



AI-10A



# 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-10 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 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.



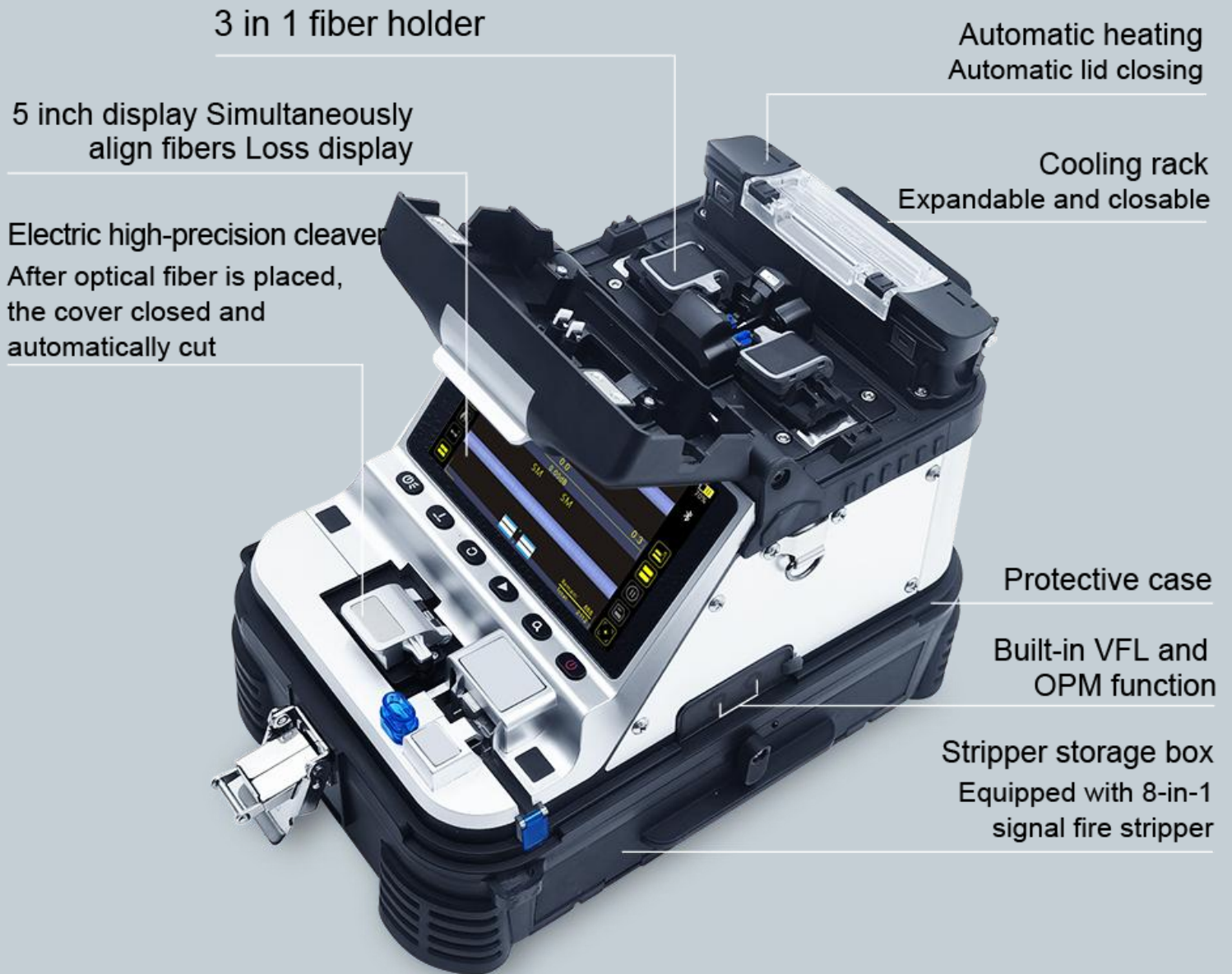
Can be used as a bench  
outdoor construction  
is also easy



