

Cleaning and Maintenance

Dust and dirt particles can sometimes be seen during observation and may affect image quality. This is particularly frustrating if dust particles are visible when photographing important specimens that cannot be photographed again. To help ensure you get the most from your microscope, cleaning should be a regular part of your maintenance routine. The following basic procedures explain how to clean the microscope and accessories, from the external frame and optical system to specimen slides.

Cleaning the Microscope Frame

When cleaning the frame, avoid touching the lens and using organic solvents that may damage any plastic parts.

Clean stains or dirt off a microscope frame in two steps:

1. First wipe the dirt with a cloth moistened with a small amount of neutral detergent.
2. Remove the dirt completely with a cloth that has been immersed in lukewarm water.

Maintaining the Cleanliness of the Optical System

Keeping the optical system clean is essential for image quality. If dust spots on optical glasses such as lenses, prisms, and filters are left unattended, the dirt can become difficult to remove and may mold. By keeping the optical surface clean, you can avoid many maintenance problems and prolong the life of your microscope.

Important: The following procedures to clean the lens surfaces only apply to exposed areas of objectives, eyepieces, filters, and condensers. If internal or major cleaning becomes necessary, please contact your Olympus microscope dealer.

Cleaning Accessories Such as Filters and Condensers

When cleaning large glass surfaces on both sides of an accessory, such as a filter:

1. Fold a lens tissue soaked in cleaning mixture in two or three layers.
2. Hold the accessory at its edges.
3. Wipe from the center toward the periphery as you slowly rotate it.

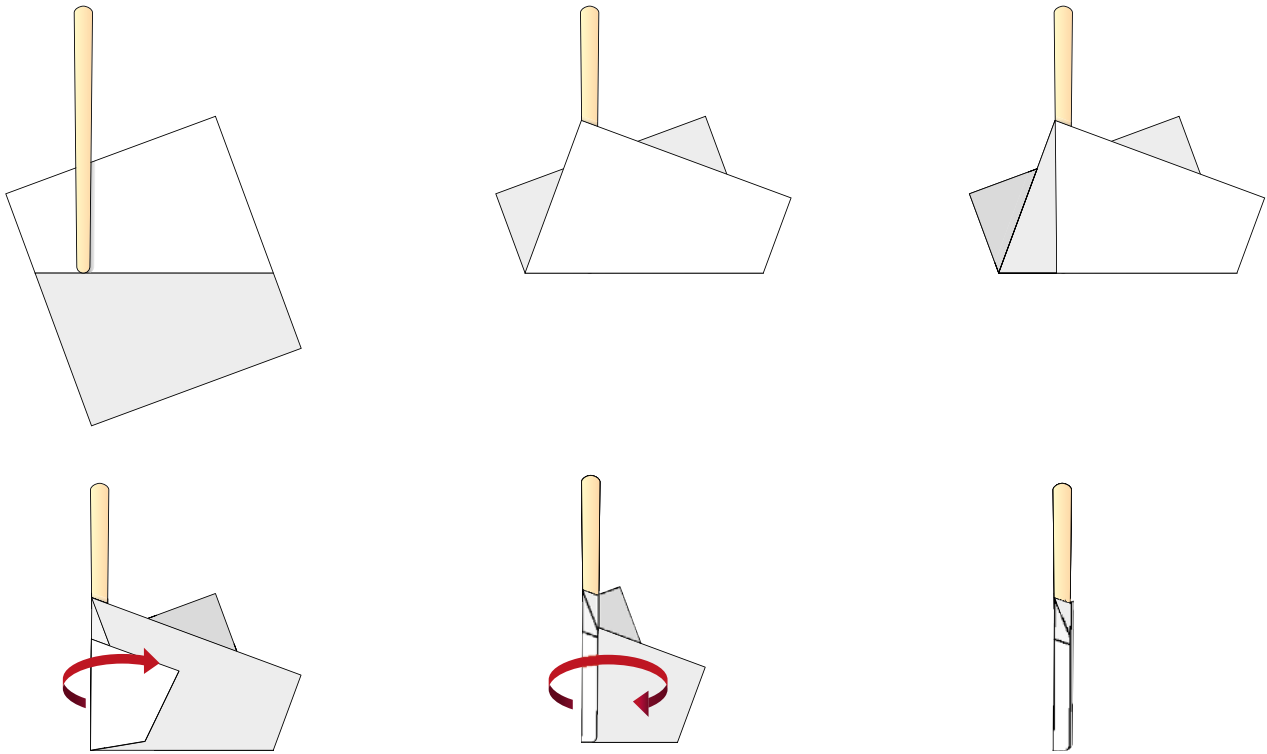
When cleaning the surfaces of the condenser and the light exit glass:

1. Hold a piece of lens tissue between your middle and index fingers.
2. Fold it, and then wrap it around your index finger.
3. Hold the tissue down with your thumb while wiping the lens surfaces clean.
4. After cleaning, examine the lens surface with a magnifying glass. If color reflected from the lens surface looks uneven, it is an indication that there is still dust specks and dirt on the lens.

Tip: If you look through the bottom of an eyepiece, it can function as a magnifying glass.

Cleaning Optical Lens Surfaces

1. To help prevent scratches on coatings and optical glass, remove dirt and dust that sticks to their surface with an air gun or blower brush.
2. Wrap the lens tissue around a bamboo stick (see the illustration below).
3. Put a small amount of lens cleaning fluid or cleaning mixture (absolute alcohol) on the tip of the lens tissue, and gently wipe the lens in a circular motion. Discard each lens tissue after a single use.
4. When cleaning a large lens surface, you can also use a lens tissue wrapped around your index finger. Wipe from the center toward the periphery in a circular motion. Always use a clean part of the lens tissue as you rotate your finger.



Cleaning a Specimen Slide with a Cover Glass

Make it a habit to clean each specimen slide both before and after observation. The removal of oil as well as routine cleaning can be done more easily if the specimen slide is removed from the stage.

- For routine cleaning: use a soft cloth, gauze, or piece of lens tissue without cleaning liquid to wipe the slide.
Tip: If the contamination is difficult to remove, try breathing on the slide before wiping it.
- For slides that are particularly soiled with oil: lightly moisten a cloth or cleaning tissue with cleaning mixture, making sure to apply only a small amount, as excessive fluid can seep underneath the cover glass and damage the specimen. If the oil cannot be completely removed with one wipe, continue wiping until the oil film is removed.