

S10 Automatic Fiber Cleaver

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. The disassembly and oiling of the machine body (cleaver) is the cause of the failure and should never be carried out.
 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 cap be impacted.
 7. If mechanical failure or abnormal behavior, please stop using. Do not disassemble or refit, and contact the service department of the manufacturer.

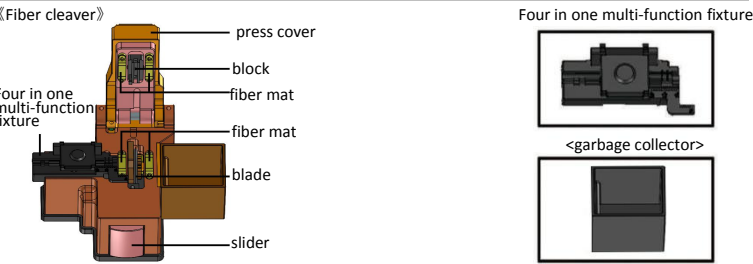
1. Product profile

Product	S10 fiber cleaver
Optical fiber cladding diameter	125 μ m
Applicable fiber coating layer	250 μ m/900 μ m/ ϕ 3mm tail fiber/3*2cable pig tail
Coated outer diameter	single fiber
The length required to be removed before optical fiber cutting	more than +18mm fiber cutting length
Fiber cutting length	5-20mm
Fiber cutting angle	≤0.5°
Blade life	60000 times(1000times*20positions*3height)
Size	88(W) x 67 (D) x 56.1 (H) mm
Weight	395g
Fiber fixture	Four in one multi-function jip

Product package

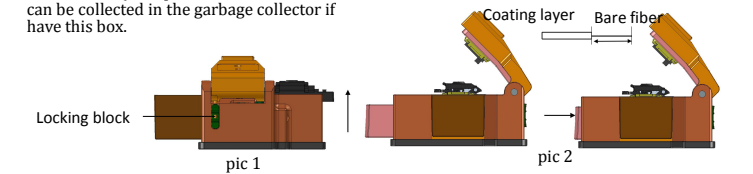
Item	Qty.	Item	Qty.
Fiber cleaver	1 Unit	Four in one multi-function jip	1 Unit
Fiber cleaver bag	1 Unit	Allen wrench	1 Unit
Specification	1 Unit	Garbage collector	1 Unit

2. structure



3. Operation method

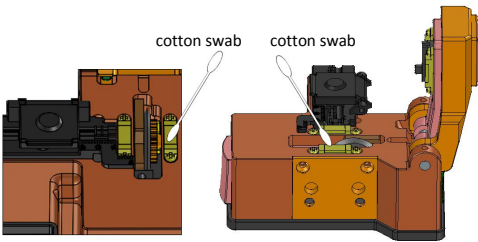
1. Turn on the switch (as pic 1). Open the fiber press cover and cover of fixture.
2. Put the fiber in the corresponding groove of the optical fiber fixture. Remove the boundary of the fiber coating layer and align it with the scale on the fixture (For example, when cutting the length of 16mm, the boundary should be aligned with the scale of 16mm). Next cover the clamping cover of the optical fiber for clamp to fiber.
3. Push the slider block inward and press down the fiber cleaver's clamping cover, the cleaver will automatically eject the block and push the block to drive the blade, so cut the fiber. there is an automatic pillow block falling on the fiber cleaver and break the fiber.
4. Loosen the optical fiber cleaver's pressing cover, and the pressing cover will spring back automatically. Hold the optical fiber by hand, open the clamping cover of the optical fiber fixture. at the same time, take out the optical fiber, and don't forget to take out the optical fiber debris. (the optical fiber debris also can be collected in the garbage collector if have this box).



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.



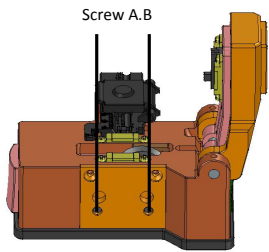
- It's a reason to reduce cutting performance when the dust in blade and jip, maybe not get good position.
- Please don't use others except alcohol when cleaning.
- It's a reason to reduce cutting performance when the dust in blade and fiber pad.

No blade change

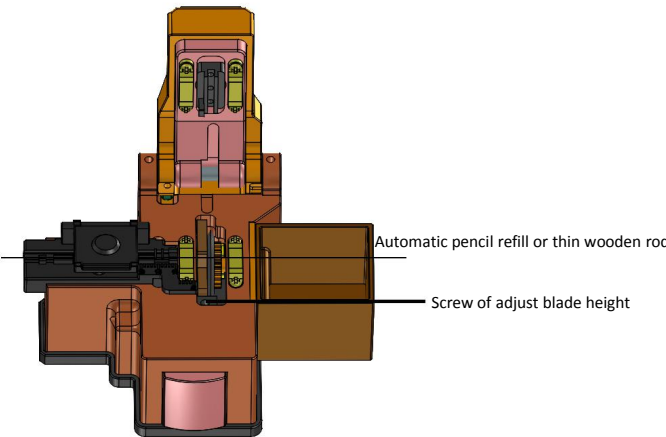
- 1) The optical fiber cleaver has the function of automatically rotating blade. One face is automatically rotated for each core fiber cut. so the blade rotation is not required during the cutting process by human.

The adjustment of the blade

- 1) Loosen the A and B screw by hex key.