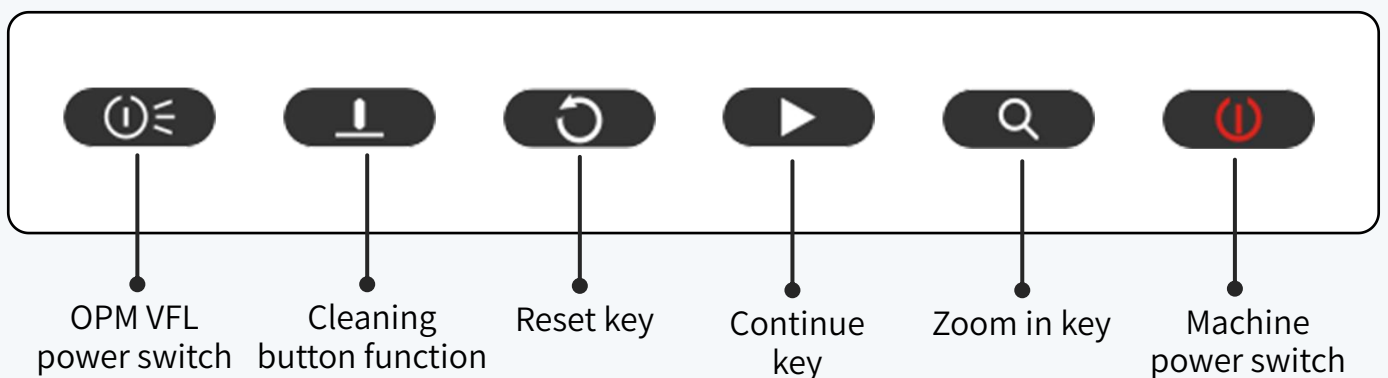
Host support /  
protection console



Equipped with 8-in-1  
signal fire stripper

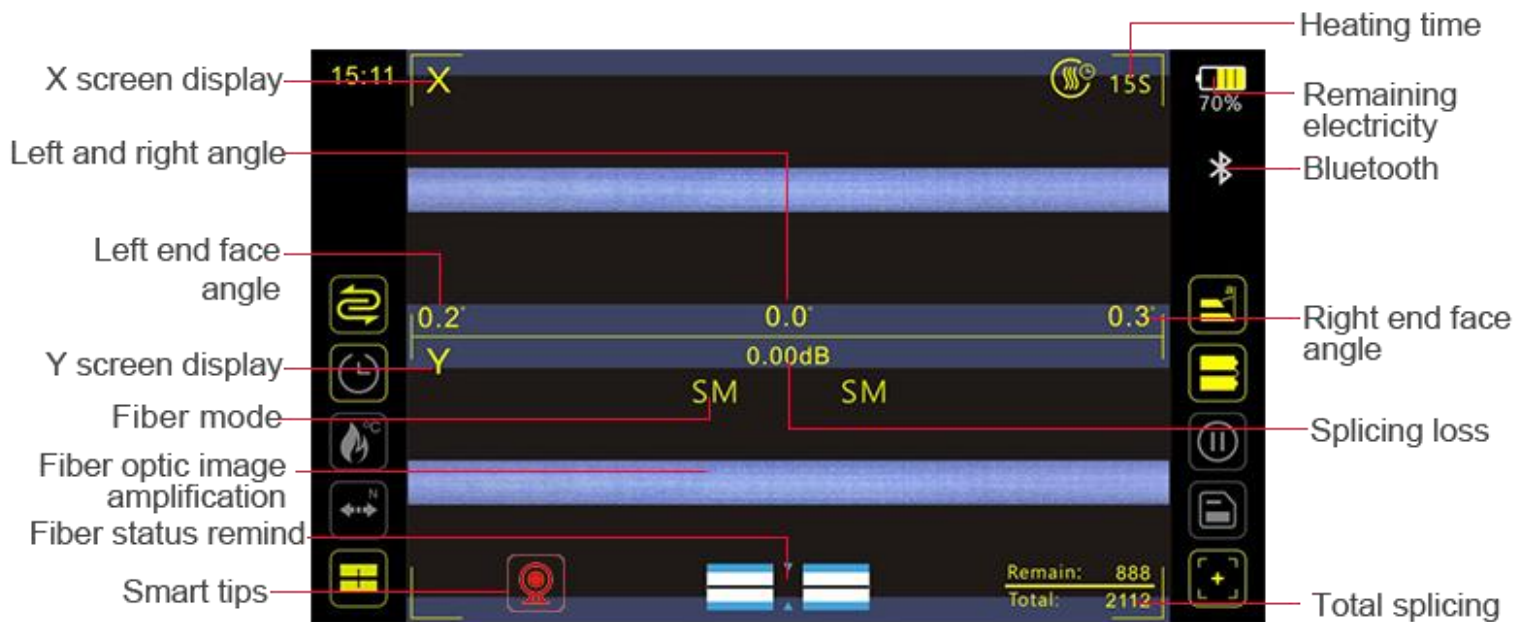


## The buttons are clear and beautiful



# 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

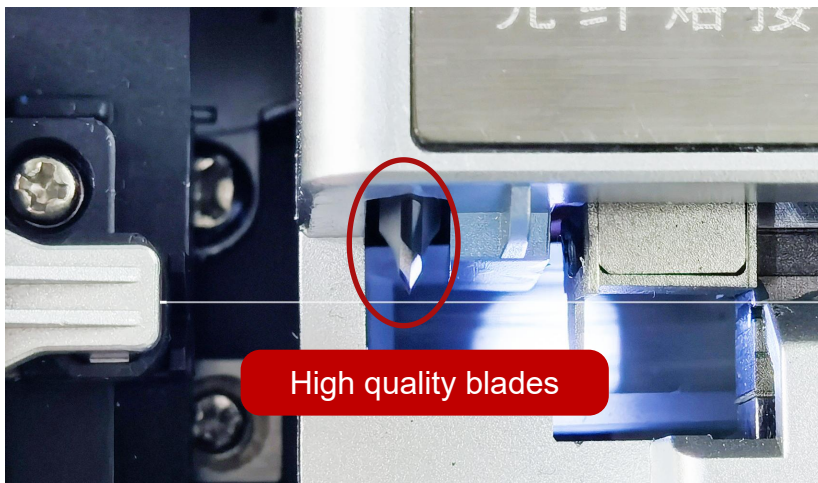
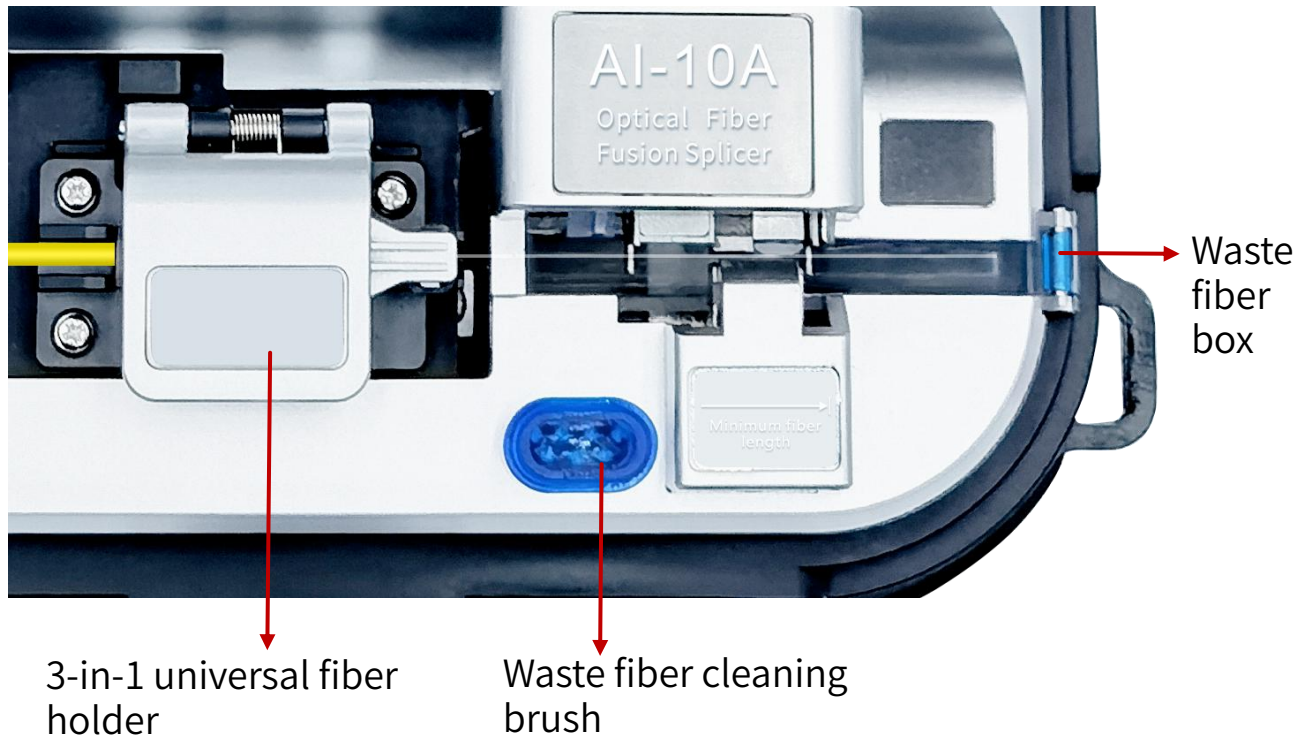


