



ASAHI PENTAX

Instruction Guide **S**

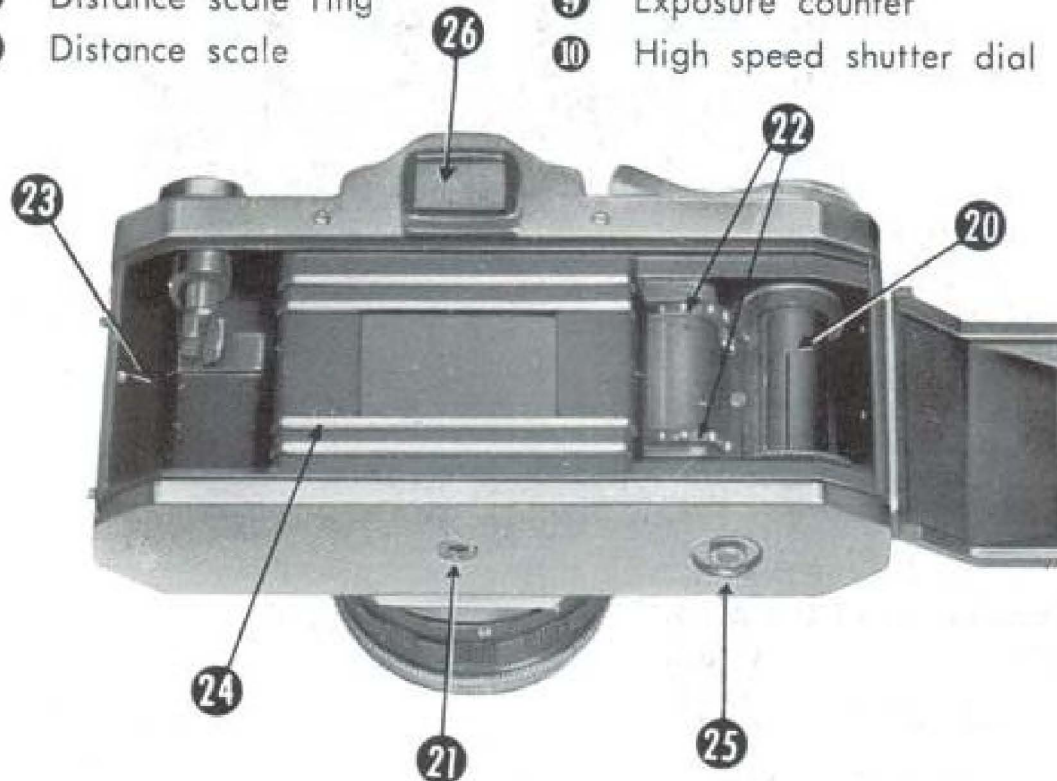


MAJOR ASAHI PENTAX "S" WORKING PARTS

- ① Diaphragm adjusting ring
- ② Pre-set diaphragm ring
- ③ Pre-set diaphragm index
- ④ Distance scale ring
- ⑤ Distance scale

- ⑥ Distance scale index
- ⑦ Depth-of-field guides
- ⑧ Film transport lever
- ⑨ Exposure counter
- ⑩ High speed shutter dial

- ⑪ Slow speed shutter dial
- ⑫ Shutter button
- ⑬ Film rewind knob
- ⑭ Film rewind crank
- ⑮ Film type guide
- ⑯ Hinged back lock
- ⑰ Shoulder strap hook
- ⑱ Synchro-flash FP socket
- ⑲ Synchro-flash X socket
- ⑳ Film take-up spool
- ㉑ Tripod socket
- ㉒ Sprockets
- ㉓ Film cassette chamber
- ㉔ Film guide rail
- ㉕ Film rewind release button
- ㉖ Viewfinder

