

## **:- HEINE Binocular Loupes and Illumination**

Powerful LED Illumination and highly-magnified crisp images.

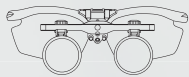




**:- HEINE Binocular Loupes and Illumination**  
Comfort, Performance, Flexibility.

PAGE

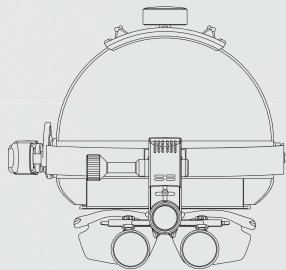
004-005	ERGONOMIC AND OPTICAL FACTORS
006-015	HEINE BINOCULAR LOUPES [01]
008-009	HEINE HR® Binocular Loupes and sets
010-011	HEINE HRP® Binocular Loupes and sets
012	HEINE HR-C® Binocular Loupes and sets
013	HEINE S-FRAME® / HEINE S-GUARD® [02]
014-015	ACCESSORIES S-FRAME AND BINOCULAR LOUPES
016-021	HEINE LED ILLUMINATION [03] [04]
016-017	HEINE LED LoupeLight®
018-021	HEINE 3SLED HeadLight® / 3SLED HeadLight® UNPLUGGED
022-025	HEINE POWER SOURCES [05]
023	HEINE mPack® UNPLUGGED
024-025	HEINE mPack® / HEINE EN 50® Wall-/Table-Transformer



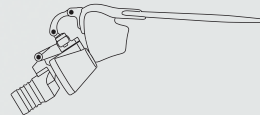
[01]



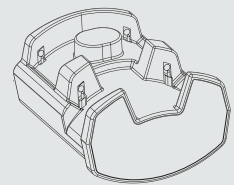
[02]



[03]

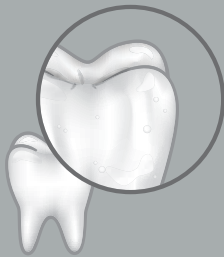


[04]



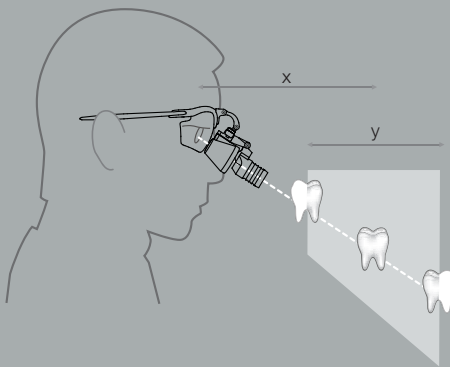
[05]

## Everything you need to know about binocular loupes. Ergonomic and optical factors.



### Magnification

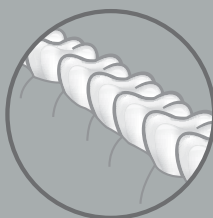
The most commonly used magnification is 2.5x. This applies to dentistry as well as other specialist medical areas. The 2.5 is equally suitable for novices and experienced users. With more experience, higher magnifications can be used, particularly for micro-surgery. The complete range of HEINE loupes covers magnifications from 2x to 6x.



### Working distance (x)/depth focus (y)

HEINE offers the ideal working distance for every application and user, from 250mm to 520mm. The optimum working distance is not based on the loupe, but on the size of the user and the type of treatment.

The depth of focus for loupes is very simple to determine: you measure the closest and furthest distance in which an object can be seen in focus. The advantage of HEINE loupes is that, due to an extremely high depth of focus of up to 290mm, you can choose the working distance which is best and most ergonomic for you – regardless of your size.



130mm  
(2.5x/420mm)

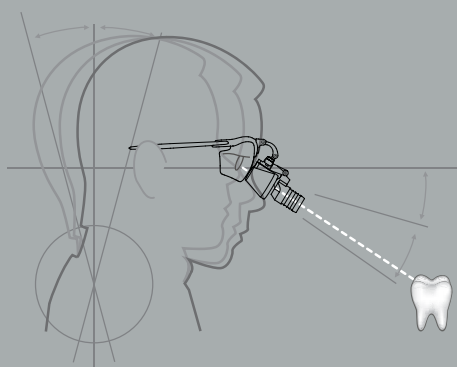
### Field of view

HEINE loupe systems have two considerable advantages: an extremely large and balanced field of view as well as ideal positioning of the oculars in front of the eye. Only flip-up systems like those from HEINE offer this large field of vision whilst simultaneously taking into account the ergonomic requirements of a loupe system.

High-quality optical magnification offers many advantages during treatment. Along with a considerable improvement in the sharpness of the image, you will also experience healthier, ergonomic body posture.

HEINE high-tech optics, fitted with achromatic lenses, give incomparably clear and brilliant images with no colour distortion. The high quality image in all HEINE systems is the result of the best optical components, manufactured by HEINE, allowing exact and individual adjustment of the optics. Our exclusive coating system ensures great results for a brilliant and bright image.

When choosing a magnification system, it is important to consider several factors. The two most important points to remember are optical performance and ergonomics.

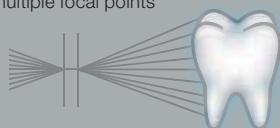


### Ergonomics

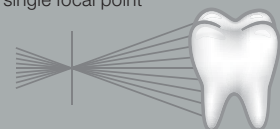
The declination angle is the angle between the line of sight in the normal eye position and the line of sight given by the user's lowered eyes. If the user has to rest his chin on his chest, the declination angle of the loupe used is too small. If the user has to look down too far or tilt his head back, the declination angle is too large. The ideal declination of the head is achieved when the neck and eye muscles are as relaxed as possible.

Comfort is no problem for HEINE loupe systems. The adjustable declination angle and our extraordinary optical quality avoid strain on the neck and eye muscles. Weight is an important factor here; loupes and frames, including the coaxial LED lighting, are extremely light and therefore comfortable to wear, even over longer periods of time. The secret is that the weight is distributed evenly by the modern S-Frame.

multiple focal points



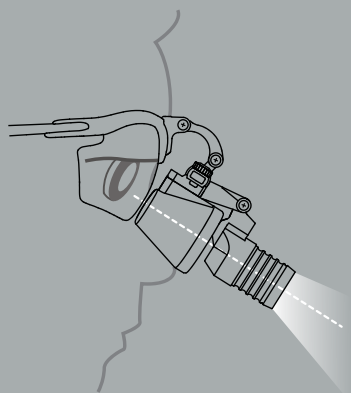
single focal point



### Optical quality

HEINE loupes offer the brightest image of all comparable binocular loupes of this type.

Our optics are enhanced by a special anti-reflection coating. This multiple coating reduces the light reflection to around 0.3%. The result is as clear as it is satisfying. The alignment of the achromats or prisms is adjusted for optimum performance, resulting in extremely sharp images and a field of view which is free of distortion right to the edge – as well as an excellent depth of focus.



