

AI-12

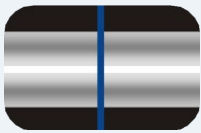
OPTICAL FIBER FUSION SPLICER

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

3 golden standards

► 1. The fiber core is "visible":

Fiber core is visible during the whole process
Alignment effect is visible to the naked eye



► 2. "True Fiber Core" Display:

Splicing loss can be verified

0.01db

► 3. "Accurate" core alignment:

Stable output under all operating conditions
Accuracy remains unaffected in extreme environments

H 5000m
-25°C



0.05 μ m

Core alignment
accuracy



Six motors



Fiber core
alignment

6s

6s splicing

15s

15s heating

OPM

Within OPM
function

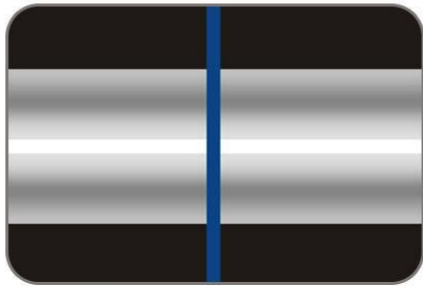
VFL

Within VFL
function

Signal fire AI-12 trunk line fiber fusion splicer adopts the latest and most cutting-edge patented technology of the fusion splicer, combined with top-notch hardware and the most advanced algorithms, with an astonishing fiber precision of 0.05 μ m, which can adapt to long-distance fiber fusion splicing projects in all temperature and all domain environments. Allowing you to achieve exceptional returns with the most cost-effective investment and a relaxed and enjoyable experience.

CAN SEE CLEARLY, ACCURATELY AND SPLICE STEADILY

Splice once and 'become' once, Almost zero rework, Work harder and earn more money, and pass the inspection of the main line once!