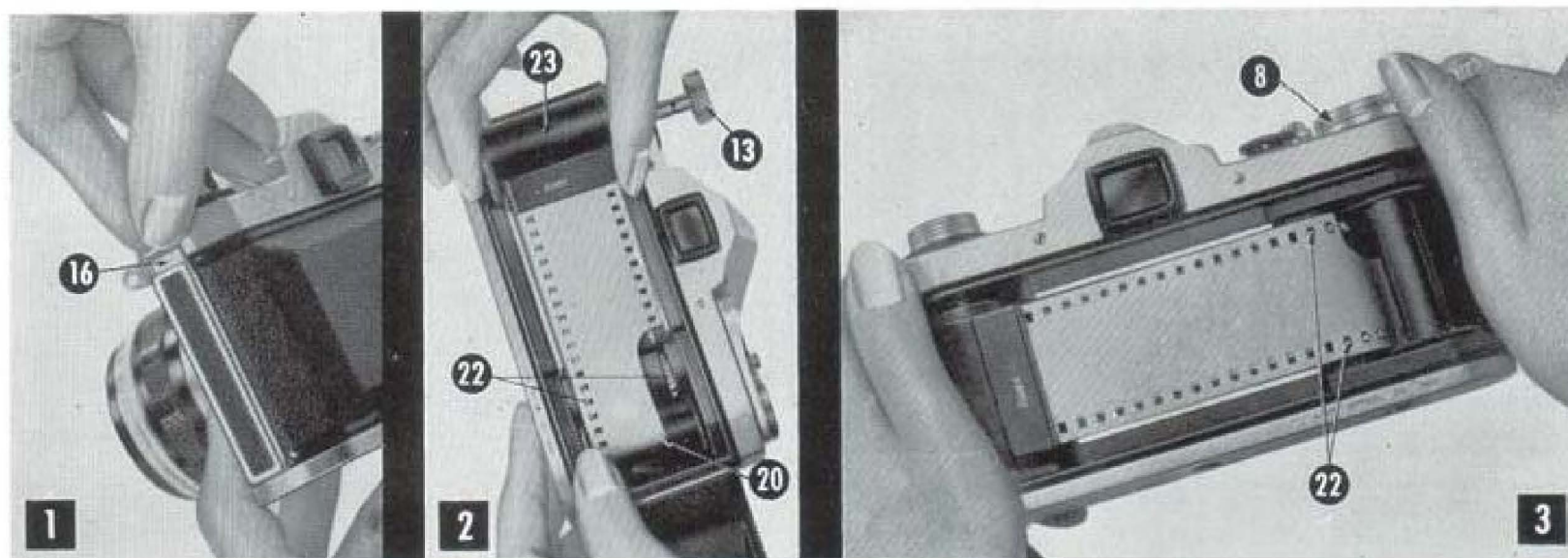


MAIN FEATURES OF ASAHI PENTAX "S"

Type	Single lens reflex
Film size	35mm film
Picture size	24mm × 36mm
Standard lenses	Takumar 55mm f2.2 Pre-set lens Takumar 55mm f1.8 Pre-set lens
Focal plane shutter speeds	T, B, 1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/125, 1/250, 1/500 sec. Synchronized for regular flashbulbs and electronic flash. Special "X" setting on high speed shutter dial for use with electronic flash.
Viewing and focusing	Viewing and focusing are achieved by turning the distance scale ring and observing the image through the penta-prism viewfinder with its built-in magnifier and Fresnel lens. With the standard lens, an approximately life-size image is seen through the viewfinder.
Reflex mirror	Instant Return Mirror capitalizes on the human eye's image retentiveness to aid in photographic follow-through.
Film transport and rewind	Single-stroke rapid transport lever automatically winds film and cocks shutter. Double exposure prevented. Film rewind crank speeds film take-up.
Film type guide	Color-coded to aid in film identification with ASA range from 10-800, or with DIN range from 11/10-30/10.



Recommended horizontal position for camera.

