









Introduction to Screen Interface

	Tensile test	When the function is turned on, the tensile test is performed after each successful splicing.
	Core alignment	Fiber splicing is based on core alignment
	Cladding alignment	Fiber splicing is based on cladding alignment
	Angle detection	When the function is turned on, if the fiber cleaving angle is greater than the upper limit value (default value 3°), the splicing machine will pause and report the error.
	Cleave face detection	If the cleaving end face quality of the fiber does not meet the set parameters, the splicing machine will pause and report the error.
	Splicing process pause	When the function is on, the splicing machine will stop the final splicing process after the fiber has aligned. Then press the "▶" button to finish the fiber fusion. When you meet the fiber end face is not good and angle exceed the upper limit value, it will pause and report the error. Press the "▶" key to ignore the error and continue to fiber fusion process.
	Save the image	When the function is turned on, it will save the splicing image when the splicing failed. It will not save the splicing image when the splicing is successful or this function is closed.
	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. we recommend turn off the function cause it will slow down the fiber fusion speed.

Introduction To Splice Interface

Fiber mode

X screen display

Optical power display area

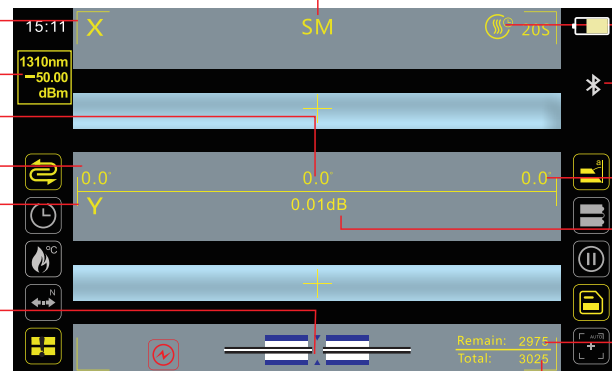
Left end right angle

Left end face angle

Y screen display

Fiber status remind

Smart tips



Heating time

Bluetooth

Right end face angle

Splicing loss

Number of electrodes remain

Total splicing



Camera failure



Core align failed



Focus failed



ARC calibration failed



Left and right fiber does not match









The lens is foggy or foreign body interference

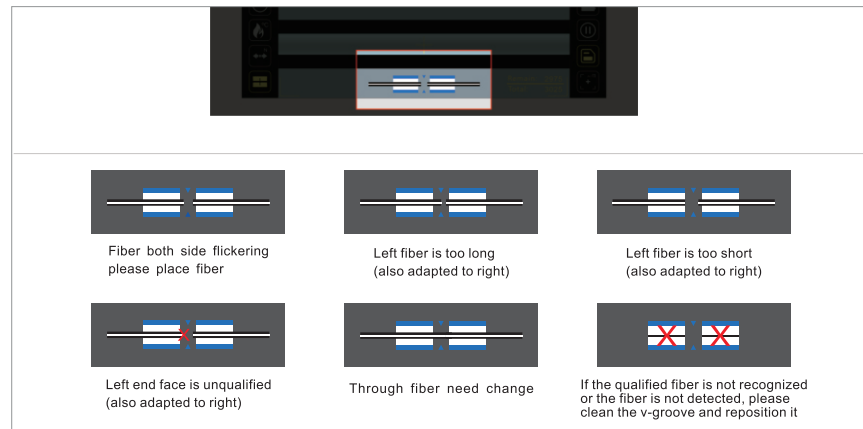
Intelligent prompt and fiber state prompt solution

I Intelligent prompt

The red icon which shows in the left bottom of the LCD Screen.

