

Leica M525 F40

True greatness in tight spaces

Leica
MICROSYSTEMS



Leica

M525 F40

Leica's M525 OptiChrome™ premium optics and the compact Leica F40 stand are the perfect answer to the challenges of microsurgery. Best viewing, perfect balance, easy mobility, optimal stability and excellent value for money all define this new Leica microscope system. The slim design of the Leica F40 stand conceals innovative engineering that provides a unique homogeneity of movement. Sophisticated interface solutions make the Leica M525 F40 compatible with neuronavigation/IGS systems.

A new feature of the new Leica M525 microscope is the coupling of the illumination brightness control to the working distance for even more reliable work at short distances.



Leica Design by Christophe Apothéloz



True greatness in tight spaces.



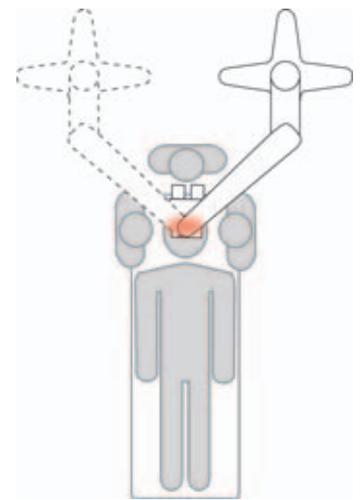
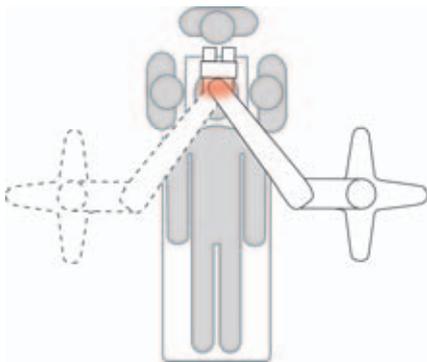
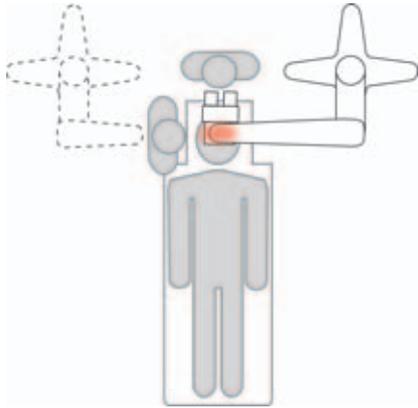
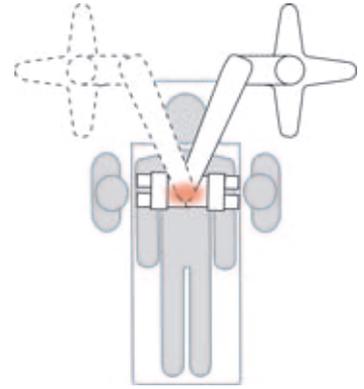
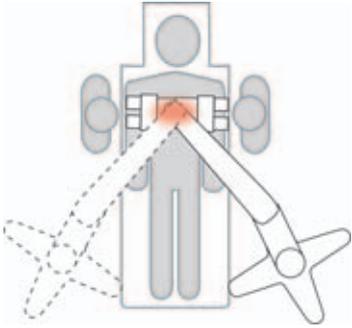


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SPREAD	SPEED	SHUTTER	HYDRA
-40%	50%	2.5	30%

Control panel with a digital display showing four columns of settings: SPREAD, SPEED, SHUTTER, and HYDRA. Each column has an icon and a numerical value. Below the display are four pairs of red buttons. The Leica logo is visible on the right side of the panel.





Always in the right place

The modern operating room is frequently filled with numerous pieces of surgical equipment and a large team of surgeons and nurses. Under these circumstances, even large operating rooms can get a bit tight. Leica engineers developed the Leica F40 stand in response to these often cramped conditions. The result: an extremely compact base combined with a very long swing arm for optimal use of space.



