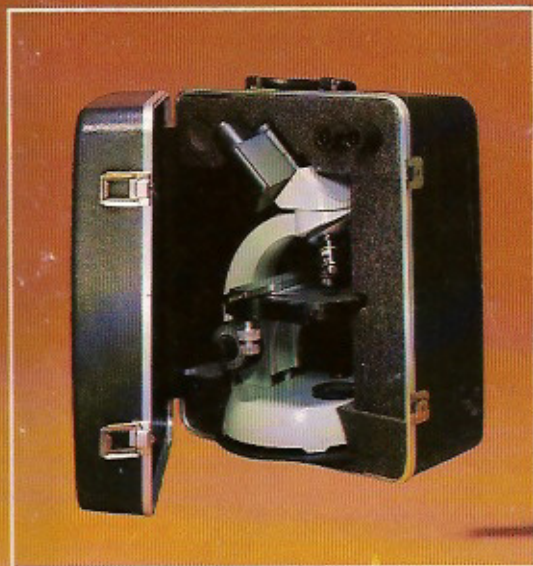
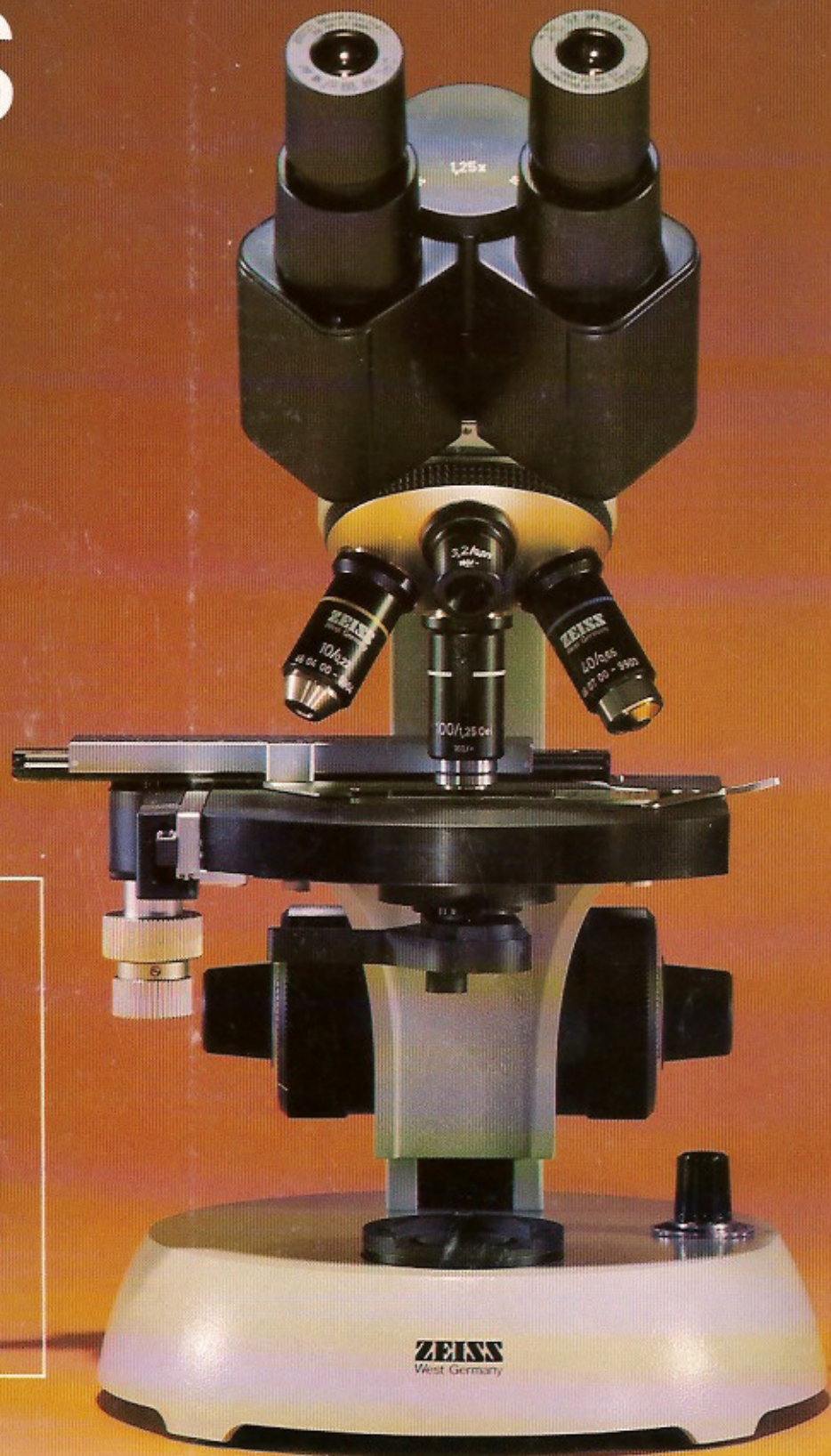


