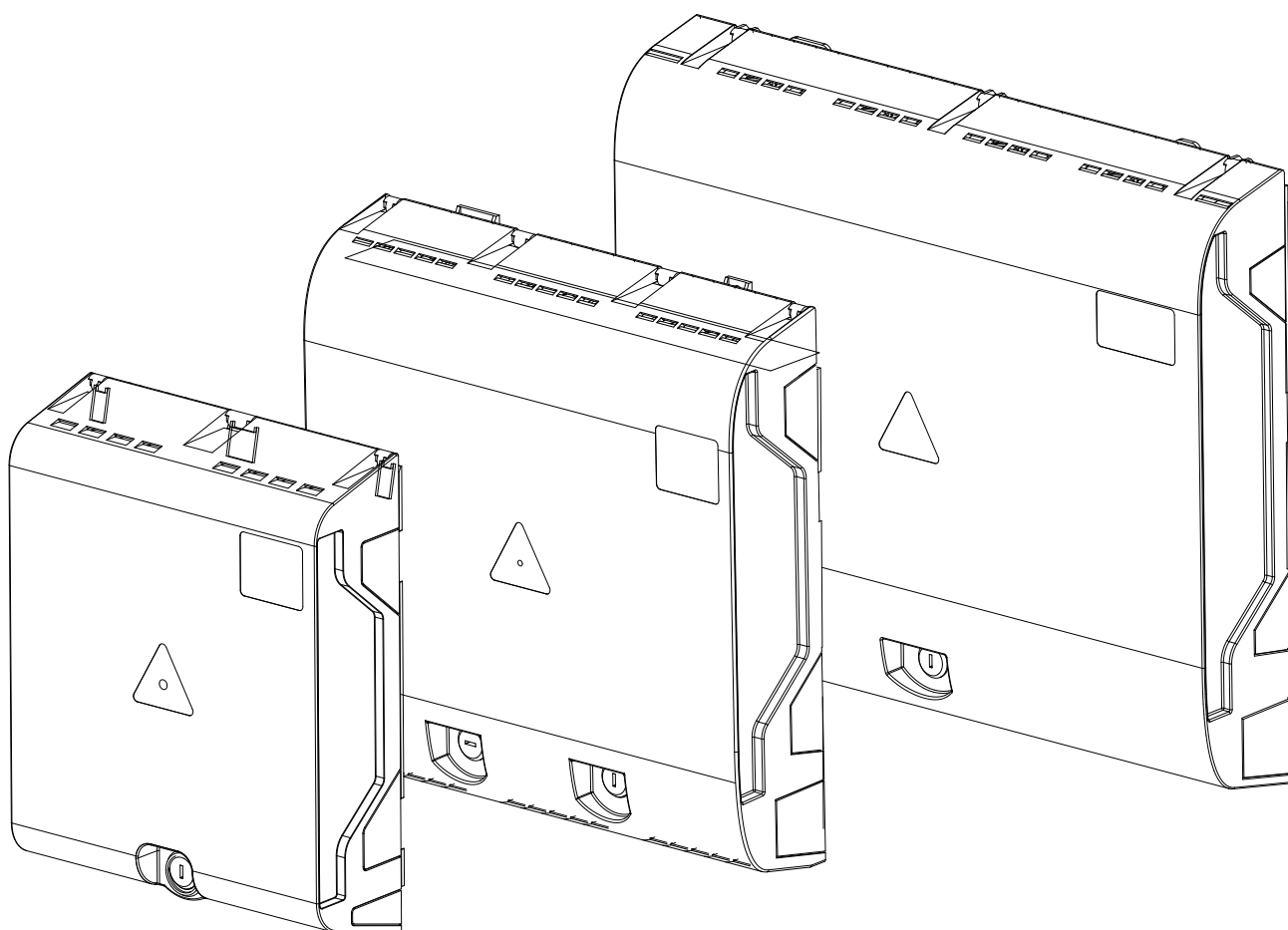# CORNING

Installation instructions
Issue 2, September 2016

Building Access Terminal Family
"M, L and XL" Size,

These installation instructions are intended as guidance for the trained fitter carrying out the installation.

Content

1. General

Warning!

If it is not known if there is a laser/LED radiation hazard or not, on no account look into open fiber ends.

Important

The assigned degree of hazard is for the manufacturer/operator of the communication equipment to conclusively determine and to responsibly indicate (e.g. by affixing standards-compliant warning labels as per DIN EN /IEC 60825-1, current issue, by compliance with BGV B2 "Laser Radiation", current issue).
If the technical data should change in a way that affects the degree of hazard, the warnings must, if necessary, be amended accordingly and work safety precautions must be taken. See also, DIN EN/IEC 60825-2, current issue.

NOTE: CORNING ADAPTERS ARE RECOMMENDED

2. Scope of delivery

The Building Access Terminal (BAT) Box is available in sizes (Small Floor Terminal), M, L, XL to address different capacity requirements. It is offered in white or grey colour and lockable with a Screw- or Lock.

2.1 Housing size M

- BAT-MGS-ST001 - with screw lock
- BAT-MGE-ST001 - with lock

1. Housing with cover (lock or screw)
2. Cable entry foams (x3)
3. Plastic cable strain relief element (x9)
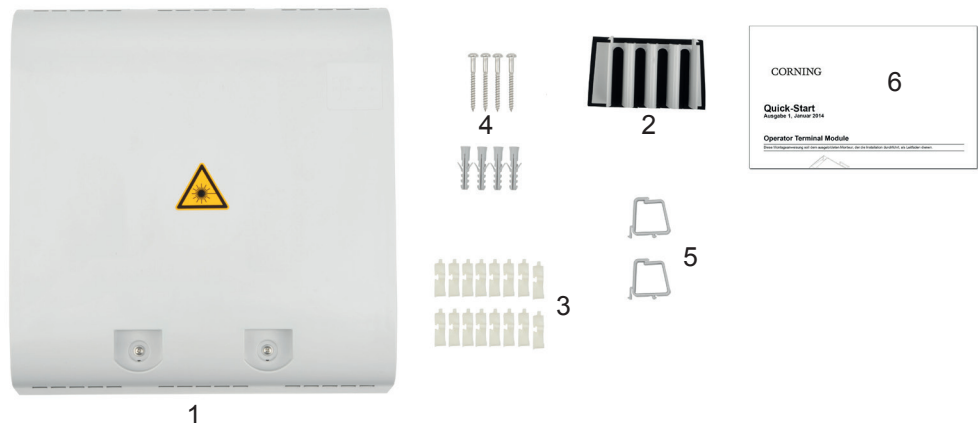4. Dowels with screws
5. Quick Start Instruction
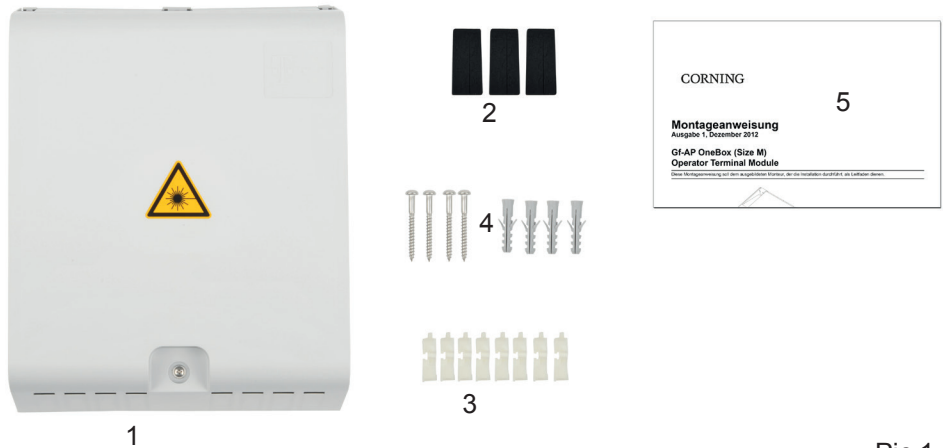
Pic 1

2.2 Housing size L

- BAT-LGS-ST001 - with screw lock
- BAT-LGE-ST001 - with lock

1. Housing with cover (2x lock or screws)
2. Cable entry sealing block (x2)
3. Plastic cable strain relief element (x16)
4. Dowels with screws
5. Cable clamp (2x)
6. Quick Start Instruction

Pic 2

2.3 Housing size XL

- BAT-XGS-ST001 - with screw lock
- BAT-XGE-ST001 - with lock

1. Housing with cover (2x lock or screws)
2. Cable entry sealing block (x1)
3. Plastic cable strain relief element (x16)
4. Dowels with screws
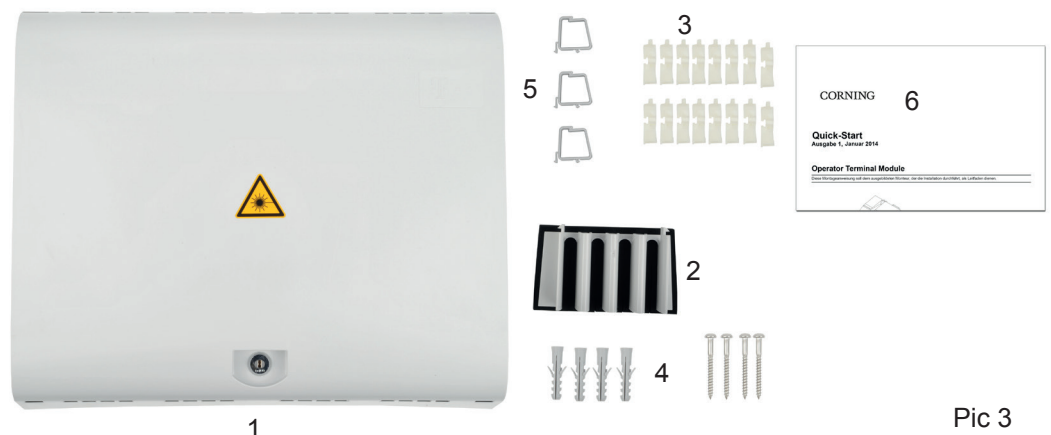5. Cable clamp (3x)
6. Quick Start Instruction

Pic 3

3. Accessories ordered separately*

BAT Standard Boxes

BAT-MGE-ST001

BAT-MGS-ST001

BAT-LGE-ST001

BAT-LGS-ST001

BAT-XGE-ST001

BAT-XGS-ST001

Cable Entry Components
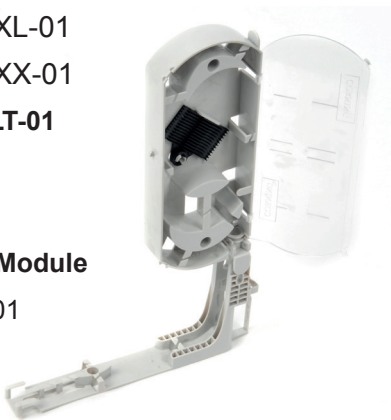
BAT-CC8-10

BAT-CDM-01

BAT-CDL-01

BAT-CDX-01

BAT-CTP-01

BAT-CAM-01

BAT-CAL-01

BAT-CAX-01

BAT-CFM-01

BAT-CFY-01

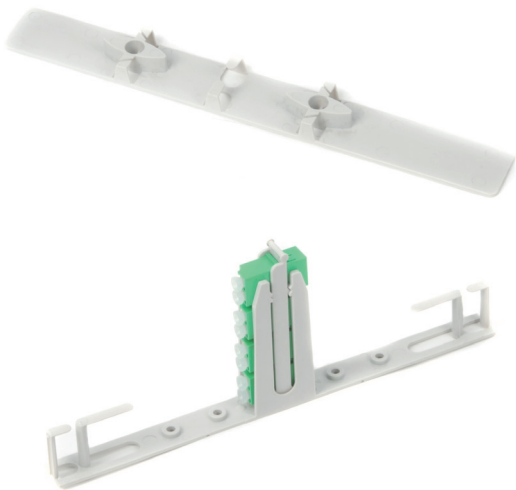BAT-CFZ-01

BAT-CXM-01

BAT-CXL-01

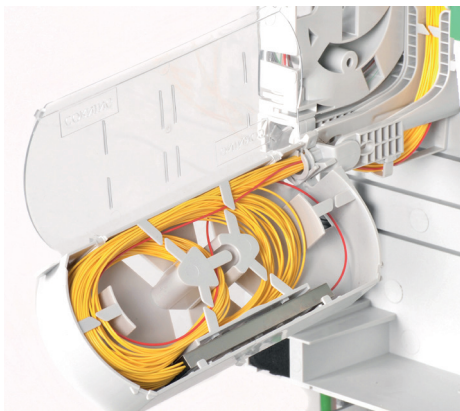BAT-CXX-01

BAT-CLT-01

Splice Module

BAT-F-01

Cable Routing Guide

BAT-R-01

Patch module

BAT-PLY-44RT

BAT-PLN-02RT

BAT-PLY-02RT

BAT-PLN-58RT

BAT-PLY-58RT

Splitter Module

BAT-K0044-102-1

BAT-K0044-104-1

BAT-K0044-108-1

BAT-K0044-116-1

BAT-K0044-132-1

BAT-K0044-164-1

BAT-K0044-202-1

BAT-K0044-204-1

BAT-K0044-208-1

BAT-K0044-216-1

BAT-K0044-232-1

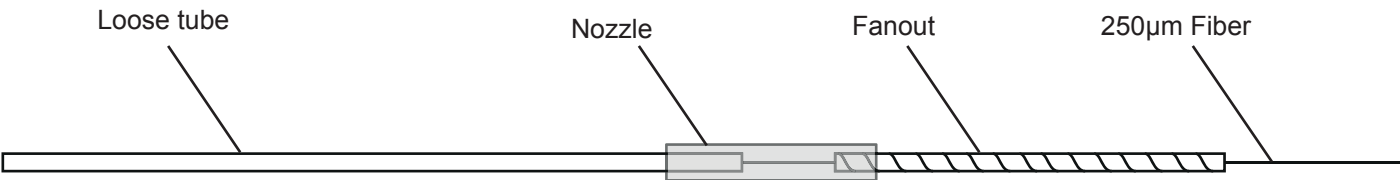BAT-K0044-264-1

Overlength Storage

BAT-BTS-01

*Full list of ordering information is available here: <u>LINK TO DATA SHEET</u>

3.1 Loose tube cable accessories

 BAT-CLT-10

- Noozle (x10)
- Fanout (5M)

