USER'S MANUAL

In case of deviation in the picture, the actual product shall prevail

CONTENTS

Preface

Thank you for buying fiber optic fusion splicer!

This user manual explains how to install and use the fiber optic fusion splicer,To help you become as familiar as possible with the operation of the fusion splicer.

Important!

It is recommended that all users read this manual before using the fiber optic fusion splicer.

Warnings and precautions

Fiber optic fusion splicer (hereinafter referred to as "fusion splicer") is designed to fuse quartz glass glass optical fiber,Please do not use this instrument for other purposes.Splicing machines are very precise Instrument,Should be carried with great care.Therefore,The following safety regulations and general specifications must always be observed when using and carrying.If the warnings and cautions described anywhere in this manual are not followed.Will violate the splicer design,Safety standards for manufacturing and use,We are not responsible for the consequences of any violation of these requirements by the user!

◆ Operational safety warning

1.Prohibit the use of splicing machines in flammable and explosive environments.

2.Do not touch the electrode bar when the splicer is open.

3.Except for the parts declared in this manual that are allowed to be replaced by the user,Do not disassemble any part of the splicer without permission.Replacement of parts and internal adjustments should only be carried out by authorized service personnel.

4.Carefully remove the cable from the wall socket when connecting the power cable,Do not pull the cable,And to hold the plug.Must ensure the integrity of the cable,To prevent the risk of fire or electric shock.

5.Do not expose the splicer to fire,Electric shock and rain or wet environment.

6.Please use only the dedicated adapter,Use of other adapters may cause damage to the splicer

7.When the fusion splicer encounters the following conditions,Please turn off the fusion splicer immediately,Disconnect the adapter and remove the battery

-Smoke, odor, noise or abnormal heating;

-Liquid, foreign matter into the splicing machine inside;

-Machine damaged or broken;

If you encounter these faults,Please contact the customer service center immediately.If no timely action is taken,and put it in a fault state,May result in total machine failure or even fire, personal injury or death.

◆ Splicing machine internal lithium battery

The battery in the splicing machine is a special lithium-ion battery, The use of other batteries may damage the splicer and endanger the user's personal safety.

1.Prohibit dismantling of lithium batteries.To prevent short circuit.

2.No slamming of the battery ,Put the battery near or into the fire source and strong heat,To prevent lithium batteries from exploding.

Warnings and precautions

◆ Splicing machine touch display

1.Prohibit sharp objects from clicking on the touch screen,Do not impact the touch screen with force.

2.Do not drip organic solvents or contaminants on the touch screen,such as acetone, motor oil, antifreeze,ointment, etc.Otherwise, it may cause the LCD to work abnormally.

3.Can be wiped with a silk cloth or soft fabric to clean the LCD screen.

4.Depending on the viewing angle of the screen,The brightness of the monitor will also vary,And there may be some black,red, blue or green dots on the screen.These are not LCD monitor failures,It is a natural phenomenon.

◆ Fiber optic splicing machine transportation and storage

1.When the splicer is transferred from a low temperature environment to a high temperature environment,Try to take a gradual warming approach to transfer,Otherwise, condensation will occur inside the instrument,Can have a negative impact on the instrument.

2.Pay attention to keep the splicing machine clean and dry.

3.When the splicing machine is not working,Please place in a dry environment,Avoid direct sunlight or placing in excessive heat,Excessive dust,In a humid environment.

4.The splicing machine is precisely adjusted and calibrated,Please try to avoid strong vibration and shock.Special carrying case should be used for storage,Long-distance transport requires a suitable cushioning box outside the carrying case.

Technical Parameters

Applicable fiber	SMF (G.652), MMF (G.651), DSF (G.653), NZDSF (G.655)
Fiber diameter	Cladding: 80-150μm; Coating: 0.1-3mm
Splice loss	0.02dB(SMF), 0.01dB(MMF), 0.04dB(DSF/NZDSF) are measured by ITU-I shear method
Alignment method	Core, cladding
Focus mode	Six-motor auto focus
Splicing method	Auto / Manual
Splicing time	8s (SMF typical value)
Pull test	1.96-2.25N
Image display	Capacitive 5.5 inch touch LCD screen
Magnification	300 (X/Y), 150 (X/Y synchronization)
Splicing method	1000 groups
Typical heating time	18s
Heating time	0-60s
Heat shrinkable sleeve	20mm、30mm、40mm、50mm、60mm
OPM	Range (dBm): -70~+3/Wavelength: 850nm-1625nm/Uncertainty: ±0.5%
Red light (VFL)	⩾10mW
Operation interface	GUI graphical user operation interface

Technical Parameters

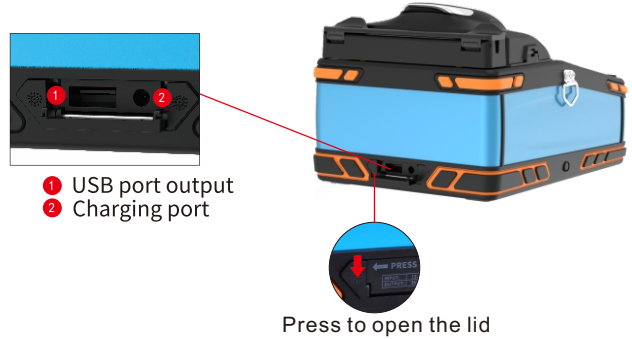
Electrode life	3000 times
Lighting method	Auto / Manual
Battery capacity	7800mAh (Splicing and heating cycle typical value 240 times)
Charging time	time: ⩽3.5h
Output voltage	DC 11.1V
USB port output	5V/500mA
Charger	Input: AC 100-240V, 50/60Hz, Output: DC13.5V/4A
Working environment	TEMP: -15 °C - + 50 °C / RH : ⩽95% RH (non-condensing) / ASL: 0-5000m / WS: ⩽15m / s
Storage conditions	Temperature: -40°C-+80°C / Humidity: 0-95% / Battery: -20°C-+30°CLength
Splicing machine size	190mmX146mmX117mm
Splicing machine weight	1.74KG (with battery), 1.24KG (without battery)

Data is for reference only, please refer to the real thing!

Standard configuration

1.Fiber Optic Splicing Machine,2.Cutter,3.Electrode rods,4.Stripper,5.Miller pliers,
6.Calibration special fiber,7.Shoulder straps (two types),8.Power adapter,9.Alcohol bottles,
10.User Manuals、11.Certificate of Conformity、12.Warranty Card

Machine introduction



Key Function

Power Key
Long press to turn on or off.

Reset key
Under the splicing interface,Press the reset button to reset the horse to the original point,Status bar Shows the reset process and results.

X, Y switch key
Under the splicing interface,Switchable dual/single screen.

