



NEW
Product
LAUNCH



AI-20

THE FOURTH GENERATION TRUNK LINE OPTICAL FIBER FUSION SPLICER

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



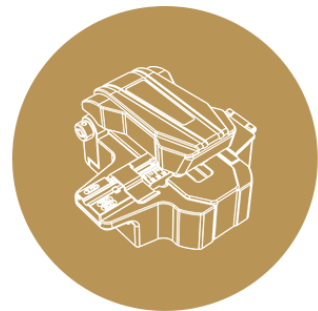
Fiber Splicer



Instrument



Signal fire stripper



Fiber cleaver

SIGNAL FIRE

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AI-20

THE FOURTH GENERATION TRUNK LINE OPTICAL FIBER FUSION SPLICER

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



Accurate of fiber alignment :0.1 μ m

The AI-20, 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.

Full link integration design

Highly integrated



SIX MOTORS



FIBER CORE
ALIGNMENT



6S SPLICING



15S HEATING



BUILT-IN OPM
FUNCTION



BUILT-IN VFL
FUNCTION



DELAY RETURN ELECTRIC
ONE-STEP FIBER CLEAVER



SIGNAL FIRE
STRIPPER

Humanized design meets different construction environments



Compact and portable



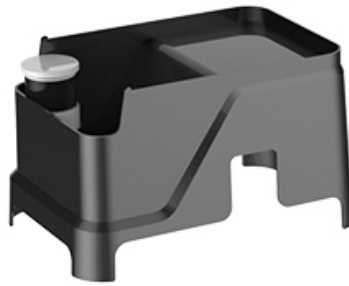
Climbing high is also easy



Bench+support platform



Can be used as a bench



Host support /protection console



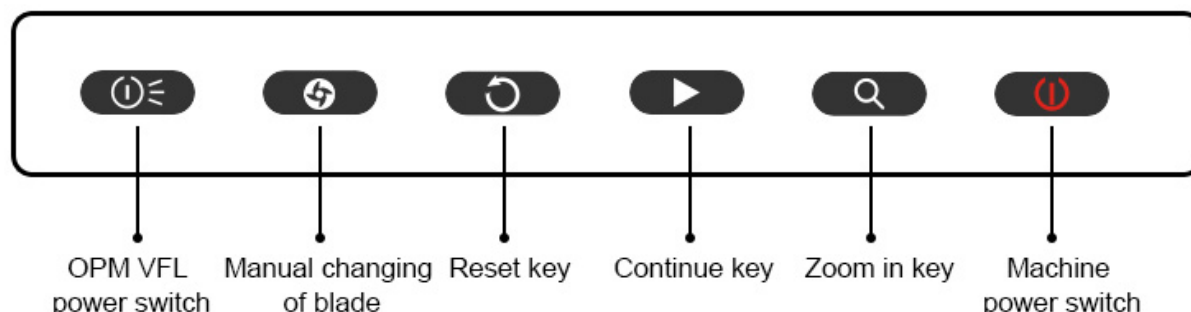
Equipped with signal fire stripper

Signal fire AI-20 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. 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

