NEW Product LAUNCH

AI-20/AI-30

THE FOURTH GENERATION TRUNK LINE OPTICAL FIBER FUSION SPLICER

Built-in high precision delay return electric one-step fiber cleaver

Full link integration design Highly integrated

The AI-20/AI-30, the fourth generation fiber fusion splicer developed by Signal fire, is the latest generation of fiber fusion splicer designed for full link integration. It combines Signal fire's latest research and development of a delayed return electric one-step cleaver with fiber fusion splicing, while integrating OPM and VFL functions. Combined with a nine in one signalfire fiber stripper, a combinable workbench and worktable, it truly becomes a compact, lightweight, and easy to operate fiber fusion splicer, which will greatly improve your work efficiency.

SIX MOTORS

FIBER CORE ALIGNMENT

6S SPLICING

15S HEATING

WITHIN OPM FUNCTION

WITHIN VFL FUNCTION

DELAY RETURN ELECTRIC ONE-STEP FIBER CLEAVER

SIGNAL FIRE STRIPPER

Humanized design meets different Construction environments

Compact and portable

Climbing high is also easy

Bench+support platform

Can be used as a bench

Host support /protection console

Equipped with signal fire stripper

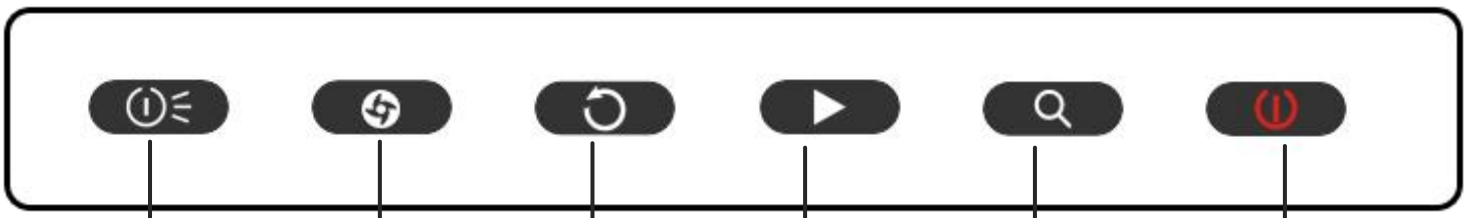
AI-20/AI-30

OPTICAL FIBER FUSION SPLICER

Signal fire AI-20/AI-30 fusion splicer applies multiple of the latest patented technologies of Signal fire, and adopts a more advanced central processing unit, more advanced algorithms, and higher precision cameras. Especially, the AI-30 fiber core is clearer and more visible, and the fusion loss and stability are better. It is fully capable of longer distance mainline fiber optic cable fusion splicing projects.The weight of bare machine,tool case and complete set of accessories only 4.5kg, size of tool case is 25.5cmx16.5cmx23cm. In such a compact and compact situation, the combination design of workbench and bench has been achieved simultaneously. 1 second startup, 6 seconds rapid fusion, 15 seconds heating, 5-inch color high-definition LCD screen, 320x magnification, 7800mAh large capacity lithium battery can fuse and heat 240 cores, still performs well in harsh environments such as high altitude, dry, and cold.

Exquisite craftsmanship
High standard design

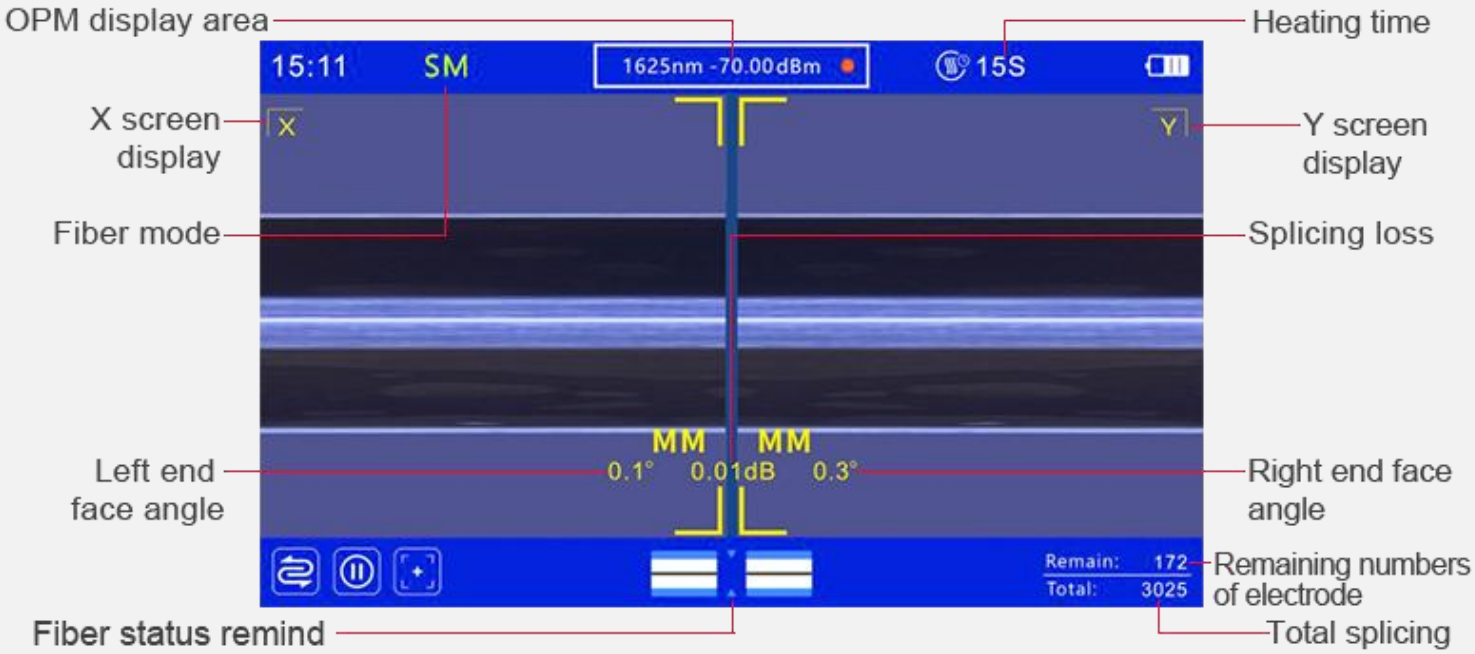
The buttons are clear and beautiful



OPM VFL power switch | Manual changing of blade | Reset key | Continue key | Zoom in key | Machine power switch

