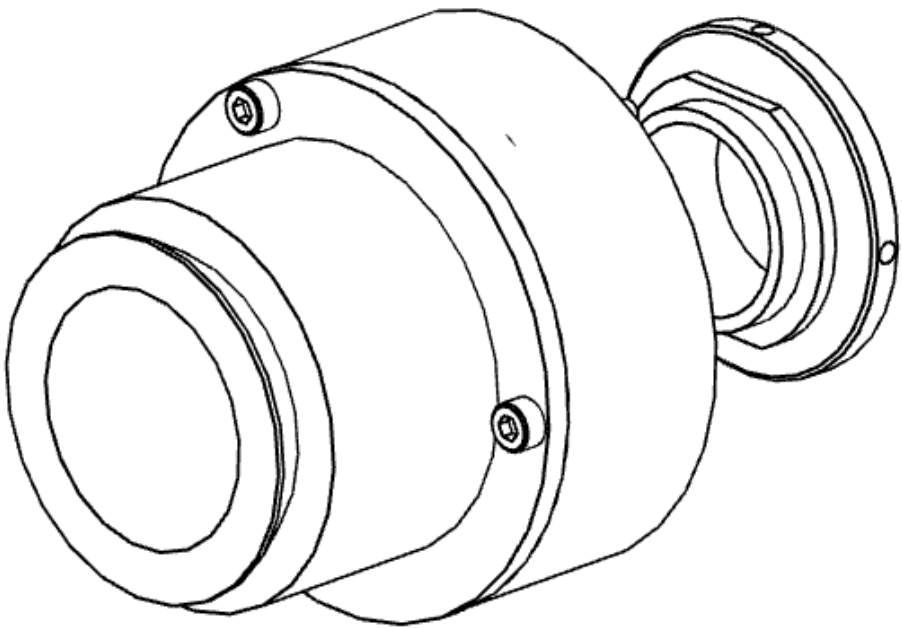


Filter Wheel and Shutter Adapter Installation and Handling Guide



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Important Note

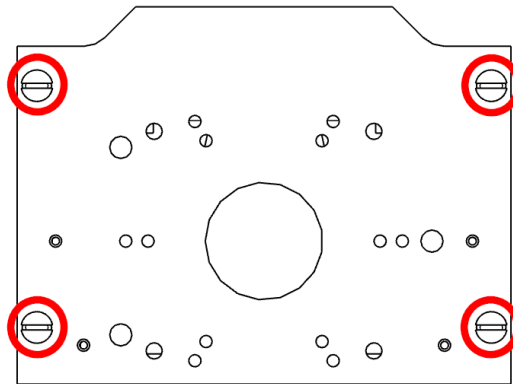
The following instructions for each adapter work identically for filter, shutter, and filter + shutter combinations.

It is important to know that each adapter comes as two parts, one **microscope** adapter (typically **three** screws) and one **light source** adapter (typically **four** screws).

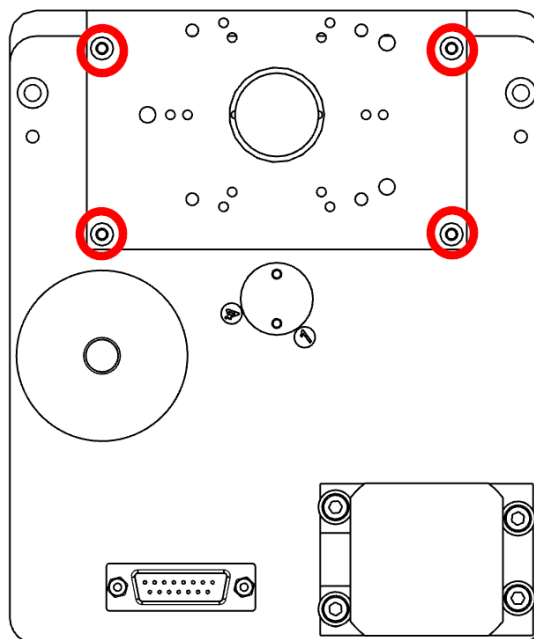
The silver side of any shutter, by itself or in combination, should face towards the light source.

Connecting a shutter to a filter wheel.

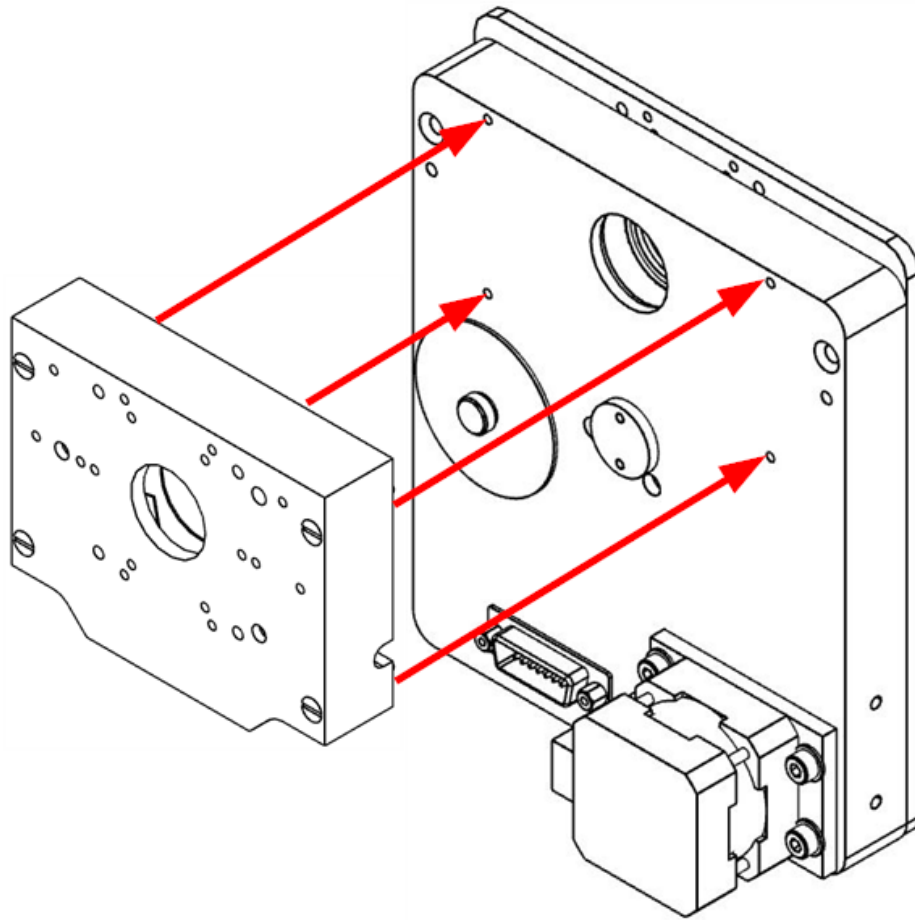
- 1) Remove the four long screws from the corners of the shutter, allowing the backplate to come loose and place it aside.



- 2) Remove the adapter from the motor side of the filter wheel, if present, by unscrewing the four screws in the corners.



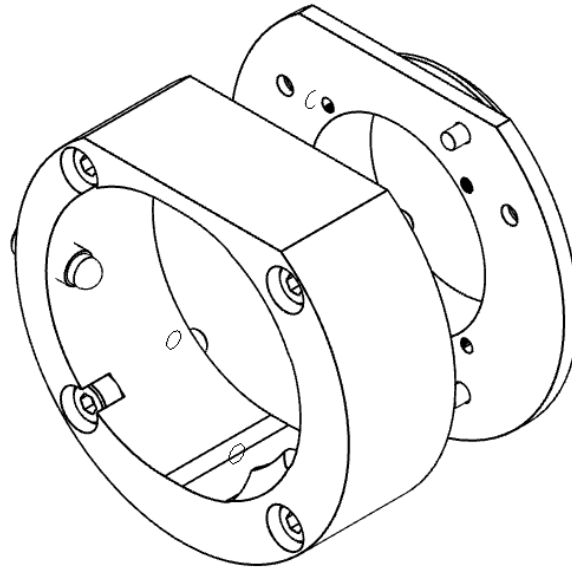
- 3) Place the shutter open side against the filter wheel and protruding top pointing towards the motor so that the four screwholes line up with the adapter screwholes. Use the long screws from the shutter to screw the shutter to the filter wheel.



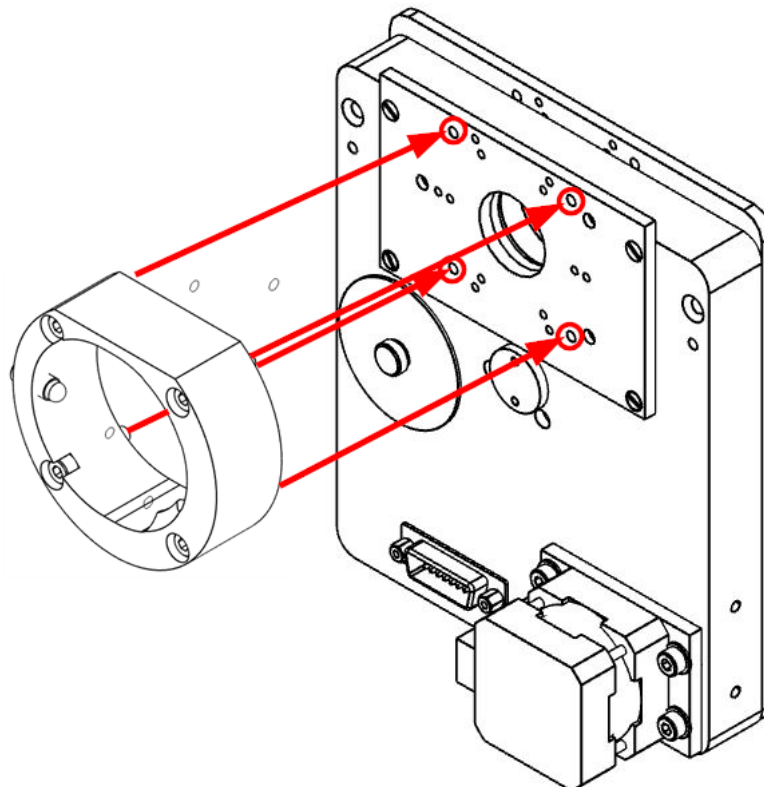
- 4) Once tightened, the shutter is now attached to the filter wheel and can have adapters attached.

