

GRANDWAY OPTICAL INSTRUMENTS SERIES

# User's Guide to the GW-700

INSTRUCTION MANUAL FOR HIGH PRECISION FIBER CLEAVER

**GW-700** English Version



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INSTRUCTION MANUAL FOR HIGH PRECISION FIBER CLEAVER

### 1. Warning and Cautions

$\mathbf{A}$	WARNING: There is a possibility of death, serious injury, or physical loss resulting from improper use by ignoring this indication.
0	Safety glasses should always be worn during fiber preparation and splicing operation.Fiber fragments can be extremely dangerous if they come into contact with your eyes or skin.
$\mathbf{A}$	CAUTION: There is a possibility of personal injury or physical loss resulting from improper use by ignoring this indication.
0	Do not disassemble or modify the cleaver, it is a very high precision instrument.
$\oslash$	This cleaver is designed to cleave telecommunications optical glass fibers. Do not attempt to cleave any other material .
0	Cleaver blade is extremely sharp. Do not touch as personal injury may result.
$\triangle$	Be careful when using the cleaver, do not leave fingers in the cleaver. Fingers can be injured if left in the cleaver during its operation.
$\triangle$	If there is some problems , please stop using and contact our after-sale Dept.

### **Contact Address :**

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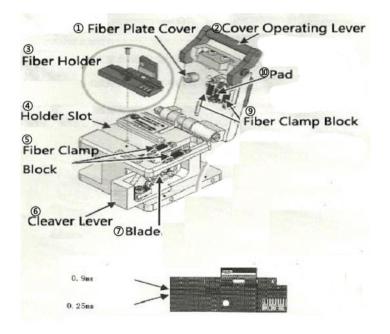
### 2. Features

- Applicable to coating fiber diameter of 250um &900um
- Applicable up to 12-fiber cleaving
- Fibers blade life (3 height x 12 positions)
- Compact body & light weight

### 3. Specification

Applicable fibers	Silica optical fiber
Bare fiber diameter	125um
Coating diameters	250um, 900um
Cleaving angle	0.5 degrees with single fiber
Cleaving length	250um: 9~16mm; 900um: 10~16mm
Blade positions	3 height and 12 rotating positions
Blade life	36,000 fibers (1,000 fibers * 3 height * 12 positions)
Dimensions(mm)	60W*76D*57H
Weight	420g

### 4. Structure



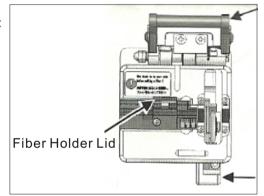
### 5. Cleaving Procedure

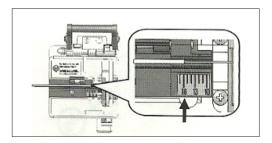
To operate the cleaver , performing the following steps : 1. Unlock the (2) Lever , then open the (1) cover. Make sure the (6) lever at the front side .

2. Put the fiber into the fiber holder slot at the needed degree scale .

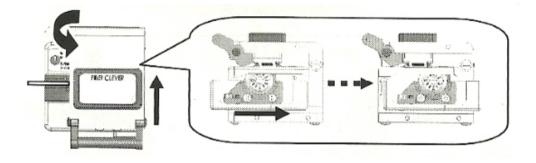
Meanwhile keep the bare fiber straight .

3.Close the fiber holder lid to fix the fiber .





4. Close the (1) cover and (2) lever, then push the (6) lever to cut the fiber.



5. Open the (2) lever and (1) cover .Hold the fiber when opening the fiber plate lid . The fiber scrap will fall into the container .

#### 6. Maintenance

6.1 Daily maintenance

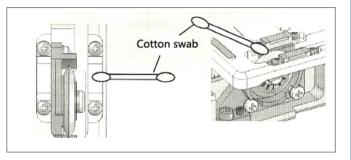
### To ensure the performance of the cleaver, clean up it after use .

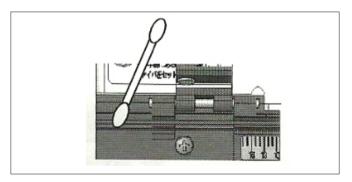
Use the cotton swab soaked with absolute alcohol to clean the blade, plastic block and pad.

### The fiber holder slot also need to be cleaned .

Note :The dust and scrap on the pad will influence the property and also may result in the bad fiber cut interface.

