

Precision Glass Cutter and Table

**How to replace cutting wheel and
adjust the cutting wheel height**

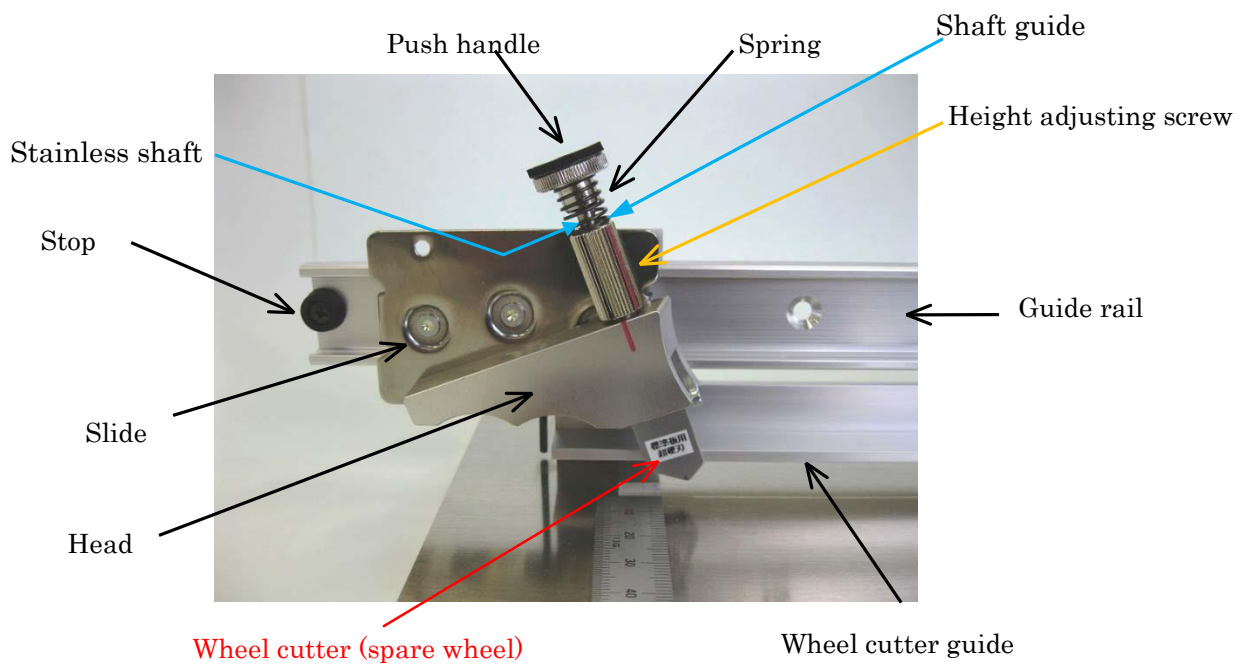
