



Leica L2

Compact, modular cold light source
for stereomicroscopes

Leica
MICROSYSTEMS

The source for better performance

Optimal illumination improves people's optical performance and reduces error rates. The use of cold light sources has been catching on in stereomicroscopy because they illuminate objects intensely. The reasons are convincing. Infrared-free "cold" light limits damage-causing warming of the object under examination and, compared to traditional illumination equipment, the small footprint of the source near to the object and the number of types of light guides for diverse applications allow great flexibility. The new Leica L2 cold light source is powerful, small, compact, affordable, and is suited to all

applications in industry and science. Besides classically angled lighting with one or two-armed light guides, other equipment is available for coaxial, vertical, and transmitted illumination methods.

The Leica L2 can be attached directly to the stereomicroscope as an antistatic cold light source. If the stereomicroscope itself is one of the Leica antistatic models, the combination is ideal for electrostatically-delicate tasks. The Leica L2 offers better performance at a lower price than other cold light sources in the 20W class.

Leica L2 – Illumination with method

In fiber optics, light is transmitted through multiple total reflection in bundled fiber optic cables made of glass. Glass guarantees the greatest possible safety during use, cannot be burned, and is not sensitive to heat, UV rays, and other environmental influences. The cold light source in the Leica L2 is an 8V/20W halogen reflector lamp whose heat-producing infrared rays have been filtered out. The remaining visible light passes to the other end of the light guide and is emitted there as a concentrated point of light.

The new Leica L2 cold light source:
compact, space-saving, powerful,
antistatic

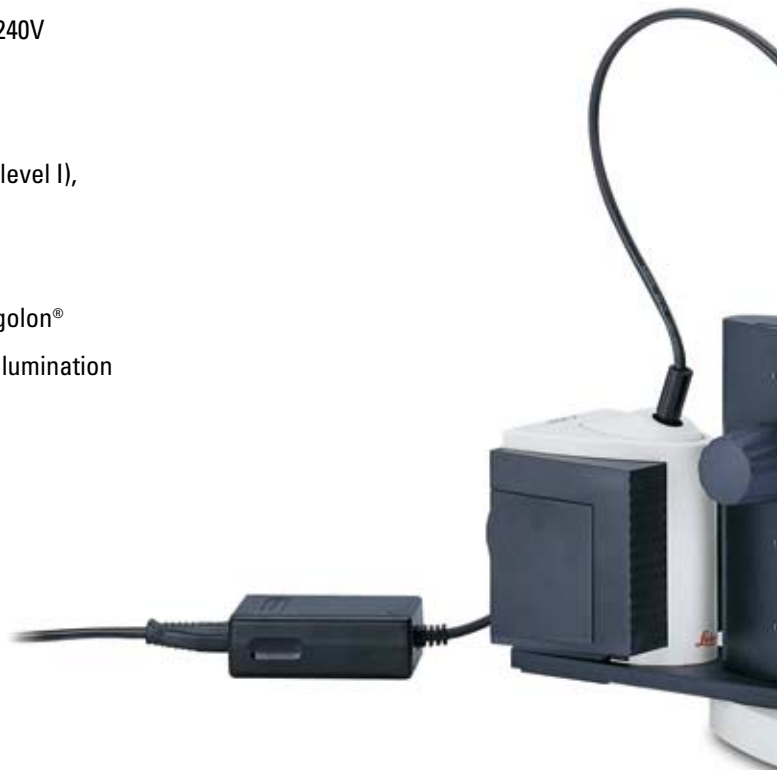
Leica Design by Christophe Apothéloz



See clearly with targeted light

The Leica L2's performance is unique in its class:

- Highest total light flux of 63lm at light guide outlet
- No 100Hz flickering, no light dispersion, constant color temperature of 3200°K
- Smallest (125mm×110mm×150mm) and lightest (0.5kg) cold light source
- Only cold light source that can be attached directly to the stereomicroscope, thus taking up less space in the total equipment setup and avoiding the misdirection of illumination when the stereomicroscope is moved
- Only cold light source with a volt-sensitive supply unit that guarantees stable illumination performance and automatic calibration to the available grid voltage of 100V to 240V
- Antistatic casing appropriate to antistatic Leica stereomicroscopes
- Long bulb life of 250 hours (level III) to 5000 hours (level I), changing bulb is simple and requires no tools
- No noise and vibration-free when in operation
- Various light guides with protective coating of Megolon®
- Attachments for coaxial, vertical and transmitted illumination





Powerful and affordable

The Leica L2 offers the greatest advantages and the most affordable price of all comparable cold light sources in its class. It is the only one that exhibits no 100Hz flicker, which can be particularly distracting during digital image processing on a monitor. The total light flux at the light guide output has no competition either. At diameter 4.5mm it is 54lm and at diameter 5mm it is 63lm. The volt-sensitive supply unit is also unique, calibrating itself automatically to the available grid voltage of 100V to 240V and guaranteeing stable illumination performance during voltage fluctuations.