Zeiss KF2



CARL ZEISS
7082 Oberkochen
West Germany

Buying a microscope is a matter of trust...

not only because it is an investment, it's because you must be able to depend on the optics. That's, after all, what a microscope is all about. However, optics is a field that is probably least understood by most users of microscopes who are generally working in other disciplines. Yet, for the quality and reliability, and in many cases even validity, of their work, they depend heavily on the results obtained through the optics.

And when it comes to optics, you can trust Zeiss, because Zeiss optics have earned an indisputable reputation over more than a century for their brilliant images of unexcelled resolution and contrast. Furthermore, the microscope described on these pages, the ZEISS KF 2, is crafted with the same high degree of precision of its mechanical parts and can be equipped with the same high-quality optics as the large and much more expensive Zeiss research microscopes that are used by professors and researchers the world over. These men through their experience know, and you will find out for yourself, that the **quality and the unchallenged durability as a result of impeccable precision engineering make Zeiss microscopes not only the most effective, but also the most economical investment in the long run.**

The optical glass for the lenses is manufactured by the world-famous Schott Glass Works, another constituent member of the unique Carl Zeiss Foundation. It was at Schott that the very first optical glass was produced toward the end of the last century. Also the anti-reflection coating of lens surfaces for the enhancement of image contrast was begun at Zeiss, and Professor Koehler was a Zeiss scientist. He is the originator of the famous "Koehler illumination" which has become a generic term used by everyone doing microscopy.

In short, you can depend on Zeiss.

Each product is backed up by a century-old tradition of workmanship and by factory-trained service.

All this is now available also to the quality-minded and future-oriented student at a price you can afford. Another point which should not be overlooked by medical students is that, in case you wish to sell your microscope after the first two years of medical school, you can recoup a major portion of your initial investment, because the instrument does not show wear and tear since it is ruggedly built to withstand heavy duty and has a non-corrosion finish.

