Meade

Research Quality
TELESCOPES
TELESCOPE PARTS
ACCESSORIES

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GENERAL CATALOG
WINTER-SPRING, 1978 EDITION

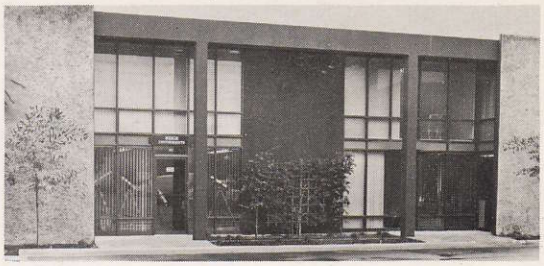


MEADE INSTRUMENTS CORP.

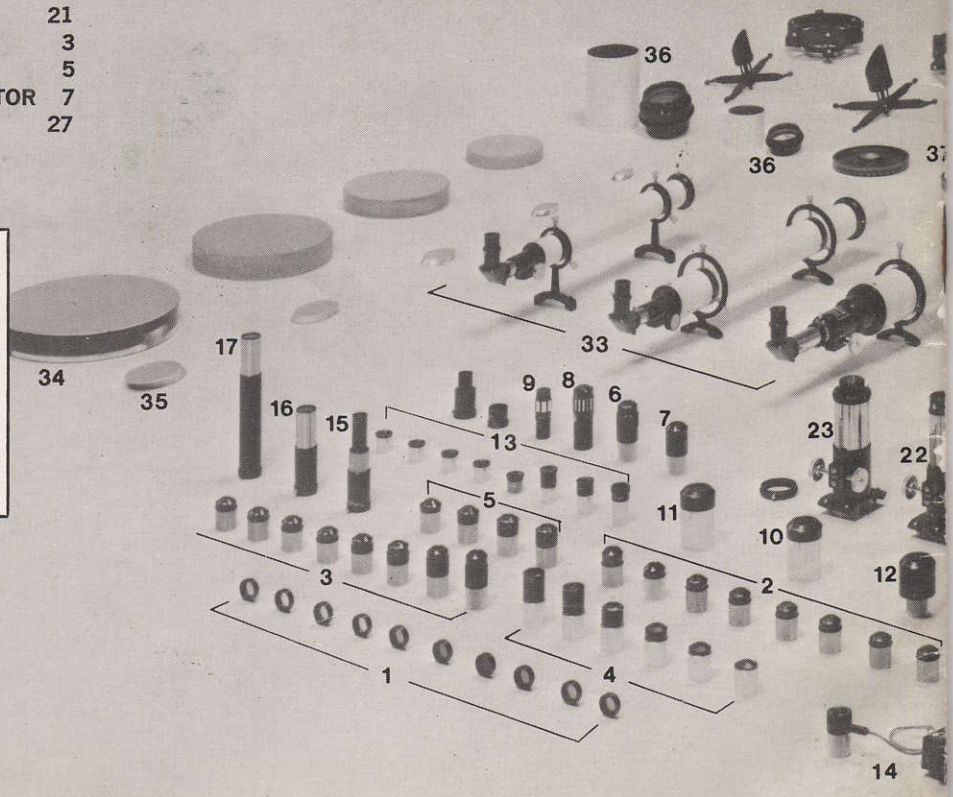
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Visitors are always welcome at our offices and showroom, where all of our products are available for direct purchase. Hours: 9:30-5:30 Mon.-Fri. and 10:00-2:00 Saturdays.



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MEADE ASTRONOMICAL PRODUCTS

The products described in the following pages are designed for discriminating astronomical applications. All items are brand new and have been manufactured under carefully controlled production conditions, utilizing the latest in optical and machining techniques. We do not offer "seconds", used or surplus products of any kinds. Meade reflecting and refracting telescopes are in continuous use by thousands of serious amateurs, schools, and college observatories throughout North America and Europe. Our telescope accessories and parts, including tubes, eyepieces, filters, viewfinders, photo-guide telescopes, and other components, enhance the instruments of many other leading telescope manufacturers. The uniformly high quality of our optical and mechanical systems, and the prompt, personalized attention given to each order, have established our reputation. You may order with complete confidence.

A WORD ABOUT SERVICE

We maintain a very large stock of all catalog-listed items, ready for immediate shipment. **All orders are processed for shipment within 24 hours of receipt.**

QUESTIONS?

We are always pleased to provide further information on any of our products. Inquiries are answered promptly.

NOTE: This catalog includes information on Meade complete refracting telescopes and on the parts, components, and accessories for refracting and reflecting telescopes. **For information on Meade complete 6″ and 8″ reflecting telescopes, and on equatorial mounts for reflecting telescopes, please see Bulletin 68.**

HOW TO ORDER

To place an order: Use our standard order form, or write a letter stating your requirements.

Payment: May be made by personal or bank check, money order, or bank card (Mastercharge or Bank-Americard/VISA).

C.O.D. orders: Send 20% deposit with order. C.O.D. charges (about $1.00) will be added to the balance due on delivery.

Telephone orders: Are also accepted, with payment either C.O.D. or by bank card. Our telephone number is (714) 646-9281. We do not accept collect calls.

Foreign orders: (including Canada) Please see special instructions on our order form.

Guarantee: All products listed in this catalog are unconditionally warranted to reflect fully every claim for quality and performance specified herein.

COMPLETE REFRACTING TELESCOPES

GENERAL INFORMATION

For the serious astronomical observer there can be no compromise in optical quality. And at Meade Instruments there is no compromise. Optical components of the MEADE refractors shown on pages 3-7 are ground and polished to exacting standards from among the finest raw optical glasses, and are free of the striations often found in lenses of lesser quality. The achromatic objective lenses on all Meade refractors are air-spaced and hardcoated and have been designed utilizing the latest computer techniques. The result is performance — with clear, sharp images, fully corrected for both spherical and chromatic aberrations. **Every Meade refracting telescope — 2.4″, 3.1″ or 4″ — is warranted to equal or exceed the optical performance of any refractor, of any brand, in its aperture class.** This claim specifically includes competitive models selling for hundreds of dollars more. Further, because of their design simplicity and optical excellence, Meade refractors exceed the performance of far larger telescopes of other types. Small wonder, then, that Meade refracting telescopes have consistently been selected by knowledgeable amateurs, schools and colleges throughout the world for serious observing programs.