Display 5 inch TFT color display screen

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

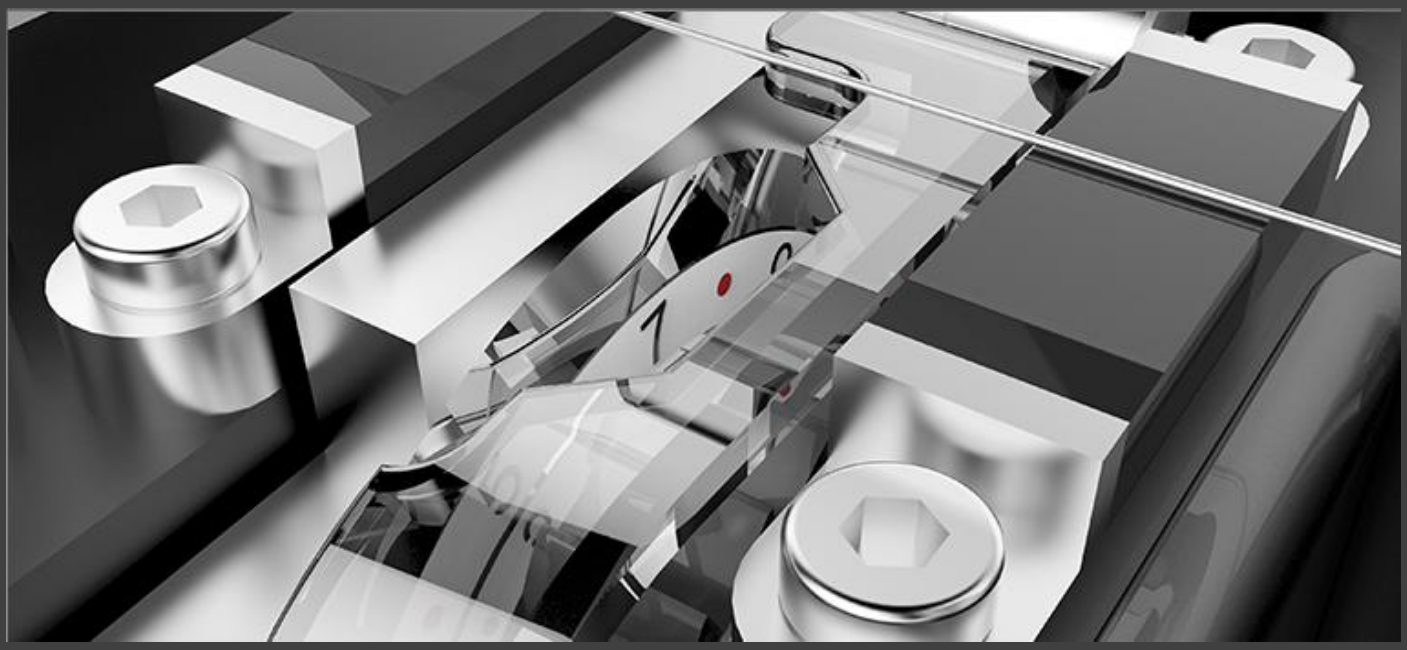


Camera failure | Core align failed | Focus failed | ARC calibration failed | Left and right fiber does not match | The lens is foggy or foreign body interference

Built-in high precision delay return electric one-step fiber cleaver

Signal fire new generation fiber fusion splicer has significantly reduced the actual weight and volume of the entire equipment by reducing auxiliary tools and improving the automation level, ultimately achieving a true improvement in fusion quality and efficiency. This is the fourth generation fiber fusion splicer that we first launched, and the core is full link integration design, highly integrated.

Blades surface automatically manually change delayed cleaver return

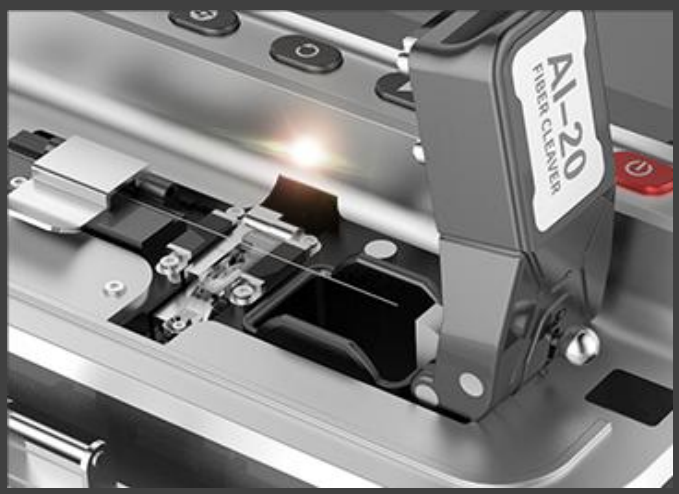


AUTOMATIC CHANGE

Cleaver blades surface automatically change when the current cutting point cut fiber more than 1000 times and continuously shown three times unqualified cutting results.

MANUAL CHANGE

Manual button operation, cleaver blades surface will change.Cleaver has 24 cutting points in total, current cutting point cut numbers, blades total cut numbers, Available within the APP.



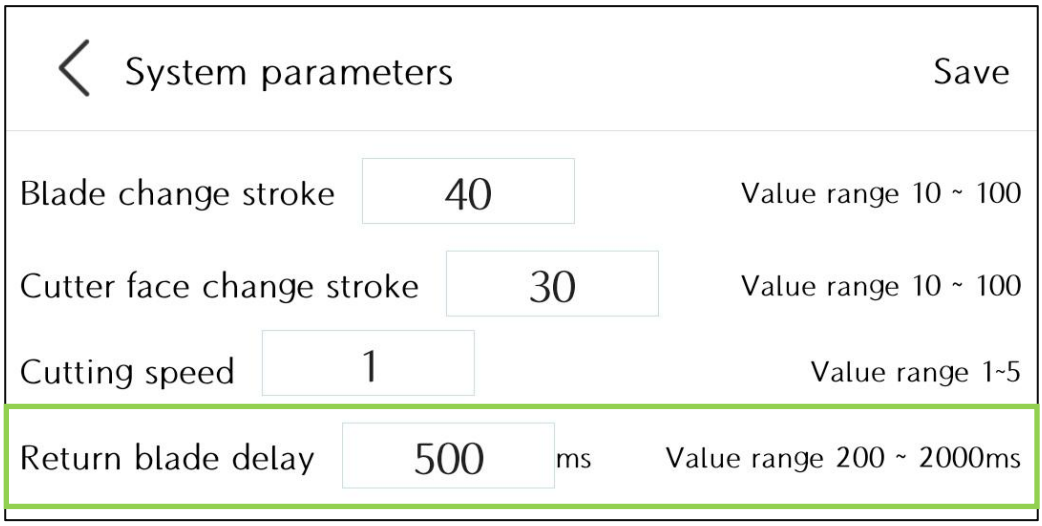
AUTOMATIC DELAYED CLEAVER RETURN

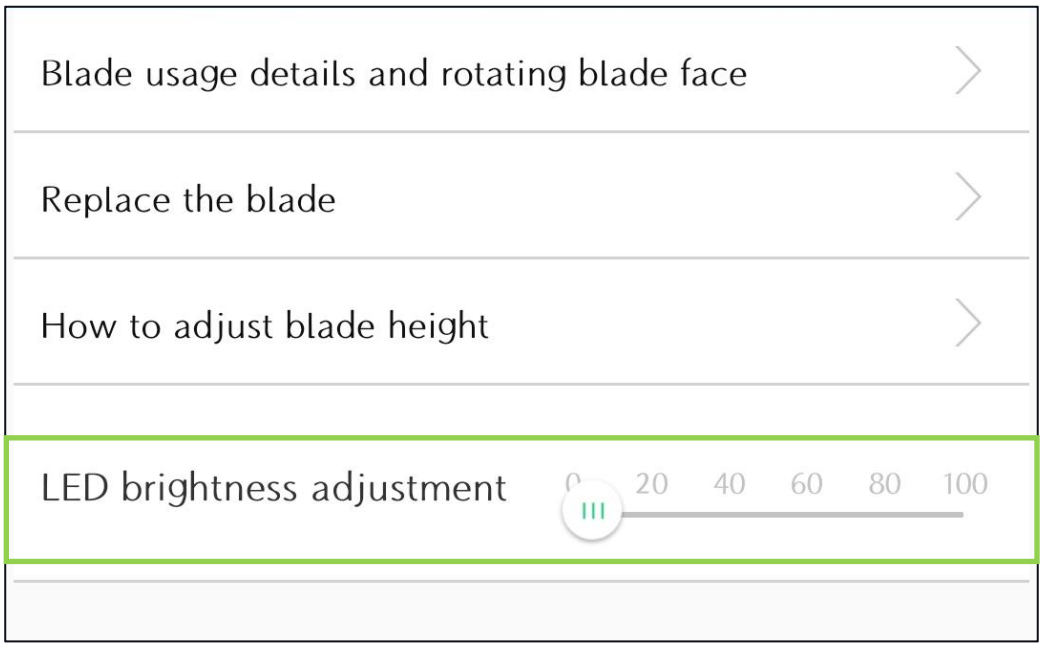
Perfectly solves the problem of traditional mechanical one-step cleaver back cutting scratching the fiber end face. The factory standard delay time is set to 0.5 seconds, and the adjustable range is 0.2 seconds to 2 seconds.