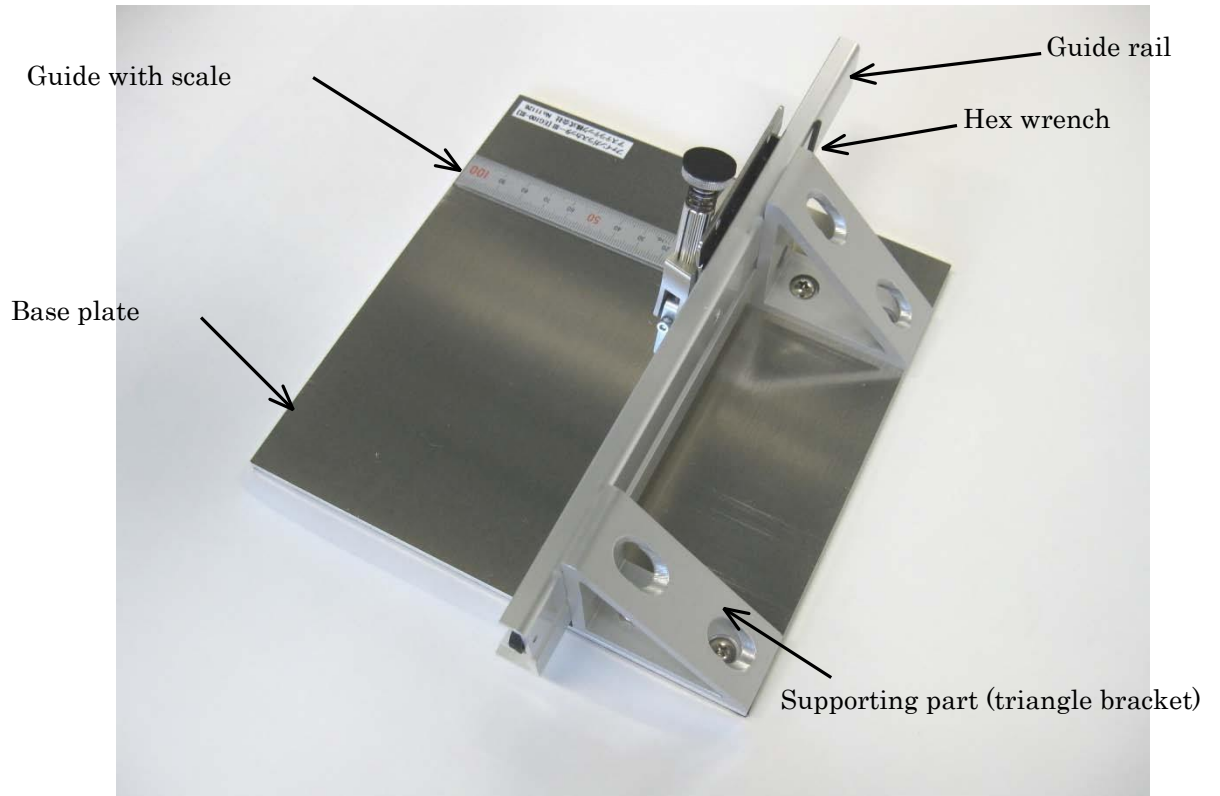
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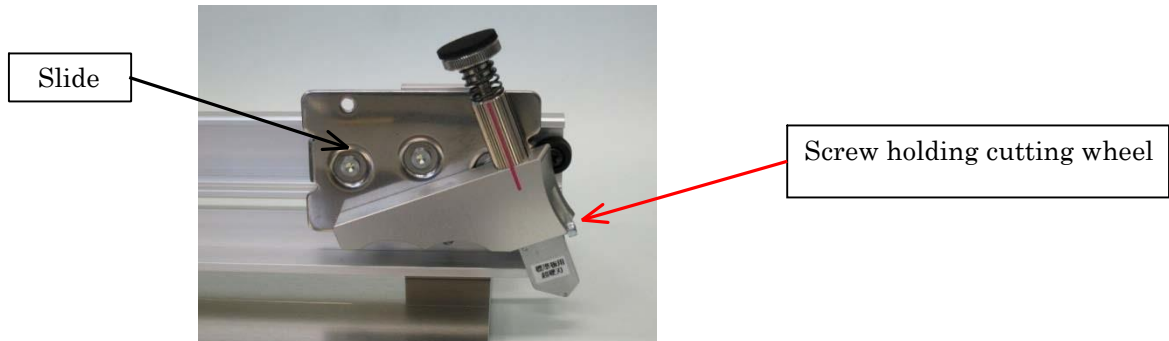
Parts of Precision Glass Cutter and Table