### Coaxial lighting

With HEINE LED lighting, you will be working with 100% coaxial, white and homogenous light. For dental applications, a yellow filter can be used, preventing premature hardening of composite materials.

Not all blessings come from above: even an extremely bright and well positioned ceiling light may cast a shadow during some examinations. Only an additional coaxial light, i.e. fitted between the eyes, allows shadow-free lighting of, for example, a cavity.



## **HEINE Binocular Loupes**

High-tech optics for brilliant images  
with excellent depth of field.



**Bright, crisp images: HEINE binocular loupes.**

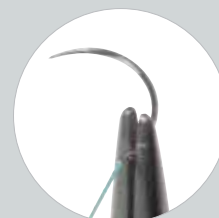
HEINE binocular loupes set standards for innovative optics combined with high-tech materials and production techniques. A wide range of applications in many disciplines: General Medicine, Dermatology, minor and some major Surgery, Plastic Surgery, Neuro-Surgery, ENT, Ophthalmology, Veterinary Medicine, Dentistry etc. The use of magnifying loupes will increase your visual acuity and reduce eye strain. Careful selection of working distance and correct viewing angle will prevent back and neck strain by allowing a comfortable working position. In combination with the HEINE S-Frame® or S-Guard® spectacle frames and your choice of LED light, the binocular loupes form part of an integrated system suitable for universal applications.

**HEINE-tip: Three easy steps to select your HEINE binocular loupe.**

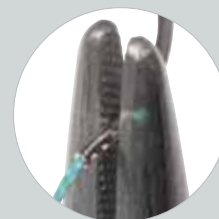
1. Simply select the lowest magnification that will meet your needs. The lower the magnification, the larger the field of view, and the easier the loupe will be to use.
2. Then determine your working distance, which will also automatically determine your field of view. To determine your working distance, assume a comfortable, posture-correct position for the intended loupe application and determine the distance between your eyes and your working area. Using the chart below, match this distance with the nearest nominal working distance option shown beside the magnification you chose. Note: The closer the loupes are to the eyes, the larger the field of view
3. Finally, select your preferred mounting option, Spectacle Frame or Headband. All options offer the user flexibility and adaptability for precise optical position, alignment and performance.

**HEINE Binocular Loupes: Specifications**

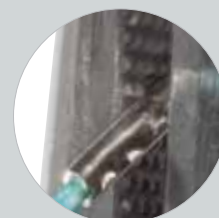
Magnification	Nominal Working distance	Field of view**	Depth of field*
<b>HR: Recommended for general medicine, minor surgery and hygienists.</b>			
2x	250mm	90mm	80mm
2x	340mm	130mm	130mm
2x	420mm	190mm	200mm
2x	520mm	250mm	290mm
<b>HR: Recommended for surgical and dental use.</b>			
2.5x	250mm	60mm	60mm
2.5x	340mm	90mm	110mm
2.5x	420mm	130mm	180mm
2.5x	520mm	180mm	260mm
<b>HRP: Recommended for micro-surgery for experienced loupe-users.</b>			
3.5x	420mm	65mm	60mm
4x	340mm	50mm	40mm
6x	340mm	40mm	30mm
<b>HR-C: An ultra-compact alternative to the HR 2,5x Binocular Loupe for general use in surgical and dental applications.</b>			
2.5x	340mm	60mm	110mm
2.5x	420mm	70mm	140mm
<b>C 2.3: Recommended for dental laboratories.</b>			
2.3x	340mm	110mm	120mm
2.3x	450mm	130mm	190mm



without magnification



2.5x/340mm, field of view 90mm (field of view up to 180mm)\*



6x/340mm, field of view 40mm\*

\* Depth of field or "working distance range" for normal-sighted or corrected eyes with normal ability to accommodate, well-lit object.

\*\* At nominal working distance.

\* Illustration not to scale.

## HEINE HR® Binocular Loupes

### HR Technology for an even bigger field of view

HR Binocular Loupes with either 2x or 2.5x magnification are particularly recommended for **dental surgery and endodontics**.



⚡ Eyepieces individually-adjustable

⚡ Crisp, clear images

⚡ Crisp, clear images

- ⚡ **The Brightest Image.** Our exclusive coating technology reduces light reflection to 0.3%, providing the brightest image of any comparable loupe.
- ⚡ **The Crispest Image with Colour Correction.** State-of-the-art HEINE optics with achromatic lenses provide a standard for image clarity, crispness and colour compared with conventional Galilean loupes.
- ⚡ **Super-Wide, Super-Deep Field of View.** Improvements in our HR (High Resolution) optical technology provide a super-wide, fully-useable, distortion-free field of view (up to 250mm) and the greatest depth of field (up to 290mm) to eliminate eye strain even over extended periods of use.
- ⚡ **Dust- and Water-Resistant.** All HR loupes are dust- and water-resistant to IP65/IEC 60529 (2000) to ensure ease of cleaning/disinfection, and years of trouble-free use.
- ⚡ **Flexibility for Precise Adjustment.** HEINE binocular loupes have independently adjustable optics left and right to select the exact inter-pupillary distance (PD). Conventional designs using a single adjuster are always a compromise. HR loupes can be adjusted precisely for each user for optimum optical performance by means of an exceptionally-wide range of mounting positions on either frame or headband.
- ⚡ **Super Light.** HR optics weigh only 42 grams for user-comfort even over extended periods.

- ⚡ **2x Magnification:** Ideal for dental applications and general surgery, the 2x loupes provide our largest field of view and the best depth of field to ensure the image is in focus over an exceptionally-wide range. **Ideal for hygienists and dental surgical procedures. HR 2x loupes are mounted onto lightweight, rigid loupe mount which can be swivelled upwards out of the line of sight.**
- ⚡ **2.5x Magnification:** The increase in magnification over 2x is greater than the figures suggest. HR 2.5x loupes offer an excellent balance between high magnification, field of view, depth of field, and ease of use. The 2.5x loupes are ideal for a wide range of applications such as dental, ophthalmic, cosmetic and reconstructive surgery. The HR 2.5x is our most popular model. **Ideal for surgery and dental surgical procedures.**

#### Specifications

Magnification	2x	2x	2x	2x 340mm
Nominal working distance	340mm	420mm	520mm	250mm*
Field of view dia.	>130mm	>190mm	>250mm	>90mm
Magnification	2.5x	2.5x	2.5x	2.5x 340mm
Nominal working distance	340mm	420mm	520mm	250mm*
Field of view dia.	>90mm	>130mm	>180mm	>60mm

\* with close-up lenses

#### Wearing modes:

- ⚡ **HEINE S-Frame®:** Innovative spectacle frame for HR 2.5x, HRP, HR-C Binocular Loupes. Appealing and functional design. Can be customized to fit any shape of head and face.
- ⚡ **HEINE S-Guard®**  
Professional L headband with the S-Guard splash protection. Rapid and simple adjustment of binocular loupes on the headband with the S-Guard splash protection. Once set, the binocular loupe always stays in the ideal position. The fixed position of the binocular loupes on the S-Guard splash protection and the rigid connection between the headband and the nose pad ensure that the binocular loupes do not slip once their position has been set. The ergonomic nose pad also ensures a comfortable and secure position for the binocular loupe.



