



OPTICAL FIBER FUSION SPLICER

AI-9

# PRODUCT MANUAL

---

[www.signalfiresplicer.com](http://www.signalfiresplicer.com)

SIGNAL FIRE TECHNOLOGY CO., LTD.



OPTICAL FIBER FUSION SPLICER

# OPTICAL FIBER FUSION SPLICER




# NEW PRODUCT LAUNCH

## CLASSIC MASTERPIECE



OPTICAL FIBER FUSION SPLICER

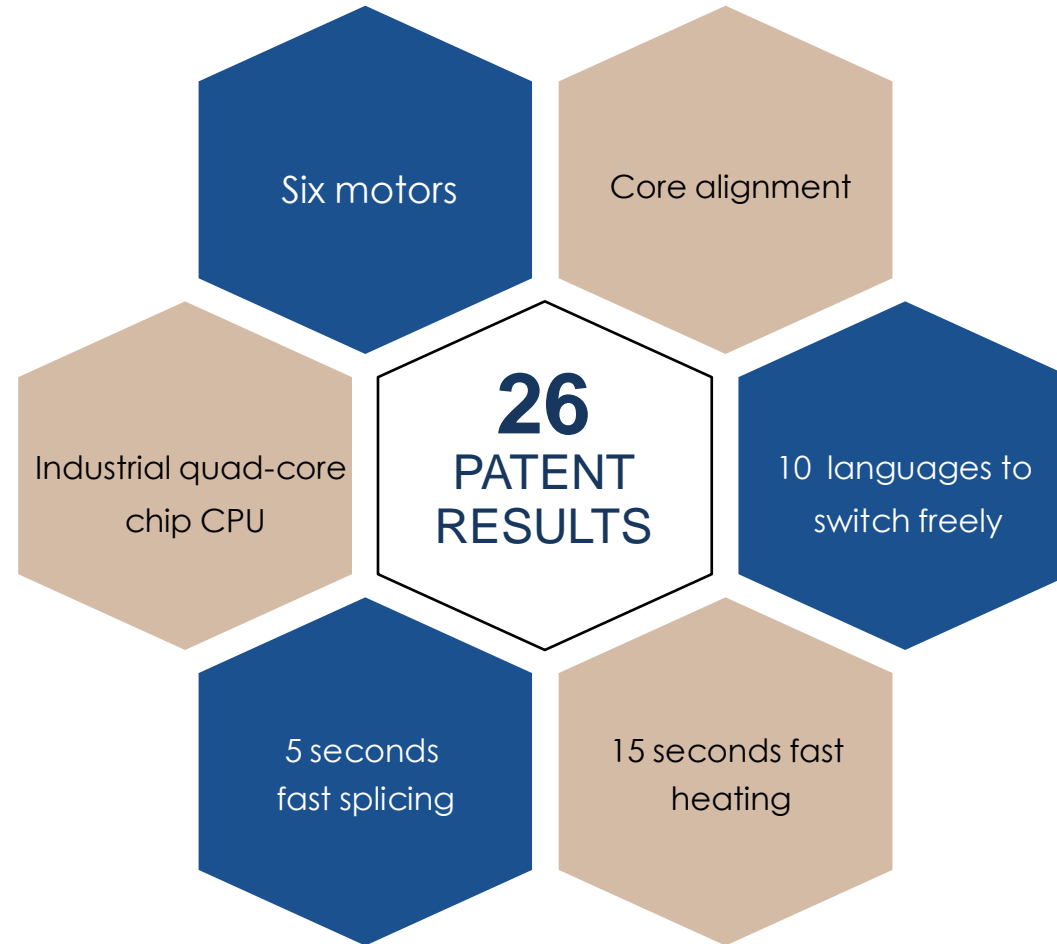


Signal Fire AI-9 use the latest core alignment technology with auto focus and six motors, it is a new generation of fiber fusion splicer. It is fully qualified with trunk construction of medium and short distance, FTTH project, security monitoring and other fiber cable splicing projects. The machine uses industrial quad-core CPU, fast response, is currently one of the fastest fiber splicing machine in the market; with 5-inch 800X480 high-resolution screen, the operation is simple and intuitively; and up to 300 times focus magnifications, making it is very easy to observe the fiber with naked eyes. 5 seconds speed core alignment splicing, 15 seconds heating, the working efficiency increased by 50% compared to ordinary splicing machines. Under the conditions of rigorous testing, the performance is still outstanding; toolbox is small, exquisite, durable, and with unique bench design. The design of operating platform reflects the humanistic care; unique lighting design, it is convenient for night construction or repair. Screen brightness is adjustable and it is convenient for outdoor sunshine environment operation. The core parts are using imported brands, aviation metal body material with exquisite details. With the combination of advanced technology and design, the new generation of optical fiber fusion splicer will bring you a reliable and comfortable user experience.

