



AI-9

OPTICAL FIBER FUSION SPLICER

Product Manual

Suitable for medium to long-distance trunk fiber optic cable fusion projects

6 motors

Fiber core alignment



✓ **5s splicing/15s heating**

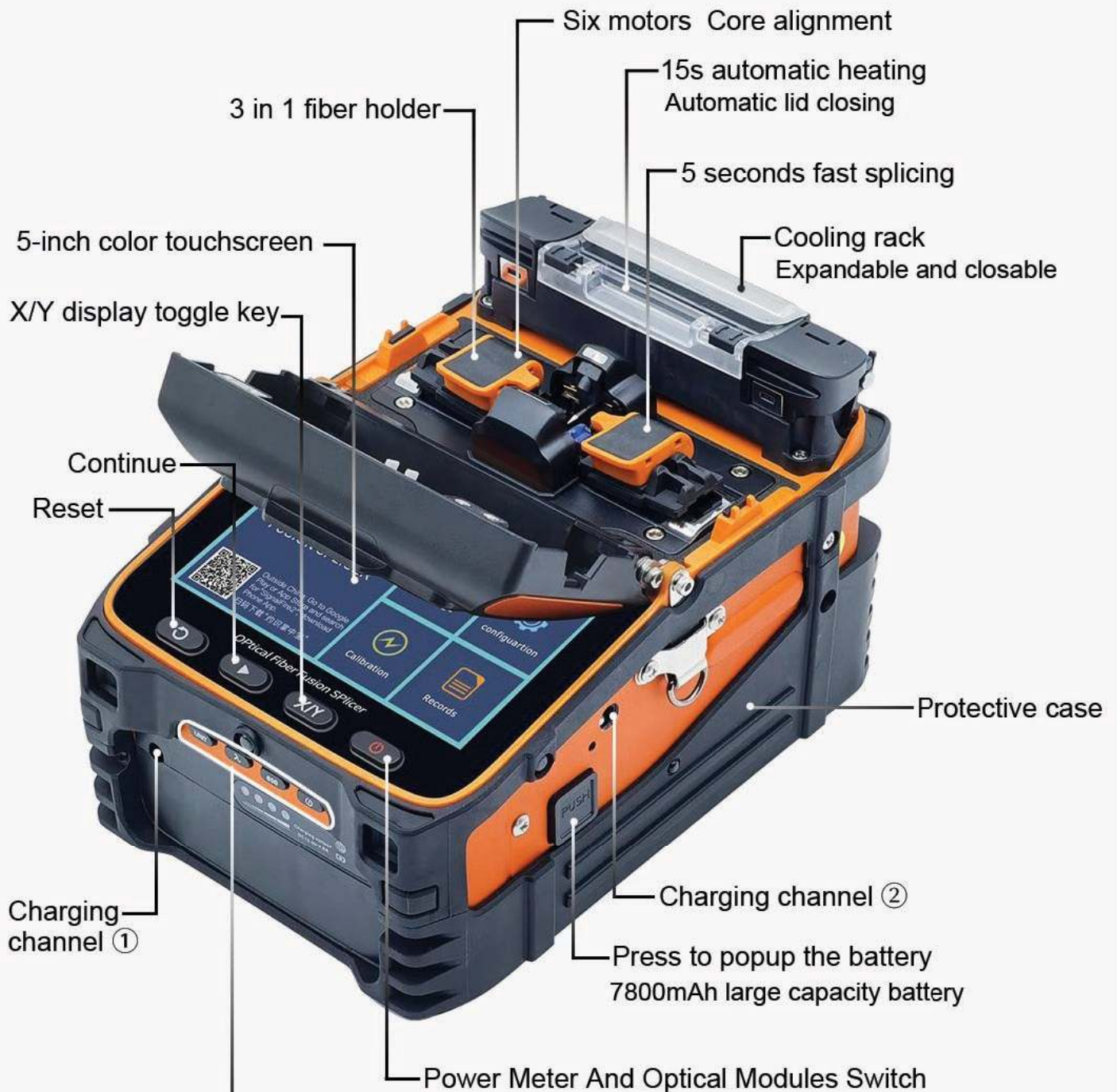
✓ **Built-in OPM&VFL**

0.1 μm

Fiber alignment
accuracy

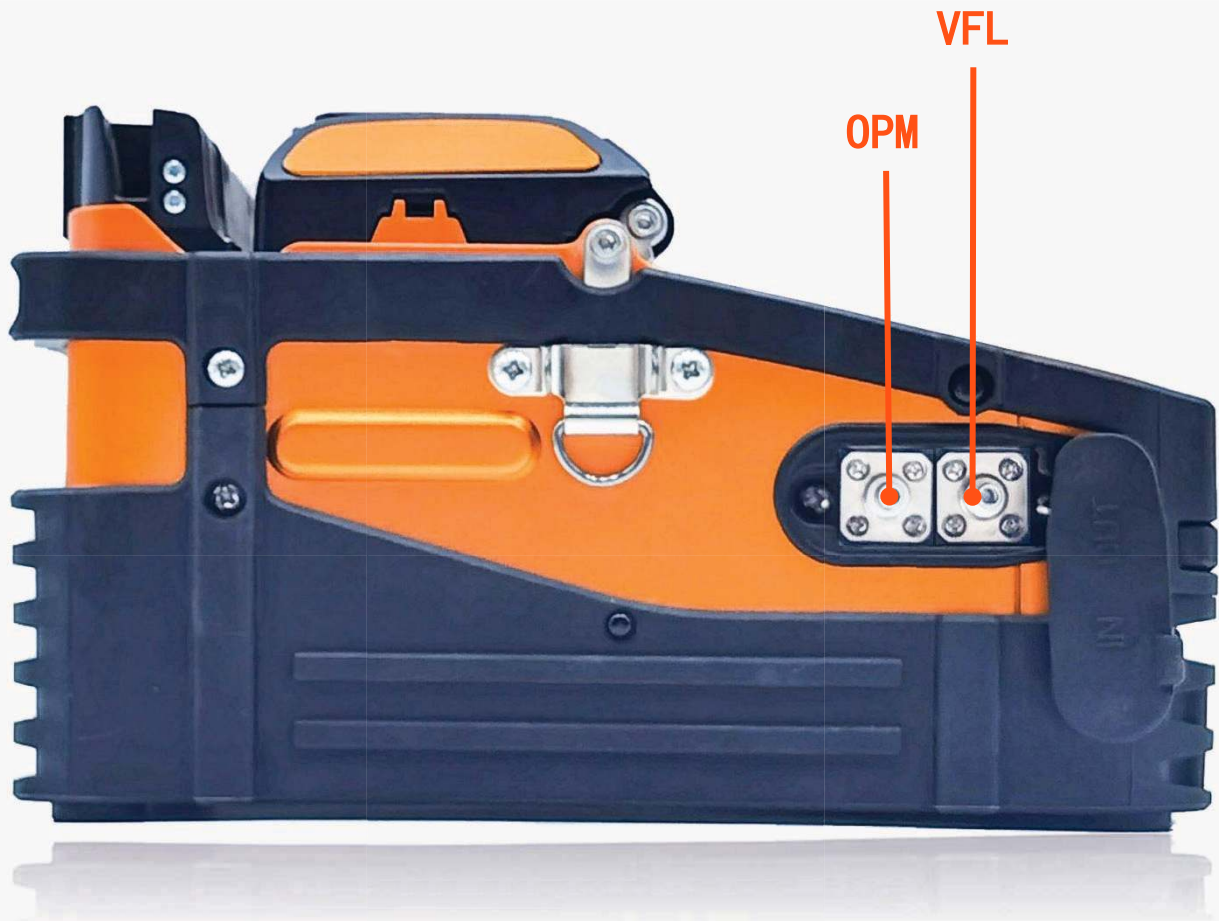


AI-9 is a fully automatic, mainline fiber optical fusion splicer with six motors and fiber core alignment, capable of welding long-distance fiber optic lines. Also within VFL and OPM function. Adopting industrial grade CPU, with fast running speed, 5S rapid fusion welding, 15S rapid heating, 5-inch color touchscreen, 320X magnification; The work efficiency is increased by 50% compared to ordinary welding machines; Large-capacity lithium battery can be heated by fusion about 260 cores, outstanding performance in harsh environments such as high altitudes, deserts, and extreme cold.



Key for OPM & VFL

Within VFL and OPM function



Effectively measure connection losses, verify continuity, and help evaluate fiber link transmission quality

OPM

Switch between ten states

Wavelength: 850nm、1300nm、1310nm、1490nm、1550nm、1625nm、980nm、1270nm、1577nm、1650nm

VFL

Switch between three states