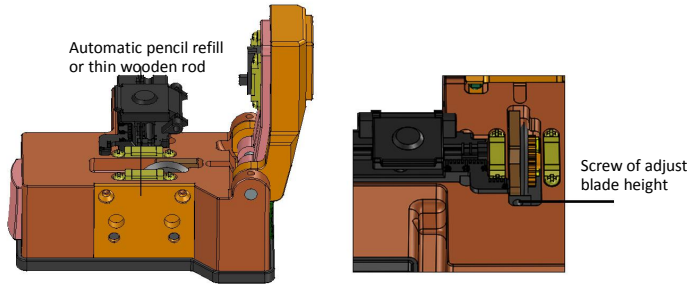
- 2) Place the automatic pencil lead or wooden thin rod flat on the optical fiber pressing pad, push the pushing block, and rotate the height screw of the inner hexagon blade (as shown in the figure). The height at which the highest point of the blade is in direct contact with the pe ncil lead or the stick serves as the reference point (0 μ m) .



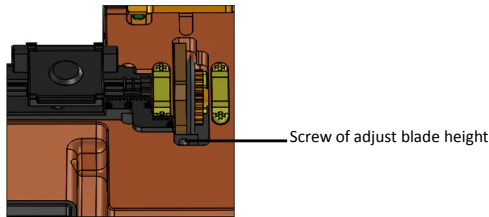
■ Explain

The blade is adjusted to higher and the screw rotated according to clockwise.

The blade is adjusted to lower and the screw rotated according to counterclockwise.



3) After confirming the base point, the height adjusting screw should be rotated slightly clockwise.

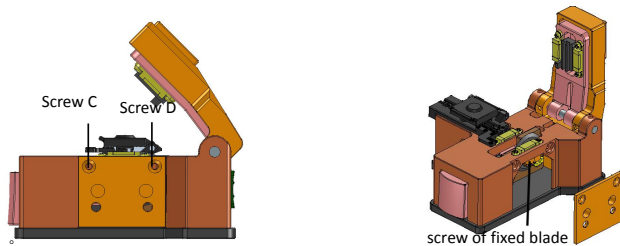


Attention Please don't adjust blade place too high, it will be damaged block and position.

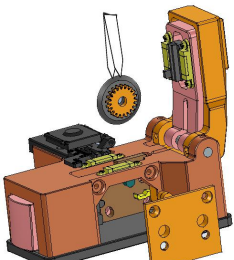
4) Tighten correctly the A and B screw(reference: about $0.59 \mu m < 6mgf.cm >$)

Blade replacement

1) Unscrew side plate C and D and remove side plate. 2) unscrew the screw of fixed blade, remove the screw and spring.



3) Remove the blade by tweezers, and don't touch other parts at the same time.



4) When installing a new blade, buckle the gear onto the blade before loading.

5) The adjustment is made by referring to the blade and height adjustment.

•Please pay attention when using or replacing. The blade is precision grinding. It will be damage the edge of the blade when touch the metal accidentally, also may affect normal the function.

•Please pay attention and don't touch the end of blade when you use tweezers.

•Please wear the gloves when you take the blade not with your hands.

•Please distinguish between the old blade and normal rubbish.

5. Troubleshooting

Bad cutting angle maybe caused by the following reasons

A The fiber is not straight when the fiber is installed on the fiber

Please put the fiber straight.

B The blade place too high

Please adjust the blade height

C There is dust and others in the fiber pad or block

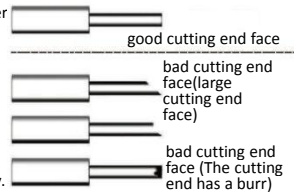
Please clean the pad and block

D There is dust in the blade

Please clean the blade

E There is dust in the fiber

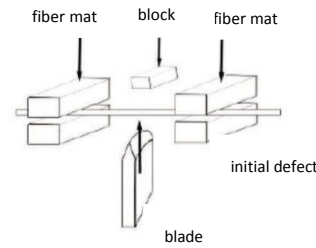
Remove the fiber coating and wipe the bare fiber parts seriously.



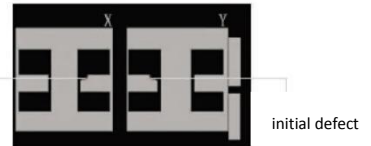
6. Knowledge

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.



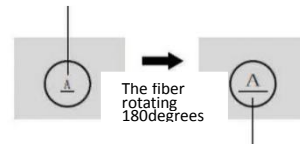
The initial lack of optical fiber cutting surface. Sometimes you can see the cutting surface not good when use optical fiber welding machine display after cutting. The lack of such is the lack of cladding, does not affect the fiber core, so there is no problem. Compared to the transparent glass fiber 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 $5 \mu m$ micron deep, so the core part is not damaged at all.

test

Suppose the mark A is the incipient cutting image.



The mark A enlarge the visible

cladding diameter $1.25 \mu m$



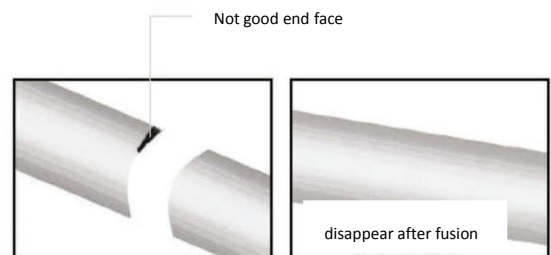
core diameter $8-10 \mu m$

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.



turn around same fiber



before fusion connection

after fusion connection