

Photoelectricity Hybrid Connector

SC光电复合连接器

● PHC-SC-1F2W

● Tools 辅助工具



Connector
连接器



Fiber Endface Melter
光纤熔端机



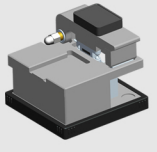
Cable jacket stripper
皮线开剥钳



Screwdriver
一字螺丝起



Cutting Jig
定长工具条



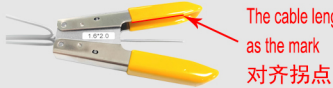
Fiber Cleaver
光纤切割刀

◆ According to the polarity requirements of on-site production, prepare the optical-electric Hybrid cable into the direction of the connector.
根据现场制作极性要求, 制备光电混合型光缆穿入连接器方向。

● Operation steps 操作步骤

【1】Strip the cable jacket 开剥光缆外皮

10cm
Tear the electric units on both sides of the fiber optic cable for 10cm and fold them backwards.
将光缆两侧电单元撕开10cm并反折。



Insert the cable into the cable jacket stripper, the cable length as the mark, press handles, draw out the cable.
将光缆穿入开剥钳, 对齐标尺开剥外皮。

【2】Strip the fiber coating 开剥涂覆层

① ② ③
Cutting jig limit.
定长工具条限位。
Strip the 250um fiber coating.
定长开剥涂覆层。

【3】Check the fiber 检查光纤是否损伤

60°
Bend the fiber to four directions of 60° to check whether damage.
用手指轻压光纤向前、后、左、右至60°, 检查光纤是否损伤。

【4】Clean the fiber 清洁光纤

Dust-free paper
无尘纸
Clean the fiber with a Dust-free paper dipped in alcohol.
用无尘纸蘸酒精清洁光纤。

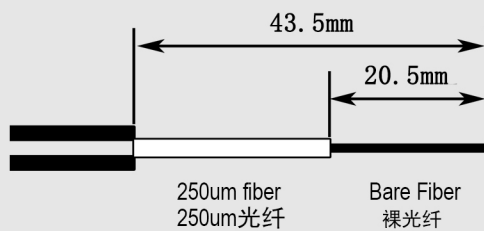
【5】Fix the fiber 固定光纤

Insert the fiber down to the slot hole.
光纤从工具条定位孔穿入。
The cable jacket must meet the cutting jig limit.
光缆切口紧贴工具条限位处。

【6】Cut the fiber 定长切割光纤

The cutting jig must meet the fiber cleaver stopper.
定长工具条紧贴切割刀定位处。

【7】Cutting length 光纤切割尺寸



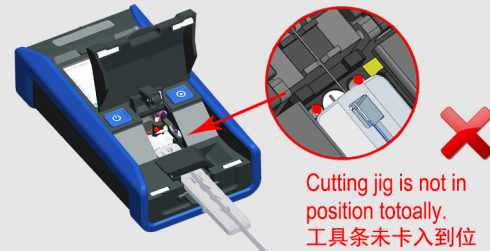
Picture shown only for reference.
仅数值参考。

【8】Power on the device 打开电源



Press the left button for a while to power on the device.
长按左键, 启动设备电源。

【9】Prepare the endface melter 熔端准备

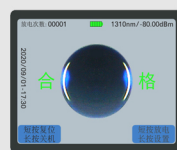


Put the cutting jig with cable on the bracket of melter, close the melter cover.
将切割好的光纤(连同工具条)放入熔端机定位托座内, 合上翻盖。

【10.1】Fiber Endface Melting Process 熔端处理

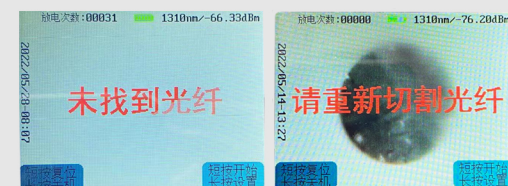


Close equipment cover, short press start button, motor propels to focus on fiber endface and inspect fiber cutting, then press start button again for arc melting and melting result evaluation.
合上设备翻盖, 短按开始键, 完成对焦; 再按下开始键, 完成熔端处理和结果判断。



As equipment cover closed, operation process starts automatically: motor auto propels to focus on fiber endface--fiber cutting inspection--arc melting--melting result evaluation.
合上设备翻盖, 光纤熔端机自动完成对焦、熔端处理、结果判断。

【10.2】Error message 告警说明



NO Fiber: error message generated when fiber prepared wrong or cutting jig is not installed properly.
未找到光纤: 光纤制备异常或工具条没有正确安装

Replace Fiber: error message generated when fiber cutting quality poor or high arc power.
请重新切割光纤: 光纤切割质量差或放电功率偏大