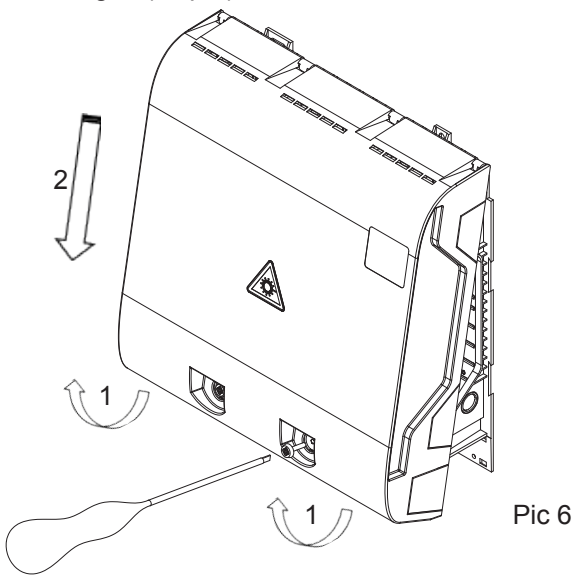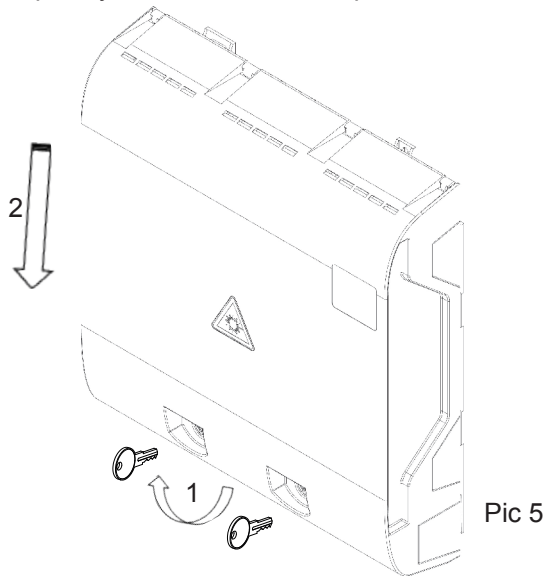Loose tube   Nozzle   Fanout   250µm Fiber

Designed for buffer tube up to 3mm diameter.

4. Access

Use attached key or suitable scredriver to unlock and open cover (step 1)
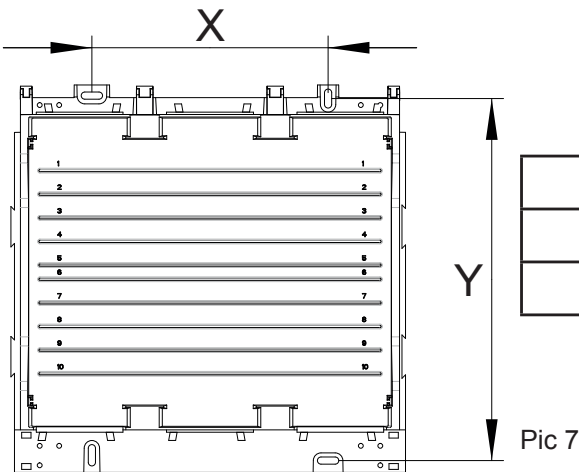
To completely remove the cover, open it for ca. 20 cm and pull down from hinges (step 2)

Pic 5

Pic 6

5. Mounting on the wall

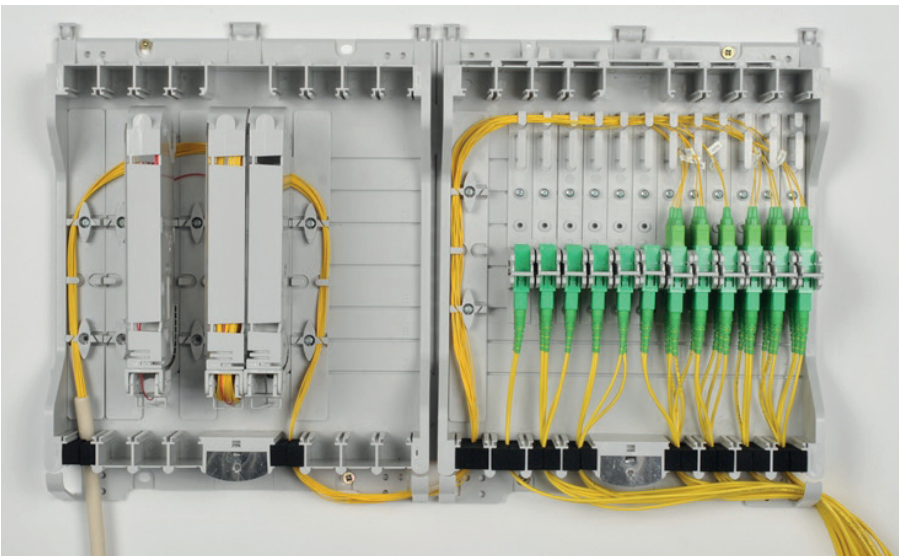Mark holes on the wall. Drill the mounting holes and insert the dowels inside.

Remark: If a mini duct will be terminated in the box the strain relief need to be mounted prior to fixing to wall.

Pic 7

	M	L	XL
X [mm]	124,5	200	290
Y [mm]	267	306,5	343,5

Table 1

Depending on the configurationi is possible to connect the boxes of the same size


Pic 8

6. Functional Overview

6.1 General

The product is based on modularity of components and has several different functional components which can be used in order to provide required functionality. Those basic components are presented and described below.

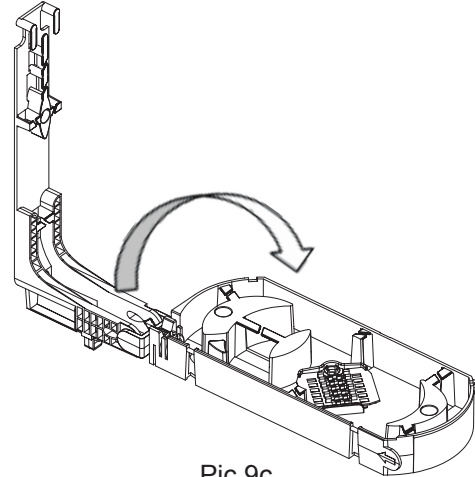**6.2** Splice module overview and handling

Splice module provides safe area dedicated to fibre splicing operation, as well as management of excess fibres. Safe bending radius of 25mm is secured along the complete fibre path. 12 heatshrink splice protectors or 12 Crimp splice protectors can be used, depending of type of splice organizer chosen.
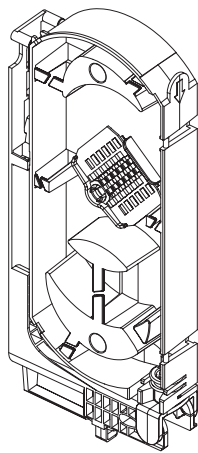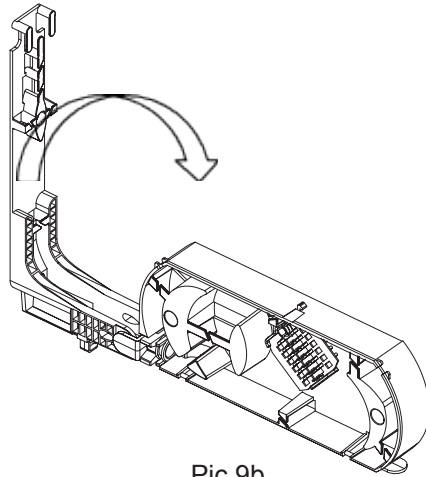

| Pic 9a | Pic 9b | Pic 9c |

In order to provide secured spliced fibers storage on one hand and excellent access for fiber handling on the other one, the module has two axes of revolution of the splice tray. It remains safely closed when no operation is done on it (pic.9a). For splicing or fiber handling, it needs to be opened by swinging towards the operator (pic.9b) and afterwards twisted in the direction allowing handling from above (pic.9c).

Remark: When closed, the tray stays connected to the bottom part of the module by means of a snap lock. Before opening, one needs to push the tray slightly in the direction pointing by the arrow on the top of the tray. This will release snap lock and let easily swing out the tray.
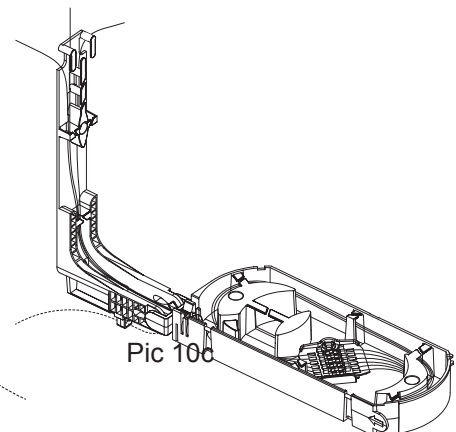
Remark: The tray can be twisted by 90 in both directions. Always choose the direction allowing top access to the splice tray. Tray is additionally secured with a cover, but choosing correct twisting direction will assure that no fibers will go out unintentionally.
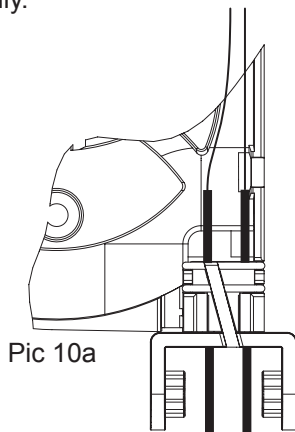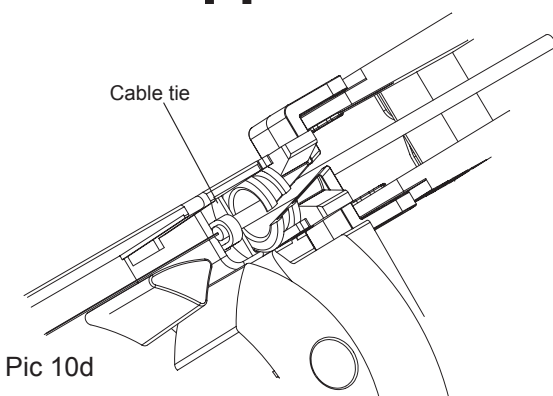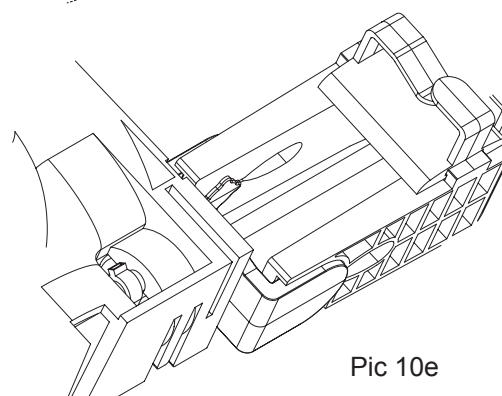

| Pic 10a | Pic 10b | Pic 10c |

Cable tie
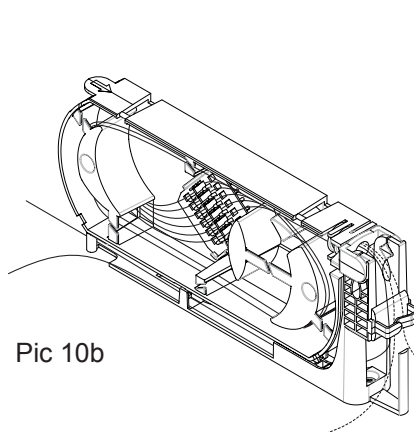
| Pic 10d | Pic 10e |

The fiber management in the box is optimized for buffer tubes or 900µm buffers. Those will be guided to the splice tray. A fixing in the tray is not needed for 900 µm, but is advised for rigid minicable buffers.

Buffer tubed will be stripped to 250µm at tray entry point (pic.10a). Fixing with a cable tie is shown on pic.10d and pic.10e. Fibers (900µm or buffer tubes) entering the tray can take two different paths, depending on where they come from (product configuration related issue). These two paths are presented above on pic.10b & 10c.

Remark: Always guide the fibers (900µm or buffer tubes) through organizer installed on the back of the module. This will prevent decreasing bending radius below safe value.

For fiber routing in the tray for spliced option refer to pic.11.
For preconnectorized cables splice tray is used as slack storage - for routing refer to pic.12.

Remark: Always use internal guides to protect safe bending radius.