Excitation – HF215 Adapter for Leica DM Microscopes

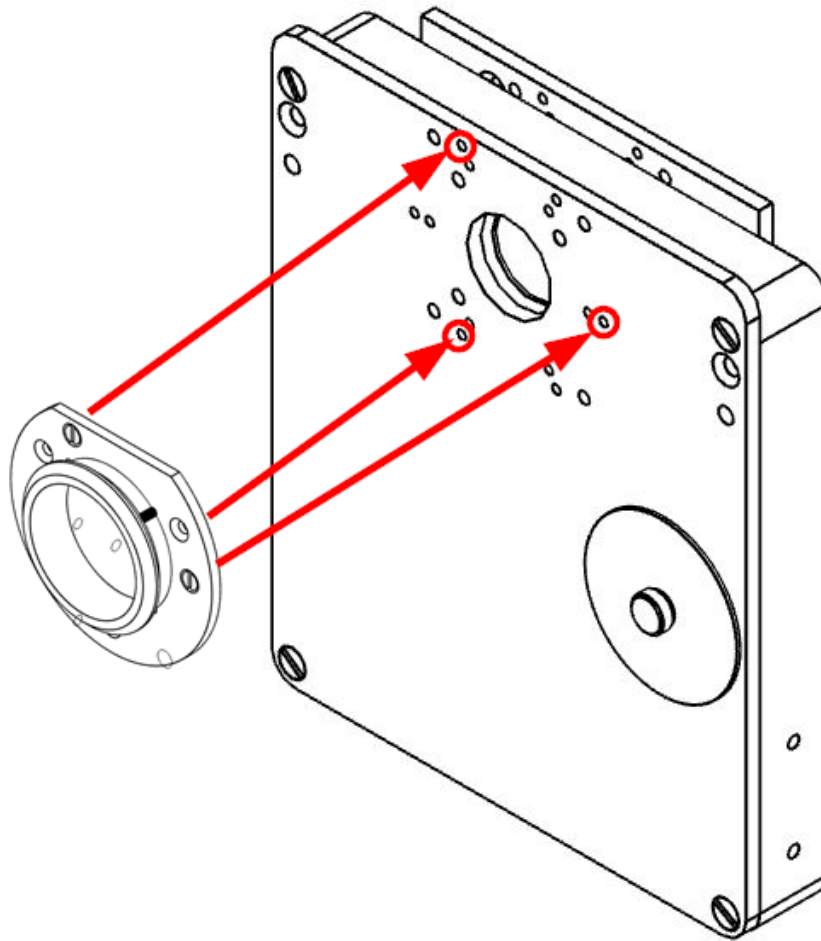
- 1) Separate the adapter into the large female flange and the smaller male flange.



- 2) The large female flange connects to the four adapter holes arranged in a square on the motor side of the setup. The flange should be arranged so that the flat edge is against the top of the filter wheel, and the counterbored screw holes are facing **outwards**.



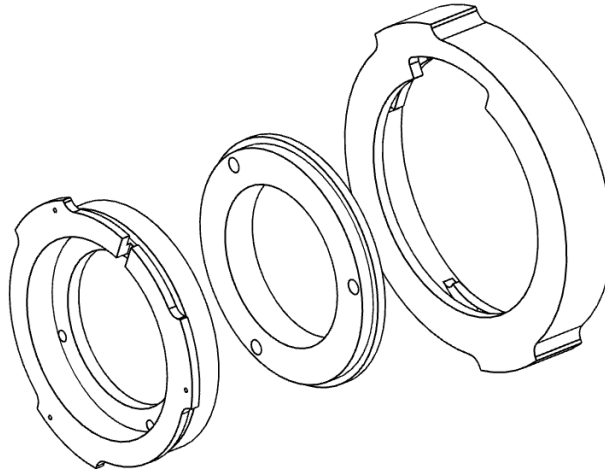
- 3) The smaller male flange connects to the flat side of the filter wheel, flat edge aligned with the top of the filter wheel, and screwed into the circled screw holes.



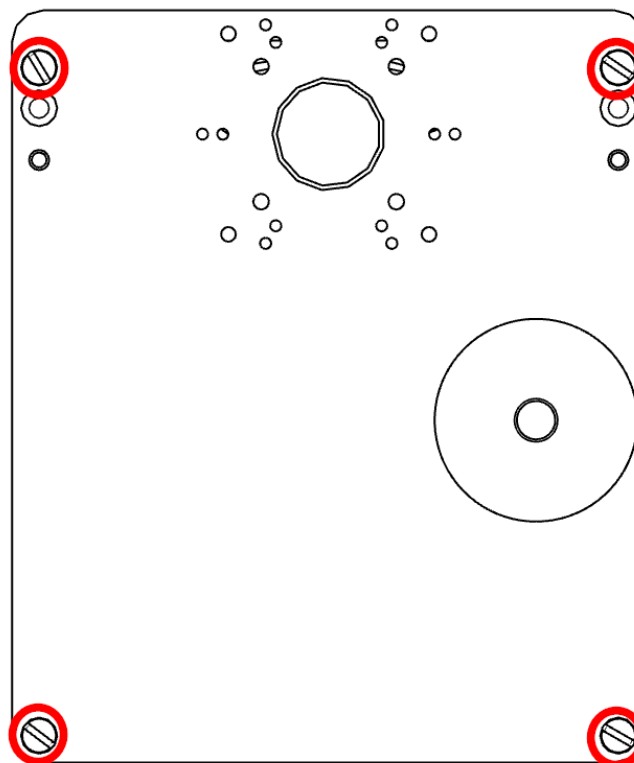
- 4) Once both adapters are firmly secured, the filter wheel is ready to secure to the microscope.

Excitation – HF220 Adapter for Nikon Eclipse and Ti Microscopes

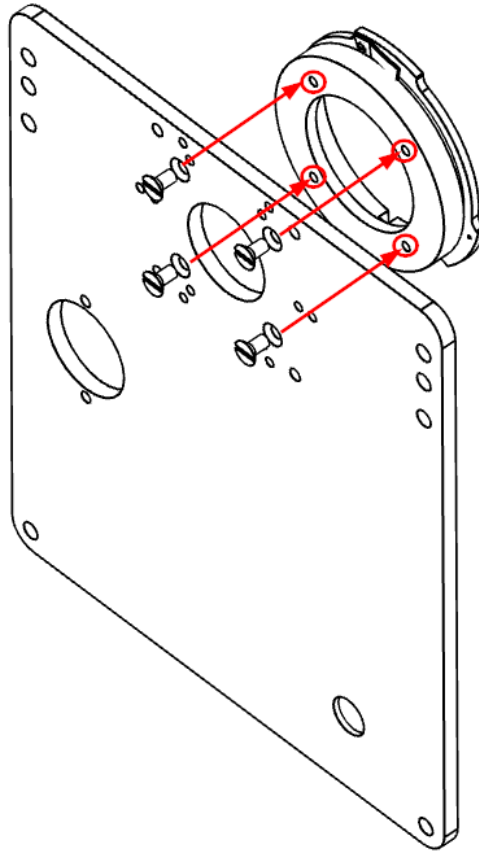
- 1) The HF220 adapter consists of three parts. A light source adapter with four screw holes, and a two-part microscope adapter.



- 2) Unscrew the four flat-head screws at the corners of the flat plate of the filter wheel.

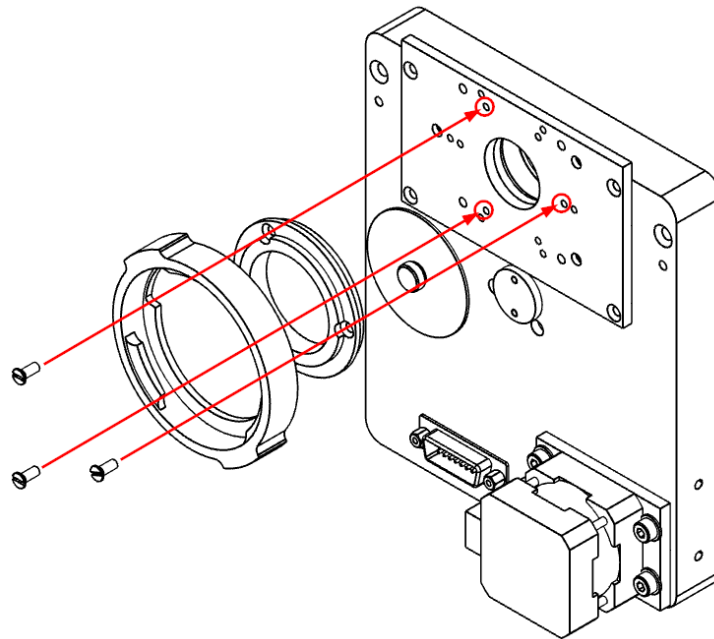


- 3) Remove the flat plate and turn it over, revealing four countersunk holes around the filter aperture. Use these holes to screw the countersunk screws to the four holes in the light source adapter. Reattach the flat plate to the filter wheel.

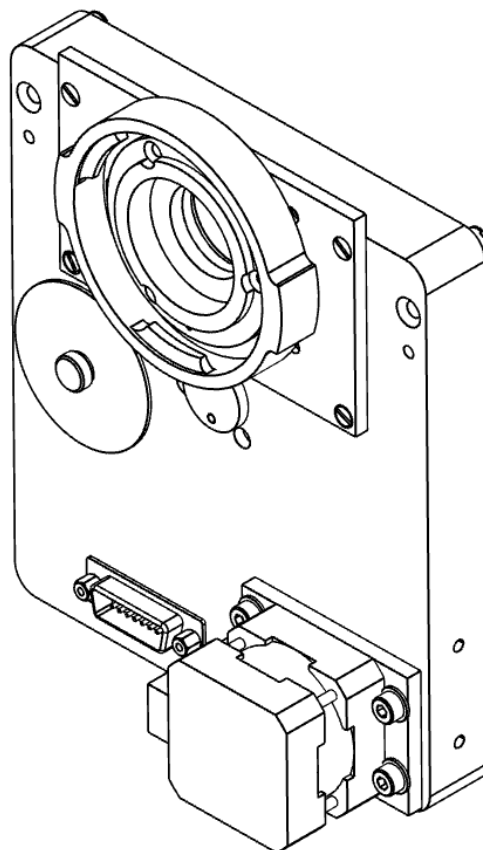


- 4) The microscope adapter consists of two parts, the female flange and a lock ring. Place the lock ring, which has no screw holes, around the motor side aperture with the two protrusions pointing to the sides of the filter wheel, and then secure it in place with the female flange in the centre.

5) Screw the female flange into the below screw holes.



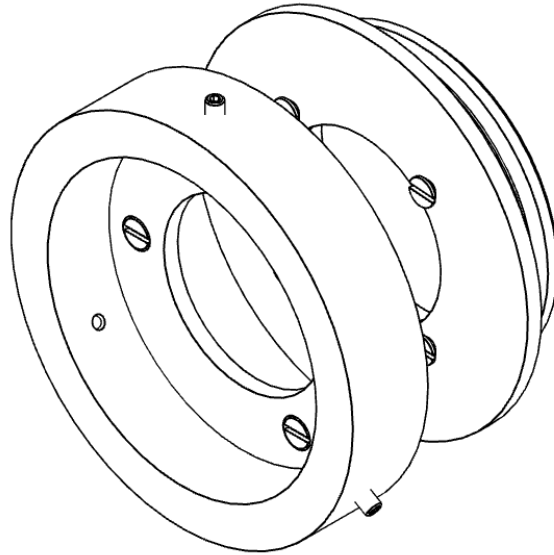
6) The lock ring and female flange should be arranged as below.



