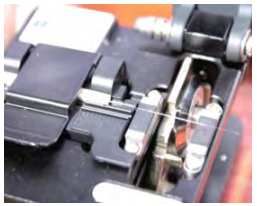
CHAPTER V FIBER STRIPPING AND PUT INTO HOLDER

Cleave fiber instructions:

Jumper fiber (pigtail fiber)

With the yellow plastic layer as the boundary, the scale is between16 to 18, the white skin layer should be longer than the yellow layer of about 5mm, placed it in the scale 10-12 or so (near the rubber pad about 2mm or less)

Rubber insulated fiber



Scale is between 16 to 18

Bare fiber

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

Instructions for put fiber into holder:

Remark:

1.Please make sure you place the fiber into the blue V-groove, the tip of the fiber is close to the center of the electrode. If the fiber is too far from the electrode center, it will remind you to re-place it.

2.The tip of the fiber must not exceed the center of electrode.

CHAPTER VI REPLACE ELECTRODE

Electrode replacement must use the genuine & original electrode designed for this machine from factory. When the number of electrode is used close to 3000 times, the machine will remind you to replace it. When it reaches to 3000 times, it is necessary to replace the electrode and activate it then you can use again (see page 30 ACTIVATE ELECTRODE). Otherwise it may affect the splicing quality, or even shut down the program automatically, and could not splice.

The electrode replacement procedure is as follows:

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

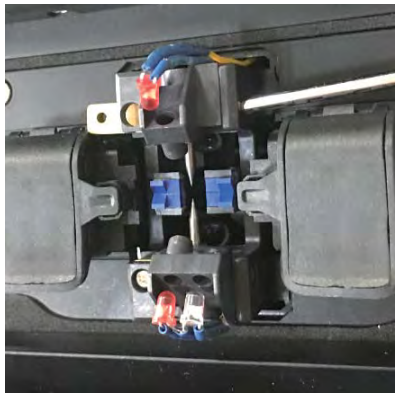
2.The cap size of two electrodes is different, wider head is for the electrode which is close to screen direction .

3.Take away the cover, as shown in picture

4.Remove the lamp cap on both sides with tweezers

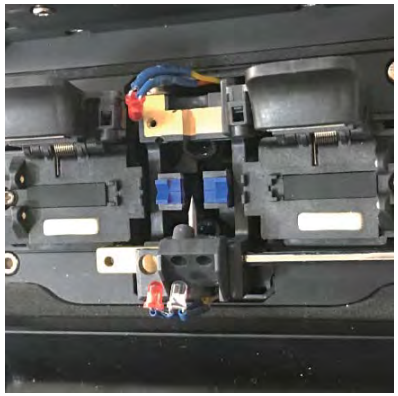
REPLACE ELECTRODE

5.Screw out the screws with a screwdriver

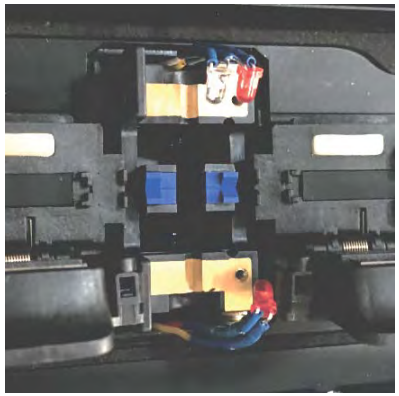


6.Use a screwdriver to push out the latch and remove the electrode

REPLACE ELECTRODE



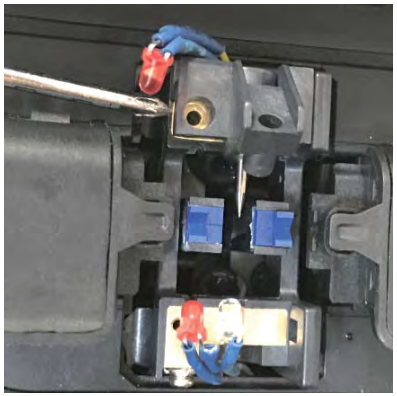
7.Remove the another electrode by the same way