Compact and flexible

The Leica M525 F40 can be made even more compact by folding it together and requires very little floor space. Unfolding the system for placement around the operating table is simple and easy, as is the balancing. With the long range of the Leica M525 F40, the stand fits perfectly and flexible into any surgical set up.



The new Leica M525 optics featuring OptiChrome™

The Leica M500 neurosurgical optical system has gained countless satisfied users since 1997.

Leica now takes innovation a step further with the new Leica M525, featuring the latest generation of OptiChrome™ technology – the integration of all new glass, coating and design parameters that deliver the following decisive advantages:

- **Longer** 32% extended working distance to 470mm
- **Deeper** 30% increased depth of field at same magnification
- **Brighter** 30% more light intensity
- **Sharper** Higher contrast and crisper, sharper image
- **Smarter** Zoom-synchronized illumination field diameter

Ten years of relentless research and clinical experience of OptiChrome™ optics have now culminated in the world's most advanced optical system: the new Leica M525 OptiChrome™.



Details with high utility

Ergonomic: the generous surrounding grip. In conjunction with the compact base, the grip permits the Leica M525 F40 to be maneuvered laterally to the operating table with ease.

Compact and stable: the base. Measuring only 637mm × 637mm (25 in. × 25 in.), the movable base is a dwarf that performs the job of a giant, keeping the very long swing arm stable and securely positioned above the operating table.

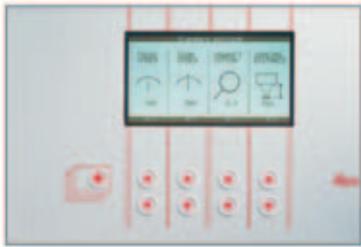
Practical: the footswitch mount. Positioned at an ergonomic height and protected from all sides, the footswitch mount is extremely practical.

Fast and secure: the foot brakes. The two foot brakes can be actuated quickly and individually and guarantee secure positioning.

Cleanly positioned: the video CCU carrier. The video camera control unit carrier lets you mount your equipment on the stand in an orderly manner and have it draw its power from the stand; a practical unit with a minimum of cabling.



Accessories and control panel



Control electronics



Objective protection glass

Intelligent: the control electronics. The ISUS system (Intelligent Set Up System) developed by Leica guarantees maximum flexibility for up to 8 user-specific configurations. ISUS also features a self-diagnostic system.

Ergonomical: the compact microscope. The compact design of the Leica M525 F40, guarantees the smallest possible working distance between the eyepieces and object field. Its optimized ergonomics guarantee a relaxed posture for the surgeon.

A clear, sterile view: sterilizable objective protection glass. The Leica M525 objective cap consists of high-quality, thin-film coated optical glass in an interchangeable mount for the best possible vision and long-lasting sterility.

Fast and optimal: the illumination. The 300W xenon light source allows even the finest structures in low-lying operating locations to be viewed clearly with perfect depth perception. Should the xenon light source ever fail during surgery, the 150W halogen light source will be available within one second with a quick turn.

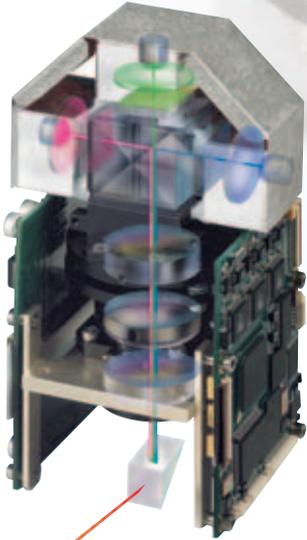
Lightning unit with lamp quick-changer
(XENON/HALOGEN)



The power package:
300W xenon light source



Compatibility Prepared for all data



RGB Monitor system with highest available resolution 1024×768 pixel.

In combination with IGS systems or deployed independently, the Leica DI C500 dual imaging module processes more file formats than ever – high-resolution RGB video signals, correlated data from IGS systems, standard CT or MRI data and more.

