



# AI-9

OPTICAL FIBER FUSION SPLICER

# Product Manual

### Suitable for medium to long-distance trunk fiber optic cable fusion projects

**6 motors**  
Fiber core alignment

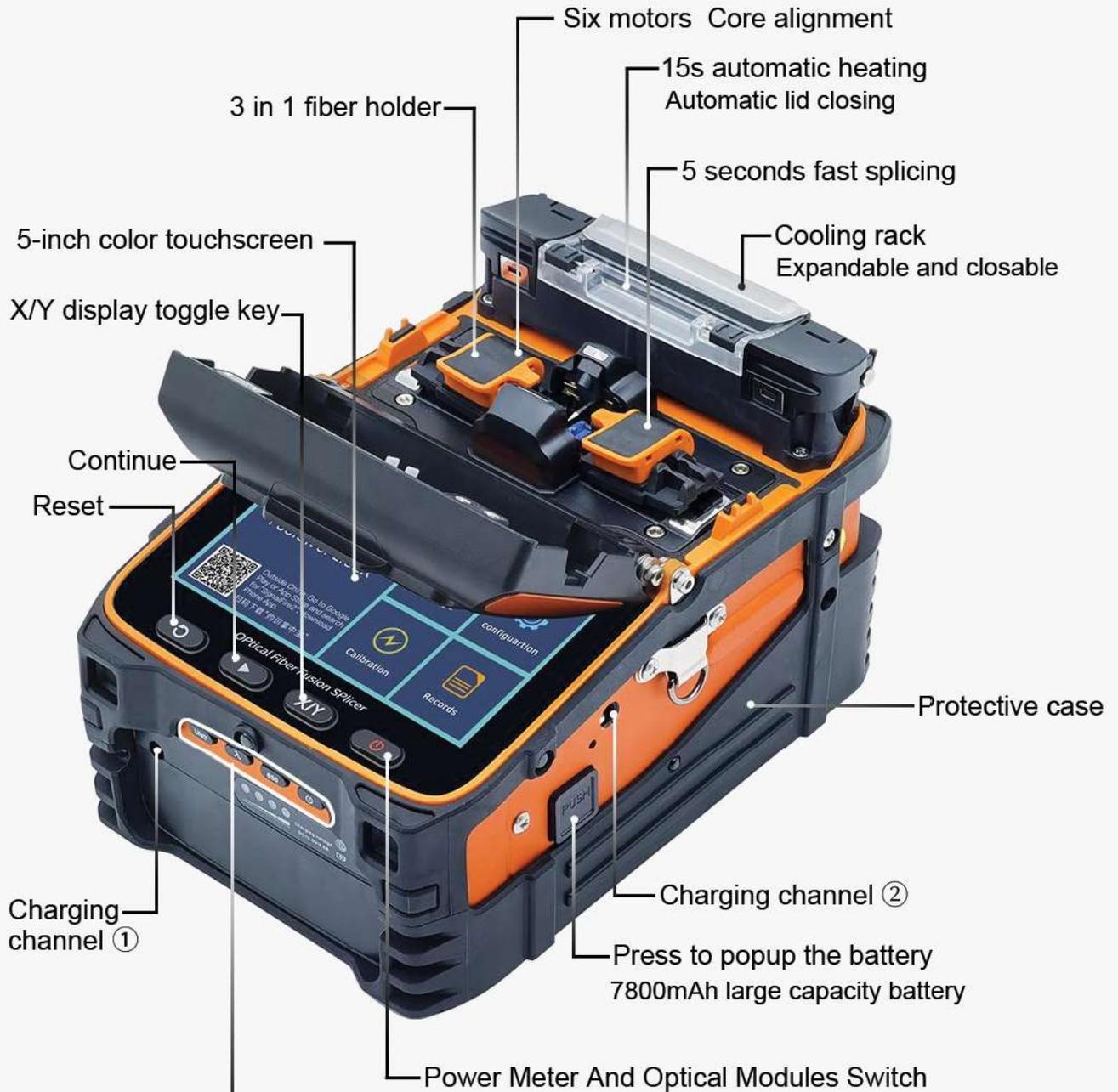


- ✓ 5s splicing/15s heating
- ✓ Built-in OPM&VFL

**0.1 µm**  
Fiber alignment accuracy

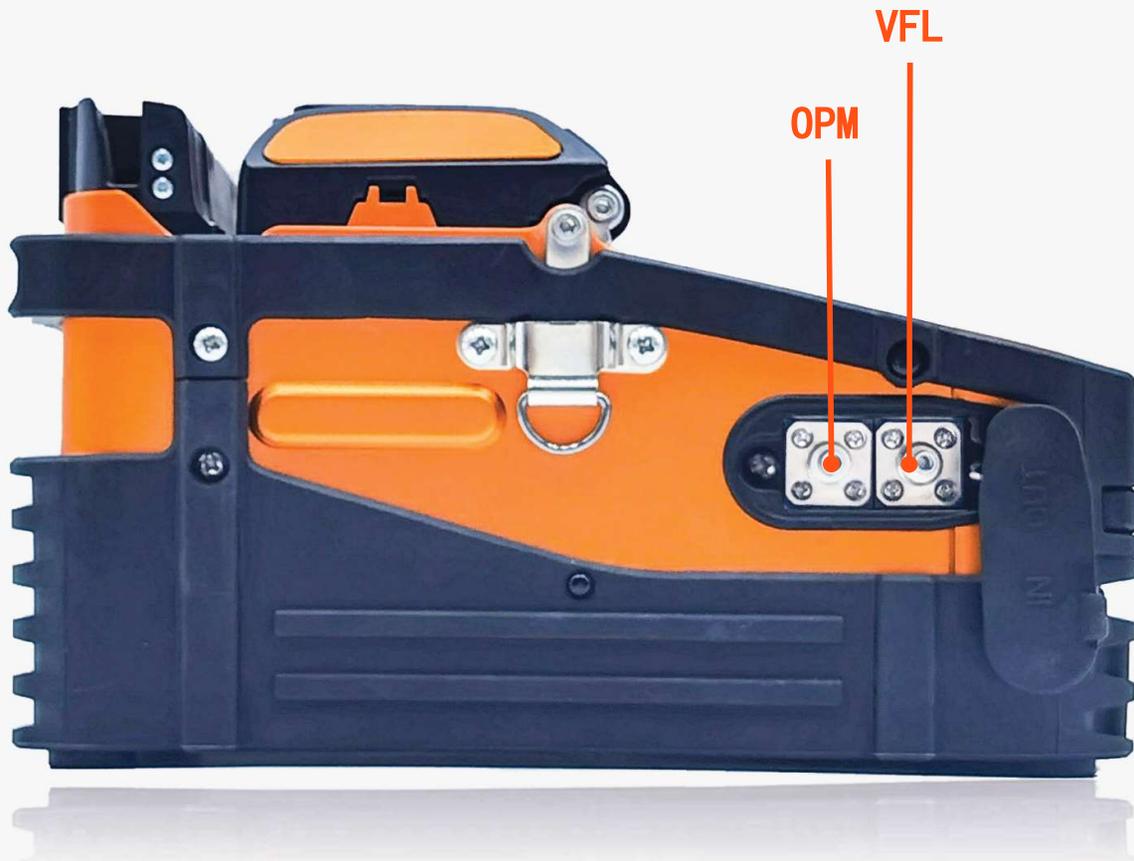


AI-9 is a fully automatic, mainline fiber optical fusion splicer with six motors and fiber core alignment, capable of welding long-distance fiber optic lines. Also within VFL and OPM function. Adopting industrial grade CPU, with fast running speed, 5S rapid fusion welding, 15S rapid heating, 5-inch color touchscreen, 320X magnification; The work efficiency is increased by 50% compared to ordinary welding machines; Large-capacity lithium battery can be heated by fusion about 260 cores, outstanding performance in harsh environments such as high altitudes, deserts, and extreme cold.



