

Optical Fiber Distribution Box

Instruction Manual

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1 Description

The equipment is used as a termination point for the feeder cable to connect with drop cable in FTTx communication network system. The fiber splicing, splitting, distribution can be done in this box, and meanwhile it provides solid protection and management for the FTTx network building.

2 Features

1. The Box is an outdoor product for installation in aerial (wire rope, pole or wall) or indoor networks.
2. Has mechanical closure on main and bypass ports, compatible with cable diameters from 6mm to 15mm.
3. 1 uncut optical cable entry, 2 branch optical cable entries.
4. Cable, pigtailed, and patch cords are running through their own paths without disturbing each other, micro type PLC splitter installation, easy maintenance.
5. 4 trays can be installed, Each tray supports up to 24 optical splices.

3 Specification

3.1、Environmental requirement

Working temperature: $-40^{\circ}\text{C}\sim+85^{\circ}\text{C}$

Relative humidity: $\leq 85\%$ ($+30^{\circ}\text{C}$)

Atmospheric pressure: $70\text{kPa}\sim 106\text{kPa}$

3.2、Main technical datasheet

Insertion loss: $\leq 0.2\text{dB}$

UPC return loss: $\geq 50\text{dB}$

APC return loss: $\geq 60\text{dB}$

Life of insertion and extraction: >1000 times

3.3、Thunder-proof technical datasheet

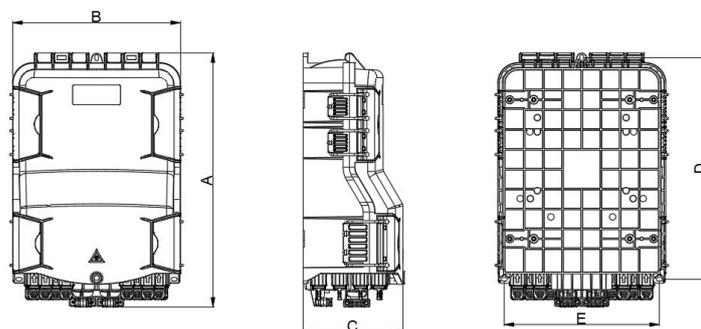
The grounding device is isolated with the cabinet, isolation resistance is less than $2 \times 10^4 \text{M}\Omega / 500\text{V}$ (DC) ;

$IR \geq 2 \times 10^4 \text{M}\Omega / 500\text{V}$

The withstand voltage between grounding device and cabinet is no less than 3000V (DC) /min, no puncture, no flashover; $U \geq 3000\text{V}$

3.4、Technical Data

Model	Description	Size	Max Capacity	Installation	Weight (kg)
		A*B*C (mm)	pre-connected adapters	D*E (mm)	
8 Core	Preterminated box	320*210*100	8	279*194	2.2
16 Core	Preterminated box	320*210*125	16	279*194	2.5



4 Structure

4.1 Closure and accessories (Picture 1)



Picture 1

4.2 Parts list

4.2.1 Main accessories

S/N	Description	Quantity	Note
1	Preterminated box	1	
2	Special Key	1	
3	Nylon tie	10	3*100mm
4	Fusion sleeve($\Phi 1.0*60\text{mm}$)	48	Cable splicing
5	EVA tube	1	1m
6	Electrical tape	1	
7	Silicone grease	1	
8	Dielectric Cleaning Tissue	1	
9	Winding pipe	1	0.5m

4.2.2 Optional parts

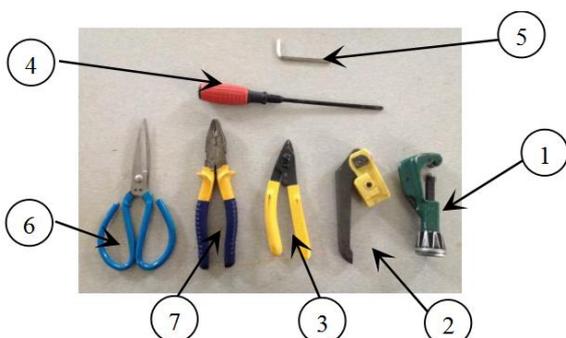
S/N	Description	Quantity	Note
1	Wall mounted components	1	For wall mounting
2	Pole mounting kit	1	For pole mounting
3	Hanging wire installation	1	For hanging wire mounting