## HEINE HR® Binocular Loupe Sets



Set A

### Set A Contents:

Optics, **S-Frame with rigid loupe-carrier for HR 2x or S-Frame with i-View loupe mount for HR 2.5x loupes (with i-View for S-Frame)**, detachable protective lenses, 2 sterilisable swivel levers, retaining cord, cleaning fluid, carrying case.



Set B

### Set B Contents:

Optics, **Professional L Headband with i-View loupe-carrier** for the professional L headband, S-Guard splash protection\*, detachable protective lenses, 2 sterilisable swivel levers, cleaning fluid.



Set C

### Set C Contents:

Optics, **S-Frame with i-View loupe-carrier**, detachable protective lenses, 2 sterilisable swivel levers, retaining cord, cleaning fluid, carrying case, **LED LoupeLight, mPack LL, EN50.**

\* with protective lenses, large (lg).

**Binocular Loupe Sets with 2x magnification.** Ideal for general medicine, minor surgery and hygienists.

Set-Configuration	Working-distance 340 mm	Working-distance 420 mm	Working-distance 520 mm
A - with rigid loupe-carrier	C-000.32.325	C-000.32.322	C-000.32.326
Optics only (in case) [01]	C-000.32.505	C-000.32.502	C-000.32.506

**HR Binocular Loupes with 2.5x magnification with i-View.** Ideal for surgical and dental use.



[01]

Set-Configuration	Working-distance 340 mm	Working-distance 420 mm	Working-distance 520 mm
A - with i-View	C-000.32.355	C-000.32.356	C-000.32.567
B	C-000.32.365	C-000.32.366	C-000.32.367
C	C-008.32.355	C-008.32.356	C-008.32.357



[02]

Optics only with i-View for S-Frame [02] (in case)	C-000.32.595	C-000.32.596	C-000.32.597
Optics only with i-View for Headband Professional L [03]	C-000.32.585	C-000.32.586	C-000.32.587



[03]

For further informations on the LED LoupeLight, mPack LL and EN50 see pages 017, 024 and 025.



## HEINE HRP® Binocular Loupes

### HRP Technology for highly-magnified crisp images



- ⚡ Ultra light S-Frame
- ⚡ Eyepieces individually-adjustable
- ⚡ Crisp, clear images
- ⚡ High magnification

HRP Binocular Loupes of 3.5x magnification or higher are recommended for fine surgical procedures where high magnification is necessary, for example in endodontal, vascular, neuro, and intricate orthopedic surgery and for experienced users. HRP loupes have been designed to provide the largest field of view and best depth of field possible for each magnification. Please note that the field of view and depth of field will decrease as magnification increases making higher-magnification loupes more difficult to get accustomed to.

- ⚡ **Prismatic Optics.** Only top-quality, precision glass prisms are used to provide the highest resolution and clearest, crispest images over the entire field of view "edge-to-edge".
- ⚡ **The Brightest Image in Perfect Colour.** Our exclusive coating technology reduces light reflection to 0.3% allowing for optimum light transmission, and ensuring perfect colour reproduction for brilliant, 3-dimensional images.
- ⚡ **Compact Design.** Although the higher magnification requires a more complex design, the weight of the HRP loupes has been minimized. The 3.5x and 4x optics weigh only 78 g, the 6x weighs only 89 g. The headband mounting option is an ideal way to eliminate any weight concerns for those users not accustomed to wearing any type of glasses or spectacles.
- ⚡ **Dust- and Water-Resistant.** All HRP loupes are dust- and water-resistant to IP65/IEC 60529 (2000) to ensure ease of cleaning/disinfection, and years of trouble-free use.
- ⚡ **Flexibility for Precise Adjustment.** HRP loupes have independently-adjustable optics for selecting the exact inter-pupillary distance (PD). HRP loupes can be adjusted precisely for each user for optimum optical performance by means of a range of different mounting positions on either frame or headband.
- ⚡ **Field of View at High Magnification.** Advanced optical design ensures a wide field of view and a great depth of field even at high magnification, avoiding eye strain over extended periods of use.
- ⚡ **3.5x Magnification:** 3.5x magnification makes the HRP 3.5x loupes ideal for intricate surgical procedures, while still giving an excellent field of view and good depth of focus. The 420mm working distance is best suited for applications where the **user is standing up**.
- ⚡ **4.0x Magnification:** 4.0x loupes provide magnification for most advanced **micro-surgical and dental applications** yet still offer a large 50 mm field of view. The 340mm working distance is ideal for applications where the user is in a sitting position.
- ⚡ **6.0x Magnification:** Here the focus is on maximum magnification, with a 40mm field of view. The 340mm working distance is ideal for applications where the user is in a **stable, sitting position**.

Specifications			
Magnification	<b>3.5x</b>	<b>4x</b>	<b>6x</b>
Nominal working distance	420mm	340mm	340mm
Field of view dia.	>65mm	>50mm	>40mm



#### Wearing modes:

- ⚡ **HEINE S-Frame®:** Innovative spectacle frame for HR 2.5x, HRP, HR-C Binocular Loupes. Appealing and functional design. Can be customized to fit any shape of head and face.
- ⚡ **HEINE S-Guard®**  
Professional L headband with the S-Guard splash protection. Rapid and simple adjustment of binocular loupes on the headband with the S-Guard splash protection. Once set, the binocular loupe always stays in the ideal position. The fixed position of the binocular loupes on the S-Guard splash protection and the rigid connection between the headband and the nose pad ensure that the binocular loupes do not slip once their position has been set. The ergonomic nose pad also ensures a comfortable and secure position for the binocular loupe.

## HEINE HRP® Binocular Loupe Sets



Set A

### Set A Contents:

Optics, **S-Frame\*** with **i-View loupe-carrier for S-Frame**, detachable protective lenses, 2 sterilisable swivel levers, retaining cord, cleaning fluid, carrying case.



Set B

### Set B Contents:

Optics, **Professional L Headband with i-View loupe-carrier for Headband Professional L**, S-Guard splash protection\*, detachable protective lenses, 2 sterilisable swivel levers, cleaning fluid.



Set C

### Set C Contents:

Optics, **S-Frame\*** with **i-View loupe-carrier for S-Frame**, detachable protective lenses, 2 sterilisable swivel levers, retaining cord, cleaning fluid, carrying case, **LED LoupeLight, mPack LL, EN50**.

\* with protective lenses, large (lg).

