

# S07 Fiber Cleaver Manual

## Safety instructions

This product is designed on the basis of full consideration of safety. To ensure the safe use of this product, please be sure to read and comply with the following items, and please put it in a place that you can reading at any time.

- 1.Do not decomposing machine body or put the oil in it.
- 2.Please use the fiber cleaver carefully, because the cleaver is precision machinery, percussion and landing (strong impact) may damages the machinery and reduce performance.
- 3.Please carefully and wear the protective glasses when you operation the fiber cleaver. Because the fiber and fiber optic chips are very thin and sharp, and it will be damage you when it into your hands or eyes.
- 4.Please leave the fiber-optic chips in a separate place that is separate from the common trash.
- 5.Please don't touch the blade in the cleaver, because of very sharp.
- 6.It's one of fault reasons that the lever capbe impacted
- 7.If mechanical failure or abnormal behavior, please stop using. Do not disassemble or refit, and contact the service department of the manufacturer.

## 1.Product profile

Product	S7 Fiber Cleaver
optical fiber cladding diameter	125 μ m
Fiber coating diameter	250 μ m/900 μ m/ 3mm pig tail/3x2 cable
Suitable fiber core	Single core
The length required to be removed before optical fiber cutting	Fiber cutting length ≥18mm
Fiber cutting length	5-20mm
Average cutting angle	≤0.5°
Blade life	≥48000 core times(1000time*24 point*3 height)
Size	66.6Wx62.7Dx58.2H(mm )
Weight	305g
Fixture	Four in one multifunction jip

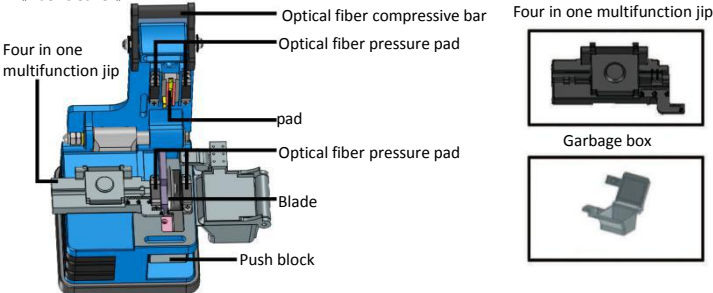
structure

Product compositionoption/consumable

Item	Fiber cleaver	Fiber pad
Fiber cleaver	1unit	Four in one multifunction jip
Package	1unit	Replace blade RB-325
Manual	1piece	

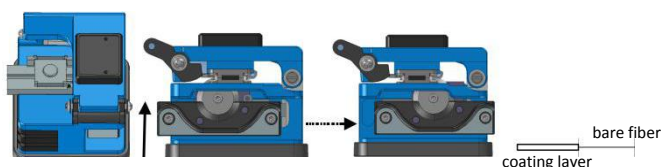
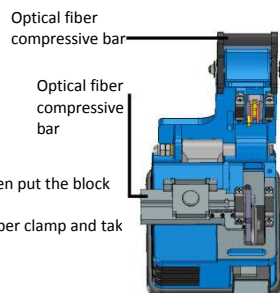
## 2..structure

《fiber cleaver》



## 3.Operation method

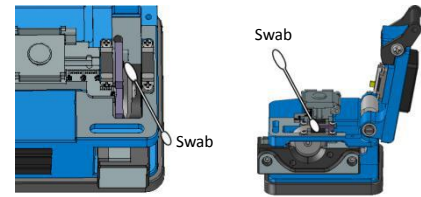
- 1.Lift up the optical fiber compressive bar and open the fixture's cover.
- 2.Put the fiber in the fixture's grooves and in the right place. Align the fiber coating removal boundary with the scale on the fixture(Like as: when the cutting length is 16mm, the boundary line should be aligned with 16mm of the scale).
- 3.Close the cover and clamping fiber.
- 4.Close the fiber optic platen cover and put down the bar, then put the block and fiber will be cut.
- 5.Lift up the bar and open the cover, open the cover of the fiber clamp and tak out the fiber while holding down the fiber.
- 6.The slide rails automatically rebound to the front position.



## 4.Maintenance

Cleaning method

In order to keep the cutting performance of the fiber cleaver, clean it after use and wipe the blade, fiber pad and pillow block by cotton swab with alcohol.



