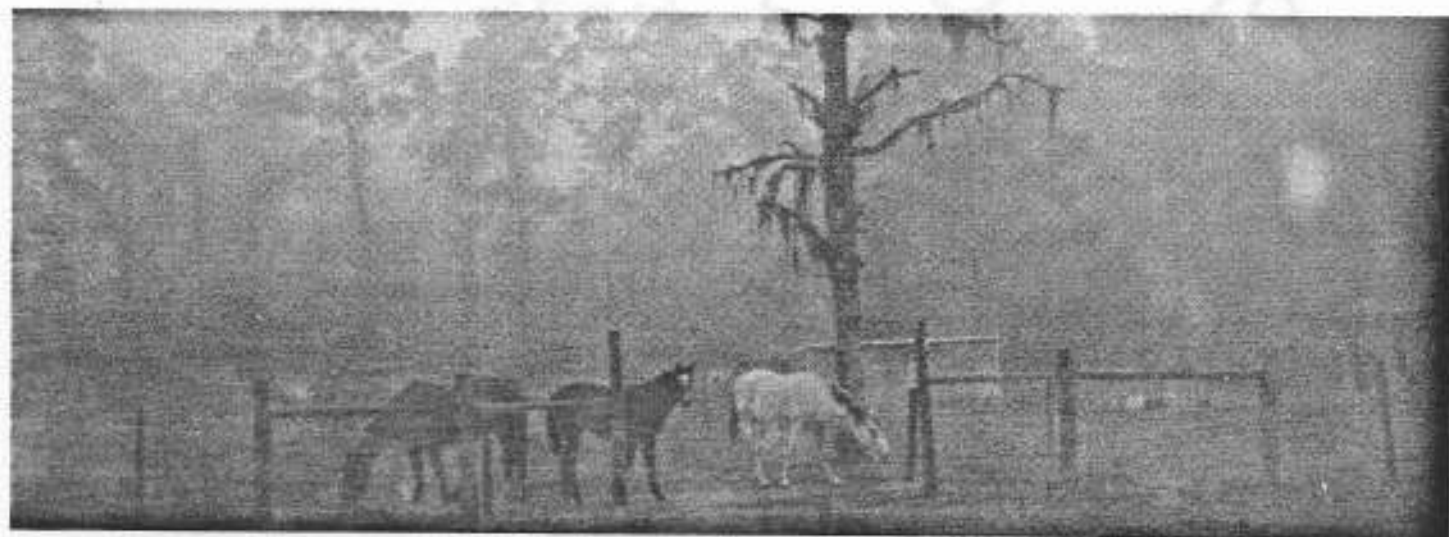


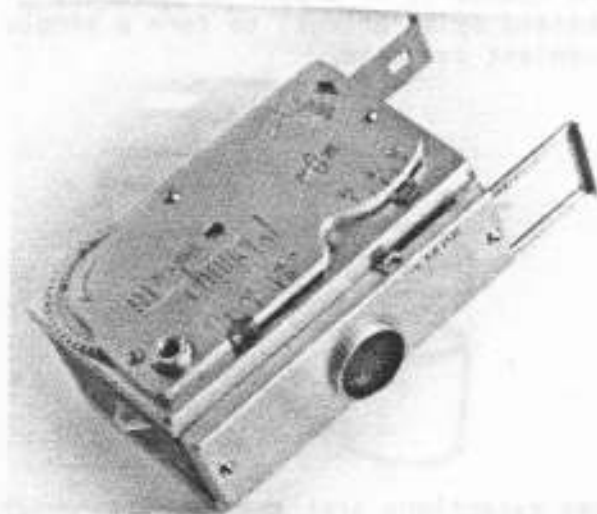
THE SUBMINIATURE TIMES

The Subminiature Times is published monthly by Doylejet, P.O. Box 60311, Houston, TX. 77205 (713) 440-4744

Supporting 110, 16mm, 9.5mm, 8mm, 4mm, 1mm, Microdot, & Electronic Still Photography.



