

USER'S MANUAL

2022.05

AI-6C

Automatic Intelligent

OPTICAL FIBER FUSION SPLICER

USER'S MANUAL

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CATALOGUE

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SAFETY REQUIREMENTS ▼

At any stage of operation on the optical fiber fusion splicer, you must take the following general safety precautions. Not take these warnings and precautions or not comply with the warnings which described in this manual, would violate the fusion splicer design, manufacture and use of safety standards. My company does not assume any responsibility for the consequences of breaching these requirements for users caused!

● Operation environment and Power

▣ Fusion splicer operation, storage environment and working power requirements

Operating temperature: 0~+40℃ Limit temperature: -10℃~+50℃
Operating humidity: 95%RH or less (no condensation) Maximum wind speed: 15m/s
Storage conditions:-20℃~+60℃(no condensation)

Before turning on the power, please make sure that the power supply can match its voltage, and that all safety measures are taken.

- Do not use the fusion splicer in explosive environments
- Do not use the fusion splicer in the presence of flammable gases or fumes
- Do not attempt to disassemble any of the components of fusion splicer

In addition to the statements in this manual to allow user-replaceable parts, please do not attempt to disassemble any of the components of fusion splicer. Replacement parts and internal adjustments can only be commissioned by authorized service personnel.

WARNINGS/PRECAUTIONS ▼

● AC/DC Adapter

The Output Characteristics Of The Power Adapter Must Meet The Following Requirements.
Voltage: 12V-14V; Current: $\geq 2A$ (output voltage of original adapter: 13.5v, output current 4.8A)
Polarity: Center Is Positive; The fiber fusion splicer will be damaged or unable to charge if uses inappropriate adapter to output voltage and current. Using Higher Voltage Will Cause Damage To The Fusion Splicer. AC /DC Power Adapter Input AC Voltage Of 100-240v, 50/60hz, If Input Voltage Exceeds This Range May Cause Permanent Damage To The Adapter!

● Internal Lithium Battery

There Is A Lithium-ion Battery Cells In The Fusion Splicer, The Use Of Other Batteries May Damage The Fusion Splicer And Jeopardize Personal Safety.
For Safety Sake, Lithium Battery Pack Can Not Be Disassembled To Prevent Short Circuits; Do Not Crash Battery, Do Not Let The Battery Close To A Fire Or An Excessive Heat To Prevent Lithium Battery Explosion. Violation of the above operation may cause lithium battery explosion, endangering the personal safety of users.

▲ Notice:

1. When the battery is placed for a long time, it is easy to enter into the dormancy state. At this time, the capacity is lower than the normal value, and the service time is also shortened. However, the battery can be activated and its normal capacity can be restored after only 2-3 normal charging and discharging cycles. Lithium batteries have little memory effect and can be recharged at any time.
2. Lithium batteries exist self-discharge phenomenon, a long time of unused batteries will be in the state of low voltage because of self-discharge. A long period of low voltage will damage the internal structure of the battery and shorten the battery life. Therefore, unused batteries should be charged at least once a month, pay attention to the display of 2 or 3 bars of electricity can be charged, should not be full; In daily use, try to charge in the battery display more than one grid, do not run out of power to charge
3. Do not use the machine for a long time, please take out the battery and store it separately. The temperature range of long-term storage (storage time over 6 months) of the battery is 0℃~40℃. The temperature range of short-term battery

WARNINGS/PRECAUTIONS ▼

storage (storage time less than or equal to 6 months) is: -20°C~60°C.

4. In order to ensure the safety of charging, the charging temperature range of lithium battery inside the welding machine is 0°C~40°C.

5. If the battery charging is abnormal or the battery display is abnormal, you can try to activate the battery manually. For specific operation, please see: button combination function -- three to activate the battery

● Operation On Optical Fiber Fusion Splicer

When Below Situation Happens On Fusion Splicer, Please Turn Off The Fusion Splicer Immediately And Unplug The Power Adapter From The Power Input, Otherwise It Will Cause The Fusion Splicer May Not Work Properly Or Can Not Be Repaired And Other Serious Consequences.

» **Liquid, foreign matter into the inside of the fiber fusion splicer. There is a protective structure inside the machine. A small amount of fiber debris will not affect the use, but please try to be careful not to fall in.**

» **fiber fusion splicer is subjected to strong vibration and impact**

There is no need to maintain the fiber fusion splicer internal parts, do not remove the fiber fusion splicer. In the electrode discharge process of fiber fusion splicer, the voltage between the two electrode rod is up to several dry volts, do not touch the electrode, otherwise will cause the fiber fusion splicer damage or personal injury and other serious consequences.

▲ Notice:

1. Optical fiber fusion splicer is used for welding quartz glass fiber, please do not use this instrument for other purposes. Please read this manual carefully before use.
2. Pay attention to clean the V groove and lens in the process of use (to clean V groove, you can use an art knife to draw back and forth along the fiber groove, and then brush with a brush); Clean dust after use.
3. When the optical fiber fusion splicer moves from the low temperature environment to the high temperature environment, try to take the gradual heating mode, otherwise the instrument will produce condensation, which has an adverse impact on the instrument.

WARNINGS/PRECAUTIONS ▼

4. optical fiber fusion splicer is a calibrated precision instrument, please try to avoid strong vibration and impact. Special carry case should be used for storage, and suitable cushioning case should be added outside the carry case for long-distance transportation.

