

OLYMPUS FLUOVIEW 500 CONFOCAL LASER SCANNING MICROSCOPE

FV500 Start-up Procedure:

1. **Turn on the Mercury Burner Power Supply Unit:** (to see fluorescent signals in eyepiece only)
Green switch “|” = **on** for conventional fluorescence observation.

NOTE: Please turn on ONLY the Lasers that you are going to need!

2. **Turn on the 405 nm Laser Power (FV5-LDPSU) for DAPI, eCFP, Hoechst, “UV”- signals:**
Push small black switch “|” = **on** and then turn key to “ON” position.
3. **Turn on the Argon Blue Laser 458/488/515 nm (Black Box Melles Griot) for FITC, eGFP, Cy-2, AlexaFluor-488, eYFP, AlexaFluor-514, “Green” or “Yellow”- signals:**
 - a. Switch on the Argon Laser Power Supply (push black switch UP to “|” = on). You should hear the cooling fan on the laser start.
 - b. Engage Argon Laser by turning laser power key **clockwise to the “ON” position**. This will engage the Argon Laser. The laser will engage automatically in approximately 45 seconds.
4. **Turn on the Green HeNe Laser 543 nm (top small black box Melles Griot): for Rhodamine (TRITC), Cy-3, AlexaFluor-546/568, Texas Red, AlexaFluor-594, “Red”- signals:**
Turn key to the “|” = **on** position. There is no cooling fan associated with the Green HeNe laser.
5. **Turn on the Red HeNe Laser 633 nm (bottom small black box Melles Griot): for Cy-5, AlexaFluor-633/660, “Far-Red”- signals:**
Turn key to the “|” = **on** position. There is no cooling fan associated with the Red HeNe laser.

6. **Turn on the FluoView Control Unit Power (FV5-PSU):**
Push black switch to “|” = **on** position then turn key to “ON” position. It takes approximately 1 min for the PSU unit to initiate and communicate to all other electronics.
7. **Turn on the Microscope Transmitted Light Source (LG-PS2):**
Turn switch to the “|” = **on** position.
8. **Turn on BOTH Monitors.**
9. **Turn on the Computer:**
 - a. Push computer **power button** and wait for Windows XP to boot.
 - b. logon as User: Administrator password: fluoview
10. **Start the FluoView Software.**
Double left click on the blue FluoView shortcut icon on the desktop.

Notes:

1. **Mercury Bulb Safety: Do not switch OFF the burner within 15 min after ignition. Once the mercury bulb has been switched off, do not re-ignite the burner for at least 15 min to allow the burner time to cool.**
2. **Ignition of the Mercury Burner when the power supply is turned on may cause a power surge that could affect the computer and FluoView control unit. For this reason, the Mercury Burner Power Supply should be turned on FIRST, before any other electronics, and turned off LAST after all other electronics have been turned off.**

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FV500 Shut-down Procedure:

1. **Exit the FluoView Software.**
Left click on the **X** in the bottom left-hand tool bar of the FluoView Window. Be sure to save new or modified images before exiting.
2. **Turn off the Computer:**
Left click on the Start Button and select Shut down from the menu. Select shut down again from the pull down menu.
3. **Turn off the Monitors.**
4. **Turn off the Microscope Transmitted Light Source (LG-PS2):**
Turn switch to the “O” = off position.
5. **Turn off the FluoView Control Unit Power (FV5-PSU):**
Turn key to “OFF” position and push black switch to “O” = off position.
6. **Turn off the Red HeNe Laser (bottom small black box Melles Griot):**
Turn key to the “O” = off position.
7. **Turn off the Green HeNe Laser (top small black box Melles Griot):**
Turn key to the “O” = off position.
8. **Turn off the Argon Blue Laser (Black Box Melles Griot):**
 - a. Turn the Argon Laser key counter-clockwise to the OFF “O” position. This will disengage the laser. The cooling fan on the laser will remain on for a short period of time (approximately 5 min), and will automatically shut off. **AFTER the FAN ON THE LASER STOPS running (3-5 minutes) turn off the Argon Laser Power Supply switch (black switch DOWN to “O” = off).** Note: The argon laser power supply has its own fan that will be on until the power supply is turned off.
9. **Turn off the 405nm Laser Power (FV5-LDPSU):**
Turn the key to the “OFF” position and push small black switch “O” = off position.
10. **Turn off Mercury Burner Power Supply Unit:**
Green switch “O” = off position.

Notes:

1. **Mercury Bulb Safety: Do not switch OFF the burner within 15 min after ignition. Once the mercury bulb has been switched off, do not re-ignite the burner for at least 15 min to allow the burner time to cool.**
2. **Ignition of the Mercury Burner when the power supply is turned on may cause a power surge that could affect the computer and FluoView control unit. For this reason, the Mercury Burner Power Supply should be turned on FIRST, before any other electronics, and turned off LAST after all other electronics have been turned off.**