power: 15mW, 2Hz flashing and steady on mode

5-inch color touchscreen

Intuitive operation, easily accessible with just one touch



Industrial-grade CPU

1 second startup

Sensitive response/Smooth experience

Touch screen menu



11 languages to switch freely

 language		
☐ 中文	☒ English	☐ Português
☐ Français	☐ Русский	☐ Español
☐ Polski	☐ ภาษาไทย	☐ عربي
☐ Italiano	☐ українська	



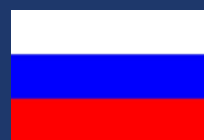
Chinese



English



French



Russian



Italian



Ukrainian



Portuguese



Polish



Spanish



Thai



Arabic



Configuration

Fiber type

☒ SM ☐ MM ☒ AUTO ☐ G654E

☐ BIF ☐ 80um ☐ NZ ☐ DS

Auto power off ☒

Heating time ☒

Heater Pre-heating ☒

Pause splicing process ☒

Auto-focus ☒

Activate battery

Self test

Angle check ☒

Endface check ☒

☐ Basic ☐ Standard ☒ Precision

Tensile test ☒

Factory restoration

Cleaver adjustment

Replace blade assembly

Screen brightness ☒

Help

1/5

Whatsapp:+86 191*****
 Skype: live:..cid.2*****
 Email:technicalsupport@*****

This account only for after sales,technical support and Using guide.
 Refuse any questions about the selling, if you wanna buy machine,
 please ask your machine provider.

For more support:
 Go to Google Play or App Store and search for "SignalFire2",download Phone
 App.