### Binocular Loupes with 3,5x / 4x / 6x magnification

Set-Configuration	Magnification / Working distance		
	3.5x/420mm	4x/340mm	6x/340mm
A	C-000.32.430	C-000.32.431	C-000.32.432
B	C-000.32.440	C-000.32.441	C-000.32.442
C	C-008.32.430	C-008.32.431	C-008.32.432
Optics only with i-View for S-Frame [01] (in case)	C-000.32.720	C-000.32.721	C-000.32.722
Optics only with i-View for Headband Prof. L [02]	C-000.32.710	C-000.32.711	C-000.32.712



For further information on the LED LoupeLight, mPack LL and EN50 see pages 017, 024 and 025.



[01]



[02]

## HEINE HR-C® Binocular Loupes

### Super-compact and lightweight Binocular Loupe

Particularly recommended for general dental use and surgery.



∴ Eyepieces individually-adjustable

∴ Exceptionally light

- ∴ **Colour Correction and excellent Depth of Focus.** HR (high resolution) – chromatic optics with exclusive multi-coating technology for the brightest, crispest images.
- ∴ **Super Light Weight (45g including frame).** Greatest user-comfort over extended periods.
- ∴ **Modern, Compact Design.** The advanced, compact, and functional design makes it easy to look past the optics when an unmagnified view is preferred.
- ∴ **Precise Optical Adjustment.** HEINE binocular loupes have independently-adjustable optics left and right to adjust the exact inter-pupillary distance (PD), and a 3-link adjustable mounting arm.
- ∴ **Water- and Dust-Resistant.** The loupes are water and dust resistant according to [IP65/IEC 60529 (2000)], ensuring ease of cleaning/disinfection.

Specifications	HR-C 2.5x/340mm	HR-C 2.5x/420mm
Magnification	2.5x	2.5x
Working distance	340mm	420mm
Field of view dia.	60mm	70mm
Weight with frame	50g	50g
Depth of Field	110mm	140mm



### HR-C Binocular Loupe Sets with S-Frame

incl. 2 sterilisable swivel levers, retaining cord and cleaning fluid

Set-Configuration	Working-distance 340mm	Working-distance 420mm
with S-Frame in case	<b>C-000.32.290</b>	<b>C-000.32.291</b>
Optics (only), in case	<b>C-000.32.265</b>	<b>C-000.32.266</b>
Case	<b>C-000.32.552</b>	



- ∴ **HEINE S-Frame®:** Innovative spectacle frame for HR-C Binocular Loupes. Appealing and functional design. Can be customized to fit any shape of head and face.

## HEINE S-Frame® spectacle frame / S-Guard® splash protection

### Perfect for HR, HRP, HR-C Binocular Loupes



The HEINE S-Frame® is a truly exceptional spectacle frame: Virtually all of its parameters can be customized – making it the perfect fit for any head or face shape. It is ultra-light, pleasant to wear and can be combined with all new HR, HRP and HR-C Binocular Loupes. In the S-Guard version with splash protection goggles the S-Frame can be used with Professional L and Lightweight headbands.

- ∴ **Maximum comfort thanks to a modern, ergonomic design.** Attractive spectacles that fit any shape of head or face perfectly for maximum wearer comfort. No pressure points, pinching or slipping of the frame
- ∴ **Customizable.** Mouldable in all directions, the adjustable temples made from KYNETIUM™ come with an anti-slip surface. Flexible adjustable nose pads with silicone overlay for maximum comfort and superlative stability. The nose pad is made from skin-friendly silicone and fits all nose and face shapes. It also prevents the spectacles from slipping.
- ∴ **Low weight (24 g).** Thanks to the use of high-tech materials.
- ∴ **State-of-the-art technologies and innovative materials.** The carbon frame, S-Frame temples made from aluminium alloy (KYNETIUM™) and magnesium result in a light weight while silicone ensures superb elasticity and titanium gives greater resilience.
- ∴ **Durable polycarbonate safety glass.** The protective lenses offer superlative splash protection, even when combined with a headband. The interchangeable lenses are available in two different sizes. They are scratch-resistant and provide excellent visual sharpness. Small protective lenses are also available.
- ∴ **Allows the use of prescription lenses.** Optional correction frames are also available for prescription lenses. Simple “ClipOn” attachment.
- ∴ **Flip-up control for optics.** The optics can be easily flipped up and down into the visual axis. The binocular Loupe mount is compatible with all HR 2.5x/HRP and HR-C Binocular Loupes.
- ∴ **Extensive accessories.** Lenses, cleaning fluid, nose pads, spare parts kit.

- ∴ Exceptionally light
- ∴ Fits any shape of head or face
- ∴ Flip-up control for optics

**S-Frame\*** for HR 2.5x-, HRP-, HR-C Binocular Loupes incl. retaining cord and cleaning fluid

**C-000.32.303**

\* with protective lenses, large (lg).

## HEINE i-View®/ swivelling loupe

### for S-Frame [01] and Headband Professional L [02] \*



NEW!



The i-View provides precise, individual adjustment of the loupes for pupillary distance and the viewing angle combined with the ideal distance between the optics and the examiner's eyes. This ensures a comfortable, ergonomic posture and avoids fatigue.

An optional LED LoupeLight mounts directly onto the loupe mount. The LoupeLight and the loupe mount are independently adjustable.

For examination without magnification the binocular loupe can be swivelled upwards out of the line of sight without affecting the initial adjustment. If a LoupeLight is fitted, the light spot stays in position. The binocular loupe returns to exactly the same position when required.

Sterilisable swivel levers are available see page 015.

\* Except HR 2x Binocular Loupes.

## Accessories for HEINE S-Frame®/HEINE S-Guard®



<b>S-Frame retaining cord</b>	<b>C-000.32.305</b>
<b>S-Frame replacement part set</b> with side rubbers, nose pad (1 piece) and screw	<b>C-000.32.308</b>
<b>Correction frame</b> for corrective lenses	<b>C-000.32.309</b>
<b>Protective lenses, large (lg), 1 pair</b>	<b>C-000.32.306</b>
<b>Protective lenses, small (sm), 1 pair</b>	<b>C-000.32.307</b>
<b>Cleaning fluid for lenses, pack of 2</b>	<b>C-000.32.542</b>

## Headbands for HEINE HR®, HRP® und HR-C® Binocular Loupes



### Professional L Headband

Highly-recommended for HRP and HR 2.5x prismatic loupes. Adjustable for height and width so that a comfortable fit is always assured. In this way the headband can be customized to fit one or more users perfectly.

- ∴ **Optics** can be swung out of the line of sight and returned to the original position in one easy movement.
- ∴ **Lets you combine the magnification optics** with your own glasses if preferred.
- ∴ **Comfortable head cushions front and back.** Fits any head shape.
- ∴ **Elongated optics mount for increased downward viewing angle (as far as 30°).** Ergonomic, upright posture for the examiner.

### Professional Headband L

(without optics/without S-Guard splash protection)

**C-000.32.549**



### Lightweight Headband

HEINE Lightweight Headband suitable for HR 2x and HR-C loupes. Weighs only 160g.