Endoscopy

The Leica M525 F40 can be used very easily for neuro endoscopy application in combination with the Leica DI C500. With the Leica DI C500, the surgeon will view in whichever microscope eyepiece he chooses, what he could observe on a high resolution monitor.

The Leica ULT 500

is the ultra-observation tool for the surgeon, the assistant and video documentation. A simple lever allows the light to be directed to either a 180° assistant or a 90° assistant.

The Leica DI C500 allows the surgeon to view data from any external source such as MRI, CT, IGS, and endoscopes. With an IGS computer, the CT or MRI can be fully correlated to the image in the eyepieces. Correlated image information can be superimposed on the microscope image, while non-correlated information is displayed over a black background using quad-shutter technology. All data can be projected with the highest resolution, brightness and contrast available in the marketplace today.



Individuality thanks to modularity



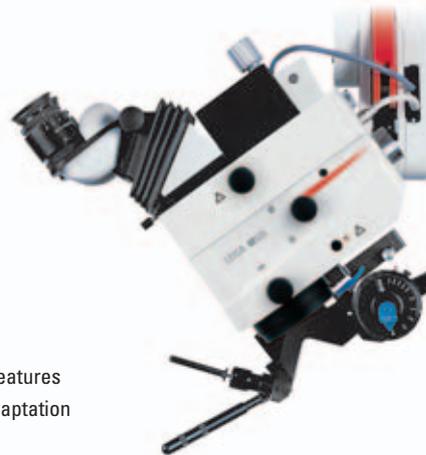
With its modular design, the Leica M525 F40 lets users adapt the system to their personal requirements. Leica offers surgeons, assistants and trainees optimal observation equipment for surgery at the head, spine or other areas of the body. Special value was placed on meeting the justifiably high ergonomic requirements of the users during development. An extremely wide range of quality accessories is also available for the documentation. A particularly noteworthy feature is the Leica Video Zoom Adapter with its unique 3× optical zoom and separate fine focus, which can be controlled in a sterile environment.



Leica Video Zoom Adapter



The Leica M525 also features an interface for the adaptation of laser systems.



Leica Microsystems worldwide



Leica Microsystems is active in the fields of microscopy, specimen preparation, image analysis, laser technology, medical technology, and equipment for the semiconductor industry. The international technology group headquartered in Wetzlar, Germany has grown from such traditional brand names as Leitz, Wild, Reichert, Jung, and Cambridge Instruments. Leica's division of Surgical Microscopy is located in Switzerland, known worldwide for quality and precision.

Made by Leica

Leica Microsystems develops innovative technologies and system solutions that offer high value to users worldwide. Leica quality has earned international respect. Our high-quality standards apply equally to all eleven of our production centers in seven countries.

At your service

Technology is just one key to the success of Leica Microsystems. Serving you is the other. Your local Leica representative is ready to give you friendly and competent advice – in your language and wherever you are. Prompt support and service have the highest priority at Leica Surgical Microscopy. We will handle all your needs directly and dependably. For us, that's just as normal as the perfect organization of our delivery, setup, and training services.

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Leica Microsystems – the brand for outstanding products

Leica Microsystems' mission is to be the world's first-choice provider of innovative solutions to our customers' needs for vision, measurement and analysis of microstructures.

Leica, the leading brand for microscopes and scientific instruments, developed from five brand names, all with a long tradition: Wild, Leitz, Reichert, Jung and Cambridge Instruments. Yet Leica symbolizes innovation as well as tradition.

Leica Microsystems – an international company with a strong network of customer services

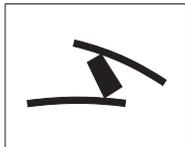
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and representatives of Leica Microsystems
in more than 100 countries.

The Business Unit SOM, within Leica Microsystems (Schweiz) AG, holds the management system certificates for the international standards ISO 9001:2000 / ISO 13485:2003, and ISO 14001:2004 relating to quality management, quality assurance and environmental management.



