ACUTEQ

Fiber Fusion splicer

-user manual

Acuteq Instruments Inc

Chapter 1 Overview

Thank you for choosing our Acuteq fiber fusion splicer! This manual will introduce fusion splicer features and also operation methods. The machine is applied innovative design and exquisite manufacturing technology to give users unprecedented welding experience.
The new technical shortens welding and shrinking time; micro-level parallel clamping, spindle high precision alignment algorithm And advanced contour direct view technology to ensure the accuracy of the welding loss estimation; lightweight body and fine design, Toughly outer casing can meet the working requirements in various of harsh environments; touch screen applications and fully automatic welding procedures make operations more convenient.

Chapter 2 Technical Specifications

Specification	Details
Fiber Type	SM(ITU-TG.652&G.657) , MM(ITU-TG.651) , DS(ITU-TG.653) , NZDS(ITU-TG.655)
Fiber Diameter	0.25-0.3mm / Indoor Cable
Splicing mode	Default 41 splice modes. Maximum 100 modes
Typical Splicing Loss	SM:0.02dB/MM:O.OldB/DS:0.04dB/NZDS:0.04dB/G.657:0.02Db (According to ITU-T)
Return Loss	>=60 dB
Light	3 LED Lights
Splicing Time	SM FAST ： 6 seconds
Splice loss estimation	Yes
Fusion length	20-60mm
Heating Oven	Default 5 types of Protection sleeves: 20mm , 30mm , 40mm , 5Omm , 60mm ； Maximum 50 heating mode.
Heating Time	Heating Time： 20-900s Typical Heating time： 15-30 s
Storage	1,000 records
Pull Test	1.5-2.0N
Display	90℃ dual camera，5 inches,800*480 Colorful Touch Screen
Fiber amplification and display	X , Y , X/Y 5OOX amplification
Power Supply	AC 100-240V, DC 12-I5V
Battery capacity	5200 mAh
Heating Times	280 times
Operation	Buttons and Touch Screen
Adaptive discharge	Automatically adjusted according to air pressure and outside temperature
Electrode Lifetime	3000 times
USB Port	Mini USB 2.0
Fiber alignment	Cladding Alignment or Core alignment (Depends on Model)
Weight	Main unit (with rubber protection casing) 2KG, (without rubber protection casing) 1.7KG; battery weight 0.38KG
Size	with rubber protection casing： 140W*I65L*160Hmm，without rubber protection casing： 130W*165L*150Hmm
Operating	Altitude: 0-5000 meters, Relative humidity 0-95%, -10 - 50 °C,
Storage	Relative humidity 0-95%, -40-80 ° C, battery storage: -20-30 ° C long-term storage

Chapter 3 Installation

3.1 Security warning

The fusion splicer is designed for the connection of quartz glass fibers and cannot be used for any other purpose. The fusion splicer is a precision instrument that should be handled with care and always in accordance with the following safety regulations and practices:

- Do not use the fusion splicer in high-explosive hazardous situations.
- Do not expose the fusion splicer to open flames, electric shock, rain or moisture;
- Do not touch the fusion splicer electrode at any time in an accelerated state;
- Wear protective goggles during fiber preparation and fusion. Otherwise, fiber debris entering
- the eyes, skin, or swallowing may cause very serious consequences.
- Do not disassemble any parts of the fusion splicer except for the parts that are allowed to be replaced by the user in this manual. Replacement parts and internal adjustments can only be made by the manufacturer or by a maintenance personnel authorized by the company;

- Choosing the original battery/power adaptor only. Choosing improper AC power/adaptor may cause fuming, electric shock and equipment damage. It may even cause fire, personal injury or death;
- When charging the battery elbow, do not stack the battery and adapter together to avoid fire or danger.

- When the fusion splicer encounters the following conditions, please remove the battery immediately;

  Fuming, Smell, abnormal sound or abnormal heating; liquid, External object entering fusion splicer; damage or breakage of the machine;

If these matters happen, please contact the service center immediately. If the measures are not taken in time, the machine may be completely scrapped. Even causing fire, human injury or death;

Note:

Do not touch the electrodes when the splicer is on and power is supplied to the unit the electrodes generate high voltage and high temperatures that may cause a severe shock or burn.Arc discharge stops when wind-protector is opened. Turn the splicer off and disconnect the AC power cord before replacing electrodes.

