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Cabinet

Manual of Installation

Chapter 1 General

1.1 Introduction

HGPX(04)A Series is of large capacity and high density, applicable in the termination and distribution of partial trunk optical cable communication system,easy to realize connection,distribution and adjustment by through connection or cross-linking.

HGPX(04)A Series External view

1.2 Features

1.2.1 Large capacity,high density
1.2.2 Modular structure,72 fibers fusion unit,splicing & distribution integration module,easy to adjust fusion and distribution units.
1.2.3 Suitable for inserting installation of SC,FC and ST adaptor.
1.2.4 Meet the demand of termination for both zonary cables and non-zonary cables.
1.2.5 Clear marking,fusion and distribution is marked for each fibers.
1.2.6 Every unit could be pulled out alone,easy to operate with the function of protecting fiber connection point and fiber storage.

1.2.7 Faced cable entry, safe and flexible,mounting against wall or back-to-back installation.
1.2.8 Separate incoming and outgoing ports for cables,pigtails and patch cords
1.2.9 Reliable stripping,protection,fixing and earthing devices.
1.2.10 Supply all kinds of protection accessory to protect fibers against mechanical hurt
1.2.11 Accomplishing scientific arrangement for patch cords,with clear mark for fiber distribution
1.2.12 Ensure fiber and cable bend radius bigger than 40mm everywhere
1.2.13 Each unit has the function of splicing and distribution.

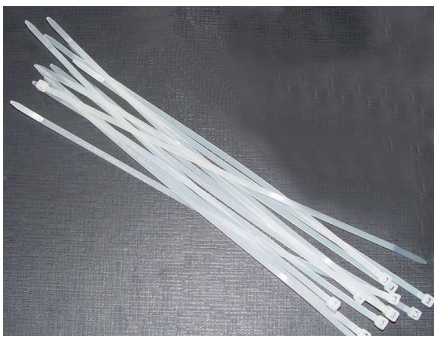
1.3 Remark

1.3.1 This manual is only suitable for BOLAISI fiber optic distribution frame.
1.3.2 The packing and transportation accord with Industry Standard. It should be stored in ventilated and dry warehouse, no acid-base,no sulphide and other poison gas. No exposure outdoor
1.3.3 Packing: The packing is standard packing,damp proof, shockproof. Accessory and spare parts are packed in plastic container first, then in wooden carton. The cabinet is sealed with plastic container,with rain protection, damp proof and direction mark.
1.3.4 Transportation: The equipment is suitable for all kinds of transportation,during the transportation,the environment temperature should be within -30°C~55°C,relative humidity ≤90%,
The equipment should not be caught soaked in the rain,and exposed in the sunlight.
Loading,unloading and carrying should be operated according to the packing mark.No upside down, sidelong or reversed.
1.3.5 Storage: No piling on the cabinet, the acidity,alkaline and harmful gas should accord with the environmental standard. Indoor temperature:-5°C~45°C,relative humidity≤75%

Chapter 2 Installation

2.1 Fixing element

pic2-1 expansion nut



pic2-2 nylon tie

2.2 Installation tool

During installation and fixing, churn drill,hammer,socket wrench are needed(as pic 2-3), stripper is used to strip fibers(as 2-4,2-5,2-6 etc.)

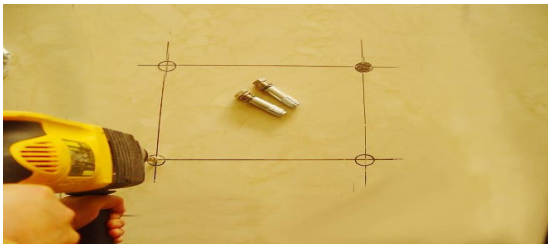
pic 2-3 socket wrench pic2-4 stripper

pic 2-5 sheath stripper pic2-6 stripper

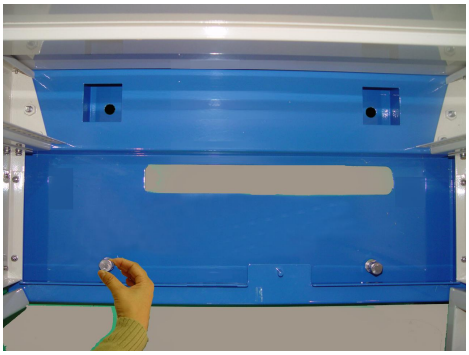
Besides above mentioned tools(wrench,screwdriver), professional single-core welding machines,zonary welding machine are needed.