Easy to maintain and safe

The aesthetically appealing design hides a specially selected 8V/20W halogen reflector lamp for optimum results. The lamp casing has been refined to make changing the lamp as quick as possible: simply snap off the lamp cover, the lamp turns off automatically; change the lamp, and snap the cover back on. The Leica L2 has been tested and approved against applicable international safety regulations.



StereoZoom® Leica S6 E with Leica L2 cold light source, universal light guide and power supply unit, volt-sensitive

Variety in a new light

Modest footprint

Objects being examined and different kinds of documents will take up space both on your work surface and in laminar flow cabinets. The Leica L2 is not only the smallest (125mm×110mm×150mm) and lightest (0.5kg) cold light source, it is also the only one that can be attached directly to the stereomicroscope stand. The advantages: the complete set of equipment requires minimum space and can be carried easily from one work place to another. Also, the illumination retains a constant orientation toward the object when the stereomicroscope is moved. For data and dimensions, see page 7.

Light guide for various illumination methods

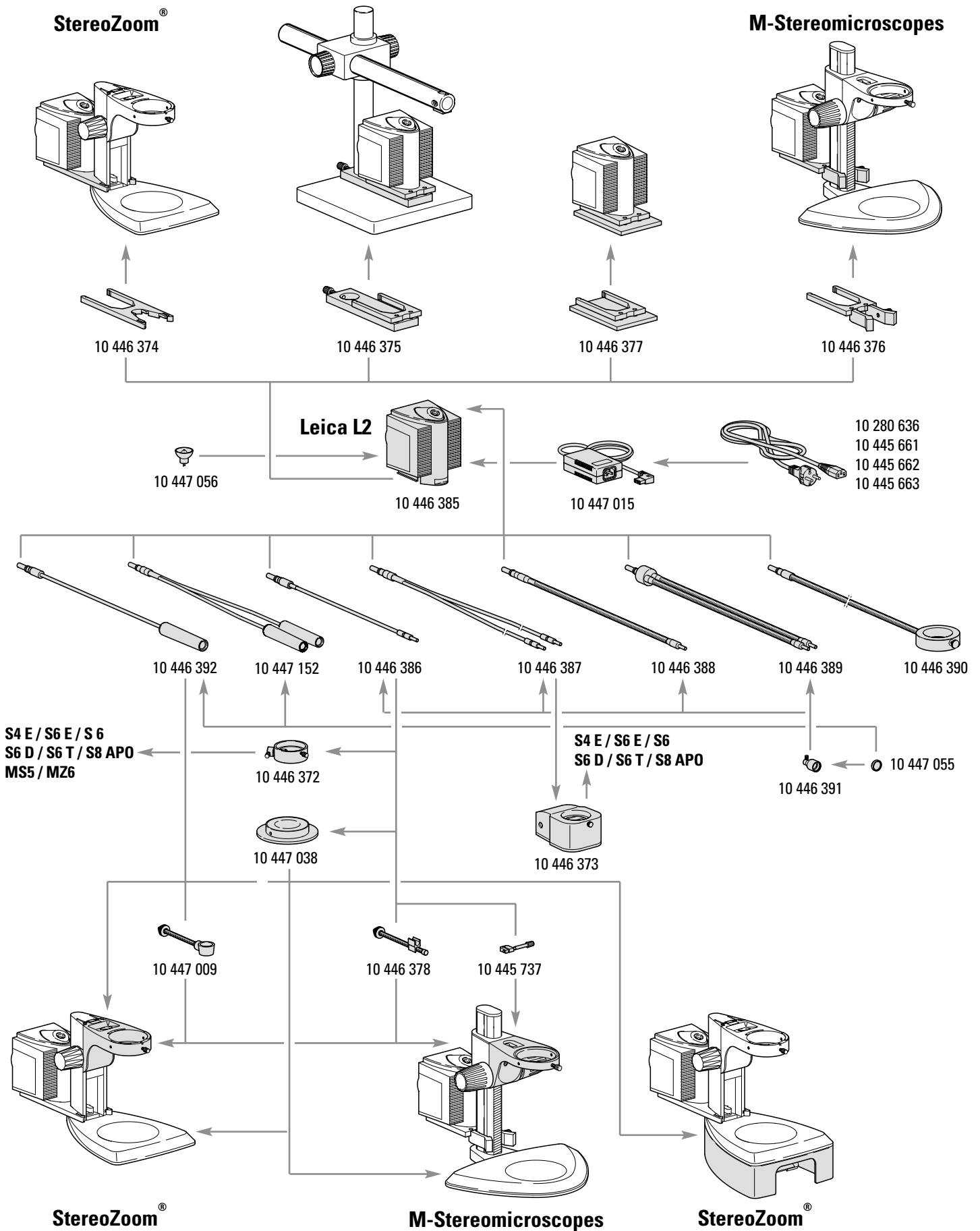
The Leica L2 can be implemented in a variety of ways and effectively used for the most diverse tasks. The different light guides are made of glass fiber optics with excellent optical properties such as the fastest transmission rate as well as optimum light distribution. The high-quality coating made of halogen-free Megolon® and the heat-resistant light guide interface to the cold light source together guarantee an extraordinarily long fiber optic life.