8.Two old electrodes are removed

REPLACE ELECTRODE

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



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

REPLACE ELECTRODE

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

12.Close the electrode cap

REPLACE ELECTRODE

13.Replace the other electrode by the same way

14.Close the electrode cap, electrode replacement is complete

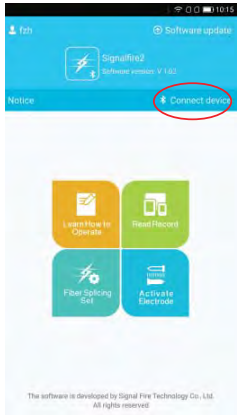
CHAPTER VII ACTIVATE ELECTRODE

P.S. The electrodes on the new machine do NOT need to activate, we have activated it before ex-factory. Only when the electrodes life on the machine is expired in the future and then you need to replace & activate the electrodes.
When the electrode is used up to 3000 times, you need to replace the electrode and activate it .You need to use APP software "Signalfire2" install in your phone and activate the electrodes.
Please scan the two-dimensional code on the machine screen to download the APP software.

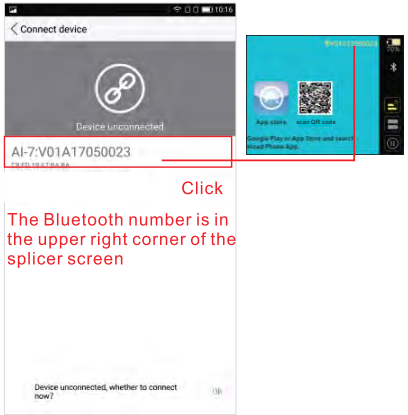
1.Open the " Signalfire2 " APP software, click on login

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

ACTIVATE ELECTRODE

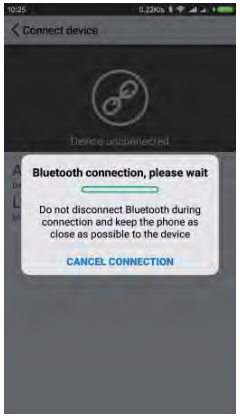


3.Click "Connect to Bluetooth" after login is successful

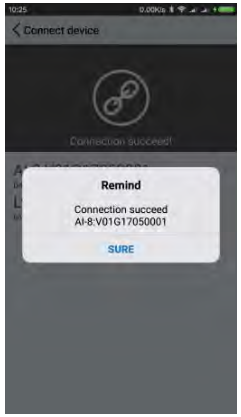


4.Please select the corresponding Bluetooth number and click on, if you can not find the Bluetooth number, please check whether the Bluetooth or the machine power is turned on

ACTIVATE ELECTRODE



5.Connecting



6.Connected successfully

ACTIVATE ELECTRODE

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

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

ACTIVATE ELECTRODE

9.Activation is successful, please restart the machine

*CHAPTER VIII REPLACE FC TANK

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

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

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

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

REPLACE FC TANK

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

4.Replace the screws tightened, finished the process.

CHAPTER IX USER INSTRUCTION FOR CLEAVER USE

1.Summary

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

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

To ensure the long-term use of the cleaver, please handle with gently, the operation should be gentle. Should take more attention to shock collision. Cleaver should be kept clean and dry all parts. Please use anhydrous alcohol to clean the cleaver blade and each plastic sheet, do not use other solvents such as acetone. Please clean up the broken fiber in time, to avoid the optical fiber goes into the rail to cause damage to the rail.

2 Structural characteristics and method of use

1、Parts and structure function

【precision guide】to provide the direction of blade movement.

【slide platform】 slide the platform, let the blade across the fiber.

【Chopping plate】 the optical fiber is cleaved once the chopping fall and touch the fiber.

