

# POLAREX UNITRON®

# ASTRONOMICAL TELESCOPES & ACCESSORIES

#### NIHON SEIKO KENKYUSHO, LTD.

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## Model 127 1.6", 105 2", 133-N 2.4" Altazimuth Refractor

Objective lens: D 40 mm, 50 mm, 60 mm, F 700 mm

Viewfinder:  $4 \times 19 \, \text{mm}$ 

**Eyepieces:** Model 127 & 105....9 mm, 12.5 mm, 18 mm

Model 133-N .......7 mm, 12.5 mm, 18 mm, 25 mm

Accessories: Star diagonal, Sunglass,

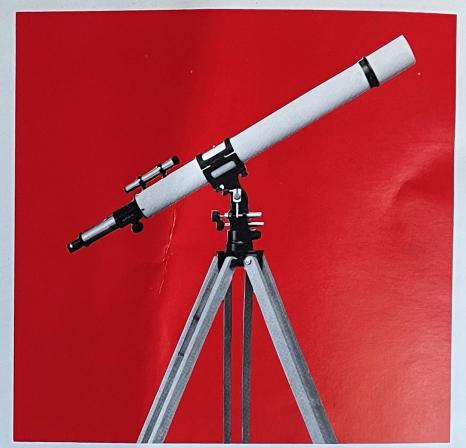
Magnifications: Model 127,  $105....38 \times$  to  $78 \times$ 

Model 133·N .....28× to 100× **Power sec.:** 127....3, 105....2.3, 133·N....2.3

Minimum magnitude observable: 127....10, 105....10.5, 133....11

Field of view: 127, 105, 133-N....7°12'

Additional accessories available: Sun diagonal



#### Model 114 2.4" Altazimuth Refractor

Objective lens: D 60 mm, F 900 mm

Viewfinder: 4x 19 mm

Eyepieces: 9 mm, 12.5 mm, 18 mm, 25 mm

Accessories: Star diagonal, Sunglass, Erecting prism

Magnifications:  $36 \times$  to  $100 \times$ 

Power sec.: 2

Minimum magnitude observable: 11

Field of view: 7"12'

Additional accessories available: Rotary eyepiece holder, Double eyepiece holder, Sun diagonal, Solar aperture diaphragm, Camera clamp, Sun pro-

jection screen, Astro-camera, Spectro scope.



#### Model 129 3" Altazimuth Refractor

Objective lens: D 75 mm, F 1200 mm

Viewfinder: 8× 30 mm

Eyepieces: 7 mm, 9 mm, 12.5 mm, 18 mm, 25 mm Accessories: Star diagonal, Sunglass, Erecting prism

Magnifications:  $48 \times$  to  $171 \times$ 

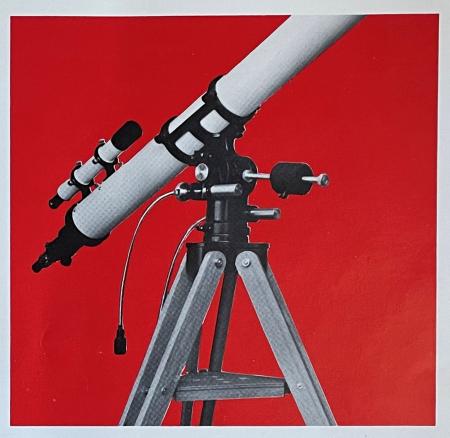
Power sec.: 1.6

Minimum magnitude observable: 11.8

Field of view: 4°20'

Additional accessories available: Rotary eyepiece holder, Double eyepiece holder, Sun diagonal, Solar aperture diaphragm, Camera clamp, Sun pro-

jection screen, Astro-camera, Spectro scope.



#### Model 134 4" Altazimuth Refractor

Objective lens: D 102 mm, F 1500 mm

Viewfinder:  $10 \times 40 \, \text{mm}$ 

**Eyepieces:** 6 mm. 7 mm, 9 mm, 12.5 mm, 18 mm, 25 mm **Accessories:** Star diagonal, Sunglass, Erecting prism

Magnifications:  $60 \times$  to  $250 \times$ 

Power sec.: 1.2

Minimum magnitude observable: 12

Field of view: 3°22'

Additional accessories available: Rotary eyepiece holder, Double eyepiece holder, Sun diagonal, Solar aperture diaphragm, Camera clamp, Sun pro-

jection screen, Astro-camera, Spectro scope.



