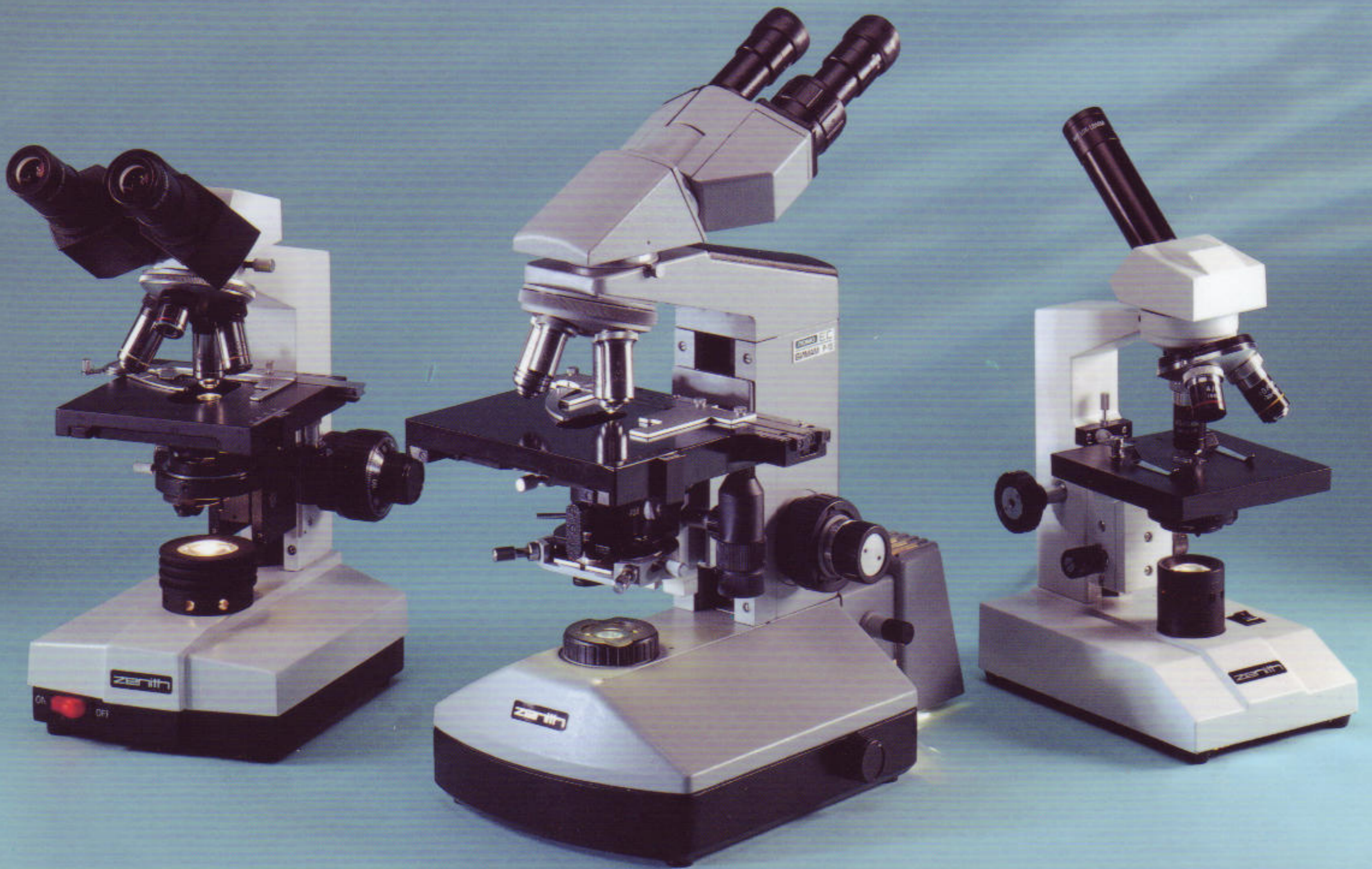


# zenith<sup>®</sup>

## MICROSCOPES



**UK Catalogue 1996/1997**



Imported and distributed by:-

**Technical and Optical Equipment (London) Ltd**

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EST'D 1962

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**Technical & Optical Equipment (London) Limited**, formed in 1962, are a long established Company specialising in the import, export and UK distribution of a wide range of scientific and consumer optical products, under the well known and highly respected 'Zenith', 'Biolam', 'Helios', 'Lubitel', and 'Tal' registered brand names. We have been prominent suppliers of microscopes to Education, Medicine and Industry for over 30 years, and during this time our products have been held in high regard for the rare combination of quality, performance and value which they offer. We have great pleasure in presenting our 1996-97 Zenith Microscope Catalogue, featuring our best and most comprehensive range of quality instruments ever. For your peace of mind all our products are fully guaranteed for a period of twelve months against any defect arising from faulty workmanship or materials.



All electrical products in this catalogue have undergone testing and have been expertly modified where necessary using high quality electronic components

to ensure a high standard of electrical safety and reliability. These products will all be supplied carrying the 'CE' mark in accordance with the new EEC low voltage and EMC electrical directives. In addition each electrical product is supplied fitted with an approved 13amp 3-pin UK mains plug.

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### ZENITH PM-1 x20 PRIMARY INSPECTION MICROSCOPE

A high quality instrument of robust reliable metal construction and excellent optical performance. Highly recommended for Primary Science Education and Field Study Centres (meets R.M.S. Primary microscope design criteria). Extremely simple to use, the PM-1 is ideal for the examination of everyday objects in fascinating yet understandable detail. The 'anti-tamper' student-proof design includes 'locked-on' eyepiece & stage clips and a slip-clutch on the focus movement. Also an extremely useful routine inspection microscope for use in industrial applications.

#### Standard Specification:-

- Fixed magnification x20 • x10 widefield eyepiece (locked on) • x2 achromatic objective
- Field of view 9.5mm • Working distance 81mm
- Monocular head inclined 45° & rotatable 360° for convenient viewing • Upright/erect image
- Precise, smooth-action Rack & Pinion focussing
- Black & White reversible Stage Plate • With Stage Plate removed the microscope can focus through base aperture to view larger objects • Complete with Dust Cover
- Supplied in polystyrene pack
- Overall dimensions 145 x 110 x 260mm
- Weight approx 1.2kg

Prod. Code	Description	Price (Excl. Vat)
PM-1	x20 Primary Inspection Microscope	£49.00



### ZENITH BM-51-2 x8.75 STEREOSCOPIC MICROSCOPE

A robust instrument of high optical quality featuring low magnification, long working distance, wide field of view, excellent depth of focus and easy focussing. An extremely popular model especially recommended for use in Primary Schools and Field Study Centres. Also a useful tool for dissection & fine assembly work.

#### Standard Specification :-

- Magnification x 8.75
- Paired Widefield Eyepieces x12.5 with Eyecups
- Achromatic Objective Pair x 0.7
- Field Of View 25mm
- Working Distance 140mm
- Rack & Pinion focussing
- Adjustable Inter-Pupillary Distance
- Large Black / White reversible Metal Stage Plate with Stage Clips
- Stereo Head height adjustable on Column to accommodate specimens of varying sizes
- With Stage Plate removed, the microscope can be used to examine specimens too large to put under the microscope in the conventional way by focussing through the aperture in the base plate
- Weight approx 1.45kg

Prod. Code	Description	Price (Excl. Vat)
BM-51-2	x8.75 Stereoscopic Microscope	£67.50



## ZENITH STM-1 x20 STEREOSCOPIC MICROSCOPE

A routine inspection microscope combining high optical quality with robust, reliable construction and simplicity of operation, making it an extremely useful tool for use in Industry, Field Study Centres and throughout education from Primary level upwards. Particularly recommended for the younger user for the examination of everyday objects in fascinating yet 'understandable' detail.

