



OPTICAL FIBER FUSION SPLICER

AI-8C

# PRODUCT MANUAL

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

SIGNAL FIRE TECHNOLOGY CO., LTD.

Vector Illustration

Vector Illustration

M A P

M A P



OPTICAL FIBER FUSION SPLICER

# OPTICAL FIBER FUSION SPLICER



supereyes.ru  
УПРЕПАВІС

# NEW PRODUCT LAUNCH

## CLASSIC MASTERPIECE



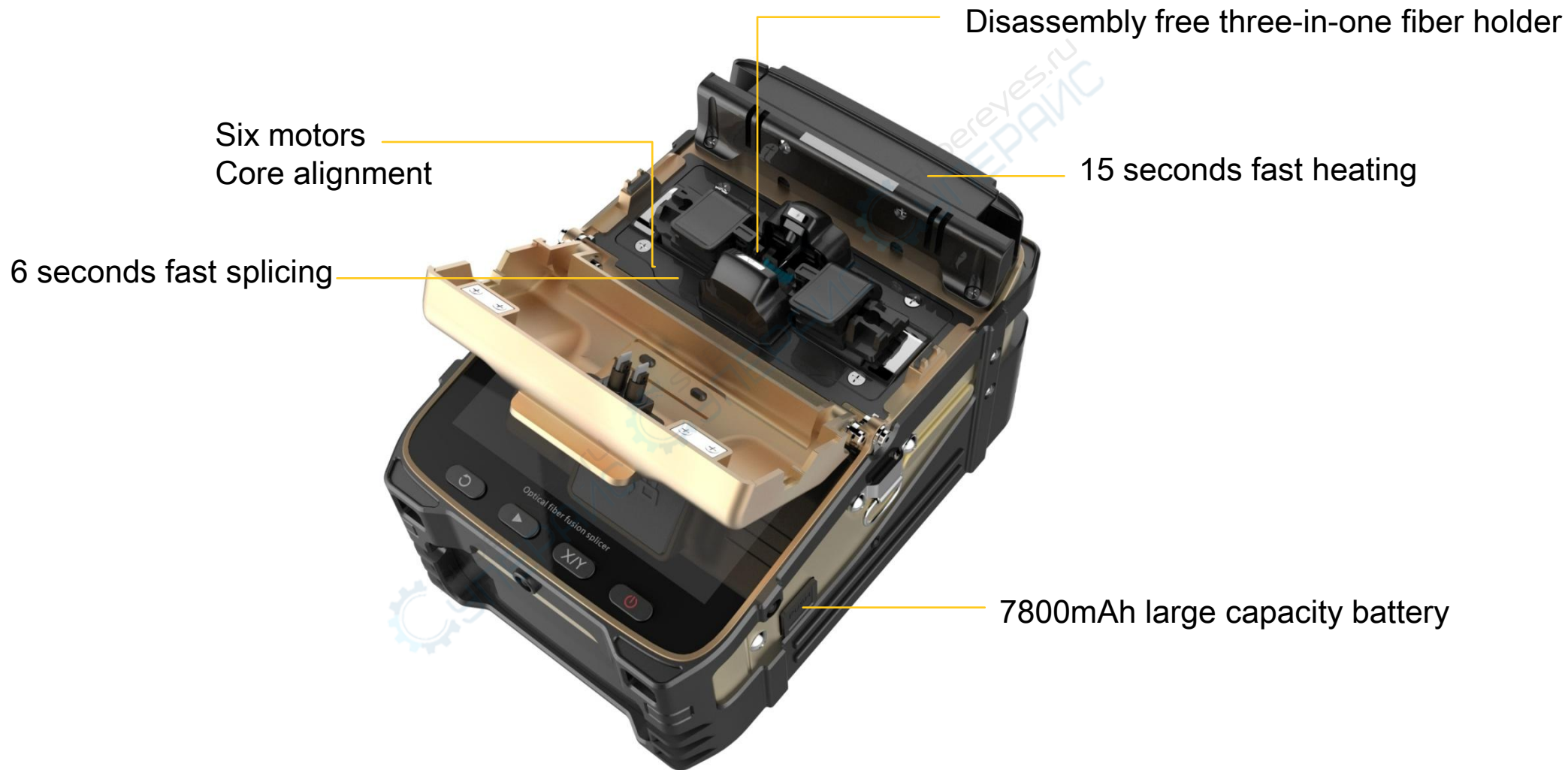
OPTICAL FIBER FUSION SPLICER

Signal Fire AI-8C 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. 6 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