【holder】 To open the holder to provide a fulcrum.

【disc blade】 the blade across the fiber lightly and leave sliding mark on fiber surface.

【Fixing screws】 Loosen this screw first, then you can adjust ˇscrews for adjust blade height.

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

【screws for adjust blade height】 can adjust the blade height

2、Use of the cleaver

1) Open the holder ;

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

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

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

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

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

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

Screws for adjust height

Fix screws

Screws for fixing height

Pressure screw

3 Maintenance

(1) Must use cotton balls dipped ethanol to wipe clean before cleave the fiber.

(2) Keep each plastic sheet and blade surface cleaning, and please use anhydrous alcohol, when cleaning the blades of each sheet. Do not use of other solvents such as acetone.

(3) In order to increase the frequency of use blades, please adjust the blade position, please press the number counterclockwise order to adjust the blade, do not mess tune.

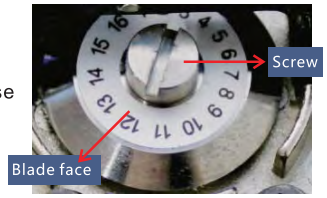
(4) This is a precision tool, handle with care and gently.

(5) Clean up the broken fiber in time, prevent the damage fiber injuries and damage to broken plastic sheet cutter and guide.

(6) Should carry anti-collision avoidance, to ensure cleaving.

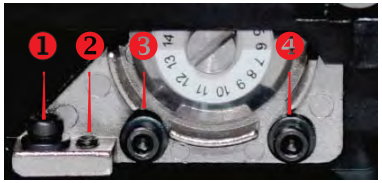
4 Cleaver adjustment method

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



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

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



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

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

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

Troubleshooting and solutions

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

1 Pay attention to dustproof and remove dust

Bare fiber positioning groove, electrodes and microscopes must be kept clean and windshield cover should be closed when not in operation

1. V-groove Cleaning

If the V-groove has dirty and can not hold the fiber properly, which will cause very high splicing loss. Thus in the daily work, you should always check the V-groove and regular cleaning V-groove. Follow the steps below to clean the V-groove.

（1）Open the windshield cover;

（2）Use a cleaved fiber tail in one direction push the pollutants and remove from the V-groove;

（3）If the fiber can not clear the V-groove pollutants, then moistened with alcohol cotton swab to clean the bottom of the V-groove, and use a dry cotton swab to wipe off the extra alcohol in the V-groove.

2. Cleaning and replacing the electrode

If the electrode is dirty, you can clean electrode by using the cleaning electrode function in main menu in the equipment maintenance, and then use a cotton swab dipped in alcohol to gently wipe the electrode tip, or use 3mm wide, 50mm long metallographic sandpaper to gently rub the electrode tip. Note To protect the electrode tip from damage.

3.If the objective lens is dirty, the normal position of the observation optical fiber core may be affected, which leads to a higher splice loss or poor fusion. So you should regularly clean two objective lenses, otherwise it will continue to accumulate dust and ultimately can not be removed.

Follow the steps below to clean the objective lens：

（1）Before cleaning the objective lens, please must turn off the power.

（2）Use cotton swab moistened with alcohol to gently wipe the objective lens. Beginning with a cotton swab to wipe from the middle of the lens, do a circular motion, until the edges of the lens spin out. Then wipe with a clean, dry cotton swab to remove extra alcohol.

（3）Turn on the power, make sure that the display is not visible dust and stripes.

2 Prevent Strong Shock or Vibration

When you need to move or transport the fusion splicer, you should handle with care and gently. In addition, do not forget to put the machine into a carrying case and shipping box during long-distance transportation.

3 Storage

When you do not use the machine for a long time, please must turn on the machine once half a year. Especially in high moisture season, should always be turned on, and the desiccant should be placed inside the carry case to prevent mildew microscope head.

