

# THE SUBMINIATURE TIMES

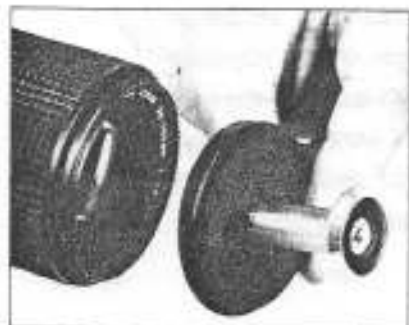
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Supporting 11D, 17.5mm, 16mm, 9.5mm, 8mm, 4mm, 1mm, Microdot, and Electronic Still Photography.

## Land A 180 Degree Fisheye Lens For Under \$10

If the cost of a fisheye lens isn't justified by the few times that you need one, make your own for a mere \$10. It's a simple attachment which fits over a conventional camera lens but it's priceless when you need infinite depth of field, a 180 degree panorama, or severe subject distortion. Of course, the quality you get won't equal that of an expensive commercially made lens, but the effect is stunning, nonetheless.

To conjure-up the "Fishflex 180" you need a drill, a black hard plastic lens cap, some epoxy glue, and a through-the-door peephole viewer, the type found in many apartment doors to allow those on the inside to see who's knocking. Make sure the one you choose gives a clear, fisheye view. You can find this type of viewer at a hardware store or get one from a locksmith.



**Build a snap-on fisheye** from a black plastic lens cap and a through-the-door peephole viewer.

Construction is straightforward: 1. Drill a hole in the center of your lens cap the same size as the diameter of the viewer's rear tube (base). 2. Unscrew the two parts of the viewer. 3. Epoxy the base of the viewer to the lens cap. The shaft should just fit through the drilled hole and protrude through the front of the cap. Mount the base of the viewer as straight as possible, otherwise the image circle in your photos will be off-center. 4. Screw the front (lens) portion of the viewer into the base and you're ready to begin shooting.

The particular lens cap and viewer combination you use will determine the focus of your fisheye. Most of these at-



**Get a new angle** on your friends and enemies with this home-made fisheye lens. Snap it on over your standard lens for a new weird wide world.

tachments I've tried work best on lenses having a focal length of between 50mm and 100mm. Try yours on a variety of focal lengths to see which you prefer. It takes a little time to get used to focusing on the dim image that you'll see through your viewfinder, a round image in the middle of your frame. The longer the focal length of your conventional lens, the larger this image circle will be.

Don't be dismayed to find that your

meter has been thrown off by the fisheye attachment. Try closing down two stops from what your meter reads with the "fishflex" on; if your camera is automatic, quadruple your exposure index (e.g. expose 100 ISO film at 400 ISO).

If you want a lens cap to protect your "fishflex" when it's not in use, simply cover its lens with a plastic film can. A rubber band will hold it firmly. —J. KEVIN WOLFE, (Cincinnati, OH)



**Print it fast:** Samsung CP6000 prints one or multiple images from video in under 45 seconds.

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Telex 482986 minox d

# PRESS RELEASE

## From Minox C to TLX

The electronic revolution began as early as 1969 at Minox. The new Minox C was the first camera of its kind with an electronic exposure meter and remained a top-selling product for almost a decade. In contrast, the mechanically operated BL model featuring shutter-coupled CdS exposure meter, introduced in the summer of 1972, remained a 'sleeper'.

Progress in electronics was at the heart of the new top-of-the-line model introduced in 1978: the Minox LX, which featured shutter speeds of up to 1/2000 second. After seventeen years in production this leader among subminiature cameras has now received a new look. Designated Minox TLX it has been available since summer 1995 in an anodized titanium body sporting black graduation scales and logo.

Since 1981 the Minox EC with fixed focus lens has been available for 8x11 formats, yet the camera is only slightly larger than the original Minox prototype. The slogan "Nobody needs more camera than this" was once again exemplified in 1992 by the Minox AX. This camera combines the solid mechanics of the legendary 'A' model with the subtleties of the 'LX': pure camera - no batteries, no electronics.

## From the smallest subminiature camera to compact role model

The 1970s witnessed a deluge of low-price compact-cameras flooding the market. Minox saw its subminiature business slacken, as its precision mechanics and high-grade optics could not be had at give-away prices. The company reacted by launching the Minox 110 S, which differed from run-of-the-mill pocket cameras in its high technical quality and special features, such as aperture priority automatic exposure and superimposed-image rangefinder. Minox courageously sought a market niche in the face of a slump in the field of view-finder cameras. At the 1974 Photokina world fair the Minox 35 EL, the smallest 35-mm-camera ever constructed, created a sensation among the professional audience and amateurs alike. The success of this compact model featuring aperture priority automatic exposure (AE) and a high-quality 4-element lens was overwhelming. Viewfinder cameras for the 35 mm format were in such high demand that Minox had trouble filling orders for years on end. Minox' decision to enter the 35 mm market constituted a decisive impulse triggering the continuing trend in the entire industry to make this the classic compact camera format.