- **Camera fault**  : first clean the objective lens, If the fault still exists, please do a machine self-checking of the splicer to confirm whether the camera fails (please refer to daily maintenance for specific operation).
- **Align failure**  : check the fiber cleaved is that in good condition, such as the coating layer is not clean, too bad cutting surface, too many burrs; Then clean the V-grooves with knife, clean the outside lens which below the electrode and press the reset key. Note: dust in the lens may also cause failure of core alignment, so dust should be cleaned (this please contact after sales service).
- **Focus failure**  : only happened when autofocus function is turned on, usually shows the fiber image is too blurry.
Solution: check the fiber cleaved is that in good condition, clean the V grooves and outside lens, press the reset key; turn off the autofocus function manually (see daily maintenance for details). If the fault continues, do a machine self-checking to check whether "focusing motor" error. Note: dust in the lens may also cause failure of core alignment, so dust should be cleaned (this please contact after sales service).
- **Arc Discharge failure**  : First clean the tip of the electrode and remove debris; Restore the factory Settings from App "Signalfire2". Restart fiber splicer, Then do the arc calibration. If the fault still have, do a machine self-checking to check whether "HV-Discharge" error.
- **The left and right optical fibers do not match**  : the specifications or types of optical fibers on both sides are different, and they need to be replaced with the same specifications or types. This error, can press continue to ignore the key error then force to do fiber fusion. **attention:** according to the construction specifications of fiber splicer, different specifications and types of fiber cannot be fused, if forced splicing, fusion quality may be affected.

- **Fog or foreign matter on the lens**  : check the fiber cleaved is that in good condition and cleaned no dirt on it, and then clean the outside lens; In addition, if the red light failed which in on the electrode, it also will report this. (checking method: Open the electrode cover, and the lights is light up. If not, it is broken and needs to be replaced).



Fiber status prompt description

II Fiber state prompt



there is an icon shows the fibers on the V-grooves status in the middle of the LCD Screen bottom:
white and blue square means the V-grooves. Black and white long line means optical fiber. Triangle means the electrode tips. above pictures are what we have show you about the different status of the fiber on the V-grooves.
Attention: fiber end face please put close to the electrode tips but not exceed tips.

● Put the optical fiber on V-grooves



when you open the wind cover and both side fiber icon flickering, that means we need to put the cleaved fiber on the machine V-grooves. when you close the cover, then the icon will change and then a few seconds it will tell you the fiber status as what we show you the pictures above. when you open the wind cover the page still the boot display page, and even you try many times to open and close the cover, the machine doesn't beep and the page doesn't change, then the machine's sensor happened problem. need to check the splicer wind cover left side magnet's magnetism and the correspond position Allen screws on the panel did they are tighten.

● Fiber put too long on V-grooves



if the icon show you that one side fiber flickering and the end face reach the triangle position, that means the fiber put too long. we need replace the fiber again until the icon no remind again. if you have checked that the fiber is not exceed the electrode tips, but icon also remind you that fiber put too long, then we need to clean the outside lens which under the electrode. if the lens have fog then we use hair dryer to dry it. if you have done above steps and still give you the remind of the fiber too long, please contact after sales service.

● Fiber put too short on V-grooves



the icon show you that fiber end face is in the V-groove and not exceed it, that means the fiber put too short and is not close to the electrode tips. we need put the fiber again and make the fiber end face close to the electrode tips and not exceed the tips. normally the jump fiber may happen this problem because the sleeve will slide and make the fiber not move then the icon remind you this situation. if you meet this problem, please contact our after sales service.

● The end face is not acceptable



fiber end face there is a red "X", that means the fiber end face is not acceptable, then we need re-cleave the optical fiber until cleave the fiber have a good end face. if you have try many times and each time show you that the end face is bad, then we need check the cleaver is that we need to adjust it. if the cleave end face is good, but when the pre-discharge make the fiber end face round and the icon remind you, then we need to do an arc calibration to make the pre-discharge lower so that the machine will be back to normal work again. if the machine show the fiber blur, will also make the error icon, and about the fiber display blur, please check daily maintain.

● The test is fiber passing



Fiber passing means screen display is a complete fiber, take out fiber can be normal. Sometimes errors may be reported due to dirty lens or fog, and the lens can be restored after cleaning (see daily maintenance for specific operations).

● Failed to recognize fiber or failed to detect fiber



V-grooves icon there is a red "X", that means machine didn't recognize the fiber or the fiber didn't put on the V-grooves.

if the optical fiber has put on the V-grooves and the error icon still have, check the fiber has been cleaned and cleaved, then clean the outside lens and the V-grooves, press the reset button(the left first one), if the display shows the fiber is blur, also will make the error icon happen. these you can check in the daily maintain chapter.

