



USER'S MANUAL

Automatic intelligent optical fiber fusion splicer

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SAFETY REQUIREMENTS ▼

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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 °C

Limit temperature: -10 °C ~ +50 °C

Operating humidity: 95% RH or less (no condensation)

Maximum wind speed: 15m/s

Storage conditions: -20 °C ~ +60 °C (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 ▼

• AC/DC Adapter

The output characteristics of the power adapter must meet the following requirements.

Voltage: 13V ~ 14V;

Current: $\geq 4A$;

Polarity: Center is positive.

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.

• 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.

WARNINGS ▼

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Liquid, foreign substances enter the interior of fusion splicer

Fusion splicer subjected to strong vibrations and shocks

There is no necessary parts that need to maintain inside the fusion splicer, it is forbidden to dismantle the fusion splicer, any dismantlement may result in personal injury or equipment can not be repaired

PRECAUTIONS ▼

• AC/DC Adapter

Please use the provided adapter for the fusion splicer, use of other adapters may cause damage to the fusion splicer.

• Internal Lithium Battery

1. The batter may goes into hibernation after long time placed, the capacity is lower than normal at this time, the durable battery time has also come to be shortened, but only after 2 to 3 times of normal charge-discharge cycles, the battery can be activated to restore normal capacity. Lithium is almost no memory effect, can be charged at any time.

2. The lithium batteries has the phenomenon of self-discharge, if the battery is preserved for a long time in low battery power, the internal structure of the battery may damage from self-discharge, reducing battery life. Therefore, long-term preservation of lithium batteries please recharge it every 3 to 6 months, pay attention to the battery charge capacity can be 60% to 80%, not full.

3. Long-term storage battery (stored for more than 6 months) temperature range: 0 °C ~ 40 °C. Battery short-term storage (storage time is less than or equal to 6 months) temperature range: -20 °C ~ 60 °C

4. To ensure that the security of battery charging, the lithium battery in the fusion splicer js charging temperature range of 0 °C ~ 40 °C

PRECAUTIONS ▼

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• LCD Display

1. Please do not let sharp object click on the LCD display, LCD display can not be forced shock

2. Do not use organic solvents or contaminants dripping on the LCD display , such as acetone, oil, antifreeze, grease, etc., otherwise may cause the LCD display not working.

3. Use silk or soft fabric to wipe & clean the LCD display.

4. Depending on the perspective of the viewing screen, the brightness of the display will be different. But may also have some black, red, blue or green dots on the screen, these are not the fault of the LCD display, it is normal phenomenon.

• The use of fusion splicer

1. Fusion splicer is for splicing silica glass fiber, please do not use this equipment for other purposes. Please read this manual carefully before using

2. When used in dusty environments, please try to keep the windshield to be closed on fusion splicer.

3. When fusion splicer machine moved from a cold to a high temperature environment, please try to take a gradual warming way, otherwise it will cause condensation inside the instrument, it will has an adverse effect on the instrument.

4. Fusion splicer machine is a calibrated precision instrument, it is strongly advised to avoid vibration and shock. Storage should be used with a dedicated carrying case, long-distance transportation needs to pack a carrying case outside plus a suitable buffer box.

CHAPTER I FOREWORD ▼

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 80 μ m ~ 150 μ m, 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.

Operation key introduction

⏮ 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.

X/Y X, Y DISPLAY TOGGLE KEY

X, Y display toggle

⏻ POWER

Long press to turn on or off.



FOREWORD ▼

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Function description table

Number	Name	Function description
1	Power Outlet	Input voltage 13.5 $\pm$ 0.5V; input current $\geq$ 4A
2	Charging indicator	Red is in charging, green is full
3	USB	Output 5V / 2A, for mobile phone charging
4	Battery popup button	Press to remove the battery
5	Heating indicator	When shrinkable tube heating is complete, the indicator light is off
6	Heating tank	Put shrinkable tube in it, close the lid and automatically heat
7	Lighting Switch	Press the key to turn on / turn off the lighting

DISPLAY ICON INTRODUCTION

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DISPLAY ICON GUIDE



Normal mode : Normal splicing mode for the machine



ARC calibration : The splicer machine corrects the appropriate discharge intensity automatically



Factory mode : Can adjust the fiber manually, align fiber, focus fiber, splice fiber and other operations



Camera dust detection : The splicer machine scans the camera image by line and column automatically. When there is interference point that will affect the image recognition, the screen will mark the specific location. If everything is normal, the screen will be blank and no mark



Timing power off, machine will automatically shut down when it continues to exceed the set time.



