

SURPLUS SHEDSM

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SUMMER 2006

**SURPLUS OPTICS & ELECTRONICS CATALOG
BARGAINS FOR FUN, HOBBY, EDUCATION OR PROFIT**

- LENSES, MIRRORS, PRISMS, FILTERS
- EYEPIECES AND EYEPIECE LENS SETS
- SCIENTIFIC INSTRUMENTS
- OPTICAL DEVICES
- MILITARY SURPLUS
- EDUCATIONAL OPTICS
- RADIO/ELECTRONICS
- MISCELLANEOUS FUN STUFF



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JUST ARRIVED! ZEISS 6X30 BINOCULAR PARTS KIT

This kit includes all the non-optical parts you need to fix your Zeiss binoculars or make like new, with the exception of the body. These original Zeiss parts are all unused in the original packaging. 26 pieces included all in your very own brown paper bag! Includes eyecups that are very hard to come by! Our understanding is that not only will this set fit the Zeiss 6x30 binoculars,

but they used the same parts for the individual focus 8x30. A rare military collectible or resell your reconditioned binoculars to make \$\$\$!

B1008 \$49.00

JUST ARRIVED! LEICA 1200XL SCIFINDER MICROSCOPE KIT

This SciFinder microscope is made by Leica's Cambridge Instruments. It's constructed with all glass optics and a diecast aluminum body, similar to the quality standards used in Leica's professional research microscopes. The stand, viewing tube and mechanical parts are all metal and corrosion resistant and is designed to provide years of rugged use from your child's first

school science fair project and beyond. This is the instrument to encourage your young scientist to uncover the exciting microscopic world. The precision crafted SciFinder encourages observation and appreciation of science from the most elementary to the most sophisticated levels of understanding. The kit provides the investigative tools needed to begin the step-by-step process of scientific discovery. SciFinder optics are all anti-reflection coated for high contrast and clear crisp images. 4 high power objectives rotate on a turret and are color coded for easy identification. With the included 10x wide field eyepiece, you will be able to magnify specimens from 50 to 1200 times. The longer objectives are spring-loaded and retractable to protect slides from breakage. The microscope also maintains parfocality from one magnification to another so the specimen stays in constant focus (just another of the professional features that makes this such a great buy). Here are some of the additional features and items included in the kit:

Dual concave/plano glass mirror to concentrate and direct illumination to the specimen; battery operated illuminator for those times when an external light source isn't available; four aperture, click-stop diaphragm to control the amount of light entering the field of view; fingertip controlled rack and pinion focusing for fast, smooth adjustments; Explorer's Guide full of suggestions for the use and care of the instrument; basic microscope techniques like making slides; forceps; prepared slides; test tubes and other useful tools. Unused. Makes a great educational gift.

T1517 \$75.00

JUST ARRIVED! ELECTRONIC CAMERA SHUTTER ASSEMBLY

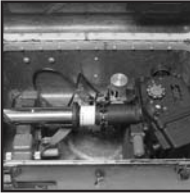
This is an automatic shutter unit made for a camera and is a beauty. Complete with 2 solenoids, cadmium sulfide photo electric light sensor that determines the exposure and tells the solenoids when to open and close and hence the shutter speed. Has a Mitsubishi M51081P integrated circuit which we believe to be a self timing chip and film speed sensor. We don't know what camera it was made for and don't have voltage requirements or other specs. Assembly is 2-3/4" long by 2" wide. Shutter opening is 1/2". They are marked "7X1E". Unused in original static shielding bag.

M2410 \$5.00

JUST ARRIVED! BAG OF (24) ASSORTED PLASTIC GEARS

Ranging in size from 3/16" to 1-5/16". Includes 18 gears with center hole of 1/16", and 6 worm gears with 1/16" hole. Perfect for science projects and experiments! Get these while they last! Unused.

M2620 \$4.50

JUST ARRIVED! MILITARY AIRCRAFT PERISCOPE SEXTANT

These were used in military aircraft to determine night flight position relative to the stars. Has right angle eyepiece assembly with eyeguard. Periscope view has bubble level which can be increased in size with the control, and crosshair reticle. Includes adjustable lens diffuser and 9 position filter control. Filters are red, green, clear, Neutral Density and some ND mixed with other filters. Includes a timer and 3 digit counter dial. For timer and lights to work, need 28 volts AC or DC. Complete with military transit case. These are a newer model than the ones we sold out of a few years ago. Very good condition. Case is 16.5" x 10.5" x 7" high. Case alone is worth our price for this interesting military optical instrument. Original cost was \$1909.14. Sorry, but we are not allowed to sell these outside the US.

T1516 \$65.00

Achromats**36MM X 350MM ACHROMAT**

Cemented doublet, 36mm diameter by 350mm focal length. Unused.

L1325 \$6.50

COATED ACHROMAT, 31.5MM DIA.

Focal length is 51mm. Coated cemented doublet. Made to be part of a military eyepiece assembly. These are lens elements #7 & 8. Unused.

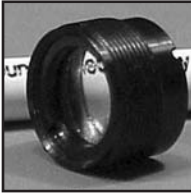
L1492 \$7.00 or 10 for \$56.00

RECTANGULAR ACHROMAT, CTD

37.3mm diameter by 28.7mm wide by 11.5mm thick. Has curved edges. 105mm focal length. Coated

L1601 \$5.50 or 10 for \$45.00

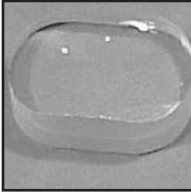
15MM DIA MTD ACHROMAT



Achromat, in threaded barrel mount (has both inside and outside threads). Lens is 15mm clear diameter by 50mm focal length. Mounting is 18.8mm diameter by 12mm long. Not coated. Unused.

L1657 \$5.50 or 10 for \$40.00

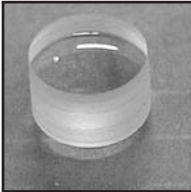
COATED RECTANGULAR ACHROMAT



This makes a super magnifier. 31.7mm x 23.7mm x 10.2mm thick. Coated achromat with curved edges. 100mm focal length. Unused.

L1725 \$5.00 or 10 for \$40.00

HASTINGS TRIPLET - UNMOUNTED



These are typically used as high power magnifiers. Cemented three element design provides the ultimate in distortion and spherical aberration free, color correct viewing. 15mm diameter, 10x magnification. Surface quality 60/40. Unused

L1865D \$18.50

MOUNTED ACHROMAT, 9MM DIA BY 40MM FL

Coated achromat in mounting. Clear lens diameter is 9mm and focal length is 40mm. Mounting is 13.5mm diameter by 8.9mm long, then machined to 9.5mm diameter by 5mm long with a center opening of 4.2mm. Clearly intended for a specific application. If you have a project that can use this achromat in its mounting, what a find! The lens is held in by a retaining ring so it

can be removed. Use it as is or use either the mounting or lens by itself. We have a good quantity of these and our price is super.

L2010 \$4.75 or 10 for \$35.00

15MM DIA X 40MM FL MTD ACHROMATIC LENS ASSY

Multi coated, multi element achromatic lens assembly mounted with threaded focusing mount. Clear front element lens diameter is 15mm, and clear back element diameter is 11mm diameter. Assembly is 20mm diameter by 13mm high. Focal length is 40mm. Unused.

L2057 \$8.00 or 10 for \$65.00

LASER COLLIMATOR LENS, ACH, 12MM FL

Achromatic laser collimator lens. Clear lens diameter is 5mm. Assembly is 9mm diameter by 4mm long. Coated optics. We have a good quantity of these if you want to incorporate it into your product. Our price is unbeatable! Unused.

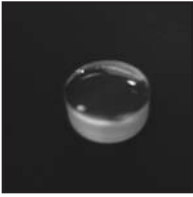
L3383 \$8.00 or 10 for \$60.00

AUGUSTA ARSENAL 18MM DIA 39MM FL ACHROMAT EYELENS

These are Jaegers catalog # 11A 856 and are labeled Augusta Arsenal and W.H. Huff. These are unused all in the original box and packaging from 1954. These were made to be used in some of the military 7 x 50 binocular eyepieces. These have a great purple anti-reflective coating. I doubt you will find these anywhere else!

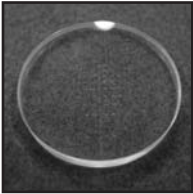
Quality lens! We have a large supply of these if you want to incorporate them in your project! Also makes a nice addition to your military optics collection.

L3492 \$8.00 or 10 for \$60.00

24MM DIA, 40MM FL TRIPLET UNCTD

These cemented triplet achromats are unused! Edge thickness is 9mm. Focal length is 40mm. Diameter is 24mm. We have a lot of these so if you need them for a project, we can supply them!

L3504 \$8.00 or 5 for \$35.00

*Antiques***ANTIQUE 41MM RETICLE**

A great find. These are in the original package. Marked "STOCK NO. 2060. ONE RETICLE - MARK 1. DIAMETER 41 MMS. EDMUND SALVAGE COMPANY. P.O. AUDUBON, NEW JERSEY. Looks like war surplus, probably for one of the military scopes. 41mm diameter by 5mm thick. Has vertical and horizontal dashed lines going 3/4 of the way up the center. Markings on left

and right side: 8, 12, 16, 20, 24, and 28.

A1601 \$4.00

ANTIQUE RETICLE FOR MILITARY M70F TELESCOPE

Unused in original packaging, dated in the 1940's. Reticle made for the military M70F telescope. 27.4mm diameter by 3.1mm thick. Has small cross hair and vertical and horizontal dashed lines going 1/2 of the way down from the center. Markings on left and right side: 8, 16, 24, and 32.

A1604 \$4.00

*Beamsplitters***15MM COATED CUBE BEAMSPLITTER**

Unused beauty in original packaging. 15mm X 15mm cube beamsplitter. Transmission and reflection is in the ratio of 50/50. Made of BK7 with surface quality 60/40. Angle tolerance is +/- 3 arc min and flatness is 1/2 wave. All sides are anti-reflection coated.

Edmund's 15mm X 15mm sells for \$118.80

L2046D \$19.00

30MM COATED CUBE BEAMSPLITTER

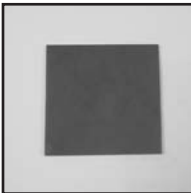
Unused beauty in original packaging. 30mm X 30mm cube beamsplitter. Transmission and reflection is in the ratio of 50/50. Made of BK7 with surface quality 60/40. Angle tolerance is ± 3 arc min and flatness is about 1/2 wave. All sides are anti-reflection coated. Edmund's 30mm X 30mm sells for \$157.50
L2047D \$35.00

40MM COATED CUBE BEAMSPLITTER

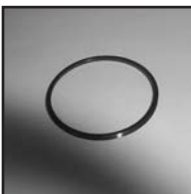
Unused beauty in original packaging. 40mm X 40mm cube beamsplitter. Transmission and reflection is in the ratio of 50/50. Made of BK7 with surface quality 60/40. Angle tolerance is ± 3 arc min and flatness is about 1/2 wave. All sides are anti-reflection coated. Edmund's 40mm X 40mm sells for \$240.90
L2048D \$45.00

20MM COATED CUBE BEAMSPLITTER

Unused beauty in original packaging. 20mm X 20mm cube beamsplitter. Transmission and reflection is in the ratio of 50/50. Made of BK7 with surface quality 60/40. Angle tolerance is ± 3 arc min and flatness is about 1/2 wave. All sides are anti-reflection coated. Edmund's 20mm X 20mm sells for \$125.90
L2069D \$25.00

MIRROR TYPE GLASS BEAMSPLITTER, 50MM SQ

Beamsplitter appears to be 25% transmittance and 75% reflective. 50mm long x 50mm wide. Unused.
M3014 \$2.50

Binocular Parts**ZEISS 6X30 OBJECTIVE CELL RETAINING RING**

Unused in the original packaging. Holds your binocular objective in place! Original Zeiss metal ring measures 37mm (OD), 2mm thick.
B1001 \$1.50

ZEISS 6X30 BRASS AXLE



Unused in the original packaging. This is used to link the left and right side barrels together. 55mm long, 7mm diameter threaded on one side, 13mm diameter with 2mm center hole on the other.

B1002 \$4.00

ZEISS 6X30 OBJECTIVE COVER, RIGHT



Unused in the original packaging. Here's another great original Zeiss part for your 6x30 binoculars. 40mm threaded opening, 5mm thick. Box is labeled as: DWG No-A-1530.

B1003 \$4.50

ZEISS 6X30 OBJECTIVE COVER, LEFT



Unused in the original packaging. Here's another great original Zeiss part for your 6x30 binoculars. 40mm threaded opening, 5mm thick. Box is labeled as: DWG A-1537

B1004 \$4.50

ZEISS 6X30 EYEPIECE ADAPTER BARREL FOCUS INSIDE



Unused in the original packaging. This is the adapter that goes inside the focuser. Threaded throughout but these do not have optics. 28mm long, top inside threaded diameter is 20mm, outside diameter of 21mm. Bottom inside threaded diameter of 14mm (appears to be brass), outside diameter of 20mm.

B1005 \$4.00

ZEISS 6X30 LEFT COVER PLATE PRISM COVER



Unused in the original packaging. This is the prism cover for the left side of your Zeiss 6x30 binoculars. 25mm diameter hole, 5mm thick.

B1006 \$4.50

ZEISS 6X30 RIGHT COVER PLATE PRISM COVER

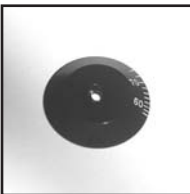
Unused in the original packaging. This is the prism cover for the right side of your Zeiss 6x30 binoculars. 25mm diameter hole, 5mm thick.

B1007 \$4.50

ZEISS 6X30 BINOCULAR PARTS KIT

This kit includes all the non-optical parts you need to fix your Zeiss binoculars or make like new, with the exception of the body. These original Zeiss parts are all unused in the original packaging. 26 pieces included all in your very own brown paper bag! Includes eyecups that are very hard to come by! Our understanding is that not only will this set fit the Zeiss 6x30 binoculars, but they used the same parts for the individual focus 8x30. A rare military collectible or resell your reconditioned binoculars to make \$\$\$!!

B1008 \$49.00

ZEISS 6X30 INTER PUPIL DISTANCE SCALE

Unused in the original packaging. 20mm diameter original Zeiss distance scale marked 60-70.

B1009 \$3.00

PAIR OF WWII BAUSCH & LOMB 7X50 PRISM COVERS/FOCUSING ASSEMBLY UNUSED!

Here's a very rare find! Original WWII 7x50 binocular parts in the original packaging!! Use these to make your old binoculars even more valuable! Focusers adjust very smoothly. No optics in these assemblies. Some are even stamped: U.S. Navy, BU.SHIPS MARK 28, MOD.0 203238, 1943.

B1010 \$20.00

WWII BAUSCH & LOMB 7X50 OBJECTIVE MOUNT UNUSED

Here's another great part to restore your old B&L 7x50 binoculars. These are unused in the original B&L packaging intended for use by the US Navy. Labeled as part# 29422-62. Another military collectable. We doubt you can find these new anywhere else!

B1011 \$5.00

BAUSCH & LOMB BUBBLE SEXTANT LENS "B" BUBBLE

Here's the "B" lens for a 61-90-04 bubble sextant, in the original Military issued B&L packaging dated NOV 1945. The plano concave lens is 31mm diameter and 4mm thick with a focal length of -174mm. The center has a 20mm reticle. High quality optical glass and a rare Military collectible!

B1016 \$6.50

BAUSCH & LOMB BUBBLE SEXTANT LENS "A" BUBBLE

Here's the "A" lens for a 61-90-04 bubble sextant, in the original Military issued B&L packaging dated NOV 1945. The plano convex lens is 31mm diameter and 4mm thick with a focal length of 174mm.

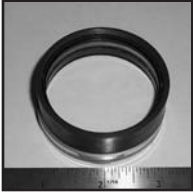
When combined with PCV "B" lens it acts like a window. The center has a 20mm reticle. High quality optical glass and a rare Military collectible!

B1017 \$6.50

WWII EYE GUARD FOR M-17 BINOCULAR

These are in the original Military packaging unused! Manufactured by Westinghouse, the box is labeled: DRG No.: B-7638085 and Code No.: F238-763-8085. Box is dated Nov 1944. These are threaded (33mm) to easily screw on to your M-17 binoculars. Get them to restore your old binoculars to new or as a great military collectible.

B1018 \$3.00 or 2 for \$5.00

WWII MOUNTED 7X50 BINOCULAR OBJECTIVE

Unused in the original military packaging! These appear to fit the Spencer 7x50's. Front clear lens diameter of 50mm, barrel is 60mm. Rear clear lens diameter of 50mm, inside threaded barrel is 55mm. The barrel is 25mm long. Focal length is 190mm. Beautiful bluish/purple anti-reflective coating.

B1022 \$30.00

UNUSED WWII 7X50 RUBBER EYEGUARD

These are unused in original B&L military packaging. Will fit most of the WWII 7x50 binoculars! Bottom opening measures 28mm, outer ring is 36mm diameter. A rare find! These will fit some of our current 2" and 1-1/4" eyepieces (L2008A, L1837A, L3148, L3149.

L3142, L3190, L3251), some of our sold out ones, and lots of others. Metal ring can be removed for slip in or

slip over where needed.

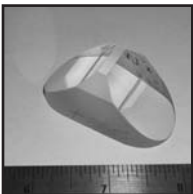
B1023 \$3.00 or 2 for \$5.00

M1 POLARIZING FILTER FOR M15 & M17 NIB 1948

A great find for the vintage U.S. Military binocular collector! Has two sets of mounted Polaroid filters with a side control to rotate one filter with respect to the other, and each set rotates at the same time. This should gradually lighten or darken the incoming light that goes to your binocular objectives. However, these are old and some of the filter material may have deteriorated.

Manufactured by Beck-Lee Corporation, this M1 filter assembly attaches over the eyepieces of the M15 and M17 7x50 U.S. military binoculars (those without eye guards). Each unit measures 4" wide x 3 3/4" high x 1" deep, with black-enameled metal frame with dual 3/4" diameter glass filters, knurled focus tabs, and 1/4" rear wells with ten metal pressure tabs for press-on application of the assembly. SNL Stock No. F238-5800227, stamped July 1948. Made by the Beck-Lee Corporation. Nice military collectable. Complete with original box. Supplies are limited.

B1024 \$15.00

BAUSCH & LOMB 7X50 BINOCULAR PORRO PRISM

These are brand new in the original B&L military packaging dated back to the early 50's. Hypotenuse is 52mm long x 25mm wide, faces are 35mm x 24mm. If you need replacement prisms for your old 7x50's you are in luck!

B1025 \$6.00 or 2 for \$10.00

B & L 7X50 BINOCULAR OBJECTIVE 52MM DIA X 190MM FL

These are unused in the original Bausch & Lomb packaging but have been in storage for some time so some may have cement problems. Bluish/purple anti-reflective coating. Fits most 7x50 WWII binoculars among many others. 3/8" thick. The best will go out first!

B1026 \$15.00

B & L WWII 7X50 DIOPTER SCALE FOR MARK 28 MOD 0

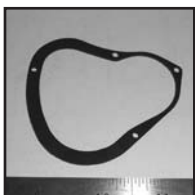
These fit a number of the WWII 7x50 binoculars but were made for the Bausch & Lomb Mark 28 Mod. 0. Knurled Top has opening diameter of 25mm and bottom opening is 35mm. 18mm long. Unused from WWII!!

B1027 \$3.00 or 2 for \$5.00

WWII 7 X 50 BINOCULAR RETICLE, 25MM DIAMETER

Great unused glass 7x50 reticle, 25mm diameter x 1.8mm thick. This has a horizontal scale 6mm from the bottom with 2 additional center lines above the middle of the scale. Labeled in increments: 40,30,20,10,(center),10,20,30,40. In the original military packaging.

B1029 \$3.75

WWII B&L 7X50 MARK 28 COVER GASKET

Original Bausch & Lomb WWII binocular part! Will fit the Mark 28 and numerous others. Used to seal the area between the prism and ocular. Unused.

B1030 \$0.75

WWII B&L 7X50 MARK 28 OBJECTIVE GASKET

Original Bausch & Lomb WWII binocular part! Will fit the Mark 28 and numerous others. Measures 53mm (ID) and 63mm (OD). Unused

B1031 \$0.75

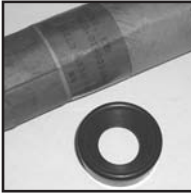
EYEPIECE HOUSING FOR HAYWARD 7X50 BINOCS



Rare left side metal eyepiece housing for the military Hayward 7X50 binoculars. This sure is a find if you can use it. 3-1/2" long by 2-1/2" wide. Opening for the optics is 1". Has (3) 1" long legs. If you repair binoculars, you need a few of these. Unused

B1032 \$12.50

NEW! UNIVERSAL 6X30 BINOCULAR EYE GUARDS/CUPS FOR M9



These were made for the M9 military 6x30 binocular but will fit numerous other 6x30's. The top is 33mm diameter (opening is 16mm), the bottom threaded inside barrel measures 21mm. 10mm thick.

B1033 \$1.25 or 10 for \$10.00

NEW! PRISM SHELF/HOLDER FOR M15 & M16 7X50 BINOCULARS



Need a replacement prism holder for your 7x50 binoculars? This is exactly what you need! Will fit many of the 7x50's, but was made for the M15 & M16. Prism bracket included to securely hold you prisms in place.

B1034 \$3.00

NEW! UNUSED WWII 7X50 BINOCULAR BODY/SHELL RIGHT SIDE



These make great replacements for your damaged 7x50's (they fit B&L WWII binocs) or to make a quality monoscope. In mint original condition! Measures 5-3/4" long, quality machined pieces!

B1035 \$15.50

NEW! 7X50 WWII BINOCULAR EYE GUARD



These will fit many of the 7x50 WWII binoculars (as well as modern brands). The top is 35mm diameter (opening is 22mm), bottom threaded barrel is 31mm. 9mm thick.

B1036 \$1.50 or 10 for \$12.00

NEW! UNUSED WWII LEFT M6 6X30 PRISM COVER

Made by Universal Camera Corp. in the original military packaging marked "1944". Will fit numerous 6 x 30 binoculars, but intended for the M6. Unused, a rare find! Limited supply.

B1037 \$10.00

NEW! WWII M13 6X30 LEFT PRISM COVER/LENS HOUSING

These are used but in very good condition. Stamped "Binocular M13 6x30". A rare find!

B1038 \$8.00

NEW! WWII 6X 30 MARK 33 RIGHT PRISM COVER/FOCUSING EYELENS HOLDER

These are used but in very good condition. Stamped "U.S. Navy BU. Ships Universal Camera Corp".

B1039 \$12.00

NEW! WWII B&L BUBBLE SEXTANT EYEGUARD

Original unused eyeguard to fit on your vintage WWII Bubble Sextant. Marked as B&L DWG No.: 29710-24, Used on 61-90-04 Bubble Sextant. The top measures 50mm diameter (opening is 25mm), bottom measures 40mm, bottom opening is 28mm. Could be used on 2" telescope eyepieces or possibly even binoculars. Unused.

B1040 \$6.00

NEW! WWII BINOCULAR PARTS GRAB BAG

We recently purchased a large inventory of WWII binocular parts. This grab bag may include: objectives, housings, prisms, prism covers, eyepieces, binocular cases, even binoculars in need of repair. You will get anywhere from 10-20 items in all. You wont be disappointed! If you have a preference (6x30 or 7x50 parts), please indicate your choice in the comments section of the order form.

B1111 \$25.00

PCV FLINT FOR HAYWARD 7X56 BINOCULAR OBJECTIVE

Haward Part #B7-3N, made by Hayward Optical Glass Co. Plano Concave lens is 56mm diameter x 8mm thick with a focal length of -133mm. These are perfect if you are in need of a replacement flint for your damaged binoculars! Used, but in very good condition
L3579 \$8.00

OBJECTIVE COVER FOR STEINER 6X30 BINOCs

Unused and made for the quality Steiner 6x30 military binoculars. Brown rubber, 1.7" ID with a 2" long handle. Also fits eyepieces of some of the larger binoculars such as 14x70.

M1601 \$0.50 or 10 for \$4.00

RAINGUARD/EYEPIECE COVER FOR STEINER 6X30 BINOCs

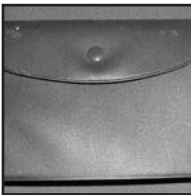
Unused and made to fit the eyepieces of the quality Steiner military 6x30 binoculars. 4" long by 1-1/2" wide. Has places for a strap. Brown rubber.

M1602 \$1.00 or 10 for \$8.00

WWII M16 BINOCULAR SEPARATOR

These are unused in the original military packaging from 1944! Made by the Nash-Kelvinator Corp.. These are labeled as: Ord. Drg. No. A204259, SNL Stock # F238-5204259. Front opening measures 1", rear opening is 5/8" x 1" long. Made of aluminum. If you have an M16 binocular then these are for you. If not, then get them because they are a rare find and military collectible!

M2630 \$3.75 or 10 for \$30.00

NEW! GERMAN MADE SMALL BINOCULAR/PARTS CASE

Here's a virtually unused brown binocular case with shoulder strap. Use it for small pair of binoculars, camera, telescope eyepieces, eyeglasses, or carry in car to store your registration/insurance. For the ladies, use it as a makeup kit. 101 uses! Measures 6" x 4-5/8" x 2" thick. Shoulder strap is 30" long. Stamped "Made in Germany".

M2669 \$5.00

Binoculars

WWII BRITISH MADE OFFICER'S POLISHED BRASS BINOCULARS



Rare WWII 6x30 porro prism binoculars. Made in the early 1940's by the best British optical houses. Prism and objective covers have been polished (could use a bit more elbow grease). These will look super in your office or living room. Quality optics throughout provide great sharp images. Individual focusing eyepieces. Vintage canvas case included.

Excellent condition.

T1409 \$75.00

MILITARY PERISCOPIC BINOCULARS



Made for the Czechoslovakian People's Army and used in tanks. The coated optics deliver a crisp and bright 4x view with a reticle overlaid in the right-hand eyepiece. Rubber eyecups make for comfortable viewing and both eyepieces are fully focusing. An unusual quick-release turret assembly on top allows for rapid cleaning of the objectives, prisms,

etc. Top and bottom mounting brackets. Has a knob adjustment for the distance between your eyes, and a head rest. Heavy duty construction.

Excellent condition.

T1471 \$85.00

MILITARY PERISCOPIC BINOCULARS W/CASE & ACCESSORIES



Like new with original wood case. Made for the Czechoslovakian People's Army and used in tanks. The coated optics deliver a crisp and bright 4x view with a reticle overlaid in the right-hand eyepiece. Rubber eyecups make for comfortable viewing and both eyepieces are fully focusing. An unusual quick-release turret assembly on top allows for rapid cleaning

of the objectives, prisms, etc. Top and bottom mounting brackets. Has a knob adjustment for the distance between your eyes, and a head rest. Heavy duty construction. Includes spare top prism assembly, extra rubber eyeguard, lens cleaning cloth, stamped military paperwork, passport, and instruction manual (not in English). These are beauties and we only have a few.

T1475 \$125.00

IRON CURTAIN 6 X 30 MILITARY PRISM BINOCULARS

Made in the early 1950's in one of the Iron Curtain countries such as Bulgaria, these are rugged military porro prism binoculars complete with original leather case and leather eyepiece cover. Quality coated optics with individual focus eyepieces. Has range reticle in the right eyepiece. Designed to resist dust, etc. Used but in very good condition.

T1484 \$39.95

KERSHAW MK3 BINO PRISM WWII FIELD BINOCULARS

These British-produced British military binoculars are rugged construction, intended for field use during World War II. The Kershaw MK3 features a porro-II prism design for improved light transmission, and 6x magnification. The four base ports allow for nitrogen purging to eliminate the fog-prone oxygen otherwise present in the optical path,

and drying of all internal parts should the unit be water-saturated. Focusing is available for each eye. Each unit has a black-enameled brass body, coated optics, is marked BINO PRISM No. 2 MK3, X6, GRATICULES 1/2" APART AND 1/4" 1/2" AND 1" HIGH. Made between 1943 and 1944. These have seen the field, but are in very good working condition. Great military collectable that you can use and at a great price.

T1508 \$49.00

TASCO 8 X 21MM COMPACT RUBBER ARMORED BINOCULARS WITH CASE

Model #89721RB, InFocus by Tasco. These are great, coated, roof prism binoculars complete with cleaning cloth, neck strap and case. Quality glass coated optics with roof erecting prisms, achromatic cemented doublet 21mm diameter glass objective lenses and glass 3 element eyepieces. Center focus with right eyepiece focus adjustment. 128M/1000M. Nice sharp images in

a compact size that's easy to carry anywhere. Get one for yourself and some for gifts. New.

T1523 \$12.50

Books

TECH MANUAL FOR T-11/KC-1 AERIAL CAMERAS



One of our customers got his hands on the Operation and Maintenance Technical Manual, the Overhaul Technical Manual, and the Illustrated Parts Breakdown. We had some copies made and bound. There's about 300 pages. Covers Aerial Mapping Camera Type T-11, KC-1, KC-1B, and KC-9A.

M1498 \$30.00

MILITARY OPTICAL DESIGN HANDBOOK



Complete reprint of this classic, hard to find 630 page book. this handbook was developed by the Department of Defense with the assistance of a leading optical manufacturer. It provides engineering personnel with an introduction to optical theory, and treats to an advanced level the fundamentals and principles of optical design. There are 26 sections, an appendix and a comprehensive index. There are 20 pages on eyepieces, 25 pages on mirror and prism systems, 25 pages on telescope objectives. Sections on microscope optics, infrared optical design, optical material, optical tests, coating, etc., etc. Military Standardization Handbook #MIL-HDBK-141, 5 October 1962. Lots of the optics referenced are available surplus.

M1514 \$50.00

BOOK OF GERMAN MILITARY OPTICAL EQUIPMENT



Here's a book with the specs of German military binoculars and other optical equipment. Lots of interesting info and photos in this 92 page soft cover book. Only problem is that it's written in German. If you can read German, you need this. If not, it's easy to figure out what each spec means. Great photos and some very unusual instruments defined. Unused.

M2050 \$17.50

FIBER LIGHTING BOOK FOR THE HOBBYIST AND CRAFTSMAN



This 36 page soft cover book by Walter A. Baldwin includes the basic principles of fiber lighting as well as basic construction techniques, craft applications and ideas. Fully illustrated with diagrams and photos. This is a great introduction to the use and application of fiber lighting in creative craft projects.