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

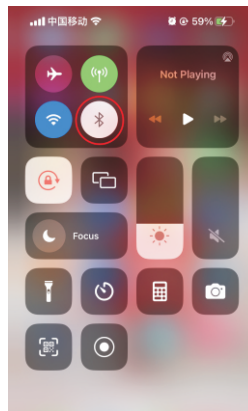


Scan QR code

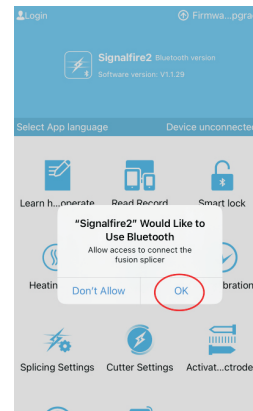
Mobile APP is used for the function setting, fiber fusion record storage, account binding, firmware upgrade. when you use the machine normally, we don't need to connect the mobile app to machine.

Phone settings

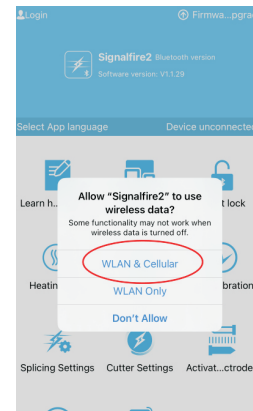
1. Apple phone(IOS system) to turn on bluetooth permissions.



1 Turn on the iPhone system Bluetooth function.

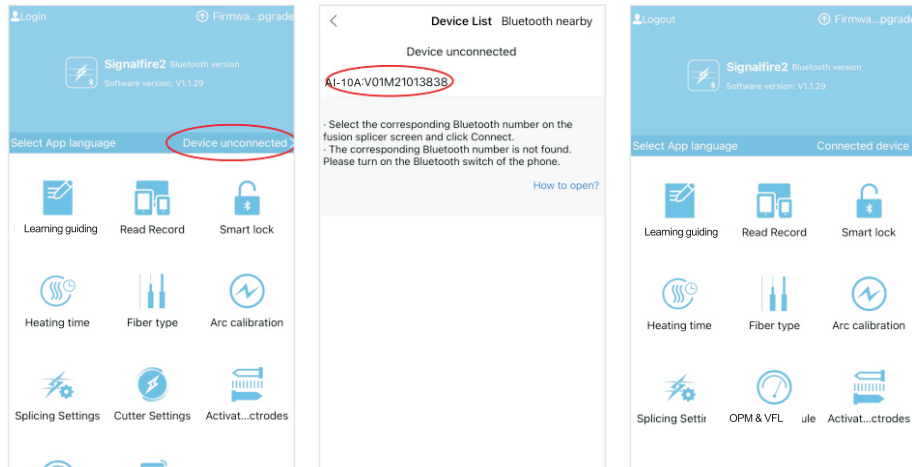


2 Allow the Bluetooth permissions



3 Allow the WLAN&Cellular permissions

Software Bluetooth Connection



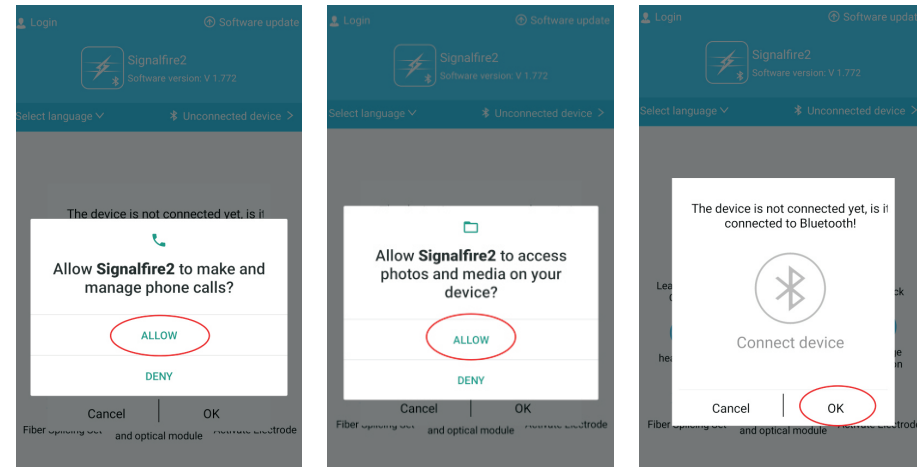
④ Press the "Device Unconnected" to search the machine SN

⑤ Press the machine SN to connect the machine.