# MASTERPIECE HIGH-END LUXURY



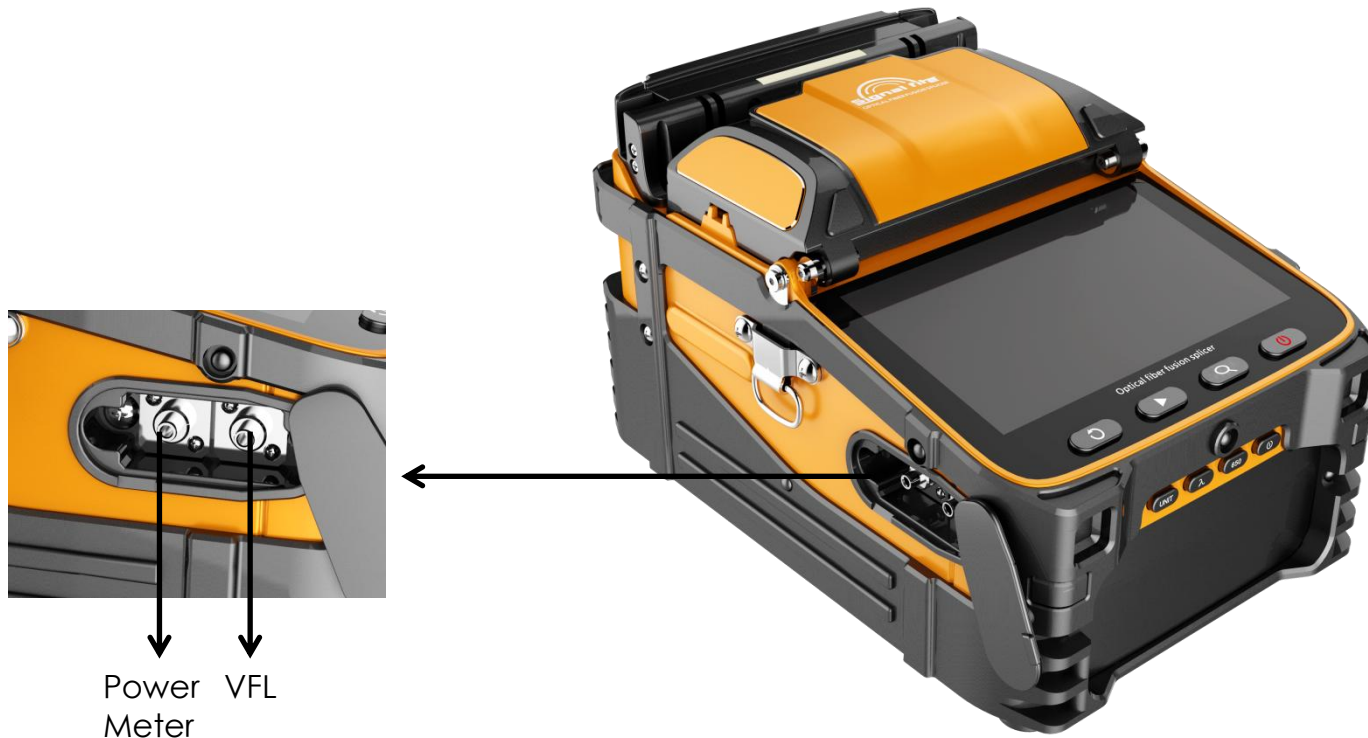
OPTICAL FIBER FUSION SPLICER



# METAL BODY AESTHETIC DETAILS



OPTICAL FIBER FUSION SPLICER



Power Meter  
VFL Meter

VFL: Always on / flashing / off

Power Meter:

850nm/1300nm/1310nm/1490nm

/1550nm/1625nm Six states

## BUILT-IN POWER METER AND VFL

Effectively measure connection loss, verify continuity, and help assess fiber link transmission quality.

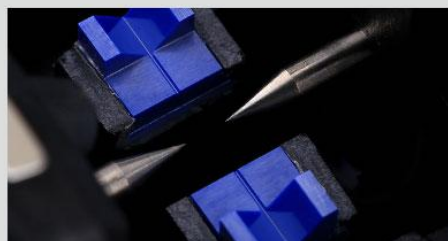
# METAL BODY AESTHETIC DETAILS



OPTICAL FIBER FUSION SPLICER

## PRODUCT DETAILS

Factory Address: No.52 Gaoqiang Zone, Jiaxing Industrial Park, Qingyang District, Chengde, China. Factory Address: No.27 Gaoqiang Zone, Jiaxing Industrial Park, Qingyang District, Chengde, China.



