OAsys® Equipment meets BT
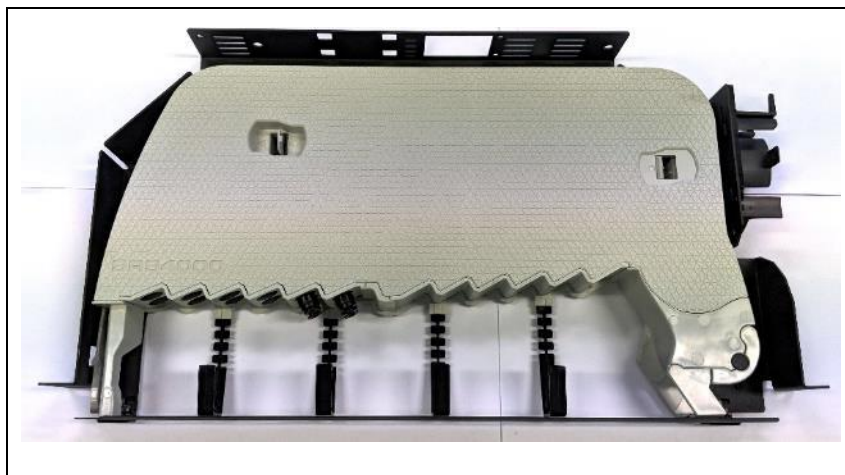**OTIAN® Equipment Specifications**

INSTALLATION INSTRUCTION

OAsys® INTERNAL PLANT

SRS4000 Splice Only Shelf Installation Guide

*NOTE: SOME IMAGES IN THIS GUIDE SHOW OPTICAL CONNECTORS THESE WILL NOT BE PRESENT IN SPLICE ONLY VERSIONS.

Contents

Prysmian Group

INSTALLATION INSTRUCTION
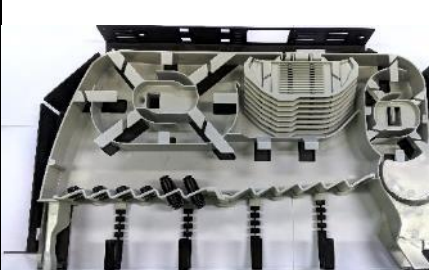
1.0 COMPONENT PARTS AND ADDITIONAL ITEMS

Tools & Additional Items Required

Additional Items Required:	Prysmian Part No.	Pack Size
SPLICE PROTECTOR 1.3mm x 30	XKTSC01284	12
	XPESC00057	50
SPLICE PROTECTOR 1.3mm x 30	XKTSC00050	12
	XPESC00053	50
SPLICE PROTECTOR 2.2mm x 45	XKTSC00079	12
	XKTSC00078	50
SPLICE PROTECTOR 2.2mm x 45		
SPLICE PROTECTOR - CRIMP		
SPLICE PROTECTOR - CRIMP		

Fixings:	ETSI Mounting Bracket Kit – XKTSC00171

Tools:	Pozi Drive Screwdrivers No.1, No.2 and No.3
	Cable and Fibre Preparation Tools

Component Parts (pictures not to scale)

1 Splice Only Shelf 1U, 2U or 3U	**2** Top Cover	**3** Bend Limiting Tube
4 Rapid Cable Anchor (ARS)	**5** Patch Cord Bend Manager	**Fastenings, Fixings & Tools**
		6 Tube Installation Tool **7** Screw M6 x 12mm Pozi Pan Hd. **8** M6 Cage Nuts **9** Cable Ties 2.5 x 100 **10** Cable Ties 3.6 x 295 **11** Screw M4 x 10mm Pozi Pan Hd. **12** Screw M4 x 6mm Pozi Pan Hd. **13** Velcro

2.0 INPUT CABLE PREPARATION

Step 2.1

PREPARATION STEP

> ⚠️
>
> *Clean before you connect.*
>
> *It is important that all fibre connectors and adapters are cleaned prior to mating using approved local practice. Failure to clean may result in either poor signal performance and/or permanent damage to the connector end faces.*

- Prior to installation ensure that there is a minimum of 3m of cable spare for installation, termination and storage purposes.

- Make a Butt Mark 2m from end of cable.

- Remove the outer sheath back to the Butt mark and remove all tapes and bindings.

- Remove all unwanted cable elements.

2.0 INPUT CABLE PREPARATION

Step 2.2


40mm CSM
100mm ARAMID

60mm

CSM OR ARAMID
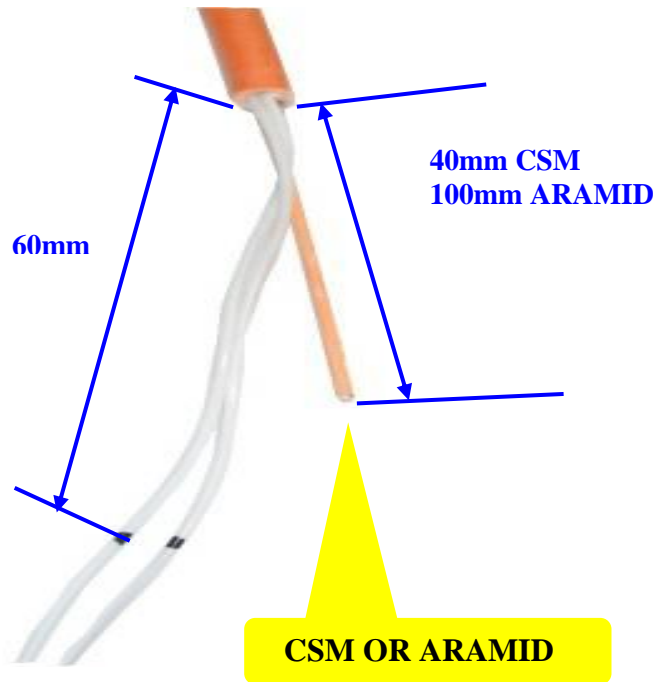
- If using Central Strength Member (CSM) cut to a length of 40mm from the cable butt.

- If using Aramid Yarns cut to a length of 100mm from the cable butt.

- Make a mark on the exposed cable elements 60mm from the cable butt.

- Remove the protective tube/sheath from the elements back to this mark to expose the fibres.

