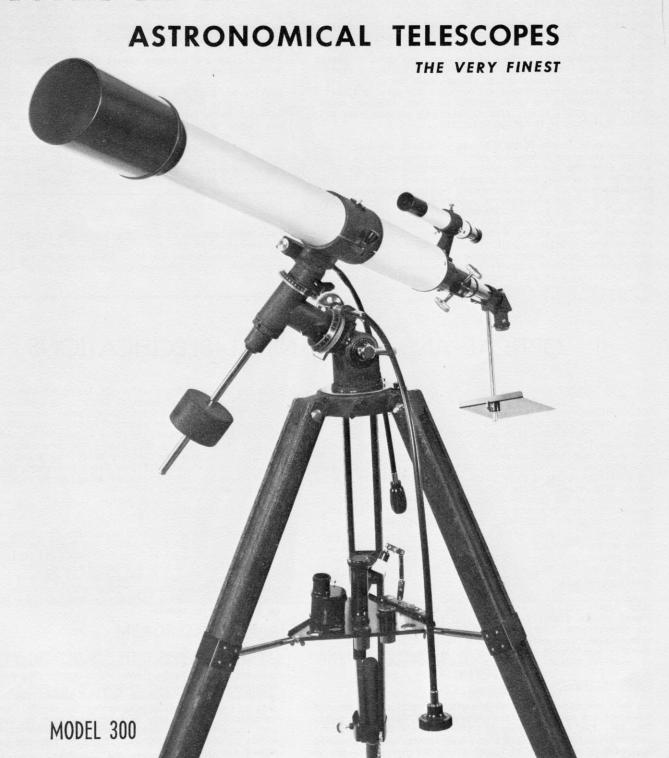
# MEADE



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P. O. BOX 326 CANOGA PARK, CALIFORNIA 91303 PHONE: (213) 883-3055

# MEADE ASTRONOMICAL TELESCOPES

Few avocations afford the amateur the personal excitement and educational rewards of astronomy. With a minimum of outlay he can explore worlds which were to the ancients only the vaguest of abstractions. He can, with the smallest of the telescopes presented on the following pages, discover the nature of the solar system: cloud belts on the surface of the planet Jupiter, satellites of Jupiter, the ring system and satellites of Saturn, the pock-marked surface of the Moon, the changing phases of Mercury and Venus, asteroids, comets, the enigmatic spots on the Sun. He can reach out to glimpse near the edge of our system to the planets Uranus and Neptune. And observe a host of objects outside the solar system: galaxies, nebulae, variable stars, double stars, star clusters—by the hundreds. All within the grasp of the MEADE Model 210.

As he advances to the MEADE 2.4" and 3" models the amateur astronomer can study in greater detail a tremendous range of celestial phenomena and if he chooses, contribute meaningfully to a number of serious research programs. The additional light gathering power of the larger models enables the observer to study finer points of Jupiter's surface markings, including the Great Red Spot and variable characteristics of the cloud belts, brightness differences between the rings of Saturn, and prominent features of the Martian landscape. Deep-sky objects take on added brilliance with larger apertures: galaxies and nebulae are seen in wider extension, closer and fainter double stars resolved. Short exposure astrophotography is a fascinating possibility with any MEADE refractor and with the equatorially mounted models, exposure time can be increased. For long exposure photographs the Electric Motor Drive is essential.

Utilizing nothing more sophisticated than a standard 35mm camera mounted coaxially to the telescope and guided by the main instrument, time exposure photographs of remarkable detail can be obtained. The Polaroid Land camera, with its instant developing advantages and high-speed film, offers the amateur the unusual opportunity to obtain on the spot an accurate atlas of the sky on any given night. MEADE 3" models include as standard equipment a threaded camera adapter permanently fixed to the telescope saddle.

Quality equipment is a prerequisite for the enjoyment of any field, and at Meade Instruments we take seriously the responsibility to deliver fine astronomical telescopes that offer the utmost in observer satisfaction. And at the most competitive prices possible. We believe in these telescopes, and we know that the purchaser of any of the models presented on the following pages, whether his interest lies in amateur astronomy or in general terrestrial observation, will experience a lifetime of enjoyment from his MEADE refractor.

#### GUARANTEE

All MEADE refractors are fully warranted for quality and workmanship. If for any reason you are not completely satisfied, simply return the instrument to us in its original condition within ten days of receipt for a full and instant refund.