Pre heating : When the function is turned on, and for each time once the splicing is successful, the heater will automatically start for 6 seconds from the time of opening the windshield cover



Tensile test : When the function is turned on, the tensile test is performed after each successful splicing.

DISPLAY ICON GUIDE ▼

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 **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 (upper limit value can be set in the "Splicing settings" menu "Cleave angle upper limit"), the splicing machine will pause and report the error.

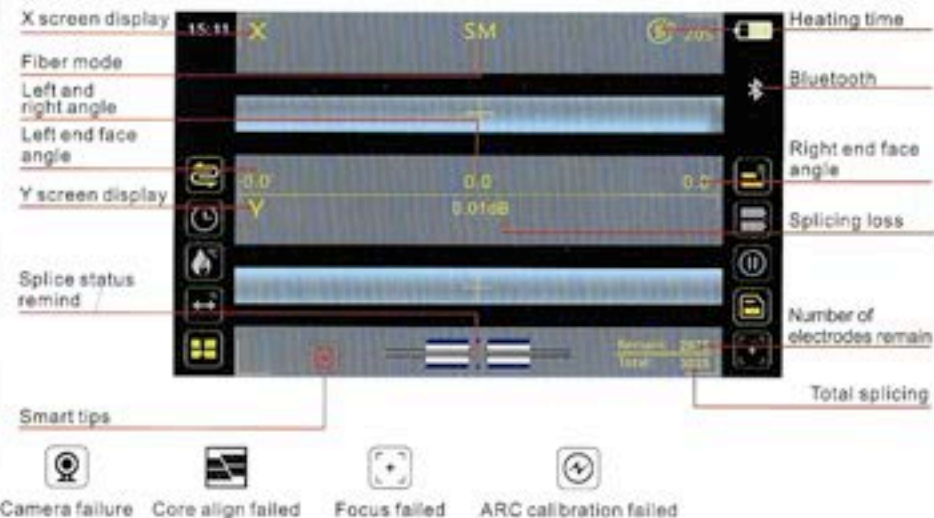
 **Cleave face detection** : If the cleaving end face quality of the fiber does not meet the set parameters (end face quality requirements can be set in the "Splicing settings" menu "End face quality"), the splicing machine will pause and report the error.

 **Splicing process pause** : When the function is on, the splicing machine will stop the final splicing process after 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

 **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 (target value in the "Splicing settings" menu set "focus target value")

DISPLAY INTRODUCTION ▼



INTRODUCTION FOR FIBER STATUS ▼



Flash on both sides
please place fiber



Left fiber is too long
(also adapted to right)



Left fiber is too short
(also adapted to right)



Left end face is unqualified
(also adapted to right)



Detection fiber qualified



Failure to identify the qualified fiber
please clean the V-groove and
re-place the fiber