- ∴ **Adjustable optics** can be swivelled out of the line of sight.
- ∴ **Optics can be combined with your own glasses if preferred.**
- ∴ **Adjustable for width.**
- ∴ **Soft rubber headband for maximum comfort.**

### Professional Headband

(without optics/without S-Guard splash protection)

**C-000.32.516**

Accessories for HEINE HR®, HRP® and HR-C Binocular Loupes



<b>Universal Clip for HR 2x and HR-C Binocular Loupes</b>	
Fits any spectacles. Can be used by various examiners. (Only for <b>HR 2x</b> and <b>HR-C</b> Binocular Loupes.)	
	<b>C-000.32.518</b>
<b>Close-up Lenses for HR Binocular Loupes</b>	
These give a working distance of 250mm with the HR 2x/340mm and the 2.5x/340mm. A simple push – fit to the standard optics.	
for <b>HR 2x/340mm</b>	<b>C-000.32.521</b>
for <b>HR 2.5x/340mm</b>	<b>C-000.32.523</b>
<b>Detachable Protective Lenses</b>	
to protect the optics of the <b>HR</b> Binocular Loupes (5 pair).	<b>C-000.32.537</b>
to protect the optics of the <b>HRP</b> Binocular Loupes.	<b>C-000.32.027</b>
<b>Sterilisable Swivel Levers</b>	
The examiner can adjust the angle of the optics without touching them. (2 pieces)	
<b>For HR2x Binocular loupes (for the rigid loupe-carrier)</b>	<b>C-000.32.524</b>
<b>For HR 2.5x/HRP Binocular loupes (for i-View for S-Frame/Professional L Headband) (5 pieces)</b>	<b>C-000.32.551</b>
<b>For HR-C Binocular Loupes (not shown)</b>	<b>C-000.32.299</b>
<b>Case</b>	
For Binocular Loupe-Sets A/C and HR-C	<b>C-000.32.552</b>

HEINE Dental Adaptor for a viewing direction from 0 to 35°



Angle of declination without adaptor up to 20°



Angle of declination with adaptor up to 35°

Only for **HR 2x** and **HR-C** Binocular Loupes.  
The angle at which your loupe optics are mounted to the frame is variable. The preferred viewing angle, or angle of declination is extremely important in preventing neck and back strain due to poor posture.

- ∴ **The standard mounting system** offers a maximum angle of declination of 20 degrees to reduce back and neck strain in most applications.
- ∴ **With the optional Dental Adaptor** the maximum angle of declination is increased to 35 degrees.

Dental Adaptor	<b>C-000.32.528</b>
----------------	---------------------

**HEINE LED LoupeLight®**

Compact LoupeLight for HR-C,  
HR and HRP Binocular Loupes.



## HEINE LED LoupeLight®

### Compact LED LoupeLight, ideal for ENT and dental use

NEW!



- ∴ Light
- ∴ Coaxial shadowless illumination
- ∴ 40.000 Lux/25cm distance

- ∴ **Advanced LED Technology.** White, homogenous light, ideal for all surgical and dental applications.
- ∴ **Coaxial Illumination.** Shadow-free illumination of cavities, ideal for ENT and dental applications. Ideal co-axial viewing with all HR/HRP loupes.
- ∴ **Homogenous illumination of the whole field of view.** The light spot is ideal for HR/HRP loupe systems. 81 mm illumination field at 420mm, 95 mm at 500 mm working distance.
- ∴ **Compact, lightweight (24 g).** Ensures perfect comfort.
- ∴ **Aluminium housing.** Robust, long lasting.
- ∴ **Waterproof design.** Easy to clean.
- ∴ **Fully-portable with mPack LL.** Autonomy at least 17 hours.
- ∴ **Individual adjustment of the angle of view.** The right angle for every situation.
- ∴ **Optional yellow filter reduces blue light.** Avoids premature hardening of composites.
- ∴ **Registered Design.**

#### Technical Specification

Illumination	<b>40.000 Lux</b> at a working distance of 250 mm
Colour Temperature	Reference Colour Temperature of <b>6,250 Kelvin</b>
LED Operating Life	1W Super-High Output LED rated at <b>50,000 hours operating life</b>
Spot Adjustment	The illuminated field is ideally-suited to the HR/HRP loupes. 81 mm at 420 mm, 95 mm at 500 mm
Angle of Declination	Individually-adjustable for every examination
Optics	Top-quality, multi-coated achromatic optics produce a clearly defined light spot
Operating Time	mPack LL provides 17 hours of light at maximum brightness
Power Source	mPack LL

#### LED Loupe Light

for HR 2.5x und HRP Binocular Loupes [01] for i-View loupe mount	<b>C-008.32.236</b>
for HR 2x und HR-C Binocular Loupes [02] for rigid loupe mount	<b>C-008.32.238</b>
Detachable yellow filter (optional)	<b>C-000.38.241</b>

#### LED LoupeLight sets for HR/HRP/HR-C Binocular Loupes

**Set A:** LED LoupeLight with mPack LL and EN50, yellow filter

**Set B:** LED LoupeLight with mPack LL and plug in transformer, yellow filter

Set-Configuration for:	HR 2.5x/ HRP Binocular Loupes	HR 2x/ HR-C Binocular Loupes
A	<b>C-008.32.375</b>	<b>C-008.32.376</b>
B	<b>C-008.32.378</b>	<b>C-008.32.379</b>



**HEINE** QUALITY  
MADE IN GERMANY



**∴ HEINE 3SLED HeadLight® /**  
**HEINE 3SLED HeadLight® UNPLUGGED**  
For HR/HRP Binocular Loupes. A perfect combination.

## HEINE 3SLED HeadLight®

### Powerful LED Illumination



3S LED HeadLight  
with headband Professional L



3S LED HeadLight  
with headband Standard L

• Attachment options for Loupes

• 50,000 Lux at 25 cm

• LED operating life: 50,000 hours

• Adjustable spot size

The ultra bright and compact 3SLED HeadLight for powerful, coaxial illumination.

- **50,000 Lux of bright, white light.** With a reference Colour Temperature of 6,250 Kelvin and an extraordinary 50,000 Lux of Illumination.
- **Compact and lightweight.** The compact design ensures clear, unobstructed co-axial illumination. The 3SLED HeadLight weighs only 70 grams, ensuring user comfort even during long periods of use.
- **Flexibility. Continuously-adjustable spot size and brightness control.** Mains or portable power supply. Integrated attachment options for HR/HRP Binocular Loupes and Prism optics for Video adaptation.
- **Micro-Absorption System** for the Integrated Cooling Fan ensures quiet and vibration-free operation.
- **Optional yellow filter** reduces blue light. Can be selected to avoid premature hardening of composite materials.