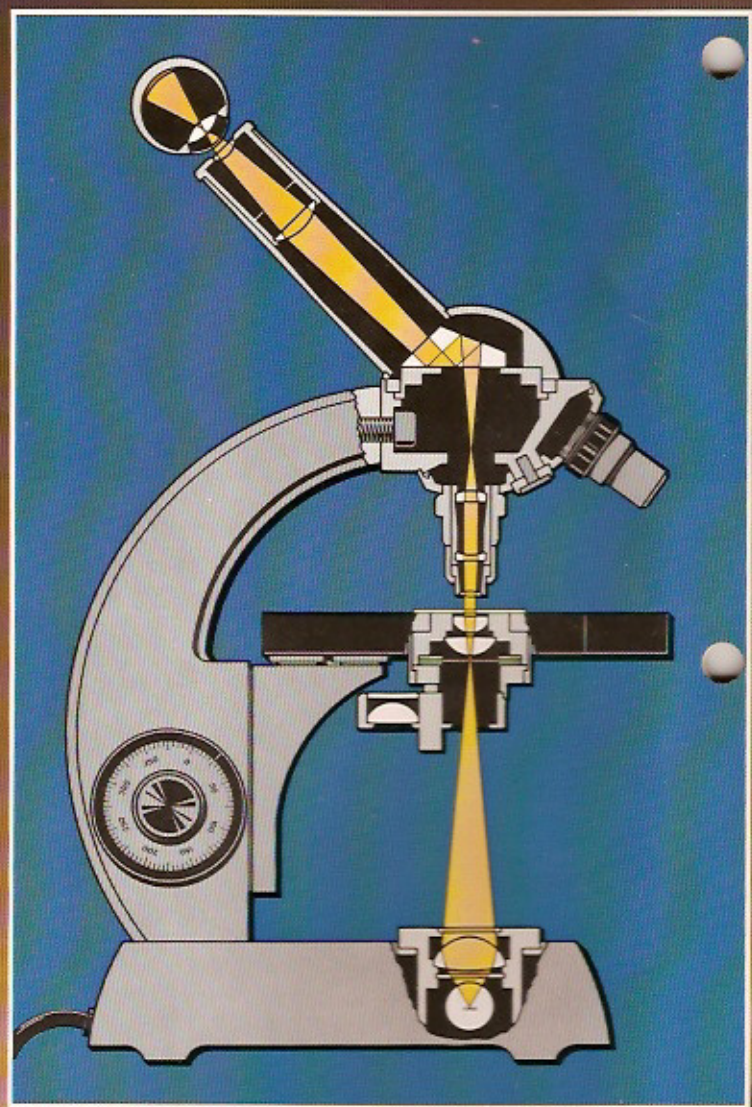
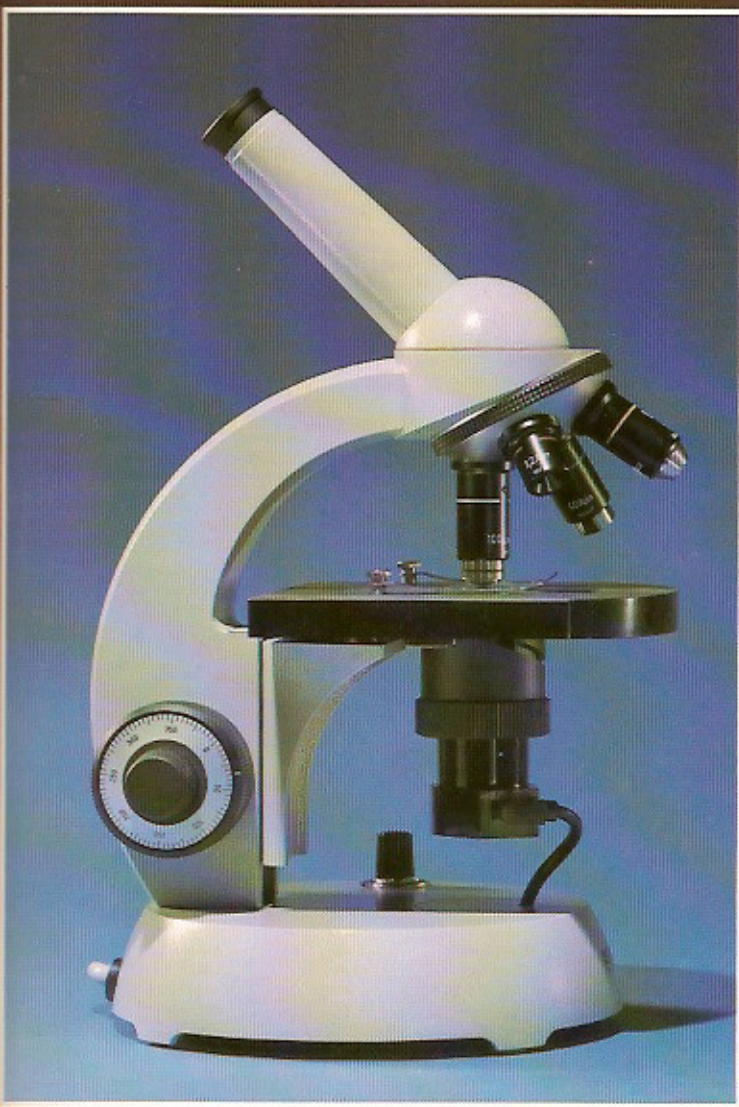
The Zeiss KF 2

is a very compact and most convenient microscope for the student, the teacher, the laboratory, with very few controls for instant and easy operation. All you do is turn a knob on the base to switch on the illuminator, place a slide on the stage, focus — and you are looking at a brilliant, evenly illuminated image, crisp from edge to edge. When changing magnification, the image always remains in focus, nothing will go out of alignment. Not even a beginner can accidentally disturb the adjustment. That's because all optical parts: the binocular tube, the eyepieces, the nosepiece, and the objectives, are parfocal and permanently centered. This is done at the factory, by hand. It's precise — there are no two ways about it.

