



Operation Microscope

EM8/EM8 PRO

EM8 series Operation Microscope

15 years of deep experience in dentistry.

Have a deep understanding of the needs of fine dental treatment.

The EM8/EM8 pro Operation microscope combines outstanding optical performance with advanced imaging capabilities, delivering high-definition magnified visualization for precise operation and enhanced surgical accuracy—significantly improving treatment success rates and workflow efficiency.

With its integrated imaging system, it enables visualized diagnosis and treatment, facilitating doctor-patient communication, teaching demonstrations, and case sharing.



Apochromatic Optical Design

- German-imported multi-layer coated glass
- Large Zoom objective
- 12.5x high-eye-point wide-angle eyepiece
- Five-level magnification factor

New Lighting Concept

- Higher-quality LED medical light source
- Five types of lighting spot adjustment
- Built-in green and orange filters

Built-in High-Definition Imaging System

- High-performance CMOS sensor for clear imaging and true-to-life color
- 1080P @ 60fps smooth output with motion blur-free dynamics
- Optional wireless photo capture system
- Integrated imaging management software

Ergonomic Bracket Design

Optimization of mechanical structure swing arm design, large arm span, a wide range of telescopic characteristics to adapt to a variety of angles and placement requirements.

- High quality gas spring imported from Germany
- 0-180° variable angle binocular tube
- Pendulum system
- Convenient pupil distance adjustment

Understand the industry, better understand you.

More comfortable experience, more considerate details.

While treating patients, back pain and soreness are almost a feeling you have experienced every day after working in the past. The humanized bracket design of SOCO operation microscope significantly improves the working position of doctors, while enhancing surgical accuracy and treatment effectiveness, effectively alleviating professional fatigue and achieving a dual upgrade of efficiency and comfort.

Superior Optical Performance

High-definition vision, precise operation, significantly improving the success rate and safety of surgery.



Apochromatic optical system design

- Using German-imported special optical glass (EDGlass) with unique optical properties: lower dispersion, higher transmittance, extremely high transparency, helping to reduce color aberration in images, providing clearer and sharper images.
- Lenses are coated with anti-reflective coatings and multi-layer coating materials via advanced E-beam Evaporation processing technology, which reduces light reflection, increases transmittance, and prevents glare.
- During the assembly of microscopes, each lens is subject to strict surface inspection and accuracy testing to ensure the optical performance of the finished product.

High-definition 12.5X wide-angle eyepiece



High eye-point wide-angle eyepiece allows a wider field of view, so that the user's eyes do not have to be close to the eyepiece, which is more convenient for the user to operate. The special diopter design is more suitable for the use of glasses wearers.

Five-level magnification factor



The EM8/EM8 pro has five-level magnification factor (0.4x, 0.6x, 1x, 1.6x, 2.5x), the total magnification is 1.8x-19.1x to meet your different treatment needs. Low magnification for field localization, Medium magnification for clinical procedures, High magnification for detailed examination.

Large Zoom objective



Working distance: 200-415 mm, a large zoom objective for general dentistry, its working distance is between 200 mm and 415 mm, focusing range completely covers the entire oral depth, to meet a variety of treatment needs.

Multiplier (optional)



Magnification 1.6X, increase magnification by 1.6X. Convenient switch design, turn on the switch will be the current magnification increased by 1.6 times.

New Lighting Concept

LED Illumination System delivers exceptional lighting performance, with adjustable brightness and optional filters to meet diverse clinical needs.