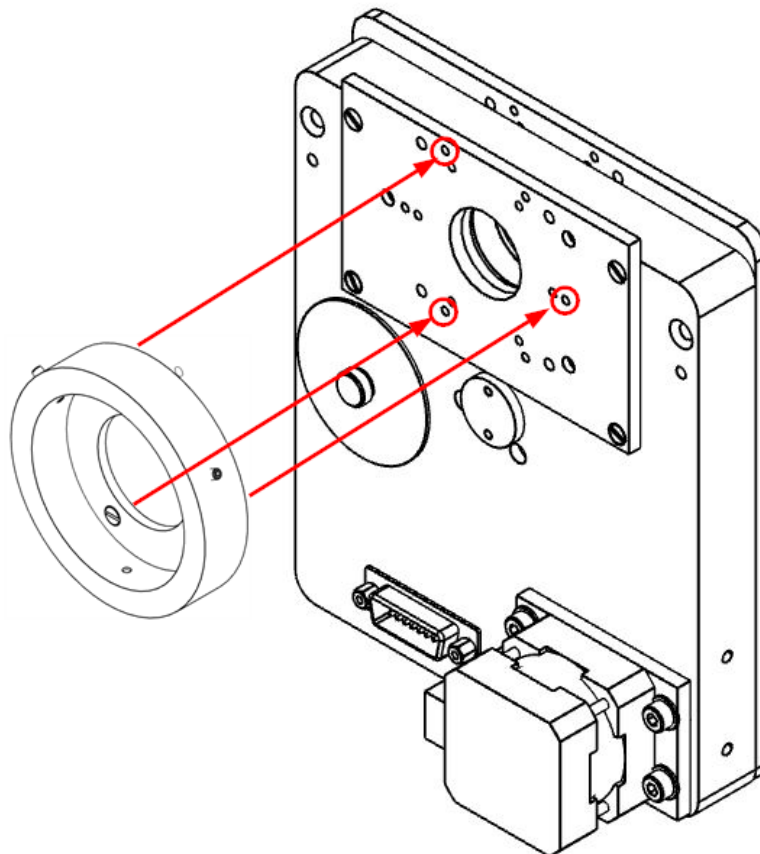
7) Once both adapters are firmly secured, the filter wheel is ready to secure to the microscope.

Excitation – HF235 Adapter for Olympus BX, IX, AX Microscopes

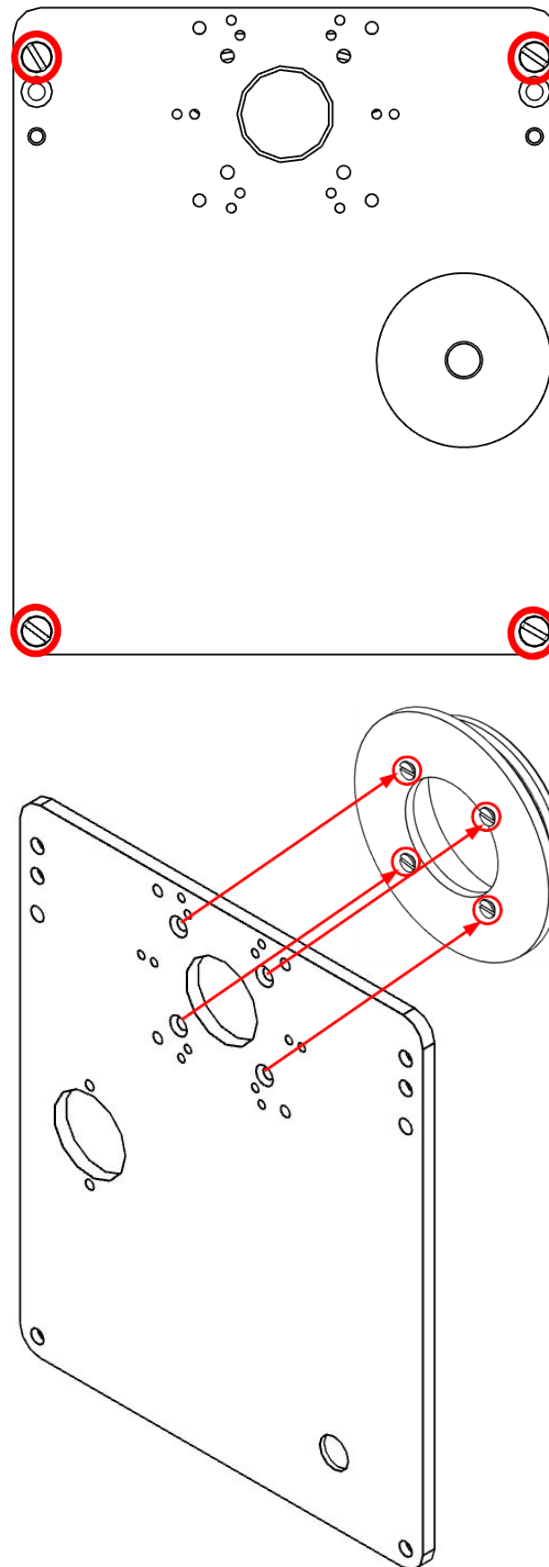
- 1) Separate the adapter into the three screwed female flange and the four screwed male flange.



- 2) Screw the female flange into the below three screw holes on the motor-side adapter.



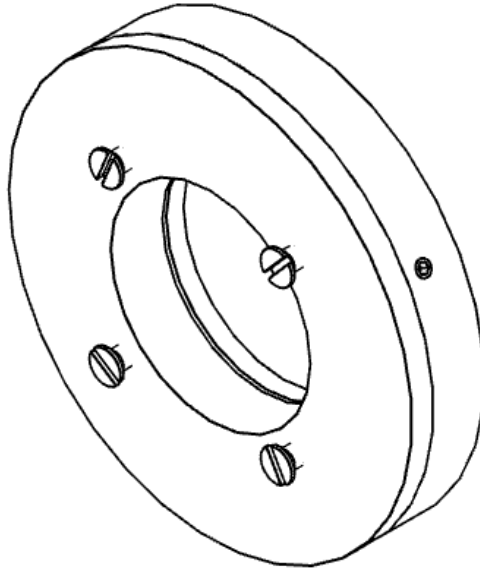
- 3) Remove the flat plate using the below circled corner screws and flip the flat plate over. Use the four countersunk screw holes to attach the male flange to the outside of the flat plate. Reattach the flat plate to the filter wheel.



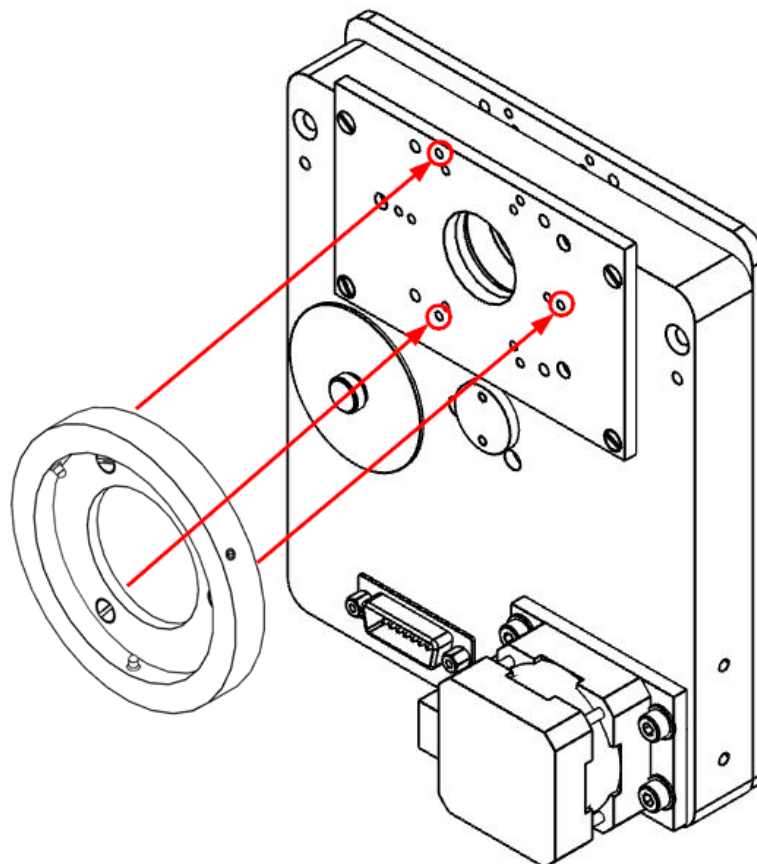
- 4) Once both adapters are firmly secured, the filter wheel is ready to secure to the microscope.

Excitation – HF240 Adapter for Zeiss Axio Microscopes

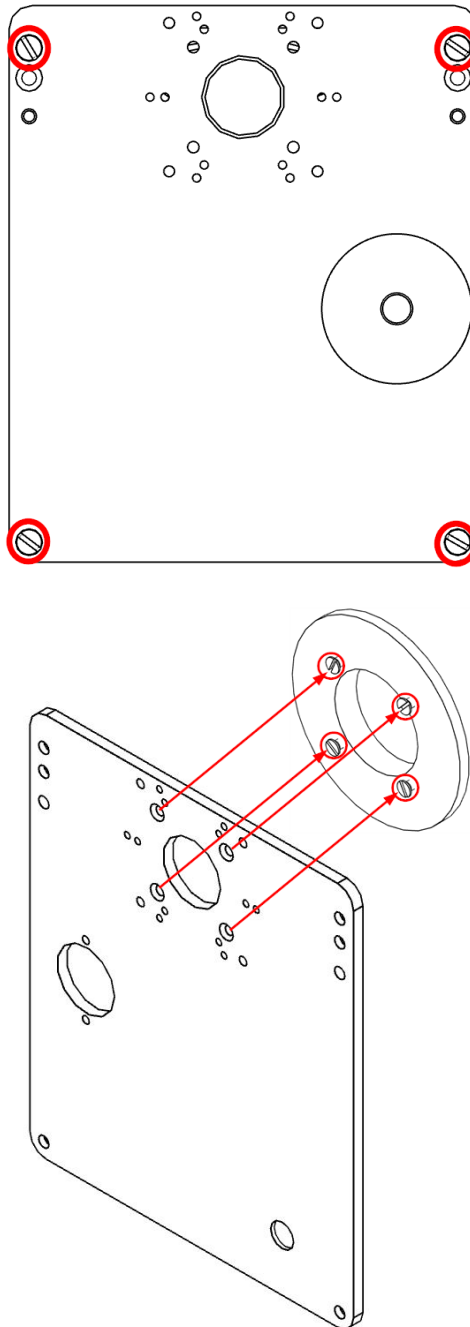
- 1) Separate the adapter into the three screwed female flange and the four screwed male flange.



- 2) Screw the female flange into the below three screw holes on the motor-side adapter.



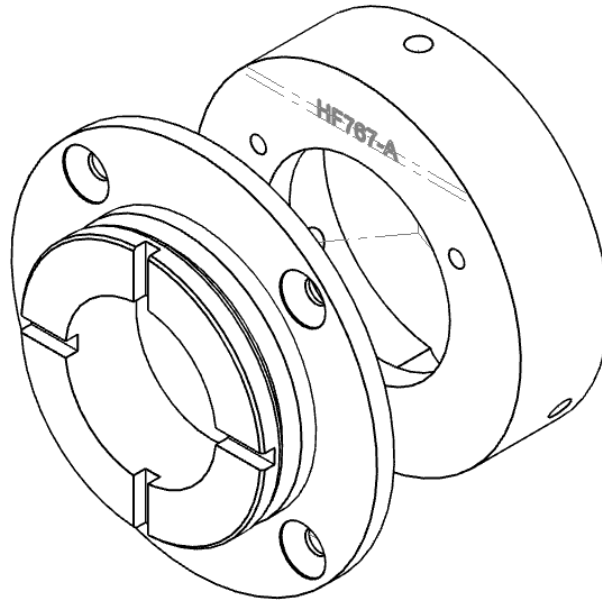
- 3) Remove the flat plate using the below circled corner screws and flip the flat plate over. Use the four countersunk screw holes to attach the male flange to the outside of the flat plate. Reattach the flat plate to the filter wheel.