# OPTICAL AND MECHANICAL SPECIFICATIONS

#### **OBJECTIVE LENSES**

The objective lenses supplied with MEADE refractors are of the finest astronomical quality and will resolve to theoretical limits. All MEADE objectives are achromatic and air-spaced, with carefully matched crown and flint components, fully corrected for both spherical and chromatic aberrations. Each lens is hardcoated to assure maximum light transmission. Lens cells are precision-machined to maintain accurate collimation of the lenses with respect to the optical tube. The 3" Equatorial Models 300 and 330 feature objective lens cells equipped with special collimation screws to set and fix optical collimation. Specifications for MEADE objectives are as follows:

MODEL NUMBER: 210 225 264 290,294 300,330 CLEAR APERTURE: 50mm 60mm 60mm 60mm 80mm FOCAL LENGTH: 600mm 700mm 800mm 900mm 1200mm FOCAL RATIO: f/12.0 f/11.7 f/13.3 f/15.0 f/15.0

#### ALTAZIMUTH MOUNTS

MEADE Models 210, 225, and 264 include altazimuth mounts designed for the stability so essential to successful astronomical observations. Locks are provided on both the altitude and azimuth axes. Slow motion controls (Models 225, 264) are smoothly functioning and greatly facilitate the manual tracking of celestial objects, particularly at higher powers.

#### EQUATORIAL MOUNTS

The ease and convenience possible with an equatorially mounted telescope are fully exploited with the MEADE Equatorial Models 290, 294, 300, and 330. Flexible steel cable slow motion controls for both declination and right ascension are standard equipment on these models; the observer can correct for the apparent motion of stellar and planetary objects with controls in proximity to the eyepiece. Worms and worm gears on MEADE equatorial mounts are contoured to mesh perfectly without backlash. Setting circles are provided for the location of faint objects not easily found by direct visual observation: declination circles are divided into units of 1 degree, hour circles into units of 10 minutes, and both can be read to much greater precision. The MEADE 110v., 60Hz. Motor Drives (available as standard equipment on Models 294 and 330) may be added at a later

date, if desired, and provide the luxury of completely automatic tracking of astronomical objects. In addition to rapid-motion locks on the declination and polar axes, an azimuth adjustment and lock are standard on all equatorial models to facilitate alignment of the polar axis with the earth's axis. A further convenience to this end is the direct-reading latitude dial, which 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 degrees for terrestrial observations.

#### FOCUSING MECHANISMS

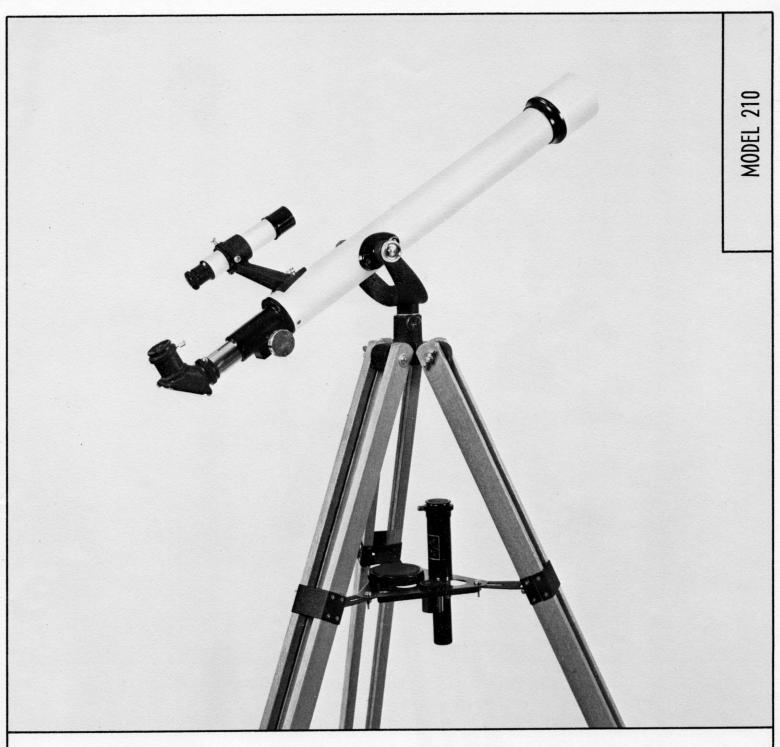
The rack and pinion focusing mechanisms furnished on MEADE refractors are designed for smooth and rapid focusing of the image. The 2.0" Model 210 and 2.4" Model 225 include the Standard mechanism with single focusing sleeve. The 2.4" Models 264, 290, and 294 and 3" Models 300 and 330 have a mechanism of more sophisticated design, with an additional drawtube for coarse as well as fine focusing. A drawtube lock is furnished on 3" Equatorial models.