• 26 patent results

Automatic heating

5 inch display Simultaneously  
align fibers Loss display

Protective case



300 times magnification  
auto focus

# METAL BODY

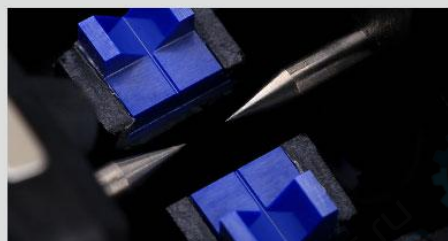
## AESTHETIC DETAILS



OPTICAL FIBER FUSION SPLICER

### PRODUCT DETAILS

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



### EXQUISITE DETAILS

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



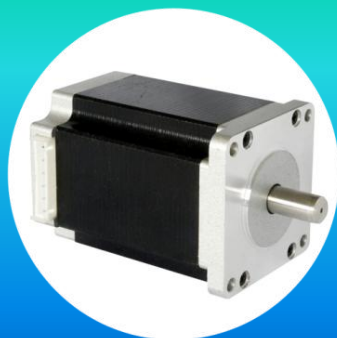
Do not need to take out the splicer machine from the toolbox while working.

Fiber cleave operator station



Two layers

# CORE PARTS QUALITY ASSURANCE



Siemens stepper motor



Roth ROUST linear guide



Sanyo lithium battery



Aviation metal material



# Lighting for splicer

Convenient for night operation



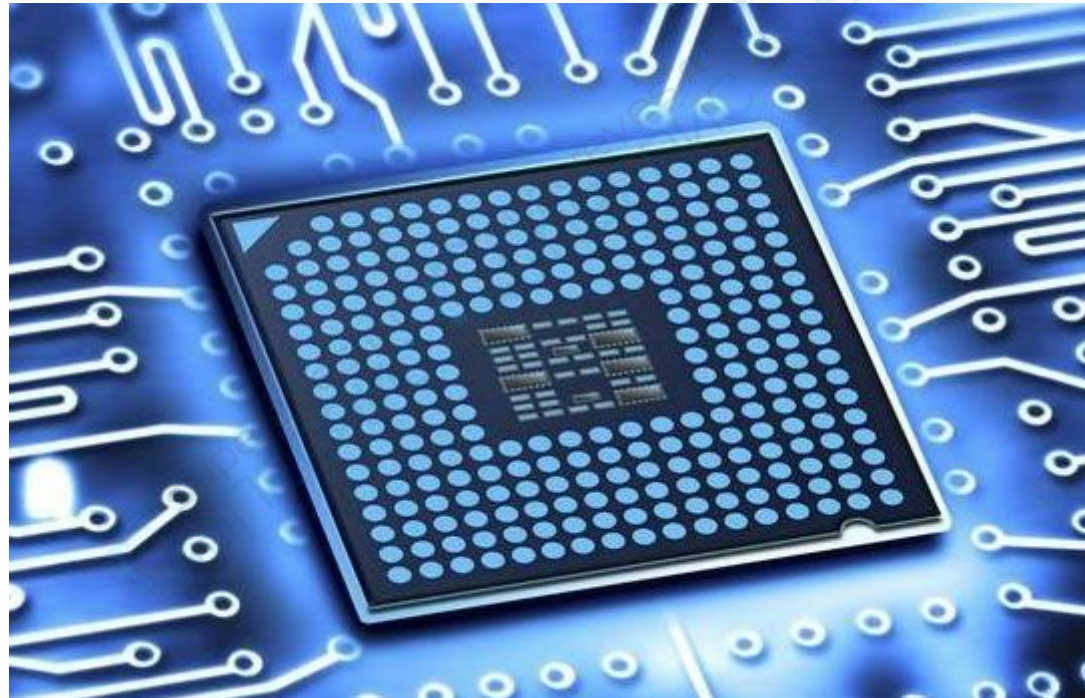