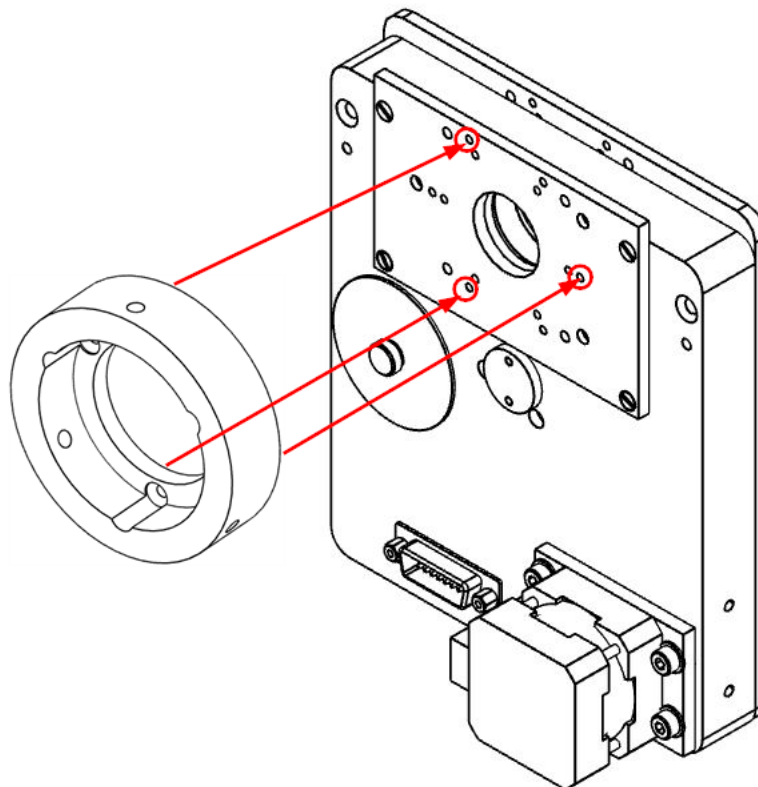
- 4) Once both adapters are firmly secured, the filter wheel is ready to secure to the microscope.

Excitation – HF261 Adapter for Nikon Ti-2 Microscopes

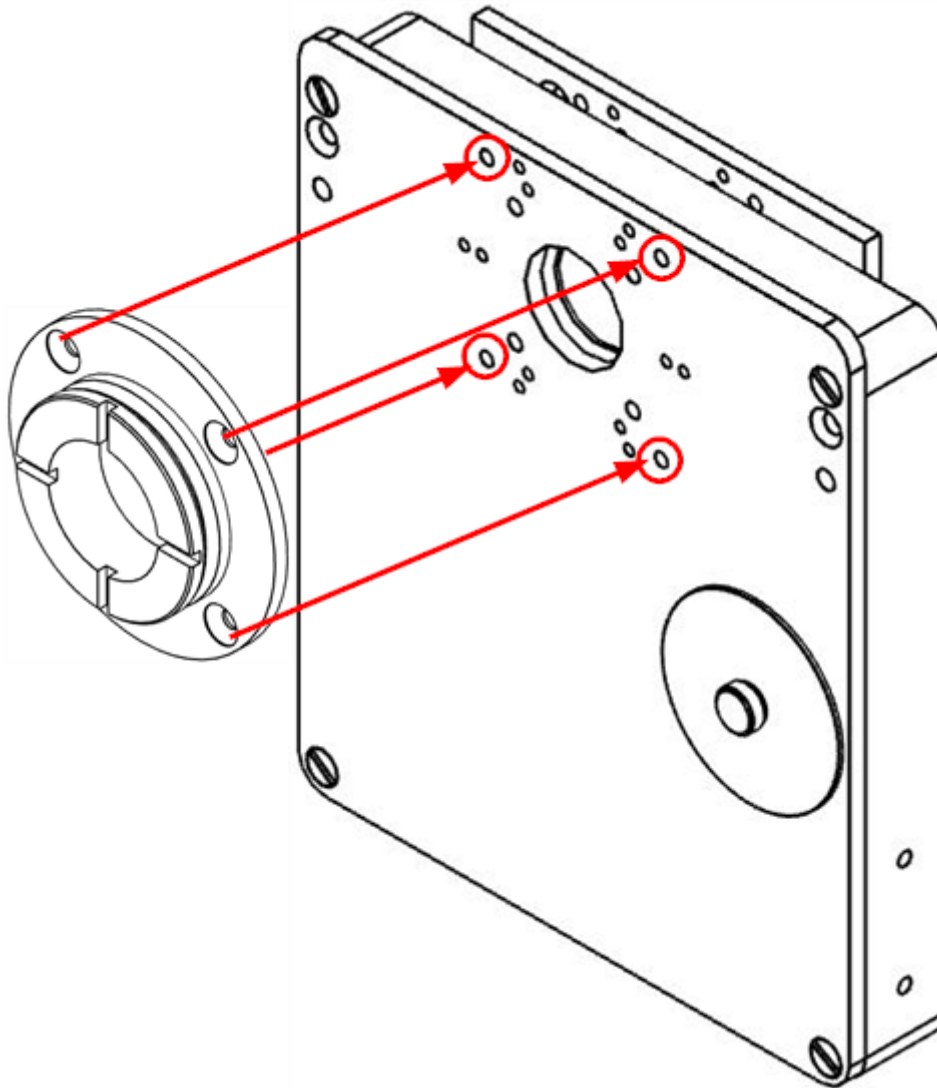
- 1) Separate the adapter into the three screwed female flange and the four screwed male flange.



- 2) Screw the female flange into the below three screw holes on the motor-side adapter.



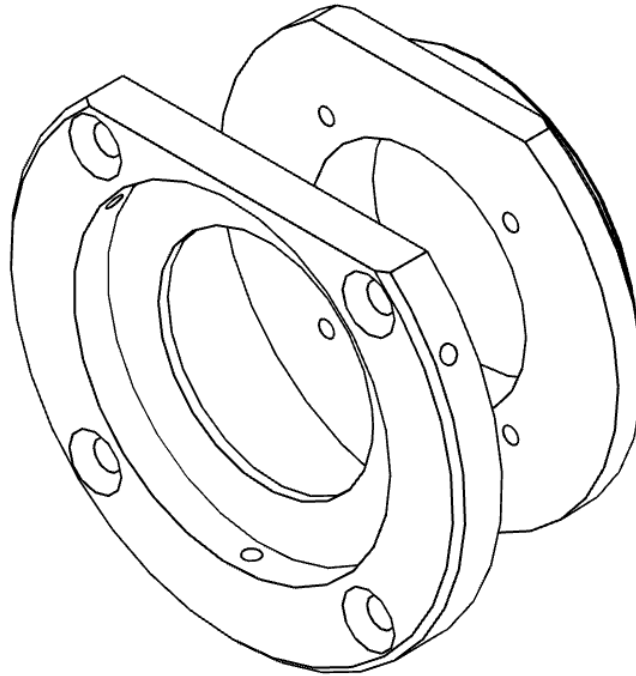
- 3) Screw the male flange into the below four screw holes on the flat plate of the filter wheel.



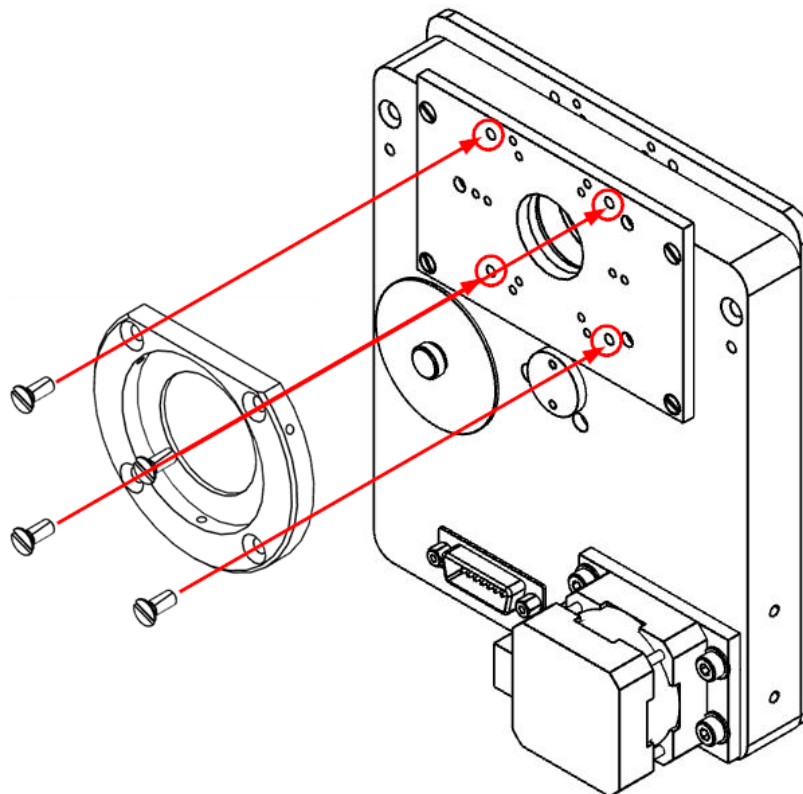
- 4) Once both adapters are firmly secured, the filter wheel is ready to secure to the microscope.