The microscope is solidly anchored in a 7½"-dia. stable and space-saving base which houses the electrical components for the illuminator, adding extra stability to the durable stand. — Summing up, these are the

MAJOR FEATURES:

- Zeiss optics — for unexcelled contrast and resolution
- Very easy Koehler illumination or unique LUCIGEN system
- Compact and very sturdy design
- Easy to operate
- Backlash-free coaxial precision focusing
- 360° swivel tube head for teaching and discussion
- Durable quality at a competitive price



WHY NOT BUY THE BEST



EYEPIECE

INCLINED
BINOCULAR TUBE

QUADRUPLE
NOSEPIECE

OBJECTIVE

MECHANICAL
STAGE

STAND

FOCUSING
CONTROLS:

COARSE

FINE

KNOB FOR
REGULATING
LIGHT INTENSITY

STURDY BASE WITH
BUILT-IN TRANSFORMER

CONDENSER
WITH SINGLE LEVER CONTROL

IN-BASE
ILLUMINATOR



Objectives — unequaled quality

For most applications of the ZEISS KF 2, the newly computed Zeiss ACHROMATS are recommended because of their fine flatness of field, their extra sharp contrast, their high resolving power, and superior color correction. Of course, many other objectives can be used on the KF 2. In fact, there are some 130 in the broad line of Zeiss objectives to choose from, e.g. Planachromats, Neofluars, and Planapochromats.

As indicated before, no matter how often you change magnification, the specimen will always remain in focus. This is the result of parfocalization, a pioneering concept developed by Zeiss in 1911.

Achromats are available for initial magnifications from 3.2x (fixed scanning objective), 10x, 40x high-dry (high-magnification objective which can be used without immersion medium) to the 100x for oil immersion. Regardless of the position of the objectives on the nosepiece, the engraved magnification and the color-coded rings are always clearly visible. All objectives have a spring-loaded retractable front element so that accidental slide or lens damage when moving the focusing adjustment becomes impossible. The Achromat 100x oil can even be locked in its retracted position for added protection and convenience.

Observation tubes — rotatable a full 360°

The tube most often used is the 45° inclined binocular tube with individually focusable eyepieces. Of course, there is also a monocular version available. For teaching and discussion of the specimen the tube can be rotated full circle (360°) to enable two or three observers around the microscope to quickly take a look at the same field.

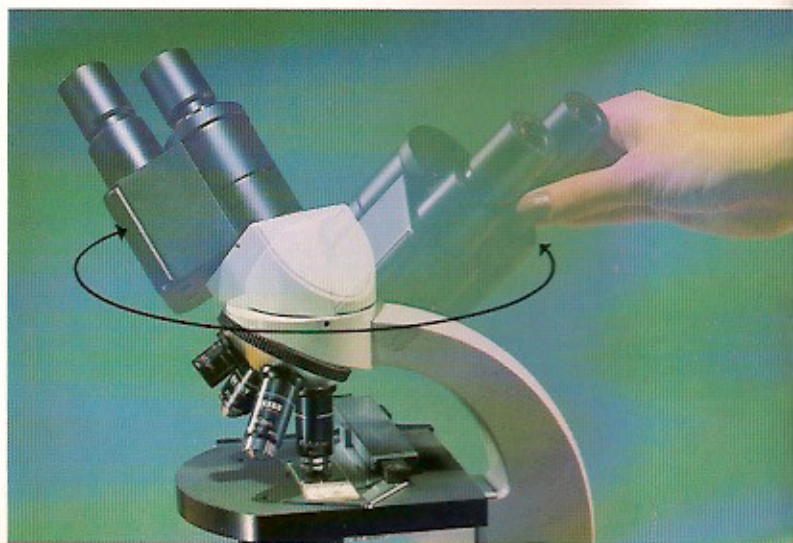
With the eyepieces 14" (34cm) above the table or workbench top, the operator can assume a comfortable position for fatigue-free hours of viewing.

