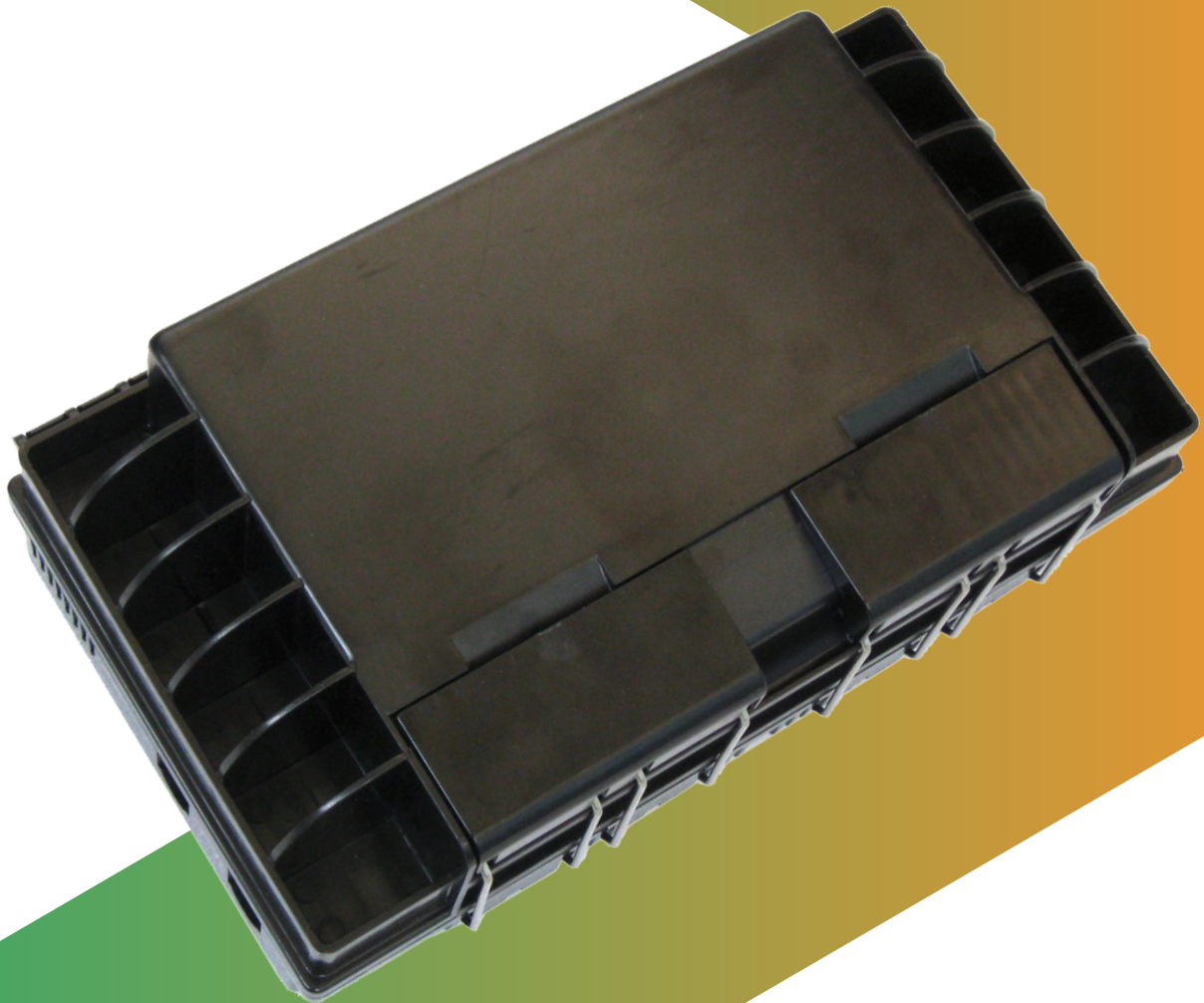


# GJS-III-2019 Fiber Optical Splice Closure Installation Manual

Version:1.0



## 1. Scope of application

This Installation Manual suits for the GJS-III-2019 Fiber Optic Splice Closure (Hereafter abbreviated as FOSC), as the guidance of proper installation.

This closure is suit for blockless splitter or brae splitter, the scope of application is: aerial mounting, wall mounting. the ambient temperature ranges from -40 to 60°C.

## 2. Basic structure and configuration

### 2.1 Dimension and capacity

Outside dimension (Height x Width x Depth)	350mm×210mm×110mm
Weight (excluding outside box)	1500g
Number of inlet/out ports	4 main cable, 16-2*3 drop cable
Diameter of fiber cable	4-Φ16mm, 16-2*3mm
Max. Capacity of FOSC	Bunchy: 24-48(cores)

### 2.2 Main components

No.	Name of components	Quantity	Usage	Remarks
1	FOSC housing	1 set	Protecting fiber cable splices in whole	Inside dimension (L×W×H): 249×182×104mm
2	Patch panel	1 pc	Fixing heat shrinkable protective sleeve and holding fibers, Install splitter and adapters	Suitable for: Bunchy: 24- 48 cores
3	Sealing Fitting	4 sets	Protect to waterproof	
4	Earthing deriving device	1 set	Deriving metallic parts of fiber cables in FOSC for earthing connection	Configuration as per requirement

### 2.3 Main accessories and special tools

No.	Name of accessories	Quantity	Usage	Remarks
1	Heat shrinkable protective sleeve		Protecting fiber splices	Configuration as per capacity
2	Nylon tie		Fixing fiber with protective coat	Configuration as per capacity
3	Earthing wire	1 piece	Putting through between earthing devices	
4	Sandpaper	1 set	Burnish fiber cable	

5	Labeling paper	1 piece	Labeling fibers	
6	Hanging hook	1 set	For aerial mounting use	
7	Buffer tube	decided by customers	Hitched to fibers and fixed with FOST, managing buffer.	Configuration as per requirement
8	Desiccant	2 bag	Put into FOSC before sealing for desiccating air	

### 3. Necessary tools for installation

#### 3.1 Supplementary materials (to be provided by operator)

Name of materials	Usage
Scotch tape	Labeling, temporarily fixing
Ethyl alcohol	Cleaning
Gauze	Cleaning