Key for OPM & VFL

### Within VFL and OPM function



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

**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

### 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



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	





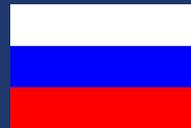
Chinese



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

**Dual charging channel**

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

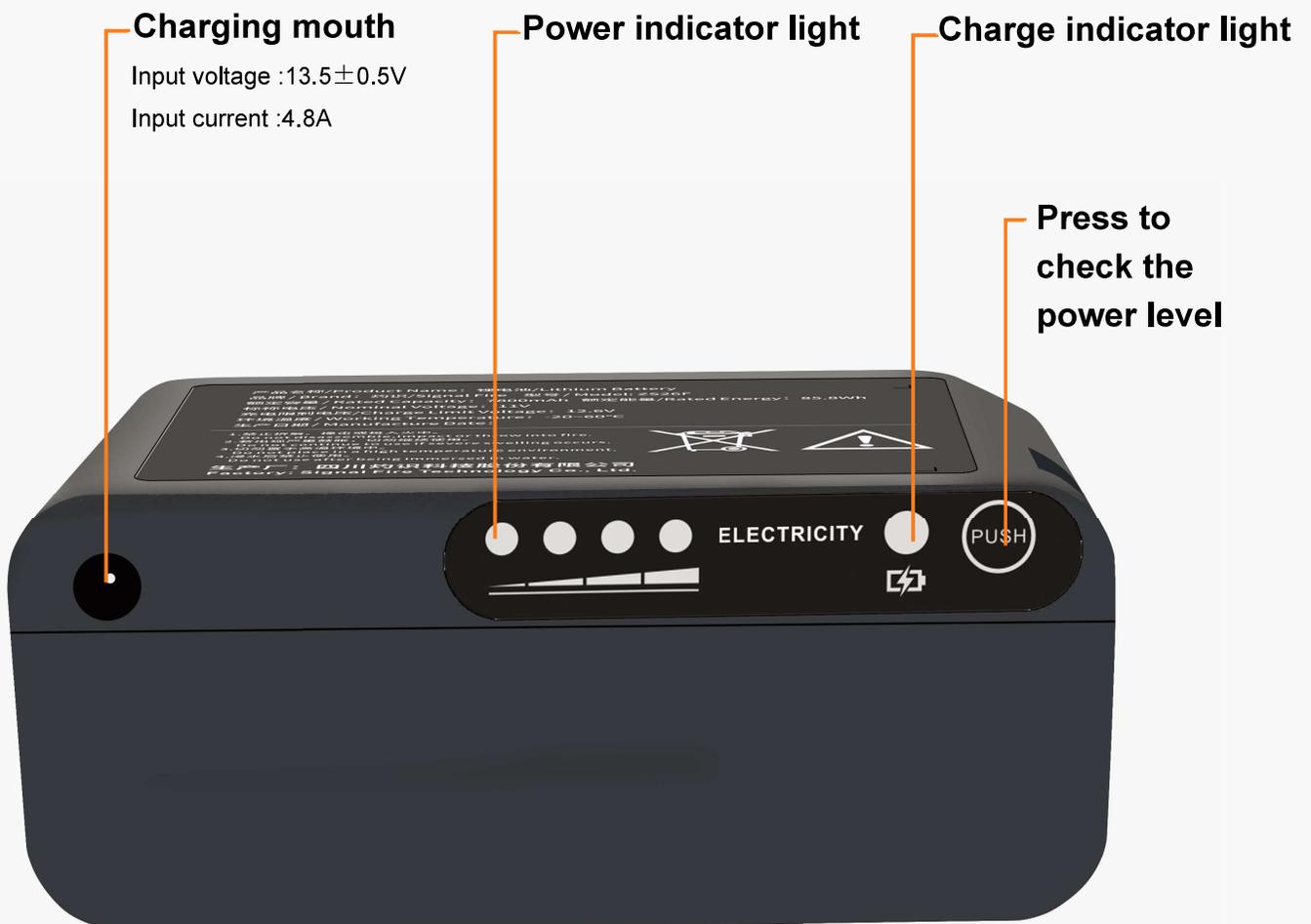