Firmware version: Main:v12 Fpga:V12 Ctrl:V12



Records

No	Time	loss
000007	2025-11-10 14:26	0.00 dB
000006	2025-11-10 14:25	0.01 dB
000005	2025-11-10 14:24	0.01 dB
000004	2025-11-10 14:22	0.00 dB
000003	2025-11-10 14:22	0.02 dB
000002	2025-11-10 14:21	0.01 dB
000001	2025-11-10 14:20	0.00 dB



1/5



7800mAh lithium battery

Dual charging channel

Even if a fault occurs, another channel can be used for charging



Charging time ≤ 3.5 hours

In full state, 260 cores can be continuously fused and heated



3-in-1 universal fixture

SM, MM, bare fiber, pigtail, Drop cable , multi fiber cable



Jumper
fiber
(pigtail)



Drop cable



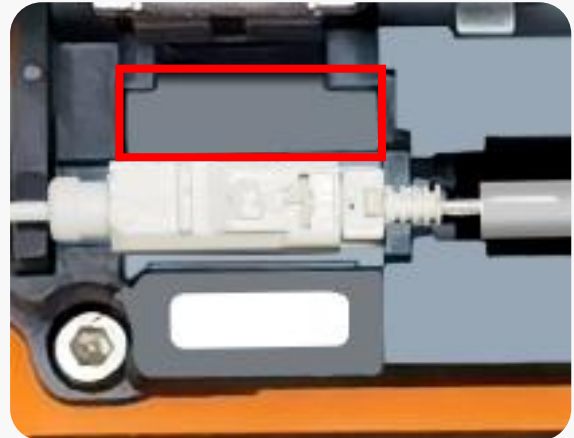
Bare fiber

- **Activate preheating function in winter**



The fiber fusion is successful. At the same time as opening the windproof cover, the heating tank automatically starts preheating for 6 seconds.

- **Heating part compatible with SC fiber**



SC Fiber: Push up
Ordinary fiber: Push down

- **Heating part automatic lid closing**



- **Cooling rack Expandable and closable**



- **Dust prevention/fall prevention/shock prevention**



- **Metal machine body movement quality guaranteed**



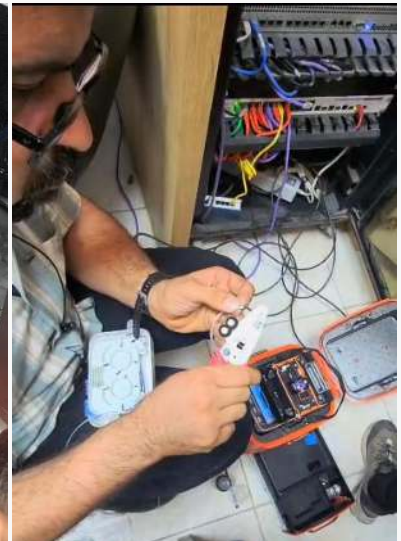
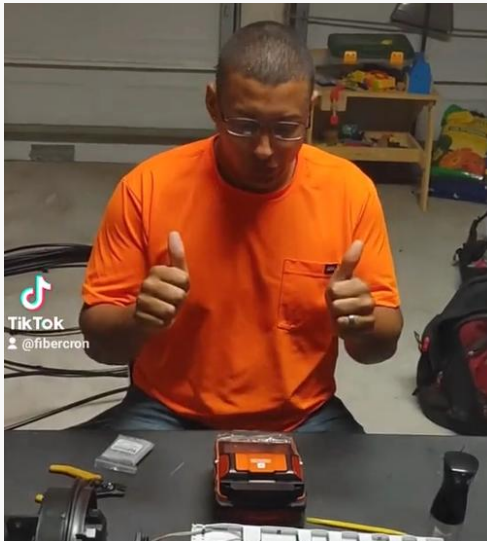
Outstanding quality without fear of challenges

Adapt to harsh environments such as deserts, snow,
high altitude, and high temperatures



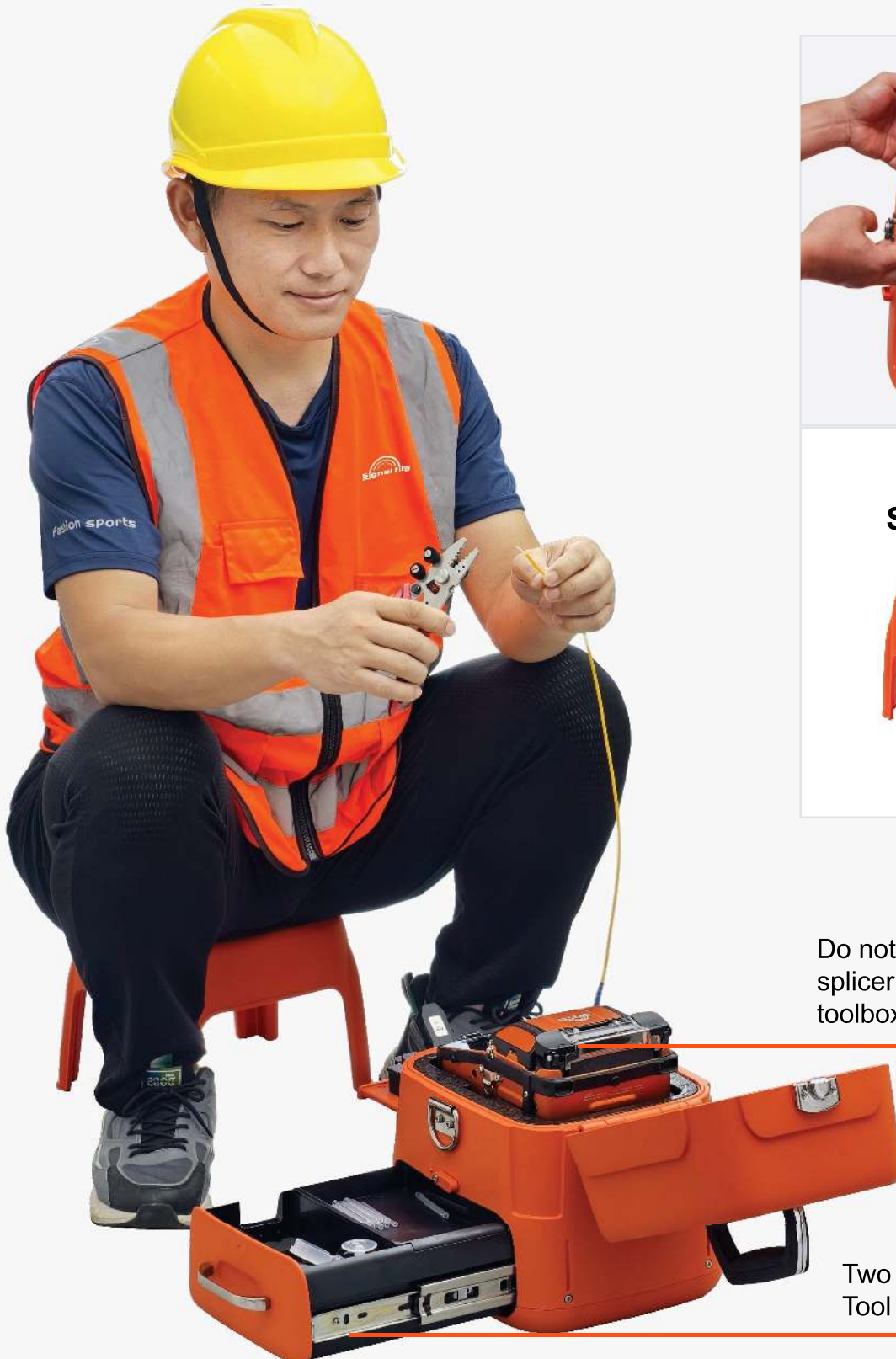
Exported to over 100 countries and regions worldwide

