

eyeMobil Product Descriptions

EPIC II Microscope

The EPIC microscope began development in 2014 and has been developed for use around the world for cataract and other eye surgery. The microscope was developed with high quality German optics and portability in mind for use especially in mobile settings. In addition, a strength of the EPIC microscope is the use of a custom LED lighting system that allows use for hours even if the local power supply is not reliable. The EPIC microscope is packed in a custom hand cut Pelican case with Kaizen foam to protect each part and to make transport and setup very easy. Setup for the EPIC II can be done in 5 minutes.

The EPIC microscope weighs approximately 27 pounds but is stabilized by a custom water bladder system which allows the portability. Additional affordable stabilization systems are available in 2019 and include a wall mount system, a table clamp system and also a water bladder replacement weight system. These extra systems allow flexibility for different types of use settings such as a more permanent operating room placement, exam room or clinic placement or wetlab settings.



Optional Upgrades or Accessories

0 – 180 Wide Field Inclineable Binocular

The EPIC II comes standard with a fixed incline 45 degree binocular however an upgrade to the inclineable binocular is available. The main advantage of the 0 – 180 degree inclineable binocular is to allow the surgeon more flexibility in the height and head position that he chooses. It is particularly helpful for prolonged surgical days with more than 4 to 5 hours of surgery to avert surgeon neck strain.

EPIC II Video Capture System

A portable video capture system is available for the EPIC II microscope which is also compatible with any Zeiss microscope system and can be run using only battery power like the microscope. This system which includes a camera, video adapter, beam splitter and monitor can be packed in the same Pelican case as the EPIC II microscope or in a separate much smaller Pelican type case. This system has been developed to allow high definition recording in a mp4 format for review of cases. In addition, real time monitoring of cases is important for surgical scrubs or for training of physicians.

Both wireless (WiFi) and wired monitors are available with use by the GoPro camera that has been custom modified to work with a microscope. Another excellent option is to use a less expensive custom modified Yi camera with a wireless tablet or phone. While a wired monitor is not available using this Yi camera, both recording and monitoring with HD quality (up to 4K) is available.

Additional lagfree monitoring options include using a larger wall mounted LCD monitor with HDMI using either an HDMI cable or a new lagfree cable free solution that utilizes low band frequencies using a technology called “Dynamic Frequency Selection” to transmit and receive an HDMI signal.

Also additional low cost external recording devices are available to allow direct recording to a hard drive or flash stick for any surgical case.



Mounting Systems

Water Bladder – The custom 6 gallon water bladder comes standard with the EPIC II microscope and can be used with between 4 – 6 gallons of water.



Wall Mount – The wall mount can be placed on any wall on a single stud in order to use the EPIC II microscope easily in a clinic or outpatient setting. To use this wall mount, the pole system and legs are not necessary but only the extension arm and flex arm are placed. A reach of approximately 30" from the wall is possible



Table Mount – The table clamp system can be used on most any sturdy wooden table and uses the middle pole of the EPIC II microscope to clamp to the table. It could be used in surgery however does not provide the flexibility with casters. It is probably most helpful for a wetlab situation



Water Bladder Replacement Weight System – Instead of using the water bladder, for more permanent operating room settings, one can use this system of 5 round steel plates that each weight about 7.4 pounds. The plates are placed in the same location as the water bladder on top of the legs with casters and are perfect for stabilizing the microscope.



Traditional H mount System – We are finalizing a more traditional H mount with 4 legs and casters. This system is made of 3 steel components along with an aluminum pole base that allows a convenient use of the EPIC II microscope for a more permanent operating room setting as well. The H mount system is shipped and assembled onsite. The total weight is about 42 pounds and provides great stability for the microscope as well.



Other Products

PalmScan AK2000 Pro A scan and Keratometer

This portable unit is great for mobile missions and is the best combination unit we have found in the market. It quickly measures corneal curvature and integrates the Axial length with different formulas to help with IOL calculation. The unit includes a special casing which allows an additional battery for using the unit and the ability to use the unit while charging. In addition, the unit is great for pediatrics, and supine measurement on the operating table.



Handheld Slit lamp

This portable slit lamp comes in a small protective case and is wonderful to quick screenings or assessing corneal or lens grade on the operating table in the mission field setting. It comes with both 10x and 16x eyepieces along with a charger for the lithium ion battery which lasts for hours of use.