# Can charge the phone

Avoid the use of outdoor construction mobile phones without electricity



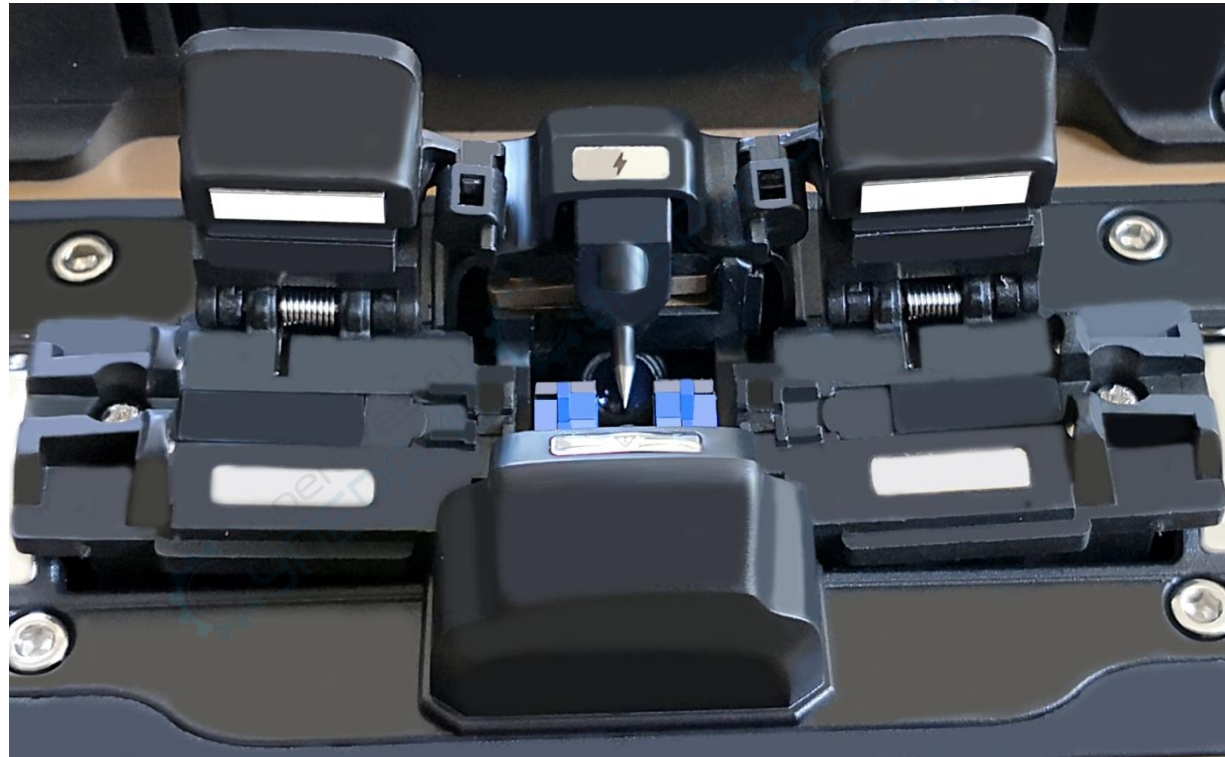
# INDUSTRIAL QUAD-CORE CHIP CPU

Synchronous operation / speed response / no jammed / super experience



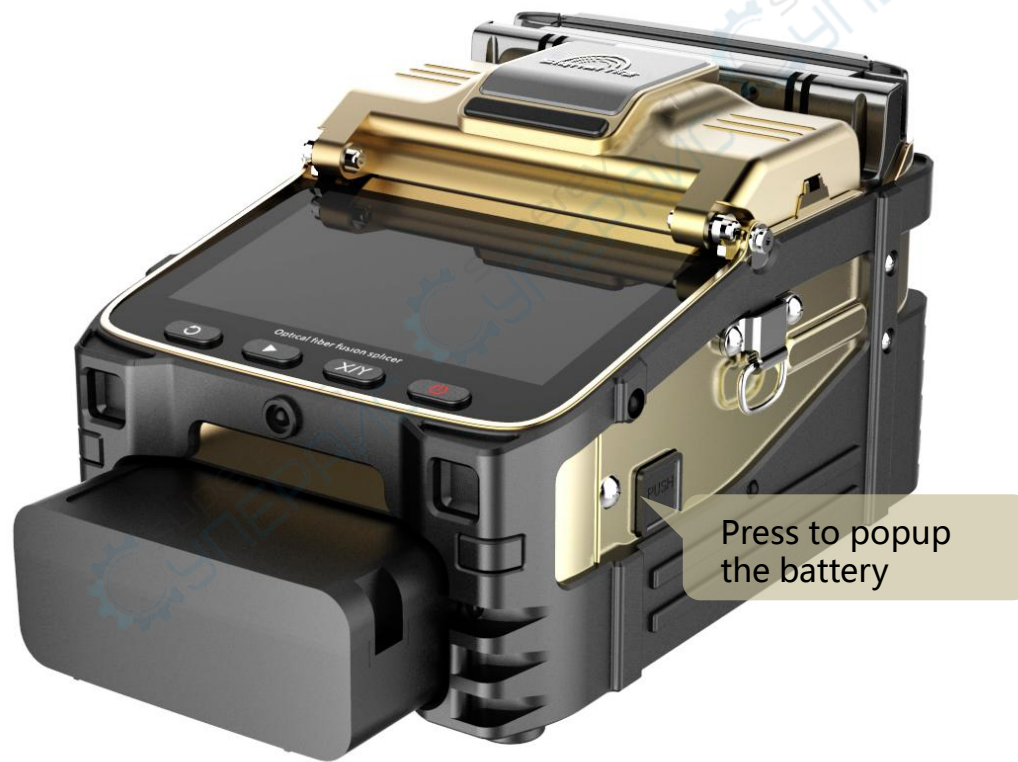
# 3 IN 1 FIBER HOLDER

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



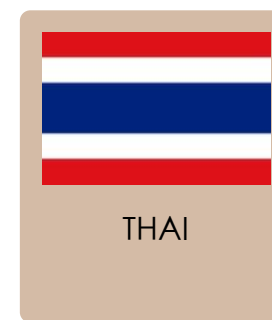
# 7800mAh LARGE CAPACITY BATTERY

charging time  $\leq$  3.5 hours/continuous splicing and heating about 240 times



# 10 LANGUAGES TO SWITCH FREELY

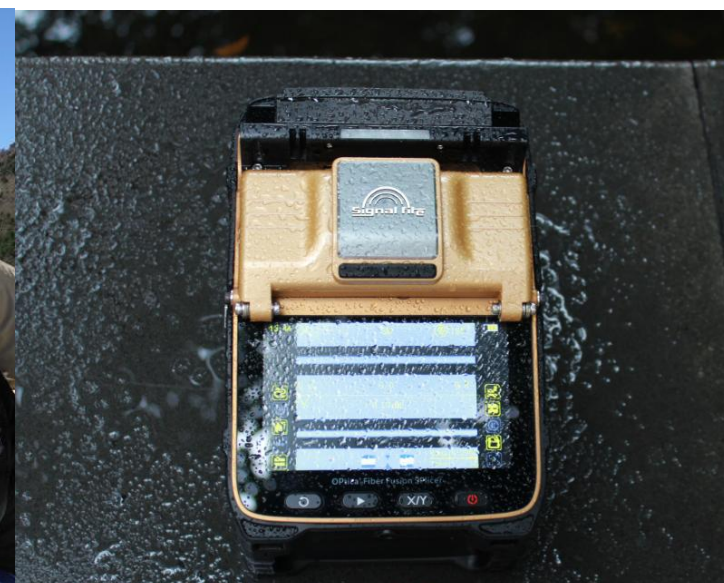
Covers the global major user market



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



OPTICAL FIBER FUSION SPLICER



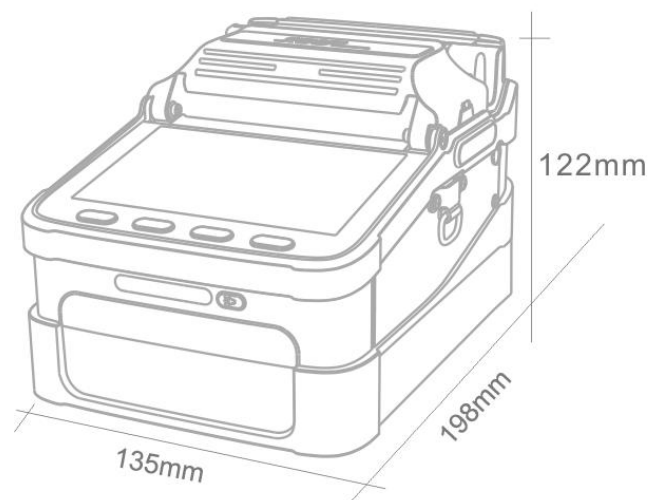
