



# AI-8C PRODUCT MANUAL

CFI CAL F EEF FLS CF SPL CEF  
50KM trunk line fusion splicer



**SIX MOTORS**



**FIBER CORE  
ALIGNMENT**



**6S SPLICING**



**15S HEATING**

**Accurate of fiber alignment :  $0.15\mu\text{m}$**

**Industrial CPU, fast response**

**It is one of the fastest optical fiber fusion splicer on the market**

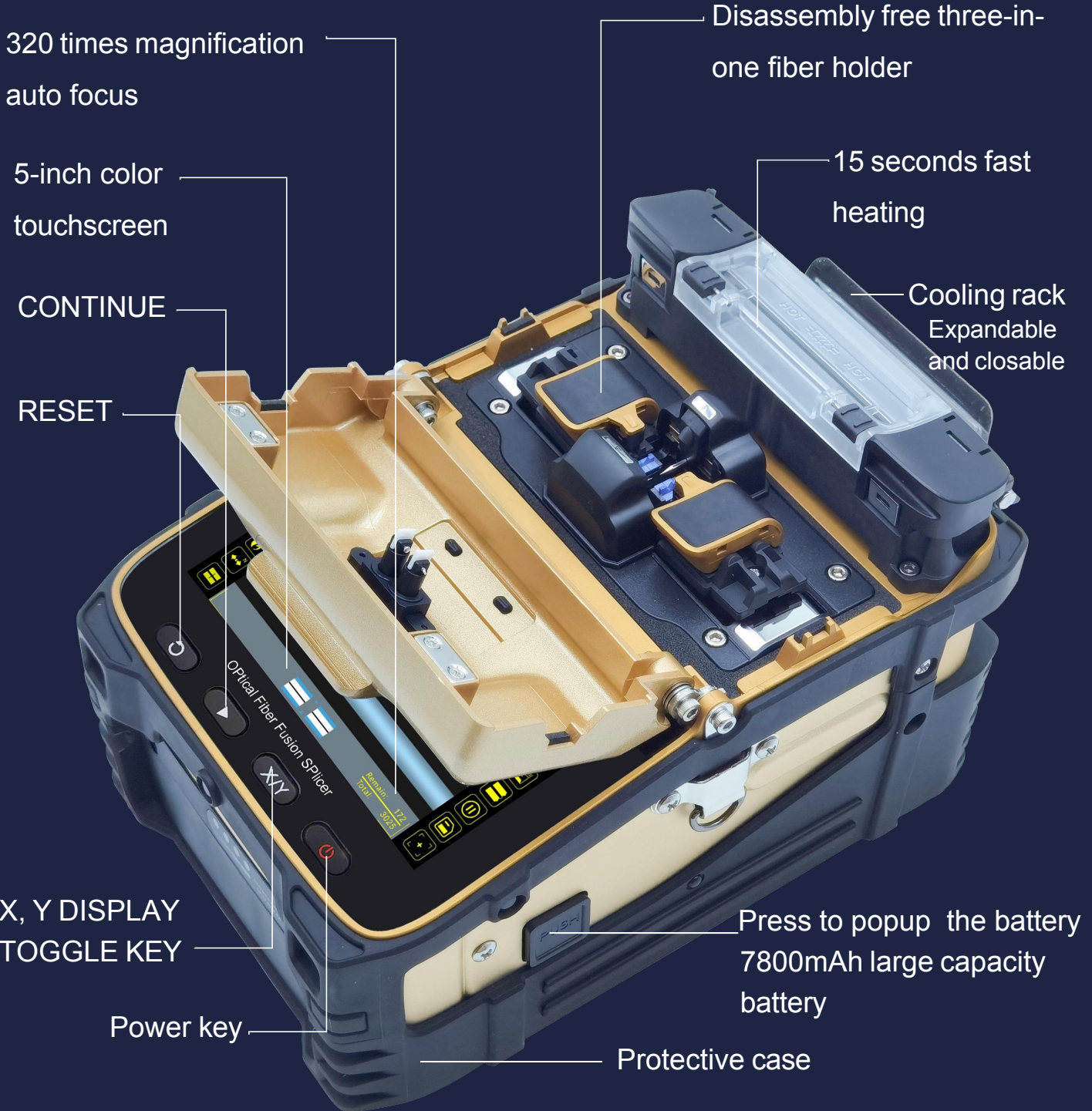
**Use 5-inch color touchscreen, simple and intuitive operation graphics**

