

# UNITRON MODEL 166

## 4-inch PHOTO-EQUATORIAL REFRACTOR with PIER



### ADDITIONAL EYEPIECE AVAILABLE—

Prod. No. 16636 5mm Orthoscopic (for 300x)

### ADDITIONAL ACCESSORIES AVAILABLE—

Prod. No. 16622 Model A DUETRON  
 Prod. No. 16643 Erecting Prism System  
 Prod. No. 16645 Model A Star Diagonal  
 Prod. No. 16653 Model A Sun Diagonal (Herschel Wedge)

**Model 166 — Complete with Equatorial Mounting and slow motion controls for both declination and right ascension, setting circles and verniers, weight-driven clock with governor and speed regulator, metal pier with base, 60mm photographic guide scope (with 78x crossline eyepiece, star diagonal and mounting brackets), Model 220A Astro-Camera, UNICLAMP Camera Bracket, 10x-42mm viewfinder, Super rack and pinion focusing mechanism with graduated scale and focusing locks, Super**

**UNIHEX, 9 coated eyepieces: 4mm (375x), 6mm (250x), 7mm (214x), 9mm (167x), 12.5mm (120x), 18mm (83x), 25mm (60x), 40mm (38x)\*, 60mm (25x), sun projecting screen set, sunglass filter, solar aperture diaphragm with two apertures, UNIBALANCE assembly, dewcap, wooden cabinets, instructions.**

Prod. No. 16528 Model 166  
 Prod. No. 16529 Model 166V - Complete as above but without 60mm guide scope, Model 220A Astro-Camera, UNICLAMP Camera Bracket, UNIBALANCE assembly or 60mm eyepiece.  
 Prod. No. 16526 Model 160 — Identical with Model 166 but with field tripod in place of metal fixed pier, standard UNIHEX with Achromatic Amplifier in place of Super UNIHEX and erecting prism system. 4mm eyepiece not included.  
 Prod. No. 16527 Model 160V - Identical with Model 166V but with field tripod in place of metal fixed pier.

**UNITRON** INSTRUMENTS, INC.

Subsidiary of Ehrenreich Photo-Optical Industries, Inc.

101 Crossways Park West, Woodbury, NY 11797 U.S.A.

Telephone (516)364-8046

AUTHORIZED DEALER:

Printed in U.S.A.

**SPECIFICATIONS**

# Unitron Model 166 4" Photo-Equatorial Refractor w/pier

**1. DIMENSIONS:**

Length (eyepiece to dustcap)	5' 3"
Height of instrument (ground to cradle)	6'

**2. WEIGHT:**

Shipping weight	225 lbs.
Instrument in observing position	180 lbs.

**3. RIGHT ASCENSION & DECLINATION TRAVEL:**

	Fast Motion	Slow Motion	Angular travel/revolution of slow motion control knob
Right Ascension	14 <sup>h</sup> 30 <sup>m</sup>	2 <sup>h</sup>	8'
Declination	360°	30° 24'	6'

**4. OBJECTIVE:**

Achromatic, air-spaced, coated, 2-element 100mm clear aperture, 1500mm focal length, f/15, resolving power, 1.1 arcsec, minimum observable magnitude + 12, field of view 3° 22'.

**5. VIEWFINDER:**

Focusable 10x eyepiece with crossline, 42mm objective, field of view 2° 54'.

**6. PHOTOGRAPHIC GUIDE SCOPE:**

Achromatic, air-spaced, coated 2-element objective of 60mm clear aperture, 700mm focal length, focal ratio f/12; 9mm Achromatized Symmetrical eyepiece with crossline; prismatic star diagonal; standard rack and pinion focusing mechanism; dewcap; dustcap; mounting brackets on UNICLAMPS.

**7. TABLE OF MAGNIFICATIONS** (Objective focal length ÷ Eyepiece focal length):

Focal Length of Eyepiece	Magnification w/o Ach. Amp.	Mag. w/ach. Amp.	Field of view w/o Ach. Amp.
4mm*	375x	750x	0° 08'
5	300	600	0° 10'
6*	250	500	0° 12'
7*	214	428	0° 14'
9*	167	334	0° 16'
12.5*	120	240	0° 23'
18*	83	166	0° 32'
25*	60	120	0° 40'
40†*	38	76	1° 03'
60‡*	25	N/A	1° 36'

\* Supplied as standard equipment.

† Must be used in UNIHEX or 1¼-inch adapter.

‡ Must be used in Super UNIHEX or Super Rack and Pinion.

**8. WARRANTY:** Full 5-year warranty. Written warranty can be obtained free of charge upon specific written request, at the address shown below.