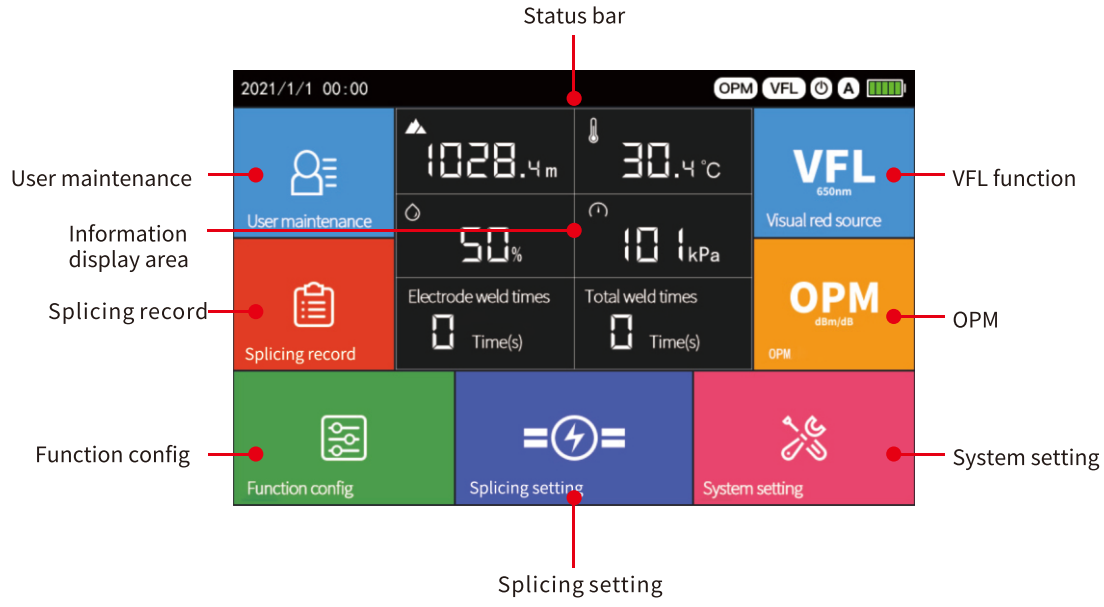
HOME key
Under the main screen,Press the HOME button to enter the splicing interface directly Under other function interface,Press HOME to return directly to the home screen.

Start key
In splicing operation mode manual,Press the Continue button to start splicing,When pause is turned on,Press the Continue button to continue.

Pause key
Splicing process,Press the pause button,Current operation can be paused.

Heating key
In heating mode manual,Press the heating button to start heating the heating tank,Countdown to the start of the heating time in the upper left corner of the splicing interface.

Main interface



Status bar

a、Function icon

A Auto splicing mode　　Ⓜ Manual fusion mode　　Auto power off function on

OPM 0PM open　　VFL VFL open　　VFL VFL timing

b、Battery status

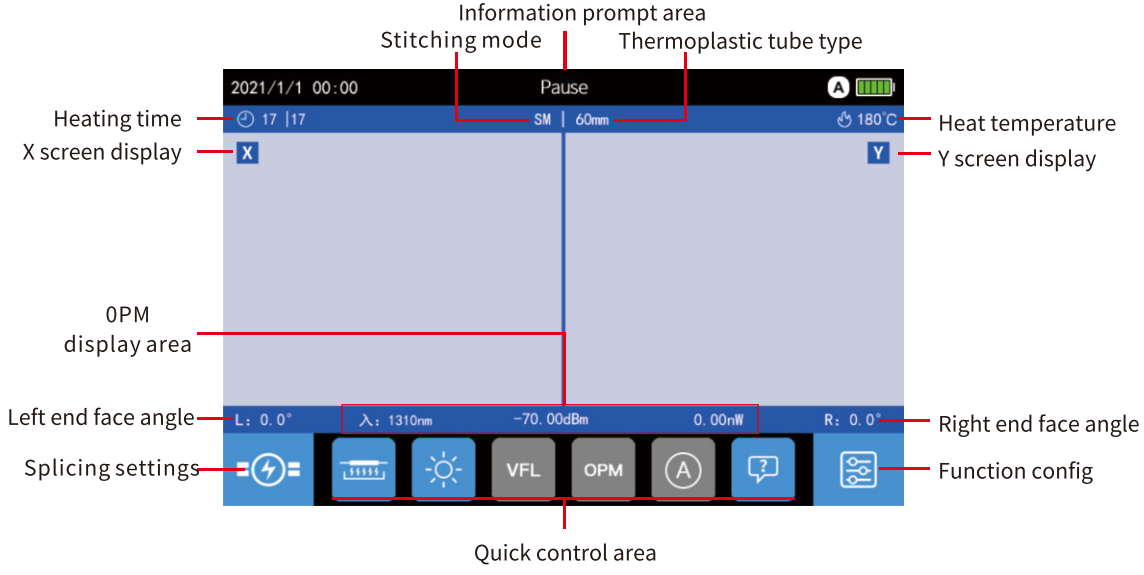
Normal state　　Charging status　　Low battery reminder

Information display area

Altitude　　Ambient temperature　　Ambient humidity　　Ambient atmospheric pressure

Note:
a、Altitudes above 5000m, red digital display;
b、ambient temperature is below -10 °C or above 50 °C, red digital display;
c、humidity higher than 95%, red digital display;
d、 Electrode rod splicing more than 3000 times,Digital display red.

Splicing interface



Note:
Splicing process,OPM values are not refreshed,Function buttons in the shortcut control area 、Splicing settings、Function configuration all lock can not be operated.

Detailed icon

Pre-heating:After opening,After each successful splice,From the time the weatherproof cover is opened,Automatic heater start for 6 seconds.

Tensile test:After opening,Tensile test after each successful splice

Save image:After opening,When the stitching is complete,Save this stitched image.

End face inspection:After opening,When the quality of the fiber end face does not meet the requirements,fusion pause,and report an error message.(Set in "Splicing Settings - Splicing Quality")

Lighting-normally open mode: After turning on, the button indicator and the lighting at the V-shaped groove are normally on.

Lighting-Smart mode: After turning on, the button indicator and the lighting at the V-shaped groove will automatically turn on from 18:00 to 6:00 system time.

Autofocus:After opening,Automatically adjusts the camera focus to the set target value when splicing.

OPM:After opening, the OPM is opened.(The wavelength can be set in the OPM control panel)

Red light pen (VFL): After turning on, the red light turns on.(Flashing and timing functions can be set on the VFL control panel)

Loss estimation:After opening,After the splicing is completed,Calculate the loss at the connection point based on the light image,Some deviation from the real value.For reference only,Cannot be used as the basis for project acceptance.