#### 3.2 Special tools (to be provided by operator)

Name of tools	Usage
Fiber cutter	Cutting off fiber cable
Fiber stripper	Strip off protective coat of fiber cable
Combo tools	Assembling FOSC

#### 3.3 Universal tools (to be provided by operator)

Name of tools	Usage and specification
Band tape	Measuring fiber cable
Pipe cutter	Cutting fiber cable
Electrical cutter	Take off protective coat of fiber cable
Combination pliers	Cutting off reinforced core
Screwdriver	Crossing/Paralleling screwdriver
Scissor	----

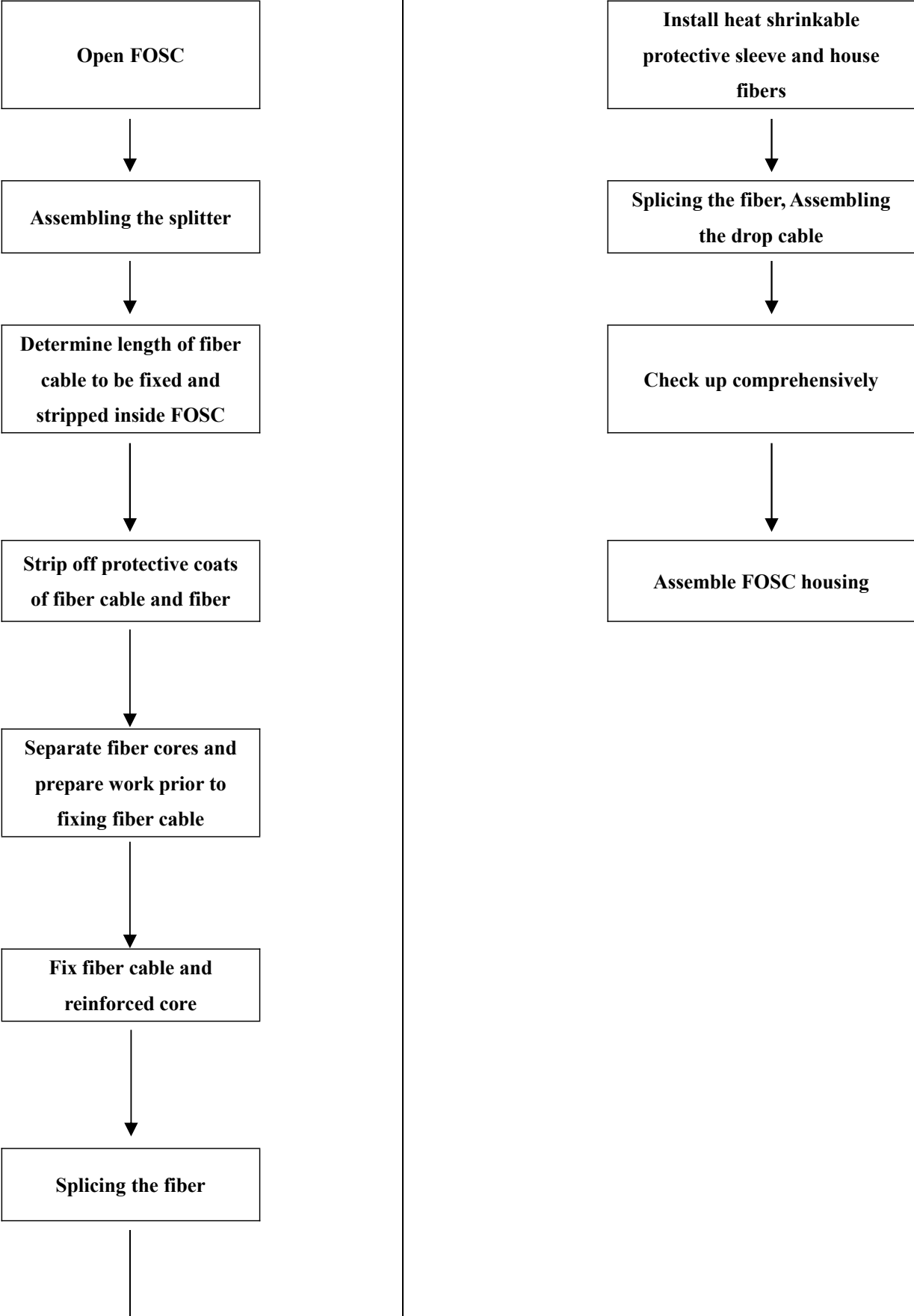
Waterproof cover	Waterproof, dustproof
Metal wrench	Tightening nut of reinforced core

### **3.4 Splicing and testing instruments (to be provided by operator)**

<b>Name of instruments</b>	<b>Usage and specification</b>
Fusion Splicing Machine	Fiber splicing
OT DR	Splicing testing
Provisional splicing tools	Provisional testing

Notice: The above-mentioned tools and testing instruments should be provided by the operators themselves.