SUPER MATCHBOX



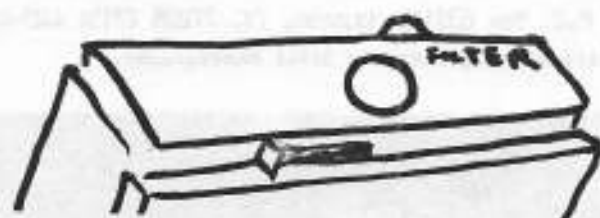
The Mamiya Super-16 is a vintage 1950 subminiature camera which produces a 10mm x 14mm image on perforated or unperforated 16mm film. It retained the severely angular shape of the 'matchbox' spy cameras that preceeded it, making it ideal for concealment, but a bit bulky as a pocket camera. It stood out from its contemporaries because of the high quality "Cute Anastigmat" 25mm/3.5 lens which could change focus by means of a sliding scale, or change apertures up to f/11 when differing amounts of depth of field were required.

The camera measures 2-9/16" x 1-3/4 x 1-3/16", and weighs 6-1/2oz. A complete kit consists of the camera, a case, a flash unit, two penlite batteries, flash bulbs, a lens brush, and a built-in yellow filter which was interchangeable. Also available was the \$13.50 Enlahead enlarger attachment which had a built-in condenser.

A frame indicator wheel counted up from 1 to 20. Since there is no mechanism to stop advancing the film at frame 20, it is possible to continue making exposures on longer than standard lengths of film.

The camera is as adept at copying as it is with portraits or landscape photography.

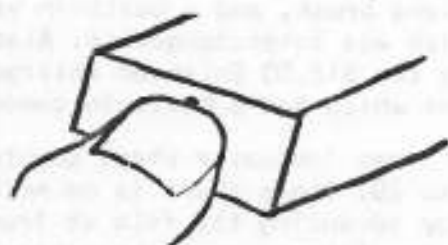




A labeled slide at the top moves the filter in and out of position in front of the lens. A bottom lever which is unlabeled, provides access to the filter drawer.

The flash contact is an unfortunate relic of the days before the European terminal became universal, but the threaded $\frac{1}{4}$ -20 hole makes an excellent tripod mount now.

To open the camera for loading, press the lock on the side.



Viewing with the Super-16 is via two all metal frames. The front frame activates a shutter lock when closed, to prevent accidental exposures. Note that the front frame has notches on it which correct for closeup parallax.

A common user modification is to remove the frames to conceal the camera in a cigarette wrapper. This could be done in about two minutes with a small screwdriver. The range of shutter speeds is from 1/200 down to $\frac{1}{2}$ sec. plus B.

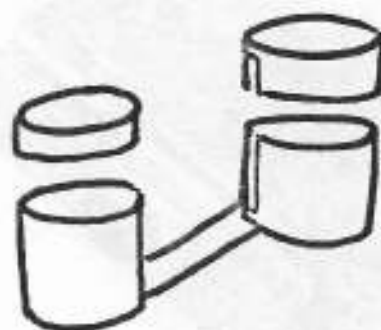
ROLL YOUR OWN

Subminiature cameras never standardized on a single film format. Even when subminiature was in vogue, few camera dealers carried a full supply of tiny roll films and films in the special cassettes from 8mm to 17.5mm.

At present only films for the Minolta, the 110, and the Minox are still available. And except for the Minox, the variety is limited.

To increase the versatility of a camera, and in many instances to be able to use an antique camera at all, it is important to know how to reload it with the film of your choice. This means cutting strips from 100' or longer rolls, down to lengths that will fit the camera.