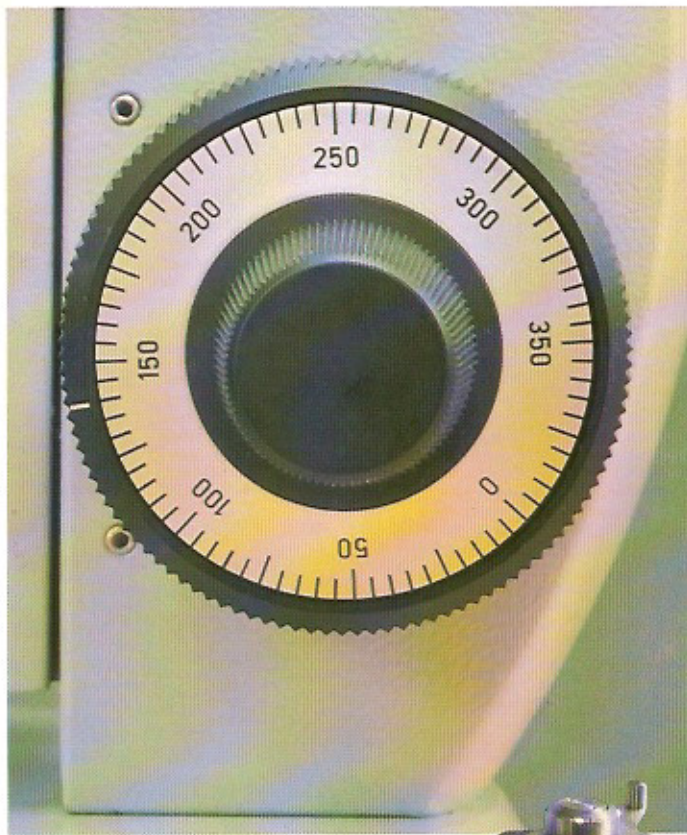
Eyepieces — wide field

From a wide range of flatfield compensating eyepieces, also optionally equipped with pointer, particularly the Cpl 10x eyepieces are recommended for a wide and flat field of view. They are so-called high-eyepoint eyepieces for unrestricted field of view for both eyeglass wearers and non-eyeglass wearers.

Nosepiece — friction-free, service-free

The nosepiece which accepts four objectives is ball-bearing-mounted to eliminate friction and service. It is permanently aligned to the microscope's optical axis to assure the high performance designed into the instrument system.





Coarse and fine focusing control — it's continuous and backlash-free

The combined coaxial coarse and fine focus controls for the stage on either side of the microscope are at your fingertips while your arms rest on the table. The stage will never slip, even when pressure is exerted. There is no backlash, and sure focus is obtained instantly also by the inexperienced beginner.



Stages — rugged, with ultra-precision movement

Included in the basic equipment is either a fixed stage, or mechanical stage 05 with 25x75mm (1-3") travel, with graduation and specimen holder. The low-mounted coaxial controls move the stage vertically and horizontally on ball-bearings to assure smooth and even movement of the specimen.