### Technical Specification

Illumination	<b>50 000 Lux</b> at a working distance of 250 mm.
Colour Temperature	Reference Colour Temperature of <b>6,250 Kelvin</b>
LED Operating Life	1 W Super-High Output LED rated at 50,000 hours operating life
Spot Adjustment	Continuously-adjustable Iris Aperture, 20 mm to 100 mm illuminated field diameter (at 500 mm). Small diameter is ideal for ENT and Dental Applications.
Angle of Declination	Fully Adjustable for precise user selection.
Rheostat	Headband-mounted. Positive 'Off' Switch. Illuminated 'On' indicator. Integrated voltage regulator.
Optics	Advanced multi-coated glass optics for maximum brightness
Operating Time	10 hours with mPack and Li-ion battery for 70 % more capacity than with conventional rechargeable batteries. 4 hours with mPack UNPLUGGED. Unlimited operating time when connected directly to mains power supply.
Power Sources	Plug-in transformer, mPack, EN50, mPack UNPLUGGED, EN50 UNPLUGGED

### Expansion options:

The 3SLED is optionally supplied with **HR/HRP Binocular Loupes** incl. i-View LoupeBracket and S-Guard splash protection (see 3SLED/HR, HRP Kit). The binocular loupe is fully adjustable for every examiner and for every examination axis.

- **HEINE S-Guard® [01].** Rapid and simple adjustment of binocular loupes while on the head thanks to S-Guard with splash protection by means of protective lenses. Once set, the binocular loupe always stays in the ideal position. The fixed position of the binocular loupes on the S-Guard splash protection and the rigid connection between the headband and the nose pad ensure that the binocular loupes do not slip once their position has been set. The ergonomic nose pad also ensures a comfortable and secure position for the binocular loupe. Small protective lenses are optional.

- **HEINE i-View® LoupeBracket for 3SLED.** The headlight and binocular loupes can be moved independently. If no magnification is required during the examination, the binocular loupe can be retracted without changing the previously-selected setting. The illumination remains fixed on the point where light is required. The synchronized adjustment mechanism allows simple single-handed operation to return the binocular loupes to exactly the same position, i.e. all previously selected settings remain. Possible to mount a sterilizable lever [01].



[01]

## HEINE 3SLED HeadLight®

### Powerful LED Illumination



Monitor and binocular loupes not included.



#### Expansion options:

- **Video application.** Ideally-suited for teaching, research, patient education, digital patient history. 3SLED HeadLight with A-Cam video camera, A-Cam Processor and prism optics. Optional PAL or NTSC format. Please specify when ordering.

#### 3SLED HeadLight with headband Professional L

3SLED HeadLight with headband Professional L	J-008.31.310
with headband Professional L, plug-in transformer and headband-mounted brightness control	J-008.31.311
same, with mPack and plug-in transformer	J-008.31.313

#### 3SLED HeadLight with headband Professional L and video camera

A-Cam and prism optics, with C-Mount and A-Cam Processor, EN50 Rheostat Control Module, extension Cord Cinch-Cinch, 2m. PAL or NTSC format (please specify)	J-008.31.336
---	--------------

#### Power sources and accessories

mPack and plug-in transformer	X-007.99.672
HEINE plug-in transformer for 3SLED HeadLight	X-095.16.320
Detachable yellow filter	J-000.31.321
Combi-case	C-079.03.000
Prism Optics with C-mount for 3SLED HeadLight	J-000.31.320
A-Cam camera with processor (available systems: PAL or NTSC, please specify when ordering)	J-000.31.201

## HEINE 3SLED HeadLight® UNPLUGGED

### with headband battery (rechargeable) - mPack UNPLUGGED

100% mobility – for absolute freedom of movement!  
The 3SLED HeadLight with mPack UNPLUGGED 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.
- **Charge status indicator.** Indication of remaining operating time. Can be charged by **wall or plug-in transformer.**
- **Direct operation possible while charging** through the use of the mobile plug-in transformer.
- **Charging time** 2 hours.
- **mPack UNPLUGGED rechargeable battery.** Operating time 4 hours.
- **Intelligent charging system.** Automatic changeover from operating to charging mode (in the wall unit). Battery-friendly charging.
- **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.

#### 3SLED HeadLight UNPLUGGED on Professional L headband

with mPack UNPLUGGED and plug-in transformer	J-008.31.315
with wall unit EN50 UNPLUGGED and 2x mPack UNPLUGGED	J-008.31.316

Extension Cord UNPLUGGED-UNPLUGGED, 2 m	X-000.99.668
---	--------------

• 100% freedom of movement

• Low weight

• LED charge status indicator

## HEINE 3SLED HeadLight® Kits and UNPLUGGED Kits



### Recommended 3SLED/HR, HRP Kits

Recommended Product Order Configurations to ensure the most flexibility the 3SLED/HR/HRP System has to offer. The following kits include main system elements but no carrying case or ancillary accessories:

Consisting of 3SLED with headband Professional L, mPack and plug-in transformer, headband-mounted brightness control, S-Guard splash protection, i-View Loupe Bracket, cleaning fluid

<b>Kit 1:</b>	with HR Binocular Loupe 2.5x/340mm	<b>J-008.31.345</b>
<b>Kit 2:</b>	with HR Binocular Loupe 2.5x/420mm	<b>J-008.31.346</b>
<b>Kit 3:</b>	with HRP Binocular Loupe 3.5x/420mm	<b>J-008.31.347</b>
<b>Kit 4:</b>	with HRP Binocular Loupe 4x/340mm	<b>J-008.31.348</b>
<b>Kit 5:</b>	with HRP Binocular Loupe 6x/340mm	<b>J-008.31.349</b>

### Recommended 3SLED UNPLUGGED/HR, HRP Kits

Contents similar to 3SLED/HR, HRP Kits 1-5 but with:  
Wall unit EN50 UNPLUGGED with 2x mPack UNPLUGGED.

<b>Kit 6:</b>	with HR Binocular Loupe 2.5x/340mm	<b>J-008.31.390</b>
<b>Kit 7:</b>	with HR Binocular Loupe 2.5x/420mm	<b>J-008.31.391</b>
<b>Kit 8:</b>	with HRP Binocular Loupe 3.5x/420mm	<b>J-008.31.392</b>
<b>Kit 9:</b>	with HRP Binocular Loupe 4x/340mm	<b>J-008.31.393</b>
<b>Kit 10:</b>	with HRP Binocular Loupe 6x/340mm	<b>J-008.31.394</b>



### Retrofitting set incl. HR/HRP binocular loupe

The retrofit set allows you to also equip your 3SLED HeadLight with a binocular loupe, S-Guard splash protection and i-View LoupeBracket:

Consisting of S-Guard splash protection, i-View LoupeBracket, sterilizable swivel lever, cleaning fluid

with HR Binocular Loupe	2.5x/340mm	<b>J-000.31.370</b>
with HR Binocular Loupe	2.5x/420mm	<b>J-000.31.371</b>
with HRP Binocular Loupe	3.5x/420mm	<b>J-000.31.372</b>
with HRP Binocular Loupe	4x/340mm	<b>J-000.31.373</b>
with HRP Binocular Loupe	6x/340mm	<b>J-000.31.374</b>

5 Steri-levers for i-View LoupeBracket for 3SLED	<b>C-000.32.399</b>
--	---------------------

Yellow filter for dental applications [01]	<b>J-000.31.321</b>
--	---------------------

## **∴ HEINE Power sources**

For LED LoupeLight and 3S LED HeadLight.