OBSERVING WITH THE TELESCOPE

MEADE 2.4″, 3.1″, and 4″ refractors open up a wealth of observational opportunities: it is virtually impossible to exhaust the number of fascinating astronomical objects within the range of these instruments. The 2.4″ Model 291 enables the observer to discover the nature of the Solar System: cloud belts on the surface of the planet Jupiter, the satellites of Jupiter, the ring system and satellites of Saturn, lunar craters by the hundreds, the changing phases of Mercury and Venus. It should be emphasized that the foregoing objects are observed not merely as vague, fuzzy abstractions, but — without qualification — as clear, distinct images that leap out to the eye. In addition one can reach out to glimpse near the edge of our system to the planets Uranus and Neptune. And observe an uncountable multitude of objects outside the Solar System: galaxies, nebulae, variable stars, multiple stars, star clusters.

With the 3.1″ Models 300 and 305 the amateur astronomer can study in greater detail a tremendous range of celestial phenomena. The additional light-gathering power of the larger models permits observation of finer points of Jupiter's surface markings, including the Great Red Spot and variable characteristics of the cloud belts, the Cassini division in the rings of Saturn, and prominent features of the Martian landscape. Deep-sky objects take on added brilliance with the larger aperture: galaxies and nebulae are seen in wider extension, closer and fainter double stars resolved.

For the advanced amateur, or for the school or college observatory, MEADE 4″ refractors permit a wide range of serious astronomical research. The greatly increased resolving power of the 4″ instruments, coupled with

(Cont. on page 4)

SPECIFICATIONS: MODEL 291 — Equatorial mount with flexible steel cable slow-motion controls in both declination and right ascension; locks on both axes; direct-reading latitude control; azimuth control and lock; setting circles on both axes; deluxe (coarse and fine) rack and pinion focusing mechanism with .965″ eyepiece holder and drawtube lock; 6X-30mm right-angle achromatic viewfinder with crosshairs. Air-spaced achromatic objective lens; clear aperture 60mm (2.4″); focal length 900mm (f/15). Hardwood tripod (54″); accessory tray; dewcap; dustcap; complete operating instructions.

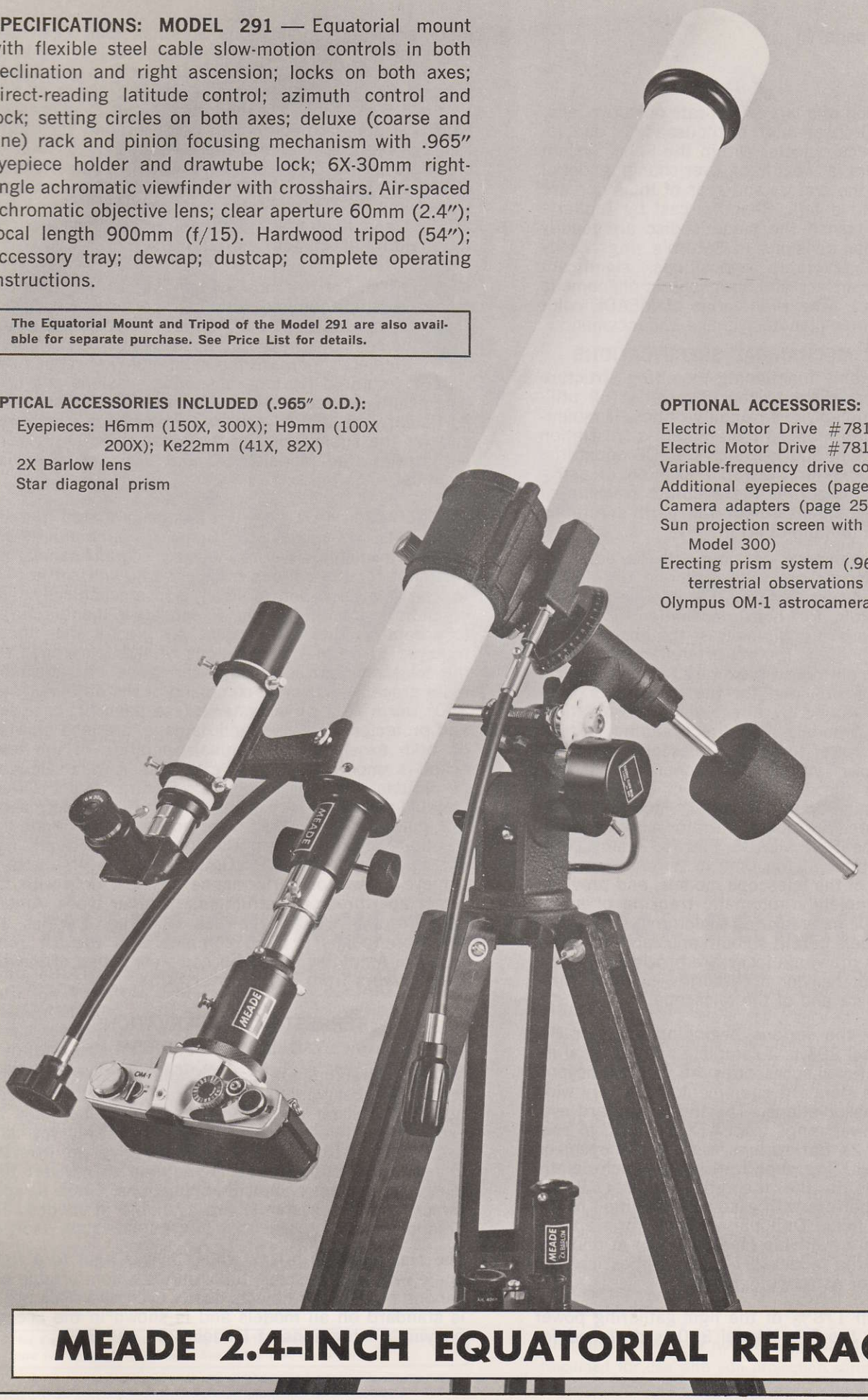
The Equatorial Mount and Tripod of the Model 291 are also available for separate purchase. See Price List for details.

OPTICAL ACCESSORIES INCLUDED (.965″ O.D.):

Eyepieces: H6mm (150X, 300X); H9mm (100X 200X); Ke22mm (41X, 82X)
2X Barlow lens
Star diagonal prism

OPTIONAL ACCESSORIES:

Electric Motor Drive #781 (115v./60Hz)
Electric Motor Drive #781F (220v./50Hz)
Variable-frequency drive correctors (page 22)
Additional eyepieces (pages 8, 26)
Camera adapters (page 25)
Sun projection screen with clamp (as shown on Model 300)
Erecting prism system (.965″ O.D.) for terrestrial observations (page 26)
Olympus OM-1 astrocamera (page 27)



MEADE 2.4-INCH EQUATORIAL REFRACTOR

(Continued from page 2)

the superb definition of a large, first-rate objective lens, enables the critical observation of thousands of double-stars and deep-space objects. Within the Solar System the planets present a wealth of ever-changing detail and features, and the craters and seas of the Moon are seen in magnificent detail. Shadows cast by Jupiter's satellites as they transit the planet's disc are readily observed and minor divisions in Saturn's rings easily resolved. During favorable oppositions, significant studies of Martian surface and atmospheric phenomena may be carried out. The wide range of MEADE color filters permits further planetary image enhancement.