Splicing Pause:After opening,After fiber alignment is complete,Run Suspension: At this point, press to continue with the next step,Finish splicing

Splicing tips: after opening, the splicing process status bar information tips area text tips, error pop-up box tips.

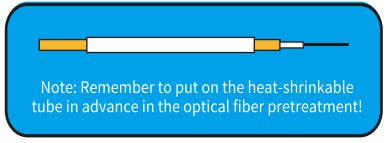
Angle detection:After opening,If the fiber end face angle is greater than the set upper limit,Splicing pause and error message.(Change the setting in "Splicing mode - upper limit of cutting angle")

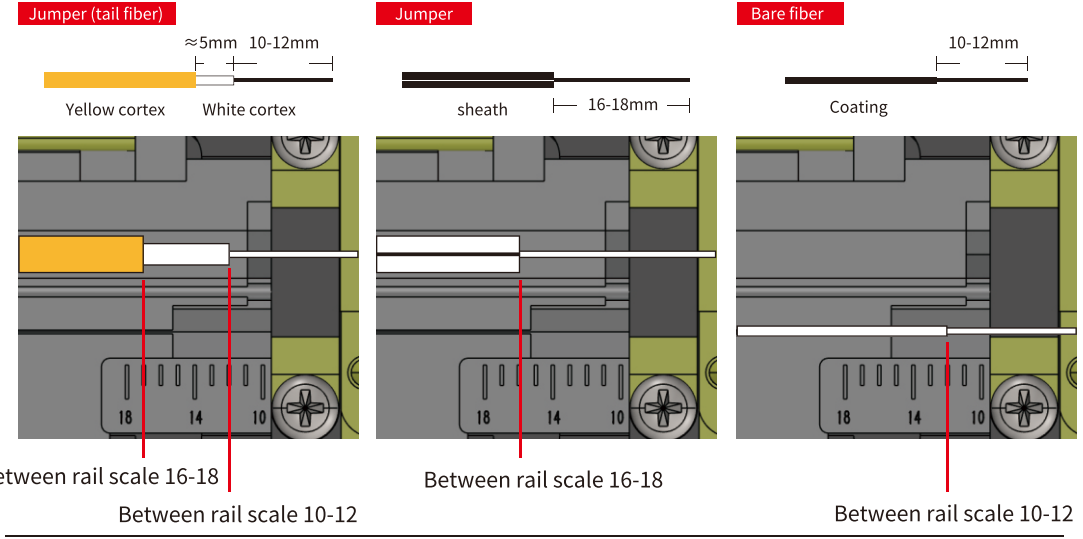
How to complete a splice

1、Prepare fiber

Operation steps:

1.Strip the sheath with a stripper to leave at least 30mm of bare fiber,Remove the coating layer with Miller pliers.
2.Clean fiber optics with cotton paper soaked in alcohol.
3.Cut optical fibers with high precision cutting tools,the cutting length is described as follows:





2、Placement of optical fibers

Operation steps:

①Open protection cover from optical fiber lid

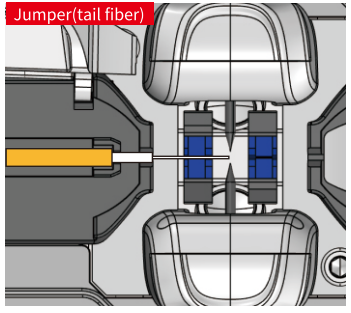
②Put the prepared fiber into the V-groove, and make sure that the end of the fiber is between the edge of the V-groove and the tip of the electrode (as shown in the figure below).

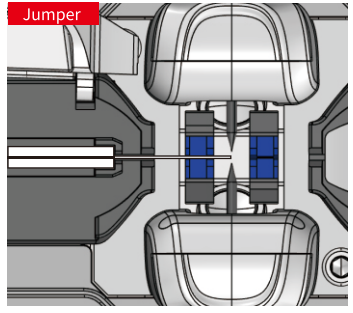
③After placing it, press the fiber with the fiber cover.

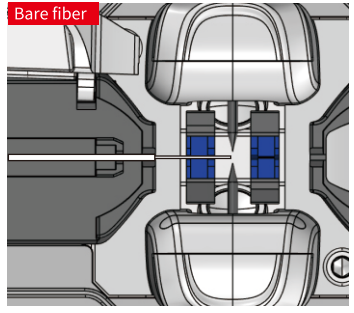
④Place the other end in the same way,Close the windshield and start splicing.

[Splicing operation mode] is [Auto],After closing the weatherproof cover, the,Automatic start of Splice.

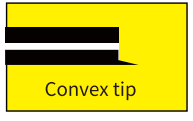
[Splicing operation mode] to [Manual],After closing the weatherproof cover the,Press ▶ key when promptedOperation Splice.

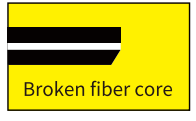


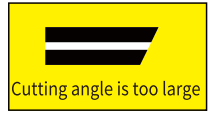




When [Endface Inspection] is on the,The fusion splicer will automatically check the fiber for damage and dust dust particles.If the following conditions are detected in the fiber,Please remove the fiber and re-prepare it.







note:

When releasing fiber,Note the placement of the fiber into the blue V-slot,The tip of the fiber is near the center of the electrode rod Center point position,If it is too far away or beyond the center of the electrode rod,Both will prompt an error.

3、Protection of splicing points-heat shrink tubing

Operation steps

①Open the windproof cover,Then open the heating cover of the heating tank.

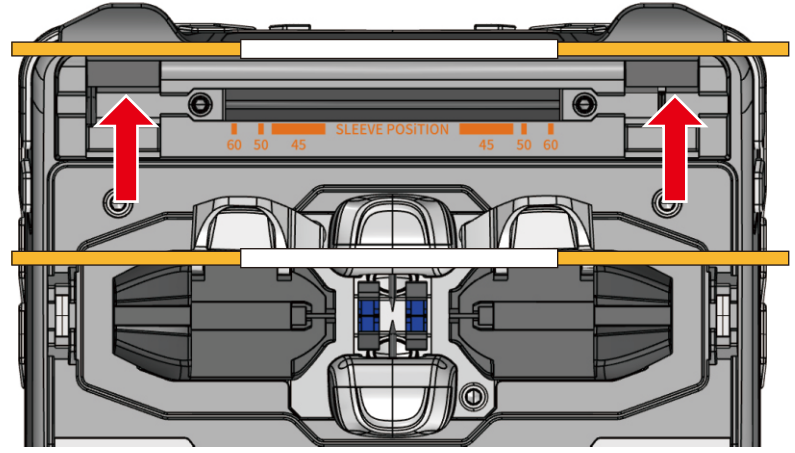
②Open two fiber gland,Hold the heat shrink tubing,Remove the fiber,Keep it tight,Move the heat shrink sleeve to the position of the splice point.