● LCD display screen

1. The LCD screen of fiber fusion splicer is not touch screen. Do not use sharp objects to click on the LCD, do not force the LCD.
2. Do not drop organic solvents or dirty sundries on the LCD screen, such as acetone, oil, antifreeze, ointment, etc., otherwise it may lead to abnormal LCD display.
3. Can use silken cloth or soft fabric to wipe clean liquid crystal screen.
4. There may be noise on the screen when the fusing machine windproof cover is opened or not put in the optical fiber. These are not LCD fault, is a normal phenomenon

CHAPTER I OPERATION KEY COMBINATION FUNCTION ▾

● Introduction of operation keys and parts

The fusion splicer machine is mainly used for permanent splicing fiber, the machine can continue to splice ordinary rubber insulated fiber cable, jumper wire and a cladding diameter of 80um-150um, single mode, multimode and other quartz-based dispersion shifted fiber. The operation process should be taken to keep clean free subjected to strong vibration or shock



RESET

Press the reset key to reset the propulsion motor, adjustable motor, and focusing motor to their original. When the Reset button light is on, it indicates the reset is in process. If it turns off within 5 seconds automatically that means the reset is successful, otherwise the reset is failed.



CONTINUE

When the pause function is on, please press the Continue key to continue the next operation



MAGNIFICATION KEY

image magnification between 200 and 300 times display switch



Power Meter And Optical Modules Switch

Turn On/off Power Meter And Optical Modules

OPERATION KEY COMBINATION FUNCTION ▾

The four function keys at the bottom of the screen, in addition to the basic functions (the first chapter introduces the operation keys and parts), there are also some combined functions for daily maintenance of the machine.

1.Mandatory upgrade mode: in the shutdown state, press and hold the reset key and the power button, and the machine enters the mandatory upgrade mode.

Usage :In this mode, connect the phone again-zhuoshizhangzhongbao+,firmware updates are more stable, faster, and can force a firmware refresh.When normal upgrades fail, it's easier to succeed with this feature.

2.Self-check of optical fiber fusion splicer: in the shutdown state, press and hold the continue button and the power button at the same time, and the machine enters the self-check mode.

Usage: When the welding machine is not working normally and the hardware is suspected to be out of order, it can be confirmed by self-inspection. For example, adjusting fiber is normal, but there is no welding fire, you can check whether the FBT is out of order.

After entering the self-check, the test countdown will be displayed at the bottom of the screen. After all the 12 items are self-checked, the red font will be displayed, and the status of error after the project means that the hardware has faults. At this point, the firmware can be upgraded first (please refer to 1 mandatory upgrade mode for specific operation). If the fault is still there, please contact the after-sales service to deal with it.

The meaning of the 12 self-checking items as following

01 Image processing	Image processing	Report an error,please check again. If the error is still reported, please contact after-sales service
02 Data Rom	Data Rom	
03 Data Ram	Data Ram	
04 Controller	Controller	report an error,Please contact the after-sales service
05 Motor: PL PR AL AR	Core regulating motor and propulsion motor, each one has 2	
06 Focusing Motor: X Y	Focusing motors :2	report an error, first clean up the lens, upgrade the firmware.If the fault persists,Please contact the after-sales service.
07 Camera: X Y	Camera :2	

OPERATION KEY COMBINATION FUNCTION ▾

08 Camera LED: X Y	Camera LED:two	report an error,Please check whether the red light above the electrode is bright and dim(see electrode replacement for specific operations)If the fault persists,Please contact the after-sales service.
09 RTC	RTC	Report an error,please check again. If the error is still reported, please contact after-sales service.
10 Battery	battery	Replug and insert, check whether the battery contact is corroded, and eliminate the bad contact;Try to activate the battery (see 3 activate the battery for instructions) or replace the battery.If the error is still reported, please contact after-sales service.
11 HV-Discharge	HV-Discharge	Check whether the electrode is installed incorrectly and whether there is any debris affecting the discharge.Poor contact of electrode wiring.If the error is still reported, please contact after-sales service.
12 Bluetooth	Bluetooth	If error reported, please contact after-sales service.

3. There are two different ways to activate the battery.

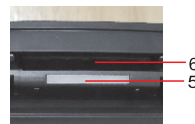
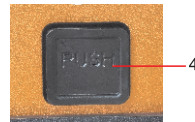
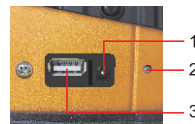
① The battery can be normally started up: after starting up, long press the Magnifier button, after about 8 seconds, the welding machine automatically shut down, and then plug in the adapter in the state of power off, and wait for 2 hours before starting up to check.

② Battery cannot be normally started, can only plug the adapter to start up: after starting up, long press the Magnifier button, about 8 seconds after the buzzer will "tick" prompt, and then manually shut down, plug in the adapter in the state of power off, wait 2 hours before starting the machine.

Usage: The welding machine has abnormal charging (not charging into the electricity, charging not enough electricity, etc.); If the battery power is abnormal (the display is not accurate, the battery is not durable, the virtual power, etc.), you can use this function to make the battery return to normal.

Note: it is better to remove and insert the battery before operation to check whether the battery contact is corroded and eliminate the bad contact of the battery.