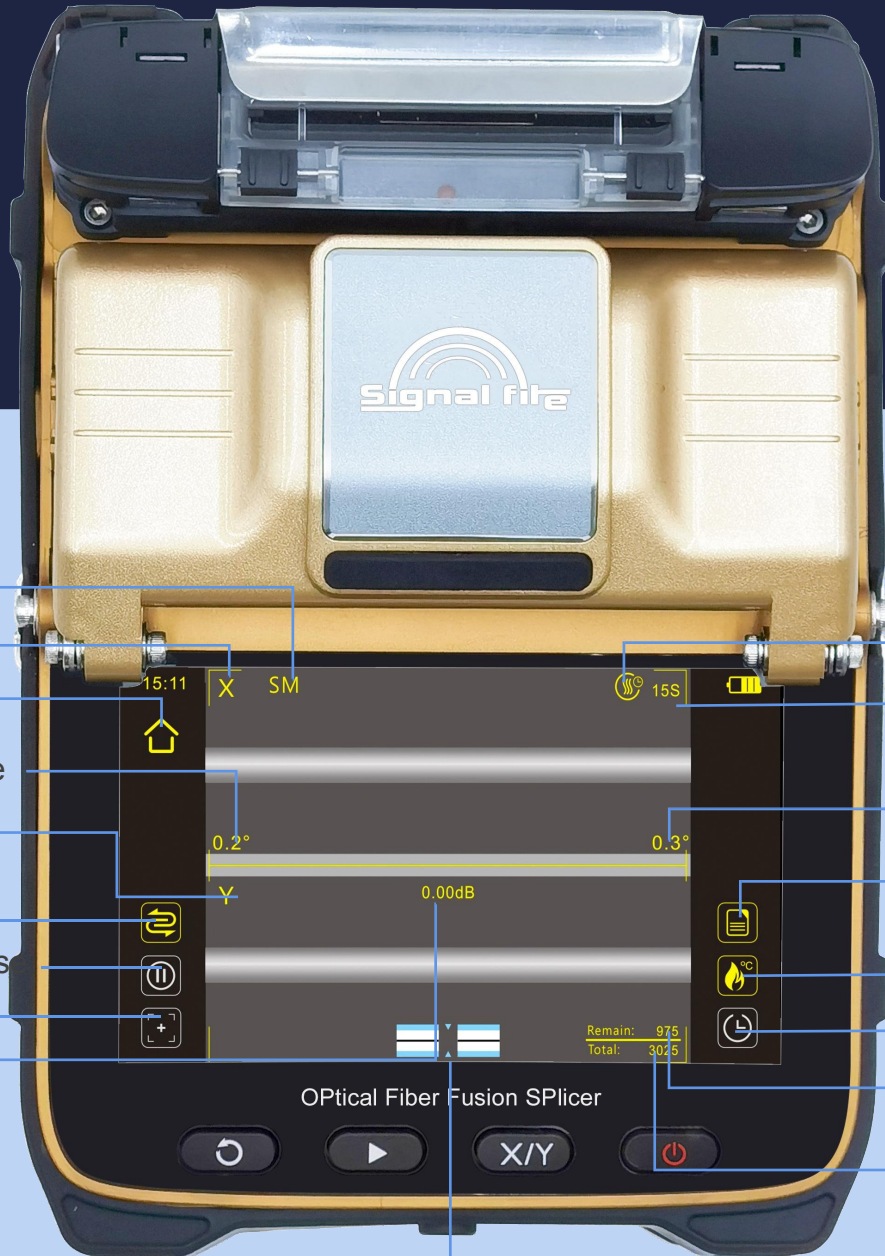
**Up to 320x focusing magnification makes it easy to observe the core with the naked eye**