2.0 INPUT CABLE PREPARATION

Step 2.3 - 72F OR 96F CABLE INSTALLATION of 2 elements per tube:

GO TO STEP 4 IF INSTALLING 24F OR 48F of 1 element per tube.

40mm
BLACK
MARK

40mm
CUT
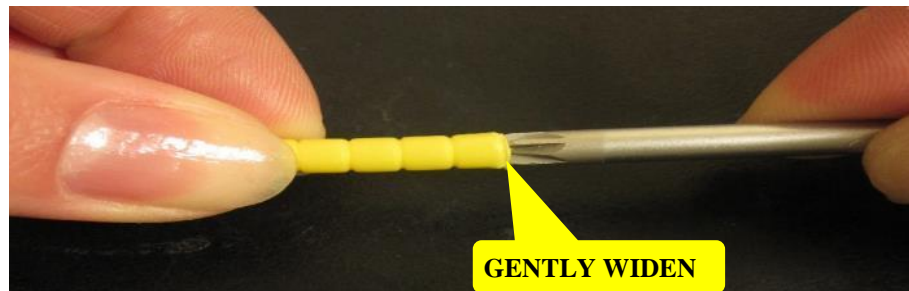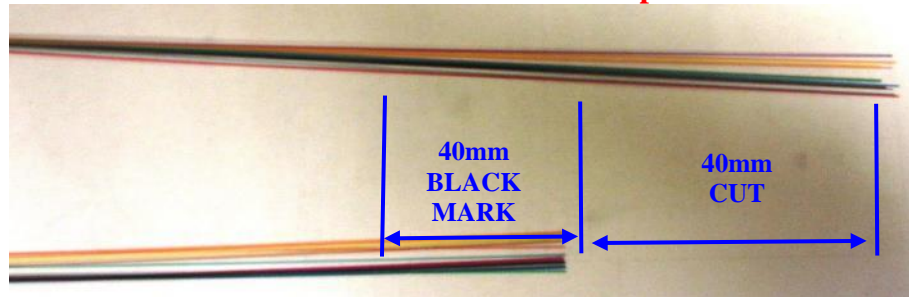
GENTLY WIDEN

- If installing 72f or 96f from 2 elements into the tube ensure to cut the fibres from 1 of the elements 40mm shorter and MARK fibres 40mm back from end with a black marker as shown.

- To ease insertion of elements gently widen the tube entrance with the end of a cross head screwdriver.

NOTE: this will help with element identification once the fibres are through the tube.

2.0 INPUT CABLE PREPARATION

Step 2.4

- Ensure that the CSM is located in the centre boss of the ARS (4) and the cable butt is approximately in line with the end of the cable support cradle of the ARS.

- Fit the M4 x 10mm screw (11) to secure the CSM.

2.0 INPUT CABLE PREPARATION

Step 2.5

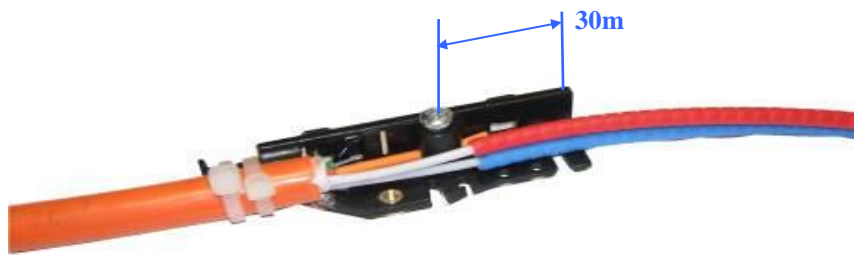**Ensure that the cable ties are secured with the large end in this position.**

- Secure the cable butt to the ARS using 2, 3.5 x 295mm cable ties (10)

- Remove excess cable tie length with a Flush Cutting Tool 1A.

NOTE: The cable ties must be installed with the large end of the cable tie in the position as illustrated above.

Step 2.6

30m

- Thread the fibres from cable element No.1 into the BLUE Bend Limiting Tube (3).

- Thread the fibres from cable element No.2 into the RED Bend Limiting Tube (3).

- The end of each tube should be approximately 30mm from the end of the ARS body.

2.0 INPUT CABLE PREPARATION

Step 2.7

- Thread two, 2.5mm x 100mm cable ties (9) through the 4 holes in the body of the ARS and secure the BLUE and RED tubes to the ARS body.

2.0 INPUT CABLE PREPARATION
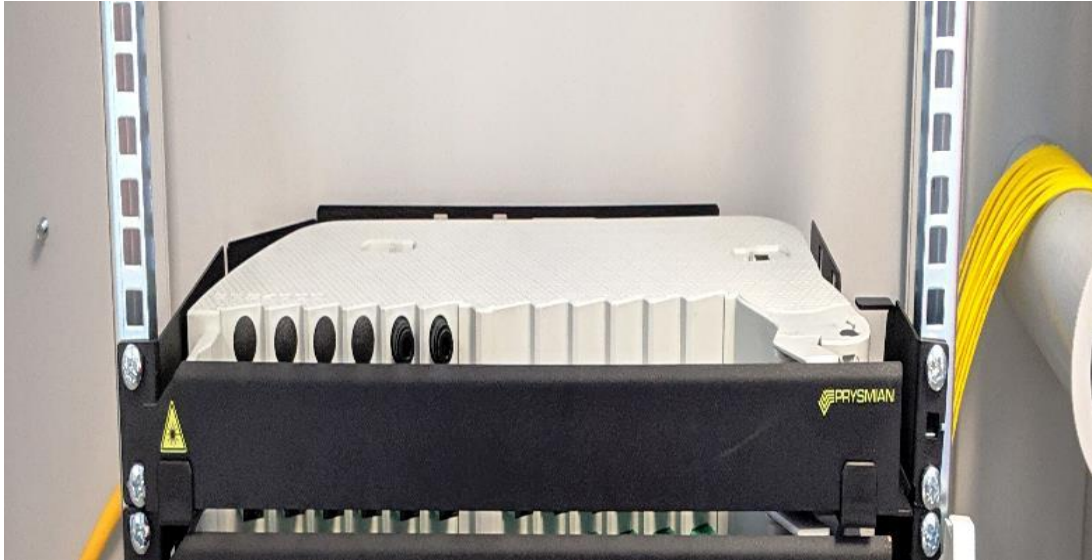
Step 2.8

Fit cage nuts.

