OFS-700

Warning

1. Do not use non-original battery or AC/DC adapter to power or charge the device.

2. Please remove the AC charging cable and shut down the device when come across following malfunctions, otherwise will cause the

   device damage, even person injury, death or fire.

   ◆ Smoke, odor, noise or abnormal heating

   ◆ Fluid or impurities inside the device

   ◆ Device broken

3. You are unauthorized to dissemble the device to do maintenance and repairment, any fault operation may cause the device failure to

   fix up and make the device out of warranty range.

4. Do not use the splicer in surroundings of flammable liquid/gas. Otherwise may lead to fire, even explosion.

Note

1.The device is used to splice silica glass fiber, no other usage. Please read the manual carefully before operate the device.

2.Keep the device away from high temperature or humidity environment.

3.Please do avoid dust when using the device especially in dusty environment.

4.When moving device from lower to higher temperature, please leave device until condensation elimination.

5.Keep the device away from strong vibration and shocks, otherwise will be damaged. Please use a dedicated carrier to transport or

store the fusion splicer

* All is subjected to the physical products, the manual here is only for reference.

Standard Package

Carrying Case

AC/DC Adapter

Fiber Cleaver

Tweezer

Cooling tray
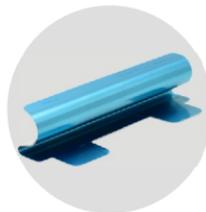
Blowing cleaner

Spare electrodes

CD

Fiber stripper

Introduction

1	Clamp slot
2	V-groove
3	Electrode
4	Objective lens
5	Windshield cover
6	Optical fiber presser
7	LED
8	Electrode cover
9	Heater V-groove
10	Heater cover
11	Multi-functional clamp
12	Portable rope
13	5 inch LCD
14	Battery
15	USB connector
16	Power supply socket
17	Anti-collision batten
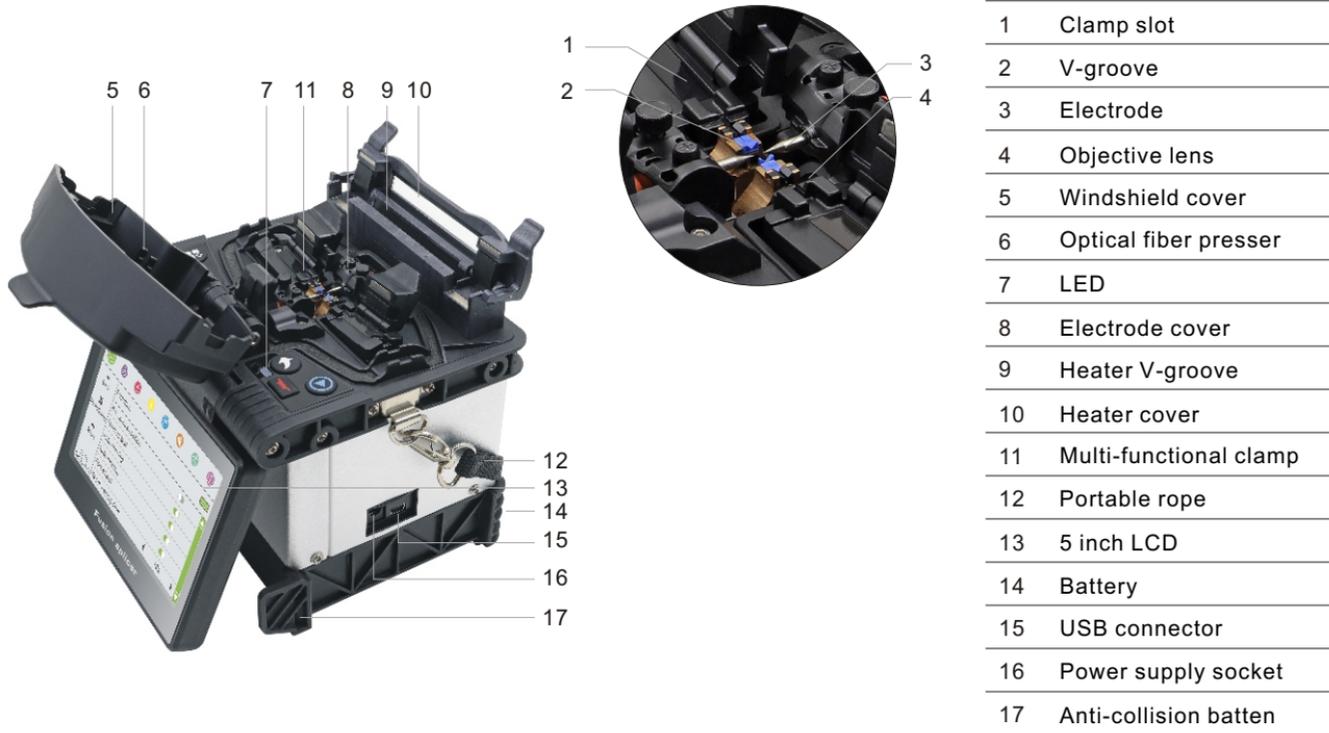
Operation Keyboard