# MASTERPIECE

HIGH END LUXURY





Fiber mode

X screen display

Home

Left end face angle

Y screen display

Working mode

Fiber Splicing Pause

Auto Focus

Splicing loss

Fiber status remind

Preheating

Heating time

Right end face angle

Fusion Splicing Record

Preheating

Timed shutdown

Number of electrodes remain

Total splicing



# MACHINE METAL CORE

EL M NATE SHODDY WORK AND NFER OR MATER ALS

# TEMPERATURE AND COLD RESISTANT

MAK NG SFL C NG MORE REL AELE



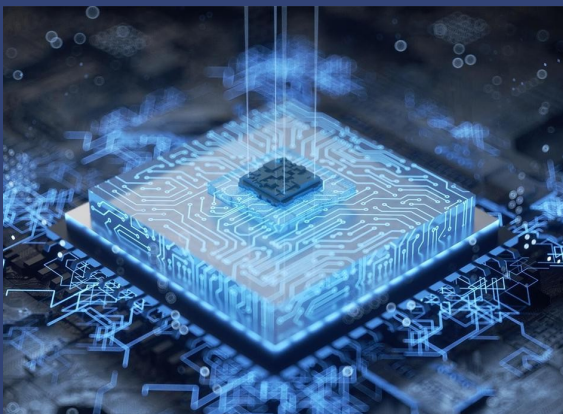
**2.06kg**

Machine weight



# 5-INCH COLOR TOUCHSCREEN

Intuitive operation, easily accessible with just one touch



**Industrial-grade CPU**

**1 second startup**


Sensitive response/Smooth experience

# TOUCH SCREEN MENU


Language/Configuration/Calibration/Records



11 languages to switch freely

 language

<input type="checkbox"/> 中文	<input checked="" type="checkbox"/> English	<input type="checkbox"/> Português
<input type="checkbox"/> Français	<input type="checkbox"/> Русский	<input type="checkbox"/> Español
<input type="checkbox"/> Polski	<input type="checkbox"/> ภาษาไทย	<input type="checkbox"/> عربي
<input type="checkbox"/> Italiano	<input type="checkbox"/> українська	





Chinese



English



French



Russian



Italian



Ukrainian



Portuguese



Polish



Spanish



Thai



Arabic



## Configuration

Fiber type

SM    MM    AUTO    G654E  
 BIF    80um    NZ    DS

Auto power off     

Heating time     

Heater Pre-heating  

Pause splicing process  

Auto-focus  

Activate battery  

Self test  

Angle check     

Endface check  

Basic    Standard    Precision

Tensile test  

Factory restoration  

Cleaver adjustment  

Replace blade assembly  

Screen brightness     

Help  

  1/5     

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

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

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

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



## Records

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





# 7800mAh lithium battery

## Battery charging "New upgrade"

Dual charging path

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



**Built-in USB port**

It can charge mobile phones  
and other mobile devices

**Charging channel ①**

**Charging channel ②**

## The battery can be removed and charged separately

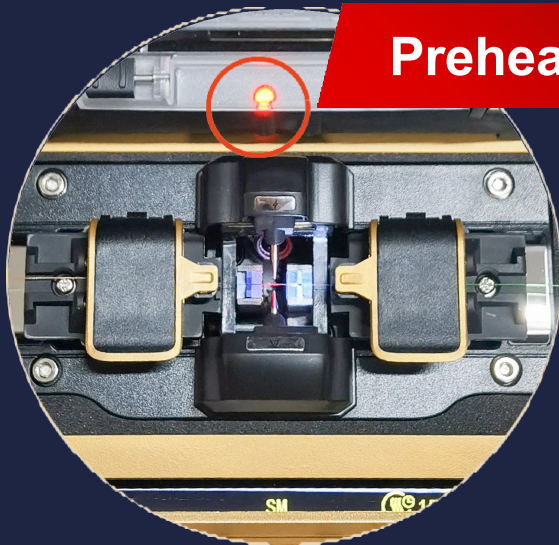


- Charging time  $\leq 3.5$  hours;
- In full state, 260 cores can be continuously fused and heated



