



HEINE Indirect Ophthalmoscopes



OMEGA 500



SIGMA 250

Synchronized  
Separate

•  
•  
•  
Diffusor

•  
•  
•

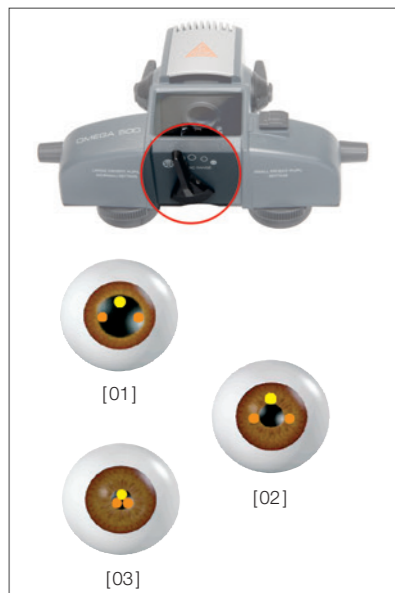
LED-Illumination  
XHL-Illumination  
Headband  
S-FRAME  
Teaching mirror

On the Instrument  
On the power source  
Headband-mounted battery  
mPack UNPLUGGED  
mPack  
mPack LL

EN 50 Table- or / Wall Transformer  
Mains Transformer

Page

Convergence and Parallax Adjustment	
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Apertures	
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	optional
Filters	
<input type="checkbox"/>	optional
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Versions	
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Brightness control	
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Mobile power supply	
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Stationary power supply	
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**Synchronized Convergence and Parallax Adjustment System**

The advanced One-Step Small and Variable Pupil Control maximizes stereopsis in dilated pupils and allows for the instant adjustment of the optical system to ensure fully illuminated, stereoscopic views through pupils as small as 1 mm in diameter.

- **Dilated Pupil.** In the case of a dilated pupil, the HEINE Synchronized Convergence and Parallax Adjustment System adjusts the left and right observation paths as far apart as possible (large angle of Convergence) providing for maximum stereopsis (depth perception). The illumination beam is automatically positioned as high as possible relative to the observation plane (creating a large angle of parallax) in order to maximize illumination and minimize unwanted reflections [01].
- **Undilated Pupils and viewing in the Periphery.** In cases of pupils that can not, or should not be dilated, a binocular view with full illumination is not possible without adjustments of the optical system [02]. By adjusting the Small and Variable Pupil Control Lever located on the bottom of the OMEGA Series instruments, the angle of convergence between left and right observation paths is reduced and the angle of parallax (light path) is automatically reduced in one, simple step. The observer can now enjoy a fully illuminated, binocular view with excellent stereopsis [03] even through a pupil as small as 1 mm in diameter, or in cases where the pupil appears as an ellipse as a result of viewing the periphery.

HEINE OMEGA® 500 Binocular Indirect Ophthalmoscope

Quality with LED or XHL Xenon Halogen Lamp illumination



- LED or XHL Technology
- Unique Synchronized Adjustment
- Dust proof

With its XHL Xenon Halogen Technology and perfect color rendering, the OMEGA 500 has set the standard for reliability and performance.

- **Unique “Synchronized Adjustment of Convergence and Parallax”** for high quality, stereoscopic fundus images through any pupil size. Precise selection of the observation and illumination optics for small pupils down to 1.0mm.
- **Excellent optical performance due to the multi-coated illumination system.** Exact vertical alignment of the illumination with the observation path further minimizes the reflections.
- **Due to the mounting of the optics on an aluminum chassis,** the OMEGA 500 is solid, long lasting, and is guaranteed to be dust proof.
- **The newly designed HC 50 L Headband Rheostat controls the LED illumination as well as the XHL Xenon Halogen illumination.**

**Technical Specifications:**

- **Apertures and Filters:** Can be “locked” into a desired position.
- **Adjustment Levers:** Also feature a “Friction Clutch” (“Safety Clutch”) to protect mechanisms from forced adjustment while in the “lock” position.
- **Increased PD Range:** From 46 – 74 mm.
- **Soft Touch Controls:** All key adjustment controls feature soft touch surfaces for precise and positive adjustment control.



Separate fine-tuning of the illumination beam ± 4° in addition to synchronized convergence and parallax adjustment.

HEINE Diffuser, 3 integrated Spot Sizes: Small spot, medium and large. 3 integrated Filters: Red-free, Cobalt Blue and Yellow filters.

Synchronized adjustment of convergence and parallax.

