



AI-7C

OPTICAL FIBER FUSION SPLICER

FOR TRUNK LINE CONSTRUCTION, FTTH
PROJECT, SECURITY MONITORING ETC.

SIGNAL FIRE TECHNOLOGY CO., LTD.

MASTERPIECE

High-end luxury



Signal Fire AI-7C use the latest core alignment technology with auto focus and six motors, it is a new generation of fiber fusion splicer. It is fully qualified with 20 km trunk construction, FTTH project, security monitoring and other fiber cable splicing projects. The machine uses industrial quad-core CPU, fast response, is currently one of the fastest fiber splicing machine in the market; with 5-inch high-resolution screen, the operation is simple and intuitively; and up to 320 times focus magnifications, making it is very easy to observe the fiber with naked eyes. 6 seconds speed core alignment splicing, 15 seconds heating, the working efficiency increased by 50% compared to ordinary splicing machines.

SIX MOTORS

Core alignment

Disassembly free 3-in-1 fiber holder

320 times magnification
auto focus

5 inch display

Simultaneously align
fibers Loss display

X, Y DISPLAY
TOGGLE KEY

CONTINUE

RESET

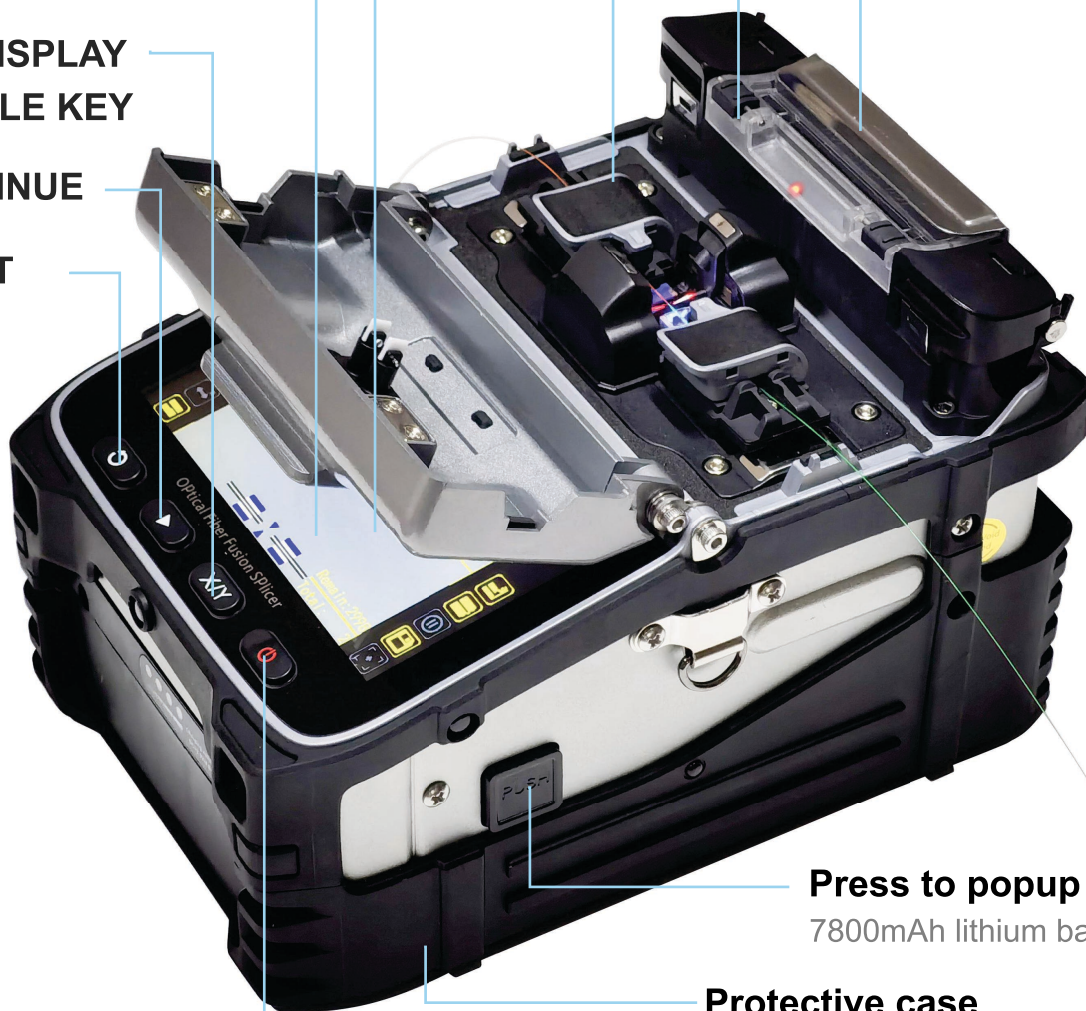
15s automatic heating
Automatic lid closing

