

Criterion

GUARANTEE

All products sold by Criterion are fully guaranteed against defects in quality and workmanship. Every item is also guaranteed to be exactly as represented. Rigid inspection requirements at our factory assure you of a guaranteed quality product. Any part found to be defective will be replaced without charge or transportation expense.

YOU MUST BE 100% SATISFIED WITH ANY PRODUCT PURCHASED FROM CRITERION OR WE WILL REFUND YOUR PURCHASE PRICE IN FULL, WITHOUT QUESTIONS.

Criterion has introduced many new optical developments over the many years it has been established and in addition produces many fine instruments of all kinds and sizes.

HOW TO ORDER

1. On all items marked "Postpaid," we pay postage.
2. On items marked "F.O.B. Hartford," item is sent by Railway Express, and transportation charges are collected on arrival.
3. Send cash, check or money order with enclosed order blank.
4. Every effort is made to get your order to you in quickest time possible.

All prices are subject to change without notice.

More than 200,000 satisfied customers have purchased from Criterion and we feel confident you will be satisfied too.

CRITERION MANUFACTURING CO.

331 CHURCH ST., HARTFORD, CONN. 06101



**ASTRONOMICAL KITS, PARTS,
ACCESSORIES for the
TELESCOPE MAKER,
SCHOOLS, SCIENCE,
INDUSTRY**

CRITERION

Manufacturers of Quality Optical Instruments

MANUFACTURING COMPANY
331 CHURCH STREET HARTFORD, CONNECTICUT

F12 KITS



ALL OPTICS COMPLETELY FINISHED

Criterion F12 kits will serve to introduce you to one of the most fascinating of all hobbies and afford an inexpensive approach to the field of astronomy. All optical parts required to build a powerful reflector have been completely finished. These kits provide an excellent opportunity for classroom experiments, hobbyists, and the beginning amateur. The completed telescopes are of surprising efficiency, and amazingly high power. It is to be emphasized however, that mirrors of this quality and in this price range are not warranted to perform to the limits of a custom built parabolic mirror.

We supply an aluminized mirror, aluminized diagonal, 2-piece eyepiece mount, set Ramsden eyepiece lens, extra lens, rings and complete set of instructions.

3" Plate Kit 39" F.L. Cat. #B3	Postpaid \$ 9.95
4" Plate Kit 48" F.L. Cat. #B4	Postpaid 12.75
5" Plate Kit 60" F.L. Cat. #B5	Postpaid 15.75
6" Pyrex Kit 72" F.L. Cat. #B6	Postpaid 21.00

F12 SPECIAL KITS

In addition to all the parts in the F12 kits above, we include a cast metal eyepiece mount and diagonal holder, focusing tube, and our complete cast aluminum mirror mount. You then have all the parts for complete telescope with exception of main tube and tripod. Order by number.

3" Plate F12 Special Cat. # BS3	\$14.75
4" Plate F12 Special Cat. #BS4.	18.50
5" Plate F12 Special Cat. #BS5.	23.50
6" Pyrex F12 Special Cat. #BS6	28.00

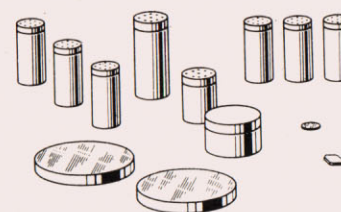
COMPLETE GROUND & POLISHED MIRRORS

Since some amateurs want only the mirror from the F12 kits, prices of mirrors alone are given below. They are aluminized, silicon monoxide overcoated.

3" Plate #BG3.	\$9.95	5" Plate #BG5.	\$15.90
4" Plate #BG4.	14.00	6" Pyrex #BG6.	19.95

MIRROR MAKERS KIT

GRIND YOUR OWN MIRROR



All the materials called for in *Mechanix Illustrated* plans for building a telescope are contained in these kits. These plans can be obtained by writing to Criterion, Dept. MP, for only \$2.00 postpaid.

Criterion Mirror Makers Kits contain sufficient materials to complete the task of grinding your own mirror complete at a minimum of cost. If properly finished, all the long hours of work are rewarded when you train your own creation on the stars. The first look truly is a thrill of a lifetime.

These kits contain Pyrex mirror blank, plate glass "tool," completely finished front surface aluminized diagonal, 5 grades of carborundum, package of optical rouge and finishing powder, 1 bar of pitch and an inspection lens.

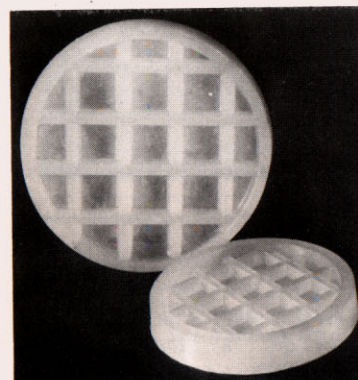
Cat. # MG40	4" Pyrex Kit	\$ 7.00
Cat. # MG60	6" Pyrex Kit (to make <i>Mechanix Illustrated</i> scope).	12.00
Cat. # MG80	8" Pyrex Kit (transport charges collect).	19.50
Cat. # MG110	10" Kit (transport charges collect)	30.50
Cat. # MG112	12" Kit (transport charges collect)	59.00

NOW — A REVOLUTIONARY METHOD FOR MAKING PITCH LAPS!

PATENT PENDING

Saves Hours — Better Results

Not a mat or grid but a precision mold made on costly accurate dies. Pour in pitch to cover facets, set tool in mold. Tool will center itself. After cooling, peel off mold, hot press mirror into pitch lap and start polishing. No trimming. Whole operation takes about 45 minutes. Save 2 hours on a 4" mirror, 4 hours on a 6", and as much as 5 hours on an 8". Can be reused indefinitely, won't wear out, shrink, or tear. Flexible molds are 1" thick, made of specially formulated material that withstands 350° heat. Veteran mirror makers marvel at the eliminated operations. You'll get a better polished surface with the evenly spaced deep grooves. The cost of these molds is well worth the time saved on only one mirror.



No. K4702 for 4", 4 1/4" mirrors.	\$3.95 ppd
No. K4703 for 6" mirrors.	\$5.95 ppd
No. K4704 for 8" mirrors.	\$6.95 ppd
No. K4705 for 10" mirrors.	\$7.95 ppd
No. K4706 for 12 1/2" mirrors.	\$9.00 ppd

ABRASIVES AND POLISHES

Our abrasives and polishes are compounded of only the finest ingredients, and are the same dependable materials supplied to the leading optical manufacturers. Guaranteed to be true to grain size and free from contamination assuring fine finishes. Packed in shaker top containers under laboratory clean conditions. "A" Packs have about double the requirements for a 6 inch mirror and enough for an 8 inch to 12-1/2 inch mirror. "B" Packs are bulk packed and are a saving for group and club purchasers, are shipped by Express F.O.B. Hartford,

Description	"A" Pack	Price	"B" Pack	Price
#80 Carbo undum	16 oz.	\$1.25	5 lbs	\$5.00
#120 Carborundum	6oz.	.70	1 lb.	1.50
#220 Alundum	4 oz.	.75	1 lb.	2.50
#320 Alundum	3 oz.	.75	1 lb.	3.00
#400 Alundum	3 oz.	.75	1 lb.	3.10
#600 Alundum	2 oz.	.60	1 lb.	3.75
#305 Emery	2 oz.	.60	1 Lb.	3.75
Red Jewelers Rouge	8 oz.	1.00	1 lb.	1.85
Cerium Oxide	4 oz.	1.50	1 lb.	4.50
Barnesite	4 oz.	1.60	1 lb.	4.60
Tempered Pitch	1/2 lb. bar	.50	5 lbs.	4.20

Prices include postage on all the above.