OPERATION KEY COMBINATION FUNCTION ▾



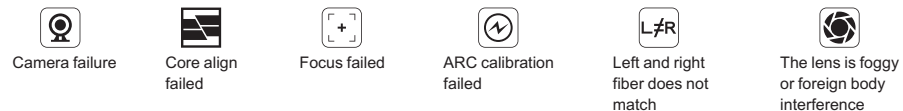
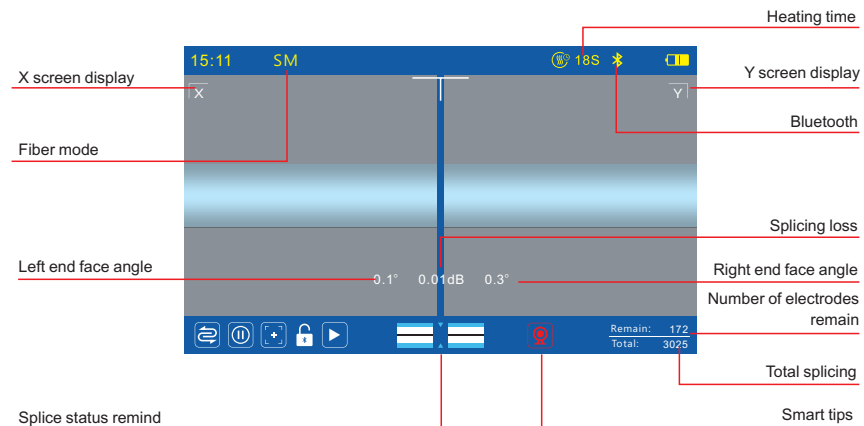
Function Description table

Serial numbe	Name	Function Description
1	Power socket	Input voltage:13.5+0.5v; input current:4.8A
2	Battery pop-up button	Press to remove the battery
3	Heating indicator	The Heat Shrinkable Tube Is Finished Heating When The Indicato Light Is Off
4	Heating oven	Put in the heat shrinkable tube close the cover and heat automatically
5	Fiber optic connector	Optical power input and VFL output interface
6	Heating part	Place in heat shrinkable tube,Close the cover and heat automatically
7	Lighting switch	Press the button to turn on/off lighting

DISPLAY MENU INTRODUCTION ▾

ICON	NAME	FUNCTION
	Normal mode	Normal Splicing Mode For The Machine
	Splicing process pause	When the function is on, the splicing machine will stop the final splicing process after in the completion of the fiber focus, end face detection and fiber alignment. Please then press the "Continue ▶" button to perform the arc discharge and the subsequent splicing process. If the cleave face detection is not passed, it will pause and report the error, then please press the "continue ▶" key to ignore the error and continue the follow-up process
	Auto focus	When the function is turned on, for each time splicing it will adjust the camera focal length to the set target value automatically (target value in the "Splicing settings" menu set "focus target value")
	ARC calibration	According to the altitude, temperature, humidity and other conditions of the user, match the most suitable arc discharge value to minimize the splicing loss. (See chapter 4, discharge correction)
	Smart lock purpose	To Facilitate Management Or Owner's Effective Management Of The Splicer Machine's Use Period Or The Number Of Splicing. Typical Applications Such As Rental Business
	Continue	Press "continue" To Continue The Splicing Process

INTRODUCTION TO SPLICE INTERFACE ▾



INTRODUCTION TO SPLICE INTERFACE ▼

Intelligent prompt and fiber state prompt solution

I Intelligent prompt

The red symbol displayed at the bottom left of the LCD.

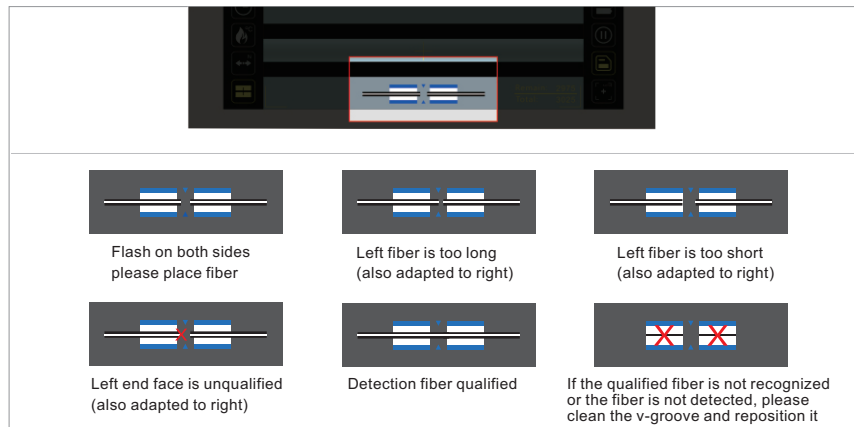
- **Camera fault:** first clean the objective lens, and then upgrade the welding machine firmware to the latest version. If the fault still exists, please conduct self-inspection of the welding machine to confirm whether the camera fails (please refer to daily maintenance for specific operation).
- **Core failure:** first exclude the fiber treatment unqualified factors, such as the coating layer is not clean, too bad cutting surface, too many burrs; Then clean up the V slot and objective lens and press the reset key.
Note: dust in the lens may also cause failure of core alignment, so dust should be cleaned (please refer to daily maintenance for specific operation).
- **Focus failure:** this tip only appears when autofocus is turned on, usually because the fiber image is too blurry for the range of autofocus. Solution: first eliminate the fiber treatment unqualified factors, such as the coating layer is not clean, too bad cutting surface, too many burrs; Then clean the V slot and objective lens, press the reset key; Autofocus can also be turned off and adjusted manually (see daily maintenance for details). If the fault continues, enter the welding machine self-check mode to check whether items 5 and 6 are wrong.
Note: dust in the lens may also cause failure of core alignment, so dust should be cleaned (please refer to daily maintenance for specific operation).
- **Discharge correction failure:** First clean the tip of the electrode and remove debris; Restore the factory Settings in the device's fusion setting. Restart welding machine and zhuoshizhangzhongbao +, re-discharge correction. If the fault continues, enter the welding machine self-check mode to check whether item 11 is wrong.
- **The left and right optical fibers do not match:** the specifications or types of optical fibers on both sides are