M2117 \$4.50

192 PAGE POPULAR OPTICS "HOW TO" BOOK

If you are interested in experimenting with optics, building optical instruments, or just learning, this is the book for you. Here is the main breakdown of the book: The Optical Bench, Graphical Ray Tracing, Basic Optical Math, All about Magnifiers, How to Condense and Project Light, Optical Drawing Devices, Telescopes you can Build, Homemade Telephoto Systems, and Fun with

Optics. Included is info on finding focal length, all kinds of info on different types of lenses and their uses, image formation, testing, determining the power of a magnifier, field of an eyepiece, make a telescope into a microscope, all kinds of info on projectors, Camera Lucida, reflector and refractor telescopes and inexpensive pipe mounts and tripods, making cradles, info on telephoto lenses and how they work and designs, how to make a simple spectroscope, etc., etc. 192 pages of interesting and fun stuff to do with optics. These are new and the latest edition.

M2291 \$14.95

Bulbs/Lamps**FLAME TIP BULB, 2.2 VOLT, .25A, MINI SCREW BASE**

Low voltage, works with 1-1/2 volt batteries or your solar cells. Package of 4.

M2105P \$0.65

8 WATT U-BEND TYPE FLUORESCENT BLACKLIGHT BULB

FTB-8T6-BL 8 Watt blacklight fluorescent bulb. Black light is the popular term for ultraviolet energy near the visible spectrum. Blacklights are used for a wide variety of applications including color matching, curing, sanitization, particle identification, art display, recreation, automotive, R12 chemical leak detection, and lots of fun stuff. We couldn't find these specific ones listed any-

where so we may be the only source for these replacement bulbs for your blacklight devices. U Bend shape with 4 pin base. We've been told that there are adapters that will allow you to screw these into a regular light socket, but haven't found them yet. Unused. One of our customers advises that this works in his 15 Watt Bug Zapper which needs UV!

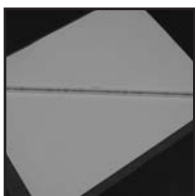
M2138 \$1.50 or 10 for \$10.00

ANTIQUÉ WESTINGHOUSE MAZDA #1491 AUTO LAMPS - ORIGINAL BX 10 BULBS

Original unused boxes of ten Westinghouse Mazda #1491 automobile lamps (.8 amps, 2.4 volts) for the antique automobilia collector or antique car owner. Each original orange and black Westinghouse Mazda cardboard box (6 1/2" long x 2 1/2" deep x 2 1/2" high) holds ten unused bulbs in a cardboard insert. The end of the box indicates that these are G8 bulbs with DC

bayonet base.

M2306 \$15.00

SYLVANIA 625T2-1/2Q/CL/S COPIER LAMP

Made for photocopiers. 12-1/2" long by 5/16" diameter. Unused in original packaging

M3020 \$5.00

MINI STROBE TUBE & REFLECTOR

Bright Xenon strobe tube and reflector is 0.96 inches by 0.89 inches by 0.74 inches deep. Unused with 2 copper tabs for anode & cathode and 1 aluminum tab for trigger lead.

R3118 \$1.00 or 10 for \$8.00

Camera Lenses**35MM STEREO CAMERA LENS/SHUTTER ASSY**

This is the complete integrated lens and shutter assembly made for the Revere 35mm stereo cameras. Dual quality coated camera lenses made by Wollensak of Germany with iris control from f/3.5 to f/22. One turn of the control adjusts both lenses. Shutter speeds from 1/2 second to 1/200 second with "B" and "T". Cock the shutter and release, both go at the same

time. Coated optics. If you have ever wanted to build a 35mm stereo camera to take photos to use in your stereoscope, here's your opportunity. Or just get it for the two camera lenses, etc. Unused.

L2084 \$19.50

WOLLENSAK 160MM F/4.5 RAPSTAR LENS SET

Unused beauties. Lens set consists of two mounted lens assemblies that were designed to go onto either side of the iris/shutter assembly for one of the cameras. We don't have the exact specs or spacing. Coated optics. Front assembly is 2-1/8" diameter (clear lens diameter is 1-3/8" diameter. Rear assembly is 1-3/4" diameter (clear lens diameter is 1-1/4". Focal length is 160mm. Only have a few.

L3096 \$25.00

STEINHEIL CAMERA LENS/IRIS/SHUTTER ASSY

45mm, f/2.8 Steinheil Anastigmat camera lens assembly. Coated optics. Made in Germany. Has iris adjustment and shutter speed adjustment. Looks like the slowest speed is about 1 second, but we don't have the equipment to determine the fastest speed. We don't know what camera this was made for or what film format, but at this price it will be great to experiment

with. Assembly is 40mm diameter by 22mm deep. Clear front and rear lens diameter is 15mm. Steinheil made quality optics. One of our customers believes that this was originally made for the Bosley Jubilee, an American-made rangefinder 35mm camera from around 1955 or so (we have not confirmed it). Thanks Mike.

L3359 \$12.00

**35MM STEREO CAMERA LENS/SHUTTER ASSY-
MECHANICAL PROBLEMS**

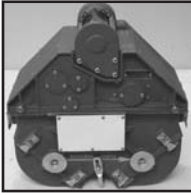
This is the same as our L2084 except something doesn't work. Made for the Revere 35mm stereo cameras. Lenses are in mint condition but the shutter may not cock correctly, or both iris diaphragms may not move in tandem, or some other mechanical problem. Here's a great opportunity to get two good 35mm f/3.5 camera lenses with coated optics as well as a mechanical chal-

lenge for a very low price.

L3371 \$10.00

Cameras

KB18A MILITARY PANORAMIC AERIAL CAMERA W/ZEISS LENS



Designed for the U.S. Air Force for use in fighter/bomber aircraft or reconnaissance aircraft. It scans 180 degrees for photographic assessment of strike mission damage. It has automatic exposure control and a double Dove prism that rotates to provide the 2.25" by 9.40" image format. Takes 70mm by 250 ft. roll film. Has great resolution with the Carl Zeiss

3" focal length f/2.8 lens. Angle of view is 41 degrees, 6 seconds by 180 degrees. Shutter speeds from 1/100 to 1/4000. 300 exposures per roll of film. For unmodified use, needs 28VDC and 115VAC, 400 Hz. Partial manual copy included. Excellent condition. Manual copy included. Our low price was \$375.00. Now closing them out!

I1433 \$275.00

KB-18B MILITARY PANORAMIC AERIAL CAMERA W/ZEISS LENS



These are unused, mint condition and include the camera control and body cover. The camera is the same design as the KB-18A except that the magazine assembly has been improved. Designed for

the U.S. Air Force for use in fighter/bomber aircraft or reconnaissance aircraft. It scans 180 degrees for photographic assessment of strike mission damage. It has automatic exposure control and a double Dove prism that rotates to provide the 2.25" by 9.40" image format.

Takes 70mm by 250 ft. roll film. Has great resolution with the sharp Carl Zeiss 3" focal length f/2.8 lens.

Angle of view is 41 degrees, 6 seconds by 180 degrees. Shutter speeds from 1/100 to 1/4000. 300 exposures per roll of film. For unmodified use, needs 28VDC and 115VAC, 400 Hz. Modification suggestions included for land use. We do not have cables. Manual copy included.

I1475 \$475.00

COLOR CMOS CAMERA <\$10

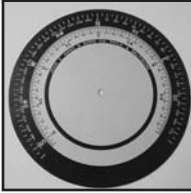
ZoomCam ISA Model 1575 made by Zoom Telephonics. These are unused and include a 10 foot cable with ferrite noise filter and 9-pin circular mini-DIN plug to connect into your video-ready faxmodem or video capture card (modem or card not included). This camera has a lot of features and a wealth of parts. Includes a high-quality f/1.9 multi-element anti-reflection coated lens

with a focal length of 4.8mm and a 50 degree wide angle field of view. Adjustable focus from 2 inches to infinity. The camera automatically adjusts for exposure, contrast, backlight, and fluorescent light "flicker" for high performance over a broad range of light conditions. Resolution is 352 X 288 pixels. It uses an advanced CMOS array to provide high resolution color live action video or point-and-click imagecapture. With a little creativity you should be able to adapt this to an unlimited amount of uses. Will run off 9 volts DC. Power consumption is 600mW nominal, 48mW sleep mode. We don't have schematic diagrams, so you will have to do some tracing to see what each pin goes to. Should be a fun and rewarding project. There are drivers that can be downloaded from <http://www.zoom.com/ts1/cam/isa.shtml>. The case is a contemporary design with weighted base and only 1.88" wide by 3.3" long by 2.43" high and has a standard mount for camera tripod. Take a look at all 3 photos to get a better idea of what you will get for such a pittance. Unused
R1460 \$9.75

Compass Parts**JOHN E. HAND 2-1/2" NAVY COMPASS CARD**

If you have one of the Navy John E. Hand military compasses that needs a replacement compass card, you are in luck! Made of aluminum, the card is 2-1/2" diameter and has degrees in 10's with markers at the half way spot and lines for each 2 degrees This is an original John E. Hand & Sons of Philadelphia part. If you don't have a compass to put these in, this should make a nice collectable. Put it in a frame with our M2179 and M2181 and hang it on the wall in your family room or office.

M2180 \$5.00

JOHN E. HAND 4-7/8" MILITARY COMPASS CARD

If you have one of the John E. Hand military compasses that needs a replacement compass card, you are in luck! Made of aluminum, the card is 4-7/8" diameter and is different from the other ones we have in that the degrees are in two levels and go around the card about 3/4 of the way. This is an original John E. Hand & Sons of Philadelphia part. If you don't have a compass

to put these in, this should make a nice collectable. Put it in a frame with our M2179, M2180 and M2181, and hang it on the wall in your family room or office.

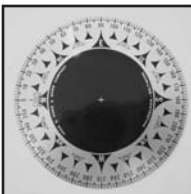
M2195 \$7.50

JOHN E. HAND 2-1/2" DIAMETER MILITARY COMPASS CARD

If you have one of the Navy John E. Hand military compasses that needs this replacement compass card, you are in luck! 2-1/2" diameter black-enameled aluminum with white numerics and notations, has degrees in 10's with markers at the half way spot and lines for each 2 degrees, with additional directional pointers and reversed numerics for mirrored

compasses. Includes attached center spindle and bottom 4-hole mounting bracket. This is an original John E. Hand & Sons of Philadelphia part. If you don't have a compass to put these in, this should make a nice nautical collectable. Put it in a frame with our M2179, M2180, and M2181 for display in your family room or office.

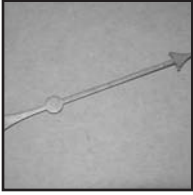
M2207 \$7.00

JOHN E. HAND 4" MILITARY COMPASS CARD

If you have one of the John E. Hand military compasses that needs a replacement compass card, you are in luck! Made of aluminum, the card is 4 inches diameter. This is an original John E. Hand & Sons

of Philadelphia part. If you don't have a compass to put these in, this should make a nice collectable. Put it in a frame with our M2179, M2180, M2181, M2195, and/or M2207 and hang it on the wall in your family room or office.

M2408 \$7.50

JOHN E HAND BRASS COMPASS POINTER

Made for one of the military compasses that the John E. Hand company was famous for. Not sure which one. 5-1/2 inches long. With a bit of elbow grease, these should polish up quite nice. A rare find if you need one . Nice collectable if you don't.

M2561 \$5.00

*Educational Optics***EDUCATIONAL SET OF 50MM LENSES**

Set of 6 lenses, 50mm diameter. Made of glass with polished faces and ground edges. Set consists one each of the following: double convex, plano-convex, converging concave-convex, diverging convex-concave, double concave, and plano-concave. Set comes in a hinged wood display box.

L1875D \$12.00

EDUCATIONAL DCX 38MM X 50MM

Part of our educational optics series. Double convex, spherical glass lens, with a focal length of approx. 50mm and diameter of 38mm. Made of glass with polished face and ground edges. Refractive index is approx. 1.52. Unused and individually boxed. Perfect for educational projects, but focal length is not in close tolerance from lens to lens, so not good for use in a

product you are going to manufacture where the focal length needs to be exactly the same.

L1901D \$1.50 or 10 for \$12.00

EDUCATIONAL DCX 38MM X 75MM

L1902D \$1.40 or 10 for \$11.00

EDUCATIONAL DCX 38MM X 150MM

L1903D \$1.25 or 10 for \$9.00

EDUCATIONAL DCX 38MM X 200MM

L1904D \$1.25 or 10 for \$9.00

EDUCATIONAL DCX 38MM X 250MM

L1905D \$1.25 or 10 for \$9.00

EDUCATIONAL DCX 38MM X 300MM

L1906D \$1.25 or 10 for \$9.00

EDUCATIONAL DCX 38MM X 500MM

L1907D \$1.25 or 10 for \$9.00

EDUCATIONAL DCX 38MM X 1000MM

L1908D \$1.25 or 10 for \$9.00

EDUCATIONAL DCX 50MM X 50MM



Part of our educational optics series. Double convex, spherical glass lens, with a focal length of approx. 50mm. Made of glass with polished face and ground edges. Refractive index is approx. 1.52. Unused and individually boxed. Perfect for educational projects, but focal length is not in close tolerance from lens to lens, so not good for use in a product you are going to manufacture where the focal length needs to be exactly the same.

L1911D \$1.75 or 10 for \$12.00

EDUCATIONAL DCX 50MM X 75MM

L1912D \$1.75 or 10 for \$12.00

EDUCATIONAL DCX 50MM X 150MM

L1913D \$1.50 or 10 for \$10.00

EDUCATIONAL DCX 50MM X 200MM

L1914D \$1.50 or 10 for \$10.00

EDUCATIONAL DCX 50MM X 250MM

L1915D \$1.50 or 10 for \$10.00

EDUCATIONAL DCX 50MM X 300MM**L1916D \$1.50 or 10 for \$10.00**

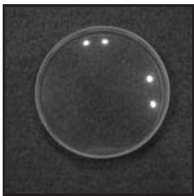
EDUCATIONAL DCX 50MM X 500MM**L1917D \$1.50 or 10 for \$10.00**

EDUCATIONAL DCX 50MM X 1000MM**L1918D \$1.50 or 10 for \$10.00**

EDUCATIONAL DCX, 50MM X 667MM

Part of our educational optics series. Double convex, spherical glass lens, with a focal length of approx 667mm. Made of glass with polished face and ground edges. Refractive index is approx. 1.52. Unused and individually boxed. Perfect for educational projects, but focal length is not in close tolerance from lens to lens, so not good for use in a product you are going to manufacture where the focal length needs to be exactly the same.

L1918DA \$1.50 or 10 for \$10.00

EDUCATIONAL DCV 38MM X -50MM

Part of our educational optics series. Double concave, spherical glass lens, with a focal length of approx. -50mm and diameter of 38mm. Made of glass with polished face and ground edges. Refractive index is approx. 1.52. Unused and individually boxed. Perfect for educational projects, but focal length is not in close tolerance from lens to lens, so not good for use in a

product you are going to manufacture where the focal length needs to be exactly the same.

L1951D \$1.50 or 10 for \$12.00

EDUCATIONAL DCV 38MM X -75MM**L1952D \$1.40 or 10 for \$11.00**

EDUCATIONAL DCV 38MM X -150MM**L1953D \$1.25 or 10 for \$9.00**

EDUCATIONAL DCV 38MM X -200MM

L1954D \$1.25 or 10 for \$9.00

EDUCATIONAL DCV 38MM X -250MM

L1955D \$1.25 or 10 for \$9.00

EDUCATIONAL DCV 38MM X -300MM

L1956D \$1.25 or 10 for \$9.00

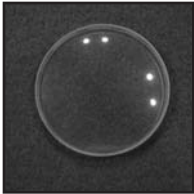
EDUCATIONAL DCV 38MM X -500MM

L1957D \$1.25 or 10 for \$9.00

EDUCATIONAL DCV 38MM X -1000MM

L1958D \$1.25 or 10 for \$9.00

EDUCATIONAL DCV 50MM X -50MM



Part of our educational optics series. Double concave, spherical glass lens, with a focal length of approx. -50mm. Made of glass with polished face and ground edges. Refractive index is approx. 1.52. Unused and individually boxed. Perfect for educational projects, but focal length is not in close tolerance from lens to lens, so not good for use in a product you are going to manufacture where the focal length needs to be exactly the same.

L1961D \$2.00 or 10 for \$16.00

EDUCATIONAL DCV 50MM X -75MM

Part of our educational optics series. Double concave, spherical glass lens, with a focal length of approx. -75mm. Made of glass with polished face and ground edges. Refractive index is approx. 1.52. Unused and individually boxed. Perfect for educational projects, but focal length is not in close tolerance from lens to lens, so not good for use in a product you are going to manufacture where the focal length needs to be exactly the same.

L1962D \$1.75 or 10 for \$12.00

EDUCATIONAL DCV 50MM X -150MM

L1963D \$1.50 or 10 for \$10.00

EDUCATIONAL DCV 50MM X -200MM

L1964D \$1.50 or 10 for \$10.00

EDUCATIONAL DCV 50MM X -250MM

L1965D \$1.50 or 10 for \$10.00

EDUCATIONAL DCV 50MM X -300MM

L1966D \$1.50 or 10 for \$10.00

EDUCATIONAL DCV 50MM X -500MM

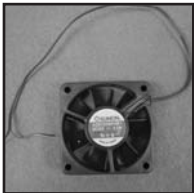
L1967D \$1.50 or 10 for \$10.00

EDUCATIONAL DCV 50MM X -1000MM

L1968D \$1.50 or 10 for \$10.00

*Electrical Components***NIDEC BETA V WISPER FAN**

12VDC brushless fan #TA225DC. Nidec Model M33404-18G. Has 7 blades and unit is 2-1/4" square. Mounted on a metal frame that is 9-1/2" long with holes to fit into a specific unit. Mounting can be easily removed. Has 2-1/2" lead with 2 pin pc connector. Includes fan guard.

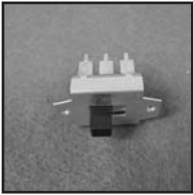
M2027P \$3.00**SUNON 60MM SQUARE 12VDC BRUSHLESS FAN**

Unused Sunon 12VDC, 2.2W brushless fan model #KDE1206PHSI. Fan is 60mm square and 15mm deep with 12" leads.

M2152 \$3.50

TWO POSITION HEAVY DUTY TOGGLE SWITCH

Two position toggle switch made by Eaton Corporation. Part number is 8951K163. Specification ranges are 10A 250VAC and 15A 125VAC with 4 contact connections. Nice large, red switch is 3/4" long x 1/2" wide with 2 hole mounting bracket. Switch is 2" long from mounting bracket to mounting bracket and is 1" deep. Unused.
M2162 \$2.00

SWITCHCRAFT 2 POSITION DPDT SLIDER SWITCH

Switchcraft 2 position switch operates at 3A 125vac or .5A at 125vdc. Aluminum housing is 1 3/8" long x 3/4" wide with 2 mounting holes. Has 9 copper contacts on rear of switch. Throw is black and 5/16" long. Unused.
M2166 \$0.75 or 10 for \$5.00

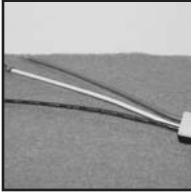
LIGHTED 3-COLOR, 3-POSITION SWITCH

Measuring 3" deep x 3/4" wide, this well-constructed switch appears to be constructed for DC operation. It's composed of a zinc frame, opaque three-position flip lever with a small red, yellow, and green filter attached to be rear, in front of a 1/2" long x 3/16" wide bulb (up=green, center=yellow, down=red). The lever is held in position by a series of insulated spring steel tabs that each have a solder terminal in the rear of the switch. The switch front panel has two 1mm threaded mounting holes.
M2186 \$3.50

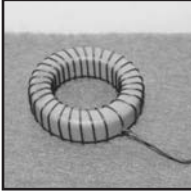
LEVITON 125/250VAC TURN SWITCH

Two position switch, measuring 20mm long x 18mm wide x 30mm total depth (20mm mast height). Threaded for mounting in a 10mm hole, includes mounting hex nut and connection wiring (approx. 5' black, 25' red). Rated 3A @ 125V, 1A @ 250V, 1A @ 125VT.

M2188 \$0.75 or 10 for \$6.00

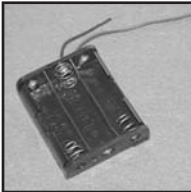
JUD-CO PRESSURE PUSH ON/PUSH OFF SWITCH

Two-position switch, measuring 17mm long x 13mm wide x 25mm total depth (17mm mast height). Threaded for mounting in a 10mm hole, includes mounting ring and connection wiring (three wires, each approx. 4" long). No switch rating; wiring indicates 300V 80 degrees C.
M2189 \$0.50 or 10 for \$4.00

30MM WIRE-WOUND FERRITE RING/CORE

An interesting component for the electronics "do-it-yourselfer"! A 30mm diameter x 8mm high gray Ferrite ring/core, wound with red plastic-insulated fine gauge conductive wire. May have been designed as a filter choke in a power supply, but no doubt you'll have other ideas. We have a good supply, so if you build a product that needs them, we've got the quantity you need.

M2199 \$0.50 or 10 for \$4.00

BATTERY HOLDER - 3 AA CELLS

A must-have for those DC battery-powered projects and for quick replacement of an existing holder! New 2 5/16" long x 1 15/16" wide x 5/8" high black plastic 3-battery holders with contacts, springs, and pre-wired.
M2209 \$0.35 or 10 for \$2.50

115VAC 8-PIN MINI RELAY

Numbered 156-4157 and 242-20275, these small (1 1/8" long x 7/8" wide x 1 1/4" high) white plastic-cased relays are great for the electronics hobbyist! Casing includes a schematic diagram on the top. New bulk stock.
M2212 \$0.75 or 10 for \$6.00

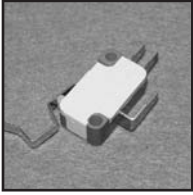
DELTA 12VDC BRUSHLESS FAN, 120MM SQ.

Delta 12VDC, .33A brushless fan, model WFB1212M. Roughly 130 CFM. The fan measures 120mm square x 25mm deep, with 11" leads to a MXT2-1 #2695 two-pin female plug.
M2214 \$5.00

ALCO MS-250AR SINGLE-DIGIT RED MOSAIC READOUT

Similar to our M2225 (1/2" high x 1/4" wide digit and 1/16" diameter lower decimal point in a 3/4" high x 1/2" wide screen area), except that they are non-hardwired (9 tab connectors instead for soldering wiring connections), and the lamp is rated slightly lower- 2.5V, 20mA. Unused stock in original boxes.

M2244 \$3.00 or 5 for \$12.00

CHERRY 0.1 AMP 125VAC CONTACT SWITCH

High quality thinline AC contact switches. Each measures 2" long (end of the lever to the end of the tab contacts) x 3/8" wide, with C-shaped metal lever extending 1/2" from the body, three tab connections (NC, NO, & COM), and two 1/8" diameter mounting holes (1" spread). 1/8" travel on the lever from off to triggered position. Unused stock.

M2246 \$0.50 or 5 for \$2.00

LEVITON HARDWIRED AC BULB SOCKETS

Rated up to 660W, 250VAC, these standard bulb sockets feature black plastic surround, 1" diameter threaded aluminum insert, brass inner contact, dual hardwired 12" long nylon mesh-insulated stranded copper feeds, and 7/8" long mounting bracket with 1/4" long 3/8" OD threaded attachment collar. Unused stock.

M2254 \$0.50 or 5 for \$2.00

6 DIGIT 24VDC PANEL MOUNT COUNTER

Tamura Electric model #E650. 24VDC, 650mW, 10CPS. White numbers on black background. 29mm wide by 22mm high by 35mm deep. Has 5 inch long 2 wire lead with end plug. Unused.

M2419 \$2.50

9V RED LED W/SWITCH, RESISTOR & LEADS

New This Week, 12/16/01 Works off 9vdc battery. Great for astronomy use with your dark adapted eyes, or build into your equipment. LED is mounted on switch assembly with 20 Ohm resistor, and 4-1/2" long leads (center lead is positive).

R1439 \$0.60 or 10 for \$5.00

SNAP MOUNT 6800 MICROFARAD CAPACITOR, 25VDC

Aluminum snap mount electrolytic capacitor, 6800 microfarad, 25 VDC. Length is 1.57" and diameter is 1". These were made for Panasonic by ACOM division of Matsushita Electric. Unused.

R1462L \$0.85 or 10 for \$7.00

7 FOOT, 3 CONDUCTOR ELECTRICAL CORD

Standard 3 prong AC connector on one end and the other end has two wires tinned and the other has a ground connector. Made by Victor Corp. 18 AWG, Type SPT-2, 105 degrees C. Unused

R2004P \$1.25 or 10 for \$10.00

20 FOOT STEREO HEADPHONE CABLE

For connection between headphones and amp/receiver, etc. Stereo 1/8" mini plug to stereo 1/4" phone jack. Unused.

R2021L \$3.00

20 AMP EMI LINE FILTER

SAE EMI #HP 1-20. Rated 20 amps, 115/250 VAC 50/60 Hz. Has 1/4" quick connect type terminals for all electrical connections. 3-3/4" x 3-1/4" x 1-1/2". Has 4 mounting holes off to each side.

R2030 \$5.00

SANGAMO DUAL 3300 MFD AXIAL LEAD ELECTROLYTIC CAPACITOR

Sangamo type 301AJT332U040B. Capacitor specifications are dual 3,300 microfarads, 40vdc, -55 degrees Celsius to +105 degrees Celsius. Capacitor body is 3 9/16" long x 1" diameter and the aluminum tinned leads are 1 3/4" long. Two leads from one side and one lead from the other. Unused.

R2036 \$1.50

12VDC SOLENOID VALVE

Originally designed for use in automotive anti-pollution systems, these valves are perfect for low volume vacuum or air pressure applications. Normally open valve. When energized, port closes and other port vents. Plastic body purge valve, 50 PSID maximum operating pressure. 30 ohm coil, draws 0.4 amps. PC mount solder terminals. 2-3/4" x 1" x 1-3/4". Unused.

R3041 \$1.25

KLIXON/TI 250VAC, 1.5AMP CIRCUIT BREAKER

Single pole circuit breaker, Model #51MC2-123-1.5. Has toggle type on/off. 250VAC, 60 Hz, 1.5 amps. Behind panel curve 123. 2" x 2" x 0.75".

R3042 \$1.25

CENTRALLAB 5 POSITION, 4 POLE ROTARY WAFER SWITCH

These were made by Centrallab for H.H.Scott. PC mount with 1/4" diameter by 1/2" long shaft. 3 wafers are shorting and back wafer is non-shorting. Unused.

R3043 \$4.50

RED LED WITH 8" LONG CABLE AND MINI PHONE PLUG

Mini phone plug on one end and red LED on the other. Should make a good panel indicator as the plastic LED holder will fit snug in a panel hole. Cut the cable in 2 and wind up with a mini plug and a mounted red LED. Will light with a 1-1/2V battery. Assembly is 8-1/2" long. Unused.

R3052 \$0.75 or 10 for \$6.00

BULB HOLDER/REFLECTOR/STAND

Holds standard 15mm diameter bayonet base bayonet bulbs. Steeply curved metal reflector is 90mm long by 67mm wide. Stand has 2 mounting holes. 6" long wire attached to bulb socket.

R3056 \$1.50

BABCOCK 6VDC HC-RELAY, ENCLOSED

Model AP342095 6VDC enclosed relay. Probably made to easily fit on a circuit board. 8 pins on the bottom. Here are the numbers on one side of the relay: In addition to the AP number above, there is "5A250VAC" and "HC2-P-DC6V". On the other side: "MATSUSHI-TA"; "7A 1/6HP 125,250VAC"; "3A30VDC". Hope you know what all this means! Unused.

R3058 \$1.75

3-PIN COPPER-WOUND VARIABLE CHOKE

Brand new bulk stock: 9 uH chokes for your electronics project needs. These units measure 40mm long x 16mm in diameter, with white plastic spool-like construction, top section copper wire winding, and black plastic base with 3-pin connection/contacts. Has ferrite tuning core. The top of the choke is labeled 433-510, and I 9. **R3068 \$1.00 or 10 for \$8.00**

HH SCOTT DUAL POT TONE CONTROL

Manufactured by CentraLab for HH Scott to be used in one of their audio amplifiers. CentraLab part # BA1115-008. HH Scott part # 021-1125-060. 1" long x 3/8" diameter shaft, dual connected turnpot base, each pot has 4 connections. They are dual, 1 Meg. linear pots with a tap and were used in the H.H. Scott vacuum tube receivers for the base and treble tone

controls. Unused.

R3069 \$2.50

WIRED RED LED DC INDICATOR

A great power or sequence indicator to add to your projects, or for replacement of burned out indicator/s. Standard 5/16" long x 1/4" diameter opaque red LED soldered to two 60" leads connected to a 11/16" wide x 3/4" high x 3/16" thick plastic 2-pin plug. LED solder connection is covered by 1 1/2" black insulation/shrink tubing. LED illuminates in the

3-9VDC range. Unused stock.

R3080 \$0.25 or 10 for \$2.00

MAGNETIC REED SWITCH

Overall length is 60mm. These are hermetically sealed switches that are activated by magnets. Normally off and switches on with magnet. Use with any magnet or our M2415 or M2416 magnets. Handles 1 amp, 50VDC and 250VAC. Unused

R3115 \$0.50 or 10 for \$4.00

4 DIGIT 7 SEGMENT RED LED DISPLAY

Digits are 17mm high. 7 segments with + and - on the first and 3rd digit. 2 volts current limited. 15 pins. Right hand decimal. We did a search for data but couldn't find any. The numbers on the back are 8642 C and TSB7881. Unused One of our customers provided the following specs: Seven-Segment Numeric LED

Display-Multiplexed. Mfg by Three-five Systems Inc.

Package Style = 1-Edge+Hol. Connection Type = Comm Cath. Color = Red. Character Height = 18mm. Peak Wavelength = 660nm. Iv Min.(cd) Luminous Intensity = 1.6m. @I(F) (A) (Test Condition) = 10m. V(F) Max.(V) Forward Voltage = 2.0. L(F) Max. (A) Forward Current = 20m

R3121 \$1.50

NICKEL CADMIUM BATTERY 1.2 VOLTS 170 MILLAMPS #GP170K

Unused measuring 1" diameter x 3/16" thick. Marked as "GP SILVA CHARGE 170K"

R3181 \$0.25 or 10 for \$2.00

Eyepieces/Sets**SMALL EYEPIECE LENS ASSY**

Looks like 4 elements, coated and mounted in a outside threaded barrel 12.6mm diameter by 9.4mm long. Focal length about 10 mm. Short eye relief but good field of view and sharp color corrected images. You'll need to get creative to find a way to fasten this to a standard size eyepiece holder.