**Charging channel ①**

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

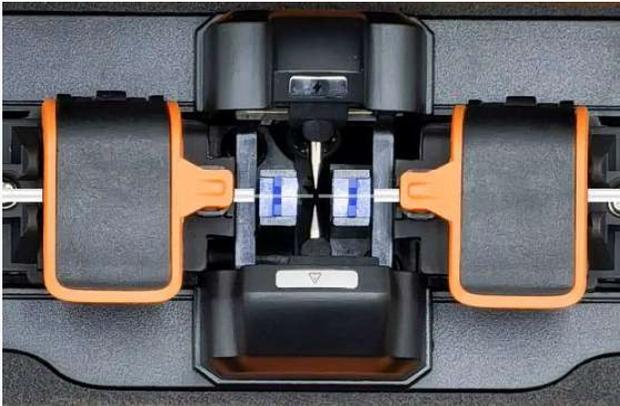


### 3-in-1 universal fixture

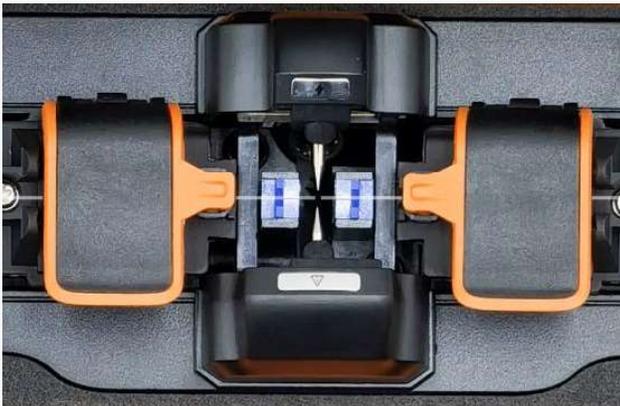
SM, MM, bare fiber, pigtail, Drop cable , multi fiber cable



Jumper  
fiber  
(pigtail)



Drop cable



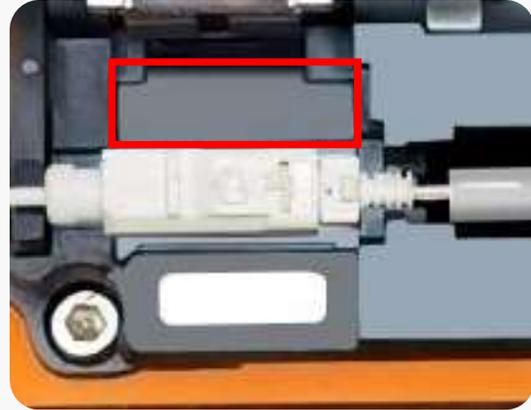
Bare fiber

- **Activate preheating function in winter**



The fiber fusion is successful. At the same time as opening the windproof cover, the heating tank automatically starts preheating for 6 seconds.