Vertical illumination for strongly structured slide preparations and for brightening depressions and holes



- 1 Base plate for stand-alone version. Self-supporting one and two-armed gooseneck light guides
- 2 Coaxial illumination for reflecting, flat objects like polished metal components, wafers, chips, or layered surfaces
- 3 Adapter for Leica M Stereomicroscopes
- 4 6-point ring light for shadow-free, homogenous illumination of reflecting, uneven surfaces
- 5 Transmitted light stage for thin sections and semi-transparent specimens
- 6 Universal light guide with integrated lens for brightening-related and transparent applications, usable with or without articulated arm

Leica L2 Assembly diagram



Catalogue references

Item No.

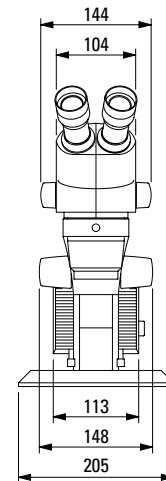
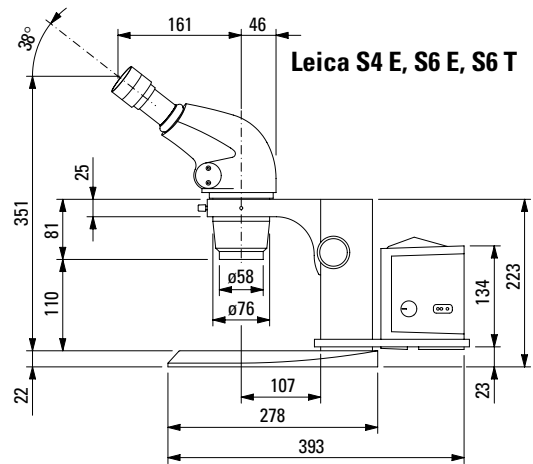
10 446 385	Leica L2 fiber optic light source
10 447 015	Power supply Leica L2
10 446 386	Single flexible light guide, 550mm
10 446 387	Double flexible light guide, 750mm
10 446 388	Single gooseneck, 500mm
10 446 389	Double gooseneck, 500mm
10 446 390	6-point ringlight, 58mm I.D., 750mm
10 447 038	Transmitted light stage
10 446 391	Focusing lens
10 447 055	Daylight conversion filter for focusing lens
10 446 392	Universal light guide
10 447 152	Double universal light guide
10 446 374	L2 adapter for focus column
10 446 375	L2 adapter for S-stand
10 446 376	L2 adapter for focus drive 300mm
10 446 377	L2 base
10 446 378	Flexible light guide mount
10 447 009	Universal light guide mount
10 446 372	Near vertical illuminator
10 446 373	Coaxial illuminator
10 280 636	Power cable 2m, CH
10 445 661	Power cable 2m, US
10 445 662	Power cable 2m, EURO
10 445 663	Power cable 2m, BS

Bulb

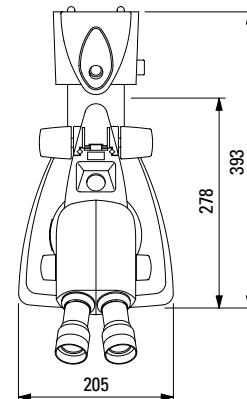
10 447 056	Bulb 8V/20W for L2
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Dimensions of Leica L2 with Leica S4 E, S6 E, S6 T

with incident-light stand



Dimensions
in mm





1



2



3



4



5



6

Leica 2 cold light source

Technical data

Dimensions (WxDxH)	approximately 125mm×110mm×150mm
Weight	approximately 0.53kg
Material	antistatic
Operational voltage of the power supply unit, volt-sensitive	100 to 240V ~ 50/60Hz
Power consumption	20W
Lamp	halogen reflector lamp 8V/20W
Brightness control	Three-position switch
Average lamp lifetime	5000h (at level I)/1000h (at level II)/250h (at level I)
Cooling	convection ventilation, silent and vibration-free
Maximum technically usable bundle diameter of light guide	6mm
Total light flux at light guide outlet on Level III	
– Light guide diam. 4.5mm	54lm
– Light guide diam. 6.0mm	63lm
Color temperature	3200K
Attachments	
Various adapters	to secure the cold light source to the stands of the Leica StereoZoom® and M Stereomicroscope lines and to columns diam. 25mm–38mm
Base plate	stand-alone version
Light guides	one and two-armed, flexible and self-supporting
Focusing front lens	and daylight filter, attachable
Universal light guides	with convex lens
Various arms	to secure the light guides to the stereomicroscope
6-point ring light	shadow-free, homogeneous illumination
Coaxial, vertical, and transmitted illumination	usable with light guides
Protective coating on light guides	halogen-free Megolon®
Conformity with standards	<ul style="list-style-type: none"> – safety regulations for electric measuring, control, regulator, and laboratory equipment DIN EN 61010-1:1993 IEC 1010-1 – electrical equipment for laboratory use UL 3101-1 – low-voltage guidelines 73/23/EWG – EMV guidelines 89/336/EWG – earned European standards seal of approval CE

The Business Units in Leica Microsystems hold the management system certificates for the international standards ISO 9001 and ISO 14001 relating to quality management, quality assurance and environmental management.

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