- Select the rack mounting position for the shelf and fit 4 Cage nuts (8) into the rack uprights.

- If the Shelf is to be used in an ETSI front mounted rack, fit ETSI conversion brackets (not supplied), order part number XKTSC00171.

2.0 INPUT CABLE PREPARATION

Step 2.9

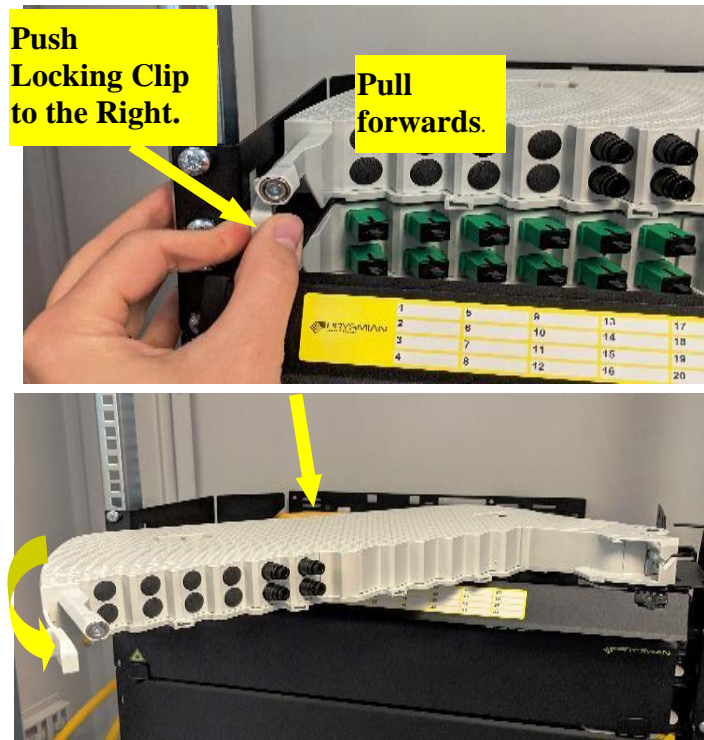- Using four, M6 x 12mm screws (7) fit shelf in position.
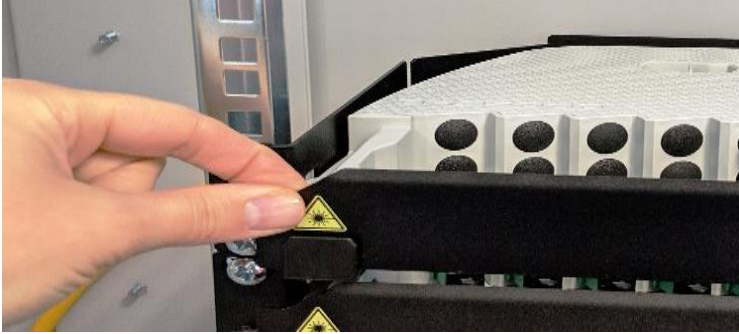
3.0 INPUT CABLE ROUTING

Step 3.1

- Gently place your fingers on the cover and pull down to release the magnetic grip and leave to hang freely.

3.0 INPUT CABLE ROUTING

Step 3.2	

Push
Locking Clip
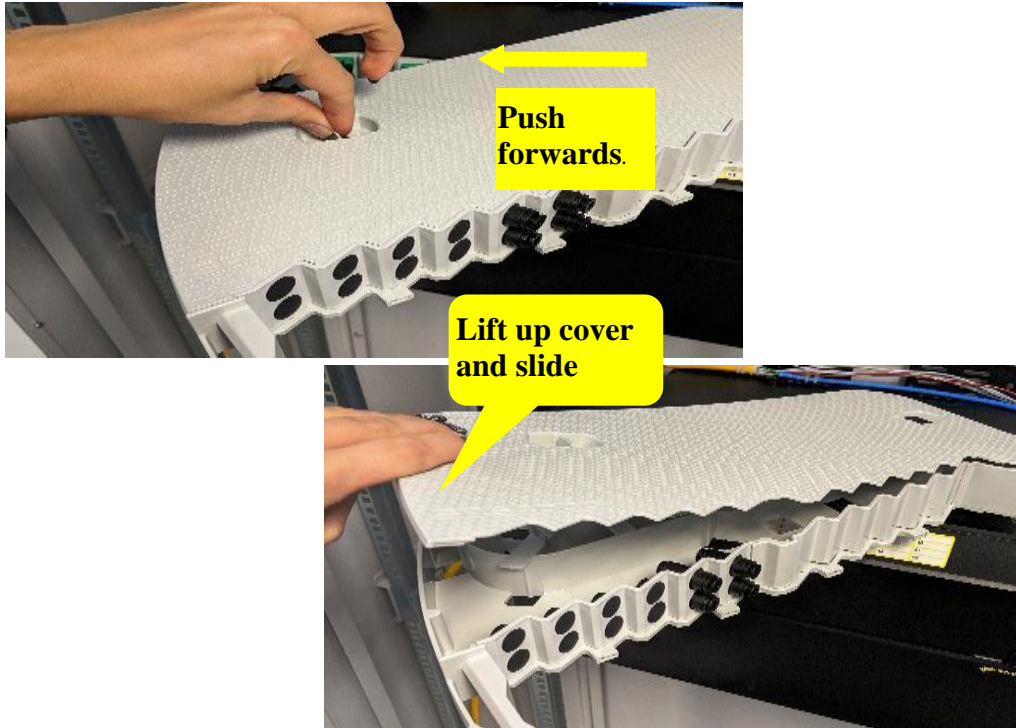to the Right.

Pull
forwards.

- To unlock the Splice Only module, hold the locking clip and push to the right and pull forward.

- Swing out the Splice Only Module to fully open.

Step 3.3

Push forwards.