2.3 Machine room installation and fixing

2.3.1 Holes should be punched in appropriate place as per the installation dimension in chapter 5.(pic 2-7 and pic 2-8)

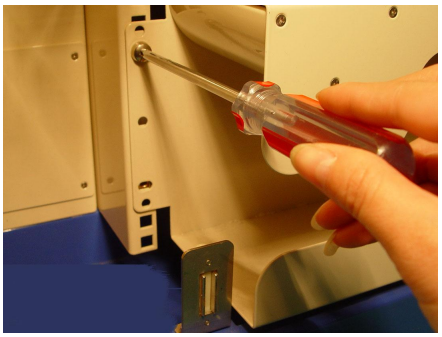


2.3.2 Put the fiber optic distribution frame to the right place,first take off the fiber management groove(as pic 2-9),then twist tight the four bolts with socket wrench(pic2-10 and 2-11)



pic 2-9 take off the fiber management groove

pic 2-10 twist bolts with hand



pic 2-11 twist bolts with socket wrench

pic 2-12 set up the fiber management groove

2.4 Installation inside cabinet

2.4 Installation in frame:

2.4.1 Installation for Adaptors & Pigtails

1. Installation of fan-out Pigtail

Draw out of one 12 cores splice tray, placed it on the table, take out of one 12 cores pigtail with adaptors (FC, SC or ST with adaptor flange) from the welding unit, press into the installation slot from up to down according to chromatographic sequence blue, orange, green, brown, gray, white, red, black, yellow, purple, pink, light blue, in turn, pay attention to adapter slot-oriented upward, the extra length of the pigtail should be stored in the 12 cores splice tray according to Figure 2-13, and bundle in the the icon location , and then insert the splice tray back in the original site;

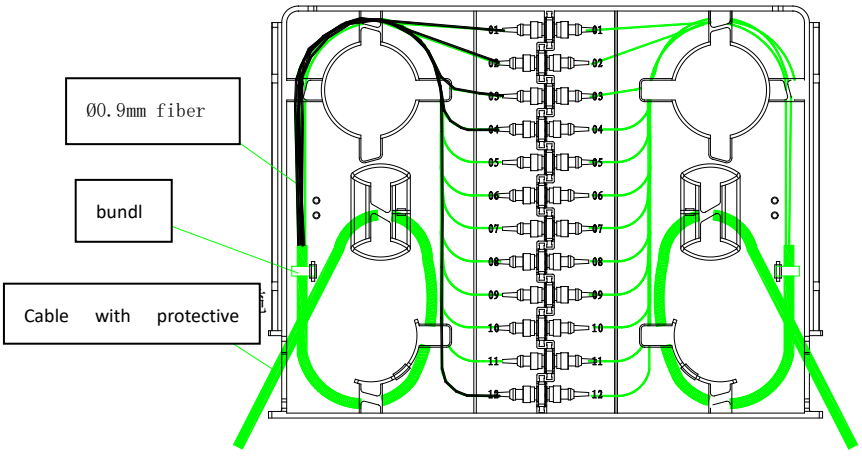


Figure 2-13 Installation for 12 cores fan-out Pigtails

2, Installation of Single Pigtail

Draw out of one 12 cores splice tray, placed it on the table, insert 12 adaptors (FC, SC or ST with adaptor flange) into 12 single connectors from the welding unit, press into the installation slot from up to down, its adaptors with letters must be upward, the extra length of the pigtail should be stored in the 12 cores splice tray according to Figure 2-14, and then insert the splice tray back in the original site;