Left and right fiber does not match



The lens is foggy or foreign body interference

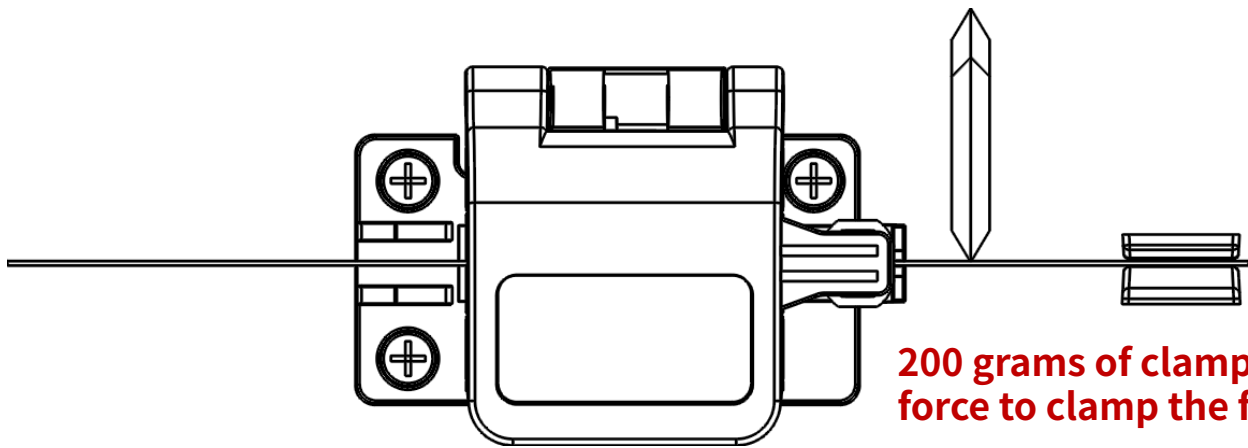
# EQUIPPED WITH ELECTRIC HIGH-PRECISION CLEAVER



