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EVOS® fl

QUICK START GUIDE

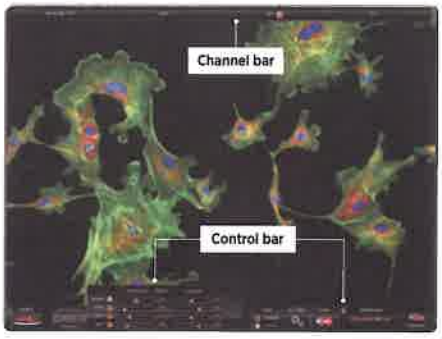
Digital Inverted Microscope

for Fluorescence *and* Transmitted Light Applications

ZP-PKGA-0494 REV B

Overview

The **EVOS fl** microscope has two types of controls: mechanical and software. Mechanical controls include the stage X-Y axis knobs, focusing knobs, objective selection wheel, phase annuli selector, and the light cube selection lever. Software controls are located in the **control bar** at the bottom of the display screen. The **channel bar** at the top of the display screen shows the selected light cube or transmitted light position.



Avoid exposure to beam and use protective shields. **NEVER look directly at UV light!**

Basic Operation

1. Turn on the microscope with the **power switch** (1) on the right side of the base.
2. Plug a USB flash drive into one of the **USB ports** (2) on the right side of the microscope.
3. Place the **sample** (3) on the stage, using a vessel holder if needed.
4. Set magnification with the **objective selection wheel** (4) on the front of the microscope.
5. Pull the **light cube selection lever** (5) *(left side of base)* all the way toward the front of the microscope *(the Channel Bar will highlight the "Transmitted" position).*

6. Turn on illumination with the **LIGHT ON button** located on the left side of the control bar.
7. Focus the sample with **focusing knobs** 6.
8. **Optional:** To take a picture of the transmitted light image, click the **Capture button** on the control bar.
9. Place the **light shield box** 7 on the stage, over the sample.
10. Move the **light cube selection lever** 5 to the desired fluorescence channel *(the Channel Bar will highlight the selected light cube)*.
11. With the **Find & Focus tab** active, turn on fluorescence illumination using the **LIGHT ON button**.
12. Adjust the focus as necessary.
13. Adjust the **illumination intensity slider** on the control bar as needed.
14. Click the **Capture button**.
15. Repeat steps 10–14 to acquire each fluorescence channel.
16. Click the **Overlay tab** to show all channels in color overlay mode.
17. Adjust **Brightness and Contrast** for each channel to bring them into desired balance.
18. Click the **Save button** to save the color image *(refer to EVOS fl User Guide)*.

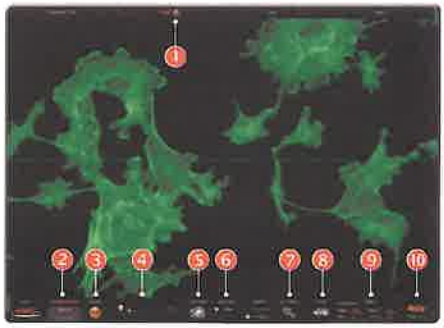
Helpful Tips

- In Find & Focus or Actual Mode, the **Color option** (for EVOS fl) can be turned off to display a grayscale image. This often shows more details than a color image.

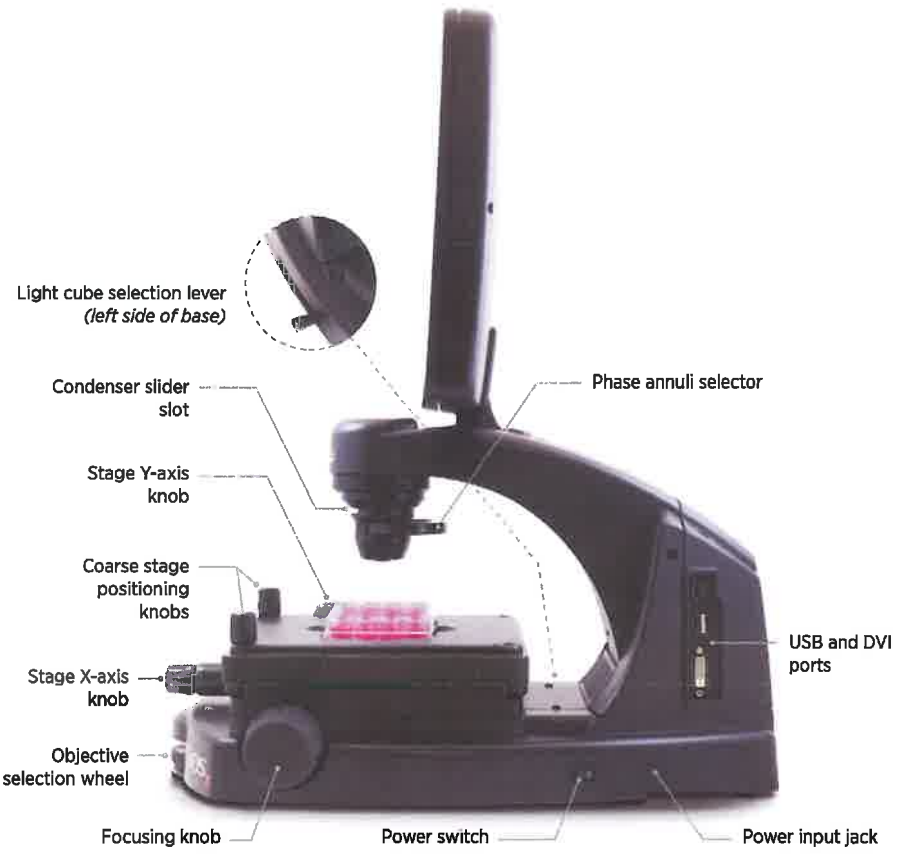
  For EVOS flc use the **Color Adjustment button** to fine tune your live image Brightness, Contrast, Saturation, and Hue prior to capture.

- In Find & Focus Mode, the exposure time is set to 100 ms to assist real-time focusing, moving the stage, etc. The illumination level is approximately 60% of the amount used for image capture, in order to minimize photobleaching and phototoxicity. Clicking **Capture** results in brighter illumination and a longer exposure time during image capture to provide a high-quality image.
- In Actual Mode, turning on the illumination results in full-powered illumination and actual exposure times for live viewing of the sample. With longer exposure times *(more than 200 ms)* there will be a lag between moving the focus knob and seeing the focus change onscreen.

***Note:** The EVOS fl User Guide is on the USB flash drive. You can also download it from the EVOS fl product page at* **www.amgmicro.com**.



1. Channel bar *(active channel highlighted)*
2. Mode tabs *(Find & Focus, Actual, Overlay)*
3. LIGHT ON/OFF button
4. Illumination Intensity slider
5. Capture button
6. Color option or Color Adjustment button
7. Settings tab
8. Save button
9. Information bar
10. Selected objective


Light cube selection lever
(left side of base)
Condenser slider slot
Stage Y-axis knob
Coarse stage positioning knobs
Stage X-axis knob
Objective selection wheel
Focusing knob
Phase annuli selector
USB and DVI ports
Power switch
Power input jack

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