## EXQUISITE DETAILS

Factory Address: No.52 Gaoqiang Zone, Jiaxing Industrial Park, Qingyang District, Chengde, China. Factory Address: No.27 Gaoqiang Zone, Jiaxing Industrial Park, Qingyang District, Chengde, China.



# THE TOOLBOX

COMES WITH A STOOL TO FACILITATE THE CONSTRUCTION WORKERS.



OPTICAL FIBER FUSION SPLICER



Stool can bear 100KG

Remove the stool



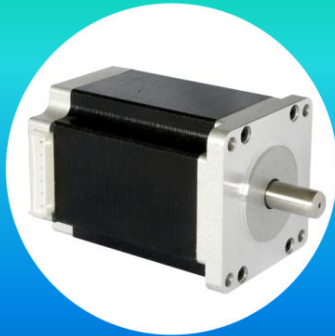
Do not need to take out the splicer machine from the toolbox while working.

Fiber cleave operator station



Two layers

# CORE PARTS QUALITY ASSURANCE



Siemens stepper motor



Roth ROUST linear guide



Sanyo lithium battery



Aviation metal material



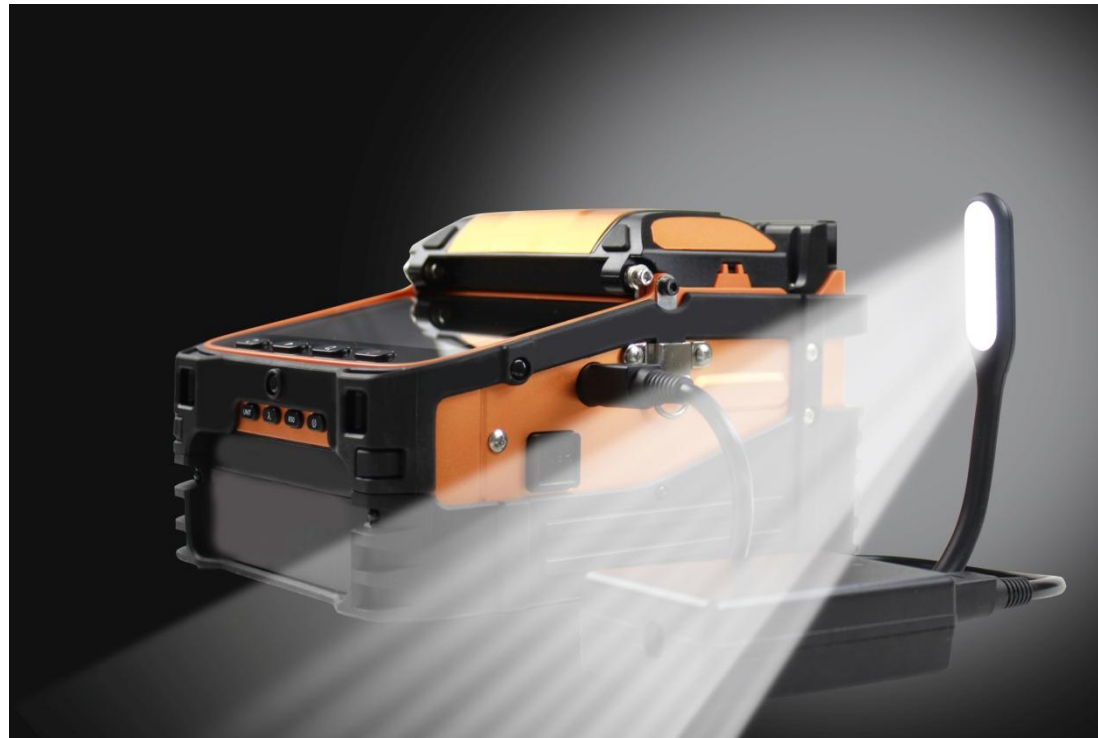


OPTICAL FIBER FUSION SPLICER

# Lighting for splicer



Convenient for night operation



# Can charge the phone



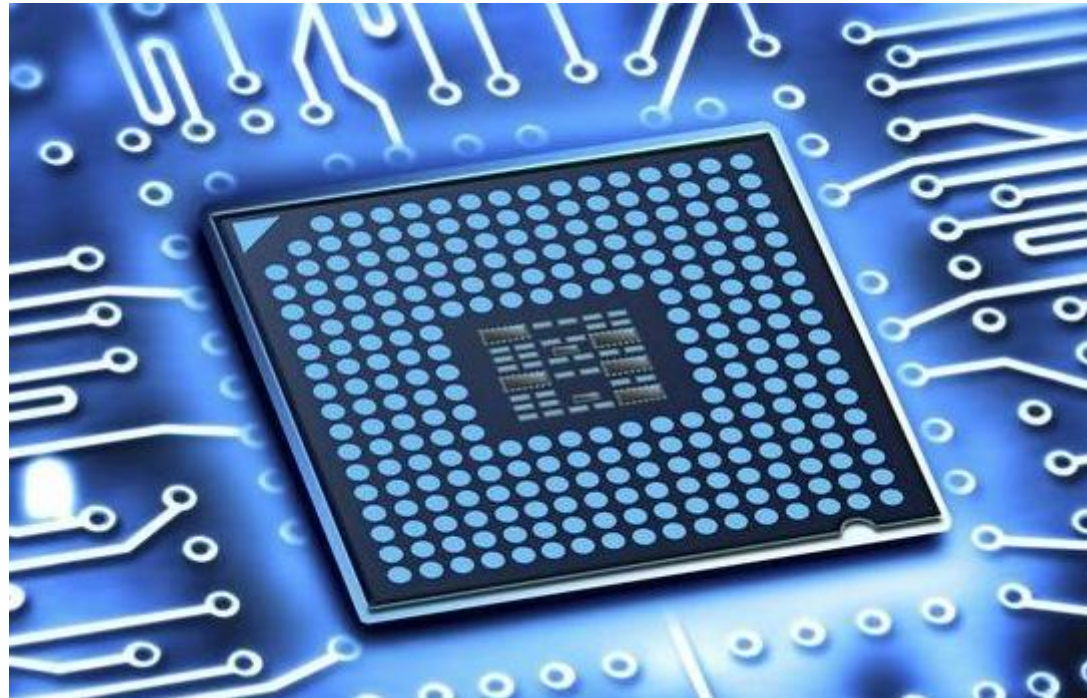
Avoid the use of outdoor construction mobile phones without electricity