5 Installation and Adjustment

5.1 Installation Preparation

5.1.1 Check up

- 1、Check the item number and accessories of Preterminated box.
- 2、Check the fiber specification.
- 3、Check the parts quantity.
- 4、Check the instrument. (Picture2)



1-Transverse cutting knife for cable outer security layer. 2-The longitudinal open cable knife. 3-Optical fiber stripper. 4-Cross screwdriver. 5-M6 hexagonal socket wrench. 6-Scissors. 7-Vice

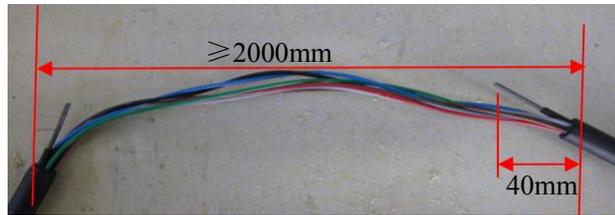
Picture 2

5.2 Cable Preparation

5.2.1 Mark the cut point on the cable according to the different length requirements.

5.2.2 Strip the cable outer layer.

5.2.3 The requirement for stripping the un-cut cable. The length should be no less than 2000mm; Cut the steel core at the length of 40mm of the cable cut point. (Picture 3)

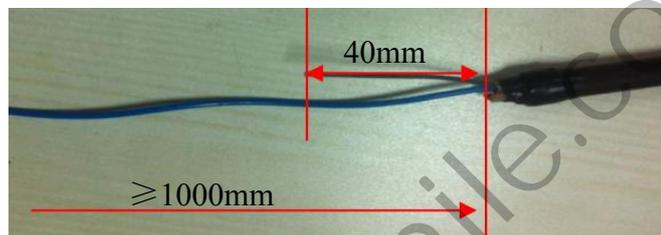


Picture 3

The requirement for stripping the cut cable.

(1) The length should be no less than 1000mm;

(2) Cut the steel core at the length of 40mm of the cable cut point. (Picture 4)



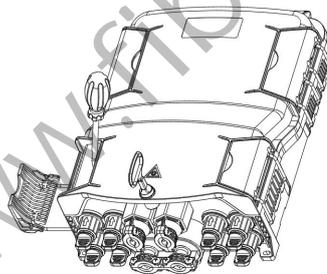
Picture 4

Note: ① Be sure not to damage fiber. ② Do not use any damaged cable.

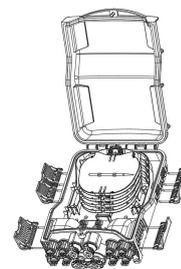
5.3 Open the Box

5.3.1 Use the tool to pry buckles. (Picture 5)

5.3.2 Open the lid, take out the accessories. (Picture 6)



Picture 5

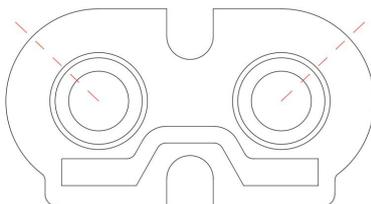


Picture 6

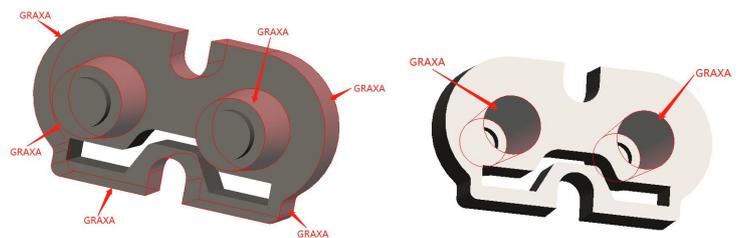
5.4 Uncut cable Entrance

5.4.1 Use a cutting tool to open the grommet at the indicated points and t it in the cable. (Picture 7)

5.4.2 To assure correct seal of the box, apply the silicon grease, supplied in the installation kit, around the cable in the contact surface between the cable and the sealing grommet. (Picture 8)