OPTICAL AND MECHANICAL SPECIFICATIONS

A stable and smoothly functioning mounting structure is an essential ingredient to the observer's full utilization of his instrument. Even quality optics, if mounted poorly, contribute more to the amateur's frustration than to his enjoyment and learning. MEADE equatorial mounts are designed for the rapid location of astronomical objects and permit the accurate tracking of these objects to compensate for the earth's rotation with an absolute minimum of effort.

The ease and convenience possible with an equatorially mounted telescope are fully exploited on MEADE 2.4″, 3.1″, and 4″ refractors. Flexible steel cable slow-motion controls for both declination and right ascension are standard equipment — the observer can correct for the apparent motion of stellar and planetary objects with controls in proximity to the eyepiece. Setting circles are provided for the location of faint objects not easily found by direct visual observation. On 2.4″ and 3.1″ models, the direct-reading latitude dial allows the observer to set the telescope polar axis accurately to his own latitude for astronomical observations, or, with an absolute minimum of delay, to 90° for terrestrial observations. MEADE 4″ models include a more sophisticated latitude control for extremely precise polar alignment. A MEADE Electric Motor Drive may be added (either at the time of purchase or at a later date) to any of the telescope models, and provides the luxury of completely automatic tracking of astronomical objects. Deluxe rack and pinion focusing mechanisms on all models permit smooth and rapid focusing of the image, and drawtube locks are provided to allow for the addition of heavier accessories, such as cameras, to the eyepiece-end of the telescope.

MODEL 291: For the serious beginning amateur the popular 2.4″ Model 291 is a complete astronomical instrument: no additional accessories are required beyond those included as standard equipment, for a very wide range of useful observations. The three standard eyepieces cover a power range from 41X to 150X; in conjunction with the 2X Barlow lens, each of the eyepiece powers is doubled. The superb air-spaced achromatic objective resolves to the theoretical limit (1.9 arc seconds) of its aperture with excellent definition to the very edge of the field. Optional adapters for standard 35mm cameras are available (see page 25) at nominal cost, and extend the Model 291's capabilities into the fascinating area of astrophotography.

MODEL 300: With 178% of the light-gathering power of the 2.4″ lens, the 3.1″ Model 300 is designed for more advanced applications and has long been our largest-selling refractor. The 80mm (3.1″) objective is mounted in a special collimation cell to accurately set and fix optical alignment. Resolving power of this lens is 1.5 arc secs., the theoretical limit. Eyepieces included as standard equipment cover virtually the entire range of practical magnifications, from 54X to 300X. A complete set of accessories for visual observations is included. The Model 300 is used by many schools throughout the United States and provides all the observational and photographic capability ever required by the majority of amateur astronomers.

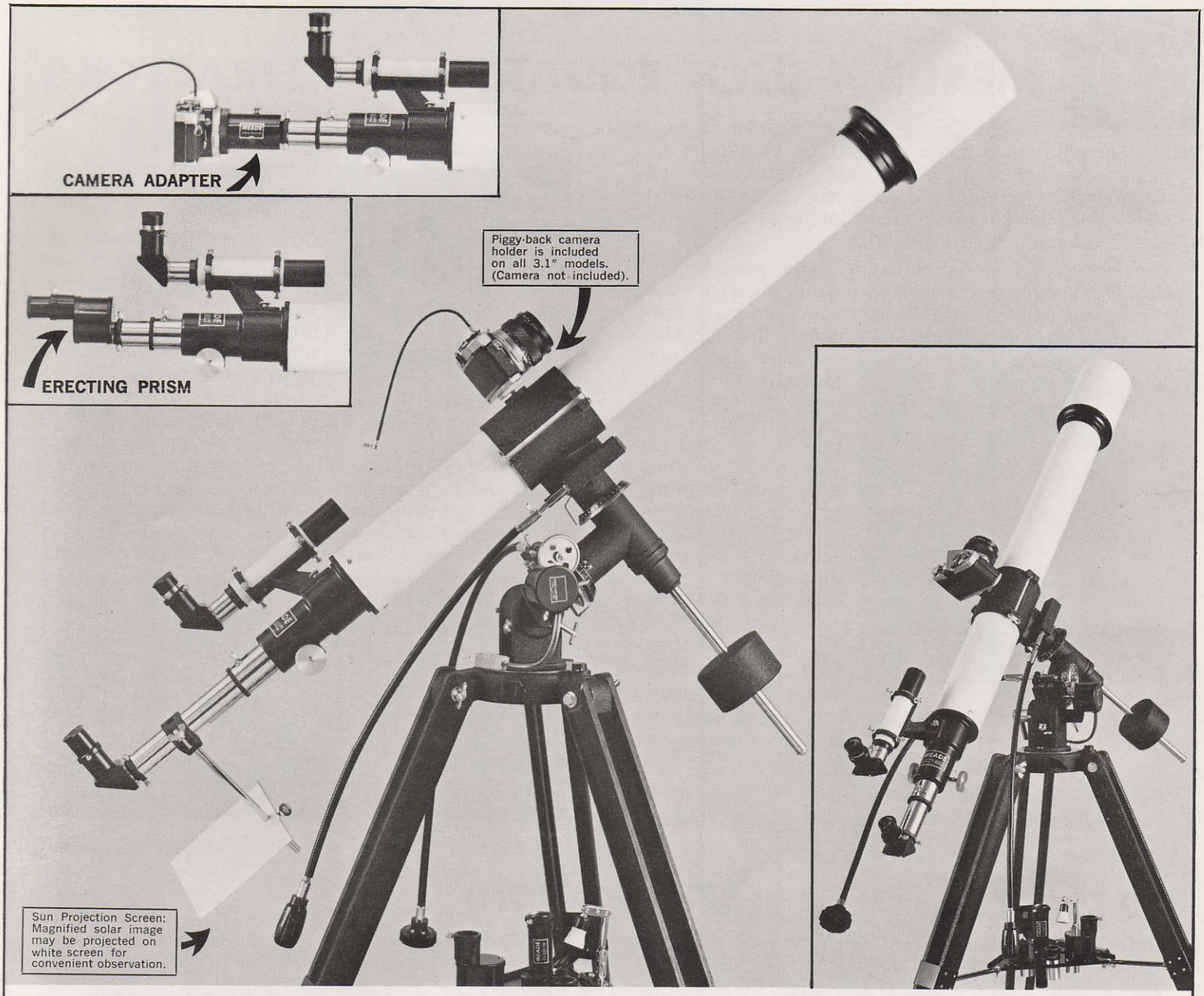
MODEL 305: For the most demanding applications the Model 305 is equipped with high-performance Orthoscopic eyepieces from our "Series 1" selection (page 8), in the standard 1¼″ American-size barrel diameter. These eyepieces increase the eye relief (i.e. reduce eye fatigue) required for long observing sessions and also significantly increase the field of maximum resolution, particularly at higher powers. Except for eyepieces, and for the substitution of American-size (1¼″ O.D.) accessories, the Models 300 and 305 are otherwise identical.