Cat # PA11... "A" Pack complete \$8.95 shipped by Express F.O.B. Hartford,

PYREX MIRROR BLANKS & PLATE GLASS TOOLS

Mirror blanks are standard pyrex, and our Plate XX tools give maximum uniformity and rigidity while grinding. Insist on Criterion XX Plate tools.

PYREX MIRROR BLANKS		PLATE GLASS TOOLS	
Dia. Thick,	Price	Dia. Thickness	Price
4" X 5/8"	\$2.75	4" X 1/2"	\$2.95
4 1/4" X 3/4"	2.75	4 1/4" X 3/4"	3.25
6 " X 1"	4.95	6" X 3/4"	5.20
8" X 1 3/8"	8.50*	8" X 1"	8.95*
10" X 1 3/4"	17.25*	10" X 1"	14.95 *
12 1/2 X 2 1/8"	30.00*	12 1/2" X 1"	18.95 *
16" (110 lbs.)	165.00*		

* Items marked with (*) are shipped by Express F.O.B. Hartford, Conn. All other items shipped postpaid. 12-1/2" Pyrex.. 27 lbs. 16" Pyrex.. 110 lbs. 12-1/2" Plate .. 16 lbs.

ALUMINIZING

Vacuum chamber process, producing exceptional hardness and high reflectivity. Prices include return postage and insurance on mirrors to 6" 8" 10" 12 inch mirrors returned by Railway Express collect. Please be sure to pack mirror very carefully and insure when shipping. Allow two weeks for delivery.

4"	4-1/4"	6"	8"	10"	12-1/2"
\$7.00	\$8.00	\$9.95	\$14.95*	\$26.00*	\$33.00*

* Items marked with (*) are shipped by Express F.O.B. Hartford, Conn.

CRICO GRADE A KITS

You can build a better reflecting telescope with Crico Grade A kits because the optics are of superior quality. Such a telescope is guaranteed to be capable of brilliant optical performance when properly assembled. The mirrors in these kits are hand corrected to more exacting limits than the F12 mirrors and the final results are worthy of the time and effort put into building the telescope. All optical parts are completely finished, tested, and ready for mounting.

Kits contain : (1) Aluminized, overcoated main mirror, (2) Aluminized diagonal mirror, (3) Two planoconvex lenses mounted in tube for Ramsden eyepiece use (4) Aluminum tube eyepiece holder, (5) extra lens rings, (6) Complete set of instructions to build the telescope.

Cat. #	Description	Price
A3	3" kit, 36" focal length	18.00
A4	4" kit, 47" focal length	24.00
A6	6" kit, 72" focal length	34.00

The above kits can also be supplied, in addition, with (1) cast metal eyepiece mount and diagonal holder, (2) focussing tube, (3) aluminum mirror mount. With these additional parts, you then have all the parts for a complete telescope with exception of main tube and tripod.

Cat#	Description	Price
AK#3	3" kit, Grade A with additional parts	23.00
AK#4	4" kit, Grade A with additional parts	29.00
AK#6	6" kit, Grade A with additional parts	39.00

GRADE A COMPLETED SPHERICAL MIRRORS

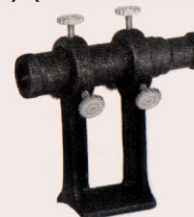
Excellent results guaranteed with these first quality spherical mirrors. Hand corrected to eliminate zones and aberrations and finished to Criterion's exacting standards. Aluminized and overcoated with zircon quartz. Telescopes using these mirrors are capable of excellent definition and extreme power. Each and every mirror is rigidly tested on Foucault, Ronchi, and final definition tests to guarantee Dawes limit for its size and to be the finest low cost spherical obtainable at any price. Built to true scientific standards.

Cat. #	Description	Price
M3	3 Inch Clear Diameter, 36" F.L.	14.95
M4	4 Inch Clear Diameter, 47" F.L.	18.50
M6	6 Inch Clear Diameter, 72" F.L.	26.95



FINDER TELESCOPE

A genuine good quality 4X finder ready to mount and completely assembled. Has fine cross hairs and precision ground lenses. Wide field of view. Made of aluminum, 3-1/2" long, 20MM O.D. All elements threaded with focussing knurled eyepiece. Black wrinkle finish. A real value for the amateur telescope builder.



No. F410 \$5.95 Postpaid
Special

CRITERION MFG. CO.

CRITERION MFG. CO.

CUSTOM MADE PARABOLIC MIRRORS

BETTER THAN 1/10 WAVE

Without question, the most important part of a reflecting telescope is the highly precise mirror. Final correction of the best mirrors lie in their parabolization. For the most effective performance, the mirror must be the result of highly skilled hands and delicate scientific instruments. It takes great skill to properly parabolize a fine mirror. This operation, done meticulously by hand corrects an otherwise spherically polished surface for spherical aberration and focuses all rays to a point so that all the light

is used. It is of further importance when you realize that the mirror must be "over parabolized" or "under parabolized" to allow for variations in temperature. It is necessary too that there be no internal stress or strain within the glass and so the best glass must be used.

The Criterion Custom line of mirrors are of the highest quality, completely finished, corrected, aluminized and zircon quartz overlaid. Each mirror is guaranteed to perform to the limit of resolution for its size. All are made of Pyrex, in the correct thickness, parabolized by craftsmen and tested by Ronchi and Foucault tests as well as diffraction and final resolution tests. Each is guaranteed unconditionally.

No. AA440	4" Pyrex, FL approx. 40"	\$ 29.00
No. AA68	6" Pyrex, f8	59.00
No. AA88	8" Pyrex, f8	89.00
No. AA108	10" Pyrex, f8	169.00
No. AA107	10" Pyrex, f7	175.00
No. AA1258	12 1/2" Pyrex, f8	265.00
No. AA1257	12 1/2" Pyrex, f7	275.00
No. AA1256	12 1/2" Pyrex, f6	305.00

HERE IS WHAT OUR CUSTOMERS SAY!

The 8" mirror is truly superb. Its resolving power exceeds the Dawes limit! Excellent photographic results. I am able to outperform larger instruments. J.C.C. Minneapolis, Minn.

Our telescope with the 6" Criterion mirror performs beyond our expectations. We recommend Criterion to anyone wanting the finest optics available. R.D.M. Baltimore, Md.

After I received the Criterion AA 6" mirror, I tested it very carefully. The figure was perfect, and far better than you claim. The diagonal was the same. How you do it is beyond me. Enclosed is check for a 10" mirror . . . B.R.F. Los Angeles, Calif.

Being a perfectionist, I had tried mirrors from others even at higher prices. I was surprised and delighted when the Criterion 8" mirror exceeded the performance expected. Keep up your high standards. . . G.R.P. Houston, Texas.

This Criterion mirror constantly impresses everyone with its superb resolution. I believe there is none of higher precision. Everything from Criterion has been of highest professional quality. L.J.C. Cleveland, Ohio.

Criterion

REFLECTING TELESCOPE MIRROR MOUNTS

The mounting of your mirror to the tube is of extreme importance. Unless it is properly done, an otherwise perfect picture can be ruined. The mirror must be mounted so that it is absolutely centered in your tube, free of vibration, and able to hold alignment once set. Most important, it must be held in such a manner that flexure of the highly sensitive mirror face does not develop. Criterion mounts are designed to eliminate all these difficulties. Criterion mirror mounts are made of cast aluminum with brass mounting and adjusting screws. One section fits to the tube and the other section holds the very important mirror. Alignment is accomplished by three spring loaded knurled adjusting nuts. Outer cell is designed to fit into your tube or over it, as sufficient space is left between the two cells. Cast on our own modern high speed production equipment we are able to offer them at the lowest prices ever. All drilled and tapped, complete with holding clamps, screws, springs, nuts, etc. ready for use. Order by your mirror size.