### Standard Specification:-

- Magnification x20 • Paired x10 Widefield Eyepieces (Locked-on) with Rubber Eyecups
- Achromatic Objective Pair x2 • Field of View 10mm • Working Distance 70mm • Dioptic adjustment provided on left eyepiece tube • Stereo Head Height adjustable on column to accommodate specimens of varying sizes • Rack and Pinion focussing • Adjustable Inter-Pupillary Distance • Black / White Reversible Stage Plate • With Stage Plate removed, the microscope can be used to examine specimens too large to put under the microscope in the conventional way by focussing through the aperture in the Base Plate
- Locked-on Stage Clips
- Supplied In polystyrene pack
- Height approx 300mm
- Weight approx 1.45kg

Prod. Code	Description	Price (Excl. Vat)
STM-1	x20 Stereoscopic Microscope	£78.00

## ZENITH STM-30 & STM-40 ILLUMINATED STEREOSCOPIC MICROSCOPES

Versatile instruments of robust metal construction and excellent optical performance ideal for use in Schools, Colleges & Field Study Centres as well as having wide applications in Industry. 'Anti-tamper' safety features include locked-on eyepieces and stage clips and a slip-clutch on the focus movement. Two models are available, each offering its own choice of magnifications and illumination systems:-

**MODEL: STM-30** • Dual magnification x10 & x30 • x10 widefield eyepieces (with rubber eyecups) • Parfocal achromatic objective pairs x1 & x3 on revolving turret • 12v 10w top illumination • Working distance 50mm • Field of view 5-15mm • Black/White Reversible Stage Plate • Binocular head inclined 45° for comfortable viewing • Full inter-pupillary and dioptic adjustment provided • Rack & Pinion focussing • Dust Cover • Supplied in polystyrene pack • Overall dimensions 170 x 115 x 300mm • Weight approx 2.5kg

**MODEL: STM-40** • Dual magnification x20 & x40 • X10 widefield eyepieces (with rubber eyecups) • Parfocal achromatic objective pairs x2 & x4 on revolving turret • 12v 10w top & bottom illumination (independent or simultaneous) • Working distance 45mm • Field of view 5-10mm • Black/White Reversible and Frosted Glass Stage Plates provided • Binocular head inclined 45° for comfortable viewing • Full inter-pupillary and dioptic adjustment provided • Rack & Pinion focussing • Dust Cover • Supplied in polystyrene pack • Overall dimensions 190 x 117 x 310mm • Weight approx 2.8kg

Prod. Code	Description	Price (Excl. Vat)
STM-30	x10/x30 Stereoscopic Microscope	£169.00
STM-40	x20/x40 Stereoscopic Microscope	£179.00
SB-10	Replacement 12v 10w Bulb	£3.50



MFY-4 'Trinocular' attachment. (Camera not included)

**SPECIAL OFFER!**  
Was £410.00 + Vat RRP



## ZENITH MBS-10 x4.65-x100.8 STEREOSCOPIC MICROSCOPE

For the examination of specimens in three-dimensions by reflected or transmitted light. This is a full sized professional stereoscopic microscope of exceptional quality and versatility. Fully coated precision ground optics provide the user with delightful image clarity throughout the whole magnification range. Well engineered for robustness and reliability. Remarkably simple to use, just focus and rotate the objective drum to change magnification. Armrests are provided for a comfortable viewing position. Ideal for a wide range of applications throughout education & industry.

### Standard Specification :-

- Magnification range x4.65 - x100.8 in ten steps (x201.6 Magnification achievable by using optional x2 Converter Lens) • Paired Widefield Eyepieces x8 and x14, plus single x8 Micrometer eyepiece for measuring • Objective Pairs (on rotating drum) x0.6, x1, x2, x4, x7 • Constant working distance 95mm • Field of View 2.4-35mm
- 8v 20w illumination, can be shone from above the stage or up through the stage via the mirror
- Separate 8v 20w Transformer with brightness control • Adjustable Inter-Pupillary Distance
- Dioptic adjustment of +/- 5 provided on left eyepiece tube
- Rack & Pinion focussing • Stereo Head height adjustable on pillar to accommodate specimens of varying sizes • Black/White reversible Metal and Clear Glass Stage Plates supplied
- Supplied with Dust Cover
- Dimensions 251 x 154 x 456mm
- Weight approx 8kg

Prod. Code	Description	Price (Excl. Vat)
MBS-10	x4.65- x100.8 Stereoscopic Microscope	£250.00
SB-19	Replacement 8v 20w Bulb	£3.50

Accessories		
MFY-4	'Trinocular' Photographic attachment	£99.00
CA-4	SLR Camera Adaptor ( T2 Mount)	£35.00
MBC-11	x2 Converter Lens	£25.00



## ZENITH SCM-200 JUNIOR MICROSCOPE

The Zenith SCM-200 Junior Microscope is a compact instrument of die-cast construction and very good optical performance designed for Primary and Middle School use. Features monocular head inclined at 45° for convenient viewing and a non-tilting stage. "Anti-tamper" safety features include locked-on eyepiece, stage clips and mirror and a focus-stop to prevent damage to glass microslides and objective lenses. Supplied with Free Practical Microscopy Booklet.

### Standard Specification :-

- Magnification range x40, x100, x400 • Parfocal Achromatic Objectives x4 (0.10), x10 (0.25), x40R (0.65) (R = retractable) • x10 Eyepiece, Huyghenian Flatfield
- Stage Condenser (N.A. 0.65) • Rotating 6-Hole Disc Diaphragm • Triple Objective Turret
- Concave Mirror For illumination
- Stage measures 92 x 90mm
- Single Focussing Control with reducer gear for easy, positive focussing
- Supplied in polystyrene pack
- Dimensions 100 x 152 x 232mm
- Weight approx 1.2kg

Prod. Code	Description	Price (Excl. Vat)
SCM-200	Junior Microscope	£54.00

## ZENITH 'T-70' SERIES TEACHING MICROSCOPES

The Zenith 'T-70' Series are purpose-built School microscopes of high optical quality and particularly robust die-cast construction. Two identical models are available with different illumination systems. Maximum Magnifications of x200 ensure ease of use and makes them ideal instruments for use in Primary, Middle and Lower Secondary Schools. Features an ingenious base design, which when rotated, instantly converts the microscope from vertical to inclined viewing mode. "Anti-tamper" safety features include 'locked-on' eyepiece & objective lenses, locked-on stage clips, slip-clutch on the focus movement to prevent over-focussing and focus-stop to prevent damage to glass microslides and objective lenses.