INTRODUCTION TO SPLICE INTERFACE ▼

different, and they need to be replaced with the same specifications or types. This error, can press continue to ignore the key error, mandatory welding.

Note: according to the construction specifications of welding machine, different specifications and types of fiber cannot be fused, if forced welding, welding quality may be affected.

- **Fog or foreign matter interference in the lens:** firstly exclude the unqualified factors of the optical fiber treatment, such as not scraping the coating layer, too bad cutting surface, too many burrs, and so on, and then clean the objective lens; In addition, if the red light on the electrode fails, it may report an error. Please check it (Open the electrode cover, and the indicator is on all the time. If not, it is broken and needs to be replaced.).



Fiber status prompt description

CHAPTER II SOFTWARE DOWNLOAD ▾

Software download

China: scan QR code to download APP

Outside China: Go to Google Play or App Store and search for "Signalfire2" download Phone App.



Google play



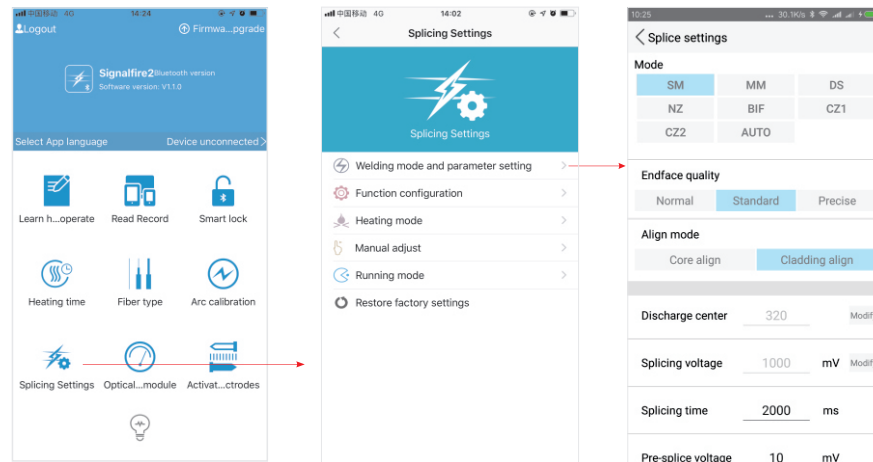
App store



Scan QR code

SCREEN MENU FUNCTION ON/OFF ▾

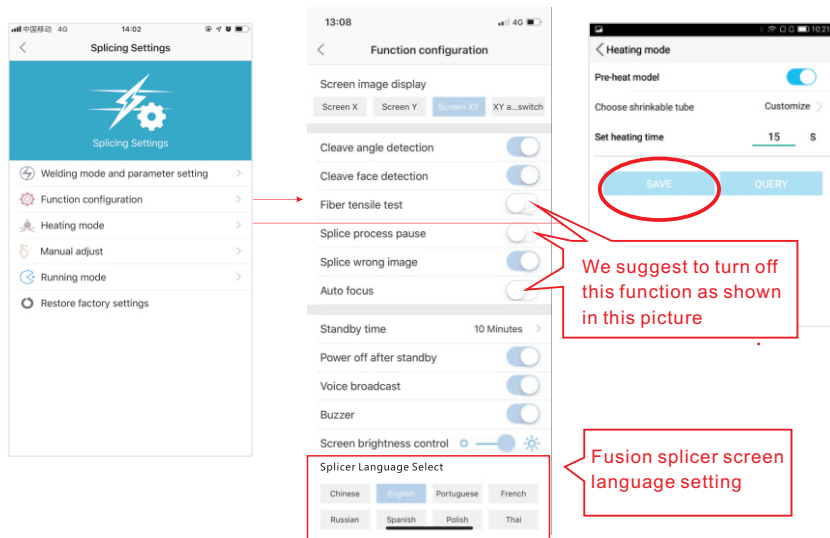
Turn on the phone bluetooth, open the phone app, set the machine panel menu after establishing the connection, and machine will update at the same time. **The splicing operation does not require phones**, the phone App is only for machine menu settings, and splicer machine to store data. when the data is exported to phone App, the users can also get support through the APP and after-sales service.



select and click save

SCREEN MENU FUNCTION ON/OFF ▾

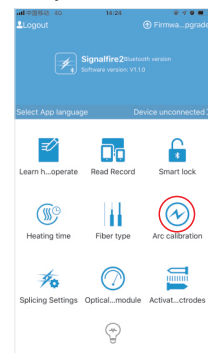
When the settings are saved, the display icon will be highlighted darkened accordingly. otherwise please check whether the bluetooth is properly connected.c