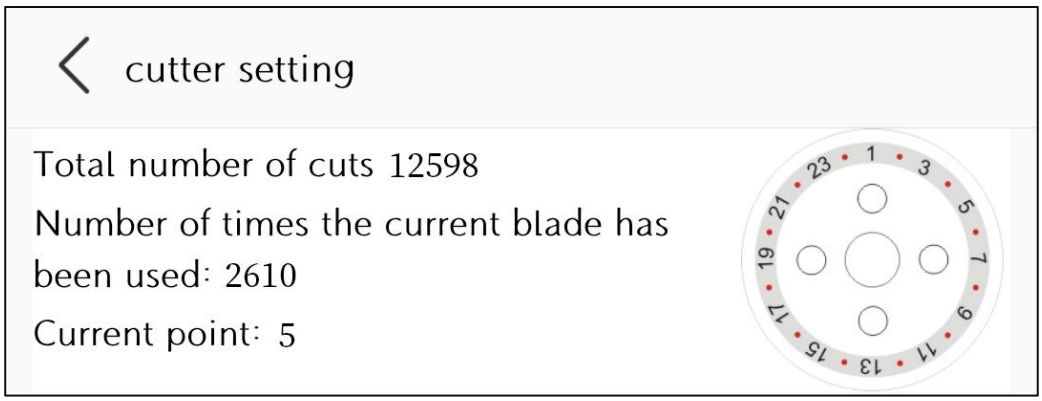
CLEAVER LED AUXILIARY LIGHTING

Brightness can be adjusted through APP.

APP Bluetooth connection

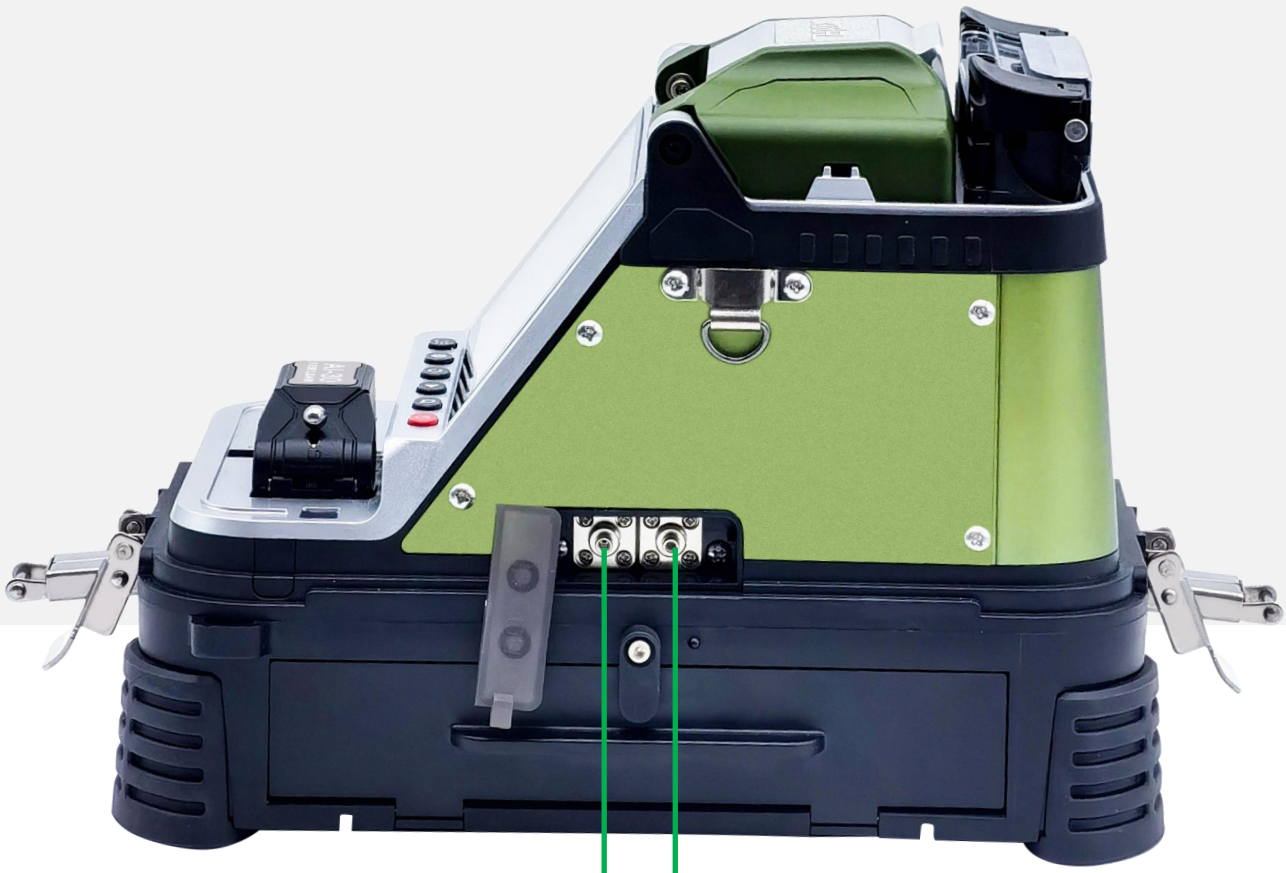






Built-in VFL and OPM function

Measure fiber link loss/luminous flux
Fiber line tracking, breakpoint/light leakage detection



OPM(Measurement range: -50+30dbm)

VFL(10km)