### Standard Specifications:-

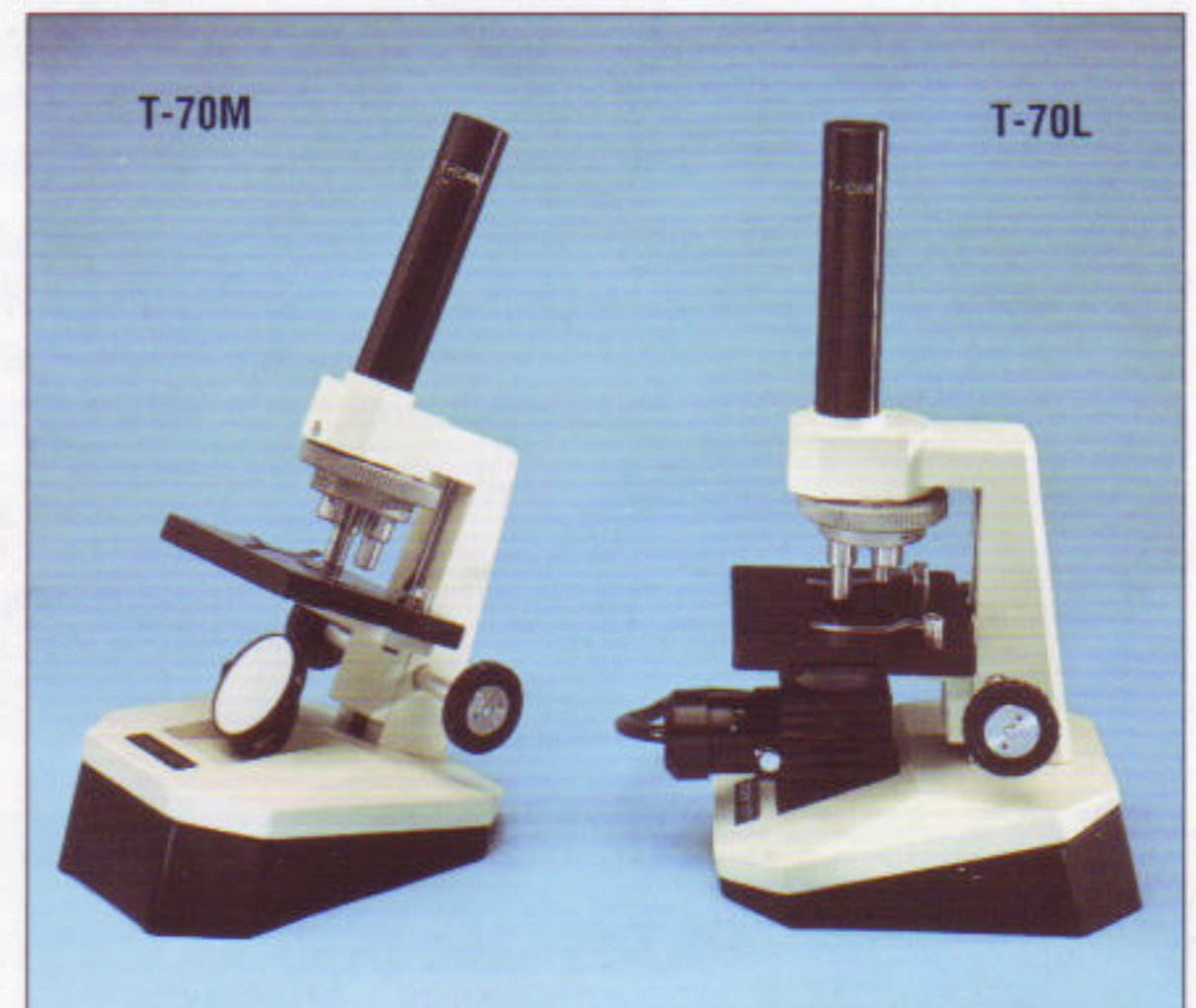
- 1) 'T-70M' Teaching Microscope • Illumination via Plano-Concave Mirror
- 2) 'T-70L' Teaching Microscope • With 'Locked-On' 230v 6w Substage illuminator

**General Features (both models):-** • Magnification range x40, x100, x200 • x10 Widefield Eyepiece with Pointer • Achromatic Objectives x4, x10, x20R (R = retractable) • Rotating 5-Hole Disc Diaphragm • Single, precise smooth-action Focus Control for easy focussing

• Stage measures 92 x 92mm • Triple Objective Turret • Overall dimensions 160 x 120 x 290mm

Prod. Code	Description	Price (Excl. Vat)
T-70M	Teaching Microscope	£56.00
T-70L	Teaching Microscope	£74.00
SB-6	Replacement 230v 6w Bulb	£3.50

- Complete with Dust Cover
- Supplied in polystyrene pack
- Weight approx 1.5kg



## ZENITH SCM-300 EDUCATIONAL MICROSCOPE

A purpose-built Teaching instrument of modern design ideal for GCSE Biology Studies. Excellent optical performance is provided by DIN Standard optics. Features Co-Axial focussing, 45° inclined head and a non-tilting stage. 'Anti-tamper' Safety features essential for school use include 'locked-on' eyepiece, stage clips and mirror; focus slip on the coarse focussing movement to prevent over-focussing and a focus-stop to prevent damage to glass microslides and objective lenses.

### Standard Specification:-

- Magnification range x40, x100, x400 (x640 magnification achievable by using optional x16 Flatfield Eyepiece)
- DIN Standard, Parfocal Achromatic Objectives x4 (0.10), x10 (0.25), x40R (0.65) (R = retractable)
- x10 Widefield Eyepiece with Pointer • Stage Condenser (N.A. 0.65)
- Rotating 6-Hole Disc Diaphragm • Co-Axial Coarse & Fine Focussing Controls
- Monocular Head inclined 45° for convenient viewing and a permanently horizontal stage
- Triple Objective Turret
- Plano-Concave Mirror for illumination
- Stage measures 112 x 110mm
- Supplied in polystyrene pack
- Overall dimensions 175 x 125 x 325mm
- Weight approx 1.9kg

Prod. Code	Description	Price (Excl. Vat)
SCM-300	Educational Microscope	£95.00
Accessory AM-16	x16 Flatfield Eyepiece	£19.00

## ZENITH 'ULTRA-400L' & 'ULTRA-400LA' ADVANCED STUDENT MICROSCOPES

Ideal for Ordinary and Advanced Level Biology Studies. The Zenith 'ULTRA-400L' & 'ULTRA-400LA' are purpose built teaching instruments finished to a very high standard, combining excellent optical quality and a reliable, modern, user-friendly design with a mechanical construction designed to withstand the rigours of everyday heavy classroom use. Both models feature DIN Standard optics and the convenience of 'built-in' 20 watt mains illumination. 'Anti-tamper' safety features include locked-on eyepiece and stage clips, slip-clutch on the coarse focus movement to prevent over-focussing and an adjustable focus-stop to prevent damage to glass microslides and objective lenses. **Highly Recommended.**

### 'ULTRA-400L'

#### Standard Specification:-

- Magnification range x40, x100, x400
- DIN Standard, Parfocal Achromatic Objectives x4 (0.10), x10 (0.25), x40R (0.65) R = retractable
- x10 Widefield Eyepiece with Pointer, 18mm Field
- Stage Condenser (N.A. 0.65)
- Rotating 5-Hole Disc Diaphragm

### 'ULTRA-400LA'

#### Standard Specification:-

- Magnification range x40, x100, x400, x1000\* (\*x1000 magnification achievable by using optional x100R (1.25) Oil Immersion Objective)
- DIN Standard, Parfocal Achromatic Objectives x4 (0.10), x10 (0.25), x40R (0.65) R = retractable
- x10 Widefield Eyepiece with Pointer, 18mm Field
- ABBE Condenser (NA 1.25) in Spiral Focussing Mount with Iris Diaphragm



### GENERAL FEATURES (both models)

- 'Built-in' 230 Volt 20 Watt illumination, Colour Corrected with Daylight Blue Filter
- Separate Smooth-action coarse and fine focussing controls
- Triple Objective Turret
- Monocular Head Inclined 45° and rotatable through 360° for convenient viewing and a Non-Tilting Stage
- Rack & Pinion Focussing
- Solid Brass Rack and Coarse Focus Dovetail Slide
- Stage measures 120 x 114mm
- Supplied in polystyrene pack with Dust Cover
- Overall dimensions 200 x 127 x 340mm
- Weight 3.1kg

Alternate viewing position with monocular head rotated 180°

Prod. Code	Description	Price (Excl. Vat)
Ultra-400L	Advanced Student Microscope	£149.00
Ultra-400LA	Advanced Student Microscope	£178.00
SB-20	Replacement 240v 20w Bulb	£4.00

Accessories		
WF-5	x5 DIN Widefield Eyepiece	£30.00
WF-16	x16 DIN Flatfield Eyepiece	£32.00
ME-10	x10 Measuring Eyepiece	£27.50
OM-100	x100R (1.25) Oil DIN Objective*	£48.50
CT-11	Mechanical Stage	£32.00
VA-2	Teaching Head	£35.00
VA-2TV	CCTV Adaptor (Mag. x2)	£119.00

\* Suitable for Ultra-400LA only

## ZENITH BIOLAM MICROSCOPES

An excellent range of biological microscopes constructed to high optical and mechanical standards. Modular design make these instruments capable of advanced techniques including photomicrography, phase contrast and dark field work by upgrading with the wide range of optional accessories that are available.