# 15S AUTOMATIC HEATING

comes with a stool to facilitate the construction workers



## 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

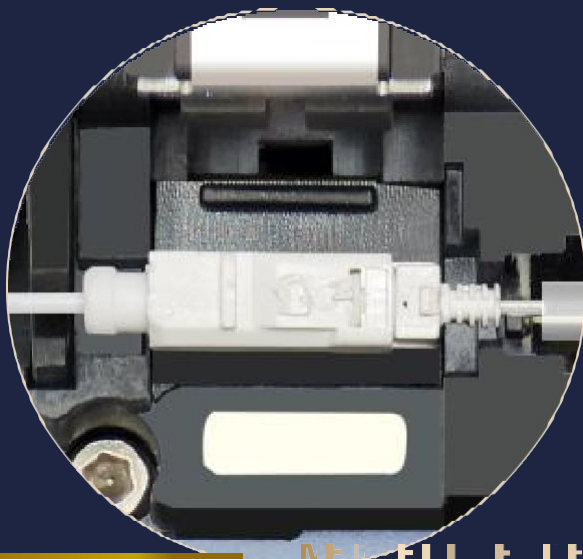
Heating part automatic lid closing



Heating part compatible with SC fiber

SC Fiber: Push up

Ordinary fiber: Push down

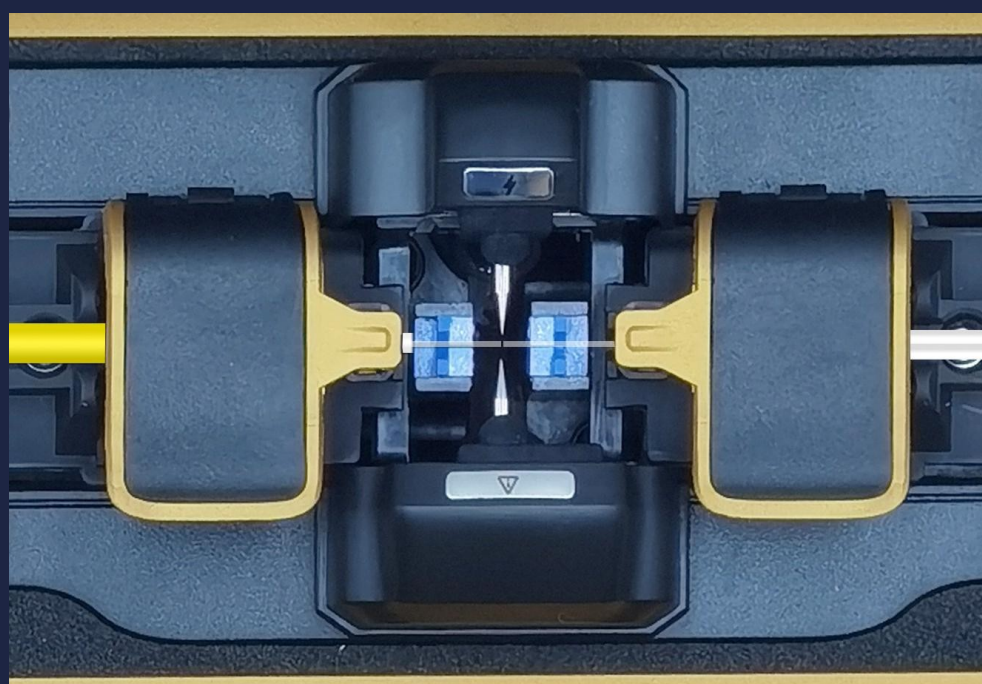


# COOLING RACK

Expandable and closable



# 3 IN 1 FIBER HOLDER





# THE TOOLBOX

comes with a stool to facilitate the construction workers

PATENT NO.ZL 2016 3 0402585.X



Stool can bear : 100KG

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

# BASIC PARAMETER

<b>Fiber alignment</b>	Core/cladding
<b>Motor number</b>	6 motors (accurate of fiber alignment : 0.15μm)
<b>Splicing time</b>	6s
<b>Heating mode</b>	15s, can be customized according to the external environment
<b>Fiber type</b>	Single-mode fiber (SMF/G.652), multimode fiber (MMF/G.651), dispersion-shifted fiber (DSF/G.653), G.654 fiber, non-zero dispersion-shifted fiber (NZ-DSF/G.655), and bend-insensitive fiber (BIF/G.657); suitable for splicing bare fiber, pigtail, drop fiber, patch cord, and invisible fiber.
<b>The cladding diameter</b>	80-150 μm
<b>Splicing loss</b>	0.02dB (SM) 、0.01dB (MM) 0.04dB (DS/NZDS)
<b>Splicing mode</b>	Automatic focusing core alignment, conventional/high precision welding
<b>Splicing way</b>	Automatic, semi-automatic
<b>Fiber holder</b>	Three in one fixture, no need to change, suitable for single/multi-mode, multi-core cable/bare fiber, tail fiber, jumper fiber, drop cable
