



THE FOURTH GENERATION OF OPTICAL FIBER FUSION SPLICER

Full link integration design / Highly integrated

AI-10A

THE FOURTH GENERATION TRUNK LINE
OPTICAL FIBER FUSION SPLICER



SIX MOTORS



FIBER CORE
ALIGNMENT



6S SPLICING



15S HEATING



BUILT-IN OPM
FUNCTION



BUILT-IN VFL
FUNCTION



BUILT-IN ELECTRIC
PRECISION CLEAVER



EQUIPPED WITH
SIGNAL FIRE STRIPPER

AI-10A

THE FOURTH GENERATION TRUNK LINE
OPTICAL FIBER FUSION SPLICER

Signal fire fusion splicer AI-10A is the world's first fourth-generation optical fiber fusion splicer, it combines electric cleaver and fusion splicer as one, with 8-in-1 signal fire stripper, and can be combined with the work bench and table, making it is the world's first real sense, small size, light weight, easy to operate optical fiber fusion splicer.



AI-10A

THE FOURTH GENERATION TRUNK LINE OPTICAL FIBER FUSION SPLICER

Signal fire AI-10A optical fiber fusion splicer uses a number of patents, the full weight of the main machine, the toolbox and a complete set of accessories is only 4.5KG, and the toolbox size is 25.5cmx16.5cm x23cm. In such a small and compact case, the combined design of bench and bench is realized at the same time. Industrial CPU, running speed is super fast, 6 seconds fast splicing, 15 seconds heating, 5 inch color HD LCD screen, 320 times magnification, 7800mAh large capacity lithium battery can splice and heat 240 cores, in high altitude, dry, cold and other harsh environments still perform well.



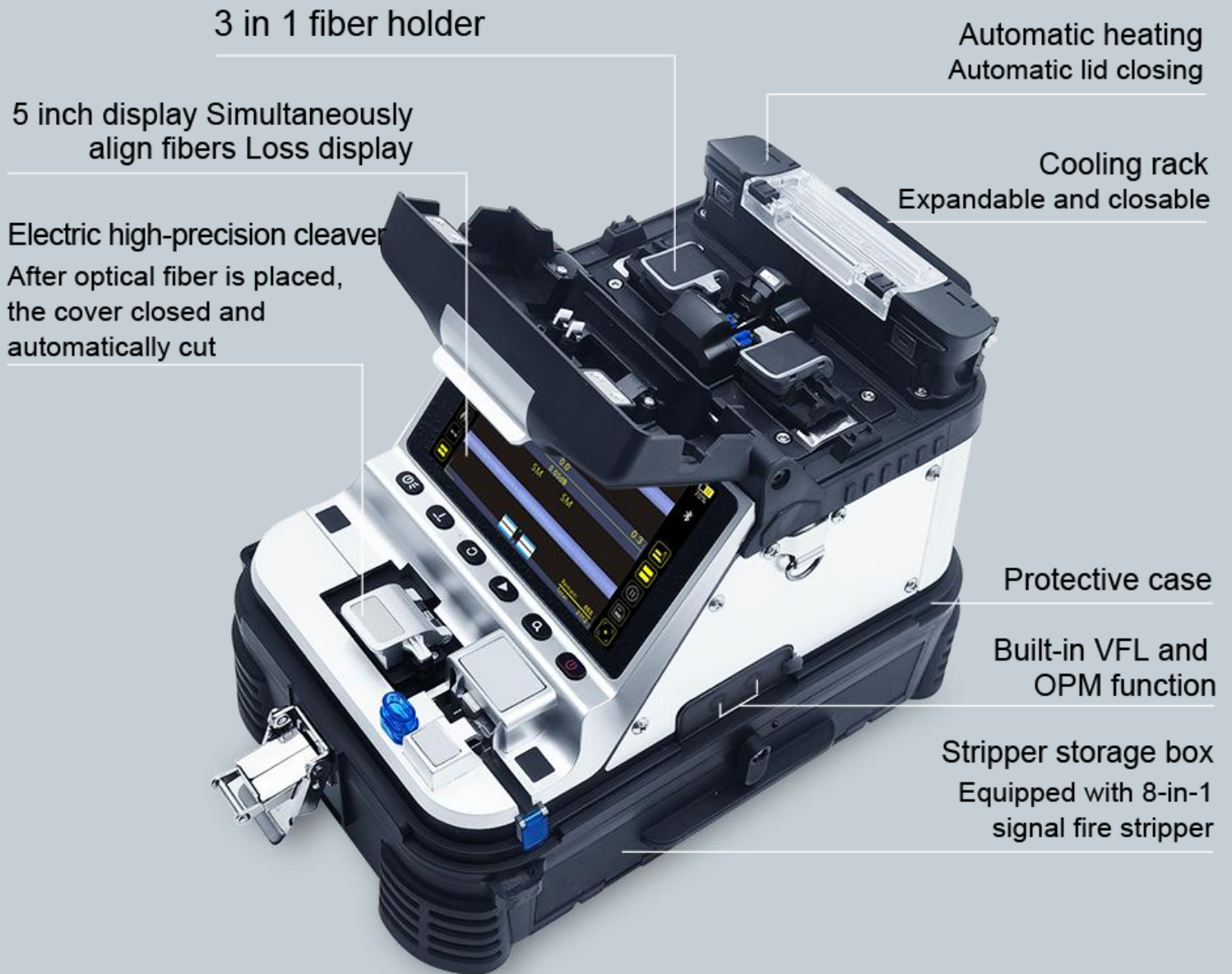
Can be used as a bench
outdoor construction
is also easy