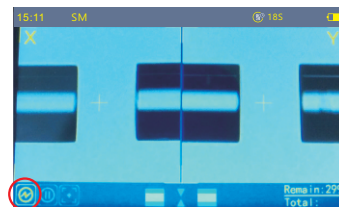
CHAPTER III ARC CALIBRATION ▾

ARC Calibration: According to the local ground elevation, temperature, moderate and other environmental factors to match the most suitable discharge ARC, in order to obtain the best splicing effect, we strongly recommend you to do arc calibration when it is the first time to use the new machine, the seasonal changes, the use place changes, or you replaced the electrodes; discharge correction should be done after changing the type of fiber (such as single mode and multi-mode switching)

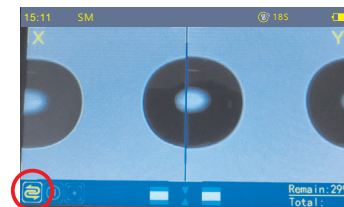
The procedure for ARC Calibration is as follows:



Step 1: Please turn on the splicer machine, then login SignalFire 2 on your phone, connect the Bluetooth, open the Arc Calibration (See picture)



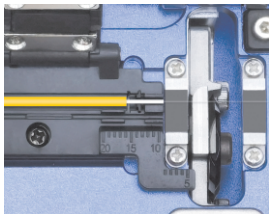
Step 2: After open the ARC Calibration, the icon of Normal Mode (☐) "will change to the icon for" ARC fiber, place the fiber to fiber holder and close the o Calibration (☐) ". Then please strip and cleave the windshield cover, the splicer machine will perform the ARC calibration automatically. (See picture)



Step 3: There is flash on the display screen and slight burst from the ARC, the fiber head is burning into a spherical shape the action stops after the screen icon" (☐) "change back to" (☐) "icon , it shows the ARC calibration is successful. If the icon does not change back to the Normal mode " (☐) " icon the screen [fiber still flashes], please re-cleave the fiber and repeat the above steps until the Arc calibration is successful.

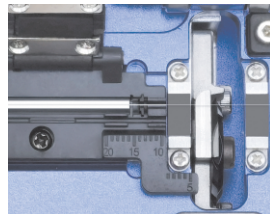
CHAPTER IV FIBER STRIPPING AND PUT INTO HOLDER ▾

Jumper fiber(pigtail fiber)



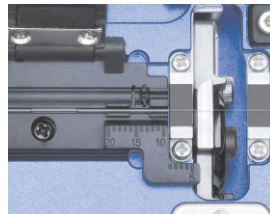
With the yellow plastic layer as the boundary, the scale is between 13 to 18. the white skin layer should be longer than the yellow layer of 5mm, placed it in the scale 10-12 or so(near the rubber pad about 2mm or less)

Rubber insulated fiber



Scale is between 13 to 18

Bare fiber



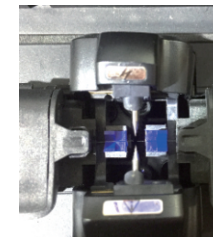
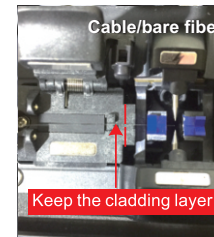
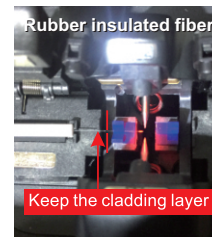
To the cladding layer, the scale is between 10 to 12

Note:

1. After all the optical fibers are stripped and placed according to the above length, the front end should be at least completely pressed by the fiber compression board on the right of the blade, otherwise it will be continuously cut.
2. Please keep the four pressure fiber rubber pads clean, no waste fiber and other sundries, avoid contact with alcohol and other corrosive liquids.

FIBER STRIPPING AND PUT INTO HOLDER ▾

Instructions for put fiber into holder:



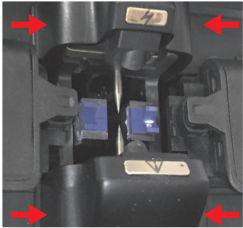
Note:

1. Put the fiber into the blue V-shaped slot when laying out the fiber, and the top of the fiber is close to the center of the electrode. If it is too far from the center of the electrode, it will prompt you to re-lay the fiber.
2. The top of the optical fiber must not exceed the center of the electrode.

CHAPTER V REPLACE ELECTRODE

Electrode replacement must use the genuine original electrode designed for this machine from factory. When the number of electrode is used close to 3000 times, the machine will remind you to replace it. When it reaches to 3000 times, it is necessary to replace the electrode and activate it then you can use again(see page 29 ACTIVATE ELECTRODE). Otherwise it may affect the splicing quality, or even shut down the program automatically, and could not splice.

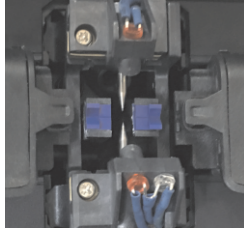
The electrode replacement procedure is as follows:



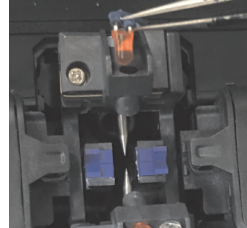
1. Please pinch the electrode cover on both sides slightly, see the location in picture then remove up the electrode cover.