Specify Series "A" When Ordering



SHIPPED POSTPAID

3"	\$ 3.00
4"	3.50
5"	4.00
6"	6.50
8"	18.50
10"	23.50

MAIN TUBES

In selecting the main tube for your telescope, remember that it must hold all your parts in permanent alignment with each other. Sectional tubes or 2 part tubes, one sliding into the other, are definitely not advisable as there will be alignment difficulties as well as loss of concentricity between the sections. Sound optical practice calls for a single piece tube. The material used should be of an insulating nature, yet unaffected by weather conditions as alignment would be lost as the material changed.

After much experiment and many years of successful use in the field, we have selected a special bakelite type material that meets all these qualifications. Unlike soft materials, it is machineable so that your parts can be fitted with assurance they will stay in position permanently.

NOW IN STOCK

Special for 6 Inch f8 telescopes.
50" long tube, 7 1/4" ID, 1/8" wall.
Natural finish. For perfect job.

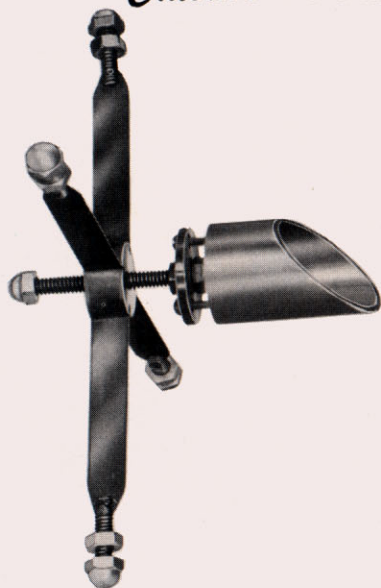
No. 654... \$18.50 FOB Hartford

AVAILABLE IN SIZES TO FIT CRITERION MIRROR MOUNTS. ORDER BY MIRROR SIZE.

3"—38" long 1/8" wall	\$4.00
4"—46" long 1/8" wall	8.00
5"—58" long 1/8" wall	14.75
6"—75" long 1/8" wall	21.50

Shipped by Express F.O.B. Hartford, Conn.

Criterion FOUR VANE DIAGONAL HOLDERS



Criterion 4 vane diagonal mountings are fully adjustable and will hold elliptical diagonals in perfect alignment. Made of brass and chemically blackened. A narrow rim on cell holds the flat securely, without strain. Precision adjusting screws and plate next to cell enable you to precisely center the flat in the tube and vary its angle so that primary and secondary can be set in perfect alignment. The four vanes are very thin (.025) to cut down diffraction, with special end studs for easy and accurate mounting. A worthy mounting for the finest optic. You'll realize maximum performance from your telescope because the critical secondary alignment can be made with micrometric accuracy and is locked in that position. These high precision supports are of tried and proven professional design and are carefully mastercrafted to close tolerances. Supports for secondaries of 2" minor axis up are equipped with counterbalances to reduce the torque from the vanes in off-zenith positions.

Order by minor axis size of your elliptical.

Cat. No.	Minor Axis Size	To Fit Tube O.D.	Price
S1	1.25"	6-1/2" to 7-1/2"	\$10.95
S2	1.30"	6-1/2" to 7-1/2"	10.95
S3	1.50"	8-1/2" to 9-1/2"	12.95
AS4	1.75"	9-1/2" to 10-1/2"	15.00
S5	2.00"	11" to 11-1/2"	17.95
S6	2.50"	Specify tube i.d.	22.00
S7	2.61"	Specify tube i.d.	25.00
S8	3.00"	Specify tube i.d.	27.50

Criterion CIRCULAR SECONDARY SUPPORTS

Our special Circular Secondary Supports eliminate the diffraction "spikes" caused by spider vanes without reducing light. Identical to the above holders in cell construction but have circular supporting rings instead of the conventional four vanes. Made of brass chemically blackened and are extremely rigid. Designed to fit only tube sizes listed and standard Criterion tubes. Not recommended for use in semi-soft tubes such as fiberglass or cardboard and should be used only in tubes of rigid composition such as bakelite, insulated metal, etc. which do not warp under severe moisture conditions and are concentric. Available in the following sizes only.

Cat. No.	Minor Axis Size	To Fit Tube I.D.	Price
CS-1	1.25"	7-1/4"	16.00
CS-2	1.30"	7-1/4"	16.00
CS-3	1.50"	9-1/4"	17.50
CS-5	2.00"	11-1/4"	28.00



All supports prices are postpaid. Shipped parcel post.

Criterion for Professional Accessories

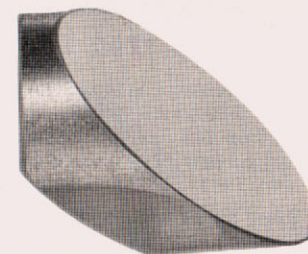
Criterion EXTRA FINE ELLIPTICAL DIAGONALS

These flats are Criterion superfine quality. Maximum resolution is achieved when a fine main mirror of excellent figure is teamed with a secondary mirror of equal or better quality and of proper size. A flat of questionable quality can impair resolution, cause aberrations, and introduce other faults. Criterion secondary mirrors are delicately corrected to the most rigid requirements and are used in fine professional instruments. They are elliptical in shape, so that when inclined at 45 degrees, they give a circular appearance, reflect more light, shade a smaller area of the primary mirror, and cause less diffraction than prisms or square flats.

These precision elliptical diagonals are available in fused quartz as well as in Pyrex. The Clear Fused Quartz diagonals are made plane to 1/20 wave and the Pyrex are better than 1/8 wave. Surface planeness is checked with a Master Flat certified by the National Bureau Of Standards. Ground to true ellipses to fit round tubing cut off at 45 degrees or for mounting in our 4 vane and circular spiders. Made in correct thickness to eliminate surface flexure and guaranteed perfect over the entire illuminating area complete to the very edge.

All are extra thick (about .40) for greatest rigidity, aluminized and overcoated.

Size	For use with	Price	Price
Minor Axis	a mirror of	Pyrex	Quartz
1.25 inch	6"	\$10.95	\$16.95
1.30 inch	6"	10.95	16.95
1.50 inch	8"	16.50	23.50
1.75 inch	10"	24.75	29.95
2.00 inch	10"	25.95	34.00
2.50 inch	12 1/2"	45.00	
2.61 inch	12 1/2"	49.95	
3.00 inch	16"	79.95	



Rectangular flat, pyrex, 1/8 wave, for 4", 4 1/4" mirrors available ... \$7.50
All prices postpaid. Carefully packed and sent by First Class Mail.



HEAVY DUTY TRIPOD

This heavy duty adjustable tripod answers your problems of a sturdy support for your telescope. Ruggedly built, and reinforced with solid brass fittings and safety stops, it will support reflectors up to 12 inches. 500 lbs. capacity. A machined precision brass pan head of 5 1/2" diameter, equipped with center adjustment for attaching and detaching equatorial mount is provided.

Height is adjustable, legs riding in dovetailed ways. When fully open it is 39 1/2" high; closed 21" high. Legs fold in for easy carrying.