**4. Installation flow chart**



# 5. The process of installing FOSC.

## 5.1 Step one - Open the closure

5.1.1 Cleaning the locate and determine where to install the FOSC and then place fiber cables required.

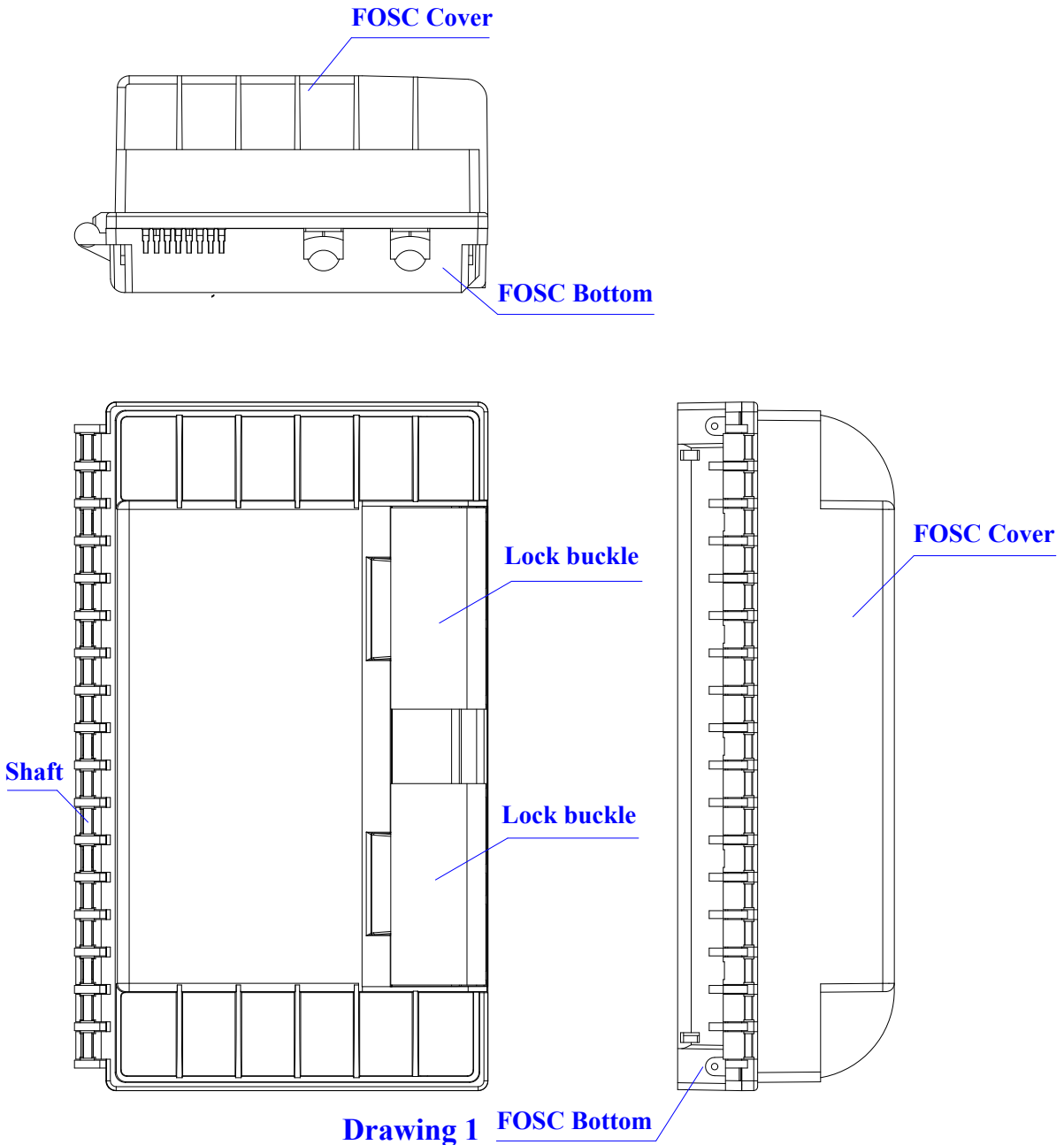
5.1.2 Check whether the main components and accessories have been well prepared inside the package.

5.1.3 Open the closure

Whisk two lock buckle, the FOSC can be opened.

See Drawing 1

**Important issues:** If the weather condition is not good enough, then a tent must be pitched for waterproof and dustproof.