3.2 battery attention top

- Do not transport or store batteries with metal objects;
- Do not charge or discharge in low temperature or high temperature, Possible to reduce battery life or accidents;
- Do not connect the positive and negative terminals of the battery with metal objects in case of short-cuts;
- Do not disassemble the battery or put it into the fire;

The battery certainly has its lifetime. If battery pack's power is 100% chared but working time is very short, Please replace the battery;

- After charging the battery pack with the power adapter, disconnect the power adapter in time. The fully charged battery is in the power supply state of the adapter for a long time, which will cause greater damage to the battery and unexpected events.
- Do not heat or throw the battery into the water;
- Do not charge the battery near fire or in a hot environment;
- Do not put the battery into microwave oven or high pressure container;

It is forbidden to use or place the battery for a long time under high temperature (such as strong sunlight or very hot steam), otherwise it will cause the battery to overheat, reduce the fire or reduce the functional life;

- Please do not use the damaged battery. If the electrolyte leaks or the electrolyte is discharged keep the battery away from the fire source to avoid the battery from catching fire or exploding. If the electrolyte leaks and comes into contacting with skin or other body parts, Clean it by water immediately . If the electrolyte comes into contacting the eyes, Clean it by water immediately and also seek medical.

3.3 Maintenance

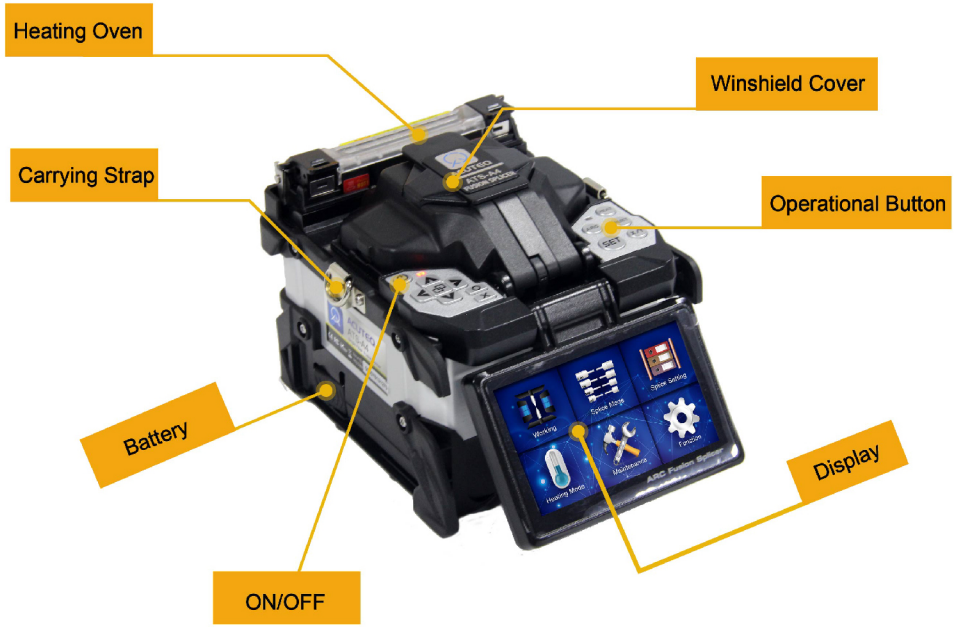
- Regularly check and clean the V-groove, Do not use tough objects to clean the V-groove or the electrode rod;
- Use a dry cloth to remove dust and dirt from the fusion splicer;
- If the appearance of the fusion splicer is not clean, Do not use propylene, paint thinner. Customers can use soft cloth which is with neutral cleaning solution to clean the fusion splicer.

3.4 Transportation and storage

- Do not store the fusion splicer in excessively dusty or humid environment. Otherwise, it may result in electric shock. Performance of the fusion splicer may be also degraded;
- Keep the minimum humidity during storage, the relative humidity should be less than 95%;
- When the fusion splicer is transported from cold environment to warm environment, Please try gradual heating method, otherwise condensation will be generated inside the instrument, which will adversely affect the instrument;
- The fusion splicer has been precisely adjusted and calibrated. Please try to avoid strong impacting and vibration. Please use a special carrying case for long-distance transportation;
- Avoid to keep instrument in direct sunlight situation or place in overheated environment;
- In order to maintain the performance of the fusion splicer, it is recommended to do to calibration once a year;
- The fusion splicer must be repaired and debugged by professional technicians. If there is any problem, please contact the manufacturer;