320x
MAGNIFICATION

Automatic fiber type identification

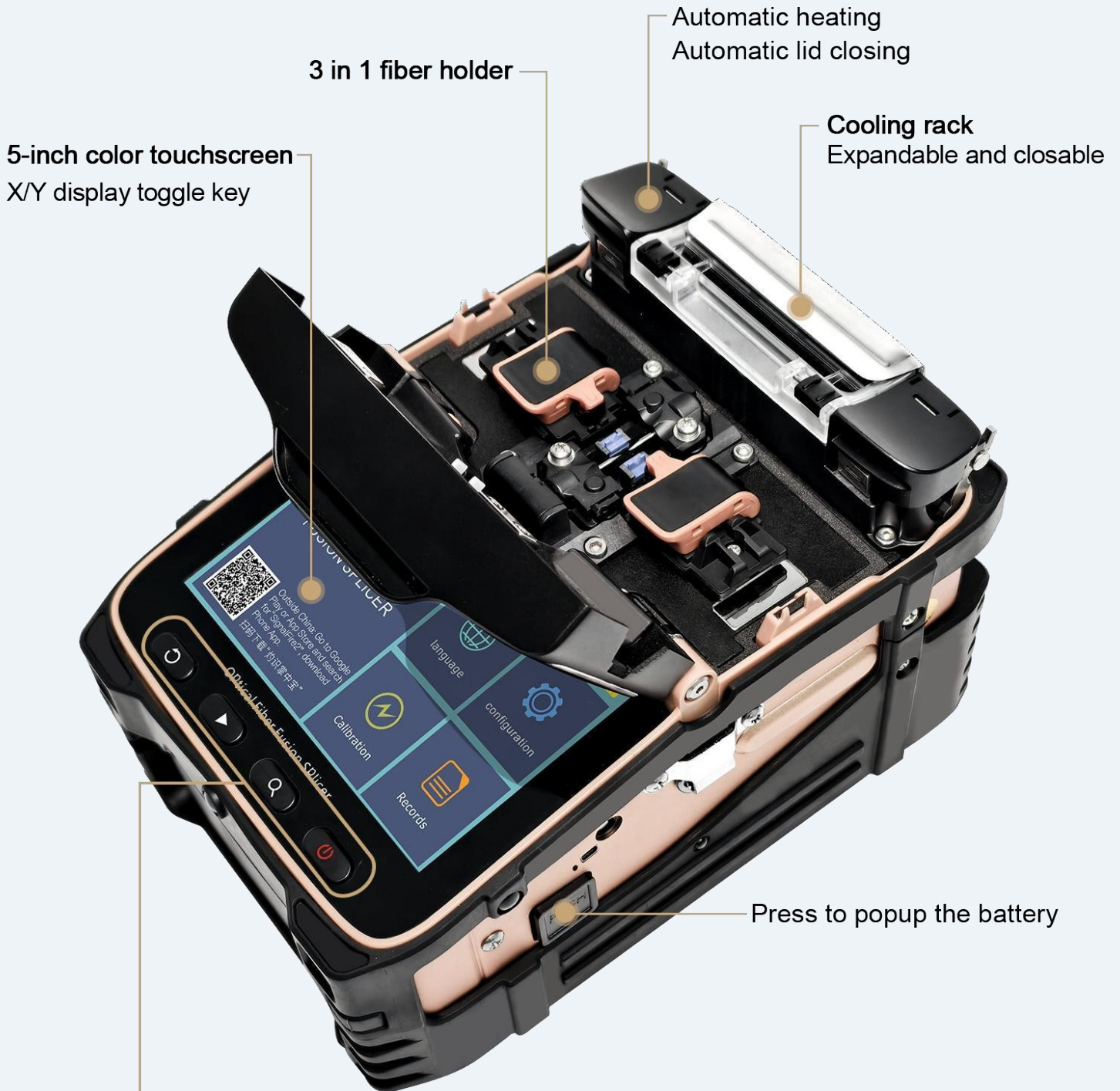
The fiber core can be seen very clearly

One thousandth of a hair gap can be recognized at a glance! Accurate, visible!



