

Hybrid FiberManagement Box

Instruction manual for the splice technician



24v + Window Cut

48v + Window Cut

48v

Product contents

- 1x FiberManagement Box incl. splice trays
- 1x Metal mounting bracket
- 1x Cover with O-ring seal
- 4x special stainless steel bolts M6 x 50 mm
- 1x desiccant in a sealed bag
- 2x tie-wrap 2,5x100 transparent
- 20x Cover plugs (for the hybrid entry ports)
- 1x tube silicone grease
- 1x mounting kit; 2x plug Ø6mm + 2x fixing screw
- Window Cut Kit (only in the FMB's with a window cut)

Required tools

- Phillips screwdriver PZ 2
- Torx screwdriver (T20)
- Clamp
- Measuring tape, permanent marker, cable knife, side-cutting pliers and Kevlar scissors.

Hybrid FM-Box installation



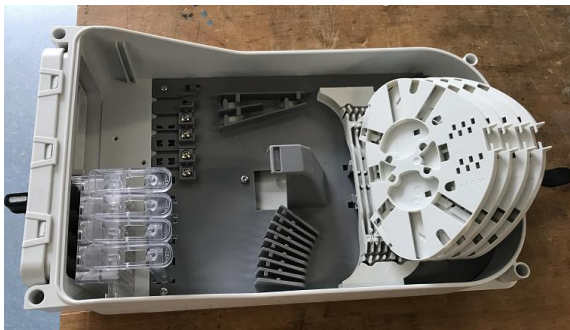
1. Install the mounting bracket against the wall

Ø6mm plugs and screws are included.



2. If necessary, use a clamp to secure the Fiber Management Box to the workbench.

The photo on the left shows the hybrid FMB 24v + Window Cut. (in addition a 48v and a 48v + window cut is available).

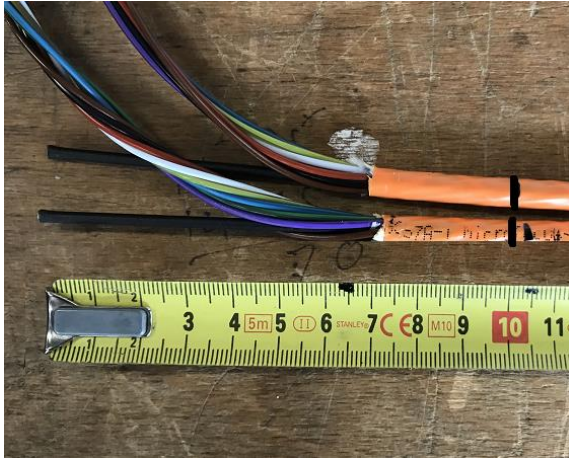


3. Pull the Velcro strip loose and remove it from the eye.

Flip the splice trays back so that there is more room to feed in the cables / ducts.



(For FMB's with window cut, first take the storage module for the window cut overlength out of the FMB)



4. Make sure that the outer side of the feeder cable ($\varnothing$ 5.8 - $\varnothing$ 8.3 mm) is dry and free of sand and make a Window Cut with an opening of 3 m (2x 1,5m measured from the SZ-point so that tubes do not get twisted) in the cable.

Remove the strength element up to approx. 7 cm from both ends where the cable was opened and mark the cable at 3 cm from the other side of the open end.

Pay attention! In case there is NO window cut to be made, then perform step 4 for a single feeder cable. Then proceed to step 7 and then to step 13.

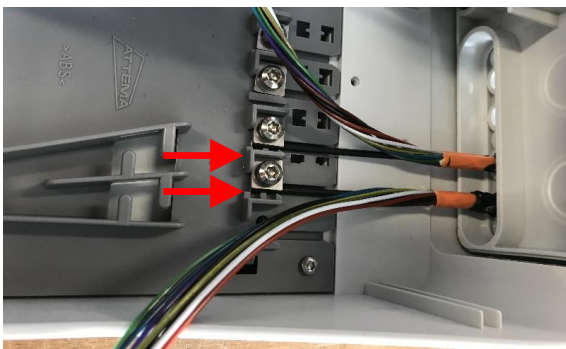


5. Place the 2 short pieces of rubber band around the cable ends (marking in the middle)



6. Enter the window cut through the port.

The pieces of rubber band must protrude partly inside and partly outside the input port (see the photo at step 7).



7. Place both strength elements directly under the plates directly opposite the input port (the recess helps to push the plate up)

Then screw the two strength elements under the pressure plate of the strain relief.

Pay attention! that no tubes are stuck under the strength element.