Pic 11

Pic 12

Pic 13
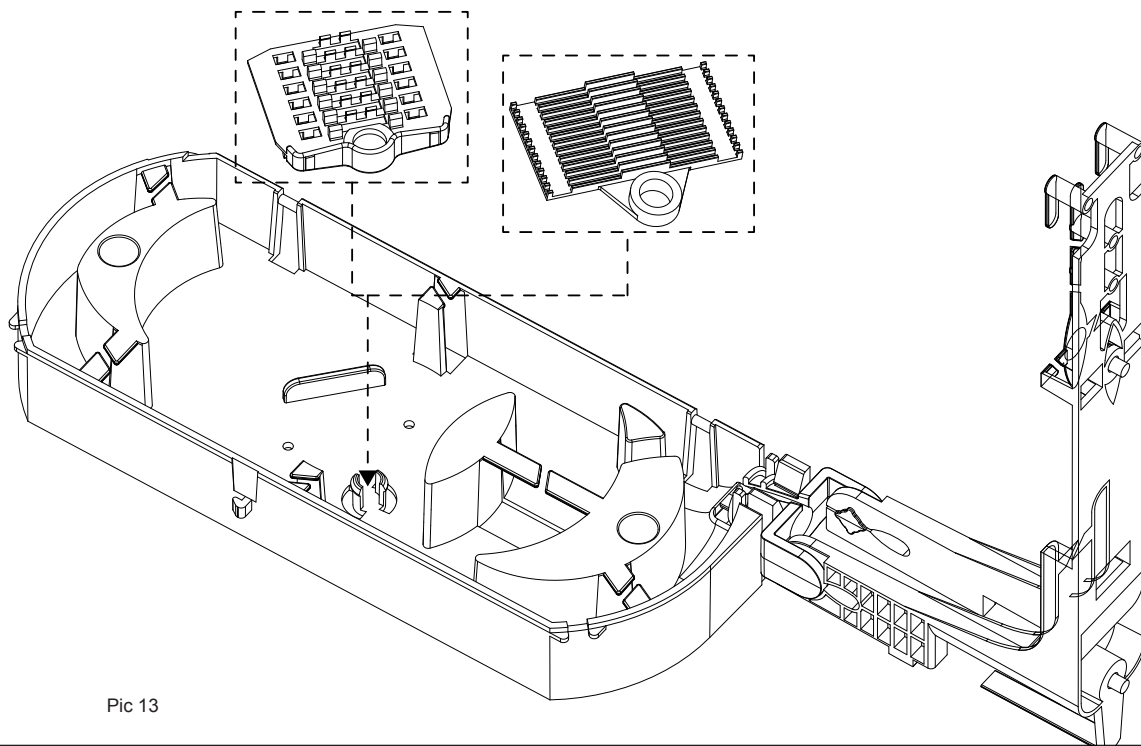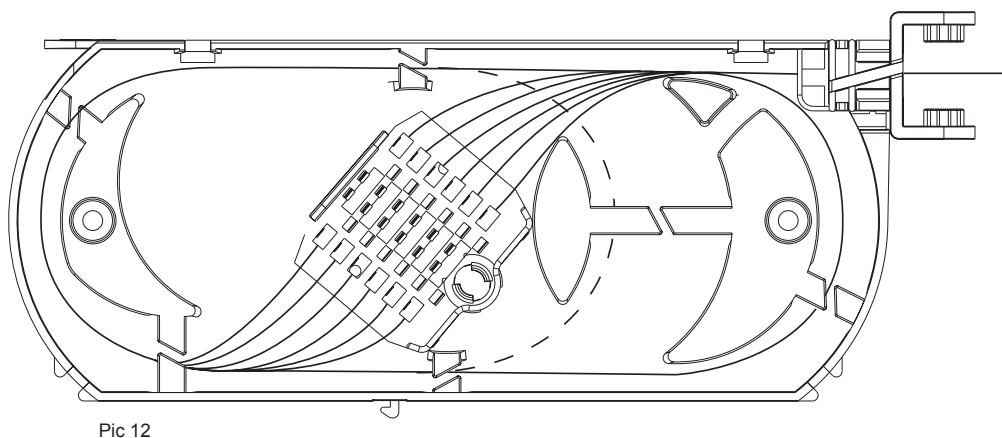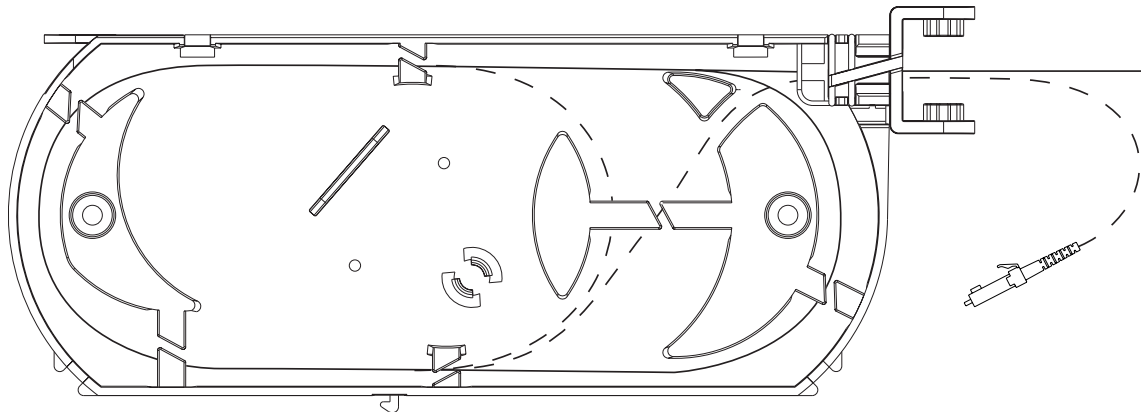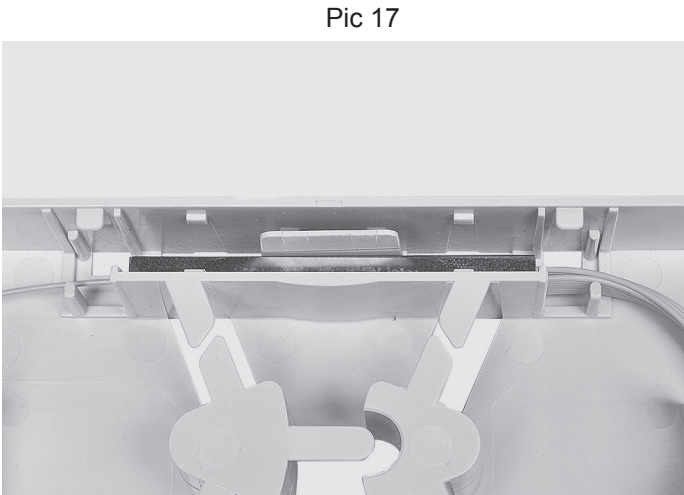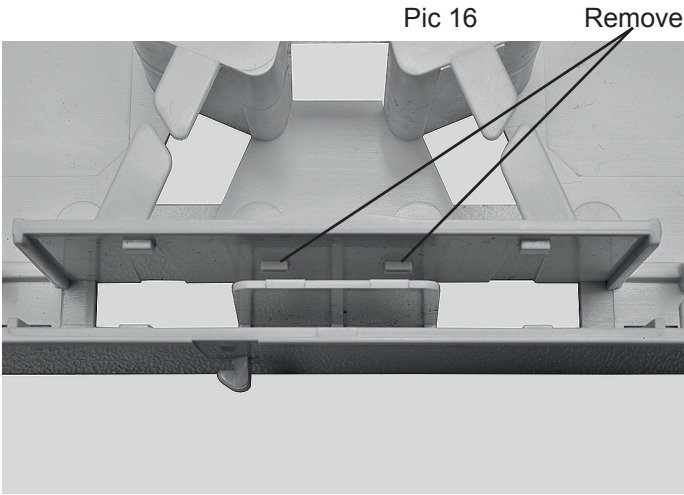
6.3 Splitter module overview and handling

Splitter Modules provides possibility to install up to four 1x4 or 1x8 splitters or one 1x16 or 1x32 splitter mini–modules. Additionally management area for excess fibers is provided. General shape of splitter module is presented in pic.14 below. Basic operations required to work with splitter modules are common with splice module, therefore for locking, swinging and twisting refer to section 6.2.


Pic 14

Splitter Area
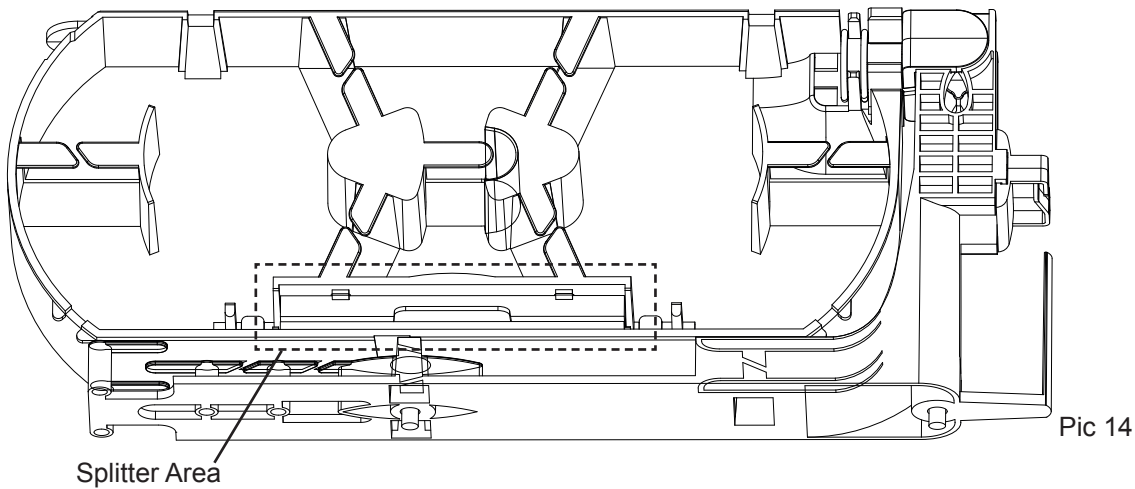
For 1:4 and/or 1:8 splitters, up to 4 pieces can be installed in a form of 2x2 matrix. Recomended fiber routing is presented in pic.15 below.

A

Pic 15

Splitter

A
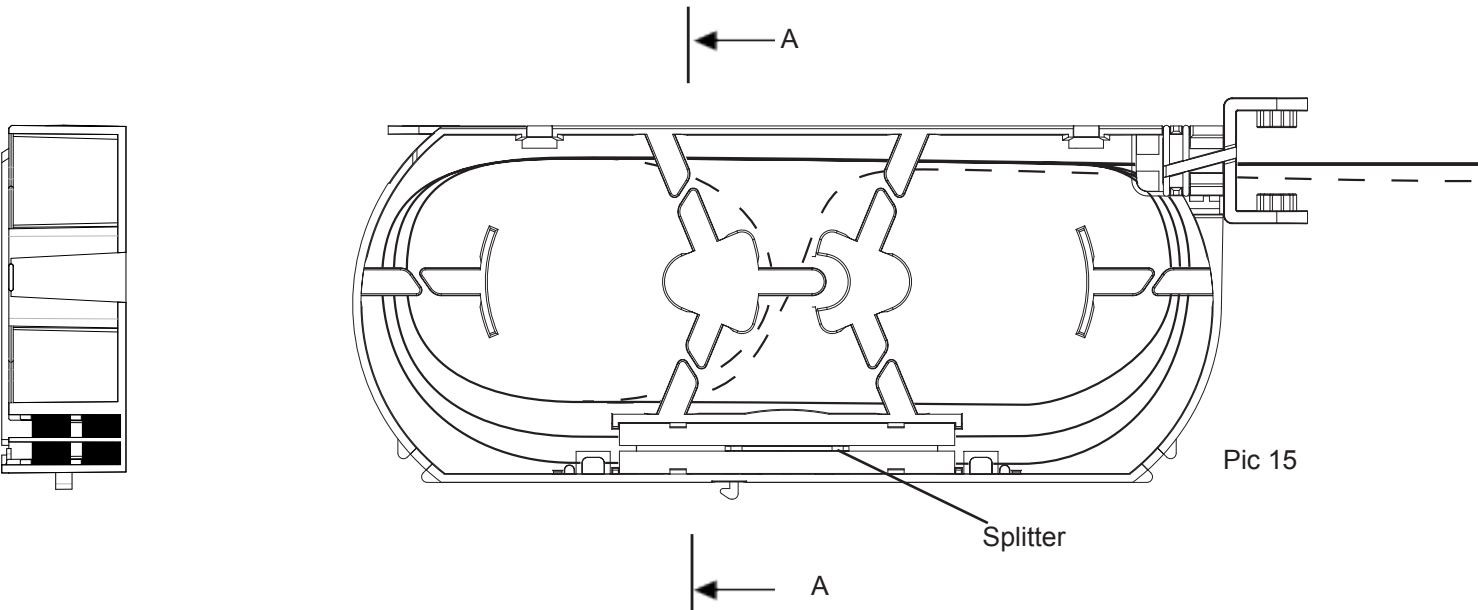
For 1:16 splitter installation, remove two lower hooks in the holder and push splitter to the bottom.

Pic 16   Remove   Pic 17

For 1:32 splitter installation, break out piece of the tray that is used for securing of 1:4 splitters. Cut spots are presented in pic.18 below.

Pic 18
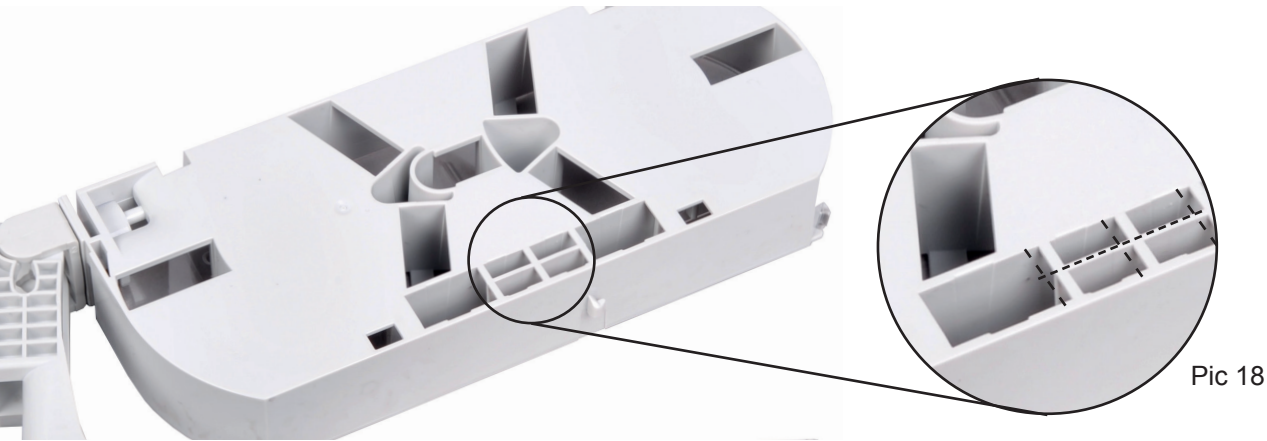
6.4 Minimodules overview and handling

Possible configurations with splitter minimodules:

• Splitter inputs spliced and outputs connectorized
• Splitter inputs and outputs connectorized

Possible type of splitter and quantities per one tray (table 3):

	M	L	XL
1x4	4	4	4
1x8	4	4	4
1x16	1**	1**	1**
1x32	1*	1*	1*
2x4	4	4	4
2x8	4	4	4
2x16	1*	1*	1*
2x32	1*	1*	1*
1x64	***	***	***
2x64	***	***	***

Table 3

(*) - Cut spots (pic. 16)
(**) - To install this type of splitter double sided adhesive tape needed (pic.17)
(***) - Avaliable only with special splitter holder.

