tyco Electronics

# FOMS-FPS-O-XXXX-XX

INSTALLATION INSTRUCTION

## 19" 1HU Splicing and Front Patching Shelf

TELECOM OUTSIDE PLANT

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## 1 Introduction

The FOMS-FPS-O shelf is a mechanical enclosure for a physical fiber management system.
It is used for splicing and connector patching: depending on type up to 24 fibers can be connected (in case of SFF up to 48 connections can be made).
Follow all local safety regulations related to optical fiber plant elements.
For cleaning components, the use of isopropylalcohol is recommended.

## 2 General

### 2.1 Characteristics

Compatible with standard 19" rack, back or front mounting or in FIST-GR2 racks
Dimensions: width = 481 mm
height = 44 mm (fits in 1 HU 19")
depth = 210 mm, 270 mm including plastic frontcover (optional)

### 2.2 Kit contents

**Right version**

**Left version**

**Splice-Patch configuration**

- 1 metal shelf incorporating:
- front patch panel with max 24 adapters (48 in case of SFF (small form factor)-connectors)
- FOSC-400-A splice trays
- Cage nuts and bolts
- Tie-wraps
- Back cable termination kit

**Patch-Patch configuration**

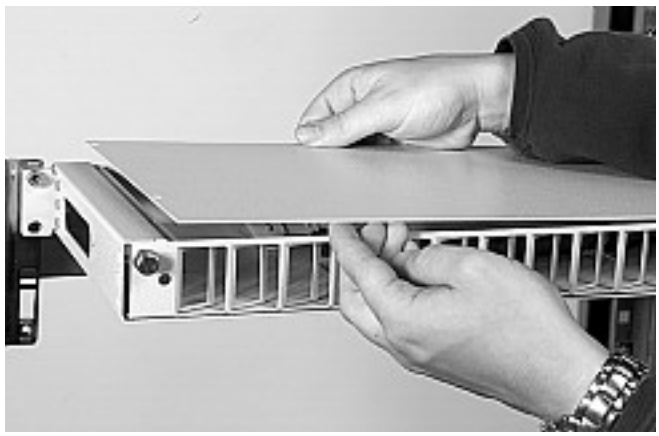
- 1 metal shelf incorporating:
- Frontpatch panel with max 24 adapters (48 in case of SFF-connectors)
- Patch island
- Velcro
- Cage nuts and bolts for mounting
- Back cable termination kit

### 2.3 Tools

| | |
|---|---|
| FACC-ALLEN-KEY-5-350 | to mount shelf in rack marker pen |
| Philips screwdriver | |
| FACC-CAGE-NUT-TOOL | for easy installation of cage nuts in the rack |
| FACC-TUBE-STRIPPER-02 | |

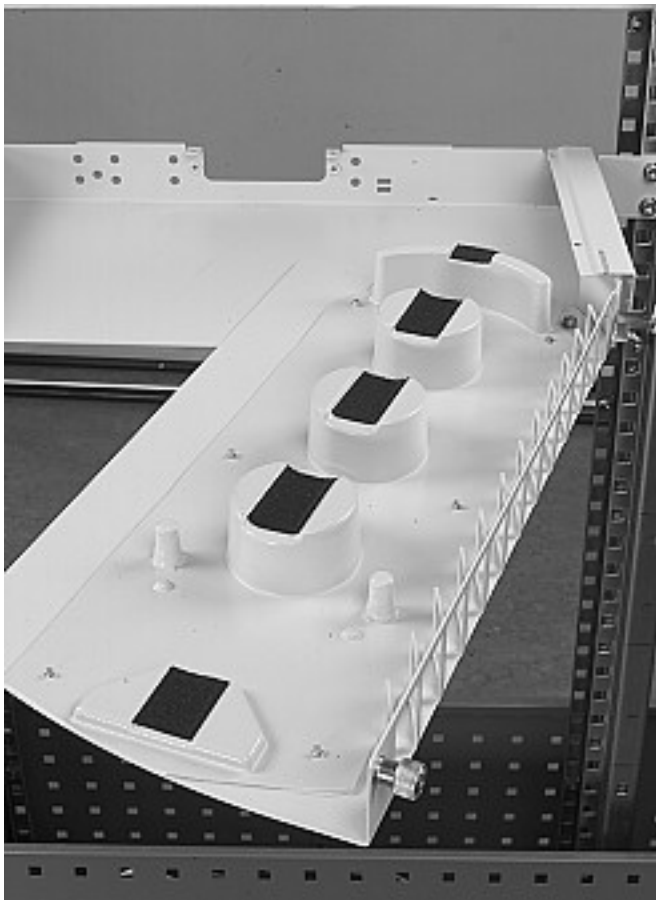
## 3 Installation

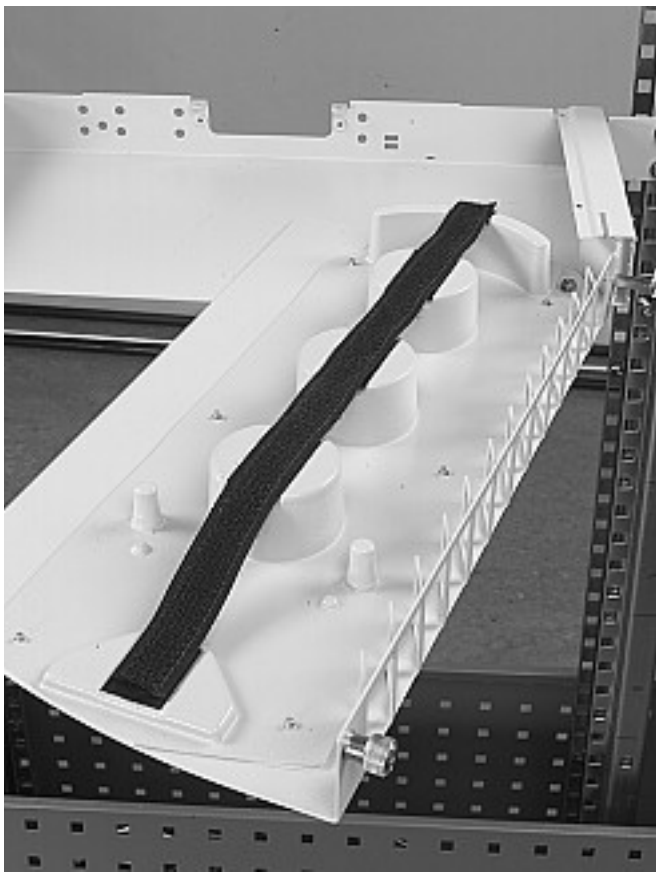
### 3.1 Preparation of the shelf in case of patch-patch