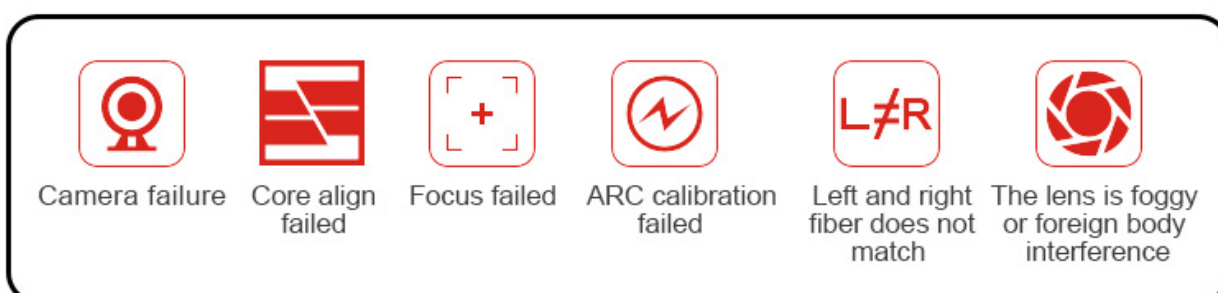
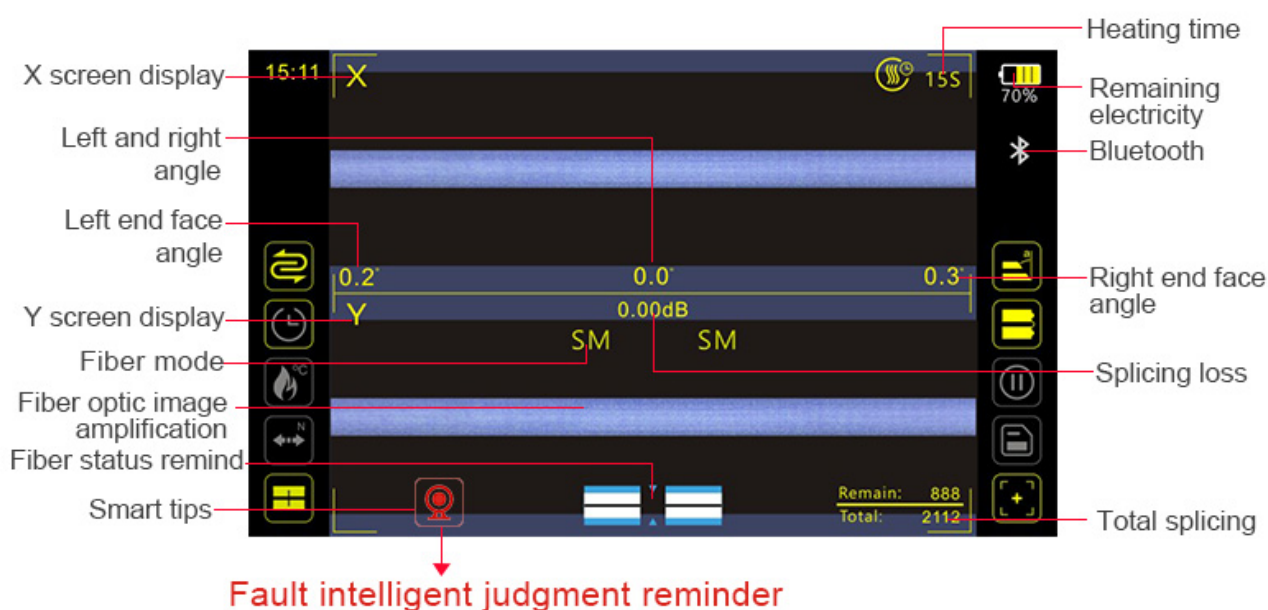


The buttons are clear and beautiful



Display 5 inch TFT color display screen

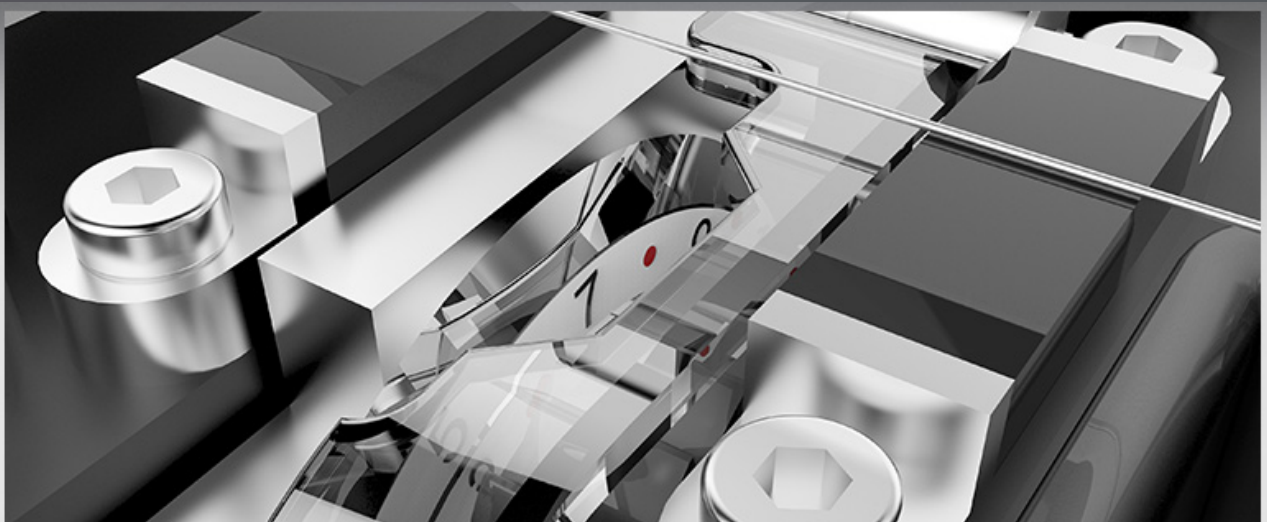
320X (X or Y axis single display) 200X (X and Y axis dual display)



