OMS-800 Series
OFFISS/PRO/Standard
Operation Microscope
Perfection for professionals

**OMS-800 series**
Operation Microscope.

**Bright wide field**
Topcon’s pursuit for perfection is reflected in its continuing development of the OMS-800 range of operating microscopes, adapting them to meet the needs of modern ophthalmic procedures while maintaining the high quality and durability that made Topcon the world leader in ophthalmic equipment.

**OFFISS lenses** *(OFFISS: Optical Fiber Free Intravitreal Surgery System)*
Topcon has developed a state-of-art observation system for vitrectomy procedures that does not require the use of fiberoptic illumination. The Topcon OFFISS lenses avoid complicated focusing by allowing the microscope head and indirect lens to move independently from each other, facilitating a focused image at all times. The image inverter activates automatically whenever the OFFISS is in use. The indirect lens can quickly and simply be exchanged for another, saving time and increasing efficiency.

---

**Small 40D lens**
Outer diameter Ø23

**40D lens**
Outer diameter Ø28

**80D lens**
Outer diameter Ø19.4

**120D lens**
Outer diameter Ø23.5

**Small 120D lens**
Outer diameter Ø18

**Anterior lens**
Outer diameter Ø34
**Small 40D lens**
The small 40D lens can assist with membrane peeling in the macular region and is beneficial for use in highly myopic eyes by avoiding contact between the surgical tools and lens. It provides a crisp, wide angle view with remarkable stereopsis, giving a clear view of the posterior pole, an area that is inaccessible with contact lens observation.

**40D lens**
A bright, stereoscopic view is a particular feature of the 40D lens, making it ideal for posterior segment procedures. Combined with the microscope illumination, the characteristics of the lens make the use of additional fiber optic illumination unnecessary, enabling bimanual procedures, hence saving time.

**80D lens**
The 80D lens allows observation from the posterior segment out to the intermediate peripheral zone of the retina. It can be used in combination with fiber optic illumination.

**Small 120D lens**
This compact lens takes up minimal space in the operating field and does not interfere with the use of surgical instruments. The wide angle view of 100° can expand up to approximately 130° with the use of air substitution.

**120D lens**
Useful for vitreous surgery and photocoagulation of the central and peripheral areas up to the Ora Serrata, the 120D lens provides a field of view of 130° with good stereopsis. This lens can be used under air substitution in combination with a wide angle fiber optic endoilluminator.
For cataract and vitreous surgery

Superb image quality for cataract and vitreous surgery
With the advancement of cataract surgery and phacoemulsification techniques an increasing number of surgeons are performing simultaneous cataract and vitreous surgeries. By using a three mode illumination system, the OMS-800 provides an improved red reflex with better shadow and contrast, even under conditions of low illumination.

Three illumination modes

Easy switch between illumination modes
Three different illumination modes are available to meet all surgical lighting needs. Different modes are easily selected using the footswitch.

Fully illuminated
(+4°, +2°, -2°)
In this mode, the illumination, brightness, stereoscopic view and shadow contrast are perfectly balanced for superior observation clarity. The illumination is always optimal regardless of the position of the patient’s eye.

Plus and minus
(-2°, +2°)
This illumination mode generates a particularly good red-reflex, and is very useful during anterior capsulotomies.

Yellow filter
(+4°)
The combination of illumination and yellow filter is particularly advantageous during long procedures to prevent phototoxicity.

CCC Hydrodissection PEA
Superior functionality

Low intensity illumination enables clear observation while preventing light damage
Superbly designed optics provide optimal illumination, eliminating harmful wavelengths and unnecessary brightness. Low light intensity also helps to prevent light-related damage of the retinal tissues. The integral IR filter further reduces the risk of phototoxicity.

Comfortable operating posture
The ergonomically designed optical head with built in beam splitter and adjustable eye pieces allows the surgeon to maintain a comfortable posture throughout the surgery. A key component to this comfort is the variable angle binocular tubes that allow for the setting of a personal viewing position from 45° to 90°. This flexibility ensures a comfortable operating stance even when using OFFISS.

Coarse focusing*
Coarse focusing mechanism allows the optical head to be quickly elevated during surgery and then brought back to the desired working position. This feature is particularly useful during IOL insertion and other procedures that momentarily require more space between the patient and the microscope.

Apochromatic optics
The optics of the system are designed to greatly limit the effect of chromatic aberration.

Anti stain coating
The OMS-800 employs an anti-stain coating - the optical components remain clear and maintain their quality for a longer period of time.

Increased working distance
The OFFISS system provides an extremely comfortable working distance between the OFFISS lenses and the patient’s eye.

Easy bulb exchange
The illumination bulb can be simply replaced, accessing the lamp housing using a rotating lever. A warning lamp indicates when the spare lamp is burned out to ensure there is always an operational bulb available.