③Move the fiber with heat shrinkable sleeve into the heating bath.

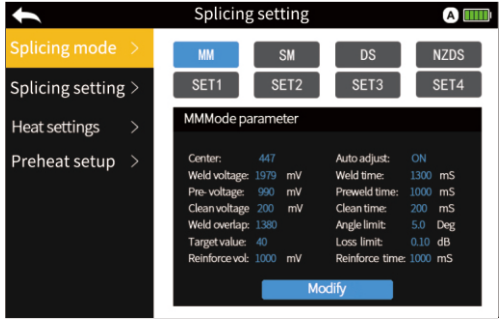
④Start heating,Top left corner of the splicing interface during heating,Heating time start countdown, When finished, the message "heating is complete".

When [Heating Method] is [Auto],After closing the heating cover,Automatic start of heating.

When [Heating Method] is [Manual],After closing the weatherproof cover,Press the heating button to start heating.



Splicing setting



Splicing mode
You can select the preset MM, SM, DS, NZDS four kinds of splicing mode,In addition, SET1, SET2, SET3 and SET4 are provided for users to set their own custom modes.

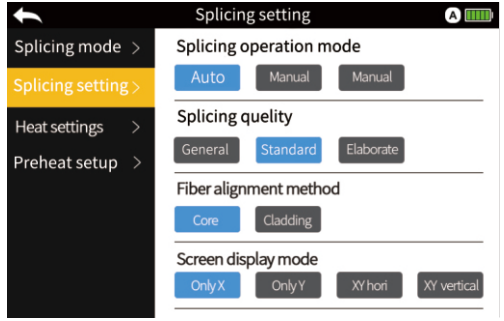
Modify:The corresponding stitching mode parameters can be modified

Note:
The splicing process can be divided into two main steps: pre-fusing and splicing,We can change the discharge level during splicing by changing the relevant steps.

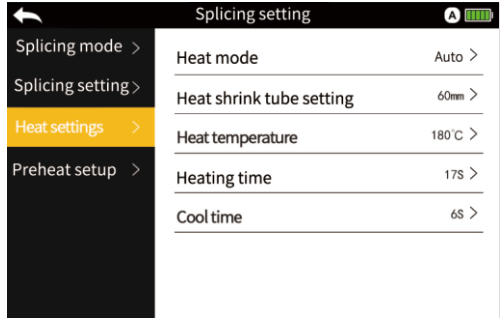
General splicing parameters are described in the following table:

Parameter	Description	Parameter	Description
Center	The position of the Splicing node where the arc is located during discharge	Splicing voltage	Used to set the intensity of arc discharge
Splicing time	The position of the Splicing node where the arc is located during discharge	Pre- voltage	Set the discharge voltage from the start of the discharge to the advancement of the fiber
Preweld time	Set the discharge time from the start of the discharge to the advancement of the fiber	Clean voltage	It is used to clean the voltage required when the tiny dust on the optical fiber is attached
Clean time	It is used to clean the discharge time required when the tiny dust on the optical fiber is attached	Splicing overlap	Pre-discharge interference of two optical fibers when setting Splicing
Angle limit	When the cut end angle of either the left or right fiber exceeds the set threshold, an error will be prompted	Target value	Pre-discharge interference of two optical fibers when setting Splicing
Loss limit	Set estimate weld loss threshold, and an error will be prompted when the threshold is exceeded	Reinforce vol	Set the voltage when re-discharge reinforcement is required after the Splicing is completed
Reinforce time	Set the discharge time when re-discharge reinforcement is required after the Splicing is completed		

Splicing setting

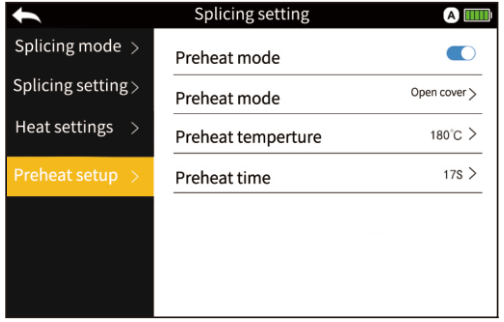


Splicing operation mode:
Automatic:Splicing starts automatically as soon as the weatherproof cover is closed.Fiber should be prepared in advance,and put into the splicer.
When open,Status bar display A
Manual:After the windproof cover is closed,Press ▶ the start button to begin pairing fibers,After fiber alignment is complete,Run Suspension,Press ▶ the Start button to continue to the next step,Finish splicing.When open, Status bar display M
Splicing quality:Set the requirements for fiber end face inspection.
Fiber alignment method:
Fiber core:Fiber splicing is based on fiber core alignment.
Package layer:Fiber splicing is based on fiber cladding alignment.
Screen display mode:Set the way the fiber is displayed on the screen when splicing



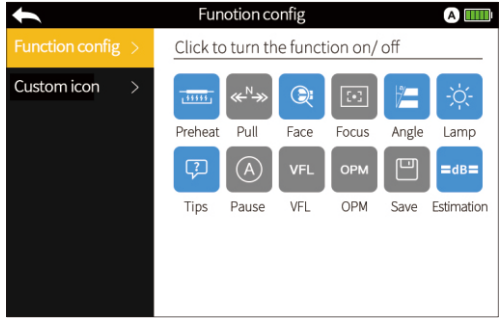
Heat mode:
Set Auto/Manual mode.
Heat shrink tube setting:
6 different thermoplastic tubes are preset in the splicing machine, For users to choose,Customizable temperature modification for each type,Select the best match for the heat shrink tubing used.
Heat temperature:
Set heating temperature (130-230°C).
Heating time:
Set the time from the start of heating to the end of heating.Heating time is independent according to the surrounding temperature Adjustment,Longer or shorter heating time (0-60S).
Cooling time:
After the splicing is completed,No heating action will be performed during the set time for either manual or automatic heating baths, No cooling when set to 0 (0-60S).

Splicing setting

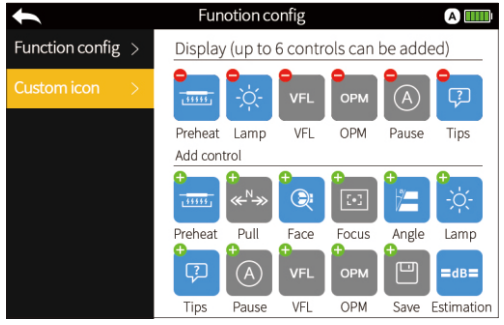


Preheat mode:
When turned on,After each successful splice,From the moment of opening the weatherproof cover,Automatic heater start
Preheating method:
After setting open cover / after splicing.
Preheating temperature:
Set preheat temperature between 130-230°C.
Proheat time:
Set the warm-up time between 5-30S.