Get unanimous praise from customers!



Toolbox with stool

comes with a stool to facilitate the construction workers



100KG
Stool can bear



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

Two layers:
Tool layer&Accessory layer

Size and weight



Machine weight

2.10kg (with battery)

1.68kg (without battery)



Toolbox weight

6.95kg

(including machine and accessories)



Total weight

8.20kg

Basic parameter

Fiber alignment	Core/cladding
Motor number	6 motors (accurate of fiber alignment: 0.1μm)
Splicing time	5s
Heating mode	15s, can be customized according to the external environment
Fiber type	Single-mode fiber (SMF/G.652), multimode fiber (MMF/G.651), dispersion-shifted fiber (DSF/G.653), G.654 fiber, non-zero dispersion-shifted fiber (NZ-DSF/G.655), and bend-insensitive fiber (BIF/G.657); suitable for splicing bare fiber, pigtail, drop fiber, patch cord, and invisible fiber.
The cladding diameter	80-150 μm
Splicing loss	0.02dB (SM) 、0.01dB (MM) 0.04dB (DS/NZDS)
Splicing mode	Automatic focusing core alignment, conventional/high precision welding
Splicing way	Automatic, semi-automatic
Fiber holder	Three in one fixture, no need to change, suitable for single/multi-mode, multi-core cable/bare fiber, tail fiber, jumper fiber, drop cable
VFL	The machine comes with: power: 15mW, 2Hz flashing and steady on mode
OPM	Wavelength: 850nm、1300nm、1310nm、1490nm、1550nm、1625nm、980nm、1270nm、1577nm、1650nm/Measurement range: -50+26dbm Absolute error: <0.3dB (-50dbm ~+3dBm range)
Battery capacity	7800mAh large capacity lithium battery charging time ≤3.5; It can continuously weld and heat about 260 cores
Magnification	320x (X or Y axis single display) , 200x (x and Y axis dual display)
Fiber diameter	Coating diameter: 80-150μm/Coating diameter: 100-1000μm
Cutting length	Coating layer 250μm below: 8-16mm/coating layer 250-1000μm: 16mm
Heat shrink tube	60mm、50mm、40mm、25mm
Tensile testing	standard 2N
Display	5-inch color touchscreen
Boot time	1s, boot can enter the working mode
Data is stored	Unlimited, machine storage 1000 groups, the excess part can be stored in the server, can export data.
Wireless communication	Based on bluetooth 4.2 protocol standard, the working band is 2.4GHz, the maximum transmission range is 60m
Software upgrade	Mobile phone APP Internet update, enable Bluetooth synchronization upgrade machine software
Management function	The equipment owner can be bound as the highest authority, and can remotely view the welding records, welding time, loss, etc. through the mobile phone APP. The number of welding times or working time of the equipment can be set. The manager can effectively manage a single or multiple equipment.
Return loss	Better than 60 db
Product protection	Waterproof, dustproof and fall proof
Power supply	Input AC100-240V 50/60Hz, output DC13.5V/4.8A, the current power mode can be identified, real-time monitoring of the current battery level
The work environment	Temperature: -15 ~ +50°C, humidity: < 95%RH (no condensation), working altitude: 0 ~ 5000m, maximum wind speed: ≤15m/s

Standard Configuration



- ① Fusion Splicer ② Toolcase ③ Spare electrode ④ S12 Fiber Cleaver
- ⑤ Signal fire stripper
(Including a bag of cleaning cotton) ⑥ Alcohol Bottle ⑦ Brush ⑧ Toolbox strap
- ⑨ Belt ⑩ Power Adapter ⑪ key ⑫ Inner hexagon
- ⑬ User's manual / Quality Certificate / Fiber for ARC calibration / Warranty Card