# BASIC PARAMETER



Fiber alignment	Core/cladding alignment / Manual alignment	Language Setting	10 languages to switch freely
Splicing time	6S	Tension Test	Standard 2N
Heating time	15S	Fiber holders	3 in 1 fiber holder, SM, MM, bare fiber, pigtail, rubber-insulated, multi fiber cable
Heating mode	Automatic heating ( Preheating )	Magnification	300 for X or Y view, 150 for X or Y view
Focus mode	Six motors Auto focus	Screen	5 inch TFT color display
Applicable Fibers	SM(G.652&G.657)、MM ( G.651 ) 、DS(G.657)、NZDS ( G.655 )	Splicing Mode	Normal / high precision splicing
Splice Loss	0.025dB ( SM ) 、 0.01dB ( MM ) 0.04dB ( DS/NZDS )	Splicing method	Fully automatic、 Step by step splicing
Control technology	Real-time control and calibration of fusion ARC	Splicing record storage	Synchronize to the phone, the server to cloud storage unlimited
Return loss	Better than 60DB	Built-in battery	7800 mA high-capacity lithium battery, charging time $\leq 3.5$ hours, continuous splicing and heating about 240 times
Fiber diameter	Cladding Diameter : 80-150 $\mu$ m Coating Diameter : 100-1000 $\mu$ m	Power supply	Input AC100-240V 50 / 60HZ, output DC13.5V / 4.8A, the current power mode can be identified, real-time detection of battery power
Fiber Cleave Length	Coating less than 250 $\mu$ m : 8-16mm Coating less than 250-1000 $\mu$ m:16mm	Operating Conditions	Temperature -15 ~ +50 $^{\circ}$ C, humidity: <95% RH (no condensation) Working altitude: 0 ~ 5000m. Resist max. wind speed: $\leq 15$ m / s
Software update Length	Automatically update、 Update by a key	Shrinkable tube	60mm、 50mm、 40mm、 25mm
Boot time	1 second	Product protection	Waterproof, dust proof, shock-resistant