6.5 Patch module

Single patch module is capable of handling up to 4 LC duplex adapters or the same number of different adapter types with the same dimensions (ex. SC). For easey access to the connectors area, adapters are located in a slidable panel, having two fixed positions.

NOTE: Depending on particular product configuration requirements, these features can be broken out in order to leave just the main part of the patch module, as depicted in pic.19.


Pic 19
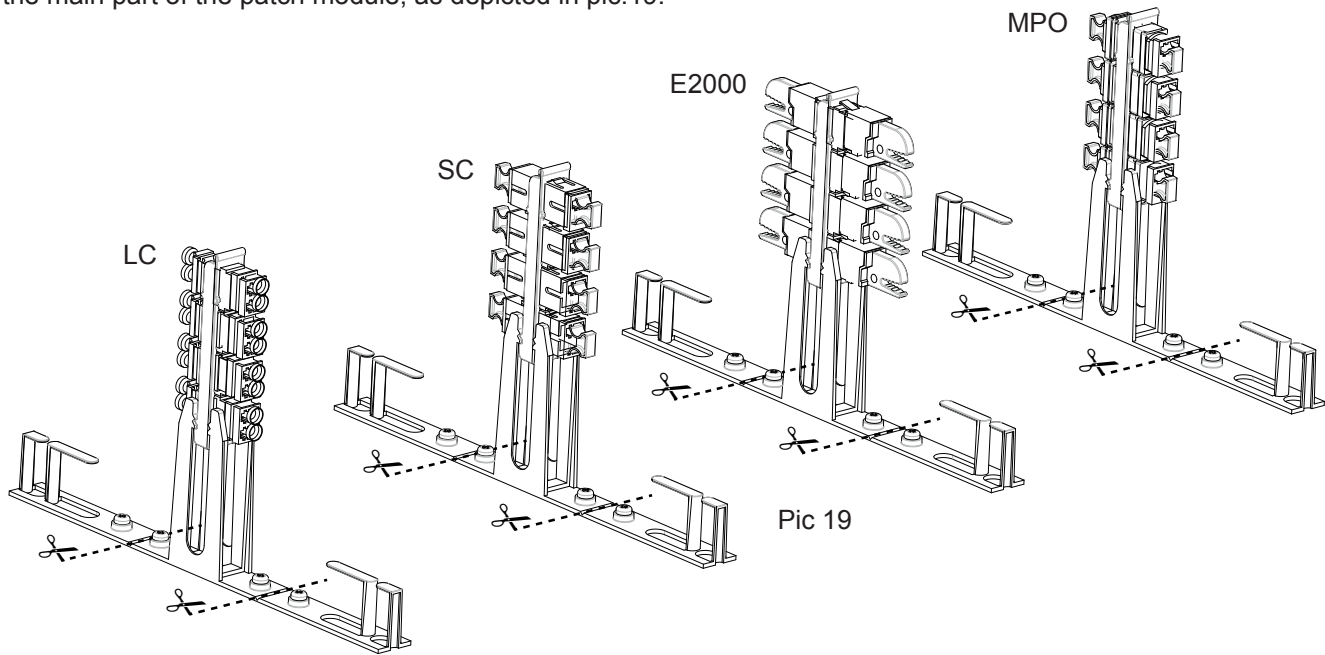
6.6 Fiber collector module

Remark: Always consider bending radius.
Module has been designed to handle up safetly to 64 of 900um fibers.

Pic 20
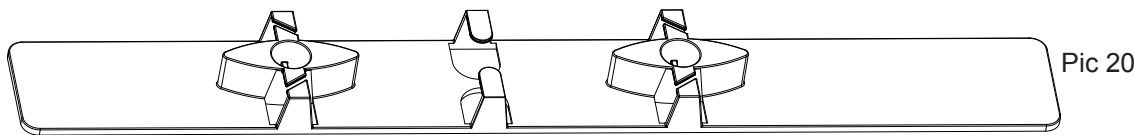
7. Accessories installation

An example of possible scenarios how to assemble components inside.

Remark: If the installers are equipped with modules on site, make sure when attaching the screws do not over-tighten. Tighten the screws carefully.

Pic 21
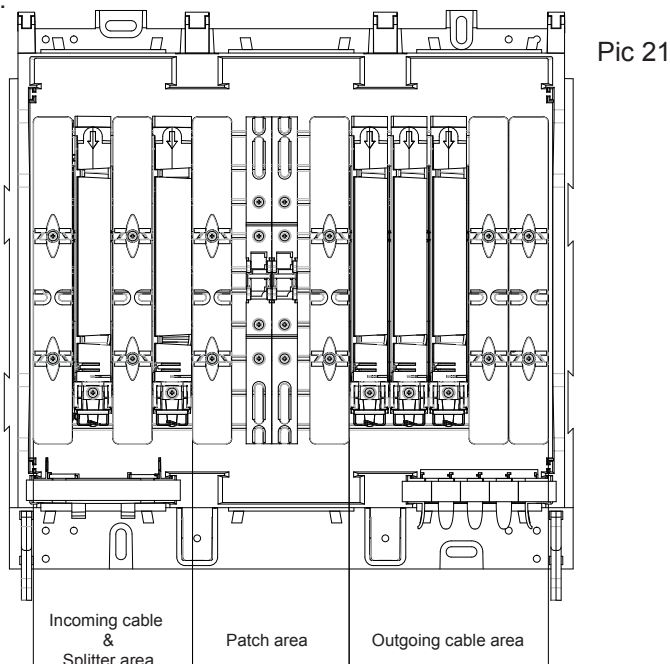
Components can be installed depending on required configuration.

Incoming cable & Splitter area | Patch area | Outgoing cable area

7.1 Splice module installation

Holds up to 12 splices in crimp or heat-shrink protectors. Allows routing of 250um and 900um fibers.

Rotate and screw module like shown on picture below.
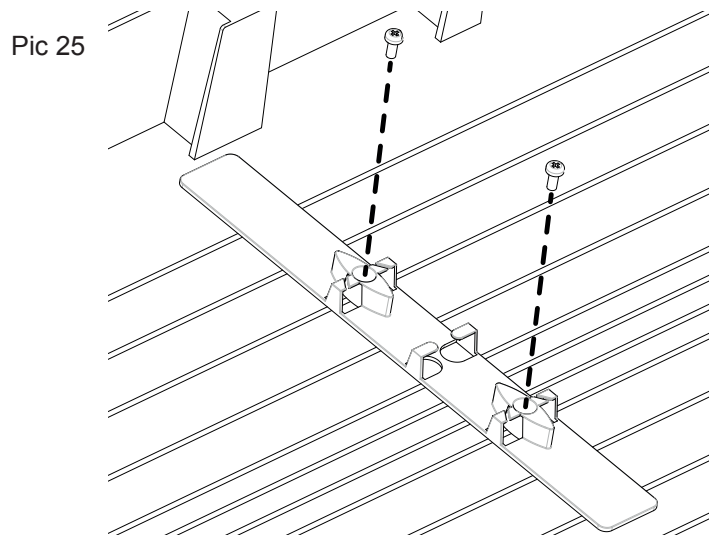**NOTE:** Arrow on the tray should be always pointing down.

Pic 22

Pic 23
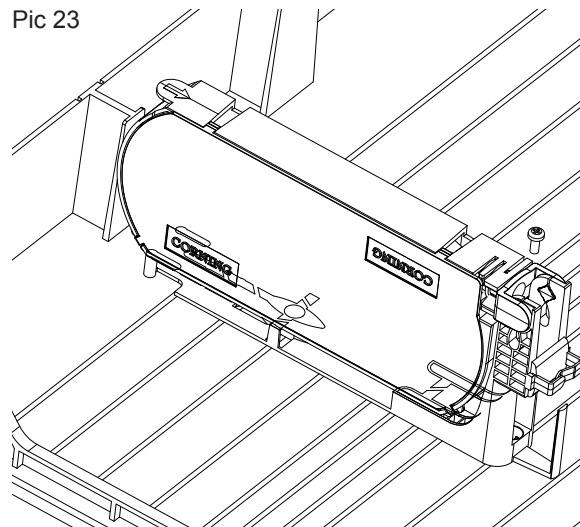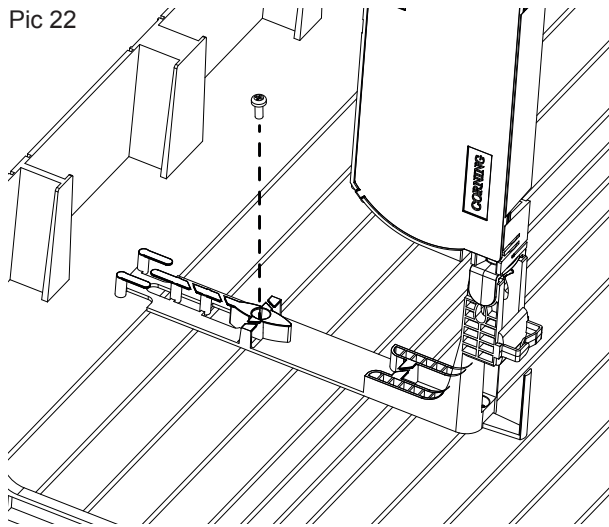
7.2 Patch module installation

Can accommodate different type of adapters. Module lifts and locks for safe and secure access, detachable.

Pic 24

SET 1

SET 2
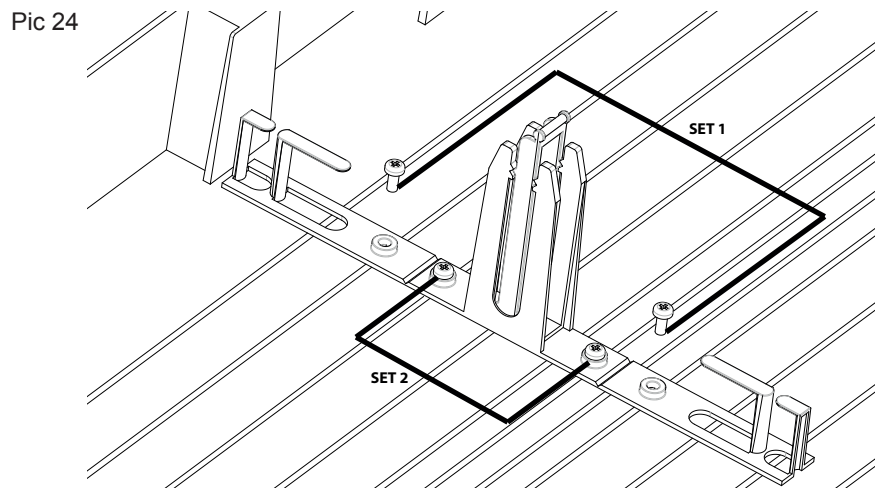
7.3 Fiber collector unit installation

NOTE: This part is not symmetric. Longer part should be installed on the top side.

Pic 25

8. Accesorries for cables installation

Accessories per cable entry positions/slots (table 4):

	BAT-M		BAT-L			BAT-XL	
	Slots 1 & 8	Slots 2 till 7	Slot 1	Slot 2	Slot 3	Slots 1 & 6	Slots 2 till 5
Cables with aramid yarn up to 8 mm	BAT-CC8-01	BAT-CC8-01	BAT-CC8-01	BAT-CC8-01	BAT-CC8-01	BAT-CC8-01	BAT-CC8-01
Cables + ducts up to 12 mm	BAT-CDM-01	N/A	BAT-CDL-01	N/A	BAT-CDL-01	BAT-CDX-01	N/A
Cables > 12 m	N/A	N/A	BAT-CTP-01	BAT-CTP-01	BAT-CTP-01	N/A	BAT-CTP-01
Cable with central member or with furcation adapter	BAT-CAM-01	N/A	BAT-CAL-01	N/A	BAT-CAL-01	BAT-CAX-01	N/A
ROC drop / Pixian	BAT-CXM-01	N/A	BAT-CXL-01	BAT-CXL-01	BAT-CXL-01	N/A	BAT-CXX-01
Pixian Plate	BAT-PLATE-M-01		BAT-PLATE-L-01			BAT-PLATE-X-01	
Sealing foam options	BAT-CFM-01		BAT-CFY-01 BAT-CFT-01	BAT-CFZ-01		BAT-CFX-01	BAT-CFZ-01 BAT-CFY-01 BAT-CFT-01
Fan-out	BAT-CLT-01		BAT-CLT-01				

Table 4

8.1 Strain relief for cables with aramid yarn up to 8mm:

Plastic strain relief always delivered with box (the quantity depends on box size, see chapter 2).
It is capable of fixing any aramid yarns based cables with diameter up to 8mm.

Pic 26

1. Take a jacket of the cable at a required distance - ca. 1,5m (1,2m in splice tray);
2. Cut aramid yarns 50mm after the end of the jacket (pic.27);
3. Open strain relief component and put a cable through it in such a manner that the end of the jacket is aligned with strain relief component wall (pic.28);
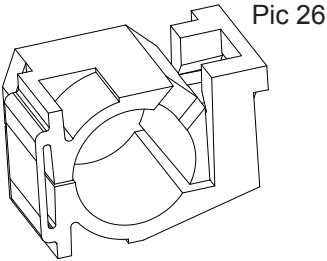4. Wrap aramid yarns around specially shaped mandrel (pic.28);
5. Close the component (pic.26);
6. Together with the cable, slide it down along chosen slot provided in the housing (pic.29).

