

Optical Fiber-free Intravitreal Surgery System

OFFISS

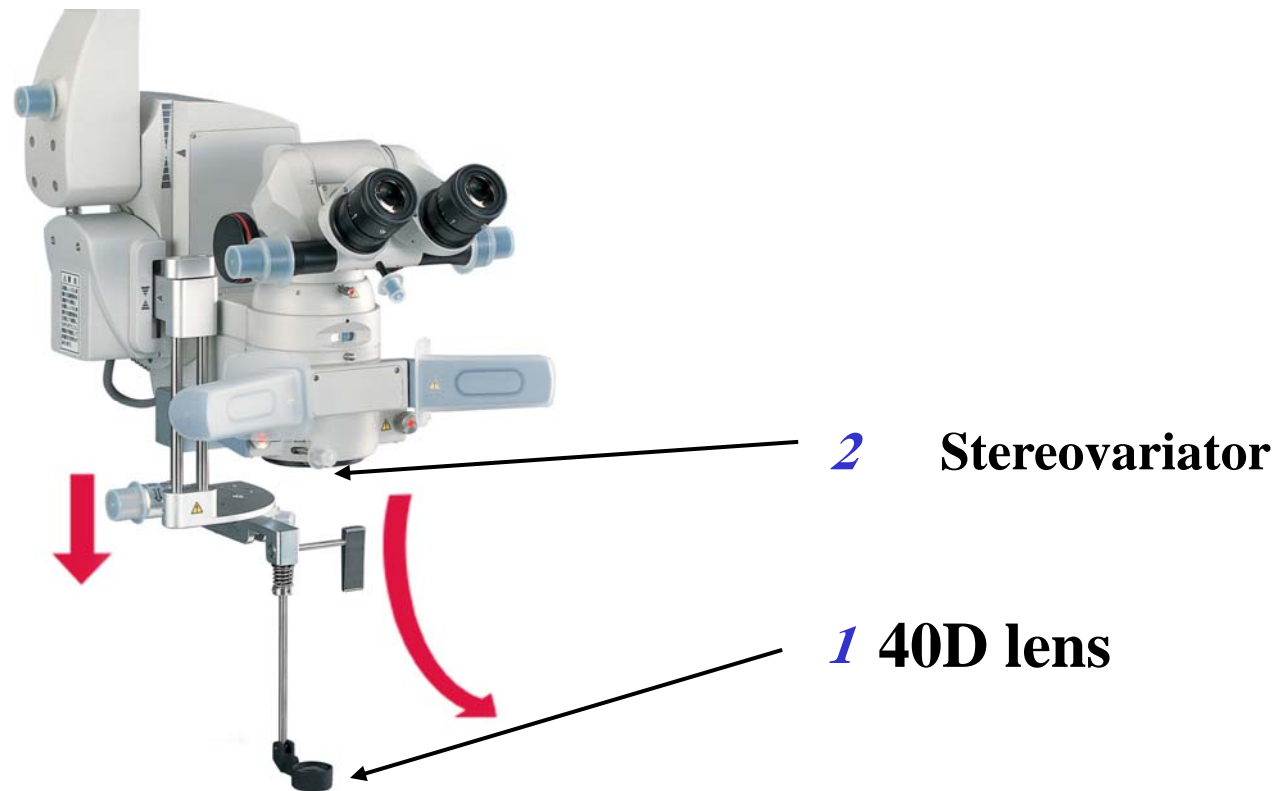
Vol.1

OMS-800 Operation Microscope

TOPCON

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- 1** Set 40D lens as per picture in order to use OFFISS
- 2** Switch stereo variator to ***“IN”*** (*Right*)



When OFFISS is in use, 3 kinds of lever and 2 pedals are used as indicated in the below picture