Cooling rack
Expandable and closable

Press to popup the battery
7800mAh lithium battery

Protective case

Power key

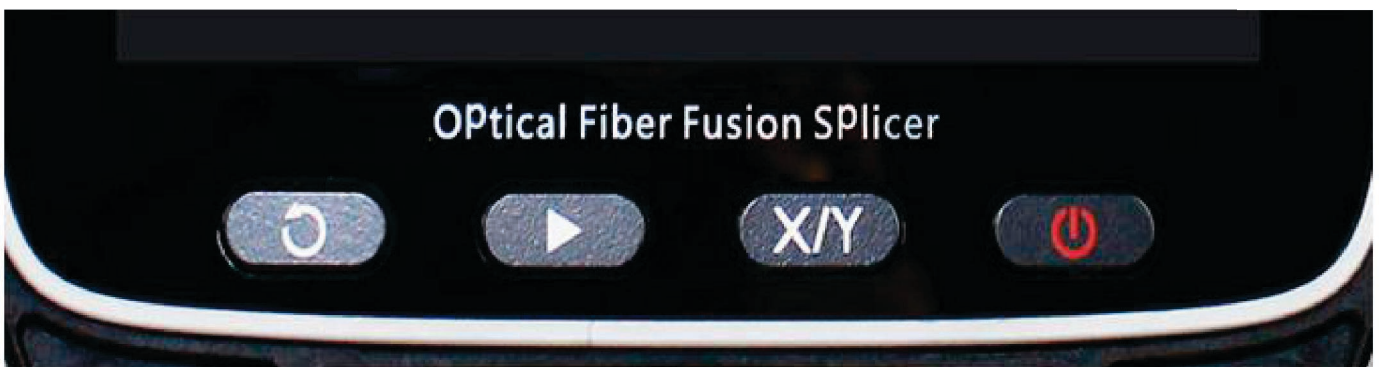
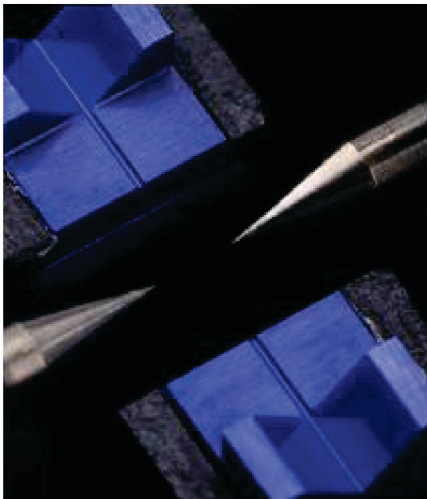