The HEINE diffuser can be selected to provide soft light, simplifying the examination and reducing glare and reflexes but maintaining excellent light intensity. Can be combined with all filters.



LED Technology for HEINE OMEGA® 500:

LED now in HEINE quality. The sophisticated LED HQ system provides for longer operation time, exact dimmability and excellent color rendering.

- **LED thermal management** by means of high quality heat conducting materials, such as copper, guarantees consistent light output for the whole working life of the LED, 20,000 hours.
- **State of the art LED illumination system** produces absolutely homogenous, uniform illumination and up to 100% more light in comparison to the XHL Technology. The CRI value, whose maximum is 100, indicates how exactly colors are reproduced in comparison with daylight. The following technical data of the OMEGA 500 allow an exact diagnosis: color temperature 4000K, CRI value >90.
- With the **Rheostat HC 50 L** the light intensity can be precisely adjusted especially in the range of low light intensities.
- **Convert your XHL Xenon Halogen OMEGA 500 to LED:** With a conversion kit the OMEGA 500 can easily and quickly be adapted to the new technology.



### HEINE OMEGA® 500 Headband

#### with unique features



- ∴ **Articulating Hinge** provides vertical adjustment of the rear band of the headband for individual placement. Secure and perfect fit for all shapes and sizes.
- ∴ **Ergonomic design** for optimal weight transfer across the surface of the entire headband (no pressure points).
- ∴ **Softer, malleable material.** Provides even and comfortable fit of the headband.
- ∴ **Calibrated Overband Position** ensures optics are in true horizontal position for precise adjustment and alignment.
- ∴ **Integrated cables** in overband eliminate the usual “cable loop” from instrument to headband.
- ∴ **Registered Design.**



[01]



[02]

#### Technical Specifications:

- ∴ **HC 50 L Headband Rheostat:** Easily mounted on the left or right sides of the headband [01].
- ∴ **Integrated flip-up adjustment:** To raise optics out of the line of sight. Can be mounted on the left or right side of the headband. Optics can be flipped and locked at 0°, 12.5°, 47.5°, 60° degrees [02].
- ∴ **Mechanically reinforced adjustment mechanisms:** For durability and precise adjustment of the headband.

### HEINE OMEGA® 500 Binocular Indirect Ophthalmoscope

#### Optimum performance and quality



[01]



[01]



[02]



[03]

OMEGA 500 Ophthalmoscope	LED – 6V
on Headband with HC50 L Headband Rheostat and Connecting Cord UNPLUGGED-Cinch	<b>C-004.33.507 L</b>
Extension Cord Cinch-Cinch, 2 m [01]	<b>C-000.33.510</b>
Connecting Cord UNPLUGGED-Cinch to EN 50 charger /mPack /plug-in transformer for HC50 L, 1,6m [02]	<b>X-000.99.667</b>
Extension Cord UNPLUGGED, 2m	<b>X-000.99.668</b>
HC50 L Headband Rheostat (without plug-in transformer)	<b>X-095.16.325</b>
Plug-in transformer for HC50 L Headband Rheostat	<b>X-095.16.330</b>
Teaching mirror [03]	<b>C-000.33.209</b>

### HEINE OMEGA® 500 Kits



[01]



[02]

#### OMEGA 500 LED Conversion Kits.

With these kits, a XHL illumination OMEGA500 can be converted to LED illumination.

LED Conversion Kits for OMEGA 500	LED – 6V
Conversion Kit OMEGA500 with LED module [01] and HC50 L [02]	<b>X-008.16.325</b>
LED module only for OMEGA500 [01]	<b>X-008.87.200</b>

\* Conversion Kit required for OMEGA 500s without HC 50 L Rheostat.

#### OMEGA 500 Kits

Recommended Product Order Configurations to ensure the most flexibility the OMEGA500 has to offer. The following kits include main system elements but no carrying cases or ancillary accessories.

OMEGA 500 Kits	LED – 6V
<b>Wired Directly into Stand Kit</b>	
HC 50 L Rheostat, HC 50 L Connecting Cord, and HC Converter	<b>C-004.33.530 L</b>
<b>EN 50 Wall/Table Mount Transformer Kit</b>	
HC 50 L Rheostat, HC 50 L Connecting Cord, and EN 50 with Control	<b>C-004.33.531 L</b>
<b>HC 50 L Wall Plug-In Kit</b>	
HC 50 L Rheostat, HC 50 L Connecting Cord, and HC Plug-In Transformer	<b>C-004.33.532 L</b>
<b>mPACK with Transformer Kit</b>	
HC 50 L Rheostat, mPACK complete with Transformer	<b>C-004.33.533 L</b>
<b>mPACK with EN 50 Charging Base Kit</b>	
HC 50 L Rheostat, HC 50 L Connecting Cord, mPack Battery and EN 50 Base Unit	<b>C-004.33.534 L</b>