OPM

Switch between ten states

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

VFL

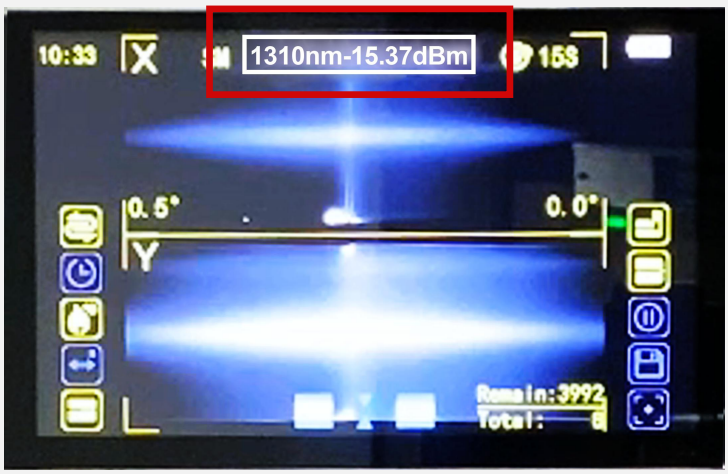
Switch between three states

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

Real-time luminous flux assisted alignment

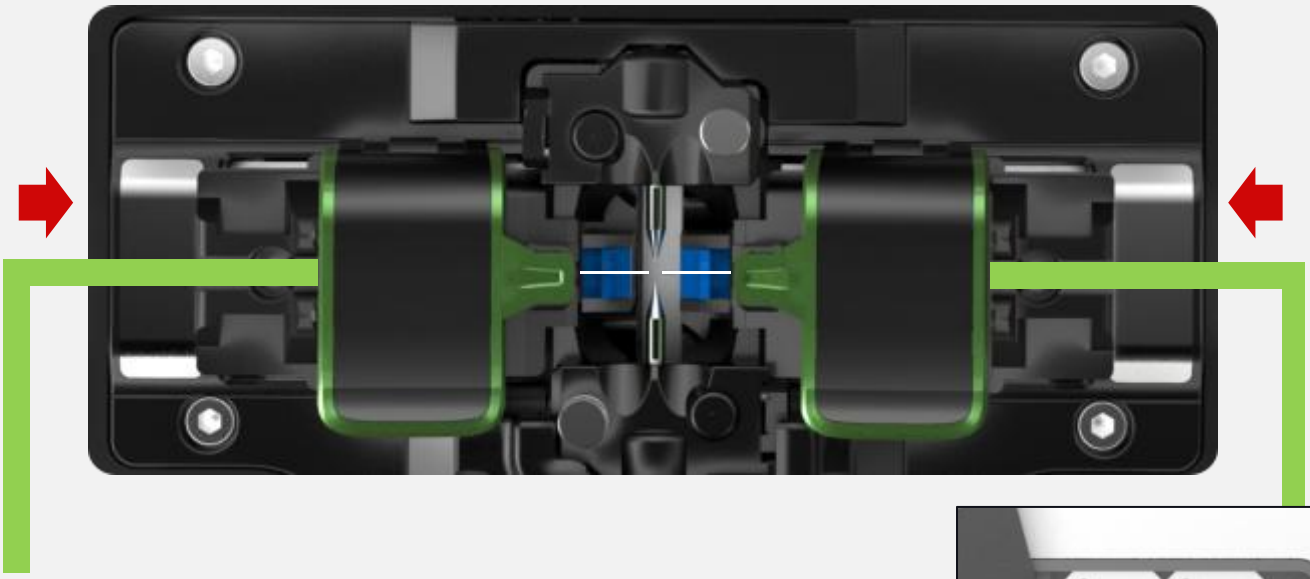
Only applicable to environments with stable optical signal link from front

Intelligently analyze the alignment point with the lowest splicing loss and then splice the fiber

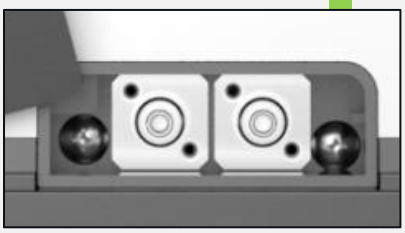


Splicing is completed

Real-time luminous flux assisted alignment technology developed by Signalfire, which intelligently analyzes the alignment point with the least loss to minimize the fiber fusion loss.



Optical fiber on the left which is stable optical signal link



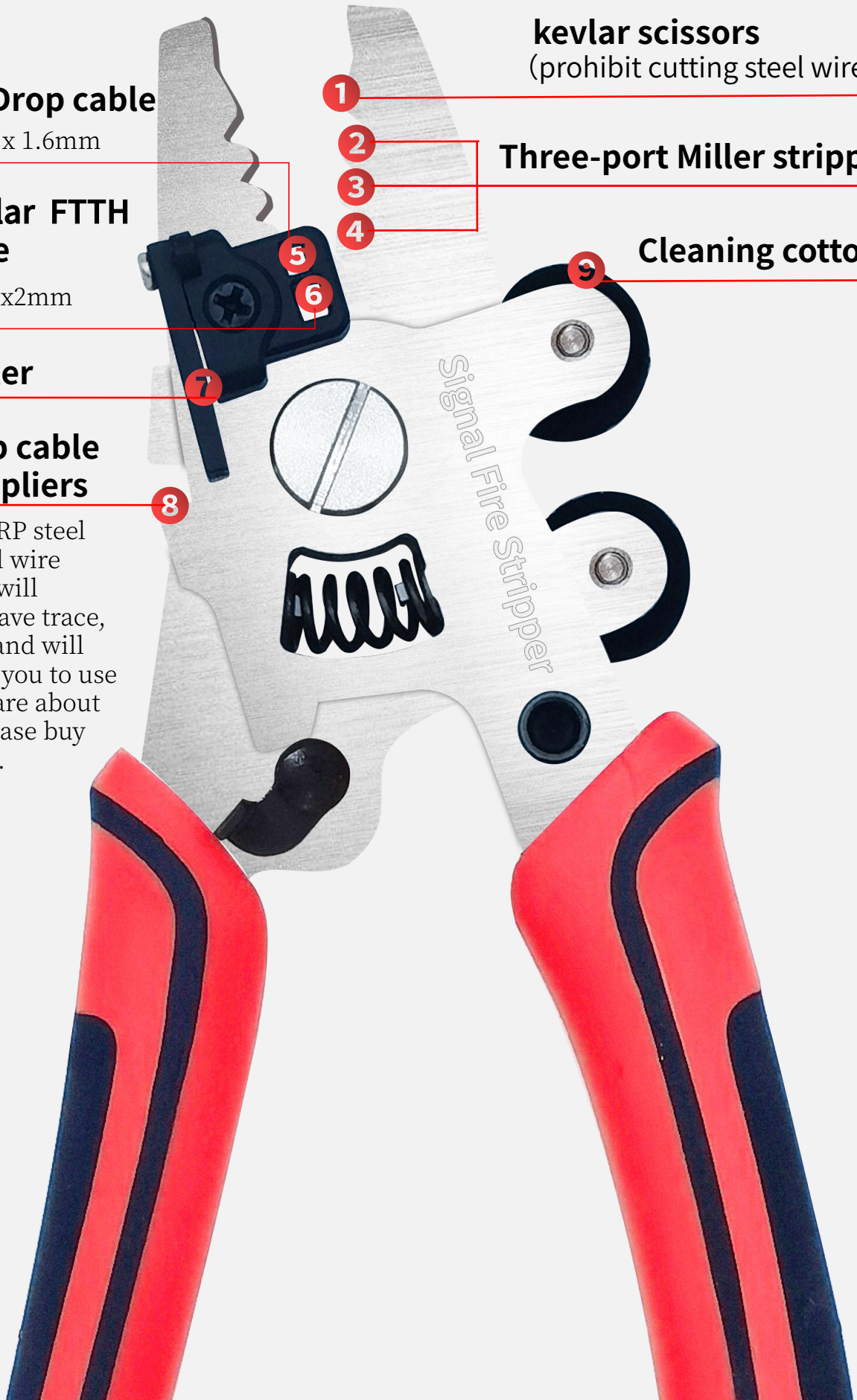
Optical Fiber on the right with fast connector which has pluged to OPM Port

Equipped with signal fire stripper

A GOOD STRIPPER NINE FUNCTIONS

- kevlar scissors
- Three-port Miller stripper
- 5G FTTH Drop cable
- Both regular FTTH Drop cable
- FTTH Drop cable steel wire pliers
- Rotary ruler
- Cleaning cotton

Signal fire stripper



kevlar scissors
(prohibit cutting steel wires)

Three-port Miller stripper

Cleaning cotton

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.