Remark: Unused strain reliefs can be stored in Unused slots for later upgrades.

Remark: Plastic strain relief is NOT symetrical, please pay caution during strain reliefs installation.
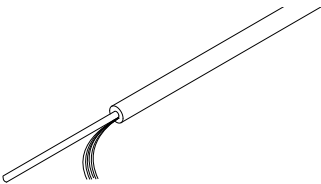
Pic 27
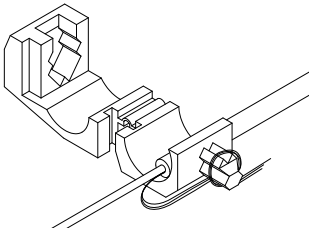
Pic 28
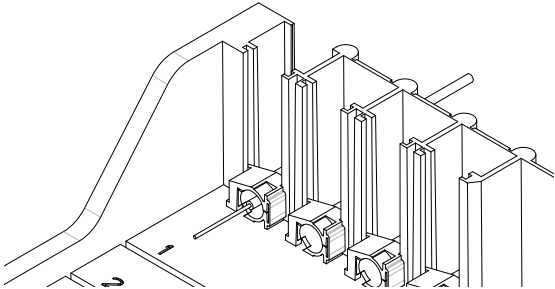
Pic 29

8.2 Strain relief for cables with central member or with furcation adapter:

1. Choose position, screw strain relief (picture 31)
2. Screw second strain up side down if needed (picture 32)
3. Attach incoming or outgoing cable using cable ties (picture 33,34,35)

Pic 30

8.3 Strain releif for cables and ducts up to 12mm.

2

1

3

4

Pic 37

Pic 36
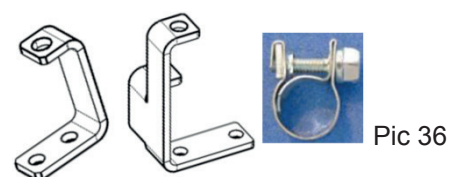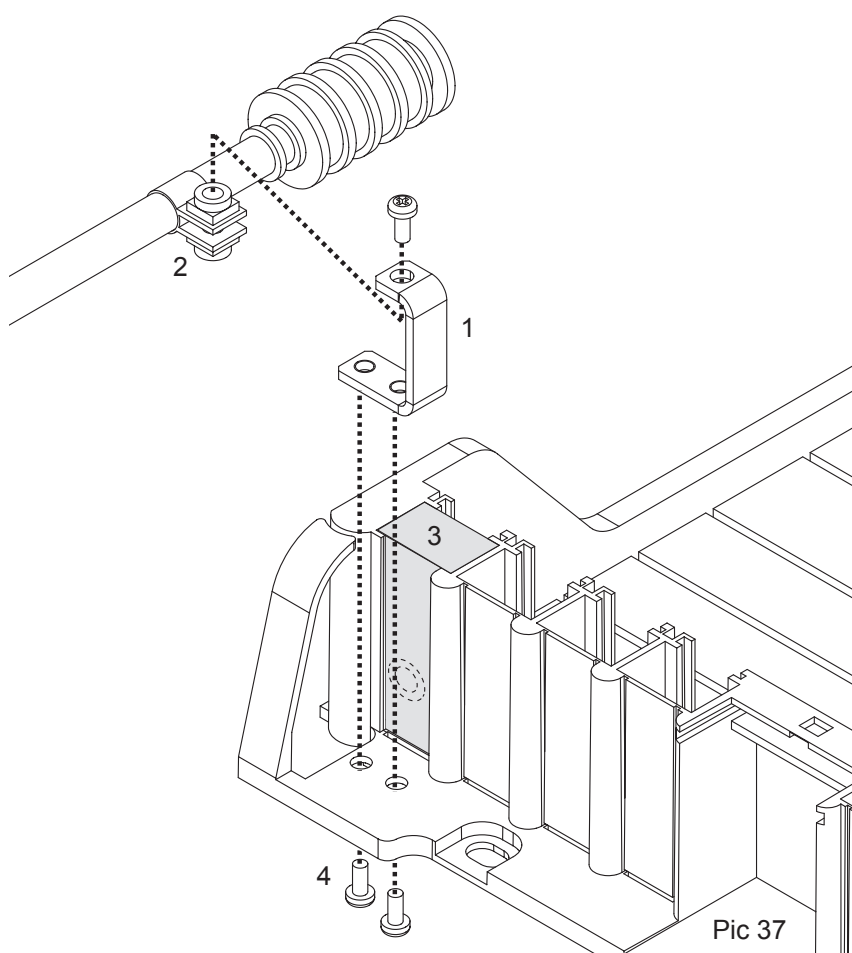
1. 13mm Strain Relief
2. Strain Relief bracket
3. Sealing for 12mm Cable
4. Screw

8.4 SST cable, cable with plug or cable with central member installation

Strain relief for cables with central member and strain releif for cables and ducts are recommended.
For outdoor application or high IP requirements, PG glands are recommended - BAT-CTP-10.

Top of the box

Bottom of the box   Pic 38
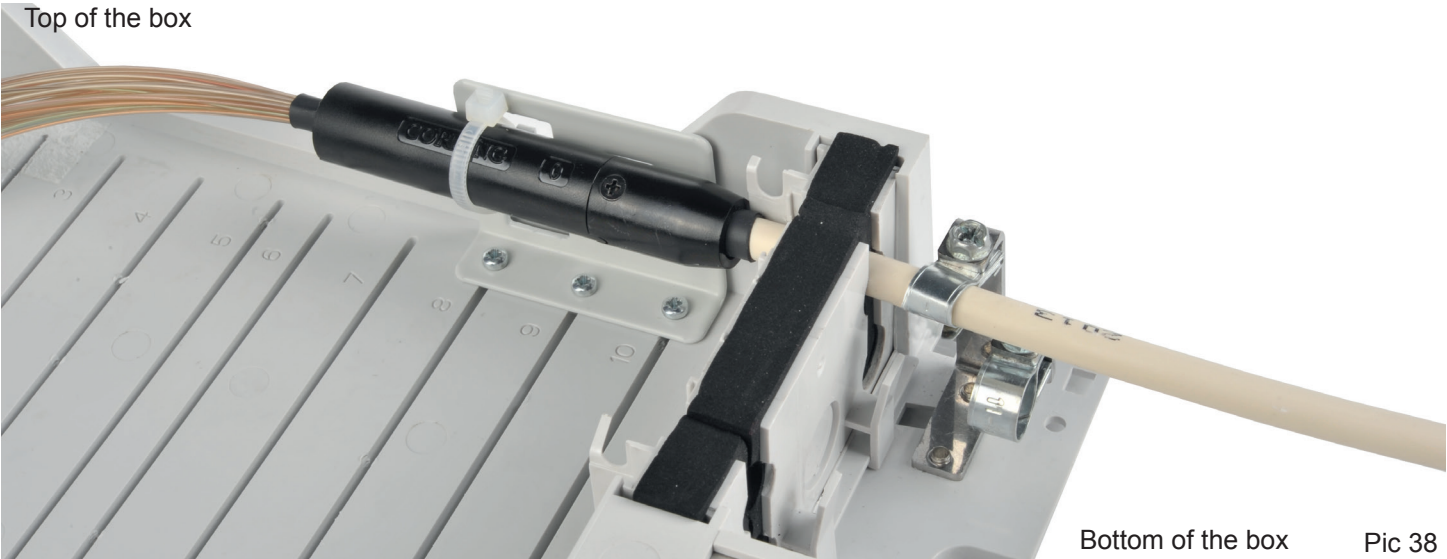
8.5 Sealing foam entry installation

Pic 39

Pic 40

Pic 41
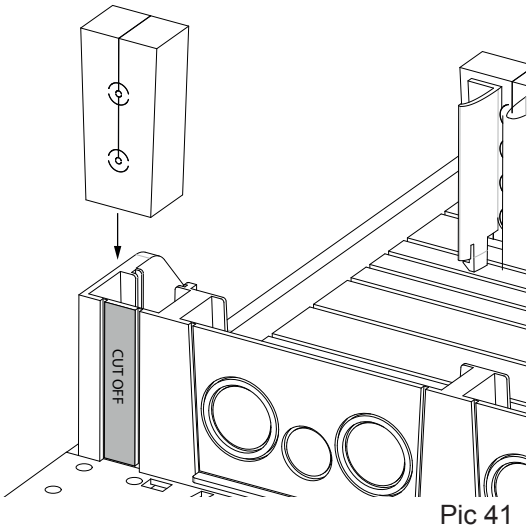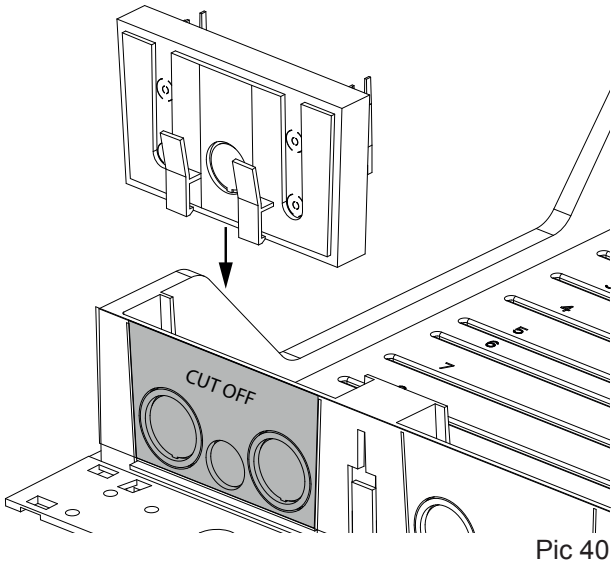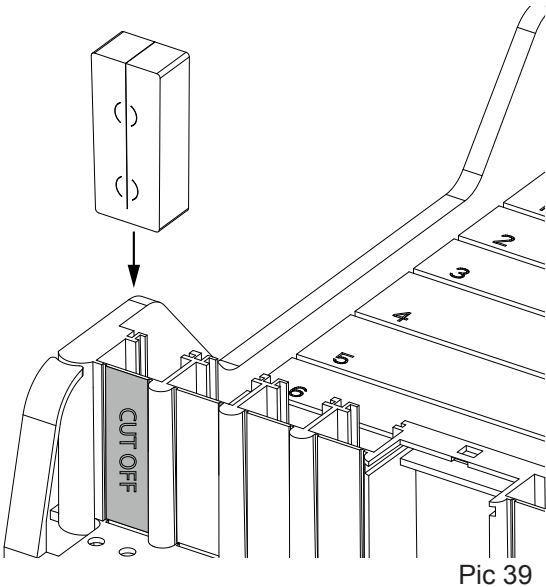
9. Pixian cable

Use ROC Drop/Pixian strain relief. Cable goes directly to the cassette where it is stripped. Strain relief can accommodate up to 12 cables.

- Strain cable/s (pic. 47/47a)
- Route cable/s inside the box. Note marked points (pic.49)
- Strip cable/s inside the tray and tighten it at marked points (pic48)