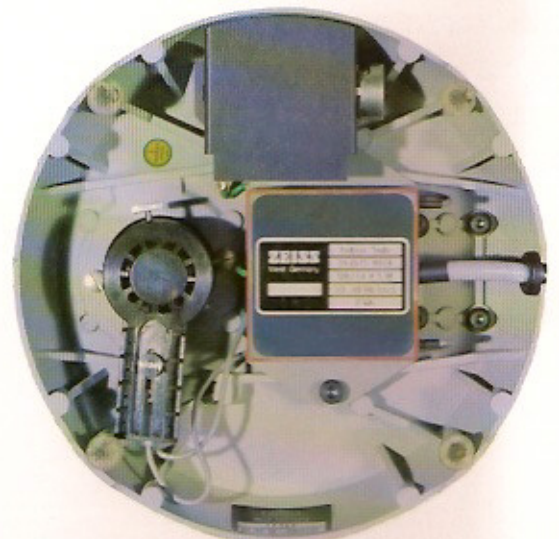
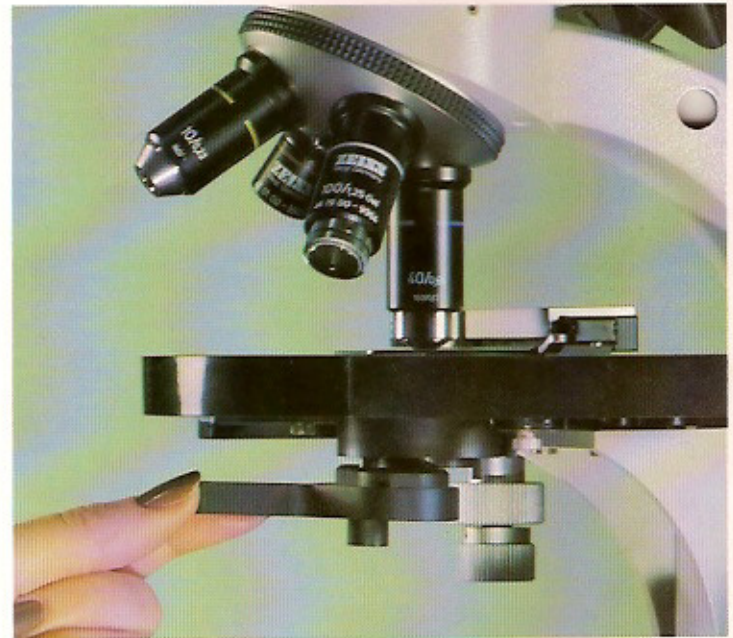
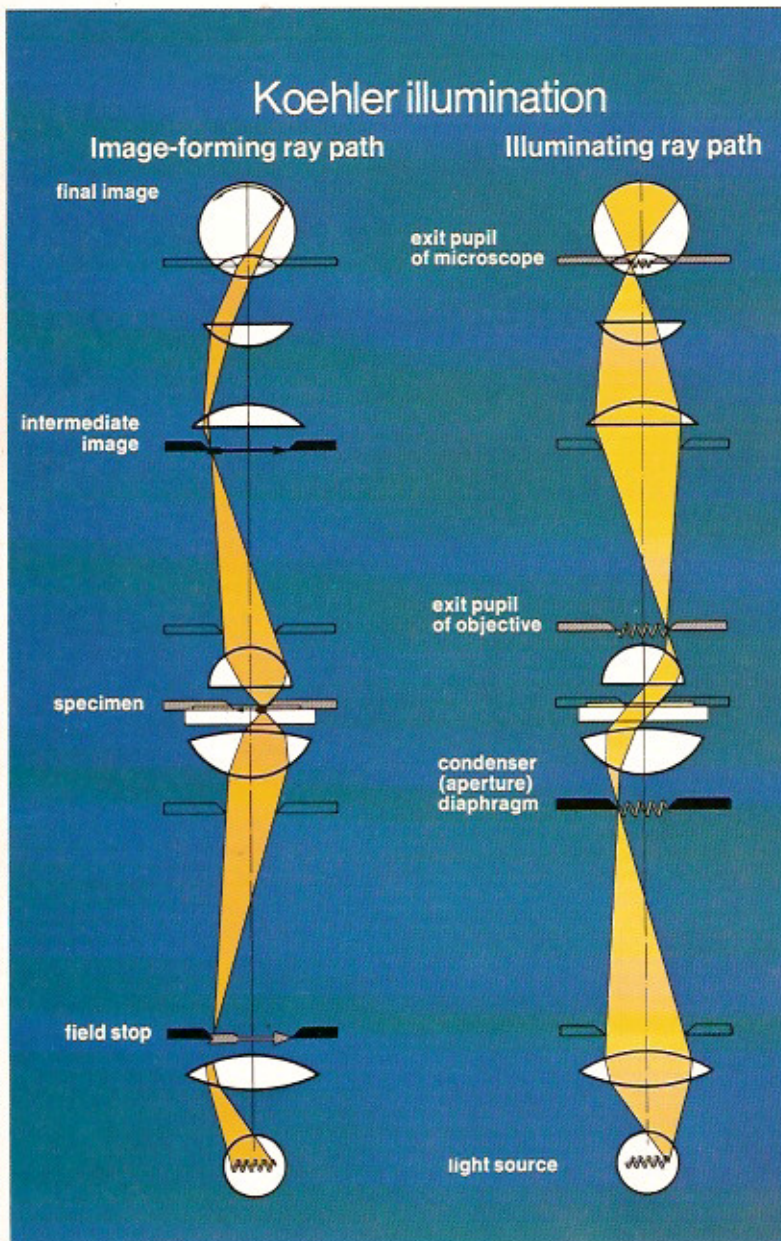
The 6V 5W low-voltage illuminator