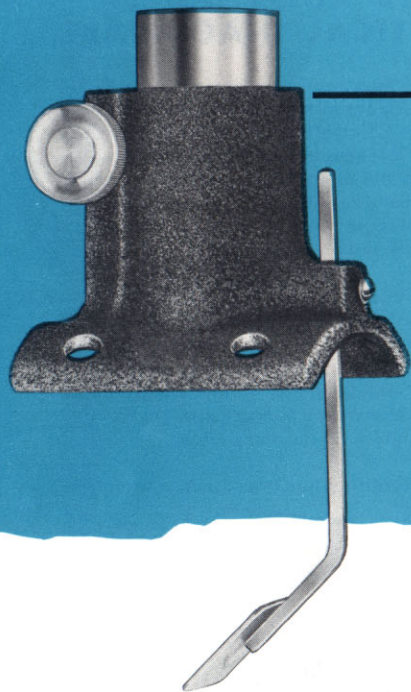
Shipped by express 9 lbs.,

F.O.B., Hartford, Conn.

No. 7008 Only \$14.95

MAIN TUBES

Phenolic composition, bakelite, natural ground finish, fit Criterion cells.
#C-802 For 8" mirror, 9 1/2" O.D., .125 wall, 62" long---\$70. f.o.b.
#C-100 For 10" mirror, 11-1/2" OD, .125 wall, 78" long---\$90. f.o.b.
#C-125 For 12-1/2" mirror, 14-1/4" OD, .135 wall, 90" long---\$140. f.o.b.



RACK and PINION EYEPIECE MOUNT

adjustable for 3" to 8" scopes.

An exclusive CRITERION design. Scientifically correct. Rack and pinion focus adds the finishing touch to a professional instrument. Makes focusing 75% easier and enables you to get the best adjustment. Takes standard 1 1/4" eyepieces. More focusing travel than ever before—a full 3 1/2 inches of travel which is sufficient to accommodate almost any type of eyepiece, both positive and negative. Enables you, too, to focus on nearby objects as well as astronomical objects! Has two knurled focusing knobs with variable tension and positioned properly so that they are easily found and operated in the dark

from either side of the scope. Sliding extension tube. Solid cast metal, with precision machined movements. The tube hole has been precisely bored and finish reamed to close tolerance. The sliding tube is brass and has likewise been centerless ground to close tolerance so that there is no annoying looseness to destroy your picture at this very important point. This close tolerance also insures you of velvet smooth action. Base of mount aligns itself to any type tube. Four mounting holes, nuts and bolts included.

MODEL U-3-8 \$9.95 Postpaid

RACK and PINION EYEPIECE MOUNT U-7

Custom made for 7" to 7 1/2" diameter tubes. Bottom contour matches the curve of tube for a smart professional looking job. Also a good fit on larger tubes. Black wrinkle finish, double draw brass tubes for standard 1 1/4" eyepieces. Rack and pinion with double knurled focusing wheels. Smoothest action possible. Precision machined to close tolerance to insure proper centering over the light path. The U7 is the natural favorite of owners of the best home built reflectors. Use with any of our spiders or single square rod diagonal holder furnished for \$1. extra. Unconditionally guaranteed in every respect.

Catalog #U-7 **\$11.50 Postpaid**
Cat. #712 Diagonal holder \$1.00

Criterion for Professional Accessories

CRITERION EQUATORIAL MOUNTS

PORTABLE-RUGGED

Use for reflectors or refractors. Takes up to 6" reflector and 3" refractor. Made of cast iron with precision fit polar and declination axis. Adjustable latitude. Can also be set for altazimuth use as well as equatorial. Black wrinkle finish. You can also add electric drive ED460 or setting circles. Supplied with or without chromed steel folding legs 36" long. Also fits 3" pipe.



Model K2 Head complete (less legs) **\$29.95**
Model K2 complete with steel legs **\$35.95**
Electric drive ED460 \$34.95; Circles **\$19.95 pr.**

EXPRESS CHARGES COLLECT

HEAVY DUTY PORTABLE

Really rugged portable equatorial. Easily carries 6 and 8 inch reflectors. Fine balance and precision machined polar and declination axis insure steady observing. Outriggers are 16" long for good support. 4" dia. steel pier. Comes apart easily. Aluminum head and legs. Black wrinkle finish with grey pier. Flat saddle. Adjustable latitude and azimuth. Stands 36" high. Weight 48 lbs. Shipped express charges collect. Can also be ordered with electric drive setting circles, and rings #R725 (below.)



No. 682 Equatorial Mount complete... **\$79.95**
If desired: Electric drive **\$37.95**
Setting Circles **\$19.95 pr.**

CAST ALUMINUM RINGS

Solid cast aluminum rings to hold 7 1/4" OD tubes. Hinged with adjuster. Attach to #682 Mount above. Felt lined.

No. R725 **\$22.50 pr. postpaid**
No. R475 (4 3/4" ID) **19.50 pr. postpaid**
No. R925 (9 1/2" ID) **29.95 pr. postpaid**



SETTING CIRCLES

These fit No. K2 and No. 682 mounts and mounts with 3/8" or 1" shafts. RA fits a 1 1/8" housing. 3" diameter. Choice aluminum. Fine engraved markings for RA and DEC readings. Easy to install. Complete with pointers.

Cat. No. C-43 **\$19.95 pair**



CRITERION MFG. CO.

CRITERION

OBSERVATORY TYPE EQUATORIAL MOUNT



Model K6

CMD68

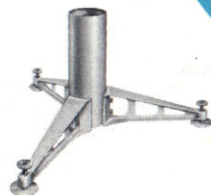
ADVANCED DESIGN — PRECISION ENGINEERED EXTRA HEAVY DUTY MODEL NO. K6

Nothing will enhance the performance of a fine telescope as much as a rock-steady but smooth-running mount. Maximum stability is assured with the massive K6 Equatorial Head. Designed and precision built to eliminate every last bit of vibration. Balanced to insure greatest stability with rigid support of 6" thru 12" reflectors. Polar axis rides in precision ground needle roller bearings assuring movements that are incredibly smooth. 1½" diameter solid steel ground shafts held to extremely close tolerance. Clamps on both axis. Polar axis 9" long, saddle 12" long. Adjustable latitude with three bolts, reinforced construction. 7" diameter base. Counterweight. Finished in handsome baked black wrinkle. Shipping weight 80 lbs. Express charges collect. Order with either aluminum cast legs, wooden legs, or special outrigger mount #3618 illustrated.