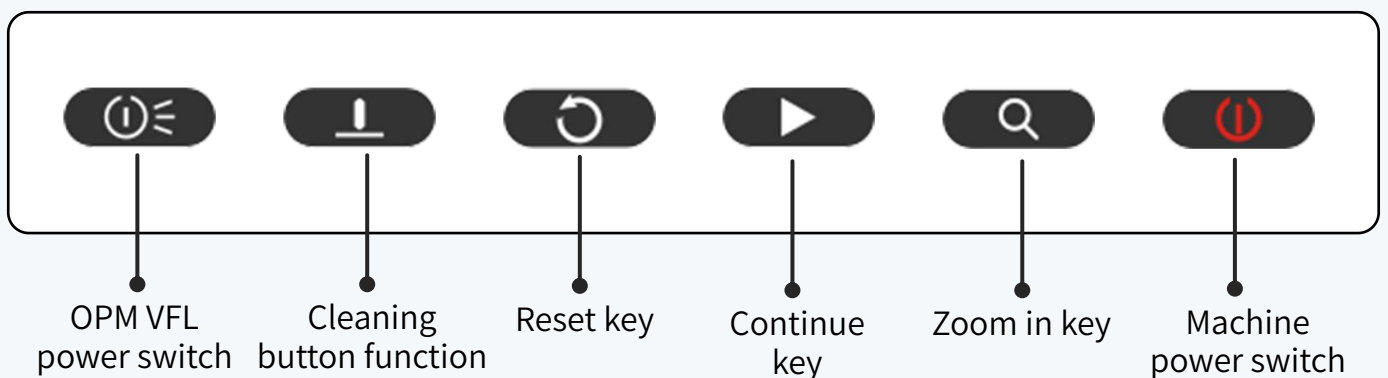
Host support /
protection console



Equipped with 8-in-1
signal fire stripper

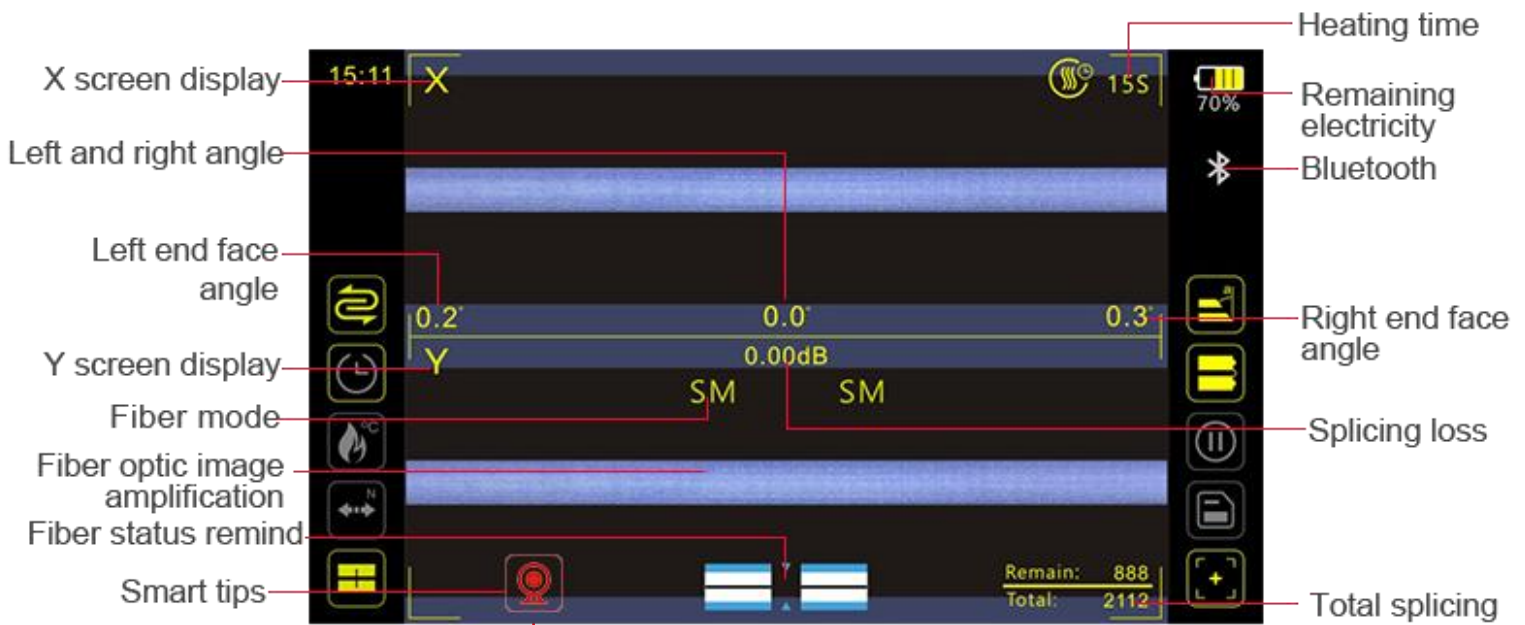


The buttons are clear and beautiful



DISPLAY 5 INCH TFT COLOR DISPLAY SCREEN

320X (X or Y axis single display) 200X (X and Y axis dual display)



↓ Fault intelligent judgment reminder



Camera failure



Core align failed



Focus failed



ARC calibration failed

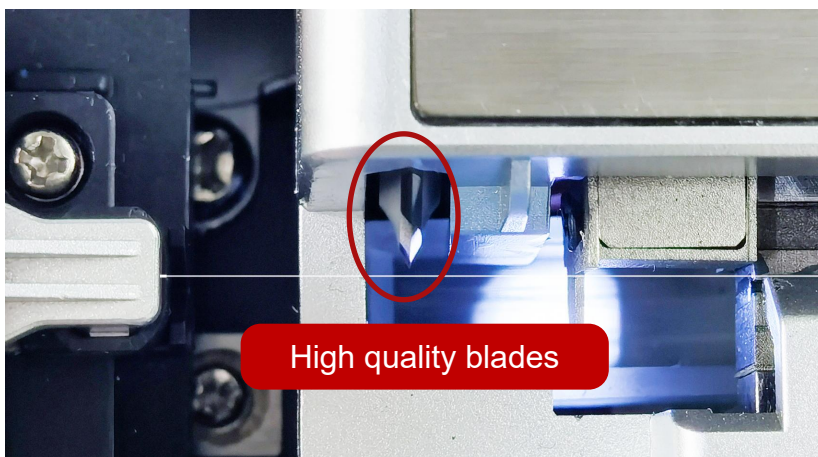
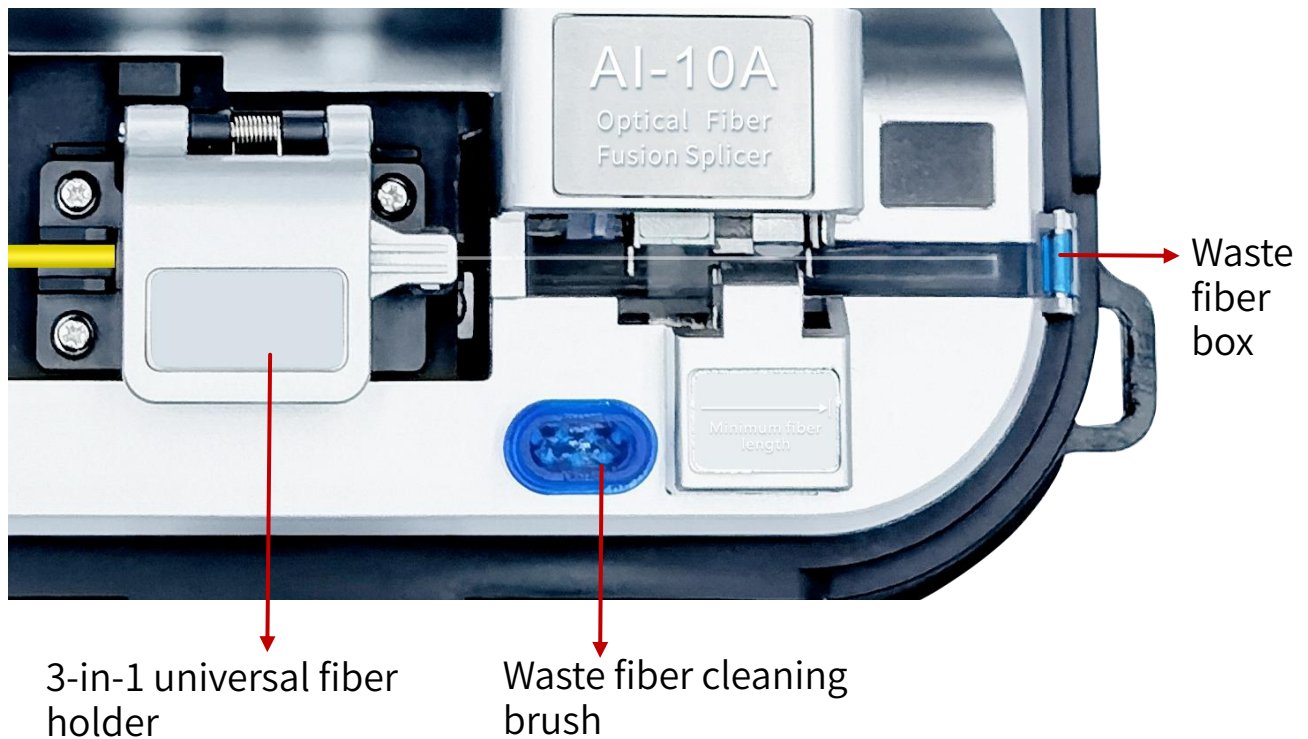