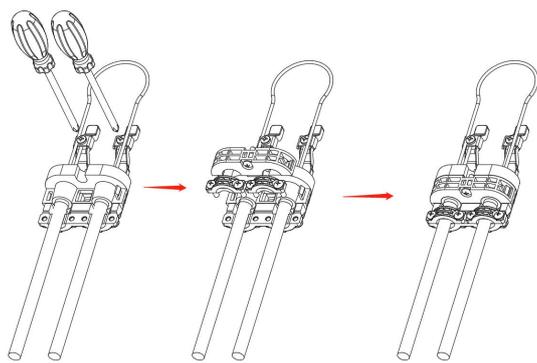


Picture 7

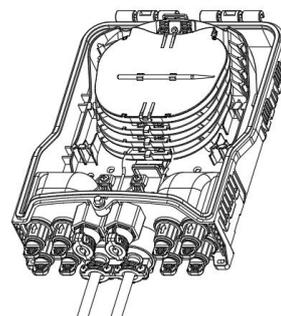


Picture 8

- 5. 4. 3 Fast installation, fastening, and sealing of straight-through optical cable with the Fast Plug. (Picture 9)
- 5. 4. 4 Install the Uncut cable entrance assembly on the base.(Picture 10)



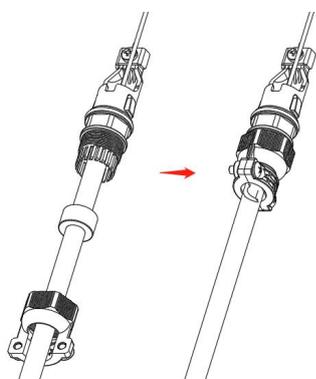
Picture 9



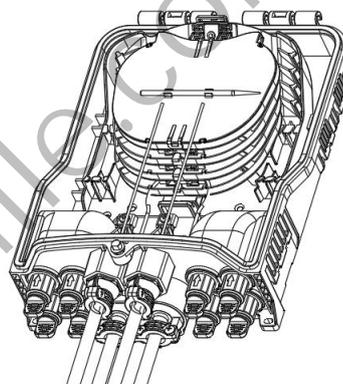
Picture 10

5. 5 Branch Cable Entrance

- 5. 5. 1 Install the cable on the branch cable entrance, and lock the cable clamp.(Picture 11)
- 5. 5. 2 Install the branch cable entrance assembly on the base.(Picture 12)



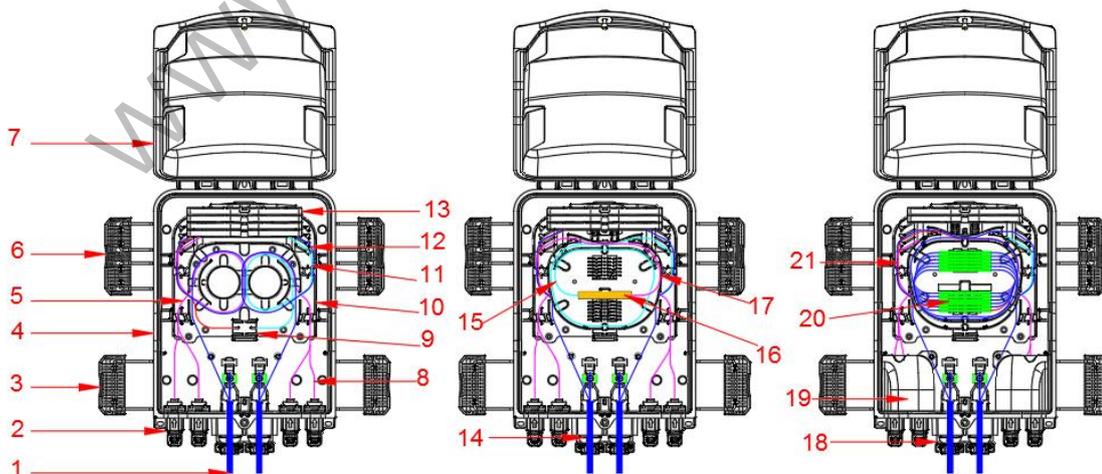
Picture 11



Picture 12

5. 6 Accommodation of Remnant Cables

- 5. 6. 1 Protect the bare fiber by coil tube and clear up the cable, then introduce into the splice tray.
- 5. 6. 2 The standard splice protection sleeves for these trays is 40 to 60 mm long and diameter 3 mm, when contracted. (Picture13)