ON/OFF Key
• Power on/off

MENU/CONFIRM Key
• Enter into the menu
• Confirm to save

NEXT Key
• Switch to next option
• Switch X/Y view

Power LED

BACK/ RESET Key
• Return/ Motor reset

START/ADD Key
• Start splicing
• Adjust the parameters

HEAT Key
• Start heating

Heating LED

Splicing Operation

Placing protection sleeve over fiber ← ⏻ Turn on

Stripping, cleaning, cleaving fiber

Loading fiber onto splicer

Start splicing

Visual inspection on LCD during splicing

Tension test (when "ON" mode)

Taking out spliced fiber

Centering sleeve to spliced point

Centering sleeve in heater

Start heating
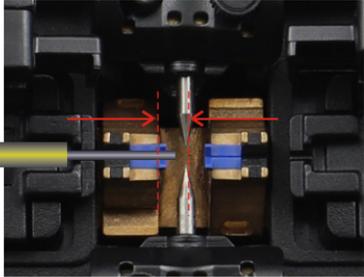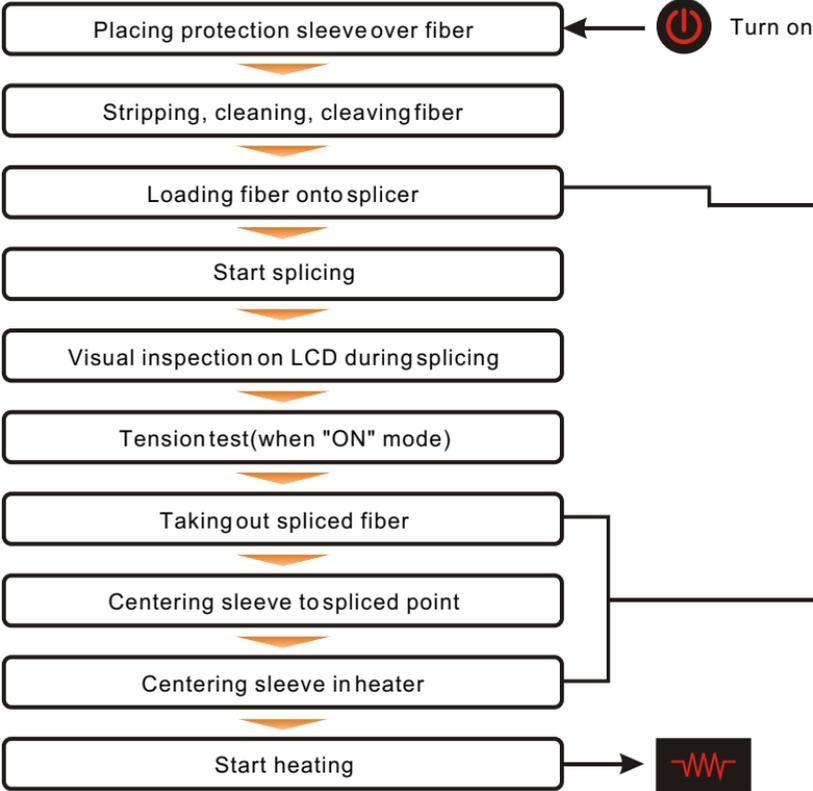
Note: Place fiber between electrodes tip and V-groove end