Built-in Electric One-Step Fiber Cleaver High-Precision, With Delay Return



Cleaver Blade return
is automatically delayed!

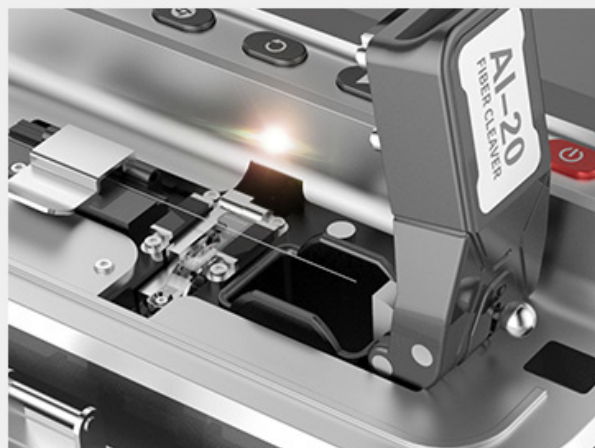


AUTOMATIC CHANGE

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

< System parameters
Save

Blade change stroke	40	Value range 10 ~ 100
Cutter face change stroke	30	Value range 10 ~ 100
Cutting speed	1	Value range 1-5
Return blade delay	500 ms	Value range 200 ~ 2000ms

< cutter setting

Total number of cuts 12598
Number of times the current blade has been used: 2610
Current point: 5

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.

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

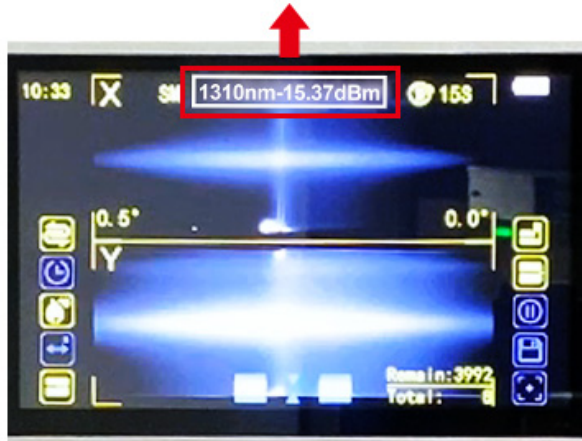
Switch between three states

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

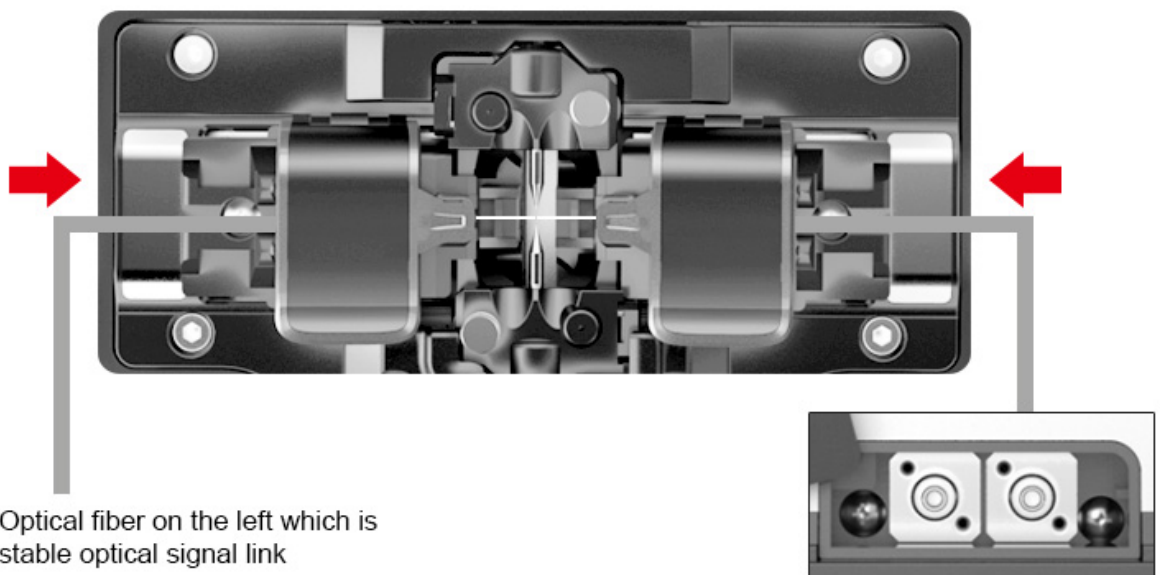
Intelligently analyze the alignment point with the lowest splicing loss and then splice the fiber