Forbid other detergents except the alcohol.





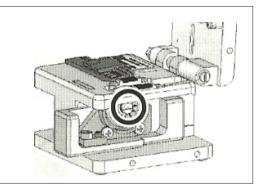
### GW-700

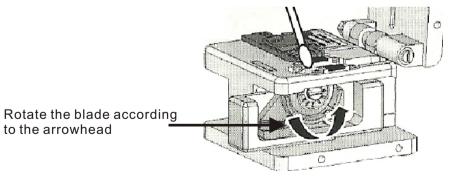
#### 6.2 Blade Adjustment

After enough cleaving , the cleaver does not work properly , you should rotate the blade .

1.Loose the blade fixing screw with a screw driver.

2. Rotate the worn out blade position with a sharp blade position .





Note :Be careful not to touch the blade as this could cause damage to the blade .

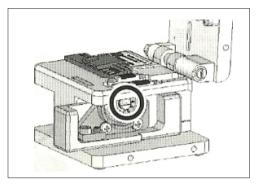
3. Tighten the blade with the screw .

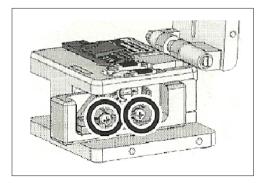
Note: do not carry out over force in case of breaking the screw .

### 6.3 Blade Height Adjustment

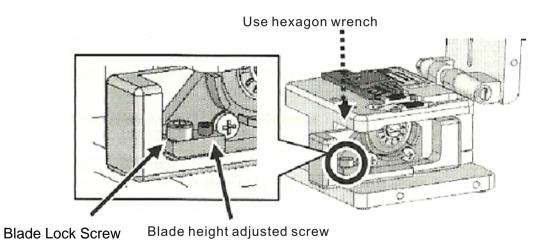
After the circular blade has been rotated a completed revolution , its height needs to be adjusted to compensate for wear .

1. Loosen the two screws as the Fig .





2. Loosen the blade lock screw as the Fig.



3. Put a thin wooden stick on the pad, move the blade lever back and forth, when rotating the screw.
When the highest point of the blade reaches the wooden stick, the point is defined as the basic point 0µm.
Note:

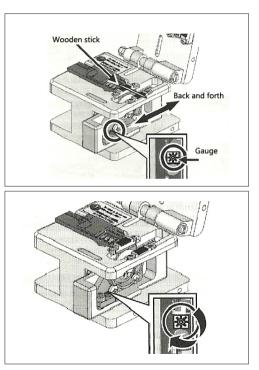
Screw clockwise , higher .

Screw counterclockwise , lower .

1Gauge =10 $\mu$ m

4. When it is at basic point, clockwise rotate 4~6 gauge

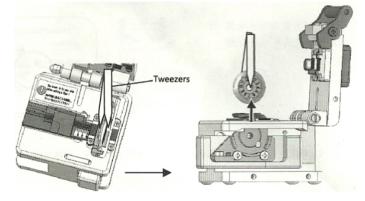
5. Tighten all the screws .



### 6.4 Blade Replacement

### After the circular blade has been raised 2 times (3 rotations), the blade need to be replaced .

- 1. Remove the scrap container.
- 2. Unlock the fixing screws.
- 3. Take the blade using tweezers .

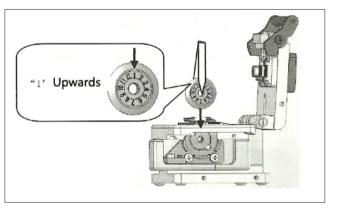


Note :Blade is delicate equipment, so be careful.

Dispose the used blade properly .

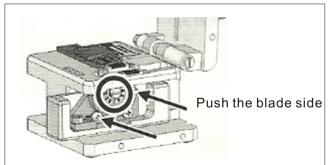
Ware gloves when you are operating .

4. Install the new blade with the "I" upwards.

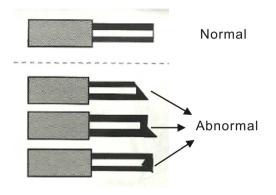


5. Fix it with the screw .

6. Blade adjustment is just as the former procedure .



### 6.5 Trouble shooting



#### **Possible Cause**

- a. The fiber is not straight on the cleaver .
- b.The blade is too high .
- c.Fiber holder is dusty.
- d.The blade is dirty .
- e.The fiber is dirty .