METAL BODY

Aesthetic Details

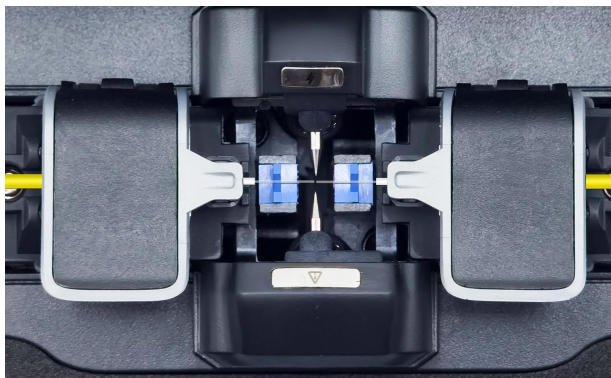


EXQUISITE DETAILS

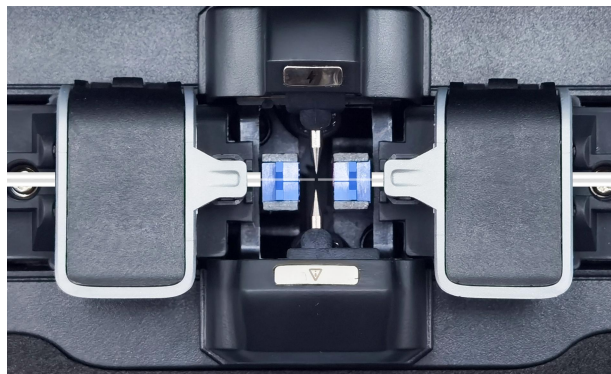


3 in 1 fiber holder

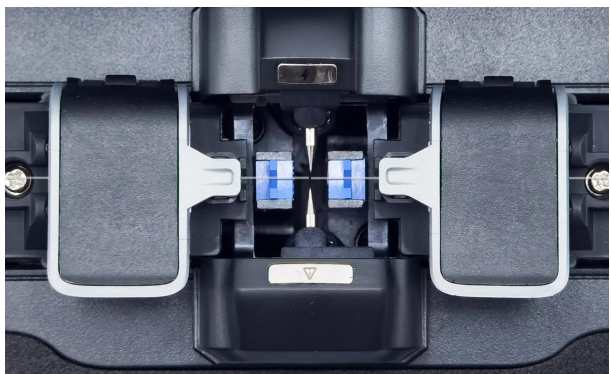
SM, MM, bare fiber, pigtail, Drop cable , multi fiber cable



Jumper fiber
(pigtail)



Drop cable



Bare fiber

Industrial quad-core chip CPU

1 second startup will enter the working state without waiting



Synchronous operation

speed response

no jammed

super experience

7800mAh lithium battery

Battery charging "New upgrade"