Left and right fiber does not match



The lens is foggy or foreign body interference

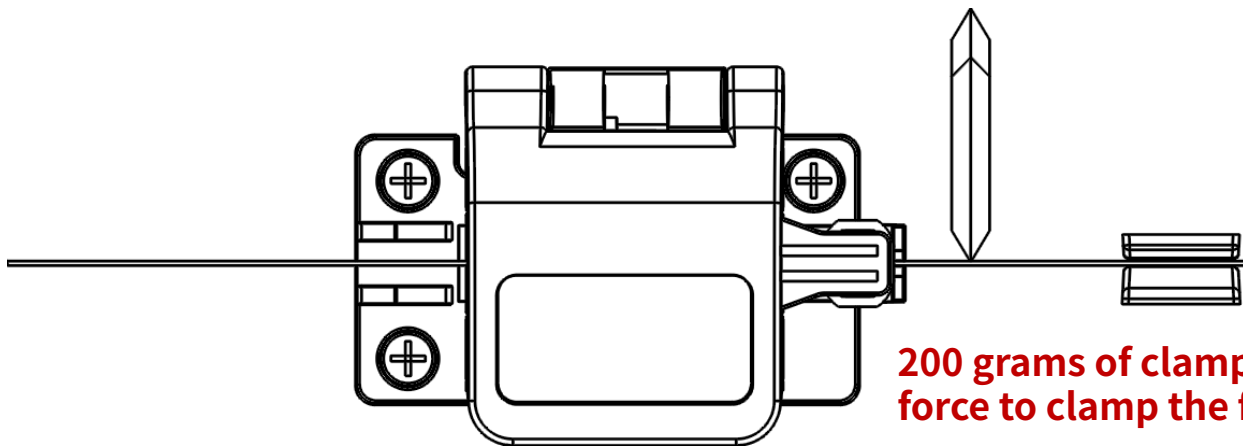
EQUIPPED WITH ELECTRIC HIGH-PRECISION CLEAVER



- After optical fiber is placed, the cover closed and automatically cut
- The blade cuts at a random point

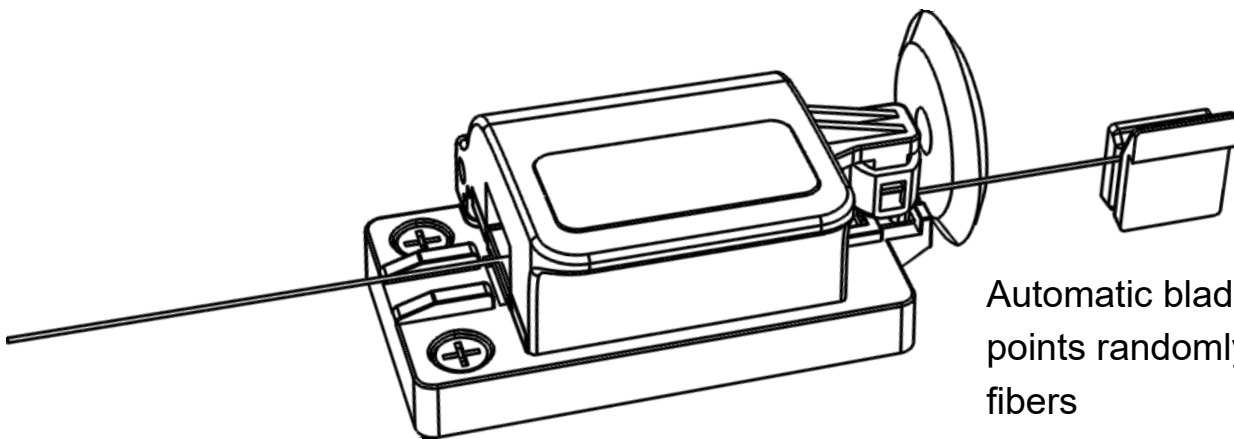
NO BLADE RESURFACING MAINTENANCE FREE

Patented technology for precise cutting



200 grams of clamping force to clamp the fiber

Ensure that the optical fiber is straight and not damaged



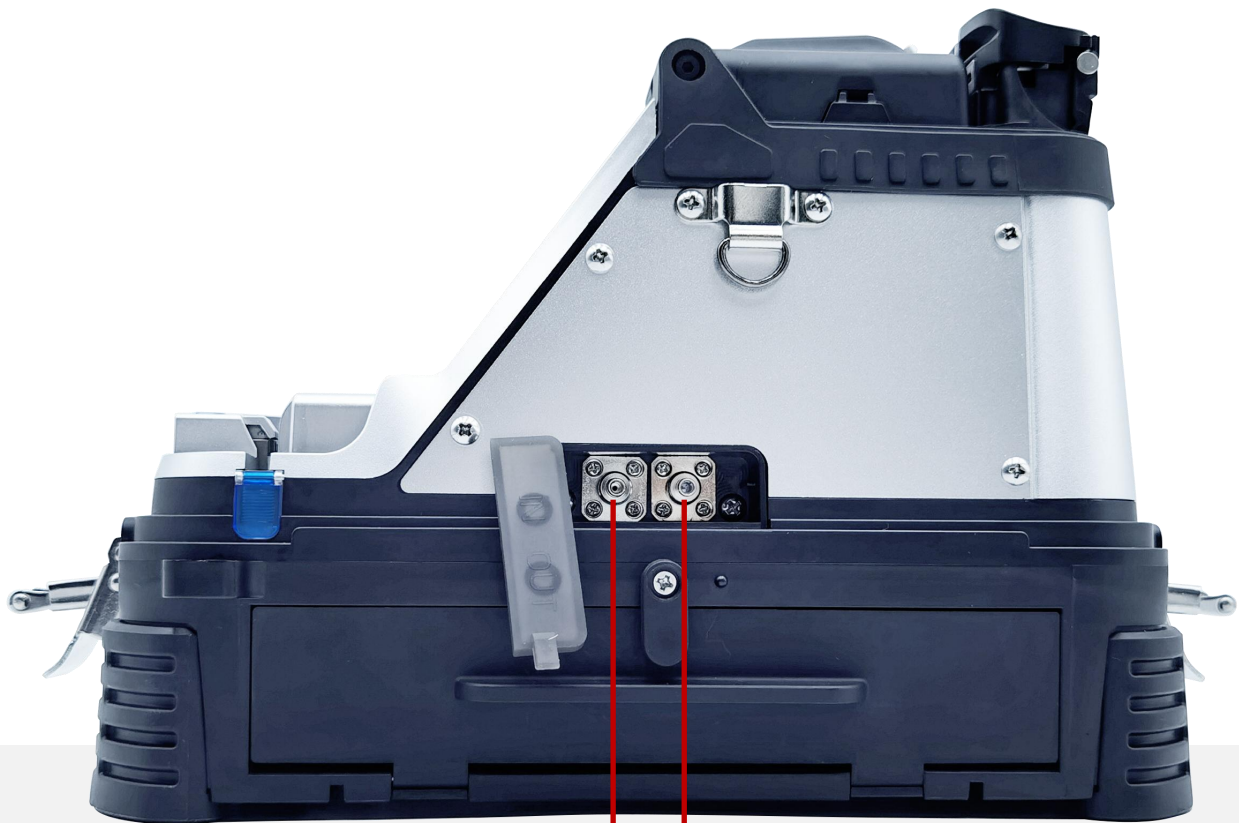
Automatic blade rotation Cut points randomly cut optical fibers

No blade refacing is required

The key to the quality of splicing fiber is not only the quality of the fusion splicer, but also the cleaver and various auxiliary tools are very important, especially the trouble-free time of the fiber cleaver and the average cutting quality, to a large extent, determine the real splicing quality and splicing efficiency.