<b>Fusion splicer languages</b>	11 languages (chinese, Russian, english, French, Italian, Ukrainian, Thai, Portuguese, Spanish, Arabic, polish)
<b>Battery capacity</b>	7800mAh large capacity lithium battery charging time ≤3.5; It can continuously weld and heat about 260 cores
<b>Magnification</b>	320x (X or Y axis single display) , 200x (x and Y axis dual display)
<b>Fiber diameter</b>	Coating diameter: 80-150μm/Coating diameter: 100-1000μm
<b>Cutting length</b>	Coating layer 250μm below: 8-16mm/coating layer 250-1000μm: 16mm
<b>Heat shrink tube</b>	60mm、50mm、40mm、25mm
<b>Tensile testing</b>	standard 2N
<b>display</b>	5-inch color touchscreen
<b>Boot time</b>	1s, boot can enter the working mode
<b>Data is stored</b>	Unlimited, machine storage 1000 groups, the excess part can be stored in the server, can export data.
<b>Wireless communication</b>	Based on bluetooth 4.2 protocol standard, the working band is 2.4GHz, the maximum transmission range is 60m
<b>Software upgrade</b>	Mobile phone APP Internet update, enable Bluetooth synchronization upgrade machine software
<b>Management function</b>	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.
<b>Return loss</b>	Better than 60 db
<b>Product protection</b>	Waterproof, dustproof and fall proof
<b>Power supply</b>	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
<b>The work environment</b>	Temperature: -15 ~ +50℃, 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