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

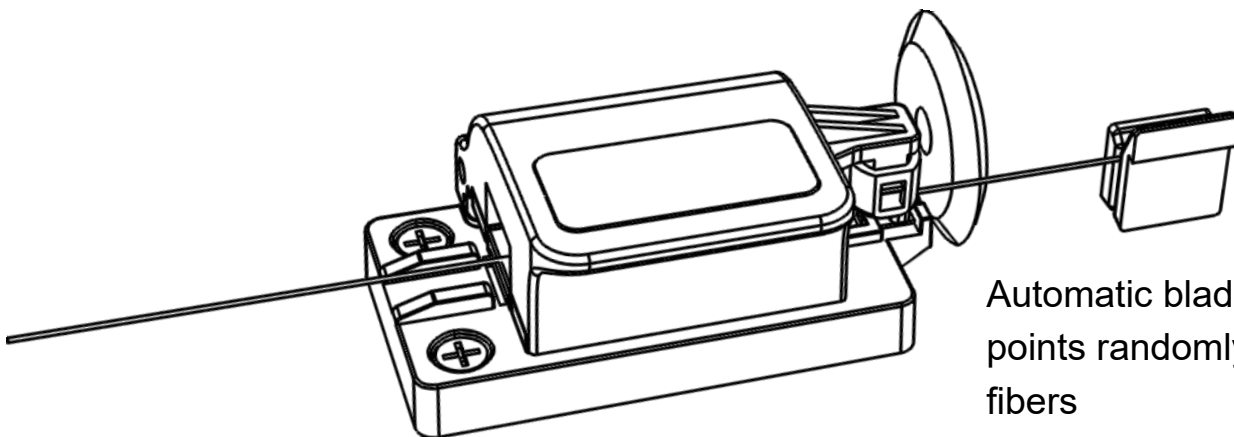
# NO BLADE RESURFACING MAINTENANCE FREE

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

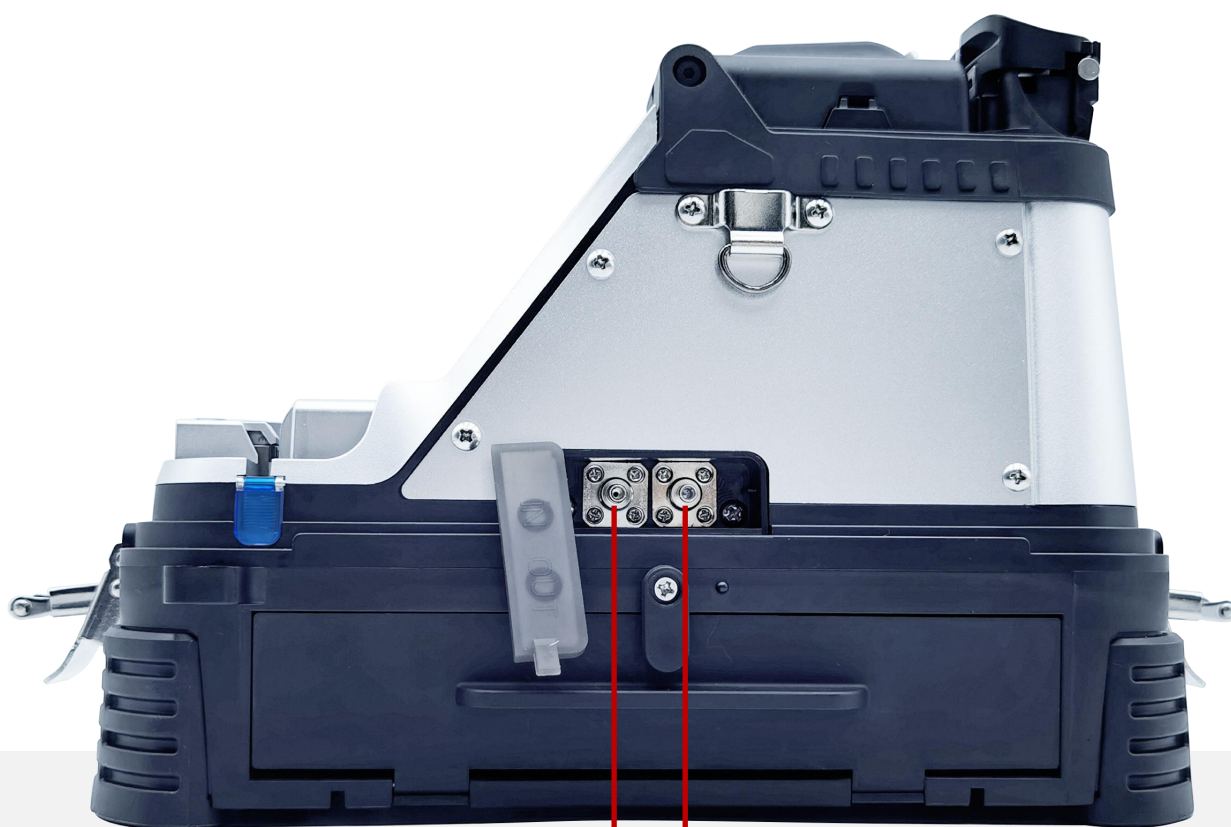
**No blade refacing is required**

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

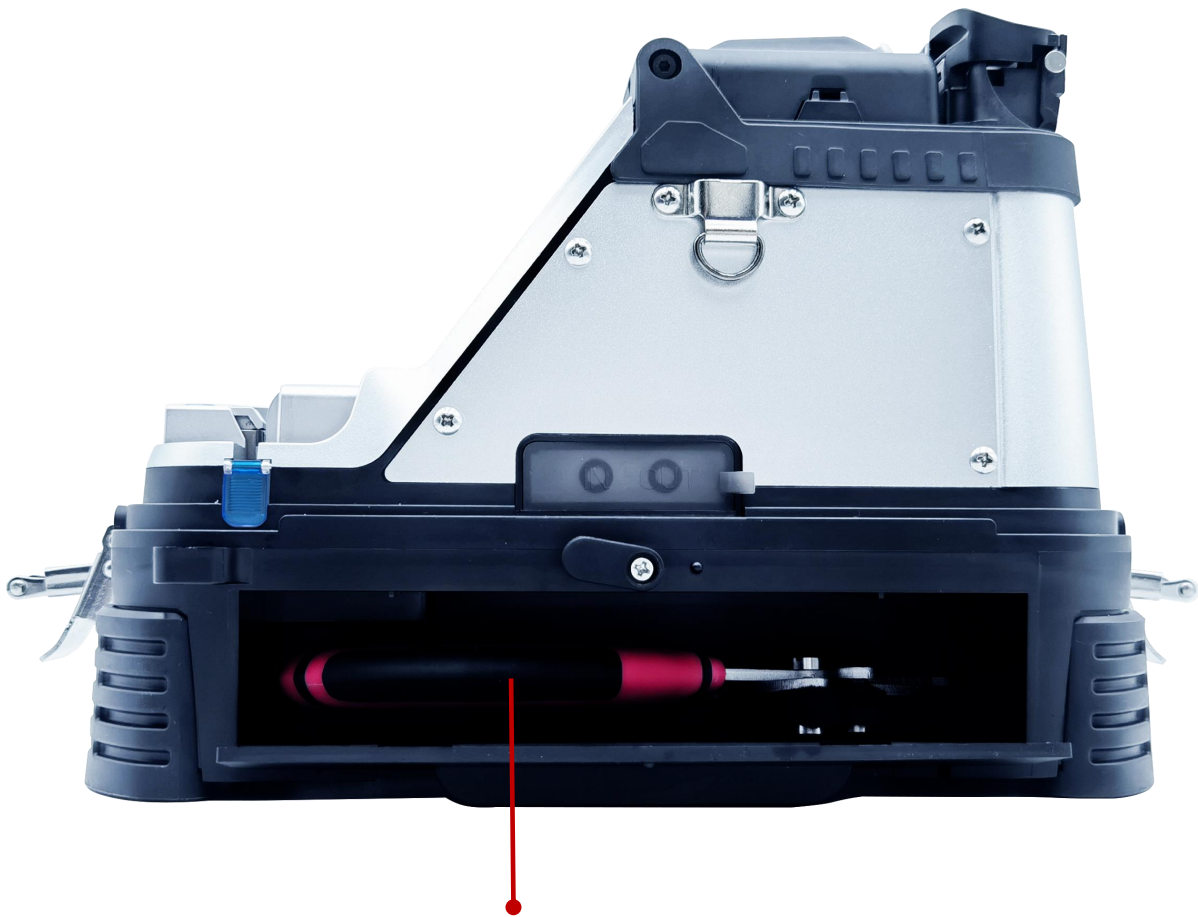
Wavelength: 850nm; 1300nm, 1310nm,  
1490nm, 1550nm, 1625nm

