



NATIONAL MODEL DC-128 COMPOUND BIOLOGICAL MICROSCOPE WITH BUILT-IN DIGITAL CAMERA

See illustration on page 4.

THE MICROSCOPE

This compound microscope and digital camera combination includes a 100x oil immersion lens, 1.25 N.A. Abbe condenser, and a rechargeable LED illumination system. The quality .3 megapixel digital camera and included Motic Educator Software can be used on both PC and Mac computers.

OPTICAL SYSTEM

- Widefield 10x eyepiece with pointer.
- 45° inclined monocular viewing head.
- DIN standard 4x (0.10 N.A.), 10x (0.25 N.A.), and 40xR (0.65 N.A.) objectives are supplied for 40x, 100x and 400x magnification. Also included is a 100xR (1.25 N.A.) oil immersion lens. All are achromatic, parfocaled, parcentered and color-coded.
- 4-hole objective turret with click-stops, ball-bearing mounted for smooth, precise changes in magnification.

ILLUMINATION

- LED illumination rated up to 100,000 hours life, with light output equal to a 20 watt tungsten bulb, totally heat free.
- Rechargeable AA nickel metal hydride batteries can be recharged up to 1000 times, with each 8 hour charge providing up to 50 hours of operation, totaling 40-50,000 hours use from each set of 3 batteries.
- Included recharger shuts off when batteries are fully charged, eliminating the danger of overcharging and shortening battery life. Microscope can be used during recharging, or recharger can remain plugged-in for conventional use.
- Rheostat light intensity control with separate on/off switch.

FOCUSING

- Separate low position coarse and fine focusing controls.
- Stage moves up or down, eyepiece and body remain fixed.
- Slip clutch prevents damage to focusing system.
- Tension adjustment eliminates stage drift.
- Safety rack stop prevents damage to slides and objective lenses.

STAGE

- Large 120mm x 120mm (4-3/4 in. x 4-3/4 in.) graduated mechanical stage, with a professional quality low profile specimen holder and low-position coaxial x-y controls.
- 1.25 N.A. Abbe condenser with spiral focusing mount, iris diaphragm, built-in swing-out frosted glass filter.

FRAME

- Rugged cast metal, gray enamel finish.
- Height 340mm (13-3/8 in.). Net wt. 3.8 kgs (8.4 lbs).

ACCESSORIES

- Calibration slides.
- USB cable.

PACKING

- Molded styrofoam container with instruction brochure, vinyl dustcover.
- Individual: Ship wt. 5.14 kgs (11.3 lbs), Dimensions 457x381x254mm (18x15x10 in.).
- Master carton pack 2 each: Ship wt. 10.7 kgs (23.5 lbs), Dimensions 482x533x406mm (19x21x16 in.).

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WARRANTY

- Lifetime limited warranty on microscope portion, excluding LED, batteries and recharger.

MICROSCOPE PARTS & ACCESSORIES

- 610-045 WF10X Eyepiece
- 610-045R WF10X eyepiece w/reticle, 10mm/100div.
- 800-001 Replacement LED Light
- 802-003 Auto cut-off recharger for rechargeable LED microscope.
- 975-001 Carrying case, anodized aluminum, fabric lining, accessory pockets, Velcro straps, & keyed lock

THE CAMERA

This model permits hook-up to computer with supplied USB cable. Easy-to-use software for capturing microscope images, labeling, measuring, storing, and e-mailing. Requires a PC with Windows 98 or above.

SPECIFICATIONS – NATIONAL DIGITAL MICROSCOPE #DC-128
 (USB port, digital signal for use with computer only)

	USB 1.0/1.1 (digital signal)
Image device	1/4 in. interline CCD
Effective pixels	659 x 494
Framed resolution	640 x 480 pixels
Electronic shutter	8-15 frames/sec
Sync System	N/A
Audio output	Transmission across Image 2000 direct into memory of PC
White balance	Auto white balance
B.L.C.	Back light compensation (auto)
Minimum illumination	5 Lux (F:1.4)
Data transfer	7.5 MB/second
Color Image	Take-up time below one second
Color depth	24 bit (16.7 million colors)
Electronic shutter	--
Power supply	5v self powered from computer USB
Consumption	250mA
Data format	BMP, JPG, MIG (for recording)

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System Requirements

Operating System	Windows 98 or above; Mac 9.x, OSX.
Computer Requirements	Intel Pentium, CPU 200 Mhz or above, 128 MB RAM or above, 200 MB hard disk or above, CD-ROM drive, USB plug, sound card, speaker and microphone for video and audio recording, a modem or network card for e-mail, video conference and video mail.
Immediate Printout	On printer
Position and size of image on monitor	Freely definable
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 +150°F
Storage temperature	-50°F to +175°F
Relative humidity	40% to 95%

CAMERA WARRANTY:

- 1-year limited warranty

SOFTWARE WARRANTY:

- 90-day limited warranty.



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the
microscope  *depot*

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Subject to changes in material and design, equal to or exceeding those described above.