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 plugged 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

7800mAh LITHIUM BATTERY

Dual charging path

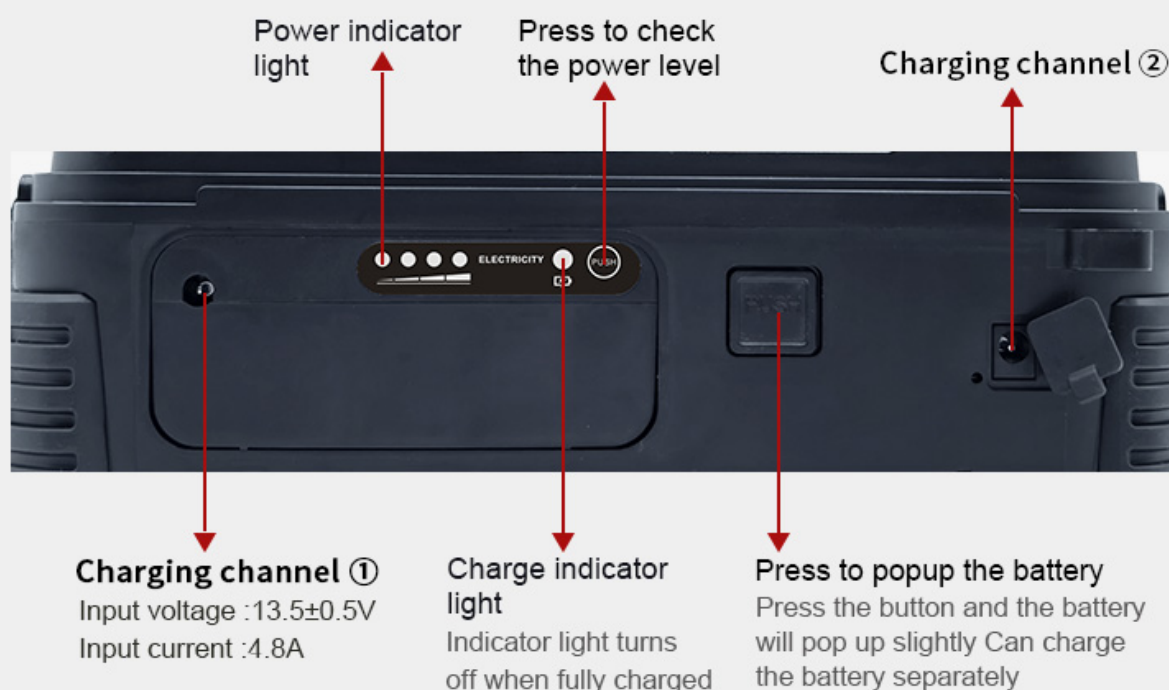
In full state, 240 cores can be continuously fused and heated