Their reliability, versatility, excellent optical performance and exceptional value for money have made these microscopes extremely popular the world over with educationalists, medical users and amateur naturalists alike.

Finished to a very high standard, Biolam microscopes are all supplied in a high quality polished wooden carrying case with lock and key.



### ZENITH BIOLAM S-20 BIOLOGICAL MICROSCOPE

One of the most widely used microscopes ever in U.K. secondary schools for advanced level biology studies. An ABBE condenser (N.A. 1.20) with iris diaphragm is supplied as standard and the specification has now been upgraded to include a x90 oil immersion objective for high power work, at no extra charge.

#### Standard Specification:-

- Magnification range x63 - x1350
- Planachromatic objective x9 (0.20)
- Achromatic objectives x40R (0.65) and x90R (1.25) oil (R = retractable)
- Compensating eyepieces x7 and x15
- Coarse and fine focussing
- ABBE condenser (N.A. 1.20) with Iris Diaphragm and Filter Carrier (2 filters supplied) on Rack and Pinion Substage
- Non-corrosive stage 130 x 95mm
- Solid brass focussing slides
- Monocular head inclined 45°, rotatable 360°
- Quadruple objective turret
- Plano-concave mirror (illuminator optional)
- Can be fitted with mechanical stage
- Dust Cover
- High quality wooden case
- Dimensions 220 x 130 x 310mm
- Weight approx 3kg

Prod. Code	Description	Price (Excl. Vat)
S-20	Biological Microscope	£125.00

### ZENITH BIOLAM R-21 BIOLOGICAL MICROSCOPE

Identical in design and specification to the Biolam S-20, except fitted with a circular rotating, centring stage. A very useful feature for photomicrography and polarised light work. Suitable for use with the optional OI-10 bright and dark field condenser.

#### Standard Specification:-

- Magnification range x63 - x1350
- Planachromatic objective x9 (0.20)
- Achromatic objectives x 40R (0.65) and x90R (1.25) oil (R = retractable)
- Compensating eyepieces x7 and x15
- Separate coarse and fine focussing
- ABBE condenser (N.A. 1.20) with Iris Diaphragm and filter carrier (2 filters supplied) on Rack and Pinion Substage
- Circular, rotating stage, diameter 120mm, with centring screws
- Solid brass focussing slides
- Monocular head inclined 45°, rotatable 360°
- Quadruple objective turret
- Plano-concave mirror (illuminator optional)
- Can be fitted with mechanical stage
- Dust Cover
- High quality wooden case
- Dimensions 220 x 130 x 310mm
- Weight approx 3kg

Prod. Code	Description	Price (Excl. Vat)
R-21	Biological Microscope	£152.00



## ZENITH BIOLAM R-25 BIOLOGICAL MICROSCOPE

An economical alternative to a monocular instrument providing the comfort and convenience of binocular viewing. A particularly impressive feature of this model is the superbly engineered built-in mechanical stage with smooth action co-axial controls for precise specimen manipulation.

### Standard Specification:-

- Magnification Range x94.5 - x1350
- Planachromatic objective x9 (0.20)
- Achromatic objectives x 40R (0.65) and x90R (1.25) oil (R = retractable)
- Compensating eyepieces (paired) x7 and x10
- Separate coarse and fine focussing
- ABBE condenser (N.A. 1.20) with Iris Diaphragm and filter carrier (2 filters supplied) on Rack and Pinion Substage
- Heavy duty smooth action x-y mechanical stage, 115 x 135mm, with co-axial low drive controls and adjustable spring arm
- Solid brass focussing slides
- Seidentopf binocular head (mag. x1.5), inclined 45°, rotatable 360° with full inter-pupillary and dioptic adjustment
- Quadruple turret
- Plano-concave mirror (illuminator optional)
- Dust Cover
- High quality wooden case
- Dimensions 220 x 130 x 330mm
- Weight approx 4.5kg

Prod. Code	Description	Price (Excl. Vat)
R-25	Biological Microscope	£299.00



## ZENITH BIOLAM R-27 BIOLOGICAL RESEARCH MICROSCOPE

The top of the Biolam range boasts an impressive specification, with performance to match. Supplied as standard with a rotating, centring mechanical stage, two-lens aplanatic condenser, a comprehensive range of eyepieces and a set of top quality apochromatic objective lenses for superlative resolution.

### Standard Specification:-

- Magnification range x75 - x1350
- Apochromatic objectives x10 (0.30), x20 (0.65), x60R (0.7/1.0) oil with iris and x90R (1.30) oil (R = retractable)
- Compensating eyepieces (paired) x5, x7 and x10
- x7 compensating focussing micrometer eyepiece (scale & crossline)
- x15 and x20 compensating eyepieces (photographic)
- Separate coarse and fine focussing
- Two-lens aplanatic condenser (N.A. 0.3/1.40) with Rack and Pinion displacement for oblique illumination
- Fitted with filter carrier complete with four filters on Rack and Pinion Substage
- Circular rotating and centring mechanical stage, diameter 125mm
- Solid brass focussing slides
- Seidentopf binocular head (mag. x1.5), inclined 45°, rotatable 360° with full inter-pupillary and dioptic adjustment
- Quadruple turret
- Plano-concave mirror (illuminator optional)
- Vertical monocular tube & square grid eyepiece graticule
- Dust Cover
- Quality Wooden Case
- Dimensions 220 x 130 x 330mm
- Weight approx 4.5kg

Prod. Code	Description	Price (Excl. Vat)
R-27	Biological Research Microscope	£450.00

### BIOLAM ACCESSORIES

Prod. Code	Description	Price (Excl. Vat)
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#### ILLUMINATORS

SL-5	230v 15w substage illuminator	£29.50
HLS-1	6v 20w halogen illuminated base unit	£109.00
O1-35	8v 20w Koehler illuminator	P.O.A
O1-19	8v 20w high intensity bench lamp	£99.00

#### SPARE BULBS

SB-3	Replacement 230v 15w bulb for SL-5	£3.00
SB-16	Replacement 6v 20w halogen bulb for HLS-1	£6.00
SB-19	Replacement 8v 20w bulb for O1-35/O1-19	£3.50

#### OBJECTIVES

OM-3	x3.5 (0.10) Planachromatic	£26.00
OM-12	x3.7 (0.11) Achromatic	£17.00
M-42	x8 (0.20) Achromatic	£19.00
OM-2	x9 (0.20) Achromatic	£26.00
OM-27	x20 (0.40) Achromatic	£24.00
OX-1	x40R (0.65) Achromatic	£29.00
OM-23	x40 (0.75) Water immersion achromatic	£28.00
OM-43	x85 (1.0) Water immersion achromatic	£59.00
OM-41	x90R (1.25) Oil immersion achromatic	£29.00
OM-18	x10 Apochromatic (N.A. 0.30)	£42.00
OM-21	x20 Apochromatic (N.A. 0.65)	£53.00
OM-16	x40 Apochromatic (N.A. 0.95)	£64.00
OM-15	x60 O.I. Apochromatic (N.A. 0.8-1.0)	£82.00
OM-25	x70 W.I. Apochromatic (N.A. 1.23)	P.O.A
OM-20	x90 O.I. Apochromatic (N.A. 1.30)	£85.00

### BIOLAM ACCESSORIES

Prod. Code	Description	Price (Excl. Vat)
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#### EYEPIECES