Function config



Click to turn on/off or switch to the corresponding function
Color icon: the corresponding function is on.
Gray icon: the corresponding function is closed.

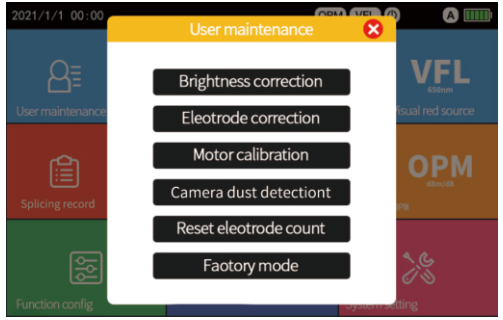


Custom icon
According to the user's needs,Shortcut control icons for the functions you want to use,The settings here are displayed in the Quick Control Bar area at the bottom of the splicing screen,User-friendly.

Click the icon in the display bar to delete the corresponding icon;
Click the icon in the add bar to add it to the display bar.
The order of icons can be set by deleting and adding.

Icons in the display bar,Simultaneous display in the quick control area under the splicing interface

User maintenance



Brightness correction:
Test and calibrate the sensitivity of two CMOS cameras.
Electrode correction:
Automatically calibrate the discharge intensity factor and fiber welding position.
Motor calibration:
Self-calibration motor speed.
Camera dust detectiont:
The weld machine automatically scans the camera image in rows and columns to detect dust and dirt that affect the observation results and may cause poor welding results.

Reset electrode count:
When the electrode is used 3000 times, it needs to be replaced with a new electrode. After replacement, the count of the old electrode should be cleared and counted again.If the count is not cleared after replacing the electrode, it will prompt "The electrode has reached its limit of use, please update it as soon as possible" every time it is turned on.
Factory mode:
You can manually advance the fiber, align the core, focus, welding, etc., and debug the weld machine.(Only for use by maintenance technicians!)

Brightness correction

Operation steps:
① Select the [User Maintenance] [brightness correction].
②Put in the stripped and cut optical fiber according to the prompt, and press the ▶ key to continue.
③start the automatic calibration is complete, the prompt "brightness correction success!" Close the prompt box and exit.

Electrode rod calibration

When there is a sudden change in the external environment,Discharge intensity sometimes becomes unstable,This leads to increased splicing losses.Especially when the splicer is moved from low to high altitude,Needs some time to stabilize the discharge strength.So it is necessary to use low altitude temperature according to,Environmental factors such as humidity to match the most suitable discharge fire size,Also the discharge center position sometimes shifts to the left or right,This causes the fiber splicing position to shift relative to the discharge center,In this case,Splicing machine can speed up the process of stabilizing the discharge intensity by calibrating the electrode rods,to achieve the best splicing effect.

Operation steps:
①Select [Electrode correction] in [User Maintenance].
②It prompts that the electrode rod discharge is stable. If you don't need to press the ▶ key, ignore it and proceed to the next step. If it takes 5 seconds, it will automatically enter the generator rod discharge stabilization. After completion, proceed to the next step.
③Put in the stripped and cut optical fiber according to the prompt, and press the ▶ key to continue.
④Automatic calibration,There are several flashes and a slight discharge burn on the splicer display, The fiber optic head is burned into a round ball shape,If the prompt fails after completion,Please cut and place the optical fiber again and repeat the above steps until the correction is successful,If prompted successfully,Correction completed,Close the prompt box and exit.

note:
①Keep the optical fiber clean, otherwise it will affect the calibration result.
②If the calibration process prompts that the end face of the optical fiber exceeds the limit, you can ignore and continue the operation, but the calibration result will be affected.
③When electrode rod discharge is stable,If fiber optics are placed inside the splicer,Fiber must be removed,After powering on,If an electrode rod discharge stabilization has been performed,When performing electrode rod calibration again,Automatic skip electrode rod discharge stabilization.

Motor calibration

In the later use, the motor speed may be changed due to various reasons. The motor calibration can automatically calibrate the motor speed.

Operation steps:

①Select [Motor Calibration] in [User Maintenance].
②Put in the stripped and cut optical fiber according to the prompt, and press the key to continue.
③The speed of all motors will be calibrated automatically. After completion, it will prompt "Motor calibration successful!" Close the prompt box and exit.

note:

The calibration process prompts that the end face of the fiber is out of limit, you can ignore the operation, but it will affect the calibration result.

Camera dust detection

Operation steps:

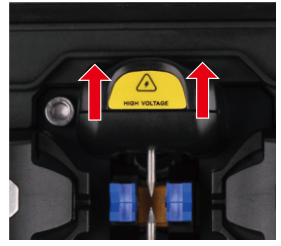
①Select [Camera dust test] in [User Maintenance].
②After entering [Camera dust test], it will automatically detect.
③If an interference point is found during the detection, the corresponding area will display a red dot. After cleaning, perform [Camera dust test] again until it prompts "no interference point affecting image recognition" is displayed, close the prompt box and exit.

note: If fiber optics are placed inside the splicer,Fiber must be removed.

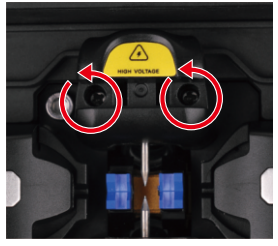
Replacement of electrode rods

Electrode wear due to use,Therefore it must be removed periodically depending on the degree of oxide build-up.It is recommended to replace the electrode after 3000 discharges,When the number of electrode discharge reaches 3000 times,The splicer will prompt "Replace electrode rod",Long-term use without changing electrodes,Will cause splicing loss to become larger,And reduce the strength after splicing.

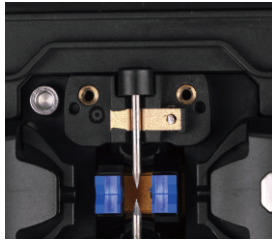
Operation steps:



①Open the windproof cover after turning off the computer,Push off the screw cover on the electrode cover.



②Loosen the screws fixed in the electrode cover,Remove the electrode cover.