Charging time ≤ 3.5 hours

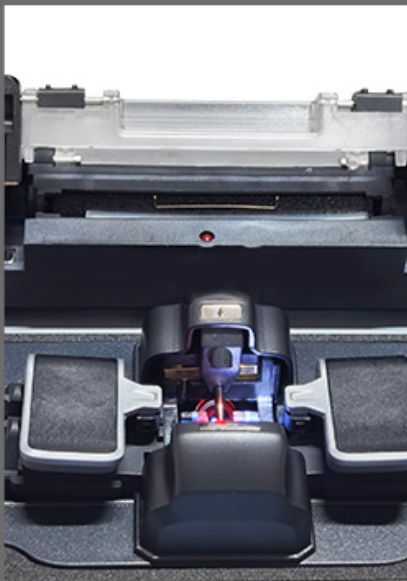




The battery can be removed and charged separately



15S AUTOMATIC HEATING



**Heating part automatic
lid closing**



Preheating

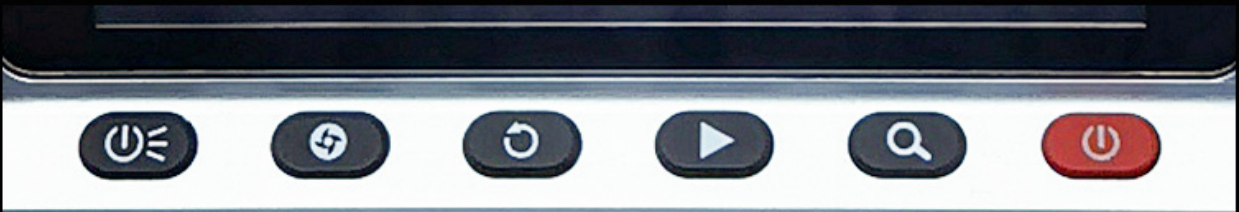
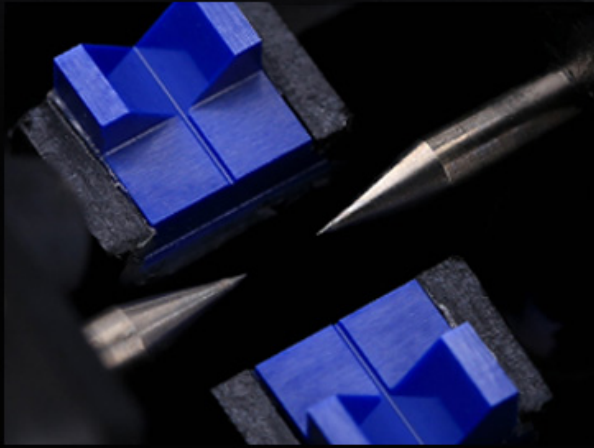
Successful fiber spliced. When opening the windproof cover to take out the fiber, the machine turns on pre heating for up to 6 seconds



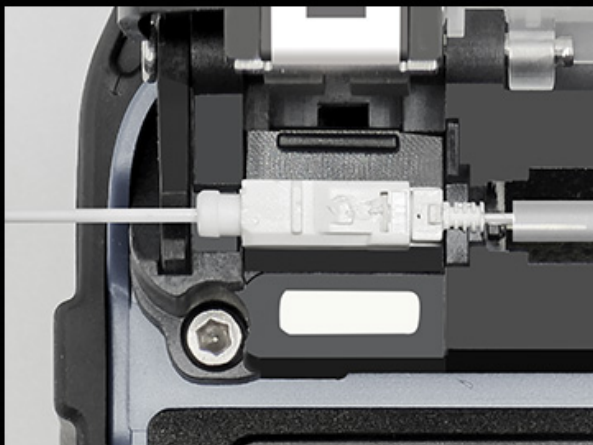
Cooling rack

Expandable and closable

EXQUISITE DETAILS



THE BUTTONS ARE CLEAR AND BEAUTIFUL



Heating part compatible with SC fiber

SC Fiber: Push up
Ordinary fiber: Push down



3 in 1 fiber holder

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

OUTDOOR FIBER SPLICING

COMPACT AND PORTABLE



Bench+support platform

Humanized design



Compact and portable

Outdoor construction is also easy



Combination hanging chain

Climbing homework

Meet different construction environments

Compact and easy to carry

Outdoor construction is also easy

10 LANGUAGES TO SWITCH FREELY

Multilingual Settings, covering the global market



CHINESE



RUSSIAN



ENGLISH



FRENCH



ITALIAN



THAI



PORTUGUESE



SPANISH



ARABIC



POLISH

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 :0.1μm
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
Visual Fault Locator	Power:15mw.2hzflashina And Constantlv Bright Mode

Optical Power Meter	Wavelength:850nm、1300nm、1310nm、1490nm、1550nm、1625nm、980nm、1270nm、1577nm、1650nm; Measuring Range:-50+30dbm Absolute Error:<0.3db(-50dbm ~ +3dbm Range)
Fusion splicer languages	10 languages (Chinese、Russian、English、French、Italian、Thai、Portuguese、Spanish、Arabic、Polish)
Fiber holder	Three in one fixture, no need to change, suitable for single/multi-mode, multi-core cable/bare fiber, tail fiber, jumper, leather cable
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 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