Pic 47

Pic 47a

Pic 49

250um

stripping point

tighten point
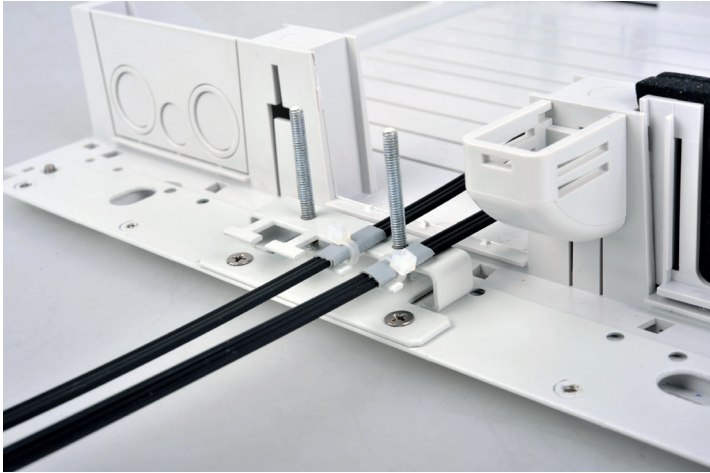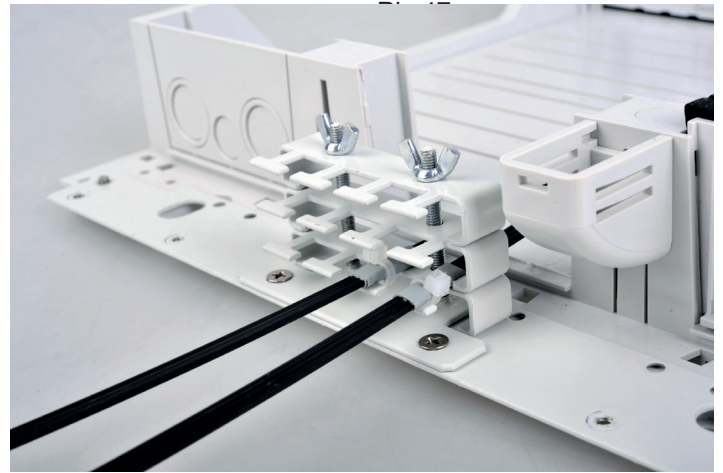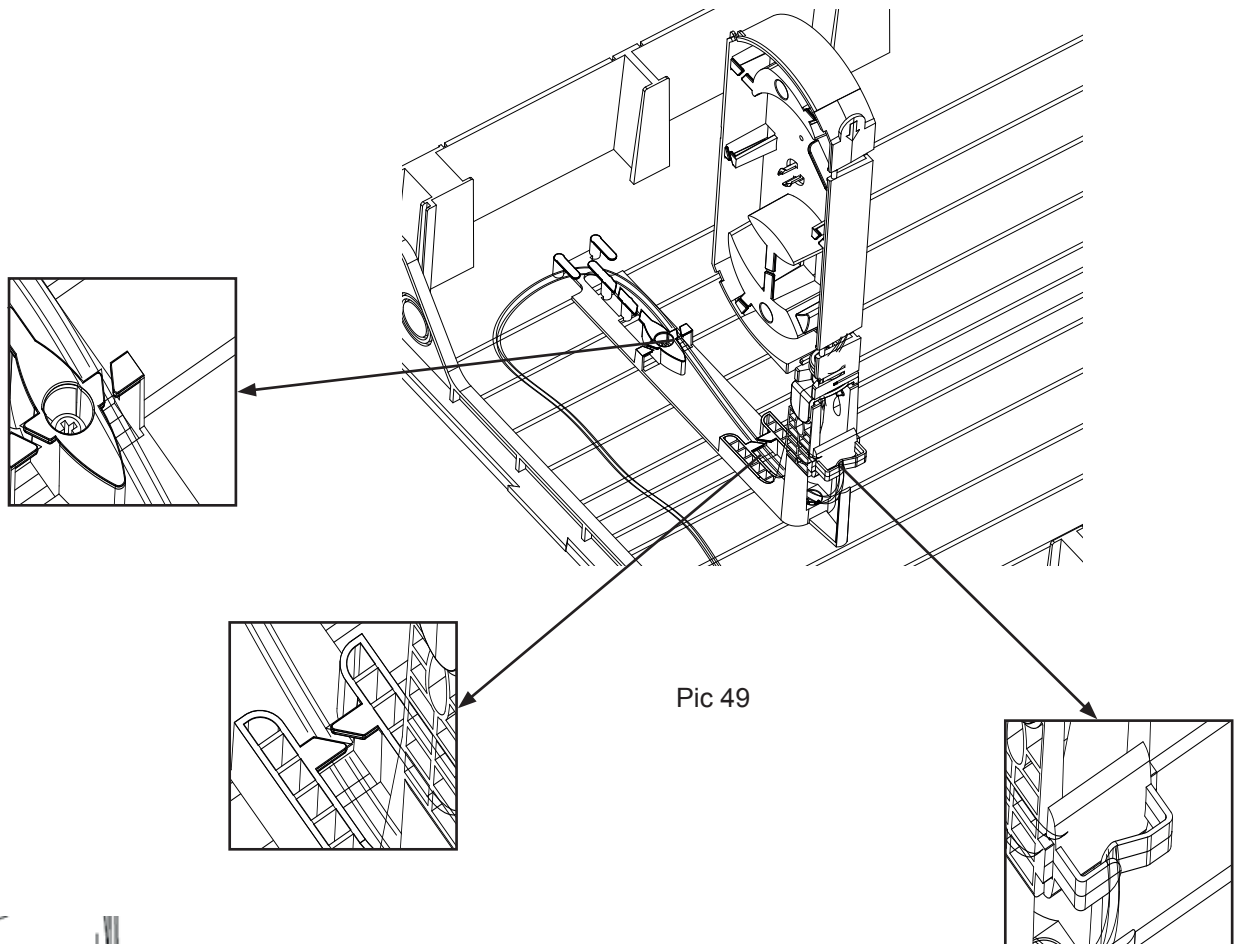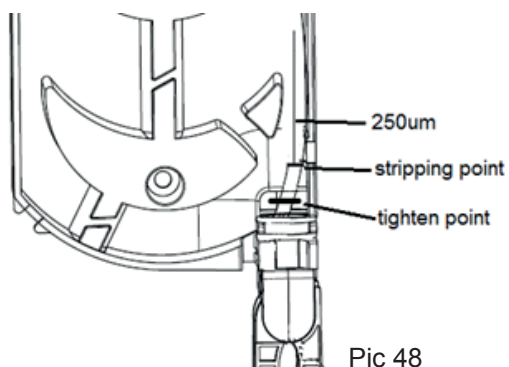
Pic 48

10. Overlength storage

Overlength storage module can be mounted in horizontal or vertical position. Recommended solution for Uncut cable.
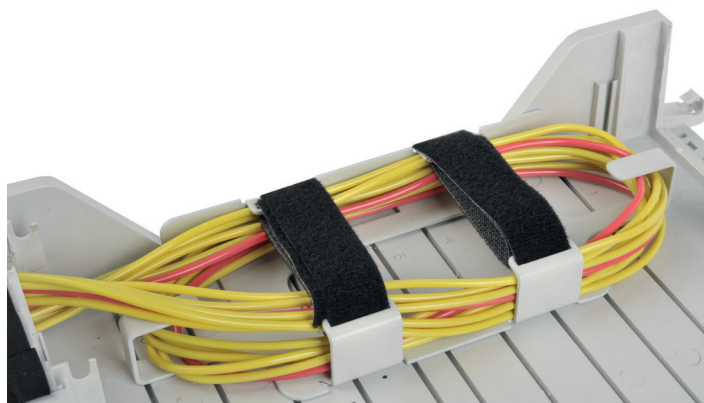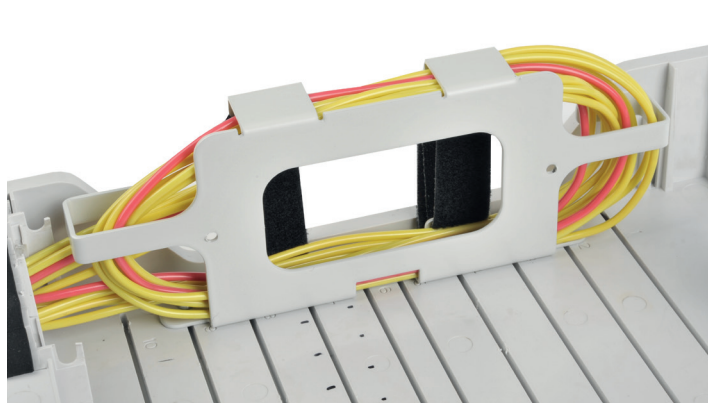
11. Parking slot for unused pigtails

Parking slot can be mounted in horizontal or vertical position. Recommended solution for unseded pigtails.
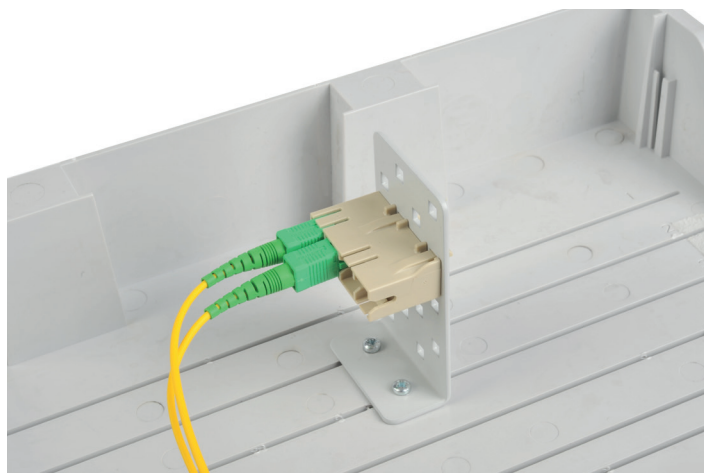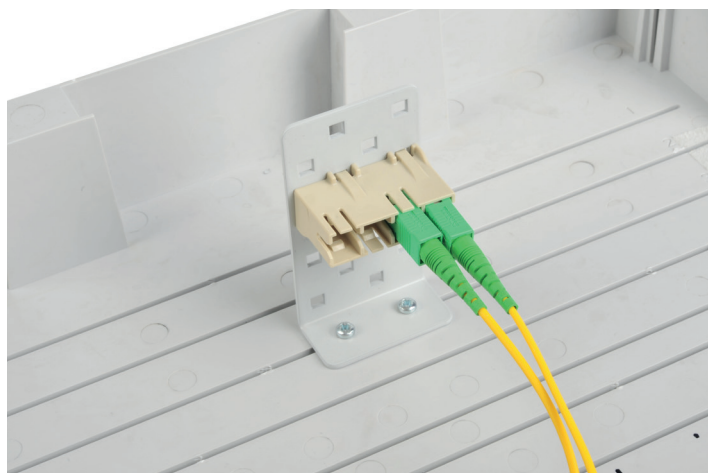
NOTE:
Parking slot can hold up to 16 unused pigtails, 4 on each row.

12. Fiber management in M-size

Configuration with splitter inputs spliced and outputs connectorized
Below is presented a sample product configuration with advised fiber routing.

————————	Outgoing Cable
━━━━━━━━━	Incoming Calble
━ ━ ━ ━ ━	Outgoing spliced pigtails
■━ ·━ ·━ ·■	Splitter outputs
· · · · · · · · ·	Splitter inputs

KIT 1

Pic 50

KIT 3

10.1 Configuration with splitter inputs and outputs connectorized.

Below is presented a sample product configuration with advised fiber routing.

Outgoing Cable
Incoming Calble
Outgoing spliced pigtails
Splitter outputs
Splitter inputs

KIT 1

Pic 51

KIT 3
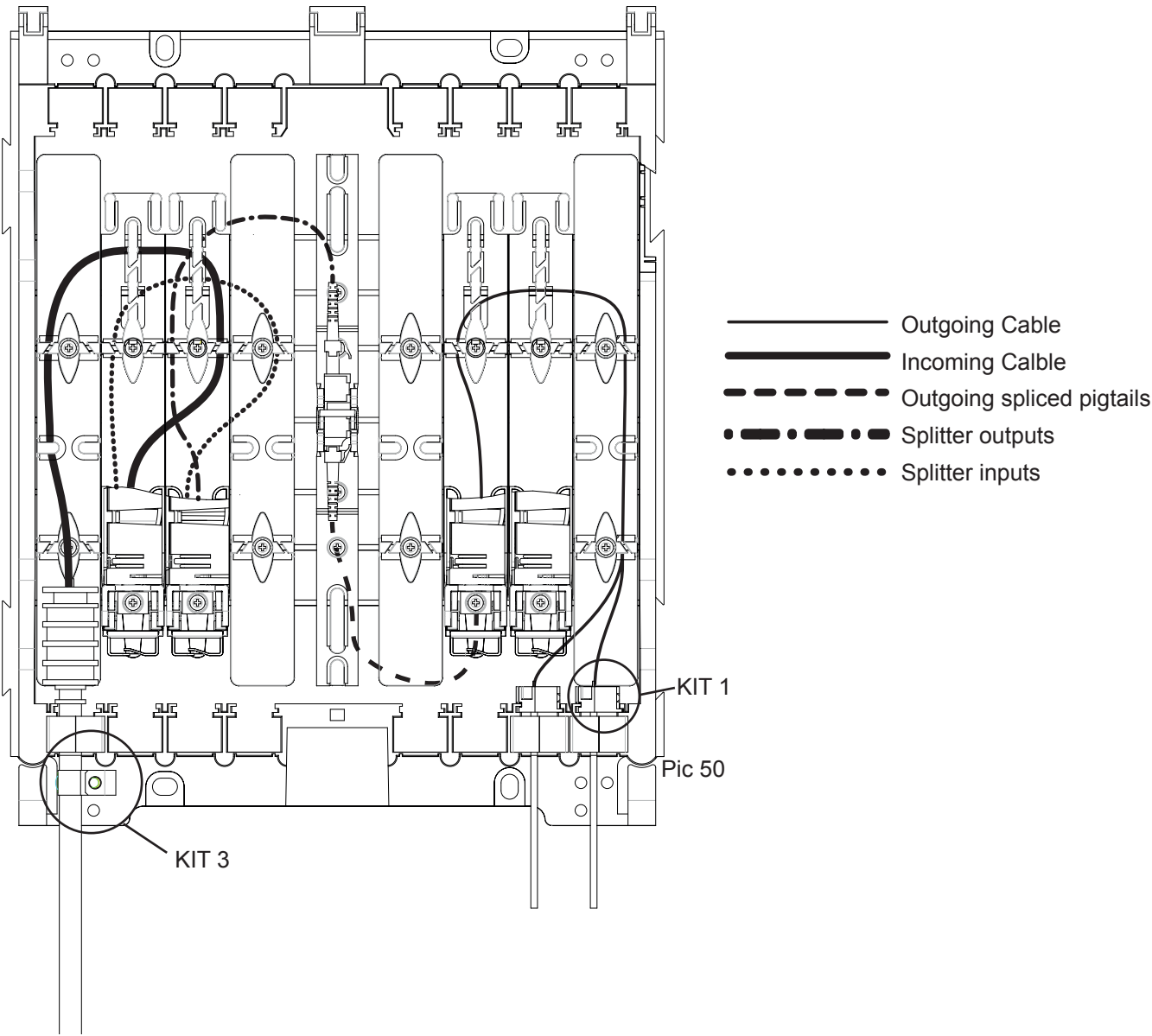
13. Fiber management in L-size

11.1 Configuration with splitter inputs spliced and outputs connectorized

Below is presented a sample product configuration with advised fiber routing. Considered configuration is with splitter inputs spliced.

KIT 1

Pic 52

KIT 3

⎯⎯⎯⎯⎯⎯	Outgoing Cable
▬▬▬▬▬▬	Incoming Calble
▬ ▬ ▬ ▬ ▬	Outgoing spliced pigtails
▬∙▬∙▬∙▬∙	Splitter outputs
∙∙∙∙∙∙∙∙∙	Splitter inputs

11.2 Configuration with splitter inputs and outputs connectorized

Below is presented a sample product configuration with advised fiber routing. Considered configuration is with splitter inputs preconnectorized.