8. Break open the port(s) of the inner part of the window cut port seal where a feeder cable is inserted

Photo 1: inner part of the FMB (24v)

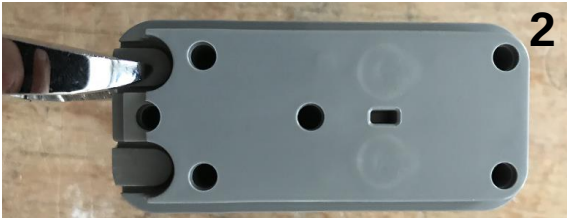


Photo 2: inner part of the FMB (48v)

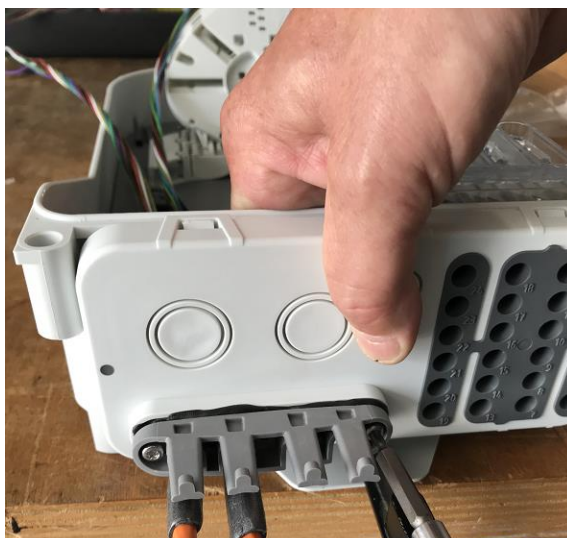


9. Place the inner part of the window cut port seal over the cables in the window cut port.



10. Roll the piece of 30cm rubber band into the shape of a sausage and divide it equally into the port.

Place the 2 pieces of foam tape around the cable directly in front of the input port



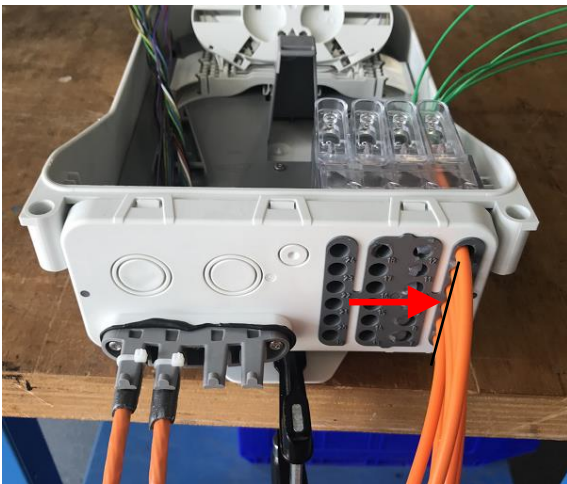
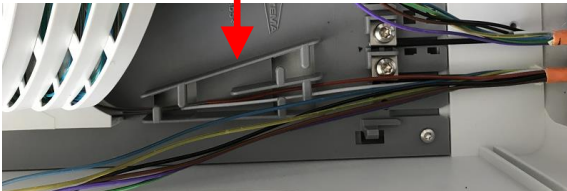
11. Fixate the outer part of the window cut port seal over the cable by tightening the 3 screws.

Attention! Hold the inner part of the Window Cut port seal when tightening the 3 screws so that the screws cannot push it away.

If a black edge of rubber is visible around the Window Cut port seal, the seal is made correctly.

If the black edge of rubber is not visible, the rubber is not well divided.

Port seal must be unscrewed, re-divide rubber (step 10) and step 11 must be re-done until rubber edge is visible.



12. For extra fixation secure the feeder cables to the outer part of the window cut port seal by using the supplied tie-wraps.

13. Make sure the stripping point for the optical Fibers is in the middle between the clasps of the tube guide (± 12 cm from the end of the cable mantle)

Place the tubes in the tube guide (leave window cut outside the tube guide).

14. Strip the cables / ducts 150 cm from the end according to the instructions provided by the cable manufacturer.

Add an extra mark 155 cm from the end.

Cut the outer sleeve perpendicularly. There must not be any lengthways cuts past the end. Use alcohol to remove any grease from the first 4 cm of the sleeve. Make sure the mark is not removed.

15. Sort the cable / duct bundles per port in advance, so that there is no unnecessary crossing of cables before the entry ports.

