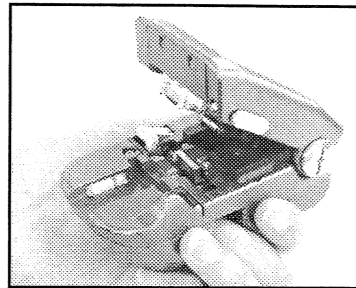




Optical Fiber Cleaver

FC-7

Operation Manual



IMPORTANT SAFETY PRECAUTIONS

This product has been designed and manufactured to assure personal safety. Improper use can result in bodily injury and serious damage to the fiber cleaver. Please read and observe all warnings instructions given in this operation manual.



- Never disassemble and lubricate any part of the cleaver. Doing so could cause serious damage to the cleaver.
 - The FC-7 is a precision tool. Do not impact the cleaver by hitting or dropping it. Doing so may cause personal injury and loss of cleaving performance. It must be handled with care.
 - The cleaver blade is extremely sharp. Never touch it with bare hands.
 - Glass fiber fragments are extremely sharp. Handle with care. Wear safety glasses at all times during cleaving operation for protection from glass fibers.
 - In a high location, use a specified strap to prevent the cleaver from dropping.
 - Dispose of glass fiber fragments in exclusive waste places.
 - If the cleaver is damaged or an abnormality occurs, please contact our maintenance service center.
 - Be sure to release the lock pin and open the cover beforehand when moving the cutter slider (sliding the blade). Unless the lock pin is not released, a failure will occur. When the cover is closed, for example, at storage, take care not to apply a load to the cutter slider portion.
- * For the name of each portion, refer to "2. Structure." When sliding the blade, observe the instructions given on the caution/procedure seal.
- Do not wipe off the grease applied to the upper surface of the slider, which is located between the blade and back clamp. If you wipe off the grease, consult our maintenance service center.

1. General

There are 3 types in the FC-7 series. Note that the specification is different depending on the type.

FC-7M-F8(-F)	FC-7
For fusion splicer, For single fiber and up to 8c(or 4c)ribbon fiber.	For single fiber.
Use the fiber holder for the fusion splicer to cleave optical fiber with the FC-7M-F8(-F).	The FC-7S comes with the single fiber adapter. Single fiber is placed in the adapter.

Specifications

Size and Weight	Size (main body)	For low fiber count (Single fiber and up to 4c ribbon fiber)		For high fiber count (Single fiber and up to 8c ribbon fiber)
		FC-7M-F	FC-7S	FC-7M-F8
Weight		98 (W) x 58 (D) x 47 (H) mm		
Cladding diameter		125µm		
Applicable fiber	Fiber count	Single fiber and up to 4c ribbon fiber	Single fiber	Single fiber and up to 8c ribbon fiber
	Fiber coating diameter *1	Single fiber 250µm, 900µm Ribbon fiber	250µm, 900µm	Single fiber 250µm, 900µm Ribbon fiber
Cleave length		10mm	*2 For 250µm: 6 to 20mm For 900µm: 10 to 20mm	*2 10mm

If the FC-7M-F8(-F) is equipped with the single fiber adapter (Optional, Part No.:AP-FC7), it can be used as the FC-7S.

*1 : The FC-7M-F8(-F) can be used with a fiber holder.

*2 : The cleave length is different depending on the fiber splicing method.