4 Precautions

1.When the fusion splicer is using AC power , please take attention to protect the adapter , and the power supply is properly grounded.

2.When the fusion splicer is in the ARC discharge process, there are several kilovolt high voltage between the electrodes, please do not touch the electrode rod at this time!

3.Please be sure that there is no gasoline, mashgas, freon gas and other flammable gas in the environment and, so as not to lead to poor fusion or accident.

4.When you wipe to clean the fiber holder and microscope head, please must us absolute ethanol, cotton swab to wipe the direction should be one-way, two-way wipe is forbidden.

5.There are many mechanical components in the fusion splicer with structural precision, in addition to the electrodes, the other part is prohibited for user disassemble and change. Because these mechanical parts are precision-machining and calibration, once there is any changes, it is difficult to return to its original position. You can replace only the electrode-yourself.

The objective lens, V-groove, display screen, etc should be kept clean. Clean only with absolute ethanol, you can not use other chemicals.

5 Troubleshooting and solutions

The table lists a general troubleshooting method for the user reference. When the user can not solve the situation, please contact with the suppliers directly.

Troubleshooting	Reason	Solutions
No image after placing fiber	1.Not power on 2.Fiber does not enter V-groove or V-groove has dirty 3.The length of the fiber is too short or broken 4.The align mechanism is not initialized 5.No signal detected for close windshield cover	1.Press the power key 2.Re-place the fiber or brush the V-groove with alcohol 3.Re-cleave the fiber 4.Press RESET key 5.Check if the magnetic screw is loose or the magnet on windshield cover is fall off
splicing loss is too high	1.The cleaving quality of the fiber is poor 2.Splice parameters unreasonable 3.Arc center offset (rarely occurs)	1.Re-cleave the fiber 2.Repeat the ARC calibration 3.Repeat the ARC calibration
The ARC does not discharge or has scars	1.The cleaving quality of the fiber is poor 2.The splice parameter is too small 3.The electrodes has adsorbed dust 4.Running data error	1.Re-cleave the fiber face 2.Increase the cleaning voltage; do ARC calibration again. 3.Clean the electrode with a brush 4.Turn off and restart.
The spliced area becomes thinner	1.Splicing parameters unreasonable, splice voltage is too high 2.Splicing overlap is too small	1.ARC calibration 2.Increase the amount of splicing overlap
Splicing zone is thicker	1.Splice parameters unreasonable, splice voltage is too small 2.Splicing overlap is too big	1.ARC calibration 2.Reduce the amount of splicing overlap

Troubleshooting	Reason	Solutions
Splicing has bubbles (usually occurred in the multi-mode fiber splice	Fiber end with burr, not flat	1.Increase the cleaning voltage 2.Re-cleave fiber
Splicing points have lateral shadows	1.Fiber core does not match (type or core diameter is different) 2.Multimode fiber appear very light shadows after splicing	1.Re-match the fiber to make the same type of fiber on both sides 2.It is normal, does not affect splice strength and signal transmission quality
Image is tilted	1.Fiber not enter the V-groove completely 2.V-groove is dirt	1.Re-place the fiber 2.Clean the V-groove with alcohol and brushes
The image is on the top or bottom of the display	1.V-groove is dirt 2.Fiber not enter the V-groove	1.Clean the V-groove with alcohol and brushes 2.Re-place the fiber
The image is blurred	1.Fiber not enter the V-groove 2.V-groove is dirt	1.Re-place the fiber 2.Clean the V-groove
Cleave can not cut off the fiber	1.Cladding layer is not stripped 2.Cladding layer stripped too short and the rubber pressure on both sides of the blade did not compress the fiber	1.Use a Miller clamp to peel off the cladding 2.The length of the stripped cladding should be longer than 30 mm

FCC Statement:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiated Exposure Statement: This device complies with FCC radiated exposure limits set forth for an uncontrolled environment.
This transmitter must not be co-located operating in conjunction with any other antenna or transmitter.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.