## State-of-the-Art Development

To this day the successful miniature camera series has seen continual improvements. The Minox 35 GL (backlight switch) was introduced in 1979, the 35 PL (programmed AE) in 1982, the 35 PE (integrated computerized flash) in 1983, the 35 ML (aperture priority AE and programmed AE) in 1985, the 35 MB (aperture priority AE) in 1986, the 35 AL (fixed focus) in 1987, the Minox 35 GT-E (integrated skylight-filter, ergonomic design) and 35 AF (autofocus) in 1988, the 35 GSE (improved take-up spool and manual snapshot option) in 1991, the new M-series leader Minox 35 M-D-C (lightmetal body) in 1992, and in 1995, as top-of-the-line model of the G series, the Minox 35 GT-X (DX coding and snapshot option).

## PRESS RELEASE

## From the End, a New Beginning

Three decades of continuous and increasing success finally came to an end on January 1, 1989, when, as a result of the pressure from Asian competition, the price slump in the camera market, the weak dollar (50% of the business was in export!), and some ill-fated management decisions, Minox was forced to file for bankruptcy. Dr. Wilhelm A. Schaaf and Mr. Dirk Pfeil of Frankfurt/Main, two well-known trustees and experts in company restructuring, have managed to prevent the company's liquidation by implementing a major restructuring program while further developing the product-line and focusing the employees creative potential.

While steadfastly defending its home turf - the market for high quality miniaturized cameras - Minox has recently expanded its activities in the fields of know-how, optics, precision mechanics and electronics as a result of a series of customer contract work. This has created new and promising business opportunities. Miniaturization remains a cornerstone of the entrepreneurial concept. Further plans include the expansion of markets as well as joint-ventures and close cooperation with potent and qualified partners, that can synergize with Minox' corporate identity and philosophy. Minox is currently seeking a motivated and financially powerful investor, who will creatively and forcefully bring the company's innovational potential into play in new and existing markets.

Walter Zapp has also contributed his share of innovative potential. The 90 year old inventor developed a miniature telescope, which has been in production at Heuchelheim since 1990 as the Minox T 8. The Minox AX Gold and the Minox LX Gold, anniversary editions bearing a facsimile engraving of Walter Zapp's signature, bear witness to half a century of subminiature photography history.

The continuing affection for subminiature photography is also documented by the 1. German Minox Club, which has been active as an official society for three years and already numbers 350 members.

## Literature:

Hubert E. Heckmann: **"MINOX - Variations in 8 x 11"** 1st English language edition, 1995  
200 pages, 218 B&W illustrations, 22 full colour images. Format 21 x 26 cm. Cloth-bound, laminated jacket. ISBN 3-88984-153-8. This book is also available in German language.  
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## FREE CLASSIFIED

## 16MM REELS: NOT FROZEN

(450) 16mmx50' Plus-X Neg R.P.	
7206, Magazine 11/9 (can be respooled) or 10 for	10.00/ea
	75.00
(300) 16mmx100' Tri-X Neg R.P.	
7207 TXN 624 (Re-fills)	5.00/ea
Double Perf 6/95 (Qvt Date)	5.1/ 20.00
(200) 16mmx100' VIDEO NEWS	
7239 Ektachrome Double Perf	10.00/ea
VND 430 or 10 for	75.00
(100) 16mmx200' Recordak	
7460 Microfile Film	5.00/ea

S&G Photographic Equipment, 618 S. 62nd St., Phila., PA 19143  
(215) 474-7663, (215) 474-7665; FAX (215) 726-9761

## QUICKFINDER 4 / 96

GaMi-16 w/case.....	\$849 C
Minolta-16 QT w/flash.....	89 C
Minox IIs w/case.....	139 C
" B w/flash, box.....	195 K
" C.....	275 K
" Enlarger.....	200 M
"Russian & Soviet Cameras".....	36 K

C Cameta's	(516) 691-1190
K KOH's	(516) 933-7799
M Mac Camera	(310) 322-3433





## LETTERS

Mr. Al Doyle,

I thought you might be interested in these pictures of the "Spy-Tech" 110 spy camera. My son received the kit a few years ago for Xmas.