Standard package

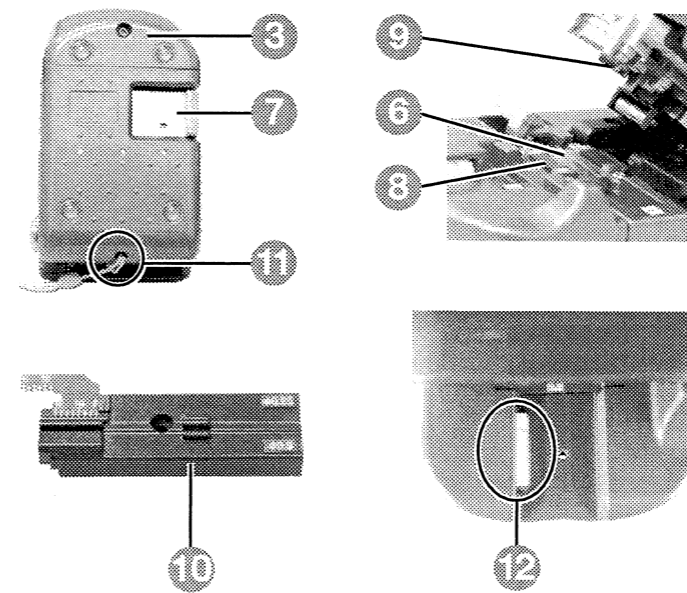
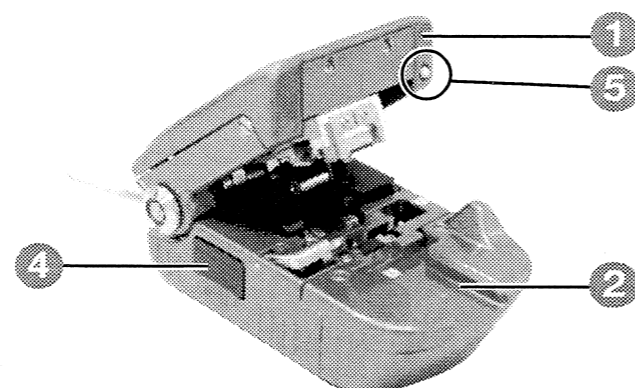
Part name	Part No.	FC-7M-F8(-F)	FC-7S
Optical fiber cleaver	FC-7	1	1
Strap	—	1	1
Carrying case	—	1	1
Cleaning brush	—	1	1
Hexagonal wrench	—	1	1
Fiber offcut collector (spare)	TR-FC7	1	1
Operation manual *1		1	1

*1 : The latest version is provided.

Optional accessories / Consumables

Part name	Part No.	FC-7M-F8(-F)	FC-7S
Single fiber adapter	AP-FC7	○	○
Fiber offcut collector	TR-FC7	○	○
Replacement blade	FCP-20BL	○	○

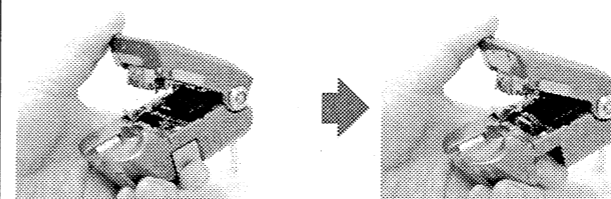
2. Structure



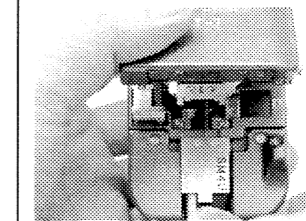
- Cover**
Optical fiber is cleaved and fiber offcut is collected by opening and closing the cover.
- Fiber holder receptacle**
The receptacle to place a fiber holder in. For the FC-7S, a single fiber adapter is loaded in this receptacle.
- Bottom case**
The bottom case needs to be removed when the blade is rotated or replaced.
- Fiber offcut collector (TR-FC7)**
Fiber offcut is collected in this collector.
- Locking pin**
The locking pin is used to keep the cover closed.
- Blade**
The blade to scratch optical fiber.
- Slider**
The slider to move the blade.
- Clamp**
The rubber to clamp optical fiber.
- Anvil**
The rubber to cleave a scratched fiber.
- Single fiber adapter**
The guide tool to place single fiber in the cleaver.
- Tab**
The tab to attach a strap.
- Hook**
The hook to lock the fiber holder.

3. Operating procedures

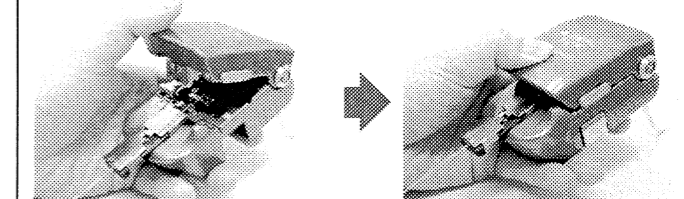
FC-7M-F8(-F)



- Press the slider until it is locked.