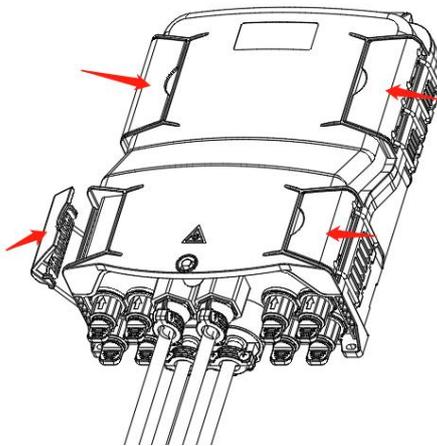
1:Main Cable; 2: Pre terminated adapter;3:Buckles;4:Base;5:PLC output;6:Buckles;7:Cover;8:PLC output;9:Adapter;10:Bracket;11:PLC input;12:Fiber;13:Tray;14:Branch Cable Entrance;15:PLC input;16:PLC splitter;17:PLC output;18:Uncut Cable Entrance;19:Pigtail cover;20:Fusion sleeve;21:Pigtail;

Picture 13

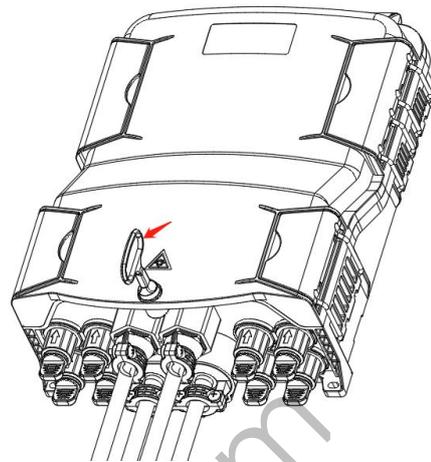
5.7 The Box Closing

5.7.1 Close the box and close the four buckles. (Picture14)

5.7.2 To guarantee the sealing of the box, x the screws until they are tight. (Picture15)



Picture 14

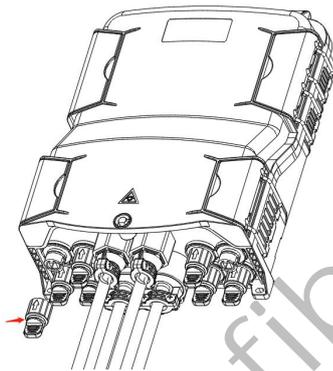


Picture 15

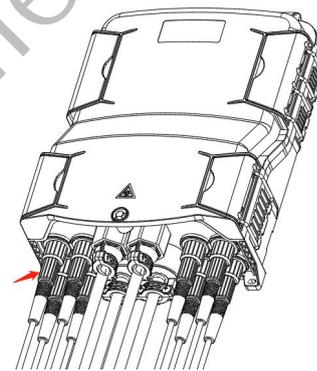
5.8 Installation of pre terminated optical cable

5.8.1 Remove the pre terminated adapter cap.(Picture 16)

5.8.2 Install the pre terminated optical cable on the adapter.(Picture 17)



Picture 16

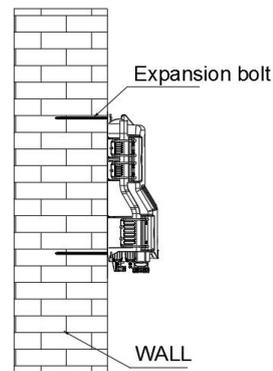
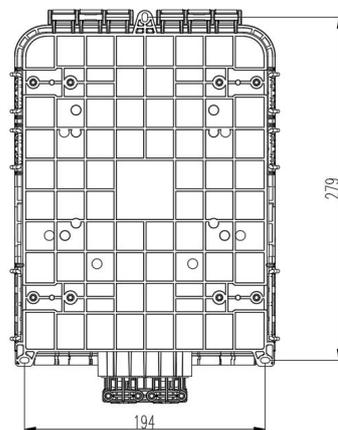