#### ACCESSORIES

Eyepieces and accessories for MEADE telescopes have been chosen primarily with astronomical applications in mind. In conjunction with the 2X Barlow lens, which doubles the power of each eyepiece and is standard equipment on all models, each MEADE refractor covers an optimum range of powers. The instruments are, of course, equally well-suited for general terrestrial observations. In this case an erecting device is required to invert the astronomical image. These devices are standard on all models except Models 210 and 225, where they are available at modest additional cost.

#### OPTICAL TUBES

Tubes for MEADE refractors are of thick-walled aluminum for maximum strength and durability and minimum weight. Internal tube surfaces are painted a flat black to reduce undesirable reflections. On models of 2.4" aperture and larger, anti-reflection diaphragms are provided. Optical tubes are finished in a fine baked enamel.



# MEADE 2.0-INCH ALTAZIMUTH REFRACTOR

SPECIFICATIONS: MODEL 210--Altazimuth mount; standard rack and pinion focusing mechanism; 5X-24mm viewfinder with crosshairs; 2 eyepieces; 2X Barlow lens with drawtube adapter; star diagonal prism; sun filter. Objective lens: clear aperture, 50mm(2.0"); focal length, 600mm. Hardwood tripod with accessory tray; dewcap; dustcap; gift box; instructions.

EYEPIECES INCLUDED:

H9mm(67X,133X) H12.5mm(48X,96X)

OPTIONAL ACCESSORIES:

H6mm(100X,200X) eyepiece
1.5X Image Erector for terrestrial observations
Sun Projection Screen with
clamp and drawtube adapter
Tube Counterweight, to balance heavier accessories
attached to the eyepiece
end of the telescope



# MEADE 2.4-INCH ALTAZIMUTH REFRACTOR

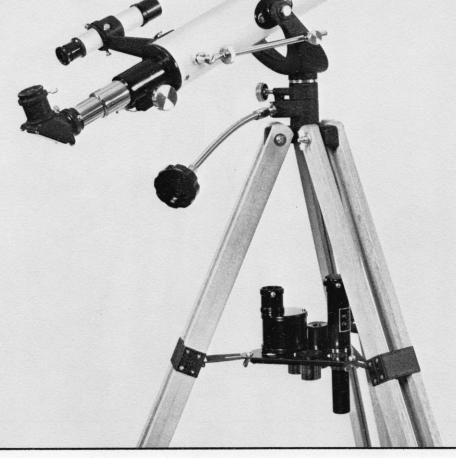
SPECIFICATIONS: MODEL 225--Altazimuth mount with altitude slow motion control; locks on both axes; standard rack and pinion focusing mechanism; 5X-24mm viewfinder with crosshairs; 2 eyepieces; 2X Barlow lens with drawtube adapter; star diagonal prism; sun filter. Objective lens: clear aperture, 60mm(2.4"); focal length, 700mm. Hardwood tripod with accessory tray; dewcap; dustcap; gift box; instructions.

EYEPIECES INCLUDED:

H9mm(78X,156X) H12.5mm(56X,112X)

OPTIONAL ACCESSORIES:

H6mm(117X,233X) eyepiece
1.5X Image Erector for terrestrial observations
Sun Projection Screen with
clamp and drawtube adapter



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## MEADE 2.4-INCH DELUXE ALTAZIMUTH REFRACTOR

SPECIFICATIONS: MODEL 264--Altazimuth mount with slow motion controls for both altitude and azimuth, including flexible steel cable control for azimuth; locks on both axes; deluxe (coarse and fine) rack and pinion focusing mechanism; 5X-24mm viewfinder with crosshairs; 3 eyepieces; 2X Barlow lens with drawtube adapter; star diagonal prism; erecting prism for terrestrial observations; sun filter. Objective lens: clear aperture, 60mm(2.4"); focal length, 800mm. Hardwood tripod with accessory tray; dewcap; dustcap fitted hardwood carrying cabinet for telescope and all accessories; instructions.