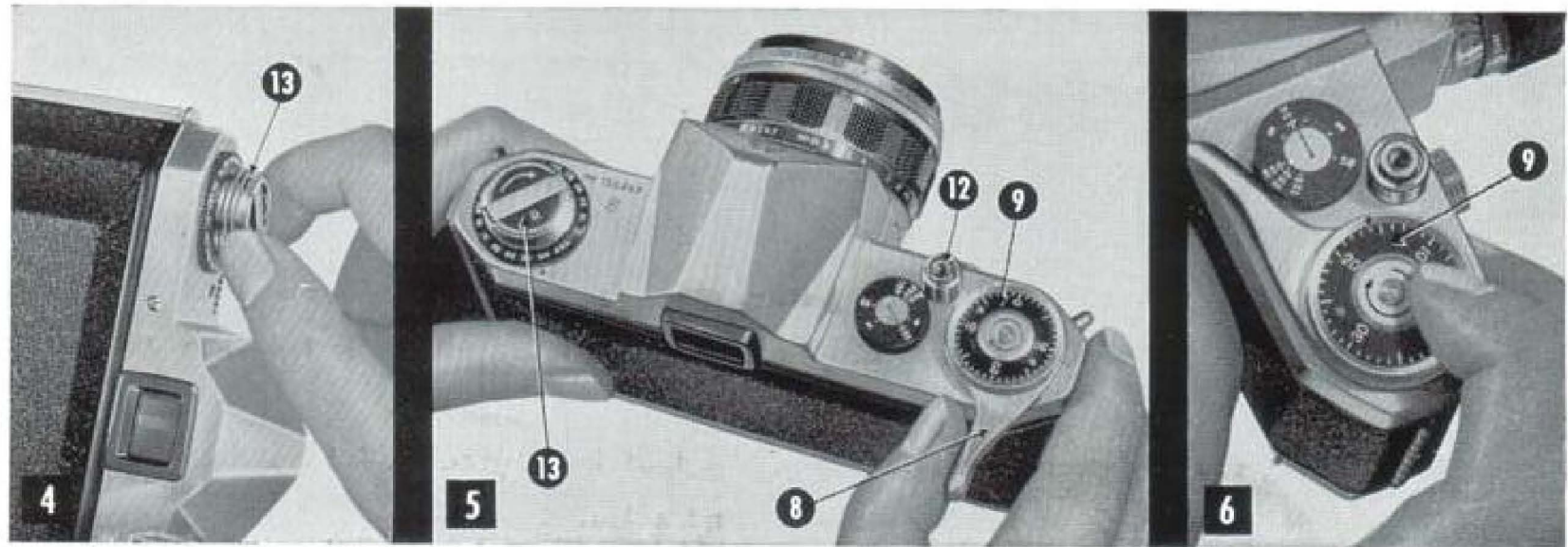


SIMPLIFIED FILM LOADING

1. Open the back by pulling out the lock¹⁶.
2. Pull out the film rewind knob¹³ completely, place the film cassette into the cassette chamber²³, and push back the rewind knob. Draw out the film leader and insert it into the slit of the take-up spool²⁰.
3. Turn the film transport lever⁸ and make sure that both sprockets²² have properly engaged the film perforations. Close the back and fasten the lock¹⁶.