L1620 \$5.00

EYEPIECE LENS SETS - ERFLE, 30MM FL

Here's the optics you need to build your own eyepieces. We include some basic mounting instructions, or use your own ideas. Most of the achromats are coated, and some of the DCX (double convex) or PCX (plano convex) are also coated. Here's what you get: ERFLE: Two achromats and one DCX or PCX

L1715 \$9.50

PROFESSIONALLY MADE PLOSSL EYEPIECES - 12.5MM FOCAL LENGTH

Standard 1-1/4" size plossl, 4 element coated eyepieces with metal barrel, eyeguard, and threaded for filters. 52 degree field of view. 10mm eye relief. Well corrected, and a great value. Unused. New, lower price. Was \$28.50

L1721 \$22.50

2X BARLOW LENS 1-1/4" ACHROMATIC

Professionally made barlow lens, achromatic and coated. Metal barrel for standard 1-1/4" eyepieces. Doubles the power of your eyepieces. Includes front and rear covers and eyepiece set screw. Unused.

L1731 \$28.50

PROFESSIONALLY MADE PLOSSL EYEPIECES - 6.5MM FOCAL LENGTH

Standard 1-1/4" size plossl, 4 element coated eyepieces with metal barrel, eyeguard, and threaded for filters. 52 degree field of view. 6mm eye relief. Well corrected, and a great value. Unused. New, lower price. Was \$28.50

L1732 \$22.50

PROFESSIONALLY MADE 10MM PLOSSL EYEPIECE

Standard 1-1/4" size plossl, 4 element coated eyepieces with metal barrel, eyeguard, and threaded for filters. 51 degree field of view, and 8mm eye relief. Well corrected, and a great value. Unused. New, lower price.

Was \$28.50

L1795 \$22.50

4MM INEXPENSIVE 0.965 TELESCOPE EYEPIECE

Made to fit the 0.965 Japanese standard. 2 element Huygenian eyepiece. Unused with plastic container.

L1796 \$3.75

6MM INEXPENSIVE 0.965 TELESCOPE EYEPIECE

Made to fit the 0.965 Japanese standard. 2 element Huygenian eyepiece. Unused with plastic container.

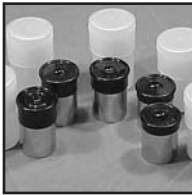
L1797 \$3.75

8MM INEXPENSIVE 0.965 TELESCOPE EYEPIECE

Made to fit the 0.965 Japanese standard. 2 element Huygenian eyepiece. Unused with plastic container.

L1798 \$3.75

12.5MM INEXPENSIVE 0.965 TELESCOPE EYEPIECE



Made to fit the 0.965 Japanese standard. 2 element Huygenian eyepiece. Unused with plastic container.

L1799 \$3.75

20MM INEXPENSIVE 0.965" TELESCOPE EYEPIECE

Made to fit the 0.965 Japanese standard. 2 element Huygenian eyepiece. Unused with plastic container.

L1800 \$3.75

25MM INEXPENSIVE 0.965" TELESCOPE EYEPIECE

These are made to fit the 0.965 Japanese standard. We have several different focal lengths. All are 2 element Huygenian eyepieces. Unused with plastic container.

L1801 \$3.75

2", 80MM FL, PLOSSL EYEPIECE UPGRADED

4 element Plossl design. We used surplus optics to build these. Some elements originally cost our government hundreds of dollars each. Fits standard 2" telescope focuser. 4 elements, all coated. Super eyepiece for the price. Threaded for filters. Unused FL 80mm, FOV 35 degrees (Barrel Limited), ER 65mm, EA 35mm Focal Length (FL), Field of View in degrees

(FOV), Eye Relief (ER), Clear Exit Aperture (EA)

L1837A \$47.50

10X WIDE FIELD MICROSCOPE EYEPIECES

Standard microscope eyepiece size. Coated optics. Wide field. 10X. Unused in plastic container with threaded cap.

L1861D \$12.50

15X WIDE FIELD MICROSCOPE EYEPIECES

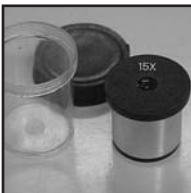
Standard microscope eyepiece size. Coated optics. Wide field. 15X. Unused in plastic container with threaded cap.

L1862D \$12.50

10X HUYGENIAN MICROSCOPE EYEPIECE

Huygenian design is most widely used in microscopes. Standard size. 10X. Unused, with plastic container. Good quality especially for the price!!

L1863D \$6.50

15X HUYGENIAN MICROSCOPE EYEPIECE

Huygenian design is most widely used in microscopes. Standard size. 15X. Unused, with plastic container. Good quality especially for the price!!

L1864D \$6.50

2", 38MM FL, ERFL EYEPIECE UPGRADED

Our great 2" eyepiece is now even better. We added a black anodized aluminum barrel that's threaded for filters. 5 element erfle design. Now using new optics made especially for us. Fits standard 2" telescope focuser. Coated optics. 60 degree field of view, 16mm eye relief, and 35mm clear exit aperture. Super eyepiece for the price. Unused.

L2008A \$47.50

PROFESSIONAL 10MM KELLNER 1-1/4" EYEPIECE

Kellner eyepieces were the most popular eyepieces for moderately wide field telescopic systems prior to the advent of some of the newer (and more expensive) designs. 3 element coated optics with field of view approximately 40 degrees and eye relief about 7mm. Fits standard 1-1/4" focusers. Metal barrel with knurled finger grip, and threaded for filters (thread is

coarser than that used for standard eyepiece filters, but ID is slightly larger. Put a little masking tape over the outside thread of your filter and it will screw in nice and secure). 10mm focal length. Plastic container included. Unused and a great value.

L2031 \$17.50

PROFESSIONAL 15MM KELLNER 1-1/4" EYEPIECE

Kellner eyepieces were the most popular eyepieces for moderately wide field telescopic systems prior to the advent of some of the newer (and more expensive) designs. 3 element coated optics with field of view approximately 40 degrees and eye relief about 10mm. Fits standard 1-1/4" focusers. Metal barrel with knurled finger grip, and threaded for filters (thread is

coarser than that used for standard eyepiece filters, but ID is slightly larger. Put a little masking tape over the outside thread of your filter and it will screw in nice and secure). 15mm focal length. Plastic container included. Unused and a great value.

L2032 \$17.50

PROFESSIONAL 25MM KELLNER 1-1/4" EYEPIECE

Kellner eyepieces were the most popular eyepieces for moderately wide field telescopic systems prior to the advent of some of the newer (and more expensive) designs. 3 element coated optics with field of view approximately 40 degrees and eye relief about 20mm. Fits standard 1-1/4" focusers. Metal barrel with knurled finger grip, and threaded for filters (thread is coarser than that used for standard eyepiece filters, but ID is slightly larger. Put a little masking tape over the outside thread of your filter and it will screw in nice and secure). 25mm focal length. Plastic container included. Unused and a great value.

L2033 \$17.50

7.5MM FL 1-1/4" EYEPIECE

Six element design for sharp image from edge to edge. 40 degree field of view. Eye relief is 10mm, and exit aperture is 6.5mm. Coated optics and threaded for filters. Unused.

L2062 \$19.50

PROFESSIONALLY MADE PLOSSL EYEPIECES - 4MM FOCAL LENGTH

Standard 1-1/4" size plossl, 4 element coated eyepieces with metal barrel, eyeguard, and threaded for filters. 52 degree field of view. 5mm eye relief. Well corrected, and a great value. Unused.

L2063 \$22.50

INEXPENSIVE .965 MIRROR STAR DIAGONAL

These are made to fit the 0.967 Japanese standard. 90 degree mirror diagonal. View the stars without neck damage. Fits 0.965" telescope focusers and accepts 0.967" eyepieces. Includes end caps and thumbscrew to secure your eyepiece. Unused.

L2070 \$3.95

PROFESSIONALLY MADE 15MM PLOSSL EYEPIECE

Standard 1-1/4" size plossl, 4 element coated optics with metal barrel, eyeguard, and threaded for filters. 52 degree field of view, 15mm focal length and 12mm eye relief. Well corrected, and a great value. Includes plastic eyepiece container. Unused.

L2164 \$28.50

INEXPENSIVE 1-1/4" MIRROR STAR DIAGONAL

90 degree mirror diagonal. View the stars without neck damage. Fits standard 1-1/4" telescope focusers and accepts standard 1-1/4" eyepieces. Mirror appears to be decent quality. Plastic tubing. Includes end caps and thumbscrew to secure your eyepiece. Unused.

L2177 \$9.75

2", 53MM FL, PLOSSL EYEPIECE UPGRADED

Our great 2" eyepiece is now even better. We added a black anodized aluminum barrel that's threaded for filters. 4 element Plossl design. We used new coated optics to build these. Fits standard 2" telescope focuser. Perfect eye relief for eyeglass wearers. Super eyepiece for the price. Unused FL 53mm, FOV 50 degrees (Barrel Limited), ER 60mm, EA 35mm Focal

Length (FL), Field of View in degrees (FOV), Eye Relief (ER), Clear Exit Aperture (EA)

L2189A \$47.50

16MM FL 1-1/4" 4 ELEMENT EYEPIECE

You'll get sharp color corrected images thru your telescope with this all air spaced 4 element design. Fits standard 1-1/4" focusers. 16mm focal length with a 25mm eye relief. Perfect for eyeglass wearers. Exit Aperture is 10mm. Coated optics. Unused.

L3024 \$17.50

QUALITY 40MM .965 EYEPIECE

We've had lots of requests for quality long focal length .965 size eyepiece to fit the smaller Japanese standard telescope focusers. This is a well corrected 40mm focal length 3 element eyepiece with multi-coated optics. Great eye relief of 35mm is excellent for eyeglass wearers. Exit aperture is 13mm

L3025 \$17.50

2" BARLOW LENS, 2X

You've been asking for this for some time. Here's a new 2X Barlow lens for 2" focusers. Coated achromatic lens assembly with 2" barrel threaded for filters. Get twice the use out of your 2" eyepieces.

L3203 \$44.50

QUALITY 17MM .965" EYEPIECE

We've had lots of requests for quality .965" size eyepieces to fit the smaller Japanese standard telescope focusers. This is a well corrected 17mm focal length 4 element eyepiece with coated optics. Eye relief is 2mm and exit aperture is 7mm. Sharp color corrected images edge to edge.

L3317 \$15.50

PROF MADE 20MM PLOSSL EYEPIECE, MULTI-COATED

Standard 1-1/4" size plossl, 4 element multi-coated optics with metal barrel, eyeguard, threaded for filters, and rubber finger grip. 52 degree field of view and 20mm focal length. Professionally made, well corrected, and a great value. Includes screw down type eyepiece container. Unused.

L3324 \$23.50

PROF MADE 25MM PLOSSL EYEPIECE, MULTI-COATED

Standard 1-1/4" size plossl, 4 element multi-coated optics with metal barrel, eyeguard, threaded for filters, and rubber finger grip. 52 degree field of view, 25mm focal length and 20mm eye relief. Professionally made, well corrected, and a great value. Includes screw down type eyepiece container. Unused.

L3325 \$23.50

10MM, 2" WF TELESCOPE EYEPIECE-GREAT FOR MARS

You've been waiting for these and they are finally ready. This is a great eyepiece with a 60 degree plus field of view. Provides sharp, flat edge to edge color corrected images. 8 elements (6 air spaced and one doublet). Nice 11mm eye relief and 14mm exit aperture. Fits standard 2 inch focusers. Threaded for filters. Coated optics. Mars is coming!!

L3394 \$65.00

6.5MM WIDE ANGLE 1-1/4" EYEPIECE

This is the best we've seen in a high power eyepiece. Wide 65 degree field of view, 10 glass lens elements, all coated. Clear exit aperture is 11mm and eye relief is 10mm. Sharp images. Barrel is threaded for filters. Includes eyepiece container. Unused.

L3061 \$32.50

1.25" 19.9MM WF KELLNER EYEPIECE

This eyepiece is a 3 element wide field Kellner design with coated optics and has a threaded barrel which accepts standard filters. Fits 1.25" telescope focusers. The optics are new wide field binocular eyepieces that we re-mounted for telescope use. Only have a limited supply so act quickly if you'd like one of these in your collection. Eye relief is 13mm and exit aperture is

17mm. Focal length is 19.9mm. Will give you great views.

L3148 \$19.50

1.25" 23.3MM WF KELLNER EYEPIECE

This eyepiece is a 3 element wide field Kellner design with coated optics and has a threaded barrel which accepts standard filters. Fits 1.25" telescope focusers. The optics are new wide field binocular eyepieces that we remounted for telescope use. Only have a limited supply so act quickly if you'd like one of these in your collection. Eye relief is 13mm and exit aperture is

17mm. Focal length is 23.3mm. Will give you great views.

L3149 \$19.50

BOYER-PARIS 20MM FL LENS ASSY

Made in Paris, France to fit many of the 16mm projectors. These are in unused condition. 20mm focal length, f/1.5. Multi-element assembly. Coated optics. Will make a great 20mm eyepiece if you want to get a bit creative with the barrel. Nice, sharp, color corrected images from edge to edge when used with one of our objectives. Barrel is 55mm long and 25mm diam-

eter at the top, 30mm diameter at the bottom.

L3185 \$7.50

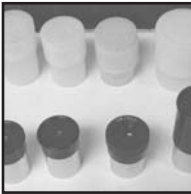
3X MICROSCOPE EYEPIECE BARLOW ATTACHMENT

Make any microscope eyepiece 3x as powerful! Just slip your eyepiece into the top and look through for 3x as much power.

Fits standard microscopes and eyepieces. Coated optics, unbeatable price! Will

work with our student microscope, stereo microscope, and Leica Scifinder. Supplies are limited! The second picture is of the attachment with one of our wide field microscope eyepieces (keeps it wide field!).

L3518 \$15.00

SET OF FOUR .965" TELESCOPE EYEPIECES 4MM, 6MM, 20MM, 25MM INCLUDED!

Here's a great starter set of 4 standard .965" eyepieces! Made to fit the Japanese standard focusers found on many of the department store scopes. They are 2 element Huygenian eyepieces. Unused with plastic containers. You get 4mm, 6mm, 20mm, and 25mm all at a very low price!!

L3528 \$15.00

SET OF THREE PLOSSL 1-1/4" EYEPIECES: 4MM, 10MM, 15MM

Standard 1-1/4" size plossl's, 4 element multi-coated eyepieces with metal barrel, eyeguard, and threaded for filters.

Around 50 degree field of view, 5-12mm eye relief. Well corrected, and a great

value. Unused. Save \$\$ off the price of purchasing them separately!

L3529 \$59.99

SET OF 2" TELESCOPE EYEPIECES, 10MM, 38MM, AND BARLOW!

Here's a set of our most popular 2" eyepieces and a 2" Barlow! Included are: 2" BARLOW LENS, 2X You've been asking for this for some time. Here's a new 2X Barlow lens for 2" focusers. Coated achromatic lens assembly with 2" barrel threaded for filters. Get twice the use out of your 2" eyepieces. 10MM, 2" WF TELESCOPE EYEPIECE-GREAT FOR MARS You've been

waiting for these and they are finally ready. This is a great eyepiece with a 60 degree plus field of view. Provides sharp, flat edge to edge color corrected images. 8 elements (6 air spaced and one doublet). Nice 11mm eye relief and 14mm exit aperture. Fits standard 2 inch focusers. Threaded for filters. Coated optics. 2", 38MM FL, ERFLE EYEPIECE Our great 2" eyepiece is now even better. We added a black anodized aluminum barrel that's threaded for filters. 5 element erfle design. Now using new optics made especially for us. Fits standard 2" telescope focuser. Coated optics. 60 degree field of view, 16mm eye relief, and 35mm clear exit aperture. Super eyepiece for the price. Unused.

L3558 \$129.50

PROF. MADE 30MM PLOSSL 1-1/4" EYEPIECE, MULTI-COATED

Standard 1-1/4" size plossl, 4 element multi-coated optics with metal barrel, eyeguard, threaded for filters, and rubber finger grip. 52 degree field of view and 30mm focal length. Professionally made, well corrected, and a great value. Fits standard 1-1/4" focusers. Includes screw down type eyepiece container. Unused.

L3580 \$23.50

PROFESSIONALLY MADE PLOSSL EYEPIECES - 40MM FOCAL LENGTH

Standard 1-1/4" size plossl, 4 element coated eyepieces with metal barrel, eyeguard, and threaded for filters. 43 degree field of view. 32mm eye relief. Also has rubber finger grip. Well corrected, and a great value. Includes screw down type eyepiece container. Unused.

L3585 \$28.50

20X MICROSCOPE EYEPIECE



Standard 0.917" OD eyepiece fits most microscopes. Has focal length of 12.5mm which is 20x power. Unused in original box. Coated optics. These were made for A. Jaegers Optics and have the ALJAE brand on them. Jaegers catalog #2513 (\$64.50 in the 1981 catalog).

L3996 \$15.00

FILTERS FOR 1-1/4" EYEPIECES (RED)



Glass filters with standard thread to fit your 1-1/4" eyepieces. Unused

M1500 \$7.50

FILTERS FOR 1-1/4" EYEPIECES (BLUE)

Glass filters with standard thread to fit your 1-1/4" eyepieces. Unused

M1501 \$7.50

FILTERS FOR 1-1/4" EYEPIECES (YELLOW)



Glass filters with standard thread to fit your 1-1/4" eyepieces. Unused

M1502 \$7.50

FILTERS FOR 1-1/4" EYEPIECES (MOON)

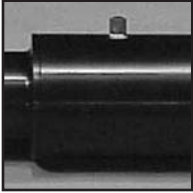
Glass filters with standard thread to fit your 1-1/4" eyepieces. Unused

M1503 \$7.50

FILTERS FOR 1-1/4 EYEPIECES (SET OF 4)

Glass filters with standard thread to fit your 1-1/4" eyepieces. Unused

M1504 \$25.00

1-1/4" UNIVERSAL CAMERA ADAPTER

Fits standard 1-1/4" telescope eyepiece holders. Composed of a T-adapter for prime focus photography and an extension tube for eyepiece projection photography. A setscrew in the extension tube holds the eyepiece in place. Black anodized aluminum. Unused.

M1513 \$14.50

PLASTIC EYEPIECE CONTAINER

Protect your 1-1/4" eyepieces. Container ID is 1-7/16" and 2" deep with cover that is 1-1/4" deep. Unused.

M1528 \$0.75

MOON FILTER FOR 1-1/4" NON STD THREAD EYEPIECES

This fits our Professional Kellner eyepiece series as well as our inexpensive Huygenian 1-1/4" telescope eyepieces. Unused.

M2053 \$6.50

MOON FILTER FOR .965

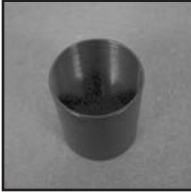
This fits our inexpensive 0.965" Japanese standard telescope eyepieces. Unused.

M2061 \$3.50

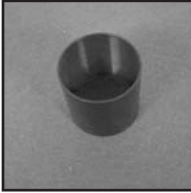
THREADED BARREL FOR 1-1/4" EYEPIECES

If you are building your own eyepieces and want a professional barrel threaded for filters, this is what you need. Black anodized aluminum, threaded for standard telescope filters. Fits 1-1/4" focusers. 1-1/8" long and threaded all the way thru. Unused.

M2104 \$4.00

2" X 2.5" THREADED EYEPIECE BARREL

If you're building your own 2" eyepieces, this black anodized aluminum barrel is exactly what you need. These are brand new and are 2" diameter x 2.5" long and threaded all the way through. Accepts 48mm filters.
M3022 \$8.00

2" X 2" THREADED EYEPIECE BARREL

If you're building your own 2" eyepieces, this black anodized aluminum barrel is exactly what you need. These are brand new and are 2" diameter x 2" long and threaded all the way through. Accepts 48mm filters.
M3023 \$7.50

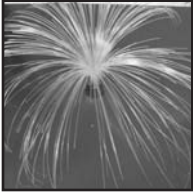
Fiber Optics**FIBER OPTIC FACE PLATE, 35MM DIA X 6MM THICK**

This is an optical device bundling lots of glass optical fibers. It transfers the light and image with high efficiency and low distortion. They are used in CRT's, camera tubes, CCD coupling, and image intensifiers. They replace optical lenses in a number of applications and there is no focal point to consider. These are great to experiment with as you can see the image of newsprint follow the curve of the face plate. If you have light reflected from the flat side, you'll see a bulls eye that varies in diameter as you change plate's orientation. These are polished, in great condition, and have serial numbers on the edge. Flat on one side and concave on the other. 35mm diameter by 6mm thick.
L3172 \$5.00

FIBER OPTIC FACE PLATE, 35MM DIA X 11MM THICK

This is an optical device bundling lots of glass optical fibers. It transfers the light and image with high efficiency and low distortion. They are used in CRT's, camera tubes, CCD coupling, and image intensifiers. They replace optical lenses in a number of applications and there is no focal point to consider. These are great to experiment with as you can see the image of newsprint follow the curve of the face plate. If you have light reflected from the flat side, you'll see a bulls eye that varies in diameter as you change plate's orientation. These are polished, in great condition, and have serial numbers on the edge. Flat on one side and concave on the other. 35mm diameter by 11mm thick.
L3173 \$7.00

FIBER OPTIC BUNDLE



This is great for special effects or to simulate a star field. Illuminate with a flashlight or other light source. Use filters over your light for different effects. Has hundreds of different length strands with polished ends to give a point of light at the end. Opens to about 12" diameter and is 3" high. For a super display, get a 12" square mirror and put a hole in the center to

accommodate the bundle. Put your light source under the mirror. See our second photo for the result.

M2014P \$12.00

B&L FLEXIBLE FIBER OPTIC LIGHT GUIDE, 6" LONG



Made by Bausch & Lomb, Catalog #32-13-06. Nominal fiber diameter is 1/8". Ends are .21" diameter. Non-coherent light guide is precision-drawn 20-micron fibers of 1.62 index glass, each coated with a protective and internally reflective clad of 1.52 index; then bundled and sheathed with aluminum strip-wound cable. Incident light gathering efficiency is 60% at the

receiving end. Light transmitting efficiency is 5% absorbance per foot. Range from visible to near infra red. Working temperature range -40 degrees F to +160 degrees F. In original containers.

M2021 \$8.00

SHORT FLEXIBLE FIBER OPTIC LIGHT GUIDE



Short flexible fiber optic light guide. 2-3/4" long by 2.2mm thick. Metal tip ends are 2.8mm diameter.

M2042 \$5.00 or 10 for \$38.00

SMALL FIBER OPTIC SPRAY



Has about 75 different fiber optic strands, the longest is 8 inches. Each strand has a polished end which gives a point of light when the bottom is illuminated with a flashlight or other light source. Great for experimenting with and demonstrating fiber optic properties.

M2044 \$1.50

B&L FLEXIBLE FIBER OPTIC LIGHT GUIDE, 36" LENGTH

Manufactured by Bausch & Lomb, Catalog #32-01-36. This non-coherent (light transmitting, non image-carrying) light guide contains precision-drawn 20-micron fibers of 1.62 index glass, each coated with a protective and internally reflective clad of 1.52 index; then bundled and Polyvinyl Chloride-sheathed. Nominal fiber diameter is 1/16"; sheathing outside diameter of 1/8";

minimum bend radius of 1/2". Ends are 1/8" diameter. Incident light gathering efficiency is 60% at the receiving end. Light transmitting efficiency is 5% absorbance loss per foot. Transmittance capability ranges from visible to near infra red. Working temperature range -40 degrees F to +160 degrees F. In original container.

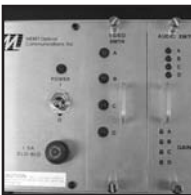
M2192 \$10.50

B&L FLEXIBLE FIBER OPTIC LIGHT GUIDE, 60" LENGTH

Manufactured by Bausch & Lomb, Catalog #32-02-60. This non-coherent (light transmitting, non image-carrying) light guide contains precision-drawn 20-micron fibers of 1.62 index glass, each coated with a protective and internally reflective clad of 1.52 index; then bundled and Polyvinyl Chloride-sheathed. Nominal fiber diameter is 3/32"; sheathing outside diameter of

5/32"; minimum bend radius of 3/4". Ends are 4mm in diameter. Incident light gathering efficiency is 60% at the receiving end. Light transmitting efficiency is 5% absorbance loss per foot. Transmittance capability ranges from visible to near infra red. Working temperature range -40 degrees F to +160 degrees F. In original container.

M2201 \$15.00

MERET OPTICAL 4 CH VIDEO AND AUDIO FIBER OPTIC XMTR

Made by Meret Optical Communications Model CRM1005UL. Takes standard 115VAC, 60Hz. Includes power supply and 4 channel video to fiber optic amplifier/transmitter removable module and 4 channel audio to fiber optic amplifier/transmitter removable module. Excellent condition.

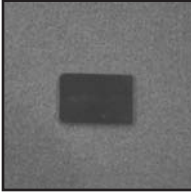
R3040 \$35.00

Filters**2-1/2" YELLOW FILTER**

Light yellow Type III made by Bell & Howell for the U.S. Army. In size 8 mount.

M1179 \$3.00

GREEN MILITARY RECTANGULAR FILTER



Made to be used with the M1923 military aiming device. Green filter, 35mm long by 23.8mm wide, by 2.2mm thick. One end has rounded corners.

M1417 \$0.50 or 50 for \$10.00

66MM YELLOW B&H FILTER

Mounted yellow Aero 2 filter manufactured by Bell & Howell. Clear filter diameter is 66.4mm. Mount is 76mm diameter with 71.5mm diameter outside thread protruding. Unused.

M1422 \$2.50

NEUTRAL DENSITY GLASS FILTER

30mm diameter by 2.3mm thick. Comes in individual pouch. Unused.

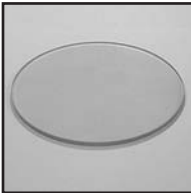
M1464 \$0.75

4-1/4" CLEAR FILTER/WINDOW

Clear optical glass, 4-1/4" diameter by 1/4" thick. Perfect for the front of your large camera or telescope to protect the objective.

M1471 \$3.00 or 2 for \$5.00

4-3/4" DIAMETER YELLOW GLASS FILTER



This looks like a more current production type filter. 4-3/4" diameter by 0.15" thick. Yellow. Not mounted. Unused.

M1559 \$3.00

41MM YELLOW B&H FILTER



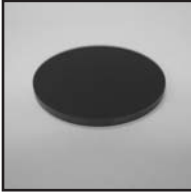
Mounted yellow Aero 2 filter manufactured by Bell & Howell. Clear filter diameter is 43.3mm. Mount is 51.6mm diameter with 44.4mm diameter outside thread protruding. Unused.

M1562 \$1.75 or 10 for \$14.00

MTD 30MM THREADED YELLOW FILTER

Glass yellow filter with 30mm clear diameter. Mounting is 38mm diameter with 36mm diameter threads. Has threaded retaining ring to hold the filter in place.

M1603 \$1.75

50MM DIA SHADE 5 DARK FILTER

These were made to be cut for eyeglasses for some filter application. Dark optical glass polished on both sides. Master box indicates "shade 5". 50mm diameter by 3mm thick. Might make a nice moon filter for 2" eyepieces. One of our customers advises that these "are replacement inserts for brazing (or welding) goggles. They are used behind clear glass protective (and replaceable) covers of the same diameter." Thanks Jerry

M2067 \$0.50 or 10 for \$4.00

RECTANGULAR GOLD CTD FILTER/BEAMSPLITTER

4.25" X 2" X 0.06" thick. Master box is marked "GOLD/CR". Not sure what the original application was but it acts almost like a beamsplitter. One side reflects about 75% while transmitting about 25%. The other side transmits about the same but with very little reflection.. Looks like a fun piece to experiment with. One of our customers was able to do an analysis of its composition. Here's his findings: "180 Angstroms of gold deposited over 30 angstroms of chromium on glass containing tin oxide"

M2068 \$0.75 or 10 for \$5.50

ND WINDOW, 4.3" X 2" X .3" THICK

Neutral density window. Optical glass, marked on the side ND320. Not sure what the 320 refers to.

Appears to be medium density. Has arrow on side pointing to one surface. Made by Perkin Elmer for some precision specialty application.

M2083 \$5.25

RECTANGULAR INTERFERENCE FILTER/BEAMSPLITTER

2" X 7/8" X 0.05" thick. Not sure what the original application was but it acts like a beamsplitter reflecting about 75% and transmitting about 25%. Look thru it and you'll see a blue tone, look at a reflection and it appears to have a gold coating. Clearly will be a fun piece to experiment with.

M2085 \$0.50 or 10 for \$3.50

N-3 NEUTRAL DENSITY FILTER, 63MM DIA

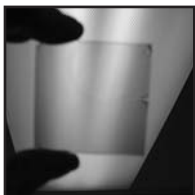
Glass neutral density filter, 63mm diameter by 6.3mm thick. Box is marked N-3 density.

M2108 \$1.25 or 10 for \$10.00

MTD GLASS FILTER SET; RED, ND & AMBER

Filters are 30mm diameter, and mounting is 39mm dia. Looks like they snap in place as there is a ring on the back side that sticks out 4mm and is 33mm diameter. Too big to be used in your 1-1/4" telescope eyepieces but maybe you can get creative. The Neutral Density one is quite dark and may make a decent moon filter. We believe these were made for a military application.

M2140 \$5.00

50MM X 50MM GREEN INTERFERENCE FILTER

This filter is reflective on both sides and shows a deep green color when held up to a light. It loses its mirrored effect when looking at a light source. 50mm long x 50mm wide x 1mm thick. We have a limited supply of these.

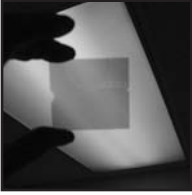
M2147 \$2.50

MOUNTED MOON FILTER FOR 2" EYEPIECES

Dark glass neutral density filter, mounted, ready to screw right into your 2" eyepiece. 9mm thick. Reduce the brightness and improve contrast to see the craters and details of the moon's surface without eyestrain.

New/Unused.

M2618 \$14.95

55MM X 50MM ORANGE INTERFERENCE FILTER

This filter is reflective on both sides and shows a deep orange color when held up to a light. It loses it's mirrored effect when looking at a light source. 55mm long x 50mm wide x 1mm thick. Haven't got many of these.
M3019 \$2.50

KODACHROME SERIES VI HAZE FILTER

Unused haze filter made by Eastman Kodak is 40mm outside diameter and clear lens diameter is 37mm. In original package.
M3024 \$3.00

GREEN FILTER

Optical glass in threaded mount, 37mm diameter. Unused.
M5002 \$3.00 or 10 for \$20.00

50MM YELLOW FILTER

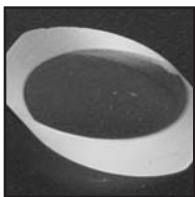
Made by Bell & Howell for the 75mmf/2.3 Baltar lens. Eq K1 (yellow). Outside thread on ring is 51mm on one side, and inside thread is 50mm on the other side.
M9007 \$2.00

AERIAL CAMERA FILTERS-5-1/2" DIA. (YELLOW)

Mounted filters designed to snap onto the large aerial camera lenses. These were made with the high quality optical glass that is difficult to find these days. 5-1/2" clear filter diameter. Mounting diameter is 6-7/16"
M9011 \$10.00

*Flats***50.5MM DIA OPTICAL FLAT, 1/4 WAVE, DUAL SURFACE**

Brand new, current production, optical glass flats with 1/4 wave accuracy on both sides! Either face can be used for test applications. 50.5mm diameter by 15mm thick.
L3163D \$48.50

PERKIN ELMER 1/20TH WAVE COATED ELLIPTICAL FLAT WINDOW

Beautiful small-sized (19mm long x 13mm wide x 3mm deep) precision-made elliptical flats from Perkin Elmer, numbered 677 6108 002. Each window is 1/20th wave on both sides, measures 17mm long x 13mm wide, is offset 2mm, and is anti-reflective coated. Ground edges. New in original sewn packets.