# INDUSTRIAL QUAD-CORE CHIP CPU

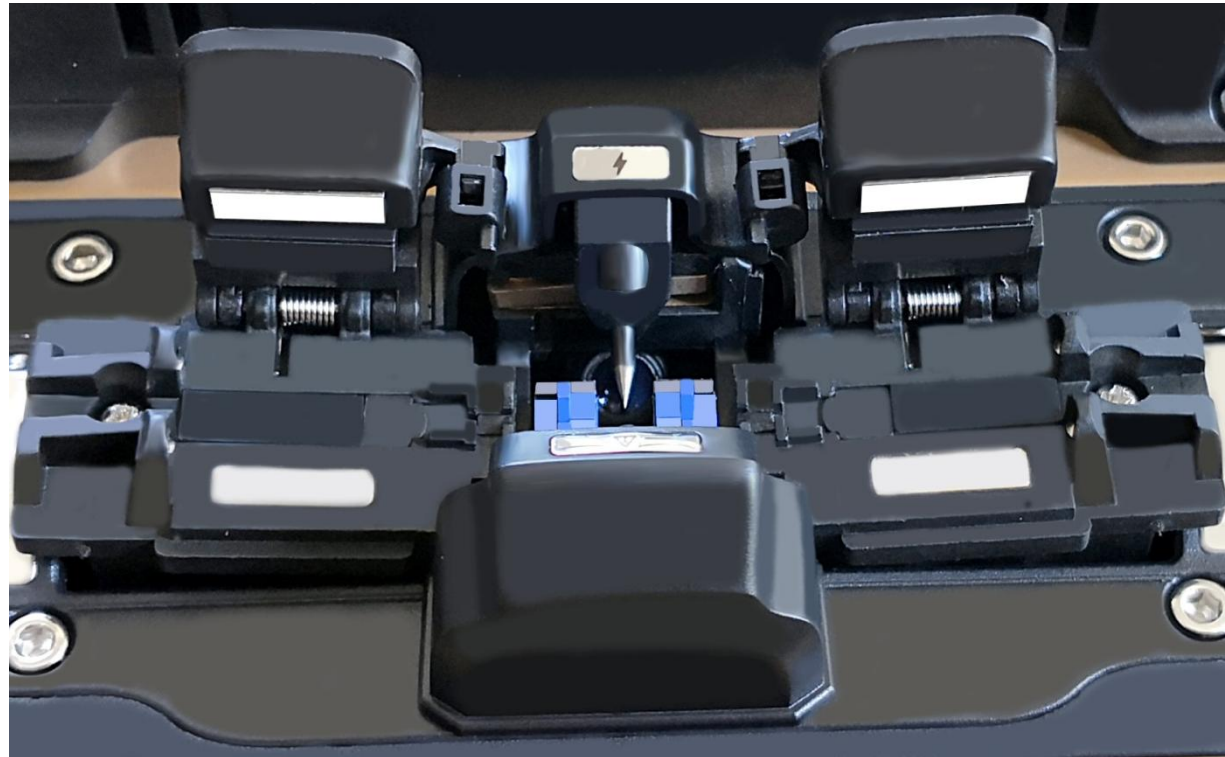
---

Synchronous operation / speed response / no jammed / super experience



# 3 IN 1 FIBER HOLDER

SM, MM, bare fiber, pigtail, rubber-insulated, multi fiber cable





OPTICAL FIBER FUSION SPLICER

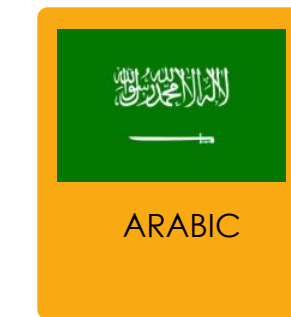
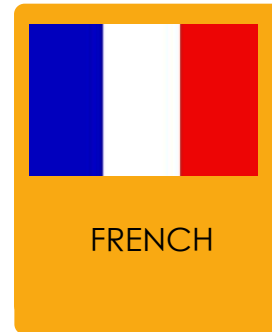
# 7800mAh LARGE CAPACITY BATTERY

charging time  $\leq$  3.5 hours/continuous splicing and heating about 260 times



# 10 LANGUAGES TO SWITCH FREELY

Covers the global major user market



# Show good performance in plateau, desert, and extreme cold environment

---



OPTICAL FIBER FUSION SPLICER



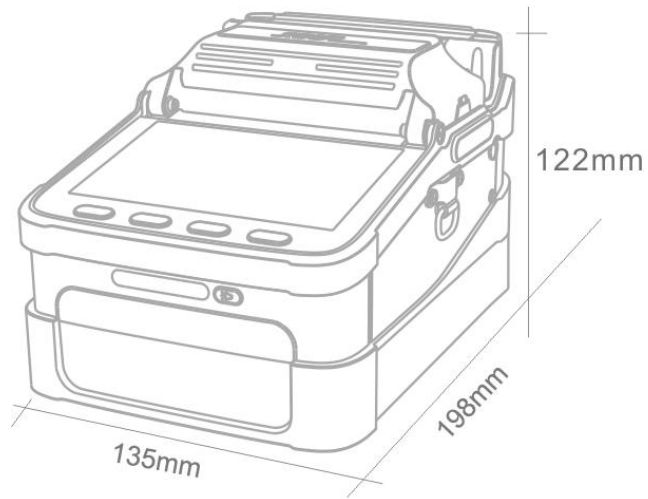
# BASIC PARAMETER



|                               |   |                                |   |
|-------------------------------|---|--------------------------------|---|
| <b>Fiber alignment</b>        | Core/cladding alignment / Manual alignment                            | <b>Language Setting</b>        | 10 languages to switch freely   |
| <b>Splicing time</b>          | 5S  | <b>Tension Test</b>            | Standard 2N   |
| <b>Heating time</b>           | 15S   | <b>Fiber holders</b>           | 3 in 1 fiber holder, SM, MM, bare fiber, pigtail, rubber-insulated, multi fiber cable   |
| <b>Heating mode</b>           | Automatic heating ( Preheating )                                      | <b>Magnification</b>           | 300 for X or Y view, 150 for X or Y view  |
| <b>Focus mode</b>             | Six motors Auto focus   | <b>Screen</b>                  | 5 inch TFT color display  |