Lift up cover and slide
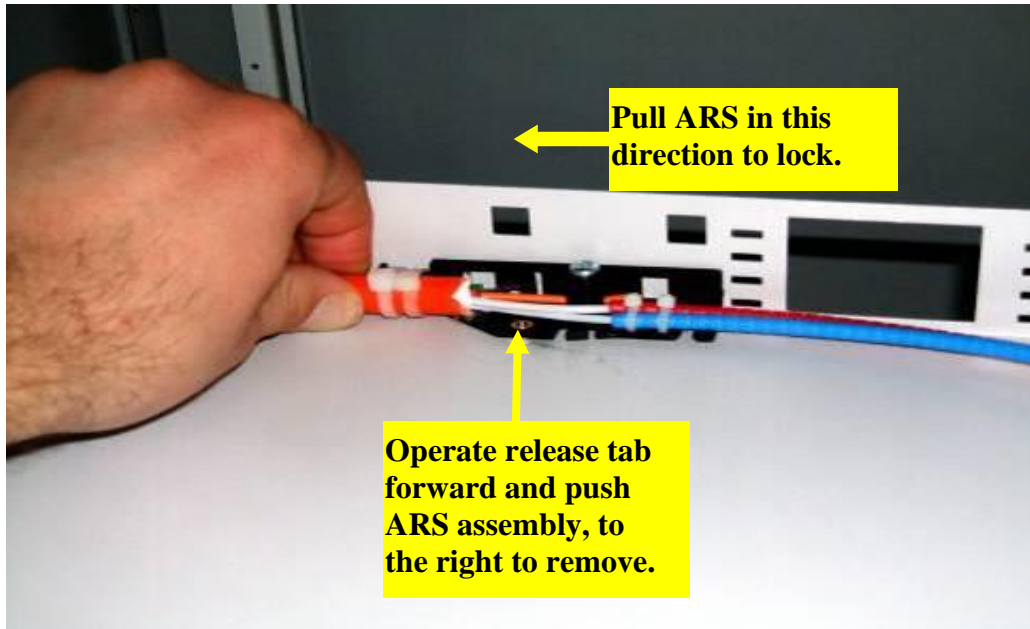
• Place finger, on the tab in the cover, pull towards you and lift out.

## 3.0 INPUT CABLE ROUTING

Step 3.4

- Feed spare cable into rack.

- Locate the two angled legs on the back of the ARS into the lower pair of square locating holes.

- Pull the ARS and Cable assembly to the left and the ARS will now lock into position.

NOTE: If the ARS needs to be removed, then place a flat bladed screw driver behind the release tab and push the ARS assembly to the right.

3.0 INPUT CABLE ROUTING

Step 3.5

Tube end
stop position.
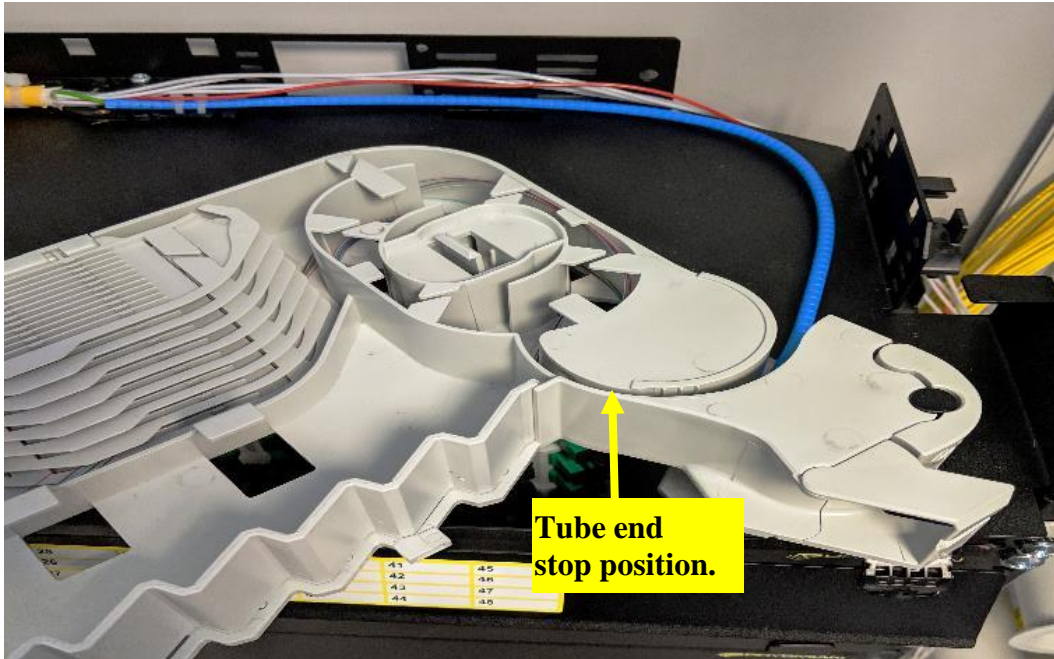
- Fully open the module.

- Select the Blue Tube and route around back of module and into the tube location area.

- Locate the end of the tube at the tube stop position and push the tube downwards so that the groves in the tube align with the splines on the module.

3.0 INPUT CABLE ROUTING

Step 3.6
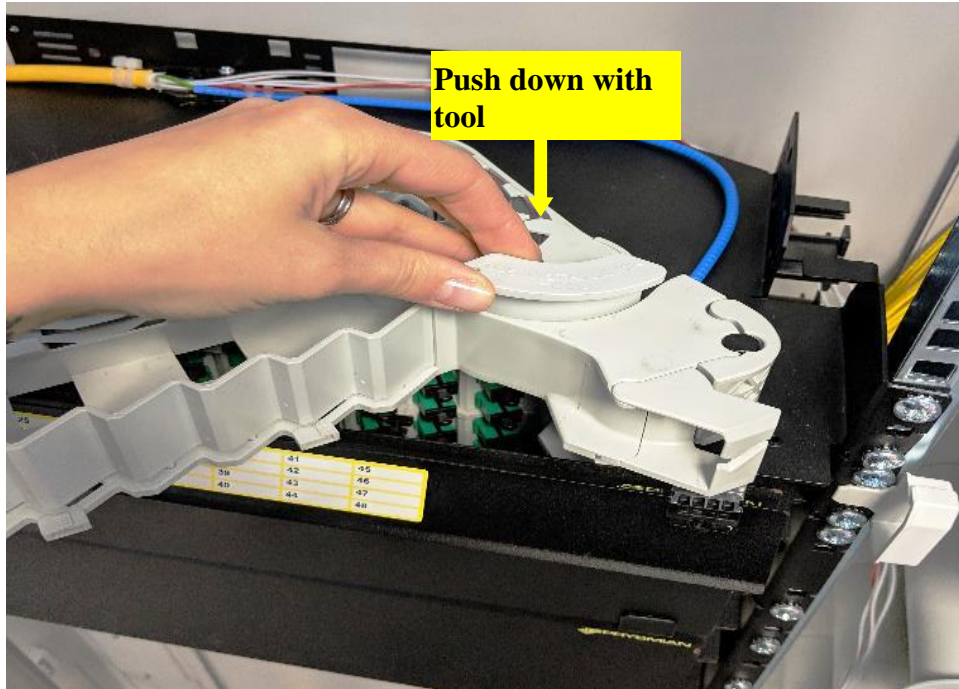
- Use the tube installation tool (6) to push the tube into position. The tube will stop when the base of the module is reached.