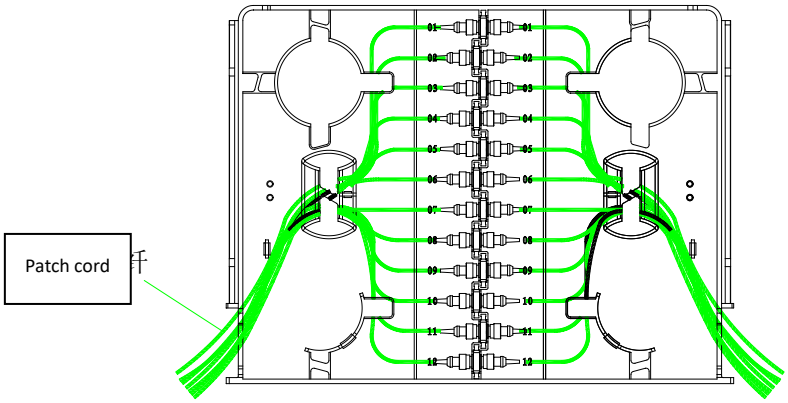


Figure 2-14 Installation of single pigtails

3. Installation of ribbon pigtail

Draw out of one 12 cores splice tray, placed it on the table, take out of one 12 cores pigtail with adaptors (FC, SC or ST with adaptor flange) from the welding unit, press into the installation slot from up to down according to chromatographic sequence blue, orange, green, brown, gray, white, red, black, yellow, purple, pink, light blue, in turn, pay attention to adapter slot-oriented upward, the extra length of the pigtail should be stored in the 12 cores splice tray according to Figure 2-15, and fix ribbon branch kit in the the icon location , and then insert the splice tray back in the original site;

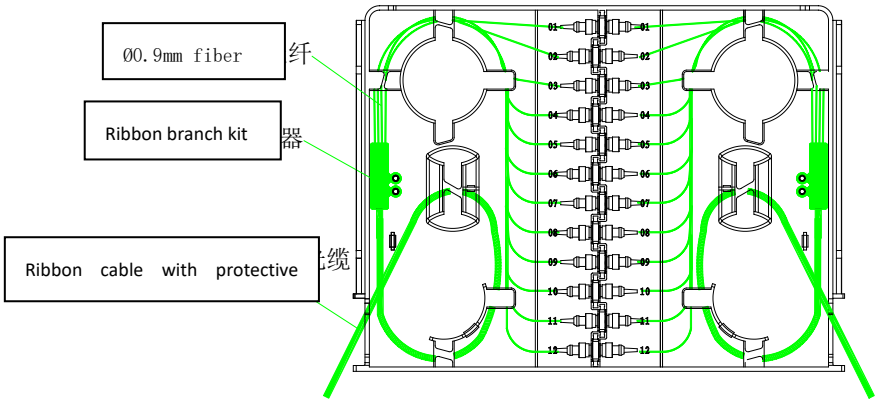


Figure 2-14 Installation of ribbon pigtails

2.5 Wire to the earth ：

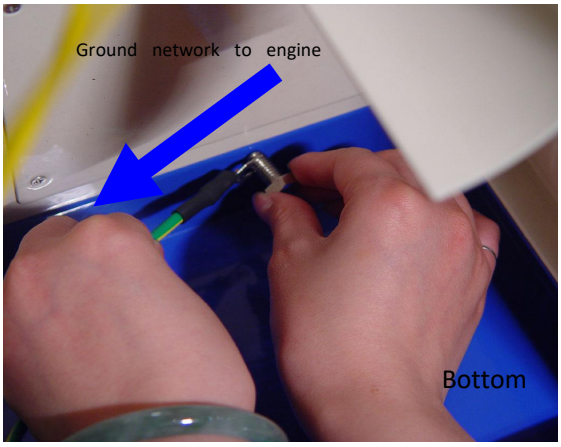


Figure 2-16 Wire to the earth

2.5.1 Protective earthing of cabinet is led from the earthing nut in the bottom or top of the cabinet to copper bar in the ground, in which, cross-sectional area of grounding line is not less than 35m ㎡, see Figure 2-16

Chapter 1 Operation and maintenance of patch cord

3.1 Operation of patch cord:

3.1.1 Proposal to select patch cord with the diameter of Φ2 (easy to manage, occupying small space) see Figure 3-1;

Figure 3-1 patch cord

3.1.2 Insert one end of the patch cord into adapter, and store the other end of the patch cord on the fiber racket, then connect with the corresponding adapter or device;