**\* Kits include Xenon Bulb and LED Module**



**HEINE OMEGA® 500 UNPLUGGED**  
**with headband battery mPack UNPLUGGED**



- ∴ 100% freedom of movement
- ∴ Low weight
- ∴ Charge status indicator

100% freedom of movement – no cable connections!  
The OMEGA500 Ophthalmoscope with mPack UNPLUGGED rechargeable battery allows one-of-a-kind mobility without restriction or hindrance caused by cables, cords, or similar connections.

- ∴ **Rechargeable battery integrated on the headband.** No interfering cable connections.
- ∴ **Lightweight with balanced weight distribution.** High level of comfort. Lightweight and compact.
- ∴ **mPack UNPLUGGED rechargeable battery.** Charging time 2 hours. Operating time 8 hours with LED illumination, 2 hours with XHL illumination (with standard lamp 6V, 5W).
- ∴ **Charge Status Indicator.** Indication of remaining operating time.
- ∴ **Can be recharged by wall charger or plug-in transformer.**
- ∴ **Intelligent charging system.** Automatic changeover from operating to charging mode (in the wall charger). Battery-friendly charging.
- ∴ **Direct operation possible while charging** through the use of the mobile plug-in transformer.
- ∴ **Top safety standards.** Integrated charge and performance checks during operation. Lithium polymer technology (selected non-flammable materials). UL-compliant.
- ∴ **System compatibility** with mPack for even greater capacity.



OMEGA 500 UNPLUGGED Kits	LED – 6V
Consists of OMEGA500, HC50 L headband Rheostat, XHL Xenon Halogen bulb 5W:	
<b>Mobile Charger Kit</b>	
1 UNPLUGGED Battery with Mobile Transformer	<b>C-004.33.535 L</b>
<b>Wall Charger Kit with 2 Batteries</b>	
2 UNPLUGGED Batteries and UNPLUGGED Wall Charger	<b>C-004.33.536 L</b>
<b>Wall Charger Kit with 1 Battery</b>	
1 UNPLUGGED Battery and UNPLUGGED Wall Charger	<b>C-004.33.537 L</b>

**\* Kits include Xenon Bulb and LED Module**

**HEINE Video OMEGA 2C®**  
**Binocular Indirect Video Ophthalmoscope**



The only Binocular Indirect Video Ophthalmoscope designed and developed entirely for video applications. Ideally suited for teaching, research, patient clarification, digital patient history and telemedicine.

- ∴ **Fully integrated camera system.** No external brackets or prisms.
- ∴ **Compact.** Lightweight camera design (65 g, camera head without cable, complete 250 g).
- ∴ **Waterproof camera head.** Can be placed in disinfectant solution (but cannot be autoclaved).
- ∴ **100% dustproof system.** No maintenance required.
- ∴ **Optics specially developed.** Maximum brightness.
- ∴ **High resolution A-Cam camera.** CCD 470,000 Pixel, 460 lines.
- ∴ **Image sensor.** 1/2" CCD, color.
- ∴ **Focus adjustable for any working distance.** From 250 to 800 mm.
- ∴ **Automatic white balance.**
- ∴ **Automatic light metering at the center of the image.** Reduction in reflections.
- ∴ **Automatic light boost.** Boost function for examinations with low lighting.
- ∴ **Brilliant image with an S-VHS monitor.**
- ∴ **FBAS (composite) and Y/C (SVHS) outputs.** Extensive compatibility and high image quality.
- ∴ **Optional PAL or NTSC format.** Please specify when ordering.
- ∴ **Connecting cable.** 3m.
- ∴ **Processor will connect to various output devices, such as: VCR's, digital printers, PC's with image capture software.**
- ∴ **Video OMEGA2C can be supplied without a camera for users' own C-mount CCD cameras.**



Monitor not included.

Video OMEGA 2C Sets	
Complete with optics and headband, A-Cam camera and processor, Video cable, S-VHS cable, EN50 with Rheostat Control Module, extension Cord Cinch 2m, image capture software, digital converter box, and carrying case.	<b>C-175.40.617</b>
Video OMEGA2C, Optics, headband and bulb, without accessories. Instrument with C-Mount, without A-Cam camera and processor.	<b>C-004.33.214</b>
A-Cam camera with processor (available systems: PAL or NTSC, please specify when ordering).	<b>C-000.33.223</b>

More information available on request.