Introduction For Fiber Status

CHAPTER II MACHINE SETUP ▼

Software download

中国地区：扫描二维码或进入苹果商店搜索“灼识数中宝+”下载手机APP即可进入网站
www.sczhishishi.com的“软件下载”页面直接下载。

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

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Google play



App store

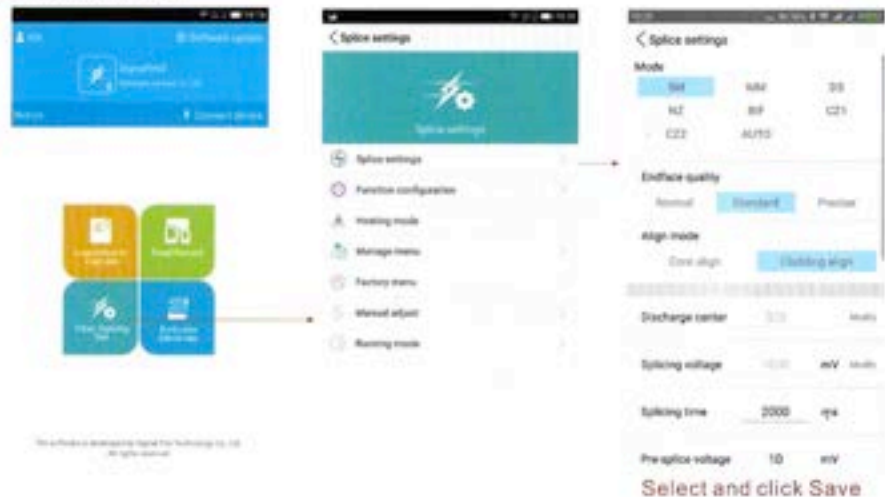


Scan QR code

MACHINE SETUP ▾

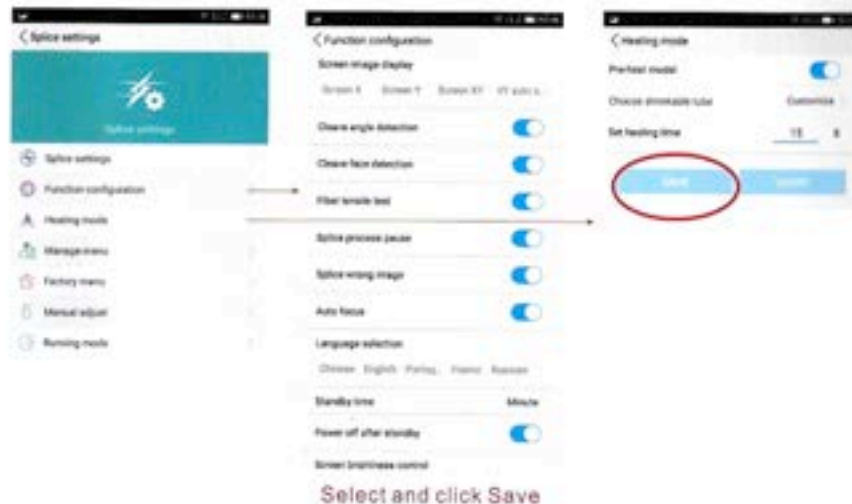
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Open the phone APP, and open the Bluetooth on phone to set up the display menu on the machine, and machine will update at the same time. **The splicing operation does not require phones**, the phone App is only for machine menu settings, and splicer 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.



MACHINE SETUP ▾

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



CHAPTER III TOOLBOX INTRODUCTION ▼

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Introduction of splicer machine functions



CHAPTER IV 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.

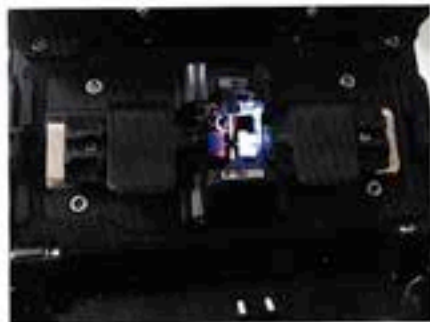
The procedure for ARC Calibration is as follows:



Step 1: Please turn on the splicer machine, then login "Signalfire2" on your phone, connect the Bluetooth, open the ARC Calibration and save it. (See picture)

ARC CALIBRATION ▼

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

ARC CALIBRATION ▼



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 (see picture), 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 V FIBER STRIPPING AND PUT INTO HOLDER ▼

Cleave fiber instructions:

Jumper fiber (pigtail fiber)



With the yellow plastic layer as the boundary, the scale is between 16 to 18, the white skin layer should be longer than the yellow layer of about 5mm, placed it in the scale 10-12 or so (near the rubber pad about 2mm or less)

Rubber insulated fiber



Scale is between 16 to 18

Bare fiber



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

FIBER STRIPPING AND PUT INTO HOLDER ▼

Instructions for put fiber into holder:



Remark:

1. Please make sure you place the fiber into the blue V-groove, the tip of the fiber is close to the center of the electrode. If the fiber is too far from the electrode center, it will remind you to re-place it.
2. The tip of the fiber must not exceed the center of electrode.

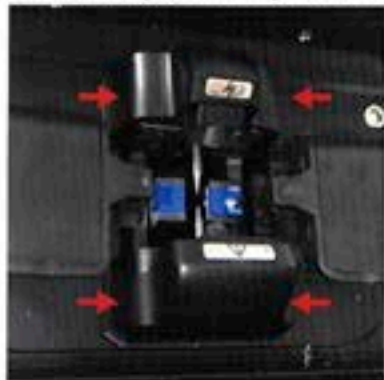
CHAPTER VI REPLACE ELECTRODE ▼

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REPLACE ELECTRODE ▼

Please must use the genuine original electrode designed for this machine for replace. When the number of electrode splicing reaches near to its lifetime, the machine will remind you to replace the electrodes in time, otherwise it may affect the quality of the splicing. Or even it will automatically shut down the program, and stop splicing.