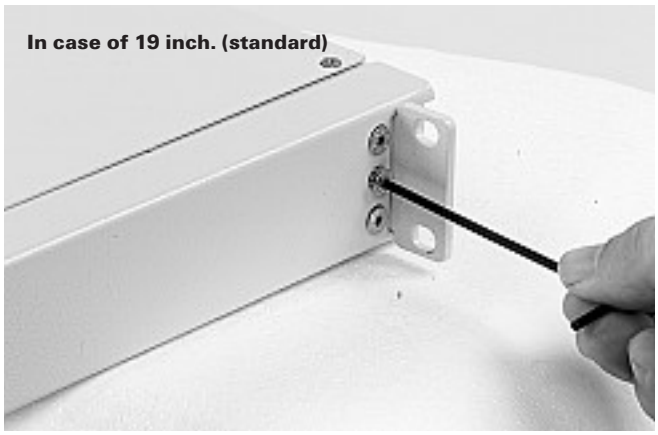
3.1.1 Remove the cover of the shelf.

3.1.2 Trumpet is needed where the pigtails enter the shelf. Depending on the rack configuration it is possible to install the trumpet at the left (in case of right version) or at the back side of the shelf.

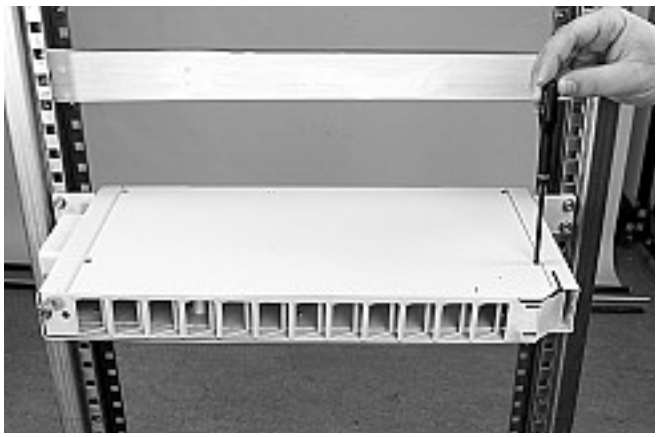




3.1.2 Tape the velcro at the 5 spots and put the long strip of velcro to secure the patch field.



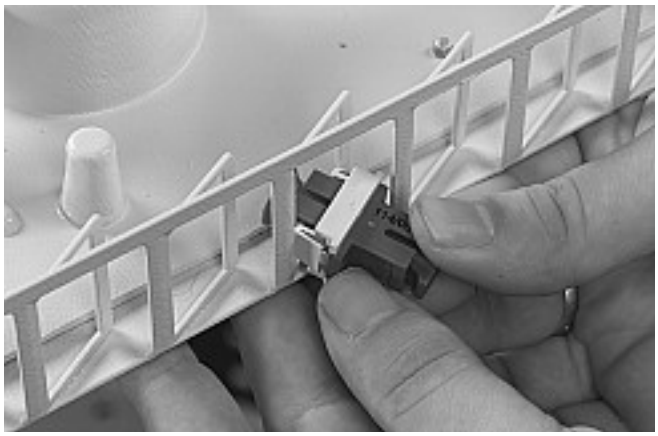
3.1.3 Install the mounting brackets on the correct position. Respect correct orientation.



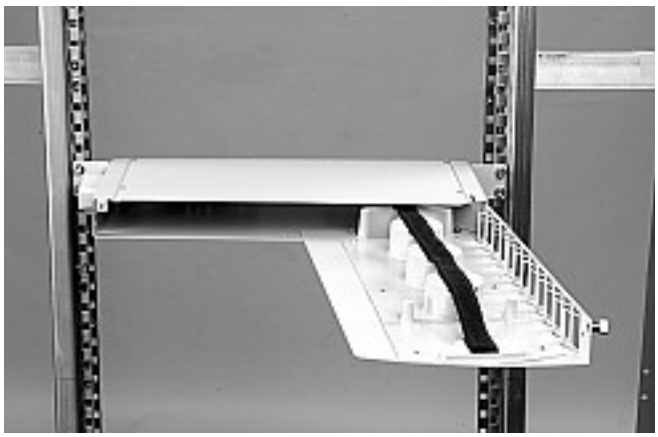
3.1.4 Place the top cover back on the shelf.

3.1.5 Determine the position of the shelf (see rack installation instruction). Fix the cage nuts into the rack. Mount the shelf using the FACC-ALLEN key.