1. How to replace the cutting wheel

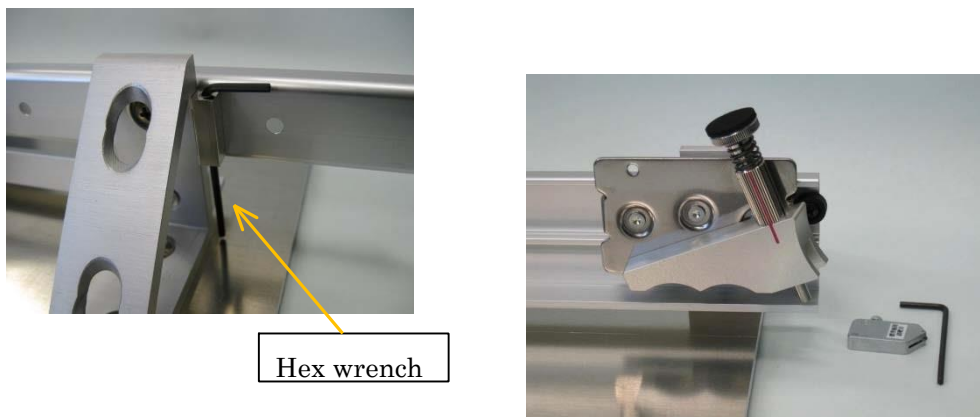
Step 1: Move the slide to the end of the Guide Rail

Move the slide to the upper end of the Guide Rail. Make sure the cutting wheel is off of the base plate.



Step 2: Remove the wheel cutter

Remove the cutting wheel from the head using the included hex wrench to remove the retaining screw.



Step 3: Replace the cutting wheel

Insert a new cutting wheel in the head and temporarily screw it in.

There are five kinds of cutting wheels:

1. Carbide cutter for standard thickness glass Target thickness is from 1.1mm to 3.0mm.
2. Carbide cutter for thin glass: Target thickness is from 0.5mm to 1.3mm.
3. Carbide cutter for ultrathin glass: Target thickness is from 0.15mm to 0.5mm.
4. Diamond cutter for thin glass/hard materials: Target thickness is from 0.5mm to 1.3mm.
5. Diamond cutter for ultrathin glass/hard materials: Target thickness is from 0.15mm to 0.5mm.

(The target thickness is an indication and glass thickness slightly out of each target range can still be cut. The target thickness range also depends on the type of material to be cut.)

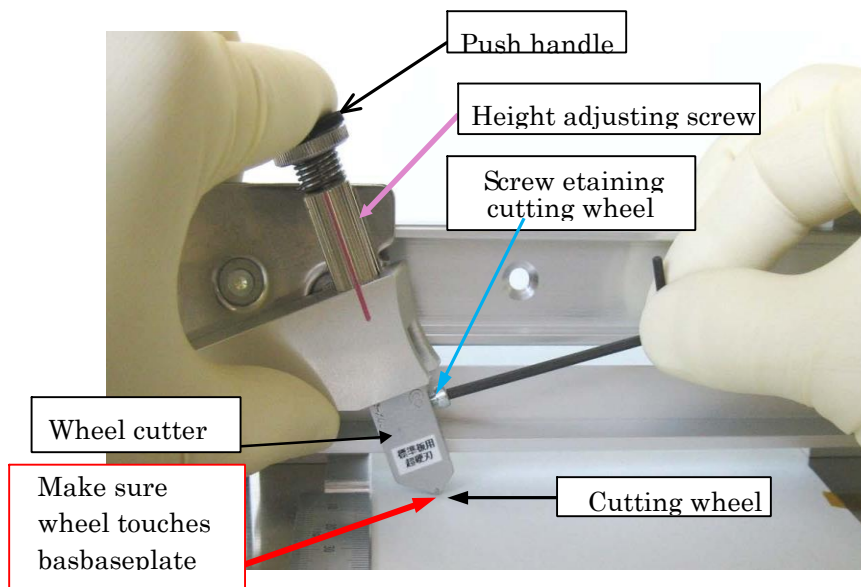
2. How to adjust the height of the cutting wheel

The description below is to adjust the height of the cutting wheel for standard glass. Fine adjustment is needed when an actual scribing depth is too deep or too shallow.

