

Thank you for your request for Questar literature. This up-to-date price catalog will also serve to describe the contents of our 40-page booklet, which contains much general information, essays on optics, seeing and telescopic photography, as well as more than 100 photographs taken by Questar owners, 50 in full color.

**OCTOBER 1, 1970** 

QUESTAR CORPORATION

# SEND \$1 FOR QUESTAR BOOKLET

Mailed first class anywhere in North America. By air to rest of Western Hemisphere, \$2.50; to Europe and northern Africa, \$3.00; elsewhere, \$3.50.

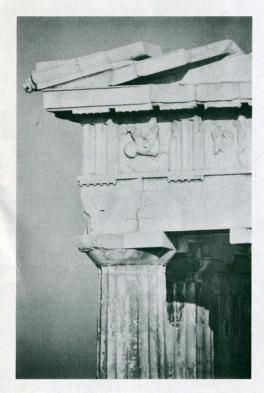
QUESTAR, RD 1, New Hope, Pennsylvania 18938

The Questar booklet tells of our role in the modernizing and miniaturizing of the classical telescope, and of the many ways in which this versatile new instrument can serve you. It describes the various forms of telescopes and discusses the practical considerations which led us to develop and bring to the market in 1954 this superfine portable telescope.



The Most Powerful Telescope for General Observing Many pages of the booklet contain examples of the "impossible" view of distant objects that the feather-weight Questar reaches out to see and photograph. Captions throughout the book tell a great deal about

how these shots were taken.





A Complete Observatory in One-half Cubic Foot

The luxury of having a 7-pound optical masterpiece with all the vital controls of great observatory instruments is discussed in our booklet. Questar's mounting is easily convertible to the polar equatorial position, while the built-in electric drive stops the motion of sky objects and keeps them in the observer's field of

The booklet contains some of the astonishing large-scale closeup photographs of the moon taken by Questar owners, which astronomers, both professional and amateur, at first found hard to believe were the work of so small an instrument.



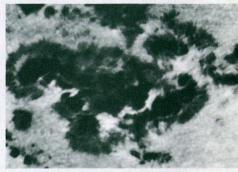
World's First Long-Distance Microscope

This wholly new and previously unknown instrument also brings the great power of a full-sized high-power telescope to bear upon things as near as ten feet. A wealth of entertainment indoors or in our gardens awaits us, where cobwebs become cables, dust a forest, and little bugs veritable monsters. The booklet mentions how industry, too, uses Questars for dangerous closeups—such as exploring and photographing lethally "hot" reactors.



#### First Safe and Distortionless Solar Telescope

Ever since Galileo invented the telescope in 1609, men have tried to study the surface of the sun and to pene-trate the mysteries of the sunspots. But the excessive trate the mysteries of the sunspots. But the excessive solar heat inside their telescopes has been a constant source of danger and distortion. It has remained for Questar to produce a filter which keeps the unwanted harmful heat outside the telescope where it belongs. Superb high resolution photographs of solar detail illustrate Questar's usefulness at professional observatories and details of the sun's surface photographed by ampatigues are worthy of the great observatory. amateurs are worthy of the great observatory telescopes.



Telescopic Photography

Telescopic Photography

In our booklet we tell much of what we have learned in 14 years of pioneering in the fascinating field of high-resolution telescopic photography and we talk about Questar's impact upon the camera industry. Until the superfine long-focus Questar appeared in 1954 there were no telephoto lenses sufficiently good to produce the classical textbook diffraction image of a point source of light. Designed for speed, the usual camera lens produced coarse "circles of confusion" and fuzzy negatives. Moreover there were no camera bodies suitable for securing sharp negatives with a long-focus lens. By analyzing the basic problems involved, we have influenced the industry to produce mirror and shutter mechanisms that eliminate vibration and to develop improved focusing screens and the means of metering light for correct exposures. We discuss these points and the causes of "poor seeing", and suggest ways in which we have learned to outwit and suggest ways in which we have learned to outwit nature so as to take advantage of those periods when conditions are just right for magnificent pictures.