| <b>Applicable Fibers</b>      | SM(G.652&G.657)、MM ( G.651 ) 、DS(G.657)、NZDS ( G.655 )                | <b>Splicing Mode</b>           | Normal / high precision splicing  |
| <b>Splice Loss</b>            | 0.025dB ( SM ) 、 0.01dB ( MM ) 0.04dB ( DS/NZDS )                     | <b>Splicing method</b>         | Fully automatic、 Step by step splicing  |
| <b>Control technology</b>     | Real-time control and calibration of fusion ARC                       | <b>Splicing record storage</b> | Synchronize to the phone, the server to cloud storage unlimited   |
| <b>Return loss</b>            | Better than 60DB  | <b>Built-in battery</b>        | 7800 mA high-capacity lithium battery, charging time ≤ 3.5 hours, continuous splicing and heating about 260 times                 |
| <b>Fiber diameter</b>         | Cladding Diameter : 80-150μm<br>Coating Diameter : 100-1000μm         | <b>Power supply</b>            | Input AC100-240V 50 / 60HZ, output DC13.5V / 4.8A, the current power mode can be identified, real-time detection of battery power |
| <b>Fiber Cleave Length</b>    | Coating less than 250μm : 8-16mm<br>Coating less than 250-1000μm:16mm | <b>Operating Conditions</b>    | Temperature -15 ~ +50 °C, humidity: <95% RH (no condensation)<br>Working altitude: 0 ~ 5000m. Resist max. wind speed: ≤ 15m / s   |
| <b>Software update Length</b> | Automatically update、 Update by a key                                 | <b>Shrinkable tube</b>         | 60mm、 50mm、 40mm、 25mm  |
| <b>Boot time</b>              | 1 second  | <b>Product protection</b>      | Waterproof, dust proof, shock-resistant   |