【11】 Remove the dust cap 取防尘帽



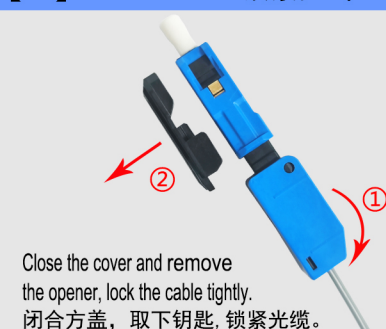
【12】 Insert the fiber 穿入光纤



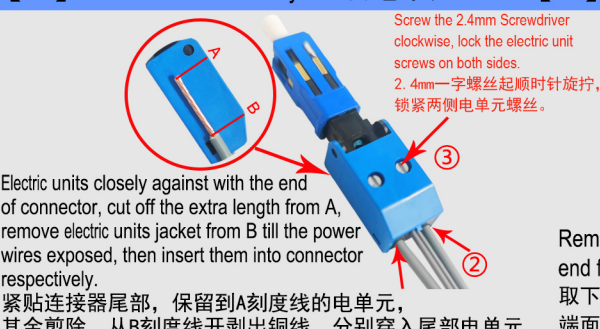
【13】 Assembly the dust cap 组装防尘帽



【14】 Lock the fiber 锁紧光纤



【15】 Electric units assembly 组装电单元



【16】 Clean the fiber end face 清洁端面

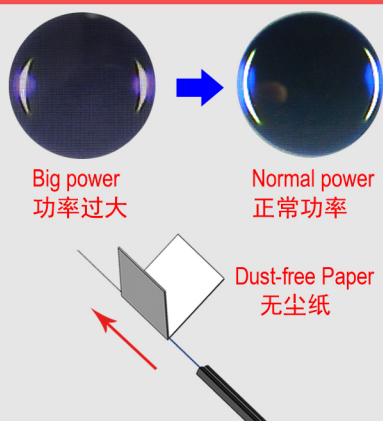


● Repeat assembly 重复开启操作



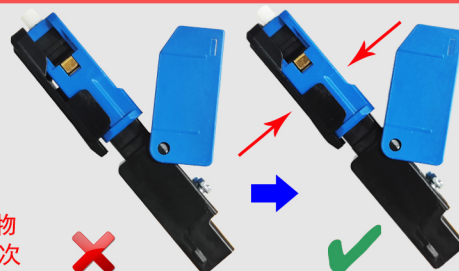
The problems may happen and solutions 现场可能遇到的问题与解决方法

1、Difficult to insert fiber 穿纤不畅



- ① Power is too big: dirty thing on the tip of the electrode caused big power, clean the electrode and empty discharge more than ten times. If still not work, decrease the discharging power according to <Fiber endface melter manual>.
功率过大导致穿纤不通：放电针针尖上有异物引起放电功率变大，清洁放电针并空放电10次以上再使用；如没有改善，则参照《熔端机说明手册》将功率调小。

- ② Dirty fiber: clean fiber carefully with dust-free paper dipped in alcohol.
光纤清洁不干净导致穿纤不通：用无尘纸蘸酒精清洁光纤。

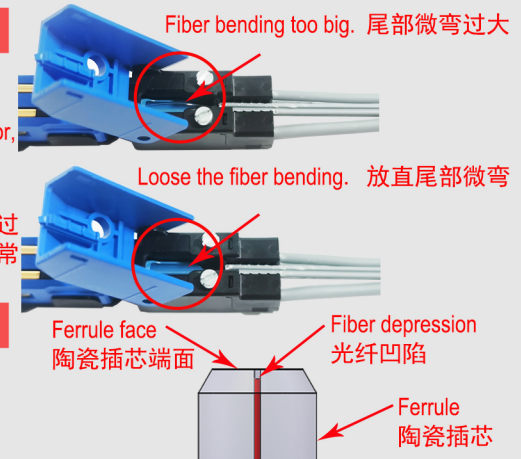


- ③ The opener is loose: Press the opener hard, make sure that the opener is in position totally.
钥匙弹出导致穿纤不通：按照如图所示正确方法压住钥匙穿纤，确保钥匙处于闭合状态。

2、High loss cause internet cannot work 光衰大无法开通

If use the same batch of fiber optic cable, no matter how to assemble, loss is still high, and the loss in 1550nm wavelength is much higher than in 1310nm, it means the batch of cable's quality does not meet the quality standard or the fiber bending in the connector tail is too large. Reduce the bending of the optical fiber at the tail of the connector, then the loss is back to normal. (If use qualified cable, no need to do this process)

若同一批次光缆，无论怎么组装光衰始终比较大，而且1550nm波段的光衰明显大于1310nm波段的光衰，则说明该批光缆质量达不到正常皮线光缆的标准或者是尾部的弯曲过大，则可以通过减小甚至放直光纤在连接器尾部形成的弯曲，则可以实现光衰的正常。（正常光缆无需如此，正常组装即可）



3、Loss is normal, but internet cannot work 光衰正常，但业务不通

If there is no OLT and ONU equipment issues, the only reason is the optical fiber is not exposed to connector ferrule, please strictly follow the steps 【12】 【13】 【14】 【15】.

光衰正常但业务开不通，如果非OLT及ONU设备原因，唯一的原因就是光纤凹陷了，请严格执行步骤【12】【13】【14】【15】。