Indoor Comfort With Questar

Time was when trying to see through a window pane with a fine telescope would have been out of the question. But today's plate glass is so remarkably plane parallel that anyone can have an observing corner like this. The glass happens to be the double insulation type, yet no distortion of image occurs and the light loss is so negligible that we can still see the compan-ion of Polaris with a Questar.

## Packing and Shipping

We ship your Questar by prepaid parcel post, special handling, to any point in the United States or to a designated forwarder for export. Shipping weight of the Standard, 22 pounds; Field Model, 15 pounds. All instruments are shipped in specially engineered packaging cushioned with AirCap. Thousands of instruments have been delivered to every continent by land, sea, and air without damage.

We build each Questar of the finest parts procur-We build each Questar of the finest parts procurable. Trained specialists are responsible for every detail. Each Questar is star-tested by our production manager on Polaris at night. None can be sold until he is satisfied that it beats the Rayleigh and Dawes criteria for perfect resolution by a wide margin. The Questar refusal to accept the 1.4 sec. of the Rayleigh theoretical limit of resolution, or the Dawes empirical limit of 1.3 sec. explains why each Questar is a superfine gem of the optician's art. No amount of money, time or human labor can noticeably improve a set of aspherically matched and tested Questar optics. THE STANDARD QUESTAR is fully mounted and can be used on a sturdy table or tripod. It is available with Pyrex or Cer-Vit® mirror and with wide-field construction, if desired, as an aid to the photographer. Telescope and accessories are carried in leather case.

Questars are ready for delivery with either Pyrex or Cer-Vit® mirrors. Low-expansion Cer-Vit material, which is now being used to make some of the largest mirrors for the world's great observatories, is essentially unaffected by changing temperatures.

To further increase the efficiency of the Questar system, special coatings are available that will enhance both mirror and lens. A broad-band dielectric coating can be applied to the Cer-Vit mirror which increases its reflectivity to 99%

To both sides of the front lens, a low reflec-tion coating is then applied which reduces the light loss at each surface to less than 1/10 of 1%. It transmits all frequencies of the visible spectrum and improves total light grasp by approximately 22%.

This new phenomenal light-gathering ability of Questar will come as welcome news to the serious amateur astronomer, and to research and industrial users. The photographer will be astonished at the new visibility within shadows, and the sharper contrasts he can obtain for more sparkling pictures.

For general observing, the 7-pound Standard Questar works from any flat surface like this, and you can attach a 35-mm. single-lens reflex camera.





#### **Price List**

The Standard Questar is pictured above in its polar equatorial position and in its leather case with accessories-a 12-pound package. Prices listed below include lens cap, 80-160x and 40-80x eyepieces, and the built-in features which comprise power changes with diagonal erecting prism and Barlow lens, circles, 6-inch sidereal clock, synchronous electric drive, elegant slow motions, safety clutches, clamp in Altitude-Declination and finder sun filter; the leather case is velvet-lined and the door pouches hold one eyepiece, safe solar filter, electric cord, and legs for converting to table-top polar equatorial position; Questar's barrel has moon map under its perpetual starchart that pulls forward to form dewcap. Case protected by heavy vinyl luggage cover.

Standard Questar, Pyrex Mirror	\$1140.00
Standard Questar, Pyrex Mirror, Wide Field	1240.00
Standard Questar, Cer-Vit Mirror	1240.00
Standard Questar, Cer-Vit Mirror, Wide Field	1340.00
Standard Questar, Cer-Vit Mirror, Broad-band & Low Reflec- tion Coating	
Standard Questar, Cer-Vit Mirror, Wide Field, Broad-band & Low Reflection Coating	
Full-aperture Sun Filter in Walnut Case	150.00

If full-aperture sun filter is desired in place of the one included with instrument, price \$125.

Registered Trademark of Owens-Illinois, Inc.

In 1964 we introduced the wide-field version of the Standard Questar, of interest to all who take pictures with the instrument. By means of 21 major internal barrel and control box changes, we now can cover about 20% more of the 35 mm. double frame without loss of resolving power and with better illumination. See Booklet, page 22, for comparative field coverage. This feature is now available in both Standard Pyrex and Cer-Vit mirrored Questars and is the construction used in the Field Model.