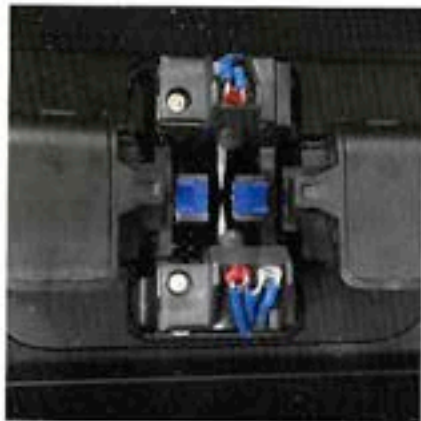
The electrode replacement procedure is as follows:



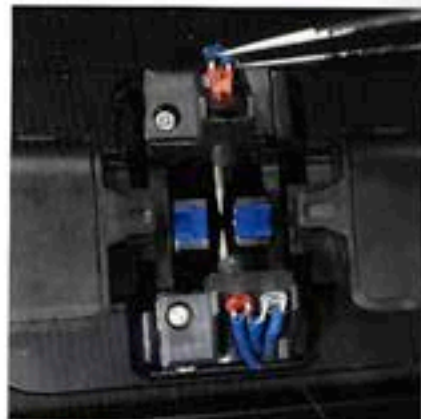
1. Please pinch the electrode cover on both sides slightly, see the location in picture, then remove up the electrode cover.



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

Note: There is operation video in the APP software "learn how to operate" section, please visit it.

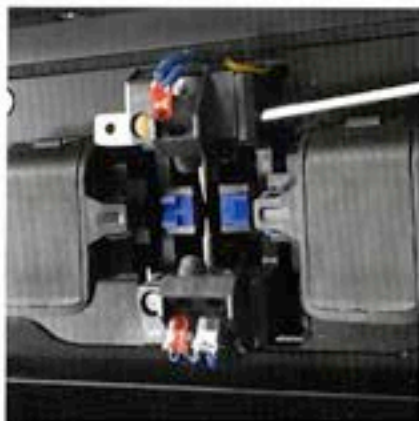
REPLACE ELECTRODE ▼

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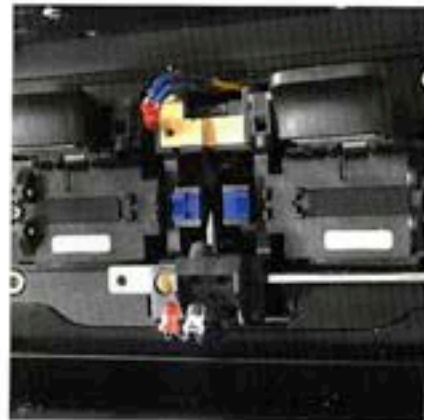
REPLACE ELECTRODE ▼



5. Screw out the screws with a screwdriver



6. Use a screwdriver to push out the latch and remove the electrode



7. Remove the another electrode by the same way



8. Two old electrodes are removed

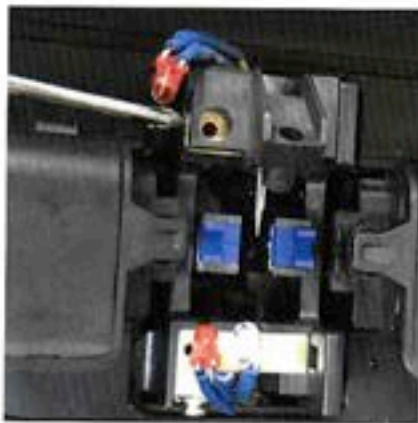
REPLACE ELECTRODE ▼

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REPLACE ELECTRODE ▼



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



10. Use a screwdriver to push in the latch and install the screw

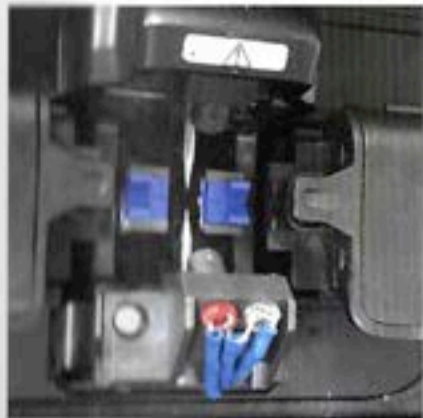


11. Use tweezers to put the lamp into the original hole



12. Close the electrode cap

REPLACE ELECTRODE ▼



13. Replace the other electrode by the same way

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14. Close the electrode cap, electrode replacement is complete

CHAPTER VII ACTIVATE ELECTRODE ▼

The electrode activation is activated by the phone APP "Signalfire2", please download the software to your phone before use, please scan the two-dimensional code on the machine display.