Illumination — choice of two unique systems

For the accurate study of specimens it is important that the field of view be evenly illuminated and that the aperture diaphragm be set for maximum contrast to achieve the best resolution of detail, in other words, it is necessary to satisfy the illumination requirements introduced to microscopy in 1893 by Zeiss scientist Professor Koehler.

To accomplish this, Zeiss offers a choice of two unique illuminators:

which is pre-centered and pre-focused so that Koehler illumination can be achieved much easier and faster than ever before. In conventional systems, Koehler illumination is often quite bothersome to accomplish, even for experienced microscopists. With this illuminator, the condenser (0.9 AS) with aperture-iris diaphragm is built into the stage. By moving one single lever the illuminating aperture (covering all magnifications) is set to the proper opening and the auxiliary lens is swung in to create evenly illuminated larger fields (for low-power objectives). Another advantage is that the condenser front lens is sealed into the stage platform making cleaning much easier, at the same time protecting the often messy substage from dust and oil seepage.



Underside of the base

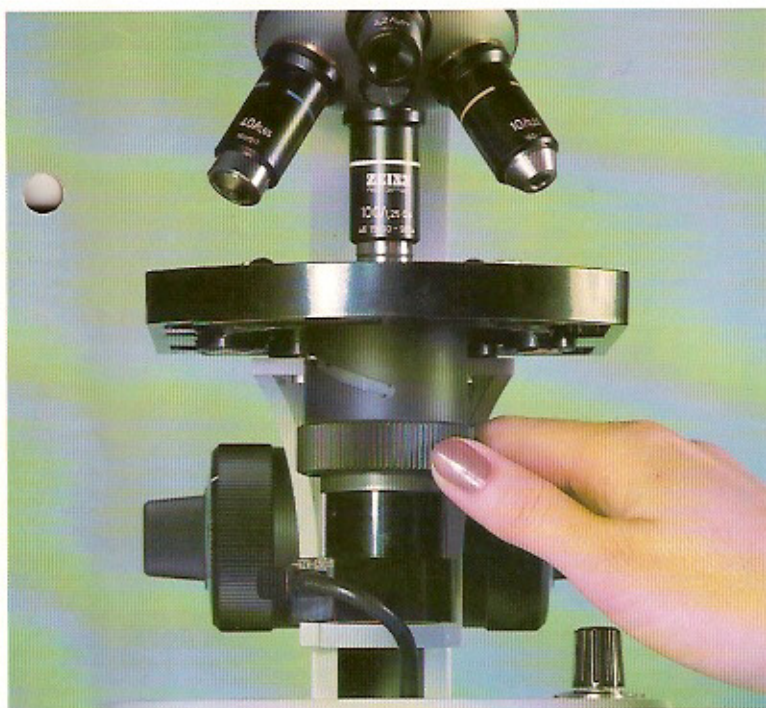
6V 5W LUCIGEN

The second illuminator is the unique 6V 5W LUCIGEN which was developed by Zeiss in recent years to take the trouble out of "Koehlering" for the daily routine and to make it still easier and foolproof.

The LUCIGEN system which incorporates the light source into the condenser system eliminates the need for an aperture diaphragm. The equivalent of a correct aperture setting for best contrast is now accomplished by raising or lowering the illuminator. To do this, you simply turn a wide knurled ring which is in easy reach below the microscope stage. The LUCIGEN illuminates the entire specimen field evenly from low-power scanning lens to 100x oil immersion systems.