**The Sun Filter.** Questar's patented safe solar filter, which passes only 17 millionths of the sun's light, keeps destructive heat out of the telescope. One with 1.5" off-axis aperture is included with telescope, fits pouch in case.

Above, a 3.5" full-aperture sun filter posed on Above, a 3.5" full-aperture sun filter posed on telescope to show its ventilating slots, while another in its hand-made walnut case is at lower left. The full-aperture filter is 5 times brighter for high-power work and has more than double the resolving power. Incredible parallelism is required of these glass disks to pass our resolution test before coating. Tiny pinholes in the chromium coating are inevitable in the present state of the art and do no harm whatsoever.

Owners of Questars built before April 1, 1968, can quickly and easily add the finder filter. We provide the necessary tool with the

# THE FIELD MODEL QUESTAR—designed expressly for terrestrial observation and photography with the same barrel and control box as the wide-field Standard Questar.



Field Model Questar on Linhof Tripod with 35 mm. camera attached. Unlike the fully-mounted Standard Questar, the Field Model must be oriented by pan head on tripod. It can be used celestially in this way also.

Field Model in case with foam padding which provides additional room for camera equipment.





The Field Model Questar weighs less than 3 pounds. Included with it are the 4-pound case, 40-80x eyepiece, and a basic camera coupling set. There is room in the case for camera and other accessories.

the case for camera and other accessories.

Twenty-one major changes in this barrel and control box permit a much wider photographic field of view, which now covers all but the very corners of the 24 x 36 mm. frame at f/16 without extension tubes.

The Field Model offers a new experience to the photographer. We offer him the world's sharpest lens, of 89-mm. aperture. We provide him with a low-power wide-field finder view, like that of a field glass, to let him locate distant objects rapidly. With flick of finger he can bring to hear a high-power view glass, to let him locate distant objects rapidly. With flick of finger he can bring to bear a high-power view of 40-80x or 80-160x to study the object minutely and another finger flick and slight refocusing brings the object to the groundglass of his camera.

#### Price List

FIICE LIST	
Field Model Questar, Pyrex Mirror, in case we cap, basic camera coupling, and	vith lens
40-80x Eyepiece	865.00
Field Model Questar, as above,	
with Cer-Vit Mirror	965.00
Field Model, as above, with Cer-Vit	
Mirror, Broad-Band and Low Reflection	
Coatings	1140.00
80-160x Eyepiece	38.50
Table Tripod (must be used with a panhead)	29.50
Linhof Top Plate needed if using	
Standard Questar on Table Tripod	15.00
Porro Prism for Axial Viewing	35.00
Barlow Lens for Photography & Axial Viewing	35.00

Left, Table Tripod. An easy way to support your Questar on any surface, particularly if no flat table is available. Light in weight and easy to carry, it could be used on the trunk of your car or on rough terrain. To use it with the Field Model, the Linhof pan head is necessary. Standard Questars require only the Linhof tripod top plate to fit base.

The following accessories are included with various Questar models, but they can also be purchased separately in case of loss, or for special applications.

Eyepiece 40-80x	\$33.00
Eyepiece 80-160x	38.50
Solar Filter, 1.5" aperture	25.00
Solar Filter for Finder	12.50
Lens Cap for 3½"	8.00
Standard or Duplex Leather Case	50.00
Field Model Case	25.00
Basic Camera Coupling Set (specify	
Questar model when ordering)	23.50
Basic Camera Coupling, swivel coupling	
only	15.00
Basic Camera Coupling, extension tubes	
only	8.50
Nikon Adapter	10.00
Questar-modified Topcon adapter	17.50
Star Chart	25.00
Motors for 50 cycle current, or with re-	
verse winding for southern hemisphere	12.50
Shipping Drums	10.00





Lens Cap

# **Barlow Lens**

Superfine negative Barlow lens for axial visual and photographic use, shown with our improved camera coupling with swivel joint that permits positioning of the camera. The Barlow fits between the control box of telescope and camera coupling.