Signal fire stripper

5G FTTH Drop cable

Caliber: 2mm x 1.6mm

Both regular FTTH Drop cable

Caliber: 3mmx2mm

Rotary ruler

FTTH Drop cable steel wire pliers

Can not cut FRP steel wire/else steel wire
Blade maybe will scratch and have trace,
It' s normal and will not influence you to use
it If you are care about this, Then please buy
with cautions.

kevlar scissors

(prohibit cutting steel wires)

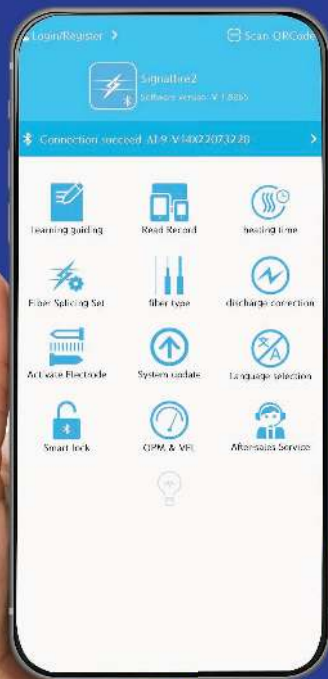
Three-port Miller stripper

Cleaning cotton



Support bluetooth Bluetooth connection

Intelligent interaction, avoid tedious

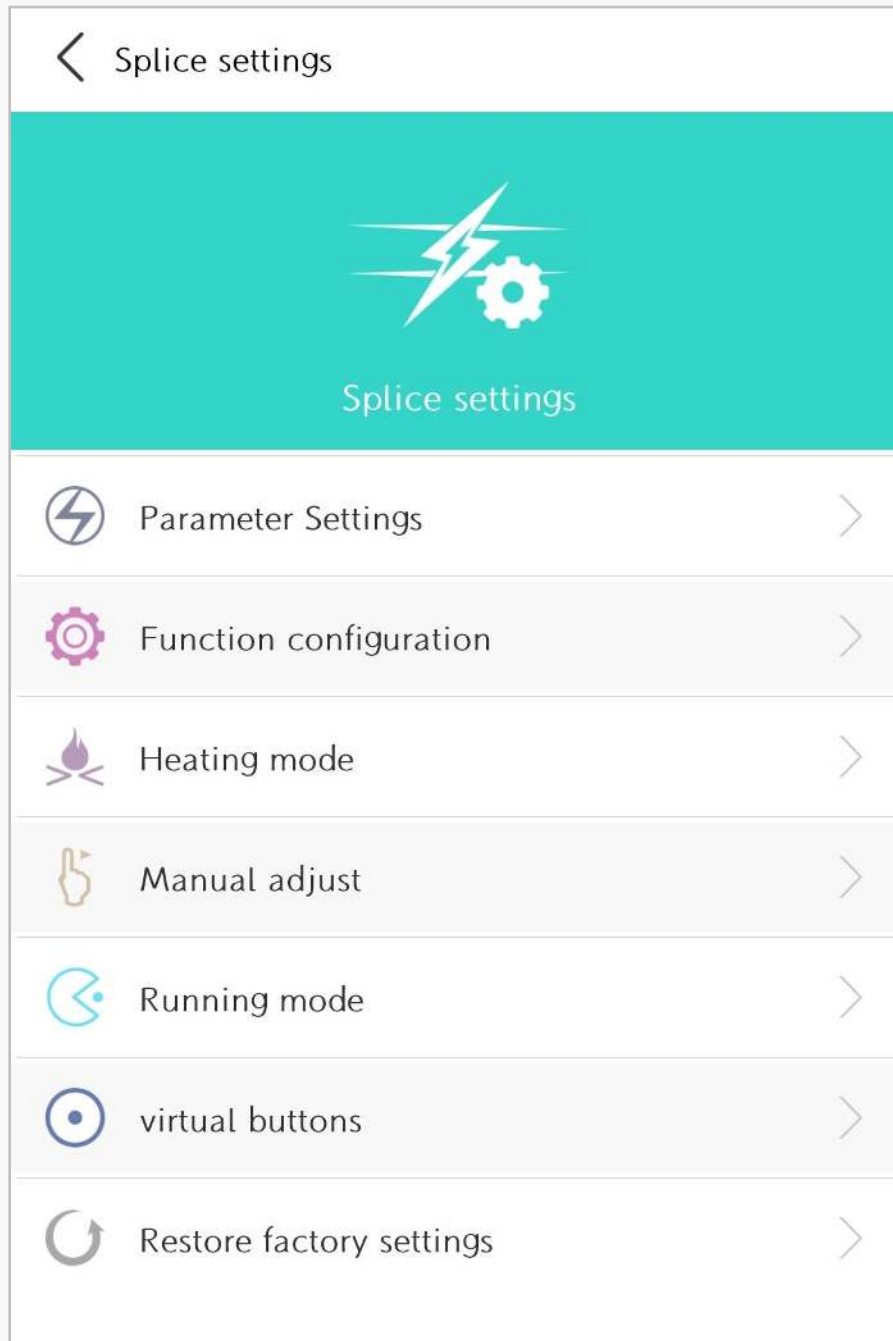


Bluetooth™

Scan the QR code of the welding machine startup screen to download the Mobile APP. The phone connects to the splicer via Bluetooth.