Hold   Pull

Marking
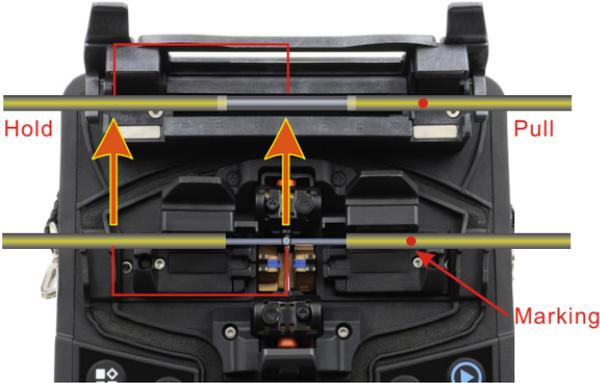
Function

Press " ➡ " key to select each sub-menu, then press " 🎁 " key to enter each setting interface, and " ▶ " key to set the configuration, finally press " 🎁 " key to comfirm the setting value.

	Function	🔋
← Back	Arc compensation	⚪
	Tension test	🟢
🎛 Menu/Enter	Auto starting	🟢
	Auto heating	🟢
➡ Next	Force heat	🟢
10:33 03/07/2019	Reset waiting time	◀ 10s ▶

- If "ON", it will execute tension test automatically after splicing.
- If "ON", it will auto start splicing after closing the cover.
- If "ON", it will auto start heating after closing the cover.
- If "OFF", when detecting no fiber in heater, it won't heat even press " 🔥 " key; If "ON", whether detecting having fiber or not, it will heat after press " 🔥 " key.
- The waiting time for auto reset after closing the lid, and only valid when Tension Test "OFF".

Splice Set

SpliceSet		
Fiber type	◀ SM ▶	Set fiber type based on current fiber type.
Splice operate mode	◀ Auto ▶	Auto, Half-auto, Manual.
Splice program No.	◀ SM-1 ▶	Set splicing program number, Max. 800 groups.
Arc cleaning time	◀ 120ms ▶	Clean tiny dust on fiber end by a short arc discharging(0-0.2s).
Surface angle threshold	◀ 3.0° ▶	Set the limit value of fiber end surface angle(0-8°), if over, then prompt error information.
Fiber angle threshold	◀ 0.8° ▶	Set the alignment angle of left/right fiber(0-4°), if over, then prompts error information.
Align offset threshold	◀ 0.4um ▶	Set central deviation of left/right fiber(0.0-1.5μm).
Loss threshold	◀ 0.05dB ▶	If splicing loss is over setting value(0-0.2dB), LCD displays arc compensation.
Compensation arc time	◀ 1000ms ▶	Set arc compensation time, it can reduce splicing loss under certain circumstances.
Fiber alignment mode	◀ core align ▶	Fine align, cladding align and core align(Default).
Fast splice mode	⚪	ON/OFF, if "ON", fast splicing time can be 7s.
Force splice	🟢	If "ON", when detecting fiber angle unqualified, user can press START key to continue splicing, otherwise, it will exit splicing.
Edit splice program	❯	Next page for details.
Fiber standard	◀ medium ▶	Set the Cleanliness standard of cutting fiber.

Back

Menu/Enter

Next

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Splice Set- Edit splice program

Splice setting		🔋
Pre-Splice time	◀ 120ms ▶	Set the pre-discharge time before final splicing.
Pre-Arc current	◀ 701bits ▶	Set the pre-discharge strength before final splicing.
Splice time	◀ 1.6s ▶	Set splicing time.
Arc current	◀ 801bits ▶	Set the arc current.
Overlap length	◀ 8um ▶	Set the overlap length of fiber propel when splice.
Splice propulsion speed	◀ 30um/s ▶	Set the propulsion speed of motors when splice.
The second arc	🟢	Set the second arc on/off.
The second arc time	◀ 1.0s ▶	Display when the second arc on.
The second arc current	◀ 801bits ▶	Display when the second arc on.

← Back

▦ Menu/Enter

➡ Next

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Heating Set

SleeveSet		
Heating Program	◀ 1 ▶	The device pre-stores heating programs for various protection sleeves, user also can self-define as required.
Casing type	◀ 40mm ▶	10mm-60mm protection sleeve.
Heating temperature	◀ 210℃ ▶	Set the Max. temperature during heating.
Casing diameter	◀ 6mm ▶	1-8mm.
Heating time	◀ 25s ▶	Set the heating time.