**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



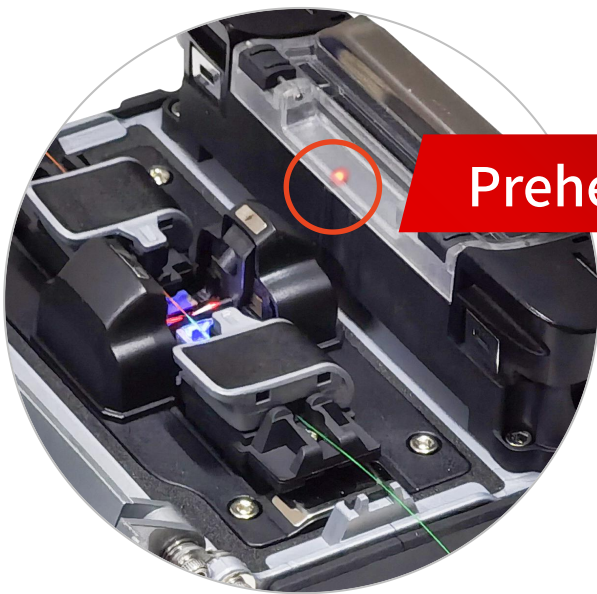
# 7800MAH LITHIUM BATTERY

Dual charging path Charging time  $\leq 3.5$  hours

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



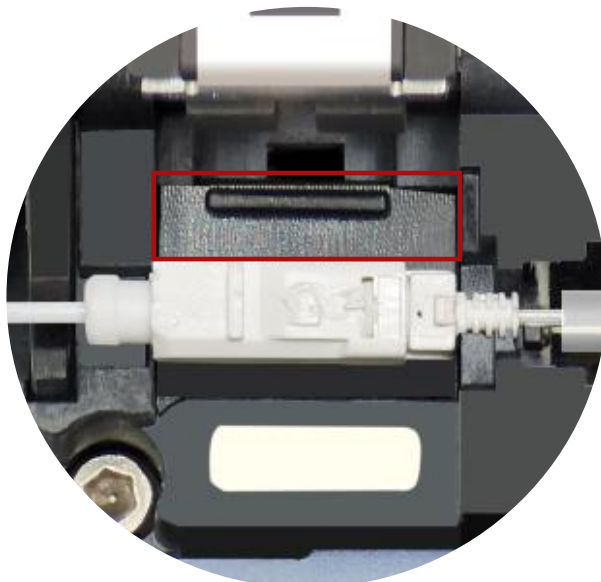
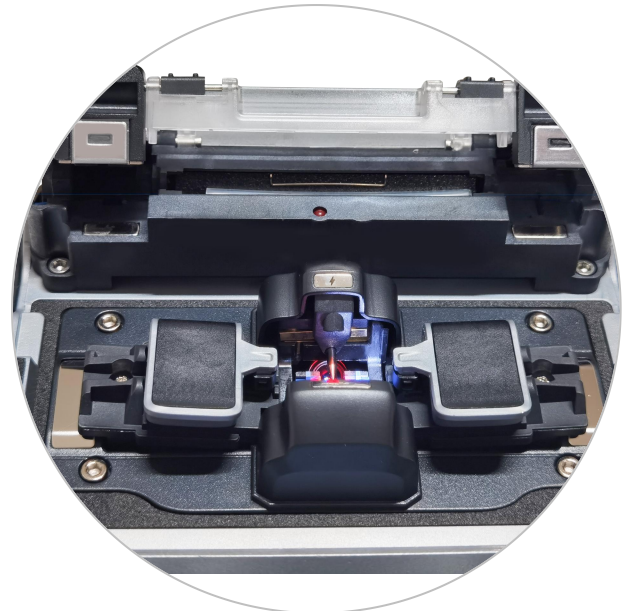
# 15S AUTOMATIC HEATING



**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

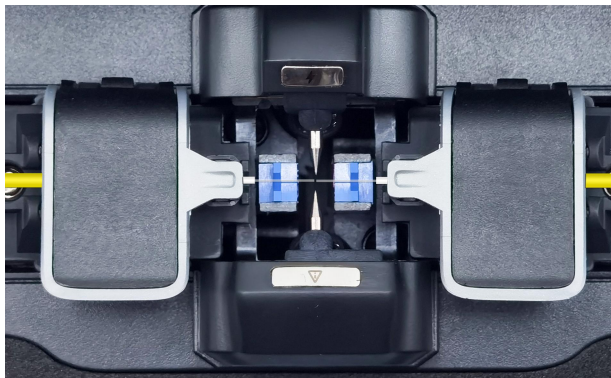
# COOLING RACK

Expandable and closable

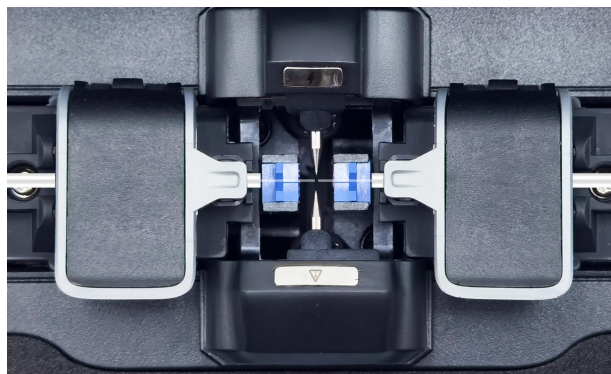


# 3-IN-1 UNIVERSAL FIBER HOLDER

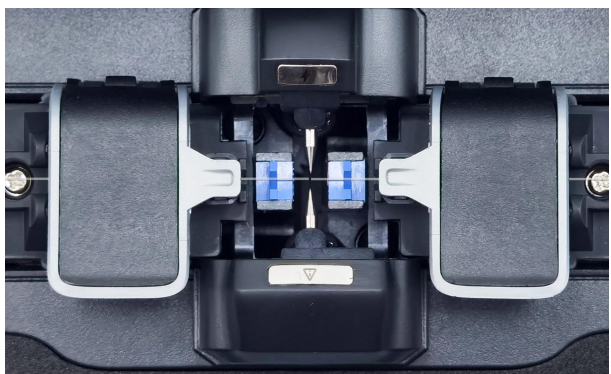
SM, MM, bare fiber, pigtail, Drop cable , multi fiber cable



Jumper fiber  
(pigtail)