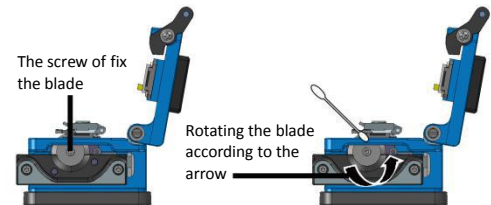
- It's a reason to reduce cutting performance when the dust in blade and jip, maybe not get good position.
- Please don't use others except alcohol when cleaning.
- It's a reason to reduce cutting performance when the dust in blade and fiber pad.

The adjustment of the blade

In the case of can't cutting fiber, the end surface shows broken fiber and disintegration continuously, please adjust the blade position as follow.

(reference) Every position cutting time: 3000 times(the blade height can adjust three times ).

- 1.Loosen the blade and fixed screw by hexagon.(as pic.)
- 2.Rotate the blade to a new position, and press the side of blade by the swab and push the side of the blade to the outside, then can get a new position easy.



- Don't touch the blade by your hands.
- Don't rotate blade by the metal tools(like tweezers)
- The blade will be damaged more possible if you use metal tools

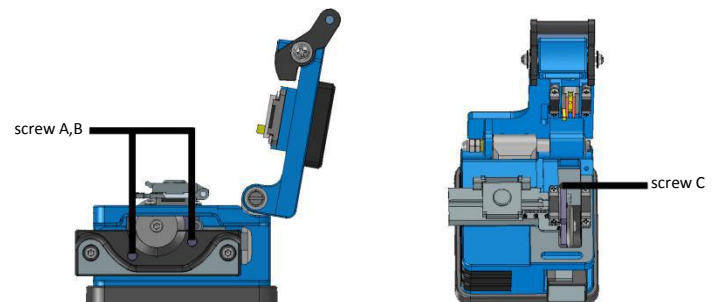
- 3.Tighten the blade and fixed screw  
(reference) Torque: about 0.98% m ( 10kgf.cm )



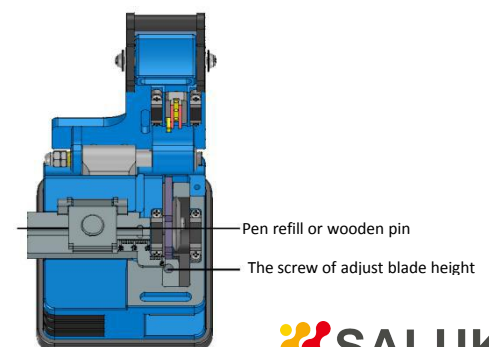
Please don't tighten the blade too much, may cause the screws to break.

The adjustment of blade height

- 1.Loosen the A and B screw by hexagon, and loose the C screw( as follow)



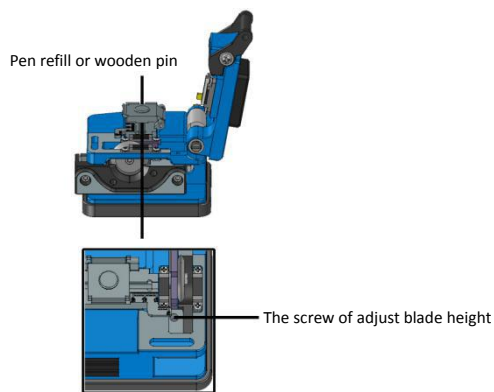
- 2.Please flat the pencil refill or wooden pin down on optical fiber pad, and push the block, and rotating the screw by hexagon (as shown).The highest point of the blade and pencil lead or the height of the wooden stick first catch as a reference point (0 μ m).



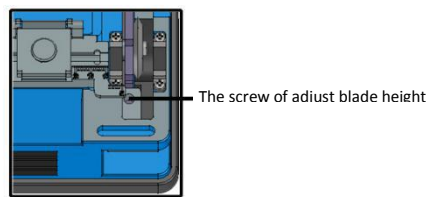
## ■ Explain

when adjust the blade to higher ground, the screw rotated according to counterclockwise.

when adjust the blade to lower ground, the screw rotated according to clockwise.



3.On the basis of confirming the reference point, turn the height adjusting screw slightly counterclockwise.

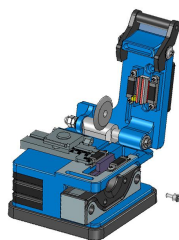
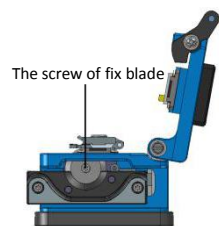


**Attention** Please don't tighten the blade too much, may cause the screws to break.

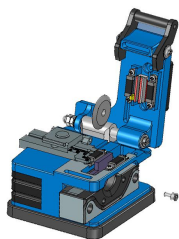
4.Tighten A,B,C screws properly(Refer to appropriate tightening torque: about 0.59  $\mu$  m ( 6mgf.cm)) Replacement of blade.