#### Model 128 2.4" Equatorial Refractor

Objective lens: D 60 mm, F 900 mm

Viewfinder: 6× 23.5 mm

Eyepieces: 7 mm, 9 mm, 12.5 mm, 18 mm, 25 mm

Accessories: Star diagonal, Sunglass, Erecting prism, Sun projection screen,

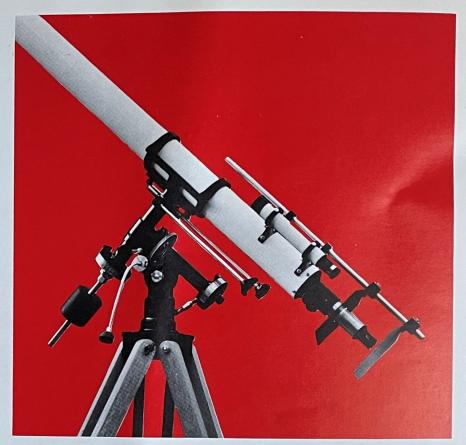
Solar aperture diaphragm.  $\textbf{Magnifications:} \quad 36 \times \ to \ 128 \times$ 

Power sec.: 2

Minimum magnitude observable: 11

Field of view: 6 00'

Additional accessories available: Rotary eyepiece holder, Double eyepiece holder, Sun diagonal, Camera clamp, Synchronous motor, Astro camera, Spectro scope.



#### Model 131 3" Equatorial Refractor

Objective lens: D 75 mm, F 1200 mm

Viewfinder: 8× 30 mm

Eyepieces: 6 mm, 7 mm, 9 mm, 12.5 mm, 18 mm, 25 mm

Accessories: Star diagonal, Sunglass, Erecting prism, Sun projection screen,

Power sec.: 1.6

Minimum magnitude observable: 11.8

Field of view: 4°22'

Additional accessories available: Rotary eyepiece holder, Double eyepiece holder, Sun diagonal, Camera clamp, Synchronous motor, Astro-camera, Counterbalance clamp. Spectro scope.



#### Model 132 4" Equatorial Refractor

Objective lens: D 102 mm, F 1500 mm

Viewfinder: 10× 40 mm

Eyepieces: 6 mm, 7 mm, 9 mm, 12.5 mm, 18 mm, 25 mm, 40 mm

Accessories: Star diagonal, Sunglass, Erecting prism, Sun projection screen,

Solar aperture diaphragm Magnifications:  $37 \times to 250 \times to 250$ 

Power sec.: 1.2

Minimum magnitude observable: 12

Field of view: 3°22'

Additional accessories available: Rotary eyepiece holder, Double eyepiece

holder, Sun diagonal, Camera clamp, Synchronous motor, Astro-camera,

Counter balance clamp, Spectro scope.



#### Model 132-E 4" Photo Equatorial Refractor

Objective lens: D 102 mm, F 1500 mm

Viewfinder: 10 × 40 mm

Guide telescope: D 60 mm, F 700 mm, W 9 mm eyepiece.

Eyepieces: 6 mm, 7 mm, 9 mm, 12.5 mm, 18 mm, 25 mm, 40 mm, 60 mm Accessories: Star diagonal, Sunglass, Erecting prism, Sun projection screen, Solar aperture diaphragm, Astro-camera, Motor or Clock drive, Counter-

balance clamp, Super rack and pinion.

Magnifications:  $25 \times$  to  $250 \times$ 

Power sec.: 1.2

Minimum magnitude observable: 12

Field of view: 3 22'

Additional accessories available: Same as Model 132.



#### Model 132-F 4" Photo Equatorial

Objective lens: D 102 mm, F 1500 mm

Viewfinder: 10× 40 mm

Guide scope: D  $60\,\text{mm}$ , F  $700\,\text{mm}$ , W  $9\,\text{mm}$ Eyepieces:  $6\,\text{mm}$ ,  $7\,\text{mm}$ ,  $9\,\text{mm}$ ,  $12.5\,\text{mm}$ ,  $18\,$ 

mm, 25 mm, 40 mm, 60 mm

Accessories: Star diagonal, Sun glass, Erecting prism, Sun projection screen, Solar aperture diaphragm, Astro-camera, Motor or Clock drive, Counterbalance clamp, Super rack and pinion.

Magnifications:  $25 \times$  to  $250 \times$ 

Power sec.: 1.2

Minimum magnitude observable: 12

Field of view: 3°22'

Additional accessories available: Rotary eyepiece holder, Double eyepiece holder, Sun

diagonal, Camera clamp.