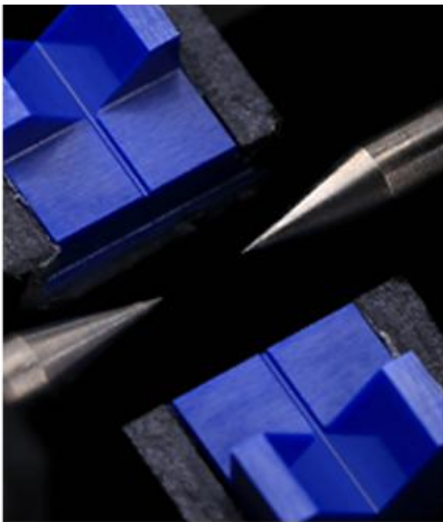


Drop cable



Bare fiber

# EXQUISITE DETAILS



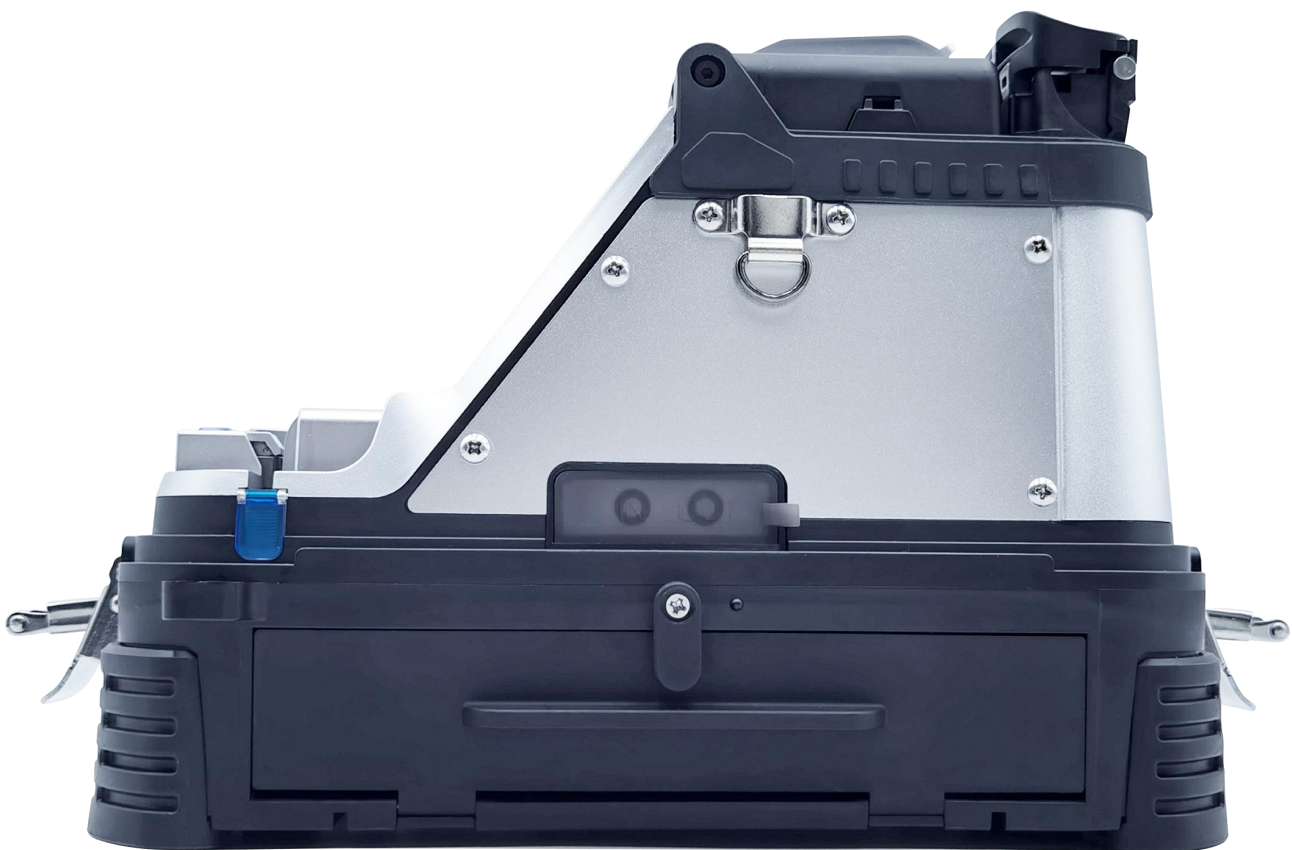
The buttons are clear and beautiful





# 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 fiber fusion;
The cladding diameter	80-150 $\mu\text{m}$
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
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 $\mu\text{m}$ /Coating diameter: 100-1000 $\mu\text{m}$
Cutting length	Coating layer 250 $\mu\text{m}$ below: 8-16mm/coating layer 250-1000 $\mu\text{m}$ : 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°C, humidity: < 95%RH (no condensation), working altitude: 0 ~ 5000m, maximum wind speed: $\leq 15\text{m/s}$

# 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

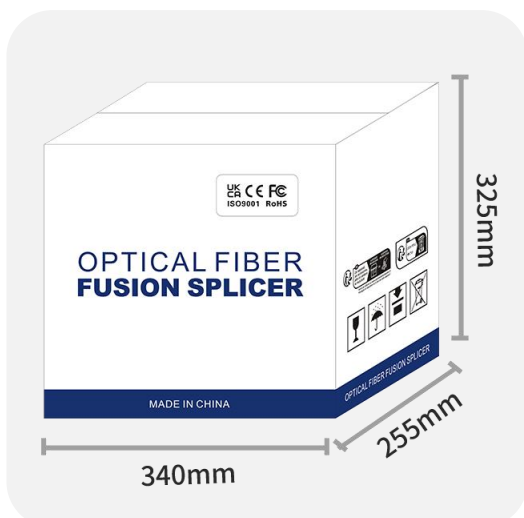


Machine size: 165mm x 255mm x 185mm

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

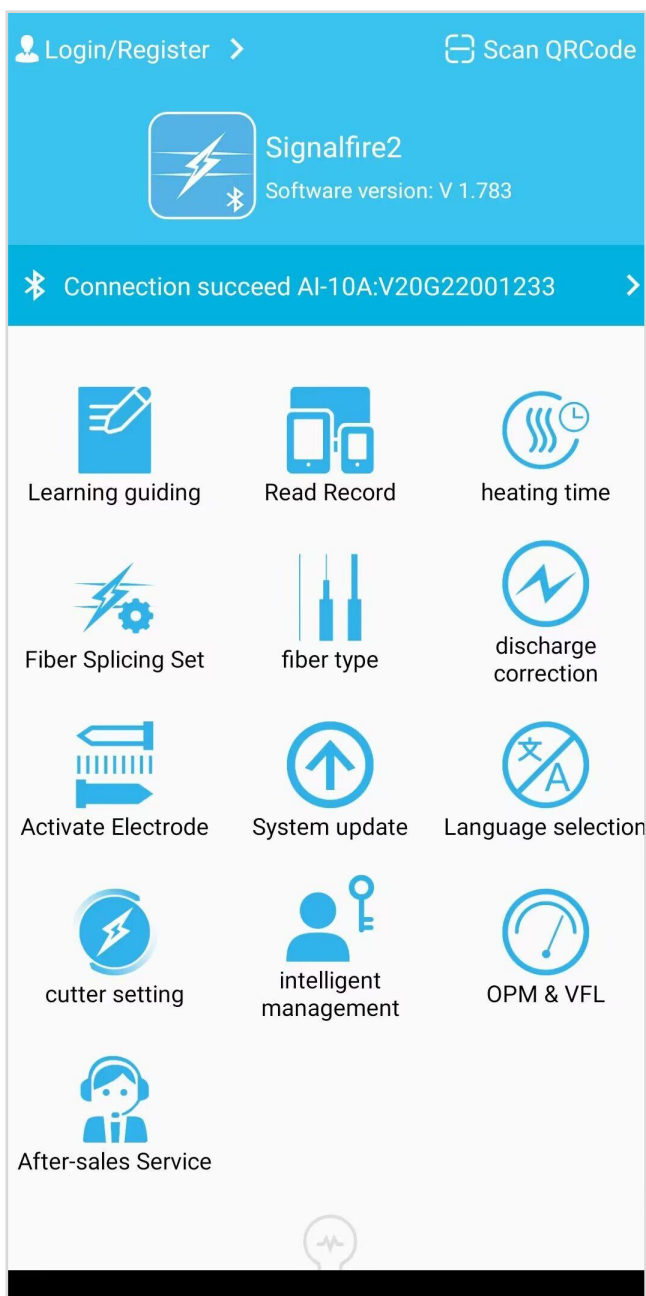


- Welding record can be read through mobile phone, and the data can be exported;
- You can set the parameters of the welding machine, such as selecting the machine language, changing the heating time, selecting the fiber optic alignment mode, etc;
- You can manage the welding machine, such as setting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