BUILT-IN VFL AND OPM FUNCTION

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



OPM(Measurement
range: -50+30dbm)

VFL(10km)

OPM

Switch between six states

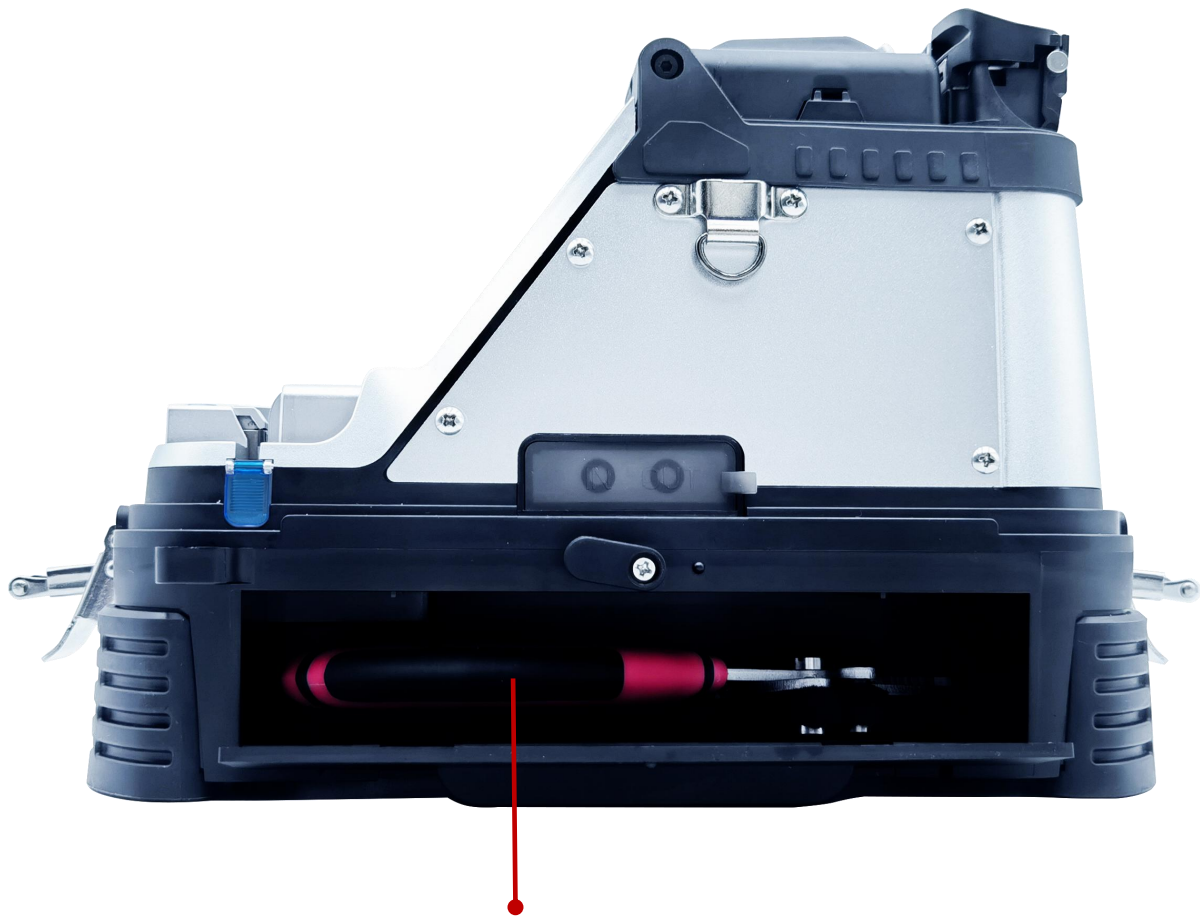
Wavelength: 850nm; 1300nm, 1310nm,
1490nm, 1550nm, 1625nm

VFL

Switch between three states

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

EQUIPPED WITH SIGNAL FIRE STRIPPER



Invisible storage for
easy access

REDUCE CARRYING AND IMPROVE WORK EFFICIENCY



7800MAH LITHIUM BATTERY

Dual charging path Charging time ≤ 3.5 hours

In full state, 240 cores can be continuously fused and heated



Charging channel ①

Input voltage : $13.5 \pm 0.5V$
Input current : 4.8A

Power indicator light

Charge indicator light

Indicator light turns off when fully charged

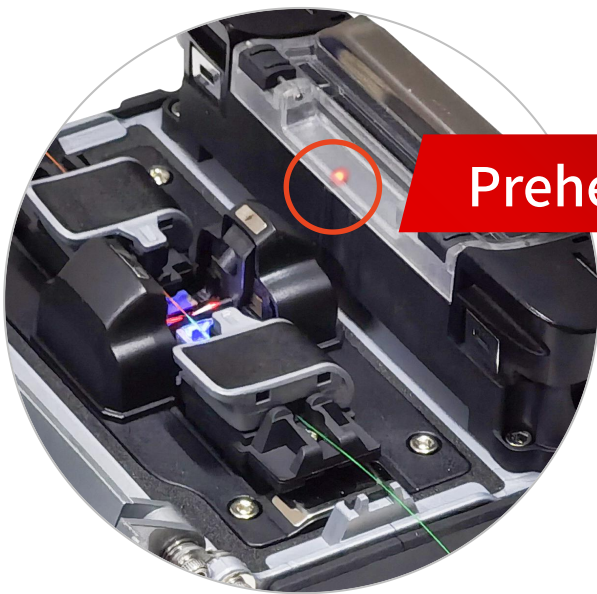
Press to check the power level

Press to popup the battery

Press the button and the battery will pop up slightly Can charge the battery separately

Charging channel ②

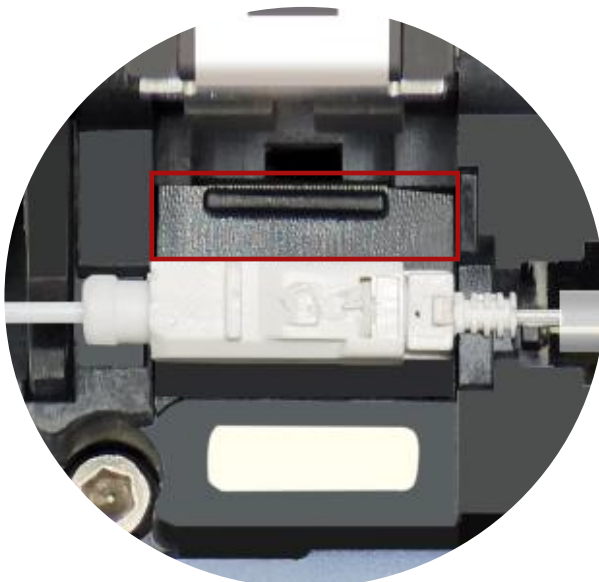
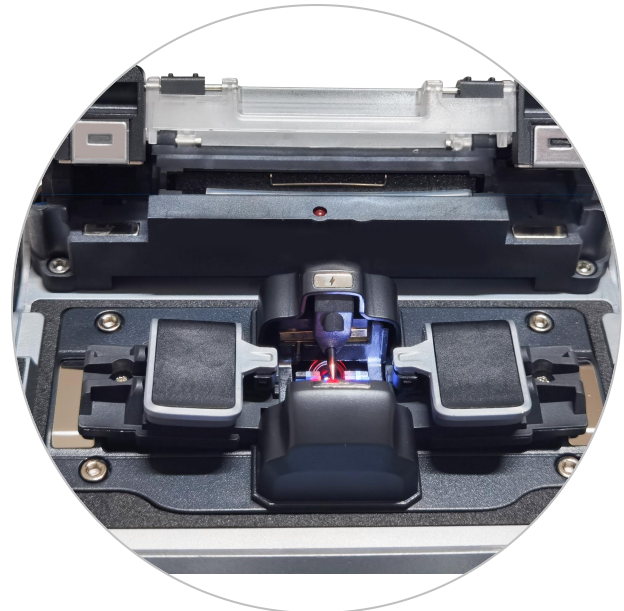
15S AUTOMATIC HEATING