Winner 2005



Innovationspreis
der deutschen Wirtschaft
The World's First Innovation Award

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MICROSYSTEMS

The companies of the Leica Microsystems Group operate internationally in three business segments, where we rank with the market leaders.

• Microscopy Systems

Our expertise in microscopy is the basis for all our solutions for visualization, measurement and analysis of microstructures in life sciences and industry. With confocal laser technology and image analysis systems, we provide three-dimensional viewing facilities and offer new solutions for cytogenetics, pathology and materials sciences.

• Specimen Preparation

We provide comprehensive systems and services for clinical histo- and cytopathology applications, biomedical research and industrial quality assurance. Our product range includes instruments, systems and consumables for tissue infiltration and embedding, microtomes and cryostats as well as automated stainers and coverslippers.

• Medical Equipment

Innovative technologies in our surgical microscopes offer new therapeutic approaches in microsurgery.

Technical data

Leica M525 F40

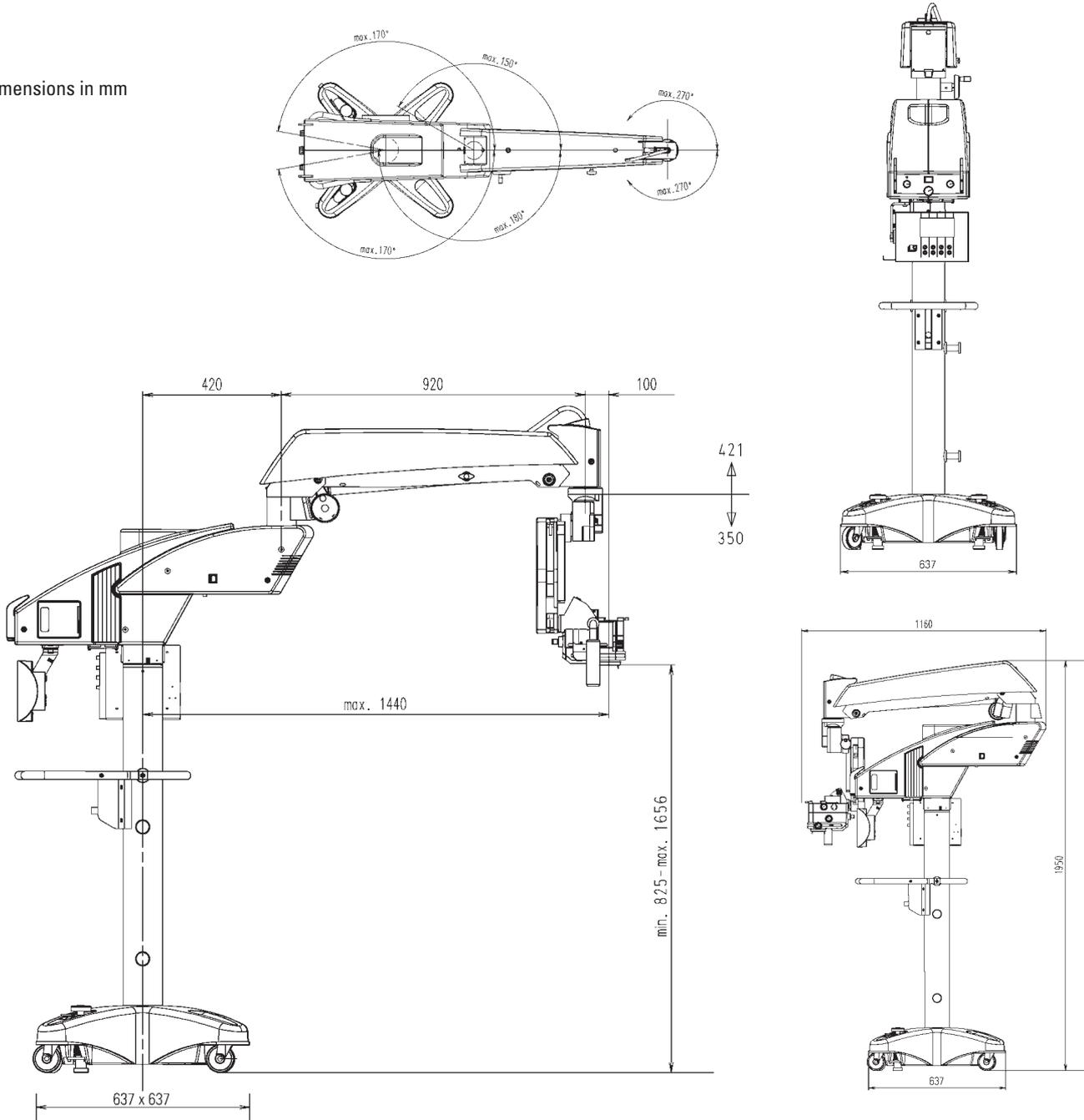
Electrical data	
Power supply	100–230 V~, 50/60 Hz, 800 VA
Classification	Class 1
Type	Type B
Leica M525 Microscope	
Magnification	6:1 zoom, motorized
Working distance	207mm – 470mm, variable through motorized multifocal lens; manually adjustable
Focusing	Motorized or manual via multifocal lens, manual via swing arm
Eyepieces	Wide-field eyepiece for spectacle wearers 10× and 12.5×, dioptic setting +/- 5 with adjustable eye cup
Objective	Multifocal lens, 207mm – 470mm variable working distance
Main illumination	High performance 300-watt xenon lamp through fiber optic
Illumination	Illumination field diameter with Gaussian light distribution
Field diameter	Automatically adjusted to the field of vision and manually adjustable
Emergency lamp	21V/150-watt halogen lamp through fiber optic