Multifunction footswitch enhances operating efficiency
The multi function footswitch permits the surgeon to control virtually all of the OMS-800 functions without removing its hands from the operative field. Without any hand movement, the surgeon can adjust the illumination, zoom magnification, focus, illumination angle and X-Y positioning. On conventional microscopes, many of these functions have to be performed by assistants. The control lay out on the footswitch is conveniently arranged in the most accepted configuration.

Electromagnetic locking system
The optical head can be quickly and accurately positioned for surgery and held in place by the fast acting electromagnetic locking system (OFFISS/PRO).

Refer to the component list for further detail.
Optional accessories

**OFFISS lens set**
Standard components include: front lens holder, anterior segment observation lenses, 40D, small 40D, 80D, 120D, and small 120D. The boxes and lenses are easily maintained using an autoclave.

*Each front lens can be ordered separately.

**Assistant microscopes**
The assistant microscope provides an additional viewer with bright, crisp images on the same visual axis as those seen by the main surgeon. The angle of the binocular eyepieces is adjustable from 45° to 90°, offering the assisting surgeon a comfortable viewing angle. In addition, a separate focus adjustment is available for the assistant surgeon.

**TV relay lens**
The compact TV relay lens permits the attachment of a CCD camera useful for documentation and teaching. The relay lens accepts the most popular ½ inch and ⅓ inch CCD cameras with C mount or bayonet mount and is easily connected to the OMS-800.

**Slit Illuminator**
The MS-SI01 slit illuminator is an accessory, designed for the corneal refractive surgeon to aid in the assessment of corneal interface in lamellar procedures such as DSAEK and DALK. It features an extremely thin slit beam of 50μm and a LED illumination source. It can also be used to observe corneal and anterior chamber depth in cataract surgery.

**Intraoperative fluorescein observation**
With this attachment, the surgeon can perform fluorescein angiography during the surgery, allowing real-time assessment of the retinal condition.

Available with OMS-800 OFFISS only.
OMS-800 OFFISS
OFFISS offers a scope of possibilities for vitreoretinal surgery. Equipped with the OFFISS lenses mechanism, electromagnetic brakes and sophisticated electronics, this model is the highest specification for intravitreal surgery, as well as other ophthalmic procedures.

OMS-800 OFFISS CBS
The CBS model offers a changeable beam splitter control using a lever, allowing the beam to be split 80/20 or 50/50. When connected to a TV camera, the 50/50 mode allows clearer TV images for documentation or teaching purposes.

OMS-800 PRO
Electromagnetic brakes and sophisticated electronics give the OMS-800 PRO the flexibility to facilitate virtually any type of ophthalmic surgical procedure.

OMS-800 Standard
Equipped with most of the state-of-the-art features of the OMS-800 range, the OMS-800 Standard answers the need for a simpler, easy to use operation microscope. Manual brakes and ease of mobility make the OMS-800 an affordable yet advanced unit for all ophthalmic procedures.

Components

<table>
<thead>
<tr>
<th></th>
<th>OMS-800 OFFISS</th>
<th>OMS-800 OFFISS CBS</th>
<th>OMS-800 PRO</th>
<th>OMS-800 PRO CBS</th>
<th>OMS-800 Standard</th>
<th>OMS-800 Standard CBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFFISS</td>
<td>O</td>
<td>O</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Electromagnetic locking</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Coarse focusing</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Inverter</td>
<td>O</td>
<td>O</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Apochromatic optics</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Beam splitter</td>
<td>O</td>
<td>–</td>
<td>O</td>
<td>–</td>
<td>O</td>
<td>–</td>
</tr>
<tr>
<td>Changeable beam splitter</td>
<td>–</td>
<td>O</td>
<td>–</td>
<td>O</td>
<td>–</td>
<td>O</td>
</tr>
<tr>
<td>Illumination angle</td>
<td>Full illumination (±2°, ±4°) / ±2° / Yellow filter (+4°)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7
Specifications