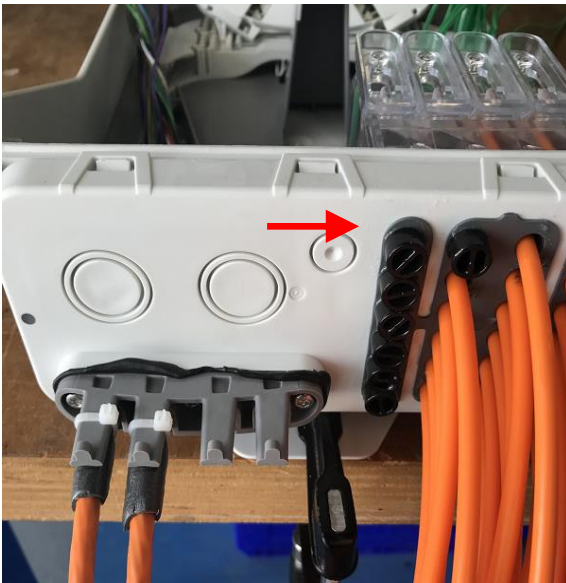
Rub a thin layer of the silicone grease provided on the insert length of the mantle.

Insert the cables or duct through the numbered flexible entry ports (numbering is mentioned on inside and outside).

Do not yet push the cable or duct through the strain relief plate, so that changes can be made easily. The mark of step 14 thus remains visible in front of the entry port.



16. Fit the rest of the cables/ducts from right to left the same way as explained in step 15.



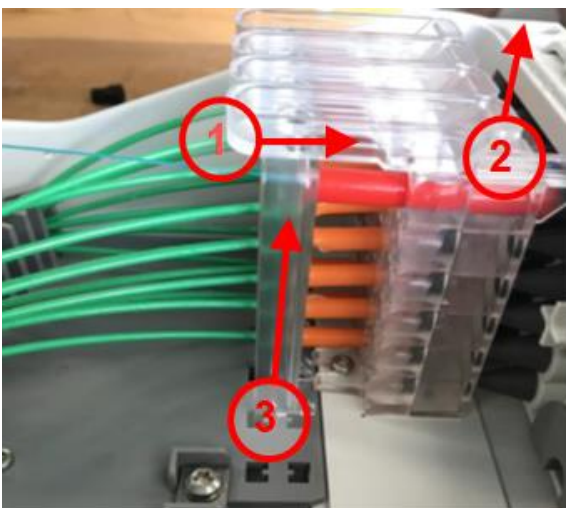
17. Once all the customer cables have been inserted into the correct entry port, push them, one by one, through the strain relief plate as far as the stop.

Attention! In the event that direct buried duct is used, do **NOT** push the ducts completely against the end stop. This is **important** for step 18.

The mark will be level with the front of the entry port.

Rub a thin layer of the silicone grease provided on the insert length of the cover plug. Fit the cover plugs in the entry ports which do not contain drop cables.

In the event that direct buried cable is used, proceed to step 21.

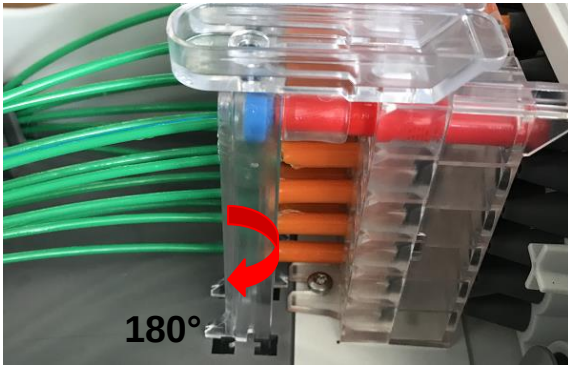


18. In the event that direct buried duct is used, a gasblock must be provided.

Remove the end stop by **(1)** pushing the hook toward the strain relief plate to **(2)** pull the hook off the strain relief plate. **(3)** Then pull the lower part of the endstop out of the cover plate and remove the entire endstop set.



19. Place a gasblock according to the instructions provided by the contractor / supplier of the gasblock.



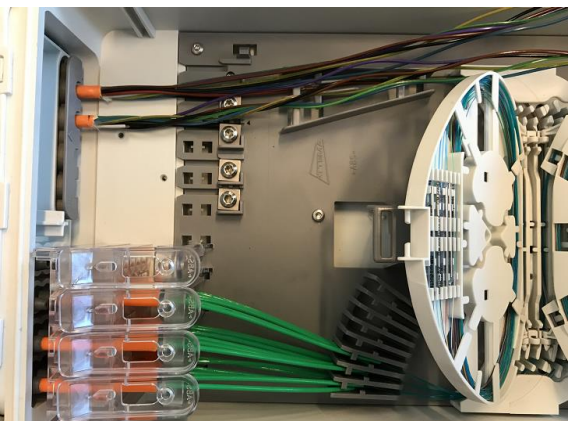
20. Turn the lower part of the end stop 180° and push the end stop back into the FiberManagement Box.