Preheating

Successful fiber spliced. When opening the windproof cover to take out the fiber, the machine turns on pre heating for up to 6 seconds

Heating part automatic lid closing



Heating part compatible with SC fiber

SC Fiber: Push up

Ordinary fiber: Push down

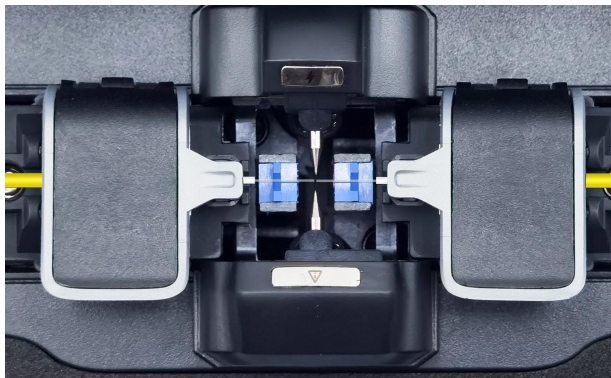
COOLING RACK

Expandable and closable

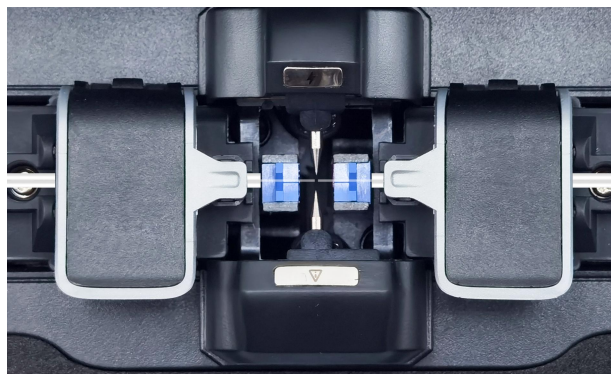


3-IN-1 UNIVERSAL FIBER HOLDER

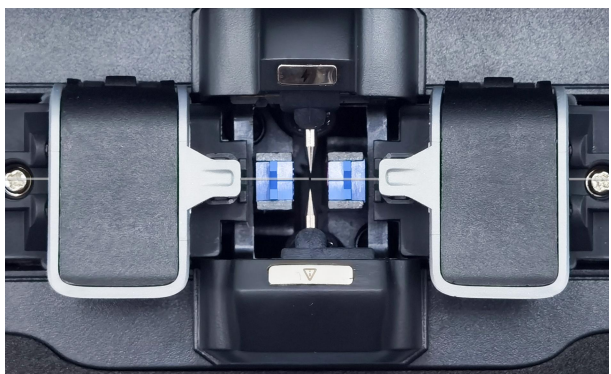
SM, MM, bare fiber, pigtail, Drop cable , multi fiber cable



Jumper fiber
(pigtail)

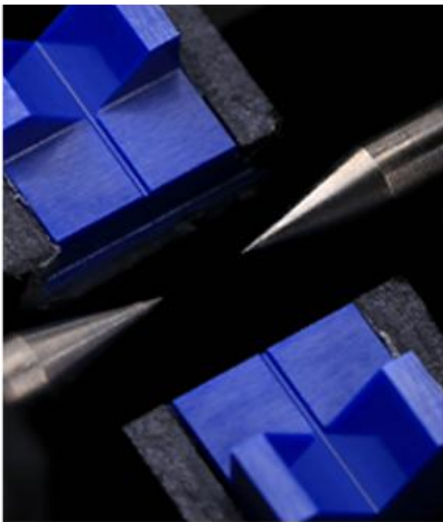


Drop cable



Bare fiber

EXQUISITE DETAILS

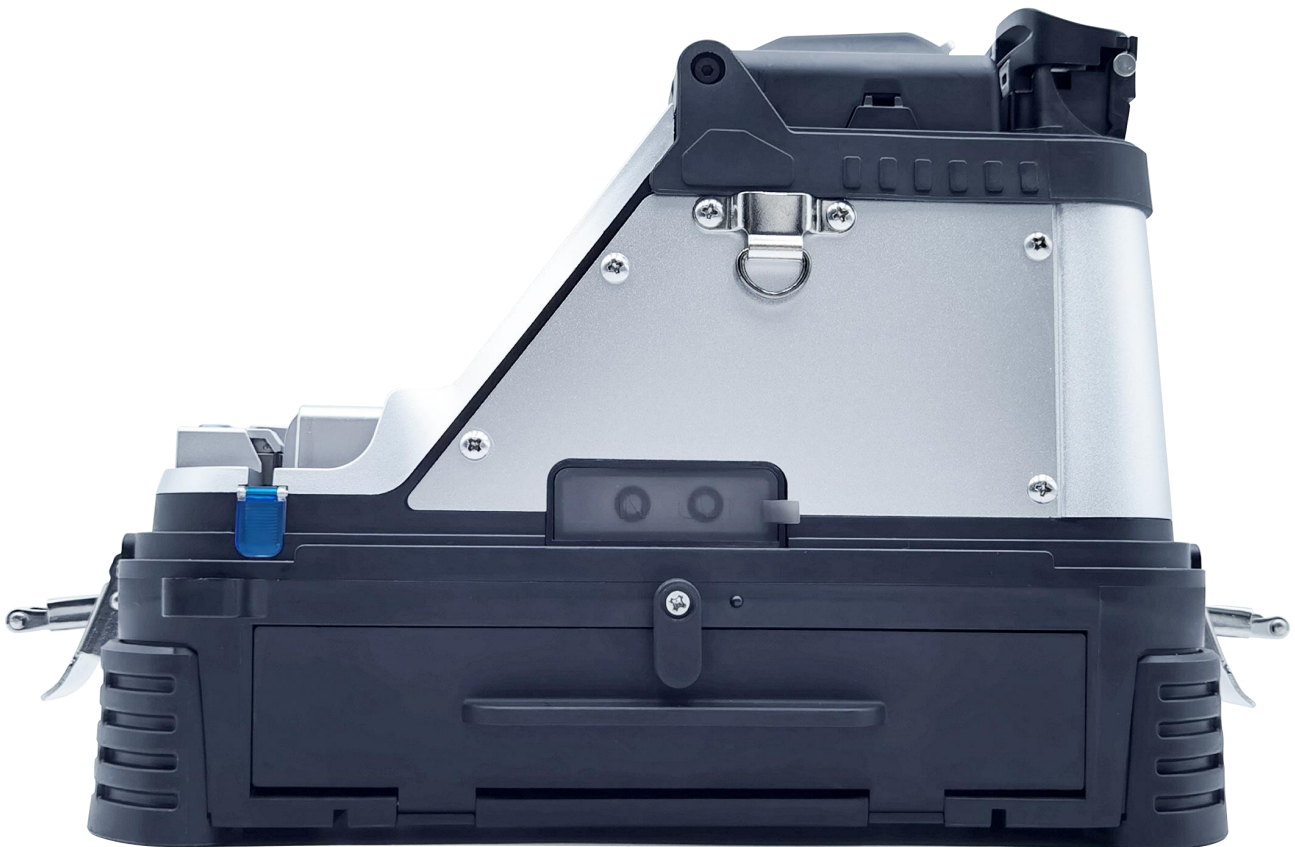


The buttons are clear and beautiful



ULTRA THICK PROTECTIVE RUBBER PAD

Thickened buffer structure provides maximum protection



OUTDOOR SPLICING FIBER COMPACT AND PORTABLE



Toolbox size

255mmx 165mm x 230mm



Weight of toolbox (complete set)

4.50kg

WE UNDERSTAND YOUR HARD WORK!