Dual charging path

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



Charging channel ①

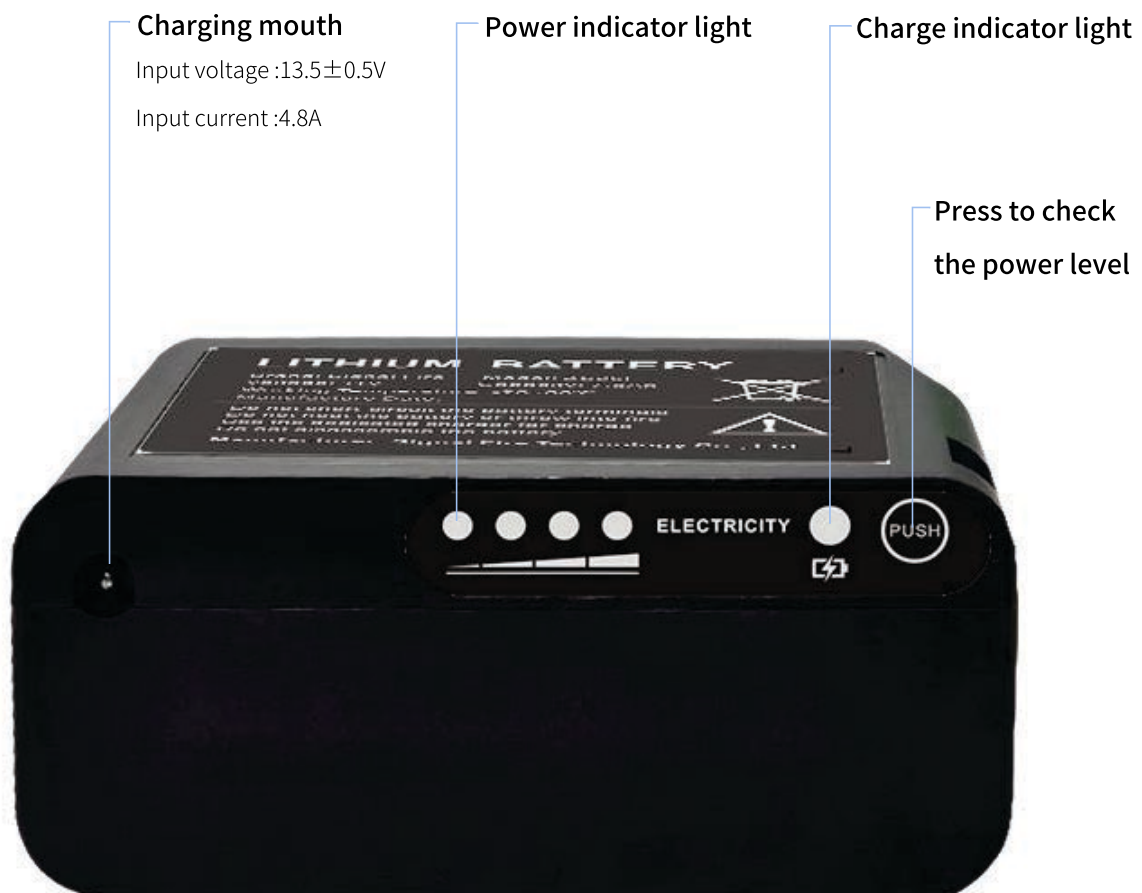
Charging channel ②

Charging method III

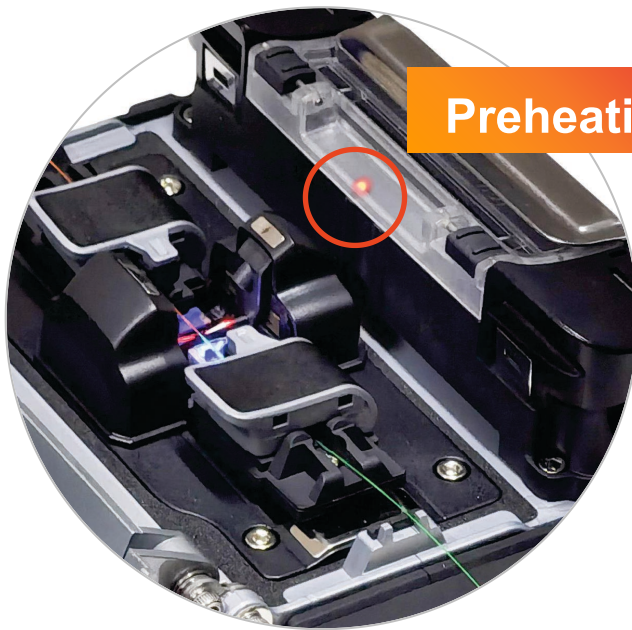
The battery can be removed and charged separately



- Charging time ≤ 3.5 hours;
- In full state, 260 cores can be continuously fused and heated