### HEINE SIGMA® 250 Binocular Indirect Ophthalmoscope

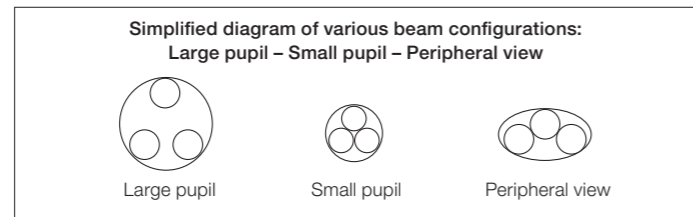
#### Spectacle-mounted Ophthalmoscope – now in LED<sup>HQ</sup>



The spectacle-mounted indirect Ophthalmoscope to suit any pupil size. Two separate controls for selecting the **ideal setting of parallax and convergence guarantee completely illuminated stereo views in pupils up to 2mm, as well as viewing in the periphery.** The illumination beam can be adjusted by  $\pm 3^\circ$  to eliminate reflexes.

- ∴ **Extremely light**, 110g without frame. Light and comfortable.
- ∴ **LED in HQ** – the new standard in LED illumination defining optimal light intensity, homogeneity and color rendering for each individual examination situation.
- ∴ **Carbon fiber frame.** Perfect combination of durability and light weight.
- ∴ **Illumination beam adjustable  $\pm 3^\circ$ .** Eliminates reflexes.
- ∴ **Integrated red-free filter.** Improves contrast.
- ∴ **Detachable blue and yellow filters.** For Fluorescence Angioscopy.
- ∴ **Large and small apertures.**
- ∴ **Dust proof.** Maintenance-free.
- ∴ **PD selection from 47 to 72 mm.** Suits any user.
- ∴ **Optics on swivel mount.** Unrestricted view.
- ∴ **Optional clip-in correction frame** for prescription lenses.
- ∴ **mPack LL with Lithium-ion battery technology** – for 23 hours of continuous ON time at full power.

- ∴ Ultra light
- ∴ For any pupil size
- ∴ LED HQ



### HEINE SIGMA® 250 Accessories



Teaching mirror [01]	C-000.33.302
Blue filter [02]	C-000.33.313
Yellow filter [03]	C-000.33.314
Diffusor [04]	C-000.33.315
Case for filters, empty [05]	C-000.33.316
Clip-in correction frame for prescription lenses [06]	C-000.32.309

### HEINE SIGMA® 250 Kits



SIGMA 250 Kits	Without Power Source	With mPack LL
<b>SIGMA 250 Kit with S-FRAME</b>		
SIGMA 250		
S-FRAME		
Retaining Cord	C-008.33.340	C-008.33.341
Cleaning Fluid		

### HEINE SIGMA® 250 Sets



SIGMA 250 Sets	With mPack LL
<b>SIGMA 250 Set with S-FRAME</b>	
SIGMA 250	
S-FRAME	
mPack LL with plug-in transformer	
Scleral Depressor Small	
Scleral Depressor Large	
A.R. 20 D Ophthalmology Lens	
Teaching Mirror	
Blue and Yellow Filters	
Diffusor	
Retaining cord	
Cleaning Fluid	
Carrying Case	
	C-281.41.671

\*Special order - 4 to 6 weeks delivery time.

For mPack LL please see pages 125.



### Handheld Indirect Ophthalmoscope, Monocular

#### Compact monocular ophthalmoscope

An unusually compact instrument, which is recommended for visits and mobile use.

- ∴ **Durable metal construction.** Long working life.
- ∴ **Built in interference red-free filter.** Improves contrast.
- ∴ **All optical components made of coated optical glass.** Precise images and high light intensity.
- ∴ **Adjustable light beam.** Useful for small pupils.
- ∴ **Can be used with one hand.** Easy to reach all the controls with the thumb.
- ∴ **+ 3 D lens attachment.** An aid to accommodation, magnifies the image.
- ∴ **Add on binocular attachment available.** Instrument can be updated for binocular use.

Available for use with a 3.5V rechargeable handle or 6V cord handle with wall/desk charger EN50 or portable mPack.  
The 6V version is recommended for incorporation into ophthalmic examination units.