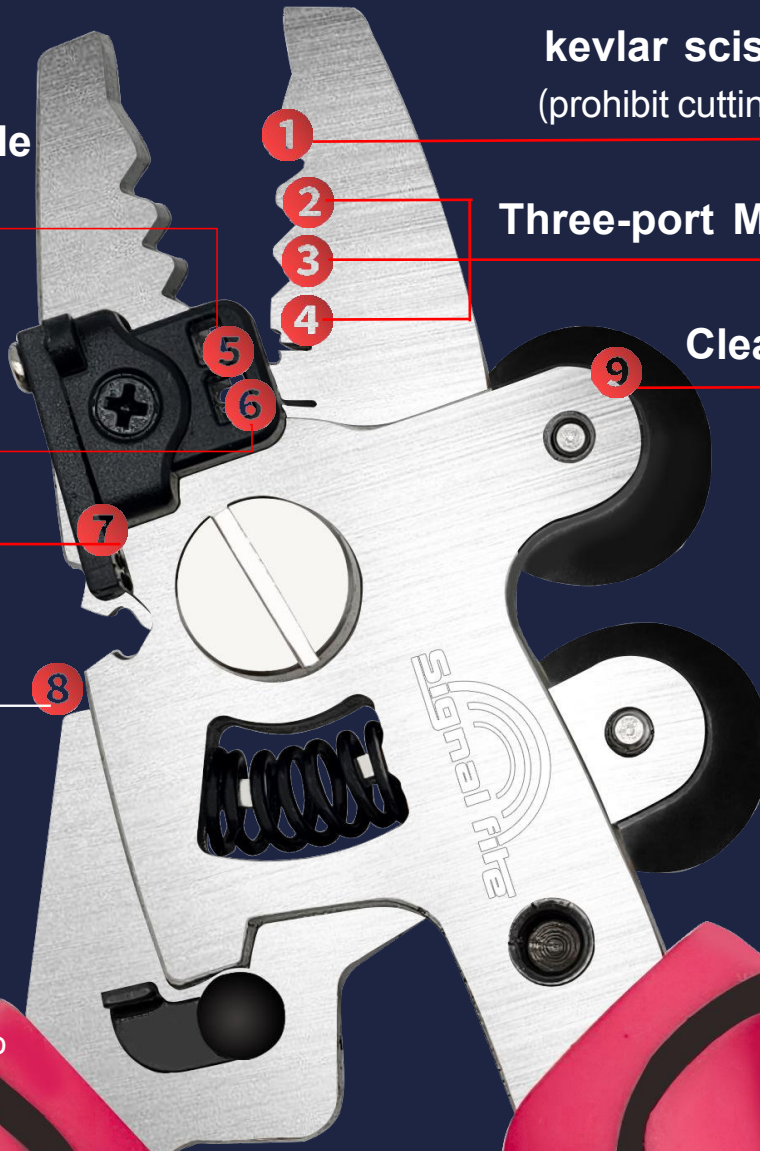
Can not cut FRP steel wire/else steel wire Blade maybe will scratch and have trace, It' s normal and will not influence you to use it If you are care about this, Then please buy with cautions.

## kevlar scissors

(prohibit cutting steel wires )

