
STEREO ZOOM MICROSCOPE WITH BUILT-IN 2.0 MEGAPIXEL DIGITAL CAMERA

MODEL TS-02000 *See illustration on page 4*

THE MICROSCOPE

The convenience and versatility of viewing large picture at 10x magnification, then zooming continuously all the way to close-up detail at 40x magnification. Upright, unreversed 3-dimensional image remains in focus throughout zoom range. Superb optical clarity and reliable mechanical engineering assure years of top performance. Built in high-resolution digital camera offers 2.0 megapixel live image resolution at 1600x1200. Supplied with Motic Images 2.0ML software, which allows the user to view, capture, label, manipulate, and measure images. This microscope is fully functional, independent of camera application.

OPTICAL SYSTEM

- Paired widefield 10x eyepieces are 45° inclined, with dual diopter adjustments, interpupillary adjustment from 55mm to 75mm.
- Achromatic, color corrected lenses.
- Continuous magnification from 10x thru 40x. See specification chart for full range available with use of optional auxiliary lenses.

ILLUMINATION

- Top light is 12v 15 watt halogen, bi-pin with directional beam and rheostat control.
- Bottom light is 12v 10 watt halogen, bi-pin.
- Base mounted light controls permit choice of top only, bottom only, or dual illumination.
- 12v DC power converted operates on 100v-240v 50Hz/60Hz current, without need of additional transformer.
- 2.5 amp time delay fuse.

FOCUSING

- Large dual focusing knobs with slip clutch to prevent damage to mechanism.
- Tension adjustment eliminates focus "drift".

STAGE

- Large 165mm wide x 220mm deep stage surface.
- Two 80mm stage plates (frosted glass and reversible black/white plastic contrast plates).
- Blue filter for transmitted light.
- Locked on stage clips.

FRAME

- Professional, all-metal frame, gray enamel finish.
- Heavy-duty post mount with locking support collar, permits up or down adjustment of viewing head to accommodate different sized objects on stage.
- Height: 330mm (13 in.) extends to 433mm (17 in.) for larger objects.
- Net wt. 5.1 kgs (11.2 lbs)

ACCESSORIES

- Calibration slides.
- "L" hex-key wrench.
- USB 2.0 PCI card with CD.

PACKING

- Molded styrofoam container with rubber eyeshields, vinyl dustcover and instruction manual.
- Continued on page 2*

MODEL TS-02000
 Stereo Zoom Microscope with Built-In Digital Camera
 Page 2 of 4

PACKAGING (cont.)

- Individual: Ship wt. 8.2 (18 lbs), Dimensions 450x425x275mm (18x17x11 in.)
- Master carton pack 1 each: Ship wt. 8.2 kgs (18 lbs), Dimensions 450x425x275mm (18x17x11 in.)

MODEL TS-02000 OPTICAL SPECIFICATIONS

Eyepieces	Zoom Objective Position	Standard Objective 1X (supplied)		Auxiliary Objective 0.5X (Optional)		Auxiliary Objective 0.75X (Optional)		Auxiliary Objective 1.5X (Optional)	
		Working Distance - 79mm		Working Distance - 137mm		Working Distance - 90mm		Working Distance - 34mm	
		Total Magnification	Field Size	Total Magnification	Field Size	Total Magnification	Field Size	Total Magnification	Field Size
WF5X Field No. 22 (Optional) (No Reticle Holder) Interpupillary Distance 59~83	1X	5X	22mm	2.5X	44mm	3.75X	29.3mm	7.5X	14.7mm
	2X	10X	11mm	5X	22mm	7.5X	14.6mm	15X	7.3mm
	3X	15X	7.3mm	7.5X	14.7mm	11.25X	9.8mm	22.5X	4.9mm
	4x	20X	5.5mm	10X	11mm	15X	7.3mm	30X	3.7mm
WF10X Field No. 20 (Supplied) Accepts Reticle 23mm O.D. Interpupillary Distance 54~78	1X	10X	20mm	5X	40mm	7.5X	26.7mm	15X	13.3mm
	2X	20X	10mm	10X	20mm	15X	13.3mm	30X	6.7mm
	3X	30X	6.7mm	15X	13.3mm	22.5X	8.9mm	45X	4.4mm
	4x	40X	5mm	20X	10mm	30X	6.7mm	60X	3.3mm
WF15X Field No. 13 (optional) (No Reticle Holder) Interpupillary Distance 50.5~74.5	1X	15X	13mm	7.5X	26mm	11.25X	17.3mm	22.5X	8.7mm
	2X	30X	6.5mm	15X	13mm	22.5X	8.7mm	45X	4.3mm
	3X	45X	4.3mm	22.5X	8.7mm	33.75X	5.8mm	67.5X	2.9mm
	4x	60X	3.25mm	30X	6.5mm	45X	4.3mm	90X	2.2mm
WF20X Field No. 10 (optional) (No Reticle Holder) Interpupillary Distance 52~76	1X	20X	10mm	10X	20mm	15X	13.3mm	30X	6.7mm
	2X	40X	5mm	20X	10mm	30X	6.7mm	60X	3.3mm
	3X	60X	3.3mm	30X	6.7mm	45X	4.4mm	90X	2.2mm
	4x	80X	2.5mm	40X	5mm	60X	3.3mm	120X	1.7mm
Model	Specimen Height		Specimen Height		Specimen Height		Specimen Height		
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	
TS-02000	0.0mm	93mm	0.0mm	19mm	0.0mm	66mm	0.0mm	120mm	