Here is everything in one instrument—a fully mounted telescope, yet it separates into two parts with the turn of a knurled knob as shown below. This provides the all-around hobbyist with the lighter Field Model for all-around hobbyist with the lighter Field Model for terrestrial observation and photography, but permits him to have a complete, portable observatory when he wishes it. When both parts are joined together, the Duplex operates with the rock-like steadiness of the Standard Questar, and weighs only slightly more. It travels in a beautifully designed leather case, and the Field Model case is available separately, if desired.

#### **Price List**

The price of the Duplex Questar includes lens cap, 80-160x and 40-80x eyepieces, built-in finder, power changes, star diagonal erecting prism, Barlow lens, circles, 6-inch sidereal clock, synchronous electric drive, slow motions, safety clutches, clamp in Altitude-Declination, finder sun filter; velvet-lined leather case with door pouches that hold one eyepiece, 1.5" solar filter, electric cord, and legs for converting to table-top polar equatorial position. Dark blue anodized dewcap and basic camera coupling also included.

Duplex Questar with Pyrex Mirror .....\$1390.00

Duplex Questar with Pyrex Mirror ......\$1390.00 Duplex Questar with Cer-Vit Mirror ..... 1490.00 Duplex Questar with Cer-Vit Mirror, Broad-

Band and Low Reflection Coatings ..... 1665.00 Field Model Case with Foam Lining ..... 25.00



# THE QUESTAR-MODIFIED BESELER TOPCON SUPER D

Questar salutes a great camera that has come to grips with the three factors on which successful high-resolution photography depends: total lack of vibration, sharp focus, and correctly thin negatives.

Years ago, when people first began taking pictures with Questar's 56" focal length, we pointed out that much was still to be done with cameras to make them suitable for taking pictures with such long-focus lenses. No thought had been given to making a camera vibrationless and we talked about sharp focus when fine ground glasses were practically non-existent. We also said to bracket your shots to make sure of correct exposure because through-the-lens light metering was

said to bracket your shots to make sure of correct exposure because through-the-lens light metering was still in the development stage.

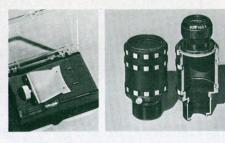
The state of the art has come a long way in the last decade, and now the Questar-modified Super D handles all three problems. Our exclusive Questar modification permits independent control of mirror and shutter, and by releasing the mirror before the picture is taken all internal motion is reduced to a negligible minimum.

The Questar-modified Super D is sold with a high-magnification waist-level finder with its own adjust-able eyepiece, and with a clear screen, and provides the sharpest, brightest focusing we have seen. And finally, the Super D's meter on the mirror gives you the most accurate reading possible, recording the light exactly as the lens sees it.

A special adapter designed to avoid vignetting is manufactured exclusively by Questar to connect the Super D to the telescope.



We are in constant touch with the Charles Beseler Co. and can obtain any Topcon accessory for you.



# **Azimuth Brake**

The Azimuth Brake assists the terrestrial photograher —he can lock the telescope in azimuth, so that when re-cocking the camera the telescope will not move out of position. The brake comes in a little kit complete with the necessary tool for installing it. Price \$7.50



Questar in its polar equatorial form with Questarmodified Beseler Topcon Super D attached, ready for celestial photography.

The Super D is shown mounted on the Field Model on page 3.

At the left, the Duplex Questar-Super D combination is mounted on the Miller Fluid Head as it would be used tripod-mounted for sky work.

#### **Price List**

Questar-modified Topcon Super D camera body including full area clear glass focusing screen with dual crosshairs, 6.5x high-magnification waist-level finder with built-in adjustable diopter corrector, cable release and Questar-Topcon adapter \$323.00 Basic Camera Coupling (for all cameras) 23.50 58 mm. f 1.4 Topcor Automatic Lens ..... 176.00 58 mm. f 1.8 Topcor Automatic Lens ..... 107.00 Pentaprism Viewfinder .... Focusing Screen #2 ..... 10.30 Eveready Super D Case ...... 23.00 Interchangeable Case Lid to accommodate waist-level finder . . . . . . 12.50

# Basic Coupling Set (left)

Questar's basic camera coupling must be used with all cameras. It is also useful for supporting the eyepiece

cameras. It is also useful for supporting the eyepiece above the control box, as shown in the cutaway, for powers of 300 or more.