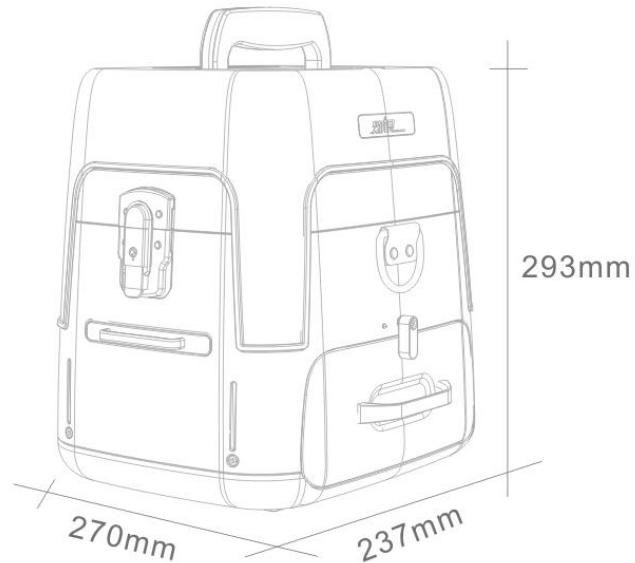


# Size



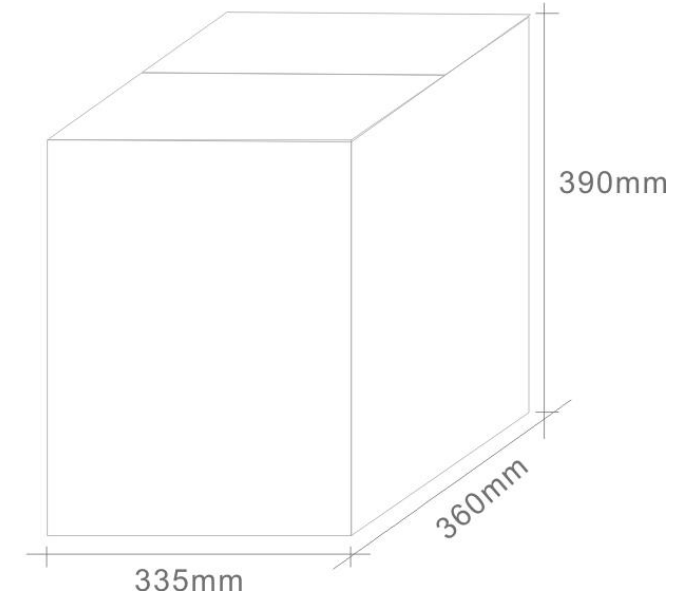
## Machine weight

2.08kg (with battery)  
1.60kg (without battery)



## Toolbox weight

7.1kg (including machine and accessories)