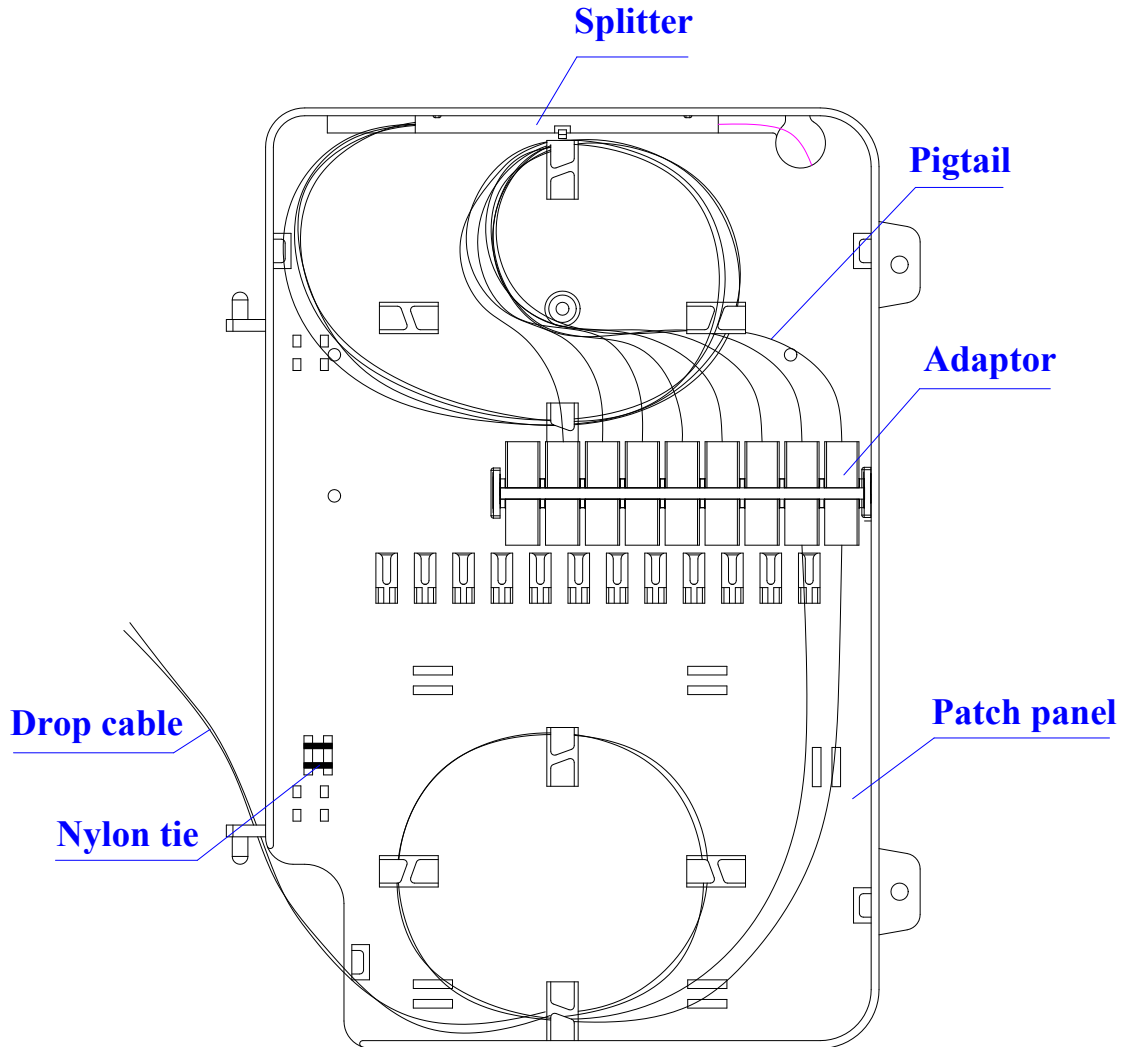


## 5.2 Assembling the PLC splitter

5.2.1 fixing the PLC splitter in the patch panel tray.

5.2.2 Twist the fiber as below Drawing 2

Notice: obligate the enough fiber to splice



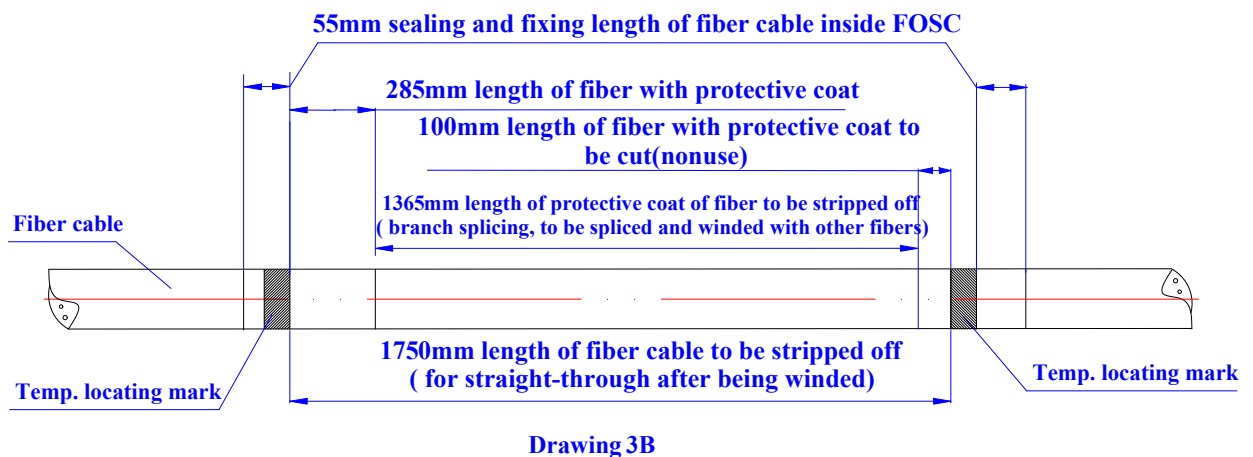
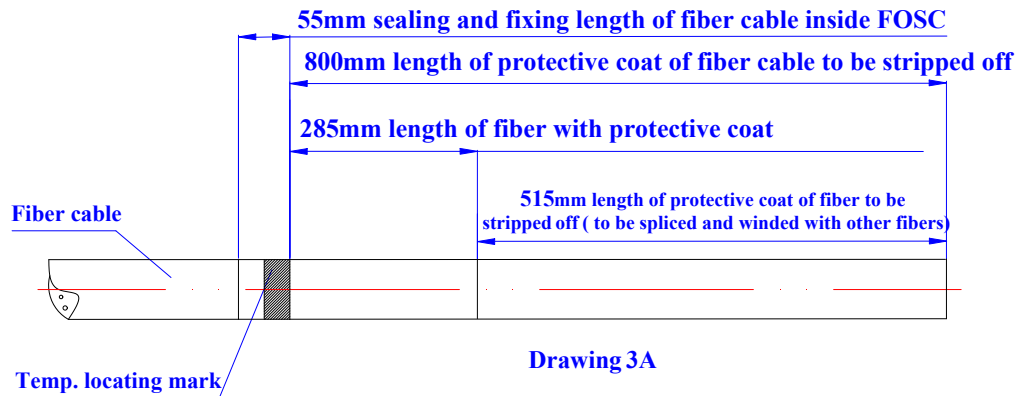
**Drawing 2**

## 5.3 Determine length of fiber cable to be fixed and stripped fiber cable

5.3.1 ①. All the fiber is used for straight-through or branching stripped the fiber cable see below Drawing (3) A

②. Part fiber for straight-through, the other for branching, stripped the fiber cable see below (3) B

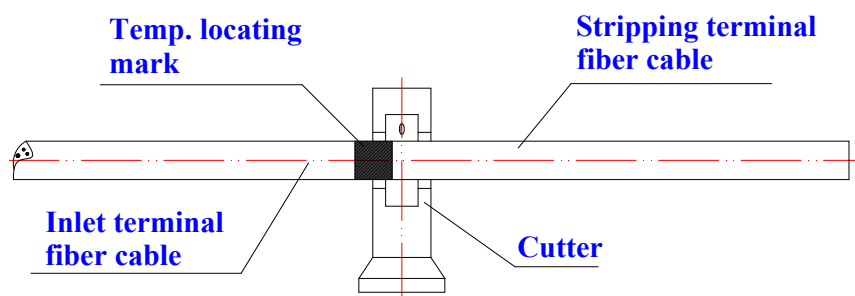
- Important issues:**
1. Reserve enough length of fiber cable to be spliced.
  2. Stripping length also could be decided by customers according to installation requirement



## 5.4 Strip off protective coat of fiber cable and fiber

5.4.1 Strip off protective coat of fiber cable from the temp. locating mark with the cutter and the stripper, please refer to Drawing 3 for stripping length. Stripping length also could be decided according to installation requirement

**Important issues:** If it is difficult to pull all the protective coat of fiber cable at one time, strip it off section by section to avoid fiber breakage.