COMBINATION HANGING CHAIN CLIMBING HOMEWORK



BASIC PARAMETER

Fiber alignment	Core/cladding
Motor number	6 motors
Splicing time	6s
Heating mode	15s, can be customized according to the external environment
Fiber type	Single-mode fiber (SMF/G.652), BIF/G.657); Suitable for single mode, multi-mode, bare fiber, tail fiber, drop cable, jumper, invisible optical fiber.
The cladding diameter	80-150 μ m
Splicing loss	0.02dB (SM) 、 0.01dB (MM) 0.04dB (DS/NZDS)
Splicing mode	Automatic focusing core alignment, conventional/high precision splicing
Splicing way	Automatic, semi-automatic, manually
Fiber cleaver	Equipped with electric high-precision cleaver
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/Measurement range: -50+30dbm Absolute error: <0.3dB (-50dbm ~+3dBm range)
Battery capacity	7800mAh large capacity lithium battery charging time \leq 3.5; It can continuously weld and heat about 240 cores
Magnification	320x (X or Y axis single display) , 200x (x and Y axis dual display)
Fiber diameter	Coating diameter: 80-150 μ m/Coating diameter: 100-1000 μ m
Cutting length	Coating layer 250 μ m below: 8-16mm/coating layer 250-1000 μ m: 16mm
Heat shrink tube	60mm、 50mm、 40mm、 25mm
Tensile testing	standard 2N
display	5 inch TFT color display screen
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 splicing records, splicing time, loss, etc. through the mobile phone APP. The number of splicing 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 $^{\circ}$ C, humidity: < 95%RH (no condensation), working altitude: 0 ~ 5000m, maximum wind speed: \leq 15m/s

ACCESSORIES IN THE TOOL BOX



- ① Toolcase
- ② Fusion splicer
- ③ Spare electrode
- ④ signal fire stripper
(Including a bag of cleaning cotton)
- ⑤ Alcohol bottle
- ⑥ Cleaver cleaning cotton swab
- ⑦ Allen wrench
- ⑧ Brush
- ⑨ Climbing combination hanging chain
- ⑩ Toolbox strap
- ⑪ Belt
- ⑫ Power adapter
- ⑬ User' s manual / Quality Certificate / Warranty Card / Fiber for ARC

SIZE AND WEIGHT

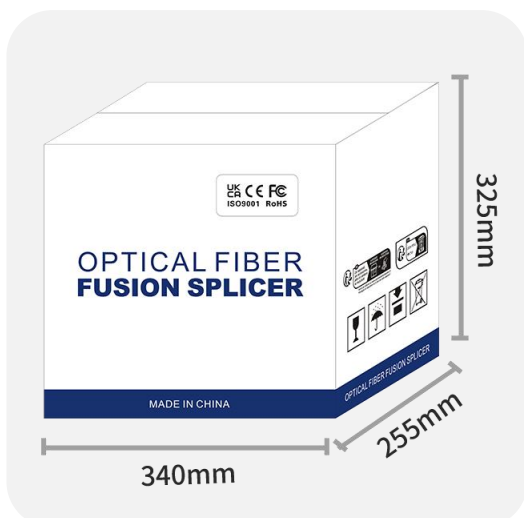


Machine size: 165mm x 255mm x 185mm

Machine weight: 3.09kg

Toolbox size: 165mm x 255mm x 230mm

Weight of toolbox (complete set): 4.50kg



Total size: 340mm x 255mm x 325mm

Total weight: 5.50kg



Bluetooth™ Connection

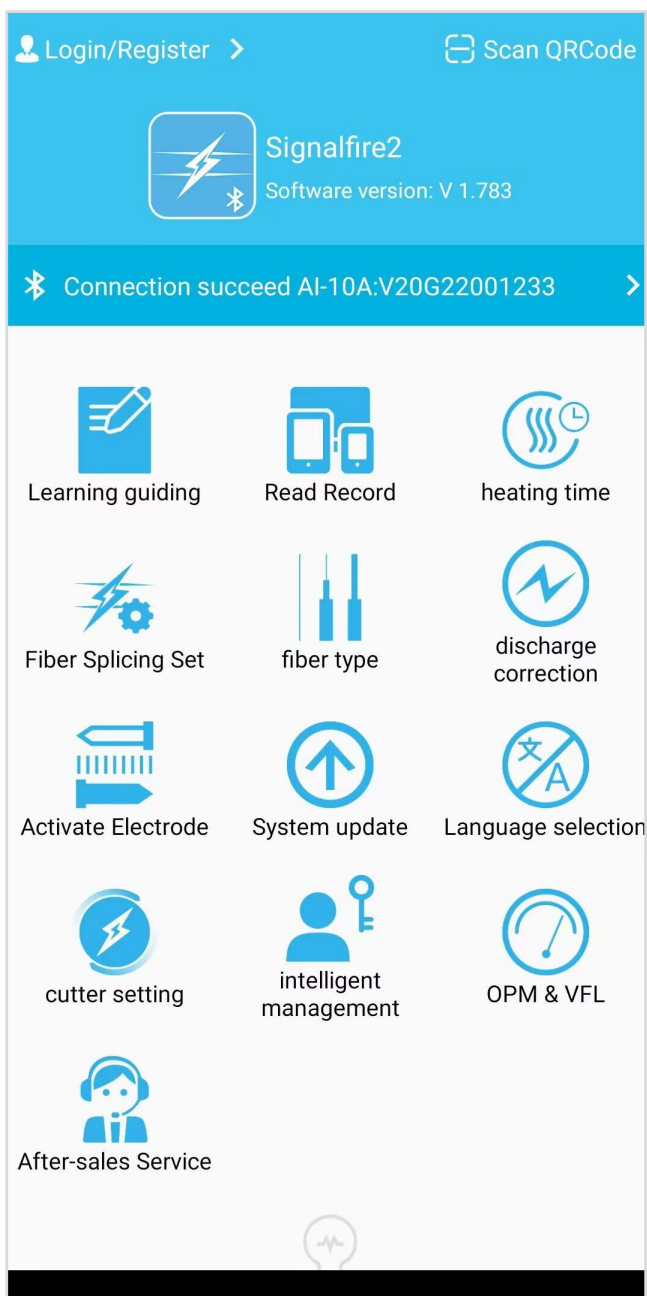
Establishing wireless communication through Bluetooth technology to achieve data transmission