EYEPIECES INCLUDED: H9mm(89X,178X)

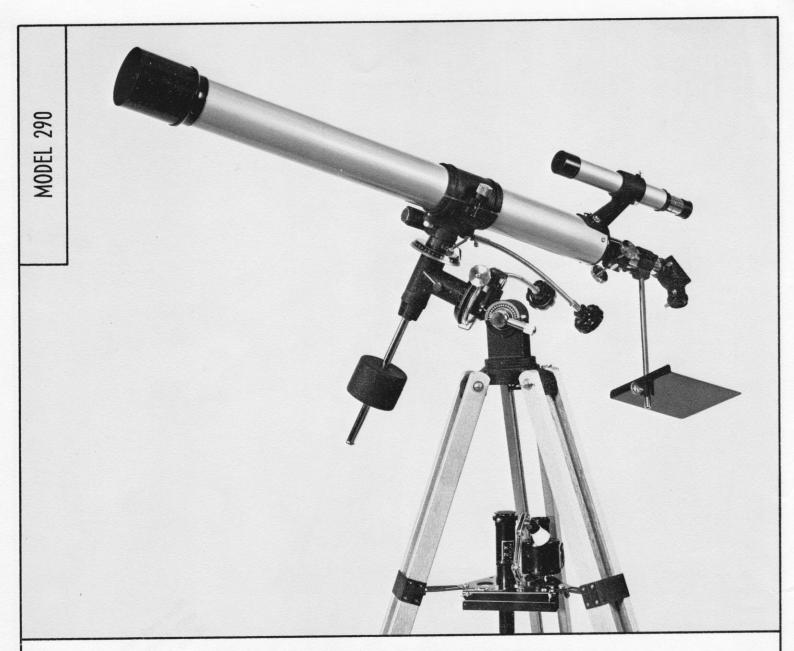
H12.5mm(64X,128X) AH20mm(40X,80X) OPTIONAL ACCESSORIES:

SSORIES:

H6mm(133X,266X) eyepiece
Sun Projection Screen
with clamp

Model 264 differs from Model 225 in the following respects:

- 1. Additional AH20mm wide-field eyepiece.
- Erecting prism for terrestrial observations is standard equipment.
- Flexible steel cable slow motion control in azimuth.
- Deluxe (coarse and fine) rack and pinion focusing mechanism.
- 5. Focal length of objective lens:800mm (vs. 700mm for Model 225) increases power by 14%.
- 6. Fitted hardwood carrying cabinet.



# MEADE 2.4-INCH EQUATORIAL REFRACTOR

SPECIFICATIONS: MODEL 290--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 with lock; setting circles on both axes; deluxe (coarse and fine) rack and pinion focusing mechanism; 6X-30mm viewfinder with crosshairs; 4 eyepieces; 2X Barlow lens with drawtube adapter; star diagonal prism; erecting prism for terrestrial observations; sun projection screen with clamp; sun filter; moon filter. Objective lens: clear aperture, 60mm(2.4"); focal length, 900mm.

Hardwood tripod with accessory tray and battery-powered tray light; dewcap; dustcap; fitted hardwood carrying cabinet for telescope and all accessories; instructions.

EYEPIECES INCLUDED: H6mm(150X,300X)

H9mm(100X,200X) H12.5mm(72X,144X) Ke22mm(41X,82X)

OPTIONAL ACCESSORY: Electric Motor Drive

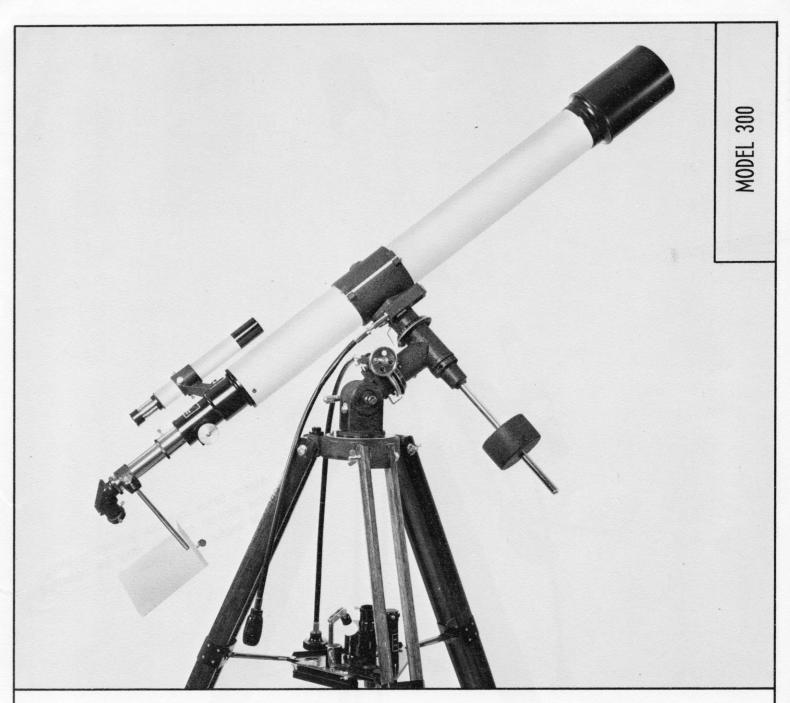
(110v., 60Hz.)