MODELS 420 - 447: No effort has been spared in making MEADE 4″ models the finest research-quality refractors available. They represent a sound financial investment for the serious observer who will settle only for the very best, both optically and mechanically. The equatorial mounting on the 4″ models is manufactured to accept weights and torques far greater than those required in normal applications of the telescope. Yet the telescope moves through the skies with consummate grace, in complete command of the observer. Full 360° worm gear drive systems (see page 6), enclosed and protected from dust and damage, are incorporated on **both** axes, so that manual operation of the telescope is smooth and almost effortless. A wide selection of optional features, including Electric Motor Drive, variable-frequency correctors, color filters, astrocamera, guide telescope, and other accessories extends the flexibility of the basic instrument to cover virtually any observing requirement. Optically, the 4″ models achieve a level of performance possible only with far larger apertures on instruments of other types. American-size 1¼″ O.D. eyepieces from our "Series 1" selection (pages 8 & 9) combine with the 2X Telenegative Amplifier to yield a complete range of magnifying powers from 38X to over 400X.

TERRESTRIAL OBSERVATIONS; STAR DIAGONAL PRISM

MEADE refractors are equally well-suited for general terrestrial observations, and, in fact, the astronomical-quality optics far outperform what might normally be expected of telescopes designed exclusively for land use. Since astronomical telescopes give an inverted image, an erecting device is required to reinvert this image for non-astronomical applications. These devices (erecting prism systems) are available at modest additional cost.

The star diagonal prism, which diverts light to a right angle with the telescope tube, allows a comfortable observing position for objects nearly overhead. This prism is standard on all models and is shown in the accompanying photographs of Models 291 and 300.



MEADE 3.1-INCH EQUATORIAL REFRACTORS

SPECIFICATIONS: MODEL 300 — Equatorial mount with flexible steel cable slow-motion controls in both declination and right ascension; locks on both axes; direct-reading latitude control; azimuth control and dial with lock; setting circles on both axes; deluxe rack and pinion focusing mechanism with .965″ eyepiece-holder and drawtube lock; 6X-30mm right-angle achromatic viewfinder with crosshairs; sun projection screen with clamp. Air-spaced achromatic objective lens: clear aperture 80mm (3.1″); focal length 1200mm (f/15). Hardwood tripod (5 ft.) with spirit level; accessory tray with battery-powered tray light; dewcap; dustcap; complete operating instructions.

OPTICAL ACCESSORIES INCLUDED (.965″ O.D.)

Eyepieces*: SR4mm (300X), HM6mm (200X); HM9mm (133X); HM12.5mm (96X) Ke22mm (54X)
2X Barlow lens
Star diagonal prism

The Equatorial Mount and Tripod of the Model 300 are also available for separate purchase. See Price List for details.

SPECIFICATIONS: MODEL 305 — Identical to Model 300, but with 1¼″ eyepiece-holder on focuser and with 1¼″ accessories, as noted below.

OPTICAL ACCESSORIES INCLUDED (1¼″ O.D.):

Eyepieces*: OR4mm (300X); OR6mm (200X); OR12.5mm (96X); Ke25mm (48X); H35mm (34X)†
2X Barlow lens
Star diagonal prism

OPTIONAL ACCESSORIES FOR MODELS 300, 305:

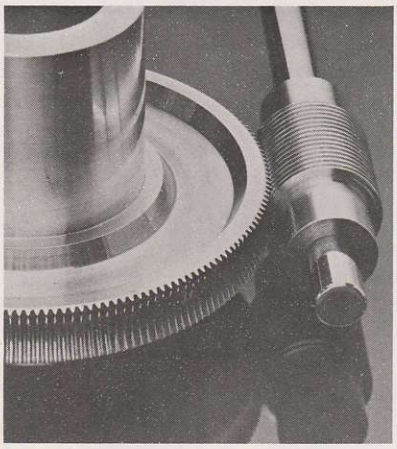
Electric Motor Drive #781 (115v./60Hz)
Electric Motor Drive #781F (220v./50Hz)
Variable-frequency drive correctors (page 22)
Olympus OM-1 astrocamera (page 27)
Camera adapters (page 25)
Additional eyepieces (pages 8, 9, 26)
Erecting prism system for terrestrial observations (page 26)

*indicated powers are doubled when used with 2X Barlow lens.
†included for use with sun projection screen.

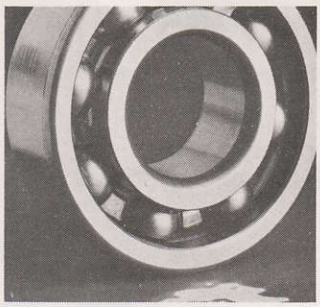
MEADE 4–INCH EQUATORIAL REFRACTORS

Photographs and external examination of MEADE 4" models only hint at the excellence of their design and workmanship. Shown here are a few of the precision components which make these instruments the finest 4" refractors sold in America.

Consider the equatorial mounting — the most sophisticated and precisely machined mounting ever offered the serious amateur in a 4" refractor. Each brass gear pair is first machine cut and then lap-ground to form a virtually perfect individual mating of the gear components. The result of this precision is extremely smooth operation of the instrument, either in the manual or automatic modes. This same gear pair is used on both the Polar and Declination axis control systems of the telescope. The telescope floats on oversize ball bearings, permitting effortless slewing throughout the skies at the touch of a hand.

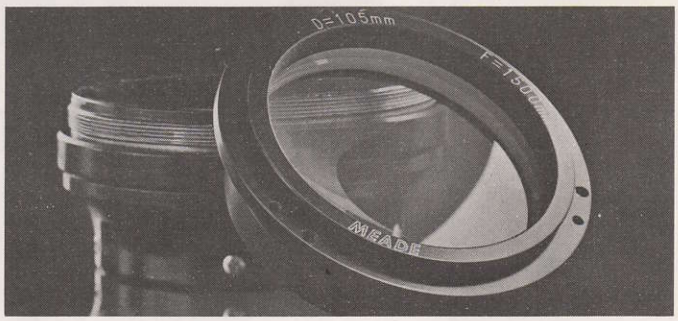


Optically, MEADE 4" refractors perform to research-level requirements. The achromatic, air-spaced f/15 objective lenses are of an entirely new and modern design and readily resolve to the diffraction limit.



