

Mounting FW-1000s on RAMMs for large size cameras

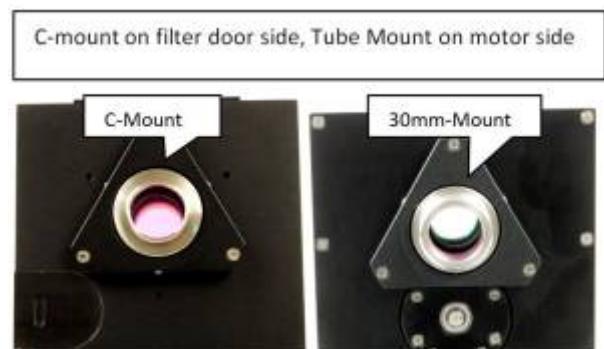
Tools Needed:

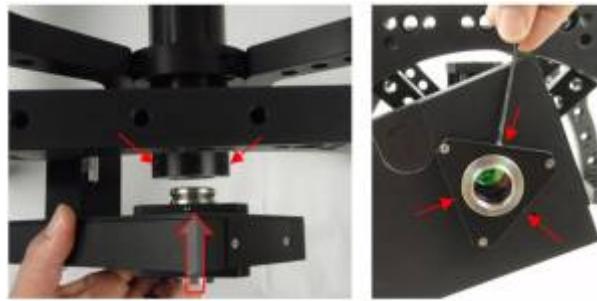
You will need a 1.5mm and 2.0mm Allen drivers to mount this Filter Wheel.

When using a ASI Filter Wheel with a ASI Rapid Automated Modular Microscope, (RAMM), you may find that some of the larger format cameras will not fit within the width of the Filter wheels C-Mount to motor housing or will not rotate fully on the C-Mount to clear the motor housing. To alleviate this problem the Filter Wheel can be mounted backwards on the RAMM with pair of reversable adapters that can be inserted by set screws rather than rotated on threads.



The adapter set consist of two of the trianular "C60-FW" Filter Wheel to ring mounts, (with three set screws and three flat head screws each), one of the "FW-3025", C60 Ring A to C-Mount adapters, and one of the "FW-3026", C60 Ring A to RAMM 30mm tube adapters.





The triangular ring mounts fit on both sides of the wheel, with the 30mm mount on the motor side, and the C-Mount adapter facing the non-motor side. See the photos at right.

If the RAMM has a “C60-3060 C-Mount” adapter or a “DCMS” adapter on the end of the optical tube they must be first removed by the three capture set screws with a 2mm driver before mounting the Filter Wheel. The wheel will mount on the RAMM by the same set of three set screws on the optical tube. The camera C-Mount can then be removed from the wheel by three set screws in the C60-FW with a 2mm driver. See 2nd picture at right.

Before the stainless steel C-Mount is threaded onto a large camera a filter position in front of the camera within the C-Mount can be used if needed. Typically the C-Mount can capture a cleanup filter if one is needed for CRISP functionality.

To add or remove a filter to the C-Mount first remove the C-Mount from the C60 ring and look around the side of the C-Mount to find the filter retainer set screw. A 1.5mm driver will remove the nylon tipped set screw that retains or removes the filter.



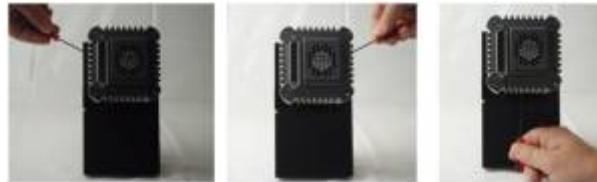
With the filter inside or out of the C-Mount, thread the C-Mount onto the camera till it is tight.



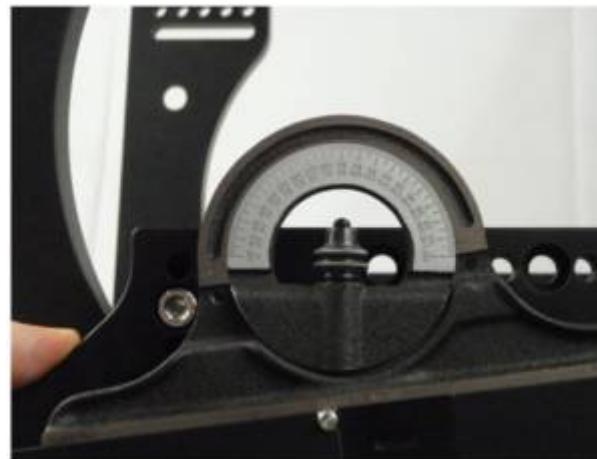
Next, add the camera and C-Mount combination onto the Filter Wheel with a 2mm driver. The small filter retaining set screw should not interfere with the outer set screws.



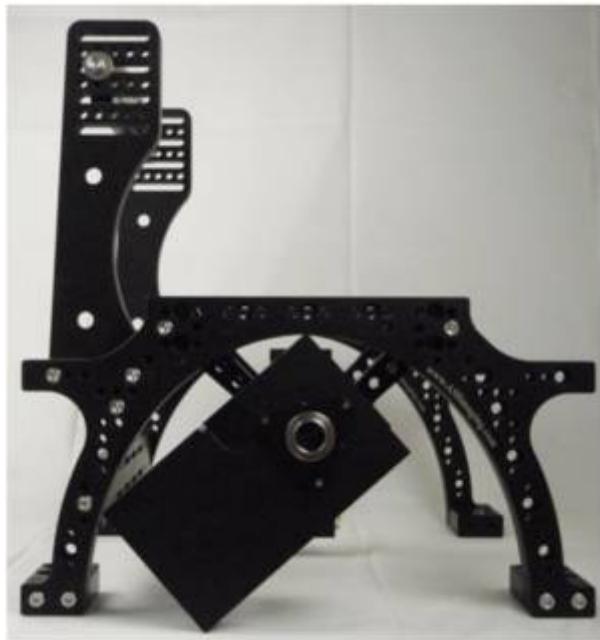
Tighten the three retaining set screws. They are 120 degrees apart from each other.



Also, the Filter Wheel has an angular limitation in this backwards configuration on the RAMM, due to contact with the arch and the table, of minus 8 degrees to minus 40 degrees as seen below.



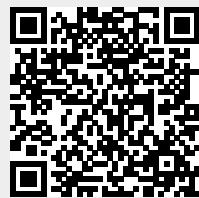
If further limitations arise when mounting the filter wheel in the backwards configuration, usually due to a different configuration in the RAMM, contact ASI as we are creating new ways to mount things to the RAMM weekly.



[tech note, ramm, fw1000](#)

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