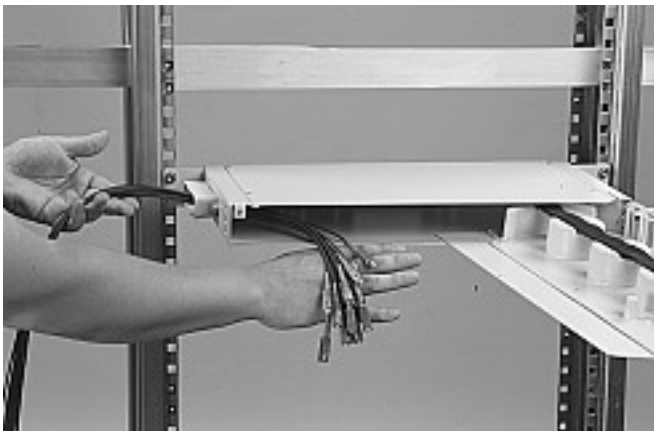
### 3.2 Routing of pigtails (patch-patch)



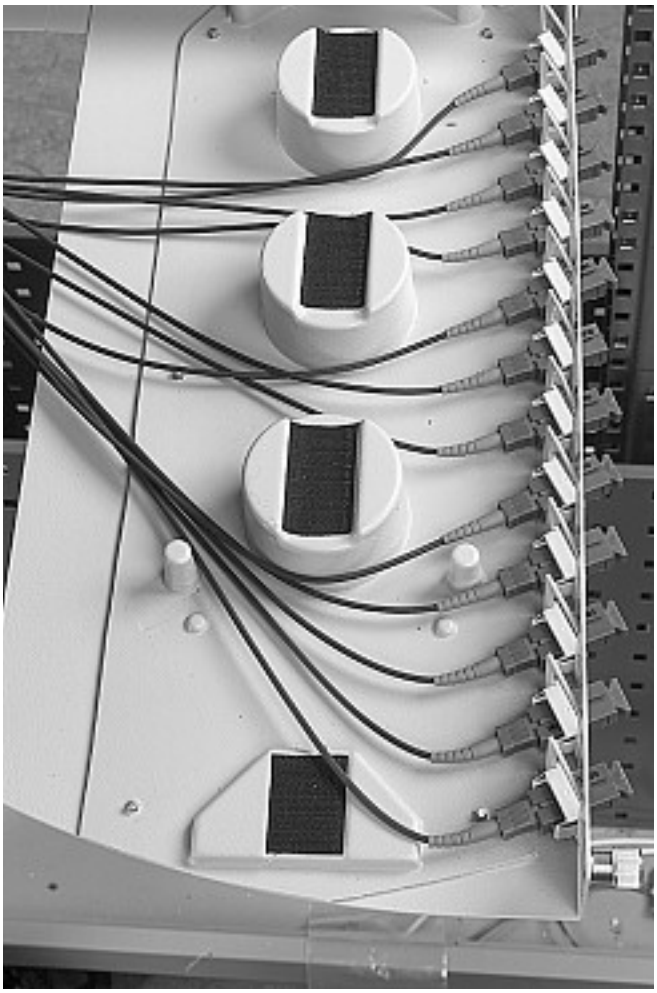
3.2.1 Place the connector-adaptors in the patchpanel. In the picture you also can see the blind stops.



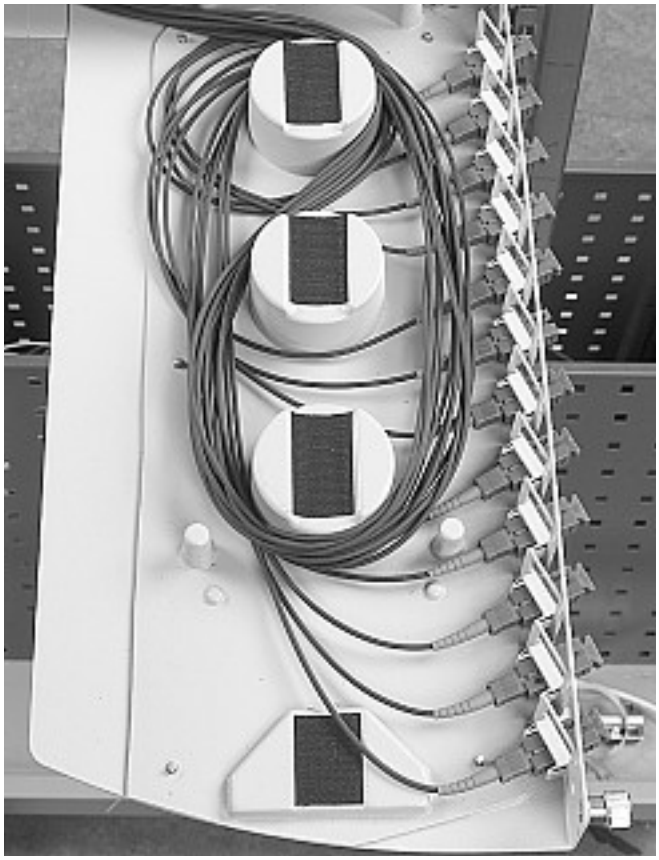
3.2.2 Slide the drawer to the fully open position.



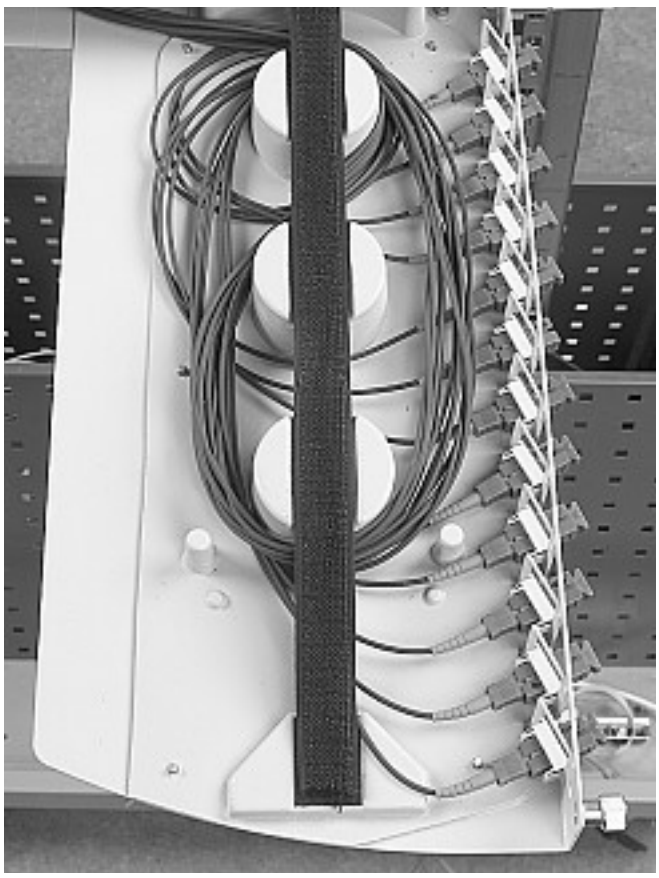
3.2.3 Entering the shelf trough the trumpet.