Emission – HF228 Adapter for Nikon Ni Microscopes

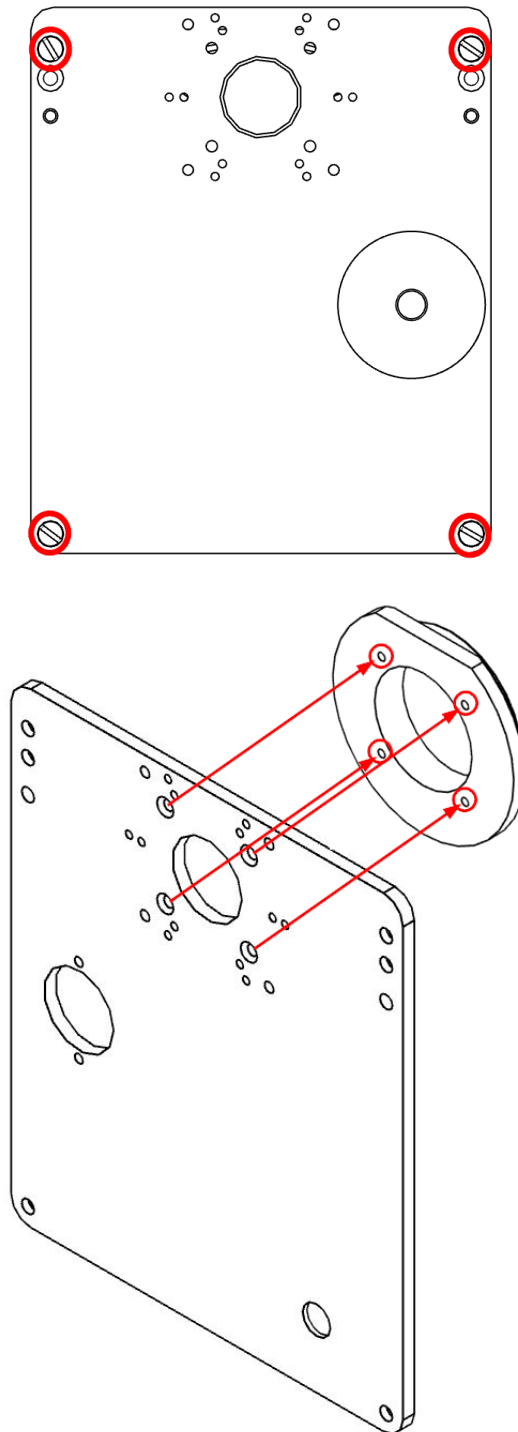
- 1) Separate the adapter into the four screwed female flange (front) and the four screwed male flange (rear).



- 2) Screw the female flange into the below four screw holes on the motor-side adapter.



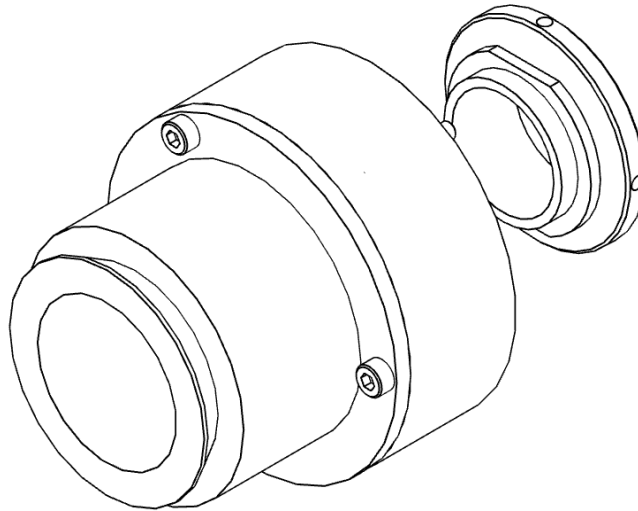
- 3) Remove the flat plate using the below circled corner screws and flip the flat plate over. Use the four countersunk screw holes to attach the male flange to the outside of the flat plate. Reattach the flat plate to the filter wheel.



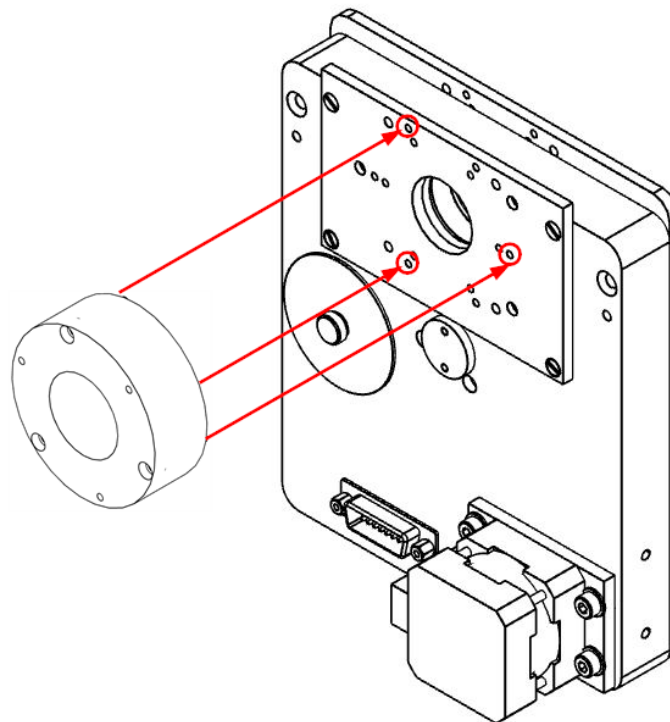
- 4) Once both adapters are firmly secured, the filter wheel is ready to secure to the microscope. This adapter mounts under the trinocular head of the microscope.

Emission – HF236 Adapter for Olympus IX Microscopes

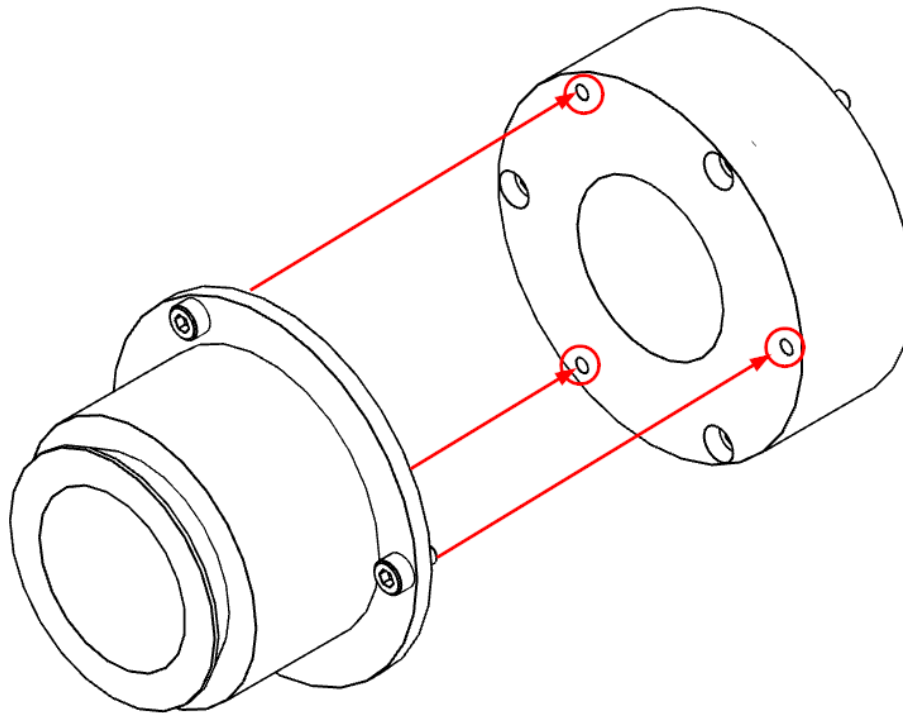
- 1) Separate the adapter into the three screwed female flange (cylindrical spacer + three screwed flange) and the threaded male flange.



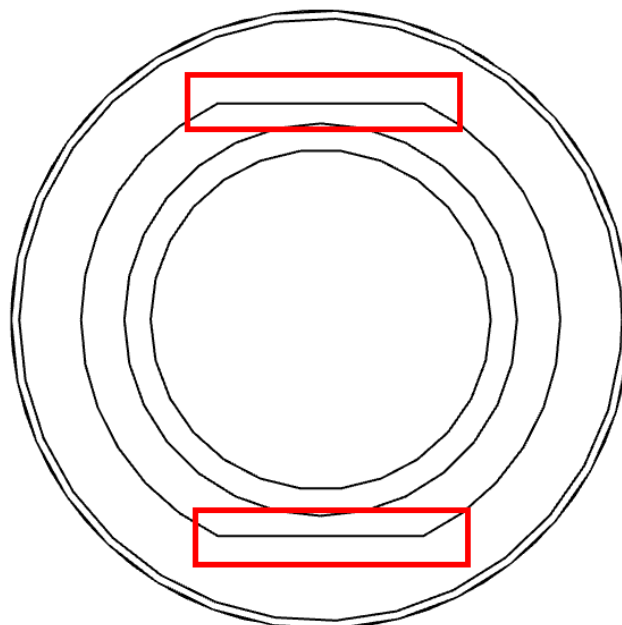
- 2) Screw the cylindrical spacer into the below three screw holes on the motor-side adapter.



- 3) Screw the three screwed flange onto the spacer, using the below holes for the smaller screws.



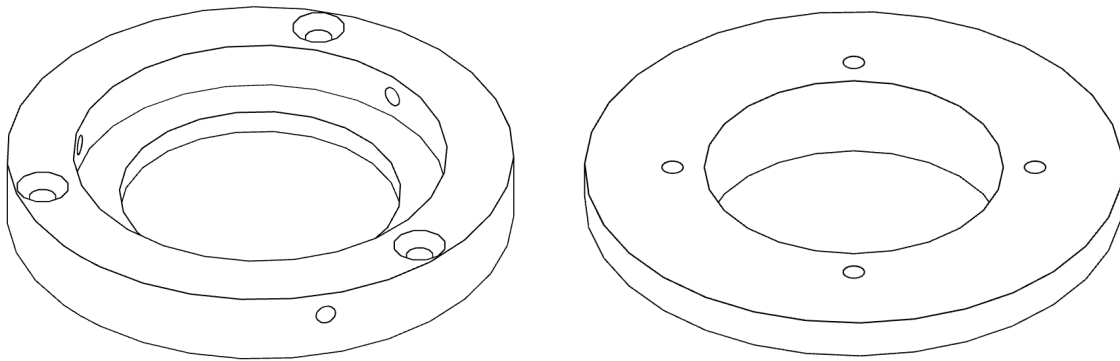
- 4) Thread the male flange onto the flat-side filter aperture, ensuring that the flat edges of the flange are between the lock ring and the filter wheel.



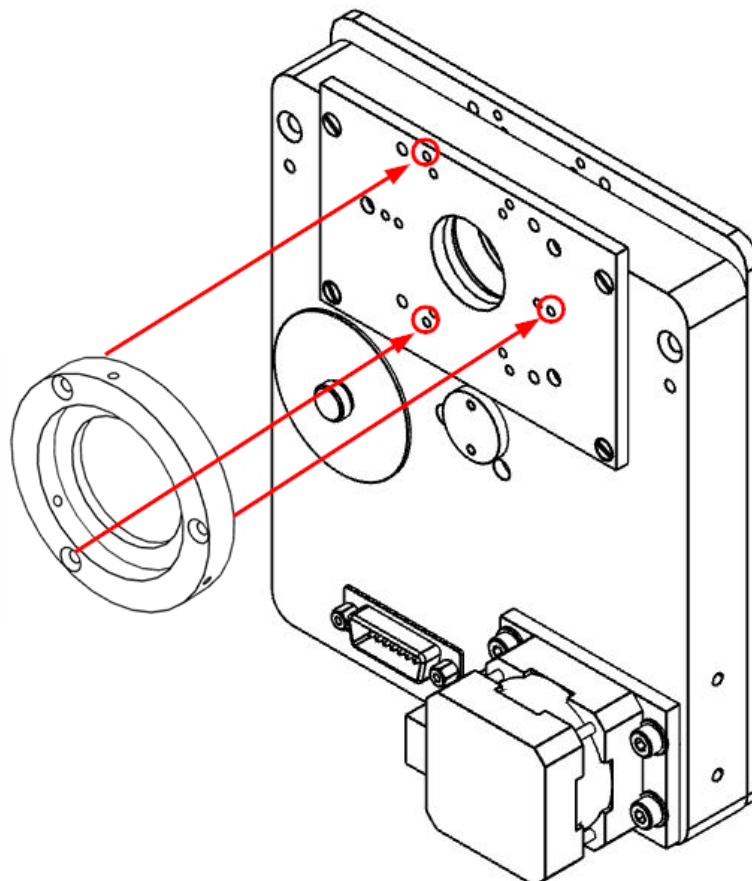
- 5) Once both adapters are firmly secured, the filter wheel is ready to secure to the microscope.