Chapter 4 Basic Operations

4.1 Appearance and power supply



4.2 Power supply

Remove Battery by releasing this button

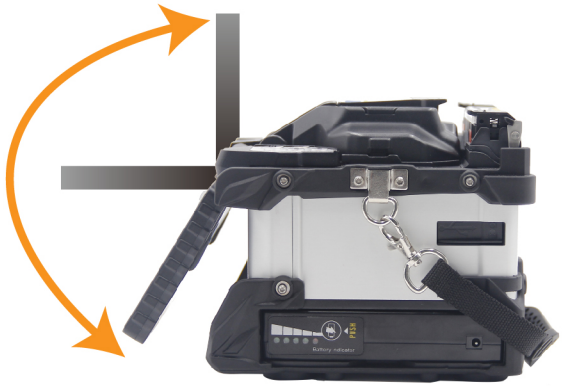
Insert battery as per arrow shows

4.3 Power on

Press Power On, And wait Splicer to be ready

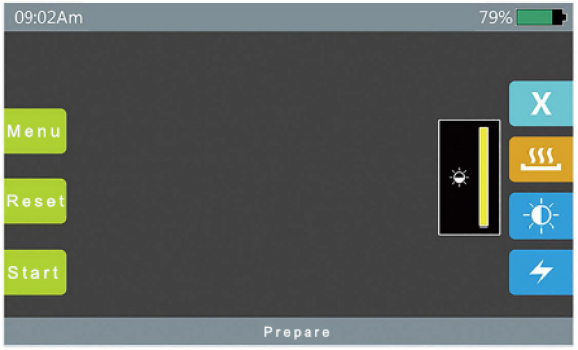
4.4 Adjusting the display position

Adjust the display to the best angle for easy operation.



4.5 Adjust the height of the LCD backlight

Under the initial interface, adjust the brightness of the LCD backlight until it is clear.



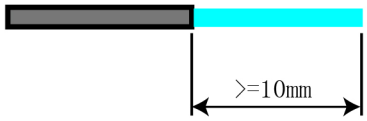
4.6 Prepare for Fiber Cutting:

Before splicing Fiber, three steps are essential to prepare the fiber:
1, Stripping coating
Stripping the sheath to leave length about 50mm (Either tight or loose buffer), and removing the coating about length 30-40mm. .
2. Clean the fiber with alcohol.
3, fiber cutting
In order to ensure the quality of welding, high-precision fiber cleaver should be used for cutting, and the length of fiber cutting should be strictly controlled (as shown in picture).

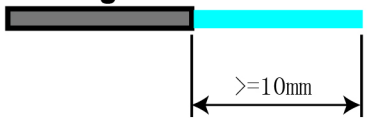
Note:
Remember to put on the heat shrink sleeve before all operations.

[Important]
Make sure the bare fiber and the cut surface are not dirty.
Avoid placing the fiber on a dirty countertop;
Make sure fiber cleaver is clean, otherwise it has to be cleaned by using alcohol.

Tight clad

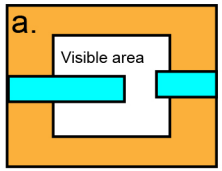


Coating

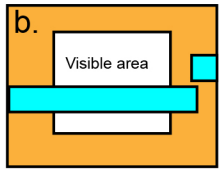


4.7 Inspection automatic

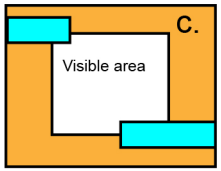
After the fiber is loaded into the fusion splicer, Start the fusion splicer. Splicer will perform discharge cleaning automatically before welding. After discharging cleaning, check the cutting angle and the quality of the cutting end face. If the measured fiber cutting angle is worse than the set limit value, or the end face is burred, the buzzer will alarm and the display will also pop up warning info to advise operator.



The fiber end face is shown in the visible area.



The fiber end face is beyond the visible area of the lens.



The fiber end face is above or below the visible area of the lens and cannot be found automatically.

1. The cutting angle is too large

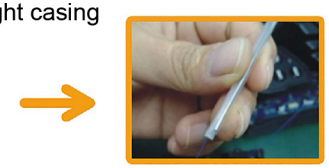
2. Highlighted.