- ✓ Welding record can be read through mobile phone, and the data can be exported;
- ✓ You can set the parameters of the welding machine, such as selecting the machine language, changing the heating time, selecting the fiber optic alignment mode, etc;
- ✓ You can manage the welding machine, such as setting the use time of the machine, welding times, etc;
- ✓ Upgrade the phone APP, bluetooth connected to the machine to upgrade the machine software;



Most of the menu settings for the fusion splicer can be operated through touch screen on the device Okay, but the mobile app has more comprehensive applications. Please download it!

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.



Signal Fire Technology Co., Ltd. is a high-tech joint-stock enterprise specializing in the research and development, production, and sales of communication equipment, with a registered capital of 10 million. It is a national high-tech enterprise. Our main products include fiber optic fusion splicers, electric fiber cleaver, OTDR (Optical Time Domain Reflectometer), and 9-in-1 optical fiber stripper. They are widely used in the construction, maintenance, emergency repair, security monitoring, and research and teaching of optical cable lines in telecommunications, mobile, China Unicom, radio and television operators, post and telecommunications, railway, engineering companies, and public institutions.





The factory is located in Chengdu High tech International Enterprise Port, with a modern production factory and standardized office buildings. We have passed the ISO9001 international quality management system certification, and our products have passed the EU CE, ROHS. International certifications such as FCC in the United States and UKCA in the United Kingdom have been passed by the National Institute of Quality Supervision and Inspection, China Academy of Information and Communications Technology.







The qualified testing of Taier Laboratory has obtained nearly a hundred domestic and international patents at the same time. The "Signal Fire" series products have been sold to over 100 countries and regions including North America, South America, Europe, Africa, and Asia, and have received unanimous praise from customers.



Operator winning bid brand



Telecom installation and maintenance skills competition, Signal fire fusion splicer excellent performance, won the group first prize



Exhibition photos



Product testing certificate

Signal Fire Technology Co., Ltd. has passed the ISO9001 international quality management system certification. The product has passed international certifications such as the CE, RoHS, the United States FCC, and UKCA in the United Kingdom, and passed the qualified test through National Quality Supervision Institute, China Xintong Institute, and Tel Laboratory. At the same time, we obtained nearly 100 patents.

CERTIFICATE

Anbotek
Product Safety

CERTIFICATE
Of Conformity
Directive 2014/53/EU
On The Radio Equipment Directive

Certificate No.: AT18220WC202819
Certificate Holder: SIGNAL FIRE TECHNOLOGY CO., LTD.
Address: Building 18, Chengdu Hi-Tech International Enterprise Park, Liandu U Valley, 1111 Changsheng Bridge, Pidu District, Chengdu, China
Manufacturer: SIGNAL FIRE TECHNOLOGY CO., LTD.
Address: Building 18, Chengdu Hi-Tech International Enterprise Park, Liandu U Valley, 1111 Changsheng Bridge, Pidu District, Chengdu, China
Product Name: OPTICAL FIBER FUSION SPLICER
Model No.: AI-9, AI-6C, AI-6V, AI-7C, AI-8C, AI-8X, AI-7V, AI-X, S9
Trade Mark: Signal fire
Rating: Input: 13.5V/4.8A DC (with DC 11V, 7800mAh Battery inside)

The radio equipment meets the following essential requirements	Complied
Article 3(1)(a) EN IEC 62368-1:2020+A11:2020	Yes
Article 3(1)(a) Safety EN 50663:2017, EN 62479:2010	Yes
Article 3(1)(b) Health ETSI EN 301 488-1 V2.2.3 (2019-11)	Yes
Article 3(1)(b) EMC ETSI EN 301 488-17 V3.2.4 (2020-08)	Yes
Article 3(2) Radio ETSI EN 300 328 V2.2.2 (2019-07)	Yes

Note: The attached Annex forms part of this certificate which consists of 2 pages.

Certified by
Kingkong Jin

Jan. 03, 2023
Date

CE The CE Marking may only be used if all relevant and effective EU Directives are complied with **CE**

Shenzhen Anbotek Compliance Laboratory Limited
1/F, Building D, Sogood Science and Technology Park, Sennui community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China 518128
Tel: (86)755-2606440 Fax: (86)755-26014772
http://www.anbotek.com Email: service@anbotek.com

CERTIFICATE

Anbotek
Product Safety

CERTIFICATE
Of Conformity
Radio Equipment Regulations 2017
(SI 2017 No. 1206)

Certificate No.: AT18220WC202820
Certificate Holder: SIGNAL FIRE TECHNOLOGY CO., LTD.
Address: Building 18, Chengdu Hi-Tech International Enterprise Park, Liandu U Valley, 1111 Changsheng Bridge, Pidu District, Chengdu, China
Manufacturer: SIGNAL FIRE TECHNOLOGY CO., LTD.
Address: Building 18, Chengdu Hi-Tech International Enterprise Park, Liandu U Valley, 1111 Changsheng Bridge, Pidu District, Chengdu, China
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CHAPTER 1 (General) (3)(a) BS EN IEC 62368-1:2020+A11:2020	Yes
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CHAPTER 1 (General) (3)(b) Health ETSI EN 301 488-1 V2.2.3 (2019-11)	Yes
CHAPTER 1 (General) (3)(b) EMC ETSI EN 301 488-17 V3.2.4 (2020-08)	Yes
CHAPTER 1 (General) (3)(c) Radio ETSI EN 300 328 V2.2.2 (2019-07)	Yes

Note: The attached Annex forms part of this certificate which consists of 2 pages.