7800mAh lithium battery

Dual charging path

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

Charging channel ①
Input voltage :13.5±0.5V
Input current :4.8A

Power indicator light

Charge indicator light
Indicator light turns off when fully charged

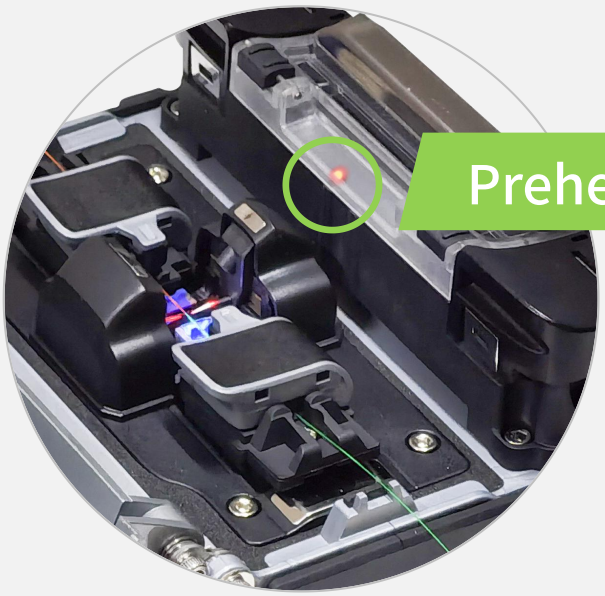
Press to check the power level

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

Charging channel ②

Charging time ≤3.5 hours

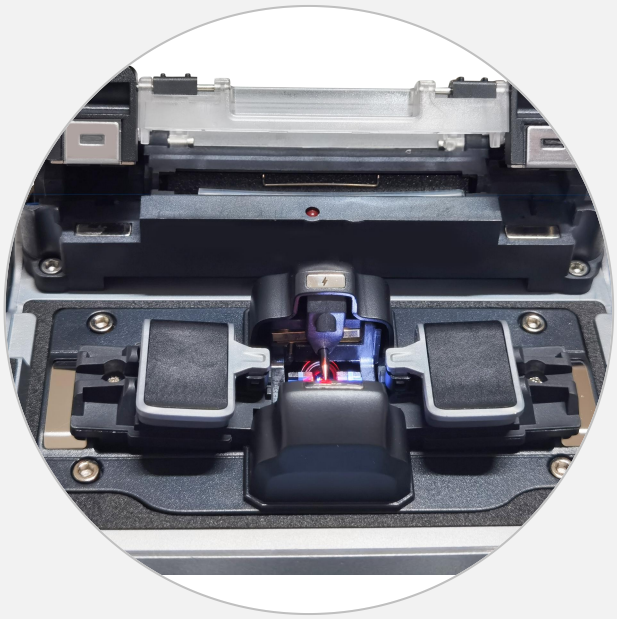
15S automatic heating

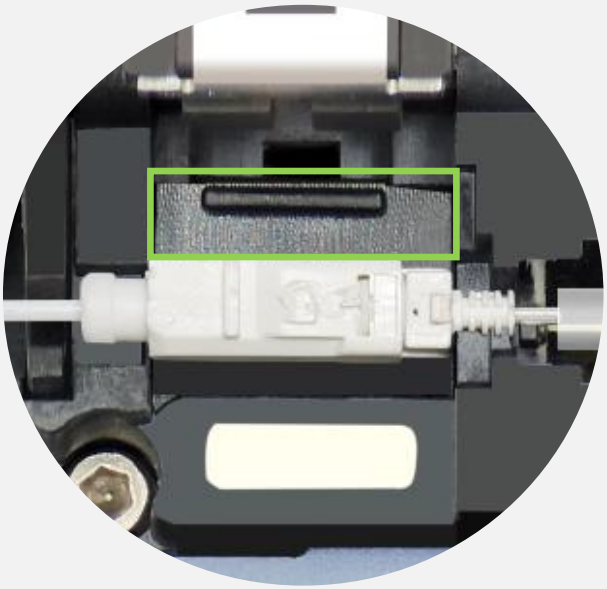


Preheating

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





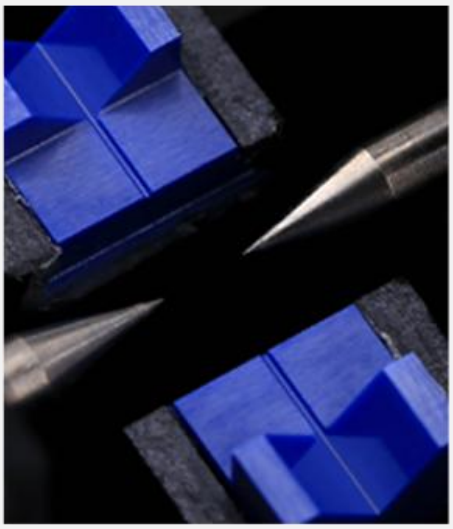
Heating part compatible with SC fiber

SC Fiber: Push up

Ordinary fiber: Push down

3-IN-1 UNIVERSAL FIBER HOLDER

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



EXQUISITE DETAILS

THE BUTTONS ARE CLEAR AND BEAUTIFUL

COOLING RACK EXPANDABLE AND CLOSABLE

ULTRA THICK PROTECTIVE RUBBER PAD

Thickened buffer structure provides maximum protection

Outdoor fiber splicing
Compact and portable

Bench+support platform

Compact and portable

Combination hanging chain
Climbing homework

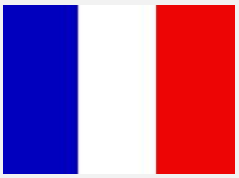
Compact and easy to carry

10 languages available

Multilingual Settings, covering the global market

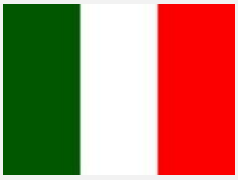
Chinese

English



French

Russian



Italian

Portuguese

Polish

Spanish

Thai

Arabic

Exported to nearly 100 countries and regions worldwide

Get unanimous praise from customers!

Basic parameter

Fiber alignment	Core/cladding；Real-time luminous flux assisted alignment（Only applicable to environments with stable optical signal link from front）
Motor number	6 motors **accurate of fiber alignment AI-20:0.1μm / AI-30:0.05μm**
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	80-150μm
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	High precision delay return electric one-step fiber 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、980nm、1270nm、1577nm、1650nm/Measurement range: -50+30dbm Absolute error: <0.3dB (-50dbm ~+3dBm range)
Battery capacity	7800mAh large capacity lithium battery charging time ≤3.5 hours; 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: 80-150μm/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 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℃, humidity: < 95%RH (no condensation), working altitude: 0 ~ 5000m, maximum wind speed: ≤15m/s

Accessories in the tool box

❶ Toolcase ❷ Fusion splicer ❸ Spare electrode ❹ signal fire stripper (Including a bag of cleaning cotton)

❺ Alcohol bottle ❻ Cleaver cleaning cotton swab ❼ Allen wrench ❽ Brush

❾ Climbing combination hanging chain ❿ Toolbox strap ⓫ Belt ⓬ Power adapter

⓭ 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 x325mm

Total weight

5.50kg

SERVICE COMMITMENT

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

01. Except for the cleaver,Signal fire stripper,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.

03. Electrodes are consumables, the service life of each pair of electrode is 4000 times.

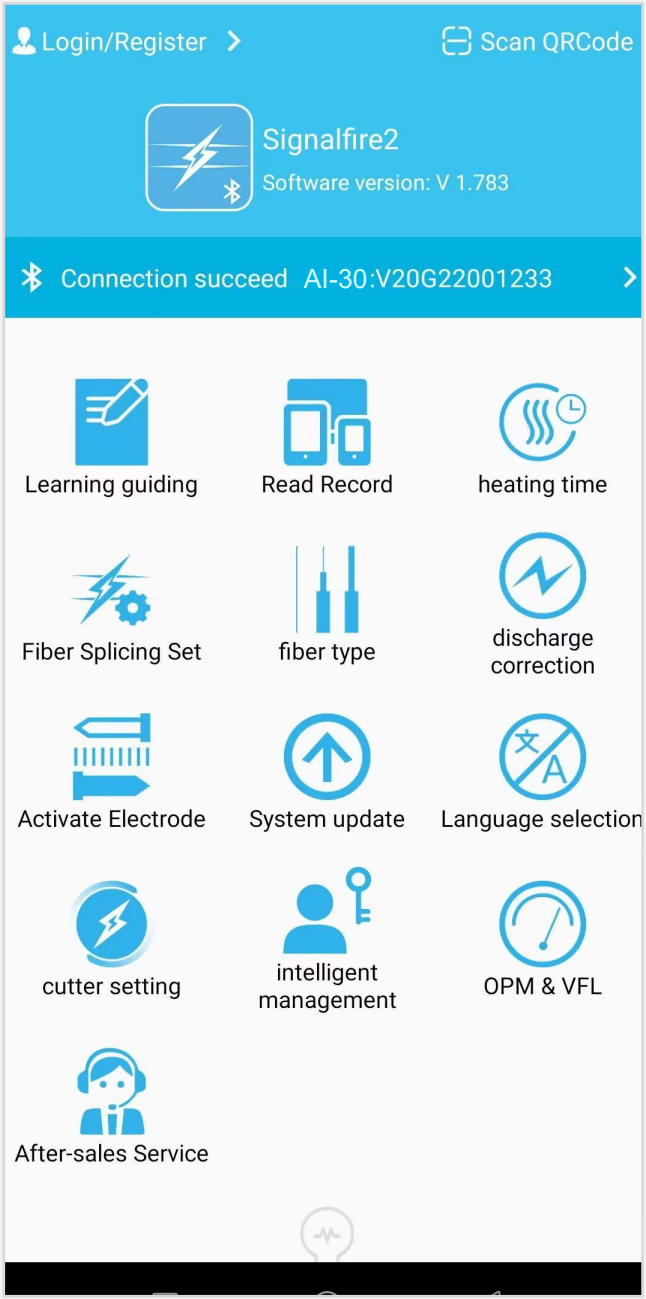
Bluetooth Connection

Establishing wireless communication through Bluetooth technology to achieve data transmission