L3201 \$15.00

LARGE MTD MILITARY INSTRUMENT MIRROR, 1/10 WAVE

Optical instrument mirror, 13.25 inches long by 9.4 inches wide. Mounted with 2 inch long rods protruding from each side. One side has a ball bearing wheel, 2 inches diameter. Flatness is at least 1/10th wave in the center 3/4 of the mirror. The ones we have left appear to be not as flat towards the edges. Not sure why, but they are a metal material and thinner at the edges.

Could be that temperature changes effect the edges more. Coating is in very good condition. The texture you see in the photo is a reflection of our ceiling. Limited supply. We don't find large mirrors of this quality very often. Sorry, but we are not allowed to ship these outside the United States.

L3410 \$225.00

*Glass Blanks***70MM DIA SCHOTT CROWN GLASS MOULDED BLANK**

Quality crown glass made by Schott. These are unused blanks designed to be ground & polished into eyeglasses anywhere from + or - 6 diopters. 70mm diameter by 4mm thick. Meniscus shape. Great for experimenting with your grind and polish expertise, or if you are in the ophthalmology business, you need these and we've got a good supply.

L2130 \$0.50 or 10 for \$4.00

65MM DIA SCHOTT GREEN WELD 2.0 GLASS MOULDED BLANK

Quality glass made by Schott, green weld 2.0. These are unused blanks designed to be ground & polished into eyeglasses for welders anywhere from + or - 6 diopters. 65mm diameter by 4mm thick. Meniscus shape. Great for experimenting with your grind and polish expertise, or if you are in the ophthalmology business, you need these and we've got a good supply.

L2154 \$0.50 or 10 for \$4.00

THICK 2-7/16" DIAMETER LENS/MIRROR BLANK

Optical glass but has a few bubbles so was probably meant to be used for condenser lenses, but should also be excellent to grind and polish for a mirror.

These have a convex side and a flat side. 2-7/16" diameter by 1-1/8" thick at the center and 7/8" thick at the edge. You can see through it and it will make a nice paper weight or attach your favorite photo, drawing, comic, etc. on the bottom for a magnified view. Almost 7 ounces of glass.

L3141 \$3.50

THICK LENS/MIRROR BLANK, 1-7/8" DIA.

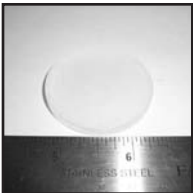
Optical glass but has a few bubbles, so was probably meant to be used for condenser lenses, but should also be excellent to grind and polish a lens or small mirror. These have a convex side and a flat side and the diameter is 1-7/8" x 1-1/4" thick. You can see through it and it will make a good paper weight at the very least (weighs 4.6 oz.).

L3179 \$2.00

1.8" FLINT BLANK, SSK4

If you are trying your hand at making achromats, negative lenses, or flats with high dispersion glass, here's another heavy flint blank. 1.8" diameter by 0.6" thick. Type SSK4 made by Schott, this glass has an index of 1.61764 and an abbe v number of 55.1. Glass number is 618551.

L3219 \$1.50 or 10 for \$12.00

44MM DIA HIGH INDEX PCV LENS BLANK

Glass is marked 850413 indicating an index of refraction 1.850 and abbe v# of 41.3. Diameter is 44mm by 5mm thick plano concave blank. Curved surface measures -2.75 diopters. Buy a few and save!

L3577 \$0.75 or 10 for \$5.00

Instruments

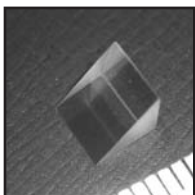
STUDENT SPECTROMETER



Unused and a real beauty. Heavy duty high quality rugged metal construction throughout. Consists of a telescope with eyepiece and 21mm clear diameter achromatic focusing objective lens, and a collimator with removable adjustable slit and achromatic focusing 21mm clear diameter objective. The 7-1/2" diameter graduated circle has lines for each degree and is numbered at every 10 degrees. Telescope and collimator are each 8" long. Center table is designed to hold either a prism or grating. Vernier control and scale for precision measurement. Telescope and table rotate about a vertical axis. Spectrometers are used to measure and/or observe spectrum, absorption bands, angles of refraction and reflection, etc. The slit and collimator produce a parallel beam of light which then falls on your prism or grating. The resulting spectrum is then observed through the telescope.

I1430D \$125.00

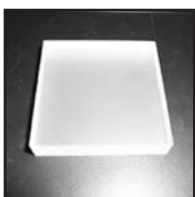
HIGH PRECISION 5MM RIGHT ANGLE PRISM



Manufacturer's part # 01 PRB 003, original price: \$91.00. Made of BK7 glass, hypotenuse is 6.8mm long, uncoated. The faces are 5mm square. Surface flatness is 1/8th wave at 632.8 nm over 90% of edge dimension. Clear aperture is 4.5mm, angle tolerance is +/- 3 arc minutes. Surface quality is 20-10 scratch and dig. Unused.

PM1050 \$8.25

PREC 50MM SQUARE FUSED SILICA 1/20TH WAVE FLAT/MIRROR



Manufacturer's part#02 MLQ 007, original unit price: \$290.00. 10mm thick, wavelength is 400-800nm. Clear aperture of 45mm, surface quality is 60-40 scratch and dig, parallelism is 3 arc minutes. Non-aluminized. Polished on the top to 1/20th wave and ground (but not polished) on the bottom.

PM1055 \$37.50

OIL ANALYZER-UNUSED GRAPHITE FURNACE ATOMIC ABSORPTION SPECTROMETER

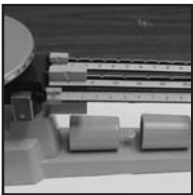


An absolute beauty!! Made by Perkin Elmer for the military to measure concentrations of wear metals in aircraft lubricating oil. It is a complete system with built in microprocessor, display and printer. Considered portable, it consists of two units in separate cases with interconnecting cables and a third very strong shipping case that holds everything. The analyzer can simulta-

neously measure (in parts per million) the concentrations of nine metals. The instrument is easy to operate. Simply introduce a small sample of your oil, water or fluid you want to analyze into the graphite tube in the furnace using the supplied injector probe and press the start button. After the automatic analysis cycle (about 1.5 minutes) is completed, the unit prints out onto paper tape the metal concentrations. The optics in this thing are impressive. There are two hollow cathode lamps (HCL) that provide the spectral line sources for the metal analysis for iron, silver, aluminum, chromium, copper, magnesium, nickel, silicon, and titanium. The transfer optics consists of mirrors that combine the spectral output light beams of the two HCLs into a single light beam. The light beam is transmitted thru the graphite furnace tube (the furnace reaches temperatures up to 3000 degrees C and actually vaporizes the metals in the sample) and onto the entrance slit of the polychromator. The spectral light is focused onto a diffraction grating and the nine spectral lines unique to the metals are separated and positioned on the focal plane. At each focal plane position is an exit slit and the secondary optics measures each light output. In addition to the complete instrument, you get 20 extra graphite tubes, 6 calibration standards, other supplies, a tool kit, and Operation & Maintenance instructions with illustrated parts breakdown. Unused and in mint condition. Original cost was \$70,156.36 each!! Our price is less than 2% of what our government originally paid for them. Looks like they bought more than they needed. Sorry, but we are not allowed to ship these outside of the United States

I1434 \$1,250.00

TRIPLE BEAM BALANCE



A single pan, low form balance that has three beams with centre indicating sliding weights giving total weighing capacity of 610g. Supplementary weights are included to extend the capacity to 2610g. Spring loaded zero adjust compensator and magnetic damping are provided. Stainless steel pan is of 150mm diameter. Beams: 0-500g x 100g; 0-100g x 10g; and 0-10g x

0.1g. Unused.

I1435D \$85.00

INTERMEDIATE SPECTROMETER



This instrument is designed for high performance student use. It has a cast aluminum alloy main structure. The collimator tube is mounted on the fixed pillar and telescope tube on the moveable part. Both the collimator and telescope have

175mm focal length, 32mm clear aperture object glass at their one ends. The collimator has a precision slit 6mm high and telescope has Ramsden eye-piece 15X at their other ends. Both collimator and telescope have rack and pinion focusing and means for leveling their axes and squaring them to the axis of rotation. The scale is 127mm diameter with a protective shield that is fixed to the telescope movement and the prism table is attached to the double ended vernier which reads to 1 minute arc. Both telescope and table can be rotated independently by hand about the same vertical axis. These can be clamped at the desired positions and adjusted precisely with the help of fine adjustment screws. Prism table is marked with lines to assist placing the prism with respect to the table leveling screws and has screwed holes for fixing prism and grating holders. Prism holder can accommodate prisms up to 38mm high. Supplied with prism holder, grating holder, magnifier glass, tommy bar for adjustment of optical axis and dense flint glass prism, equilateral 32x32mm. In wood case. New/Unused
I1476D \$325.00

HANDHELD DIRECT VISION SPECTROSCOPE



A real beauty! Great for demonstrating spectra from any visible light source. Precision made heavy duty stainless steel construction with an Amici type 3-element prism assembly, variable optical slit and adjustable eyepiece. Easy to use: Optical slit adjusts by rotating the knurled end piece, and focus is slip type. Contrast and resolution of the spectrum is

changed by adjusting the slit opening. Both emission and absorption spectra can be viewed. 4 inches long by 1 inch diameter on the slit end. New with wood case. Edmund has a similar spectroscope for \$272.00

I1479D \$49.00

GILFORD STASAR III SPECTROPHOTOMETER SET

Gilford (A Corning Laboratory Sciences Company) Stasar III Spectrophotometer. A highly accurate reference spectrophotometer operating in the visible portions of the spectrum from 335 nm to 700nm. Linear measurements of absorbance or

concentration are displayed on a bright, easy-to-read LED readout. Consists of a tungsten light source, diffraction grating monochromator (wavelength accuracy ± 2 nm, and stray less than 0.3% throughout the wavelength range), linear absorbance photometer, and a four-place LED readout. Provisions are included for printers, auxiliary analog equipment, and computer inputs for remote control of sample and purge. This is the complete set in a large military transit case including air pump, vacuum receiver, spare parts, cuvettes, operators manual, service manual, and dual calibration standard. Includes certificate of calibration. Appears to be unused. Sorry, but we are not allowed to ship these outside the United States. Only have a few.

I1480 \$675.00

WOLLENSAK HANDHELD DIRECT VISION SPECTROSCOPE WITH WAVELENGTH SCALE

This is a beauty! Portable and precise, the instrument provides direct wavelength readings of visible spectrum from 400nm to 750nm with each scale division representing 5nm. The spectrum is viewed in the plane of scale and for error free readings, the D-line (wavelength of sodium light) on the scale can be adjusted. Great for demonstrating spectra from any

visible light source. Precision made heavy duty stainless steel construction with an Amici type 3-element prism assembly with angle dispersion C-F 5 degrees, variable optical slit and adjustable eyepiece. Easy to use: Optical slit adjusts by rotating the knurled end piece, and focus for both the scope and wavelength scale is slip type. Contrast and resolution of the spectrum is changed by adjusting the slit opening. Both emission and absorption spectra can be viewed. Compact 4-1/4" inches long by 1 inch diameter on the slit end and 1-3/4" wide on the eyepiece end. We have seen similar ones selling for \$350.00 online. Lots of uses including gem studies. New with wood case. Wollensak quality optics since 1899.

L3524 \$92.50

Integrated Circuits

74LS27 INTEGRATED CIRCUIT

14 pin Triple 3-input NOR gate. The 74LS series of bipolar digital integrated circuits have been the workhorse of digital circuits for more than two decades. Unused.

R1451 \$0.19 or 10 for \$1.70

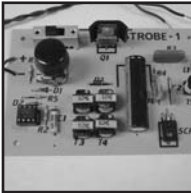
74LS74 INTEGRATED CIRCUIT

14 pin Dual D-type flop-flop w/preset and clear. The 74LS series of bipolar digital integrated circuits have been the workhorse of digital circuits for more than two decades. Unused.

R1453 \$0.19 or 10 for \$1.70

Kits

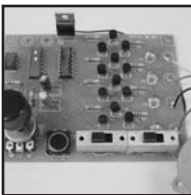
VARIABLE RATE STROBE KIT



Includes P.C. board, components, flash tube, and instructions for building this solid state variable rate strobe kit. Flash rate 60 to 120 per minute. Unit can operate with standard "C" batteries (not included) on 12VDC or 6VDC depending on how you decide to wire it. Constructed on a PC board 4-1/4" x 2-7/8" with 4 holes for mounting in your enclosure. Full instructions included for easy assembly.

K1001 \$8.50

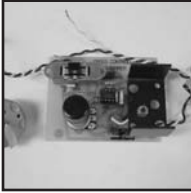
BIPOLAR 12VDC STEPPING MOTOR AND DRIVER KIT



Kit contains all necessary components including stepping motor to construct this versatile solid state unit. Ideal for the beginner or robotics enthusiast to obtain the necessary theory and stepping motor operation techniques. Kit features operation from 12 VDC +-5%, battery or power supply capable of 1 Amp or better (power source not included), on-board controls and switches

for 1/2 step, full step, single step, CW, CCW rotation, speed control, run and hold. Unit uses a 4 leaded bipolar motor. Also contained are LEDs which show phase sequencing. Driver unit is constructed on a PC board (size 4" x 3"). Complete with all components, motor and detailed instructions.

K1003 \$19.95

12VDC MOTOR SPEED CONTROLLER AND DIMMER KIT

Easy to build solid state kit allows you to control the speed and direction of 6-12vdc motors (one included) or control the intensity of 6-12v incandescent lamps. Designed to operate off a 12VDC battery source (not included). Includes p.c. board (3" x 2-3/8") with 4 holes for mounting in your enclosure, all components, motor, and instructions.

K1002 \$15.00

*Lenses***OPTICAL COMBINER**

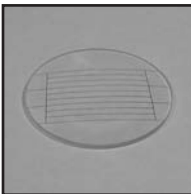
Coated, multi element optical combiner assembly. No idea what it was designed to be used in, but this looks like an eyepiece with approx. 1" focal length. Attached to it is a square viewer that sees thru the "eyepiece". There is a lever that moves the lens as if focusing. It is labeled -2 thru 0 to +2. The label indicates that this Optical Combiner assy is "part of NV/HUD system" Original government cost \$2108.84 each. Unit measures 2-1/2" X 2-1/2" X 1-3/4". Unused with rubber lens caps. Rare.

L1329 \$95.00

TINY RECTANGULAR NEGATIVE LENS

Glass plano concave lens measures 10.8mm X 8mm. -65mm focal length.

L1373 \$0.50 or 40 for \$10.00

51MM DIA. PCX LENS WITH TRAPEZOID GRID

Plano convex lens, 51mm diameter by 175mm focal length. Has trapezoid grid across most of the lens. Unusual! Like new.

L1542 \$4.50

5-3/4" DIA 800MM FL PCX W/CTR HOLE

Unused beauty. Made for some kind of government telescope. Coated plano convex lens, 5-3/4" diameter by 800mm focal length with a 1-3/4" center hole. 1/4" thick. Part of an objective assembly, but no clue what the completed scope looked like. Says "Lens Objective" on the package.

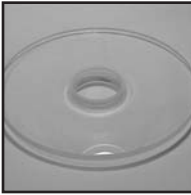
L1758 \$18.00

5-3/5" DIA. NEGATIVE LENS W/1/2" CTR HOLE

Negative meniscus lens . 5-3/8" diameter by 3/4" edge thickness. Focal length of -800mm.

L1823 \$15.00

5-7/16" DIA DCX, 525MM FL W/CTR HOLE



Unused double convex lens, 5-7/16" diameter by 525mm focal length with 1-1/4" center hole.
L1898 \$12.00

5-7/16" DIA NEG MENISCUS, -900MM FL W/CTR HOLE

Unused negative meniscus lens, 5-7/16" diameter by -900mm focal length with 2-1/2" center hole.
L1899 \$12.00

100MM DIA DCX LENS, 200MM FL



Double convex lens, 100mm diameter by 200mm focal length. Unused and boxed.
L2006D \$3.50 or 5 for \$15.00

16MM DIA CTD TRIPLET, 50MM FL



Coated triplet lens, 16mm diameter by 50mm focal length. 12mm thick.
L2050 \$7.00 or 10 for \$56.00

DCX ACRYLIC LENS 14MM DIA X 48MM FL

14mm diameter double convex lens with 48mm focal length made of optical acrylic.
L2082 \$0.50 or 10 for \$3.50

17MM F/1.4 PROJECTION LENS

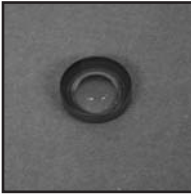


Kalart Automar projection lens. 17mm focal length, f/1.4. 3 elements, coated. 1-1/8" long. Threaded barrel is 7/8" diameter. Front flange is 1-1/4" diameter. Unused.
L2088 \$6.00

KALART 2" F/1.6 PROJECTION LENS

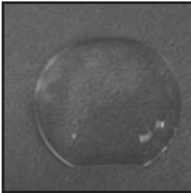
Kalart Automar projection lens. 50mm focal length, f/1.6. Coated optics. 2-5/8" long. Threaded barrel is 1-1/8" diameter. Front diameter is 1-1/2". With a little creativity, this could make a nice 50mm eyepiece. Gives sharp wide field images when used with a copy lens or one of our objectives. Unused with front and rear lens caps.

L3057 \$7.00

PCV LENS WITH FISHEYE EFFECT

Coated plano concave lens, 44mm diameter by -38mm focal length. Edge thickness is 12mm. Gives a great wide fisheye type view. Like new.

L3069 \$4.00

POSITIVE MENISCUS LENS 65MM X 56MM X 114MM FL

Unused, coated positive meniscus lens 65mm diameter but truncated top and bottom to 56mm. Focal length is 114mm.

L3077 \$4.00

ILEX .62X OPTICAL LENS ASSEMBLY

Beautiful lens assembly with coated optics. We think these were designed to be used with optical comparators or photo typesetting machines. If you've got one then this is a great bargain. If not, take it apart for the optics. Has a 3 mounting hole flange and is 4" long with a 1" diameter barrel.

L3084 \$1.75

KOWA COPY LENS 5.4" FL (137MM), F/4.5

Beautifully coated copy lens made by in Japan by Kowa for use in fax machines. Multi-element. The Kowa part number is 76133. The assembly is 55mm diameter and 50mm long with a clear lens diameter of 37mm. The focal length is 137mm.

L3132 \$5.00

NEGATIVE ASPHERIC LENS, 16.5MM DIA X -2000MM FL

Glass aspheric lens, 16.5mm diameter by -2000mm focal length. Our guess is that this was made as a special correction lens for some optical device. Only have a few.

L3137 \$3.50

ILEX 1.5X OPTICAL LENS ASSY

Beautiful lens assembly with coated optics. Made by Ilex Optical Co for Compugraphic. Compugraphic part #56641. We think these were designed to be used with optical comparators or photo typesetting machines. If you've got one then this is a great bargain. If not, take it apart for the optics. Has a 3 mounting hole flange and is 3.5" long with a 1"

diameter barrel.

L3139 \$2.00

ILEX 1.75X OPTICAL LENS ASSY

Beautiful lens assembly with coated optics. Made by Ilex Optical Co for Compugraphic. Compugraphic part #56642. We think these were designed to be used with optical comparators or photo typesetting machines. If you've got one then this is a great bargain. If not, take it apart for the optics. Has a 3 mounting hole flange and is 2 5/8" long with a 1"

diameter barrel.

L3140 \$2.25

KOWA 0.875X OPTICAL LENS ASSY

Beautiful lens assembly with coated optics made in Japan by Kowa for Compugraphic. Compugraphic part #56636. We think these were designed to be used with optical comparators or photo typesetting machines. If you've got one then this is a great bargain. If not, take it apart for the optics. Has a 3 mounting hole flange and is 5 1/4" long with a 1"

diameter barrel.

L3143 \$1.75

KOWA 1.125X OPTICAL LENS ASSY

Beautiful lens assembly with coated optics made in Japan by Kowa for Compugraphic. Compugraphic part #46638. We think these were designed to be used with optical comparators or photo typesetting machines. If you've got one then this is a great bargain. If not, take it apart for the optics. Has a 3 mounting hole flange and is 5" long with a 1" diameter barrel.

L3144 \$2.00

ILEX 2.0X OPTICAL LENS ASSY

Beautiful lens assembly with coated optics. Made by Ilex Optical Co for Compugraphic. We think these were designed to be used with optical comparators or photo typesetting machines. If you've got one then this is a great bargain. If not, take it apart for the optics. Has a 3 mounting hole flange and is 2.25" long with a 1" diameter barrel. Unused.

L3156 \$2.50

ILEX 5.25X OPTICAL LENS ASSY

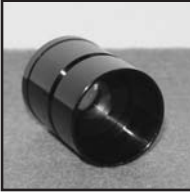
Beautiful lens assembly with coated optics. Made by Ilex Optical Co for Compugraphic. We think these were designed to be used with optical comparators or photo typesetting machines. If you've got one then this is a great bargain. If not, take it apart for the optics. Has a 3 mounting hole flange and is 1.75" long with a 1" diameter barrel. Unused

L3160 \$2.50

POSITIVE MENISCUS LENS, 42.4MM DIA. X 4000MM FOCAL LENGTH

You've been asking for long focal length lenses. This one is 4000mm! Unused, coated positive meniscus lens with a diameter of 42.4mm.

L3177 \$4.00 or 10 for \$30.00

23X LENS ASSEMBLY - MICROFICHE PROJECTION?

We think these were made for microfiche projection, but not certain. Beautiful brand new lens assembly in the original packaging! Barrel is 34mm long x 28mm OD with groove about 20mm from the front. Clearly made to go into some instrument and be held in place using the groove. Front element is 14mm diameter and back element is 10mm. Multi-element, with coated optics.

Marked "Mag. 23X" Gloss black-enameled aluminum barrel. Makes a nice color corrected magnifier, but has a narrow field of view.

L3204 \$4.00

D.O. INDUSTRIES 50MM F/4.5 ENLARGER LENS

Unused in original box with front and back lens caps. Iris operates with click stops from f/4.5 TO f/22. 50mm focal length. We've found them selling used for up to \$40.

L3221 \$10.00

MTD NEGATIVE AIR SPACED DOUBLET, 15MM DIA X -667MM FL

Coated air spaced doublet, in a threaded mount. Clear front lens diameter is 15mm, clear back lens is 10mm. Mount is 25mm diameter by 17mm long. Focal length is -667mm. Unused

L3254 \$5.75

CYLINDRICAL LENS, PCX - 4" LONG X 1/8" WIDE X 3MM FL

Cylindrical lenses (also called astigmatic lenses) have at least one surface that is formed like a portion of a cylinder. They are used in rangefinders to produce astigmatism, or the stretching of a point of light into a line. Plano-convex cylindrical lenses have a positive focal length, which makes them ideal for collecting and focusing light for many imaging applications. These cylindrical lenses measure 4" long x 1/8" wide x 1/16" deep, with polished concave top and flat base surfaces, and ground ends. The edges along the length may have some slight roughness due to their thinness. Focal length is 3mm. A great find for the optics hobbyist or experimenter!

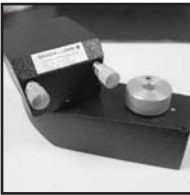
L3289 \$4.00 or 5 for \$15.00

4-1/8" DIA NEC TV PROJECTION LENS

Unused beauty. NEC TV projection lens. Designed for use in big screen TV projection systems. Front clear lens diameter of 4-1/8", rear clear lens diameter of 3 7/8", barrel length of 6 1/4" x 5 1/8" diameter (front) and 4 5/8" diameter (rear), multi-element (appears to be all glass as the lens assembly weighs 5 pounds) with coated optics. Black plastic barrel with 5/8" wide notched front grip ring and 5 1/8" diameter x 3/4" wide barrel-center threaded mount. The lens projects a large image in a short distance. Great for education projects such as slide or transparency projector, etc in addition to TV projection. Designed to be nearly in contact with subject surface. The number 542 is stamped on the barrel and may be the NEC model number. We haven't taken one apart, but it looks like different types of large diameter optical elements. Includes black plastic front and rear lens covers.
L3294 \$15.00

COBURN SUPREMACY 71MM DIAM. SEMI-FINISHED HARD RESIN LENSES

Military surplus plastic lens blanks, manufactured by Coburn Optical Industries, Inc. of Muskogee OK. Made from CR39 resin, these Accommodator model concave lenses are impact-resistant (not shatterproof or unbreakable), are 71mm diameter and feature a 22mm diameter low-segment slight magnification zone (shown in the listing picture). Ground 8mm thick edge; approximately 15mm depth. Unused stock, in the original wrapping and boxes. Price is for a set of 2.
L3309 \$4.50

B&L STEREO RHOMBOID ARM

Made by Bausch & Lomb for their Model 240 Aerial Photo Interpretation Zoom Stereoscope. Catalog #53-70-28. Our understanding is that the instrument has two of these arms and optional stereo lenses that fit on the end (we have some). It's quite an interesting piece with lots of optics in it. If you look straight thru the top section, you get a clear upside down image. The top section rotates, and the image rotates as well. If you turn it 180 degrees, the image becomes right side up and correct left to right. There is also a control that moves one of the lens assemblies and appears to zoom the image a little. Inside is a Right Angle Prism with 1 inch square faces. Also an elliptical front surface mirror, 16mm x 22mm, two cemented doublets, and 5 single element lenses. Clearly an expensive piece. If you have the Model 240 instrument, then you need two of these as spares. If not, then what a great optical piece to experiment with.
L3313 \$22.50

1X STEREO LENS FITS L3313 RHOMBOID ARM

Bausch & Lomb CAT. NO.53-70-30. Made to fit the B&L 53-70-28 Stereo Rhomboid Arm. Inside is an elliptical front surface aluminized mirror, major axis is 34mm and minor access is 24mm. 5.5mm thick. Mirror material is optical glass, Index of 1.517 and Abbe V# 64.5. Openings are 25mm. Top has bayonet type mount. 3 screws hold the diagonal onto the assembly, so it can

easily be removed for other applications. Of course, if you have one of the B&L Model 240 Aerial Photo Interpretation Zoom Stereoscopes, then you definitely need these.

L3314 \$10.00

2X STEREO LENS FITS L3313 RHOMBOID ARM

Bausch & Lomb CAT. NO.53-70-31. Made to fit the B&L 53-70-28 Stereo Rhomboid Arm. Inside is a coated cemented doublet lens with a focal length of 52.4mm, and an elliptical front surface aluminized mirror, major axis is 34mm and minor access is 24mm. 5.5mm thick. Mirror material is optical glass, Index of 1.517 and Abbe V# 64.5. Top has bayonet type mount with a

25mm opening. Of course, if you have one of the B&L Model 240 Aerial Photo Interpretation Zoom Stereoscopes, then you definitely need these.

L3315 \$12.00

0.43X STEREO LENS FITS L3313 RHOMBOID ARM

Bausch & Lomb CAT. NO.53-70-29.

Made to fit the B&L 53-70-28 Stereo Rhomboid Arm. Inside is a coated cemented doublet lens with a focal length of 620.4mm, a coated double concave

lens with a focal length of -55mm, and an elliptical front surface aluminized mirror, major axis is 34mm and minor access is 24mm. 4.5mm thick. Mirror material is optical glass, Index of 1.517 and Abbe V# 64.5. Top has bayonet type mount with a 25mm opening. Of course, if you have one of the B&L Model 240 Aerial Photo Interpretation Zoom Stereoscopes, then you definitely need these.

L3316 \$15.00

EXPERIMENTERS MULTI-ELEMENT LENS ASSEMBLY

We don't have a clue what this was originally designed for, but you can use it as is as an objective lens, or take it apart to get six different lens elements, positive and negative between 30 and 40mm diameter. As is, the focal length is about 9 inches and gives a nice clear, sharp color corrected image with an eyepiece. One of the lens elements has what appears to be a strong dichroic coating reflecting red on the coated side. There is a lever that when turned moves a group of lenses up and down the barrel, but it doesn't appear to effect the focal length. Barrel is 55mm diameter by 60mm long. Clearly a quality piece. If you can figure out what it was made for, you might be able to re-sell them at a profit. Unused.

L3338 \$7.50

FUJI MIRRORED COPIER LENS 187MM FL, EYE/FACE INSPECTION?

Unused with front and rear covers. Front element has a 55mm clear diameter. Mirrored lens easily unscrews from the back. It's a 40mm diameter negative lens with the rear center 20mm aluminized. The focal length is perfect for viewing your eye, nose, teeth, etc. Assembly is 77mm diameter by 45mm long with a flange 90mm diameter.

L3342 \$5.50

MTD 25MM FUJINON COPY LENS, 170MM FL

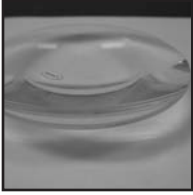
Quality coated multi-element optics made by Fujinon, Model CP. Clear front and rear lens elements are 25mm diameter. Plastic housing is 100mm long by 24mm wide. Has two mounting holes. This would be great for a small compact finderscope as the images with an eyepiece are sharp and color corrected. Also makes a great 2X wide field magnifier with a sharp, flat color corrected image edge to edge and nice working distance of about 120mm with a 120mm diameter view. Focal length is 170mm. Unused.

L3344 \$4.50 or 10 for \$35.00

MTD,CTD LENS ASSY, 20MM FL, 42X

Multi-element, coated lens assembly made in Japan. Not sure what it was made for. Barrel is 35mm long by 21mm diameter. Focal length is 20mm. Marked "20MM 42X JAPAN". Does not work well as an eyepiece. Field of view is very narrow for that purpose. Does well as a sharp color corrected magnifier but not a wide field.

L3349 \$3.25

4.5" DIA CONDENSER LENS, 6.5" FL

Crown glass condenser lens. Plano convex. 4.5 inches diameter by 6.5 inches focal length. Unused.

Made in France.