3. Fiber core.

4. There is dust on the surfaceof the bare fiber.

4.8 Fusion steps

1 Turn on the fusion splicer power supply. When Fusing SM fiber (ITU-T G.652) only, Please select the [SM Mode] mode.
2 Confirm the welding and heating mode. When Fusing different types of fiber, Please select the [Auto Mode] mode. In the case, Speed will be slower.
3 Clean the fiber coating or tight casing

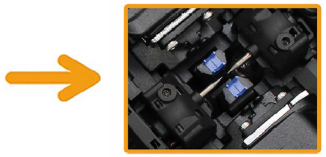


Insert the fiber into the heat shrink sleeve

4 Strip fiber and clean fiber, please use alcohol with concentration more than 99%

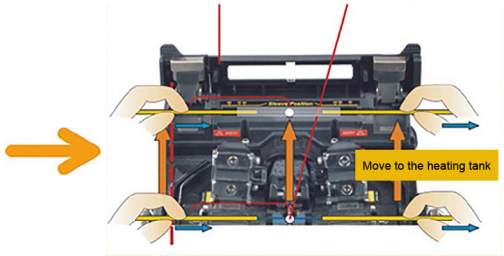
Please ensure that that stripped fiber, coating residue or other contaminants have been removed

5 The electrode rod is placed between the edge of the V-groove and the center of the connection of the two pole electrode rods.
6 Once Covering the windshield, Machine will start the fusion welding process automatically. During this time, operator can view the LCD screen.



***Note*:**
Do not slide the fiber along the V-groove. The fiber cut surface should be beyond the V-groove position, but it should not exceed the tip of the electrode rod.

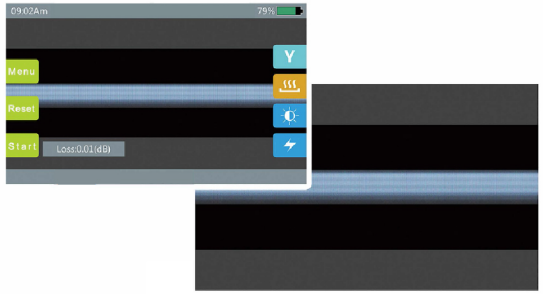
7 Take out that Spliced fiber and place the heat shrinkable tube in the middle of the heating oven. Move the fiber so that the fusion point is at the center of the heat shrinkable sleeve, then cove the heating furnace cover to start heating.



8 Process Finished

4.9 Screen zoom function

The user can click the screen twice to zoom the fiber splicing in screen. Through the Screen, Customer can determine whether the splicing status is good or not.

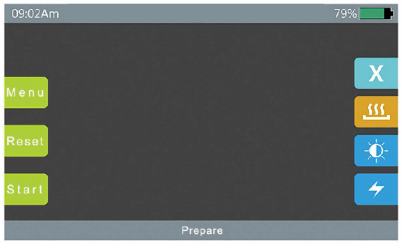


Chapter 5 Splicing Mode

There are various fusion options modes inbuilt in this fusion splicer. Splicing Options define the splicing current, the splicing time, and other important parameters. It is necessary to choose the proper splicing mode.

5.1 Current splice mode

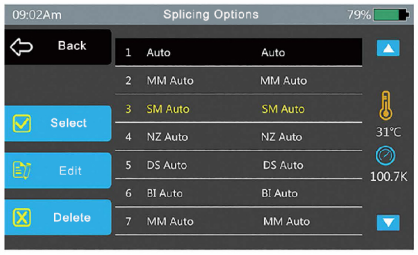
The current splice mode will be displayed at the top of the screen



Currently efficient [splicing mode]

5.2 Select the splicing option

Click to select the [Splice Menu]



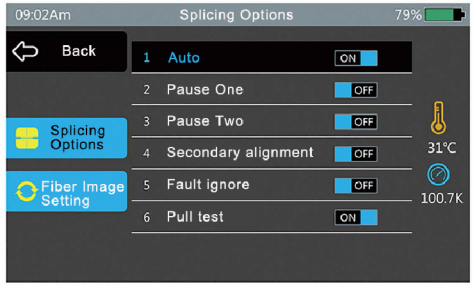
Select [Splice Option], choose the suitable splice option and press the Select button (the yellow font is the currently selected splice option)

View the selected fusion mode
Press [Back] to go back to the previous menu.