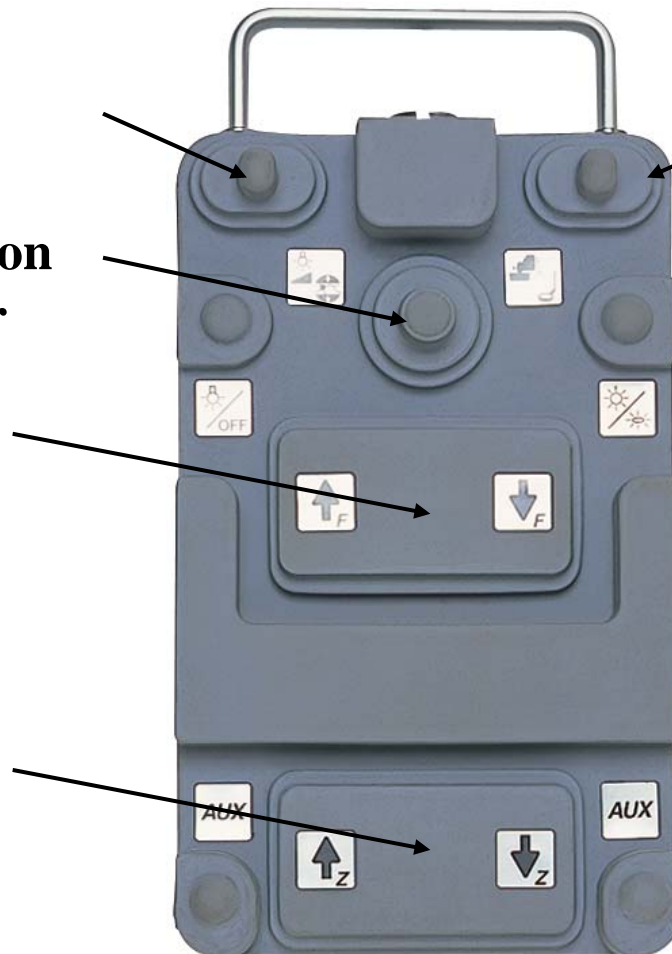
Slit illumination lever

XY direction lever

Focus up/down pedal

Zoom up/down pedal

40D lens focusing lever

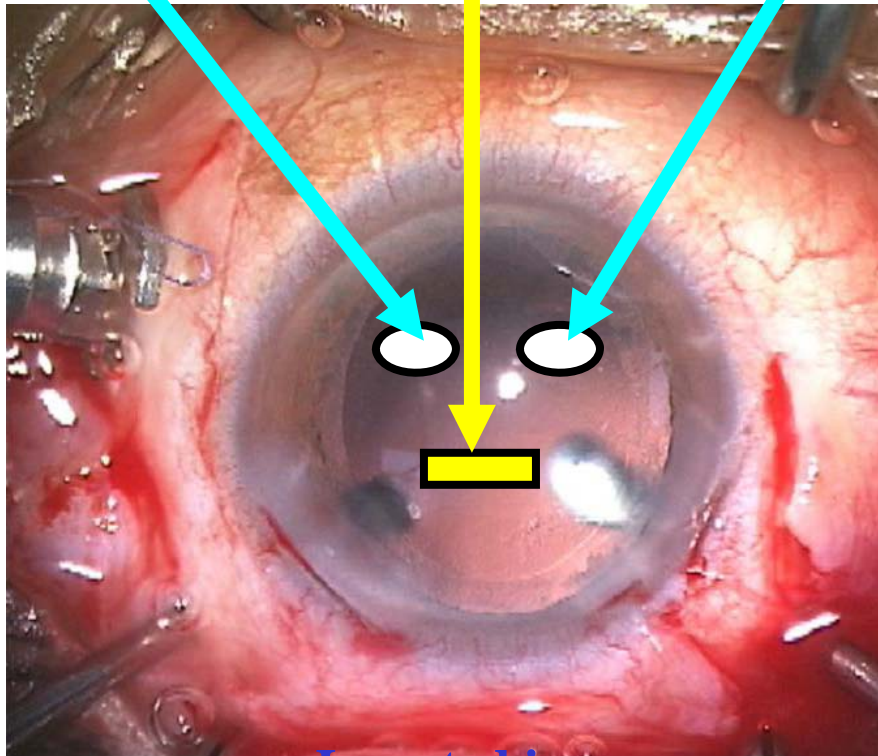


The best view can be obtained when viewing angle and illumination angle are set as below picture.