Certified by
Kingkong Jin

Jan. 03, 2023
Date

UK CA The UKCA Marking may only be used if all relevant and effective UK Regulations are complied with **UK CA**

Shenzhen Anbotek Compliance Laboratory Limited
1/F, Building D, Sogood Science and Technology Park, Sennui community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China 518128
Tel: (86)755-2606440 Fax: (86)755-26014772
http://www.anbotek.com Email: service@anbotek.com

TCB

GRANT OF EQUIPMENT AUTHORIZATION

Certification
Issued Under the Authority of the
Federal Communications Commission
By:

LGAJ Technological Center S.A. (APPLUS)
Ronda de la Font del Carme, s/n «BTR-PD»
Box 58183,
Barcelona,
Spain

Date of Grant: 01/17/2024
Application Dated: 01/17/2024

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

Attention: Jason Yang

NOT TRANSFERABLE
EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER: 2AB98-AI-10A
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 Watts	Frequency Tolerance	Emission Designator
	15C	2402.0 - 2480.0	0.00193		

Output power listed is conducted. The antenna(s) used for this transmission must be installed to provide a separation distance of at least 20cm from all persons. End-users must be provided with operating procedures for satisfying RF exposure compliance.

COMMISSION

FCC

QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificate No.: 11423Q45347R2M
This is to certify that the Quality Management System of
SIGNAL FIRE TECHNOLOGY CO., LTD.
Unified Social Credit Code: 91510100072411028D
Registered Address: No.1111 Changsheng Bridge, Hongguang Town, Small and Micro Enterprise Innovation Park, North Area of Chengdu Modern Industrial Port, Pidu District, Chengdu
Production/Office Address: Building 18, Chengdu High-tech International Enterprise Park, Liandu U Valley, No.1111 Changsheng Bridge Road, Pidu District, Chengdu City, Sichuan Province, China

Has been audited to conform to the following Quality Management System standard
GB/T19001-2016/ISO9001:2015
The Applicable Scope
The production of optical fiber fusion splicer

Date of initial issuance: Aug. 22, 2017
Date of issuance: Jul. 11, 2023
Date of expiry: Jul. 31, 2025

Issued by: *Wei Fengyu* Beijing East Allreach Certification Center Co., Ltd.

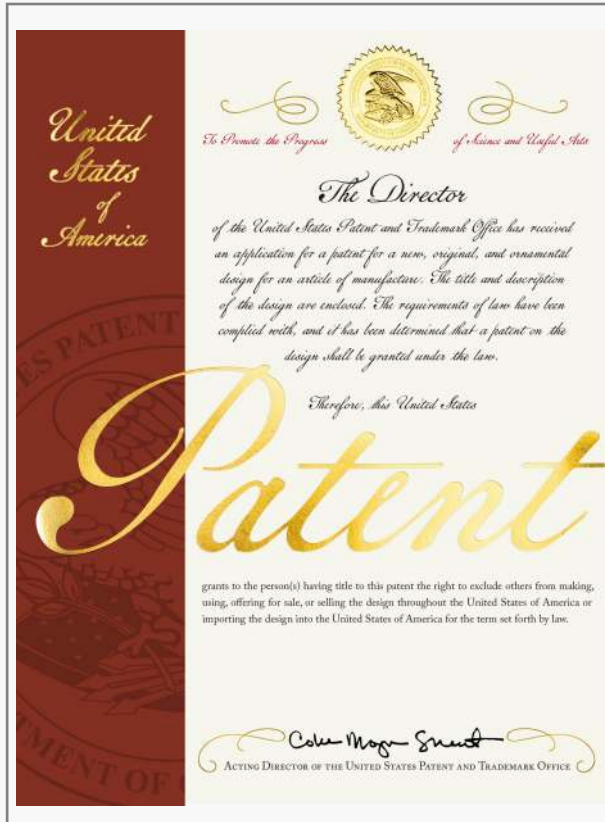
EACC **IAF** **CNAS**

4-18E-01-11
0670-11-11
0100-11-11
MANAGEMENT SYSTEM
CNAS C114-M

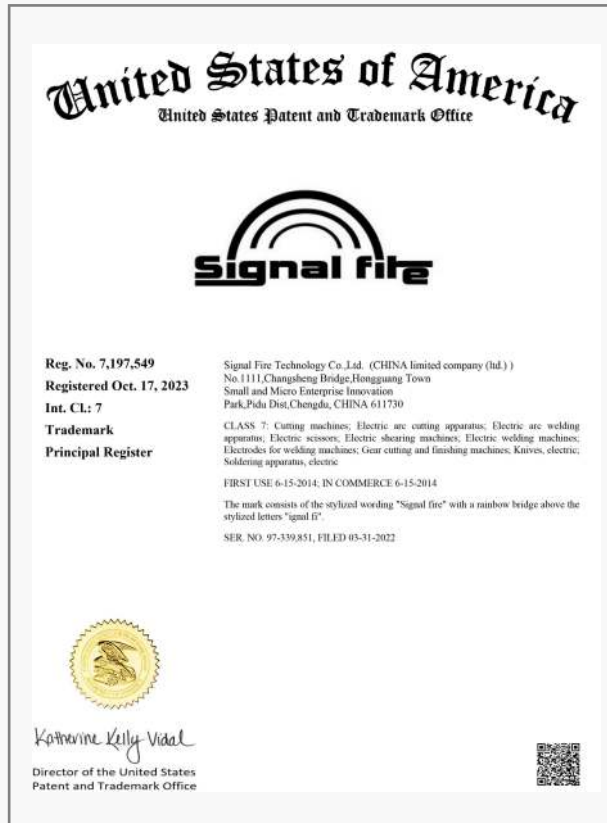
This certificate will remain valid only if the certified organization maintains and implements valid and regular internal audit system and management system, and if it is able to provide evidence of compliance with the requirements of the standard and the scope of certification. The certificate will be suspended or withdrawn if the organization fails to maintain the required level of compliance. The certificate will be withdrawn if the organization fails to maintain the required level of compliance. The certificate will be withdrawn if the organization fails to maintain the required level of compliance.