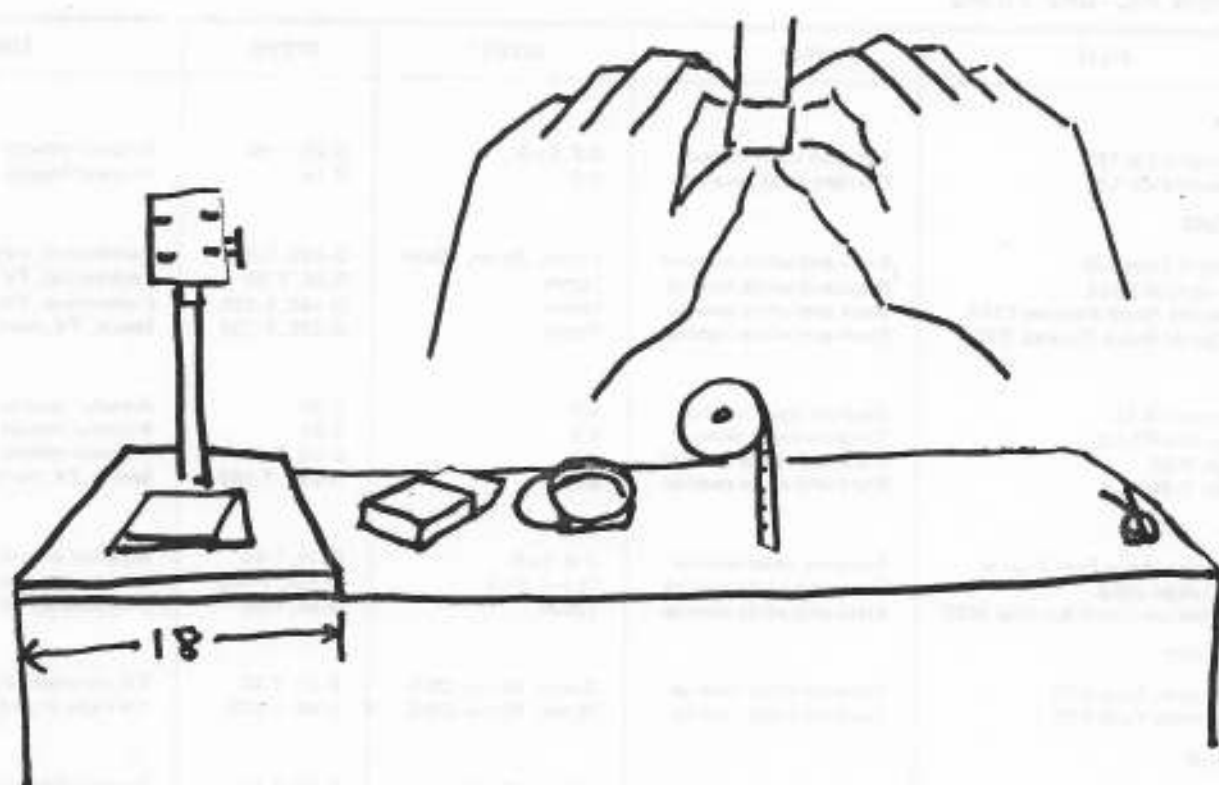
Most subminiature cameras use a short length of film which passes from a supply roll through the picture taking or 'live' area, to a takeup roll. To do this, the cameras use either two light-tight chambers, or a pair of chambers connected by a 'bridge' to form a single convenient cassette.



Some exceptions are: the Compass, which uses roll or plate film, disc cameras which have individual frames pasted into a plastic wheel, ring/watch cameras which use film that has been punched from 35mm stock, and paper backed roll film which we'll examine in depth at a later date, if there is any interest.

To reload a subminiature cassette, you will need: an empty cassette, a ruler, a pair of scissors, adhesive tape, and a bulk roll of film.

If you don't have a cassette for your camera, contact us at the address on the banner. A list of currently available films is on pgs. 4 and 5.



IN THE DARKROOM

Tape a ruler or an 18" measure to the table, and clean everything thoroughly: the work surface, the box of new film, the cassette to be loaded, and your hands.

If perspiration will be a problem use thin disposable plastic or rubber gloves. Be sure to rinse off any talc.

Lay out your materials in the order you will need them. The layout above works well for a right handed person working from the outside toward the center. Note that the overhanging enlarger is 18" wide, which eliminates the need to touch a ruler in the dark.