← Back

Menu/Enter

→ Next

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Help Info

User can check the explanation of function buttons in Help info interface.
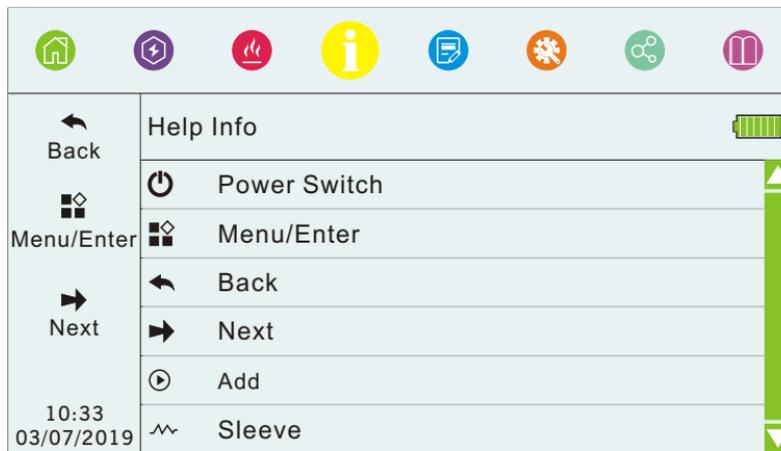
Back

Menu/Enter

Next

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Help Info

⏻	Power Switch
	Menu/Enter
←	Back
→	Next
⊙	Add
∿	Sleeve

History

Back

Menu/Enter

Next

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History

Total Arc number	◄	0	►	— — — Total arc times since last clear.
Clear Arc count			›	— — — Please clear arc times when replacing new electrodes.
Total records	◄	6	►	— — — Total Splicing records.
View records			›	— — — 10000 data storage. Enter to check splicing date, fiber angle, fiber type,
Delect records			›	estimated loss.
Query fault records			›	
Delete fault records			›	

Back

Menu/Enter

Next

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Splice Records

No.	Date	Angle	Type	Loss
00001	21-05-18	0.0	SM	0.02
00002	13-07-18	0.0	SM	0.02
00003	13-07-18	0.0	SM	0.01
00004	13-07-18	0.3	SM	0.02
Total: 7	Pages: 2		Current: 1	

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Maintain

User can do some daily maintenance in Maintain menu,and operate as its prompts in device.

Maintain	
Arc correction	>
Clean electrodes	>
Replace electrodes	>
Light correction	>
Detect system parameters	>

Back

Menu/Enter

Next

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Light test

1st:Ensure that no fiber exist in the vision.

2nd:Press 'Menu' key and follow the prompts .

Back

Menu/Enter

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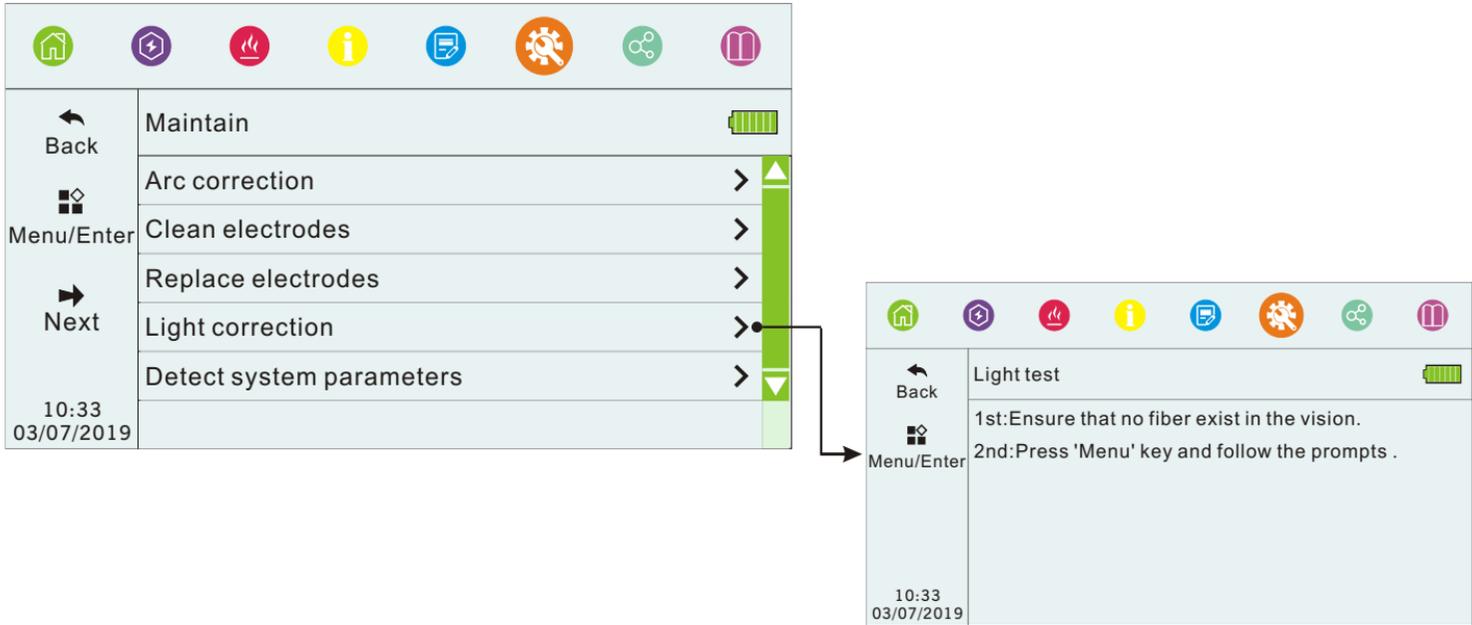
Maintain- Arc correction