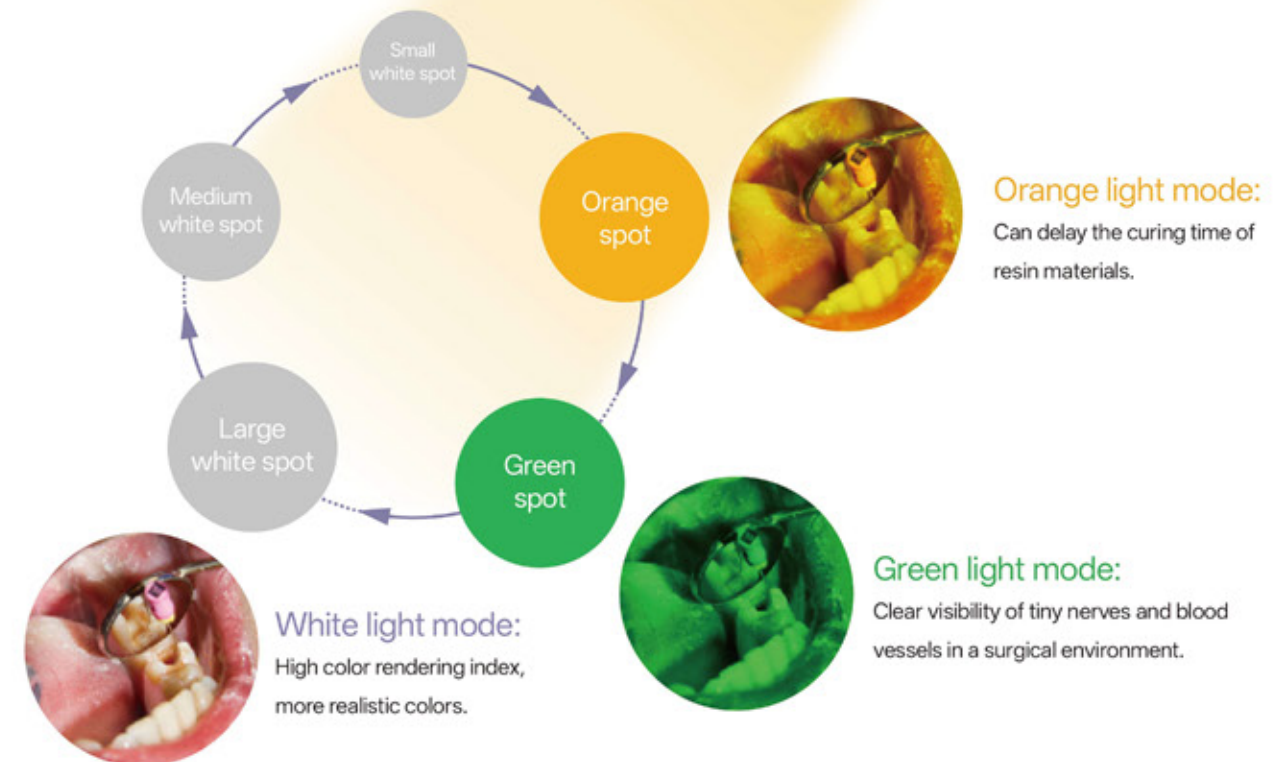
Featuring high-quality medical-grade LED light source, it offers superior color perception and true-color reproduction, ensuring precise visualization of treatment details-especially ideal for small, deep, and narrow cavities.

Integrated true-color LED medical light source with a color rendering index $CR > 90\%$, illuminance of 65000lux, Color temperature 5700k.

- Equipped with built-in orange and green filters to meet the needs of different surgical scenes.
- Fast start-up, energy-saving lifespan ≥ 60000 hours, low heat generation, suitable for long-term use.

Five illumination spots are optional

When you choose white medium or small light spots, the more focused illumination of the treatment area allows you to focus more, reducing the interference caused by light reflection in other areas, allowing you to have a more focused treatment experience.



Objective lens protection cover

The large objective lens protection cover can avoid the splashes such as water drops and impurities brought by the treatment entering the large objective lens, so as to avoid the damage of the large objective lens, and is convenient for cleaning.

Built-in High-Definition Imaging System

Integrated high-definition digital video processing platform enables real-time capture and transmission of every detail during surgical procedures, providing robust support for teaching, documentation, and remote consultations. Key surgical steps can be recorded and archived for subsequent analysis and discussion.

Image Management Software Interface

You can use the image management software to manage imaging data, facilitating both doctor diagnosis and doctor-patient communication.



- High-performance CMOS sensor for clear imaging and true-to-life color
- 1080P @ 60fps smooth output with motion blur-free dynamics
- Wide Dynamic Range (WDR) technology balances bright and dark details
- Optimized imaging engine for low latency and high fidelity
- HDMI/USB plug-and-play connectivity, compatible with mainstream devices

1080PHigh-Definition Camera Module



Integrates a 45° optical extender, pendulum system, beam splitter, and HD camera system into one unit.

Wireless Foot Pedal Component



You can capture photos or record videos at any time through the 4K Wireless Foot Pedal Component, and the wireless foot pedal can be placed freely.

Ergonomic Design of the Bracket System

SOCO focuses on optimizing the mechanical structure, ergonomic support, help you in the work environment, more convenient and accurate to adjust the microscope to any angle you need, in order to obtain more comfortable working condition.



0°-180° Variable Angle Binocular Tube



The 0-180° adjustable binocular tube enhances your comfort and flexibility while working, providing you with a wider viewing angle.