WF-5	x5 DIN Widefield	£30.00
AM-12	x5 Compensating	£15.00
AM-13	x7 Compensating	£14.00
WF-10	x10 DIN Widefield	£29.00
AM-14	x10 Compensating	£15.00
AM-27	x15 Compensating	£14.00
WF-16	x16 DIN Flatfield	£32.00
ME-7	x7 Focussing Micrometer (Scale and Crossline)	£18.00
ME-10	x10 Measuring Eyepiece	£27.50

#### ATTACHMENTS

CT-12	Mechanical stage with Vernier	£45.00
AY-14	x10 dual viewing eyepiece with pointer (teacher/pupil)	£45.00
PA-3	Polariser & analyser (S-20 & R-21 models only)	£32.00
KF-4	Phase contrast outfit (4x objs, condenser, scope and filter)	£159.00
VA-3TV	CCTV adaptor (x1 magnification)	£85.00
MFN-11	Trinocular head (SLR) with magnification changer	£175.00
AY-12	Seidentopf binocular head complete with x7 & x10 eyepieces	£120.00
VA-1	Vertical Monocular Tube	£19.00
CA-3	Camera Adaptor (M42)	£29.00
O1-14	Aplanatic condenser (N.A. 0.3/1.40)	£45.00
O1-13	Dark field O.I. condenser	P.O.A
O1-10	Bright and darkfield condenser (R-21 only)	£55.00



## ZENITH 'ULTRA-500LA' BINOCULAR LABORATORY MICROSCOPE

The ZENITH 'ULTRA-500LA' is a full sized laboratory-standard binocular instrument of modern design, robust reliable construction and high optical performance. Ideal for use in Schools, Colleges, Field Study Centres and professional laboratories over a wide range of biological, medical, bacteriological and agricultural applications.

A comprehensive range of optional accessories are available enabling the microscope to be upgraded to meet specific user requirements.

Prod. Code	Description	Price (Excl. Vat)
Ultra-500LA	Binocular Laboratory Microscope	£425.00
SB-25	Replacement 6v 20w Halogen Bulb	£6.00
<b>Accessories</b>		
WF-5	x5 DIN Widefield Eyepiece	£30.00
WF-16	x16 DIN Flatfield Eyepiece	£32.00
ME-10	x10 Measuring Eyepiece	£27.50
OMC-27	x20 DIN Achromatic Objective	£35.00
OM-50	x50 (1.0) DIN O.I. Achromatic Objective	£145.00
PL-4	x4 DIN Planachromatic Objective	£35.00
PL-10	x10 DIN Planachromatic Objective	£62.00
PL-25	x25 DIN Planachromatic Objective	£75.00
PL-40	x40R DIN Planachromatic Objective	£88.00
PL-100	x100R (Oil) DIN Semi-Plan. Objective	£76.00
TH-2	Trinocular Attachment	£149.00
CA-5	x4 Camera adaptor (for use with TH-2)	£45.00
VA-5TV	CCTV Adaptor (for use with TH-2)	P.O.A
KF-10	Phase Contrast Apparatus	P.O.A
DF-1	Darkfield Stop	£12.00
BS-2	Plano-concave Mirror in Mount	£19.00

### Standard Specification:-

- Magnification range x40 -x1000 (x1600 magnification achievable by using optional x16 DIN flatfield eyepieces)
- Paired x10 DIN standard high eyepoint widefield eyepieces, field 18mm
- DIN standard Parfocal, Parcentred achromatic objectives x4 (0.10), x10 (0.25), x40R (0.65) and x100R (1.25) Oil immersion (R = retractable)
- Bright field ABBE condenser (N.A. 1.25) with Iris Diaphragm and filter carrier on fully focussing Rack and Pinion Substage • Built-in 230volt, 6v 20w halogen illumination with continuously variable rotary brightness control
- Co-axial coarse and fine focussing with indexed scale and adjustable focus-tension
- Adjustable Focus-stop to prevent damage to glass microslides and objective lenses
- Smooth-action x-y mechanical stage 125 x 130mm with co-axial drop controls and an adjustable spring arm to accommodate slides of different sizes
- Seidentopf binocular head, magnification x1, inclined 30°, rotatable 360° with full interpupillary adjustment
- Quadruple objective turret on sealed ball-bearing race • Complete with Dust Cover
- Supplied in polystyrene pack
- Dimensions 215 x 170 x 360mm
- Weight approx 6.5kg

Illustration shows alternate viewing position with Binocular Head rotated 180°





## ZENITH EC BIMAM R-13 BINOCULAR RESEARCH LABORATORY MICROSCOPE:-

The **EC BIMAM R-13** is a high performance compound laboratory microscope of modern and ergonomic design. It is intended for use for routine investigations and laboratory diagnoses over a wide range of educational, medical and research applications.

The **EC BIMAM R-13** provides exceptional optical performance through the use of new enhanced image contrast multi-coated achromatic lenses providing excellent resolution and a wider, flatter field of view. It has been precision engineered to create a user-friendly design that is extremely robust and reliable with highly accurate functionability of mechanical parts and units. A truly superb scientific instrument.  
**Highly Recommended.**



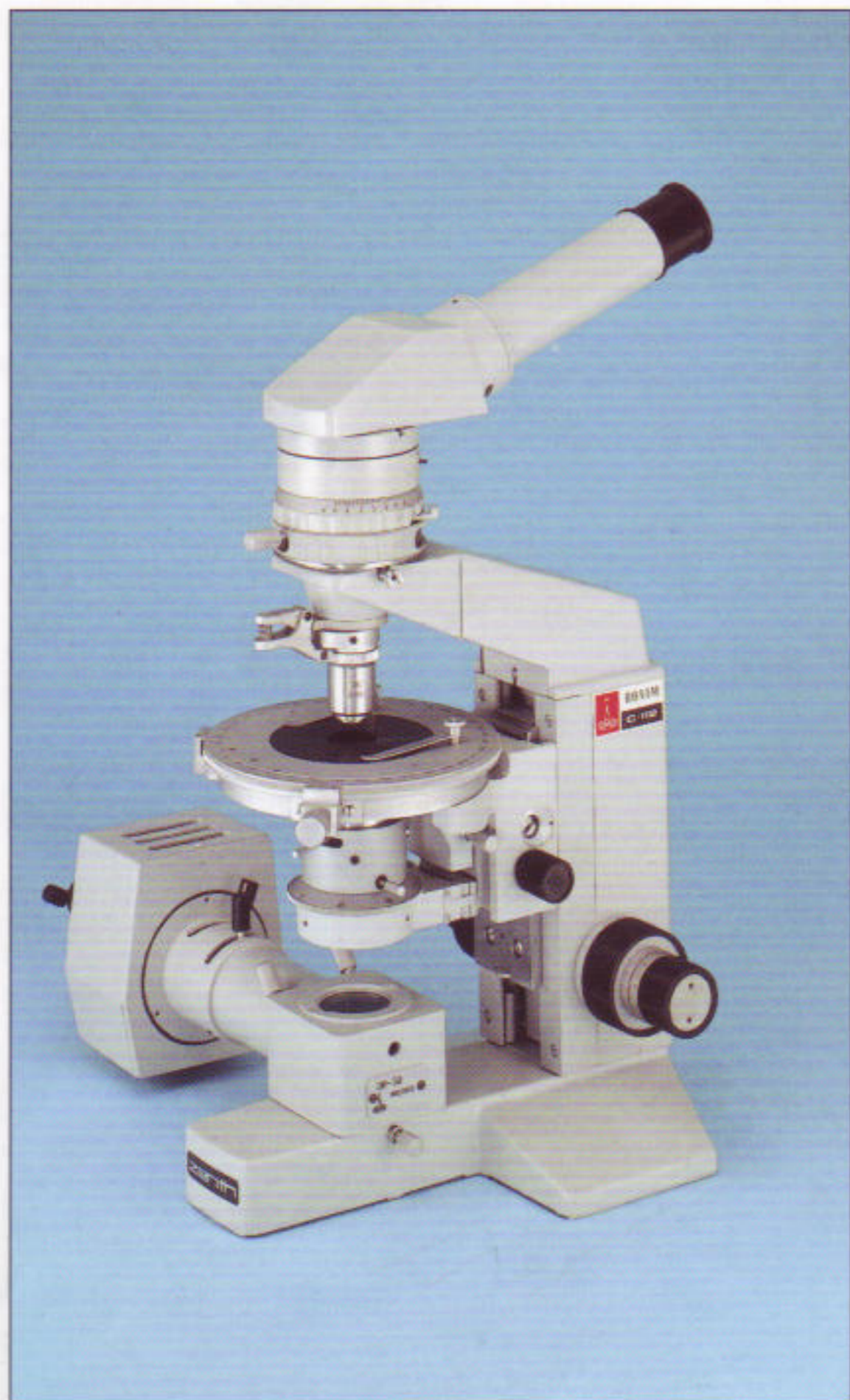
Prod. Code	Description	Price (Excl. Vat)
Bimam R-13	Laboratory Research Microscope	£799.00
SB-20H	Replacement 6v 20w Halogen Bulb	£9.00
Accessories		
WF-5	x5 DIN Widefield Eyepiece	£30.00
WF-16	x16 DIN Flatfield Eyepiece	£32.00
ME-10	x10 Measuring Eyepiece	£27.50
OM-50	x50 (1.0) DIN O.I. Achromatic Objective	£145.00
KF-20	Phase Contrast Apparatus	P.O.A
MFN-11	Trinocular Attachment	£175.00
VA-6TV	CCTV Adaptor (Mag. x1)	£89.00