## Three-port Miller stripper

## Cleaning cotton





# STANDARD CONFIGURATION



TOOLCASE



Fusion splicer



Electrode



S10 one-step fiber cleaver



signal fire stripper including a bag of



Power supply



Belt



Toolbox strap



key



Inner hexagon



brush



Alcohol pump

Quality Certificate  
Packing List  
Calibration Fiber  
Service Commitment



**Machine weight**  
2.06kg (with battery)  
1.68kg (without battery)



**Toolbox weight**  
6.95kg (including  
machine and  
accessories)



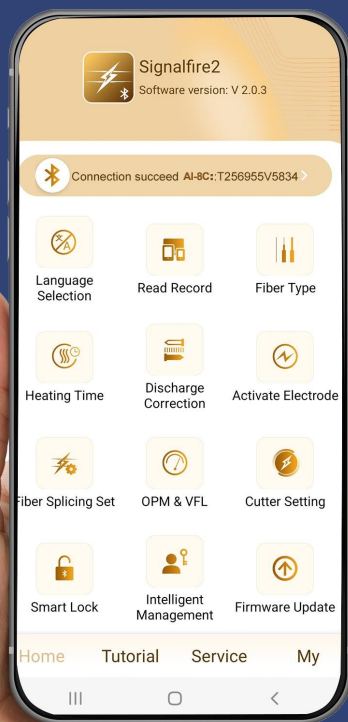
**Total weight**  
8.20kg





# Support bluetooth Bluetooth connection

Intelligent interaction, avoid tedious



## Bluetooth™

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



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

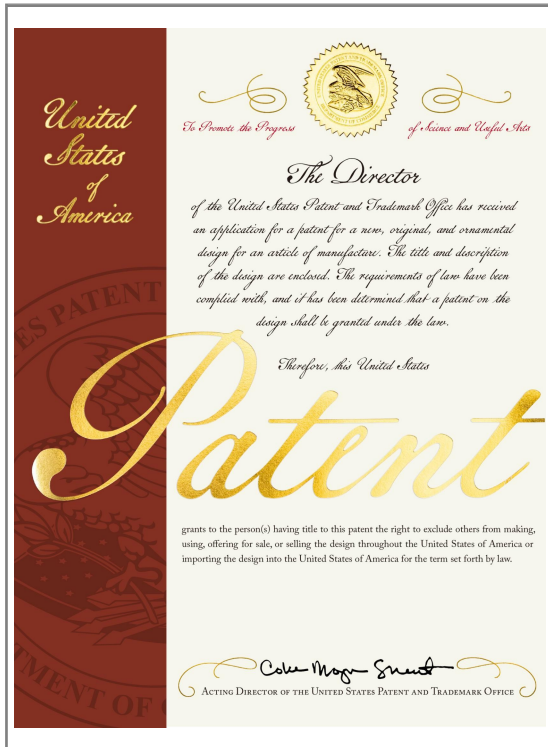
# SERVICE COMMITMENT

**One 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 six months.

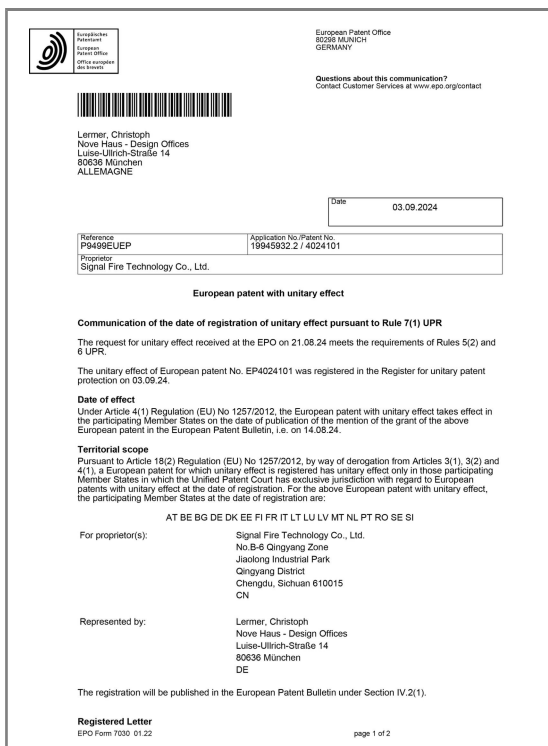
# International Patent



**US Design Patent Certificate**



**European PCT Patent**



**European Unified Patent**




**EU design patent**



# International trademark

**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 fr".

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



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



U.S. Trademark

Registered / Eingetragen 04/12/2023  
No 018660238



The Executive Director / Der Exekutivdirektor  
*José Negro*  
José Negro



EUROPEAN UNION INTELLECTUAL PROPERTY  
OFFICE  
**CERTIFICATE OF REGISTRATION**

This Certificate of Registration is hereby issued for the European Union Trade mark identified below. The corresponding entry has been made in the Register of European Union trade marks.

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

Diese Eintragungsurkunde wird für die unten angegebene Europäische Union Handelsmarken eingetragen worden.



www.euipo.europa.eu

EU trademark

**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:



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

Australian trademark

**РОССИЙСКАЯ ФЕДЕРАЦИЯ**



**СВИДЕТЕЛЬСТВО**  
на товарный знак (знак обслуживания)  
№ 991737



Правообладатель: **Сигнал Файер Текнолоджи Ко. Лтд., №1111, Чаншэнг Бридж, Хонгуанг Таун, Мал 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*

Russian trademark