Model K6 Heavy Duty Equatorial Head.....	\$149.00
No. CM3W (Set of 3 wooden legs).....	16.50
No. CM3A (Set of 3 aluminum cast legs).....	25.50
No. 3618 (pier as illustrated less levelers).....	79.00
No. 3825 Levelers (3) for pier No. 3618.....	34.00
Electric Drive No. CED72.....	95.00
7" diameter setting circles No. SC-7201.....	60.00
Manual slow motion Polar Axis No. SM 7202.....	49.00
Manual slow motion Dec. Axis No. SM 7203.....	49.00

PERMANENT PIER EQUATORIAL CMD68 (Illustrated)

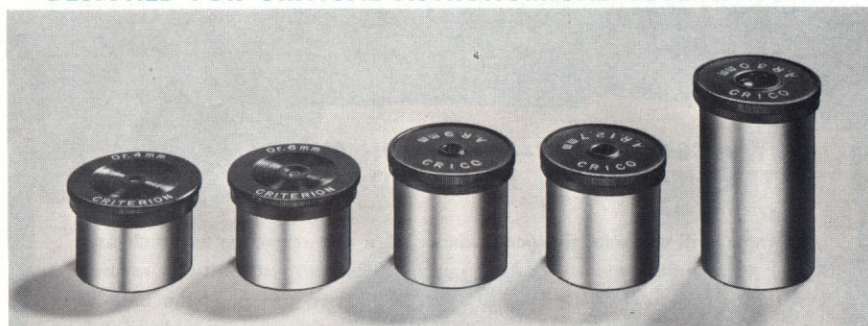
As illustrated, this is a complete professional mount with permanent pier for applications requiring utmost stability and freedom from waver, jitter, or vibrations. Used in many observatories and in many space applications adapted to carry various instrument packages as well as telescopes. Will handle up to 12" telescopes. Pier is cast iron, with 16" base. 12" saddle. 1½" shafts in needle roller bearings. Electric clock drive. 7" dia. setting circles, clamps, slow motion on declination. Finished complete in tough, weather resistant, baked black wrinkle. Shipping-weight 250 lbs. No. CMD68 Complete Equatorial 435.00 F.O.B. Htfd. Also available: Heavier duty #CMD125 with 24" long saddle, 14" polar axis, large parts — 525.00 F.O.B. Htfd.



#3618

All mounts and mount parts are shipped by Railway Express, F.O.B. Hartford, Conn. with express charges collect. Crated and packed to insure safe transport. Add 15.00 for crating mount K6; 3618; 25.00 for crating #CMD68, CMD125.

CRITERION FAMOUS PRECISION EYEPIECES DESIGNED FOR CRITICAL ASTRONOMICAL OBSERVATIONS



Criterion Precision eyepieces are finest quality, precision machined, coated, mounted in 1 1/4" barrels. Can be taken apart. Designed to give sharp, flat fields clear to the edge. Confirmed best by experts. Also available .946" O.D. if desired. To determine power you would have with your telescope, divide focal length of eyepiece into focal length of mirror or objective. The shorter the focal length, the higher the power.

Kellner 30-mm. f.l. (1-3/16")	...	\$12.50
Kellner 18-mm. f.l. (3/4")	.....	9.50
Huygens 18-mm. f.l. (3/4")	.....	7.50
Kellner 12.7-mm. f.l. (1/2")	.....	9.50
Kellner 9-mm. f.l. (3/8")	.....	7.90
Kellner 7-mm. f.l. (9/32")	.....	8.50
Orthoscopic 6-mm. f.l. (1/4")	....	12.50
Orthoscopic 4-mm. f.l. (5/32")	....	14.50



Wide-Angle Erfle

**WITH WIDEST
ANGLE MADE**

AN EXCLUSIVE — SUPERB

Our 16.3-mm. Erfle wide-angle eyepiece has a 75° field. Astonishing wide-angle views. Coated. Highest precision and specifically designed for telescopic use. Chrome barrel. Guaranteed to be superior in every respect.

Cat. #SE-63 — 1 1/4" O.D. **\$18.50**
Cat. #SE-62 — .946" O.D. **\$16.50**

Criterion ZOOM EYEPIECE



New automatic Z-O-O-M Eyepiece

Now — one eyepiece does the work of many. The object stays sharp at all powers during Zoom focus. Focal length range 8.4 mm. to 21 mm. Magnification range depends on your telescope; typical magnification 50x to 120x. Precision construction. Wide field of view, coated lenses, fully orthoscopic. Unconditionally guaranteed. Can also be used with our Barlow for dramatic results.

No. 8421 Only **\$26.50** ppd



50MM RAMSDEN

1 1/4" dia. barrel. Precision cell. 10mm exit pupil. Coated. More light and field. Excellent for large aperture telescopes.

No. 5069 **\$15.50**



50MM HASTINGS

Designed special for astrophotographers requesting it. Field is narrow but chromatic correction is excellent. Coated. Precision cell. Now in limited production, 1 1/4" diameter.

No. 5070 **\$22.50**



ALIGNMENT EYEPIECE

Enables precise mirror alignment, for top optical results.

No. AE-125 **\$4.50**



MOON FILTER

Fits over eyepiece, cuts moon glare. Medium density.

No. MF-27-4 ... **\$4.95** ppd



EYEPIECE HOLDER

Fits mount #682 with set screw. Holds six 1 1/4" oculars.

No. ET-672 **\$4.95** ppd

CRITERION HIGH PRECISION ACHROMATIC BARLOW



Outperforms All Others

**Amazing High
Performance**

Gives sharper images, wider field and more light. Amateur and professional astronomers marvel at the superior performance of our CP-4 Barlow. This precision unit is more than an ordinary Barlow. Used in conjunction with any eyepiece of low or high power, it gives views that are truly outstanding and superior to what you may have experienced in other type Barlow lenses. Specifically designed to work with all kinds of eyepieces and for photography. All images are sharp and clear, hard to the very edge. Acclaimed by many experts as the finest they have ever used. Intensively tested and proven superior. Increases magnification of your present eyepieces 2-4X. This is achieved without loss of definition or field. The Criterion CP-4 features an extremely accurate, achromatic, coated negative lens, perfectly centered and corrected for finer resolution at higher power than you've ever experienced. Greater illumination and wider field are achieved by overcoming the tiny aperture restrictions of high-power eyepieces. Unconditionally guaranteed.

Model CP-4 fits standard 1 1/4" eyepieces **\$17.50** postpaid

Model CP-2 fits smaller 0.946" eyepieces **\$15.50** postpaid

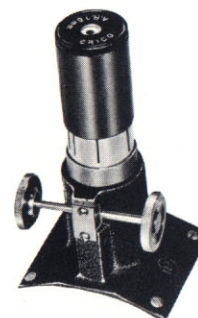
As reported in
Fawcett Book
"Exploring Space
With Astronomy."

NEW! FOR SOLAR STUDY REFLEX SUN SOLAR EYEPIECE



(PATENTED)

Amazing new principle
gives safe, dramatic
results for amateurs
and professionals.



SHOWN IN USE ON TELESCOPE

To use, simply insert any standard 1 1/4" eyepiece into cell. Place cell into telescope eyepiece holder and focus.

Now — finally — the answer for perfect sun viewing. Enables direct trouble-free observation of the sun using whatever power you desire. Fits directly into telescope eyepiece holder and accepts your eyepiece. Tested safety construction permits safe observation. An almost infinitesimal fraction of the sun's rays get through. Comfortable brightness level enables prolonged observation. Any telescope for visual use — refractor, reflector, compound, catadioptric, off-axis — can be instantly adapted for solar viewing without modification of equipment or optical elements. Used as easily as any conventional eyepiece. With a single-lens reflex camera reasonable exposures can be made, recording unusual sunspots, faculae, and granulation on the surface of the sun. Only after intensive testing during its development were we satisfied that the Reflex-Sun eyepiece was safe enough to put on the market. Precision constructed, threaded cell. This is truly a very important development for solar study, and safe to use.

Cat. No. S-4 For 1 1/4" Eyepiece, only **\$19.50** postpaid

Criterion FINDER TELESCOPES

The Ultimate in Value and Performance!