SIZE AND WEIGHT



Machine weight

3.09kg



Weight of toolbox (complete set)

4.50kg



Total weight

5.50kg

ACCESSORIES IN THE TOOL BOX



- 1 Toolcase
- 2 Fusion splicer
- 3 Spare electrode
- 4 signal fire stripper
(Including a bag of cleaning cotton)
- 5 Alcohol bottle
- 6 Cleaver cleaning
cotton swab
- 7 Allen wrench
- 8 Brush
- 9 Climbing combination hanging chain
- 10 Toolbox strap
- 11 Belt
- 12 Power adapter
- 13 User' s manual / Quality Certificate / Warranty Card / Fiber for ARC



Bluetooth Connection

Establishing wireless communication through Bluetooth technology to achieve data transmission

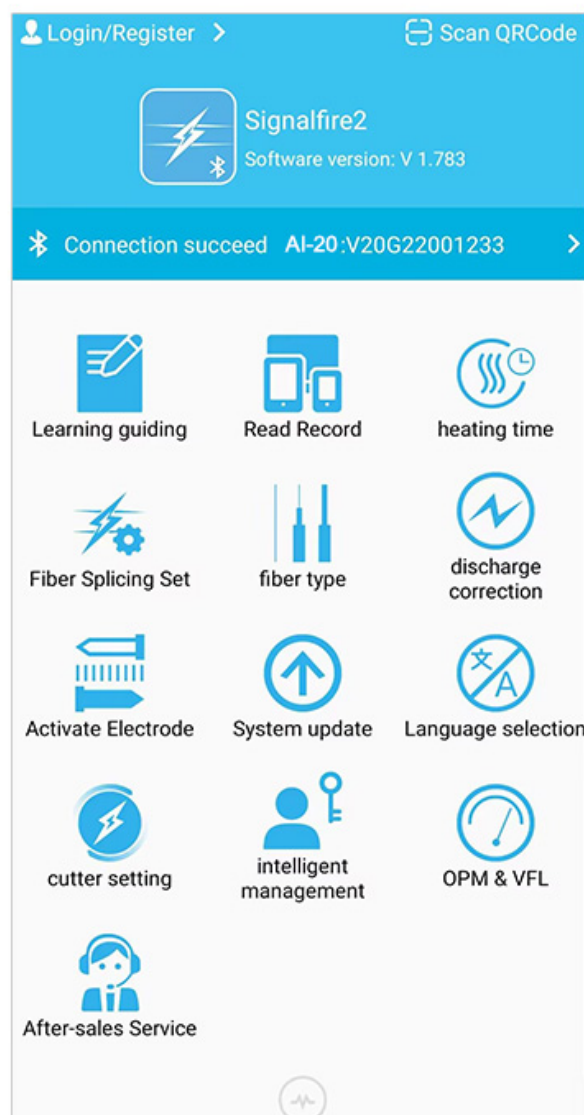


- | The device owner can be bound as the highest authority and can effectively manage a single or multiple devices.
- | You can read the welding records and times of the device through your phone, and export data.
- | You can set various parameters for the device: menu on/off, machine language, changing heating time, etc.
- | Device software upgrade: Upgrade the mobile app, and the Bluetooth connected machine can upgrade the device software.