5.3 Splicing parameters of the general welding process

Parameters	Description
Form	A list of splicing patterns stored in the splicer data, according to the splicing mode selected by the user Selected items stored in the database will be copied to the user editable area.
Name	The title of the fusion mode, up to 7 characters.
Remarks	Detailed explanation of the fusion mode, up to 15 characters. Displayed in the [Select Fusion Mode] menu
Pull Test	If [Tension Test] is set to [NO], the tension test will be performed when the windshield is opened after the welding is completed or when the [SET] button is pressed.
Loss estimation	The loss is just the estimation of the connection loss, and the fusion splicer calculates the loss of the splicing point based on the fiber image. There is a certain deviation from the true value. The algorithm for estimating the loss is based on a single-mode fiber. The transmission wavelength is 1.31 um. The estimated value has a good reference value in the case of good splicing, but it cannot be used as The basis for project audition.
Fiber angle value	An error message will be displayed if the cutting angle of either side of the left and right fibers exceeds the selected cutting angle limit.
spacing	Set the distance between the left and right fiber end faces during alignment and pre-melting discharge.
Overlap amount	Set the overlap value for fiber pushing. If the [Pre-Splicing discharge intensity] is low, Relatively small amount of [overlap] is recommended. If the [Pre-Splicing discharge intensity] is high, it is recommended to use relatively large [overlap amount].
Cleaning/discharge time	The cleaning discharge can burn out tiny dust on the surface of the fiber Discharging time can be set based on different conditions.
Cleaning discharge intensity	Set the clean discharge arc intensity.
Pre-Splicing discharge strength	Set the pre-discharge intensity from the start of discharge to the fiber propulsion. If The [Pre-Splicing discharge intensity] setting is too low, the axial deviation of the fiber will occur in the case when the fiber cutting angle is relatively poor. If [Pre-Splicing discharge intensity] is set too high, the fiber end face may be melthed cause high tempeture, Then the splice loss will become high.
Pre-Splicing discharge time	Set the discharge time from covering the windshield to the fiber propulsion. Long [Pre-Splicing discharge time] and high [Pre-Splicing discharge intensity] will result in the same result
Fusion discharge strength	Set the intensity of the arc discharge
Fusion discharge time	Set the time for arcing discharge

Chapter 6 Splicing Options



Go to the [Splicing Options] menu.
Click on the selected item to modify the parameters.

Name	Parameters	Description
Splicing Options	Auto	If the automatic start setting is [ON], Splicing Procedure will start automatically as long as the windshield is closed. Fiber should be prepared in advance and placed in the fusion splicer.
	ir	If [Pause One] is set to [ON], the splicing process will stop when the setting of fiber propulsion is finished. And the value of the cutting angle can be seen.
	Pause Two	If [Pause 2] is set to [ON], the operation is paused after the fiber alignment is completed.
	Secondary alignment	After long-time [Pause 2] status, the alignment may fail. Therefore, after the [Pause II] status, the fusion splicer performs the re-alignment function. If Setting this function to [OFF], Splicer will prevent the realignment function. When axial displacement happens during [Pause 2], it is recommended to use the manual welding mode. It is also recommended to set this function to [OFF], when the re-alignment is not required.
	Fault ignore	Ignore the splice error. For example, if the cutting angle exceeds the threshold and the function is set to [ON], the splicing procedure can be continued.
	Pull test	If [Tension Test] is set to [ON], Once the welding is completed, Please open the windshield to perform the pull test.
Fiber image setting	Fiber spacing setting	Set how the fiber is displayed on the screen during splicing.
	Pause One	
	Alignment	
	Pause Two	
	Discharging	
	Estimatation	

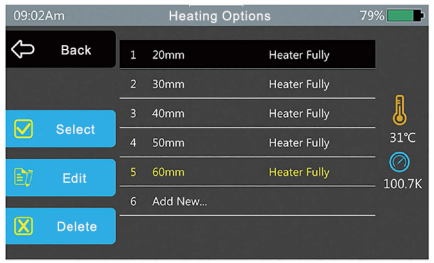
Chapter 7 Heating Mode

There are 50 heating options in the fusion splicer. 5 of them are default and rest of them can be edited by users. Select the suitable heating mode that meet the heat shrink tube. For different types of heat shrink sleeve, the user can edit the corresponding parameters in heating option.

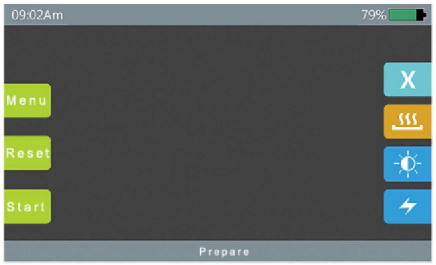
7.1 Select heating Option

Select [Heat Menu]

Select [Heat Menu]



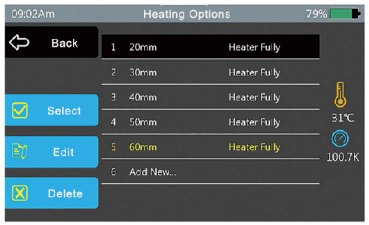
Select the required heating mode, a
nd press the button (the yellow font
is the currently selected heating mode)



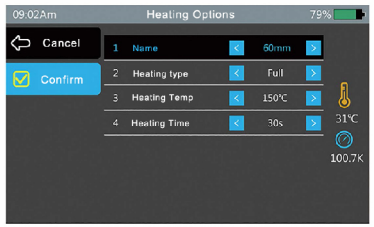
View the selected heating mode
Press [Back] to go back to the previous menu

7.2 Edit heating mode

The heating conditions existed can be edited and modified.