2. The cap size of two electrodes is different, wider head is for the electrode which is close to screen direction.

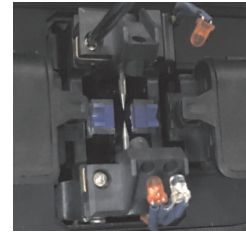


3. Take away the cover as shown in picture.

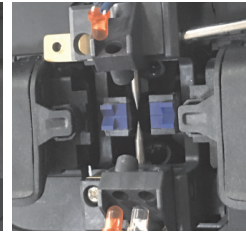


4. Remove the lamp cap on both sides with tweezers.

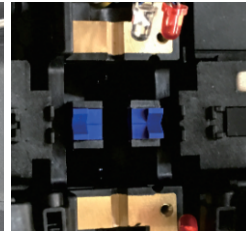
REPLACE ELECTRODE



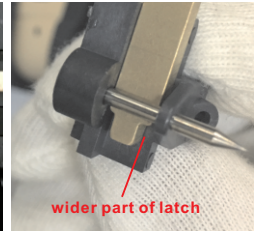
5. Screw out the screws with a screwdriver.



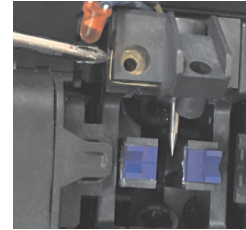
6. use a screwdriver to push out the latch and remove the electrode. remove the another electrode by the same way



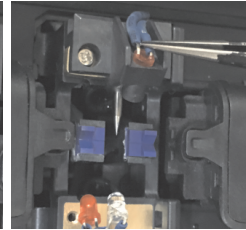
7. Two old electrodes are removed



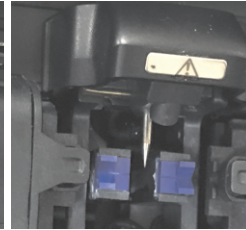
8. Replace the new electrodes and put the latch, the wider part of the latch is toward to crode needle



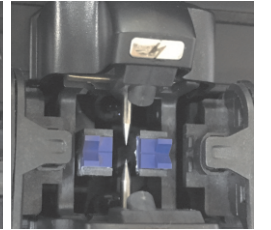
9. push the latch and install the screw



10. Use tweezers to put the lamp into the original hole.



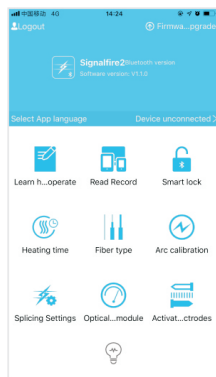
11. Close the electrode cap Replace the other electrode by the same way



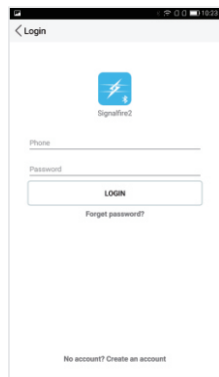
12. Close the electrode cap electrode replacement is complete

CHAPTER VI ACTIVATE ELECTRODE

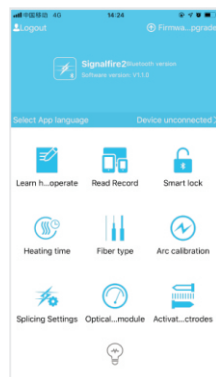
PS. The electrodes on the new machine do not need to activate we have activated before ex-factory. Only when the electrodes life on the machine is expired in the future and then you need to replace and activate the electrode when the electrode is used up to 3000 times, you need to replace the electrode and activate it. You need to use APP software "Signalfire2" installed in your phone and activate the electrodes. Please scan the two-dimensional code on the machine screen to download the app software.



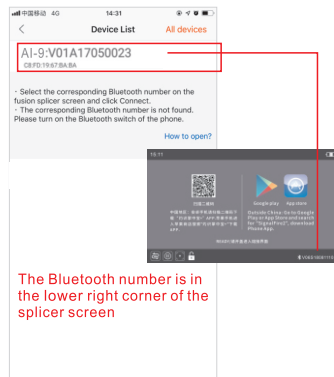
1. Open the "signalfire2" APP software, click on login.



2. Please log in directly if you have an account otherwise please register first.



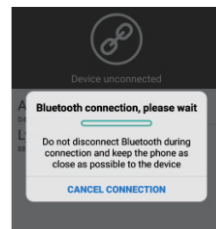
3. Click "Device unconnected" after login is successful.