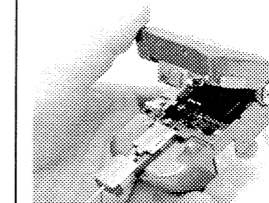
- Place the fiber holder in the fiber holder receptacle.



- Press the cover. The slider will be moved.



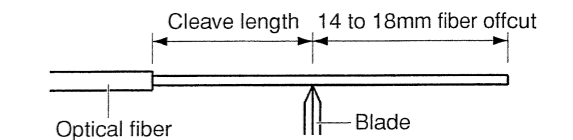
Do not position your finger where the slider is moved. The slider will hit the finger.



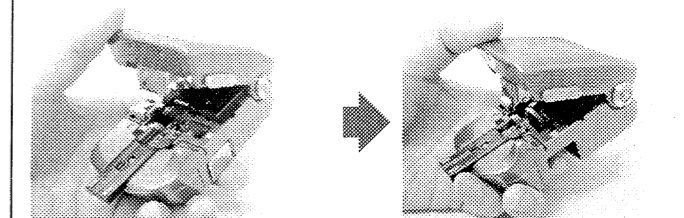
- Release the finger from the cover. Fiber offcut is collected in the fiber offcut collector. Fiber cleaving is completed.
- Remove the fiber holder from the fiber holder receptacle.



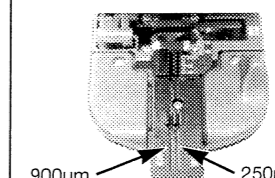
The length of fiber offcut to be collected is specified.



FC-7S



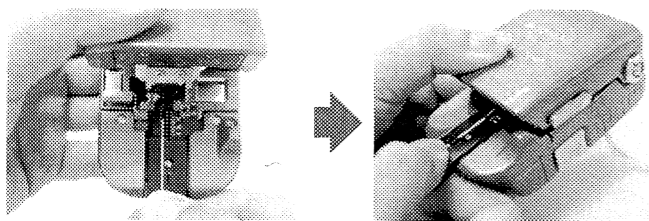
- Press the slider until it is locked.



- Place the stripped fiber in the groove. Using the scale, adjust fiber position to obtain necessary cleave length.

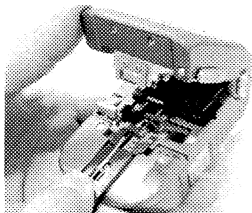


Place the fiber straight in the groove to avoid cleaving it obliquely.



3. Press the cover. The slider will be moved.

Caution Do not position your finger where the slider is moved. The slider will hit the finger.



4. Release the finger from the cover. Fiber offcut is collected in the fiber offcut collector. Fiber cleaving is completed.
5. Remove the fiber from the single fiber adapter.

4. Packing and storage instructions

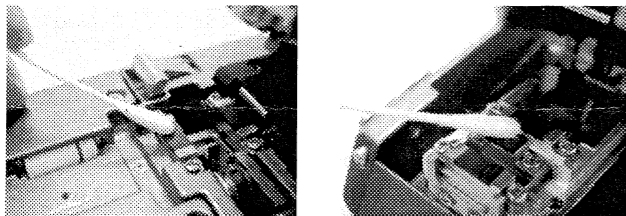
The fiber cleaver is provided with a locking pin. When packing, storing or transporting the cleaver, be sure to close the cover with the locking pin. Failure to do so could cause fiber offcut to pop out of the fiber offcut collector.

5. Maintenance

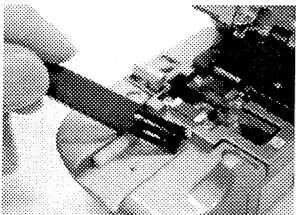
Regular cleaning

To keep excellent cleaving quality, cleaning should be performed before and after each use.