#### Model 136 5" Photo Equatorial

Objective lens: D 127 mm, F 2000 mm

Viewfinder:  $10 \times 40 \, \text{mm}$ 

Guide scope: D 75 mm, F 1200 mm, W/9 mm Eyepieces: 6 mm, 7 mm, 9 mm, 12.5 mm, 18

mm, 25 mm, 40 mm, 60 mm

Accessories: Star diagonal, Sun glass, Erecting prism, Sun projection screen, Solar aperture diaphragm, Astro-camera, Motor or Clock drive, Counterbalance clamp, Super rack & pinion.

Magnifications:  $33 \times$  to  $330 \times$ 

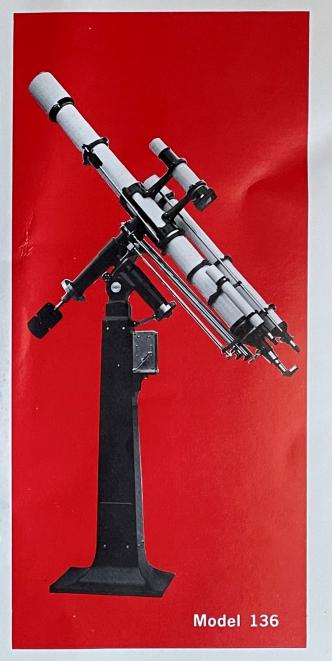
Power sec.: 1

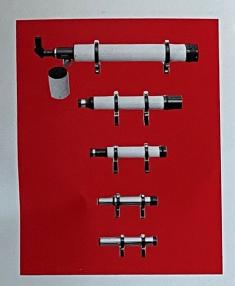
Minimum magnitude observable: 12.8

Field of view: 3°22'

Additional accessories available: Star camera

and same as Model 132-F 4"





#### **VIEWFINDERS**

12.5×	60 mm

 $10 \times 40 \, mm$ 

8× 30 mm

6× 23.5 mm

4× 19 mm



#### **EYEPIECES**

4 mm Orthoscopic
5 mm Orthoscopic
6 mm Orthoscopic
7 mm Symmetrical
9 mm Symmetrical
9 mm as above,
with crossline
12.5 mm Kellner
18 mm Kellner
25 mm Ramsden
40 mm Monochro
40 mm as above,

with crossline 60 mm Kellner



Achromatic amplifier (Barlow lens)



Sunglass & Moonglass

### POLAREX · UNITRON

#### TELESCOPE ACCESSORIES



Star diagonal



Herschel solar wedge (Sundiagonal)



Erecting prism



Erecting star diagonal



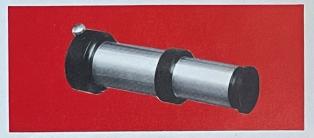
Camera clamp (bracket)
A convenient device to attach a camera
to your telescope
For 2.4", 3" and 4" Model



Compound viewfinder (half mirror)



Sun projection screen with clamp Set for 2.4" & 3", with screen  $6'' \times 6''$  Set for 4" Model with screen  $7'' \times 7''$ 



Star spectro scope Set for all model



Synchronous Motor



Motor for Model 132EF, 5", 6"



Clock Drive (with weight and coupling device)

#### Synchronous Motor:

After you have located a celestial object, the synchronous motor will keep it centered in the field of view, allowing you to devote your full attention to observing.

#### Clock Drives:

All UNITRON, POLAREX Equatorial models are available with Synchronous Motor. Model 132E, F, 5" & 6" can, in addition, use UNITRON POLAREX Clock drive which features adjustable speed control and requires no electrical power.

All equatorial models have a second, supplementary R.A. slow motion to facilitate changes in this coordinate without the need to stop or disengage the clock. This feature is included on all UNITRON POLAREX instruments, even those ordered without the drive, in case you should choose to add this accessory at a later date.

#### Double Eyepiece Holder:

With the Double Eyepiece Holder, two observers may use the telescope simultaneously. A focusing sleeve is provided so that the eyepieces used need not be of the same magnification.

#### Rotary Eyepiece Holder:

The old-fashioned method of fumbling with eyepiece in the dark has been outmoded by the Rotary Eyepiece Holder which puts 6 magnifications at your fingertips. To change power, merely rotate a new eyepiece into position while the object stays centered in the field of view.

#### **Astro Camera**

As illustrated is a light-weight camera designed especially for photography using the objective lens (or mirror) of the telescope as the principal optical element. A photococular projects a magnified image at the film plane. The ocular can be removed to permit prime focus photography. An air operated curtain shutter of the Thorton-Pickard type gives speed of 1 10 to 1 90 sec. in addition to bulb and time. Three double plateholders, cut film adapters, extention tubes, a special 30 mm photo-ocular, filter, clamps, air operated shutter release are included.



Double Eyepiece Holder



Rotary Eyepiece Holder



Astro Camera