4X POWER

4 X Criterion Finder Telescope has achromatic coated lens. 5° field equipped with built-in cross hair. Has screw type fine focus to eliminate accidental movement. 5" long, 7/8" dia. Beautiful finish black wrinkle and chrome. No. 430. **\$9.95 postpaid.**



6 X 30

Exceptionally sharp. Coated, achromatic lenses. Built-in cross hair. Large 6° bright field. 10mm exit pupil. Has micrometer focus for precise focus that stays "put". Beautiful duraluminum tube finished in white with black trim. A precision telescope that gives razor sharp resolution. No. 630I. **\$12.95 Postpaid.**



8 X 50

Large 50mm objective gives more light. Coated, achromatic lenses. Built-in cross hairs. 8 power with extra wide field. Has extension dew cap and objective cover. 12" long, 2 1/4" diameter. Micrometer screw focus. Brilliant definition over entire field clear to the edge. Finished in beautiful instrument grey wrinkle with chrome and black. Excellent hand held telescope as well. No. 850I. **\$18.50 Postpaid.**



8 X 50 RIGHT ANGLE

Made for ease in use for reflector and refractor telescopes. Eyepiece is at right angles to eliminate bending over when sighting. High precision Prism system. Achromatic coated lenses. 10" long, 2 1/2" diameter. Micrometer thread focus for fine adjustment. Wide-field 50mm objective, precision made to give superb resolution. Complete with objective cover and dew cap. No. F-8502. **\$22.00 Postpaid.**



10 X 42

10 power. Wide angle. Achromatic, coated. 42MM precision objective. Built-in cross hairs. Fine resolution. Duraluminum finished in white with black and chrome. No. 1042. **\$29.95 Postpaid.**

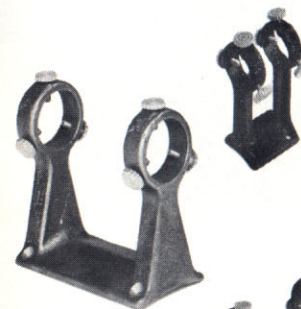


3 INCH REFRACTOR

High resolution objective 1250MM (49.2 inches). Achromatic, coated. Sunshade and dew cap. Furnished with 30MM Kellner eyepiece. Fine rack and pinion focus. 6 X 30 Finder. Highest precision construction. No. RT349. **\$95.00 Express charges collect**

Criterion FINDER BRACKETS

CRITERION'S LATEST EXCLUSIVE DESIGN. ONE PIECE CONSTRUCTION GIVES SOLID SUPPORT. EASY TO INSTALL. MAINTAIN ALIGNMENT.



Aluminum, six adjustment. 2" long X 3 1/2" high. Eliminate "Shake" and Vibration. Inside diameter is 1 1/4". Will take 4 X finder #430, or any finder 1" diameter. Low cost, light weight.

No. FB-4. **\$2.95 Postpaid.**



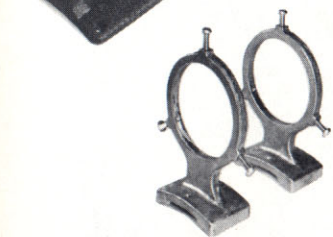
Solid cast iron, heavy duty, six adjustment. 3 1/4" long X 3 5/8" high. 1 1/4" I.D. accepts 4 X finder #430, or any finder 1 1/8" diameter.

No. FB-4D. **\$4.95 Postpaid.**



Aluminum, six adjustment. 3 1/4" long X 3 3/4" high, 1 1/2" I.D. Accepts Criterion 6 X 30 finder or any finder up to 1 3/8" diameter. Solid support. Never loses alignment.

No. FB-6R. **\$5.95 Postpaid.**



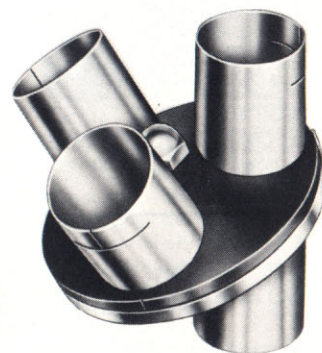
Heavy duty cast iron. 5 1/2" long, 4" high, 2 3/4" rings. Takes Criterion 8 X 50 and 10 X Finders, and any large finder up to 2 3/8" diameter. Six adjustments. Rock steady. Positive positioning.

No. FB-612. **\$12.95 Postpaid.**

For larger telescopes — Finder Holder Posts are large 3 3/4" I.D., 6" high. Rings are 1/2" wide with 3 1/4" X 2" pads. Cut away to fit onto any diameter tube. Accept up to 3 1/2" diameter tubes, 3" refractors, etc. Three adjusting screws. Aluminum.

No. FR-375. **\$14.50 pair. Postpaid**

Also available:
Very light thin Rings, 2" I.D. No. LW2. **\$3.95 pair.**



Criterion REVOLVING TURRET

The Criterion Revolving Turret holds three eyepieces so that, as desired, the powers of the telescope can be changed by merely turning the turret to a different ocular. Click stop insures positive and accurate positioning of each eyepiece. Turret holds eyepieces of standard 1 1/4" outside diameter. Fits into the holder of any refractor or reflector telescope that uses 1 1/4" eyepieces. Requires no alteration or adjustment and can be attached as easily as putting eyepiece into scope. Made of brass and aluminum with polished chrome-plated barrels.

Cat. #SRT-350 1 1/4" **\$14.50**
Cat. #SRT-349 .946" **12.50**

Easy Low-Cost Way To Enjoy Thrills Of Astrophotography

CONVERT YOUR PRESENT 35-MM. CAMERA WITH THIS NEW ASTRO-PHOTO ADAPTER!

Developed by Criterion especially for single-reflex 35-mm. cameras with interchangeable lens. Simply remove your lens mount and add this precision-made, highly corrected achromatic lens. Adapts camera to eyepiece of any telescope, refractor or reflector.

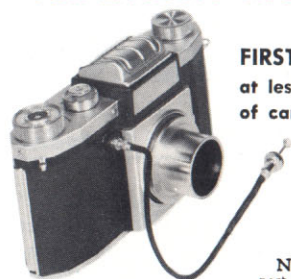


When ordering, be sure to specify make of your camera.

For 35-mm. cameras with SCREW-TYPE lens mount:
Cat. #CPA-36 for 1 1/4" eyepiece holders \$19.00
Cat. #CPA-37 for 4" standard Dynascopes \$17.50
For 35-mm. cameras with BAYONET-TYPE lens mount:
Cat. #BPA-36 for 1 1/4" eyepiece holders \$22.50
Cat. #BPA-37 for 4" standard Dynascopes \$21.00

EASY-TO-OPERATE

DYN-O-ASTRO 35-MM. CAMERA WITH SPECIAL TELESCOPE ADAPTER FOR EXCITING ASTRO PHOTOS



FIRST OF ITS KIND —
at less than regular price
of camera alone!

No need to be an expert photographer to take astrophotos with this *single-lens reflex*-type, precision 35-mm. camera body. No complicated settings. No plates or filmholders to load and unload. No worries about missing target. Large focusing screen shows you *exactly* the viewing field up to moment of shooting.

- No accidental double exposures. Winding knob automatically advances film, positions mirror, winds shutter, counts exposures.
- Dual-speed setting knob controls both fast and slow shutter speeds. Color coding makes mistakes impossible.
- Integrated magnifier for critical focusing even on dim objects.

Takes time exposures and also has speeds up to 1/500 second. Guaranteed for 2 years. Complete, ready for use.

Model CP-35 fits 1 1/4" eyepiece holder
\$89.00 postpaid
Model CP-36 fits all standard 4" Dynascopes
\$85.00 postpaid

New! Dyn-O-Swing Camera Support To Fit Any 4" or 6" Telescope

fits any 4" or 6"
telescope
without drilling!



Takes guesswork out of astrophotography by providing *precise centering* of camera over eyepiece. Smooth rack-and-pinion adjustment. Easily attached or detached from tube, with rigid clamp for maximum stability. Special arm lets you swing camera away from eyepiece for visual observation, with instant return for photographing. Can be used with almost any camera. Postpaid.