Other precision components, such as the engraved verniers complementing each setting circle and the engraved photo-focusing scale, add professional touches to the 4" models.

Imagine yourself at the controls of a MEADE 4" refractor. Moving the instrument with ease from object to object, studying or photographing details you thought visible only with observatory telescopes. From the festoons and swirls in Jupiter's belts to the delicate subtleties of the Orion Nebula, MEADE 4" refractors yield the uncompromising resolution, image quality, and mechanical perfection required by the serious observer.



SPECIFICATIONS

MODEL 420 — Equatorial mount with 360° worm gears and locks on both declination and polar axes; flexible steel cable slow-motion controls on both axes; auxiliary slow-motion control in right ascension; azimuth control and lock; setting circles with verniers; deluxe rack and pinion focusing mechanism with engraved photo-focusing scale, 1¼" eyepiece-holder and sleeve lock; 8X-40mm achromatic viewfinder with crosshairs; 5 "Series 1" eyepieces; 2X Telenegative Amplifier; star diagonal prism. Air-spaced achromatic objective lens: clear aperture 102mm (4.0"); focal length 1500mm (f/15). Hardwood tripod (5 ft) with accessory tray and battery-powered tray light; dewcap; dustcap; solar aperture diaphragm; complete operating instructions.

EYEPIECES INCLUDED* (1¼" O.D.)
OR4mm (375X); OR6mm (250X); OR9mm (167X); Ke25mm (60X); Ke40mm (38X)

MODEL 422 — Identical to Model 420, but in addition with Electric Motor Drive #782 (115v./60Hz)†

MODEL 433 — Identical to Model 420, but in addition with 2" photo-guide telescope, diagonal prism, 50X crosshair eyepiece, mounting rings and clamps. Also includes auxiliary counterweight and clamps for mounting on main telescope tube, and additional counterweight for polar axis.

MODEL 436 — Identical to Model 433, but in addition with Electric Motor Drive.

MODEL 440 — Identical to Model 436, but in addition with variable-frequency drive corrector (Model 41, page 22).

MODEL 445 — Identical to Model 440, but in addition with illuminated reticle guiding eyepiece and battery pack.

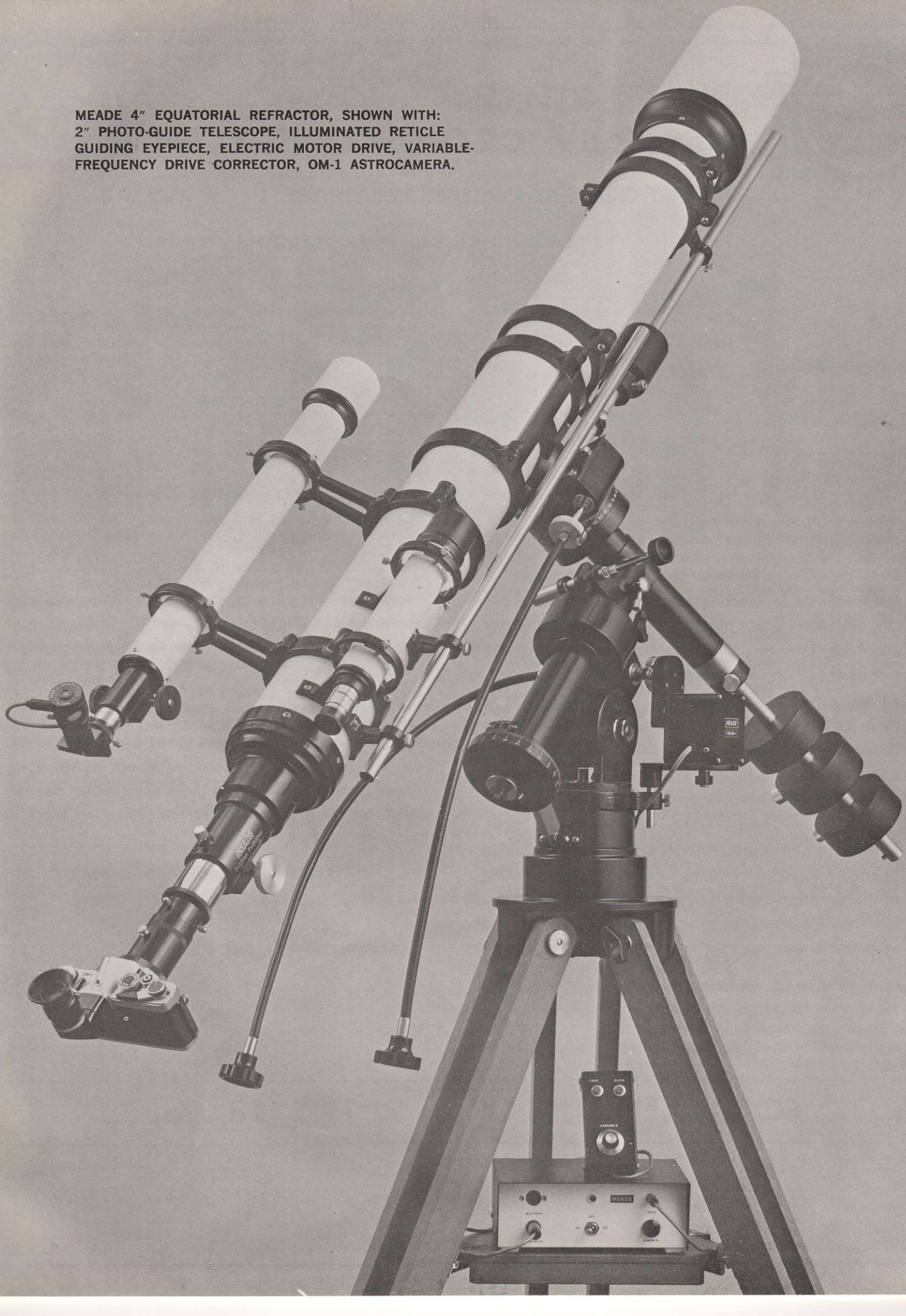
MODEL 447 — Identical to Model 445, but in addition with Olympus OM-1 astrocamera and camera adapter, and piggyback camera bracket/clamp.