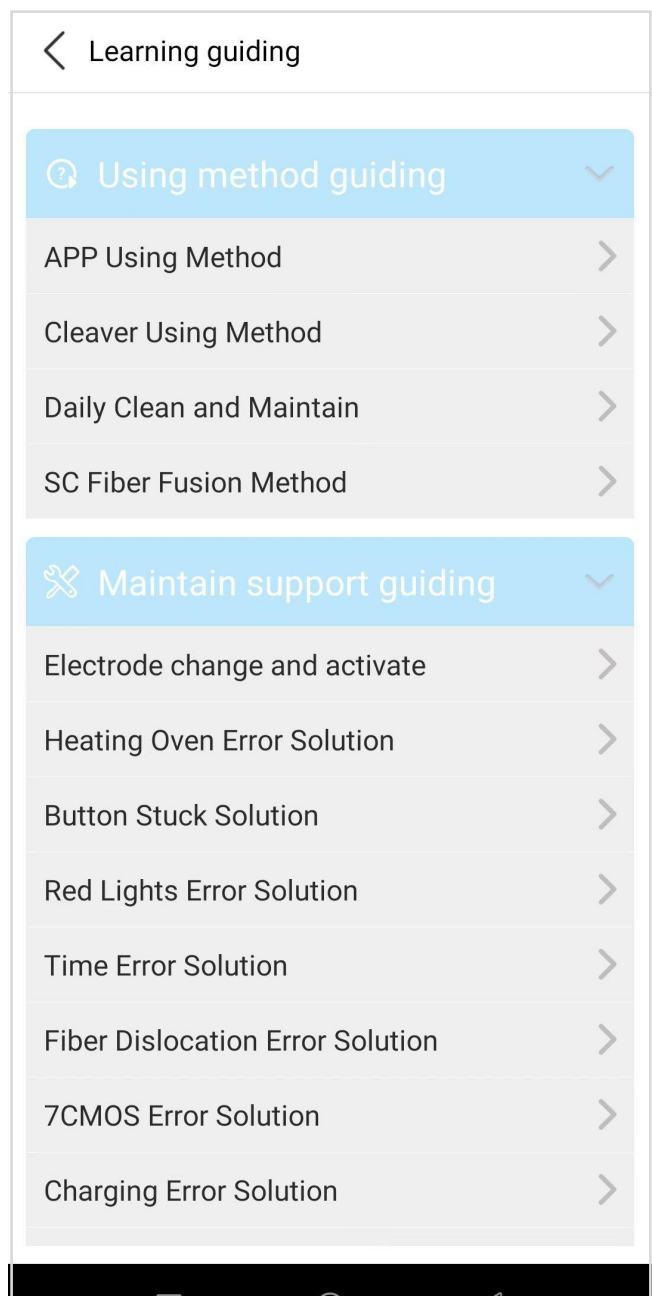


# INTELLIGENT INTERACTION, AVOID TEDIOUS

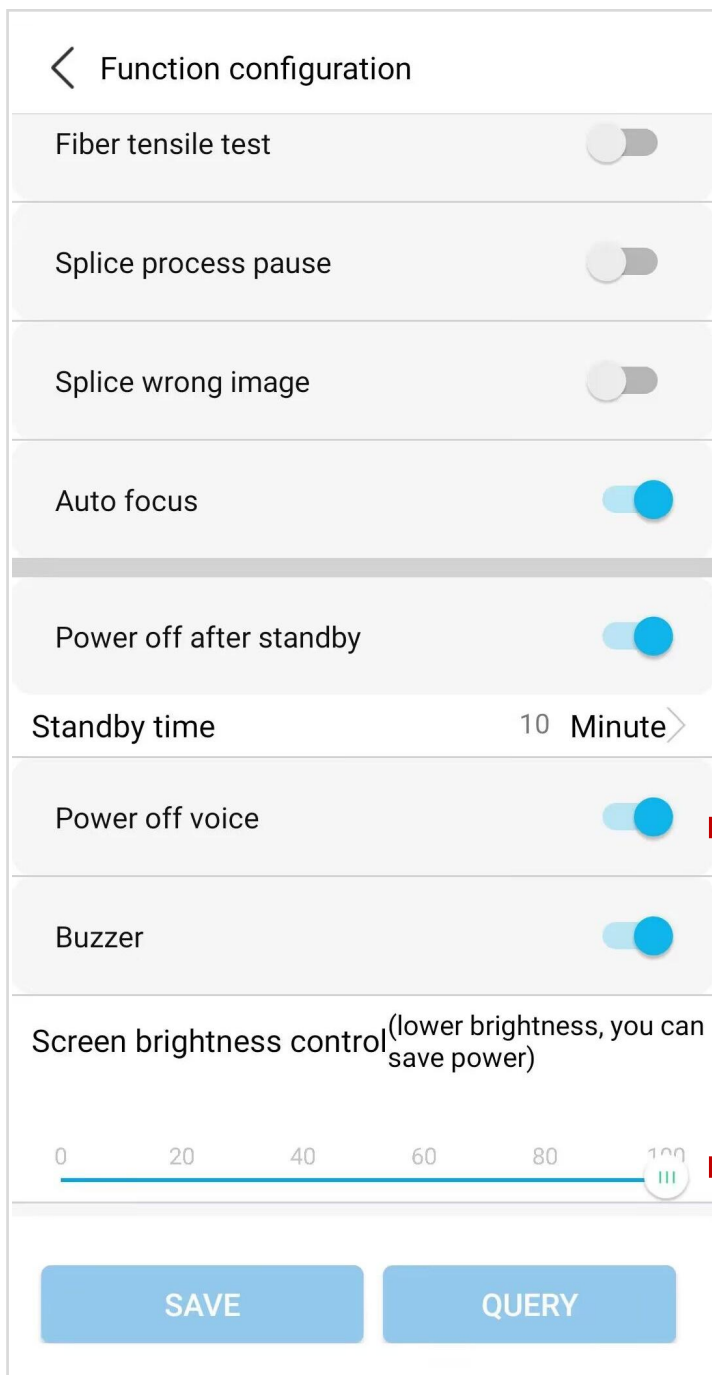
Scan the QR code of the welding machine startup screen to download the Mobile APP. The phone connects to the splicer via Bluetooth.



