



# NATIONAL

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

## MODELS 156, 156-S Advanced Monocular Compound Microscope

A new standard of precision optics, highly engineered mechanics and very rugged construction, all at little more cost than a budget microscope. Objective turret (nosepiece) is in reverse position to permit easier changing and positioning of specimen slides. Preferred by teachers, the 5-watt fluorescent illumination system provides optimum image brightness, virtually no bulb heat and has a 10,000-hour rated bulb life.

### OPTICAL SYSTEM

- Widefield 10x eyepiece with pointer. Accepts optional #965-160 eyepiece reticle.
- 45° inclined monocular viewing head rotates 360° for easy sharing by more than one student.
- 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. Model 156-S also includes 100xR (1.25 N.A.) oil immersion lens. All the are achromatic, parfocalled, parcentered and color-coded.
- 4-hole objective turret, reverse position, ball-bearing mounted for smooth, precise changes in magnification.

### ILLUMINATION

- Built-in 5-watt fluorescent illumination, delivers greater light and longer life than standard 20-watt tungsten bulb. Virtually no base heat. 10,000 hour rated bulb.
- Base mounted on/off switch, heavy-duty 3-wire grounded electrical system and plug.
- 0.5A time delay fuse.

### FOCUSING

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

### WARRANTY

- Limited lifetime warranty, excluding bulb, fuse and cord.



# National Models 156,156-S

Specifications	
Eyepiece	18mm, with pointer
Viewing Bodies	45° inclined monocular viewing head, rotates 360°
Nosepiece	4-hole, click stop, reverse angle, ball-bearing mounted
Objectives	DIN, achromat, 4x, 10x and 40xR (sealed 100xR included on 156-S)
Stage	135mm x 135mm (5-1/4 in. x 5-1/4 in.) stage, mechanical stage with low-position coaxial x-y controls.
Condenser	1.25 N.A. Abbe condenser with spiral focusing mount, iris diaphragm, swing-out filter holder, blue filter supplied.
Focusing	Separate coarse and fine controls with tensions adjustment and slip clutch
Illumination	5W fluorescent
Electrical	Input 110 Volts
Weight	10 lbs (4.6 kgs)

#### PACKING:

- Individual: Ship wt. 15 lbs (7 kgs), Dimensions 22x15x15 in. (550x375x375mm)
- Master carton pack 2 each: Ship wt. 30 lbs (13.6 kgs), Dimensions 19x15x21 in. (475x375x525mm)

Parts and Accessories	
800-138	Replacement bulb, 5-watt fluorescent, can be used in 110v and 220v versions
801-160	Replacement fuse, 0.5A time delay
911	Graduated mechanical stage, side mount adjustments
965-160	Eyepiece reticle, 10mm/100 div.



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