The coupling has Praktica threads which fit the largest number of single-lens reflex cameras, namely: Asahi Pentax, Astra, Contax D, Contax S, Consol, Edixa, Heiland Pentax, Hexacon, Pentacon, Pentax Spotmatic, Praktica, Praktiflex, Rival, Tower, Yashica J-5. No extra adapter needed for these.

Certain other bodies need another adapter ring with a female Praktica thread to attach to our basic course.

a female Praktica thread to attach to our basic cou-pling. The prices of adapter rings available are as

follows:
Alpa, \$22.50; Canonflex, \$10; Contarex, \$23; Exakta, \$8; Konica, \$12.50; Leicaflex, \$12.50; Minolta, \$16.50; Miranda, \$9; Praktina, \$8; Yashica Pentamatic, \$7.
The Leica Visoflex reflex housing with forward end that attaches with threads, \$8.50; with forward end that attaches with bayonet, \$17.50. Be sure to specify.
Extra extension tubes sold separately, \$8.50. When ordering coupling set or extension tubes please specify for which Questar model.

for which Questar model.

# THE QUESTAR SEVEN

The Questar Seven is a fully mounted astronomical telescope that separates into two parts, the barrel with control box, and the mounting, and is carried in matching Formica cases, shown at right. By distributing the weight in this manner, the Questar Seven becomes the first telescope of its aperture to be a completely portable observatory. It is pictured on the front of this catalog in its fully mounted position with the 3½-inch to illustrate their relative sizes.

The Questar Seven has a low-expansion Cer-Vit mirror, and the price of the fully-mounted model includes lens cap, 80x and 160x eyepieces, 3½" aperture safe solar filter, finder solar filter, legs for table-top polar equatorial position; built-in finder, power changes, star diagonal erecting prism, circles, worm-driven sidereal clock, synchronous electric drive, slow motions, safety clutch, clamp in Altitude-Declination. Also included, the basic camera coupling set. \$5450.00.

The Seven's barrel and control box assembly is sold separately. Shown at far right mounted on a tripod as it would be used for terrestrial observation and

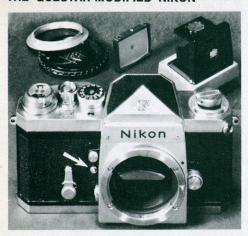


photography, this is the form in which it is used for photography, this is the form in which it is used too many research and development projects—as a laser component, for example. Price includes 80x and 160x eyepieces, basic camera coupling set, lens cap; built-in finder and power changes, star diagonal erecting prism. \$3995.00

Full-aperture Solar Filter .....\$550.00



# THE QUESTAR-MODIFIED NIKON



## The Nikon F and Accessories

The Questar-modified Nikon F is one of the most satisfactory cameras we have discovered for securing sharp negatives at all shutter speeds with your Questar. The secret is in its wonderfully light titanium foil ball-bearing shutter, which opens so smoothly it does not move the sharply focused cones of rays on negative during exposure, and in the Questar modification, a tiny button (see arrow) which permits you to release the migror before exposure, thus eliminating all migror before exposure thus eliminating all migror. the mirror before exposure, thus eliminating all mirror-slap vibration.



# The Nikon F with FTN Meter

This is the Nikon with the new metering system built right into the interchangeable viewfinder. It enables the photographer to have an accurate through-the-lens reading.