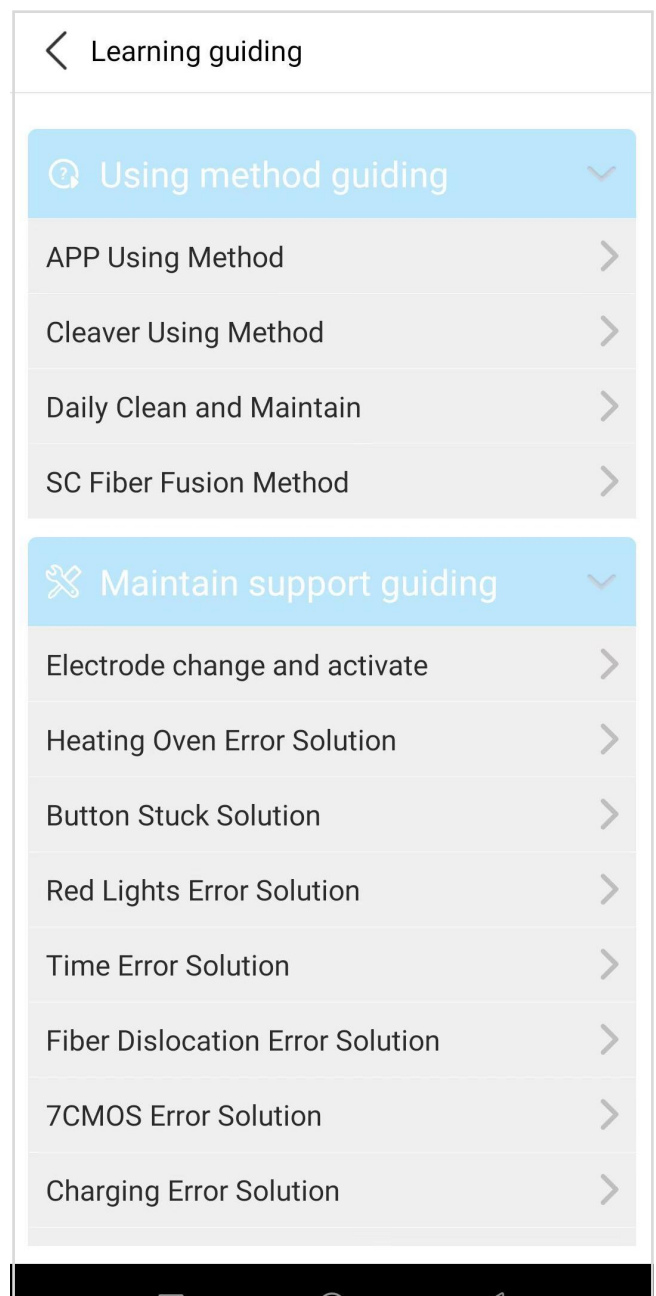
- Welding record can be read through mobile phone, and the data can be exported;
- You can set the parameters of the welding machine, such as selecting the machine language, changing the heating time, selecting the fiber optic alignment mode, etc;
- You can manage the welding machine, such as setting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

INTELLIGENT INTERACTION, AVOID TEDIOUS

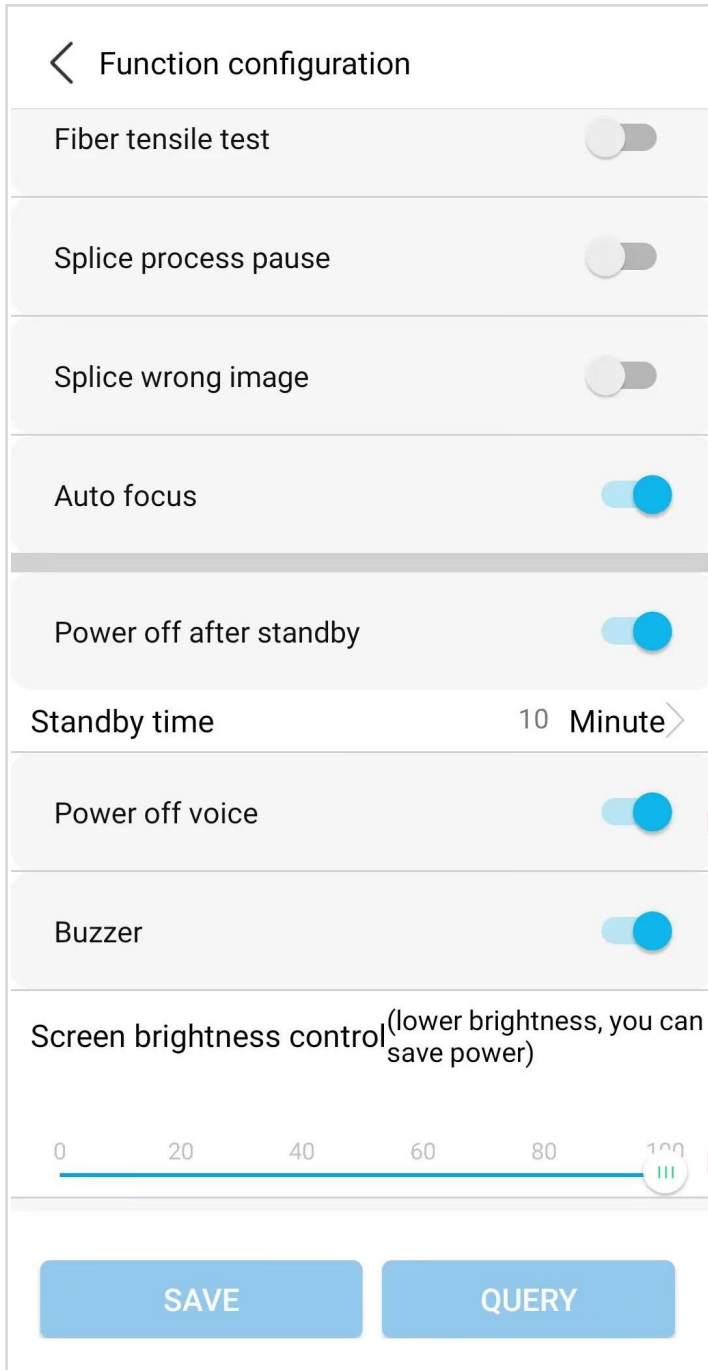
Scan the QR code of the welding machine startup screen to download the Mobile APP. The phone connects to the splicer via Bluetooth.



APP main interface

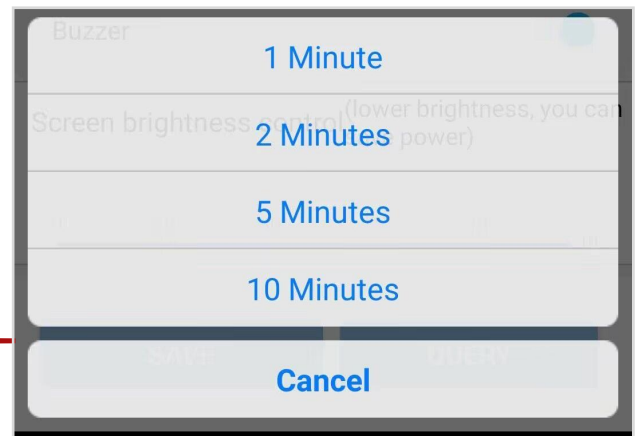


Learning guidance interface



Energy saving mode

Automatic shutdown of the machine without any action within the set time



After it is opened, there will be voice prompt in the whole process from fiber laying, fiber matching, welding and loss value. In case of unqualified items, it will be directly informed.

Adapt to bright light, dark and other different outdoor environment

Splicing record More

Cumulative fusion times: 0 times

Machine: AI-10A:V20G22001233 ▼

Specify user: all ▼

View by time: 4 times

2023-10-01 — 2023-11-02

serial number	Splicing loss	Time	Weld image
1	0.00	2023-10-30 18:43:39	
2	0.01	2023-10-30 18:42:33	
3	0.01	2023-10-30 18:41:25	

Splicing records can be downloaded and exported

Unlimited storage of splicing records
Can be viewed on mobile devices

Unconnected device >

中文 (简体)	Auto-detection
English	English ✓
Português	Русский
Français	Español
Русский	Italiano
Español	Português (Brasil)
Polski	Português
ไทย	Indonesia
عربي	Polski
Italiano	Français
	عربي

Fusion splicer language/ mobile app selection

heating time

Pre-heat model ☑

Choose shrinkable tube Customize >

Set heating time 15 s

Preheating mode: The welding is completed. When the windshield is opened, the heater is heated in advance for 6 seconds. Turning on the preheating mode can appropriately reduce the heating time of the heat shrinkable tube to improve efficiency.