## Wall Transformer HEINE EN50® UNPLUGGED

### Intelligent charger for mPack UNPLUGGED



- ∴ **Charger and wall-mount in one.** The wall transformer serves as an instrument holder and a charger at the same time.
- ∴ **Intelligent charging system.** The instrument automatically switches off and goes into charging mode when placed in wall transformer. It is impossible to overcharge the mPack UNPLUGGED; the process ends automatically when charging is completed.
- ∴ **Simultaneous charging.** The charging system charges the battery on the headband as well as an additional single spare battery.
- ∴ **Compatible transformer (100–240V).** Multi-voltage power supply unit incl. 4 different mains adaptors.
- ∴ **Registered Design.**

Wall unit EN50 UNPLUGGED (without mPack UNPLUGGED) 6V	X-095.17.310
---	--------------

- ∴ Charger and wall-mount in one
- ∴ Intelligent charging system

## HEINE mPack® UNPLUGGED

Rechargeable battery 3SLED HeadLight UNPLUGGED.



- ∴ **Lightweight with balanced weight distribution.** High level of comfort.
- ∴ **Charge status display.** Display of remaining operating time.
- ∴ Can be recharged by **wall- or plug-in transformer.**
- ∴ **Direct operation possible while charging** through the use of the mobile plug-in transformer.
- ∴ **Charging time:** 2 hours.
- ∴ **mPack UNPLUGGED Akku.** Operating time: 2 hours.
- ∴ **Intelligent charging system.** Automatic changeover from operating to charging mode (in the wall unit). Battery-friendly charging.
- ∴ **Top safety standards.** Integrated charge and performance checks during operation. Lithium polymer technology (selected non-flammable materials). UL-compliant.
- ∴ **Registered Design.**

mPack UNPLUGGED	6V
mPack UNPLUGGED	X-007.99.665
Transformer UNPLUGGED for mPack UNPLUGGED	X-095.16.316
Lithium-Polymer rechargeable battery for mPack UNPLUGGED	X-007.99.680
Extension Cord transformer / UNPLUGGED, 2m	X-000.99.668

- ∴ Headband battery (rechargeable)
- ∴ LED charge status display



## Plug-in transformer for the HEINE 3SLED



9V/16W. Powerful electric supply unit for the 3SLED.

Plug-in transformer for 3SLED	X-095.16.320
-------------------------------	--------------

## HEINE mPack®/HEINE mPack LL®



- ⚡ Li-ion Battery
- ⚡ Battery Capacity Indicator
- ⚡ Fast Charge

- ⚡ **Freedom from cables** that tie the user to desk, wall or static power supplies.
- ⚡ **Triple the Capacity with Li-ion Technology.** Compared with current NiCd systems. **When fully charged at least 3x the capacity of conventional NiCd systems.** More than double of other Li-ion systems. No memory effect.
- ⚡ **Fast Charge.** Charges to full capacity in just 2 hours.
- ⚡ **Charge status display.** Always lets you know how much operating charge you have left.
- ⚡ **Flexible Charging Options.** Charge in the EN50 base station, or with mobile transformer.
- ⚡ **Intelligent.** Automatically switches to “charge” mode when inserted in EN50. Can also be used as mains power supply even while in “charge” mode.
- ⚡ **Automatic remote power adjustment** for compatibility with all HEINE 6V and selected LED instruments.
- ⚡ **Flexible Illumination Control.** Can be used in conjunction with HC50 Headband Mounted Rheostat.
- ⚡ **100–240V Compatible Transformer** incl. 4 plugs for world wide compatibility.

**Note:**

**mPack is only compatible with:** 3S LED HeadLight.

**mPack LL only compatible with** LED Loupelight.

- ⚡ **Brightness control from 0,5 – 100 %**
- ⚡ **Capacity with LED Loupelight:** 17 hours from fully charged under full load.



mPack /mPack LL	6V
EN50 Wall/ Table unit with <b>mPack</b> , (incl. 90° Angled Adaptor, Instrument support for Professional L Headband [01])	<b>X-095.17.302</b>
same, with <b>mPack LL</b> and instrument support for S-Frame [02] and Professional L Headband [01]	<b>X-095.17.303</b>
<b>mPack</b> with Li-ion rechargeable battery and transformer	<b>X-007.99.672</b>
same, with <b>mPack LL</b>	<b>X-007.99.660</b>
<b>mPack</b> with Li-ion rechargeable battery, without transformer	<b>X-007.99.671</b>
same, with <b>mPack LL</b>	<b>X-007.99.661</b>
Li-ion rechargeable battery for mPack/mPackLL	<b>X-007.99.676</b>
Transformer for mPack/mPackLL [04]	<b>X-095.16.315</b>
Plug-in 90° Angled Adaptor (for EN50/mPack/mPack LL) [03]	<b>C-000.33.509</b>

## Wall-/Table-Transformer HEINE EN 50®

### Modular Power Supply System



The EN50 Modular Power Supply System (patent pending) offers unsurpassed flexibility and innovative new features. It powers the OMEGA500 and 3SLED and automatically adjusts output to power all existing HEINE 6V and selected LED products (Examination Lights). The EN50, mPack and HC50 Headband Mounted Rheostat can be combined in every conceivable configuration.

- ∴ **Modular.** compact design functions as the base for Tabletop or Wall Mounted use and as charging base for the mPack mobile charging system (patent pending).
- ∴ **Upgradeable.** mPack charging base by simple removal of the control module.
- ∴ **Soft Start Technology.** A gradual introduction of current reduces bulb "shock" and extends bulb life.
- ∴ **100–240V Compatible Transformer** incl. 4 plugs for world wide compatibility.
- ∴ **Registered Design.**