Emission – HF239 Adapter for Olympus BX Microscopes

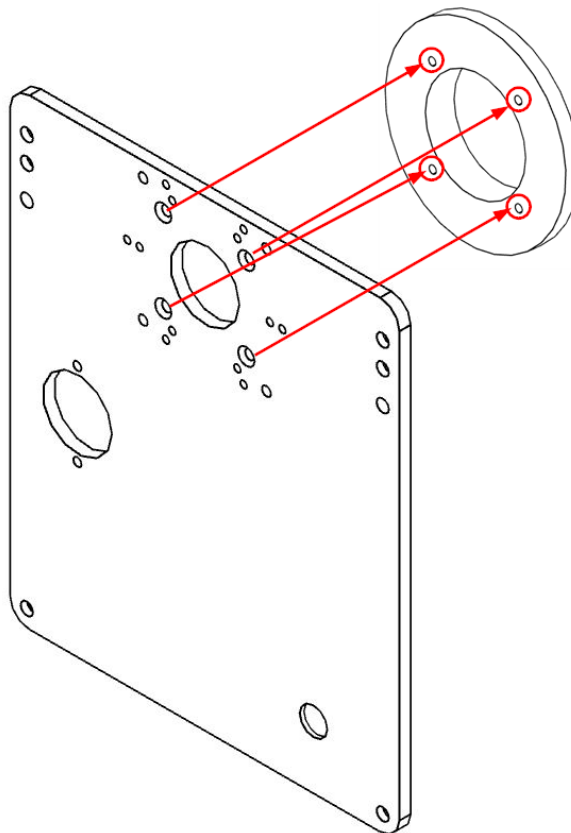
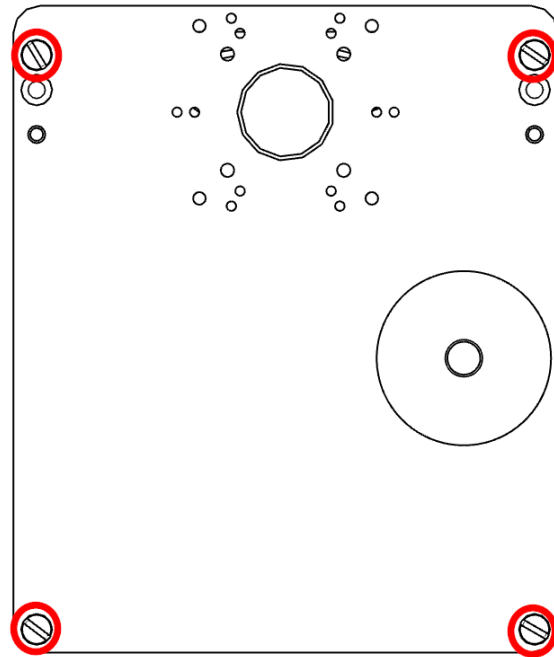
- 1) Separate the adapter into the three screwed female flange (left) and the four screwed male flange (right).



- 2) Screw the female flange into the below three screw holes on the motor-side adapter.



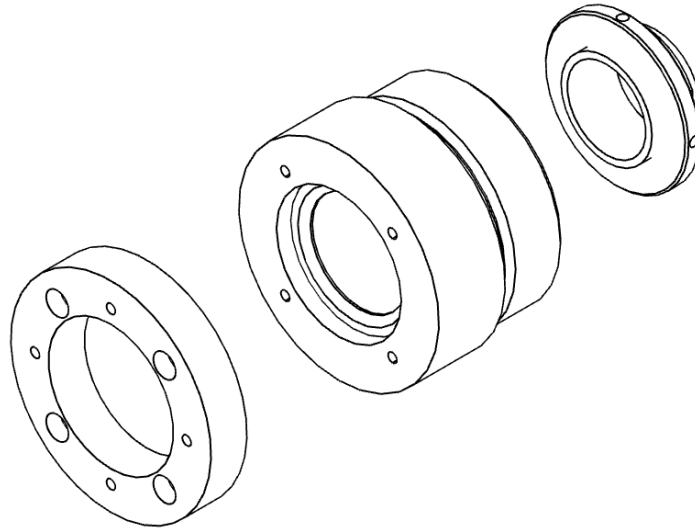
- 3) Remove the flat plate using the below circled corner screws and flip the flat plate over. Use the four countersunk screw holes to attach the male flange to the outside of the flat plate. Reattach the flat plate to the filter wheel.



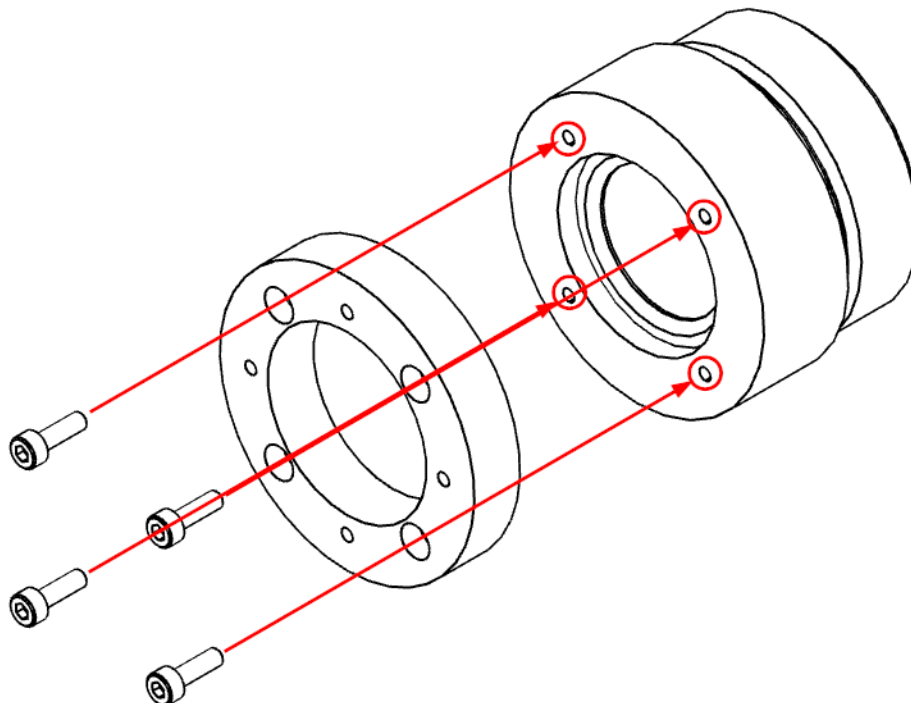
- 4) Once both adapters are firmly secured, the filter wheel is ready to secure to the microscope.

Emission – HF255 Adapter for Nikon Ti Microscopes

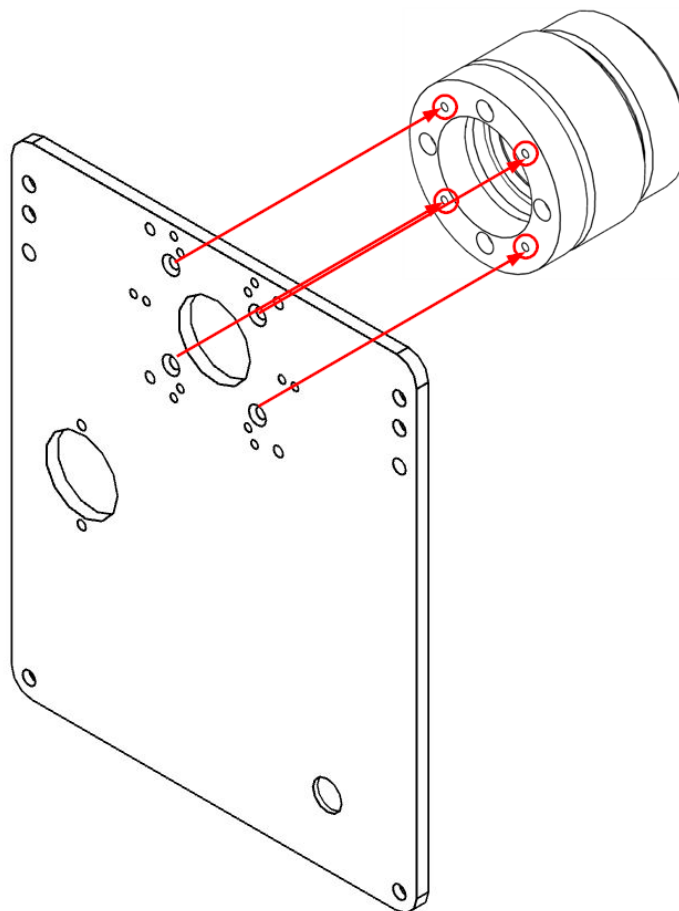
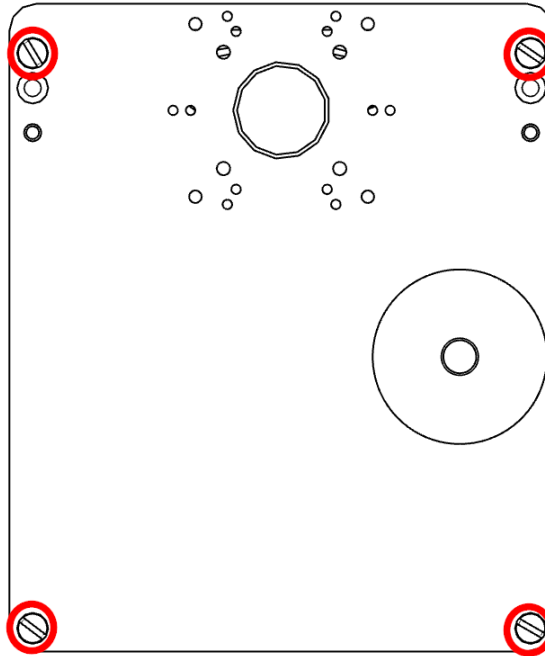
- 1) Separate the adapter into the four screwed female flange (cylindrical spacer + four screwed flange) and the threaded male flange.