Memorize your layout before you turn off the light so that you put your hands only on what you need, in the order you need it.

IN TOTAL DARKNESS

Remove the film can or reel from the box. Cut off a few inches to remove any leader stock which may have film identification numbers punched into it. Let this drop to the floor.

Unreel another short length of film, and touching your guide with the backs of your fingers, get an 18" length. At this point lightly hold the end in your lips, leaving a hand free to use the scissors, and to return the film stock to the box.

Quickly rub your fingertips to remove any remaining lint. The dangling end of the film is now curled into a roll which will fit into the cassette. Estimating the correct roll diameter in total darkness comes with practice. Avoid cinching the roll to make it smaller. This is the fastest way to pick up scratches.



To put the roll of film in the supply side cassette, tilt it at an angle and use the leader to find the light trap slit.

Secure the supply side chamber top with adhesive tape, and check to make sure that the box of stock film has been closed properly. Turn on the light.

With the light on, tape the leader to the takeup spool and place it into the takeup chamber. Tape the takeup chamber securely and you're ready to load your camera. It's a five minute process, you can do it.

MOTION PICTURE FILMS

FILM	TYPE	SIZES *	SPEED	USES
AGFA				
Agfachrome CK-17S	Tungsten color reversal	D-8, Su-8	D-25, T-40	Amateur movies
Agfachrome CT-13S	Daylight color reversal	D-8	D-16	Amateur movies
DU PONT				
Superior-2 Type 136	Black-and-white negative	16mm, 35mm, 70mm	D-125, T-100	Commercial, theatrical, TV
Rapid reversal 930A	Black-and-white reversal	16mm	D-64, T-50	Commercial, TV films
High Speed Rapid Reversal 931A	Black-and-white reversal	16mm	D-160, T-125	Commercial, TV, news
Ultra Speed Rapid Reversal 932A	Black-and-white reversal	16mm	D-320, T-250	Sports, TV, news
FUJI				
Fujichrome R-25	Daylight color reversal	S-8	D-25	Amateur movies
Fujichrome RT-50	Tungsten color reversal	S-8	T-50	Amateur movies
Fujipan R-50	Black-and-white reversal	S-8	D-50, T-40	Amateur movies
Fujipan R-200	Black-and-white reversal	S-8	D-200, T-160	Sports, TV, home movies
GAF				
GAF Color Movie Film Type A	Tungsten color reversal	D-8, Su-8	D-25, T-40	Amateur movies
GAF Gafpan 2962	Black-and-white reversal	16mm, Su-8	D-500, T-400	TV news, sports, commercial
GAF Medium Speed Reversal 2955	Black-and-white reversal	16mm	D-64, T-50	Commercial, TV, instrumentation
GEVAERT				
Gevachrome Type 6.00	Tungsten color reversal	35mm, 16mm, DS-8	D-25, T-50	TV, commercial, studio
Gevachrome Type 6.05	Tungsten color reversal	35mm, 16mm, DS-8	D-64, T-125	TV news, studio, commercial
ILFORD				
FP-4 Cine Film	Black-and-white negative	35mm, 16mm	D-80, T-64	Studio interiors, TV
Mark-V Cine Film	Black-and-white negative	35mm, 16mm	D-250, T-200	Newsreel, TV, commercial
Pan F Cine Film	Black-and-white negative	35mm, 16mm	D-25, T-20	Exteriors, background plates