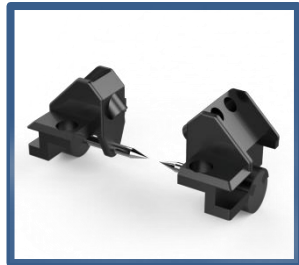
## Total weight

8.40kg

# Accessories in the tool box



Fiber Cleaver



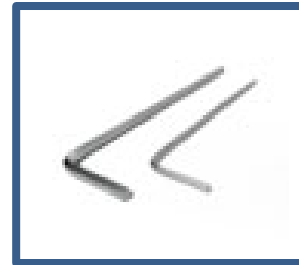
Spare electrode



Wire stripping pliers



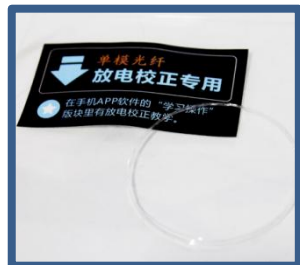
Miller stripper



Hex key



carrying case



Fiber for  
ARC calibration



Strap



Power Adapter



Alcohol Bottle



Brush



User's manual  
Quality Certificate  
Warranty Card



OPTICAL FIBER FUSION SPLICER

# ABOUT US



Signal Fire Technology Co.,Ltd. Is A High-Tech Enterprise Which Is Specialized In Research And Development, Production And Sales Of Communications Products. The Main Products Are Automatic Intelligent Optical Fiber Fusion Splicer, Optical Time Domain Reflectometer (OTDR), Light Power Meter, Optical Cable Construction Tools Equipment, Fiber Fusion And Taper Equipment, Optical Cable Blowing Machine Etc. Our Products Are Widely Used In China Telecom, China Mobile, China Unicom, Broadcasting, Electricity, Railways, Petrochemical, Military, Coal Industry, Research Institutions And Other Fields.



Our Company Has A Modern Production Plant And Standardized Office Buildings, With A Total Area Of Nearly 6,000 Square Meters, About 380 Employees, Including 10 Senior Engineers, 12 Master's Degree Or Above, Bachelor Degree Or Above Accounted For 45%.

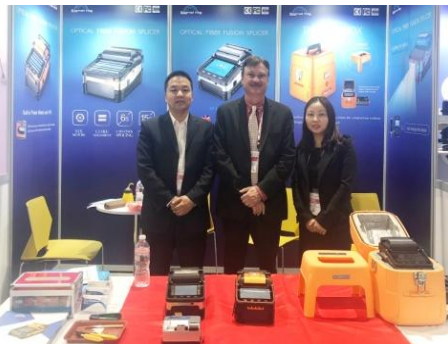
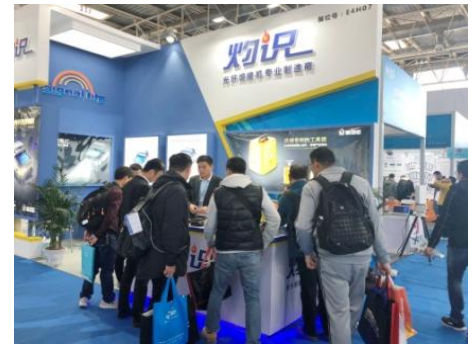
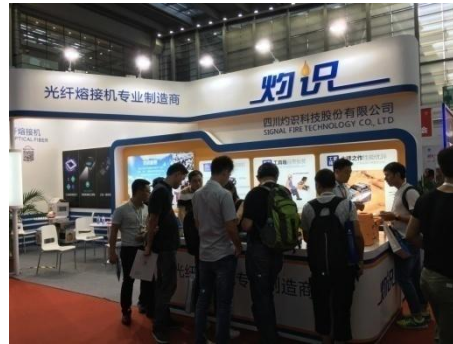
# ABOUT US



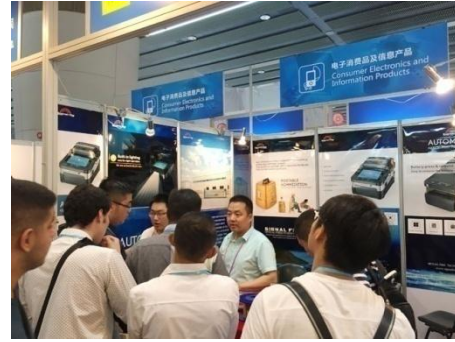
Our Company Owns Independent Intellectual Property Rights For Signal Fire Automatic Intelligent Optical Fiber Fusion Splicer And Its Related Products. Our Products Have Been Sold To Many Countries And Regions, Including North America, South America, Europe And Southeast Asia Etc, Our Products Have Gained Highly Praise From Customers.



# EXHIBITION PHOTOS



# EXHIBITION PHOTOS





We obtained PCT patents, 8 invention patents, 16 utility model patents, and 2 appearance patents.

专利合作条约  
PCT  
国际检索报告  
(PCT 第 18 条和细则 43 和 44)

|                            |   |
|----------------------------|---|
| 申请人或代理人的档案号<br>LZP18005    | 发明名称<br>见 PCT/ISA220 国际检索报告第 5 项        |
| 国际申请号<br>PCT/CN2016/096816 | 国际申请日 (日/月/年)<br>16.7.2016 (16.07.2016) |
| 申请人<br>罗春晖 等               | 最早的优先权日 (日/月/年)                         |

按照第 18 条, 本国际检索报告由本国际检索单位发出并送交申请人。报告副本送交国际局。  
本国际检索报告总计 5 页。  
 它还有本报告中引用的各现有技术文件的副本。