## 5.5 Separate fiber cores and prepares work prior to fixing fiber cable.

5.5.1 Wind 2 layers of insulation tape on protective coat of fiber core for protection.

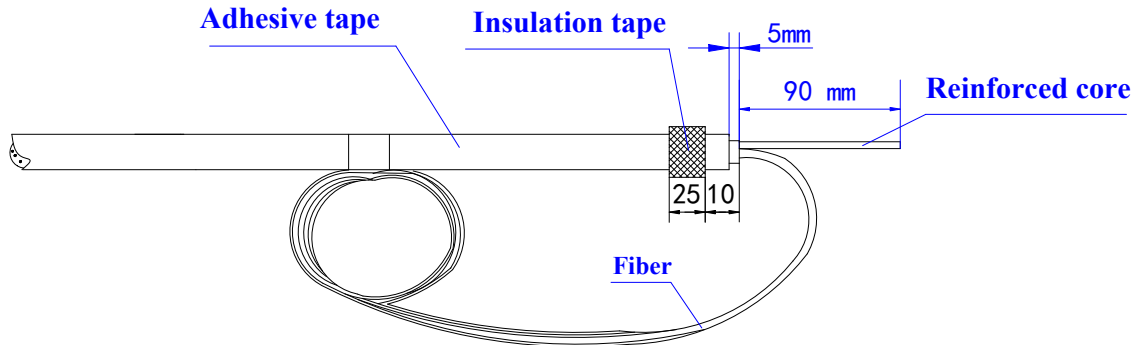
Meanwhile, get rid of the stuffing to separate fiber core and clean them. Form a ring with the diameter of 100mm or so and fix it on the fiber cable temporarily by adhesive tape.

5.5.2 This closure provides 4 inlet/outlet ports, port install with the max.diameter  $\Phi 16\text{mm}$ .



5.4.3 Reserve reinforced core in 90mm length and cut off the unnecessary ones.

**Important issues:** Entry/exit tubes are to be selected accurately to make it easy for splicing and sealing.

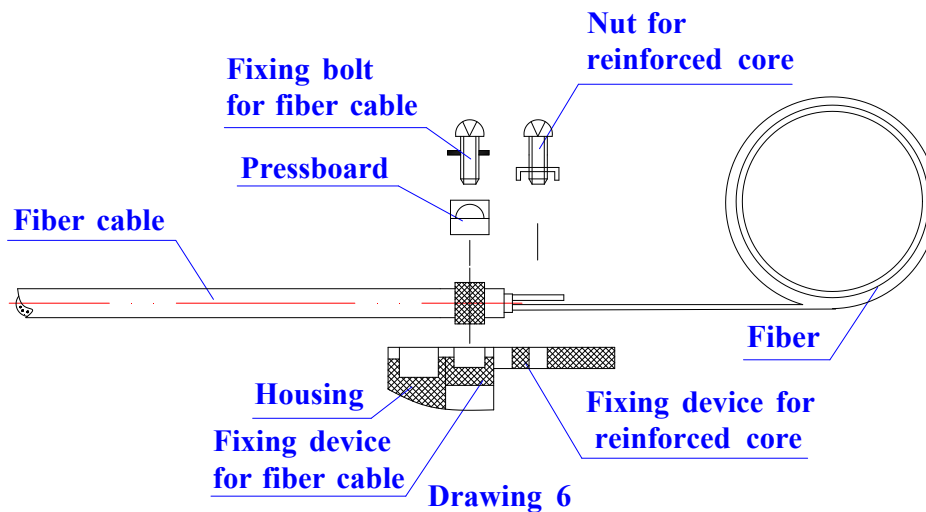


## 5.6 Fix reinforced core, fix and seal fiber cable.

5.6.1 Taking the plugs, pressboard, reinforce core screws out

5.6.2 Fix fiber cable to the fixing seat, press it with the pressboard. While diameter is small, enlarge the diameter with insulation tape at the fixing position of fixing seat.

5.6.3 tight the screws



## 5.7 Splice fibers

5.7.1 Follow user manual of fusion splicing machine to splice fiber.

## 5.8 Install heat shrinkable protective sleeve and house fibers.

5.8.1 When having completed splicing the fibers, the first fiber ring should be housed on the farthest side of FOST; the remaining fiber should be winded, forming a ring with diameter not less than 80mm. then put it into FOST (Fiber Optic Splice Tray) together with heat shrinkable protective sleeve. (Firstly fix heat shrinkable protective sleeve into the slot, and then enlarge the diameter of fiber ring properly.)