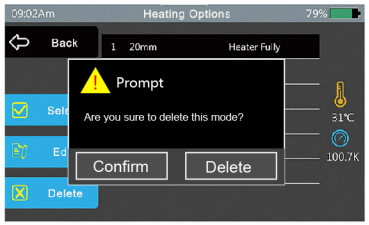


Go to [Heating Mode] and select the heating mode you want to edit. Select [Edit] to enter [Edit Heating Mode



Select the parameter you want to edit and edit it. After editing, select [Confirm]

7.2 Edit heating mode



Go to [heating mode] and select the one you want to delete.
Select [Delete]. A Pop-box appears, select [Confirm].

Parameters	Description
Name	**Heating Mode**
Heating type	**Customer can choose {Full} (all heating) or {Part} partial heating based on different applications.**
Heating Temp	**Setting heating temperature**
Heating Time	**Set the time from Starting to the end of heating**

Chapter 8 System Maintenance

8.1 Dust inspection

The fusion splicer detects the fiber by imaging. Dust and dirt on the camera and objective lens may cause poor fusion results.

Steps

- Select [Dust Check] in [System Maintenance].
- If the fiber is placed in the fusion splicer, remove the fiber and press the [SET] button to start the dust check.
- If dust is found during the test, the screen will prompt [Execution failed] and display the location of the dust. Clean the objective lens and do [Dust Check] again until the screen prompts [Execution Complete].

Note:

If the dust is still there after cleaning the objective lens, please contact the distributor.

8.2 Motor calibration

The motor has been adjusted before shipping to customer. However, These settings may change for various reasons. This feature will calibrate motor speed automatically .

Steps

- Select [Motor Calibration] under [System Maintenance].
- Prepare the fiber and place it into the fusion splicer. Then press the [SET button.
- Speed of all motors will be automatically calibrated. After completion, it will prompt [Execution completed]

8.3 Stabilizing electrode

When the external environment suddenly changes, the discharge intensity sometimes becomes unstable, resulting in increase in the splice loss.Especially when the fusion splicer moves from a low altitude to a high altitude, it takes some time to stabilize the discharge intensity. In this case, the fusion splicer can accelerate the process of stabilizing the discharge intensity by stabilizing the electrode, and it is necessary to perform several times tests until the screen displays [execution completed].

Steps

- Select [Stabilized Electrode] in [System Maintenance].
- Place the prepared fiber into the fusion splicer.
- After pressing the SET button, the fusion splicer will automatically execute the stabilizing electrode according to the following procedure:

--Repeat discharge 5 times to determine approximate electrode position
--Fast fusion fiber.
--Performing 16 stable electrodes to identify electrode position precisely.

8.4 Discharge Correction

Environments such as temperature, humidity, and air pressure are constantly changing, which causes the temperature of the discharge to constantly change.The machine is equipped with a temperature and air pressure sensor, which can feedback the parameters of the external environment to the control system to adjust the discharge intensity to maintain a stable state.However, the change in discharge intensity due to wear of the motor and adhesion of the fiber debris cannot be automatically corrected, and the discharge center position is moved to the left or right when the position is high.In this case, the fiber fusion position is offset relative to the discharge center, and a discharge correction is required to solve these problems.

Note:

The discharge correction changes the internal condition parameters, and the discharge intensity value in the fusion mode does not change.

Steps

- Select [Discharge Correction] under [System Maintenance] to display the discharge correction screen.
- Prepare the fiber and place it in the fusion splicer. Press [SET] to start the discharge calibration.

If the prompt is completed, re-cut the fiber for discharge calibration, and do not exit the discharge calibration page.

Note:

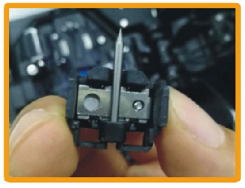
The discharge calibration requires multiple operations to make sure it will be successful.