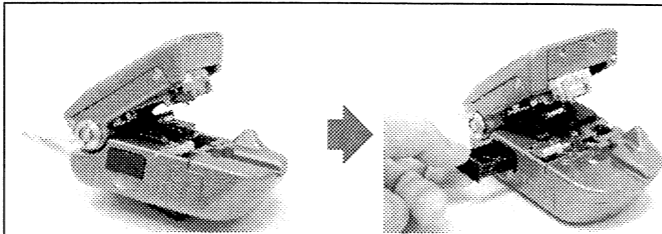
1. Cleaning clamp and anvil
Clean the clamp and anvil (especially black rubber surface) with a cotton swab moistened with alcohol.



2. Cleaning fiber holder receptacle
Clean the edge of the fiber holder receptacle and the tab with a supplied cleaning brush or a dry cotton swab.

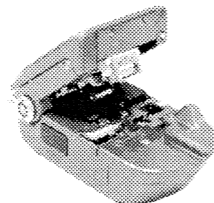


Discarding fiber offcut



1. Fiber offcut is collected in the fiber offcut collector.
2. Take the collector out of the cleaver.
3. Dispose of the fiber offcut properly.

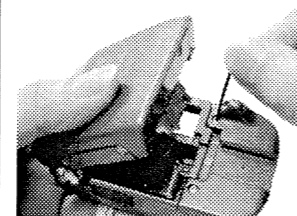
Tips Using a cotton swab will make it easier to take the fiber offcut out of the collector. Never touch glass fiber fragments with bare hands. Doing so could cause bodily injury.



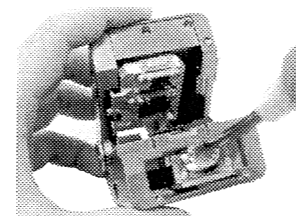
4. After the fiber offcut is removed, close the collector lid and put the collector back in the cleaver.

Changing blade position

As the number of cleaving is increased, a symptom that fiber cannot be cleaved or fiber is cracked will occur. If such symptom continues to appear several times, the blade position is worn out. In this case, rotate the blade according to the following procedures and use a new blade position.

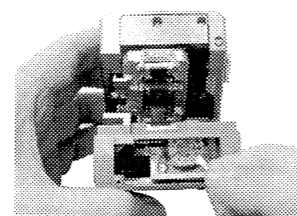


1. Unscrew the screw of the fiber holder receptacle with a supplied hexagonal wrench.
2. Remove the fiber holder receptacle and bottom case.



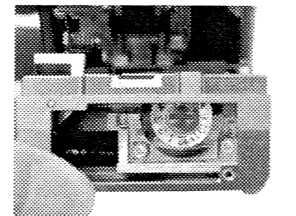
3. Loosen the screw that fixes the blade with a flathead screwdriver.

Caution Only loosen the screw. Do not unscrew it.



4. Rotate the blade while pressing its side with a cotton swab.

Caution A blade edge is manufactured precisely. Be careful not to touch it.

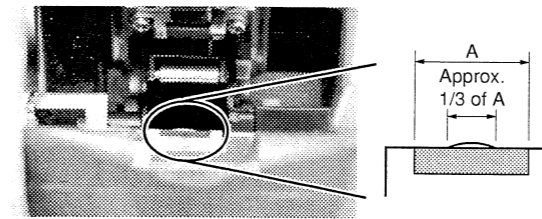


Tips The blade has 12 positions. Rotate the blade by 1 position.

5. After determining a new blade position to be used, tighten the screw to fix the blade.

Caution When loosening the screw with a screwdriver, be careful not to damage the blade.

6. Move the blade and ensure that the blade comes up from the clamp as illustrated below.



Caution If the blade is rotated properly, adjustment of blade height is not necessary. If blade height is not good in spite of proper blade rotation, check that the screw is tightened completely. If adjustment of blade height is necessary, please refer to "Adjusting blade height".