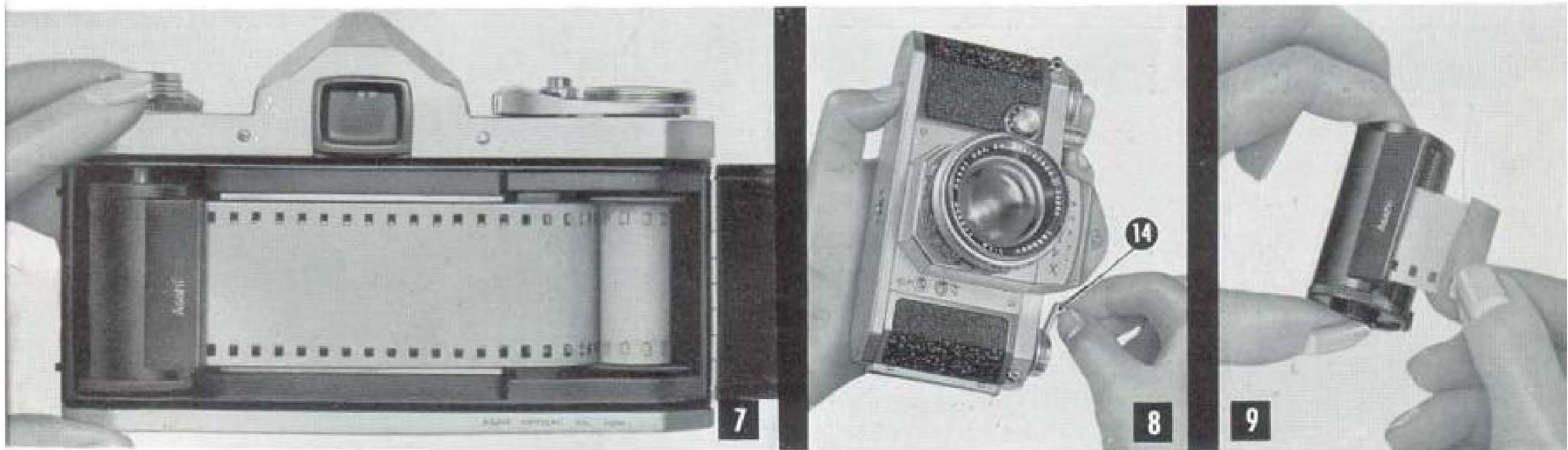
RAPID-ACTION FILM TRANSPORT

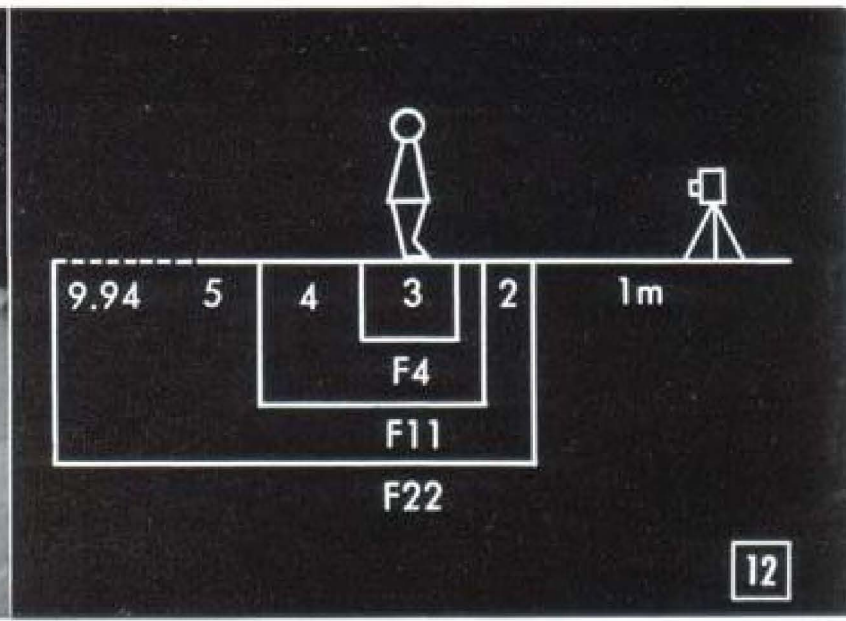
1. Before turning the film transport lever⁸, slowly turn the film rewind knob¹³ clockwise until a slight resistance is felt. This prevents loosening of the film.
2. Cock the film transport lever until it stops (180°). Watch to see that the film rewind knob automatically turns counter-clockwise, indicating that the film is moving from cassette to take-up spool.
3. Trip the shutter button¹² and again cock the film transport lever. Set the exposure counter⁹ to "0" and trip the shutter button again. The camera is now ready to take the first picture.
When cocking the film transport lever for the first picture, the exposure counter automatically moves to "1", indicating that the first picture has been taken.