21. Strip the optical fibers in the middle between the hooks and the end of the tube guide.

Pay attention! that the upper tubes need a little more length.

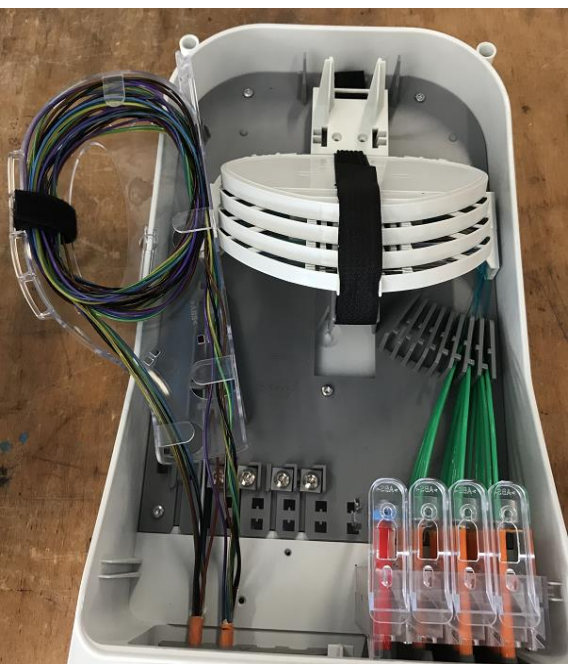
Remove the gel from the optical fibers.



22. Splice the Fibers according to the instructions.

Place the fibers in the splice tray according to the splice diagram.

Attention! use the tube guide farthest to the right for the first splice tray because of the specified minimum bend radius



23. Tilt the splice trays back against the support.

Place the cover plate on the top splice tray.

Place the desiccant bag on the cover plate and pull the Velcro strap tightly over it.

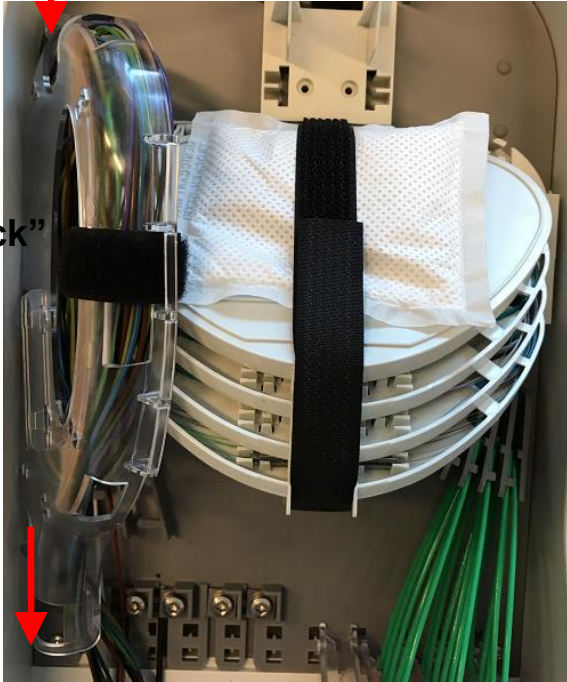
Feed the Velcro through the eye, fold it back and push it together.

(Proceed to step 25 if no window cut needs to be made)

Place the storage module for the overlength of the window cut on the edge of the FiberManagement Plate.

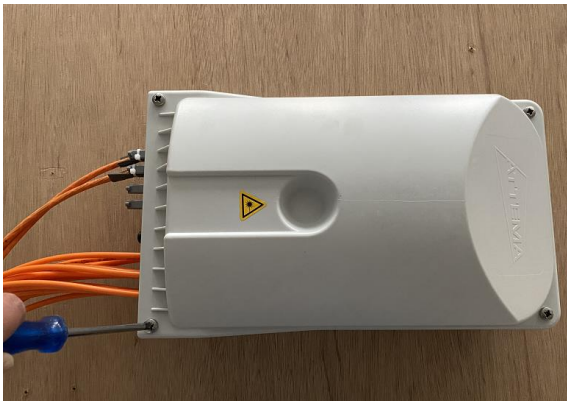
Wind up the overlength and place it in the storage module.

“Click”



24. Click the storage module with the window cut overlength back in to its original position.

Both on the top and bottom you click the storage module back on the FiberManagement Plate.



25. Take the 4 M6 Phillips screws from the packaging

Place the lid on the Fiber Management Box.

Tighten the screws with 5 Nm torque



26. Place the FM box on the mounting bracket.

First press the FM-Box against the mounting bracket.



27. Then push the FM Box all the way down.



Seen from above the FM-Box it should look like this.

End of the instruction manual