5.8.2 assemble the drop cable

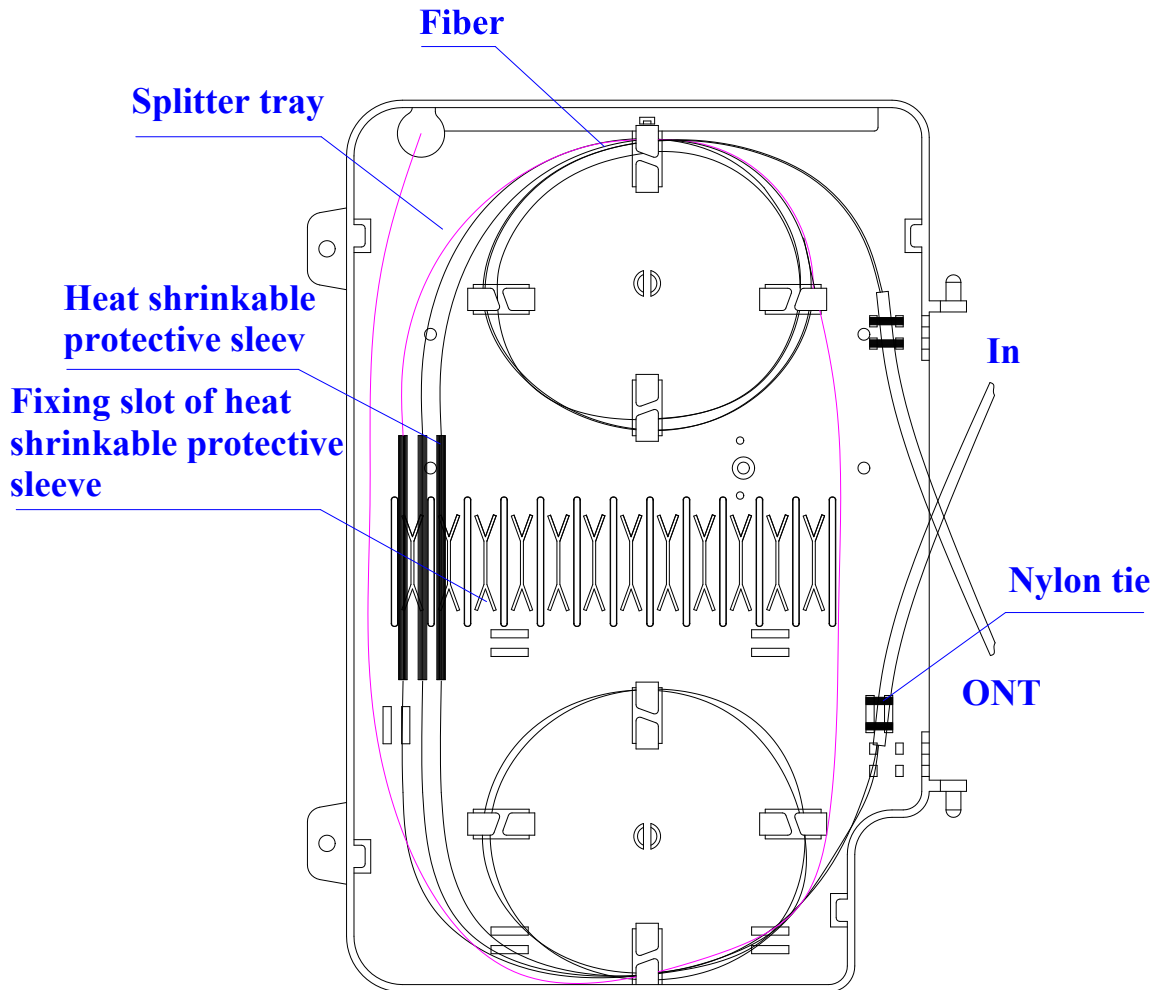
5.8.3 Taking the plug out according to the actual QTY, then insert the drop cable with field assembly connector into the adaptors.

note: before placed the drop cable, please in the fixing groove of the drop cable apply silicone oil, to ensure the sealing performance of the fiber optic splice closure.

5.8.4 Through the drop cable into the sealing rings.

See Drawing 7, 8

**Important issue:** pay attention to the twist and bend of fiber.



**Drawing 7**

## 5.9 Check up comprehensively

To ensure the technical requirements, the following instructions must be followed:

5.9.1 Fibers with protective coat are fixed with nylon tie at the entrance of FOST.

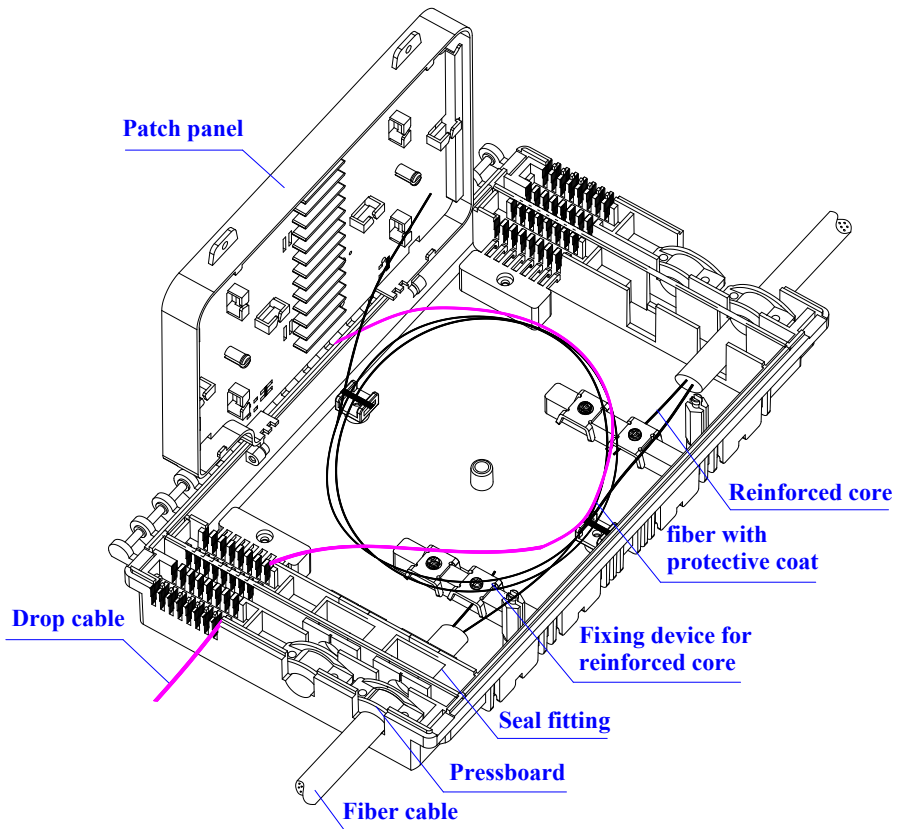
5.9.2 Grommet should be pressed from inside to outside in order to properly install FOST.