<table>
<thead>
<tr>
<th>OMS-800 OFFISS</th>
<th>OMS-800 PRO</th>
<th>OMS-800 Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Microscope type</strong></td>
<td>Floor type</td>
<td>Galileo type</td>
</tr>
<tr>
<td><strong>Magnification change type</strong></td>
<td>Electric zoom continuous change</td>
<td></td>
</tr>
<tr>
<td><strong>Eyepiece (Eyepiece magnification)</strong></td>
<td>12.5x</td>
<td></td>
</tr>
<tr>
<td><strong>Objective lens</strong></td>
<td>F=200 mm</td>
<td></td>
</tr>
<tr>
<td><strong>Display magnification (x)</strong></td>
<td>4.2/6/7/9/10/11/15/17/19/21</td>
<td></td>
</tr>
<tr>
<td><strong>Total magnification</strong></td>
<td>4.2x ~ 21x</td>
<td></td>
</tr>
<tr>
<td><strong>1st arm length (Distance between shafts)</strong></td>
<td>375 mm</td>
<td></td>
</tr>
<tr>
<td><strong>1st arm rotation range</strong></td>
<td>300°</td>
<td></td>
</tr>
<tr>
<td><strong>2nd arm length (Distance between shafts)</strong></td>
<td>990 mm</td>
<td></td>
</tr>
<tr>
<td><strong>2nd arm rotation range</strong></td>
<td>300°</td>
<td></td>
</tr>
<tr>
<td><strong>2nd arm vertical movement range</strong></td>
<td>600 mm</td>
<td></td>
</tr>
<tr>
<td><strong>2nd arm mounting weight</strong></td>
<td>6 kg - 18 kg</td>
<td></td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>Base (Base unit) 720 mm (W) × 720 mm (D)</td>
<td></td>
</tr>
<tr>
<td><strong>Power supply</strong></td>
<td>AC 100-120V / 220-240V, 50-60Hz 280VA</td>
<td></td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>250 kg</td>
<td></td>
</tr>
<tr>
<td><strong>Permitted weight for accessories</strong></td>
<td>4.8 (4.4)* kg</td>
<td></td>
</tr>
</tbody>
</table>

Subject to change in design and/or specifications without advanced notice.
In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation.
Medical device Class 1. Manufacturer: Topcon Corporation.

Photos Courtesy of:
Professor Masayuki Horiguchi, MD Ophthalmology Department Fujita Health University
Associated Professor Kiyoshi Suzuma, MD Department of Ophthalmology and Visual Science, Graduate School Biomedical Science, Nagasaki University

Topcon Europe Medical B.V.
Essebaan 11, 2908 LJ Capelle a/d IJssel, P.O. Box 145; 2900 AC Capelle a/d IJssel, The Netherlands
Phone: +31-(0)10-4585077; Fax: +31-(0)10-4585040
E-mail: medical@topcon.eu; www.topcon-medical.eu

Topcon Danmark
Padgravnsvejen 25, 4500 Roskilde, Denmark
Phone: +45-46-327500; Fax: +45-46-327555
E-mail: info@topcon.dk; www.topcon.dk

Topcon Scandinavia A.B.
Norsborgsväg 2, P.O. Box 26, 43559 Malmö, Sweden
Phone: +46-(0)-732-000; Fax: +46-(0)-703-000
E-mail: medical@topcon.se; www.topcon.se

Topcon España S.A.
HEAD OFFICE, Frederic Mistou, 4; 08960 Sant Just Desvern, Barcelona, Spain
Phone: +34-93-473407; Fax: +34-93-4729892
E-mail: medical@topcon.es; www.topcon.es

Topcon Italy
Via dei'Industria 60; 20037 Paderno Dugnano, (M) Italy
Phone: +39-02-9988671; Fax: +39-02-9090091
E-mail: info@topcon.it; www.topcon.it

Topcon France
BAT A1, 3 route de la rivolata, 93206 Saint Denis Cedex
Phone: +33-(0)-492-003-23; Fax: +33-(0)-492-003-24
E-mail: Topcon@topcon.fr; www.topcon-medical.fr

Topcon Deutschland GmbH
Hann-Martin-Schleyer Straße 41; D-47877 Wülscher, Germany
Phone: (+49)-254-885-0; Fax: (+49)-254-885-177
E-mail: medical@topcon-medical.de; www.topcon-medical.de

Topcon Polska Sp. z o.o.
ul. Wroclawska 21, 42-475 Swarzędz, Poland
Phone: +48-(0)-67-50-45; Fax: +48-(0)-67-34-05
E-mail: info@topcon.pl; www.topcon.pl

Topcon Great Britain Ltd.
Topcon House, Kemilfill Silk, Bore Lane, Neston, Wirral, CH64 6AT, United Kingdom
Phone: +44-(0)-635-3300; Fax: +44-(0)-635-331700
E-mail: medical@topcon.co.uk, www.topcon.co.uk

Topcon Ireland
Unit 276, Blanchardstown, Corporate Park 2
Ballycoolin, Dublin 15, Ireland
Phone: +353-88793900; Fax: +353-0283916
E-mail: medical@topcon.ie; www.topcon.ie

IMPORTANT

Topcon Corporation
75-1 Hasunuma-cho, Itabashi-ku, Tokyo 174-8580, Japan
Phone: 3-3556-2523/2522; Fax: 3-3960-4214, www.topcon.co.jp