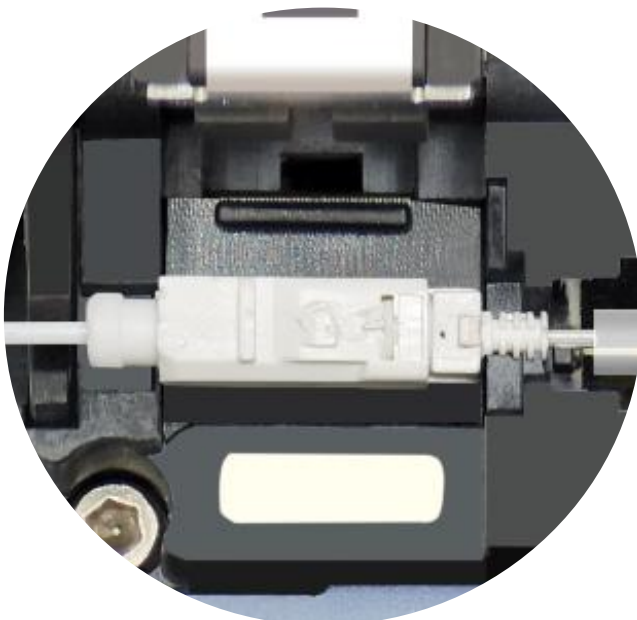
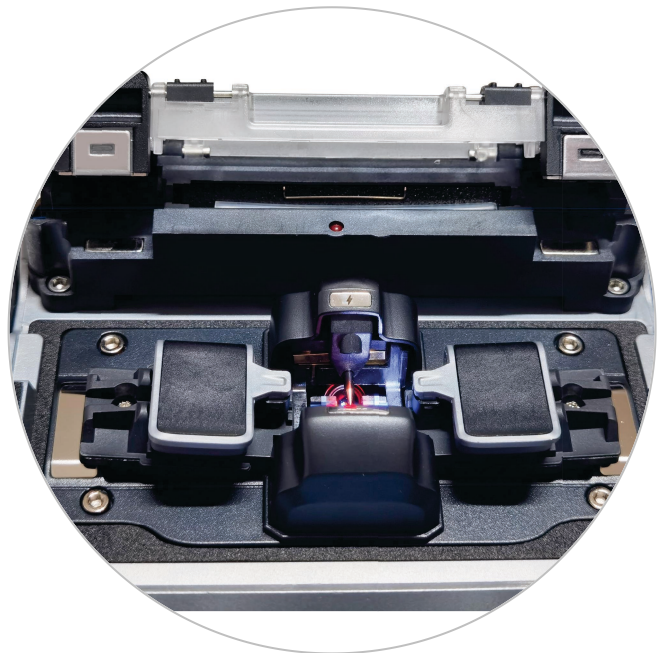
15s automatic heating



Preheating

Successful fiber melting. When opening the windproof cover to take out the fiber, the machine turns on pre heating for up to 8 seconds

Heating part automatic lid closing



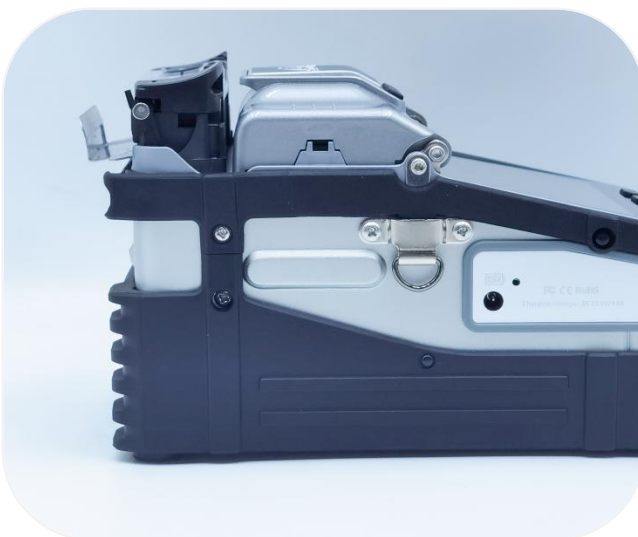
Heating part compatible with SC fiber

SC Fiber: Push up

Ordinary fiber: Push down

COOLING RACK

Expandable and closable



Deployment status



Closed status

Dust prevention fall prevention shock prevention



Thickened buffer structure

Don't be afraid to knock! Touch! Fall!

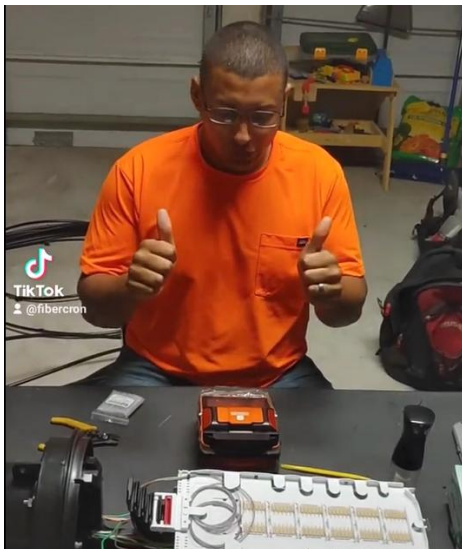
Outstanding quality without fear of challenges

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



Exported to nearly 100 countries and regions worldwide

Get unanimous praise from customers!