Cat. #CS-4 to fit all 4" Dynascopes.....\$17.50
Cat. #CS-47 to fit all 4 3/4" O.D. tubes.....\$18.95
Cat. #CS-67 to fit custom 6" Dynascope and 7 1/4" O.D. tubes.....\$19.95

NOTE: WE ALSO CARRY
A COMPLETE LINE OF
PHOTOGRAPHIC LENSES
FOR CAMERA CP35. ASK
FOR BULLETIN.

SINGLE REFLEX ADAPTERS

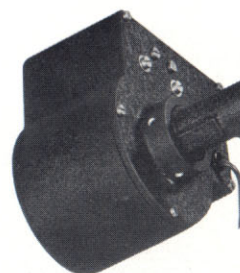
Adapter only. Use with barlow or other lens combination to make your own astro adapter. Specify camera make.

BA-1 Screw Type (Practica, etc.)..... \$4.95
BA-2 Bayonet type (Exakta, etc.)..... \$6.95
NA-2 NIKON F ONLY..... \$7.95



Assures Effortless, Automatic Tracking!

CRITERION ELECTRIC DRIVE



This compact, vibration-free drive assures absolutely smooth, steady following. You have merely to center object in field of view and drive takes over instantly. Self-acting clutch permits manual operation. Entire drive *completely enclosed* in aluminum housing 3 1/2" X 5". Ideal for long viewing, group sessions, photography. AC110-120V. Electric motor error is less than 8 seconds per day. Fits mounts: K, K2, No. 682, and mounts having polar axis housing up to 1-7/16" dia. Precision worm gear and brass worm wheel. Easily installed or order with mounts.

Model ED-460 fits 5/8" polar axis shafts. \$34.95 Postpaid.
Model ED-24 fits 1" dia. polar axis shafts. \$37.95 Postpaid.

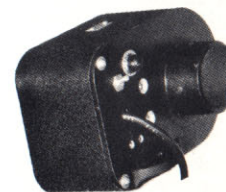
OPERATE YOUR TELESCOPE DRIVE FROM YOUR AUTO BATTERY



Converter plugs into dash cigar lighter. Delivers 40 watts or enough for extra light bulb. Negligible battery drain, can be used to 20 hours. Handles other appliances to 40 watts. Specially calibrated for stable power as required for telescope use.

Cat. No. C412 (12 volt), C116 (6 volt) \$23.50 Postpaid.
Also: Lighter, less accurate, 15 watt inverter. No. D414. \$14.95 Postpaid.

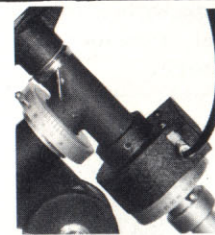
HEAVY DUTY OBSERVATORY DRIVE



Fits mount K6 and mounts having 1 1/2" Dia. polar axis, and 2 1/4" polar axis housing. Heavy duty. 4" worm wheel with ground and polished precise worm. Precision gear train. Fully automatic clutch. Absolutely smooth. Fully enclosed aluminum case 5 1/2" X 8". Pilot light, toggle switch. Used on 6" to 12" heavy telescopes.

Model CED-72 \$95.00 Postpaid.

SLOW MOTION CONTROL



Will fit declination or polar axis of model No. 682. Also model K2 and Dynascopes K thru RV6. 5/8" or 1" clutch hole, 1-7/16" case hole. Has helical gear, worm and clutch. Precision fitted. Black wrinkle finish with chromed knurled knobs. Enables you to make fine adjustments easily.

Cat. No. SMB-3 \$29.00 Postpaid.

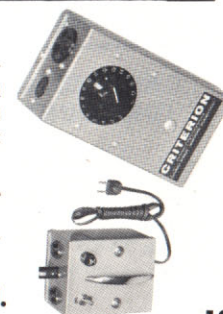
ELECTRONIC PHOTOGRAPHIC DRIVE CORRECTOR

Varies frequency to change drive speed to Solar, Lunar, Planetary, or Sidereal rate. Has momentary "fast" and "slow" controls. Hand held remote control box, engraved dial. Makes all corrections for long exposures of any celestial object. Use with 12 volt DC battery. If used on AC without battery, order 12 volt Power Supply listed below.

No. DC-12-497 Drive Corrector \$95.00 Postpaid.

12 VOLT POWER SUPPLY, specially regulated unit gives correct voltage for AC use of above drive corrector without battery.

No. PS-12-497 Power Supply \$75.00 Postpaid.





Criterion CUSTOM SERIES Astronomical objectives are of the highest precision quality, tested, approved and acclaimed to be superb in every respect. Every objective is mounted in a precision machined cell, engraved with its focal length, and equipped with sun shade and dew cap. A refractor using a Criterion Certified objective will provide large field and excellent definition in both visual and photographic use. Guaranteed to resolve to the limits for its size. These superb objectives render unexcelled optical performance, and achieve theoretical perfection of image.

FEATURES

- * Completely free of coma. C & F corrections to eliminate color.
- * Delicately corrected by hand for fullest minimization of residuals and to eliminate spherical aberration.
- * Air-spaced according to critical optical formula.
- * Magnesium fluoride coated on all surfaces for high light transmission.
- * Cell engraved with effective focal length and completely threaded.
- * Sun shade extension with dew cap. Handsome white finish.
- * Rigidly tested and certified for serious astronomical use.

CLEAR APERTURE	FOCAL LENGTH	PRICE
2.4 Inch	910 MM (35.8 inch)	\$19.95
3 Inch	1250 MM (49.2 inch)	52.00
4 Inch	1600 MM (62.9 inch)	95.00

ACHROMATIC LENSES (UNMOUNTED COATED)

Dia.	Focal Length	Price
32mm	407mm	4.95
32mm	558mm	5.50
42mm	558mm	7.50
52mm	193mm	3.00

SMALL LENSES FOR EYEPIECES, CONDENSERS, ETC.

18mm Dia. X	30mm F.L. Planoconvex	1.50
18mm Dia. X	60mm F.L. Biconvex	1.10
18mm Dia. X	60mm F.L. Planoconvex	1.00
6mm Dia. X	7.9mm F.L. Biconvex	1.50
32mm Dia. X	43mm F.L. Biconvex	2.00
5mm X	13.1mm F.L. Biconvex	3.10

ASTRONOMY BOOKS

Two Editions Available

ATLAS OF THE HEAVENS

ATLAS COELI 1950.0

These 16 charts by Antonin Becvar and his coworkers at the Skalnaté Pleso Observatory, Czechoslovakia, cover the entire sky to stellar magnitude 7.75, showing double, multiple, and variable stars; novae, clusters, globulars, and planetaries; bright and dark nebulae; the Milky Way and constellation boundaries.

FIELD EDITION. Each chart is reduced from the original Atlas Coeli and is printed on heavy, stiff paper 18 by 12 1/4 inches. Stars are white on black background. Charts are shipped flat and unbound, 16 to a set. Ideal for outdoor observing and use at the telescope.

\$4.00 each; 2 for \$7.50

DE LUXE EDITION. Printed in many colors, more than 35,000 celestial objects, including over 100 radio sources, are plotted. Bayer-letter and Flamsteed-number designations given. Transparent co-ordinate grid overlay included. The 16 charts are permanently bound in a heavy cloth cover, 16 1/2 by 23 inches, with color chart key on a foldout flap.