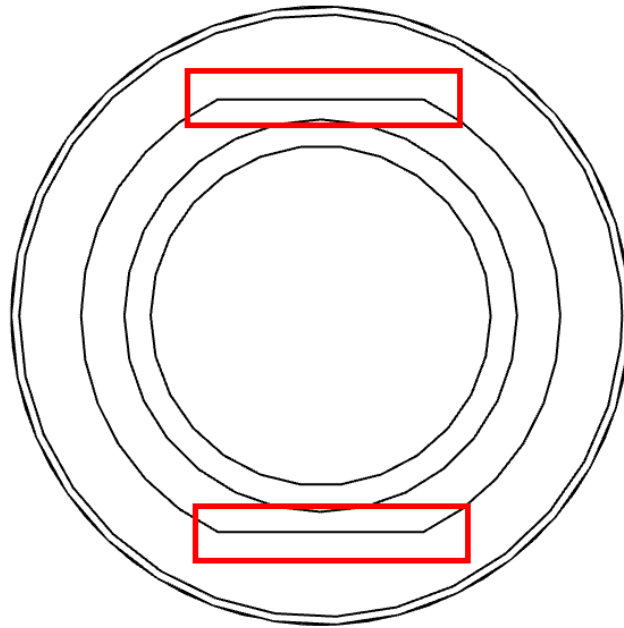
- 2) Screw the cylindrical spacer into the below four screw holes on the flange through the counterbore holes.



- 3) Remove the flat plate using the below circled corner screws and flip the flat plate over. Use the four countersunk screw holes to attach the combined flange + spacer to the outside of the flat plate. Reattach the flat plate to the filter wheel.



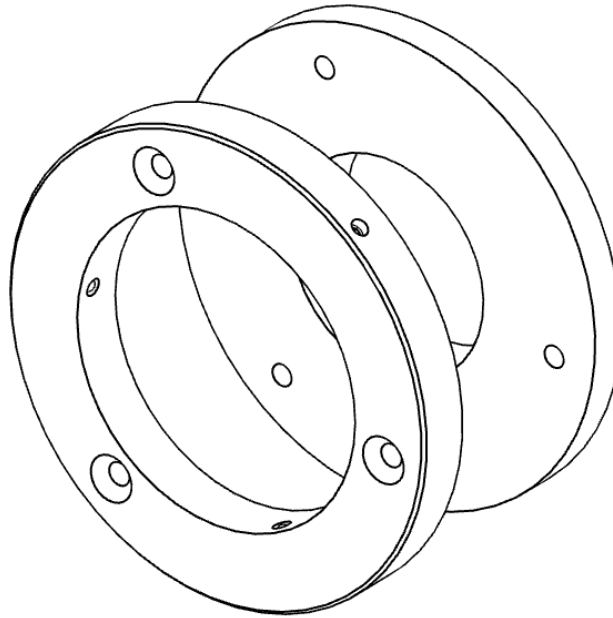
- 4) Thread the male flange onto the flat-side filter aperture, ensuring that the flat edges of the flange are between the lock ring and the filter wheel.



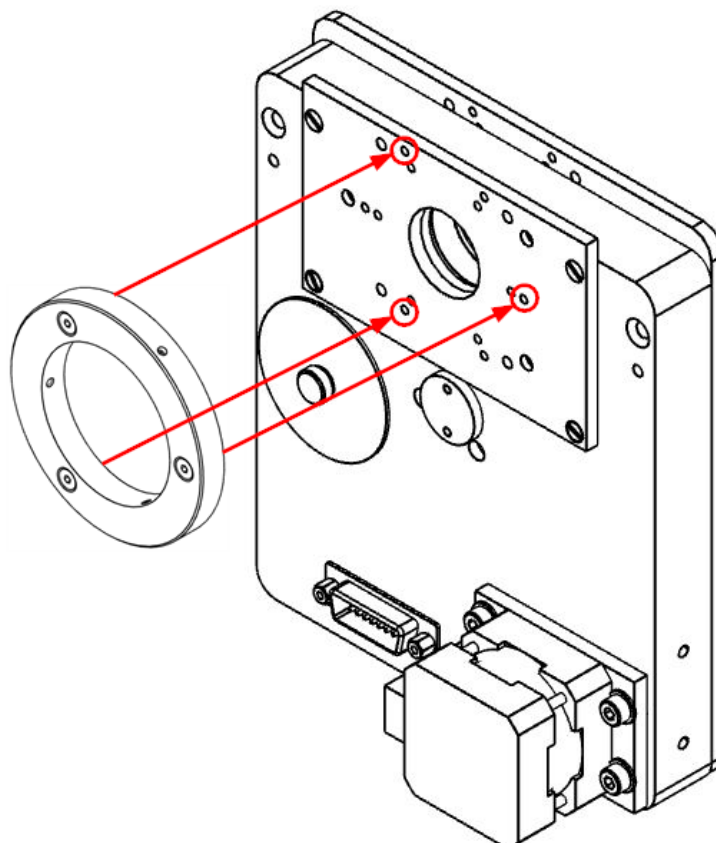
- 5) Once both adapters are firmly secured, the filter wheel is ready to secure to the microscope.

Emission – HF260 Adapter for Olympus MVX10 Microscopes

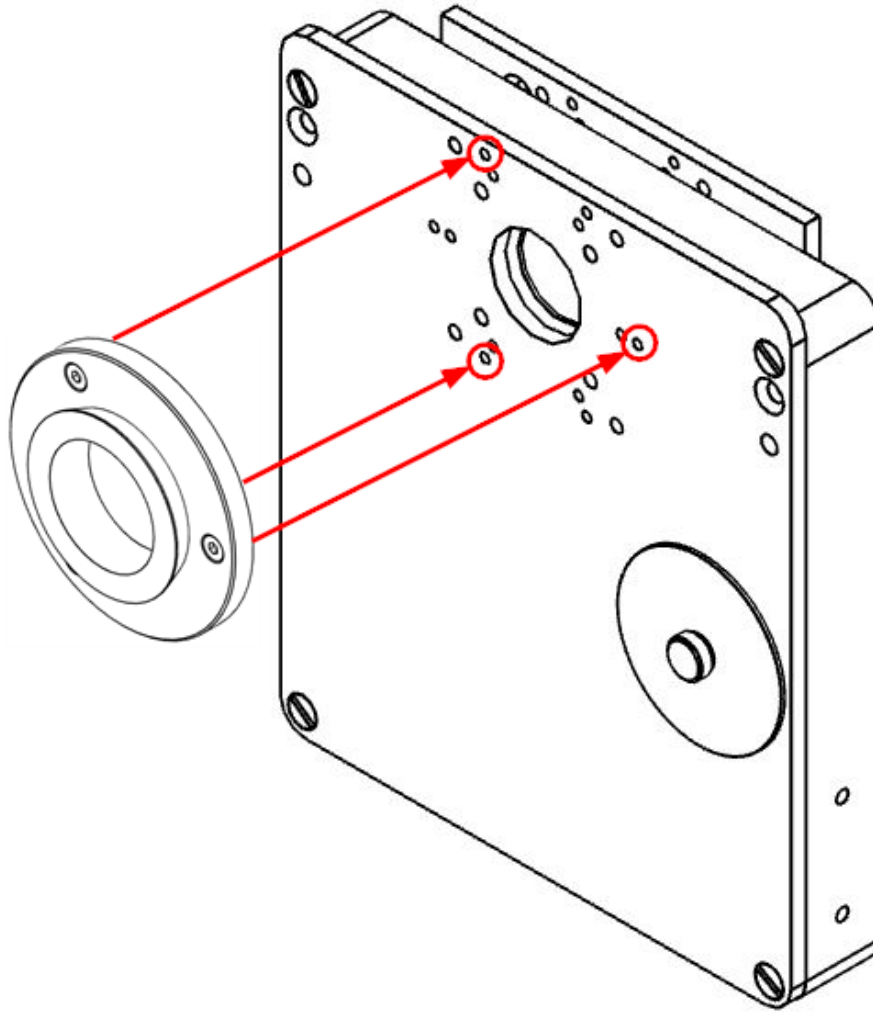
- 1) Separate the adapter into the three screwed female flange (front) and the three screwed male flange (rear).



- 2) Screw the female flange into the below three screw holes on the motor-side adapter.



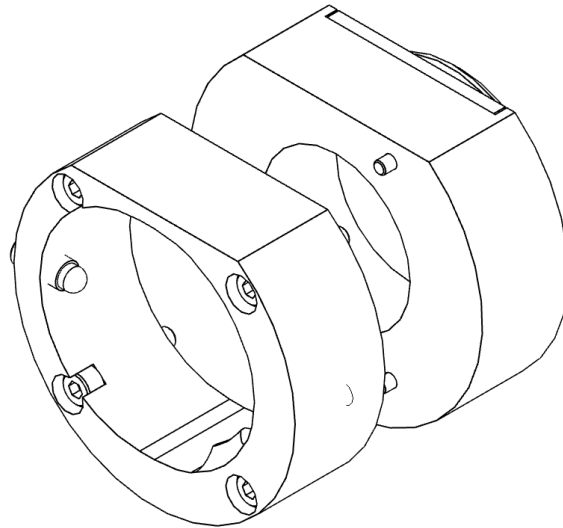
- 3) Screw the male flange into the below three screw holes on the flat plate of the filter wheel.



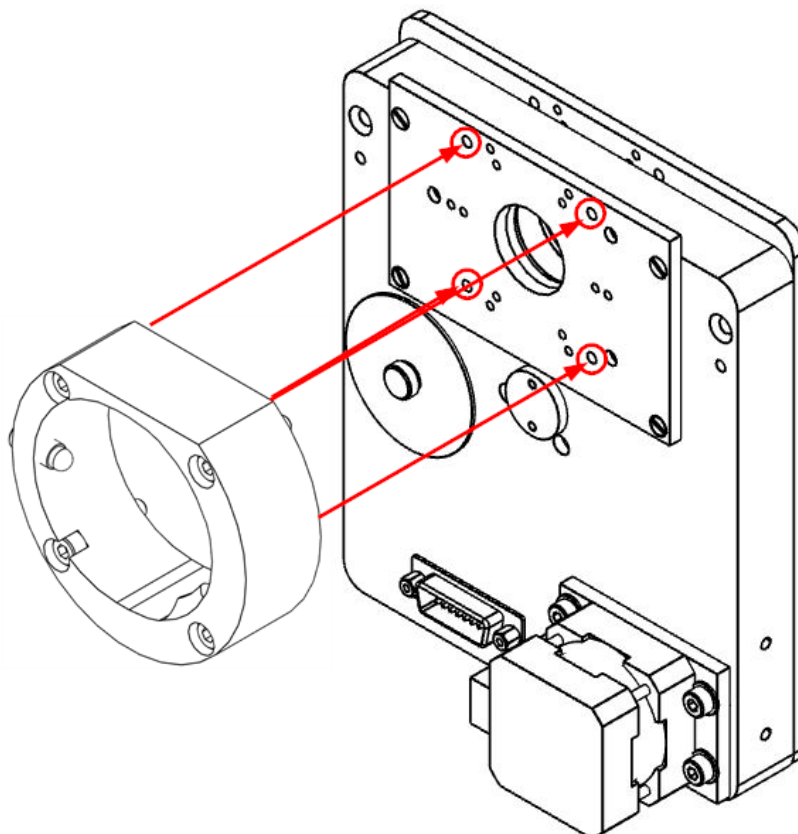
- 4) Once both adapters are firmly secured, the filter wheel is ready to secure to the microscope. This adapter mounts under the trinocular head of the microscope.