RAPID-TYPE FILM UNLOADING

1. After the final picture has been taken, DO NOT open the back, or **all** exposed frames will be ruined.
2. Erect the film rewind crank¹⁴ and turn it while depressing the film rewind release button²⁵. When the film has been rewound back into its cassette, the rewind crank will lighten as the leader end of the film slips off the take-up spool.
3. Open the back, pull out the film rewind knob¹³ and remove the film cassette. Bend the leader end of the film to indicate that the film is exposed and ready for development.





BRIGHT-FIELD FOCUSING

1. Cock the film transport lever to wind the film and set the shutter. Set the pre-set diaphragm ring² at the desired lens aperture. Turn the diaphragm adjusting ring¹ so that the actual diaphragm is fully open to make the viewing and focusing bright and easy.
2. Observe the subject through the viewfinder. Turn the distance scale ring⁴ until the image is clearly in focus. Then turn the diaphragm adjusting ring¹ until it automatically stops at the pre-selected diaphragm setting. Take the photo by tripping the shutter button.
3. The above diagram illustrates depth of field. When the diaphragm is closed, depth of field is increased; when it is open, depth of field is shallow. It is sometimes necessary to focus with the diaphragm closed to determine the effective depth of field.

PRE-SET DIAPHRAGM

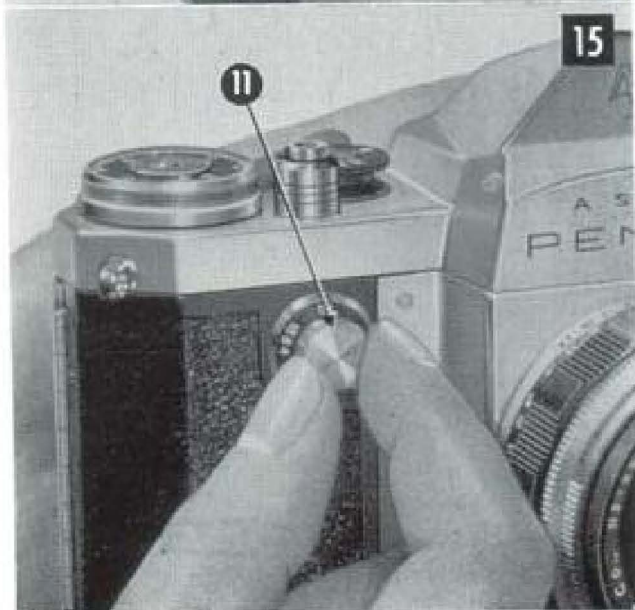
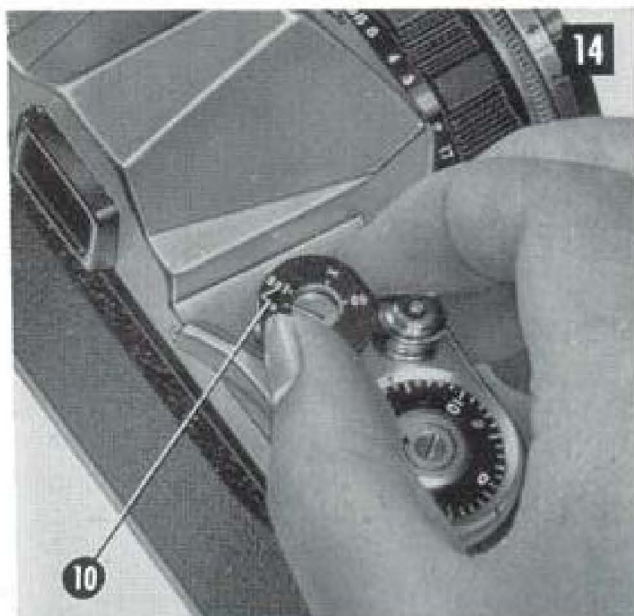
The click-stop pre-set diaphragm ring² assists in simplifying camera handling. It should be set before focusing. Set it at the desired lens setting and focus with the actual diaphragm open. Before tripping the shutter, turn the diaphragm adjusting ring¹ until it automatically stops at the pre-selected diaphragm setting. The diaphragm may be set at points between click-stop settings.