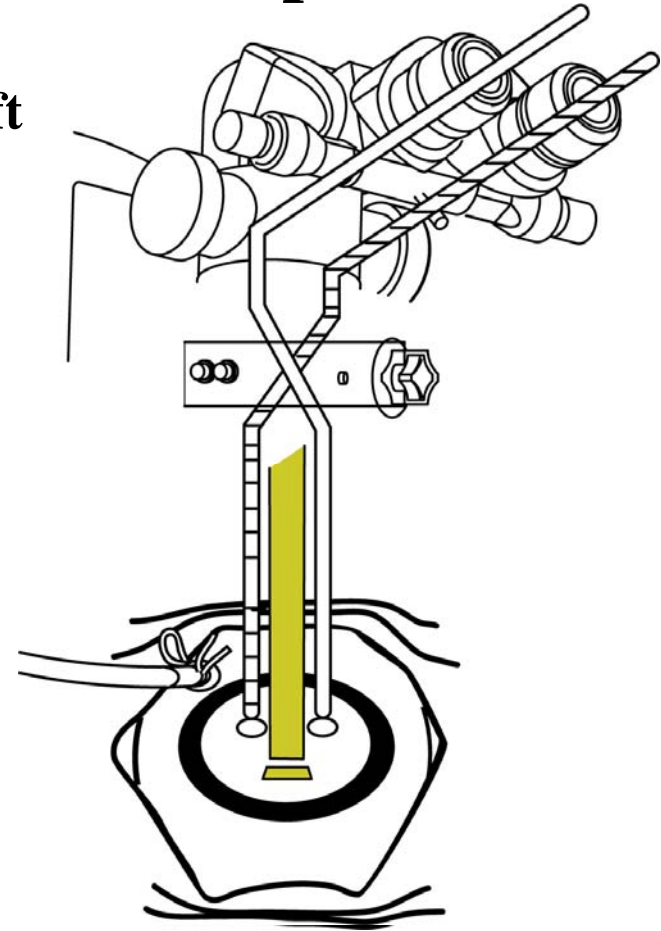
Doctor's right
eye view

Condensed light
of microscope

Doctor's left
eye view



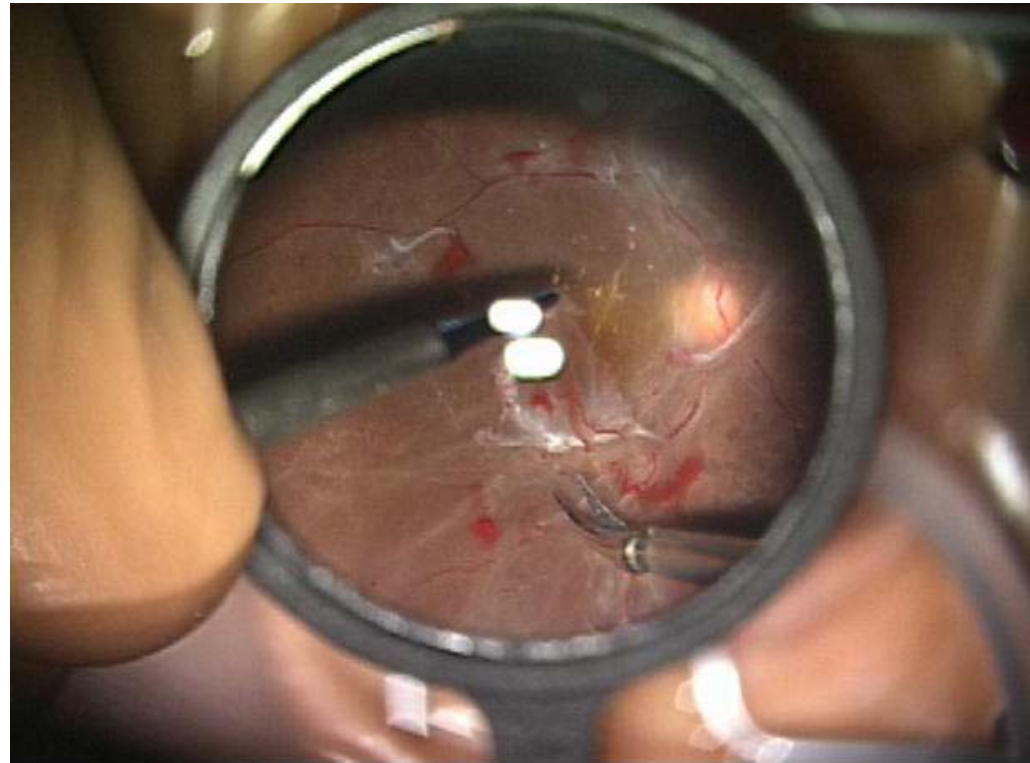
Inverted image



A The most suitable application of this system is the following case; **PEA + Vit + IOL**
Firstly PEA is performed, and visibility at full field can be obtained when OFFISS is used in aphakic condition

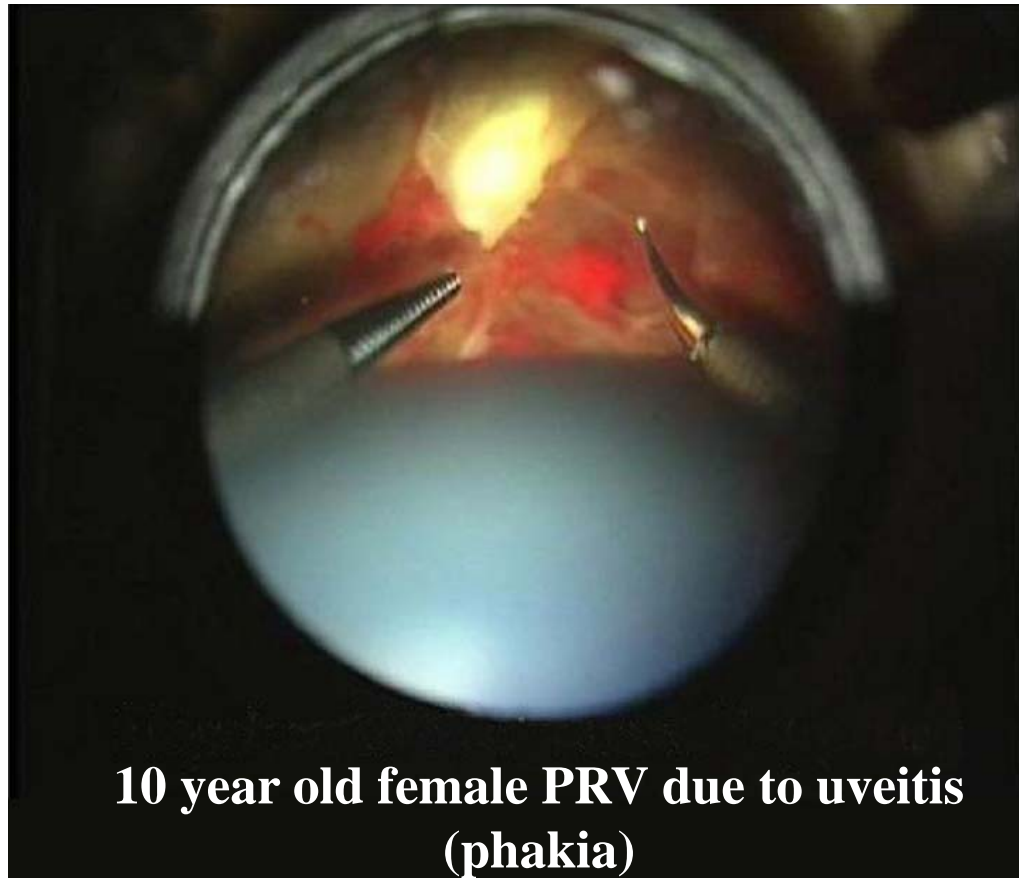
PEA; Phacoemulsification
Vit; Vitrectomy