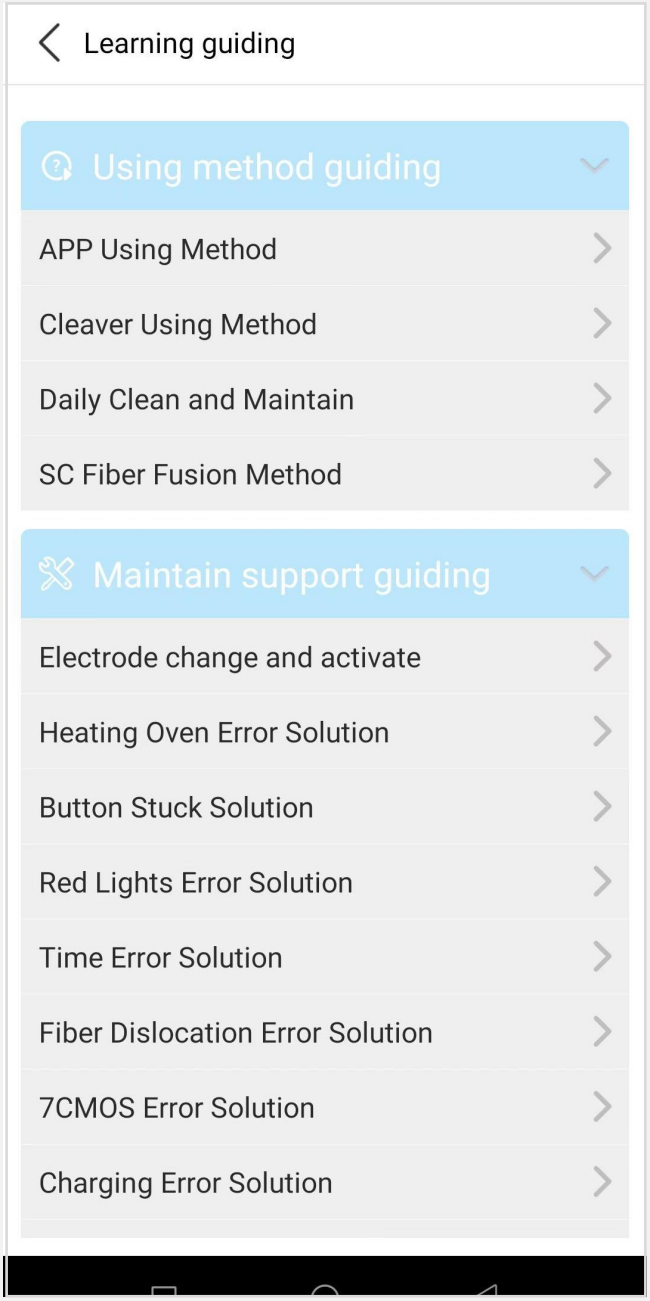
- Welding record can be read through mobile phone, and the data can be exported;
- You can set the parameters of the welding machine, such as selecting the machine language, changing the heating time, selecting the fiber optic alignment mode, etc;
- You can manage the welding machine, such as setting 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

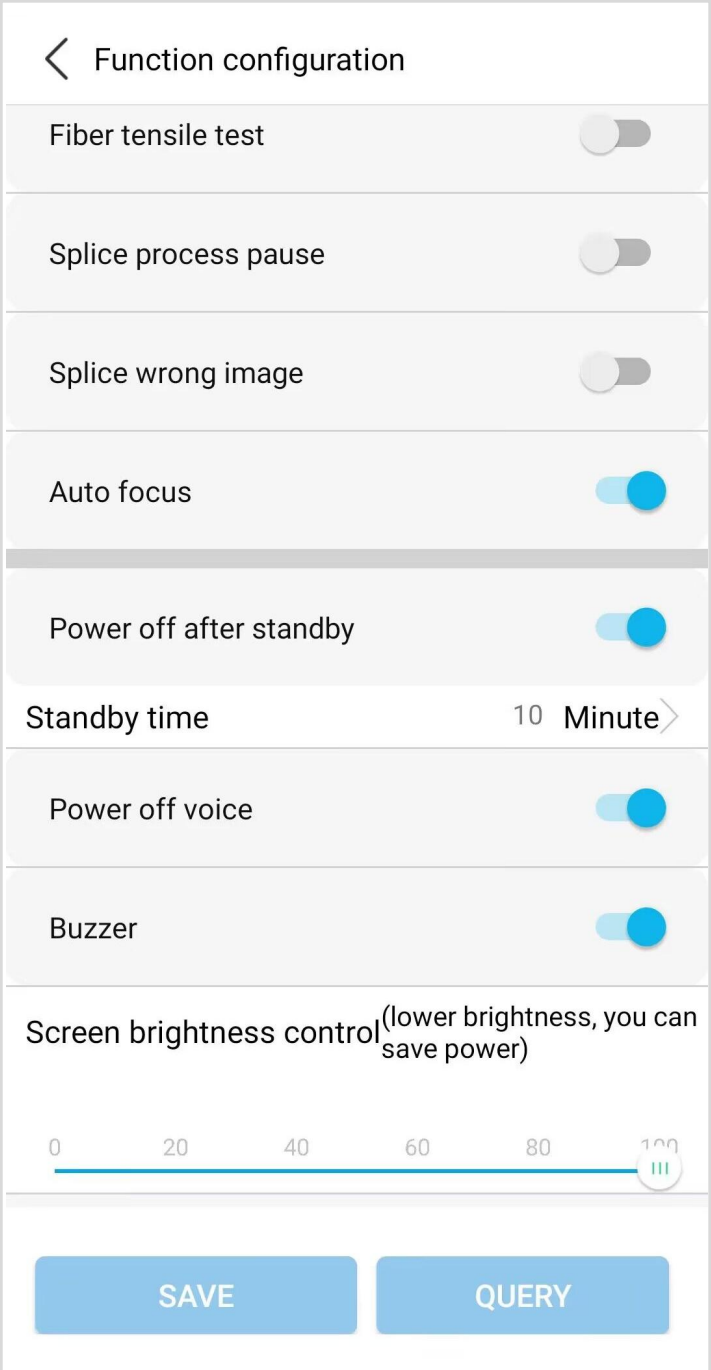
Scan the QR code of the welding machine startup screen to download the Mobile APP The phone connects to the splicer via Bluetooth