WITH MICRON-LEVEL CRAFTSMANSHIP

Defining high standards of splicing fiber



Reset



Continue



Magnification key

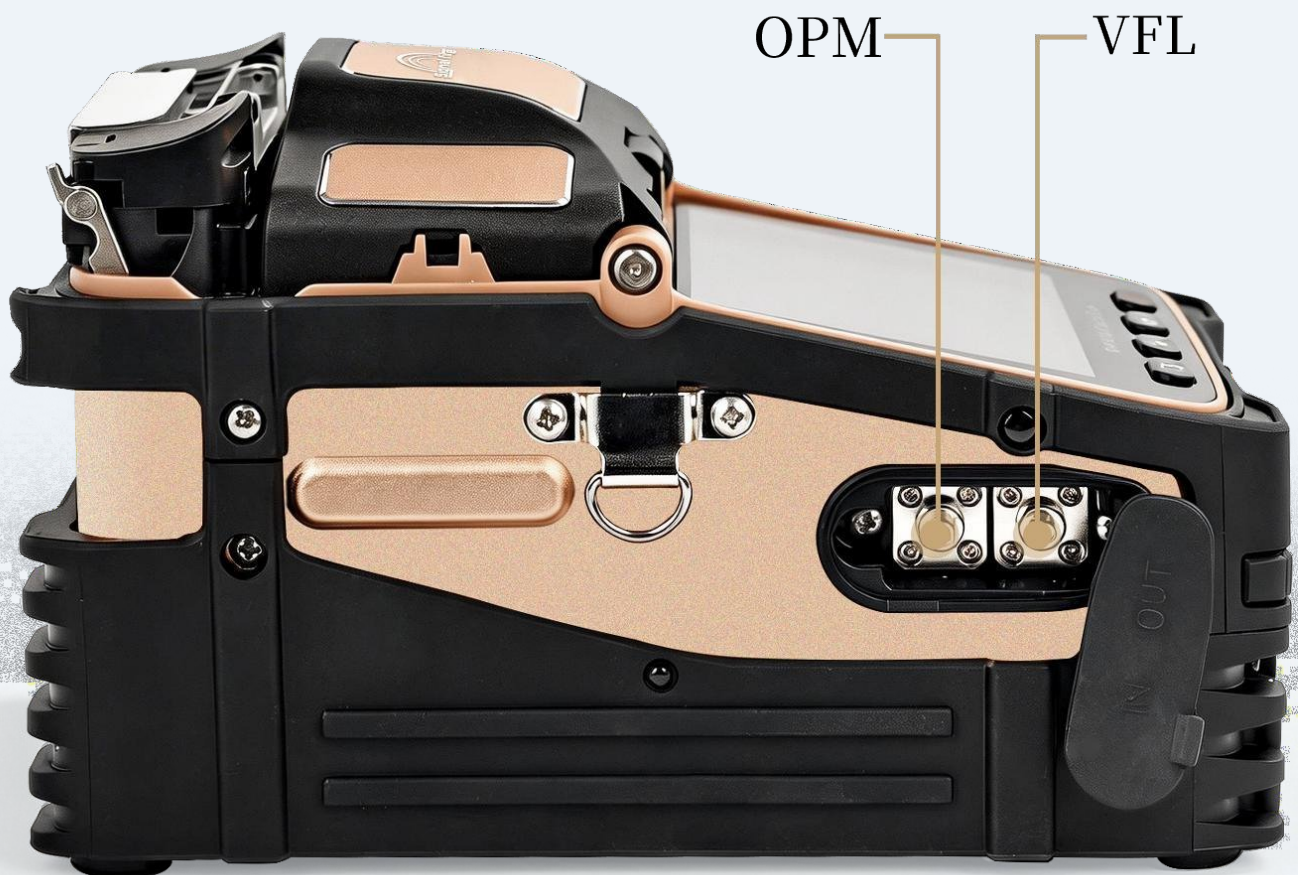


Power button

SPlicing AND TESTING ARE COMPLETED IN ONE MACHINE

making on-site construction more efficient

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

One click switch to local language

Zero obstacles, no 'picking' people

5-inch color touchscreen



language



configuration



calibration



records

12 LANGUAGES TO SWITCH FREELY

Multilingual Settings, covering the global market



Chinese

Russian

English

French



Ukrainian

Turkish

Italian

Thai



Portuguese

Spanish

Arabic

Polish

Fiber type

- SM MM AUTO G654E
 BIF 80um NZ DS

Auto power off 15min

Heating time 15S

Heater Pre-heating

Pause splicing process

Auto-focus

Activate battery

Self test

Angle check 3.0°

Endface check

Basic Standard Precision

Tensile test

A whole day in the wilderness
no need to carry a charging power source

Go into battle light and not suffer!



Charging time ≤ 3.5 hours

7800mAh
lithium battery

260

In full state, 260 cores
can be continuously
fused and heated



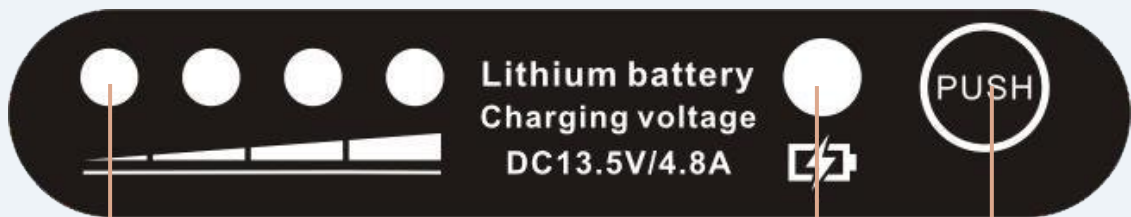
Charging channel ①

Charging channel ②

Charging channel ③
(Type-C)

Three charging ports

The battery can be removed for charging, Type-C supports bidirectional charging and discharging (can charge mobile phones), with a maximum power of 45W.



Power indicator light

Lithium battery
Charging voltage
DC13.5V/4.8A

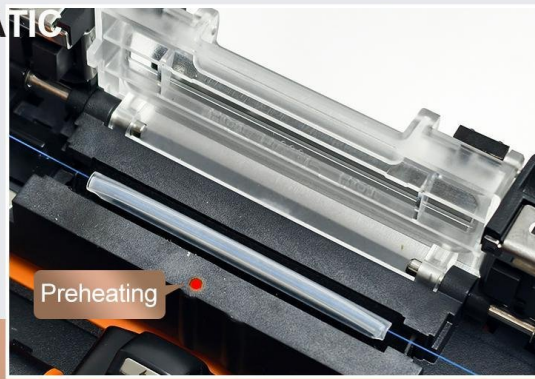
Charge indicator light
Indicator light turns off
when fully charged

PUSH

Press to check
the power level

HEATING PART AUTOMATIC LID CLOSING 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.



