

Operating instructions for the LM direct imager adapter for phototubes for interchangeable lens system

	Attach the LM digital adapter to your camera using the bayonet mount. Make sure that the tip of the bayonet thread is exactly on the tip of the camera thread before turning clockwise until it locks into place. If necessary, hold down the button for releasing the camera thread.
	<p>Before mounting the adaptersolution, loosen the screws (depending on the microscope there might be 1,2 or 3 screws) so that the adapter can be plugged in the phototube (4).</p> <p>After adjusting the adapter, tighten the screws evenly. This should be done symmetrically, so that the adapter is centrically arranged with the camera.</p>
	If needed, the camera can be turned to another position with the three small screws of the T2 ring.
	Now swivel in the 10x microscope lens and visually focus the image by means of the microscope focusing mechanism. Plan achromatic, plan fluor or plan apochromatic microscope lenses are optimal for perfect micro images.



Switch the camera on and, if possible, use the automatic control program. If that is not possible, use the “Aperture Priority (Av/AE)” setting. If these two options do not work, you can also work in “M” (manual) mode. We recommend that you extend the power saving mode of your camera, otherwise the camera will constantly switch itself off.

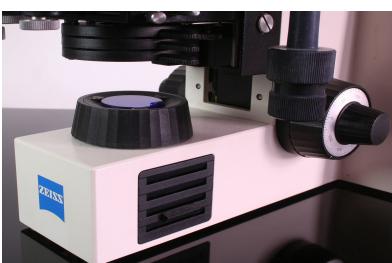


With some cameras, a shutter release is only possible with the lens being in place. If this is the case with your camera, select the “release without lens” point in the setup menu (wording varies from manufacturer to manufacturer).



Using the viewfinder or the right angle viewfinder, focus the microscope image by means of the microscope focusing mechanism. Digital cameras with Live View and magnifying function (7x/10x/14x) are ideal for precise focusing. A magnification function is advantageous, as the camera display does not have the same resolution as the sensor. Not all camera models have a magnification function. If your camera has one, switch it on. It is also worthwhile using an external HD monitor, which ideally is connected to the camera via an HDMI connection.

Condenser with daylight filter (light blue)



Whenever possible, bright microscope illumination, halogen illumination, LED or a flash unit designed for short flash durations is recommended. Set the light sensitivity to at least 400 ISO. In order to reduce vibrations inside the camera use, depending on your camera model, the mirror lock-up function, Silent Shooting, Live View etc. If needed, you can insert a daylight filter (light blue) into the illumination beam path or use your camera’s controls to adjust the white balance.



Blurred images are mostly caused by releasing the shutter manually. This leads to vibrations, which are picked up as motion blurs in the images. To avoid motion blurs, we recommend that you use a remote control release. Otherwise it is also possible to use the digital camera’s self-timer function. Using a remote control system is also ideal (controlled from the PC); unfortunately, this is not supported by every camera.