APP main interface

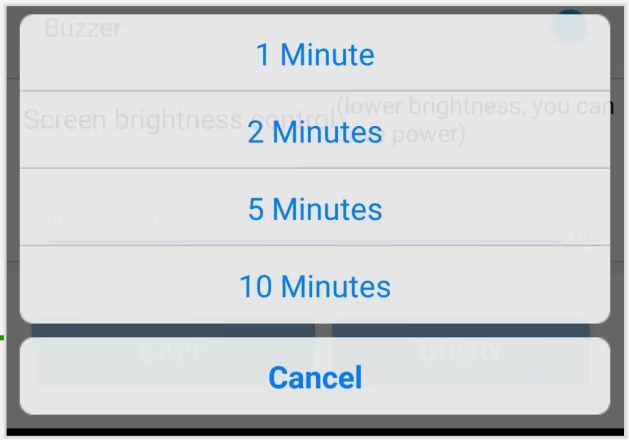


Learning guidance interface



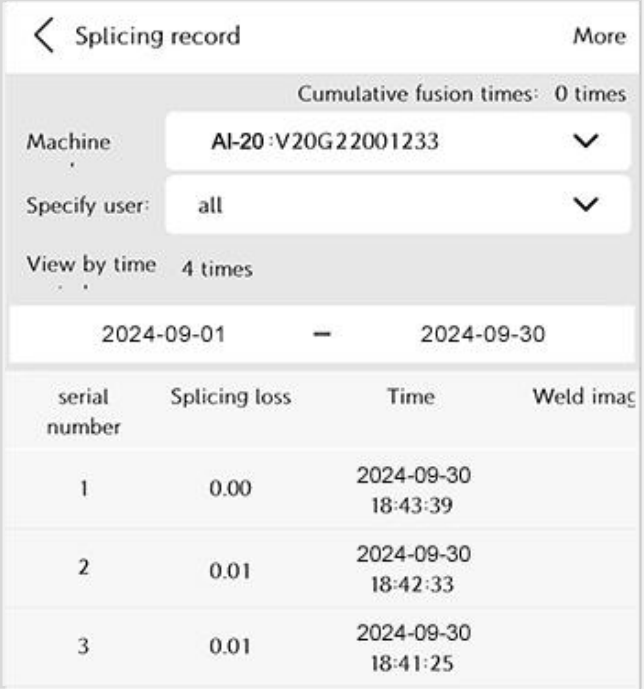
Energy saving mode

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



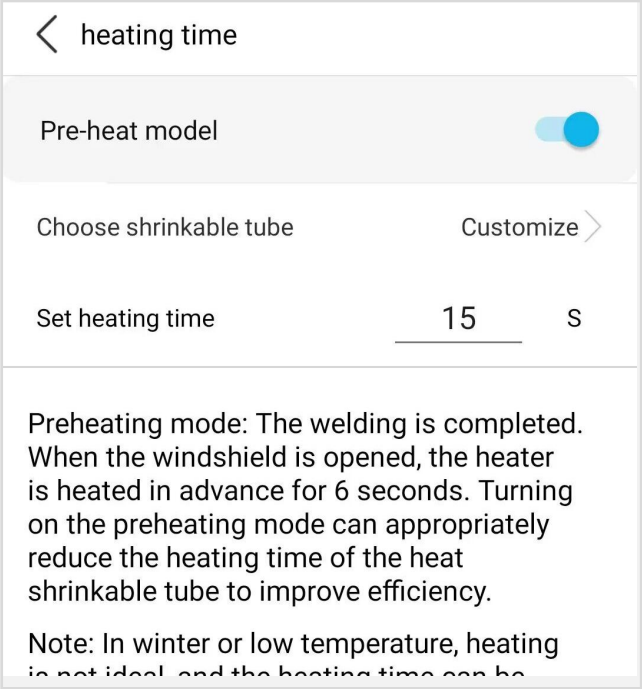
After it is opened, there will be voice prompt in the whole process from fiber laying, fiber matching, welding and loss value. In case of unqualified items, it will be directly informed.

Adapt to bright light, dark and other different outdoor environment



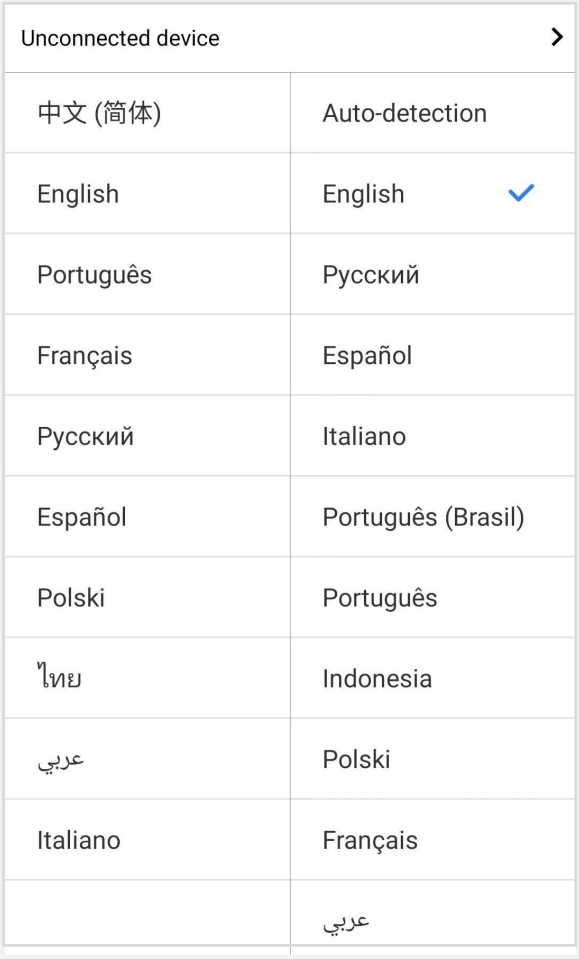
Splicing records can be downloaded and exported

Unlimited storage of splicing records
Can be viewed on mobile devices

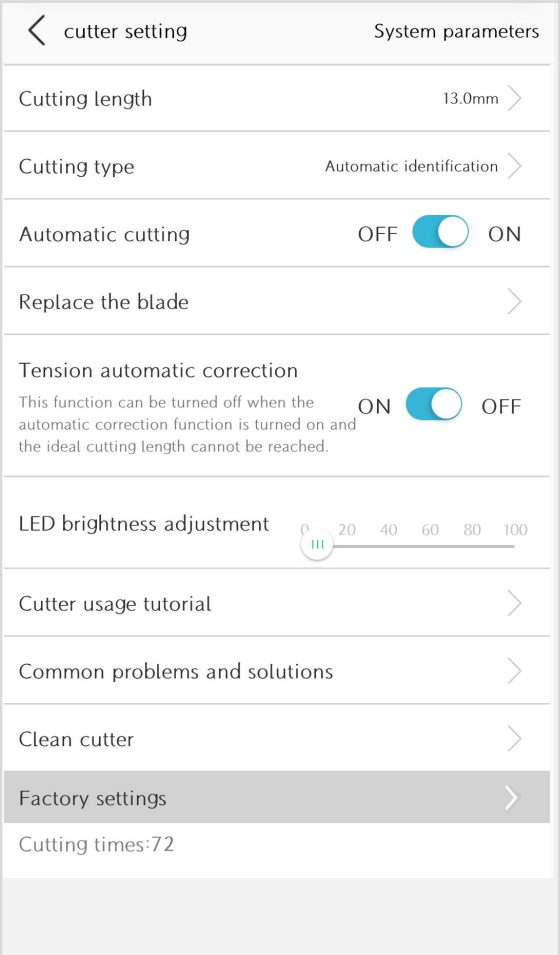


Heating time customization

Extreme cold/high temperature can be extended or shortened appropriately



Fusion splicer language/ mobile app selection



Cleaver Parameter setting /adjustment

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.

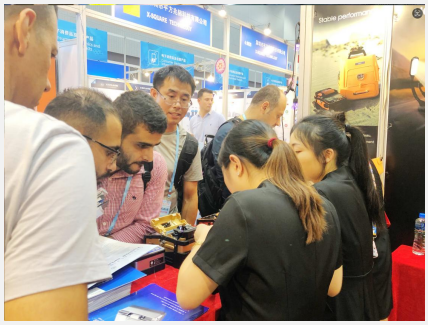
The factory is located in Chengdu High tech International Enterprise Port, with a modern production factory and standardized office buildings. We have passed the ISO9001 international quality management system certification, and our products have passed the EU CE, ROHS.International certifications such 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



Intellectual property

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. 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) ■ Safety	EN IEC 62368-1:2020+A11:2020	Yes
Article 3(1)(a) ■ Health	EN 50663: 2017; EN 62479: 2010	Yes
Article 3(1)(b) ■ EMC	ETSI EN 301 489-1 V2.2.3 (2019-11) ETSI EN 301 489-17 V3.2.4 (2020-09)	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.