# **Price List**

Questar-modified	Nikon F	camera	body w	ith body
cap, waist level fir	nder, Typ	e B groui	nd glass,	cable re-
lease, adapter ring	g			.\$264.55
Questar-modified	Nikon E	with ET	N Mator	

Questar-modified Nikon F with FTN Meter, camera body with body cap, Type B ground glass, cable release, adapter ring ...... 366.55

Basic Camera Coupling (for all cameras) . . . . 23.50

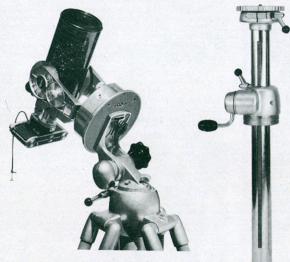
## Nikon F Accessories

We are in constant touch with Nikon's national office and can get any item quickly. Here are the Nikon F accessories we keep in stock:

Right Angle Finder for Photomic T, TN
and FTN\$26.50
Waist Level Finder, Model 3 29.50
Pentaprism Finder 44.50
Type A Ground glass with split prism rangefinder 18.50
Type B Ground glass 18.50
Type C Ground glass with clear center and cross 18.50
F/1.4 Auto-Nikkor Lens
F/2 Auto-Nikkor Lens 87.95
F/3.5 Auto-Nikkor Zoom Lens
Cable Release 4.45
Adapter Ring 10.00
Rear Lens Cap 1.60
Speed Magny 100
Eveready Case

# THE LINHOF—a great tripod for the finest photographic work, and a convenient mount for visual use at seated or standing position.

It is impossible to overemphasize the importance of a stiff, tremorless support for both visual and photographic work with a high-power telescope. High-power photography is much like sharpshooting with a high-power rifle. The marksman has to hold his heavy target rifle, with its leather sling taut, hard and true on target. So must we support our great long-focus lens; it must be truly motionless during the period of exposure. The tripod by Linhof of Munich, is not only the finest we have ever seen but the first we have ever recommended without reservation. Tripod, centerpost and pan head, described below, can be bought separately if the whole outfit is not needed, and with or without a carrying case.



#### Linhof Deluxe Pan Head

For celestial tripod use, the pan head tilts Questar's vertical axis so that it points near pole star for continuous following. Excellent for low latitudes and vital at equator where axis is horizontal. Separate friction knobs lock this elegant head without shifting view. Scales and spirit level. Weight 3 pounds. On page 3, the Field Model is shown mounted on the pan head, which is essential to crient it. which is essential to orient it.

## **Linhof Heavy Duty Centerpost**

The famous Linhof geared centerpost is now improved and self-contained. Most luxuriously adjusts to your exact eye level. Smooth as silk, with amazing built-in load equalizer. Two-inch post rises 20 inches. Attaches with great 3.5-inch dia clamps. Ingenious lever locks it at any height to fittingly complete the finest tripod we have ever seen.

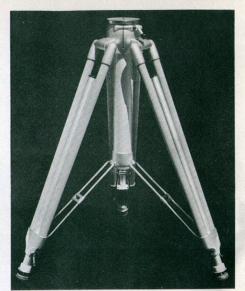
# **Price List**

3-piece Linhof Heavy Duty Professional	
Tripod	396.00
Tripod, sold separately	220.00
Rising Center Post, sold separately	95.00
Pan Head, sold separately	81.00
Case for 3-piece outfit	42.50
Case for Tripod and Pan Head	34.50
Porro Prism for axial viewing	





The Complete Tripod—tripod, pan head and rising center post—is the deluxe outfit for every purpose. The convenient handle tilts and swings the pan head to position your camera or telescope in any direction.



# **Linhof Heavy Duty Professional Tripod**

Solid as a concrete pier as shown, and the only tripod we know that is stiff enough to support Questar adequately at standing eye level. Lighter than it looks; only 17 pounds. Easy cam-locking legs, here shown extended 2 inches, makes height adjustment simple. Folds to 36 inches—carry it in car trunk with a folding stool. Exclusive big rubber pads screw down to render harmless the sharp steel spikes that could damage car, floor or person. Detachable stiffening struts, spirit level. Best of class.

Questar on Linhot Tripod, left, used at seated height. As shown one eyepiece is in the axial position with extension tubes. A Porro prism used here gives you an erect image with axial viewing.

#### The Camera Cradle

Attaching a heavy camera to the 7-pound Questar is a little like the tail wagging the dog, and so we have developed the camera cradle as a means of supporting both telescope and camera independently. This is useful not only for weighty cameras with the 2½ x 2½ format, but also if you should want to do extra-long focal length shots which would necessitate additional extension tubes. For 16 mm, movie cameras the cradle extension tubes. For 16 mm. movie cameras the cradle is essential. The cradle must be mounted on a tripod.