# Size



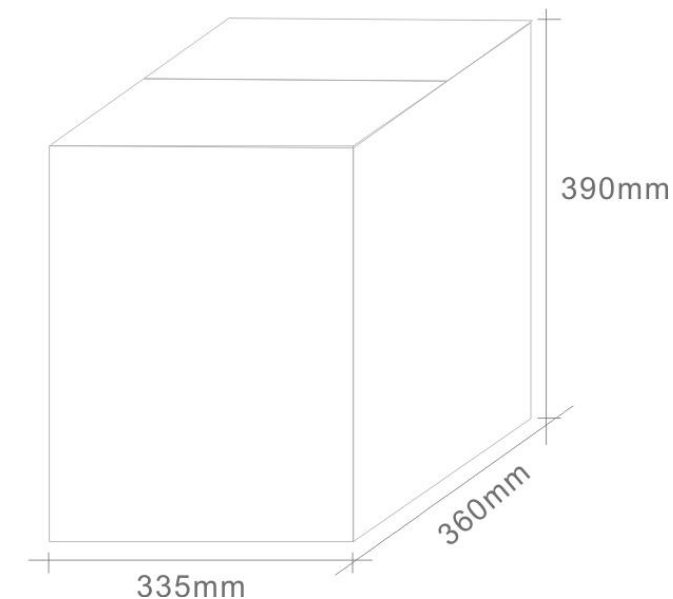
## Machine weight

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



## Toolbox weight

7.1kg (including machine and accessories)



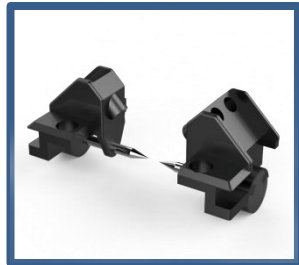
## Total weight

8.40kg

# Accessories in the tool box



Fiber Cleaver



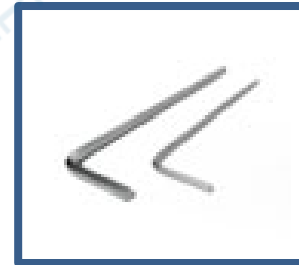
Spare electrode



Wire stripping pliers



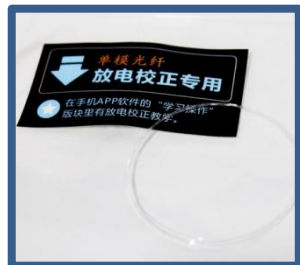
Miller stripper



Hex key



Carrying case



Fiber for  
ARC calibration



Strap



Power Adapter



Alcohol Bottle



Brush



User's manual  
Quality Certificate  
Warranty Card

# 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%.

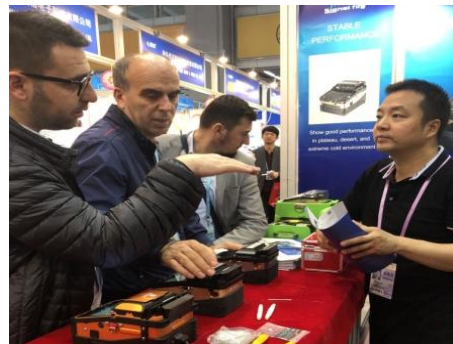
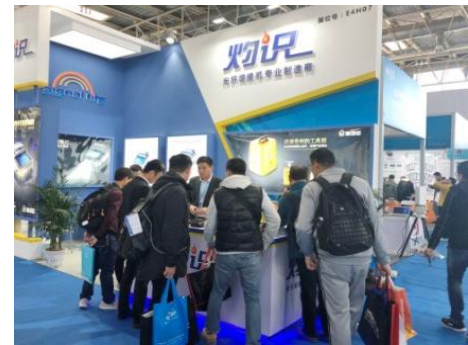
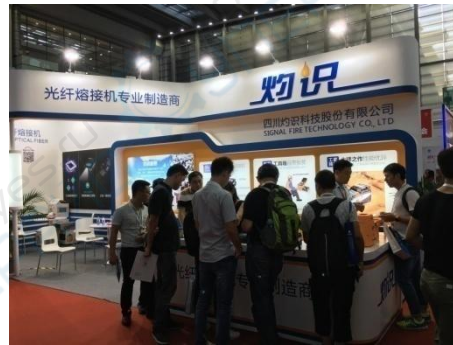
# ABOUT US