[01]

<b>Monocular Handheld Indirect Ophthalmoscope</b>	<b>3.5V</b>
with + 3 D lens attachment and orbit rest extension	<b>C-002.33.001</b>

XHL Xenon Halogen spare bulb	<b>X-002.88.050</b>
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+ 3 D lens attachment only [01]	<b>C-000.33.101</b>
Orbit rest extension, for spectacle wearers only	<b>C-000.33.104</b>

\*Special Order - 4 to 6 weeks delivery time. No returns.

### Handheld Indirect Ophthalmoscope, Binocular

The addition of the binocular attachment to the Handheld Indirect Ophthalmoscope makes stereoscopic examination possible. PD selection from 54 to 74 mm.

- ∴ **Symmetrical selection of PD.** Quick and easy to adjust.
- ∴ **Multi coated precision optics.** Exceptional image quality.

Available for use with a 3.5V rechargeable handle or 6V cord handle with wall/desk charger EN50 or mPack.  
The 6V version is recommended for incorporation into ophthalmic examination units.



[01]

<b>Binocular Handheld Indirect Ophthalmoscope</b>	<b>3.5V</b>
with + 3 D lens attachment and orbit rest extension	<b>C-002.33.002</b>

XHL Xenon Halogen spare bulb	<b>X-002.88.050</b>
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Binocular attachment only [01]	<b>C-000.33.106</b>
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\*Special Order - 4 to 6 weeks delivery time. No returns.

For information on HEINE battery and rechargeable handles, see pages 123-126.

### HEINE A.R.<sup>®</sup> Aspheric Ophthalmoscopy Lenses

#### with anti-reflex A.R. coating



- ∴ **Advanced triple multicoating.** Reduced reflection, excellent light transmission.
- ∴ **Lens curvature matches that of the retina.** Perfect, distortion free retinal image.
- ∴ **Large diameter.** Significant increase in field of view without magnification loss.
- ∴ **Aspheric surfaces.** Reduced distortion of the periphery.

<b>Ophthalmoscopy Lens</b>	
with case	
A.R. 16 D, 54mm dia.	<b>C-000.17.225</b>
A.R. 20 D, 50mm dia.	<b>C-000.17.228</b>
*A.R. 30 D, 46mm dia.	<b>C-000.17.231</b>

\*Special Order - 4 to 6 weeks delivery time. No returns.

### Model Eyes

#### HEINE Ophthalmoscope Trainer

This model eye was developed for the teaching environment. It is the first adjustable model from HEINE to mimic the human eye. Precise, durable and with a multitude of uses, it simplifies the learning process and encourages the student to practice with the ophthalmoscope.



- ∴ **Refractive error.** Can be set in 1-dpt. steps from - 10 to +10 dpt.
- ∴ **Diameter of pupil.** Variable 2, 3, 4, 5, 6, 8mm.
- ∴ **Aspheric optical glass lens.** Focal length F = 18mm. Lens curvature matches that of the retina.
- ∴ **Trainer body.** Made of metal. Extremely stable and durable.
- ∴ **Angle of examination.** Variable.

<b>Model Eye</b>	
Ophthalmoscope Trainer	<b>C-000.33.010</b>



## Model Eyes

### HEINE Skia/Retinoscope Trainer



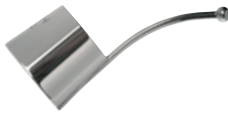
This model eye is ideal for teaching and practice. The pupil diameter and refractive error can be set exactly and are therefore reproducible. The front lens compartment holder accepts up to two trial lenses. The cylinder can be read from the graduated scale.

- ∴ **Refractive error** can be set to any value in steps of 0.5 dpt from - 7 to + 6 dpt.
- ∴ **Scale** 0° – 180° for cyl. determination.
- ∴ **Diameter of pupil variable:** 2, 3, 4, 5, 6, 8 mm.
- ∴ **Optics:** Optical glass achromatic lens focal length F = 32 mm.
- ∴ **Trainer body made of metal:** Extremely stable and durable.
- ∴ **Angle of examination variable.**

Model Eye Skia/Retinoscope Trainer

C-000.33.011

## Scleral Depressor



Scleral-Depressor, large\*

C-000.17.300

Scleral-Depressor, small\*

C-000.17.301

\*autoclavable

## Fundus Charts



Fundus-Charts , pad with 50 pcs.

C-000.33.208

\*Special Order - 4 to 6 weeks delivery time. No returns.

## Combi-Case for Head-Worn Indirect Binocular Ophthalmoscopes



[01]

Combi-case for head-worn indirect binocular ophthalmoscopes. Features a deep, dense foam insert to protect instruments, and can be worn over the shoulder or as a backpack (removable straps included).

Combi-case [01] for indirects with a headband

C-079.04.000