### Standard Specification :-

- Magnification range: x40 - x1500
- Paired Widefield Eyepieces x10, Field 18mm, High Eyepoint, with Rubber Eyecups, also paired x15 compensating.
- DIN Standard, Parfocal, Parcentered Achromatic Objectives x4 (0.12), x10 (0.30), x25 (0.50), x40R (0.65) & x100R (1.25) Oil Immersion. (R = retractable)
- Bright Field Aplanatic Condenser (N.A. 0.9) with Iris Diaphragm and Flip-Top Lens in Fully Centring Ackhurst Mount. • Fully focussing Rack and Pinion Substage
- Built-in 230 volt, 6v 20w KOEHLER Halogen illumination with Iris Diaphragm and Field Lens. Rheostat Controllable Light Intensity. Integral Transformer
- Ultra-smooth Co-Axial coarse & fine focussing with indexed scale
- Mechanical Stage 160 x 140mm (x-y movement) with Co-Axial Low Drive Controls and Ultra-Smooth Cross Bearing movement & fully graduated Vernier scale
- Seidentopf Binocular Head, High Contrast, magnification x1, Inclined 30°, Rotatable 360°. Adjustable Inter-Pupillary Distance 54-75mm, +/- 5 dioptres.
- Quadruple Objective Turret on Ball Bearing Race
- Complete with Set of Six Light Filters • Supplied In Wooden Packing Cases
- Dimensions approx 343 x 200 x 418mm • Weight approx 10kg

Illustration shows EC Bimam R-13 fitted with optional MFN-11 Trinocular attachment.



**ZENITH POLAM C-112 POLARISING MICROSCOPE**

The Polam C-112 is a high specification polarising instrument designed for the examination of crystalline and other transparent specimens in transmitted polarised light. Widely used for teaching purposes in mineralogy, petrography, crystallography with wide applications in biology, chemistry, medicine and other fields of science & technology.

**Standard Specification :-**

- Magnification range x26.4 - x720
- Planachromatic objectives x3.5 (0.10) and x9 (0.20)
- Achromatic objectives x20 (0.40), x40R (0.65) and x60R (0.85) (All objectives are strain-free in individual centring mounts)
- Focussing micrometer eyepieces supplied x6.3 (crossline & interchangeable square grid graticule), x10 widefield (crossline) and x10 widefield (scale & crossline)
- Two-lens condenser N.A. 0.85 & 0.3
- Focussing Bertrand lens in swing-out mount
- Single nosepiece
- Circular stage rotatable 360° marked in 10° divisions
- 8v 20w Koehler illumination
- Separate transformer with brightness control
- Co-axial coarse & fine focussing
- Monocular head inclined 30° with Iris Diaphragm
- Polariser & analyser in mounts
- Quartz compensating wedge
- Quartz compensating plate
- Two eyepiece pinhole diaphragms
- Blue and ground glass filters
- Plano-concave substage mirror
- Complete with Dust Cover
- Accessories supplied in Polished Wooden Cases
- Overall dimensions 420 x 320 x 330mm
- Weight approx 7kg

Prod. Code	Description	Price (Excl. Vat)
C-112	Polam Polarising Microscope	£850.00
SB-19	Replacement 8v 20w Bulb	£3.50

**ZENITH EC METAM RV-21 INVERTED METALLURGICAL MICROSCOPE (with Differential Interference Contrast)**

Designed for the visual observation of the micro-structure of metals, alloys, gemstones and other opaque and semi-transparent specimens in bright and dark field illumination, bright and dark field polarised light and also by way of the Differential Interference Contrast (D.I.C.) method.

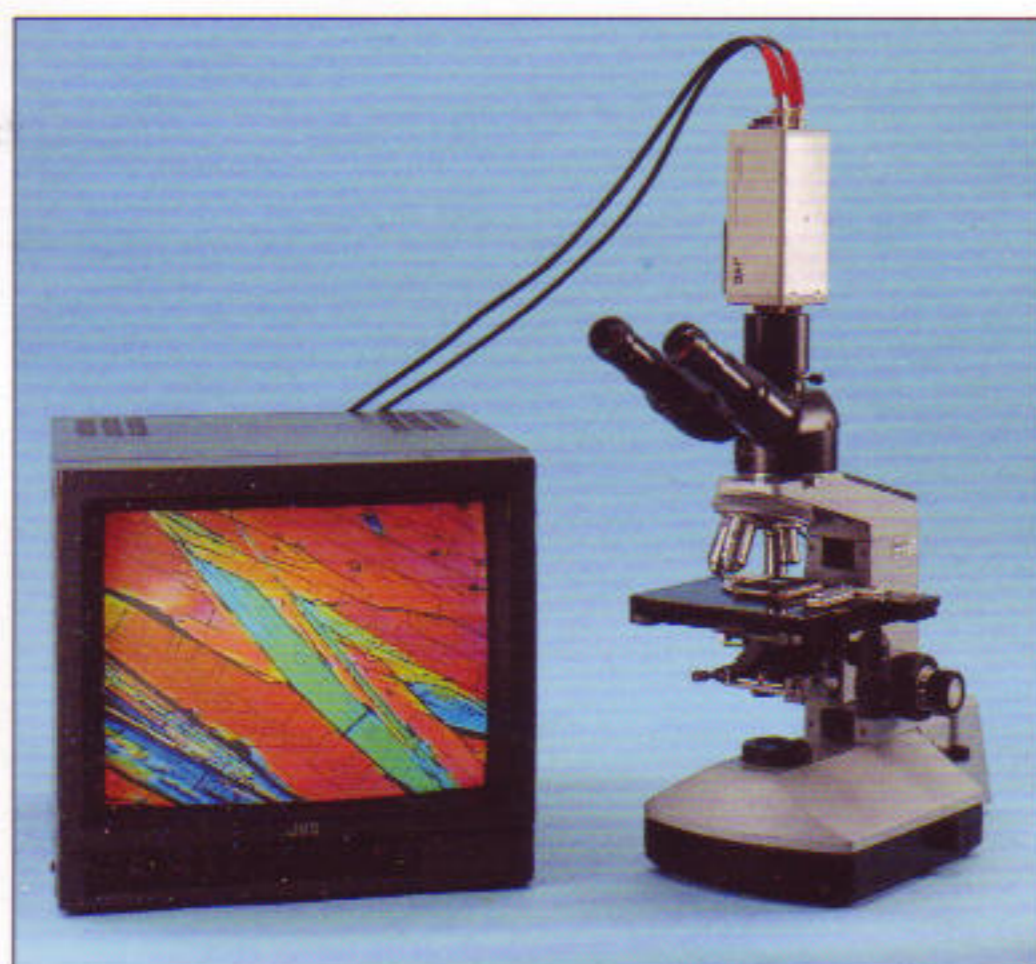
A high specification instrument suitable for use in higher education establishments, research institutes, metallurgical laboratories with wide applications in industry.