- **Heating part compatible with SC fiber**



SC Fiber: Push up  
Ordinary fiber: Push down

- **Heating part automatic lid closing**



- **Cooling rack Expandable and closable**



- **Dust prevention/fall prevention/shock prevention**



- **Metal machine body movement quality guaranteed**



# Outstanding quality without fear of challenges

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



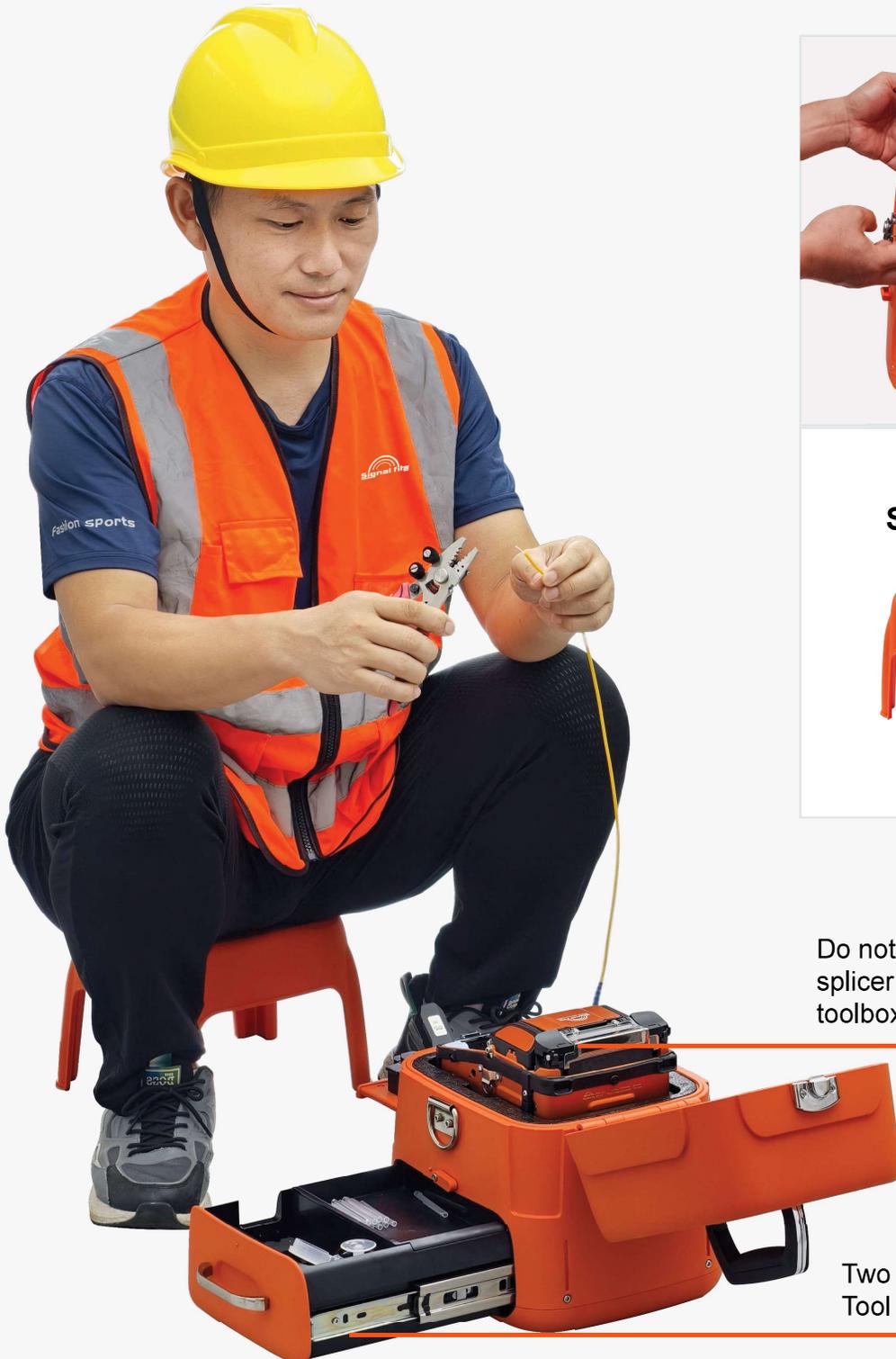
# Exported to over 100 countries and regions worldwide

Get unanimous praise from customers!



# Toolbox with stool

comes with a stool to facilitate the construction workers



**100KG**  
Stool can bear



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

Two layers:  
Tool layer&Accessory layer

### Size and wight



#### Machine weight

**2.10kg** (with battery)

**1.68kg** (without battery)



#### Toolbox weight

**6.95kg**

(including machine and accessories)



#### Total weight

**8.20kg**

# Basic parameter

<b>Fiber alignment</b>	Core/cladding
<b>Motor number</b>	6 motors (accurate of fiber alignment: 0.1μm)
<b>Splicing time</b>	5s
<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>VFL</b>	The machine comes with: power: 15mW, 2Hz flashing and steady on mode
<b>OPM</b>	Wavelength: 850nm、1300nm、1310nm、1490nm、1550nm、1625nm、980nm、1270nm、1577nm、1650nm/Measurement range: -50+26dbm Absolute error: <0.3dB (-50dbm ~+3dBm range)
<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°C, humidity: < 95%RH (no condensation), working altitude: 0 ~ 5000m, maximum wind speed: ≤15m/s

# Accessories in the tool box



- ① Fusion Splicer    ② Toolcase    ③ Spare electrode    ④ S12 Fiber Cleaver
- ⑤ Signal fire stripper  
(Including a bag of cleaning cotton)    ⑥ Alcohol Bottle    ⑦ Brush    ⑧ Toolbox strap
- ⑨ Belt    ⑩ Power Adapter    ⑪ key    ⑫ Inner hexagon
- ⑬ User' s manual / Quality Certificate / Warranty Card / Fiber for ARC