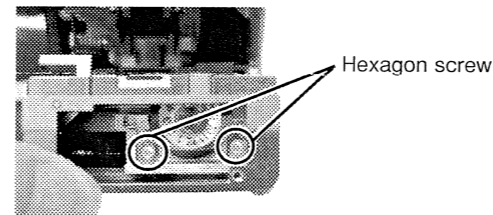
7. Attempt to cleave optical fiber a few times to see if cleaving is performed correctly.
8. Attach the fiber holder receptacle and bottom case back to the cleaver.

Caution A blade edge is extremely sharp. Do not touch it with bare hands.

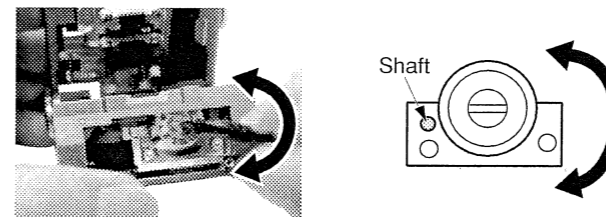
Adjusting blade height

Caution Adjustment of Blade height can be made with the following procedures. However, adjustment of blade height will greatly affect cleaving performance. Carry out adjustment with great care.

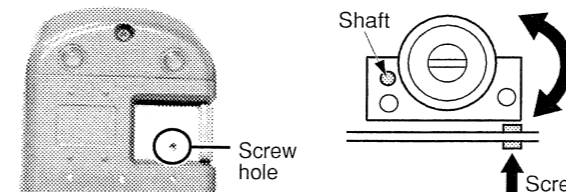
1. Remove the fiber holder receptacle and bottom case with a supplied hexagonal wrench.
2. Loosen the 2 hexagon screws as shown below.



3. The blade can be moved up and down by making a shaft a supporting point.



Tips As shown in the photo, put a supplied screw into the screw hole. Make a fine-tune adjustment by rotating the screw.



4. Tighten the hexagon screws while keeping the condition in which the blade height is adjusted.
5. Check again how much the blade comes up from the clamp. Please refer to "Changing blade position" regarding blade height.

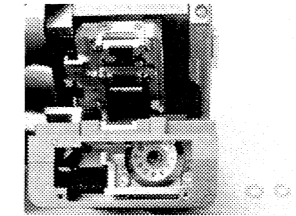
Tips Repeat Step 3 through 5 until the blade height is proper.

6. Attempt to cleave optical fiber a few times to see if cleaving is performed correctly.
7. Attach the fiber holder receptacle and bottom case back to the cleaver.

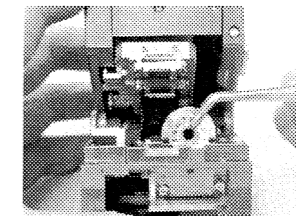
Replacing blade

Caution Replacement of blade will greatly affect cleaving performance. Carry out adjustment with great care.

1. Remove the fiber holder receptacle and bottom case with a supplied hexagonal wrench.
2. Loosen the screw that fixes the blade with a flathead screwdriver.

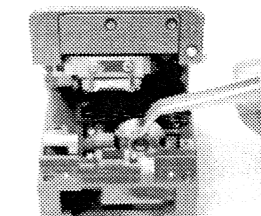


3. Take the blade with tweezers.



Caution • The blade cannot be taken from the side. Be sure to take the blade from the upper side.
• Dispose of an old blade in exclusive waste places.

4. Grasp a new blade with tweezers and fit it in the slider.



Caution • A blade edge is manufactured precisely. If a blade edge is hit against metal, and so on, the edge will be cracked, resulting in poor cleaving performance. Handle with care.
• When metallic tweezers are used, be careful not to damage the blade.

5. Fix the blade.
Check that the blade height is proper referring to the procedures described in the "Rotating blade" of the operation manual.

If the blade height is not proper, adjust it according to the procedures described in "Adjusting blade height".

6. Attempt to cleave optical fiber a few times to see if cleaving is performed correctly.
7. Attach the fiber holder receptacle and bottom case back to the cleaver.

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