OPTIONAL ACCESSORIES FOR 4" MODELS:**
- Electric Motor Drive #782 (115v./60Hz)†
- Variable-frequency drive correctors (page 22)
- 2" Photo-guide telescope with diagonal prism, 50X crosshair eyepiece, and mounting clamps
- Illuminated reticle guiding eyepiece (page 24)
- Additional eyepieces (pages 8, 9, 10, 12)
- Photo-visual color filters (page 13)
- Olympus OM-1 astrocamera (page 27)
- Camera adapters (page 25)
- Piggyback camera bracket/clamp
- Auxiliary counterweight for mounting on main telescope tube, with clamps
- Sun projection screen with mounting brackets
- Erecting prism system (1¼" O.D.) for terrestrial observations

*Indicated powers are doubled when used with 2X Telenegative Amplifier.

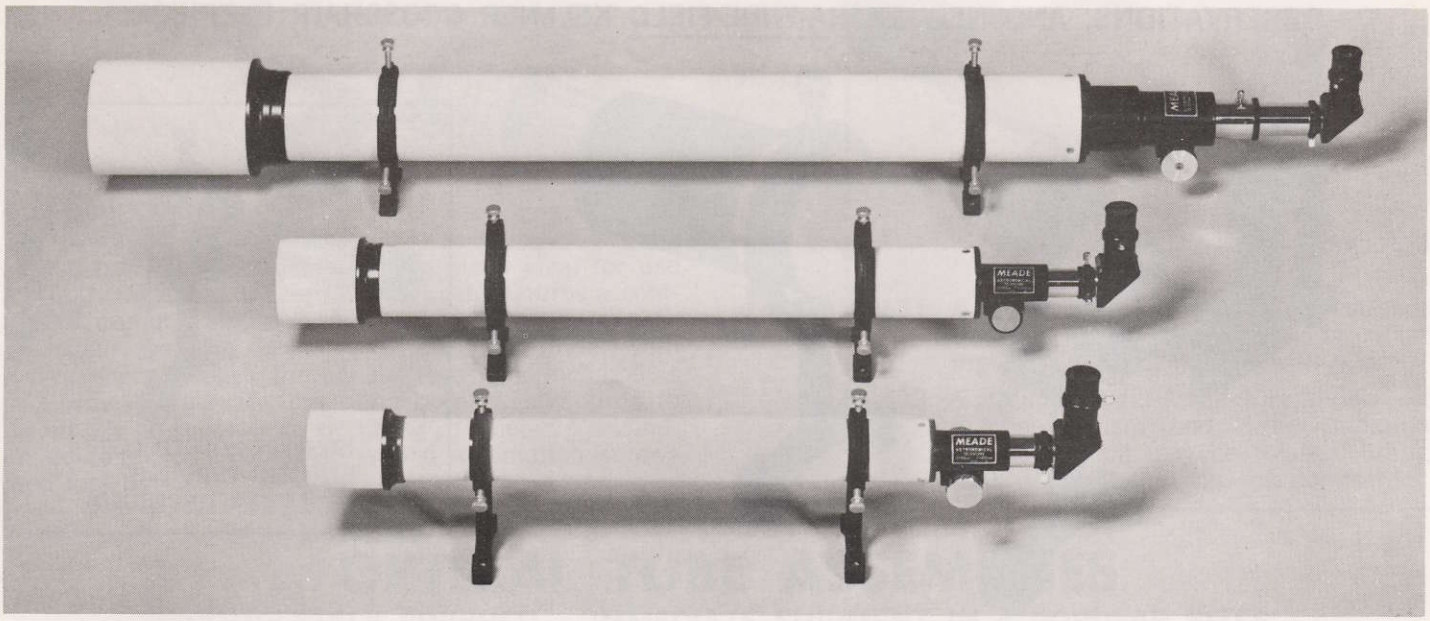
**These accessories are included as standard equipment on some 4" models, as noted.

†Also available in 220v./50Hz. for foreign operation.



MEADE 4″ EQUATORIAL REFRACTOR, SHOWN WITH: 2″ PHOTO-GUIDE TELESCOPE, ILLUMINATED RETICLE GUIDING EYEPIECE, ELECTRIC MOTOR DRIVE, VARIABLE-FREQUENCY DRIVE CORRECTOR, OM-1 ASTROCAMERA.

PHOTO-GUIDE TELESCOPES



These excellent photo-guide telescopes include MEADE premium-grade air-spaced objective lenses. Rack-and-pinion mechanisms are used on all models to assure smooth focusing of the image. Each guide telescope is supplied with a diagonal prism and your choice of either 9mm or 35mm crosshair eyepiece; a 2X Barlow lens is available optionally. (.965″ eyepieces of other focal lengths may also be used.)*

3.1″ MODEL 300PG: Optical and mechanical specifications, including focusing mechanism, identical to those of MEADE Model 300 (page 5). D=80mm (3.1″); F=1200mm (f/15). Specify either 9mm (133X) or 35mm (34X) crosshair eyepiece.

2.4″ MODEL 280PG: D=60mm (2.4″); F=700mm (f/11.7). Specify either 9mm (78X) or 35mm (20X) crosshair eyepiece.

2.0″ MODEL 210PG: D=50mm (2.0″); F=600mm (f/12). Specify either 9mm (67X) or 35mm (17X) crosshair eyepiece.

2.0″ MODEL 212PG: (As illustrated on MEADE 4″ Photo-Equatorial Refractor (page 7.) Specifications identical to Model 210PG, but in addition with mounting brackets and tube clamps for MEADE 4″ Refractors.

MOUNTING RINGS: 6 collimation screws and mounting hardware included:

3 5/8″ I.D. rings: for Models 300PG, 280PG
2 3/8″ I.D. rings: for Model 210PG

*To use 1 1/4″ O.D. eyepieces in Meade guide telescopes, the #917 Hybrid Diagonal Prism may be purchased separately. See page 26 for details.

PHOTO-GUIDE TELESCOPES WITH ILLUMINATED RETICLE EYEPIECES

For the advanced astrophotographer desiring the ultimate in guiding systems, our photo-guide refractors are available with a Kellner 12mm Illuminated Reticle guiding eyepiece, in place of the standard crosshair eyepiece. (For a full discussion of the Illuminated Reticle eyepiece, see page 24.)

3.1″ Model 300PG-IL, 2.4″ Model 280PG-IL, and 2.0″ Models 210PG-IL and 212PG-IL:

Specifications identical to Models 300PG, 280PG, 210PG, and 212PG, respectively, but with Ke12mm Illuminated Reticle eyepiece system, including double-crossline reticle #702 and battery pack, in place of crosshair eyepiece.