Pendulum System



The pendulum system keeps the binoculars level when the microscope body tilts left or right, allowing you to maintain a comfortable seated posture during treatment.

Interpupillary distance adjustment



The interpupillary distance adjustment function helps you adjust to a suitable interpupillary distance, with an adjustable range of 55-75mm.

High-quality gas springs from Germany



The key parts of SCM600 use German-high-quality gas springs. This provides better mechanical effects when moving the microscope cross arm.

The Base



The base holds the microscope in place and is simple and easy to care for.

Silent Casters for medical



The 3-inch silent medical caster allows you to move the microscope more quietly and steadily.

Standard Edition

Order code: EM8

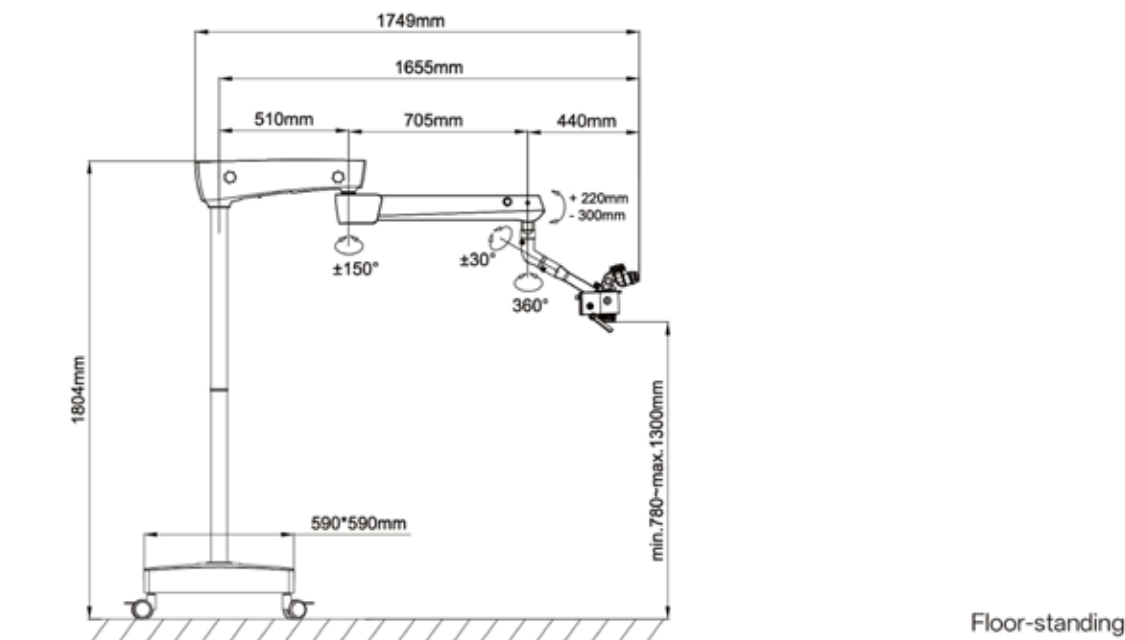


Premium Edition

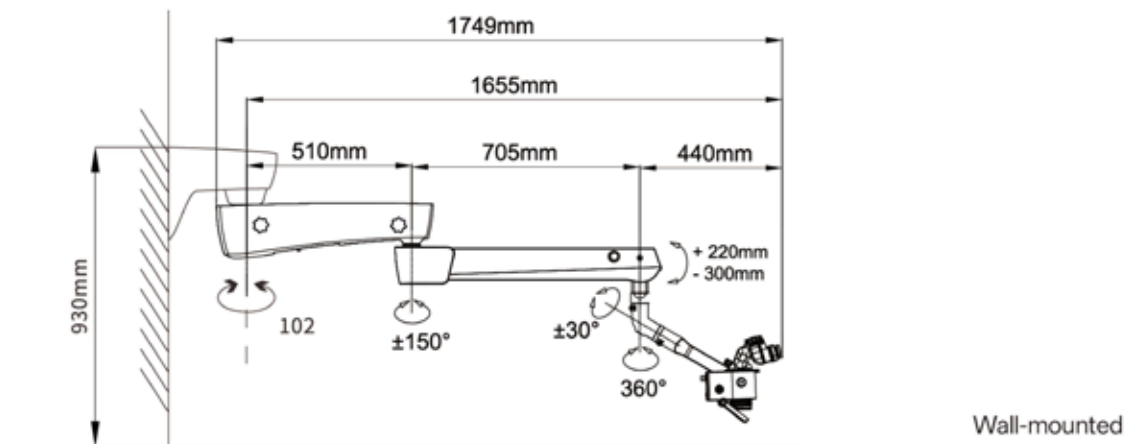
Order code: EM8 PRO



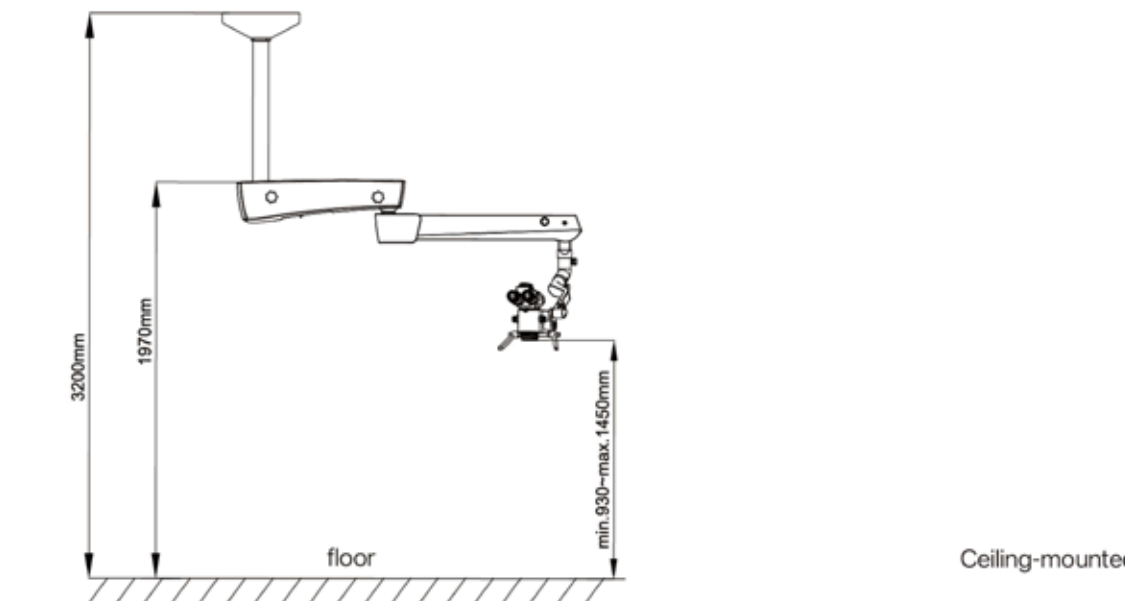
Various Mounting Bracket Diagrams of EM8/EM8 Pro Bracket



Floor-standing



Wall-mounted



Ceiling-mounted

Technical Specifications

		Standard Configuration ●	Optional Configuration ○
Order code		EM8	EM8 Pro
Optical System	Apochromatic Optical System	●	●
Magnification System	Five-step Zoom: Magnification factor: 0.4x、0.6x、1x、1.6x、2.5x	●	●
	Total Magnification:1.8x-19.1x		
Binocular Tube	0°-180° Variable Angle Binocular Tube with interpupillary adjustment mechanism, Interpupillary distance adjustable from 55-75mm	●	●