Continued on page 3

MICROSCOPE PARTS & ACCESSORIES

S-05210	WF5X Eyepieces
S-05505	WF15X Eyepieces
S-05510	WF20X Eyepieces
S-05120	Auxiliary 0.5x objective lens
S-05121	Auxiliary 0.75x objective lens
S-05122	Auxiliary 1.5x objective lens
S-05708	Replacement bulb, bottom light, 12v 10 watt halogen bi-pin
S-05713	Replacement bulb, top light, 12v 15 watt halogen bi-pin
S-05565	Ring light adapter, O.D. 54.5mm (permits mounting auxiliary ring light on objective pod)

THE CAMERA

SPECIFICATIONS – DIGITAL MICROSCOPE TS-02000
 USB 2.0 Digital Camera

	USB 2.0 (digital signal)
Image device	½ inch CMOS
Effective pixels	1600x1200
Framed resolution	1600x1200 pixels
White balance	Auto white balance
B.L.C.	Back light compensation (auto)
Power supply	5v self powered from computer USB

System Requirements

Operating System	Windows XP or above. OSX
Computer Requirements	CPU 1 GHz or above, RAM 512 MB, Video card: 128 MB, USB 2.0
Menu on monitor	Pull-down menus for opening, storing, printing, print preview, regulator for brightness, color, gamma correction. Icons for recording, image interpolation, switching between large and small image, image quality, automatic and manual white balance.
Image data	Automatic reference number, date, time
Interactive adjustment	Color, brightness, contrast
Import of stored data	Possible

Environmental conditions

Operating temperature	-50°F to +120°F
Storage temperature	-70°F to +140°F
Relative humidity	40% to 95%

MICROSCOPE WARRANTY:

- Lifetime limited warranty on microscope portion, excluding bulb and cords.

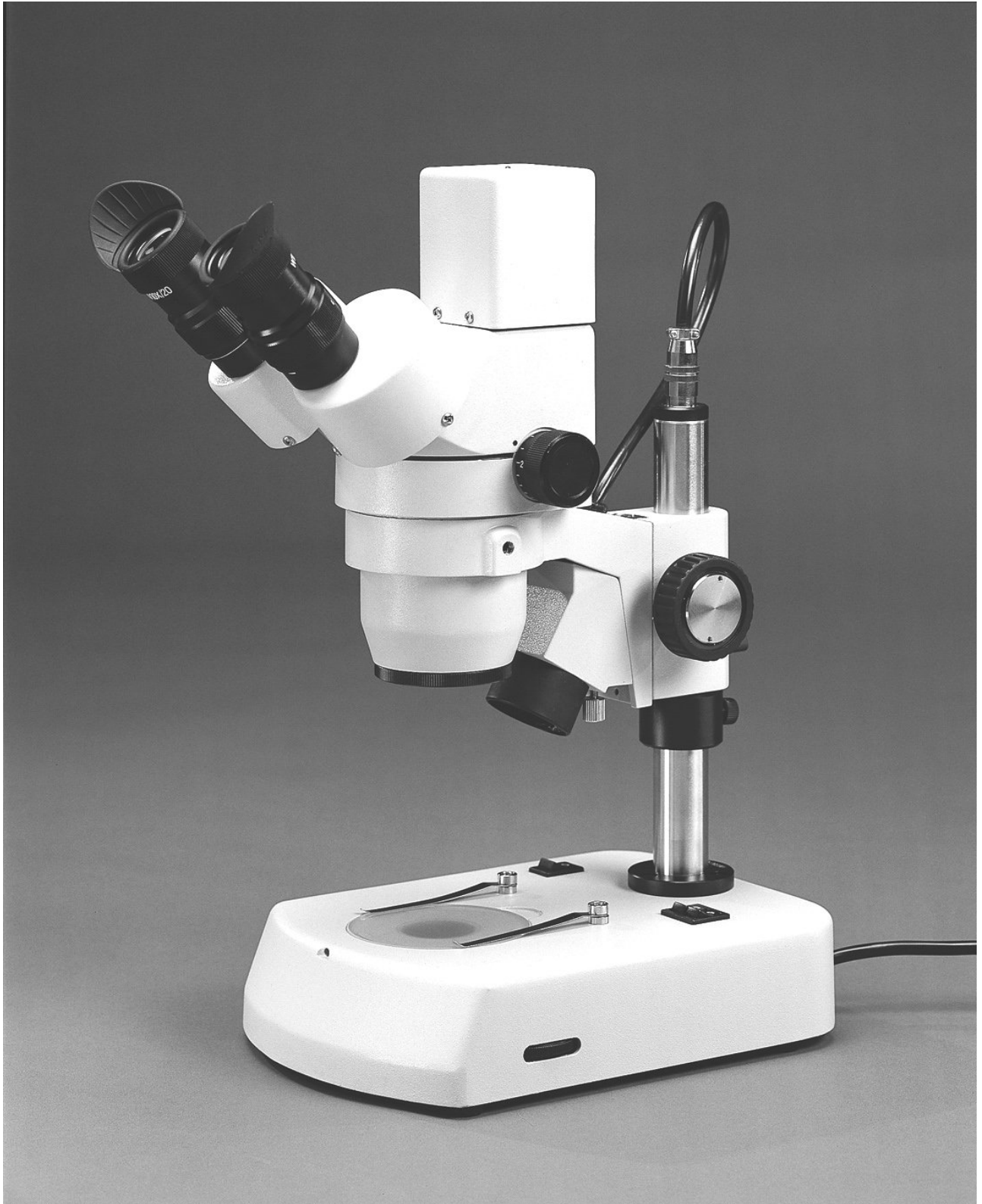
CAMERA WARRANTY:

- 1-year limited warranty

SOFTWARE WARRANTY:

- 90-day limited warranty.

MODEL TS-02000
Stereo Zoom Microscope with Built-In Digital Camera
Page 4 of 4



MODEL TS-02000