PDR; Proliferative
Diabetic Retinopathy

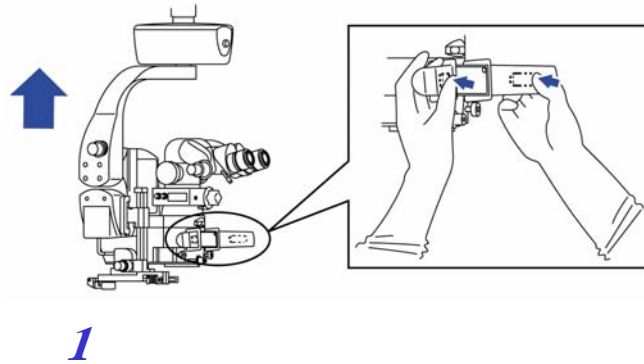


65 year old female PDR(PEA+Vit+IOL)

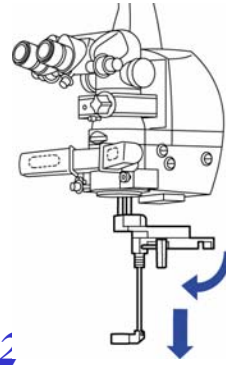
B Slit illumination should be used in the case of phakia and pseudophakia because too much reflection would be present at full field.



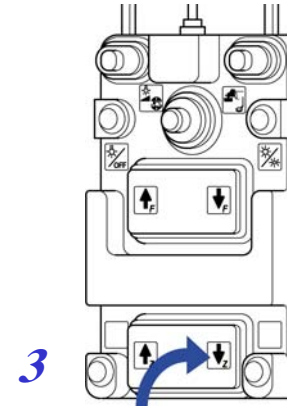
1) **1** Lift up the microscope



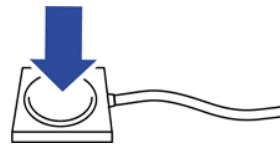
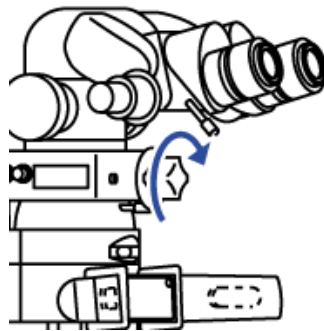
2 Pull down 40D lens



3 Set to lower magnification



Invert the image by using SDI inverter and lift the bottle of BSS about 10 cm. **(BSS; the name of irrigating solution)**

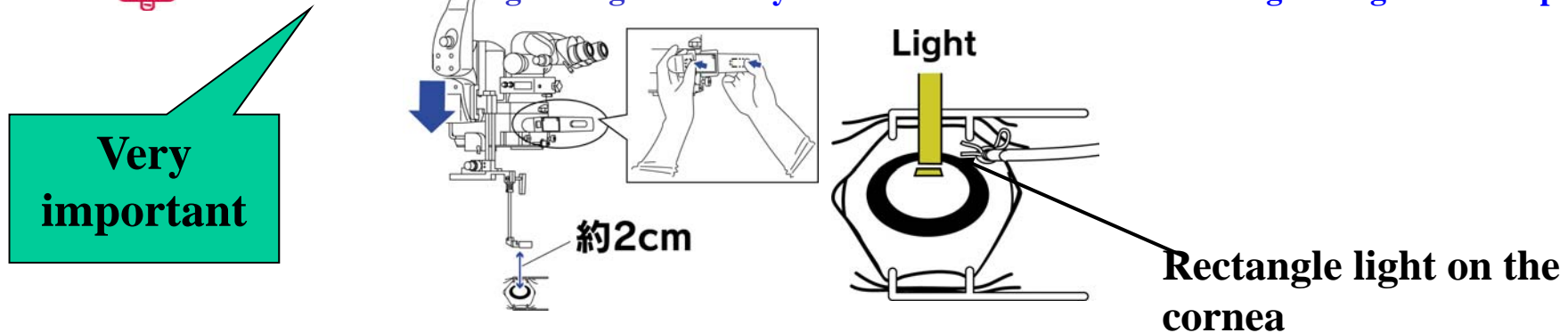


Footswitch for Inverter

Current version has automatic inverter IN/OUT function as well as manual operation by footswitch.