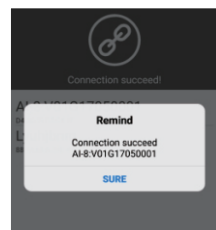
The Bluetooth number is in the lower right corner of the splicer screen

4. Please select the corresponding Bluetooth number and click on it if you can not find the Bluetooth number, please check whether the Bluetooth or the machine power is turned on

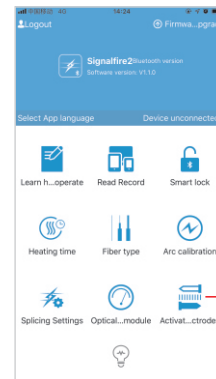
ACTIVATE ELECTRODE



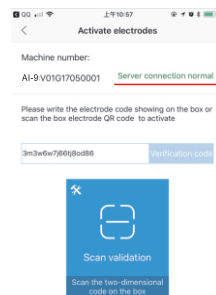
5. Connecting



6. Connected successfully

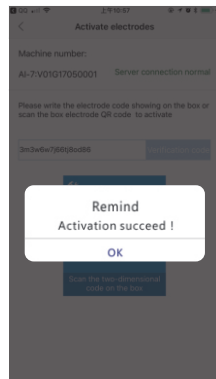


7. Back to the home page, click on "Activate Electrode"



8. Enter the number of the dimensional code on the electrode box (please distinguish between numbers and letters) or scan the two-dimensional code on the electrode box

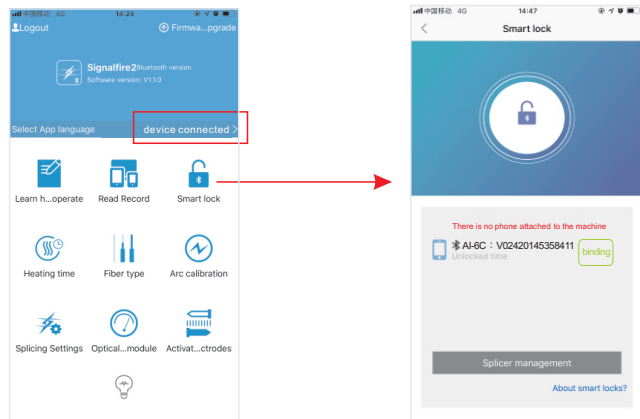
if the server connection fails, please check and reconnect to the network.



9. Activation is successful, please restart the machine

CHAPTER VII SMART LOCK

Smart Lock Purpose: to facilitate management or owner's effective management of the splicer machine's use period or the number of splicing.
Typical applications such as rental business.

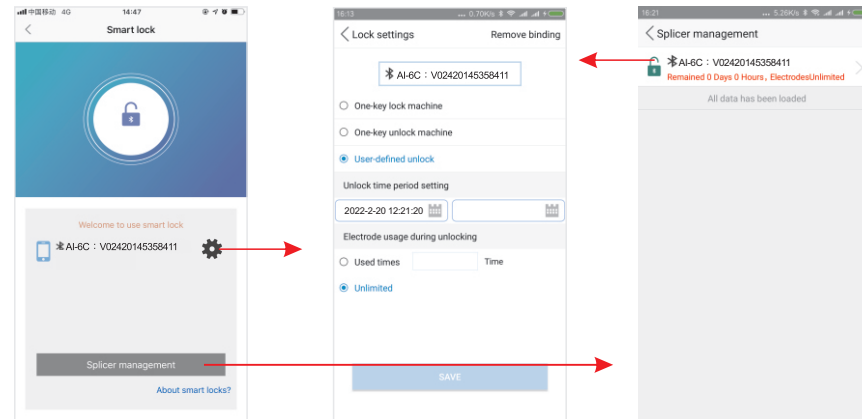


1. After The Bluetooth Connection Between The Mobile Phone And The Fusion Splicer Is Successful, Click On The Smart Lock To Enter

2. After Binding Is Clicked, this Mobile Phone Account Has Unique Control Over This Splicer.

SMART LOCK

A Device Can Only Be Bound To One Mobile Account At The Same Time. To Bind Other Mobile Phones. You Need To Unbind Current Account First.



3. Click on the settings icon to enter.

4. Save after personalization settings.

5. Click on the "Smart lock management" button to see all the splicing machines controlled by this mobile phone account.

CHAPTER VIII DAILY MAINTENANCE ▼

I .Pay attention to dustproof and remove dust

Bare fiber positioning groove, electrodes and microscopes must be kept clean and windshield cover should be closed when not in operation

1. V-groove Cleaning

If the V-groove has dirty and can not hold the fiber properly, which will cause very high splicing loss. Thus in the daily work, you should always check the V-groove and regular cleaning V-groove.

Follow the steps below to clean the V-groove.

- (1) Open the windshield cover;
- (2) Use a cleaved fiber tail in one direction push the pollutants and remove from the V-groove;
- (3) If the fiber can not clear the V-groove pollutants, then moistened with alcohol cotton swab to clean the bottom of the V-groove, and use a dry cotton swab to wipe off the extra alcohol in the V-groove.

2. Cleaning and replacing the electrode

If the electrode is dirty, you can clean electrode by using the cleaning electrode function in main menu in the equipment maintenance, and then use a cotton swab dipped in alcohol to gently wipe the electrode tip, or use 3mm wide, 50mm long metallographic sandpaper to gently rub the electrode tip. Note To protect the electrode tip from damage.

3. If the objective lens is dirty, the normal position of the observation optical fiber core may be affected, which leads to a higher splice loss or poor fusion. So you should regularly clean two objective lenses, otherwise it will continue to accumulate dust and ultimately can not be removed.

Follow the steps below to clean the objective lens :

- (1) Before cleaning the objective lens, please must turn off the power.
- (2) Use cotton swab moistened with alcohol to gently wipe the objective lens. Beginning with a cotton swab to wipe from the middle of the lens, do a circular motion, until the edges of the lens spin out. Then wipe with a clean, dry cotton swab to remove extra alcohol.
- (3) Turn on the power, make sure that the display is not visible dust and stripes.