SETTING CIRCLES 6-inch diameter, 11/16″ face

Setting circles add a professional touch to any telescope and greatly facilitate the location of faint objects not easily found by direct visual observation. The circles shown here are of solid die-cast aluminum, with white numerals on a lustrous black finish. They are designed for accurate, professional performance; the divisions have been engraved with great care on face-widths of 11/16″. **Engraving precision is guaranteed without qualification.** Specify any bore diameter from 1/4″to 2″.

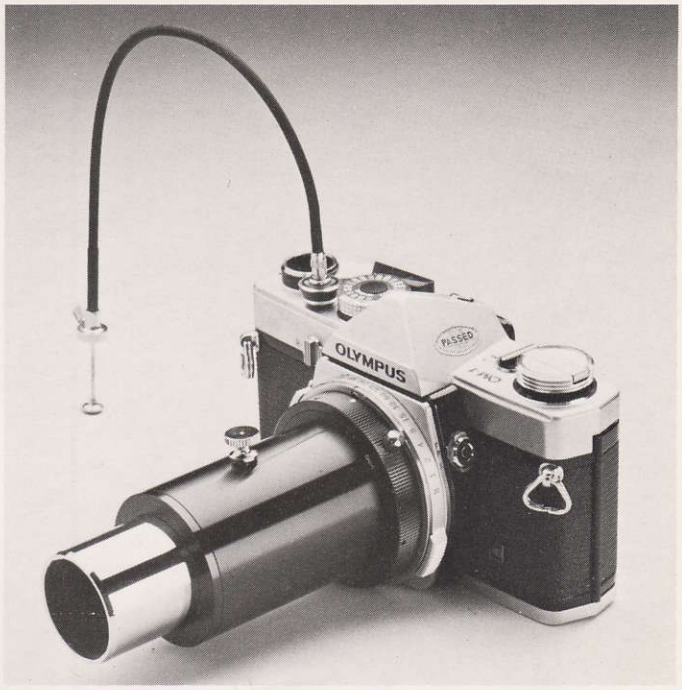
OLYMPUS OM-1 ASTROCAMERA

In recent years the Olympus OM-1 camera has revolutionized 35mm photography; it has rapidly become the world's largest-selling 35mm camera. This great camera is now available with the special Olympus astro-focusing screen with 8-line reticle pattern for use in astrophotography. The superlative features of the OM-1 include:

- **LIGHT WEIGHT:** only 18 ounces — no special telescope balance weights usually required.
- **VIRTUALLY NO SHUTTER VIBRATION** — The ultra-smooth operation of the OM-1 shutter has not been duplicated by other camera manufacturers to date.
- **MANUALLY-RETRACTABLE MIRROR:** Ends the problem of ruined photos due to "mirror slap". Once you center and focus the image, the camera mirror is manually retracted prior to shutter engagement.
- **2 FOCUSING SCREENS INCLUDED:** One for astrophotography, one for general photography.
- **DIRECT COUPLING TO TELESCOPE:** Using a MEADE camera adapter (page 25) the OM-1 is easily and directly coupled to virtually any telescope for either prime ("first") focus or eyepiece-projection photography.
- **EASY AVAILABILITY OF TERRESTRIAL LENSES:** The wide assortment of Olympus lenses for general photography is available from local camera stores throughout the world.
- **OPERATING INSTRUCTIONS:** In addition to the standard Olympus operating manuals, a thorough 7-page instruction booklet on the application of the OM-1 to astrophotography is included with each camera. Subjects covered include: prime focus and eyepiece-projection photography, focusing methods, exposure and guiding techniques, use of filters, choice of films.

MODEL 844: OLYMPUS OM-1 ASTROCAMERA — Includes camera body, 2 focusing screens; flexible cable shutter release, instructions.

MODEL 845: Per Model 844, but in addition with MEADE camera adapter for both prime focus and eyepiece-projection photography. (Please specify either 1¼" or .965" O.D. eyepiece holder.)

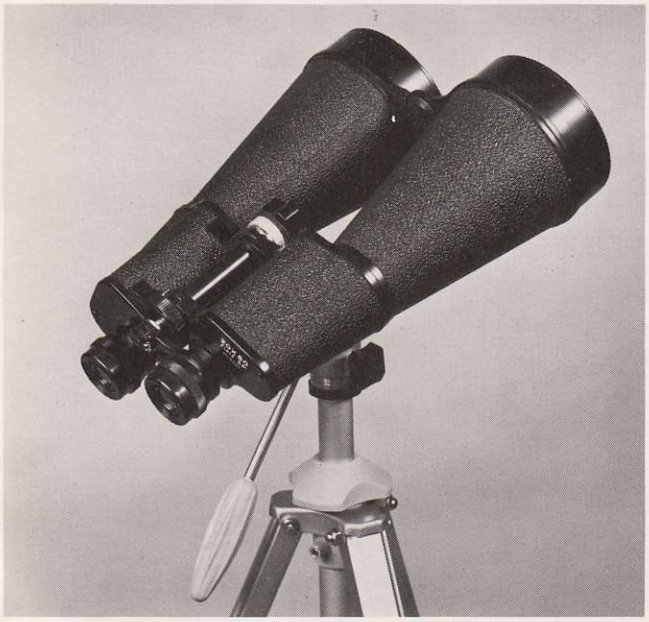




OLYMPUS VARI-MAGNI FINDER

This right-angle finder attaches directly to the Olympus OM-1 Astrocamera and magnifies the standard viewfinder image by either 1.2X or 2.5X, at the observer's option. The increased magnification is a significant aid in obtaining sharp focus, and is particularly desirable in the focusing of faint objects.

20 x 80mm ASTRONOMICAL BINOCULARS



These fine, large-aperture binoculars open up the skies for breathtaking deep-space observing. Their highly-corrected, fully coated optics present a wide 3.5° field at 20 power. Scan the Milky Way with a pair of these 20 x 80's, or use them for terrestrial close-ups. Either way, they provide brilliant images, long eye-relief, and excellent resolution. Optional tripod adapter available.

SPECIFICATIONS

Power:	20X
Objective lens diameter:	80mm (3.1")
Length:	11 in.
Weight:	5 lbs.
Field of view:	3.5°
Near focus:	35 ft.

Bushnell Tripod: This lightweight aluminum tripod by Bushnell provides a steady platform for our 20 x 80mm binoculars. Easily adjustable for terrestrial or sky-scanning. Height is variable from 3 ft. to 5 ft. Collapsed length: 24 in. Weight: 4¼ lbs.

PRICE LIST FOR GENERAL CATALOG
Complete Refracting Telescopes

General Catalog Page No.