FILM	TYPE	SIZES *	SPEED	USES
KODAK				
Color Negative Type 5247, 7247	Tungsten color negative	35mm, 16mm	D-64, T-100	Professional motion pictures
Kodachrome 25 Daylight	Daylight color reversal	16mm, D-8, Su-8	D-25, T-8	TV, amateur movies
Kodachrome 40, Type A	Tungsten color reversal	16mm, D-8, Su-8	D-25, T-40	TV, amateur movies
Ektachrome Commercial 7252	Tungsten color reversal	16mm	D-16, T-25	Commercial, industrial, TV
Ektachrome EF 5241	Daylight color reversal	35mm, 16mm	D-160	Instrumentation, news, sports
Ektachrome EF 5242	Tungsten color reversal	35mm, 16mm, DS-8	T-125	Instrumentation, news, sports, TV
Ektachrome 160 Type G	Special color reversal	Su-8	T-160	Available light, amateur movies
Ektachrome 40 Type A	Tungsten color reversal	Su-8	T-40	Amateur movies
Ektachrome M5	Daylight color reversal	35mm, 16mm	D-64	Instrumentation, TV
Double-X Negative	Black-and-white negative	35mm, 16mm	D-250, T-200	Studio and exterior films
4-X Negative	Black-and-white negative	35mm, 16mm	D-500, T-400	News, sports, night exteriors
4-X Reversal	Black-and-white reversal	16mm	D-400, T-320	Sports, TV news
Plus-X Negative	Black-and-white negative	35mm, 16mm	D-80, T-64	Studio production, exteriors
Plus-X Reversal	Black-and-white reversal	16mm, Su-8	D-50, T-40	TV exteriors, amateur
RP Pan	Black-and-white negative	16mm	D-250, T-200	Instrumentation, news
Tri-X Reversal	Black-and-white reversal	16mm, Su-8	D-200, T-160	TV, sports, amateur movies
XT Panchromatic	Black-and-white negative	35mm, 16mm	D-25, T-20	Background plates, copying
Fine Grain Positive	Black-and-white negative	35mm, 16mm	Find by test	Titles, prints, diagrams
3M CORP.				
Panchromatic Reversal CR-64	Black-and-white reversal	16mm, Su-8	D-64, T-50	Production, commercials
Panchromatic Reversal CR-160	Black-and-white reversal	16mm, Su-8	D-160, T-125	TV, production, commercials
Panchromatic Reversal CR-250	Black-and-white reversal	16mm, Su-8	D-250, T-160	TV news, sports, available light

* D-8 = Double-8mm; S-8 = Single-8mm; Su-8 = Super-8mm; DS-8 = Double Super-8mm

Availability of films in various sizes subject to change without notice; check your dealer.

Color-negative (Print) Films

				Filter and ISO index for:		
	Availability	Processing	Daylight	Electronic flash	3,200 K lamps	3,400 K photo-floods
AGFA-GEVAERT						
Agfacolor 100	Rapid cassette	C-41	100	100	80B 32	80A 25
FUJI PHOTO FILM						
Fujicolor HR100	35-mm, 110, 126, 120	C-41	100	100	80B 32	80A 25
Fujicolor HR400	35-mm, 110, 120	C-41	400	400	80B 125	80A 100
Fujicolor HR DISC (ISO 200)	Disc	C-41	Not applicable	NA	NA	NA
KODAK						
Kodacolor VR 100	35-mm	C-41	100	100	80B 32	80A 25
Kodacolor VR 200	35-mm	C-41	200	200	80B 64	80A 50
Kodacolor VR 400	35-mm	C-41	400	400	80B 125	80A 100
Kodacolor VR 1000	35-mm	C-41	1,000	1,000	80B 320	80A 250
Kodacolor VR DISC (ISO 200)	Disc	C-41	200	NA	NA	NA
Vericolor II Professional, Type L	120, sheets	C-41	85B 64	Not recommended	81A 64	80 64
Vericolor II Commercial, Type S	120, sheets	C-41	100	100	80B 32	80A 25
Vericolor III Professional, Type S	35-mm, 120, 220, sheets	C-41	160	160	80B 50	80A 50
KONISHIROKU PHOTO IND.						
Konica Color Print SR 100	35-mm	C-41	100	100	80B 32	80A 50
Konica Color Print SR 200	35-mm	C-41	200	200	80B 64	80A 50
Konica Color Print SR 400	35-mm	C-41	400	400	80B 125	80A 100
Konica HR Disc (ISO 200)	Disc	C-41	200	NA	NA	NA
3M						
Color Print 100	35-mm, 110, 126	C-41	100	100	80B 32	80A 25
Color Print High Speed (ISO 400)	35-mm, 110	C-41	400	400	80B 125	80A 100
MINOLTA						
Minolta 16	16-mm	C-41	NA	NA	NA	NA
MINOX (E. LEITZ, INC.)						
Minocolor-2	Minox cartridge	Minox lab.	80	80	80B 25	80A 20
RITZ						
Ritz Big Print (ISO 100)	35-mm	C-41	100	100	80B 32	80A 25