**Standard Specification:**

- Magnification range (Bright-field) x80-x1000
- Magnification range (Dark-field & D.I.C.) x80-x500
- Plan-Epiobjectives x8 (f = 25mm), x12.5 (f = 16mm) & x31.7 (f = 6.3mm)
- Plan-Apochromatic objective x50 (f = 4mm)
- Compensating eyepieces (paired) x10 (1x plain, 1x micrometer), x12.5 & x20
- Differential Interference Contrast (D.I.C.) module
- Co-Axial coarse & fine focussing with indexed scale
- Large x-y movement mechanical stage 200 x 190mm with smooth action co-axial low drive controls
- Three variable aperture metal stage plates
- Quadruple objective turret
- Polariser, analyser & yellow light filter
- 1 mm stage micrometer in 0.005mm divisions
- 8v 20w reflected light illuminator with centring screws
- Separate 8v 20w transformer with brightness control
- Rubber vibration suppression mat
- Dimensions 370 x 290 x 280mm
- Dust Cover
- Weight approx 8kg.

Prod. Code	Description	Price (Excl. Vat)
RV-21	Inv Metallurgical Microscope	£850.00
SB-19	Replacement 8v 20w Bulb	£3.50





## JVC / ZENITH EC BIMAM R-13 SUPER HIGH RESOLUTION VIDEO MICROSCOPY SYSTEM (Product Code: VS-1)

### Complete System Comprises:-

- ZENITH EC BIMAM R-13 Binocular Research Laboratory Microscope (as described on page 9)
- JVC TK-1280E super high resolution 1/2" Colour CCTV Camera (460 lines horizontal resolution)
- JVC TM-1500E super high resolution 15" Colour Monitor (450 lines horizontal resolution)
- MFN-11 Trinocular Head with magnification changer
- CCTV Adaptor (magnification x1 approx)
- ACC-624 230V ac/24V dc Power Supply Unit
- 2 metre BNC Lead

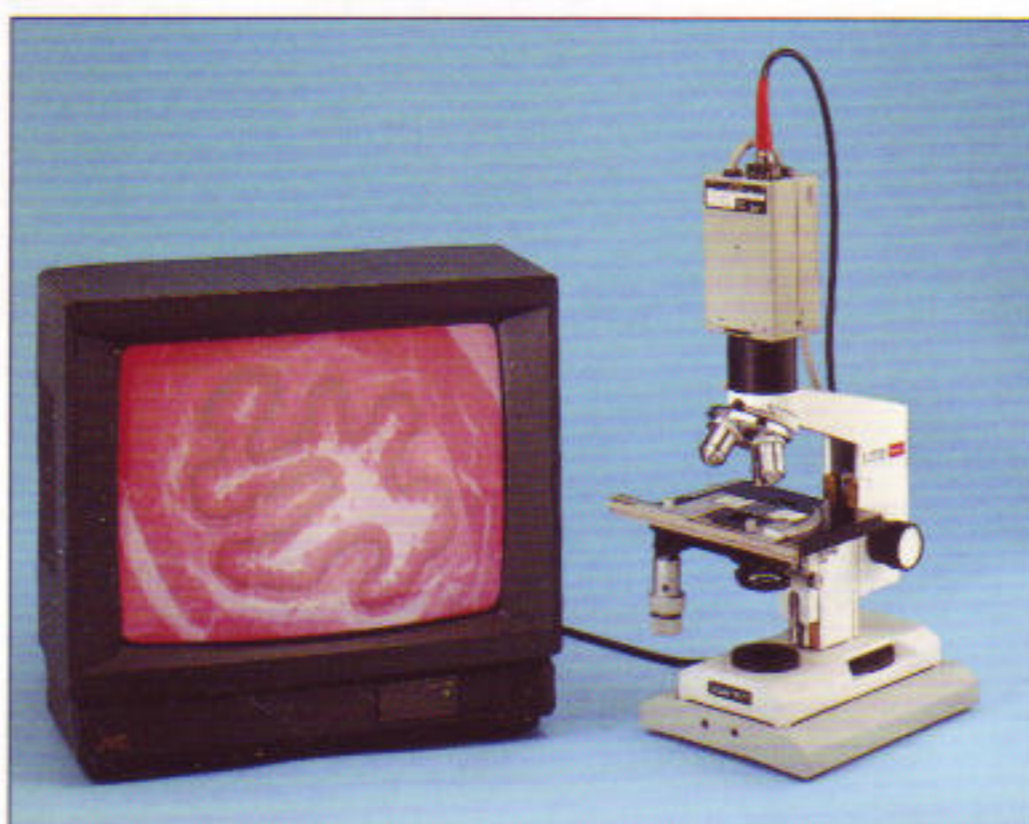
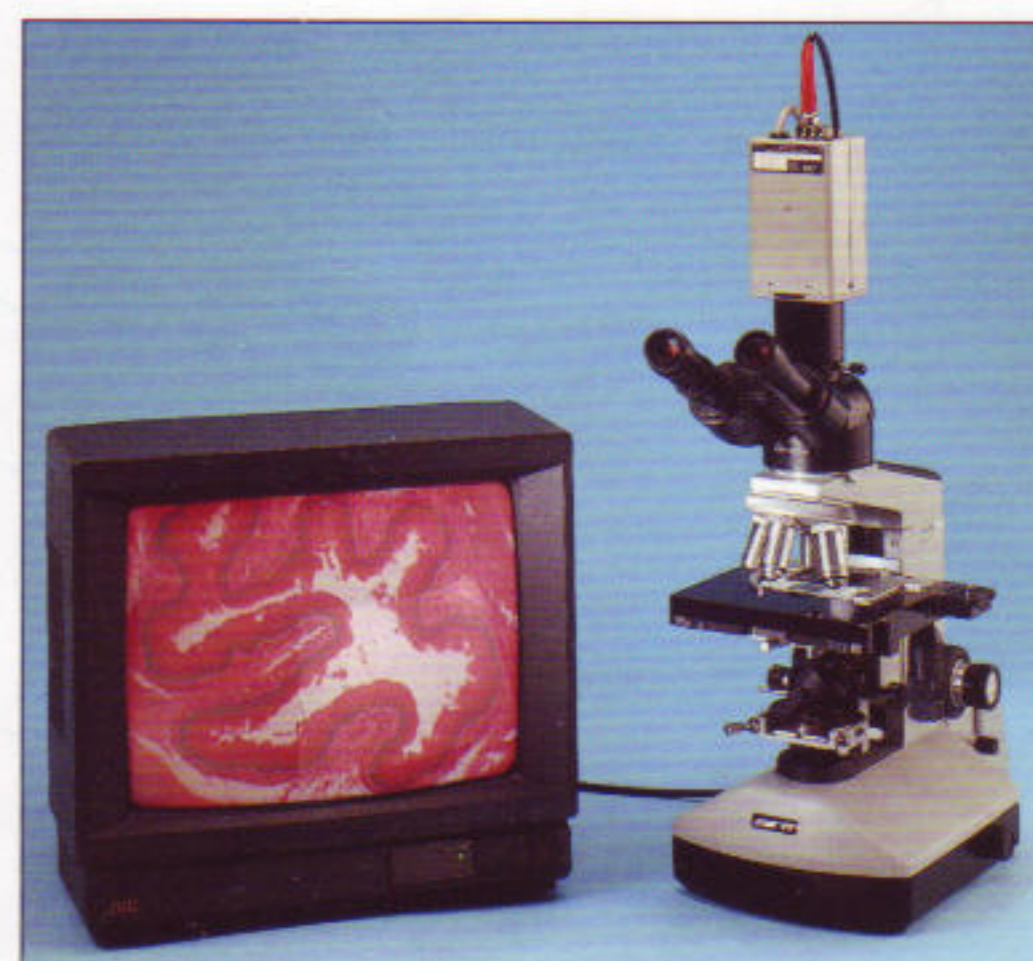
Prod. Code	Description	Price (Excl. Vat)
VS-1	Video Microscopy System	£2850.00