3 **MODEL 291: 2.4" EQUATORIAL REFRACTOR, complete** ..... $265.00 f.o.b.
- Electric Motor Drive #781 (115v./60Hz) for Model 291 ..... 80.00 ppd.
- Electric Motor Drive #781F (220v./50Hz) for Model 291 ..... 80.00 ppd.
- Variable-frequency drive correctors (see catalog pg. 22)
- Additional eyepieces .965" O.D. (see catalog pgs. 8, 26)
- Camera adapters (see catalog pg. 25)
- Sun projection screen with clamp ..... 12.95 ppd.
- Erecting Prism System for terrestrial observations ..... 19.95 ppd.
- Olympus OM-1 astrocamera (see catalog pg. 27)
- **Equatorial Mount for Model 291:** includes complete mount with flexible steel cable controls, tube cradle (accepts tubes to 2.5" diameter), tripod, and accessory tray ..... 140.00 f.o.b.

5 **MODEL 300: 3.1" EQUATORIAL REFRACTOR, complete** ..... $435.00 f.o.b.
- Electric Motor Drive #781 (115v./60Hz) for Model 300 or 305 ..... 80.00 ppd.
- Electric Motor Drive #781F (220v./50Hz) for Model 300 or 305 ..... 80.00 ppd.
- Variable-frequency drive correctors (see catalog pg. 22)
- Additional eyepieces .965" O.D. (see catalog pgs. 8, 26)
- Camera adapters (see catalog pg. 25)
- Erecting Prism System for terrestrial observations ..... 19.95 ppd.
- Olympus OM-1 astrocamera (see catalog pg. 27)
- **Equatorial Mount for Model 300:** includes complete mount with flexible steel cable controls, tube cradle (accepts tubes to 3.3" diameter), tripod, and accessory tray with tray light ..... 205.00 f.o.b.

MODEL 305: 3.1" EQUATORIAL REFRACTOR with 1¼" Focuser and high performance 1¼" O.D. Eyepieces, complete ..... $495.00 f.o.b.
- Additional eyepieces 1¼" O.D. (see catalog pgs. 8, 9, 10)
- Erecting Prism System 1¼" O.D. for terrestrial observations ..... 32.95 ppd.
- (Other optional accessories per Model 300)

6 **MODEL 420: 4" EQUATORIAL REFRACTOR, complete** ..... $1825.00 f.o.b.
- Electric Motor Drive #782 (for Models 420-447 (115v/60Hz) ..... 125.00 ppd.
- Electric Motor Drive #782F for Models 420-447 (220v/50Hz) ..... 125.00 ppd.
- Variable-frequency drive correctors (see catalog pg. 22)
- 2" Photo-Guide telescope with diagonal prism, 50X crosshair eyepiece, mounting rings and clamps ..... 99.50 f.o.b.
- 2" Mounting rings attached to 4" mounting clamps ..... 40.00 ppd.
- Illuminated reticle guiding eyepiece (see catalog pg. 24)
- Additional eyepieces (see catalog pgs. 8, 9, 10, 12)
- Photo-visual color filters (see catalog pg. 13)
- Olympus OM-1 astrocamera (see catalog pg. 27)
- Camera adapters (see catalog pg. 25)
- Piggyback camera bracket/clamp ..... 26.00 ppd.
- Auxiliary counterweight for mounting on main telescope tube, with clamps ..... 45.00 ppd.
- Sun Projection Screen with mounting brackets ..... 28.00 ppd.
- Erecting Prism System 1¼" O.D. for terrestrial observations ..... 32.95 ppd.

General Catalog Page No.

6 **MODEL 422: 4" EQUATORIAL REFRACTOR** with Motor Drive ..... $1950.00 f.o.b.

MODEL 433: 4" PHOTO-EQUATORIAL REFRACTOR, with Photo-Guide Telescope ..... 1975.00 f.o.b.

MODEL 436: 4" PHOTO-EQUATORIAL REFRACTOR with Photo-Guide Telescope and Motor Drive ..... 2100.00 f.o.b.

MODEL 440: 4" PHOTO-EQUATORIAL REFRACTOR with Photo-Guide Telescope, Motor Drive and Variable-Frequency Drive Corrector ..... 2215.00 f.o.b.

MODEL 445: 4" PHOTO-EQUATORIAL REFRACTOR with Photo-Guide Telescope, Motor Drive, Variable-Frequency Drive Corrector, and Illuminated Reticle Guiding Eyepiece ..... 2259.00 f.o.b.

MODEL 447: 4" PHOTO-EQUATORIAL REFRACTOR with Photo-Guide Telescope, Motor Drive, Variable-Frequency Drive Corrector, Illuminated Reticle Guiding Eyepiece, Piggyback Camera Bracket/Clamp, and Olympus OM-1 Astrocamera with Adapter ..... 2555.00 f.o.b.

Telescope Parts and Accessories

8 **SERIES 2 ORTHOSCOPIC EYEPIECES (1¼" O.D. or .965" O.D.)**
Focal lengths: 4, 6, 9, 12.5, 18, 25mm ..... each $27.95 ppd.

9 **SERIES 2 MODIFIED ACHROMATIC EYEPIECES (1¼" O.D.)**
Focal lengths: 6, 9, 12, 25. 40mm Wide Field ..... each 19.50 ppd.

MODIFIED ACHROMATIC 40MM EXTRA-WIDE-FIELD (1¼" O.D.) ..... 24.75 ppd.

10 **RESEARCH-GRADE ORTHOSCOPIC EYEPIECES (1¼" O.D.)**
Focal lengths: 4, 7, 10.5, 16.8, 28mm ..... each 38.95 ppd.

RESEARCH-GRADE ERFLE EYEPIECES (1¼" O.D.)
Focal lengths: 12.4, 15.5, 20mm ..... each 44.50 ppd.

Note: Sets of 4 or more Research-Grade Eyepieces (Orthoscopic and/or Erfle) are shipped in Accessory Case #54 at no additional charge.

11 **RESEARCH-GRADE TELENEGATIVE AMPLIFIERS (MULTI-COATED)**
- Model 122: 2X Telenegative Amplifier (1¼" O.D.) ..... $29.50 ppd.
- Model 123: 3X Telenegative Amplifier (1¼" O.D.) ..... 32.50 ppd.
- Model 124: 2X Telenegative Amplifier (1¼" O.D.) with separate eyepiece-holder for 3X ..... 39.50 ppd.
- Model 131: 2X Telenegative Amplifier (.965" O.D.) ..... 24.50 ppd.
- Model 127: 2X-3X Variable Telenegative Amplifier (1¼" O.D.) ..... 36.50 ppd.

2X ACHROMATIC BARLOW LENS (1¼" O.D.) ..... 19.95 ppd.