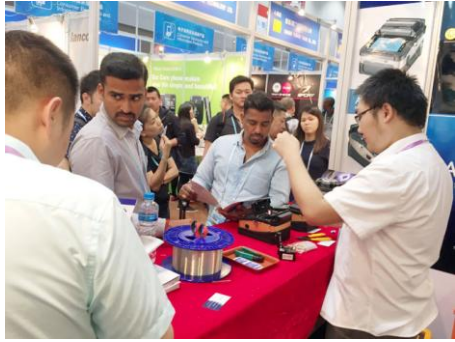
Our Company Owns Independent Intellectual Property Rights For Signal Fire Automatic Intelligent Optical Fiber Fusion Splicer And Its Related Products. Our Products Have Been Sold To Many Countries And Regions, Including North America, South America, Europe And Southeast Asia Etc, Our Products Have Gained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



# EXHIBITION PHOTOS



# EXHIBITION PHOTOS



# INTELLECTUAL PROPERTY



OPTICAL FIBER FUSION SPLICER

**BACL**  
Bay Area Compliance Labs Corp.

### ATTESTATION OF CONFORMITY

Attestation Number: ACDRCSC17128001-03  
 Date of Issue: 2018-01-22  
 Product: OPTICAL FIBER FUSION SPLICER  
 Model(s): AI-8  
 Brand: AI-7  
 Manufacturer & Address: Signal Fire Technology Co., Ltd.  
 No. 8-6 Qingyang Zone, Jiaolong Industrial Park, Qingyang District, Chengdu, China

Bay Area Compliance Laboratories Corp. (Chengdu) hereby declares that the submitted sample(s) of the above equipment has been tested for CE-marking and in accordance with the following European Directives and Standards:

Radio Equipment Directive 2014/53/EU

Essential Requirements	Harmonized Standards	Test Report Number
EMC	ETSI EN 301 489-1 V2.2.0 (2017-03) ETSI EN 301 489-17 V3.2.0 (2017-03)	RSC17128001-2
Radio	ETSI EN 300 328 V2.1.1 (2016-11)	RSC17128001-22
Safety	EN 60950-1 2006 + A11 2009 + A1:2010+ A12:2011 + A2:2013	RSC17128001-20
Health	EN 62479:2010	RSC17128001-3

**CE** Mark is permitted only after all applicable requirements are met in accordance with the European Union Rules, including the manufacturer's issuance of a Declaration of Conformity. The Declaration of Conformity is issued under sole responsibility of manufacturer. This attestation is specific to the standard(s) listed above and compliance with additional standards and/or European directives are applicable.

Attestation by: **Henry Ding**  
 EMC Lead  
  
 Signature

Bay Area Compliance Laboratories Corp. 17000  
 16000 International Plaza, Suite 100, Fremont, CA 94538, USA  
 Phone: +86-20-85252129 Fax: +86-20-85252125  
 10000000000000000000

**TCB** GRANT OF EQUIPMENT AUTHORIZATION **TCB**

Certification  
 Issued Under the Authority of the  
 Federal Communications Commission

By: Bay Area Compliance Laboratory Corp. Date of Grant: 02/09/2018  
 1274 Amherst Street Application Date: 02/09/2018  
 Somerville, CA 94060

Signal Fire Technology Co., Ltd.  
 No. 8-6 Qingyang Zone, Jiaolong Industrial Park  
 Qingyang District, Chengdu, China

Attention: Jason Yang

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified herein for use under the Commission's Rules and Regulations listed below:

FCC IDENTIFIER: **2A9HATV**  
 Name of Grantee: **Signal Fire Technology Co., Ltd.**  
 Equipment Class: **Digital Transmission System**  
 Notes: **OPTICAL FIBER FUSION SPLICER**

Grant Notes	FCC Rule Parts	Frequency Range (MHz)	Output Power (Watts)	Frequency Tolerance	Emission Designator
	15C	14.0 - 14.35	1000	±0.005%	F3D

Output power listed is conducted.