The software is developed by Signalfire Technology Co., Ltd.
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1. Open the "Signalfire2" APP software, click on login



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2. Please log in directly if you have an account, otherwise

ACTIVATE ELECTRODE ▼



3. Click "Connect to Bluetooth" after login is successful

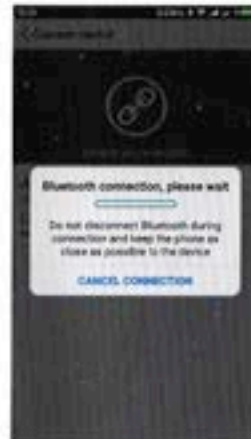
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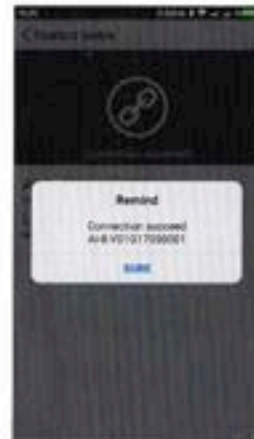
Click
The Bluetooth number is in the upper right corner of the splicer screen

4. Please select the corresponding Bluetooth number and click on, 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

ACTIVATE ELECTRODE ▼



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

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

ACTIVATE ELECTRODE ▼



9. Activation is successful,
please restart the machine

*CHAPTER VIII REPLACE FC TANK ▼

To use the heating tank for FC connector, you need to replace the corresponding parts, the operation is as shown in picture.



1. Use a screwdriver to remove the two screws on the left side of the heating tank



2. Extract it by hand, extraction process is with appropriate force (See picture)

*Note: The standard packing does not provide the accessories, please contact the supplier if necessary.

REPLACE FC TANK ▼

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3. Align the new head to the red dotted line position, and then you can press alignment.



4. Replace the screws tightened, finished the process.

CHAPTER IX USER INSTRUCTION FOR CLEAVER USE ▼

1. Summary

Fiber cleaver can cut single mode fiber, multimode and ordinary quartz optical fiber. This cleaver can be used in optical fiber communication engineering construction, manufacturers of fiber optic cable testing, optical devices, such as factory production.

When cleaving ordinary single fiber, just use the cleaver splint which supplied with the cleaver.

To ensure the long-term use of the cleaver, please handle with gently, the operation should be gentle.

Should take more attention to shock collision. Cleaver should be kept clean and dry all parts. Please use anhydrous alcohol to clean the cleaver blade and each plastic sheet, do not use other solvents such as acetone. Please clean up the broken fiber in time, to avoid the optical fiber goes into the rail to cause damage to the rail.

2 Structural characteristics and method of use

1. Parts and structure function

[precision guide] to provide the direction of blade movement.

[slide platform] slide the platform, let the blade across the fiber.

[Chopping plate] the optical fiber is cleaved once the chopping fall and touch the fiber.

[holder] To open the holder to provide a fulcrum.

[disc blade] the blade across the fiber lightly and leave sliding mark on fiber surface.

[Fixing screws] Loosen this screw first, then you can adjust "screws for adjust blade height.

[Pressure screw] Loosen this screw and you can replace the blade angle, thus change the blade cleaving surface.

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USER INSTRUCTION FOR CLEAVER USE ▼

[screws for adjust blade height] can adjust the blade height

2. Use of the cleaver

1) Open the holder ;

2) Strip the fiber coating about 40mm, use cotton balls dipped in anhydrous alcohol to wipe clean the bare fiber.

3) Please put the fiber into the fiber holder and fix it according to the required length

4) Please close the fiber holder, then put the fiber in the positioning groove, push in the end. Then close the upper bracket

5) Hold the cleaver by right hand, then gently slide the platform according to direction of the arrow, let the blade across the fiber lightly.

6) Chopping fall down automatically, so that the optical fiber is cleaved once the chopping fall and touch the fiber;

7) Open the holder (right index finger in the cradle, push your thumb on the front slope of the mount), remove the fiber holder and fiber breakage.