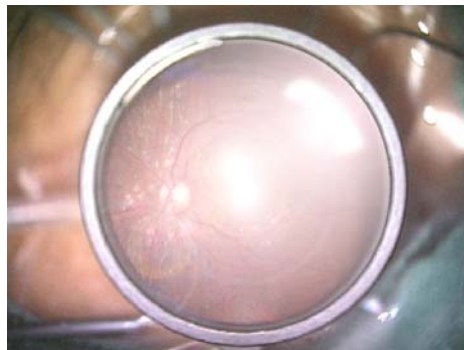
2) Pull down microscope to have 40D lens located about 2cm above the cornea.

 Please check if a rectangle of light is clearly visible on the cornea before seeing through microscope

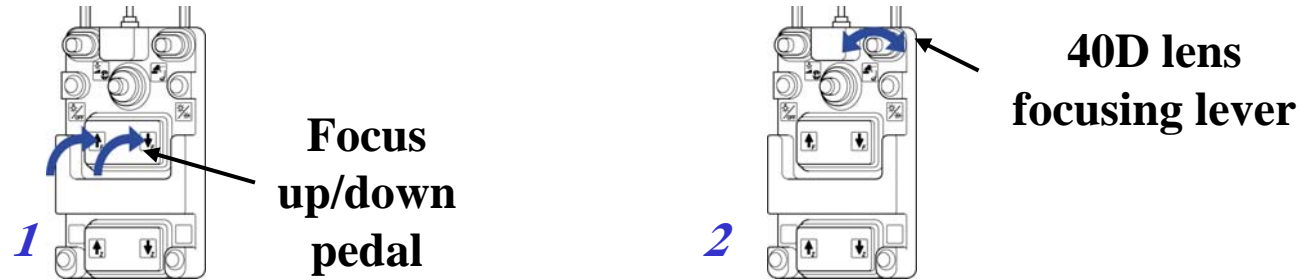



The following surgical procedures will be through the microscope.

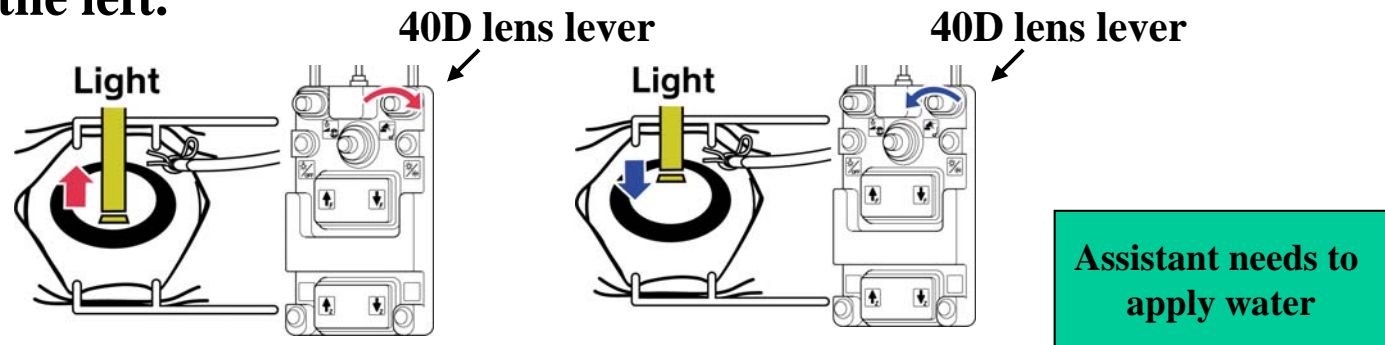
3) Looking through the microscope at this point, the retina will be visible, however focusing might not be perfect and too much reflection might be present.



4) Firstly, try to focus by using foot pedal, then move 40D lens lever up & down to eliminate reflection.



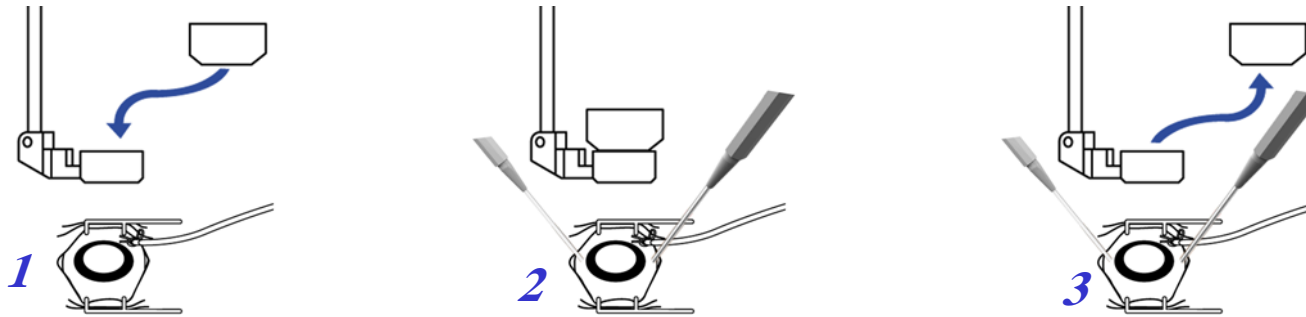
 When a strong reflection is present below the image, turn the 40D lens lever to the right. When it is seen above the image, turn the lever to the left.