3.0 INPUT CABLE ROUTING

Step 3.7
Route Fibres in Direction of Arrow and into storage area.

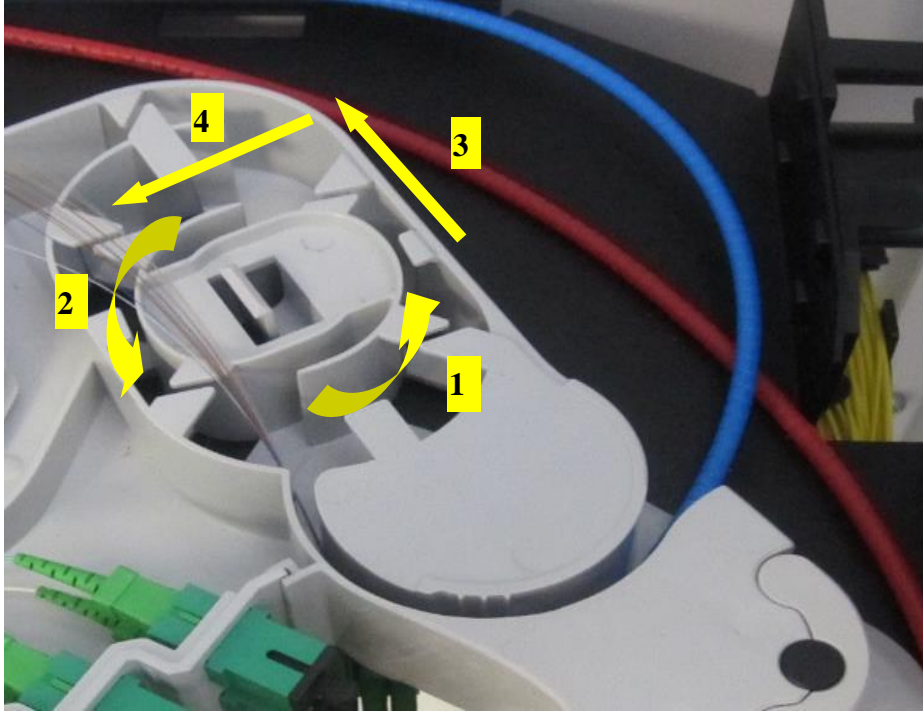- Route the 12, fibres from the BLUE Tube in direction of Arrow.

NOTE: An arrow indicating DIRECTION - FIBRE IN is embossed into the module base at this point.

- Store the fibres from the BLUE tube in the Right hand fibre storage area.

NOTE: The fibres from the BLUE tube are from Cable element No.1 and represent Fibre Numbers 1 to 12.
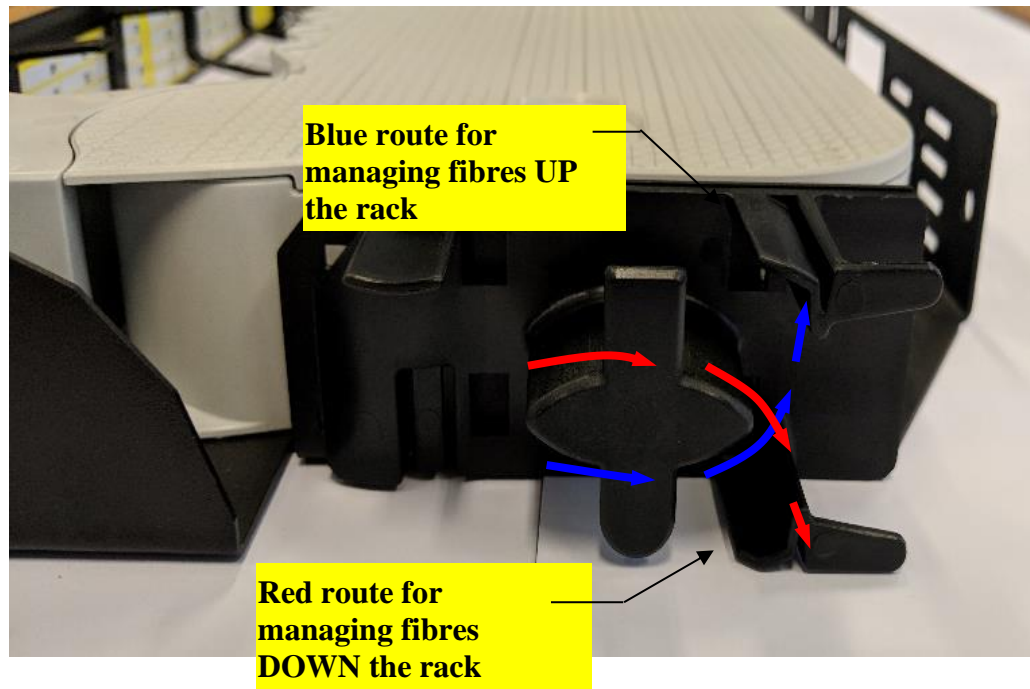
3.0 INPUT CABLE ROUTING

Step 3.8

- Repeat Steps 5 to 7 for the RED Tube.

- Store fibres as indicated in Step 9.

NOTE: The fibres from the RED tube are from Cable element No.2 and represent Fibre Numbers 13 to 24.

3.0 INPUT CABLE ROUTING

Step 3.9

Blue route for managing fibres UP the rack

Red route for managing fibres DOWN the rack

- Attach the ARS to the side of the shelf. To do this, push it into the square holes and slide to the right.

- Allow the bend limiting tube to poke out of the front of the shelf.

- If the ARS needs to be removed, then place a flat bladed screw driver behind the release tab and push the ARS assembly to the left.