Control unit	Graphic LCD data display with background illumination, menu provides up to 8 user-specific configurations with built-in auto diagnostic system
Optical data	
Magnification range	1.2× – 12.8× with 10× eyepiece
Field of view diameter	16.5mm – 180mm with 10× eyepiece
Leica M525 F40 stand	
Type	Floor stand with 6 electromagnetic brakes
Balancing	Manual balancing for the swing arm, manual balancing for the microscope carrier
Hand grips	Controls for microscope zoom position, variable working distance via multifocal lens, and for the six electromagnetic brakes
Maximum load	10kg of accessories to the microscope
Maximum range	1440mm
Range of up / down	–350mm/+421mm (771mm)
Maximum transport height	1950mm
Weight with microscope fully loaded	280kg
Accessories	
Leica ULT 500	180° stereo observer, Main / Assistant surgeon 40% each beam path, Assistant / Video on selectable side 20% each beam path
Second observer	Dual stereo attachment: 70% / 30%, stereo attachment for second observer for beam splitter
Beam splitter	50% / 50% / 70% / 30%
Binocular tube	Variable angle 0° – 180°, variable angle 30° – 150°
Video Adapter	3:1 zoom, 35mm – 100mm focal length, c-mount, with fine focus
Imaging	Leica DI C500 high resolution true color dual imaging module for correlated and non correlated data display, 1024×768 pixel resolution, 256 grey scale
Asepsis	Sterilizable protective glass for the objective; sterilizable components for all drive knobs, commercially available drapes
Laser	Various commercially available lasers and laser shutters can be attached

Conformity **CE**

- Medical devices directive 93/42/EEC
Classification: Class I, in compliance with appendix IX, rule 1, with reference to rules 10 and 12 of the directive.
- Medical electrical equipment, Part 1: General requirements for safety IEC 60601-1; EN 60601-1; UL60601-1; CAN/CSA-C22.2 NO. 601.1-M90
- Electromagnetic compatibility IEC 60601-1-2; EN 60601-1-2

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Dimensions in mm



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