3.1.3 Schematic diagram of the installation of patch cords is as follows;

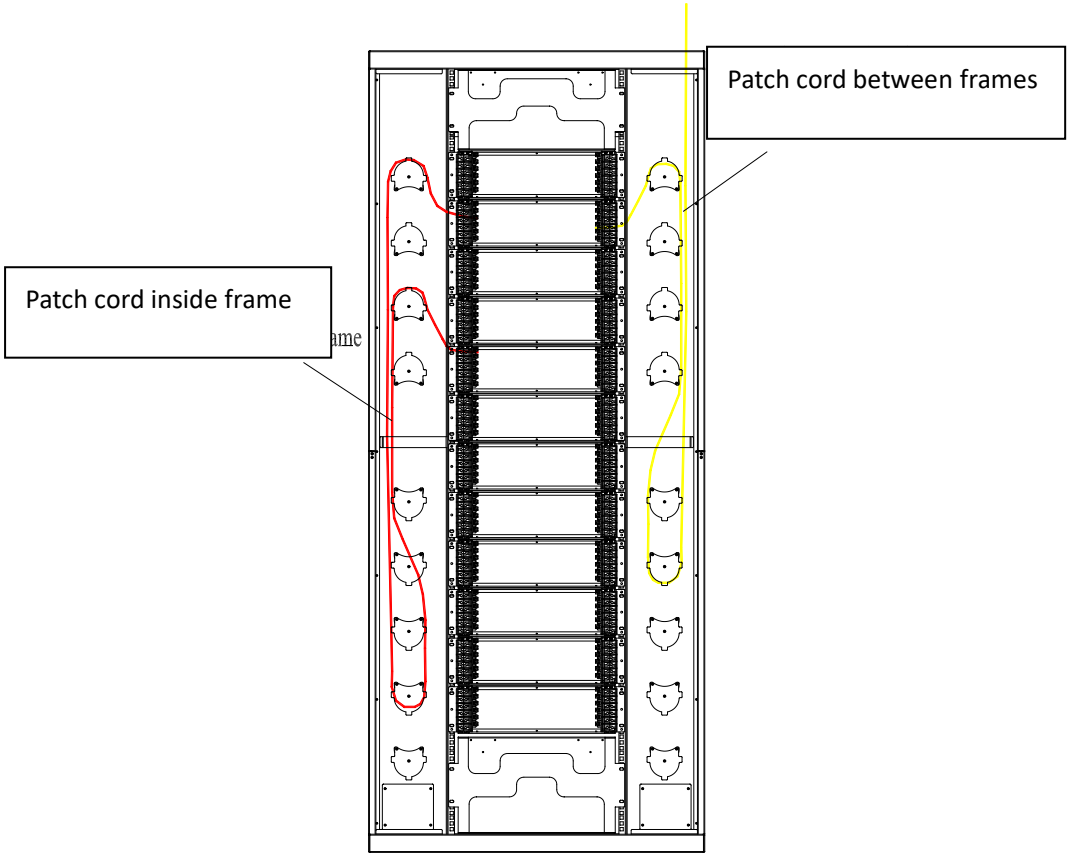


Figure 3-3 diagram of the installation of patch cords

Pay attention to ensure that pigtail free bending radius is greater than 30mm.
3.1.4 Repeat the above two steps to complete patch cord operation in the whole frame body.

3.2 Maintenance

Maintenance of this equipment Series is only part of the general maintenance, maintenance of surface cleaning and periodic inspection, the period time is taken months as the unit At the same time, when the use of this cabinet, there must be a long-term and comprehensive consideration The last of the wiring must consider if it is convenient in the next wiring , try to avoid impact for last running line. the resulting losses are not part of our company.
3.2.1 clean cabinet periodically , if heavier dust surrounding engine room space, better to shorter cleaning cycles ; If you open the cabinet ,please close the cabinet door tightly to avoid fiber damage of rats and other animals, and moisture intrusion;
3.2.2 inspect cabinet periodically, the form of inspection is visual inspection, does not allow inspection by hands or any other metal tool in wiring cabinet , so as not to affect transmission effects of patch cord, and even interrupted.
3.2.3 Check whether the ground earthing is well, over time, if it is screw rusty of high-voltage protection earthing and cabinet grounding protection earthing, if so, the users should take appropriate measures.