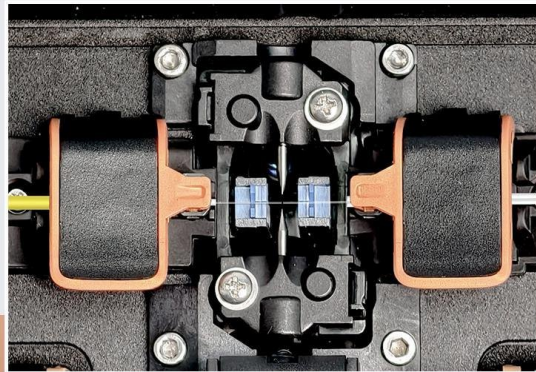
COOLING RACK INTEGRATION NO NEED TO SEARCH AROUND

Expandable and closable



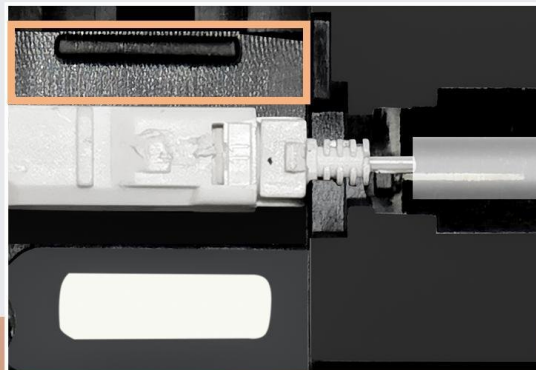
3 IN 1 FIBER HOLDER

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



HEATING PART COMPATIBLE WITH SOC FIBER

SOC Fiber: Push up
Ordinary fiber: Push down



Full temperature and global environment adaptation

Can all projects across the country accept

DIFFERENT SCENARIOS



-25°C



5000m above
sea level



Dry and dusty



Stable fusion without lagging



Clean, dignified, and effortless work

The thoughtful design that has obtained patents reflects respect and care for workers