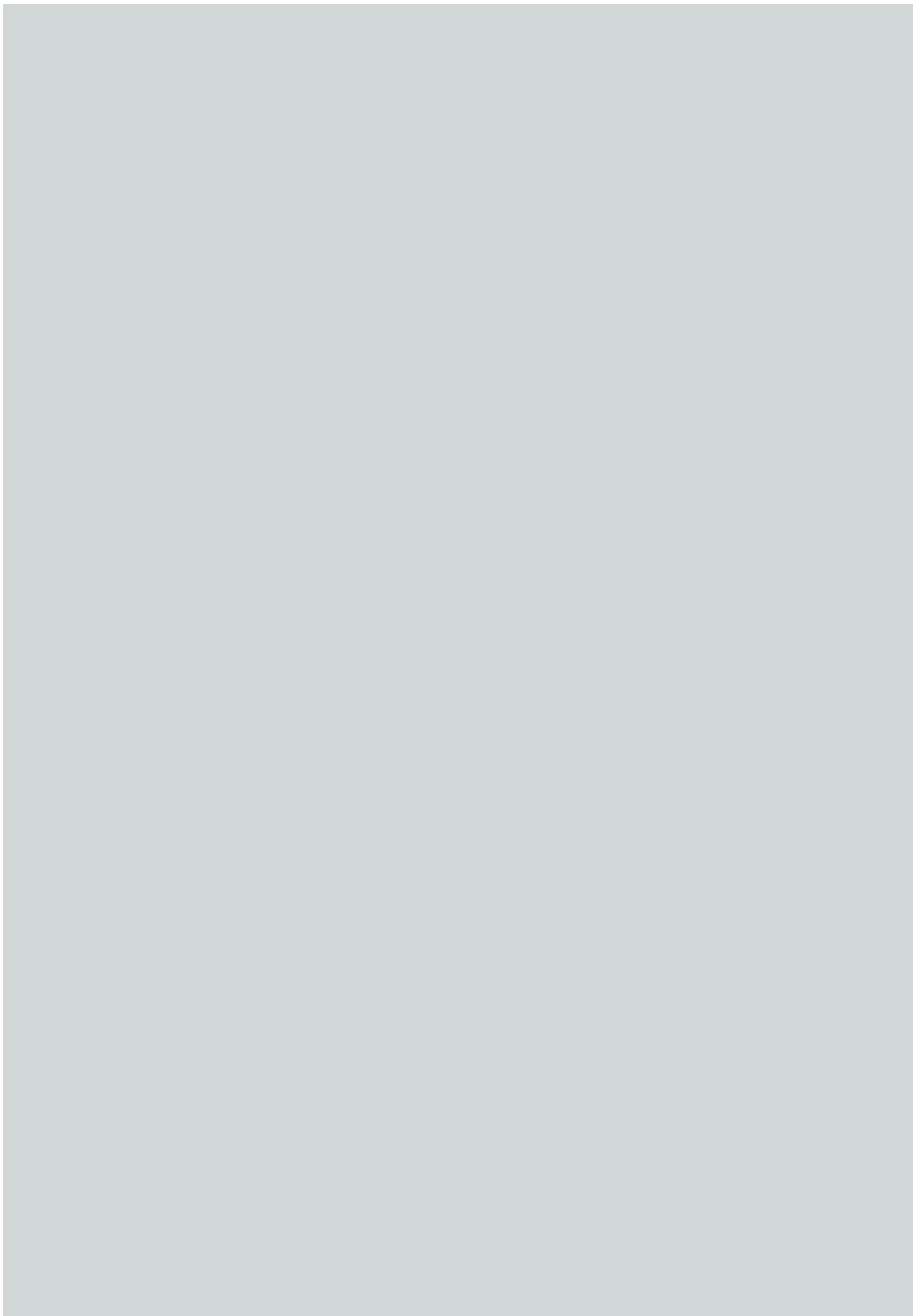
- ∴ Modular Power Supply System
- ∴ Soft Start Technology
- ∴ Switches off automatically

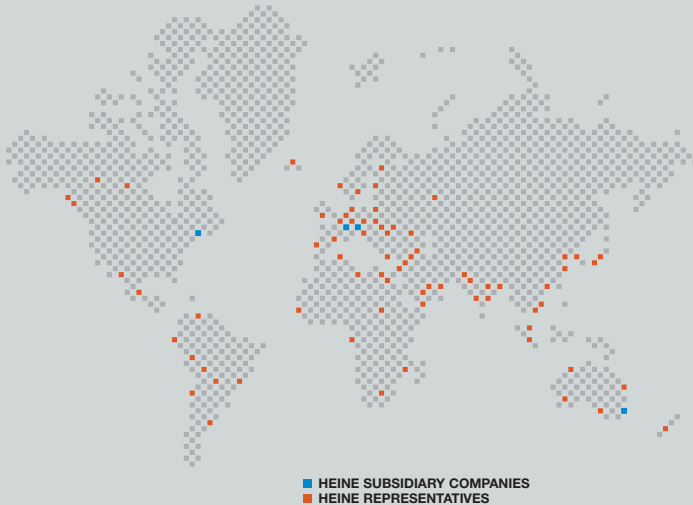


EN 50	6V
EN50 Wall/ Table unit with Rheostat Control Module (incl. 90° Angled Adaptor, Extension Cord Cinch-Cinch 2m, Instrument support) [01]	<b>X-095.17.301</b>
Rheostat Control Module for EN50 [02]	<b>X-095.17.305</b>
EN50 Base unit (without Rheostat Control Module) [03]	<b>X-095.17.300</b>

Plug-in 90° Angled Adaptor (for EN 50/mPack/without instrument support) [04]	<b>C-000.33.509</b>
Instrument support for Headband	<b>C-000.33.511</b>
Instrument support for S-Frame and LED LoupeLight	<b>C-000.33.512</b>

Lined writing area with horizontal lines and vertical margin lines.





**A company makes history and gives a name to outstanding product quality: HEINE.**

Founded in 1946, family owned, rich in tradition and today international market leader in a complete range of diagnostic instruments. HEINE products meet all international standards (ISO/CE) and represent the leading edge in precision and ergonomic design. Ongoing dedication to research and development has created a solid and diverse technology base for continued quality and product leadership. Over 500 employees worldwide contribute to this success.

[www.heine.com](http://www.heine.com)

**GERMANY**

HEINE Optotechnik GmbH & Co. KG  
82211 Herrsching  
Kientalstr. 7  
Tel. +49 (0) 81 52-380  
Fax +49 (0) 81 52-38202  
E-Mail: [info@heine.com](mailto:info@heine.com)

**NORTH AMERICA**

HEINE USA LTD.  
10 Innovation Way  
Dover, NH 03820  
Tel. (603) 742-7103  
Fax (603) 742-7217  
Toll Free (800) 367-4872  
E-Mail: [service@heine-na.com](mailto:service@heine-na.com)

**AUSTRALIA**

HEINE AUSTRALIA PTY. LTD.  
Unit 9, 98 Old Pittwater Road  
P.O. Box 717 Brookvale 2100  
New South Wales  
Tel. +61 (0) 2-99 38 95 00  
Fax +61 (0) 2-99 39 23 05  
E-Mail: [info@heine.com.au](mailto:info@heine.com.au)

**SWITZERLAND**

HEINE (Schweiz) AG  
Tobelackerstraße 9  
CH-8212 Neuhausen am Rheinfall  
Tel. +41 (0) 52-6 72 22 66  
Fax +41 (0) 52-6 72 63 77  
E-Mail: [heine-schweiz@schaffhausen.ch](mailto:heine-schweiz@schaffhausen.ch)

We reserve the right to change specification without notice.

Your distributor

11/09. A-000.00.200 e