THE TOOLBOX

comes with a stool to facilitate the construction workers



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

Patent no.ZL 2016 3 0402585.X

Basic parameter

Fiber alignment	Core/cladding
Motor number	6 motors (accurate of fiber alignment: 0.2μm)
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 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
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 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 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

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



Random configuration



TOOLCASE



fusion splicer



electrode



cleaver



signal fire stripper



Alcohol pump



belt



brush



Toolbox strap



power supply



key



inner hexagon



Warranty card certificate
Instruction list list
Distribution correction

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

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



- 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;

< Function configuration

Fiber tensile test ☐

Splice process pause ☐

Splice wrong image ☒

Auto focus ☐

Power off after standby ☐

Power off voice ☒

Buzzer ☒

Screen brightness control (lower brightness, you can save power)

0 20 60 80 100

Language selection

中文 (简体)	English	Português
Français	Русский	Español
Polski	ไทย	عربي
Italiano		

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

Major global languages available

Learning operation:

from cutting fiber, stripping fiber to welding machine operation have detailed tutorials



Learn How to Operate



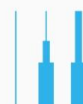
Read Record



Smart lock



heating time



fiber type



discharge correction



Fiber Splicing Set



Optical power meter and optical module



Activate Electrode

< heating time

Pre-heat model



Choose shrinkable tube

Customize >

Set heating time

10

s

Heating time can be customized, extremely cold weather and hot summer can be appropriately extended or shortened

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 extended appropriately.

< Smart lock



Splicer smart lock

The machine has bound the current account.



AI-8C:V03B20091187

No lock time is currently set



SMART LOCK MANAGEMENT

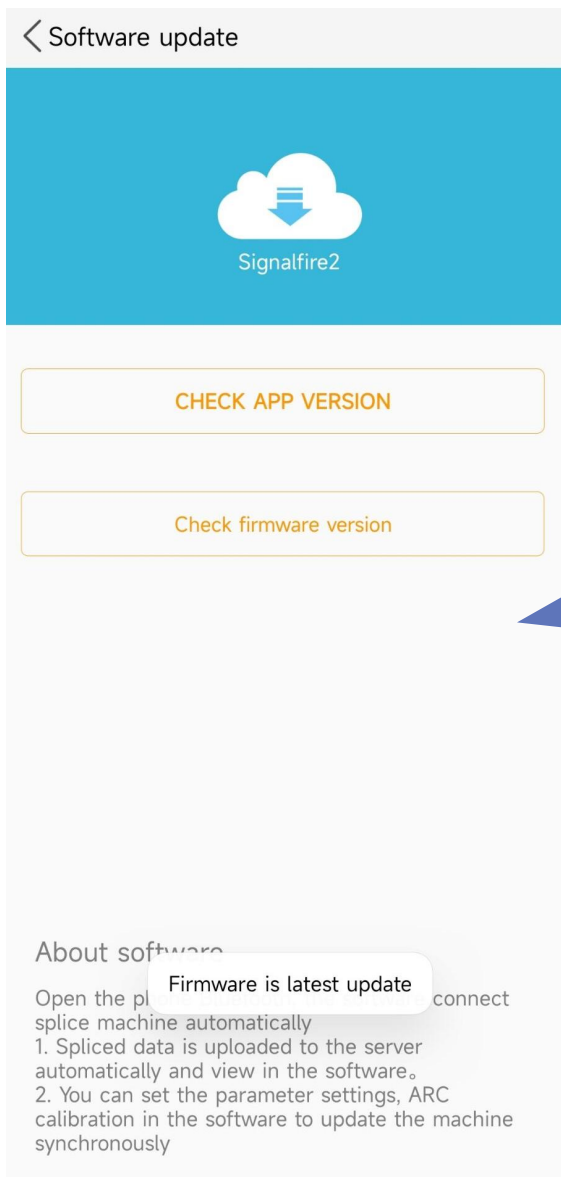
Rent mode: you can set the use time or welding times of the machine, the machine stops working when the expiry date expires, after the new machine is received, bind your mobile phone number and set as the highest management authority, you can control the device.