## JVC / ZENITH EC BIMAM R-13 HIGH RESOLUTION VIDEO MICROSCOPY SYSTEM (Product Code: VS-2)

### Complete System Comprises:-

- ZENITH EC BIMAM R-13 Binocular Research Laboratory Microscope (as described on page 9)
- JVC TKC-600 1/3" Colour CCTV Camera (330 lines horizontal resolution)
- JVC TM-14EKB 14" Colour Monitor (320 lines horizontal resolution)
- MFN-11 Trinocular Head with magnification changer
- CCTV Adaptor (magnification x1 approx)
- PSU-446 230V ac/12V dc Power Supply Unit
- 2 metre BNC Lead

Prod. Code	Description	Price (Excl. Vat)
VS-2	Video Microscopy System	£1950.00



## JVC / ZENITH BIOLAM R-25 VIDEO MICROSCOPY SYSTEM (Product Code VS-3)

### Complete System Comprises:-

- ZENITH BIOLAM R-25 Binocular Biological Microscope (as described on page 7)
- JVC TKC-600 1/3" Colour CCTV Camera (330 lines horizontal resolution)
- JVC TM-14EKB 14" Colour Monitor (320 lines horizontal resolution)
- HLS-1 6V 20W Halogen Illuminated Base Unit
- CCTV Adaptor (magnification x1 approx) designed for on-screen focussing
- PSU-446 230V ac 12V dc Power Supply Unit
- 2 metre BNC Lead

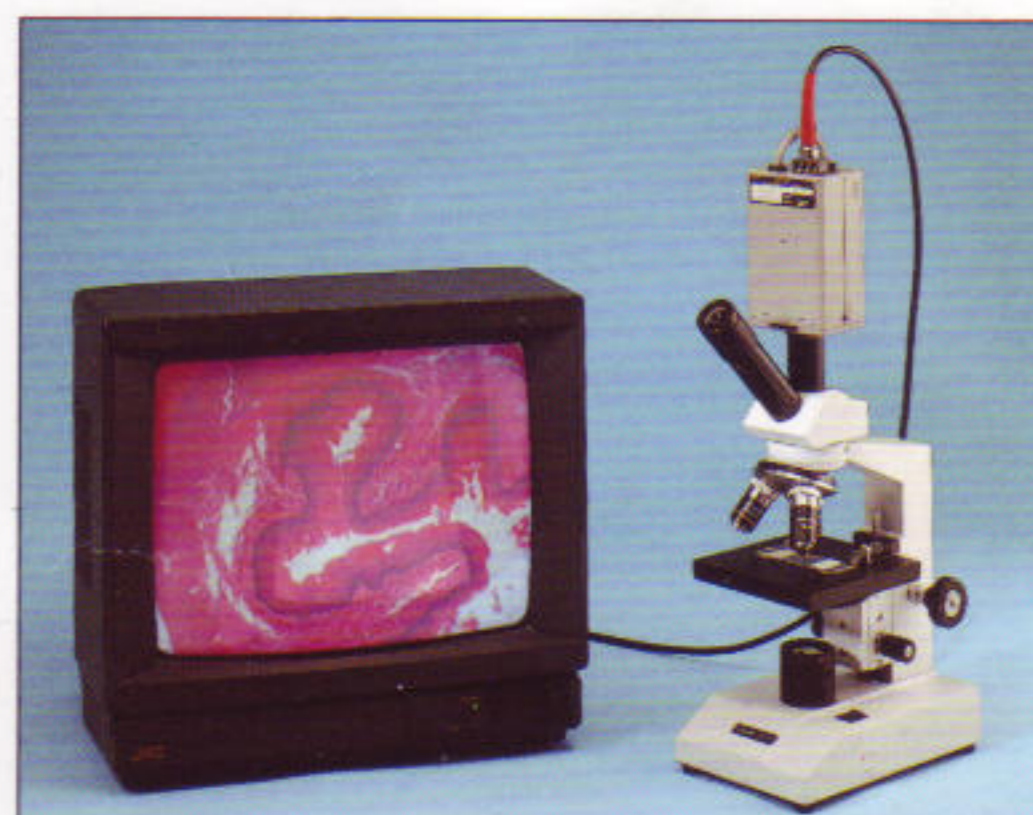
Prod. Code	Description	Price (Excl. Vat)
VS-3	Video Microscopy System	£1495.00

## JVC / ZENITH 'ULTRA-400L' VIDEO MICROSCOPY SYSTEM (Product Code: VS-4)

### Complete System Comprises:-

- ZENITH 'ULTRA-400L' Advanced Student Microscope (as described on page 5)
- JVC TKC-600 1/3" Colour CCTV Camera (330 lines horizontal resolution)
- JVC TM-14EKB 14" Colour Monitor (320 lines horizontal resolution)
- CCTV Adaptor (magnification x2 approx) with monocular viewing
- PSU-446 230V ac/12V dc Power Supply Unit
- 2 metre BNC Lead

Prod. Code	Description	Price (Excl. Vat)
VS-4	Video Microscopy System	£1295.00



## HOW TO ORDER

Orders should be sent to:-

**Technical & Optical Equipment (London) Limited**  
Zenith House, 69 Lawrence Road, Tottenham, London N15 4TG  
Telephone No: 0181-802 1155 Fax: 0181-809 0556 Telex: 261874G

Orders may be placed by telephone, post or fax. When ordering please state clearly the product code and the quantity of the item/s you wish to order, your order reference, and the address to where the goods and invoice should be sent. Please also give a telephone number and contact name, should we have any queries.

### Payment Terms

All Educational Establishments and Government Departments have automatic account facilities with us (30 day nett account). Non-account customers should make payment on a cheque with order basis. Cheques should be made payable to TOE (London) Ltd.

### Price Validity

Every effort will be made to maintain prices within this catalogue until 31st March 1997. We do however reserve the right to amend certain prices before this date should circumstances dictate.

### Delivery Terms

Goods are normally delivered within one week of orders being received. Goods are delivered Free of charge to any UK address. You will also be pleased to note we do not have a minimum order quantity.

### Need Any Advice

Should you have any queries or need advice on any of our products, please do not hesitate to contact us on 0181-880 1292. Our office hours are 9am to 5pm Monday to Friday.  
(Closed 1-2pm for lunch)

### Demonstrations

Microscope demonstrations can usually be arranged either through our UK Dealer Network, Team of Representatives or by the supply of a demonstration sample. Please telephone us on 0181-880 1292 if a demonstration is required.



Imported and distributed by:-

### **Technical and Optical Equipment (London) Ltd**

Zenith House, 69 Lawrence Road, Tottenham, London N15 4TG, England

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