When coming across sudden changes of external environment, especially temperature, humidity or air pressure, and aging/dirty of electrode, continuous splicing failure or high loss, unused for a long time, over-used electrodes, or after cleaning/changing electrodes process…etc., then should do arc calibration to adjust the arc intensity, and auto calibrate to standard intensity to reach splicing with low loss and high stability.

1.In Maintain menu,select the "Arc correction".

2.Place prepared fiber,then close the cover or press " " key to start arc test.

3.If prompts "Arc current too high" or "Arc current too low",please do it again.

4.If prompts "Arc correction failure", please exit and do it again .

5.If success,then press " "key to exit.

Note:

a) The limit cutting angle for arc correction is set separately.

b) Please do arc correction for several times and do as the

    prompts shows.

Arc Test

← Back

Menu/Enter

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1st:Place fiber and covering the wind cover.
2nd:Press 'Menu' key and follow the prompts.
Saveral times is needed.Please wait patiently.
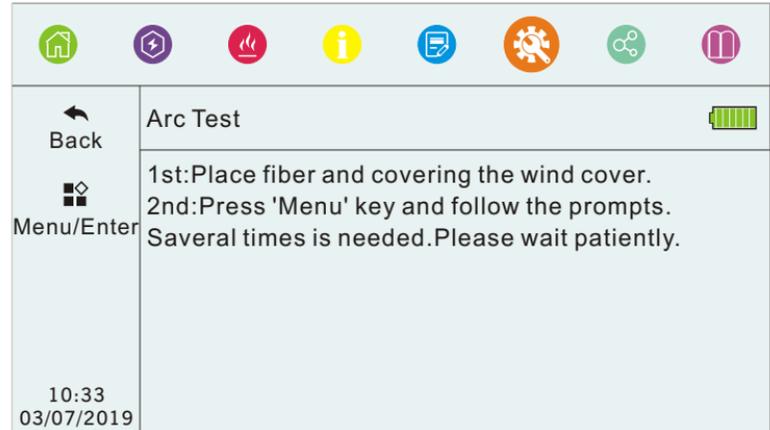
Maintain - Clean Electrodes

If unused for a long time, impurities will attach to the electrodes surface and affect the discharge, so should clean electrodes regularly.

1.Press the power key to turn on the device, then power indicator displays red.

2.Enter "Maintain" menu to select "Clean electrodes".

3.Press " 🔳 " key to start auto discharge(5 times), and gasify the impurities through large discharge current in order to stabilize the current and clean the electrodes.

Note: During cleaning, do not touch the electrodes tip with a hard object to avoid damage to the electrodes and affect the splicing.