# 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 )

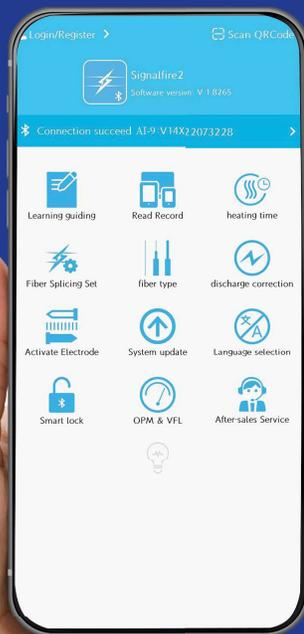
### Three-port Miller stripper

### Cleaning cotton



# Support bluetooth Bluetooth connection

Intelligent interaction, avoid tedious

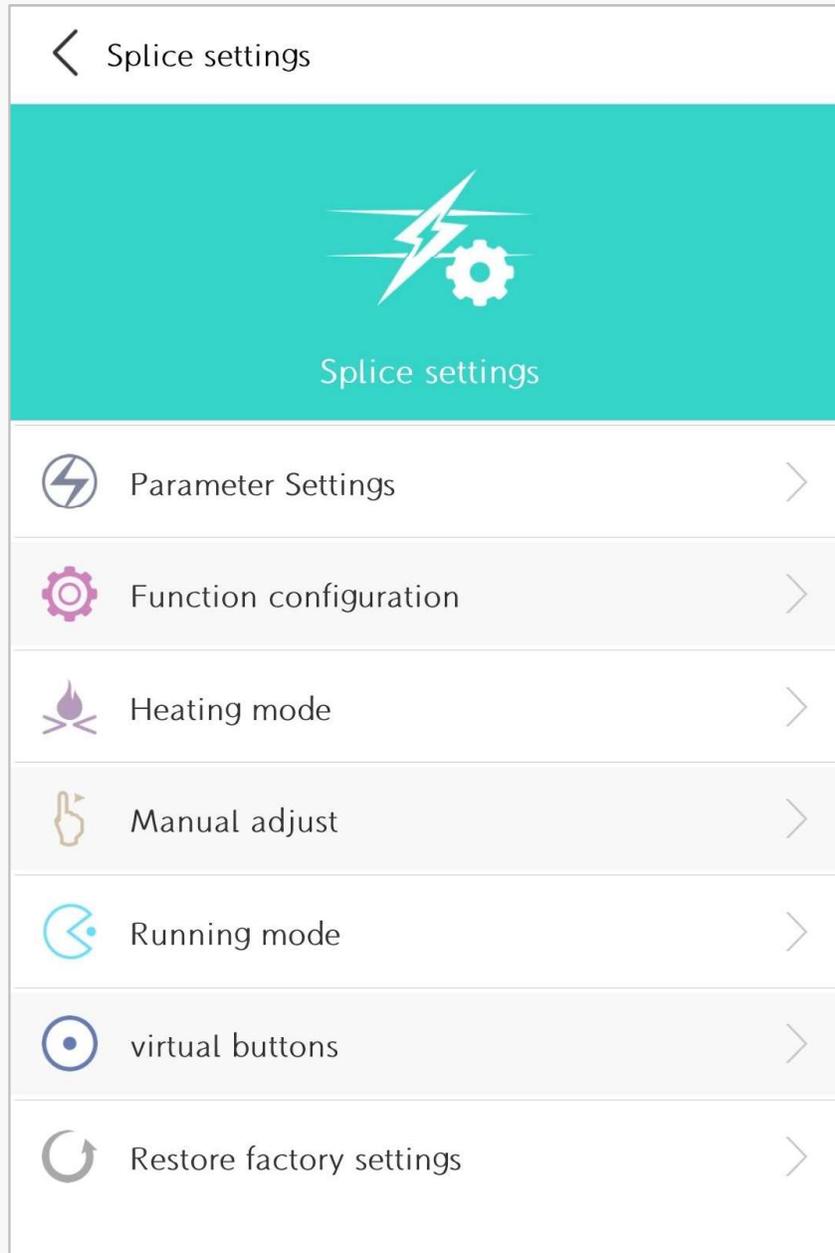


## Bluetooth™

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;



Most of the menu settings for the fusion splicer can be operated through touch screen on the device Okay, but the mobile app has more comprehensive applications. Please download it!