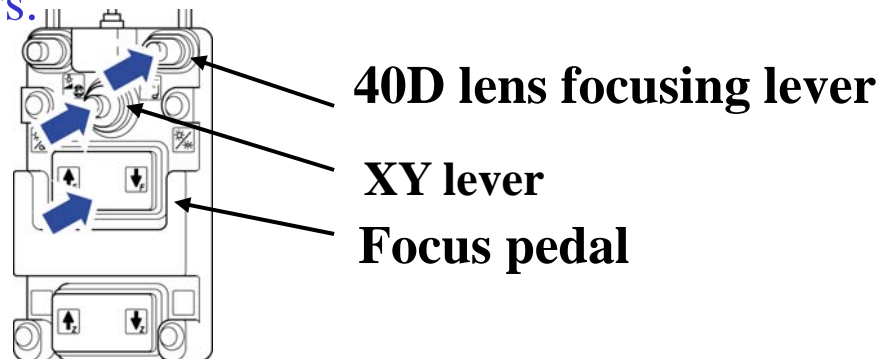
 If some reflection can not be removed by the above manipulation, or if there is some reflection throughout the image, it may be due to dry cornea, cloudy vitreous or distorted cornea.

5) When the retina is visible,

- 1** Place 60D lens onto 40D lens in order to see anterior image.
- 2** Insert microsurgical instruments for Bimanual technique.
- 3** Remove 60D lens before proceeding to surgery.



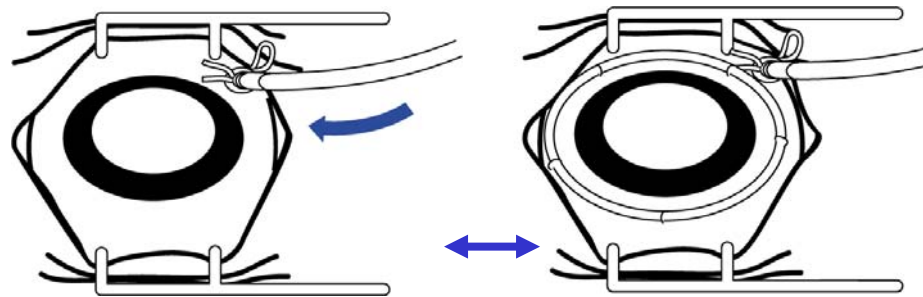
 If the eye is moved during surgery, alignment should be readjusted by using XY, focus and 40D lens levers.



6) If you are not familiar with surgery using forceps and scissors bimanually, there is a risk of distorting the cornea which would make it difficult to obtain clear vision of retina.



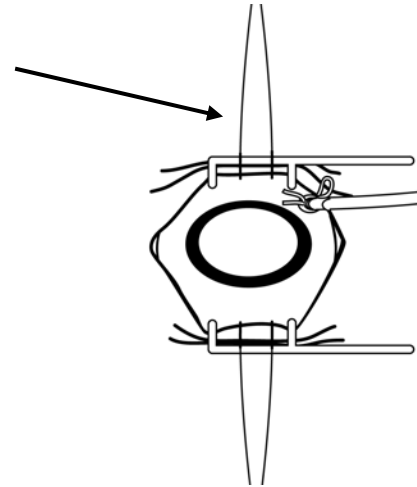
In order to obtain the peripheral retina, attaching the ring (iris retractor) and increasing IOP are also ways to improve visualization.