3.2.4 Remove the velcro.Guide the jumpers to the patch field and connect the jumpers.



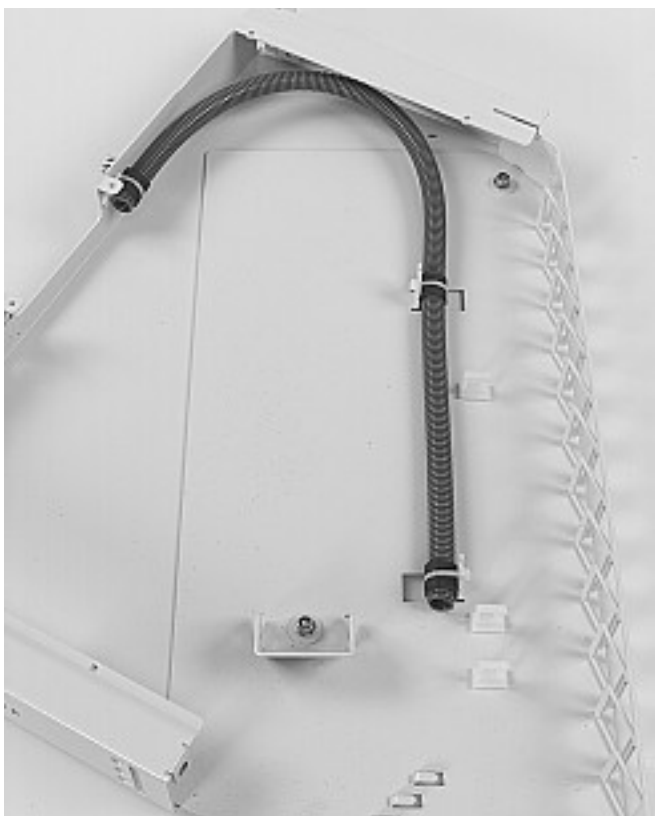
3.2.5 Recommend this routing for entering the shelf, and the possibility for storage of pigtail.



3.2.6 Put the velcro back in place.(it is not recommended to remove the velcro totally).

### 3.3 Preparation of the shelf in case of splice-patch/LT-cable

3.3.1 Remove top cover (place strength member connector in case of loose tube).



3.3.2 Prepare flex tube (do not cut the flex-tube) with foam and fasten with tie-wraps. Place the top cover back on the shelf (in case of loose tube).

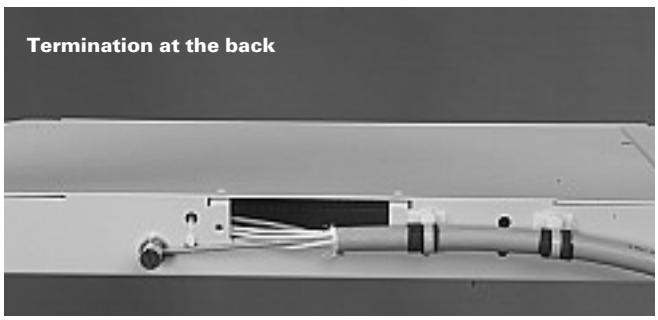
3.3.3 Install the mounting brackets on the correct position. Respect correct orientation.

3.3.4 Place the top cover back on the shelf.

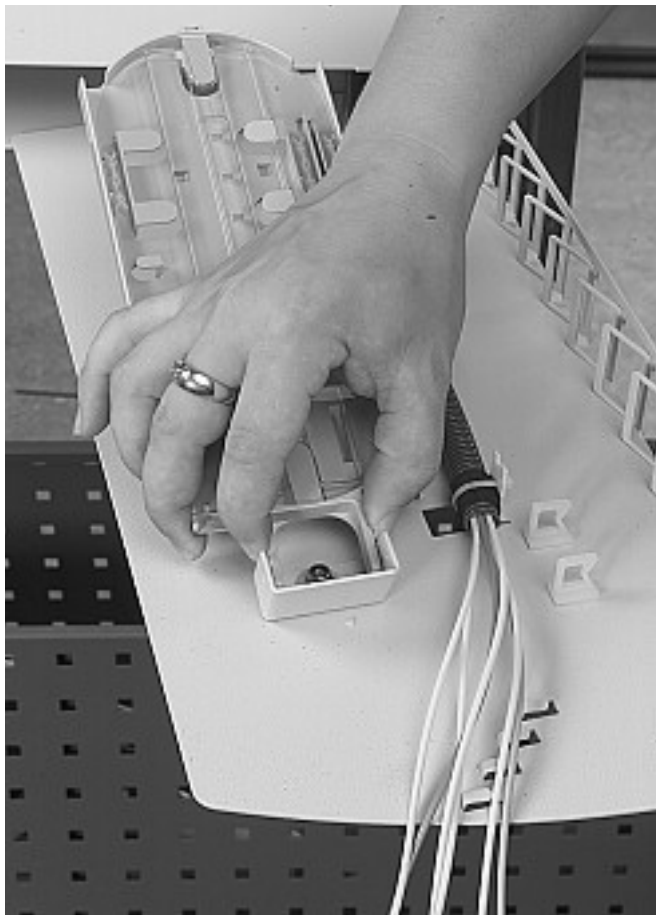
3.3.5 Determine the position of the shelf (see rack installation instruction). Fix the cage nuts into the
rack. Mount the shelf using the FACC-ALLEN key.