L3381 \$6.00

MTD B&L METROGON LENS, 6" FL

Metrogon lenses are a 4 element design with very strong curved meniscus lens elements covering around a 90 degree field. They are used in aerial cameras for very large format film for the preparation of topographic maps and for large format projection systems. The 6 inch focal length lens covers at least a 9" x 9" format at f/6.3. We know this lens has a 6 inch

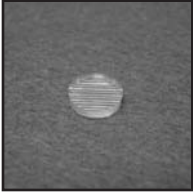
focal length, but we do not know what the f number is and we don't have the equipment to accurately determine the f ratio or the actual maximum format for this lens. Our understanding is that as the center aperture is made smaller (larger f number), the coverage format becomes larger. We haven't yet taken one apart, so don't know if it will be easy or hard to change the center stop. We did some testing and it looks like this one gives about an 8" x 8" format as is. There is a small screw on top of the assembly that loosens it and the barrel slides out. It's a compact 2" long by 2-1/16" diameter. Metrogon lenses are the most extreme type of symmetrical construction. Each side of the lens has two elements which provides correction for color and spherical faults. We are told that the lenses are also completely free of distortion. Made by Bausch & Lomb. Coated optics. Great condition. Front and rear elements are 45mm diameter. Focal length is 152mm. Barrel is 60mm diameter by 50mm long. Mounting 140mm long by 85mm wide with 4 mounting holes. We don't find these very often these days.

L3392 \$28.50

GLASS ASPHERIC LENS, 50MM DIA X 30MM FL

Very strong aspheric curve on one side and plano on the other. Diameter is 50mm and focal length from the plano side is 30mm. Aspherics offer superior aberration correction for light concentration that would normally require several spherical elements. Unused beauties.

L3467 \$5.00

MADDOX ROD LENS, 13MM DIA

Used in vision tests, the Maddox rod lens has a number of molded glass grooves (cylinders) through which a spot of light appears as a streak perpendicular to the cylinders axis. Our understanding is that they are used to uncover latent squints (phorias). When a distant spot of light is viewed with the Maddox lens in front of one eye, a line will be seen by the eye covered with

lens, while a spot of light is seen with the other eye. The line will be at right angles to the grooves. When the grooves are horizontal, the line will appear vertical. Someone with normal vision will see the line pass through the spot of light, but someone with latent squint will see the light source to one side of the line. 13mm diameter by 3mm thick. Unused.

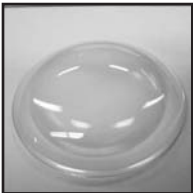
L3476 \$2.50

SET OF 6 IR PYRO FRESNEL LENSES

These were made to be used with the Pyroelectric infrared sensors in security devices such as burglar alarms. These lens arrays were made by Fresnel Technologies, Inc. We don't have a clue about focal length or which devices these were made to fit. You get a set of 6, at least 4 have totally different characteristics such as focal length, beam configuration, etc.

We have no way of testing them. Each of the 6 lenses is made up of multiple fresnel arrays.

L3480 \$12.00

3" DIAMETER PCX CONDENSER LENS, 4" FOCAL LENGTH MINT!

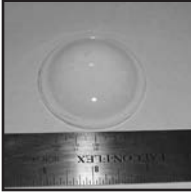
Unused plano convex lenses in mint condition in the original "made in Japan" packaging. Appears to be Crown glass. Edge thickness is 2mm, center thickness is 15mm. Uncoated. We have a nice quantity of these if you want to incorporate them into your project!

L3561 \$5.00 or 10 for \$40.00

PRECISION FUJI 13MM SQUARE PCV CYLINDRICAL LENS - 17MM FL

This was made by the Fuji Photo Optical Company in Japan. Cylinder lenses are used to transform a point of light into a line image. We believe this was used on a camera as some sort of adapter. Fuji part number 05090. Precision coated optics, -17mm focal length. New/Unused!

L3587 \$6.50

A. JAEGER'S 58MM DIA X 85MM FL PCX ASPHERIC LENS

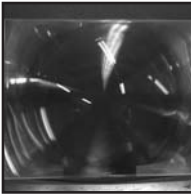
These are unused plano convex aspheric lenses from the remains of A. Jaegers optics in Lynbrook, NY. Edge thickness is 2mm, center thickness is 15mm. Aspherics offer superior aberration correction for light concentration that would normally require several spherical elements. Unused beauties.

L3600 \$5.00

NAVITAR 111MM FL, F/5.5 PROJECTION LENS

Here's a great vintage lens made by Navitar. Front clear lens diameter is 28mm (barrel is 43mm), rear clear lens diameter is 28mm (barrel is 41mm). Center stop is about 10mm. Focal length is 111mm. The barrel is 37mm long. Great purple anti-reflective optics!

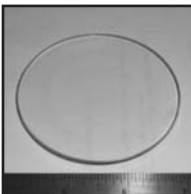
L3604 \$9.00

FRESNEL LENS 13" FOCAL LENGTH, 12-1/2" LONG X 9-7/8" WIDE

You have been asking for these for quite some time and our last batch sold out rapidly. Quality optical acrylic fresnel lens 1/16" thick, 318mm x 250mm with a 330mm focal length constructed of thousands of tiny spiral microgrooves. These are commonly used in DIY projectors in conjunction with an achromatic lens.

Fresnels were originally designed to be used in light-house because of their light weight. Also could be used to build a solar furnace. And makes a great magnifier for TV, computer screen, reading, etc.. Unused in mint condition! While supplies last!

L3606 \$9.95 or 10 for \$80.00

A. JAEGER'S BI-CONVEX 75MM DIAMETER X 200MM FL

This is Jaegers catalog # 4042. Plate glass, edge thickness is 3.5mm, center thickness is 8mm. Uncoated. May have very minor edge chips or light scratches. Great for experiments or as a magnifier.

L3608 \$3.00 or 10 for \$24.50

Magnifiers

DOUBLET 10X FOLDING MAGNIFIER



We had these before and sold out. Pocket folding magnifier. Double lens to give flat field and minimum chromatic aberration. Lens diameter is 16mm. Plastic mount. Only 35mm by 25mm by 15mm thick when folded. Magnification 10X. Unused.

L1842D \$1.25 or 5 for \$5.00

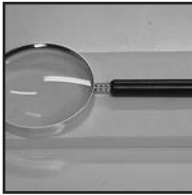
JEWELER'S/WATCHMAKER'S EYELOUPE



Glass lens mounted in light weight black plastic eye cup cell. 4X magnification with working distance of 2". Lens diameter is 1". Watchmakers and jewelers hold the cell in their eye socket by squinting slightly. Unused.

L1859D \$1.25

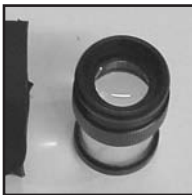
4" DIAMETER MAGNIFIER



Glass magnifier, 4" diameter, mounted in nickel plated frame and 4" long handle. Provides wide field viewing with crisp, sharp images at all points. The lens is recessed in its frame to prevent chips and scratches. Unused.

L1860D \$4.50

7X POCKET COMPARATOR



Focusing magnifier accepts standard 27mm reticles. Three element achromatic glass lens system. Eyelens clear lens diameter is 21mm. Has acrylic base to allow light on the object.

Includes linear scale, 20mm x 0.1mm. Other reticles available. Has hundreds of applications including linear measurements, angles, hole diameters, thread sizes, etc. Unused with case.

L1873D \$28.50

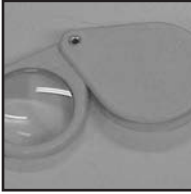
FOLDING POUCH MAGNIFIER



Pocket type with 40mm diameter glass lens mounted in a leather case that also serves as a handle. 3X magnification. Unused.

L1874D \$1.25

4X FOLDING POCKET MAGNIFIER



Pocket type with 27mm clear diameter lens mounted in a plastic case that also serves as a handle. 4X magnification. Unused.

L1895D \$0.75

75MM DIAMETER MAGNIFIER



Glass magnifier, 75mm diameter, mounted in nickel plated frame and 3-1/2" long handle. Provides wide field viewing with crisp, sharp images at all points. The lens is recessed in its frame to prevent chips and scratches. Unused.

L2044D \$3.25

50MM DIAMETER MAGNIFIER

Glass magnifier, 50mm diameter, mounted in nickel plated frame and 2-5/8" long handle. Provides wide field viewing with crisp, sharp images at all points. The lens is recessed in its frame to prevent chips and scratches. Unused.

L2045D \$2.50

12 POWER TRIPLET MAGNIFIER



Mounted 3 element magnifier. Coated optics. These are like the lens assemblies used in several of the Edmund magnifiers. Gives large, sharp flat field of view and clear, achromatic image. Working distance is 1/2". Front element clear diameter is 14mm and rear element clear diameter is 20mm. Barrel has outside threads and is 25.3mm diameter by 24.1mm long. Focal

Length is 24mm. Unused

L2085 \$12.00

38MM DIAMETER MAGNIFIER

Glass magnifier, 38mm diameter, mounted in nickel plated frame and 3-1/2" long handle. Provides wide field viewing with crisp, sharp images at all points. The lens is recessed in its frame to prevent chips and scratches. Unused.

L2096D \$0.95

10X COMPOUND LENS MAGNIFIER

Two element glass lens in black finish metal mount gives flat field and 10x magnification. Clear lens diameter is 25mm. Field of view is 31mm and working distance is 25mm. Length is 122mm. High power and easy to use hand held design. Excellent for critical viewing applications including the inspection of optical components. Unused.

L2101D \$8.50

LINEN TESTER MAGNIFIER

Collapsible, single element precision glass DCX lens mounted in silver grey finished metal mount. 6X magnification with 25mm x 25mm opening and mm lines etched on the inner faces of the viewer's base. Unused

L2123D \$8.00

QUALITY FOLDING MAGNIFIER

Thick lens system in metal mount. Single special thick lens precision made to give good flat field and minimum chromatic aberration. Clear lens diameter is 17mm. Glass thick lens in metal cell with retaining rings Gives 10X magnification. Folded, only 30mm long by 20mm wide. Unused, with case.

L2173D \$6.75

MTD 22MM FL TRIPLET/11X MAGNIFIER, CTD

This makes a great color corrected flat field magnifier. Three element, coated optics. Clear glass diameter is 10mm. Mounting is 15mm diameter by 12mm long. You could make this into an inexpensive 22mm eyepiece which will give a nice sharp flat field image. Used as a magnifier, it is 11x. Carry one in your pocket, purse, glove compartment, shirt pocket, jacket, etc. Unused.

Have a large quantity of these, so if you want to build this into your product, we can probably supply your needs.

L3275 \$6.00 or 10 for \$45.00

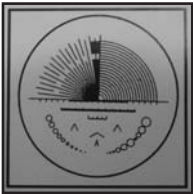
4 PIECE MAGNIFIER SET



Set includes our: DOUBLET 10X FOLDING MAGNIFIER, 6x LINEN TESTER MAGNIFIER, 10X COMPOUND LENS MAGNIFIER, and 4" DIAMETER MAGNIFIER. Buy as a set and save \$\$ off the price of purchasing them separately. Everything you need to start a magnificent collection! All new/unused. Great Xmas gifts/stocking stuffers.

L3500D \$19.50

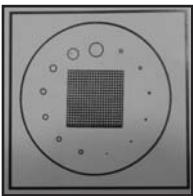
27MM ANGLE RETICLE FOR POCKET COMPARATOR



High quality 27mm diameter glass reticle with great stability. Patterns are made with low reflection hard chrome deposition which imparts high contrast for easy readability. Printing is on the side of the reticle which makes contact with the object, thus minimizing the error due to parallax. This one has angle scales 0 degrees to 80 degrees in 5 degree divisions and 80 to 90 degrees in 1 degree divisions. Radius scale 0.1 to 1mm in 0.1mm and 1-10mm in 0.5mm radii. Angle scale 29 degrees, 55 degrees, 60 degrees, and 118 degrees. Ten circles on left 0.1 to 1.0 in 0.1mm divisions and ten circles on right from 0.005" to 1/64" dia. Three linear scales: 1) 10-0-10mm with 0 to 1mm in 0.05 divisions, 1mm to 5mm in 0.1 divisions, 5mm to 10mm in 0.5mm divisions 2) 0 to 0.5" in 0.005" divisions and 3) 0 to 1/8" in 1/64" divisions. Fits our L1873D 7X pocket Comparator. Unused.

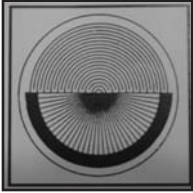
M1538D \$12.00

27MM GRAPH RETICLE FOR POCKET COMPARATOR



High quality 27mm diameter glass reticle with great stability. Patterns are made with low reflection hard chrome deposition which imparts high contrast for easy readability. Printing is on the side of the reticle which makes contact with the object, thus minimizing the error due to parallax. Graph of 10mm x 10mm divided into 0.5mm squares. Ten circles from 0.1mm to 1mm in 0.1mm increments and three circles of 1.5mm, 2mm and 2.5mm dia. Horizontal scale 10mm in 0.1mm divisions. Fits our L1873D 7X pocket Comparator. Unused.

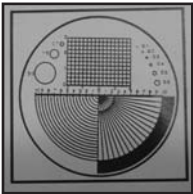
M1539D \$12.00

27MM PROTRACTOR RETICLE FOR POCKET COMPARATOR

High quality 27mm diameter glass reticle with great stability. Patterns are made with low reflection hard chrome deposition which imparts high contrast for easy readability. Printing is on the side of the reticle which makes contact with the object, thus minimizing the error due to parallax. Protractor scale 0 degrees to 180 degrees numbered every 10 degrees., divided each

degree. Radius scales 0 to 10mm in 0.5mm divisions. Fits our L1873D 7X pocket Comparator. Unused.

M1540D \$12.00

27MM ANGLE/RADIUS/GRID RETICLE FOR POCKET COMPARATOR

High quality 27mm diameter glass reticle with great stability. Patterns are made with low reflection hard chrome deposition which imparts high contrast for easy readability. Printing is on the side of the reticle which makes contact with the object, thus minimizing the error due to parallax. Angle scales 0 degrees to 90 degrees in 1 degree divisions. Radius scale 0.5 to 10mm

radii in increments of 0.5mm. Two circles 1.5mm and 3mm dia. Seven circles from 0 to 0.7mm in steps of 0.1mm. Linear scale 20mm with 0.1mm divisions. 0.3" X 0.4" grid in 0.025". Fits our L1873D 7X pocket Comparator. Unused.

M1599D \$12.00

*Microscopes***SET OF 4 ACH MICROSCOPE OBJECTIVES**

Standard JIS 36mm type in bright chrome finish. Unused, good quality, great price. Set includes 4X/0.10, 10X/0.25, 40X/0.65, and 100X/1.25 oil. 40X & 100X are spring loaded.

L1866D \$48.50

4 X ACHROMATIC MICROSCOPE OBJECTIVE

Standard JIS 36mm type in bright chrome finish. Unused, good quality, great price. 4X/0.10

L1867D \$7.50

10X ACHROMATIC MICROSCOPE OBJECTIVE

Standard JIS 36mm type in bright chrome finish.
 Unused, good quality, great price. 10X/0.25
L1868D \$9.00

40X ACHROMATIC MICROSCOPE OBJECTIVE

Standard JIS 36mm type in bright chrome finish.
 Unused, good quality, great price. 40X/0.65. Spring
 loaded.
L1869D \$15.00

100X ACHROMATIC MICROSCOPE OBJECTIVE

Standard JIS 36mm type in bright chrome finish.
 Unused, good quality, great price. 100X/1.25 oil.
 Spring loaded.
L1870D \$29.00

20X ACHROMATIC MICROSCOPE OBJECTIVE

Standard JIS 36mm type in bright chrome finish. 20X.
 Unused, good quality, great price.
L2188D \$11.00

MICROSCOPE COVER GLASS - SIZE 24 X 50MM

These are thickness #2 (0.17 - 0.25mm). 1/2 oz pack-
 age contains about 23 pieces. Two sizes available: 24
 X 40mm and 24 X 50mm. The 24 X 50 may be antique
 as the box is labeled "Made in Occupied Japan". Old,
 but in original unopened containers.
M1151 \$1.00

MICROSCOPE MECHANICAL STAGE

Unused beauty. Precision stage that easily clamps onto your microscope. Horizontal movement 75mm and vertical movement 44mm, each by rack and pinion. Both scales are graduated and read by verniers. Spring finger to hold slides. Heavy duty.

M1527D \$28.50

HAND MICROTOME

Design for slicing micro thin sections of a specimen for viewing with your microscope. Sample to be sectioned is supported in styropith or other material and placed in the central well. Turning the milled knob at the base of the microtome moves the piston up and raises the sample. Sections can be cut from the top flat plate stage with a razor. Piston has 19mm overall travel with

click stops at 20 micron intervals. Advances 500 microns for each complete turn. Top stage is 63mm diameter and well is 21mm diameter. Unused.

M1571D \$24.50

COMPOUND MICROSCOPE PHOTO ADAPTER

Here's what you need to take 35mm photos thru your microscope. Quality aluminum construction. Fits standard 25mm microscope tube tube (including our T1480 Student Microscope). Unit has 2 sections with bayonet thread to easily come apart so you can insert your eye-piece. Other end has standard "T" thread to fit your camera's T-Adapter (available at most camera stores if

you don't already have one for your camera). Unused.

M1573D \$19.50

MICROSCOPE SUB STAGE ILLUMINATOR

Light alloy vented housing fitted with glass blue filter on one side and clear diffuse filter on the other side. Works off standard 110VAC, or if you are traveling, remove the adapter and the unit will work with standard Continental Europe 220VAC. Has in line on/off switch. Fits standard microscopes (plugs into the mirror socket) such as our Student Microscope #T1480.

Unused.

M1574D \$19.50

CORNING MICROSCOPE COVER GLASS, 35MM X 50MM

Corning optical glass No. 0211. Microscope cover glass thickness #1 (0.13 - 0.16mm). 35mm X 50mm. Made of the highest quality glass with high corrosion resistance. Water white and free from lead oxide. Production controlled for flatness and thickness so the surfaces are uniform and practically free from irregularities. In plastic container with slip off cover. Packaged 1 oz. per

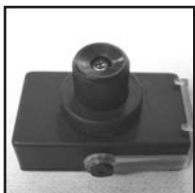
box (approximately 70 per box). Unused.

M1584 \$3.00 or 10 for \$22.00

15 WATT 230VAC T29 PYGMY BC BULB FOR MICROSCOPE ILLUMINATOR

These are replacement bulbs for our M1574D, Microscope Sub Stage Illuminator. Made by Phillips. New.

M2177D \$1.25

INEXPENSIVE MICROSCOPE ILLUMINATOR

Need a replacement illuminator for your microscope? These are perfect. Runs off 2 AA batteries and has a twist on/off knurled adjustment. These are actually from the Leica microscope we sell, so if you need a replacement you can save \$\$ instead of purchasing them straight from Cambridge/Leica. We'll include a spare bulb at no extra charge! Unused.

M2594 \$8.00

WOODEN MICROSCOPE TRANSPORT/CARRYING CASE

This works well for a lot of Vintage (as well as new) Stereo and Compound Microscopes. Measures 19-1/2" x 9-7/8" x 11-3/4" deep. Heavy duty handle for easy carrying. All cases come with fully functional locks and keys. In addition, there is a slide out "drawer" inside the case with 14 holders for objectives and eyepieces. Weighs 12 pounds, in excellent original condition. A

steal at our low price!

M2661 \$25.00

STEREO MICROSCOPE

Unused stereo microscope with a large working distance and field of view. The whole microscope head can be rotated 360 degrees and can be raised and lowered on its vertical pillar. The interpupillary distance is adjustable between 55mm and 75mm. The microscope is focused by a rack and pinion mechanism. Comes with built in paired 2X achromatic objectives and a matched pair of 10X wide field eyepieces. Gives 20X magnification. Includes 3-1/4" round reversible (white or black) stage Perfect for science experiments, gem analysis, etc.

T1477D \$95.00

STUDENT MICROSCOPE

Well constructed microscope with 3 objective turret including 4X, 10X, & 40X objectives. Includes 10X & 15X eyepieces to give up to 600X. Metal stand tilts for easy viewing. Has rack & pinion coarse and fine controls. Dual mirror to reflect light. Has stage fitted with iris diaphragm. Abbe condenser N.A. 1.25, and filter support with rack & pinion movement. These provisions allow the use of optional 100X oil immersion objective for up to 1500X. Unused. Terrific microscope for the price.

T1480D \$95.00

COMPLETE 98 PIECE 1200X METAL MICROSCOPE SET W/CASE

This kit is an incredible value! Model XSP-1XT comes complete with instruction and learning guide. Needs (2) AA batteries (not included). Recommended for ages 8 and up. Here's what you get: Die Cast Microscope; Scalpel; Spatula; Tweezers; (4) Collecting Vials; Test Tube with cap; Petri Dish; Pipette; (5) Prepared Slides; (18) Blank Slides; (18) Slide Labels; (36) Slide Covers; (2) Small Specimen Vials; Stirring Rod; Magnifying Glass; Measuring Graduate; Spare Light Bulb; Viewing Head; Carrying Case; Camera Holder; Crystallized Red Dye; Crystallized Blue Dye An amazing value!! New!!

T1526 \$49.00

Mirrors**2-1/2" DIA SPHERICAL MIRROR-24" FL**

Made for small reflecting telescopes. 2-1/2" diameter by 0.40" thick, 24" focal length. May have some minor scratches that won't effect the image. Great for kids scope or optical experiments.

L1565 \$6.00

MTD HIGH QUALITY DIAGONAL

This is a beauty. Unused in original box. Not sure what the original design was for as the label states "1x stereo lens. CAT. NO.53-70-30. Clearly made for right angle viewing for some instrument. Openings are 25mm. Top has bayonet type mount. 3 screws hold the diagonal onto the assembly, so it can easily be removed for other applications.

L1768 \$15.00

17MM BK7 FRONT SURFACE MIRROR

Quality front surface mirror, 17mm diameter by 2mm thick. First surface is aluminized. Made of BK7 optical glass. Looks like at least 1/4 wave accuracy. New.

L3129D \$5.00

UNCOATED 2-1/2" F/10 SPHERICAL MIRROR

Plate glass. Polished but not aluminized. 24" focal length. Uncoated mirrors are sometimes used in solar projection scopes.

L3171 \$2.50

PRECISION 50MM MIRROR MTD ON STAND

Perkin Elmer #L1165113 "TGS Flat Mirror Assembly". Designed to be used in a Perkin Elmer detector unit with lasers.

Mirror is 50mm diameter by 5mm thick and appears to be at least 1/10 wave accuracy.

It's mounted on a metal assembly with 4 mounting screws. The top of the mirror sits 100mm from the bottom of the stand. The unit screws into a wood base which is enclosed in a protective box. Installation instructions are included. Unused. Only have a few.

L3184 \$65.00

LASER POLYGON GOLD MIRROR/MOTOR ASSY

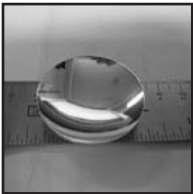
Made by Toshiba, Model LSM-205-8BK. Motor is 24VDC and revolves at 4749 RPM. 8 flat gold coated mirrors revolve. Each rectangular mirror is 27mm long by 5mm wide. These were made to be used in laser scanner assemblies. Flange is 100mm diameter with 3 mounting holes. Unit is 50mm high. Unused.

L3361 \$10.00

DCX EYE INSPECTION MIRROR!!

Looks like these were 25mm diameter double convex lenses (4.5 diopter curve on each side) and aluminized on one side. Reflections on one side all look small, but on the other side, the focal length is perfect for inspecting your eye. Not sure what it was designed for but clever idea and great for fun and education.

L3477 \$4.25

40MM DIA CONCAVE ALUMINUM MIRROR NEW/UNUSED

These are great unused polished aluminum mirrors that were probably made to be used in conjunction with a bulb for maximum light reflection. Focal length is very short (roughly 35mm) and the dish is 6mm deep. These are very similar to our L3262 which sold out very quickly! When put up close to your eye, you get a highly magnified view. Buy a quantity and \$ave!

L3588 \$2.00 or 10 for \$15.00

Miscellaneous**2" RUBBER EYEGUARD?**

Made for the government and called "Eyeshield Assembly". Will fit over 2" eyepieces. Has a threaded insert 1-3/4" ID by 2-1/4" OD that is removable. However, the eye end opening is only 3/4" diameter. You'll probably want to use an exacto knife or other sharp blade to cut that end opening larger. The interesting thing about this is that there are rubber flaps

that will protect your eyepiece from dust etc. When you press the eyeguard against your eye, the flaps open, exposing your eyepiece. We have been told that this is the eyeguard for the AN/TVS-2 series night vision sights. The flaps are to keep the light from the image intensifier from lighting up your face for the enemy to see with their night vision sight.

Unused

M1184 \$4.00 or 10 for \$30.00

GRAB BAG OF OPTICAL STUFF

Mix of lenses, mirrors, prisms, and/or strange optical things that we have only small quantities of. No two grab bags are the same. You'll be pleased or your money back, no questions asked.

L1477 \$25.00

MILITARY WOOD CASE



Quality military wood case with metal hinges and handles. 15-1/4" X 14" X 8-1/2". Inside dimensions: 13-3/4" X 12-1/4" X 6".

M1474 \$19.00

DELTALITE NIGHT LIGHT WITH OUTLET

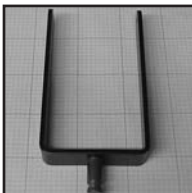


Same as our #M1515, but also has an electrical outlet in front so you don't lose an outlet by installing the night light. Great cool-glow illumination draws only 2/100ths of a watt of electricity.

Costs about 2 cents a year to run. Useful life is over 100,000 hours. You'll never have to replace another night light bulb. Leave plugged in all the time. Safe for children as there is no glass or bulb that can break or explode. Unit mounts flush to the wall. The DeltaLite Electroluminescent material produces a cool flat light. Great for bathrooms, bedrooms, etc., or bring one with you to the hotel when on business or vacation. Unused. UL approved. Price is for a package of 2.

M1516 \$6.00 or 3 for \$15.00

METAL YOKE



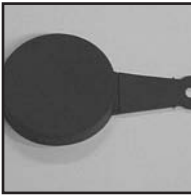
9" high by 4-3/4" Inside width. Center rod is 1-3/4" long by 5/8" diameter. Heavy duty.

M1520 \$4.50

BINOCULAR EYEPIECE COVER/FILTER HOLDER

An interesting device that fits over both binocular eyepieces to protect them, and has a compartment to hold two filters 35mm diameter. 4-5/8" by 2-3/16" inside measurement. Made to fit specific military binoculars, so you'll probably have to fasten it on somehow. Our M1525 neck strap fits it nicely. One of our customers advises that these are designed for the Carl Zeiss 7x40 DF or EF NVA (National Volks Army) Checkpoint Charlie binoculars. He has seen them selling for \$10+

M1524 \$1.75

RUBBER OBJECTIVE/EYEPIECE COVER

Unused. 2-1/16" ID with 2" long handle. Brown. Made to fit specific military binoculars (we don't know which ones). Also fits nicely over some of the oversized eyepieces such as the ones in our T1473 French observation binoculars.

M1526 \$0.75 or 10 for \$5.00

BRASS WEIGHT SET

All weights are machined brass, accurately adjusted and marked. Housed in a hinged wooden box. Set of 10 weights: 200g, 100g, 50g, two 20g, 10g, 5g, two 2g, and 1g. Unused.

M1536D \$13.50

SMALLER BRASS WEIGHT SET

All weights are brass, accurately adjusted and marked. Housed in a hinged wooden box. Set includes: 100g, 50g, two 20g, 10g, 5g, two 2g, and fractional weights from 1mg to 500mg. Forceps included. Unused.

M1537D \$12.50

DIFFRACTION GRATING REPLICA, 15,000 LPI

Student's Grating, 15,000 LPI. 1-3/4" x 1-1/8" clear size mounted to 2-1/2" x 1-3/4". This is an optical component that separates white light into its component wavelengths. Perfect for use with our I1430D Spectrometer. Unused with plastic case.

M1541D \$15.00

2500 LPI DIFFRACTION GRATING REPLICA

Student's Grating, 2,500 Lines Per Inch. 1-3/4" x 1-1/8" clear size mounted to 2-1/2" x 1-3/4". This is an optical component that separates white light into its component wavelengths. Perfect for use with our I1430D Spectrometer. Unused with plastic case.

M1568D \$15.00

7500 LPI DIFFRACTION GRATING REPLICA

Student's Grating, 7,500 Lines Per Inch. 1-3/4" x 1-1/8" clear size mounted to 2-1/2" x 1-3/4". This is an optical component that separates white light into its component wavelengths.

Perfect for use with our I1430D Spectrometer.

Unused with plastic case.

M1569D \$15.00

ADJUSTABLE OPTICAL SLIT

Adjustable slit opens from 0 to approximately 3mm.

This is the same slit used in our #I1430D

Spectrometer. Barrel OD is 22mm. Unit is 50mm long.

m1570D \$15.00

OUTSERTS EYELENS SET FOR MILITARY BIOLOGICAL/ CHEMICAL MASKS



These are unused replacement eyelens sets (2 to a package) for the military ABC-M17 and M17A1 field protective masks. If you have one of these gas masks, then here's your chance to get a replacement outserts eyelens set. Or, here's a start to building your own mask, goggles, or whatever. Original cost was \$16.94 per set. 3-3/4" wide by 3-1/2". Clear, scratch resistant plastic material surrounded by rubber. Price is for a set of two.

M1600 \$1.50

STAINLESS STEEL VERNIER CALIPER

Low cost stainless steel vernier caliper. Measures up to 5". Labeled in both inches and centimeters. Unused, with case.

M1606D \$7.95

CANON EOS T-MOUNT

This adapter allows your camera to accept the myriad of lenses and accessories (such as our camera adapter M1513) that conforms to the T-Mount standard. Quality metal construction.

M1607D \$13.50

PENTAX T-MOUNT

This adapter allows your camera to accept the myriad of lenses and accessories (such as our camera adapter M1513) that conforms to the T-Mount standard. Quality metal construction. For Pentax K type Bayonet cameras.

M1608D \$10.00

MINOLTA T-MOUNT

This adapter allows your camera to accept the myriad of lenses and accessories (such as our camera adapter M1513) that conforms to the T-Mount standard. Quality metal construction.

M1609D \$10.00

NIKON T-MOUNT

This adapter allows your camera to accept the myriad of lenses and accessories (such as our camera adapter M1513) that conforms to the T-Mount standard. Quality metal construction.

M1610D \$10.00

MICROMETER, 0 TO 25MM, 0.01MM GRADUATION

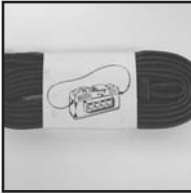
This is super for the price. Metal micrometer measures from 0 to 25mm with 0.01mm graduations. Wood case included. Unused.

M1611D \$12.00

INEXPENSIVE METAL VERNIER CALIPER

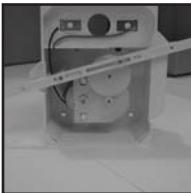
Low cost vernier caliper. Measures up to 5". Labeled in both inches and centimeters. Unused with case.