1. 报告的基础  
a 关于语言, 进行国际检索基于:  
 国际申请提交时使用的语言。  
 该国际申请的\_\_\_\_语言译文, 为了国际检索的目的提供该种语言的译文(细则 12.2(a) 和 25.1(b))。  
b  本国际检索报告考虑了本单元许可或被通知的检索细则中所做出的明显错误更正。(细则 43.6 之二 (a))  
c  关于国际申请公开的任择性数据和/或数据序列(见第 1 栏)。  
d  某些权利要求被认为不能检索的(见第 11 栏)。

2. 缺乏发明的单一性(见第 111 栏)。

3. 关于发明名称。  
 同意申请人提出的发明名称。  
 发明名称由本单元确定如下:

4. 关于摘要。  
 同意申请人提出的摘要。  
 根据细则 38.2(b), 摘要由本单元制定, 如第 IV 栏中所示。自本国际检索报告发文日起一个月内, 申请人可以向本单元提出意见。

5. 关于附图。  
a 随摘要一起公布的附图是: 图 1  
 按照申请人提交的。  
 由本单元选择的, 因为申请人没有建议一幅图。  
 由本单元选择的, 因为该图能更好地表示发明的特征。  
b.  没有与摘要一起公布的附图。

PCT/ISA210 (截至 1 月) (2015 年 1 月)

1/5

证书号第 3147253 号

实用新型专利证书

实用新型名称: 一种用于光纤熔接机的电极座

发明人: 罗春晖

专利号: ZL 2013 2 0219700.0

专利申请日: 2013 年 04 月 26 日

专利权人: 罗春晖

授权公告日: 2013 年 09 月 04 日

本实用新型经过本局依照中华人民共和国专利法进行初步审查, 决定授予专利权, 颁发本证书并在专利登记簿上予以登记。专利权自授权公告之日起生效。  
本专利的专利权期限为十年, 自申请日起算。专利权人应当依照专利法及其实施细则规定缴纳年费。本专利的年费应当在每年 04 月 26 日前缴纳。未按照规定缴纳年费的, 专利权应当自缴纳年费期满之日起终止。  
专利证书记载专利权登记的法律状况, 专利权的转移、质押、无效、终止、恢复和专利权人的姓名或名称、国籍、地址变更等事项记载在专利登记簿上。

局长 田力善

第 1 页 (共 1 页)

证书号第 2046249 号

发明专利证书

发明名称: 手机控制光纤熔接机的方法以及实现该方法的熔纤熔接机

发明人: 罗春晖

专利号: ZL 2014 1 0192764.5

专利申请日: 2014 年 05 月 08 日

专利权人: 罗春晖

授权公告日: 2016 年 04 月 27 日

本发明经过本局依照中华人民共和国专利法进行审查, 决定授予专利权, 颁发本证书并在专利登记簿上予以登记。专利权自授权公告之日起生效。  
本专利的专利权期限为二十年, 自申请日起算。专利权人应当依照专利法及其实施细则规定缴纳年费。本专利的年费应当在每年 03 月 08 日前缴纳。未按照规定缴纳年费的, 专利权应当自缴纳年费期满之日起终止。  
专利证书记载专利权登记的法律状况, 专利权的转移、质押、无效、终止、恢复和专利权人的姓名或名称、国籍、地址变更等事项记载在专利登记簿上。

局长 申长雨

第 1 页 (共 1 页)

证书号第 3964676 号

外观设计专利证书

外观设计名称: 光纤熔接机工具箱

设计人: 罗春晖

专利号: ZL 2016 3 0402585.X

专利申请日: 2016 年 08 月 19 日

专利权人: 四川均识科技股份有限公司

授权公告日: 2016 年 12 月 07 日

本外观设计经过本局依照中华人民共和国专利法进行初步审查, 决定授予专利权, 颁发本证书并在专利登记簿上予以登记。专利权自授权公告之日起生效。  
本专利的专利权期限为十年, 自申请日起算。专利权人应当依照专利法及其实施细则规定缴纳年费。本专利的年费应当在每年 08 月 19 日前缴纳。未按照规定缴纳年费的, 专利权应当自缴纳年费期满之日起终止。  
专利证书记载专利权登记的法律状况, 专利权的转移、质押、无效、终止、恢复和专利权人的姓名或名称、国籍、地址变更等事项记载在专利登记簿上。

局长 申长雨

第 1 页 (共 1 页)



# SERVICE COMMITMENT



## **Five years warranty, but these circumstances are not within the scope of this provision.**

- 01.Except for the cleaver, miller clamp, stripping pliers, fiber holders and other tools whose life depends on the frequency of use and the use of the environment. Also electrodes are consumption material which are not in the warranty.
- 02.Battery and power adapter are warranty for one year, it is in free warranty where it is damaged or can not be charged in one year.