③Remove the old electrode rod,Install Put on new electrode rod,Then put the electric electrode cover back to the original,Similarly change Just change the other electrode

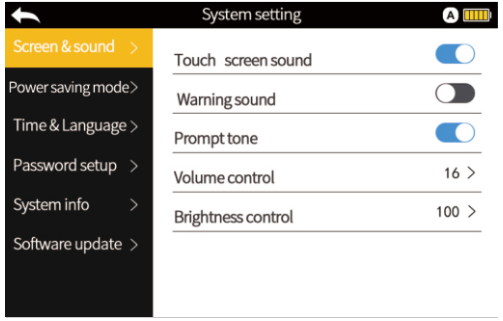
note:

① Replacement of electrode rods,Be sure to turn off the splicer,Wait until the splicer is completely shut down before replacing it.
② Two electrode caps with different heads,The one with LED light is the electrode cover against the screen direction.
③ When tightening screws,Do not exceed the strength that your fingers can reach.
④ After replacing electrodes,Execute [electrode bar count clear].Zeroing out the number of splices of old electrode rods,Otherwise The device will warn that.
⑤ After performing electrode bar count clearing,Then perform electrode rod calibration,Otherwise it will affect the splicing quality.

Electrode rod calibration,See page 19 - [Electrode Rod Calibration] for details.

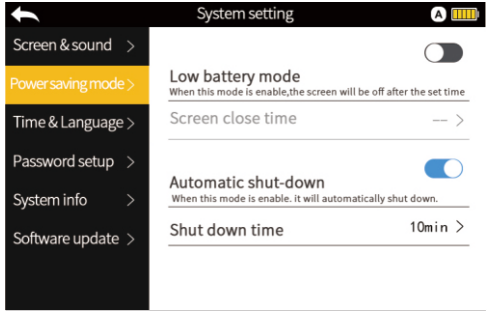
⑥ Be sure to use the electrode rods that come standard with this splicer,If the use of electrode rods that are not standard with this splicer causes damage to the equipment,No warranty service is available.

System setting

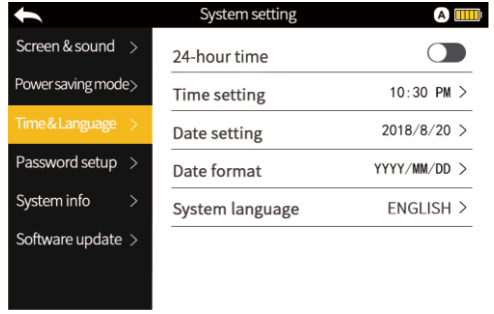


Touch screen sound:
When turned on, tap the screen or press the button, single-string sound voice prompts.
Warning sound:
After it is turned on, the voice prompts "Ding Dong" when an error warning occurs.
Prompt tone:
After it is turned on, the voice prompts "Dong" when the task is started or when the task is completed.
Brightness control:
Tap to adjust the brightness of the touch display screen.
Volume control:
Adjust the volume of touch screen sounds, warning sounds, and prompt sounds.

System setting

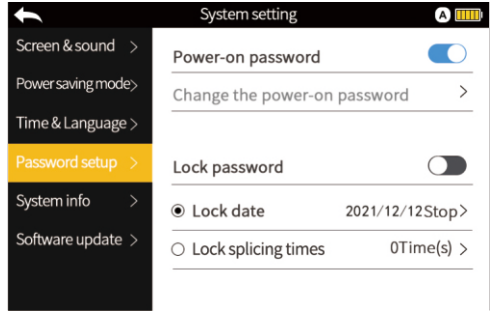


Low battery mode:
After being turned on, the screen will be temporarily turned off without any operation within the set time. Tap the screen or press any button to wake it up.
Automatic shut-down:
After opening,Splicing machine in the set time without any operation automatically shut down the splicing machine,Prevent large battery power loss,60S countdown prompt before shutdown
Shut down time:
Screen off time, default is 1min, increase or decrease is 1min/time;
Shutdown time, default 10min, increase or decrease to 5min/time.



Set system time/date:
Time display mode; modify the system time and date.
System language:
Set the language displayed on the screen, and select a language for display.
note:
If the lock password is turned on, the time setting and period setting will be grayed out and cannot be modified. You must turn off the lock password before you can modify it.

System setting



Power-on password:
After opening,Power on to enter the system need to enter the boot password to operate the splicing machine.
Lock password:
After opening,The password required to boot into the system is changed from the original boot password to the lock password, When the lock condition (lock date/lock splice count) is reached, The system will indicate that it is locked.Splicing machine can not be spliced operation,(A means to facilitate the manager or owner to effectively manage the time period or number of splices for the splicer,Application scenarios like:Carry out rental business).
Lock date:
After the lock date is set,Open the lock password,The splicer automatically locks the splicing interface at the set date (system time prevails).After locking the password on,Cannot be modified,Must be turned off after locking password,Only then can it be reset

Lock splicing times:
Number of locked splices:After setting the number of locked splices,Turn on the lock password,Automatic locking of the splicing interface after the number of splices is reached,After locking the password on,Cannot be modified,Must be turned off after locking password,Only then can it be reset.

Power-on password setting steps:
①Turn on the power-on password,After entering your password the first time,Auto-skipping to next step.
②Repeat the password a second time to confirm,,Password Consistency,Set up successfully,Repeat the previous step for inconsistency.

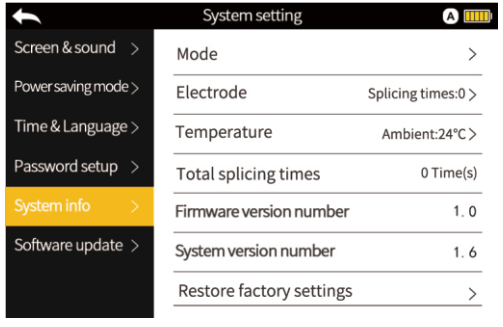
Lock password setting steps:

1.Lock Date:
Click [Lock Date],Jump out of the prompt [Date Setting (1/12)], select the date to be locked and click '√',If multiple settings are required,You can choose in turn,Less than 12 times,Click 'X' to set the password.After setting,On the day when the lock is reached, the system will pop up a prompt saying "The system is locked", indicating that the setting is successful.

2.Number of locked fusion:
Click [lock splicing times],Jump out prompt[Number of locked fusion (1/12)] Enter the number information in the dialog box,Click OK (after 12 settings,Jump directly [Set Lease Password (1/12)],Less than 12 times,Click OK again to set the password.)

(Note:Turn on the lock password,The power on password must be enabled first,When the lock password is turned off, Enter the power on password to turn it off,The system is unlocked after shutting down.

