

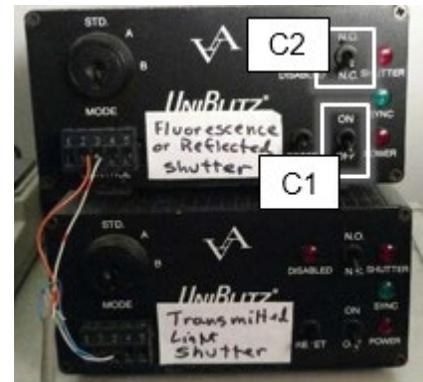
Olympus Upright Imaging System User Guide: Fluorescence

Turn on Sequence

1. Turn on Power strip to right of scope.
2. Turn on Mercury lamp (A) and wait till burner light is ready.
4. Check that Fluorescence Shutter box power is on (C1) and shutter is flipped down to NC (C2).



Mercury lamp



Shutter boxes

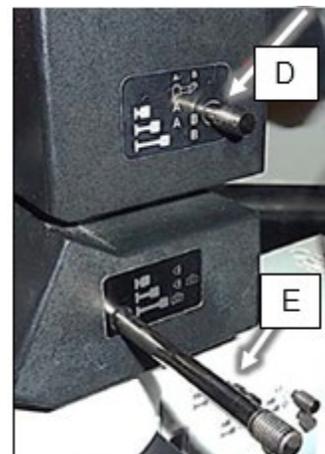
3. Pull rod up (B) to set path for Mercury lamp.



Reflected light path rod

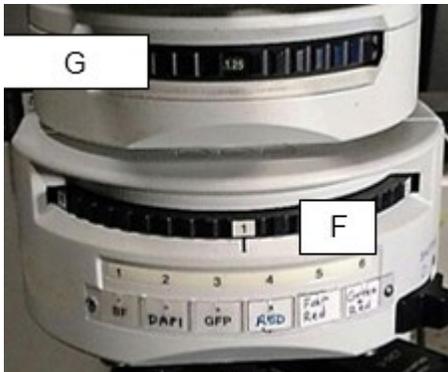
5. Check light path levers (D and E)

- Light path Light path (Top, D): IN for fluorescence camera, OUT for color (Motic) camera
- Light path (Lower, E): IN for eyepieces, OUT for camera, HALF IN for both eyepieces and camera



Light Path levers

- Set filter turret (F) according to fluorescence emission of sample: 2 (DAPI), 3 (GFP), 4 (TxRed), 5 (far red), 6 (green & red)
- Check zoom setting (G)



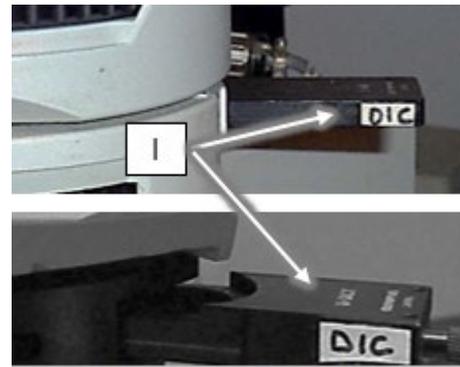
Zoom and filter turrets

- Make sure mechanical shutter is open (H).



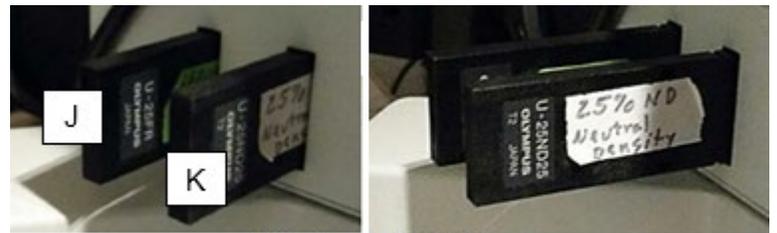
*Mechanical shutter
(Fluorescence/Reflected light)*

- Check that the DIC filter and polarizer are OUT (I)



DIC filter & polarizer

- For full power from the mercury lamp, make sure both the Diffusion filter (J) and neutral density (ND) filter (K) are OUT. To reduce power, push in the 2.5% ND filter.



Diffusion and ND filters

- Start Metamorph software.

Turn off Sequence

- Exit software, log off computer
- Turn off power strip
- Turn off Mercury lamp. Note: Mercury lamp must cool for 15 min before restarting
- Cover microscope

Troubleshooting

- Shutter box settings:
 - Lever should be at **NC** (normally closed) to control shutter with software.
 - Lever can be set to **NO** (normally open) for manual control of light to eyepieces.
 - If Epi shutter on Metamorph software does not respond, toggle Reset on shutter box.