Screws for adjust height



Fix screws



Screws for fixing height



Pressure screw

USER INSTRUCTION FOR CLEAVER USE ▼

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3 Maintenance

- (1) Must use cotton balls dipped ethanol to wipe clean before cleave the fiber.
- (2) Keep each plastic sheet and blade surface cleaning, and please use anhydrous alcohol, when cleaning the blades of each sheet. Do not use of other solvents such as acetone.
- (3) In order to increase the frequency of use blades, please adjust the blade position, please press the number counterclockwise order to adjust the blade, do not mess tune.
- (4) This is a precision tool, handle with care and gently.
- (5) Clean up the broken fiber in time, prevent the damage fiber injuries and damage to broken plastic sheet cutter and guide.
- (6) Should carry anti-collision avoidance, to ensure cleaving.

USER INSTRUCTION FOR CLEAVER USE ▼

4 Cleaver adjustment method

(1). Change blade face

Loosen the screw, press the blade with a cotton swab (sharp blade, take care), turn a number counterclockwise then press the blade to tighten the screw. Complete the blade face change.

We need to cleave the fiber to see whether the cutting end face can meet the requirements. If it can meet the requirement, do not need other operations.



(2). Adjust the blade height

After changing the blade face, if it still could not cut off the fiber or the fiber surface is not neat, you need to adjust the height of the blade. Please use the two hexagonal tools to adjust (one big and one small).

(3). Raise the blade

First loosen the screws 1, 3, 4, then turn the screw 2 in clockwise 1/4 turn, finally please tighten the screws 1, 3, 4.

(4). Lower the blade

First loosen the screws 3, 4, then turn the screw 2 in counterclockwise 1/4 turn, finally please tighten the screws 1, 3, 4.



Note: Adjustment on screw 2 could not exceed 90 degrees each time, that is 1/4 turn.

Troubleshooting and solutions

Problem	Reason	Solutions
Fiber cleaving quality deteriorates	The plastic chop and blade edge has oil dirty	Please clean the plastic chop and disc blade by using a cotton swab dipped ethanol
	Disc blade edge is not sharp	a.Adjust cleaving face of disc blade b.Replace the disc blade
	Disc Blade is too high	Adjust the blade height carefully
cleave fiber tailed	Blade is not sharp	1.Adjust cleaving face of disc blade 2.Replace the disc blade
	Disc Blade is too low	Adjust the blade height carefully
	Not strip the coating on fiber	please strip the coating
Fiber has a rounded edge		1.Raise the blade height 2.If the rubber plate is abrasion or aging, please replace the rubber plate
Fiber cutting face has shadow or gradient		Blade is too low. In particular, the blade is too high causes large gradient. Please adjust the blade height accordingly.
Fiber core defects		Collapse of the fiber core is usually caused by blade height, please adjust the blade height accordingly.

1 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.

DAILY MAINTENANCE ▼

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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.

2 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.

3 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.

4 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!

DAILY MAINTENANCE ▼

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 use 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.

5 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	1. Not power on 2. Fiber does not enter V-groove or V-groove has dirt 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	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	1. The cleaving quality of the fiber is poor 2. Splice parameters unreasonable 3. Arc center offset (rarely occurs)	1. Re-cleave the fiber 2. Repeat the ARC calibration 3. Repeat the ARC calibration
The ARC does not discharge or has scars	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	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	1. Splicing parameters unreasonable, splice voltage is too high 2. Splicing overlap is too small	1. ARC calibration 2. Increase the amount of splicing overlap
Splicing zone is thicker	1. Splice parameters unreasonable, splice voltage is too small 2. Splicing overlap is too big	1. ARC calibration 2. Reduce the amount of splicing overlap

Troubleshooting	Reason	Solutions
Splicing has bubbles (usually occurred in the multi-mode fiber splice)	Fiber end with burr, not flat	1. Increase the cleaning voltage 2. Re-cleave fiber
Splicing points have lateral shadows	1. Fiber core does not match (type or core diameter is different) 2. Multimode fiber appear very light shadows after splicing	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	1. Fiber not enter the V-groove completely 2. V-groove is dirt	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	1. V-groove is dirt 2. Fiber not enter the V-groove	1. Clean the V-groove with alcohol and brushes 2. Re-place the fiber
The image is blurred	1. Fiber not enter the V-groove 2. V-groove is dirt	1. Re-place the fiber 2. Clean the V-groove
Cleave can not cut off the fiber	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	1. Use a Miller clamp to peel off the cladding 2. The length of the stripped cladding should be longer than 30 mm