System setting

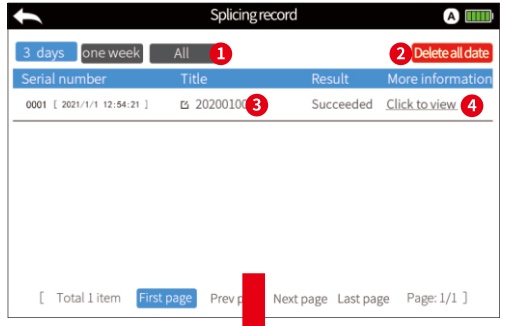


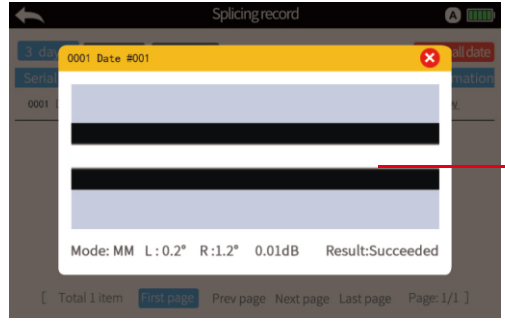
Model number:
Display the model of optical fiber fusion splicing machine,Manufacturer and other information.

Electrode rod Information:
Display the number of optical fiber fusion and replacement date of the electrode rod.

Temperature information:
Displays the internal temperature and ambient temperature information of the optical fiber welding machine.

Splicing record





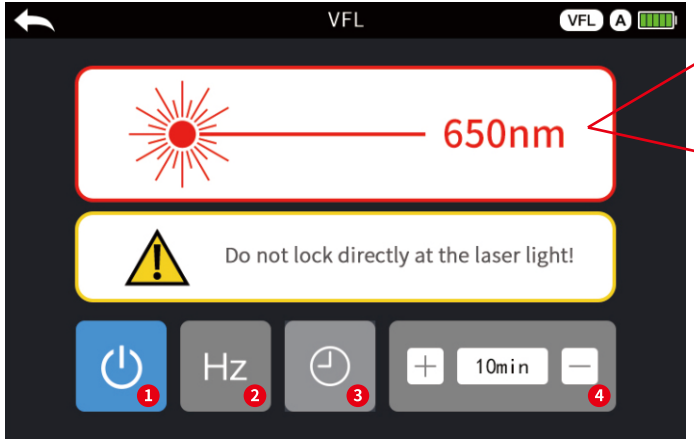
When save image is on,The system automatically saves the splicing records and images of each splice. The system can store 1000 splicing records and images internally.

① Click to filter the splice records for the corresponding time period.
② Clear button:All splicing data can be cleared.
③ Click here,The name of the current splice data can be modified.
④ Click to view:Click to view the stitched and saved images, Angle information, etc.

The stitched image is displayed here.

VFL function (VFL)

VFL control panel



VFL closed state

VFL on state

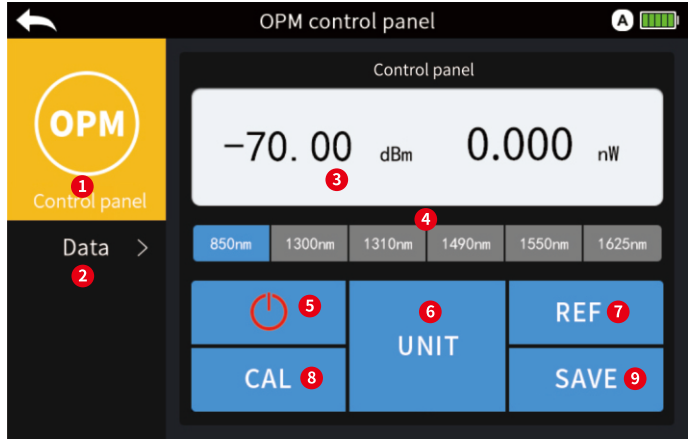
On state

Closed state

① VFL switch button: turn on/off the red light function; (when turned on, the VFL is displayed on the status bar.)
② Flashing button: Turn on/off the flashing function of VFL; (When turned on, VFL flashes on the status bar.)
③ Timing switch button: Turn on/off the timing function of the VFL; (When it is turned on, ④the setting panel takes effect and can be set, and the icon on the status bar changes to VFL .)
④ Timing setting panel: Set the length of time that the VFL is automatically closed; (The default is 10 minutes, and the VFL is automatically closed after the set time is reached.)

OPM

OPM Control Panel



① OPM Control Panel:Operationally settable OPM.
② Data : View deleted saved test data.
③ Numerical display area:Display of current measurement data and related information.
④ Wavelength selection button:Click to select the corresponding wavelength.
⑤ Switch button:Turn on/off OPM(When opened, i is displayed on the status bar).
⑥ UNIT:Change data display units, Selectable in dBm\dB\uW units in turn, Measurement data will be displayed in the corresponding results, mW, dBm conversion relationship : 10log(mW=0(dBm).

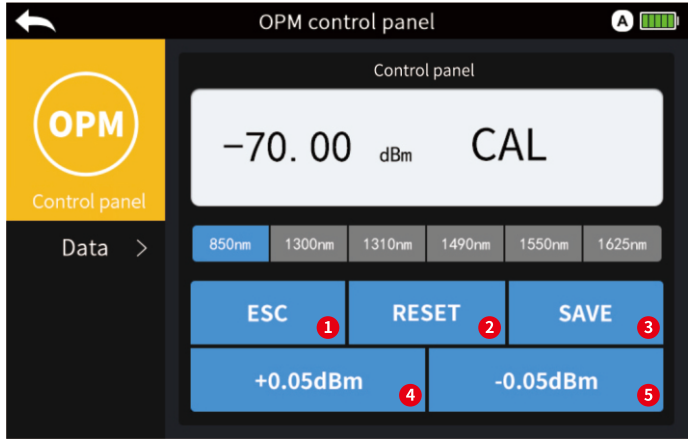
⑦ REF: Set the current test result or locate the reference value, perform relative power measurement, and the display area will display the corresponding dB value.

⑧ CAL:OPM calibration mode,Calibrate OPM and restore factory settings.

⑨ SAVE:Save the current measurement data in the data,Display area tips when saving“SAVEDATE”.

OPM

OPM calibration Panel

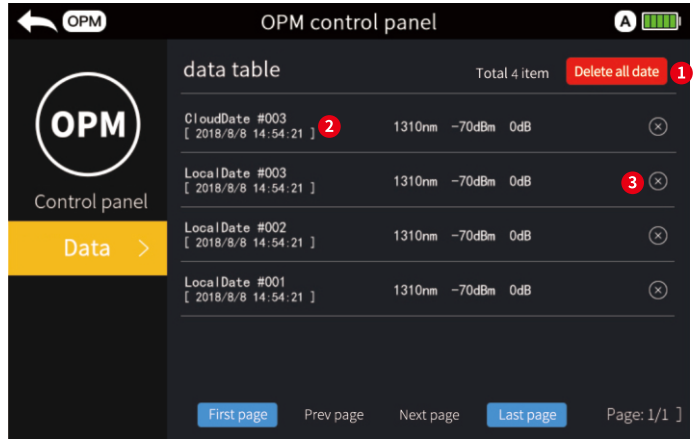


① ESC: Exit calibration mode.
② RESET: Initialize the local OPM.
③ SAVE: Confirm to save the calibration value.
④ +0.05dBm: Calibration value +0.05dBm.
⑤ -0.05dBm: Calibration value -0.05dBm.