8.5 Electrode setting

Cause of lifetime, The electrodes should be cleaned or replaced periodically. Otherwise, the welding loss will become higher and also the welding strength will be lowered.
Set the electrode usage reminder. It is recommended customer to replace new electrodes after using over 2000 times. Also When the number of discharges of the electrode reaches 3000 times, it will prompt [Please replace the electrode rod] after turning on the machine.

To replace the electrodes, press [Replace Electrode] in [Electrode Setting] or just turn off fusion splicer and replace it.

- Remove the old electrode, loosen the screw attached to the electrode cover, and remove the old electrode rod.
- Be careful not to pull out the wiring when replacing the electrode rod.
- Clean the new electrodes with clean gauze or lint-free cloth moistened with alcohol, then install it into the fusion splicer. Cover the electrode cover and tighten the screws.
- It is strongly recommended to make electrode discharge correction after replacing the electrode (Procedure will be explained in this manual), otherwise splicing loss or splicing strength cannot be guaranteed.



Chapter 9 Other Functions and Applications

9.1 Data Storage

This fusion splice can store 1000 splicing results maximum.
The stored data content varies depending on the welding mode.

Display Splice record
--Go to the [Splice Record] menu and select [Show Fusion Record] to view it.

Clear Splice record
--Select the [Clear Fusion Record] option, enter the machine password, select [Enter], you can clear all the welding records.

Cancel data storage
--If the user does not want to store the splice record, select [ON] in the [Record Storage] option.

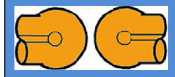
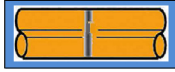
9.2 system settings

Parameters	Description
Buzzer	Buzzer switch
Temperature unit	Set the temperature display
Auto Heat	If {ON} is selected, the heating bath will automatically perform the heating procedure when the fiber is placed in the heating bath.
Language	Select language
Calendar	Set Time and Date
Password	Enter the password for some special menus. The default password is {000000}. If you forgot the password you set before, please contact your supplier.
Electrode Reminder	When the electrode discharge exceeds the setted Times, a prompt box will pop up when the fusion splicer is turned on. {Please replace the electrode} It is recommended to set this parameter to {2000}.
Electrode Warning	When the electrode discharge exceeds the setted Times, a prompt box will pop up when the fusion splicer is turned on. {The electrode must be replaced} It is recommended to set this parameter to {3000}.
Screen Auto-Off	The fusion splicer has the Auto-Off function for screen. If there is no operation for a certain period (Default is 180 seconds), Machines will turn off the display. At this point, press any key to go back to working state.
Machine Auto-Off	The fusion splicer has the Auto-Off function. If there is no operation for a certain period (Default is 30 mins), Machines will be off automatically.

9.3 System Information

Parameters	Description
Software	Software Version
Discharge statistics	Total Discharged numbers
manufacturer	manufacturer
Serial Number	Display S/N
Model	Display Model

Chapter 10: Splice loss is too large and the solution

ph Phenomenon	Term	Reason	so Solution
	Core axial translation	Dust in V-groove or fiber-optic Fixer	Clean V-groove and fiber Fixer
	Core angle error	Dust in V-groove or fiber-optic Fixer	Clean V-groove and fiber Fixer
		Poor quality of fiber end face	Check if the fiber cutter is working well
	Core bending	Poor quality of fiber end face	Check if the fiber cutter is working well
		Low pre-splicing discharge strength Or pre-splicing discharge time is short	Increase [pre-splicing discharge intensity] and / or [discharge time]
	Diameter Dismatch	Discharge intensity is too low	Increase [pre-splicing discharge intensity] and / or [discharge time]
	Dust burning	Poor quality of fiber end face	Check if the fiber cutter is working well
		Cleaning fiber Or clean the discharge without removing the dust	Remove the fiber or increase the [cleaning discharge time]
	Bubbles	Poor quality of fiber end face	Check if the fiber cutter is working well
		Low pre-splicing discharge strength or Short pre-splicing discharge time	Increase [pre-splicing discharge intensity] and / or [discharge time]
	Fiber separation	fiber propulsion value is not enough.	Select [motor calibration] maintenance
		High pre-splicing discharge strength or Long pre-splicing discharge time	Decrease [pre-splicing discharge intensity] and / or [discharge time]
	Too thick	fiber propulsion value is too much	Reduce [overlap amount] and Select [motor calibration] maintenance
	Too slin	Inappropriate discharge strength	Execute [discharge correction]
		Some discharge parameters are not suitable	Adjust [pre-splicing discharge intensity] [pre-splicing discharge time] or increase [overlap amount]
	Splicing Wire	Some discharge parameters are not suitable	Adjust [pre-splicing discharge intensity] [pre-splicing discharge time] or [overlap amount]

Note:

When different fibers (different diameters) or multimode fibers are fused, the fusion splice sometimes may generate one vertical line - [Splice wire], which does not affect the weld quality (welding loss and weld strength).