## Beaulieu Movie Camera—R-16ES

Questar's superb resolution now can be captured on movie film with the Beaulieu cameras which are easily

Questar's supero resolution now can be captured on movie film with the Beaulieu cameras which are easily adapted to the telescope. The 16 mm. is attached with the Questar C-mount adapter, and the Camera Cradle makes it possible to support this 4-pound camera on the 7-pound telescope. This is a perfect combination for such things as photographing distant wildlife in action, or for research work wherever fine resolution on movie film is required.

The Beaulieu R-16ES is a professional camera that handles like an amateur model, It has a built-in precision motor and behind-the-lens meter. Its transistorized electronic speed control permits all filming speeds from 2 to 64 frames per second, calibrated with the utmost accuracy. Its many other features include a new on-off switch control with forward and full reverse drive at all speeds, new remote control, new Sync-pulse connection for accurate sound recording, new lightweight nickel-cadmium battery system, new high luminosity reflex viewfinder, body cut out to accept 200-foot daylight-load magazine if desired.

## **Price List**

Beaulieu R-16ES, body only	\$989.50
200-foot Magazine	
Camera Cradle	99.50
Beaulieu Automatic Super 8 with	
Angenieux 8 to 64 mm. zoom lens	699.00
Questar Camera Adapter, with swivel and lock	15.00
Questar C-mount Adapter	17.50
Positive Lens & Adapter, 100 mm	11.50
Positive Lens & Adapter, 68 mm	11.50
Miller Fluid Head, Model F	219.50



## **Beaulieu Super 8**

The Beaulieu Super 8 is lighter in weight than most 35 mm. cameras and attaches to Questar with the Questar C-mount adapter and no additional support. It is a completely automated camera with interchange-

It is a completely automated camera with interchangeable lenses, smooth ultra-slow and accelerated motions, a wide range of filming speeds made possible with its variable shutter, a reflex view finder, behind-the-lens meter, and an Angenieux zoom lens.

Our experimental reels here show objects at varying distances from 30 to 2000 feet, all demonstrating Questar's remarkable resolving power even with distant moving objects under difficult lighting conditions. The close-up study of even insect life at great enlargement with this camera and Questar is a fascinating ment with this camera and Questar is a fascinating possibility, and the combination is so easy to manage. The Beaulieu and Questar are shown above mounted on the Miller Fluid Head:

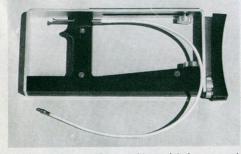


# Miller Fluid Head, Model F

In searching the market to find the smoothest head for panning, we have discovered the Miller Fluid Head, Model F, which operates on a patented semi-hydraulic principle and is completely free of backlash. Its motion is really smooth as silk and it can be adapted to any standard tripod.

# **NEW!** A Lightweight Tripod For The Field

We finally have found the answer to a lightweight sturdy tripod for field trips. Our new Davis and Sanford with special Questar modification is the ideal tripod to carry with you where every extra pound counts. In spite of its only ten pounds, it is extremely rigid used at its folded height of 28 inches. It can be extended to as much as 58 inches, but some stability is thereby sacrificed. So in order to reduce vibration to a minimum for photography, its lowest position is recommended. It is made of anodized aluminum and includes pan head and rising center post in its small price of \$105.00.



The Rowi Shoulder Mount (with special clamp screw) will help you get a successful photograph in the field when you don't want to carry a tripod. \$21.00

# The Questar Service and Sales Policy

Fast and efficient servicing of your Questar will always be available at the factory. Our policy is to protect your investment. Adjustments will be made at our expense if the fault was ours. Adjustment and replacements after reasonable wear, or modernizing of instruments, will be done at cost of time and materials.

Materials, workmanship and our standard coatings are guaranteed for 10 years. Broad-band and low reflection coatings are too new for us to know their life span, but we are guaranteeing them for two years. The slow motion drives are expected to wear in proportion to use. They cost \$7.50 each to replace.