1.Loose the blade setting screw.

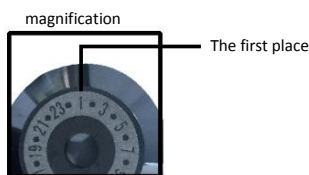
2.Remove blade set screw.



3.At the same time, take out the blade with tweezers, be careful not to let the blade touch other parts.



4.When installing a new blade, tighten the blade fixing screw to make mark number 1 up.



5.Refer to blade orifice and height adjustment method.

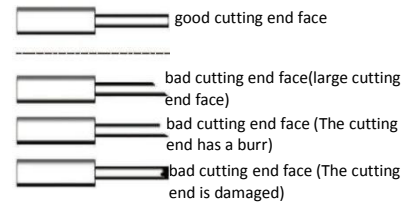
- The blade is made of precision grinding. If the blade touches metal, it will be damaged and not be able to perform normal cutting performance. Please pay attention when using or changing.
- Be careful not to touch the blade edge when using metal tweezers.
- Please wear gloves and do not take the blade directly by hand.
- Replace the old blade please distinguish from the ordinary garbage, and correctly discarded.

## Troubleshooting

Bad cutting angle maybe caused by the following reasons

- The fiber is not straight when the fiber is installed on the fiber cleaver. Please put the fiber straight.
- The blade place too high Please adjust the blade height
- There is dust and others in the fiber pad or block Please clean the pad and block
- There is dust in the blade Please clean the blade
- There is dust in the fiber Remove the fiber coating and wipe the bare fiber parts seriously.

**Please contact the after-sales department of our company when the cutting problem occurs continuously.**

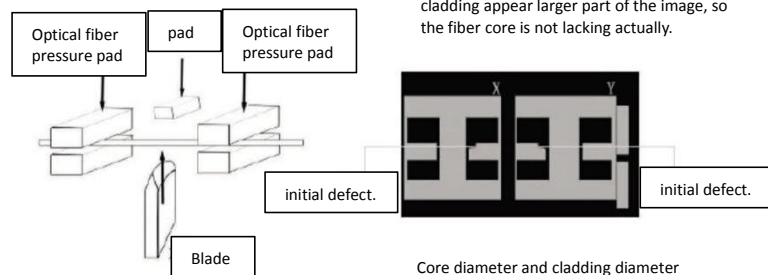


## Knowledge

Fiber cutting principle

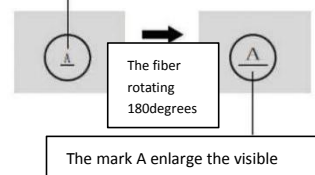
Optical fiber cleaver design to consider the actual field can and optical fiber and welding machine, as shown in figure, the blade scratches to optical fiber, fiber block down injured area, so as to finished fiber cutting.

The initial lack of optical fiber cutting surface. Sometimes you can see the cutting surface not good when use optical fiber welding machine display after cutting .The lack of such is the lack of cladding, does not affect the fiber core, so there is no problem. Compared to the transparent glass fiber core and cladding appear larger part of the image, so the fiber core is not lacking actually.

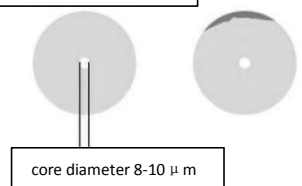


Core diameter and cladding diameter  
When cutting fiber by the blade, and scratches just very small on the surface of the cladding, which is less than 5um micron deep, so the core part is not damaged at all.

Suppose the mark A is the incipient cutting image.



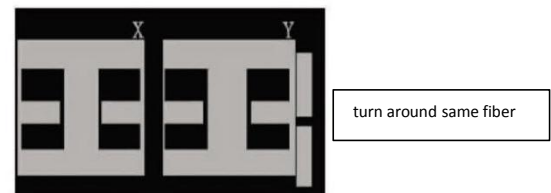
cladding diameter 1.25  $\mu$  m



**Need to cut the fiber again?**

This is why when the same optical fiber is rotated a certain angle, the cut image becomes invisible. After the discharge of the electrode, the fiber of the two sides is fused to each other, and the defect of the end surface of the welding joint will disappear.

There is an error in the welding machine, and it is only necessary to redo the optical fiber cutting when the welding machine is interrupted.



Not good end face