### 3.4 Termination of loose tube cable

3.4.1 Open the drawer to the fully open position. Strip the cable approx 1.8m. Cut the strength member approx 100mm. Feed the cable through the flex tube.

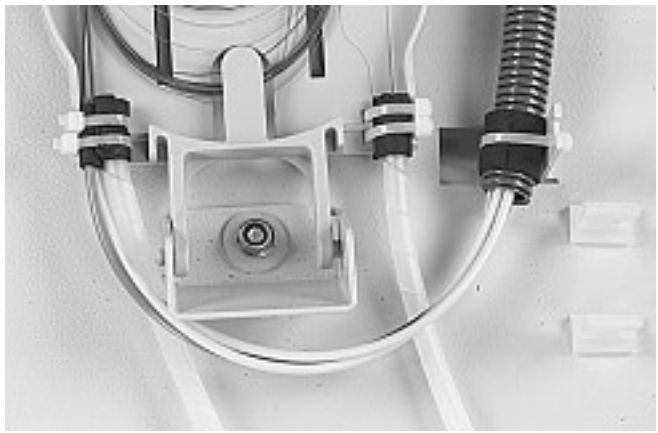



3.4.2 Fasten cable with push T-wraps and put strength member in strength member connector. Use foam there where the cable is fixed.



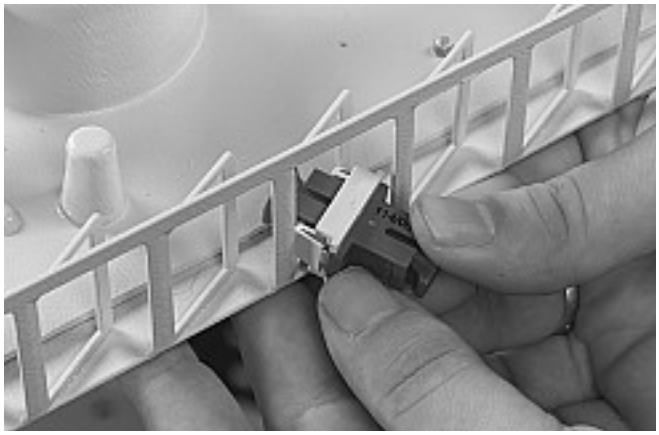
3.4.3 Put FOSC-400AA tray in place. Cut 4 pieces of spiral tube 200mm. Put foam at the ends of the spiral tubes.

3.4.4 Strip LT ( loose tube ) over 1.1meter starting at 170mm after end of flex tube.

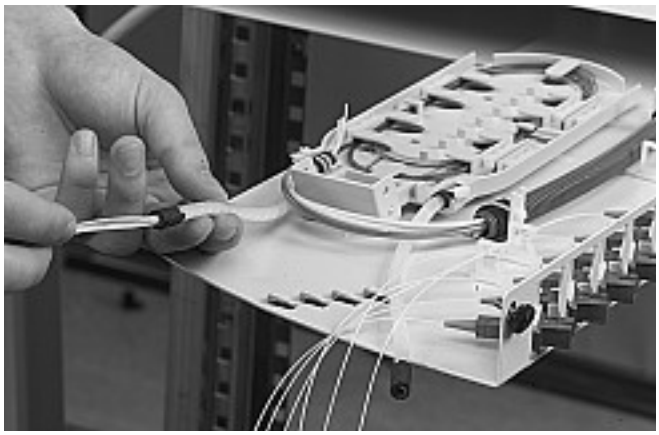


3.4.5 Put foam at the end of the LT. Fasten the LT together with spiral tube with two T-wraps. Always put the LT to the outside of the FOSC tray. Route the primary coated fiber on the FOSC tray.

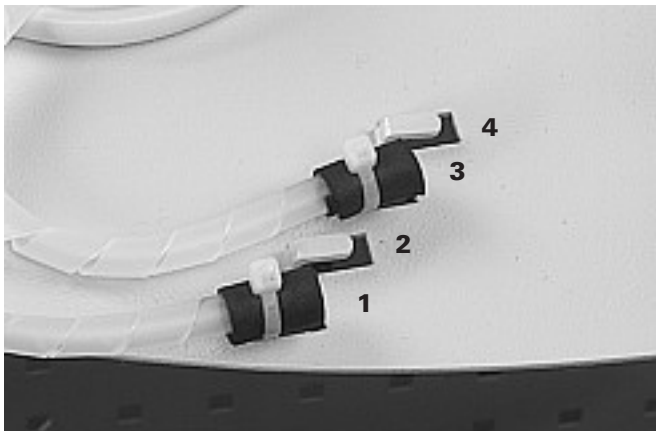
3.4.6 Fasten the second spiral tube to the FOSC-tray.



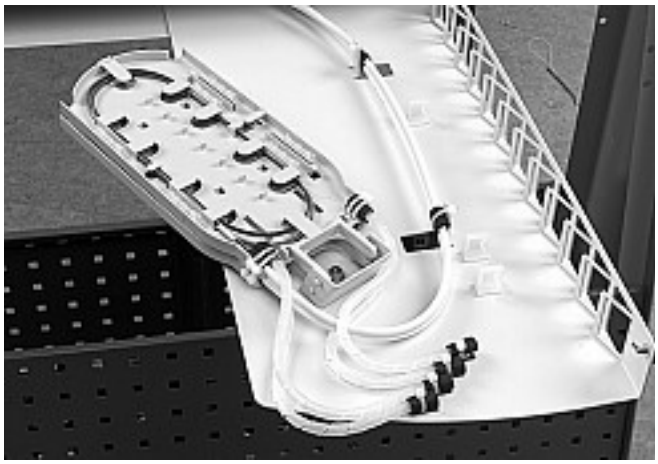
3.4.7 Place the connector adapters in the patchpanel.