Questars are sold at one net wholesale factory price.

There is no huge list price from which to give distrib-Inere is no nuge list price from which to give distributors and retailers large commissions. There are no commissions, no dealers at all. There are no school or church discounts, none for celebrities, presidents, nobility or governments. The hundreds of dollars you save by ordering from these pages as thousands of persons have before you are enough to pay your air passage to inspect a Questar at our new offices in open country near New Hope.

Please do not ask the name of the nearest Questar owner. It is our policy to protect the personal privacy.

owner. It is our policy to protect the personal privacy of every Questar owner. Should you become one, you have our promise that in the following years we will never refer prospects to you for demonstrations, send strangers to your door, or ask you to act as our agent

QUESTAR, RD 1, New Hope, Pennsylvania 18938 Phone: 215-862-2000 and 215-862-5277

# Special Coatings—Another Questar "First"

Peaked coatings for special purposes are now available.

Peaked coatings for special purposes are now available. Let us know your needs.

Also, now in stock for immediate delivery we have Questars with Cer-Vit mirrors and quartz lenses for work in the ultraviolet and infra-red. Prices on request. Inquire, too, about our stripped models for special applications, such as laser components, rocket-borne instrumentation, and manned spacecraft.

#### **Optical Glass Filters**

Color filters, sometimes useful in planetary and lunar observation to overcome scattering, or in any photography where haze causes image deterioration, are now available in fine optical glass. Send for our leaflet on filter techniques. Twelve filters available, priced as indicated. Any six in special leather case, with adapter, at \$47.50.

Color	Price	No.	Color	Price
Yellow-		23A	Orange-Red .	. 7.50
			Red	. 7.50
Light Yellow .	7.50	38A	Light Blue	. 9.50
Yellow-Green	7.50	47	Violet	. 9.50
Yellow	7.50	58	Green	. 7.50
Deep Yellow .	7.50	82A	Light Blue	7.50
Orange	7.50	Adap	ter	. 2.00
	Yellow- Neutral Light Yellow . Yellow-Green Yellow Deep Yellow .	Yellow- Neutral\$7.50 Light Yellow . 7.50 Yellow-Green 7.50 Yellow 7.50 Deep Yellow . 7.50	Yellow-     23A       Neutral     \$7.50     25       Light Yellow     7.50     38A       Yellow-Green     7.50     58       Yellow     7.50     58       Deep Yellow     7.50     82A	Neutral\$7.50 25 Red



## The Piggy-back Mount

This is a new accessory that adds another dimension to Questar, making it possible to take long time exposures of deep-sky objects using Questar and its superb drive as the guide 'scope. The collar slides over 'scope barrel and supports camera platform. Price \$60.00

# Questar Powerquide

Questar Powerguide
The Questar Powerguide, which operates on house current or from any 12-volt DC power source, enables the Questar user to select sidereal or lunar driving rates by merely pushing a switch. A 12-foot power cord plugs into automobile cigarette lighter receptacle, for use in the field, or into standard 110 volt AC socket. With an output of 5 watts, the Powerguide draws only 1 amp.

A hand-held control cylinder with 3-foot coiled cord, permits the operator to stop the Questar drive or to speed it beyond sidereal rate, a practical necessity for deep-sky photography.

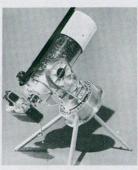
An important convenience of this unit is the incorporation of a controllable power source to illuminate the separately available Cross-hair Reticle Eyepiece for use with the Piggy-back Mount and other applications. The degree of illumination is from zero to 2 watts.

Price \$127.50

# Illuminated Reticle Eyepiece

To be used with Questar Powerguide

Price \$62.50



# The Counterweight

The Counterweight

For smoothest electric driving during celestial photography, the camera load must be balanced. This ingenious lead-filled vinyl collar weighs I pound, wraps around star chart and is held by Velcro fasteners. It is soft and cannot scratch. The guide stick, also Velcro faced, holds the collar wherever you position it. You can pull the star chart forward for even more balance.

Price \$20.00