The kit includes a 110 camera, fake Good & Plenty box, right angle finder, case, and instruction book.

I have also enclosed a photo taken with the camera.

Sincerely,  
Ed Janoski  
Freeport, Pa.

Wow Ed!

This is great stuff. Nice sharp pictures on your part. Thanks for sharing them with us. Keep em coming.

Al Doyle

## FREE CLASSIFIED

FOR SALE Tessina \$695, Mycro \$79, Minox C \$195, Minox B \$139, Minolta-110Z \$69, Tasco Bino/Cam \$179, Elaine Speicher (516) 546-3513.



**Circuit Cooler**

■ Nonresidue formula ■ Cools circuits instantly for rapid location of heat related problems ■ Adjustable spray nozzle ■ 3 oz. ■ 12 cans per case

#20-221

Reg. Price ~~\$2.55~~Sale **\$2.25**

ROOKIE IN ARIZONA needed a way to cool Minox processing chemicals without carrying ice in a back pack.

We recommended Circuit Cooler. Spray the developer, water, and fixer bottles. A periodic spritz holds tank temps steady. MCM Electronics (513) 434-003

**GAMI***Italian Mini Precision Camera*

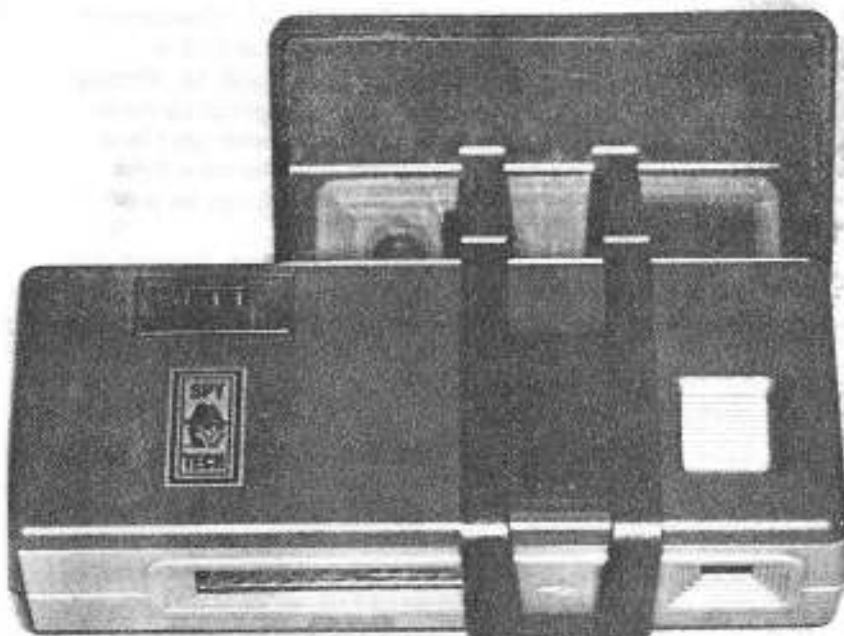
GET A GRIP on those inflating GaMi prices. Since the '91 Christies auction, dealers have been taking the fun out of this stuff. An original GaMi-16 Instruction Manual is now selling for \$100!

We'll send you legible photocopies of the set: Instruction Manual plus 9 "Books of GaMi" for \$19. (And if we ever locate book #10 Underwater Housing, we'll add it to the package at no price increase. Al)

- #1 Daylight Developing Tank
- #2 Enlarger
- #3 Spoolwinder
- #4 Film cutter
- #5 Frame viewer
- #6 Telelenses 4X and 8X
- #7 Copying Outfit
- #8 Microscope Adapter
- #9 Panoramic Adaptor

BACK ISSUES OF ST #16 THRU #20 are available once again, \$11 per set:

- #16. Automatic cameras. Printmaking secrets. Tom Thumb 110. MINOX field size and depth of field tables.
- #17. Mickey Mouse Cameras. Working cameras that fit on a teaspoon. D-19 data.
- #18. T-Max at E.I. 50,000. Build a PC-Contact flash switch.
- #19. The SNAP 16mm. Minox NB combines camera and tape recorder. Kodachrome and Kodacolor C-22 processing labs. You can build this see-in-the-dark viewer (plans).
- #20. Kodachrome magnified 100X. Dignan formula controls high contrast. "Never use a camera smaller than the bridesmaid's"