[About smart locks?](#)



It can be downloaded and exported

Unlimited storage of welding records, can be synchronized to the mobile terminal view



Mobile phone firmware upgrade, and then transmitted to the welding machine through Bluetooth, no data line, U disk
Make your welding machine software system never obsolete!

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



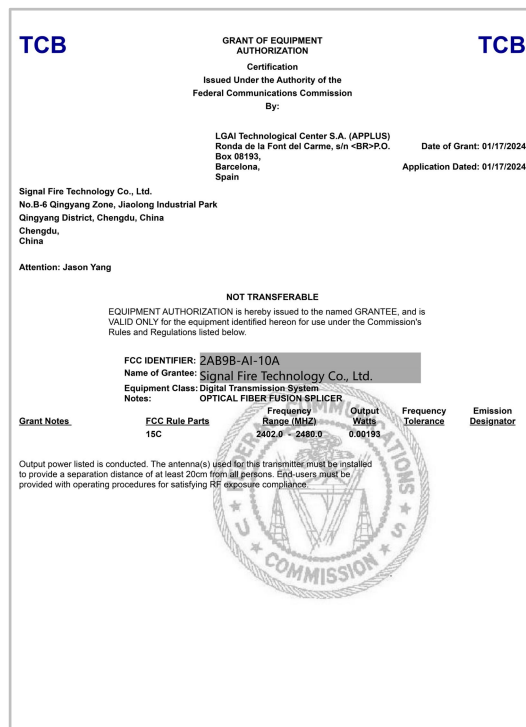
Exhibition photos



OPTICAL FIBER FUSION SPLICER

Intellectual Property Inspection and Certification

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 shears; 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



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



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 23rd 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

РОССИЙСКАЯ ФЕДЕРАЦИЯ



СВИДЕТЕЛЬСТВО

на товарный знак (знак обслуживания)
№ 991737



Правообладатель: Сигнал Файер Текнолоджи Ко. Лтд., №1111, Чангшэнг Бридж, Хонгуанг Таун, Смол энд Микро Интерпрайз Инновейшн Парк, Пиду Дистрикт, Чэнду, Сычуань, Китай (CN)

Заявка № 2023720455

Приоритет товарного знака 16 марта 2023 г.

Зарегистрировано в Государственном реестре

товарных знаков и знаков обслуживания

Российской Федерации 11 января 2024 г.

Срок действия регистрации истекает 16 марта 2033 г.

Руководитель Федеральной службы
по интеллектуальной собственности

Ю.С. Зубов



EINHEITSPATENT | UNITARY PATENT BREVET UNITAIRE

Hiermit wird bescheinigt, dass die einheitliche Wirkung für das nachstehende europäische Patent im Register für den einheitlichen Patentschutz eingetragen wurde.

It is hereby certified that unitary effect has been registered in the Register for unitary patent protection for the European patent indicated below.

Il est certifié que l'effet unitaire a été inscrit au Registre de la protection unitaire conférée par un brevet pour le brevet européen ci-dessous.

Europäisches Patent Nr.
European patent No.
Brevet européen n°

EP4024101

Territorialer Geltungsbereich
Territorial scope
Champ d'application territoriale

**AT BE BG DE DK EE FI FR IT LT LU LV MT
NL PT RO SE SI**

Tag der Eintragung
Date of registration
Date d'inscription

03.09.2024

Tag des Eintritts der Wirkung
Date of effect
Date de prise d'effet

14.08.2024

Patentinhaber | Proprietor(s) of the patent | Titulaire(s) du brevet

Signal Fire Technology Co., Ltd.
No. B-6 Qingyang Zone
Jiaolong Industrial Park
Qingyang District
Chengdu, Sichuan 610015
CN


 António Campinos
Präsident des Europäischen Patentamts | President of the European Patent Office | Président de l'Office européen des brevets
München, den | Munich, | Munich, le 03.09.2024

URKUNDE | CERTIFICATE | CERTIFICAT



EP4024101 75564 03.24

Registered / Eingetragen 17/03/2023

No 015014933-0001



EUROPEAN UNION INTELLECTUAL PROPERTY OFFICE CERTIFICATE OF REGISTRATION

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


Dieser Eintragungsurkunde wird für das unten genannte europäische Patent bescheinigt, dass die einheitliche Wirkung für das nachstehende europäische Patent im Register für den einheitlichen Patentschutz eingetragen wurde.