4.1 FIBRE ROUTING S4-X-201
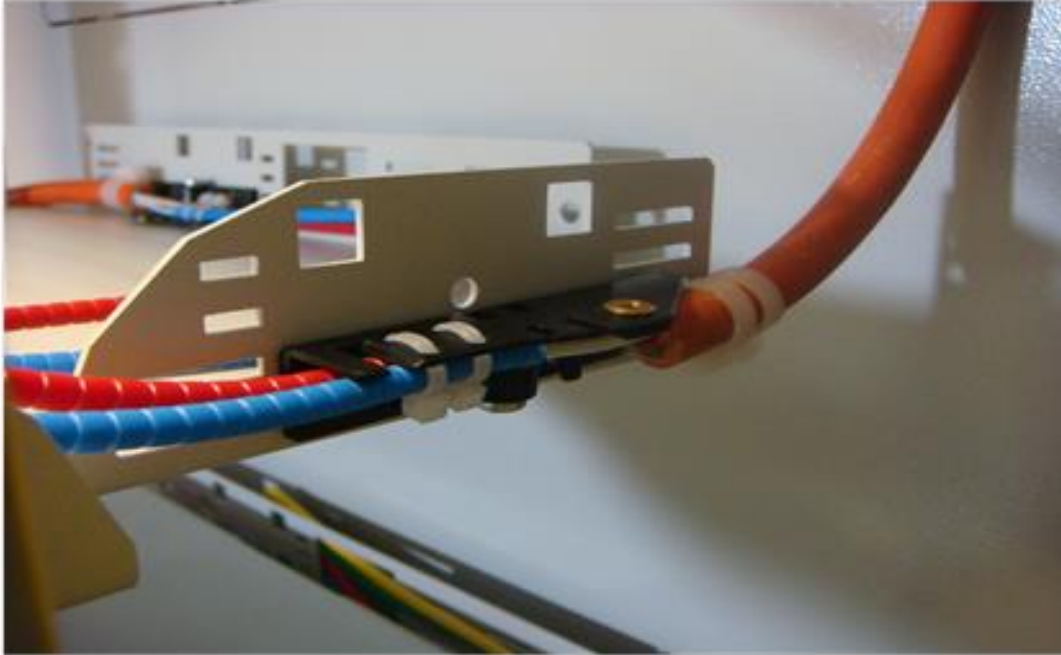
Step 4.1.1

**FOLLOW SECTION 3.0,
STEPS 2-9**

- For shelf preparation firstly follow SECTION 3.0, STEPS 2-9.

- Use the tubes provided in the ARS Kit.
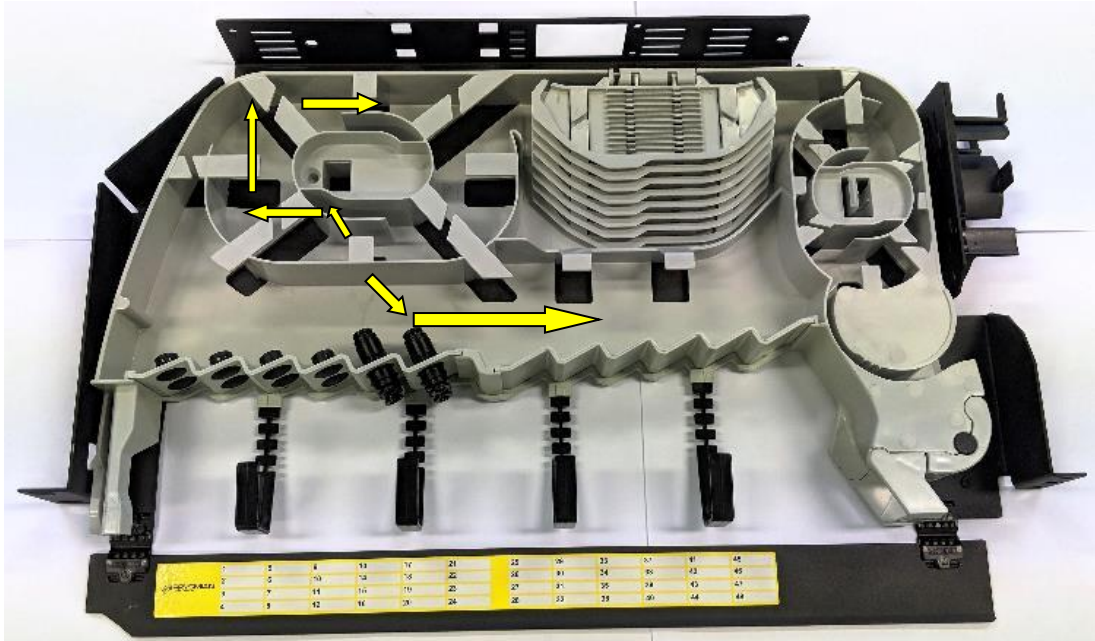
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Step 4.1.2

- Attach the ARS to the side of the shelf. To do this, push it into the square holes and slide to the right.

Note: this is fitted upside down to ensure that the bend limiting tube enters the shelf the correct way.

- Allow the bend limiting tube to poke out of the front of the shelf.

- If the ARS needs to be removed, then place a flat bladed screw driver behind the release tab and push the ARS assembly to the left.

Step 4.1.3

- Feed the fibres through the bulkhead connector being careful that they do not snag as they are inserted.

- Push the bend limiting tube into the bulkhead connector. Use the four positions.

- Route the fibres into the storage area following the numbered route ready for splicing.

NOTE: A maximum of 2 bend limiting tubes can be taken from 1 ARS.