M1612D \$3.00

43" LONG CAMERA STRAP

Here's your chance to get a back-up strap for your camera. These were made to go with the Nimslo 3D cameras. Unused.

M2008P \$0.50 or 10 for \$3.50

HANKSCRAFT COMPLETE MOTOR/GEAR DISPLAY ASSY

Consists of a plastic housing with a DC motor and some gears. Housing is 4-3/4" x 3-5/8" x 1-7/8" deep. An arm is included that attaches to the gear and protrudes out each side of the unit. There are holes to attach a display piece. Works off standard "D" battery which fits into the assembly. Use this device for a motion display or attach a small flag and you've got a flag waiver. Or use it as an educational tool to demonstrate how motors and gears can be used.

Unused.

M2018P \$3.00

FLANDERS HEPA FILTER MODULE

Made to be used on clean room equipment. 17.625" X 17.625" X 5.5". Model #TH5217L17L007SU-F06A000000. Made by Flanders Filters, Inc. Specs: Resistance is 0.52; Penetration is 0.000065%; Test flow 160 CFM. The term "HEPA filter" stands for "High Efficiency Particulate Air filter". These filters are so efficient in removing small particles that they will capture the tiny particles contained in cigarette smoke. Like new. Only have a few.

M2052 \$50.00

MEADE INTRO TO LX5 AUDIO CASSETTE

If you have a Meade LX5, here's the audio cassette that gives you instructions on how to put it together and use it. Lot's of the info is useful for any similar scope. On the other side is some interesting basic astronomy information. Quality noise reduction tape that can be recorded over.

M2056 \$1.00

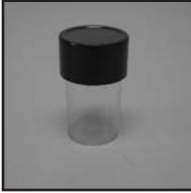
THE AMATEUR SCIENTIST ON CD-ROM - LATEST EDITION

From the archives of Scientific American Magazine, more than 72 years of experiments and projects from all The Amateur Astronomer, The Amateur Telescope Maker, and The Amateur Scientist columns from the beginning in 1928 thru 2001. Every article is complete with all photos, sketches, etc. More than 1,000 projects in every major field of science. These are actual

construction articles rated by difficulty, cost, target age, and safety. Fully searchable text, updated and corrected. Articles from such well known people as Albert Ingalls and C.L. Strong, Jearl Walker, Shawn Carlson, and others. This is the most complete resource ever assembled for science hobbyists, home schoolers, educators, science fair participants, researchers, schools, colleges, clubs, organizations, etc. Covers the following areas of science: Astronomy, Archeology, Biology, Chemistry, Earth Science, Mathematics and Physics. Includes extensive Technical Notes and Tools & Techniques and tons of helpful science secrets that have never appeared in Scientific American. Includes over 2,000 pages of helpful Technical Notes that never appeared in the magazine covering topics from choosing binoculars for astronomy to monitoring earthquakes, as well as the full text of Procedures in Experimental Physics by John Strong, a classic and much sought after reference on instrument making. In addition, there is a sample software library with demos, shareware, freeware, and other items of use to amateur scientists. Works with Windows, Mac, Unix & Linux. Requires 32 MB RAM and Netscape 4.0 or IE or higher. Publisher's price: \$39.99

M2071 \$24.00

SCREW TOP MICROSCOPE OBJECTIVE CONTAINERS



These are made for the standard size microscope objectives. If you've got objectives lying around unprotected, you need these. Unused

M2075 \$0.50 or 10 for \$4.00

ASTROSPEC 3000 UV EXTREME REPLACEMENT LENSES-CLEAR



If you have the Astrospec 3000 safety eyeglasses, then you need these replacement lenses, or you can just attach a rubber band thru the side slots. These have UV protection, are anti-static, anti-scratch, and have a truly unique anti-fog coating that offers unparalleled fog resistance in extreme conditions.

These are unused government surplus.

M2080 \$1.00 or 10 for \$7.50

HEAVY DUTY HINGED ALUMINUM MILITARY CASE



Perfect for protecting your valuable astro or electronics equipment. Has rigid foam dividers and padding, 4 clasps, and two handles. 18" long by 15" wide by 14" high.

M2081 \$29.00

ASTROSPEC 3000 UV EXTREME REPLACEMENT LENSES-GRAY



If you have the Astrospec 3000 safety eyeglasses, then you need these replacement lenses, or you can just attach a rubber band thru the side slots. These have UV protection, are anti-static, anti-scratch, and have a truly unique anti-fog coating that offers unparalleled fog resistance in extreme conditions. These are unused government surplus.

M2084 \$1.00 or 10 for \$7.50

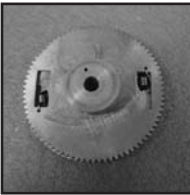
EYEPIECE CASE??

Will hold 4 of your 1-1/4" eyepieces or 12 of your .965 eyepieces. Will also hold two 2" eyepieces together with one 1-1/4". Compact size: 8" long by 7" wide by 3-1/2" high. Molded black plastic. Usable ID is 6-1/2" x 4-1/2" x 2" deep. .965" eyepieces can stand up but 1-1/4" need to be horizontal. Has clasp for tight closing and spot for easy holding. Lots of other uses. Has two

mounting holes on the bottom. Great for holding parts on your work bench.

Unused

M2116 \$2.00

BRASS ZERO BACKLASH GEAR

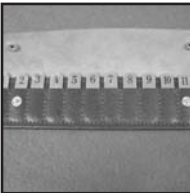
Brass double gear with springs to provide zero backlash. Gear is 2-1/2" diameter with 1/4" center hole.

M2130 \$4.00

BELDEN CORP 6 FOOT LONG AIR CONDITIONER REPLACEMENT CORD

Belden replacement cord No. 17141-S, 15 Amps, 250 volt for your air conditioner-think summertime! 6 Ft. #14-3. Type SPT-3. Unused in original packaging.

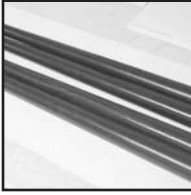
M2133 \$1.75

JOHN E. HAND BRASS MARITIME DRAW MARKERS

At the start of all maritime voyages, a watch rotation among the crew is established and a friction-free way to accomplish this task was to lay these 12 markers face down, shuffle them as you would dominoes and let each crewman pull a marker. Quickly and fairly, the watch rotation was set. Made in England and encased in navy blue leather. Set of 12 markers are made of

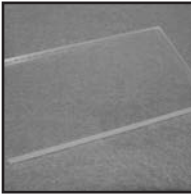
polished brass.

M2184 \$11.50

HARD WOOD LEGS FOR TABLE/TRIPOD/CHAIR, 23.5"

Made of hard wood (not sure what kind but they weigh 11oz. ea.), 23-1/2" long with 1/4" thread on the top and 1-1/2" brass furl on the bottom. Top diameter is 1-1/4". Leg tapers to 3/4". Not sure what these were originally made for, but you can get creative at our prices, and we've got lots. Price is for a set of 4.

M2194 \$7.50

CLEAR ACRYLIC PLATE - 3" X 5", 1/4" THICK

Precut standard-sized rectangular clear acrylic plates for your experimenting, hobby, or optical use. Non-polished edges.

M2206 \$0.50 or 10 for \$4.00

PARAMOUNT PICTURES 3-D PROJECTION SYSTEM

A superb find for the vintage 3-D enthusiast!!! The Paramount 3-D Projection system works with the flat projection lens of movie theatre projectors to produce a more panoramic and 3-D projected image (same width with 20% decreased height) of movies made for 3-D. Anamorphic lenses are not needed and should not be used. The system mounts on the front of the projection lens, and modifies the image via the internal multiple front surface mirror assembly. These 3-D conversion systems were apparently produced by Paramount for movie theater usage during the Cinemascope era and we were told they were used with Friday the 13th part 3 in 3-D and the Jaws 3-D movie. This is the more modern system that uses polarization instead of the two color system used back in the 50's. The system is contained in a portable 24" wide x 12 1/4" high x 12" deep black textured vinyl-covered wooden box with handle, dual latches, and reinforced corners. The foam-insulated interior contains the system components: lens holder, assembly mounting plate, 2 assembly support rails, the projection unit with polarizer set, aperture plates, two Allen wrenches, hardware bag with Allen bolts and locking knobs, and system instruction manual. Aluminum construction. Lightly used. Mirror assembly is in mint condition. This is an incredible buy at our price as we understand they cost Paramount \$1000.00 each. We think you may be able to use your camera to photograph thru it(slides?)and then attach it to your slide projector (we haven't tried that idea)or make a stereo print for use in your old stereo viewer (we tried it with a digital camera and it works great). How about make you own 3-D movies? We know you'll get creative with this one. Get two? One for your camera and one for projection.

M2234 \$75.00

BRASS-PLATED 2 1/2" LONG RESIDENTIAL HINGES



Nice unused plain load bearing residential hinges for use with light weight doors or other non-concealed applications. Each measures 2 1/2" long x 2 5/8" across (opened flat), with rounded edges, removable 2 3/4" long 1/16" thick pin, and three beveled 1/4" holes per half. Unused in the original packs (4 per pack). No mounting hardware included.

M2263 \$3.00

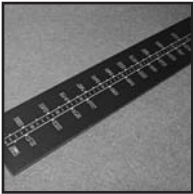
6" DIAMETER WHEEL WITH SOLID RUBBER TIRE



A good replacement wheel for lawn mowers, lawn carts, go carts, wagons, trash containers, or for those unique mobile projects (i.e. robotics). The wheel is 1 1/2" wide, with a white plastic 5" diameter center with 3/8" diameter axle hole, and 1/2" thick solid black rubber tire with diamond-shaped tread. Buy a few and save!

M2280 \$3.00 or 4 for \$10.00

RECTANGULAR PLASTIC AM/FM RECEIVER TUNING/DIAL PLATES: BACK-LIGHTABLE!



A nice replacement plate for home stereo, some portable stereos, or for your radio electronics project. Each plate measures 7 5/8" long x 1 3/8" high x 2mm thick and is triple-laminate, with matte black top scale layer, middle opaque white layer, and transparent light yellow-green base layer. As such, backlighting the plate produces a soft yellow-green scale and numerics. The FM scale is graduated from 88 to 108 MHz; the AM scale is graduated from 53 to 160 (corresponding to the 535-1605 kHz AM band), and the dividing zone between the scales is graduated from 0 to 100. Each plate is unused and in excellent original condition!

M2281 \$1.00

MILITARY BAR CODE READER SET - MSI/SYMBOL

Functional Army surplus bar code reader units in reinforced and foam-insulated 2-part green plastic transit cases. Each set was manufactured circa 1988, and includes the bar code reader (BCR: manufactured by MSI Data Corporation, Model 1410-PDT-LS), gun-style laser scanner with 24" coil cord (Model LS-8100 manufactured by Symbol Technologies,

Inc.), black vinyl BCR case/holster, black vinyl laser scanner holster, black BCR holster carry strap, black BCR holster belt, interface BCR cable, BCR diagnostic plug, null modem interface cable, gender changer/adaptor, and a technical manual. RS232 interface connections. The BCR is enclosed in a waterproof casing that measures 8.125" high x 4.125" wide x 2.375" deep, and weighs 40 oz. with batteries installed. The laser scanner measures 7.15" high x 1.70" wide x 4.20" deep, and weighs 8 oz. The BCR uses 10 AA alkaline or NiCad batteries for power, and an Eveready CR2016 3 volt lithium coin cell battery (or equivalent) for memory retention. The laser scanner is powered by the BCR. These sets were used as part of the Army LOGMARS(T) automated marking and reading symbols system, and carry a military application-specific CAM chip. We checked and found that they scan, read and enter the bar code numbers into the reader, and they pass the internal tests. Each set is in excellent, virtually unused, condition! We did an internet search and found some selling for around \$1200.00! Only have a few. Batteries not included. Includes ARMY Tech Manual.

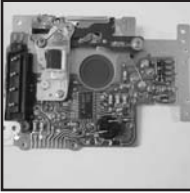
M2308 \$225.00

UNUSED SLIDE PROJECTION ASSEMBLY

We believe these were made for some of the Kodak 35mm slide projectors. We know it fits the Kodak Ektagraphic III ATS projector. Assembly includes a Halogen 300 Watt, 82 Volt GE #EXR projection lamp (used in Kodak Carousel slide projectors), a dichroic mirror, 50mm x 45mm x 2mm thick, and a DCX condenser lens, 50mm wide x 55mm long. The mirror

passes the heat straight thru and reflects the light thru the condenser lens. Front has a small door labeled "Reading Light" that opens to expose an opaque Fresnel lens that lets out some light from inside. We see the projection bulb alone selling for more than our price for the entire assembly. Unused.

M2407 \$15.00

ELECTRONIC CAMERA SHUTTER ASSEMBLY

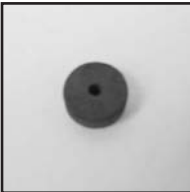
This is an automatic shutter unit made for a camera and is a beauty. Complete with 2 solenoids, cadmium sulfide photo electric light sensor that determines the exposure and tells the solenoids when to open and close and hence the shutter speed. Has a Mitsubishi M51081P integrated circuit which we believe to be a self timing chip and film speed sensor. We don't know what camera it was made for and don't have voltage requirements or other specs. Assembly is 2-3/4" long by 2" wide. Shutter opening is 1/2". They are marked "7X1E". Unused in original static shielding bag.

M2410 \$5.00

ROUND CERAMIC MAGNETS, 18MM DIA BY 5MM THICK

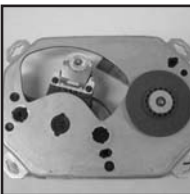
Strong magnets, perfect size for experimenting.
Unused package of 10

M2415 \$2.50 or 10 for \$20.00

ROUND CERAMIC MAGNETS, 13MM DIA BY 5MM THICK, 2MM CENTER HOLE

Strong magnets, perfect size for experimenting. Has a 2mm diameter center hole. Unused package of 10

M2416 \$1.50 or 10 for \$12.00

CD LASER DIODE/MOTOR ASSEMBLY

Here's the complete laser assembly that appears to have been made for CD's. Includes laser diode assembly with small right angle prism and focusing lens as well as a Mabuchi motor #RF-300C-11400 (runs off 5.9VDC). We don't have any additional specs, but this should be a lot of fun to experiment with.

Unused.

M2417 \$5.00

ENIDINE DASHPOT SHOCK ABSORBERS W/HARDWARE



Miniature hydraulic non-adjustable shock absorber in a fully threaded cylinder body. Dashpot type damping. Provides effective reliable deceleration and vibration control for light loads. Enidine

#4E5490. 60mm long (including 10mm long rod) and 11mm diameter. Includes hardware. Unused

M2421 \$4.75

SET OF 8 QUALITY PLASTIC GEARS



Smallest is 16mm diameter and largest is 37mm. One has a metal insert. Heavy duty thermo plastic. If you find the gear you are looking for in this set and need more, we have quantities available individually or in sets. Unused.

M2424 \$4.95

QUALITY CZECH M-10-M GAS MASK



This is the Czech copy of the U.S. M17 gas mask and is of very high quality and has the same features. This protective M-10-M mask, coupled with a pair of LF-10M face piece filters (included), protects the face and eyes. The breathing channels protect

against biological and nuclear chemical agents used in the form of vapors, gases, and aerosols. Includes Speech Diaphragm, Valve Chamber, Head Harness, Special Plug System for Drinking, and (2) LF-10M face piece Filters. The LF-10M face piece filter ensures sufficient protection against all known fighting poisonous agents except for carbon monoxide. Unused. Limited supply.

M2514 \$29.00

COMPLETE LASER OPTICAL SCANNER ASSEMBLY

Loaded with great precision parts. We think these were made for higher end laser printers, but not certain. Includes a Laser polygon mirror/motor assembly with driver board, laser diode with driver board, two beautiful front surface mirrors, two coated precision lenses and other parts. One of the mirrors is 250mm long by 14mm wide by 8mm thick. The other is 160mm by 10mm by 8mm thick. Mirror/motor is six sided. Both lenses appear to be cylinder lenses (which makes sense as cylinder lenses can transform a point of light into a line image). One is 100mm long by 10mm wide by 15mm high at its peak and has a positive focal length of 180mm. The other appears to have 0 focal length and is meniscus style 50mm long by 10mm wide by 10mm thick. Just one cylinder lens this size alone would cost you much more than our price for this entire assembly. If you can figure out which printer this was made for, you should buy them all as we see similar units selling for over \$175 on sale. Unused.

M2521 \$28.50

RED LASER POINTER/PEN/LIGHT

These are great. Regular ball point pen size fits in shirt pocket or purse. One side is a standard ball point pen and the other side is a strong red (650nm) laser for pointing or collimating applications and a regular blue light to see your car door lock in the dark. Batteries are installed and a spare set of batteries included. This is something you can carry around with you at all times instead of just a regular pen and you'll be prepared. Two momentary switches on the side to operate the laser beam and blue light. New.

M2524 \$9.95

PACKAGE OF OVER 300 SHRINK TUBING PIECES

Here's a mix of 1 inch length shrink tubing with different diameters.

M2534 \$5.00

MICROFIBER CLOTH FOR OPTICS, 8" X 8"

Microfiber is one of the most advanced fabric innovations of our time. Microfiber is a blend of Polyester and Polyamide, a nylon byproduct. The polyester provides the cleaning power and the Polyamide provides the absorbency. Microfiber is 1/100 the diameter of a human hair and possesses unbelievable cleaning abilities. This one is specifically designed for optics so it can

be used on reading glasses, camera lenses, binoculars and other items with fine quality optics. These cloths remove finger prints, dust, and dirt safely without using any solvents or liquids. These handy 8"x8" cloths neatly fit into your glove box in the car, your camera bag or your purse. They are ready when you are and can be washed over and over in your washing machine. Each comes in a glide lock plastic bag.

M2541 \$3.99

SWISS ARMY CAVALRY LINER/JACKET

Beautiful, black Swiss quilted rider's jacket. It has 2 rows of buttons, one inset from the other, to button it for a comfortable fit. Very warm. Perfect as a liner for another jacket or as a jacket itself. Tag says "AIREX DOUBLURE ISOLANTE THERMOEINLAGE" (whatever that means!!). Our guess is that AIREX is the brand as it has a Registered trademark symbol.

Looks like leather button holes. Unused. Have small, medium and large sizes. Please specify in the comments section of our on-line order form.

M2543 \$9.75

SET OF 26 SNAP IN PLUGS VARIOUS SIZES

You'll get 2 each of 13 different plugs varying in size from 2-1/4" down to 3/8". We have large quantities of all these sizes, so if you find one that you need a quantity of, let us know. Most are metal. Unused.

M2554 \$3.75

THREADED EYEGUARD FOR 6X30 BINOCULARS

THREADED EYEGUARD FOR 6X30 BINOCULARS
Need a replacement eyeguard for your 6x30 binoculars? Here you go.. These are unused and threaded for easy attachment to most 6x30 binocular. Made of heavy duty plastic.

M2593 \$2.00 or 10 for \$15.00

BAG OF (24) ASSORTED PLASTIC GEARS

Ranging in size from 3/16" to 1-5/16". Includes 18 gears with center hole of 1/16", and 6 worm gears with 1/16" hole. Perfect for science projects and experiments! Get these while they last! Unused.

M2620 \$4.50

MOUNTING & RETAINING RING FOR 1-1/4" EYEPIECE FILTERS

Here's a great ring that screws right in to your 1-1/4" eyepieces. Use this to mount various filters or windows. Retaining ring tightens to ensure secure mounting. Unused, available in any quantity.

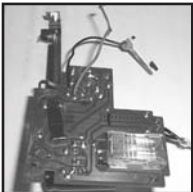
M2629D \$4.00 or 10 for \$35.00

REXTON OPTICAL LENS & OPTICAL SURFACE CLEANER

Here's their latest and improved cleaning formula. This is the best we have found for cleaning your lenses. Cleans all optical surfaces, leaves no haze, dissipates static completely, and leaves no sticky residue.

It does not contain alcohol, ammonia, or harsh detergents. Rexton's cleaner cleans all optical surfaces: lenses, mirrors, prisms, windows, slides, dvd's, cd's and leaves no haze. It cleans plastic or glass camera lenses, coated or uncoated. Comes in 8 oz bottles with spray top.

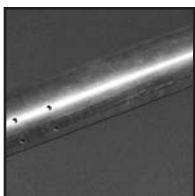
M2634 \$3.75

SINGLE "AA" CELL STROBE MODULE WITH BATTERY HOLDER

Here's another great strobe assembly requiring only 1.5 volts DC to work. Consists of a bright Xenon strobe tube and reflector. Recycles very quickly. Strobe tube is 1" x 0.64" and the entire unit measures 2.4" x 1.4". Instruction diagram included. Unused

M2638 \$1.25 or 10 for \$8.00

65MM (ID), 67MM (OD) SPOTTING SCOPE/FINDER ALUMINUM TUBE



Measures 10-5/8" long. Threaded inside on both ends. Two 1/4" holes 7" apart on the bottom, 4-3/16" holes spaced 1-1/2" lengthwise and 1" apart the other way. Weight is 9 ounces. In good original condition.

M2662 \$5.00 or 10 for \$40.00

MOUNTING & RETAINING RING FOR 2" EYEPIECE FILTERS



Here's a great ring that screws right in to your 2" eyepieces. Use this to mount various filters or windows. Retaining ring tightens to ensure secure mounting. Threaded on both ends so you can attach many together. Unused and available in any quantity.

M2801D \$6.50 or 10 for \$57.50

INEXPENSIVE 2.75" DIA FRENCH BAROMETER



Made in France, these very nice looking barometers show when the weather is improving or deteriorating. Measures barometric pressure from below 28 inches to above 31 inches (<950 millibars to >1060 millibars). Has adjustable indicator that can be set over the pressure indicator to quickly see the direction of movement.

Plastic housing. Has a set screw adjustment in case you drop it and it gets out of alignment. Front is 2.75" diameter, rear is 2-1/8" diameter by 3/4" deep so you can easily mount it into a nice wood base.

Unused.

M3015 \$5.00

INEXPENSIVE 2.75" DIA FRENCH THERMOMETERS



Made in France, these very nice looking thermometers show temperature in degrees F and degrees C. Plastic housing. Front is 2.75" diameter, rear is 2-1/8" diameter by 3/8" deep so you can easily mount it into a nice wood base. Unused.

M3016 \$5.00

INEXPENSIVE 2.75" DIA FRENCH/GERMAN QUARTZ CLOCK



Quartz movement made in Germany, and the housing and assembly made in France. These very nice looking clocks include a second hand. Plastic housing. Front is 2.75" diameter, rear is 2-1/8" diameter by 1/2" deep so you can easily mount it into a nice wood base. Takes a standard 1-1/2 volt battery (not included). Unused.

M3017 \$5.00

INEXPENSIVE WEATHER STATION



Consists of our M3015 barometer, M3017 clock, and M3016 thermometer. You could make a wood base for them and you'll have a nice set for your desk or wall.

M3018 \$12.00

MYLAR ROLL FOR OVERHEAD PROJECTION



If you still use overhead projectors and write on mylar sheets to project your creation, this is what you need. 8.5" wide by 100 feet long. Of course there are lots of other uses for mylar. Unused in original package.

M3021 \$8.50

Motors

GEARHEAD MOTOR, 120VAC, 1/3RPM, CCW



Autotrol Model 700. 120VAC, 60Hz. 1/3RPM motor counter clockwise. Gear is 1/3" diameter and 2.4" long. 2.4 watts.

M2001P \$4.50 or 10 for \$35.00

SMALL DC MOTOR, 3950 RPM, PK OF 6

Low cost motor to power toys, models, etc. Operates on any DC voltage from 1 to 5 volts. Works well with flashlight battery. 3950 RPM. 5gr-cm load. KKK brand, Japan. Well built with spring steel brushes, fiber washers and brass bushings. 4" color coded lead. 7/8" diameter by 7/8" long. Shaft is 1/8" long. These have been in storage for years, so may need a drop of

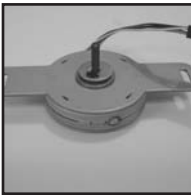
oil. Unused. Package of 6

M2002P \$5.00

12VDC CANON CASSETTE MOTOR

Model MD39-R5CN-F. Nice motor that runs off 12VDC. Made to go into cassette machines. Has 7" long two wire cord. Unused.

M2009P \$2.50 or 10 for \$20.00

PANCAKE STEPPER MOTOR

Appears to be 50 steps per revolution. 1-3/4" diameter by only 3/8" thick. Has 3" long 5 wire lead with 6 prong end plug. Has 6/32 threaded shaft 1/2" long. Has two mounting ears, 3-3/16" distance between the two. We are told that this is a great motor for robotics applications but we don't have any additional specs. On the back of the motor is the numbers 6001336 and

SI-3420, Japan. Unused.

M2015P \$3.25

QUALITY MABUCHI HOBBY MOTOR

This is perfect for toys, robotics, solar power demos, and science projects. High quality model RF-500T-10750 by Mabuchi. Marked 5.9VDC, 10ma, but will run on 1.5v battery and on voltages up to at least 9VDC. These are low inertia, low current drain motors that are perfect for solar applications. One ad we saw indicates that they will run one month on a single "D" cell.

Very versatile motor as we have seen claims that it will run on 0.5 volts up to 12 volts. We have large quantities of these so build them into your product and we'll supply them. Unused.

M2022P \$0.99 or 10 for \$6.00

2000RPM TAPE DRIVE MOTOR

Nippon Audio Motor Model #NAM-3A. 13.2VDC input. 2000RPM. Our understanding is that this was designed for use in a tape drive. 1-5/8" diameter by 1-3/4" long. Has 5-1/2" long 3 wire leads. Unused.

M2028P \$2.25

AIRPAX 12V STEPPER MOTOR

Made by Airpax for Digital. Digital part number 70-18658-00. Airpax #S-A83709-M4. 12V, 0.4A. Has 6 leads, 3-1/2" long with connector. Shaft is 1/4" diameter with a 1/2" worm type shaft over it. Total shaft length is 1-1/2". Has plate attached with mounting holes. Unused in original box.

M2038P \$4.50

GRAB BAG OF 12 HOBBY SIZE MOTORS

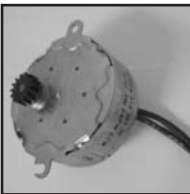
Here's a mix of motors that are perfect for experimenters, students, hobbyists, and entrepreneurs. Some will run on as low as 1VDC and some run off standard 115VAC. If you find one that you can use in your newly created product, we can supply you with the quantities you need.

M2043P \$15.00

BEAU TORQUE MOTOR MODEL 30T38

Made by Beau Motor Div. of UMC Electronics. Model 30T38. 95 volts, 60 Hz, single phase, 25 watts, 950 RPM. We believe these were made to be used in video tape recorders. 3" diameter by 2.8" long and a 1" long shaft. Unused.

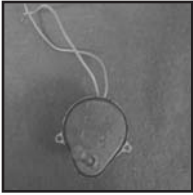
M2064P \$5.00

1 RPM, 115VAC MOTOR WITH GEAR

Made by Singer Controls Co of America, model 414-287-20. One revolution per minute, CCW. Works off 115VAC 60 Hz, 3 W. 1-7/8" diameter by 3/4" thick. Has 20" long wires.

M2089P \$4.50 or 10 for \$35.00

40 RPH LONG SHAFT SYNCHRON AC MOTOR



Synchron #366661-6, 110VAC, 60Hz motor which is self-starting and made for long life operation. 40 revolutions per hour. Has an aluminum rotor cover and a precision rotor shaft with double bearings for quiet operation. Gearcase is sealed to permit mounting in any position. CW rotation. Shaft, 3/16" dia. x 3-1/8" long. Motor is 2" diameter by 1-3/8" deep. Two mounting holes and 7" wire leads.

M2106P \$8.50

HIGH TOLERANCE 5VDC BRUSHLESS BALL BEARING MOTORIZED SPINDLE



This motorized spindle, designed for Digital Equipment Corporation, is designed for a rotational speed of 5400 RPM and consists of an eight-pole permanent magnet rotor with integral disk mounting hub, a three-phase wye wound stator winding, and a three terminal interconnect. The connection to the driver electronics is through a flexible printed circuit assembly. This spindle was designed to be utilized in a 2.5 inch disk storage device and requires a special driver to operate. Spec sheet included and we have got a large quantity of these if you can incorporate them into a product. Unused.

M2160 \$5.00

SMALL DC MOTORIZED GEAR ASSEMBLY



An interesting assembly for the electronics "do-it-yourselfer". The assembly black plastic casing measures 4 15/16" long x 1 5/16" wide, and includes a 1" long mounted motor with screw shaft, connected to dual plastic gears. The final gear has an 1/8" diameter positioning hole near the edge that aligns with a notch in the case side panel. Power to the motor is supplied through dual wires connected to what appear to be DC battery clips. A dual-wired 1/8" plug is attached to the casing and motor. The assembly has four base attachment tabs. Runs on 1.5 VDC (slow) to 9 VDC (fast) range. Output gear rotates between 30 and 50 RPM.

M2185 \$3.00

AIRPAX 12VDC STEPPER MOTOR

Model A83709-M4. 0.4Amps/Phase. 15 degree/step. Has 6 wires, 4" long terminated in what looks like a pc type plug. 3/4" long shaft with a worm gear attached that makes the length 1-1/2". 2-1/4" diameter by 7/8" thick. Unused

R2028 \$2.00

MABUCHI RE-140RA-90019B MINI MOTORS

Same as our R3057 except the terminals are attached. These are great for school and hobby projects, robotics, solar, etc. 1" long with 1/4" shaft and 0.82" diameter. Runs on 1 to 3VDC. Unused.

R3057A \$0.75 or 10 for \$6.00

*Objective Lenses***OBJECTIVE LENS FOR 6 X 30 BINOCULARS**

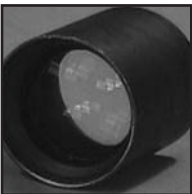
Doublet achromat made for 6 X 30mm binoculars. 32mm diameter by approx. 130mm focal length. cemented, not coated.

L1316 \$6.50

27MM DIA OBJECTIVE IN BRASS CELL

Achromatic doublet objective. 27mm diameter by 285mm focal length. Mounted in brass cell and held in place with retaining ring. Cell is 31.6mm diameter, and 34.6mm long. Cell reduces to 28.8mm diameter at middle.

L1403 \$8.00

MOUNTED MULTI-ELEMENT OBJECTIVE

Coated, multi-element objective lens assembly. 36mm clear diameter by 6" focal length. Barrel is 45.7mm diameter by 45mm long. Sharp, color free image. Great for finderscope.