⬅ Back	Clean Elect	🔋
▪️ Menu/Enter	1st:Ensure that no fiber exist in the vision. 2nd:Press 'Menu' key and follow the prompts.	
10:33 03/07/2019		
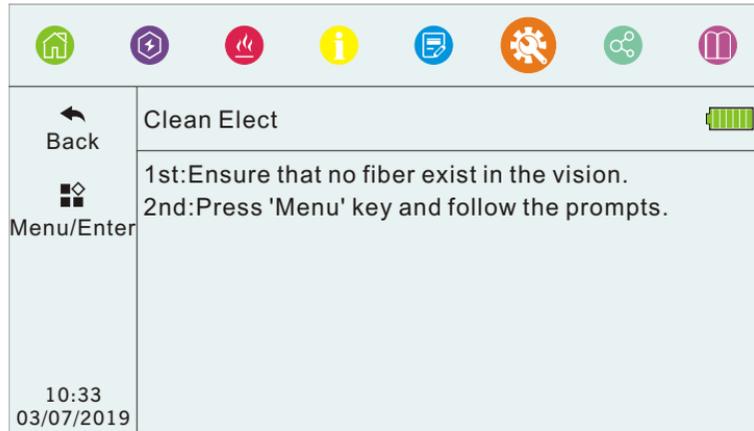
Maintain-Replace electrodes

	Replace Elect	
← Back		🔋
▦ Menu/Enter	1st:Turn off and replace the old electrodes. 2nd:Ensure that no fiber exist in the vision. 3rd:Press 'Menu' key and follow the prompts. After the operation is completed,the number of discharge will be set to 0.	
10:33 03/07/2019		

Loosen screws

Remove the electrode cover

Remove the old electrode

Tighten screws

Place the electrode cover

Install the new electrode

Maintain- Detect system parameters

This function is to do self-diagnosis test and detect several key parameters related to the splicer.And to get better splicing result, we suggest do this operation after system upgrade,electrodes replacement or movement,long-distance transportation and strong vibration,continuous splicing failure or high loss and successive overshoot during alignment.

1. Clean the V-groove with a cotton swab dipped in alcohol, and clean the prepared fiber. This step is important, please ensure to operate as above.

2. Enter "Maintain" menu, then select "Detect system parameters" and press " 🔲 "key to enter.

3. Place the prepared fiber and close the cover, then press " 🔲 " key to start system calibration.

4. Usually last 2 minutes, if fails, please follow the prompts to correct, and repeat step 1 to self-detect again.

5. Press " ⬅ "key to exit system calibration if success.

SysCalibrate

↩ Back

🔲 Menu/Enter

1st:Clean the V-grove,place fiber and covering the wind cover.
2nd:Press 'Menu' key and follow the prompts.
This operation will last for a few minutes.
Please wait patiently.

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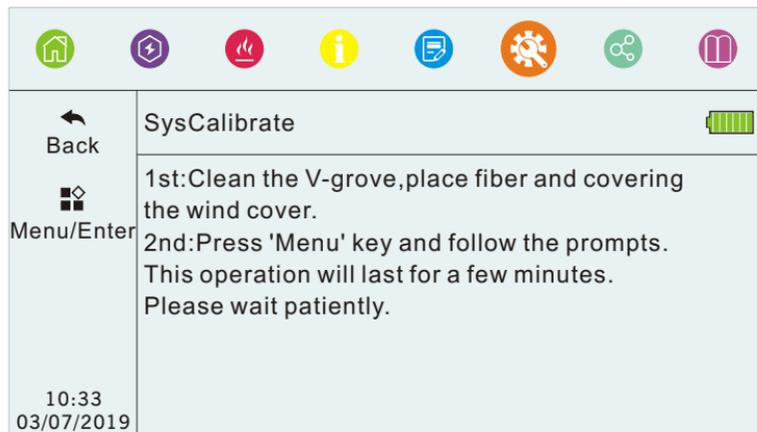
Fusion Splicer Cleaning

V-groove

Objective Lens

Fiber Presser

• When cleaning, keep the device off
• Use cotton swabs dipped in pure alcohol

The Heater

• Do not touch the electrode tips
• Clean excess alcohol with dry cotton swabs

System

Back

Menu/Enter

Next

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System		
Brightness adjustment	◀ 100% ▶	Adjust the brightness of LCD.
Language selection	◀ English ▶	
Screen flip	◀ Flip ▶	The LCD interface rotates 180° to adapt the LCD in different orientations.
Time setup	≫	Set the current date/time.
Restore factory settings	≫	Restore all system parameters to factory settings.
Power saving mode	≫	Set auto sleep and the time of auto shut down.
Silent mode	◀ off ▶	Turn on/off the buzzer. (pressing the confirmation key to confirm)
Version	≫	Version information.