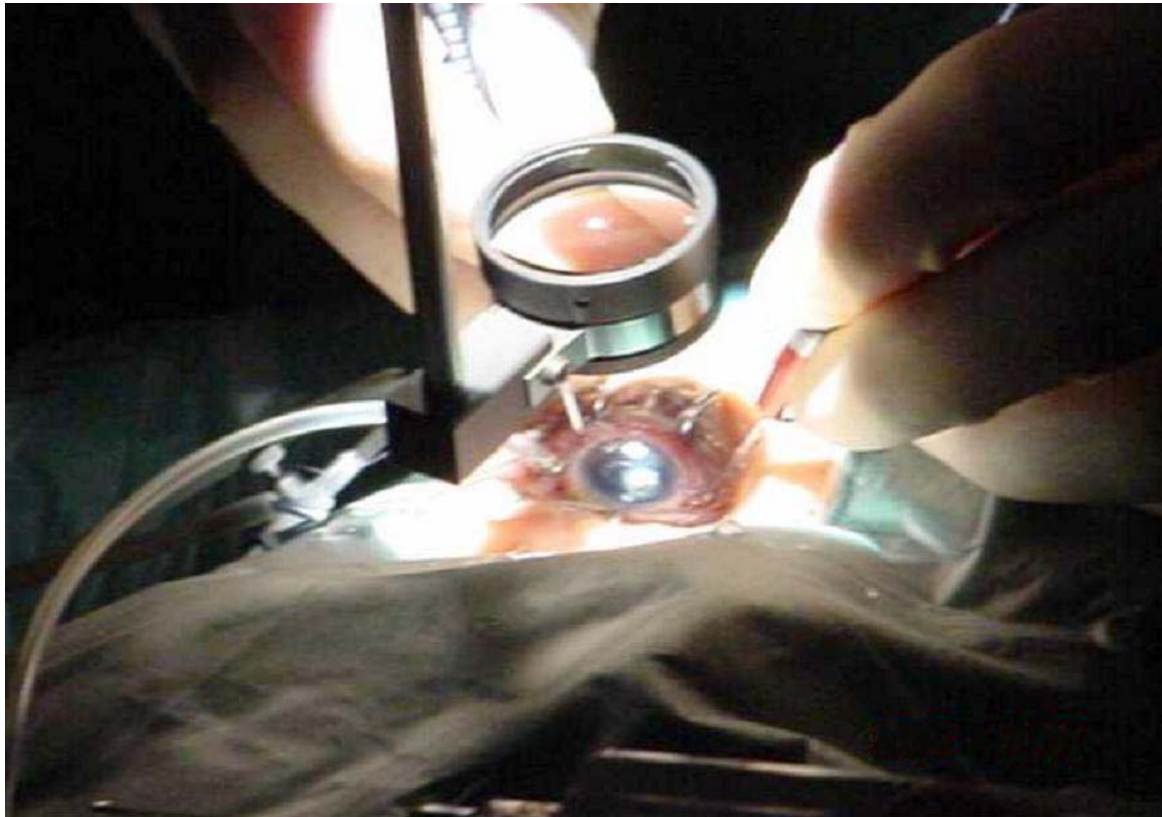
7) First, depress the peripheral area by using the scleral depressor. Then cut the vitreous by using the cutter. If focus is adjusted to the peripheral part of retina at this point, 40D lens may have to be adjusted again.

8) In order to get use to the OFFISS system, it is also effective to start using endo-illumination with OFFISS lens to perform core-vitreotomy.

9) In order to move the the eyeball to see peripheral area, it is better to use control sature hooked on the rectus muscle. In this way, the corneal distortion becomes minimum.



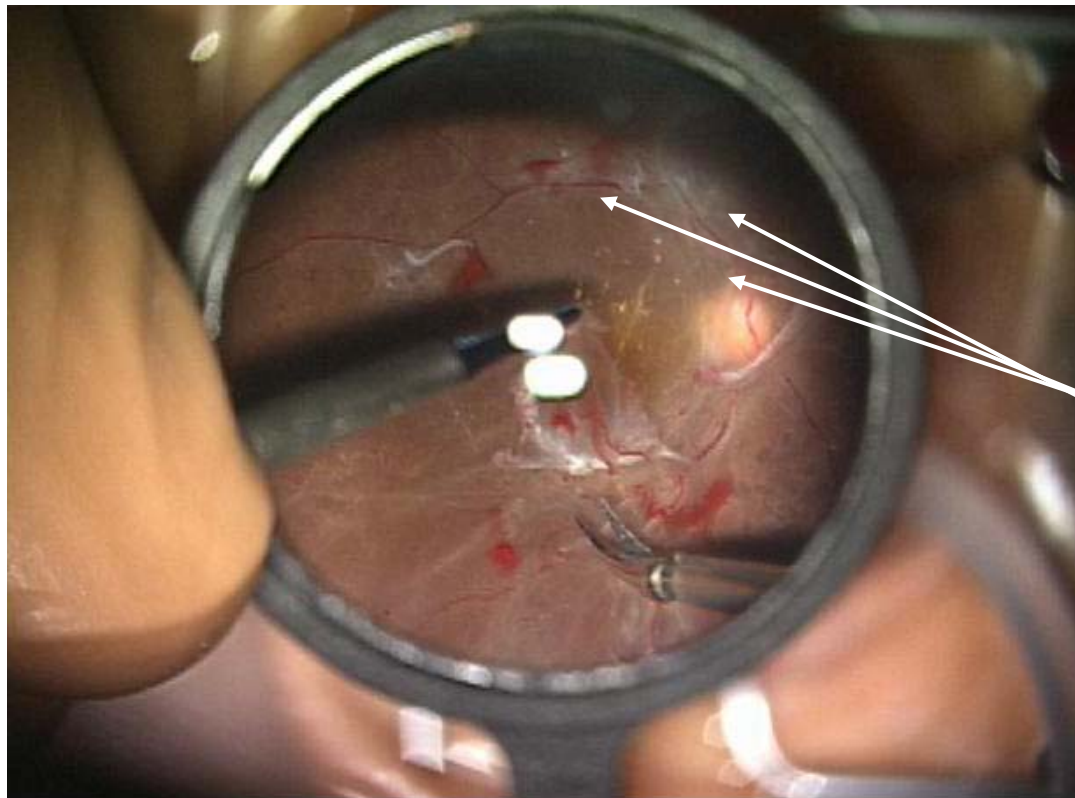
The illumination from microscope is focused on the cornea.




