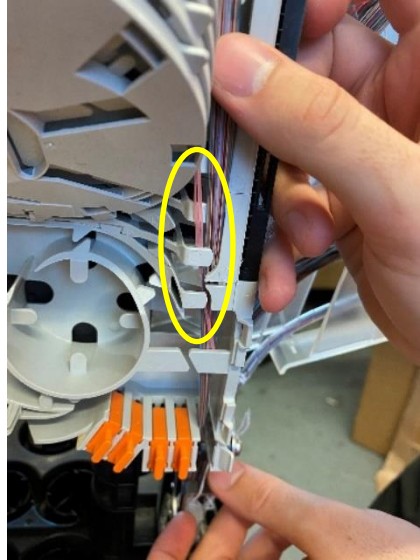
### Step 35



- Remove the manifold cover to gain access to splice trays routings.

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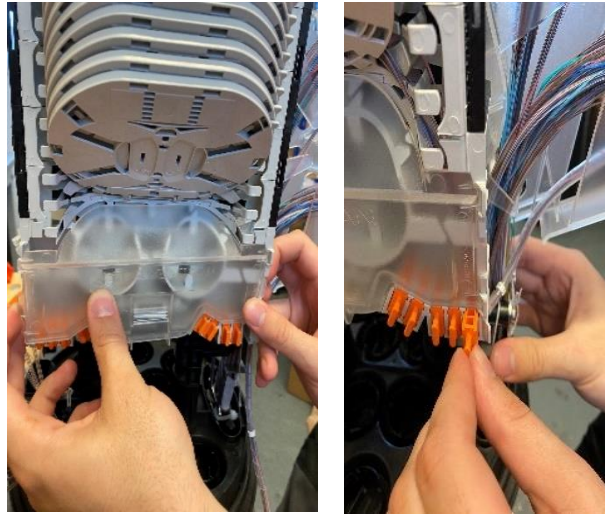
### Step 36



- Insert the cable into the splice area, then route the cable up into the designated trays.

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### Step 37



- Place the manifold cover back on and insert the retaining block back in.

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### Step 38



- It should look like this when done.

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### Step 39

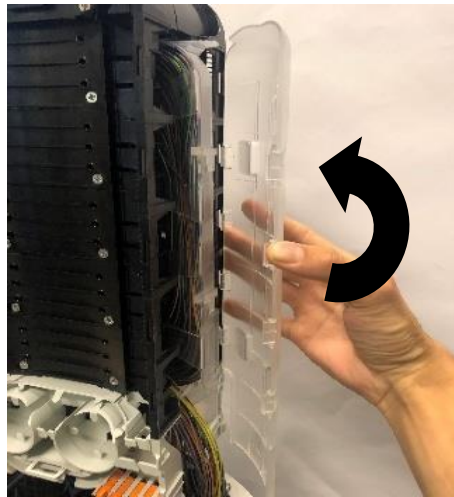


- Rotate the loop manager back into the closure. Being careful not to strain the elements.



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### Step 40



- Replace the cover.