## EASTMAN KODAK 16MM FILMS

## EDITOR'S JOURNAL

NAME	SPEED	AVAILABILITY
UPL-4 Spectrographic	.01	K
649-F Spectrographic	-	Kodak France
1455 Catalog # 833-0896	50	K, J
1461 Catalog # 822-3232	25	K, F, J
2475 Recording Film	1000-3200	K
2479 RAR	400	K
2481 Cat # 170-2968 Infrared	-	K
2484 Pan Film Estar base	1000-3200	K
2485 High Speed Recording	5000-8000	K
2496 RAR Estar base	80	P
2498 RAR	250	K
3452 Catalog # 812-9322	6	K, J
3460 Catalog # 161-5590	10	C
3461 -	10	
5241 Ektachrome	160D	
5242 Ektachrome	125T	
7206 Plus-X (gun camera refill)	50	S
7207 Tri-X	125	S
7220 XT Pan Neg	25D-20T	
7222 Double-X Neg	250-200	K, B
7224 4-X Neg	500-400	
7229 R P Pan Neg	250	
7230 Background-X Neg	40-32	
7231 Plus-X Neg	80-64	
7233 Tri-X Neg	320-250	K
7234 Fine Grain Dup Pan Neg		K
7239 Ekta	160D	K, B
7240 Ekta Video News	125T	K, B, CG
7241 Ekta	160D	
7242 Ekta	125T	
7243 Intermediate II		
7244 Intermediate		
7245 Color Neg	50D	K
7247 Color Neg	100T	
7248 Color Neg	100D	K
7250 Ekta Tungsten	400T	
7251 Ekta High Speed	800D	
7252 Ekta	25T	
7256 Ekta	64D	
7272 Internegative II		
7276 Plus-X Reversal	50	
7277 4-X Reversal	400-320	B
7278 Tri-X Reversal	200-160	K, C
7291 Color Neg	100T	C
7292 Color Neg		CG
7296 EXR Color Neg	500T	
7297 Color Neg	250D	
7298 -		
7302 Fine Grain Positive		K
7360 Direct M.P.		K
7361 Reversal Print #190-5587		K, C
7362 High Contrast Positive		K
7366 Fine Grain Dup. Pos.		K
7373 Sound Recording II		K
7380 Low Contrast Color		K
7384 Color Print See ST # 87	25	K
7399 Ekta Print	25T	K
7454 Microfile	10	S
7460 Recordak	12	S

## The film list

This seems like a good time to update the file. In a recent phone call, a novice Echo-8 owner complained about the poor treatment that subminiature enthusiasts get from film sales people: misinformation, unreturned calls, etc. The misinformation isn't intentional. Kodak has been destroying the Specifications Sheets for older emulsions. Yes, there's a certain irony when a microfilm manufacturer doesn't keep microfilm records handy, but it's par for the course.

The speeds for color film should be followed, but the black and white film speeds can be largely ignored. For example, Kodak RAR 2496 recently became available. It is rated ISO 80, but works best at an exposure index of 500. The double perforations make it ideal for cameras like the Minolta-16 MG, or the Mamiya-16. 'Benchmark' Plus-X 7276 is rated 50. I use it at 400, in single perforated stock for the Rollei-16, Minolta-16 MGs, and other 12 x 17mm format cameras. I try to recommend 7245 to all color print fans because it's a lot sharper than the color films available for 110 cameras, and it can be processed at any local lab.

Gun camera refills are inexpensive. Keep in mind that 7206 comes in a magazine. It isn't difficult to dismantle if you can work with a screwdriver in the dark. Otherwise it's a hassle if you need your film in a rush.

Films in the 2400 series dry quickly, and can be processed at elevated temperatures without reticulation. (60 secs in Dektol 100F)

The main number for Steadi Systems is listed in case you live in Los Angeles, Chicago, Phoenix, or New York, and need Fuji, or Ilford film on a one hour basis. Needs vary.

Unreturned phone calls are also par for the course, Bunky. Keep your sense of humor and look at things from their perspective.

Film is usually sold by the case. Your Echo-8 is the world's greatest film miser. You can get two 8mm x 20 exposure rolls including leader and trailer from an 8" length of 16mm film stock.



A medium size 400' roll produces 24,000 pictures. If, like most people you only use your submini for holidays and pet tricks, a film salesman could have a long productive career and die of old age waiting for you to order the second roll. Subminiature lives!

Al Doyle

B Brent Esse (713) 526-6295 C Cam Exch (910) 326-1563  
 CG Columbus (614) 267-0686 F Filmex (703) 631-0600  
 J John Lane (713) 951-0774 K Kodak 1 (800) 242-2424  
 P Mr. Photo (717) 249-7913 S S. Trail (215) 474-7663  
 SS Steadi Sys (213) 461-8868