DAILY MAINTENANCE ▼

II .Prevent Strong Shock or Vibration

When you need to move or transport the fusion splicer, you should handle with care and gently. In addition, do not forget to put the machine into a carrying case and shipping box during long-distance transportation.

III.Storage

When you do not use the machine for a long time, please must turn on the machine once half a year. Especially in high moisture season, should always be turned on, and the desiccant should be placed inside the carry case to prevent mildew microscope head.

IV.Precautions

- (1)When the fusion splicer is using AC power , please take attention to protect the adapter , and the power supply is properly grounded.
- (2)When the fusion splicer is in the ARC discharge process, there are several kilovolt high voltage between the electrodes, please do not touch the electrode rod at this time!
- (3)Please be sure that there is no gasoline, mashgas, freon gas and other flammable gas in the environment and, so as not to lead to poor fusion or accident.
- (4)When you wipe to clean the fiber holder and microscope head, please must us absolute ethanol, cotton swab to wipe the direction should be one-way, two-way wipe is forbidden.
- (5)There are many mechanical components in the fusion splicer with structural precision, in addition to the electrodes, the other part is prohibited for user disassemble and change. Because these mechanical parts are precision-machining and calibration, once there is any changes, it is difficult to return to its original position. You can replace only the electrode-yourself The objective lens, V-groove, display screen, etc should be kept clean. Clean only with absolute ethanol, you can not use other chemicals.

DAILY MAINTENANCE ▼

V. Troubleshooting and solutions The table lists a general troubleshooting method for the user reference. When the user can not solve the situation, please contact with the suppliers directly.

Troubleshooting	Reason	Solutions
No image after placing fiber	<ol style="list-style-type: none"> 1. Not power on 2. Fiber does not enter V-groove or v-groove has dirty 3. The length of the fiber is too short or broken 4. The align mechanism is not initialized 5. No signal detected for close windshield cover 	<ol style="list-style-type: none"> 1. Press the power key 2. Re-place the fiber or brush the V-groove with alcohol 3. Re-cleave the fiber 4. Press RESET key 5. Check if the magnetic screw is loose or the magnet on windshield cover is fall off
splicing loss is too high	<ol style="list-style-type: none"> 1. The cleaving quality of the fiber is poor 2. Splice parameters unreasonable 3. Arc center offset (rarely occurs) 	<ol style="list-style-type: none"> 1. Re-cleave the fiber 2. Repeat the ARC calibration 3. Repeat the ARC calibration
The ARC does not discharge or has scars	<ol style="list-style-type: none"> 1. The cleaving quality of the fiber is poor 2. The splice parameter is too small 3. The electrodes has adsorbed dust 4. Running data error 	<ol style="list-style-type: none"> 1. Re-cleave the fiber face 2. increase the cleaning voltage; do ARC calibration again 3. Clean the electrode with a brush 4. Turn off and restart.
The spliced area becomes thinner	<ol style="list-style-type: none"> 1. Splicing parameters unreasonable, splice voltage is too high 2. Splicing overlap is too small 	<ol style="list-style-type: none"> 1. ARC calibration 2. Increase the amount of splicing overlap
splicing zone is thicker	<ol style="list-style-type: none"> 1. Splice parameters unreasonable, splice voltage is too small 2. Splicing overlap is too big 	<ol style="list-style-type: none"> 1. ARC calibration 2. Reduce the amount of splicing overlap
Splicing has bubbles (usually occurred in the multi-mode fiber splice)	<ol style="list-style-type: none"> 1. Fiber end with burr, not flat 2. Fiber quality is not good 	<ol style="list-style-type: none"> 1. Increase the cleaning voltage 2. Re-cleave fiber 3. Replace to qualified fiber or cut off a part of the existing fiber and try again.

DAILY MAINTENANCE ▼

Troubleshooting	Reason	Solutions
Splicing points have lateral shadows	<ol style="list-style-type: none"> 1. Fiber core does not match (type or core diameter is different) 2. Multimode fiber appear very light shadows after splicing 	<ol style="list-style-type: none"> 1. Re-match the fiber to make the same type of fiber on both sides 2. It is normal, does not affect splice strength and signal transmission quality
Image is tilted	<ol style="list-style-type: none"> 1. Fiber not enter the V-groove completely 2. V-groove is dirt 	<ol style="list-style-type: none"> 1. Re-place the fiber 2. Clean the V-groove with alcohol and brushes
The image is on the top or bottom of the display	<ol style="list-style-type: none"> 1. V-groove is dirt 2. Fiber not enter the V-groove 	<ol style="list-style-type: none"> 1. Clean the V-groove with alcohol and brushes 2. Re-place the fiber
The image is blurred	<ol style="list-style-type: none"> 1. Fiber not enter the V-groove 2. V-groove is dirt 	<ol style="list-style-type: none"> 1. Re-place the fiber 2. Clean the V-groove
Cleaver can not cut off the fiber	<ol style="list-style-type: none"> 1. Cladding layer is not stripped 2. Cladding layer stripped too short and the rubber pressure on both sides of the blade did not compress the fiber 3. The cutting point of the blade becomes blunt or broken 	<ol style="list-style-type: none"> 1. Use a Miller clamp to peel off the cladding 2. The length of the stripped cladding should be longer than 30 mm 3. Loosen the retaining screw in the middle of the blade and turn the blade at an angle