Chapter 11 Common Error Messages and Solutions

If an error message appears on the screen while using the fusion splicer, refer to the processing methods in the table below. If the problem cannot be resolved, then There may be a malfunction of the fusion splicer. Please contact your supplier.

Error message	Reason	Solution
Left/right fiber placement	Fiber end face beyond electrode center line	Reset to RESET and re-insert the fiber so that the fiber end face is between the Core line of the electrode and the edge of the V-groove
Propulsion motor travel exceeds	The fiber is not properly placed on the bottom of the V-groove, leading the fiber drifts beyond the motor's travel range.	Press reset and replace the Fiber
Left and right fiber contact	[Overlap] setting is not enough	Adjust the [overlap] parameter
	Motor is not calibrated	Perform [Calibration] Maintenance
Fiber positioning failed	The fiber is placed incorrectly in V-groove	Press the RESET button. Reposition the fiber so that it fits correctly on the bottom of the V-groove
	The fiber is not placed in the view-range of the camera	Confirm the fiber that has been stripped is placed properly in fiber cleaver.
	length (bare fiber part) is too short	Check the length
The angle of End face is too much	Fiber end face quality is too bad	Re-prepare the fiber. If the problem still exsits, check the cleaver blade. If it is worn, rotate the blade to the new side.
	[Cutting angle limit] is not enough	Increase the [cutting angle limit] to a suitable value (standard 2.0°)
Core angle is too much	[core angle limit] is not enough	Increase the [cutting angle limit] to a suitable value (standard 1.0°)
	V-groove or fiber-optic fixer are not clean	Clean the V-groove and fiber Fixer, Re-prepare the fiber and splicing.
Fiber is not clean	Fiber is not clean	Re-prepare the fiber
	Lens is not clean	Perform [Dust Check] after cleaning the lens. If it is, please clean the lens.
	[Clean Discharge Time] is too short	Set [Clean Discharge Time] to 180ms

Chapter 12 Common Faults and Solutions

The following is a list of common troubleshooting solutions for reference. If the user can't solve it, Please contact your supplier.

Phenomenon	Solution
Not able to shut down by pressing ON/OFF button	Press and hold the ON/OFF button until the LED flashes. Release the button, and the Fusion Splicer will be off.
Fully charged batteries can only lasts for few times.	When the battery is stored for a long time, the memory effect will occur. Then, the power will reduce. Therefore, please discharge the battery completely, and recharge the battery.
	this battery is closing to its lifetime, Please replace the battery
	Using the battery in extremely low condition.
Splicing loss is too large	Cleaning V-Groove, and Fiber Fixer
	Replacing electrodes, Correcting Discharge procedure, Stabling electrode
	The cutting angle of fiber, the discharge condition, and the degree of cutting of the fiber will all affect the splice loss.
The display is off suddenly.	The fusion splicer has the Auto-Off function for screen. If there is no operation for a certain period (Default is 180 seconds), Machines will turn off the display. At this point, press any key to go back to working state.
The machine is off suddenly.	The fusion splicer has the Auto-Off function. If there is no operation for a certain period (Default is 30 mins), Machines will be off automatically.
improperly Identify fiber in AUTO mode	AUTO mode is only suitable for standard SM, MM, NZ fiber. When splicing special fiber, the AUTO mode may not be able to identify the fiber correctly.
The estimated splice loss is not the same as the actual loss value	The splice loss estimate is based on calculation which is only for reference.
	Need to clean the Fusion Splicer components.
Heat shrink tubing does not shrink completely	Extand the heating time.
How to cancel heating	To stop the heating during the heating process, press the HEAT button. then the heating LED will be off.
The heat shrinkable sleeve sticks to the heating oven.	Remove the heat shrinkable sleeve by using cotton swab
forget password	Please contact with your Supplier
After the discharge correction, the discharge intensity did not change.	The discharge correction is only for Splicer internal procedure. The discharge intensity value in the fusion mode is not changed.
Forget to put the fiber when some maintenance functions need to put into fiber.	Open the windsheld cover and place he cut fiber to the fusion splicer. Press the SET button to continue, or press RESET to continue.