\$12.95 Postpaid

ATLAS ECLIPTICALIS 1950.0

By Antonin Becvar

A bound set of 32 star charts, each 17 1/2 by 24 inches, covers declinations between +30° and -30°, complete to magnitude 9.0, scale two centimeters per degree, epoch 1950.0. Spectral classes are shown by color. See page 161 of the January, 1959, issue for further description. Place your order with us and allow time for its transmission to the publisher in Czechoslovakia, from whom the atlas will be shipped directly to you.

\$17.00

AMATEUR ASTRONOMER'S HANDBOOK

BY J. B. SIDGWICK

A compendium on instruments and equipment, plus a host of other facts for the observer.

\$12.50

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BY J. B. SIDGWICK

A guide to how and what to look for on the sun, moon, planets and other astronomical objects.

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Norton's STAR ATLAS

This famous star atlas and reference handbook is particularly suited for amateurs and students who desire sky charts in book form. It covers the whole heavens, showing over 9,000 stars to magnitude 6 1/2, nebulae, and clusters. There are descriptive lists of 500 interesting objects for viewing with small telescopes, and useful data are given for observers of the sun, moon, and planets.

\$6.50

MAKING YOUR OWN TELESCOPE

By Allyn J. Thompson. Tens of thousands of amateurs are using this basic book on telescope making. Here are complete step-by-step directions for making and mounting your own 6-inch reflecting telescope at low cost. This telescope can use magnifications up to 300 times. In easy-to-understand chapters, you will learn how to grind, polish, and figure the mirror, and how to make an equatorial mount that will provide a sturdy, solid support for your mirror.

211 pages, 104 illustrations (6th printing)...\$4.00

THE HISTORY OF THE TELESCOPE

By Henry C. King. The first book to tell the full story of the evolution of the telescope. 456 pages, 196 illustrations, extensive references.

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LAROUSSE ENCYCLOPEDIA OF ASTRONOMY

By Lucien Rudaux and G. de Vaucouleurs. The long-awaited English translation of this monumental French volume — one of the most complete and best-illustrated compendiums of astronomy ever offered in one book.

The detailed explanations, diagrams, and charts were designed for the reader wanting a thorough knowledge of the subject, yet having no previous introduction to astronomy. As a reference work it is unsurpassed. Many full-page color renditions. Full-page size is 8 by 11 1/8 inches. 506 pages, 818 illustrations.

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SKY SETS I AND II. Two different collections, 24 large pictures in each set. Solar system, Milky Way, and galaxies.

Each set, \$4.00

MOON SETS. 18 pictures showing the entire visible face of the moon.

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497 pages, Volume 1 (basics) \$5.00

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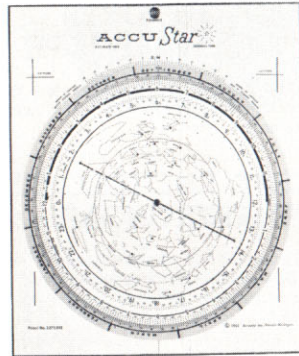
ASTRONOMY MADE SIMPLE
Explains in simple terms about the Universe. By Degani 192 pgs. \$1.98

1001 QUESTIONS ANSWERED ABOUT ASTRONOMY by Pickering \$2.98

TRIPLE TESTED BINOCULARS

Enjoy Astronomy, satellite watching, sports, etc. more with our precision prism binoculars. These are achromatic, coated, have anchored prisms. Shipped to you only after passing our rigid tests. Each complete with leather case.

#7/750	7 X 50 Individual focus . .	\$27.95 postpaid
#8/750	7 X 50 Center focus . . .	\$29.95 "
#7/735	7 X 35 Individual focus . .	\$26.50 "
#19/630	6 X 30 Individual focus . .	\$23.50 "
#27/1050	10 X 50 Individual focus . .	\$39.95 "
#32/2050	20 X 50 Center focus . . .	\$49.95 "



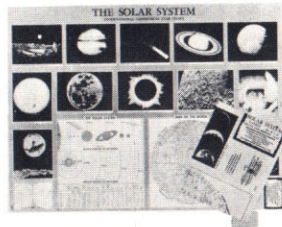
ACCUSTAR STAR FINDER

An Instrument that also Gives Sidereal Time.

Deluxe set quickly locates and identifies stars, planets, constellations relative to your location at any day or hour. The only one of its kind. Gives sidereal time to within 2 minutes, longitude, solar time by the stars. Excellent for beginner, amateur astronomer, teacher. Pin-point sky objects invisible to the naked eye. Simply set dials for date, standard time, etc.; and read sidereal time direct. Complete set includes two dial 10" computer of special rigid plastic, 90 page book "Find the Stars", with 22 sky maps, information on more than 250 Celestial objects, instructions.

No. AC242. \$9.95 Postpaid.

HUGE (4 FT.) WALL CHARTS OF STARS, SOLAR SYSTEM



These giant wall charts contain much valuable information for quick reference. SOLAR SYSTEM chart has detailed information all planets with large photos, statistics, giant map of Moon. WORLD STAR CHART gives right ascension and declination to locate stars from any position on Earth at any time of year. Magnitude scale. Excellent for classrooms, dens, office, etc.

No. 9574 Set of both charts. \$1.50 ppd

STAR VIEWER



A new optical method of positioning the outlined figures of the constellations on the night sky and directly naming the stars.

A precision instrument, not a gadget. Charts register accurately over the actual stars in the night sky. Complete sky coverage with 30 illuminated charts for your study and enjoyment.

With one eye to the instrument and one eye to the sky, optical illusion "projects" the battery-illuminated chart on the heavens to name the stars, locate the planets, and identify the constellations. Easily used. Battery included.

No. TG175 \$3.50 postpaid

Criterion specializes in *precision* quality. Order with complete confidence. You must be satisfied after 10 day trial or money back. Use enclosed order form. We'll rush your order to you.

Write for separate literature on the full line of famous Dynascope® reflecting telescopes 4" to 16".



40 and 80 POWER ASTRONOMICAL TELESCOPE

KIT No. T-3

A complete kit for building a refractor telescope. No technical knowledge required as all parts are pre-fitted. You can assembly it complete in very little time by following easy simple directions included.

Focal length of objective lens is approximately 39". Air spaced achromatic objective lens is already mounted in cell, is 42MM diameter and corrected so that exquisite definition is obtained. Eyepiece holder is spiral focusing with click stops. Cells and holders are designed to slip over a tube and screws are provided. Combination

eyepiece is adjustable to 40 and 80 power. Also included is a swivel-type mount with thumb screw for adjusting to any position.

The only additional material required is the main tube, which, if necessary can be purchased from us.

The finished instrument is comparable to ones selling for many times this price. You'll be able to see rings of Saturn, Moons of Jupiter, Moon's craters, — all with amazing clarity and in great detail. Even our technicians were surprised with the results!

COMPLETE KIT (less main tube) No. T3 . . . \$21.50 Postpaid
Aluminum Tube of correct size No. AT4 . . . \$3.00 Postpaid

MOTOR DRIVEN, ZOOM TELESCOPE



This power zoom telescope zooms from 12X-40X at the touch of a button! Powered by 2 penlite batteries. Latest optical development. Excellent for sports, astronomy, hunting, range, travel, etc. Amazes all who have used it. Hard coated 40MM achromatic objective. 10 element lens system. 142 ft. at 1000 yds. Free stop zooming device. Window shows magnification being used. 15 3/4" long — weighs only 36 ozs. Handsome black baked finish. Comes complete with collapsible tripod and pan head with easy lock. Highest precision construction throughout. Fully guaranteed. Now available at a fraction of the cost of power zoom equipment.

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