L1436 \$8.00

OBJECTIVE LENS, 38MM X 297MM FOCAL LENGTH

Coated, cemented doublet, achromatic objective lens designed to be used in one of the military finders. Made up of a double convex lens (refractive index of 1.5230, Abbe V# of 58.600) and a meniscus diverging lens (refractive index of 1.6210, Abbe V# of 36.200). Diameter is 38.1mm. Equivalent focal length is 296.72mm, and back focal length is 296.164mm. Unused.

L1533 \$7.25

TINY BESELER 125MM FL OBJ ASSY

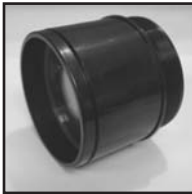
Objective lens assembly made by Beseler. 125mm focal length, and assembly is only 12mm diameter and 16mm long, and threaded on the end.. Achromatic. Coated optics. Combine this with our tiny eyepiece assembly (L1620) for a super small telescope.

L1643 \$5.00

MTD 15.3MM OBJECTIVE LENS, 55MM FL

Quality coated optics. Barrel is 21.1mm diameter on top half and 19.7mm diameter on bottom half. 12.8mm long.

L1880 \$7.00

MTD 70MM DIA OBJECTIVE, 800MM FL

Coated air spaced glass doublet objective lens, 70mm clear diameter by 800mm focal length. Plastic mount with threaded end. Mount is 74mm diameter.

Threaded end is 70mm diameter. This will make a great quality telescope objective. Unused

L2148 \$19.00

68MM DIA OBJECTIVE LENS, 360MM FL

Here's a great lens for a finder or spotting scope. Coated optics. Cemented doublet achromat, 68mm diameter by 360mm focal length. We had these made for us in response to customer requests. Get two to make a super binocular. New.

L2160D \$29.50

ACHROMAT OBJECTIVE 36MM DIA BY 100MM FL, CTD

Coated cemented doublet achromat objective lens. 36mm diameter by 100mm focal length. These are brand new, not surplus. We had these made for us and can get any quantity you may need for your optical product.

L2190D \$16.00 or 10 for \$135.00

MTD 80MM DIA OBJECTIVE, 400MM FL

Coated air spaced glass doublet objective lens, 80mm clear diameter by 400mm focal length. Plastic mount with O.D. of 95mm and front lip to butt against a tube up to about 100mm O.D. This will make a great quality telescope objective for a wide field scope, spotting scope or finder for your large scope. Unused

L2196 \$29.00

MTD 80MM DIA OBJECTIVE, 900MM FL

Coated air spaced glass doublet objective lens, 80mm clear diameter by 900mm focal length. Plastic mount with O.D. of 95mm and front lip to butt against a tube up to about 100mm O.D. This is a great quality telescope objective and will make a nice scope. Unused

L3002 \$29.00

ACHROMAT OBJECTIVE 36MM DIA BY 135MM FL, CTD

Coated cemented doublet achromat objective lens. 36mm diameter by 135mm focal length. These are brand new, not surplus. We had these made for us and can get any quantity you may need for your optical product.

L3108 \$16.50 or 10 for \$140.00

Optical Windows**SMALL OPTICAL WINDOW - 17MM DIAMETER**

Quality small optical window, 17mm diameter by 5mm thick, with ground edge. Non-coated, beautiful clarity!

L3258 \$1.00

OPTICAL GLASS PARALLEL PLATE

Unused 1/4" thick optical glass plate, 14 3/8" long by 9 1/4" wide. Ground and polished optical glass with parallel sides. Great for use as an optical window or for experiments.

M2013P \$5.00

CLEAR 5" SQUARE PLATE GLASS

Plate glass, 5 inches by 5 inches by 0.08 inches thick. Great to protect stamps or other items you want to display. These were actually made for part of a solar assembly. We have huge quantities of these so we can accommodate you if you want to incorporate these into your product. Unused. Pack of 10

M2115 \$2.00 or 5 for \$7.50

12.7MM DIA OPTICAL WINDOW

Quality optical window, 12.7mm diameter by 3.1mm thick.

M3007 \$0.75 or 10 for \$5.00

SCHOTT THIN GLASS, 12" X 12"

Quality clear glass made in Germany by Schott is 12" square and 1.2mm thick (0.05"). Not sure of the type of glass but it looks like plate. Perfect for delicate glass used in clock faces or picture frames, or get creative for your own application. Our understanding is that thin glass of this type is not made in the US. These were imported from Germany. Not sure who they were originally imported for but they got stored for several years in their original wood crates and we have several thousand pieces. If you have a product that needs quality German thin glass, we can supply it. Price is for a package of 20 pieces, 12" square. Quantity price is for 5 packages of 20. Unused.

M3012 \$25.00 or 5 for \$100.00

100MM DIA OPTICAL WINDOW

Unused optical window made of optical glass. 100mm diameter by 3mm thick.

M5003 \$2.50

Photographic Film/Paper**AGFA-GEVAERT 9.5" SQ. PHOTOGRAPHIC FILM PLATES**

Unused photographic film plates made by Agfa-Gevaert of Belgium are 9.5" square and 2mm thick. These are precision parallel surface glass film plates. 10 plates per package. Open only in darkroom. Marked "AVIPHOT DIA C". Not sure when they were made as there is no date on them. Our understanding is that they have very long shelf life and they have been kept

cool. If you don't need them for the film, they seem to be useful for ground glass imaging. A rare find. Price is per package of 10.

M2149C \$75.00

Power Supplies/Adapters

CALCULATOR POWER SUPPLY



Model B905-019-1 has an input of 120VAC, 50/60Hz, 8 watts and an output of 9VAC, 275MA. Nice long cord terminates with a 2 prong female connection. Unused.
M2143 \$2.50

DYNAMIC INSTRUMENT CORP. AC TO 14.5VDC ADAPTER



Input is 120vac, 60Hz, 8 watts and output is 14.5vdc at 22.5ma. Leads are 9 feet long 16 gauge wire. Unused.
M2153 \$1.25

COILS, INC. TRUE TEMPER CORDLESS ELECTRIC CHARGER-TYPE 2



AC adapter charger model #2730-3 made by Coils, Inc.. Input is 120vac, 60Hz, 5w and output is 3vac, 300ma. Cord is 4 1/2 feet long and terminates to a 2 female prong plug which is 3/4" long x 3/8" wide.
M2154 \$2.00

KIC 12VDC, 300MA ADAPTER



Input is 120VAC, 60HZ, 9W and output is 12VDC, 300mA. Made by KIC, Model # 41-12-300D and is made for indoor use only. Class 2 transformer. Has a very long cord and terminates with a coaxial plug.
M3025 \$1.25

SUN MICROSYSTEMS SPARCSTATION 10 POWER SUPPLY 140WATTS



Part #300-1081-05 power supply taken from SPARCstation 10 units and in good working condition. Accepts AC from 100 to 240V, 50/60Hz and provides DC +5V, 20.5A; DC +12V, 3A; and DC -12V, 0.1A. Has 3 fans, on/off switch, and standard AC in plug and AC out. We see them selling used for \$60+
R1467P \$23.00

GAME AC/DC ADAPTER, 10VDC AT 550MA



Nuby SE-14 adapter made to power Sega Game Gear and Nintendo. Provides 10VDC at 550 mA from standard 120VAC, 60HZ. Model 48-10-550D. Most 12VDC devices work fine with 10VDC. Has coaxial plug, 5mm OD and 1.5mm ID. 10 foot cord. Inexpensive DC source at high current. Unused.

R2006P \$1.50 or 100 for \$99.00

REGULATED CAR/BOAT VOLTAGE CONVERTER



Plugs into your car or boat's cigarette/power outlet and converts the 12 volts to 6VDC, 7.5VDC, or 9VDC, 300 MA. Includes a universal 5-way plug and has polarity reverse capability. Use this to power your portable electronic items such as tape recorders, radios, calculators, CB radios, etc. Fen-Tone Model #FCB-1034. Unused.

R2015P \$3.00

AC/DC ADAPTER, 9VDC AT 120MA



Use this to power your 9 volt radios, electronic devices and projects. Has 5 foot 9 inch cord with small coax plug (OD 3.4mm, ID 1.3mm) on the end. Unused.

R2016P \$1.00

PACE AC TO 12VDC CHARGER



Model P5807 converts standard 120VAC 60Hz to 12VDC, 50mA to charge your rechargeable radio or recorder batteries. Has a standard mini plug and a mini plug jack to 9V battery plug adapter. Unused in original blister pack.

R2026P \$2.95

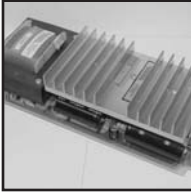
REGULATED POWER SUPPLY, 5VDC, 5A



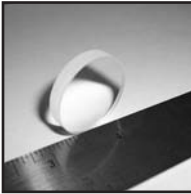
Model SPS 40-5 by Standard Power, Inc. Features: Voltage adjustment potentiometer; Foldback current limiting; 115/230VAC 47-440 Hz input; 0.1% line/load regulation; Temperature compensated circuitry; 0.1% ripple.

This is a series regulated, solid state power supply. Output is floating, hence the voltage may be plus or minus or referenced to another voltage. Includes instruction sheet.

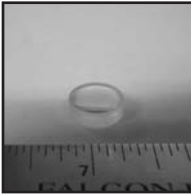
R3062 \$12.00

POWER SUPPLY, PLUS/MINUS 15VDC AT 5 AMPS

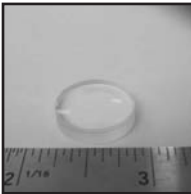
Great unused power supply. Standard 120VAC, 60Hz in with outputs of plus 15 volts DC and minus 15 volts DC at 5 amps. Has heavy duty transformer, heat sink, power transistors and lots of other components on a circuit board 10-3/4 inches long by 4-1/4 inches wide. Weighs almost 5 pounds. CEI Model C209H-0006
R3114 \$10.00

Precision Optics-Achromats**PRECISION ACHROMAT 30MM DIA X 160MM FL**

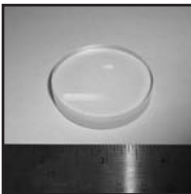
Precision Optimized Cemented Achromats; $f = 160.0$ mm, diameter = 30 mm Paraxial Focal Length: 160.0 ± 3.2 mm Material : Crown and flint glasses, coated. Detailed specs will be included with your order. Original Unit Price: \$76.00. Manufacturer's part #01LAO 149
PA1001 \$14.00 or 10 for \$112.00

PRECISION ACHROMAT 12.5MM DIA X 30MM FL

Precision Optimized Cemented Achromats; $f = 30.0$ mm, diameter = 12.5 mm Paraxial Focal Length: 30.0 ± 0.6 mm Material : Crown and flint glasses, coated. Detailed specs will be included with your order. Original Unit Price: \$70.00. Manufacturer's part #01LAO 024
PA1003 \$14.00 or 10 for \$112.00

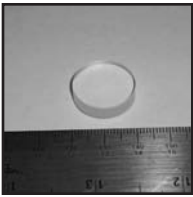
PRECISION ACHROMAT 18MM DIA X 33MM FL

Precision Optimized Achromats; $f = 80.0$ mm, dia = 18 mm Paraxial Focal Length: 80.0 ± 1.6 mm Material : Crown and flint glasses, coated Original Unit Price: \$76.00. Manufacturer's part# 01 LAO 111/078
PA1006 \$14.00 or 10 for \$112.00

PRECISION ACHROMAT 50MM DIA X 160MM FL

Precision Optimized Achromats; $f = 160.0$ mm, dia = 50 mm Paraxial Focal Length: 160.0 ± 3.2 mm Material : Crown and flint glasses, AR COATED Original Unit Price: \$76.00. Manufacturer's part #01 LAO 149 /128
PA1007 \$14.00 or 10 for \$112.00

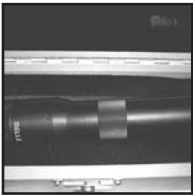
PRECISION LASER GRADE ACHROMAT 20MM DIA X 50MM FL BROADBAND AR CTD



Manufacturer's part# 01 LAL 013 Laser-Grade
Optimized Achromats: $f = 50.0$ mm, dia = 20
mm Paraxial Focal Length: 50.0 ± 0.5 mm Material :
BaLK N3 and SF 15 Original Unit Price: \$107.00
PA1012 \$14.00 or 10 for \$112.00

Precision Optics-Beam Expanders

PRECISION ND:YAG AND ARGON-ION 10X LASER BEAM EXPANDER



This can be used with blue HeCd, argon-ion, krypton
argon ion, Nd:YAG, and frequency-doubled ND:YAG.
This particular model is manufacturer's part# 09 LBZ
010, original price: \$800+. It's a 10x beam expander
for 488nm. Input aperture of 2.5mm, exit aperture is
22mm. Length is 169mm, minimum focus distance is 2.5
meters. Coating is a broadband dielectric for visible
wavelength. C mount adapter attached. Unused. Wooden case included.

PM1039 \$175.00

PRECISION 10X IR BEAM EXPANDER FOR 1064NM



Manufacturer's part #22 LBZ 110. Input aperture of
2.5mm, exit aperture is 22mm. Length is 169mm.
Minimum focus distance is 2.5 meters. Coating is a
broadband AR for Infrared. Unused. Wooden
case included.

PM1047 \$200.00

Precision Optics-Beamsplitters

PRECISION 50.8MM DIELECTRIC CUBE BEAMSPLITTER, BROADBAND AR COATING



Manufacturer's part# 03 BSD 078, original price:
\$400. Wavelength range is Near-IR at 900-1300 nm.
Made of Grade A fine annealed BK7 glass, flatness is
 $1/2$ wave per clear aperture at 632.8 nm. Transmission
is $50\% \pm 5\%$, Absorption is less than 0.5%. Surface
quality is 60-40 scratch and dig with beveled edges.
Transmitted Beam Deviation is less than 10 arc min-

utes. Broadband AR coated on the entrance and exit faces. Unused.

These will go quickly! Limited supply!!

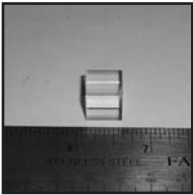
PM1009 \$85.00

PRECISION 12.7MM BROADBAND DIELECTRIC CUBE BEAMSPLITTER

Manufacturer's part# 03 BSD 066. Original unit price: \$126. Near IR 900-1300 nm. Dimensional tolerance is +/- 0.3 mm, material is BK7, A class fine annealed. Degree of surface evenness: 1/2 wave (@ 632.8 nm, in inside pitch diameter). Transmissivity is 50 +/- 5% (there is a wave length dependency of the polarized light mean value +/- 3%). Absorptance is <

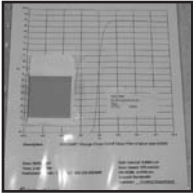
0.5% and Transmitted beam declination: < 10 minutes. Coating: Broadband AR Cultivated area decrease morphism coat (incidence and radiation aspect). Surface grade is 60-40 as for scratch & dig and edge molding finish.

PM1025 \$38.00

PRECISION 12.7MM BROADBAND AR CTD CUBE BEAMSPLITTER

We do not have detailed specs for this piece. It is labeled part #80 ELE 10004, and is marked "400", so it may be a Hybrid UV for 400nm. High quality optical glass (most of the Hybrid UV's are fused silica) but not positive which type it is.

PM1033 \$35.00

*Precision Optics-Filters***PRECISION 50.8MM ORANGE LONG-PASS SHARP CUTOFF SQUARE FILTER**

Manufacturer's part#03 FCG 087Long-Pass, Sharp Cutoff Filter; Square, Nominal Cutoff Wavelength = 550 nm Material : OG 550, detailed item-specific spec sheet included with order. 50% cutoff wavelength of 550nm, 3mm thick, maximum operating temperature: 250 degrees C (482 degrees F) Original Unit Price: \$58.00.

PM1014 \$15.00

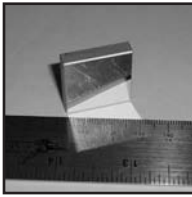
PRECISION 25MM SCHOTT ABSORPTIVE NEUTRAL DENSITY FILTER

Manufacturer's part# 03 FNA 220. Original unit price: \$57. Made of NG glass, 1mm thick. Nominal transmittance is 10% with a clear aperture of 22.5mm. Parallelism is 3 arc minutes and surface quality is 80-50 scratch and dig. Only have a few!

PM1024 \$12.00

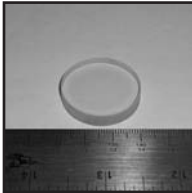
Precision Optics-Flats

PRECISION LEBG 25MM SQUARE 1/4 WAVE FLAT MIRROR



Manufacturer's part#02 MFG 001/02825-mm Square Mirror, UV Enhanced Aluminum, 6mm thick. Made of LEBG (Low Expansion Borosilicate Glass) which is Pyrex made by Corning. Original Unit Price: \$46.00 (before coating) Wavelength: Visible, Near IR 400-800nm.
PM1013 \$12.75

PRECISION 30MM 1/20TH WAVE FUSED SILICA OPTICAL FLAT, CTD



Here's a great 1/20th wave fused silica flat (could be aluminized and made into an ultra flat mirror). 6mm thick. Manufacturer's part# 02 MLQ 012/257. The top is polished 1/20th wave flat and the bottom is ground but not polished. Beautiful Bluish/purple anti-reflective coating!
PM1017 \$32.75

PRECISION ZERODUR 50MM DIAMETER 1/20TH WAVE OPTICAL FLAT



Manufacturer's part#02 MLE 015, original unit price: \$303. Wavelength range is Visible to Near IR, 400-800 nm. Flatness is 1/20th wave, polished on the top and ground (but not polished) on the bottom. Thickness is 10mm, clear aperture of 45mm, parallelism of 3 arc minutes. Made of Zerodur, surface quality is 60-40 scratch and dig. These were made with the intention

of being aluminized, making an ultra flat mirror. Unused.

PM1034 \$50.00

PRECISION 100MM DIAMETER LEBG 1/10TH WAVE OPTICAL FLAT



Manufacturer's part#02 MPG 017. Original unit price: \$455.00. Wavelength range is Visible, Near IR 400-800 nm. 100mm diameter by 19mm thick with a clear aperture of 90mm, surface quality of 60-40 scratch and dig. 1/10th wave made of LEBG (Low expansion borosilicate glass). These were designed to be made into ultra flat mirrors. Top is polished, bottom is

ground but not polished. Unused.

PM1036 \$75.00

PRECISION 1/20TH WAVE FUSED SILICA 25MM SQ OPTICAL FLAT/MIRROR

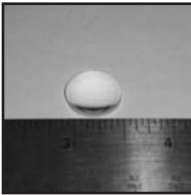
Manufacturer's part #02 MLQ 003. Original price: \$113.00. 6mm thick, wavelength range is Visible, Near IR 400-800nm. Clear aperture is 22.5mm, surface quality is 60-40 scratch and dig. Polished to 1/20th wave on the top and ground on the bottom. Use as a precision optical flat or get it coated with aluminum for a precision flat mirror

PM1040 \$18.00 or 10 for \$150.00

PRECISION 1/10TH WAVE LEBG 50MM SQUARE FLAT/MIRROR

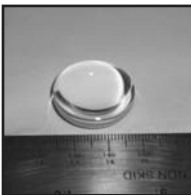
Manufacturer's part#02 MPG 005, original unit price: \$105.00. 10mm thick, wavelength is 400-800nm. Clear aperture of 45mm, surface quality is 60-40 scratch and dig, parallelism is 3 arc minutes. Non-aluminized. Polished on the top to 1/10th wave and ground (but not polished) on the bottom.

PM1041 \$27.50

*Precision Optics-Lenses***PRECISION PCX LENS 15MM DIA X 18MM FL**

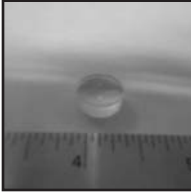
Plano-Convex Singlet Lens; $f = 18.0$ mm, dia = 15 mm
Paraxial Focal Length: 18.0 ± 0.4 mm
Material : BK7, Coated
Original Unit Price: \$26.00.
Manufacturer's part# 01 LPX 017 /076

PL1001 \$6.00 or 10 for \$50.00

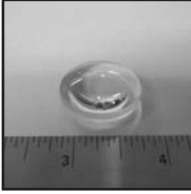
PRECISION BCX FUSED SILICA LENS 25MM DIA X 25MM FL

Symmetric-Convex Fused-Silica Singlet Lens Uncoated;
 $f = 25.0$ mm, dia = 25 mm
Paraxial Focal Length: 25.0 ± 0.5 mm
Material : Fused silica
Original Unit Price: \$85.00. Manufacturer's part #01 LQB 028

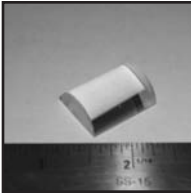
PL1004 \$14.00

PRECISION PCX 10MM DIA X 40MM FL UNCOATED

Plano-Convex Singlet Lens; $f = 40.0$ mm, dia = 10 mm
 Paraxial Focal Length: 40.0 ± 0.8 mm
 Material: BK7
 Original Unit price \$26.00. Manufacturer's part # 01 LPX 079
PL1008 \$6.00 or 10 for \$50.00

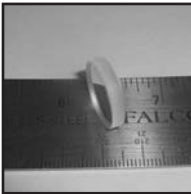
PRECISION BI-CONVEX 12.5MM DIA X 14.2MM FL

Symmetric-Convex Singlet Lens; $f = 14.2$ mm, dia = 12.5 mm
 Paraxial Focal Length: 14.2 ± 0.3 mm
 Material: BK7, coated
 Original Unit Price: \$27.00.
 Manufacturer's part #01 LDX 015
PL1009 \$6.00 or 10 for \$50.00

PRECISION PCX CYLINDRICAL LENS 19MM X 25MM, 19MM FL

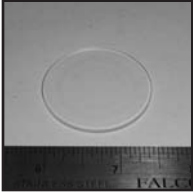
Manufacturer's part# 01 LCP 004.
 Original unit price: \$61.00. Made of BK7 glass with a design index of 1.5168.
 Design wavelength is 587.6nm with a clear aperture of 22.5×17.1 mm. Center thickness is 8.5mm, edge thickness is 1.2mm. Radius of curvature is 9.82mm, surface quality is 60-40 scratch and dig. All edges are ground and have a slight protective bevel. Uncoated, New.

PL1015 \$8.00

PRECISION APLANATIC MENISCUS LENS 18MM DIA, 73.5MM FL

Manufacturer's part# 01 LAM 059. Original unit price: \$63.00. Made of SF8 glass, design wavelength is 546.1nm. Clear aperture of 16.2mm, center thickness is 4mm, edge thickness is 3mm. Surface quality is 60-40 scratch and dig, centration is 3 arc minutes. Edges are .25-.50 bevel. Manufacturers companion doublet for this lens: 01 LAO 059. Aplanatic lenses are free of spherical aberration and coma.

PL1016 \$8.00

PRECISION PLANO CONVEX LENS 40MM DIA, 200MM FL

Manufacturer's part #01 LPX 269. Front focal length is 201.9mm, rear focal length is 197.4mm. Made of BK7 glass, edge thickness is 2mm, center thickness is 3.9mm. Design wavelength is 546.1nm. Uncoated
PL1019 \$8.00

PRECISION 0.5-PITCH GRIN LENS 2MM DIAMETER AR CTD

Manufacturer's part #06 LGD 215, original unit price: \$131.00. Design index is 1.600, design wavelength is 830nm, numerical aperture of 0.46, acceptance angle of 55 degrees, fractional pitch is 0.50. 10.54mm long. These gradient-index lenses combine refraction at the plane end surfaces with continuous refraction within the rod. These are well suited to coupling the output of a diode laser into an optical fiber. Easily achievable aberration correction without complex multi-element systems or aspherics. Reflection is reduced to less than 1.5% per surface with the Broadband AR coating. Unused. This is actually so small it comes in a pill capsule!

PL1025 \$39.00

PRECISION SYMMETRIC MTD AIR SPACED TWO ELEMENT CONDENSER LENS

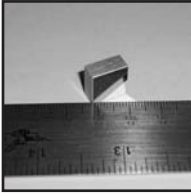
Manufacturer's part#01 CMP 005 Symmetric Air-Spaced Two-Element Condenser Lens (0.3-3.0 Conjugate Ratio Range); $f = 15.0$ mm, dia = 22 mm Paraxial Focal Length: 15.0 ± 0.3 mm Material : LEBG Original Unit Price: \$125.00
PM1015 \$25.00

PRECISION COLLIMATING & FOCUSING LENS FOR VISIBLE & NEAR IR DIODE LASERS

Manufacturer's part# 06 GLC 002 /1300. Original unit price: \$313.00. Diameter of 14.3mm with a clear aperture of 8mm, focal length is 8mm. Design wavelength is 830nm with a range of 670-1550nm. Wavefront distortion is 1/4 wave, working distance of 1.13mm, housing length is 10.79mm. Has a yellow AR coating for 830nm.
PM1027 \$65.00

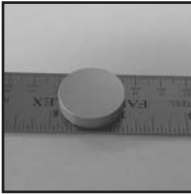
Prec Optics-Mirrors

PRECISION FUSED SILICA 12.5MM SQUARE 1/10TH WAVE FLAT MIRROR



Manufacturer's part #02 MPQ 002/02812.5-mm Square Mirror. Material : Fused silica with UV Enhanced Aluminum. 6mm thick. Original Unit Price: \$45.00 (before coating). Wavelength: 400-800 nm.
PM1012 \$12.75

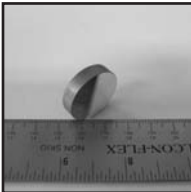
PRECISION 25MM 1/20TH WAVE FLAT FUSED SILICA MIRROR



Manufacturer's part #02 MLQ 011, original unit price: \$104 (with basic coating - these are UV Enhanced Aluminum). Wavelength Range is visible, near IR between 400-800 nm. 6mm thick with a clear aperture of 22.5mm. Parallelism is 3 arc minutes and surface quality is 20-10 scratch and dig. An amazing price for a 1/20th wave fused silica mirror!

PM1019 \$35.00 or 10 for \$300.00

PRECISION 25MM 1/10TH WAVE FLAT FUSED SILICA MIRROR



Manufacturer's part# 02 MLQ 007. Original unit price: \$63 (with basic coating -these are Enhanced Aluminum). Wavelength Range is visible, near IR between 400-800 nm. 6mm thick with a clear aperture of 22.5mm. Parallelism is 3 arc minutes and surface quality is 60-40 scratch and dig. An amazing price for a 1/10th wave fused silica mirror!

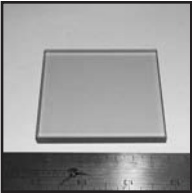
PM1020 \$25.00 or 10 for \$200.00

Precision Optics-Misc

PRECISION IRIS DIAPHRAGM 48.5MM DIA, 1MM-30MM (ID)



Manufacturer's part # 04IDM017. Tab actuated. Smooth adjustable tab lever on this 10 leaf, black anodized aluminum design. 7mm thick. Edmund sells a similar one for \$52.75. Unused
PM1001 \$18.00

PRECISION 75MM SQ TEMPERED HEAT ABSORBING SCHOTT KG1 GLASS

Manufacturer's part# 03 FHA 035, original price \$98. These are 6.5mm thick with 93% transmission at 375nm. Maximum operating temperature is 300 degrees C or 572 degrees F. They have a felt polished surface finish. New/Unused.

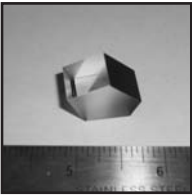
PM1011 \$15.00

*Precision Optics-Prisms***PRECISION RA PRISM, FACES: 50MMX50MM, 70MM HYPOTENUSE**

Manufacturer's part #01 PRS 034. Original unit price: \$183.00. Made of BK7, 1/2 wave at 632.8 nm over clear aperture (45mm). Angle tolerance is +/- 3 arc minutes, surface quality 60-40

scratch and dig. Unused.

PM1035 \$42.50

PRECISION PENTA PRISM 12X13MM CLEAR APERTURE

Manufacturer's part#01 PPA 005. Original unit price: \$100. Reflectivity is >88% face from 400 to 800nm. Made of BK7 glass, surface flatness is 1/2 wave at 632.8 nm over 90% of edge dimension. Penta prisms are 5 sided prisms that reflect light rays thru a 90 degree angle by 2 reflections. They do not invert or revert the image. The reflecting surfaces are alu-

minized and protected by black paint. Unused.

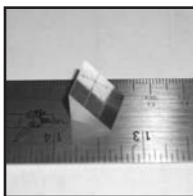
PM1038 \$25.00

PRECISION RA PRISM 50.8MM X 70.8MM X 50.8MM

Manufacturer's part number: 01 PRS 035. Original unit price: \$187. Made of BK7 glass, faces are 50.8mm x 50.8mm, hypotenuse is 70.8mm. This uncoated prism is 1/2 wave @ 632.8 over clear aperture of 45.7mm.

Angle tolerance is +/- 3 arc minutes, surface quality is 60-40 scratch and dig. Unused

PM1045 \$34.00

NEW! PRECISION 12.7MM RIGHT ANGLE PRISM UNCOATED

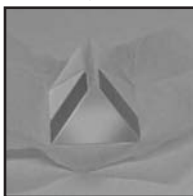
Manufacturer's part #01 PRS 011. Original unit price: \$36.00. Made of BK7 glass, edge dimensions are 12.7mm square, hypotenuse is 17.5mm. Clear aperture of 11.4mm, angle tolerance is +/- 3 arc minutes. Surface quality is 60-40 scratch and dig. Unused! We have a large quantity if you want to incorporate them into your project! Buy a few and save!

PM1048 \$5.00 or 10 for \$30.00

Prisms**TINY PENTA PRISM**

A beauty, only 20.3mm long with faces of 13mm square. Surfaces have not been aluminized.

L1676 \$5.00

BK7 EQUILATERAL PRISM

These prisms have equal 60 degree angles and are used to disperse light into its constituent colors. Made of BK7 Optical glass. Index of Refraction is 1.517. 25mm x 25mm x 25mm. 60/40 surface quality with 1/2 wave accuracy. Angle is within +/- 5 arc min. Unused.

L1851D \$7.50

F2 EQUILATERAL DISPERSION PRISM

These prisms have equal 60 degree angles and are used to disperse light into its constituent colors. 35mm x 35mm x 35mm. Made of F2 optical glass. The higher the refractive index of the prism material, the greater will be the separation of wave length. Index of Refraction is 1.620. 60/40 surface quality with 1/2 wave accuracy. Angle is within +/- 5 arc min. Unused.

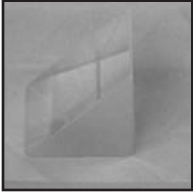
L1885D \$19.50

SF2 EQUILATERAL DISPERSION PRISM

These prisms have equal 60 degree angles and are used to disperse light into its constituent colors. 25mm x 25mm x 25mm. Made of SF2 optical glass. The higher the refractive index of the prism material, the greater will be the separation of wave length. Index of Refraction is 1.648. 60/40 surface quality with 1/2 wave accuracy. Angle is within +/- 5 arc min.