Step 4.2.1

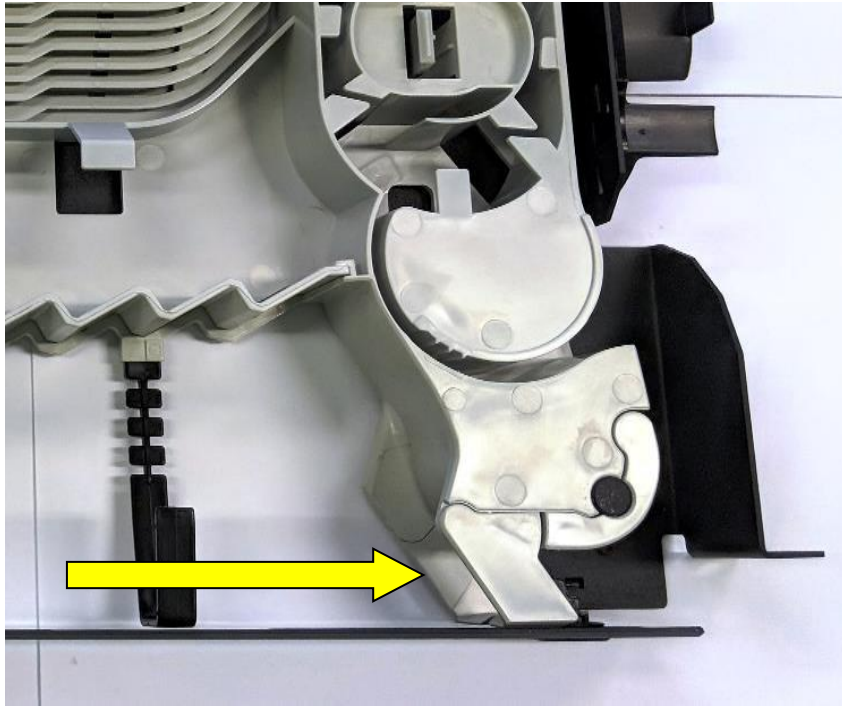**PREPARE RUGGERDISED CABLE AS PER GUIDE IN KIT**

- Prepare ruggerdised cable in line with guide supplied with aramid restraint kit.

Step 4.2.2

- Clip the restraint into the front panel.

4.2 FIBRE ROUTING S4-X-200

Step 4.2.3
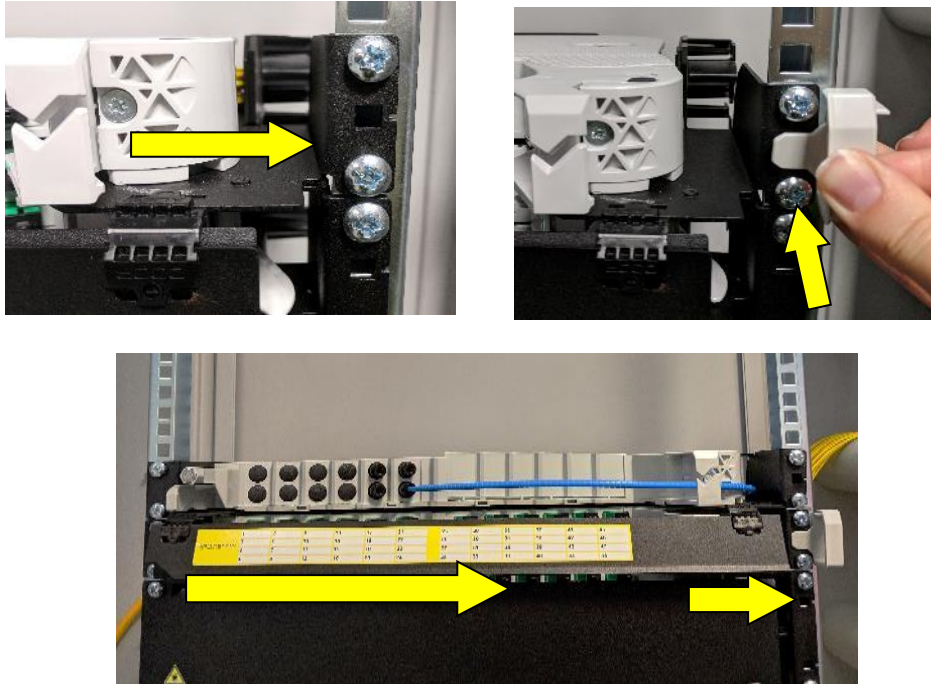
- To route the cables across the front of the rack install the Guide by clipping into position firmly as shown and then route the cables through the loop.

- If using 2U or 3U, only install the Guide to the applicable unit.
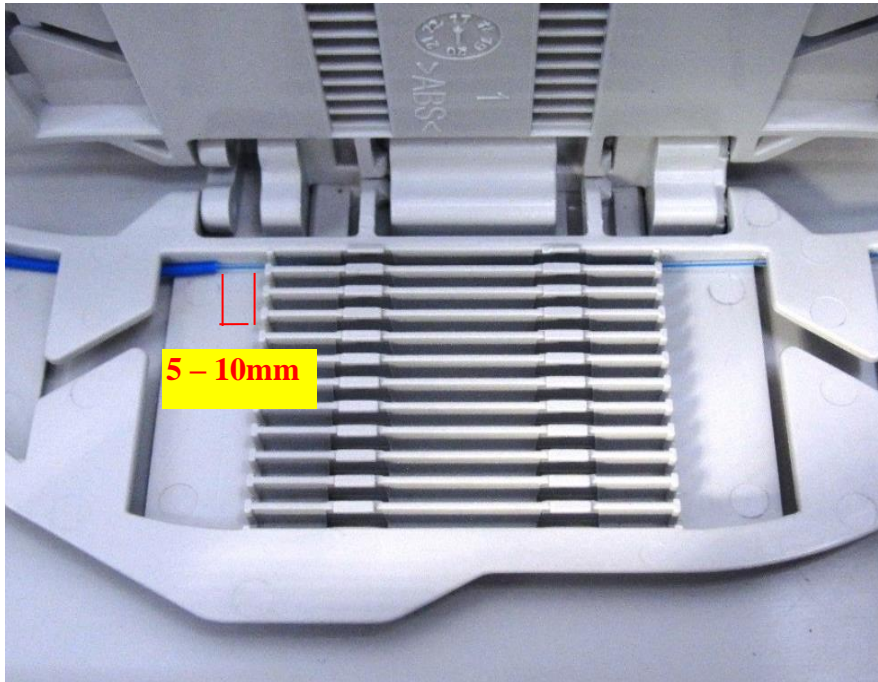
5.0 SPLICING 1U SHELF

Step 5.1

- Select the INPUT TUBE from the BLUE tube (Fibres 1 to 12).

- Flip up all the trays and start from the bottom tray first.

5.0 SPLICING 1U SHELF

Step 5.2

- Starting with Fibre No. 1 (see correct colour sequence diagram), splice the Blue Pigtail to the Blue Primary Input Fibre and store the splice protector in the Splice Protector Bay.