LETTERS

Dear Mr. Doyle,

I enjoyed reading the newsletter you sent. Have you thought about starting a camera club just for subminiatures?

Jim Lewis
Houston, TX.

Dear Jim,

I'm glad you find the newsletter of value. I've had mixed luck with camera clubs. At one point four of us in school owned 10mm x 14mm subminiatures at the same time. Since we got together every day, we had daily assignments: low light copying, high key, extreme enlargements, and color processing (Anscochrome on plastic Ansco Printon). It was tough and intense. Mamiya against Minolta. That type of situation is fun when you don't have things like a job to impede your lifestyle.

When I was still in my teens I became a guest member of a respected photo club.

At the time, everyone else in the club was retirement age, or close to it. These were all large format folks. I mean large, format. One pro photographed locomotives with an 11" x 14" Deardorff. I was dying to to ask him what the projector looked like but I didn't want to sound stupid.

One night they had a guest speaker. The place was packed when I got there, and the only seat was on a windowsill next to a big noisy fan.

The speaker went on and on for hours about his 8" x 10" technique, and it was frustrating because I realized that I couldn't apply a single thing he said about the upkeep of brass fittings, negative retouching, tripod centerweights, etc.

At the first break I asked about a fine grain developer for miniature cameras. He said "Dektol. I cut it 1:1 for really fine grain." Someone else said "I heard that D-76 is good for the 2 1/2 cameras." And the speaker says angrily "I don't know how anybody can call himself a photographer playing with that stuff. Roll film is NEVER truly flat in the image plane. Take 35mm. If someone GAVE me a 35mm I'd chuck it out that window!"

He was really wired. And I'm sitting there hoping this guy doesn't have X-ray vision, because I had a Mamiya-16 in my shirt pocket and the window was wide open.

I never went back.

AL D.

Dear Al,

I thought subminiature was dead because I never see subminiature pictures around and I never see anybody with the little cameras. Keep up the good work.

Martin Dunlop
Fayetteville, NC.

Dear Martin,

Thanks for the pat on the back. Your letter gives me a chance to air a few things I always find difficult to explain to non-enthusiasts.

Probably the best reason you don't see subminiature work in the photo magazines is because photo editors prefer work that is crisp, sharp edge to edge, grainless, colorful, properly composed. Most people (That I've talked to) use subminiature for grab shots, or because their desire to work unencumbered or unobserved is greater than their need to produce crisp colorful work to share with the world.

On a personal basis, I wouldn't think of submitting most of my work for publication because subminiature is my exploration of the photographic process. I'd spend an entire afternoon shooting roll after roll on a single interesting subject in changing sunlight.

This pleasure is hard to explain to anyone who is paying \$2.79 for a 24 exposure roll of 35mm film, even after I point out that you get 17 exposures per foot of 16mm film, and ten 24 exposure rolls of microfilm in your pocket cost 60¢.

An unfortunate misconception by the general public is that any non-collector who is deeply involved with subminiature cameras is or was a spy. Catch-22 is that it doesn't make a difference what you say sometimes, because a real spy would deny it too. Airport security personnel may ask to hear the long course on how your little camera works.

With all those reasons not to have a Minox dangling from your neck like some folks with a new Nikon (extra polish on the nameplate) I'm not surprised that subminiaturists seem invisible. Recently I counted seven stores selling Minox film in "Shutterbug". Somebody is buying all that film.

AL D.

FOR SALE Mamiya-16 cassettes. Two dozen 'doubles', some singles. \$15 ea. AL D. (713) 440-4744.