Unused

L1886D \$19.50

RIGHT ANGLE PRISM 30MM X 42MM X 30MM

Made of BK-7 optical glass. Length & width are 30mm, and hypotenuse is 42mm. Right angle prisms are used to achieve a 90 degree light path bend. The image will be erect and reverse left to right. Can also be used in combination for image/beam displacement. These are unused and have surface quality of 60-40, dimensional tolerance of ± 0.2 arc min, angle and pyramid tolerance of ± 3 arc mins, and surface flatness of about $1/2$ wave.

L2001D \$12.00

MEDIUM SIZE DOVE PRISM

42.25mm long by 10mm wide by 10mm high. Face is 14.15mm by 10mm. Dove prisms are also called image rotators because if you look through the prism and rotate it about a longitudinal axis, the image rotates through an angle twice as much as the prism. Unused. Made of BK-7 optical glass. Surface finish 60-40 with $1/2$ wave flatness.

L2002D \$12.00

COATED LITTROW DISPERSION PRISMS

30-60-90 degree prisms. 37.9mm long by 22mm wide and 22mm high. One surface is coated with $AlSiO$ and protected with black paint. It diverts the beam by 60 degrees without inverting or reverting the image. Unused. Made of BK-7 optical glass with surface quality of 60-40 and flatness of $1/2$ wave.

L2003D \$14.00

RIGHT ANGLE PRISM 25MM X 35MM X 25MM

Made of BK-7 optical glass. Length & width are 25mm, and hypotenuse is 35mm. Right angle prisms are used to achieve a 90 degree light path bend. The image will be erect and reverse left to right. Can also be used in combination for image/beam displacement. These are unused and have surface quality of 60-40, dimensional tolerance of ± 0.2 arc min, angle and pyramid tolerance of ± 3 arc mins, and surface flatness of $1/2$ wave.

L2004D \$9.00

RIGHT ANGLE PRISM 20MM X 28MM X 20MM

Made of BK-7 optical glass. Length & width are 20mm, and hypotenuse is 28mm. Right angle prisms are used to achieve a 90 degree light path bend. The image will be erect and reverse left to right. Can also be used in combination for image/beam displacement. These are unused and have surface quality of 60-40, dimensional tolerance of ± 0.2 arc min, angle and pyramid tolerance of ± 3 arc mins, and surface flatness of $1/2$ wave.

L2005D \$8.00

15MM PENTA PRISM

Penta prisms are 5 sided prisms that reflect light rays thru a 90 degree angle by 2 reflections. They do not invert or revert the image. The reflecting surfaces are aluminized and protected by black paint. This one has 15mm square faces. These prisms also shorten the length of an instrument. Made of BK7 optical glass with 60/40 surface quality, dimensional tolerance of ± 0.10 mm, angle tolerance of ± 5 arc mins, and $1/2$ wave flatness. Unused.

Edmund sells similar prism for \$72.50

L2097D \$25.00

25MM PENTA PRISM

Penta prisms are 5 sided prisms that reflect light rays thru a 90 degree angle by 2 reflections. They do not invert or revert the image. The reflecting surfaces are aluminized and protected by black paint. This one has 25mm square faces. These prisms also shorten the length of an instrument. Made of BK7 optical glass with 60/40 surface quality, dimensional tolerance of ± 0.10 mm, angle tolerance of ± 5 arc mins, and $1/2$ wave flatness. Unused.

Edmund sells similar prism for \$99.00

L2098D \$39.00

45 DEGREE REFLECTION PRISMS

These 3 sided prisms are used to deflect a beam thru a 45 degree angle. Shortest side is 19mm by 19mm, and the longest side is 32.5mm long by 19mm wide. Made of BK7 optical glass with 60/40 surface quality, dimensional tolerance of ± 0.20 mm, angle tolerance of ± 5 arc mins, and $1/2$ wave flatness. The larger reflecting surface is aluminized and protected by black paint.

Unused.

L2099D \$7.50

RIGHT ANGLE PRISM 10MM X 14MM X 10MM

Made of BK-7 optical glass. Length & width are 10mm, and hypotenuse is 14mm. Right angle prisms are used to achieve a 90 degree light path bend. The image will be erect and reverse left to right. Can also be used in combination for image/beam displacement. These are unused and have surface quality of 60-40, dimensional tolerance of ± 0.2 arc min, angle and pyramid tolerance of ± 3 arc mins, and surface flatness of $1/2$ wave.

L2100D \$4.50

LARGER 45 DEGREE REFLECTION PRISMS

These 3 sided prisms are used to deflect a beam thru a 45 degree angle. Shortest side is 25mm by 40mm wide, and the longest side is 43mm long by 40mm wide.

Made of BK7 optical glass with 60/40 surface quality, dimensional tolerance of ± 0.20 mm, angle tolerance of ± 5 arc mins, and $1/2$ wave flatness. The larger reflecting surface is aluminized and protected by black paint. Unused.

L2102D \$15.50

TINY RIGHT ANGLE PRISM

Sides are only 9.6mm square and the hypotenuse is 13.8mm

L2132 \$2.25

AMICI ROOF PRISMS

Amici prisms invert the image and bend the line of sight thru a 90 degree angle. They are excellent as prism diagonals in optical systems because they erect the inverted image. Can be used with your telescope as a diagonal that keeps correct left/right orientation. Face is 20mm long. Prism is 34mm long by 18mm wide.

L2146 \$12.50

WEDGE PRISM 27MM X 19MM X 14MM

Not sure what these were designed for as they are polished on the two longest sides, but only ground on the shortest side. Longest sides are 27mm and 23mm. Shortest side is 14mm. Width is 19mm. Like new.
L2171 \$5.00

RHOMBOIDAL PRISM, 60MM LONG

Coated Rhomboidal prism, 60mm long, 15mm thick, and 15mm high. 0 degree light deviation. Displaces image according to length of prism. Image position remains parallel to the old line of sight.

Image is neither reverted nor inverted. Unused
L3011 \$18.00

UNUSED 6X30 BINOCULAR PORRO PRISMS

Quality porro prisms made for 6x30 binoculars. If you've been looking for replacement you are in luck. Or use them to create a full spectrum rainbow from a ray of sunlight. Base is 43mm long, height is 21.25mm, and width is 21mm. Mint condition

L3023 \$4.00

SPECIALTY 25MM RIGHT ANGLE PRISM

Hypotenuse is 25mm long by 20mm wide. One side is 23mm long and the other is 16mm. Prism is flattened at the top and has a bevel at the bottom. Clearly designed to go into a specific optical

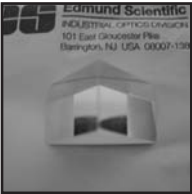
device. Unused.

L3026 \$2.50 or 5 for \$10.00

90 DEGREE AMICI PRISM ASSY FOR NIGHT VISION

Made for one of the military night vision scopes, this 90 degree assembly has a beautiful 45mm long amici roof prism, a 2" optical window, and a negative lens assembly. If you have the scope these were made for (we don't know which one), you need this. If not get it for the components, especially the amici prism which inverts the image and bends the line of sight thru a 90 degree angle. Amici prisms are excellent as prism diagonals in optical systems because they erect the inverted image and can be used with your telescope as a diagonal that keeps correct left/right orientation.

L3082 \$15.00

EDMUND SCIENTIFIC RA PRISM, 13 X 23 X 16MM, ALUM

These are commercial quality right angle prisms made by Edmund Scientific. Their part number is 32,286. Each face is 13mm by 16mm and the aluminized hypotenuse is 23mm long by 13mm wide. Right angle prisms are used to achieve a 90 degree light path bend. Listed in the 2000 Edmund catalog for \$27.15 each. Unused in original packaging. Hypotenuse is aluminized on the outside so it can also be used as a 45 degree mirror.

L3124 \$6.00

MOUNTED ERECTING PRISM ASSEMBLY

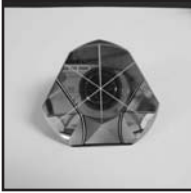
Well made mounted two prism erecting assembly is what you need for building a spotting scope or monocular. Assembly is 15mm thick and 28mm diameter and the view openings are 9mm diameter.

L3125 \$5.00

RIGHT ANGLE PRISM 15MM X 21MM X 15MM

Made of BK-7 optical glass. Length & width are 15mm, and hypotenuse is 21mm. Right angle prisms are used to achieve a 90 degree light path bend. The image will be erect and reverse left to right. Can also be used in combination for image/beam displacement. These are unused and have surface quality of 60-40, dimensional tolerance of +/- 0.2 arc min, angle and pyramid tolerance of +/- 3 arc mins, and surface flatness of 1/2 wave.

L3152D \$5.00

UNUSED 60MM CORNER CUBE RETROREFLECTOR PRISM

These corner cube retroreflectors (trihedral prisms) reflect any beam entering it back to its source, regardless of the prism's orientation. Used in surveying, precision alignment, etc. There are three total internal reflections within the corner cube. Unused beauties. Rear and sides are aluminized for high reflection. 60mm across and 49mm deep.

L3339 \$39.50 or 3 for \$99.99

COMPLETE PRISM KIT

Kit of the most popular prisms. All are unused and made of BK7 optical glass (except the corner cube-not sure which glass it's made of). Kit includes: 25mm Equilateral Prism, 22mm x 38mm x 22mm Littrow Dispersion Prism, 30mm Cube Beamsplitter, Right Angle Prism 20mm x 28mm x 20mm, 45 degree Reflection Prism 19mm x 32.5mm x 19mm, 15mm Penta Prism, Dove

Prism 10 x 42 x 10, 60mm Corner Cube Retroreflector Trihedral Prism, and carrying case. Elsewhere, just one of these prisms could cost you more than our price for the entire set.

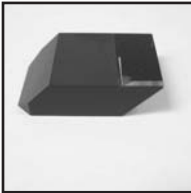
L3353 \$98.50

MOUNTED MILITARY 7X50 BINOC ERECTING PRISM ASSEMBLY

These are the right assembly for one of the military 7x50 binoculars. Well made mounted two prism erecting assembly is what you need for building a spotting scope or monocular. Two mounted porro prisms, 2 inches long by 1 inch high. Assembly is 2-1/2 inches thick by 2-1/2" diameter and the view openings are 1 inch diameter. Unused in original govt. packaging dated 1953.

Also could be a military collectable.

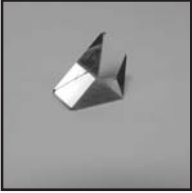
L3358 \$12.00

RHOMBOID PRISM, 40MM X 25MM, CTD

This looks and works like a mini periscope. Coated Rhomboidal prism, 40mm long, 25mm wide, and 10mm thick. 0 degree light deviation. Displaces image according to length of prism. Image position remains parallel to the old line of sight. Image is neither reverted nor inverted. Center and sides are blackened so the 25mm x 10mm top and bottom view thru portion

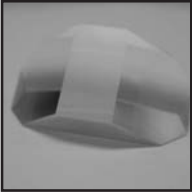
has no interfering images. Unused

L3362 \$15.00

SMALL PORRO ABBE PRISMS

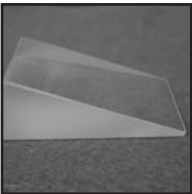
This is a type of porro prism system called the Abbe system, often referred to as a double right angle prism. It consists of a single prism which is 3 prisms in one. Two of them make an erecting system. Great to experiment with. 16mm long by 8mm wide.

L3417 \$2.50 or 10 for \$19.50

AMICI ROOF PRISMS, 40MM LONG

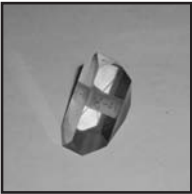
Amici prisms invert the image and bend the line of sight thru a 90 degree angle. They are excellent as prism diagonals in optical systems because they erect the inverted image. Can be used with your telescope as a diagonal that keeps correct left/right orientation. Face is 22mm long. Prism is 40mm long by 22mm wide. Edmund's smaller one sells for \$108.30!!

L3433 \$10.50

WEDGE PRISM 68MM X 36MM X 24MM

Longest sides are 68mm and 64mm by 36mm wide. Shortest side is 24mm. Like new. The two longest sides are polished with a 20 degree angle. Unused.

L3442 \$8.00

QUALITY AMICI ROOF PRISM, 35MM LONG

Amici prisms invert the image and bend the line of sight thru a 90 degree angle. They are excellent as prism diagonals in optical systems because they erect the inverted image. Can be used with your telescope as a diagonal that keeps correct left/right orientation. Face is 18mm X 20mm long. Prism is 35mm long by 18mm wide. We got an incredible buy on these and our price reflects it. Unused.

L3565 \$7.50 or 10 for \$60.00

UNUSUAL ROTATING OR INTERMITTENT PRISMS

Our understanding is that these were used in high quality moving picture projectors. They take the place of a shutter so that a flickerless picture may be projected. 8 sides, each is 12mm long by 5mm wide. Prism is 15mm diameter by 12mm long.

L3997 \$12.00

Radio/Electronics

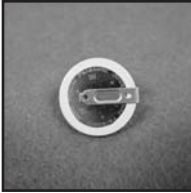
TELEPHONE DIAL



Standard telephone dial before touch tone. Made by Northern Telecom, unused in original box. We understand that these are quite useful in conjunction with stepper motors, or a nice display piece in your "shack".

M1511 \$5.50

PANASONIC LITHIUM COIN BATTERY #BR2032



Panasonic battery #BR2032 is a 3 volt, coin type lithium battery. These are surplus but unused. The BR2032 has extremely small self-discharge for long service and shelf life. They are used in cameras, calculators, watches, and lots of other electronic devices. If you need them, here is your inexpensive source.

M2142 \$0.50 or 10 for \$3.50

PC KEYBOARD CABLE EXTENDER - 6' 5-PIN DIN MALE/FEMALE



Manufactured by Woods Industries, this 5-pin DIN male to female 6' 5mm diameter light gray cable lets you extend your existing keyboard cable, allowing for more flexibility and comfort. This #5988 model is designed for standard PC keyboards (not adaptable to PS/2-type keyboards). New in original plastic-covered hanging card.

M2198 \$2.00

LITRONIC ARGUS 2202 PCMCIA READER



This is a parallel port attached two socket Pccard Reader. Designed as a desktop interface for users of Pccards such as the Fortezza secure token. The Fortezza secure token is used to provide e-mail security across the internet for selected Department of Defense users. It's IBM PC compatible. The unit connects into your computer's printer parallel port, and your printer

connects to the reader's printer port. Included is an AC adapter that supplies 15VDC at 800mA. Drivers are available from www.litronic.com for Windows 95, NT, and 98. Power supply and parallel cable alone is worth our price for the complete unit. Unused in original packaging.

R2032 \$19.50

CR1002 COMMUNICATIONS RECORDER

The CR1002 is a voice recorder, time code generator and analysis unit all in one. Compact, rugged and versatile voice logging communications recorder. Designed to withstand vibration, dust, rain and extreme temperatures, the CR1002 incorporates the patented POSILOCK 1000 cassette tape transport mechanism, engineered to operate under the severe environmental conditions found in airborne, mobile and manpack operations. Here are some of the features: Uses standard cassettes; Auto reverse recording or continuous loop recording, selectable from the keyboard; Dual speed operation, keyboard selectable, 1-7/8 ips or 15/16 ips; Built-in-time code generator and reader, with time search; Extensive self-test (BITE); Automatic recording (VOX, COR); Auto replay, cue and review facilities; Real time clock with battery back-up. The recorder has microprocessors controlling its functions to ensure versatility and ease of use. Made by Signal Design, Inc for the military (They were bought by Dynamic Instruments, San Diego, CA) and while no longer manufactured, it is still supported. Will accept any power source from 12VDC to 28VDC. Unused with operator manual. Does not include cables or wiring diagrams. Original cost was \$3000.00

R1440 \$175.00

OMNI DIRECTIONAL SCANNER DIPOLE ASSEMBLY

Wide band scanner antenna vertically polarized 8 element omnidirectional dipole assembly. Stands about 6 feet high. Attach your cable and mast and you should get great reception from the lowest scanner frequencies to the highest.

R1444 \$14.50

CONTELCO-GUARD DETECTOR

Type ME-400 detector with 14" antenna. Not a clue what this is for but our guess is that it's some kind of detector in the 140 to 150MHz area. On the bottom it says "This device should be used for the both of ME-418, ME-450 with product number over three thousands." (Whatever that means). Has 3 circuit boards and a few components and power connector on the side.

Metal case is 5-3/8" x 2-3/8" x 1-3/4" high. If you can figure out what its for, it's a steal at 4 bucks. Or use the case and antenna for your own project. They look new.

R1455 \$4.00

U.S. ARMY VEHICLE TEST METER



Model STE/ICE-R made by G.E. or RCA for the Army. The instrument is a versatile diagnostic tool for testing and taking measurements on vehicle engines as well as many other types of electrical and mechanical equipment. Unfortunately we don't have the cables or optional transducers that came with the original unit, but we do have the complete Technical Manual which

will be included with each order. There are lots of tests that can be set up with the 2 digit test select switches. Digital readout for test results.

These are in like new condition and cost our government \$7248.00 each and we have them at an unbelievably low price. You'll have to get creative to replace the cables if you want to use it as designed, but the instrument is loaded with military spec parts and uses are probably limited only by your imagination. Sorry, but we are not allowed to ship these outside the United States.

R1466US \$35.00

FIRE ALARM SPEAKER/STROBE

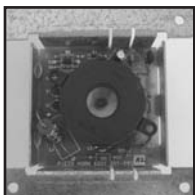


Unit has 4" x 2" strobe and 4" heavy magnet speaker with transformer. Transformer calls for 25 volts. Lots of components. Great unit to experiment with or use it as a replacement. Don't have the specs or the manufacturer's name. 6-1/2" long by 4-1/2" wide by 3" deep. Like new condition. Speaker alone is worth more than our price for the entire strobe unit. Take a look at all

3 photos to get a better idea of the quality.

R1470 \$7.50

PIEZO HORN SIREN ASSEMBLY



These are taken out of unused fire alarm systems. Can use anywhere from 3 to 24VDC to activate the Piezo horn. Very Loud!! Unit is 2-3/4" square and has mounting strips attached.

R1472 \$5.00

5" X 7" DUAL CONE SPEAKER



Has protective fabric covering. 3.2 ohms, 8 watts. Heavy magnet. 4 mounting holes.

R1477 \$4.00

MOUNTED 2" DIA 8 OHM SPEAKER

Made by Shogyo. 8 ohm speaker, 2" diameter, 0.2 watts. Looks like it was made to fit on a computer circuit board. Has plastic mounting with feet to snap in place. Has 6" leads.

R2012P \$0.75 or 10 for \$5.00

PUSH TO TALK CB HAND MICROPHONE

Blue Bird hand CB microphone. Features shielded coiled cord with 4 pin plug. Has 2-1/2" long push to talk switch and variable Min/Max voice control. Unused.

R2018P \$5.00

PLANTRONICS SP-66/DEC HEADPHONE/MIKE HEADSET

We had these before and sold out. Just got more in. This is great for taking phone calls hands free, or use with your computer. Has an adjustable headband and mike boom. Standard handset MOD plug on the end of the 6 foot cord. Dynamic headphone and FET mike. Unused.

R2019P \$5.00

FIRE ALARM STROBE UNIT

4" x 2" strobe with lots of electronic components. Has two 7" long wires to go to power. We believe 25 volts is the power requirement as these were made to be part of our R1470 complete Fire Alarm/Speaker Strobe unit. Great unit to experiment with or use as a replacement. Don't have the specs or manufacturer's name. Like new.

R2033 \$3.50

REPLACEMENT MULTIMETER METER

Made by Q.V.S., Inc. with a NSN 6625-00-656-2321 and Model number DAAB07-80-C-1730. This meter was made to go into one of the military multimeters that measures ohms, ac volts, and dc volts. The lined increment marker for ohms is every 2 ohms up to 30; 5 ohms per line from 30 to 50; 10 ohms per line from 50 to 100; 20 ohms per line from 100 to 200; and markers at 500, 1000, and 2000. FS=50UA. The dimensions are 3 1/2" diameter x 1 3/4" deep and has 3 mounting holes. Make your own multimeter with this? Unused in original box. **R2039 \$5.50**

TELESOUND STEREO FROM MONO TV

Solid state device designed to give high fidelity simulated stereo sound from your television's monaural signal. Use it with your walkman or portable TV. Made by TeleSound, Inc of NJ. This is a stereo amplifier with a matrix circuit that gives two channels, each with 7 watts RMS output. Has separate bass and treble controls and a balance control. Unused in original packaging with instructions, power adapter and cables. Nice looking. **R3035 \$22.50**

AUDIO/VISUAL FLASH CIRCUIT BOARD

Hook your audio speaker wires up to this circuit board and set it to flash with the rhythm of the music. 2 positions to mount Christmas type lights onto the back of the board and hook ups for your audio component output to the other side of the board. 2 potentiometers on the front are separated by a two position switch allowing control of the lights and intensity. Has a standard 2 prong ac cord to plug into your audio system and a 2 prong female plug to drive another device. Unused and a really original piece. **R3048 \$3.50**

DIGITAL DEC WRITER 90IP RECHARGEABLE NICAD BATTERY PACK

Digital product code LJ90X - AP. This NiCad replacement battery pack is meant for Digital's DEC Writer 90iP mid-1990's portable inkjet printers. Unused, with vinyl case and installation instructions, in the original sealed plastic hang pack. 12VDC nominal voltage, 600 mAh capacity (1 hr. charge), 1A operating current, 6 hours/150 mA recharge in printer. Unused. **R3095 \$10.00**

LARGE ANALOG DEMONSTRATION MULTIMETER

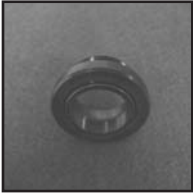
This is great for educational demonstrations. Unit has a plastic housing that is 12 inches high by 12 inches wide (including the control knobs) and 3-3/4" thick. Huge scale is 9" x 4". Includes 12 interchangeable scales as follows: 0-5V DC, 0-10V DC, 0-300V DC, 5-0-5V DC, 0-15V AC, 0-50V AC, 0-10mA DC, 0-100mA DC, 0-5A DC, 0-50mA AC, 0-500mA AC, and 0-1A AC. Basic movement is 5mA, 100mV. Frequency range is 10Hz to 20KHz. Has zero adjust knob on the side as well as clamp to protect the needle. New/Unused.

R3100D \$175.00

HEPPNER 3" SPEAKER

Quality speaker with heavy duty magnet. Made by the Heppner Manufacturing Company. Marked: "7501-2319" and "57550". That's all we know. Mounting ring has 4 holes and is 4-1/2 inches diameter.

R3169 \$3.50

Reticles**MOUNTED RETICLE, 22MM CLEAR DIA**

The top outside diameter is 37mm and the rear threaded outside diameter is 30mm and the assembly is 17mm long. Front and rear clear diameter is 22mm and there is an elaborate reticle pattern in the center. The reticle pattern consists of a + sign with vertical dashes which span through a series of 8 horizontal dashes with every other horizontal line marked with the numbers 8, 15, 24, 32. The horizontal dashes end here and the vertical line terminates with the number 42. Have no idea what application this reticle was used for but it looks military.

L3126 \$4.00

SQUARE VERTICAL HAIRLINE RETICLE

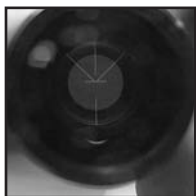
12mm square. Designed to be used with a military aiming circle. Made up of 2 pieces of optical glass. Refractive index of 1.5230 and 1.5838. Abbe constant of 58.6 and 46.0. Unused in original packing.

M1428 \$3.50 or 10 for \$25.00

27MM COLLIMATOR RETICLE

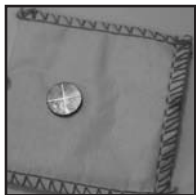
Concentric rings with center hole and cross hairs. Thin die-cut metal, black. We've been told that this makes a fine replacement for the reticle in the N3-C gunsight.

M1487 \$2.00

MOUNTED RETICLE ASSEMBLY

20mm diameter barrel by 33mm long with opening to light the reticle which is in the center of the barrel. Reticle has large inverted V with its tip in the center of the reticle. Small "v"s to the left and right of center. Also has vertical line towards center of the V. Unused.

M1530 \$5.00

8.6MM DIA CROSSHAIR

This is glass, 8.6mm diameter by 1.2mm thick with a metal coating on one side with a crosshair in the center. Only light thru the crosshair gets seen.

M2055 \$0.75

21MM GLASS RETICLE COMPLEX CROSSHAIR SCALE

Beautifully-made 21mm diameter x slightly over 1mm thick clear glass reticle. Ground and beveled edge. Scale has 20 graduations on the horizontal axis, with 0, 20, 40, 60, 80 and 100 values; 8 graduations on the vertical axis, no values. Unused stock.

M2320 \$2.25

Telephones**REAL TOUCH TONE DESK PHONE**

Not a cheap hand held discount department store flip phone but a true desk phone with a real bell (with loudness control) and handset with removable microphone and earphone buttons. Great spare phone and super for classroom education.

M1589 \$8.00

HAND TELEPHONE WITH 9' MODULAR CORD

Great spare phone that plugs into those phone jacks you may have all over your house. Has tone/pulse switch, ringer on/off switch and power on/off. Doesn't have labels on the numbers or switches but we'll include a template. Lots of electronics in this (see our second photo). Use as a spare or take apart for the earpiece, microphone, ringer and components. Has two

circuit boards. Great for education to show the components of a modern phone. Coiled modular cord would cost you as much as our price for the entire phone with cord. Unused.

R2011P \$3.00

ITT SYSTEM 3100 EXECUTIVE TELEPHONE

This is an unused in the original box PBX compatible phone that has lots of great features. However, if you don't have the system to connect to, only the standard touch tone phone dialing will work unless

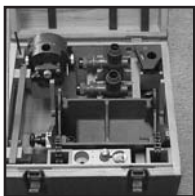
you become creative and figure out a way. Some of the features include: Voice mail, Speaker for handsfree operation, conference button, hold button, speaker volume control, background music, 8 programmable buttons and 3 fixed function buttons, mute button, ringer control and Call Transfer button. Model 281075/MOE/20M Pearl Grey. User's guide with operating instructions included. We did an internet search and found some selling for \$299.00.

R3033 \$19.00

*Telescopes***EYECCELL AND SLEEVE FOR M49 TELESCOPE**

Here are the original sleeve and eyecell for your M49 telescope! Original old stock in great condition! When combined the barrel measures 38mm long, the top (in the picture) opening measures 34mm (outside threaded barrel is 40mm), bottom inside threaded opening is 28mm (outer barrel is 40mm). Make that M49 like new!

B1019 \$6.00

LEITZ WETZLAR ARTILLERY COLLIMATOR

Superior Leitz optics. The main assembly is secured around the gun's barrel by two chains that fasten to the back of the housing. There are two Leitz scope assemblies with focusing eyepieces and unusually complex grid reticles. Has a precision rotary stage with fine control, several levels, and other accessories. This boresight collimator was clearly an expensive military device. Like new condition in its original wood case with Leitz and other markings. Weighs 60 pounds including the case.

T1469 \$225.00

LEITZ WETZLAR BORESIGHT TELESCOPE

Model A1A1. Unused beauty made in Germany with superb coated optics. Designed to align the military gun muzzles with the gunner's sight. Includes right angle erect viewing, a great focusing eyepiece and a unique precision reticle. Focuses from 3 feet to infinity. Reticle has crosshair with square grid throughout, and numbers & letters running vertical and horizontal on each side of center. Objective is only 15mm diameter but the instrument provides sharp correct wide field images. 9-1/2" long and right angle assembly is 5" long. If you've always wanted to have a Leitz military optical item, here's your chance and at a fraction of original cost.

T1483 \$75.00

MILITARY SIGHTING TELESCOPE

Made in Italy, this was designed to be attached to one of their military firing devices. Sighting Telescope No. 76. Gives 1.8X. Has a prism erecting system, coated optics and viewing is at a comfortable 60 degree angle. Eyepiece has reticle and rubber eye guard. Comes complete with battery operated light source that connects to the scope to illuminate the reticle. Takes 2 standard "D" cells. Includes original metal case.

T1491 \$65.00

RUBBERIZED ROOF PRISM 8X21 MONOCULAR

We had these before and sold out. Coated glass optics. Achromatic 21mm cemented doublet objective lens and 3 element focusing eyepiece. Coated optics. Roof prism gives erect image. Rubberized and extremely compact. Only 3-1/2" long by 1" diameter. 128M/1000M. Easily fits in pocket or purse. Includes hand strap and cleaning cloth. Great to take to a play or concert. New.

T1494 \$9.00

18" BRASS TELESCOPE NEW WITH CASE

This is a very nice display piece as well as a great working telescope. We replaced the original poor quality objective lens with a new AR coated achromat, and this provides excellent views! We believe it is about 12x. Objective is 36mm diameter. Overall telescope length is 18". The length when retracted is 8-1/8". The brass on the barrel is covered with real leather (very nice when its really cold or really hot!). The wooden case is lined with felt and measures 8-1/4" x 3-1/8" x 3". On the top of the case is a brass anchor logo, similar to that of the Navy. Unused. Shipping weight is 3.5 pounds.
T1527 \$39.00

*Tools***SPHEROMETER**

Made of brass. Legs and screw are of stainless steel. Screw pitch 1mm, reading to 0.01mm. Three legged type. Has circular divided plate, vertical scale and micrometer screw. Use this to measure the radius of curvature of a lens or mirror. Unused.

M1535D \$15.00

PRECISION 2-1/2" DIAL INDICATOR, .0005" GRAD., LUG BACK

Ames model 303, jeweled dial indicator. Clear dial diameter is 2-1/2". Dial reading is 0-25-0. Graduation is 0.0005". Has adjustable "within tolerance" indicators. Lug-On-Center back. See second photo for back. With a little creativity, you could build a precision spherometer.

M2173 \$25.00

PRECISION 2-1/2" DIAL INDICATOR, .0005" GRAD., ADJ BACK

Ames model 303, jeweled dial indicator. Clear dial diameter is 2-1/2". Dial reading is 0-25-0. Graduation is 0.0005". Has adjustable "within tolerance" indicators. Adjustable back. See second photo for back. With a little creativity, you could build a precision spherometer.

M2174 \$25.00

Tubes

6198A VIDICON TUBE



Unused in original packing. Made by General Electrodynamics Corp. Made for industrial television applications. Features small size and simplicity. Utilizes magnetic focus and deflection.

R1428 \$22.00

AMPERITE DELAY RELAY 26N030T



Unused in original box. This may be an antique as the manufacturer address has only a 2 digit zip code. Has base wiring info on the box. Fits standard 9 pin miniature tube socket.

R1441 \$5.00

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VIP1001 \$49.00

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Unused, in mint condition. Will fit your M15 & M17 binoculars. Original B&L stock!

B1042 \$3.00 or 2 for \$5.00

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