



NATIONAL

National Optical & Scientific Instruments, Inc.
A Member of the Motic Group

MODEL 132, 132-CLED Dual Head Compound Microscope

Superior DIN optical system combined with LED illumination...delivers higher light efficiency than standard 20 watt tungsten bulb and assures cool operating temperature. Dual viewing head permits simultaneous viewing by student and teacher, and is also ideal for video microscopy. A very versatile microscope recommended for instruction through grade 12.

OPTICAL SYSTEM

- Widefield 10x eyepiece with revolving pointer. Accepts optional #965-160 eyepiece reticle.
- Vertical and 30° inclined tubes mounted on 360° rotating head for ease of use.
- DIN standard, achromatic, parfocalled, parcentered, and color-coded: 4x (0.10 N.A.), 10x (0.25 N.A.), and 40xR (0.65 N.A.) objectives.
- Vertical tube has diopter adjustment, positioned low for easier camera mounting, using optional accessory #930-028 video c-mount.
- 3-hole objective turret, ball-bearing mounted for smooth, precise changes in magnification.

FOCUSING

- Separate low position coarse and fine focusing controls.
- Slip clutch prevents damage from over focusing.
- Tension adjustment eliminates stage drift.
- Safety rack stop prevents damage to slides and objective lenses.

ILLUMINATION

- Cool running LED light rated up to 50,000 hours of life. (132-CLED)
- 115v 20 watt tungsten illumination, condenser and blue filter. (132)
- Base mounted on/off switch, heavy-duty 3-wire cord.

WARRANTY

- Lifetime limited warranty, excluding bulb, cord, and accessory mechanical stage



National Model 132,132-CLED

Specifications	
Eyepiece	10x, 18mm, with pointer
Head	Vertical and 30° inclined tubes mounted on 360° rotating head
Nosepiece	3-hole, click stop, ball-bearing mounted
Objectives	DIN, achromat, 4x (0.10 N.A.), 10x (0.25 N.A.) and 40xR (0.65 N.A.)
Stage	110mm x 120mm (4-3/8 in. x 4-3/4 in.) stage, with locked-on spring mounted stage clips, drilled and tapped to accept optional mechanical stage. (Included on 132 and 132-CLED-MS models)
Condenser	Built-in 0.65 N.A. condenser lens, calibrated 5-hole disc diaphragm
Focusing	Separate coarse and fine controls with tension adjustment and slip clutch
Illumination	20W tungsten (132 models), LED (132-CLED models)
Electrical	Input 110 Volts
Height/ Weight	15 1/4 in. (400mm)/ 7.4 lbs (3.4 kgs)

PACKING:

- Individual: Ship wt. 10 lbs (4.5 kgs), Dimensions 22x13x13 in. (550x325x325mm)
- Master carton pack 5 each: Ship wt. 46 lbs (20.9 kgs), Dimensions 36x12x19 in. (900x300x475mm)

Parts and Accessories

800-001	Replacement LED bulb
800-102	Replacement bulb, 115v 20 watt tungsten, D.C. medium bayonet base.
910	Graduated mechanical stage
965-160	Eyepiece reticle, 10mm/100 div.



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Authorized Distributor

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

ISO 9001:2000 Certified
ISO 14001:2001 Certified