The advantage of this system is that the operator can devote his full attention to actual study and observation and need not waste time making adjustments and mechanical settings. And what's more, setting the LUCIGEN is so simple that mistakes are impossible. For teachers it is no longer necessary to go from microscope to microscope to check whether the diaphragm is opened or closed the proper amount for the best light and contrast conditions.

All electrical components for both illuminating systems are integrated into the microscope base. The brightness is continuously variable by rheostat control which, at the same time, has an on-off switch on top of the base. Since the illumination is turned on from lowest intensity to a comfortable level, the bulb lasts a long time.

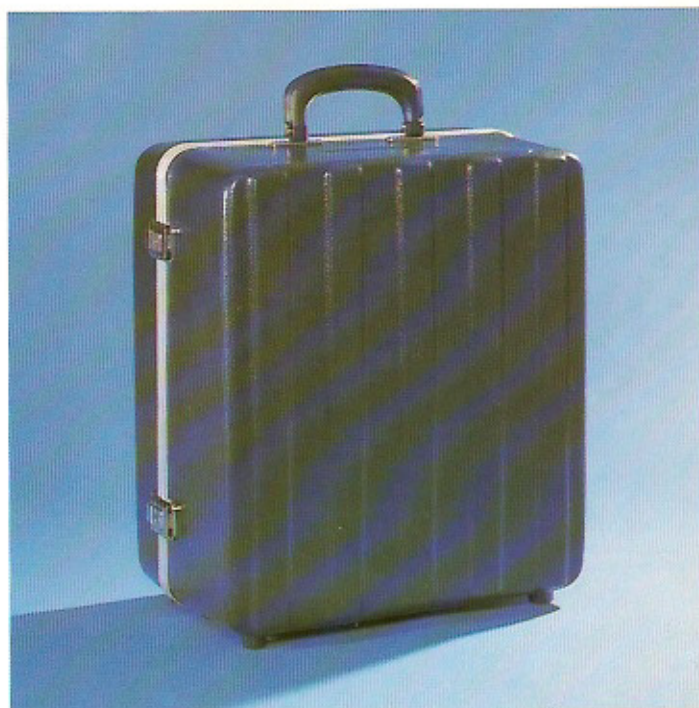


Filters — high quality

A wide choice of high-quality filters is available, including either a blue or green filter, which are most commonly used in basic microscopy.

Carrying case — durable—lockable

A handsome light-weight Ethafoam carrying case was specially designed for the ZEISS KF 2 with molded inside fittings for maximum protection during transport or storage. It measures 15x13x8½" and comes with a sturdy handle, 4 plastic bumpers and two locking latches with keys.



Ordering Specifications

Monocular Microscope, Lucigen Illuminator 48 04 51
ZEISS KF 2 including monocular tube, fixed stage,
revolving nosepiece 4x, Lucigen illuminator

Monocular Microscope, Built-in Illuminator 6V, 5W 48 04 52
ZEISS KF 2 including monocular tube, fixed stage,
revolving nosepiece 4x, built-in illuminator 6V, 5W,
fixed condenser 0.9 AS

Binocular Microscope, Built-in Illuminator 6V, 5W 48 04 62
ZEISS KF 2 including binocular tube (1.25), fixed stage,
revolving nosepiece 4x, built-in illuminator 6V, 5W,
fixed condenser 0.9 AS

Binocular Microscope, Built-in Illuminator 6V, 5W 48 04 63
ZEISS KF 2 including binocular tube (1.25), fixed stage,
mechanical stage 25x75mm, revolving nosepiece 4x,
built-in illuminator 6V, 5W, fixed condenser 0.9 AS

Objectives for Brightfield (Object/thread-seat distance is 45mm)

Effective Magnification/ Numerical Aperture	Catalog No.
Achromat 3.2/0.7	46 01 00-9903
Achromat 10/0.22	46 04 00-9904
Achromat 40/0.65	46 07 00-9903
Achromat 100/1.25 oil	46 19 00-9904

C-Eyepieces

Magnification	Catalog No.
C 8x	46 39 10
C 8x, focusing	46 39 13-9905
CPL 10x, widefield	46 40 22
CPL 10x, focusing	46 40 23

Accessories

Plastic dust cover	47 93 00
Bulb 6V, 5W	38 00 29-7180
Carrying case	91 01 81

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