This Certificate of Registration is hereby issued for the European patent indicated below, certifying that unitary effect has been registered in the Register of Community Designs.


 The Executive Director / Der
Exekutivdirektor
Christian Archambeau



www.euipo.europa.eu



Europäisches Patentamt
European Patent Office
Office européen des brevets

European Patent Office
82296 MUNICH
GERMANY

Questions about this communication?
Contact Customer Services at www.epo.org/contact

Barcode

Lerner, Christoph
Nove Haus - Design Offices
Luise-Ullrich-Straße 14
80636 München
ALLEMAGNE

Date

03.09.2024

Reference PM499EUEP	Application No./Patent No. 19945932.2 / 4024101
Proprietor Signal Fire Technology Co., Ltd.	

European patent with unitary effect

Communication of the date of registration of unitary effect pursuant to Rule 7(1) UPR

The request for unitary effect received at the EPO on 21.08.24 meets the requirements of Rules 5(2) and 6 UPR.

The unitary effect of European patent No. EP4024101 was registered in the Register for unitary patent protection on 03.09.24.

Date of effect

Under Article 4(1) Regulation (EU) No 1257/2012, the European patent with unitary effect takes effect in the participating Member States on the date of publication of the mention of the grant of the above European patent in the European Patent Bulletin, i.e. on 14.08.24.

Territorial scope

Pursuant to Article 18(2) Regulation (EU) No 1257/2012, by way of derogation from Articles 3(1), 3(2) and 4(1), a European patent for which unitary effect is registered has unitary effect only in those participating Member States in which the Unified Patent Court has exclusive jurisdiction with regard to European patents with unitary effect at the date of registration. For the above European patent with unitary effect, the participating Member States at the date of registration are:

AT BE BG DE DK EE FI FR IT LT LU LV MT NL PT RO SE SI

For proprietor(s):

Signal Fire Technology Co., Ltd.
No. B-6 Qingyang Zone
Jiaolong Industrial Park
Qingyang District
Chengdu, Sichuan 610015
CN

Represented by:

Lerner, Christoph
Nove Haus - Design Offices
Luise-Ullrich-Straße 14
80636 München
DE


The registration will be published in the European Patent Bulletin under Section IV.2(1).

Registered Letter
SPD-Form 7030-01-02 page 1 of 2

Date

Application No./Patent No. 19945932.2 / 4024101

For the Unitary Patent Protection Division



NOTES RELATING TO THE REGISTRATION OF UNITARY EFFECT

- Unitary Patent Guide**
This guide – available on the EPO website – provides useful information on European patents with unitary effect.
- Payment of renewal fees for European patents with unitary effect**
 - Under **Rule 13(1) to (3) UPR**, renewal fees for European patents with unitary effect and additional fees for their late payment are to be paid to the EPO. Those fees are due in respect of the years following the year in which the mention of the grant of the European patent which benefits from unitary effect is published in the European Patent Bulletin.
 - Under **Rule 13(4) UPR**, a renewal fee in respect of a European patent with unitary effect falling due within three months of the notification of the communication referred to in Rule 7(1) UPR may still be paid within that period of three months without an additional fee.
 - Moreover under **Rule 13(5) UPR**, a renewal fee for a European patent with unitary effect which would have fallen due under Rule 13(2) UPR in the period starting on the date of publication of the mention of the grant of the European patent in the European Patent Bulletin up to and including the date of the notification of the communication referred to in Rule 7(1) UPR is due on that latter date. This fee may still be paid within three months of that latter date without the additional fee referred to in Rule 13(3) UPR.

For further details you are recommended to consult the above-mentioned Unitary Patent Guide.

- Effect of revocation or limitation of the European patent**
Under Article 3(3) Regulation (EU) No 1257/2012, the unitary effect of a European patent is deemed not to have arisen to the extent that the European patent has been revoked or limited.

EPO Form 7030 01.22

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