Battery Information

Battery information shows on the upper right of LCD, and will present different color and graphics in different battery capacity, and also can be checked in system menu.

■◇ ■■	SM_1	40_6mm	Auto	10:33	▐▐▐▐ ➡

X

Y

↩ Place Splice ▶
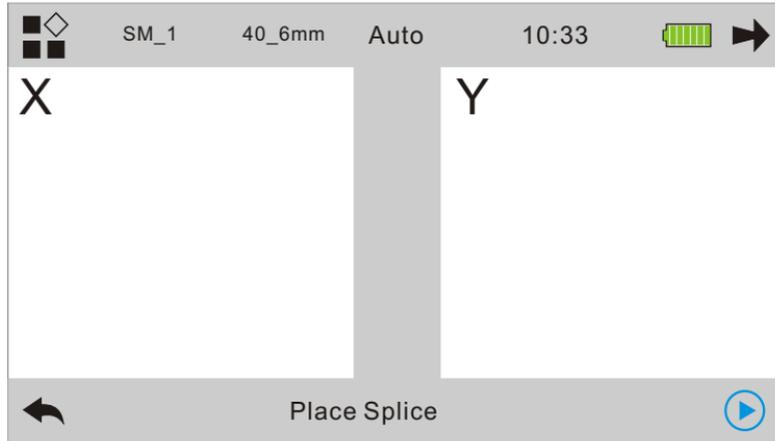
Remain 100%	Less than 10% shows red icon	Charging	Fully charging

Abnormal alignment

Graphics (X/Y axis)	Prompts	Possible reasons	Measures
	Right fiber placement error	Right fiber is not placed in V-groove or cutting length is too short	Place and cut the fiber again
	Left fiber placement error	Left fiber is not placed in V-groove or cutting length is too short	Place and cut the fiber again
	Alignment abnormal	Left/ right fiber is not placed in V-groove	Place and cut the fiber again
	Reset the fiber	Left and right fibers are cleaved too short	Place and cut the fiber again
	Reset the fiber	Left and right fibers are cleaved too long	Place and cut the fiber again
	Optical fiber angle disqualification	Problems in fiber cleaving (protruding tips, burrs, bevels, concave cores, etc.)	Cut the fiber again
	Fiber disqualification	Fiber end face has dust	Clean and place fiber again

Troubleshooting

Abnormal working	Reasons	Measures
Abnormal noise when discharging	Improper installation position of electrodes	Please re-install the electrodes strictly based on the requirements
Discharge delayed or failure	1.Improper installation position of electrodes	1.Please re-install the electrodes strictly based on the requirements
	2.Electrode tips are with silicon oxide	2.Clean the electrode tips or replace the electrodes
Device crashes when discharging	Wrong installation position of electrodes	Please re-install the electrodes strictly based on the requirements
Arc calibration failure	The current environment has a great impact on discharging	If continuously prompts high current, please decrease the "splicing current", then do "arc correction", and vice versa. If arc correction fails many times, please contact the after-sales service.
Fiber alignment failure	1.There is dust on objective lens, LED or V-groove	Clean the objective lens, LED and V-groove, if cannot solve, please contact our after-sales service.
	2.The fault of fusion splicer power system	
Poor quality of splicing point	1.There is dust on the fiber	1.Re-prepare the fiber and splice again
	2.Choose the wrong fiber type or splicing program	2.Choose the right fiber type and splicing program
	3.Big changes of splicing condition	3.Do arc calibration to reach a proper arc intensity
	4.The control motor failure	4.Do system self-detection
No response after press keyboard	Abnormal system operation	Restart the device
No light or blurred in LCD	1.Abnormal system operation	Restart the device, if cannot solve, please contact our after-sales service.
	2.LCD cable is loose or broken	
Failure splicing after discharging	Abnormal discharge or system operation error	Please do arc correction, then continue the splicing, if still cannot solve, please restart the device
Fiber is out of visibility during alignment process.	1.The fiber is placed outside the V-groove	1.Please place the fiber again to ensure it in the V-groove.
	2.Abnormal system operation	2.Enter "Splice Set" → "Splice operate mode" menu, choose "Manual" mode, and select left/right fiber, user can control left/right fiber by direction buttons and move it to the center of visible field, then do system self-detection.