5.9.3 If there are fibers with protective coat reserved, wind it into the fiber holding tray.

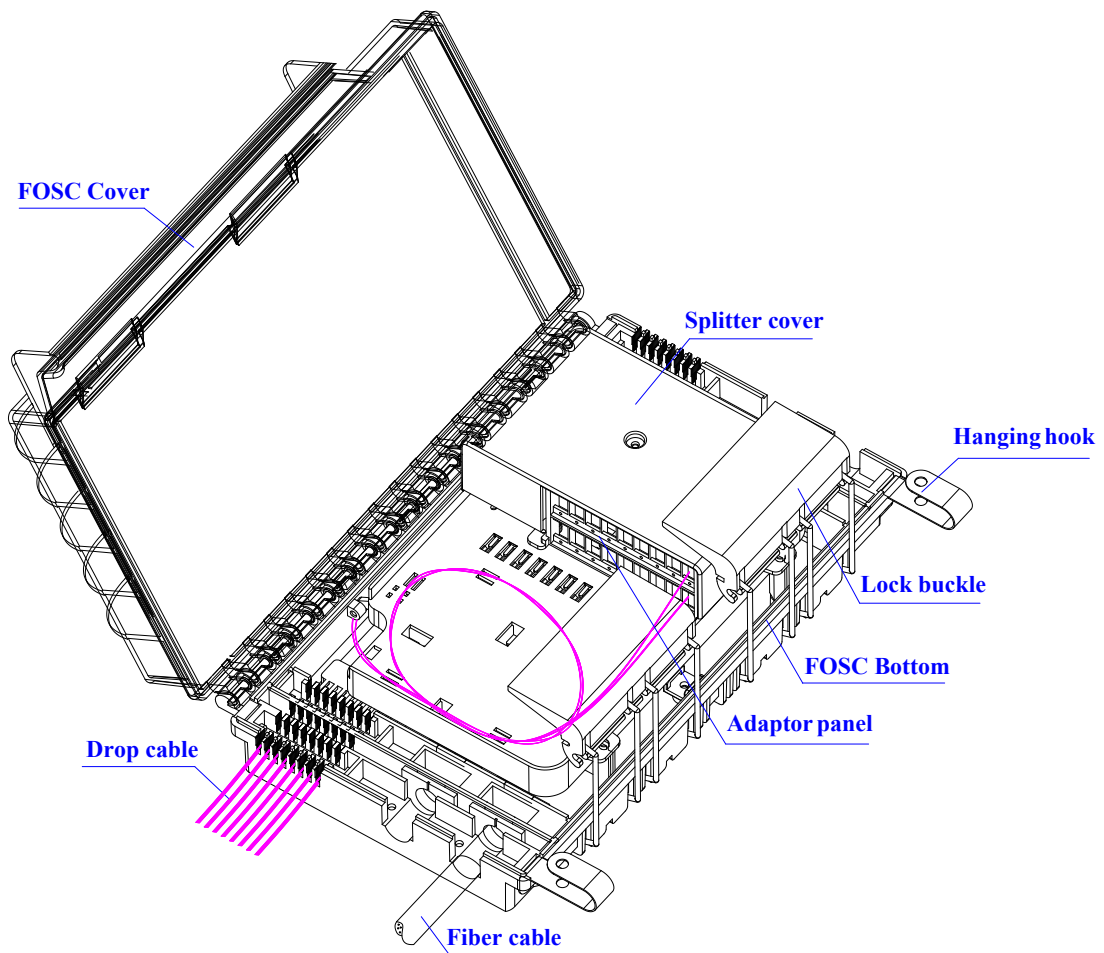
5.9.4 Check whether the internal tightness and reinforced core are well tightened.

5.9.5 Check whether gasket ring is installed neatly and smoothly without any breakage. If not, level it up with seal tape.