(Available as standard equipment on Model 294)

Motor Drive includes self-acting clutch:

while motor is engaged. 2.4-INCH EQUATORIAL REFRACTOR WITH MOTOR DRIVE

SPECIFICATIONS: MODEL 294--As per Model 290, but in addition with Electric Motor Drive (110v., 60Hz.) for automatic tracking of celestial objects.



# MEADE 3-INCH EQUATORIAL REFRACTOR

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 (coarse and fine) rack and pinion focusing mechanism with drawtube lock; 6X-30mm viewfinder with crosshairs; 5 eyepieces; 2X Barlow lens with drawtube adapter; star diagonal prism; erecting prism for terrestrial observations; sun projection screen with clamp; threaded standard camera adapter; sun filter; moon filter; Objective lens: clear aperture, 80mm(3.1"); focal length, 1200mm. Hardwood tripod with spirit level; accessory tray with batterypowered tray light; dewcap; dustcap; fitted hardwood carrying cabinet for telescope and all accessories; instructions.

EYEPIECES INCLUDED: SR4mm(300X)\*

HM6mm(200X,400X) HM9mm(133X,266X) HM12.5mm(96X,192X) Ke22mm(54X,108X)

OPTIONAL ACCESSORY: Electric Motor Drive

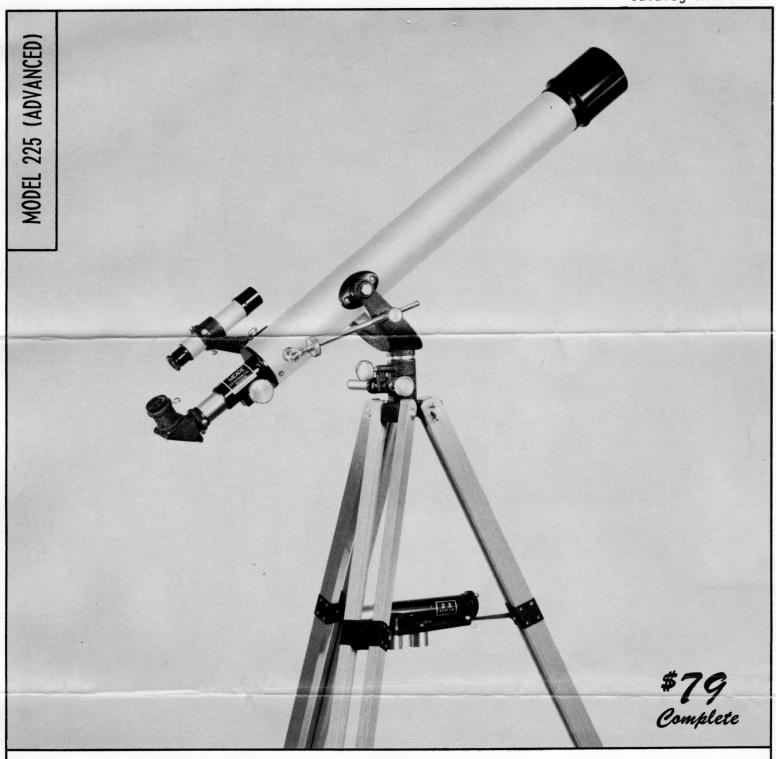
(110v., 60Hz.)

(Available as standard equipment on Model 330)

\*not recommended for use with 2X Barlow lens

MEADE 3-INCH EQUATORIAL REFRACTOR WITH MOTOR DRIVE

SPECIFICATIONS: MODEL 330--As per Model 300, but in addition with Electric Motor Drive (110v., 60Hz.) for automatic tracking of celestial objects.



