



Quick Start Guide, Controls and Features



Em1 400

Em1 600

Em1 1000



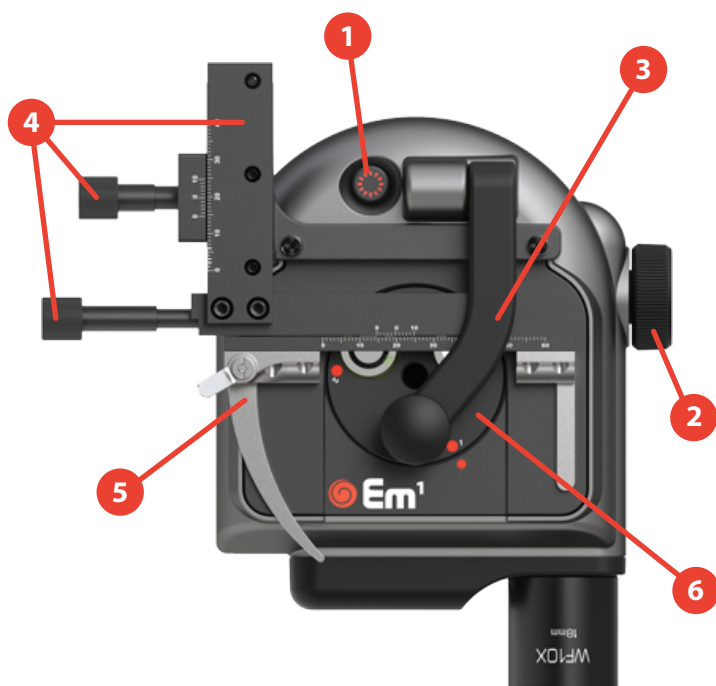


Em¹

Microscope Quick Start Guide

- A** Remove battery cover **8**, carefully retract battery holder and insert 3 x AAA batteries observing correct polarity.
- B** Using the magnification control knob **7**, rotate the lens carousel until the 10x objective is positioned at 6 o'clock. This is the optical centre.
- C** Lift up the lighting arm **3**, place a specimen slide with slide cover-slip **facing down**, so that the specimen area is above the centre of the objective.
Note: Slide retention will be determined by slide clips or XY indexer fitment. This is the typical sequence for other magnifications.
- D** Adjust the illumination brightness wheel **10** to minimum.
- E** Press down the power button **1**, lower the lighting arm **3** to slightly above horizontal, view through the eyepiece, and rotate the focus wheel **2** in either direction to focus the image.
- F** To increase magnification, rotate the magnification control knob **7** clockwise to the next lens and re-focus. Higher magnifications require more light and the lighting arm **3** in the fully down position. Remember to reduce the brightness first before using the lowest magnification.
*Note: For the Em1 1000 it is advisable to lower the level of the lens holder using the focus wheel **2** before bringing the 100x objective into position.*
- G** The illumination system has an automatic cut-out timer to save battery life. Just re-press the power button **1** if the light goes out, or plug in the USB cable to an external power source to disable the cut-out function.

Controls and Features



1. Power Button

Illumination is switched on using the power button. A single press for on, and a single press for off. The LED will automatically switch off after approx 20 minutes and the light can be switched on again with a single button press.

2. Focus Wheel

The focus control wheel is an continuous bi-rotational control, delivering the full focus range within a single 360° rotation in either direction. Focus can therefore be achieved quickly regardless of whichever direction the wheel is turned. The press-on fine focus adapter is particularly useful at high magnifications where small focus adjustments are needed.

3. Lighting Arm

The illumination source is a built-in white LED. The LED is located in an adjustable arm that positions the light beam directly over the specimen. The arm can be incrementally raised or lowered for various lighting and contrast effects or rotated upwards to the vertical for clear stage access.

4. XY Slide Indexer

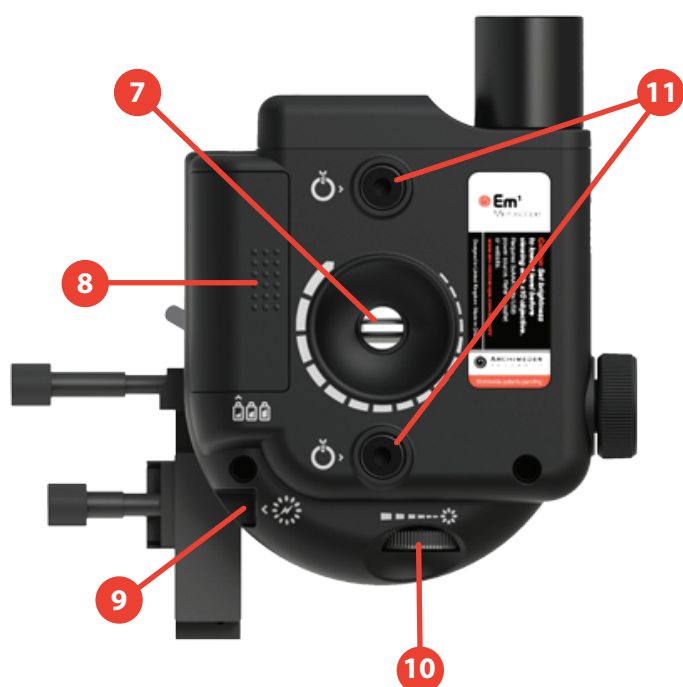
A micrometer XY slide indexer is provided as standard to allow very precise movement of specimen slides for scans, cell counts and other tasks. It can easily be removed (two screws) and the provided slide clips may be substituted if desired. The two bars control the movement of the indexer.

5. Slide Retention Arm

Specimen slides are held in place using a spring-loaded arm which holds the edge of a mounted slide, enabling slide indexing.

6. Lens Carousel

Objective positions are numbered 1 to 3. Position 1 is 10x, position 2 is 40x, and position 3 is the expansion option which may be a blanking plug, a 60x, or 100x oil objective, depending on model. The magnification power is marked on the top of each objective using the number and colour code convention.



7. Magnification Control

Objectives are selected by rotating the magnification knob located in the centre underneath the main body. The selected magnification clicks into position as the red dots align.

8. Battery Compartment

Internal power is made available by the installation of 3 x AAA batteries which are stored underneath the microscope behind a removable cover.

9. External Power

The internal circuitry of the Em1 also permits illumination to be provided by an external USB connector (supplied) in the event that the internal batteries are not available. This allows the Em1 to be powered from a laptop, separate battery pack or solar array. When using the USB cable the automatic cut-off timer is disabled.

10. Illumination Brightness

The viewing brightness can be increased or decreased by rotating the thumb wheel underneath. Generally, the lowest lighting level is sufficient for the 10x and 40x objectives, and a fresh battery pack can deliver up to 1,000 hours illumination.





11. Mounting Bushes

Two standard photographic tripod bushes (1/4" UNC) are provided on the underside of the Em1. This allows the Em1 to be mounted on a wide range of tripods or similar accessories.

Our website contains further information on the Em1 microscope, its specifications and usage. We encourage everyone to share images and use of the Em1 around the world on social media. #em1microscope.

Warranty conditions for the Em1 may be requested at any time and are available at the support URL below. For any claims under the warranty, the sales receipt/invoice must be provided.

Archimedes Research Limited
71-75 Shelton Street
Covent Garden
London
WC2H 9JQ
United Kingdom

 @emmicroscope
 @em1microscope
 @em1microscope
 @em1microscope

support@em-microscope.com

www.em-microscope.com/support



Intelligent Microscopy