3.4.8 Feed the first 6 pigtails through the spiral tube and connect the pigtails.



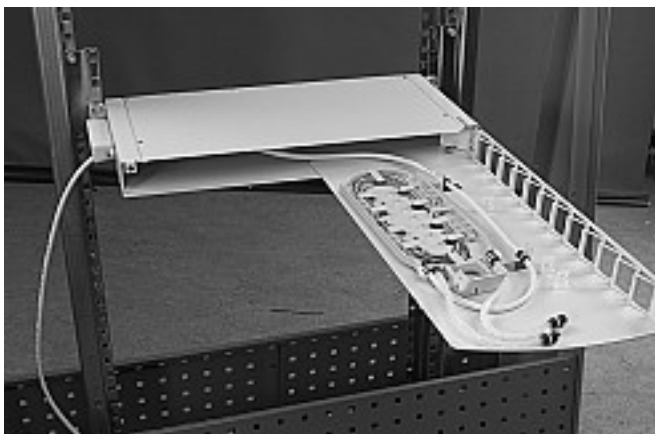

3.4.9 The next 6 pigtails can be fed through the spiral tube on the right side of the FOSC-tray. In case of 1 tray, the routing of the spiral is OK.



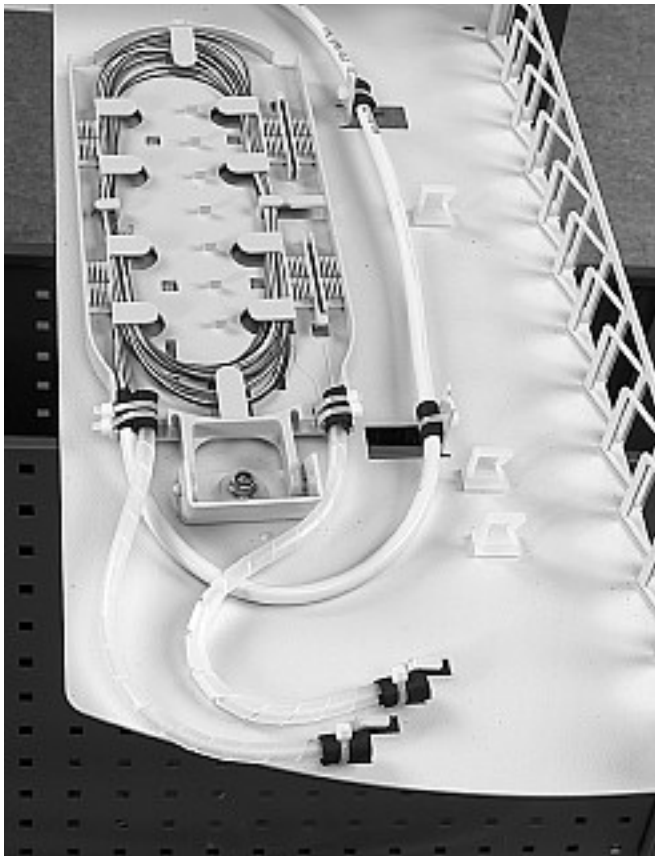
3.4.10 In case of two trays : recommend to do it this way. Spirals coming from the lowest tray, place in position 1 and 3and spiral from tray on top place in position 2 and 4.

3.4.11 Termination of cable in the rack, entering the shelf from the side, also possible entering at the back. Next step see 3.4.3.

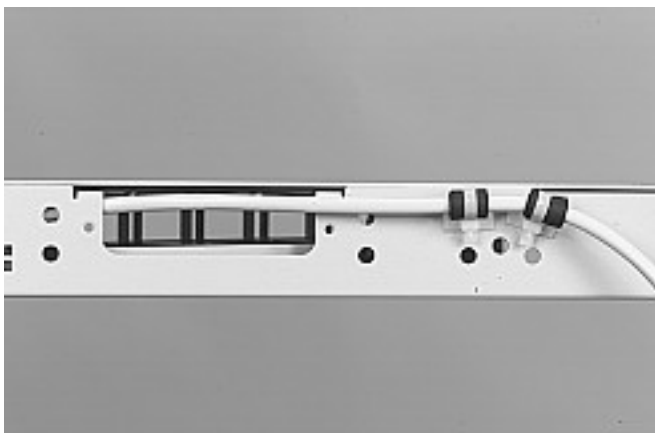
### 3.5 Termination of IFC cable (trumpet : optional)



3.5.1 Entering with IFC from the side trough the trumpet up to the tray, fixation the same as the flex tube, termination up to the tray.