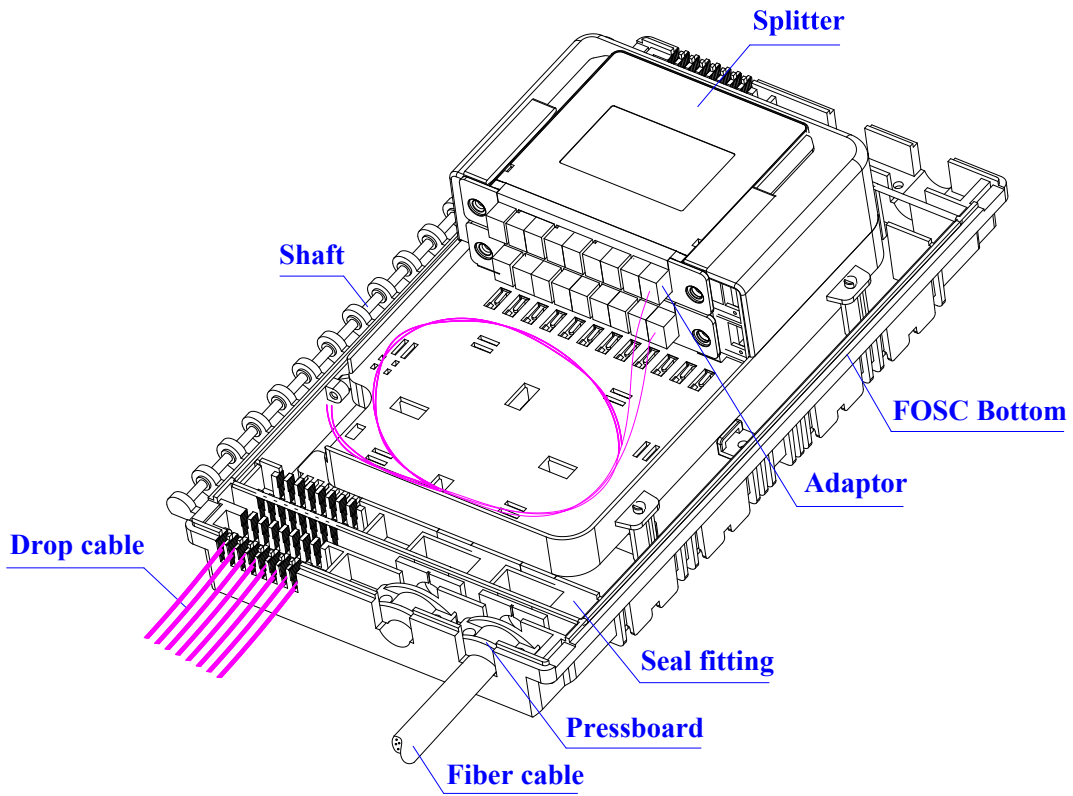
See Drawing 9,10



**Drawing 8**



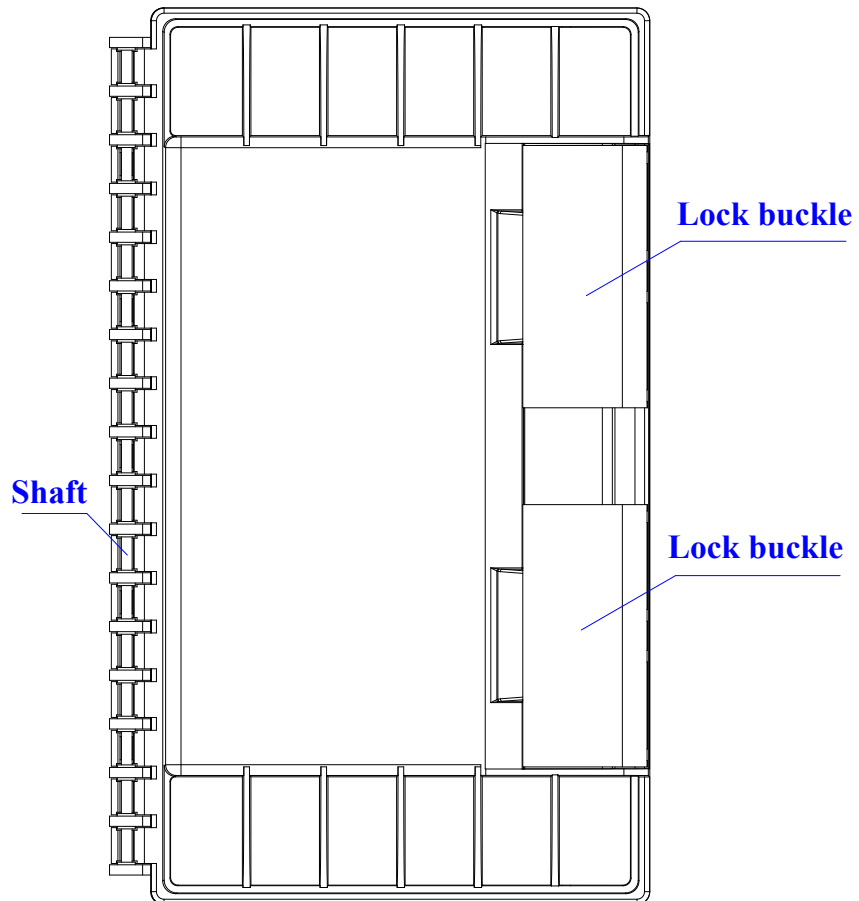
**Drawing 9**



**Drawing 10**

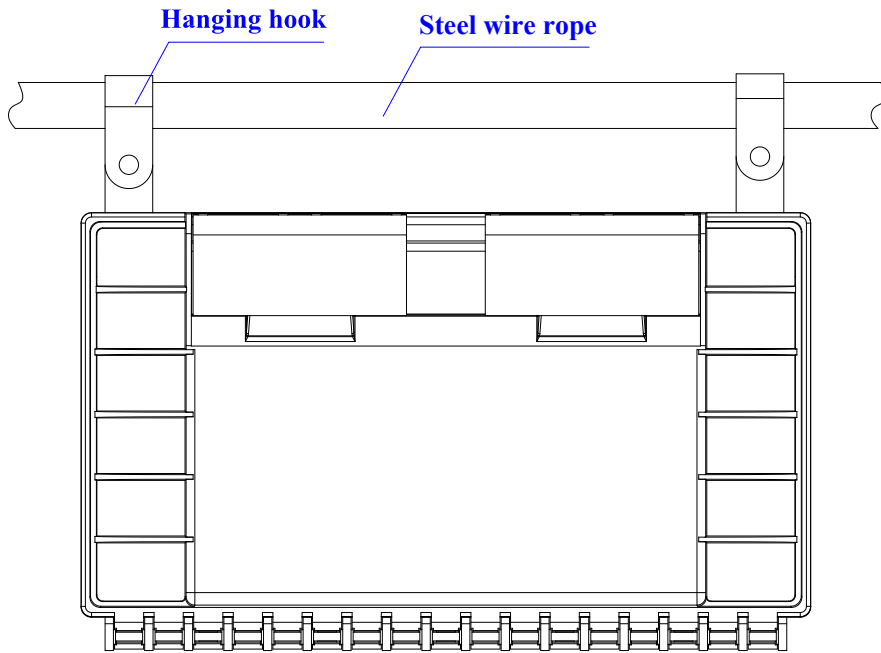
**6. Closing the FOSC**

6.0.1 Clip on plastic buckle lock. see below Drawing 11.

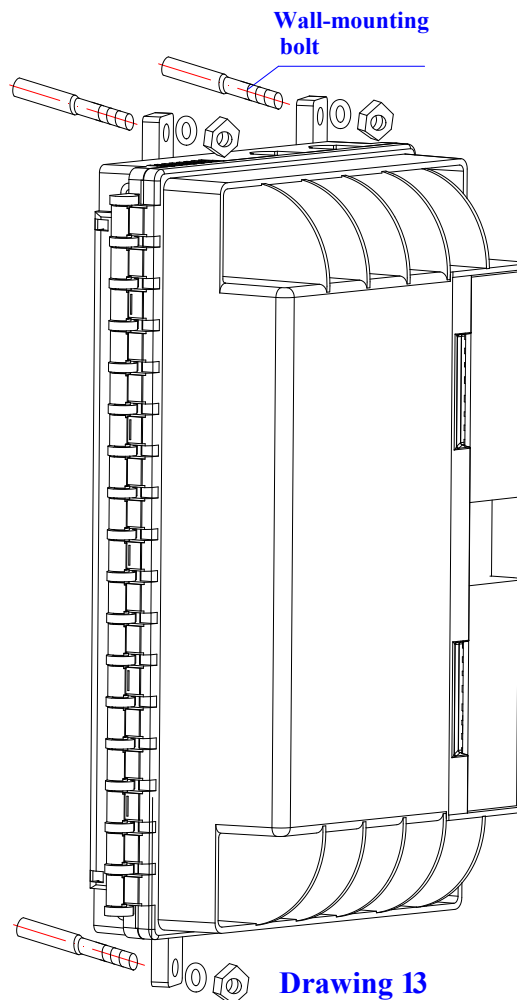


**Drawing 11**

- 6.0.2 According to the actual requirement to choose aerial mounting or wall mounting. See Drawing12,13
- 6.0.3 Tight the screws again to proper level after 2 mins



**Drawing 12**



**Drawing 13**