APP main interface

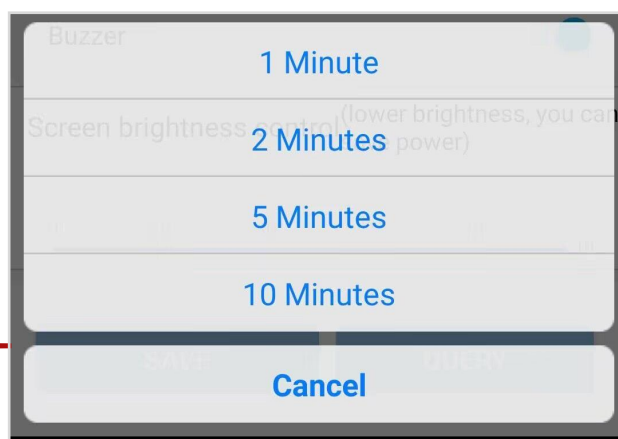


Learning guidance interface



### 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

heating time

Pre-heat model

Choose shrinkable tube Customize >

Set heating time  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

Unconnected device >

中文 (简体)	Auto-detection
English	English <span style="float: right;">✓</span>
Português	Русский
Français	Español
Русский	Italiano
Español	Português (Brasil)
Polski	Português
ไทย	Indonesia
عربي	Polski
Italiano	Français
	عربي

### Fusion splicer language/ mobile app selection

cutter setting System parameters

Cutting length  >

Cutting type  >

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.

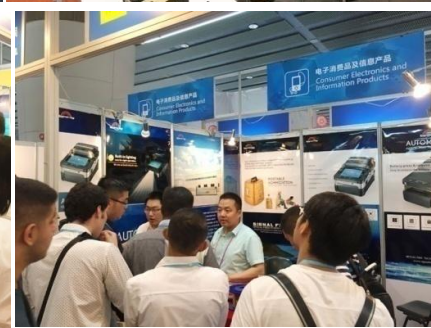


# Operator winning bid brand



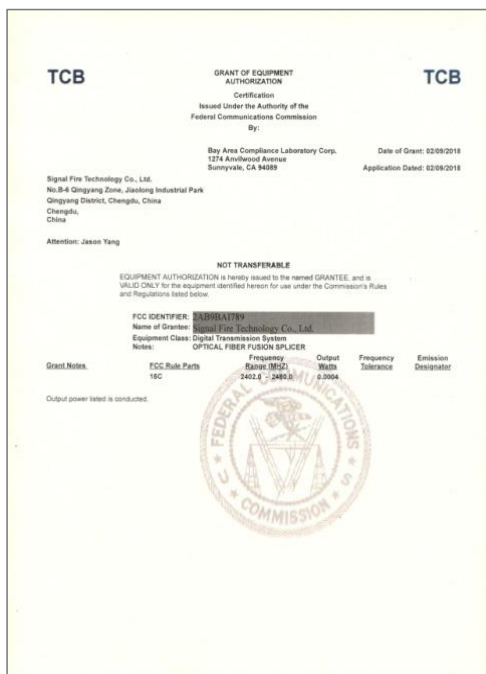
Telecom installation and maintenance skills competition, Signal fire fusion splicer excellent performance, won the group first prize







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.



**United States of America**  
United States Patent and Trademark Office



**Reg. No. 7,197,549**  
**Registered Oct. 17, 2023**  
**Int. Cl.: 7**  
**Trademark**  
**Principal Register**

Signal Fire Technology Co., Ltd. (CHINA limited company (Ltd.))  
No. 1111, Changsheng Bridge, Hongguang Town  
Small and Micro Enterprise Innovation  
Park, Pidu Dist., Chengdu, CHINA 611730

CLASS 7: Cutting machines; Electric arc cutting apparatus; Electric arc welding apparatus; Electric scissors; Electric shearing machines; Electric welding machines; Electrodes for welding machines; Gear cutting and finishing machines; Knives, electric; Soldering apparatus, electric

FIRST USE 6-15-2014; IN COMMERCE 6-15-2014

The mark consists of the stylized wording "Signal fire" with a rainbow bridge above the stylized letters "gnal fi".


SER. NO. 97-339,851, FILED 03-31-2022



*Katherine Kelly Vidal*  
Director of the United States  
Patent and Trademark Office



**United States of America**  
United States Patent and Trademark Office



**Reg. No. 7,197,550**  
**Registered Oct. 17, 2023**  
**Int. Cl.: 8**  
**Trademark**  
**Principal Register**


Signal Fire Technology Co., Ltd. (CHINA limited company (Ltd.))  
No. 1111, Changsheng Bridge, Hongguang Town  
Small and Micro Enterprise Innovation  
Park, Pidu Dist., Chengdu, CHINA 611730

CLASS 8: Nippers; Pliers; Scissors; Blades for manually-operated tools; Hand-operated cutting tools; Hand-operated shears; Hand tools, namely, graving tools; Hand tools, namely, scrapers; Hand tools, namely, wire strippers; Multi-tool knives


FIRST USE 6-15-2014; IN COMMERCE 6-15-2014

The mark consists of the stylized wording "Signal fire" with a rainbow bridge above the stylized letters "gnal fi".

SER. NO. 97-339,852, FILED 03-31-2022



*Katherine Kelly Vidal*  
Director of the United States  
Patent and Trademark Office



  
CERTIFICATE OF REGISTRATION  
**TRADE MARK**

Trade mark number: 2341304

The Registrar of Trade Marks has registered the trade mark represented on this certificate on 23 October 2023 and certifies that the following particulars have been entered in the Register of Trade Marks.

**Name and address of owner(s):**  
Signal Fire Technology Co., Ltd. of No. 1111, Changsheng Bridge, Hongguang Town, Small and Micro Enterprise Innovation Park, Pidu Dist., Chengdu, Sichuan, 611730 China

The trade mark is registered in the following class(es):  
7

Date of filing: 13 March 2023  
Registered from: 13 March 2023  
Registration expires on\*: 13 March 2033  
Representation:



Goods and/or services, and other information relating to the registration of this trade mark are listed on the following pages.

Dated this 23<sup>rd</sup> day of October 2023  
Registrar of Trade Marks



**TRADE MARKS ACT 1995**  
The Australian Trade Marks Register is the official record and should be referred to for the full details pertaining to this IP Right

  
EUROPEAN UNION INTELLECTUAL PROPERTY  
CERTIFICATE OF REGISTRATION

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

**ZHUOSHU**

The Executive Director / Der  
Exekutivdirektor  
*Christian Achambeau*  
Christian Achambeau

AMT DER EUROPÄISCHEN UNION FÜR GEISTIGES  
EIGENTUM  
ENTRAGUNGSRUNDE

Diese Eintragungsurkunde wird für die unten angegebenen Waren und Dienstleistungen ausgestellt. Die betreffenden Angaben sind im Europäischen Register eingetragen worden.

www.euiipo.europa.eu

Registered / Eingetragen 21/04/2023  
No 018802892