**BACL**  
Bay Area Compliance Labs Corp.

### TEST REPORT

REPORT No.: R25C180227F0061E Date: May 18, 2018 Page 1 of 26

Signal Fire Technology Co., Ltd.  
 No. 8-6 Qingyang Zone, Jiaolong Industrial Park, Qingyang District, Chengdu, China

Report on the submitted samples said to be:

Sample Name: OPTICAL FIBER FUSION SPLICER  
 Tested Style/ Items No.: AI-8  
 Additional Style/ Items No.: AI-7  
 Sample Receiving Date: February 27, 2018  
 Testing Period: From February 27, 2018 to May 18, 2018  
 Please refer to next page(s).  
 Results: ① The tested Style/ Item No. is tested by the lab. ② The Additional Style/ Items No. declared in the applicant's declaration are not tested. Test materials are the same as the tested parts and the result of the test report is only responsible for the test sample.

Remark:

Summary of Test Results:

TEST REQUEST	CONCLUSION
RHS Directive 2011/65/EU and its amendment directives -XRF screening test and Wet A Chemical Testing (Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs & PBDEs content)	Pass

Signed for and on behalf of BACL: **June**

Checked by: **Janis Xu** Technical Supervisor  
 Approved by: **William Wei** Laboratory Manager

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.  
 This Test Report is issued by the Company subject to its Conditions of Issuance of Test Report printed overlaid or attached. The results shown in this Test Report are only for the submitted tested samples identified above and such samples are retained for 30days only. This Test Report should not be reproduced, copied or used in any way without written approval of the Company.  
 Bay Area Compliance Laboratories Corp. (Chengdu)  
 No. 8-6 Qingyang Zone, Jiaolong Industrial Park, Qingyang District, Chengdu, China  
 Tel: +86-750-8608888 Fax: +86-750-8608889

### Certificate

Certificate No.: 11417Q4316ZROM

This is to certify that the Quality Management System of  
**SICHUAN ZHUOSHI TECHNOLOGIES CO., LTD.**  
 Unified Social Credit Code: 91510100072411028D  
 Registered Production Address: No. B-6, Qingyang Park, Jiaolong Industrial Park,  
 Qingyang District, Chengdu City  
 Office Address: No. 404, Floor 4, Guangcheng Garden (Tianxiangge), NO.123, Xianxin  
 Street, Chengdu CITY, Sichuan Province

Has been audited to conform to the following Quality Management System standard  
**GB/T 19001-2016/ISO 9001:2015**  
 This Quality Management System is valid for the  
 Development and production of optical fiber splicer

Valid from: Aug. 22, 2017  
 Date of issue: Aug. 22, 2017  
 Date of expiry: Aug. 21, 2020

Issued by: **Wei Fanyun**  
 Beijing East Alltech Certification Center Co., Ltd.

This certificate is issued under the condition that the certificate holder shall maintain the status of the certificate and shall be subject to the periodic surveillance audits. The certificate is valid only if the certificate holder complies with the requirements of the standard and the certificate holder shall be subject to the periodic surveillance audits. The certificate holder shall be subject to the periodic surveillance audits. The certificate holder shall be subject to the periodic surveillance audits.

The IAF Surveillance Mark, The IAF Surveillance Mark, The IAF Surveillance Mark

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 LZP18005	发明名称 见 PCT/ISA220 类案 适用时, 见下面第 5 项	
国际申请号 PCT/CN2016/096816	国际申请日 (日/月/年) 16.7.2016 (16.07.2016)	最早的优先权日 (日/月/年)
申请人 罗春晖 等		

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(见细则 13.2(a) 和 25.1(b))。  
b  本国际检索报告考虑了本单位许可或被通知的检索细则中所做出的明显错误更正。(见细则 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是检索的(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。  
 发明名称由本单位确定如下:

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

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。  
 由本单位选择的, 因为申请人没有建议一幅图。  
 由本单位选择的, 因为该图能更好地显示发明的特征。  
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 2040249 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

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**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.