Address: 1st Floor, No. 111 Building, No. 11, Hongguang Town, Small and Micro Enterprise Innovation Park, North Area of Chengdu Modern Industrial Port, Pidu District, Chengdu City, Sichuan Province, China 610000

International Patent



International trademark



International trademark

 INTELLECTUAL PROPERTY INDIA INDIAN PATENT OFFICE		फार्म आरटी - 2 Form RT-2 प्रक्रिया क्र. 347/2009
स्वायत्त चिह्न रजिस्ट्री, भारत सरकार Trade Marks Registry, Government Of India स्वायत्त चिह्न अधिनियम, 1999 Trade Marks Act, 1999 स्वायत्त चिह्न के रजिस्ट्रिकरण का प्रमाणपत्र / Certificate of Registration of Trade Mark (फॉर्म 23 (2), नियम 56(1)(B) Section 23 (2), Rule 56 (1))		
व्यापार चिह्न संख्या / Trade Mark No. दिनांक / Date ज. संख्या / J. No.	6001994 : 6/30/2023 : 2128	
प्राप्तिका किया जाना है कि व्यापार चिह्न / डिजाइन अधिकार इसके स्वामी सम्पन्न है, जो _____ के नाम से _____ वर्ग में _____ संस्था के अधीन दिताक _____ को _____ के संबंध में रजिस्ट्रिकृत किया गया है।		
Certificate that Trade Mark / a representation is awarded hereby, has been registered in the name(s) of _____ SIGNAL FINE TECHNOLOGY CO., LTD. No.1151 Chengyang Bridge Hongyuan Town Small and Micro Enterprise Innovation Park, East Chengyang Subtown, 611730 China, United liability company incorporated under the laws of China, (Body incorporate) In Class 7 Under No. 6001994 as of the date 30 June 2023 in respect of		
Goods and service as annexed		
Trade Mark as annexed		
अस्त व्यक्त 20 _____ के _____ वर्ष के _____ वैश्व को मेरे निदेश पर सुनिश्चित किया गया Sealed & signed before me, 16 th day of April, 2024		
  व्यापार चिह्न रजिस्ट्रार Registrar of Trademarks		
व्यापार चिह्न रजिस्ट्री मुंबई Trade Marks Registry MUMBAI संविधानिक अधिकार की सुरक्षा के लिए यह सूचना दी जाती है कि यदि कोई व्यक्ति या संस्था इस सूचना के बिना किसी भी प्रकार के अनधिकृत रूप से उपयोग करता है तो उसे दंडित किया जाएगा और उसे अपने सभी अधिकारों को खोने का सामना करना पड़ेगा। Registration as per the provisions of the Trade Marks Act, 1999 may be renewed by deposit of Rs. 10,000/- prior to the expiration of each period of 10 years. This certificate is valid for use in legal proceedings or for obtaining registration elsewhere. Note: Upon any change of ownership of this trademark, or change in address, or the principal place of business or residence for abroad it is required submit an OMR for modification to register the change.		

[illegible]

TRADE MARKS
REGISTRY

REGISTRATION
CERTIFICATE

Trade Marks Act 1994 of

Great Britain and Northern Ireland

I certify that the mark shown below has been registered under No. UK00003888005 effective as of the date 13/03/2023 and has been entered in the register on 12/01/2024

Signed this day at my direction

Adam Williams

Adam Williams
REGISTRAR

Representation of Mark



The mark has been registered in respect of:
Class 7:
Cutting machines; Clippers [machines]; Splicing machines; Knives, electric; Hand-held tools, other than hand-operated; Electric arc welding apparatus; Electric arc cutting

Intellectual Property Office is an operating name of the Patent Office

Registered / Eingetragen 21/04/2023

No 018802832

EU IPO
EUROPEAN UNION INTELLECTUAL PROPERTY
OFFICE

CERTIFICATE OF REGISTRATION

This Certificate of Registration is hereby issued for the European Union trade mark identified below. The corresponding files have been recorded in the Register of European Union trade marks.

ZHUOSHUI

**AMT DER EUROPÄISCHEN UNION FÜR GEISTIGES
EIGENTUM
ENTRAGUNGSSURKUNDE**

Diese Eintragungssurkunde wird für das unten angegebene Unionssymbol ausgestellt. Die korrespondierenden Angaben sind in das Register der Unionseigenen eingetragen worden.

The Executive Director / Der
Einkundendirektor

Christian Arthanbeau

Christian Arthanbeau





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