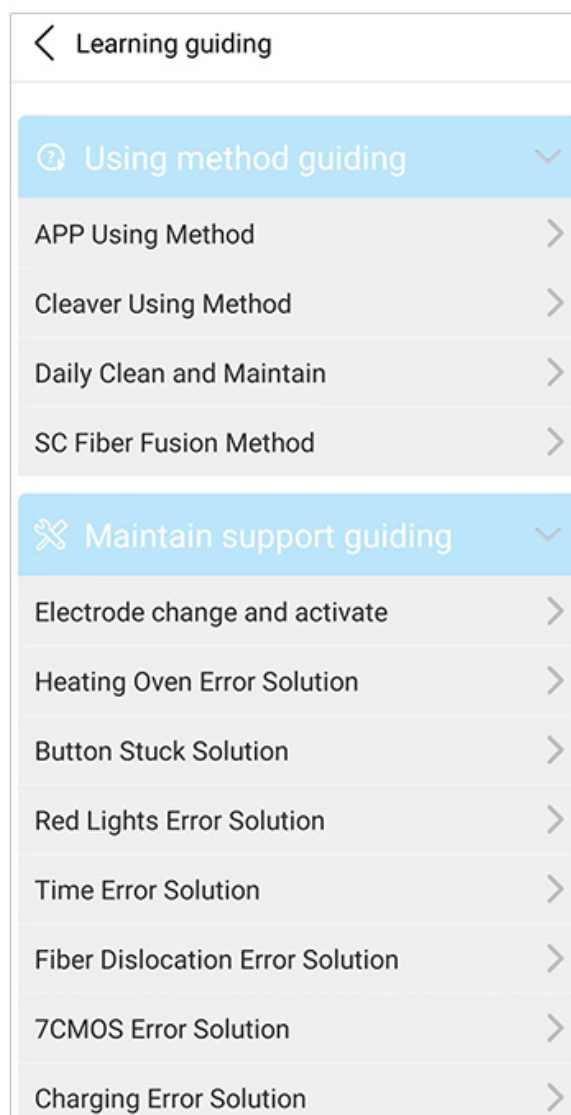
upgrade the device software.

Intelligent interaction, avoid tedious

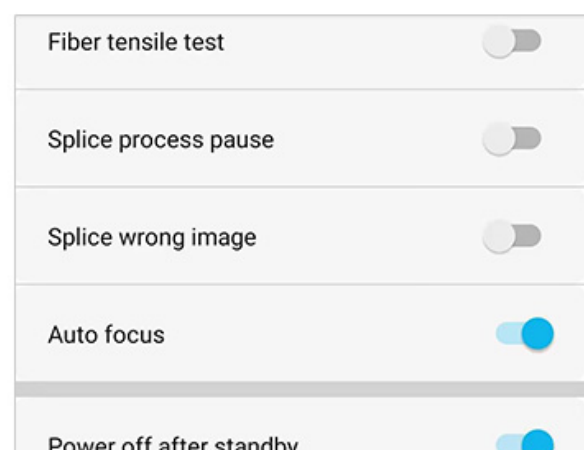
Scan the QR code of the welding machine startup screen to download the Mobile APP. The phone connects to the splicer via Bluetooth.



APP main interface

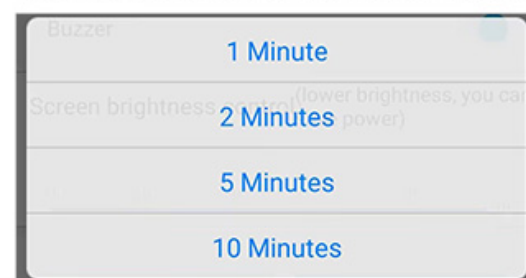


Learning guidance interface



Energy saving mode

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



Standby time 10 Minute >

Power off voice ☒

Buzzer ☒

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

0 20 40 60 80 100

SAVE QUERY

Cancel

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 record More

Cumulative fusion times: 0 times

Machine AI-20-V20G2 2001233

Specify user: all

View by time 4 times

2024-09-01 — 2024-09-30

serial number	Splicing loss	Time	Weld image
1	0.00	2024-09-30 18:43:39	
2	0.01	2024-09-30 18:42:33	
3	0.01	2024-09-30 18:41:25	

< heating time

Pre-heat model ☒

Choose shrinkable tube Customize >

Set heating time 15 S

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

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

Unconnected device

中文 (简体)	Auto-detection
English ☒	English ☒
Português	Русский
Français	Español

< cutter setting System parameters

Cutting length 13.0mm >

Cutting type Automatic identification >

Automatic cutting OFF ☒ ON

Replace the blade >

Tension automatic correction

This function can be turned off when the automatic correction function is turned on and the ideal cutting length cannot be reached.

ON ☒ OFF

Русский	Italiano
Español	Português (Brasil)
Polski	Português
ไทย	Indonesia
عربي	Polski
Italiano	Français
	عربي

Fusion splicer language/
mobile app selection

Factory settings	
LED brightness adjustment	
Cutter usage tutorial	>
Common problems and solutions	>
Clean cutter	>
Factory settings	>
Cutting times:72	

Cleaver Parameter setting
/adjustment