Note: In winter or low temperature, heating is not ideal, and the heating time can be

Heating time customization

Extreme cold/high temperature can be extended or shortened appropriately

cutter setting System parameters

Cutting length: 13.0mm >

Cutting type: Automatic identification >

Automatic cutting: OFF ☑ ON

Replace the blade >

Tension automatic correction
This function can be turned off when the automatic correction function is turned on and the ideal cutting length cannot be reached. ON ☑ OFF

LED brightness adjustment 0 20 40 60 80 100

Cutter usage tutorial >

Common problems and solutions >

Clean cutter >

Factory settings >

Cutting times:72

Cleaver Parameter setting /adjustment

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 8-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.

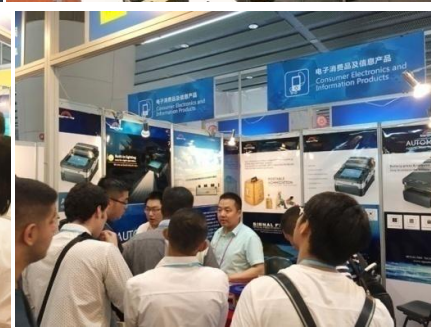
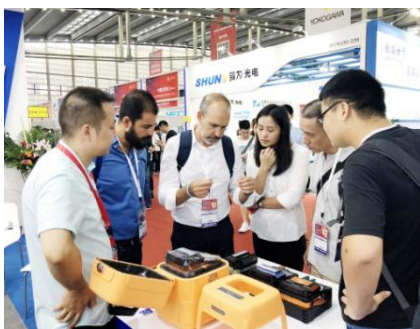
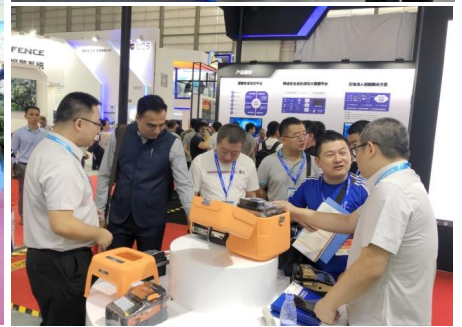
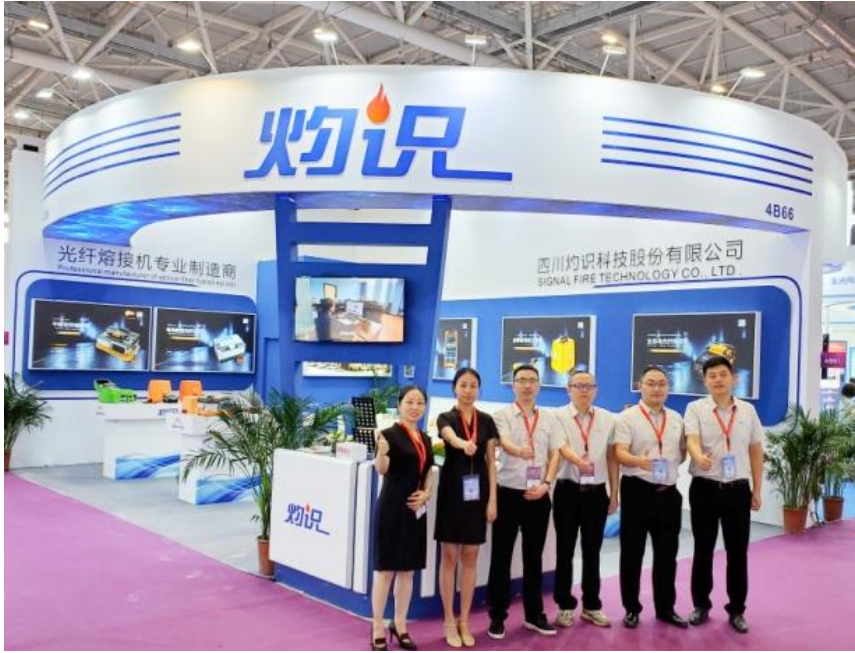


Operator winning bid brand



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





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



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, Liando U Valley, 1111 Changsheng Bridge, Pidu District, Chengdu China
Manufacturer: SIGNAL FIRE TECHNOLOGY CO., LTD.
Address: Building 18, Chengdu Hi-Tech International Enterprise Park, Liando 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
• Safety	Yes
Article 3(1)(a) EN 50663: 2017, BS EN 62479: 2010	Yes
• Health	Yes
Article 3(1)(b) ETSI EN 301 489-1 V2.3.2 (2019-11)	Yes
• EMC ETSI EN 301 489-17 V3.2.4 (2020-09)	Yes
Article 3(c) ETSI EN 300 328 V2.2.2 (2019-07)	Yes
• Radio	Yes

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

Certified by

 Kingkong Jin

Jan. 03, 2023
Date



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



Shenzhen Anbotek Compliance Laboratory Limited
 1/F, Building D, Sogood Science and Technology Park, Samwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China 518128
 Tel: (86)755-26066440 Fax: (86)755-26014772
 Http://www.anbotek.com Email: service@anbotek.com

CERTIFICATE



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, Liando U Valley, 1111 Changsheng Bridge, Pidu District, Chengdu China
Manufacturer: SIGNAL FIRE TECHNOLOGY CO., LTD.
Address: Building 18, Chengdu Hi-Tech International Enterprise Park, Liando U Valley, 1111 Changsheng Bridge, Pidu District, Chengdu China
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• EMC ETSI EN 301 489-17 V3.2.4 (2020-09)	Yes
CHAPTER (General)(2) ETSI EN 300 328 V2.2.2 (2019-07)	Yes
• Radio	Yes

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Certified by

 Kingkong Jin

Jan. 03, 2023
Date



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



Shenzhen Anbotek Compliance Laboratory Limited
 1/F, Building D, Sogood Science and Technology Park, Samwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China 518128
 Tel: (86)755-26066440 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:

Ray Area Compliance Laboratory Corp. Date of Grant: 02/09/2018
 1274 Alvinwood Avenue Application Date: 02/09/2018
 Sunnyvale, CA 94089

Signal Fire Technology Co., Ltd.
 No.8-4 Qingyang Zone, Jiaobang 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 certified hereon for use under the Commission's Rules and Regulations listed below:

FCC IDENTIFIER: A539147399
 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 - 2499.0	0.0004		

Output power listed is conducted.

TCB





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, Horiguang Town, Small and Micro Enterprise Innovation Park, North Area of Chengdu Modern Industrial Park, Pidu District, Chengdu
 Production Office Address: Building 18, Chengdu High-tech International Enterprise Park, Liando 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. 21, 2025

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





The certificate and status shall only if the certified organization accepts surveillance audit as regular practice and is audited to be qualified. The information of this certificate is available at EACC: www.eacc.com.cn and CNAS: www.cnas.com.cn and is also available by scanning the QR Code in the certificate.

Address: No.1111, No. 121 Building, No. 11, Horiguang Town, Small and Micro Enterprise Innovation Park, North Area of Chengdu Modern Industrial Park, Pidu District, Chengdu City, Sichuan Province, China