LENS APERTURE (DIAPHRAGM)

The brightness of the lens increases as the diaphragm f number decreases. The following table shows the relative exposures of f numbers.

Diaphragm setting	1.8	2	2.4	2.8	3.5	4	5.6	8	11	16	22
Ratio of exposure	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	1	2	4	8	16		
Brightness of lens	As the diaphragm is opened from f22 to f2, lens brightness doubles at each setting. For instance, twice as much light enters at f11 as at f16.										



SHUTTER SPEEDS

The ASAHI PENTAX "S" is equipped with shutter speeds of 1/500, 1/250, 1/125, 1/60, 1/30, 1/15, 1/8, 1/4, 1/2, 1 second, plus Time and Bulb.

ADJUSTMENT OF SHUTTER SPEEDS

From 1/30 to 1/500 sec. and Bulb:

Set the figure 30 on the **slow speed** shutter dial¹¹. Lift the **high speed** shutter dial¹⁰, turn and drop it at the desired shutter speed setting. The shutter speed may be set **before** as well as **after** cocking the film transport lever.

For Bulb exposure :

At the setting B (Bulb), the shutter will be fully open as long as the shutter button is depressed. When a long exposure is desired while using the B setting, attach a shutter release cable with a locking device to the shutter button. This will permit a "time" exposure.

From 1 second to 1/15 and Time :

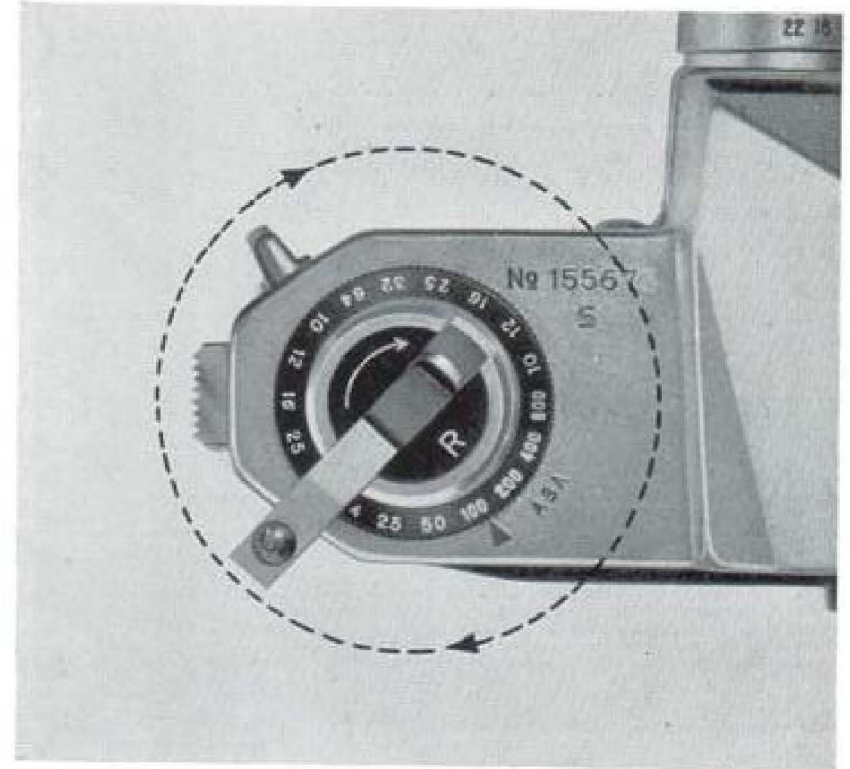
Set the figures 30-1 on the high speed shutter dial¹⁰. Turn the slow speed shutter dial¹¹ to the desired slow speed setting.