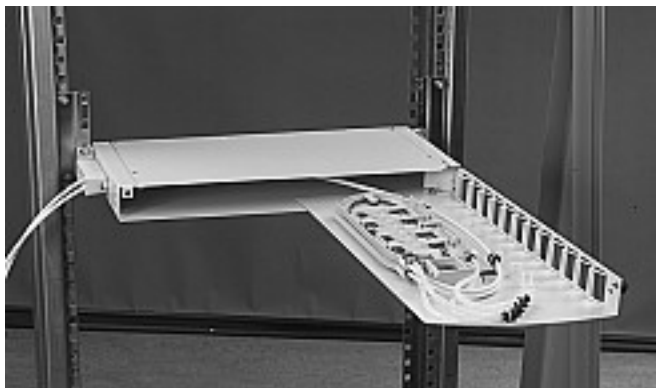


3.5.2 Termination up to the tray, fixation together with the spiral tube. Check the positions of the spiral tubes.

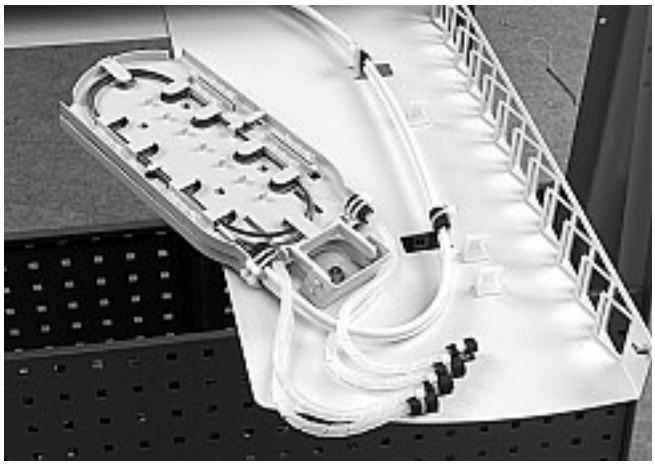


3.5.3 Back termination of the IFC cable, routing inside the shelf is the same as the previous one.

**3.6 Termination of ribbon cable and microgain cable Entering with fopt trough the trumpet (back or side) up to the tray**

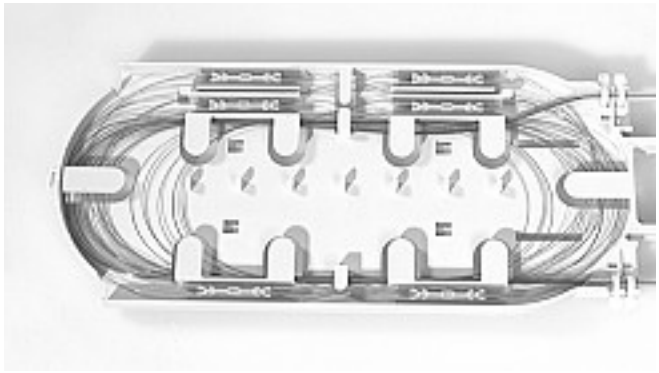


3.6.1 Entering the shelf from the side with the FOPT up to the tray.

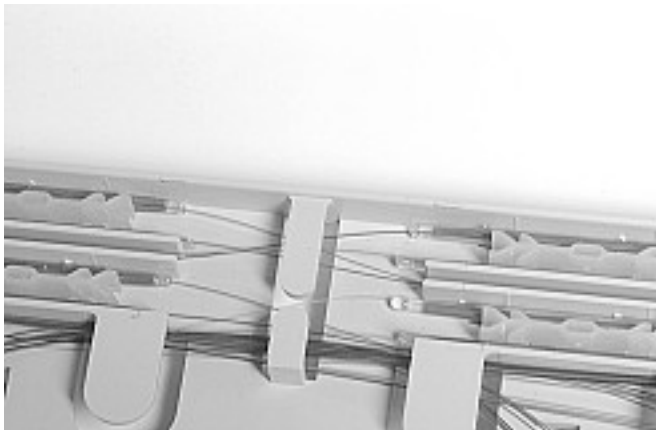


3.6.2 Fixation of the FOPT is the same as for the spiral tube. One FOPT to the first tray the other to the second tray, look closely to the routing of the spiral tubes.( see 3.4.10 ).

### 3.7 Routing and splicing



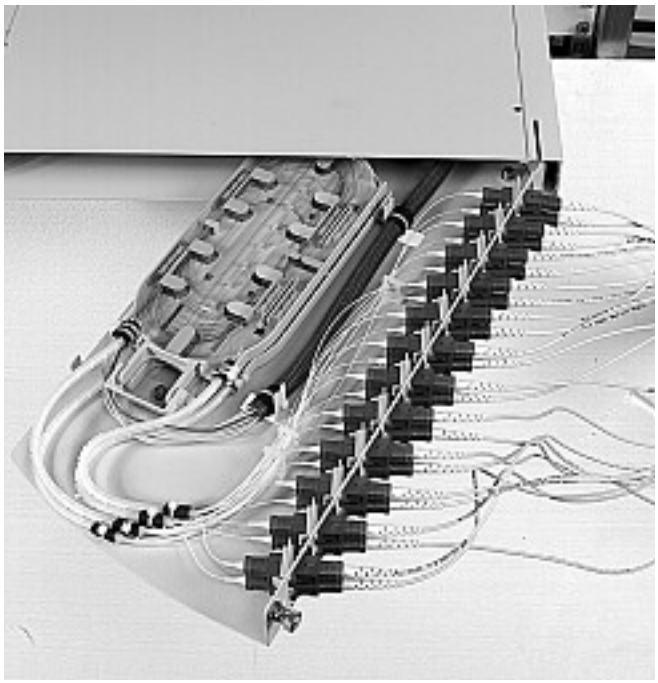
3.7.1 Tray for up to 24 heat-shrinkable fusion splice protectors is used (FOSC-A-TRAY-S24).



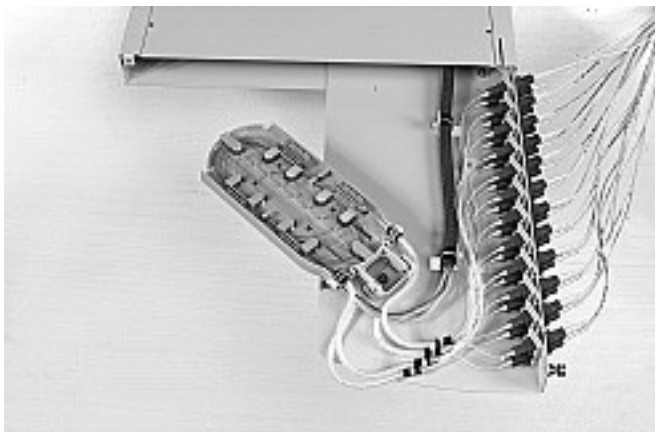
· The tray organizer has 6 locations to store splice protectors. Each location can hold maximum 4 fusion splice protectors of type SMOUV-1120-02 (length 45 mm, installed outer diameter is 2,4 mm)or equivalent.