Picture 17

6 Installation

6.1 Wall-mounted installation

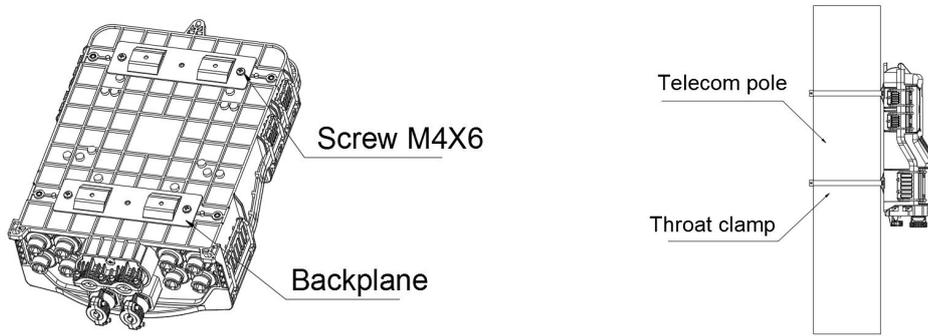
Drill 4 holes over the wall based on the size 279×194, place the expansion bolt $\Phi 7.5*40$, place the box to match up the holes and use bolt to fasten.(Picture 18)



Picture 18

6.2 Pole-mounted installation

Install the backplane on the box with M4×6 screws. Fix 1 set of the easy pole ring to the telecom pole .
(Picture 19)

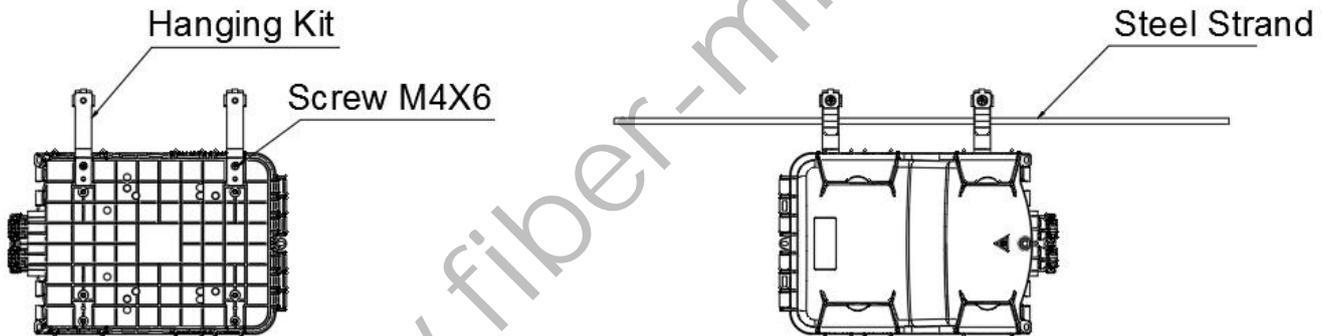


Picture 19

6.3 Hanging wire installation

6.3.1 Take out the Hanging Kit from the Accessory Bag, install the hangers to the Box by M4 Screws Hang the Box on the line with the two hooks.

6.3.2 Screw the M6 Screws on the hooks to lock the hangers, check if everything is tight after operation.
(Picture 20)



Picture 20

7 Packing, transportation and storage

7.1、 This equipment packaging is moisture-proof and earthquake-proof. The accessories are packed first plastic bags, then into the boxes with plastic bags for sealing. There are moisture-proof and earthquake direction signs outside the boxes.

7.2、 It can't be inverted in the transport and be free from rolling when carrying. Please load carefully and prevent the collision. You should prevent it from heavy rain before installation. The temperature in the transport should be controlled between -35°C to +55°C.

7.3、 The excessive accumulation of goods should be stored on the cartons. The treasury should away from the erosion of corrosive gas equipment and the temperature should be below 45°C and higher than -5°C, and relative temperature should not be high in long-term(generally less than 75%).