For Time exposure:

At the setting T (Time), the shutter will be fully open after the shutter is released. To close the shutter, turn the slow speed shutter dial to the left.

MULTIPLE-EXPOSURE

To make a double-or multiple-exposure, depress the film rewind release button²⁵ and turn the film transport lever. This permits the cocking of the shutter without moving the film. Multiple-exposures are made by repeating this procedure.



CAUTION

1. At slow speeds, support the camera rigidly or use a tripod to prevent vibration of the camera.
2. The high speed shutter dial¹⁰ automatically turns when the shutter is released. DO NOT touch the high speed shutter dial while releasing shutter.
3. Avoid keeping the camera shutter cocked to protect the shutter mechanism.

FILM TYPE GUIDE

Use the film type guide¹⁵ to record the speed of the film loaded in the camera. The figures on the film type guide are ASA numbers; or DIN numbers for European countries. Use the white figures for black-and-white film; red figures for color film; and green figures for special film such as positive film, copying film, reversal film, etc. To check whether or not the camera is loaded, turn the film rewind knob clockwise. If it turns freely, the camera is not loaded.

PROPER MAINTENANCE

To remove grit or dirt from the camera body, use a soft brush or a dry, soft piece of cloth. Never use oil

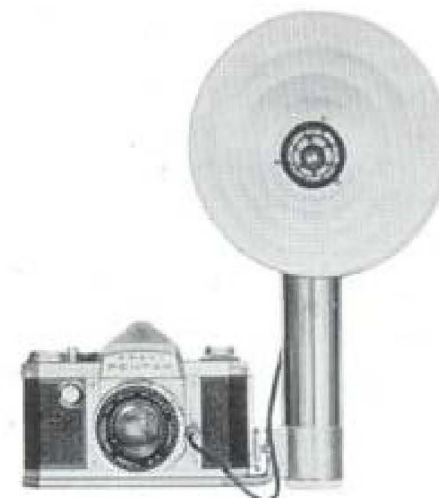
and do not touch the shutter curtains. For the lens and the reflex mirror, use only a spray of air or soft lens tissue. Never wipe the mirror or lens surfaces with cloth.



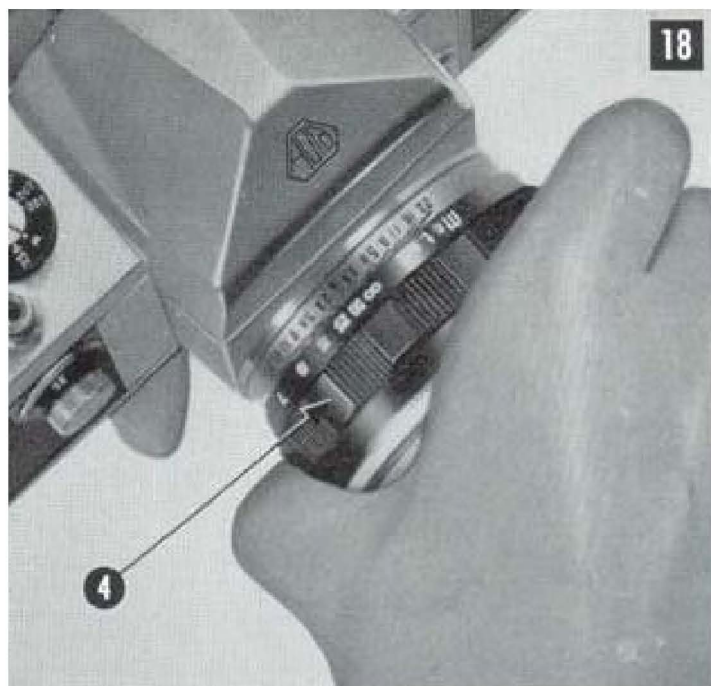
Recommended vertical position for camera.