Step 1: Lower the cutting wheel until it touches the base plate

This is done to adjust the cutting wheel at the surface of the base plate, as a zero point adjustment. Zero point adjustment should be done by setting the table in actual operation. So if you want to use clean paper or a magnetic substrate holder, put them on the table before performing zero point adjustment. It is recommended to put a replaceable clean sheet on the table beforehand to protect the table from dirt or scratches. Using the same type of new clean sheet every time will keep the sample clean and keep a consistent height between the cutting wheel and the sample.

Turn the height adjusting screw to lowest (zero point). Then, loosen the screw that holds the cutting wheel to the wheel cutter at the front of it and slide the cutting wheel all the way until it touches the surface of the base plate. Do this gently so that the cutting wheel does not hit the base plate hard, which may cause damage to it.



Step 2: Push the handle and tighten the screw that is retaining the cutting wheel.

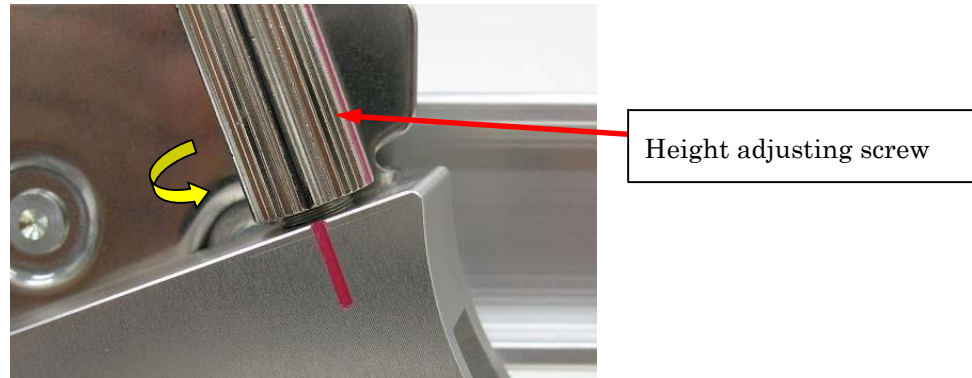
Push the push handle. While pushing the push handle all the way down, tighten the screw that is fixing the cutting wheel to position the cutting wheel. (At this time, the cutting wheel must be touching the base plate. If not, adjustment cannot be done properly.)

*** Make sure to secure the screw firmly.**

If it is loose, the cutting wheel will move and the scribing will not be done properly.

Step 3: Set the height adjusting screw to the thickness of the target glass.

Set the height adjusting screw to the thickness of the target glass. The distance between two lines is 0.1mm. When you turn the height adjusting screw once, the lines on it pass the red mark five times. If you want to cut a 1.1mm thickness glass plate, turn the screw two revolutions and a fifth.



Note: The cutting wheel actually moves up to 0.94mm when the scale is set to 1mm. The difference (in this case, 0.06mm) is the scribing depth. For a 0.5mm-thick glass plate, the scribing depth is 0.03mm and for a 2mm-thick glass plate, the scribing depth is 0.12mm. Thicker the target material is, deeper the scribing depth that is needed. This height adjusting screw can adjust the scribing depth by the setting the thickness of the material.)

3. Maintenance

Wheel cutter

Debris will be left on the cutting wheel and that may result in dulling and unsatisfactory scribing. Wipe the cutting wheel periodically with a non-woven cloth soaked with alcohol.

Guide rail

The slide may not move smoothly or correctly if debris (such as glass particles) is adhered in the guide rail or the roller of the slide. Clean the guide rail and roller occasionally with a non-woven cloth.

Push Handle

The stainless steel shaft will get dirty when it is used for a long time. Clean the shaft and inside the shaft guide of the push handle when adjusting or replacing the cutting wheel. Use a cotton swab soaked with alcohol to easily clean the inside the shaft guide.

Wheel cutter guide

The super-high-molecular polyethylene tape adhered inside the wheel cutter guide is to move the wheel cutter smoothly and prevent generating particles as a result of abrasion. Replace the tape when it is degraded.