Stool can bear: **100Kg**



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

Two layers:
Tool layer&Accessory layer



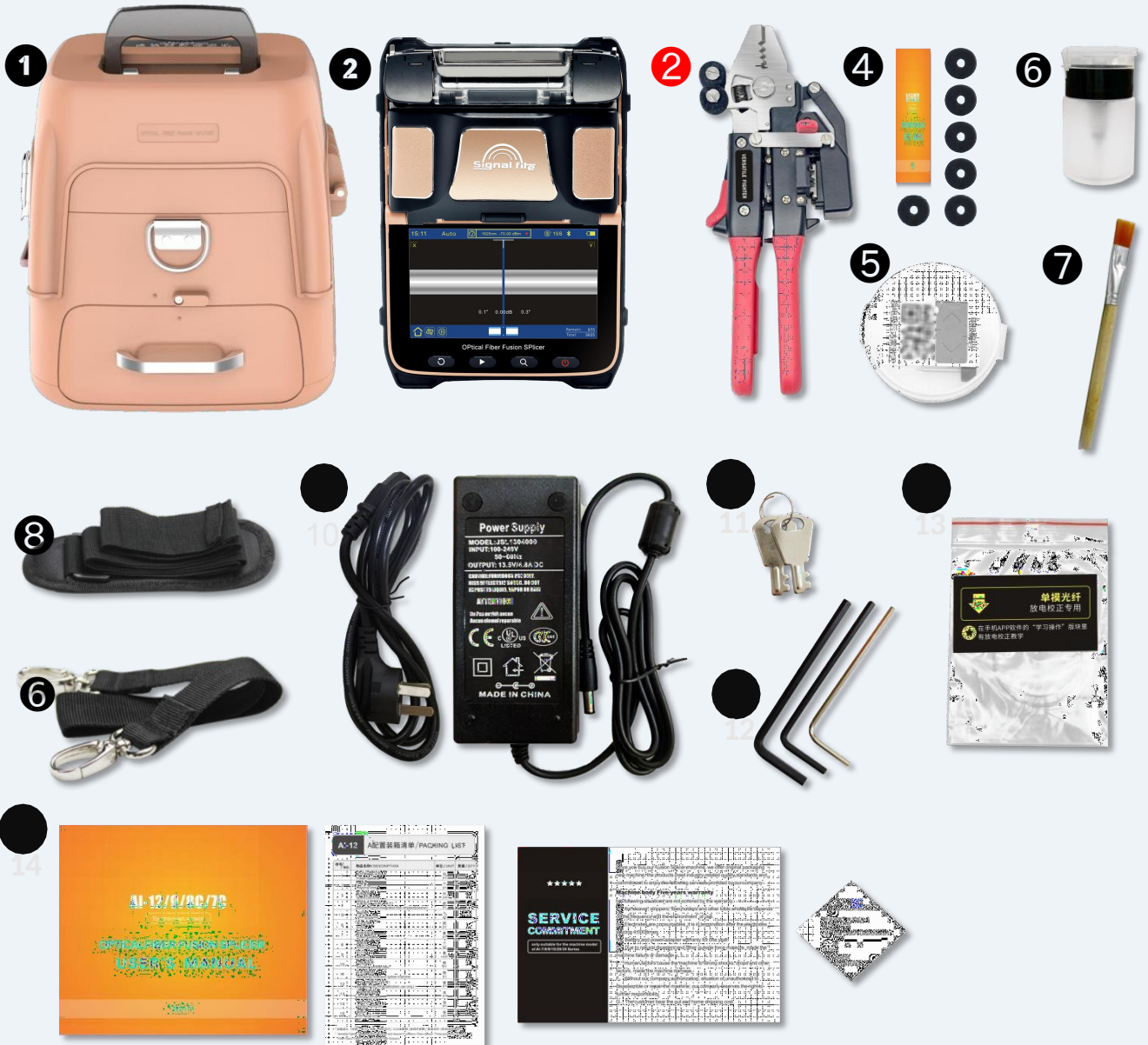
Toolbox with stool

Patent no.ZL 2016 3 0402585.X

Basic parameter

Fiber alignment	Core/cladding
Motor number	6 motors (accurate of fiber alignment : 0.05μm)
Splicing time	6s
Heating mode	15s, can be customized according to the external environment
Fiber type	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.
The cladding diameter	80-150 μm
Splicing loss	0.02dB (SM) 、 0.01dB (MM) 0.04dB (DS/NZDS)
Fiber identification	Automatic fiber recognition (in AUTO mode)
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
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+26dbm Absolute error: <0.3dB (-50dbm ~+3dBm range)
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 color touchscreen
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
Charging method	Three charging ports: The battery can be removed for charging, Type-C supports bidirectional charging and discharging (can charge mobile phones), with a maximum power of 45W.
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

Randomly configure **A** (recommended) and choose one of them



- ① Toolcase ② Fusion Splicer *③ versatile fighter(Integrated fiber stripper and cleaver)
- ④ 10 cleaning cotton balls ⑤ Spare electrode ⑥ Alcohol Bottle ⑦ Brush
- ⑧ Toolbox strap ⑨ Belt ⑩ Power Adapter ⑪ key ⑫ Allen key ⑬ Fiber for ARC
- ⑭ User's manual / packing list / Warranty Card / Quality Certificate

***③ Versatile Fighter (Integrated fiber stripper and cleaver) Functions: Fiber cleaver / Three-port Miller Stripper / Fiber Pliers / Fiber Cleaning / Kevlar Fiber Scissors**

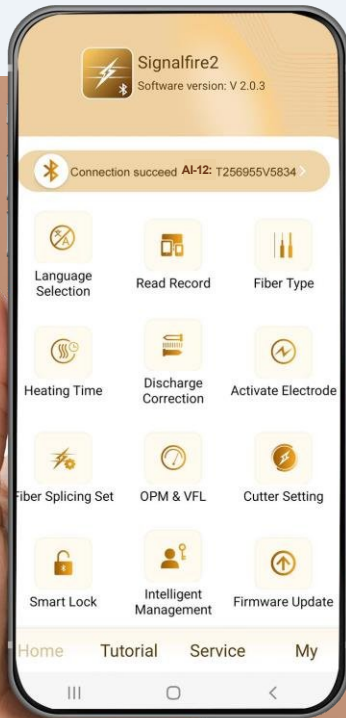
Randomly configure **B** and choose one of them



- ① Toolcase ② Fusion Splicer *③ Signal fire stripper ④ 10 cleaning cotton balls
- ⑤ S15 One-step Fiber Cleaver ⑥ Spare electrode ⑦ Alcohol Bottle ⑧ Brush
- ⑨ Toolbox strap Belt ⑩ Power Adapter ⑪ key ⑫ Allen key ⑬ Fiber for ARC
- ⑭ User's manual / packing list / Warranty Card / Quality Certificate

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!

Size and weight



135mm

198mm

122mm

Machine weight

2.10kg (with battery)

1.68kg (without battery)



270mm

237mm

293mm

Toolbox weight

6.95kg

(including machine and accessories)



330mm

310mm

370mm

Total weight

8.20kg

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.



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.



Exhibition photos