⑥ Remind you succeed then turn into the main page.

Software Bluetooth Connection

2. Android phone to open the bluetooth permission function is as follows

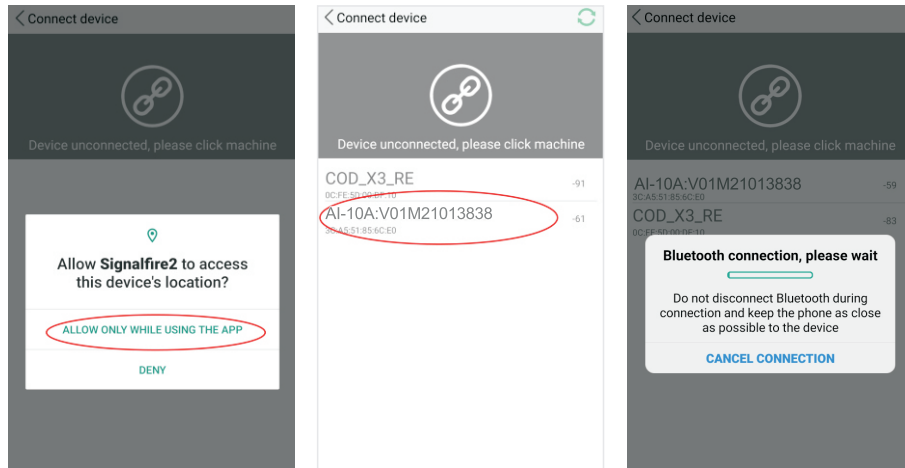


① Allow the Phone call permissions

② Allow the storage permissions

③ Allow the Bluetooth permissions

Software Bluetooth Connection

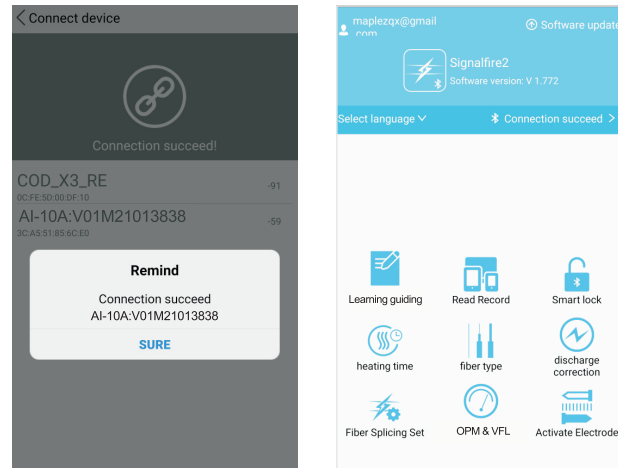


4 Allow the location permissions

5 Press the machine SN to connect the machine.

6 Connecting

Software Bluetooth Connection



7 Connection succeed

8 Back to the APP main page

after you connect the machine to the mobile APP, then we can have a setting of the machine function, each function means one icon which shows on the LCD Screen. these function after you have set them and save the setting, you can use it as what you have set without app connection in the future.

Enable mobile Bluetooth, connect to the welding machine, run the APP, set and debug the functions of the welding machine, export welding data, upload cloud storage, firmware upgrade, and account binding, and achieve intelligent management and other interconnection functions

Parameter settings

Automatic identification of fiber type in AUTO mode and precise matching of connection parameters for core fusion (It is recommended to choose this mode for mainline construction)

Exit the page after making changes and automatically save it

Function configuration: slider on or off function

Slide the slider right (on) and left (off) to exit the page and save it automatically.

Step by step fusion (default off) After opening and pre pushing the fiber, press to continue key can be used for the subsequent fusion process.

Default off, faster fusion speed (enable to improve fiber recognition rate)

Set to timed automatic shutdown without any operation