KIT 1

Pic 53

KIT 3

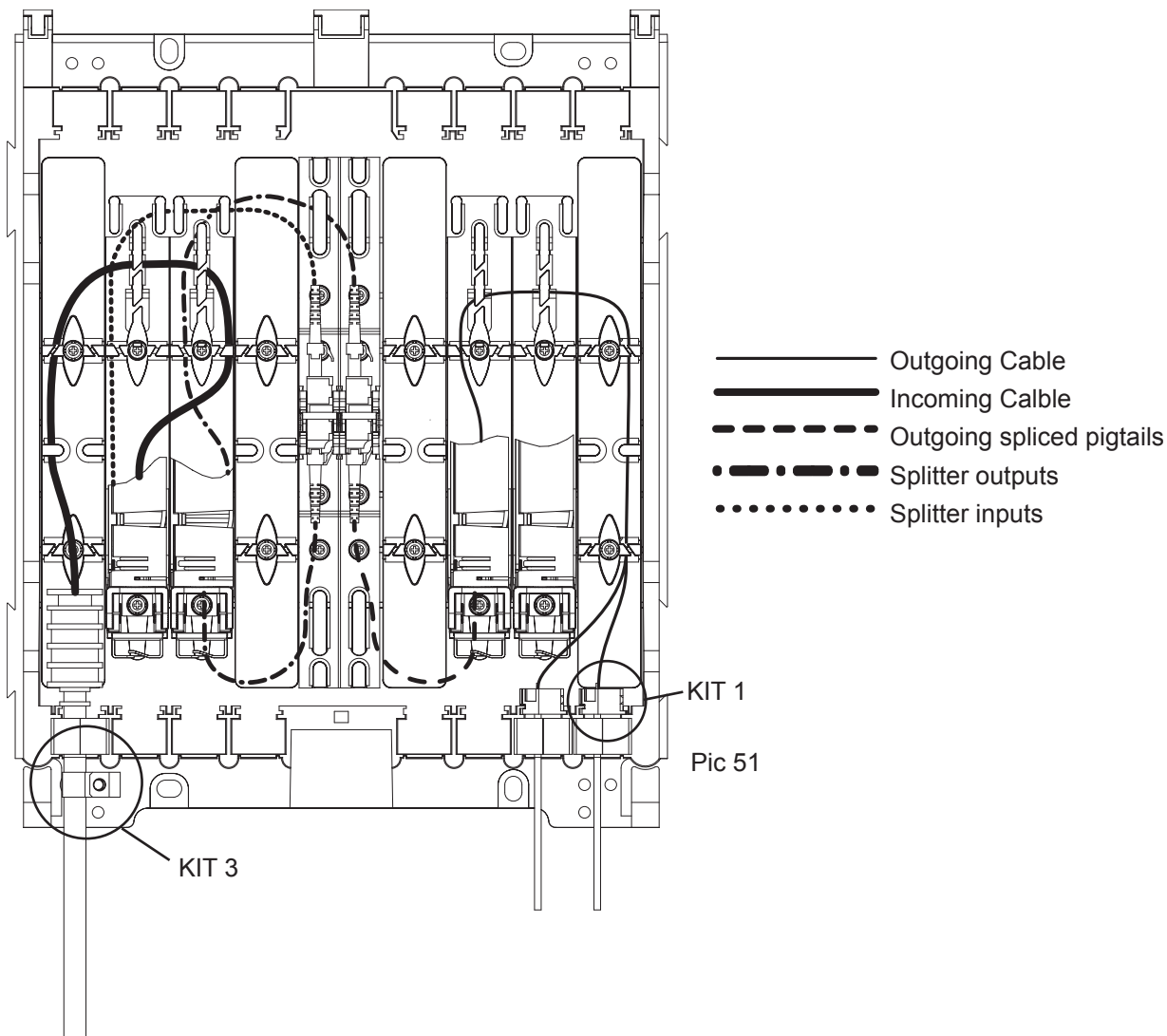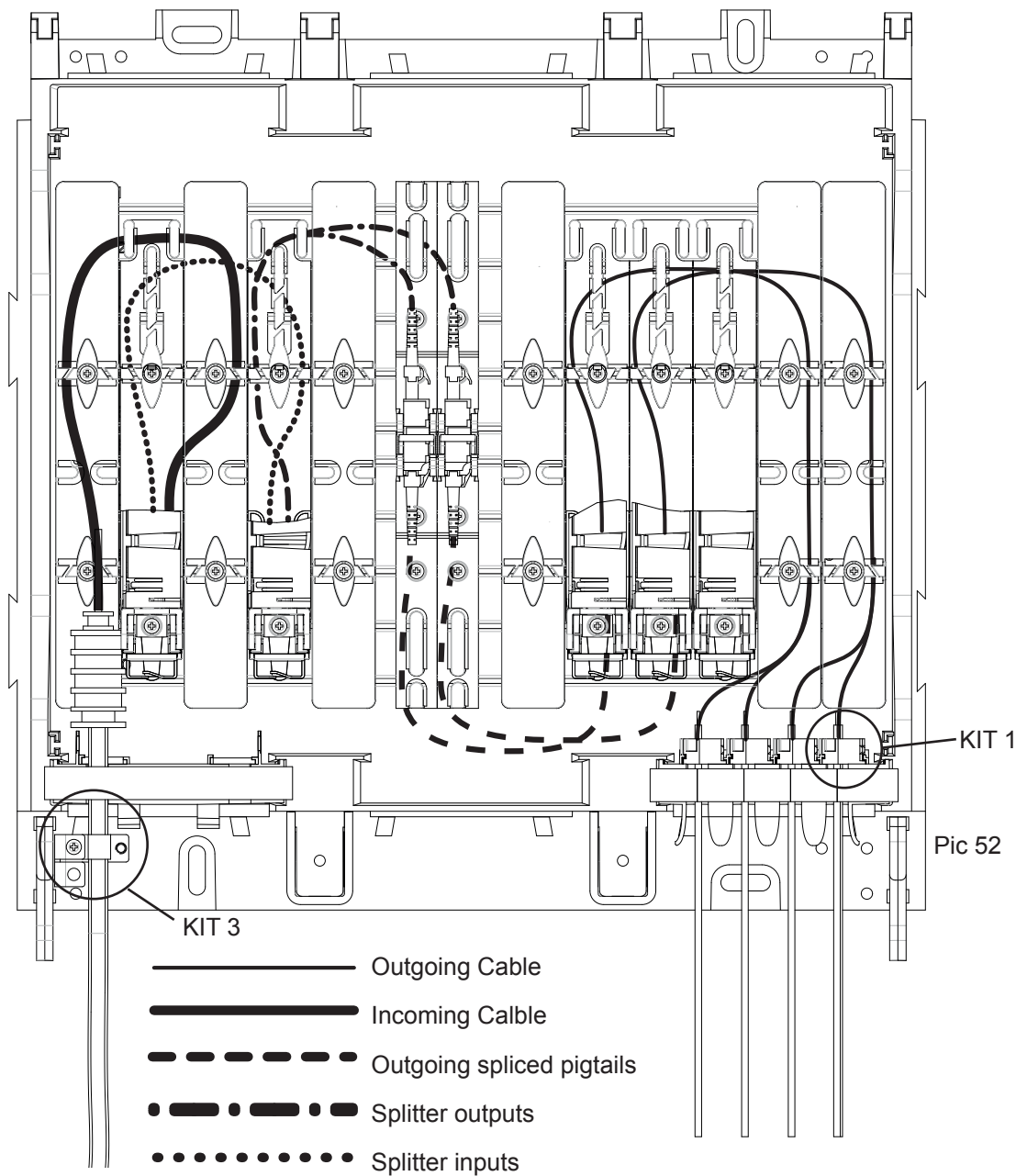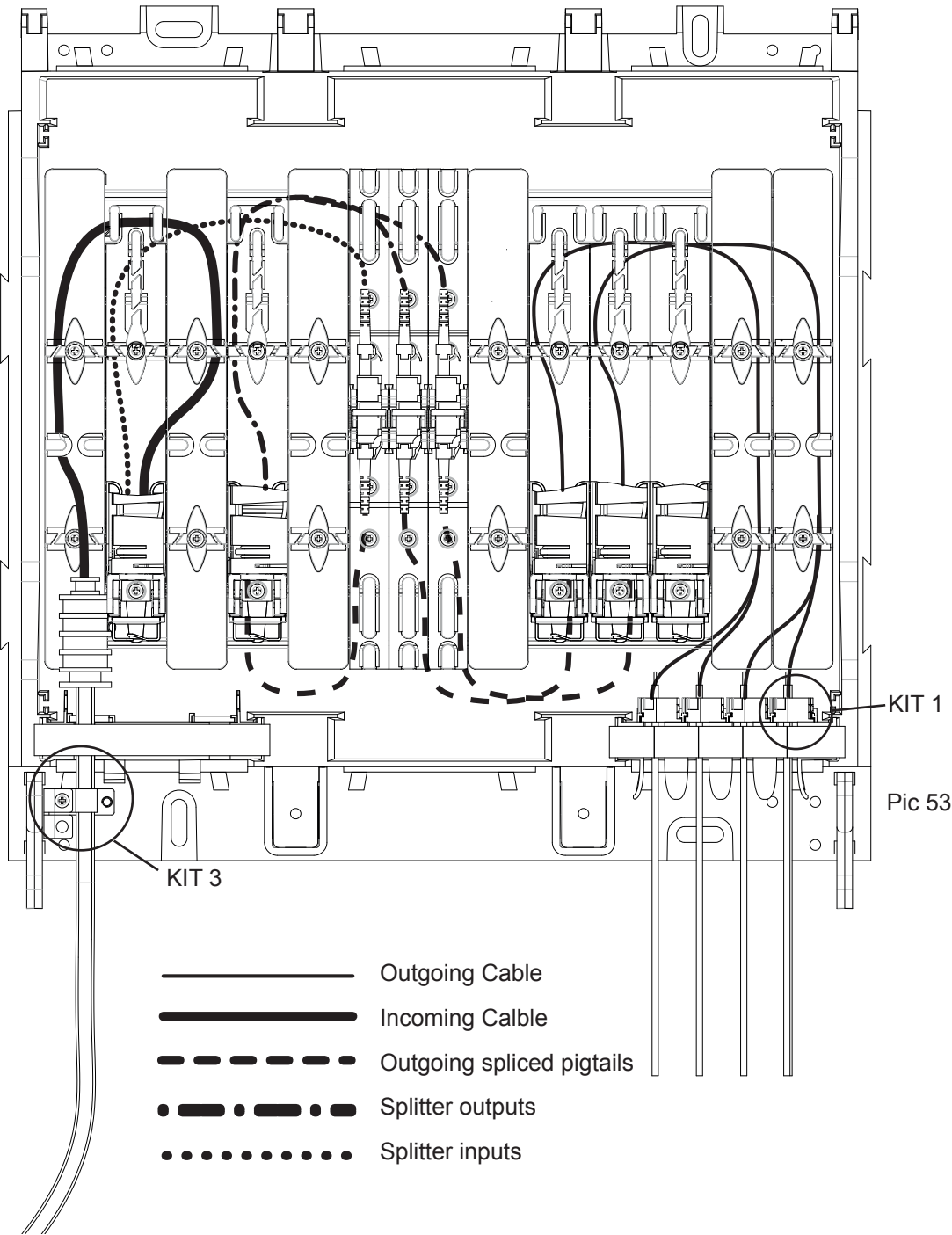|	Outgoing Cable
	Incoming Calble
	Outgoing spliced pigtails
	Splitter outputs
	Splitter inputs

14. Fiber management in XL-size

12.1 Configuration with splitter inputs spliced and outputs connectorized

Below is presented a sample product configuration with advised fiber routing. Considered configuration is with splitter inputs spliced.

KIT 1

Pic 54

KIT 3

————————	Outgoing Cable
━━━━━━━━	Incoming Calble
– – – – – –	Outgoing spliced pigtails
▪━ ━ ━ ▪	Splitter outputs
• • • • • • • • •	Splitter inputs

Below is presented a sample product configuration with advised fiber routing. Considered configuration is with splitter inputs spliced.

Pic 55

————————	Outgoing Cable
▬▬▬▬▬▬▬	Incoming Calble
▬ ▬ ▬ ▬ ▬ ▬	Outgoing spliced pigtails
● ▬ ● ▬ ● ▬	Splitter outputs
● ● ● ● ● ● ● ● ● ●	Splitter inputs

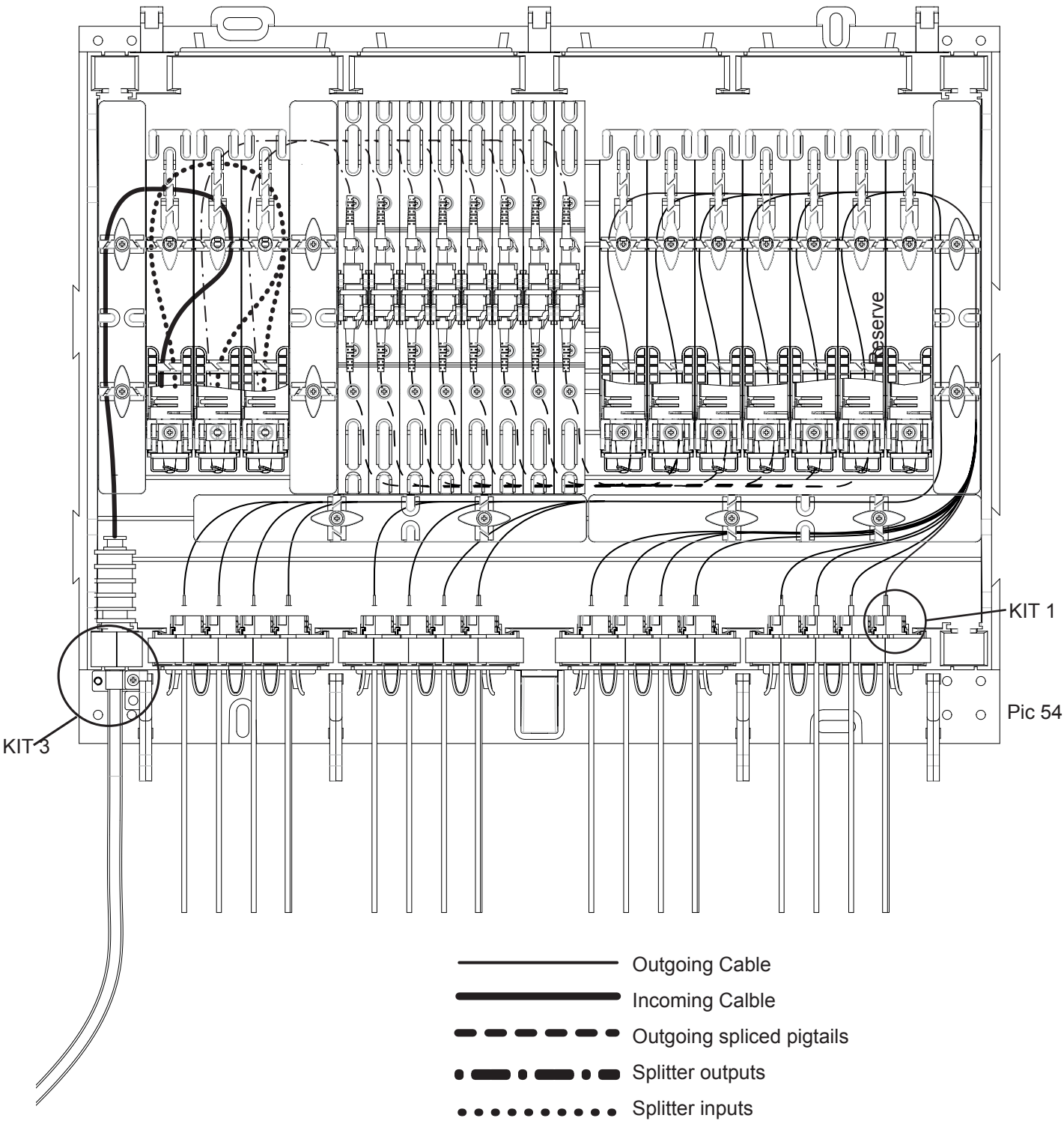**12.2** Configuration with splitter inputs and outputs connectorized.