Jan. 03, 2023
Date

Certified by
Kingkong Jin

Anbotek Shenzhen ISO Compliance Laboratory Limited Approved

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, Sanwei 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

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. 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
CHAPTER 1General(1)(a) ■ Safety	BS EN IEC 62368-1:2020+A11:2020	Yes
CHAPTER 1General(1)(a) ■ Health	BS EN 50663: 2017; BS EN 62479: 2010	Yes
CHAPTER 1General(1)(b) ■ EMC	ETSI EN 301 489-1 V2.2.3 (2019-11) ETSI EN 301 489-17 V3.2.4 (2020-09)	Yes
CHAPTER 1General(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.

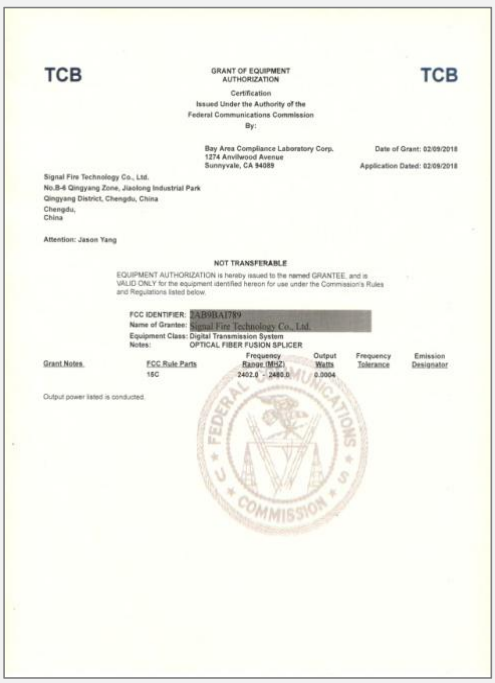
Jan. 03, 2023
Date

Certified by
Kingkong Jin

Anbotek Shenzhen ISO Compliance Laboratory Limited Approved

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, Sanwei 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 TCB

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

Bay Area Compliance Laboratory Corp.
1274 Anvilwood Avenue
Sunnyvale, CA 94089

Date of Grant: 02/09/2018
Application Dated: 02/09/2018

Signal Fire Technology Co., Ltd.
No.B-4 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: ZAB9BAI789
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	0.0004		

Output power listed is conducted.

EACC

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 Port, 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. 20, 2026

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

EACC IAF CNAS 中国认可 国际互认 管理体系 MANAGEMENT SYSTEM CNAS C114-M

The certificate will remain valid only if the certified organization accepts surveillance audit at regular intervals and is audited to be qualified. The information of this certificate is available at EACC website (www.eacc.com.cn) and CNCA's official website (www.cnca.gov.cn), and it's also available by scanning the QR Code in the lower right corner.

Address: 1st Floor, No. 121 Building, No. 17, Jingshengnanxi Street, Jingjin Science & Technology Industrial Base,Tongzhou Park of Zhongguancun Science & Technology Zone, Tongzhou District, Beijing 101102

Official account certificate query

United States of America
United States Patent and Trademark Office

Signal fire

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

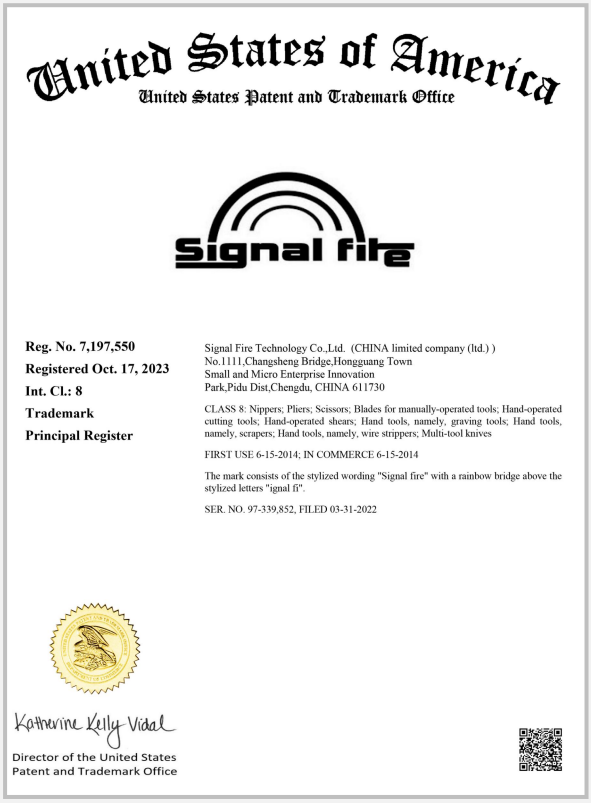
CLASS 7: Cutting machines; Electric arc cutting apparatus; Electric arc welding apparatus; Electric scissors; Electric shearing machines; Electric welding machines; Electrodes for welding machines; Gear cutting and finishing machines; Knives, electric; Soldering apparatus, electric

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 "ignal 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

Signal fire

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

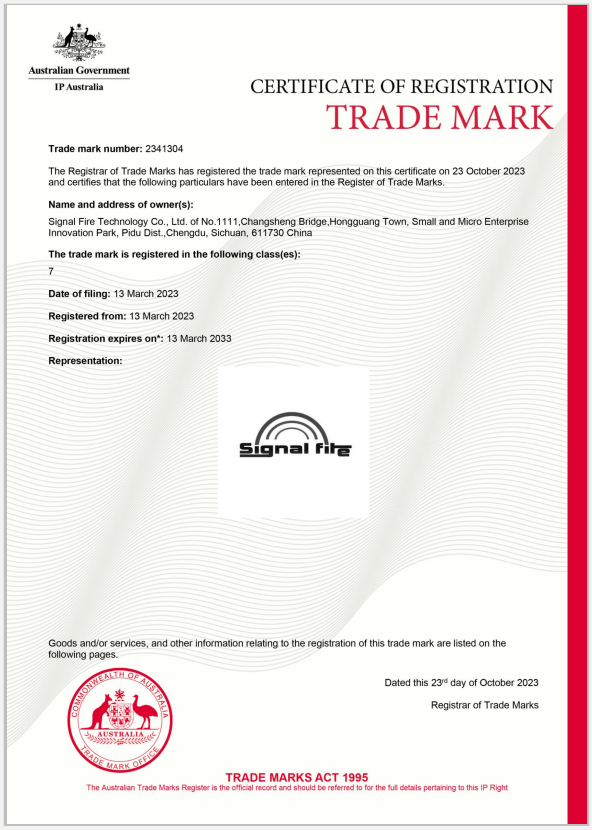
CLASS 8: Nippers; Pliers; Scissors; Blades for manually-operated tools; Hand-operated cutting tools; Hand-operated shears; Hand tools, namely, graving tools; Hand tools, namely, scrapers; Hand tools, namely, wire strippers; Multi-tool knives

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 "ignal fi".

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

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



Australian Government
IP Australia

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:

Signal fire

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

Dated this 23rd day of October 2023

Registrar of Trade Marks

COMMONWEALTH OF AUSTRALIA
AUSTRALIA
TRADE MARK OFFICE

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

TMZC12953869D01T150210

第 12953869 号

商标注册证

Signalfire

注册人 四川灼识科技股份有限公司

注册人地址 四川省成都市青羊区蛟龙工业港青羊园区B-6号

注册日期 2015年01月14日 有效期至 2025年01月13日

局长 许瑞春 发证机关

中华人民共和国国家工商行政管理总局 商标局