After PEA, an excellent image at full-field can be obtained.

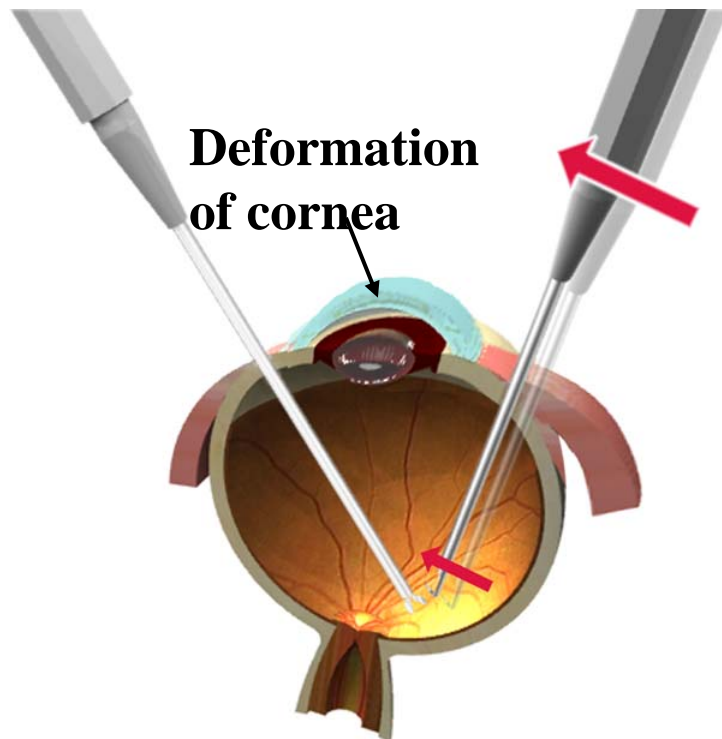


Ensure that 40D lens remains as clean as possible.

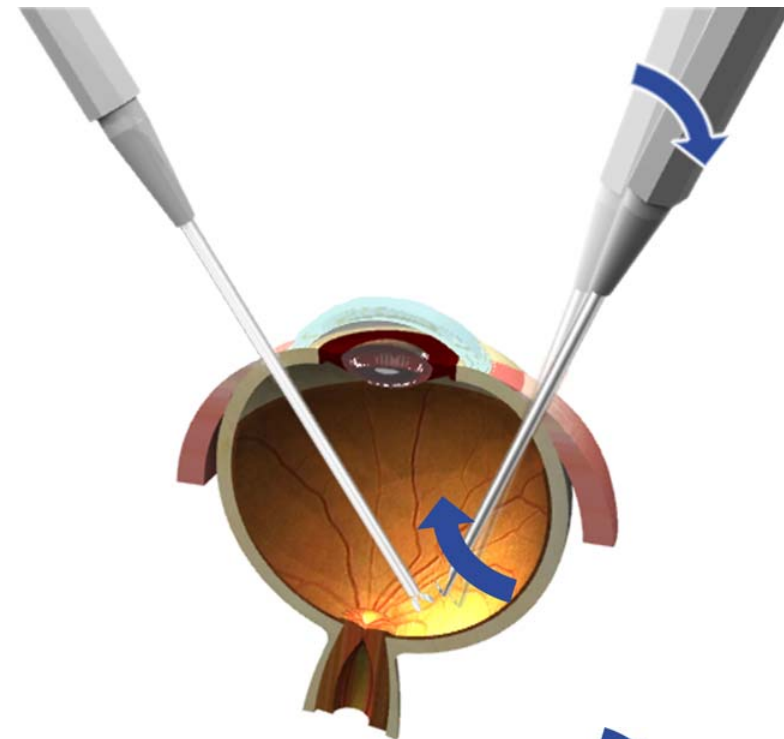


Dirt on the 40D lens

Inappropriate motion like the ones on the following drawing () will deform the cornea. As a result, visibility of the retina will be deteriorated.



The same applies when moving the eye



Appropriate motion ()

A PEA, VIT, IOL

- a. First, perform PEA, then perform core vitrectomy using CL + Wide angle view
- b. Perform peripheral vitrectomy using OFFISS.
- c. Remove the membrane using OFFISS.
- d. Perform IOL implant

B phakia and pseudophakia

- a. Perform core vitrectomy using CL + Wide angle view
- b. Perform peripheral vitrectomy using OFFISS.
- c. Remove the membrane using OFFISS.

C Fluid/Air exchange

- In case of PEA, VIT, IOL with fluid/air exchange, please use slit illumination in order to observe the retina clearly.

For those who use OFFISS

- **OFFISS is the same as a Binocular ophthalmoscope.
Once you become accustomed to OFFISS, you will see all its benefits.**
- **As an increasing number of surgeons are using OFFISS, those who do not use wide angle view systems may need a little bit of time until they become accustomed to OFFISS.**

OFFISS opens up the new possibilities in intravitreal surgery.

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