Below is presented a sample product configuration with advised fiber routing. Considered configuration is with splitter inputs preconnectorized.
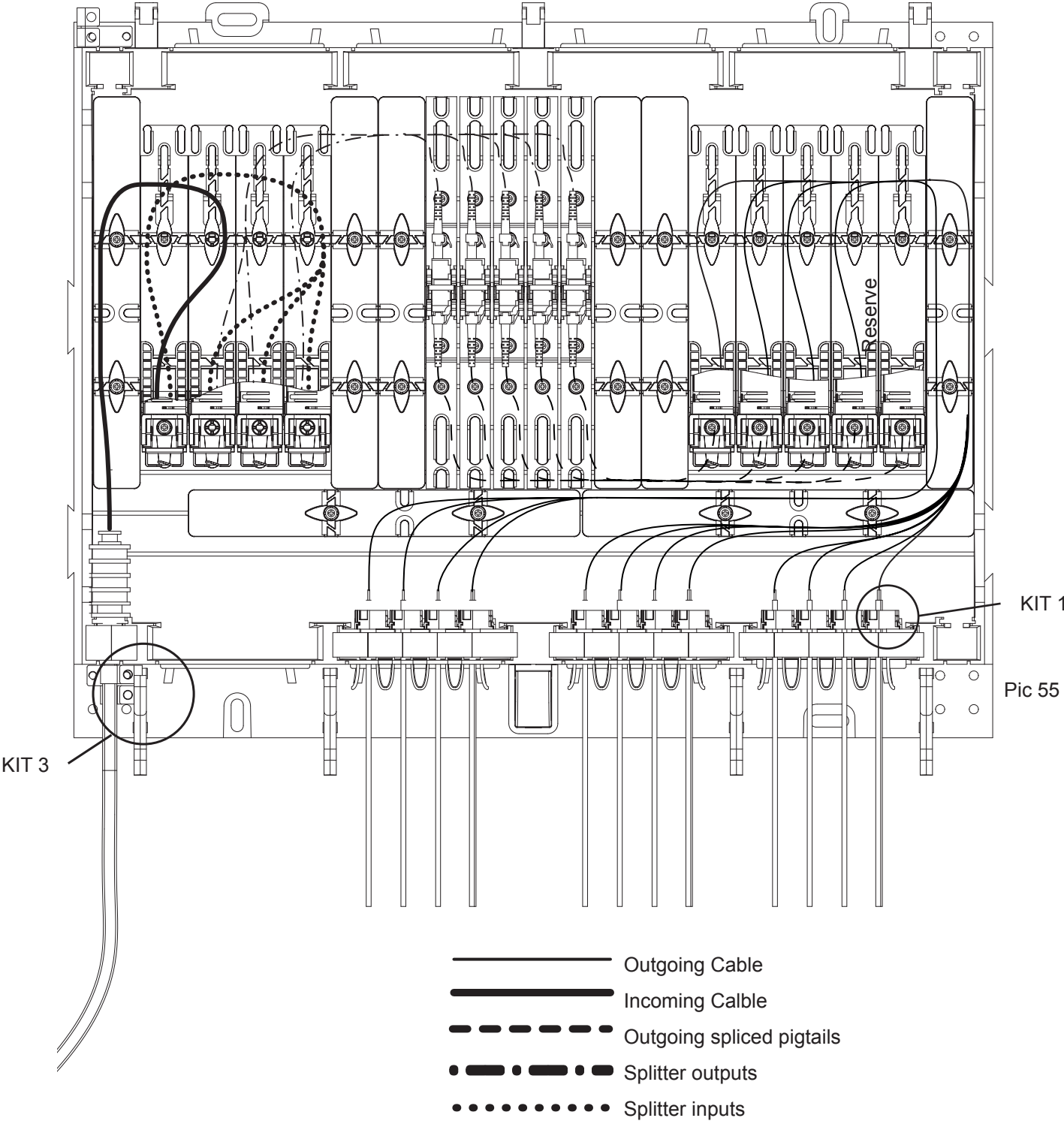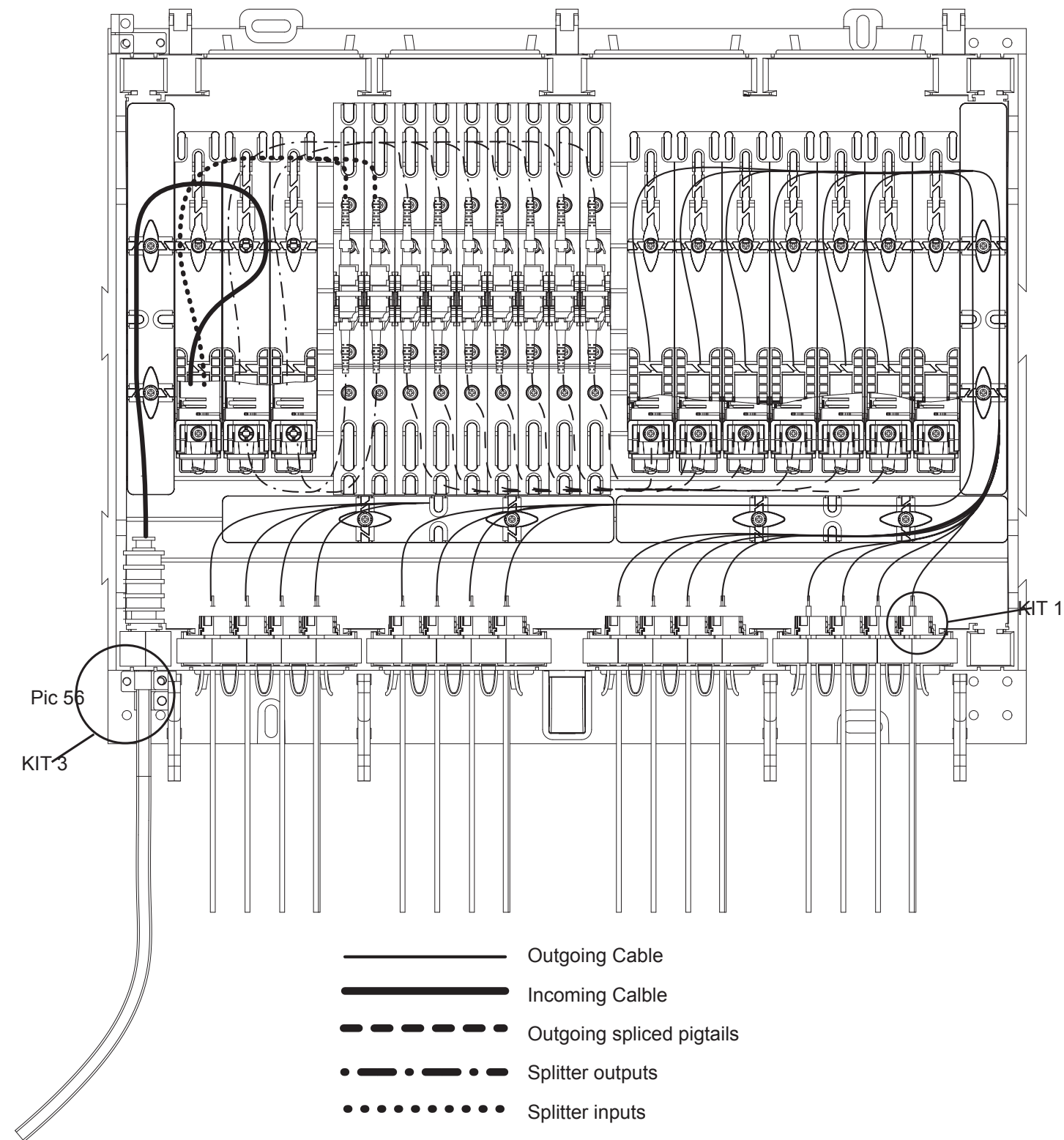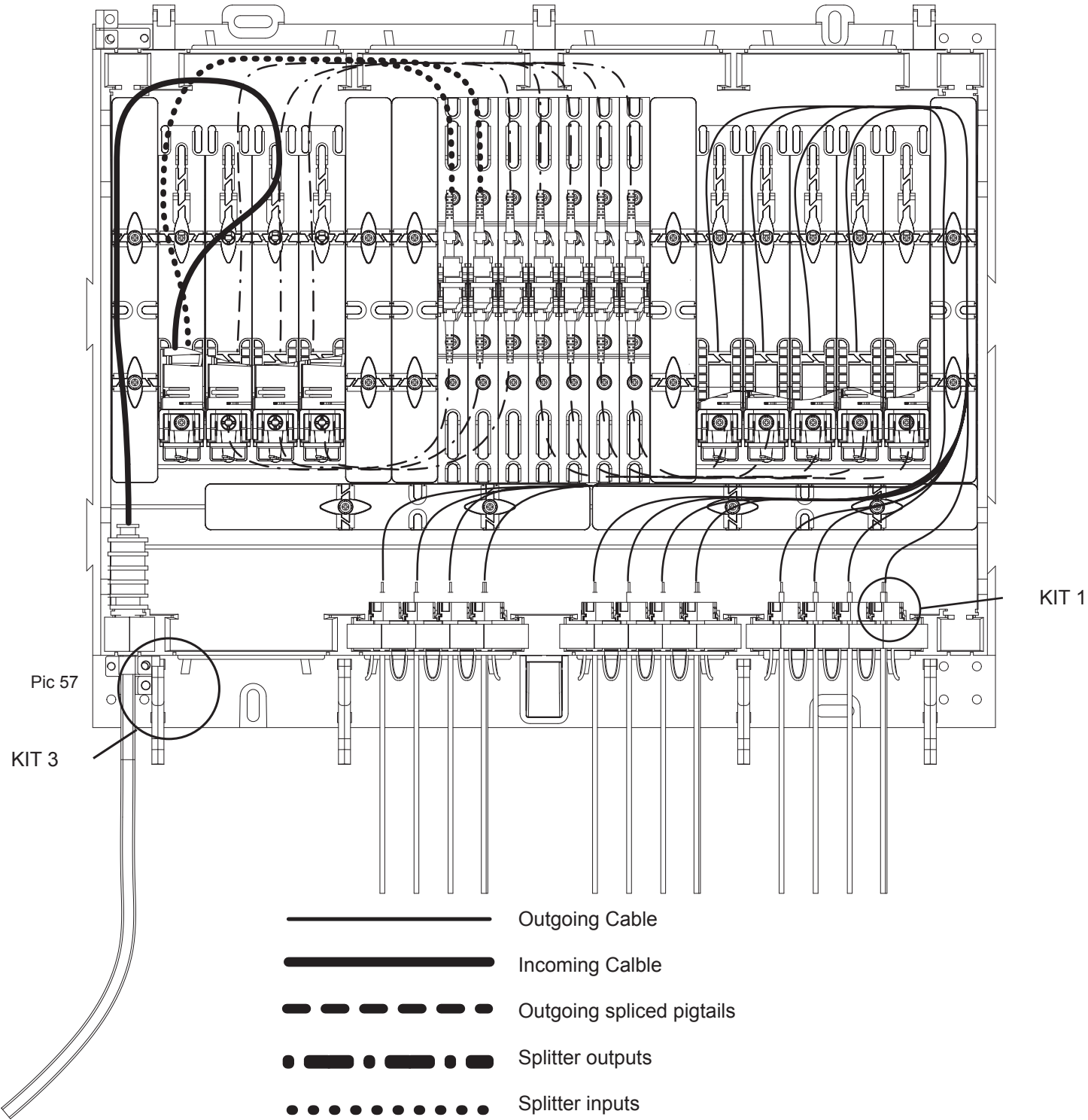

————————	Outgoing Cable
▬▬▬▬▬▬▬▬	Incoming Calble
▬ ▬ ▬ ▬ ▬ ▬	Outgoing spliced pigtails
• ▬ • ▬ • ▬	Splitter outputs
• • • • • • • • • •	Splitter inputs

Below is presented a sample product configuration with advised fiber routing. Considered configuration is with splitter inputs preconnectorized.

Pic 57

KIT 3

KIT 1

	Outgoing Cable
	Incoming Calble
	Outgoing spliced pigtails
	Splitter outputs
	Splitter inputs

Disposal Note

Disposal of the products and their packaging must be carried out in strict compliance with the local laws currently in force.

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