# MEADE 2.4-INCH ALTAZIMUTH REFRACTOR

SPECIFICATIONS: MODEL 225--Altazimuth mount with slow motion controls for both altitude and azimuth; locks on both axes; standard rack and pinion focusing mechanism; 5X-24mm viewfinder with crosshairs; 3 eyepieces; 2X Barlow lens with drawtube adapter; star diagonal prism; sun filter. Objective lens: clear aperture, 60mm(2.4"); focal length, 700mm. Hardwood tripod with accessory tray; dewcap; dustcap; fitted hardwood carrying cabinet for telescope and all accessories; instructions.

EYEPIECES INCLUDED:

H9mm(78X,156X) H12.5mm(56X,112X) H20mm(35X,70X)

OPTIONAL ACCESSORIES:

H6mm(117X,233X) eyepiece
1.5X Image Erector for terrestrial observations
Sun Projection Screen with
clamp and drawtube adapter

P.O. BOX 326

CANOGA PARK, CALIFORNIA 91303

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### NEW MEADE MODEL 225 2.4" ALTAZIMUTH REFRACTOR

MEADE's newly designed Model 225 offers the serious amateur astronomer a high performance instrument capable of a wide range of useful applications. The Model 225 comes complete with:

- Achromatic, air-spaced, hardcoated objective lens (resolving power 1.9 arc sec.), fully corrected for both spherical and chromatic aberrations.
- Dual micrometric slow motion controls in altitude and azimuth for accurate, effortless tracking of celestial objects.
- Three precision ground and polished eyepieces for powers to 156X. SPECIAL!!! If we receive your order for the Model 225 <u>before</u> December 1, we will include, free of charge, a fourth eyepiece, H6mm, for powers to 233X!
- · All metal mount, fittings, and optical tube.
- 54" hardwood tripod; fitted hardwood carrying cabinet for complete telescope unit.
- Full complement of the finest astronomical accessories.

You can pay less for a telescope, but if what you are considering includes the resolution and image clarity possible only with fine <u>astronomical</u> optics, the controlled tracking enabled by a stable, well-engineered mount, and the capability for an ever-expanding observational program, then the MEADE Model 225 was designed for you. At \$79 it is a very sound value indeed.

We guarantee delivery before Christmas if your order is received by December 15. All MEADE refractors are sold with our unconditional warranty. Telescopes purchased as Christmas gifts may be returned for full refund before January 15, 1973, if for <u>any</u> reason you are not completely satisfied.

### NEW PRICE LIST ON MEADE REFRACTORS

MODEL	210	2.0"	ALTAZIMUTH R	EFRACTOR		 	 	\$ 49
MODEL	225	2.4"	ALTAZIMUTH R	EFRACTOR.		 	 	\$ 79
MODEL	264	2.4"	DELUXE ALTAZ	IMUTH RE	FRACTOR.	 	 	\$ 99
MODEL	290	2.4"	EQUATORIAL R	EFRACTOR		 	 	\$140
MODEL	300	3.1"	EQUATORIAL R	EFRACTOR.		 	 	\$235
MOTOR	DRI	VES FO	OR EQUATORIAL	MODELS.		 	 	\$ 40

SEE OUR CATALOG FOR FULL DETAILS ON ALL THESE FINE INSTRUMENTS.

PHONE (213) 883-3055

### PRICE LIST

Shipped complete as per catalog specifications:

MODEL 210 2.0" ALTAZIMUTH REFRACTOR\$59										
MODEL 225 2.4" ALTAZIMUTH REFRACTOR\$79										
MODEL 264 2.4" DELUXE ALTAZIMUTH REFRACTOR\$99										
MODEL 290 2.4" EQUATORIAL REFRACTOR\$169										
MODEL 294 2.4" EQUATORIAL REFRACTOR WITH MOTOR DRIVE\$209										
MODEL 300 3" EQUATORIAL REFRACTOR\$289										
MODEL 330 3" EQUATORIAL REFRACTOR WITH MOTOR DRIVE\$329										
ACCESSORIES										
H6mm Eyepiece\$7.00										
1.5X Image Erector (for Models 210, 225)\$6.50										
Sun Projection Screen with Clamp*\$5.50										
Tube Counterweight for Model 210 (to balance heavier access- ories attached to the eyepiece end of the telescope)\$4.00										
Electric Motor Drive for Model 290\$45.00										
Electric Motor Drive for Model 300\$45.00										

<sup>\*</sup>Models 210 and 225 require the use of a drawtube adapter in conjunction with the Sun Projection Screen. This adapter is priced at 25¢.