Chapter 2 Technical Specifications

4.1 Physical Specifications

4.1.1 Installation diagram (unit: mm)

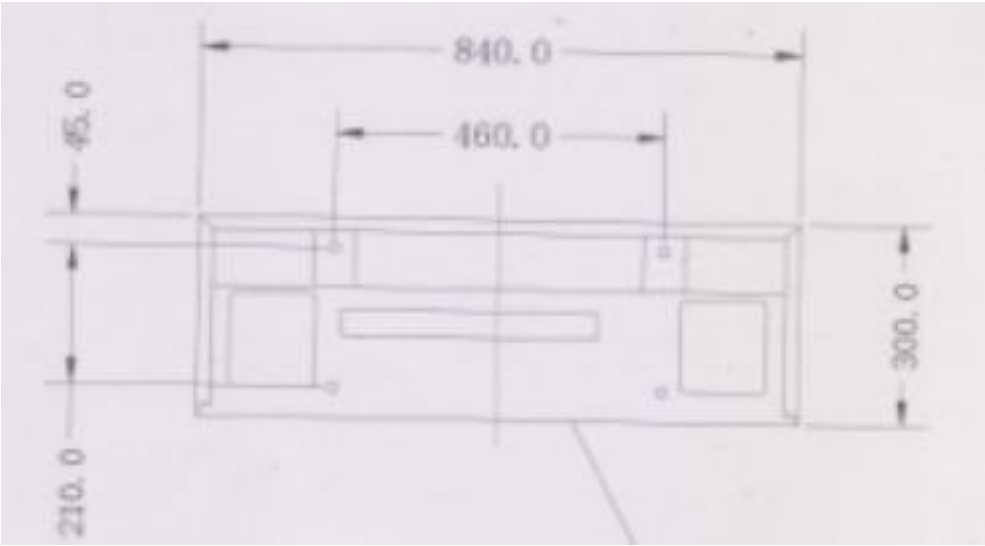


Figure 5-1 Drawing of ground mounting holes

4.1.2 Weight

Product	Specifications	Dimensions H×W×D(mm)	Weight	Remarks

1	HGPX（04）A	2600×800×450		
2	HGPX（04）C	2200×800×450		
3	HGPX（04）C	2000×800×450		

4.2 Environmental requirements:

Operating temperature: +5 ℃ ~ +40 ℃

Relative humidity: ≤ 85% (+30 ℃)

Atmospheric pressure: 70KPa ~ 106Kpa

4.3 Main technical indicators:

Insertion loss: ≤ 0.2dB

UPC Return Loss: ≥ 50dB

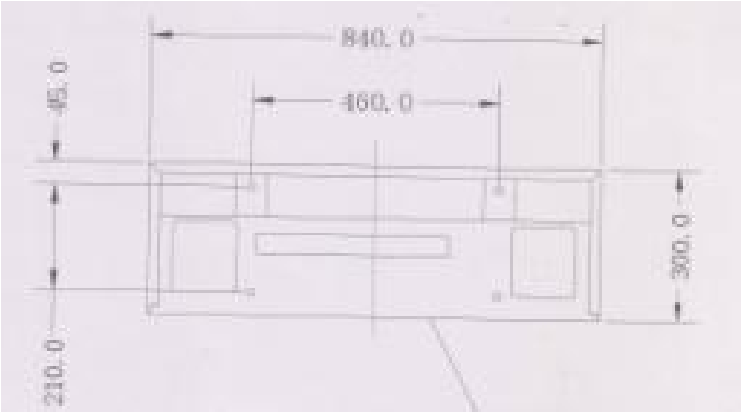
APC Return Loss: ≥ 60dB

DURABILTY of insert and plug : ＞1000

Chapter 3 Technical specification

3.1 Physical specifications

3.1.1 Installation diagram



Picture 3-1 Installation diagram

3.2 Environmental requirements

working temperature： +5℃～+40℃

Relative humidity： ≤85%（+30℃）

Atmospheric pressure：70KPa～106Kpa

3.3 Main technical specifications

Insertion loss：≤0.2dB

UPC Return loss：≥50dB

Insert and plug durability：＞1000

APC Return loss：≥60dB

3.4 Thunder protective specifications

High-pressure protection device of cabinet is insulation with cabinet's frame，Insulation resistance is not less than 1000MΩ/500V（direct current）

Withstand voltage between High-pressure protection device of cabinet and frame is not less than 3000V（direct current）/min no breakdown and no flashover.；