- Repeat for fibres 2 through to 12 and store each spliced fibre in sequence in the splice protector bay.

NOTE: Ensure that enough 900µm buffering is removed from the Pigtail fibre to allow a gap of 5 to 10mm from the buffering to the splice protector. This will allow the splice protector to shrink down onto 250µm fibre only, as illustrated in the photograph above.
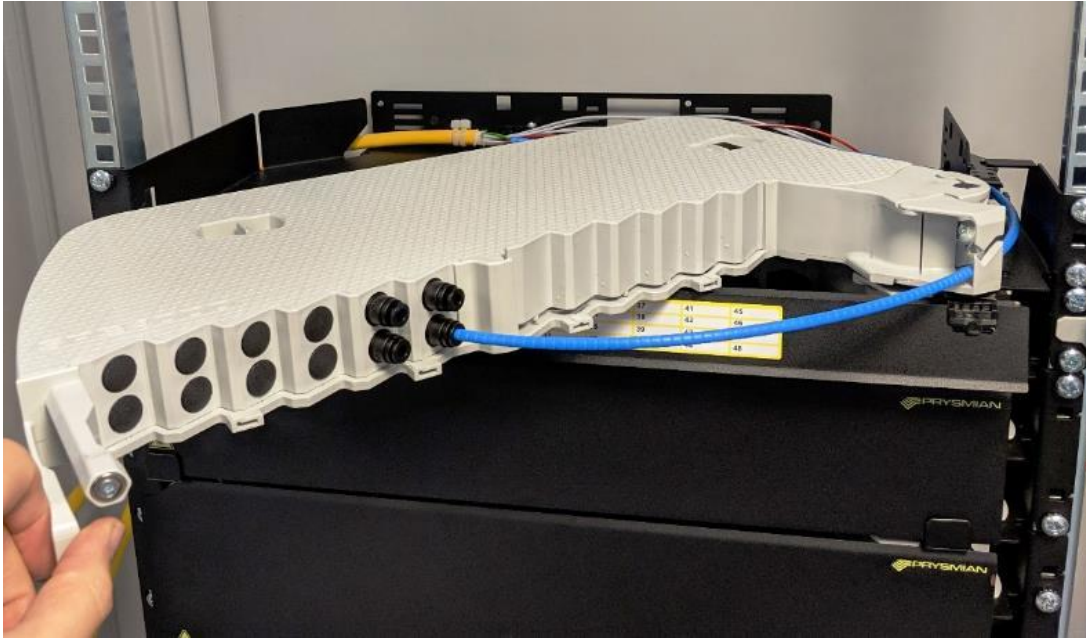
5.0 SPLICING 1U SHELF

Step 5.3

- Store the first 12 in the storage area and the first group of Primary coated fibres in the input fibre storage area.

- Use the next splice protector bay on top of the first set of spliced fibres.

- Repeat Steps 1 to 2 for the 12 Fibres from the RED, YELLOW & GREEN Tube and the remaining 12 Pigtail Fibres.

Step 5.4

- Replace the protective cover over the splicing area by sliding the right hand clip into position and then pushing firmly down until the left hand clip is secure.

5.0 SPLICING 1U SHELF

Step 5.5

- Swing Module back into the closed position and carefully close the front door. Magnetic connection will engage keeping the door in the closed position.

NOTE: When closing the module lift slightly before pushing back into place.

6.0 SPLICING 2U & 3U SHELF

Step 6.1

- Gently place your fingers on the cover and pull down to release the magnetic grip and leave to hang freely.

6.0 SPLICING 2U & 3U SHELF

Step 6.2

Push Locking Clip to the Right.

Pull forwards

- To unlock the Splice Only module, hold the locking clip and push to the right and pull forward.

- Swing out the Splice Only Module to fully open.

6.0 SPLICING 2U & 3U SHELF

Step 6.3

**GO TO
SECTION 5.0**

**FOLLOW
STEP 1 TO 3**

- Repeat STEP 3 TO 9 as in section 3.0.

- Repeat until all shelves are installed.

NOTE: ENSURE YOU START INSTALLING USING THE BOTTOM SHELF FIRST WORKING YOUR WAY UP THE UNIT TO THE TOP SHELF.

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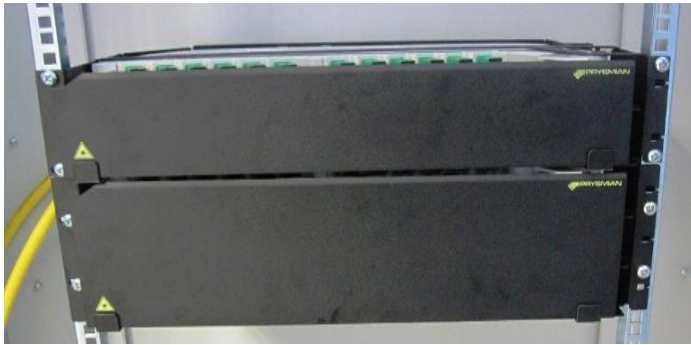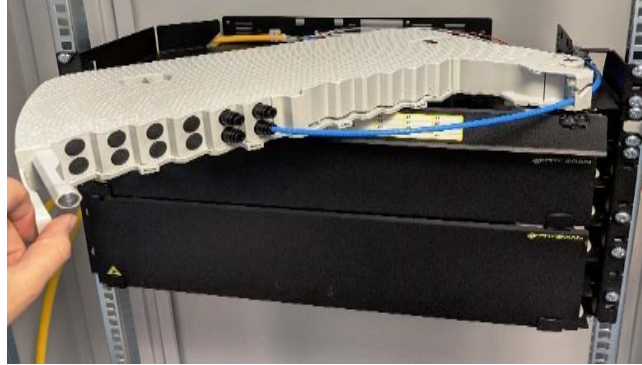
6.0 SPLICING 2U & 3U SHELF

Step 6.4

- Replace the protective cover over the splicing area by sliding the right hand clip into position and then pushing firmly down until the left hand clip is secure.

- Swing Module back into the closed position and carefully close the front door. Magnetic connection will engage keeping the door in the closed position.

NOTE: When closing the module lift slightly before pushing back into place.

6.0 SPLICING 2U & 3U SHELF

Step 6.5

- Any 1U, 2U or 3U can be used together as required.

NOTE: 2U and 3U shown mounted together

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