Transmitted – HF214 Adapter for Leica DM Microscopes

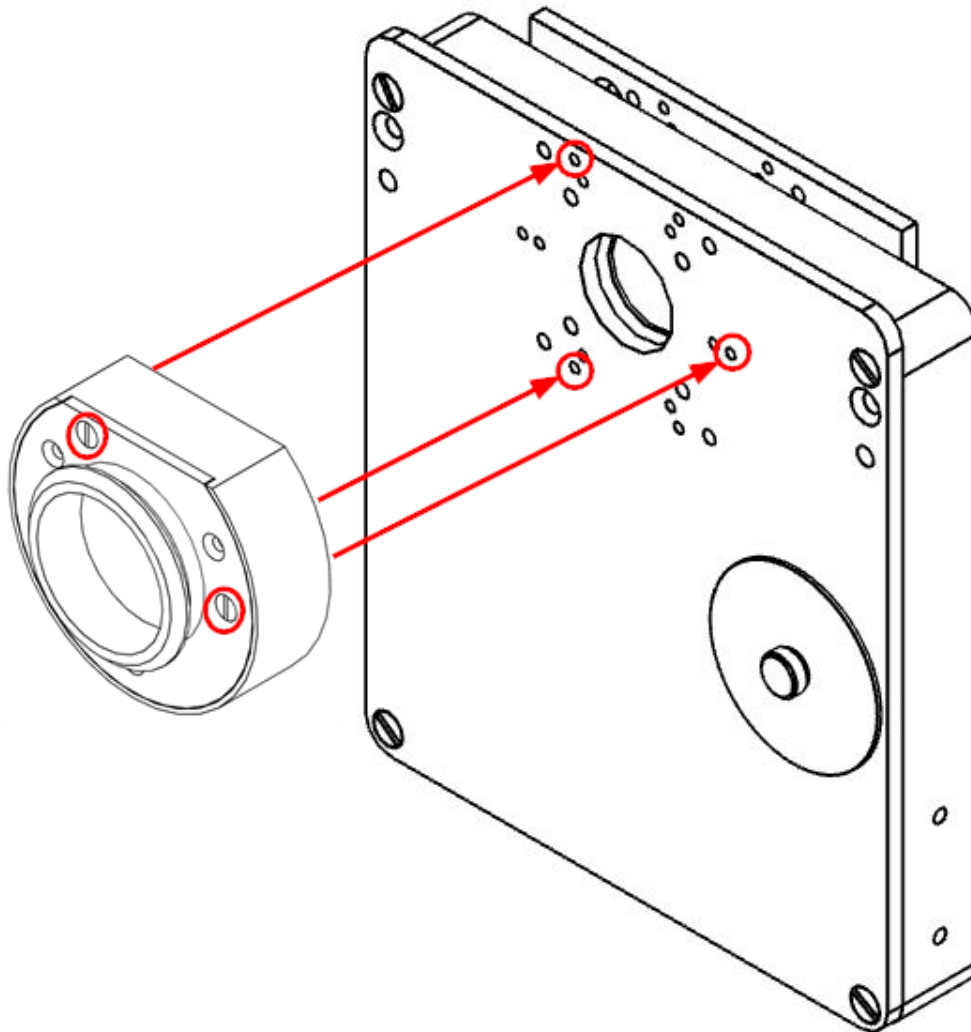
- 1) Separate the adapter into the large female flange and the male flange + spacer.



- 2) The large female flange connects to the four adapter holes arranged in a square on the motor side of the setup. The flange should be arranged so that the flat edge is against the top of the filter wheel, and the counterbored screw holes are facing **outwards**.



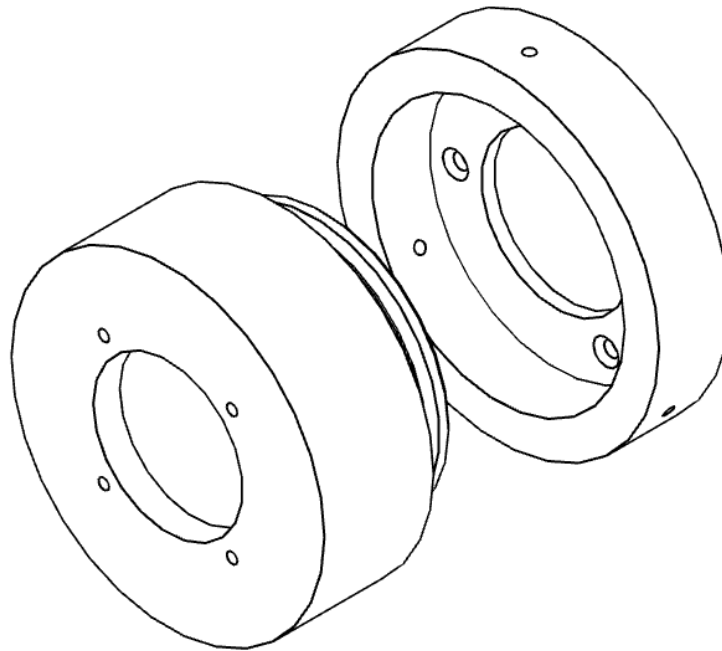
- 3) The male flange and spacer connect to the flat side of the filter wheel, flat edge aligned with the top of the filter wheel, and screwed into the circled screw holes through the spacer.



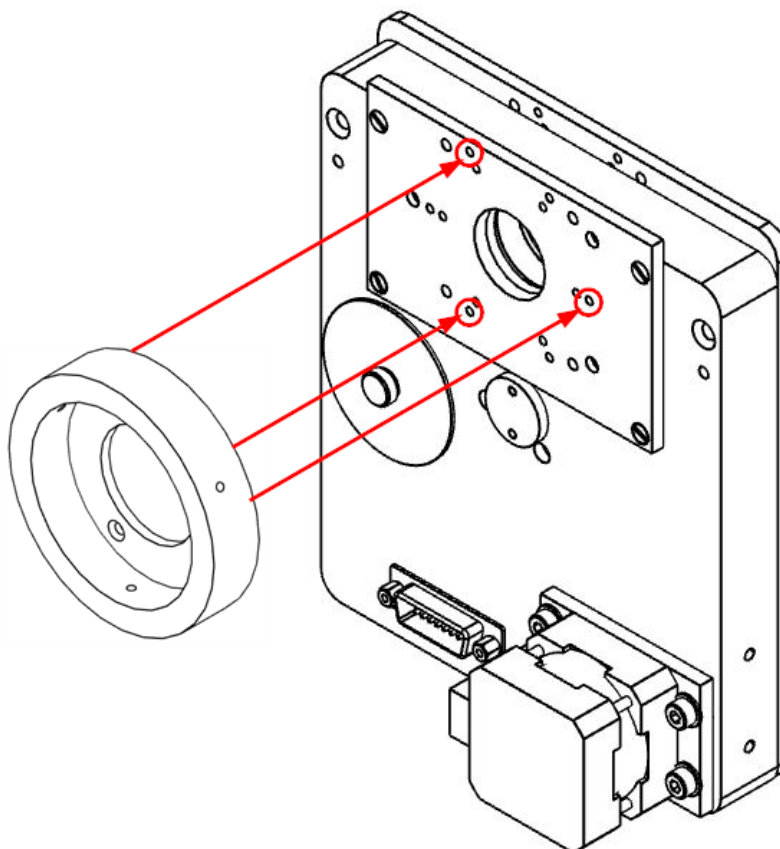
- 4) Once both adapters are firmly secured, the filter wheel is ready to secure to the microscope.

Transmitted – HF238 Adapter for Olympus BX Microscopes

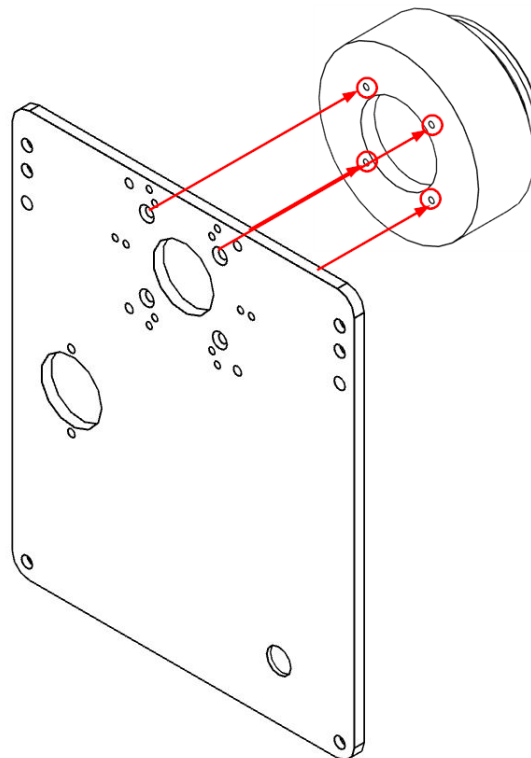
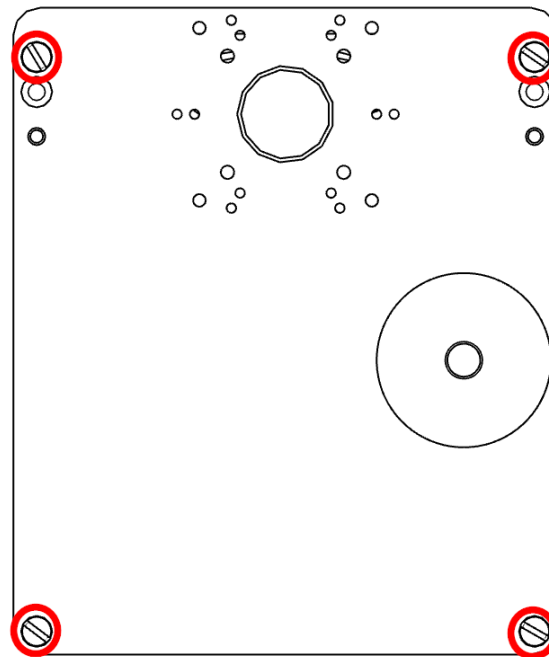
- 1) Separate the adapter into the three screwed female flange and the larger four screwed male flange.



- 2) Screw the female flange into the below three screw holes on the motor-side adapter.



- 3) Remove the flat plate using the below circled corner screws and flip the flat plate over. Use the four countersunk screw holes to attach the larger male flange to the outside of the flat plate. Reattach the flat plate to the filter wheel.



- 4) Once both adapters are firmly secured, the filter wheel is ready to secure to the microscope.

About Prior Scientific

Prior Scientific has manufactured precision optical and electromechanical equipment and instrumentation for over 100 years.

As the leader in the development of systems for precision motion control and microscope automation, we work closely with our partners and customers to develop customized optical and automation systems as well as providing a wide range of standard microscopy components.

We partner with system integrators and OEMs to develop prototypes, custom-built products, and complete imaging system solutions according to individual customer requirements for a variety of applications. Our integrated design and manufacturing facilities enable us to seamlessly transition from concepts to production systems. Typical applications for our products are found in photonics, life science research, material science, nanotechnology, medical devices, metrology, and semiconductor manufacturing.

Our mission

We understand that every problem requires a unique approach. Our team works closely with customers and partners to identify their specific needs and design a cost-effective and tailored solution that meets their unique requirements. We continue to push scientific boundaries and constantly build on and improve our expertise in automated precision optical and mechanical systems.

Technical Support

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