· After each splice is made, the splice should be stored as indicated on the drawing. First protector in position 1,the second in position 2. Continue for other fibers. Fiber nr.5 will be in position 1 of next location.

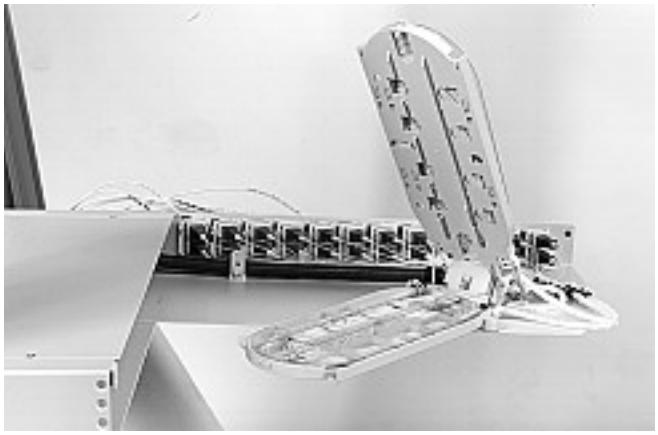
· If splice protectors are stored on the side with the 4 locations, the fibers from the locations on the outside are first guided through the passage between the locations and then coiled into the tray.



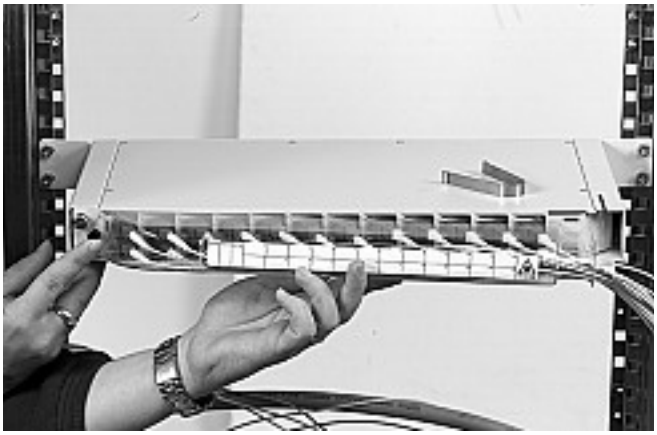
3.7.2 Remove front cover. Open tray 90°.



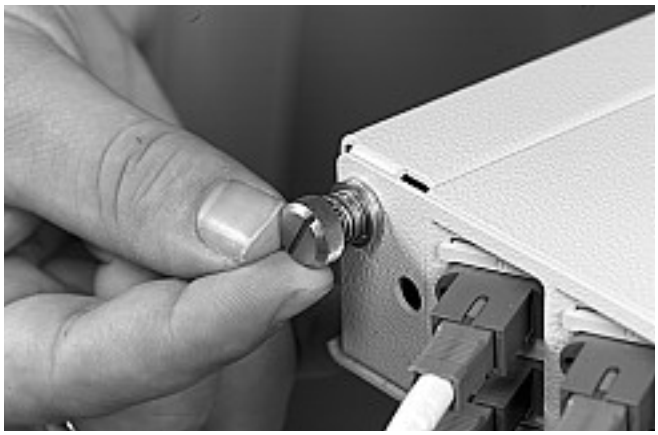
3.7.3 Rotate the FOSC-tray ± 45°.

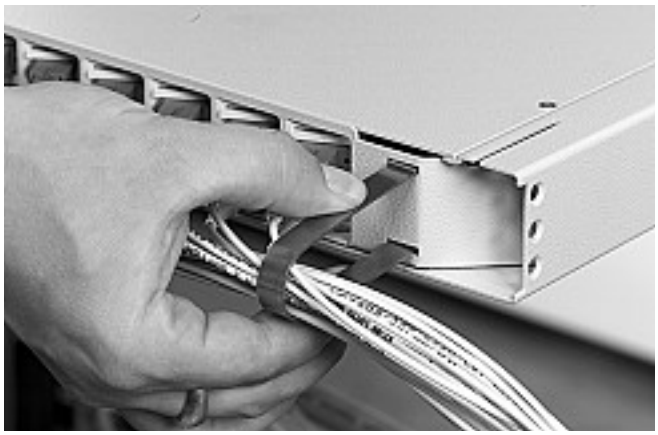


3.7.4 Use the wedge to get access to the bottom tray for splicing.

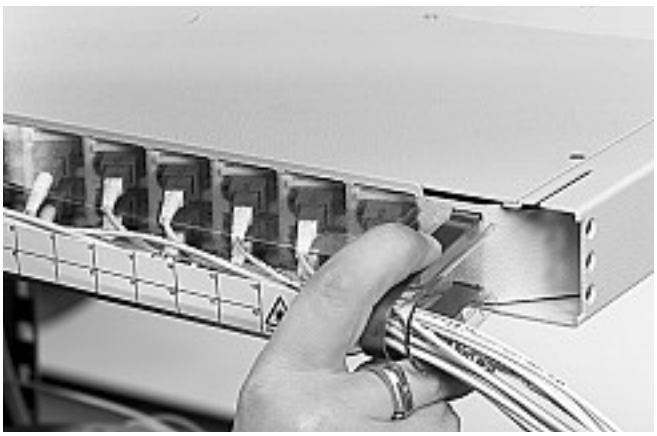


### 3.8 Closing the shelf





3.8.1 Mount the guiding snap onto the shelf. Patch the outgoing jumpers and guide them through the guiding snap.



3.8.2 Additionally a plastic cover with label can be placed to protect the connectors.

3.8.3 Identify the shelf and connectors.

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