	High eye point 12.5x Wide-Angle Eyepiece, adjustable eye cup height, diopter compensation range±7D		
Zoom System	Zoom objective lens with variable working distance of 200-415mm	●	●
Lighting System	Integrated true color LED illumination with color temperature 5700K, color rendering index >90%, illuminance 65,000Lux	●	●
	Integrated orange filter, green filter; white spot light modes in three sizes: large, medium, and small		
Built-in HD Imaging System	Quad Camera Module: HD camera system, beamsplitter, 45° extender, pendulum system; integrated imaging system in the beamsplitter with a split ratio of 2:8 or 5:5	○	●
	Built-in HD live image output system with resolution 1920x1080, comes with image management software		
Bracket System	Imported German Gas Spring		
	Two-stage Locking Mechanism for the Swivel Arm		
	Load Adjustment Mechanism for the Balance Arm	●	●
	Balance Arm Equipped with a Locking Mechanism, Capable of 320° Rotation and a vertical Travel Range of 480mm (Up/Down)		
	Maximum Arm Clear Span: 1655mm		
	Integrated Base with 3-inch silent medical casters, base size:590×590mm		
Accessories	Multiplier (1.6X rate with convenient enable switch)	○	○
	Monitor Bracket	○	○
	24-inch HD Monitor	○	○
	27-inch 4K UHD Monitor	○	○
	Wireless camera System	×	○
	Objective Lens Protective Cover	○	○
	Built-in high-definition data cable	○	●