Calibration steps:
① After connecting the light source (optical fiber line with known light power or light emitting device), switch to the corresponding wavelength.(Assuming that the optical power of the actual fiber is -19.00dBm, and the measured value of the device is -20.58dBm).
②Through the two keys "+0.05dBm" or "-0.05dBm", adjust -20.58 on the value display area to a value similar to -19.00.
③After the adjustment is completed, press the "SAVE" button to save the currently adjusted value to complete the calibration.

OPM

OPM data table



① Clear button: Clear all data saved in the local data table.
② Click here to modify the name of the current data.
③ Delete button: delete data.

High Splicing loss causes and solutions

Phenomenon	name	The reason	Solution
	Axial deviation of fiber core	V-groove or fiber taper is dusty	Clean V-groove or fiber taper
	Core angle error	V-groove or fiber taper is dusty	Clean V-groove or fiber taper
		Poor quality of fiber end face	Check whether the fiber cleaver is working well
	Core bending	Poor quality of fiber end face	Check whether the fiber cleaver is working well
		Low pre-melting voltage or short pre-melting time	Increase [pre-melting voltage] and/ or [pre-melting time]
	Mode field diameter mismatch	The discharge intensity is too low	Increase [pre-melting voltage] and/or [pre-melting time]
	Dust burning	Poor quality of fiber end face	Check whether the fiber cleaver is working well
		The dust is not removed when cleaning the optical fiber or discharge cleaning	Thoroughly clean the optical fiber or increase [dust removal time]
	Bubble	Poor quality of fiber end face	Check whether the fiber cleaver is working well
		Low pre-melting voltage or short pre-melting time	Increase [pre-melting voltage] and/ or [pre-melting time]
	Fiber separation	The amount of fiber advancement is too small	Carry out【Motor calibration】
		Strong pre-melting voltage or long pre-melting time	Reduce [pre-melting voltage] and/or [pre-melting time]

High Splicing loss causes and solutions

Phenomenon	name	The reason	Solution
	Too thick	The amount of fiber advancement is too large	Reduce [Splice Stacking Amount] and perform [Motor Correction]
	Too fine	Inadequate discharge intensity	Carry out【Electrode correction】
		Some discharge parameters are inappropriate	Adjust [pre-fusing voltage] [pre-fusing time] or [splice stacking amount
	Splicing line	Some discharge parameters are inappropriate	Adjust [Pre-fusing voltage] [Pre-fusing time] or [Splice stacking amount].

Note:

When different fibers (different diameters) or multimode fibers are spliced, Sometimes a vertical line is created at the point of succession, We call it "splicing line", This also affects splice quality (splice loss and splice strength).

Error message table

In the process of using the splicing machine,If an error message appears on the screen,Please refer to the following table for processing,If the problem cannot be solved,Then the splicer may be malfunctioning, Please contact the distributor.

Error message	The reason	Solution
The current use environment temperature is too high/low, it may cause the equipment to be unable to use normally and automatically shut down, serious may cause damage!	Exceed the use temperature	Change the use environment
Camera failure	The camera chip is malfunctioning	Contact an agent
The internal temperature is too high!	The circuit board works abnormally	Shut down in time and contact the agent
System locked	Over lease conditions	Change rental conditions/turn off lock password
Splicing failure	Attenuation exceeds the system set threshold	Adjust attenuation threshold or re splice
Multiple interference points detected on the camera (marked by red squares), Can affect the recognition of images, Resulting in splicing failure,Please deal with it promptly!	The V-groove has fibers or the lens is dirty	Take out the optical fiber or use a special cotton swab to stick medical alcohol clockwise to clean the lens
Brightness correction failed!	The lens lighting is abnormal	Contact an agent
Please re-released fiber!	Both fiber end faces exceeded the standard/ No fiber detected/Fiber placement beyond the centerline of the fusion splice	Reduced splicing quality/Recutting/ Repositioning the fiber
Left/right motor reset failed	Motor or motor sensor failure	Reset or contact the agent
Motor calibration failed!Left/	Motor failure	Recalibrate or contact agent
right fiber end face overrun	The fiber position is too far away	Reduce splice quality or re-cut fiber
Please replay left/right fibe	The fiber position is too far away	Reposition the fiber after reset

AF failure	Zoom motor timeout	Re-splicing or contact an agent
The current calibration failed, please re-calibrate the fiber	The environment has changed too much	Multiple calibration
Left/right fiber angle exceeds limit	Exceed the maximum angle va the system	Lower the angle threshold or re-cut fiber

Daily maintenance

Fiber optic positioning slot, Both electrodes and objectives must be kept clean,The dust cover should be closed when not in operation.

1.Cleaning of V-groove

If there are contaminants in the V-groove,It will not be possible to place the fiber correctly,This will make the pairing error increase or the pairing failure,Resulting in increased splicing loss or inability to splice, Therefore,In the usual work,V-grooves should be checked frequently and cleaned regularly.

regularly.Proceed as follows:

(1) Open the dust cover, first use a brush to remove most of the dust and debris.

(2) If the contaminant is relatively firm, use a cotton swab dipped in a small amount of alcohol to wipe it.

(3) Use a cut optical fiber or a thin blade to push the contaminants out of the V-shaped groove in one direction, and then brush it with a brush.

(4) Press the reset button once.

2.If the objective lens becomes dirty,Then the imaging of the fiber may be affected,This can lead to faulty fiber identification, Misalignment of fiber,Can't splice or poor connection, etc.Therefore, the lenses of both objective lenses should be cleaned regularly,Otherwise, dust will accumulate and eventually cannot be removed.

(1) Before cleaning the lens of the objective lens, turn off the power first.

(2) Gently wipe the lens of the objective lens with a fine cotton swab dipped in a small amount of alcohol.Use a cotton swab to wipe from the middle of the lens and make a circular movement until the edge of the lens is unscrewed.Then wipe off the remaining alcohol with a clean dry cotton swab.

(3) Turn on the power and make sure that no dust and stripes are visible on the LCD screen.

Toolbox Introduction

①Removable stool.
②Splicing machine placement area, No need to take out the machine, Open cap ready for operation.
③Fiber optic cutting knife operating platform.
④Tool placement area.

The instruction manual version is subject to change without notice