FLASH SYNCHRONIZATION

The ASAHI PENTAX "S" is equipped with FP and X flash sockets. The table shows which flash socket on the camera, which shutter speeds and which flashbulbs may be combined for maximum lamp efficiency. Unless these combinations are rigidly followed, there will be a failure in flash synchronization. Note "X" on the high speed shutter dial¹¹, which indicates the highest shutter speed at which an electronic flash may be used. Also note that by using the X socket and any of the slow shutter speeds (1/30, 1/15, 1/8, 1/4, 1/2 and 1 second), it is possible to use Class F and M bulbs according to the following table.



Shutter speeds Flash sockets	$\frac{1}{500}$	$\frac{1}{250}$	$\frac{1}{125}$	$\frac{1}{60}$	X	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	1	B
FP	FP Class (screw base)											
	FP Class (Bayonet base)											
X						F Class						
						M Class						
					Electronic Flash							



INTERCHANGEABLE LENSES

The ASAHI PENTAX "S" offers a system of seven interchangeable TAKUMAR lenses. TAKUMAR lenses are widely respected by the professional and amateur photographers for their fine resolution. The photographic coverage of the various TAKUMAR lenses are illustrated on pages 16 and 17. With focal length longer than 83mm, the subject image is seen through the viewfinder larger than life size.

Regardless of the lens selected for the ASAHI PENTAX "S", there is never need for an accessory viewfinder, ordinarily required for range-finder type cameras.

When interchanging lenses, hold the lens by the distance scale ring⁴ shown in photographs 18 and 19.



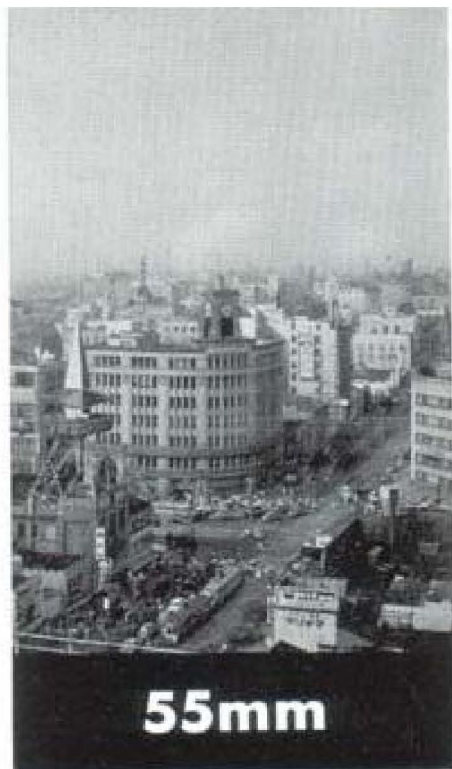
Super telephoto lens of
newest design ... most ideal
for spectacular telephoto-
graphic effects.



TAKUMAR 300mm F4



35mm



55mm



83mm

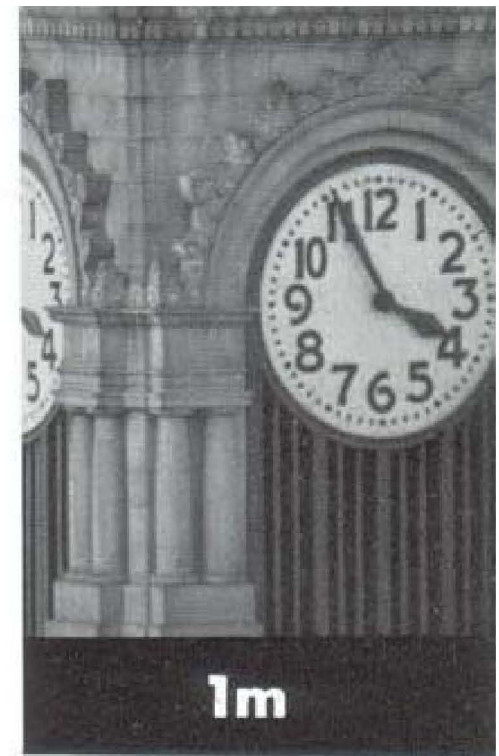
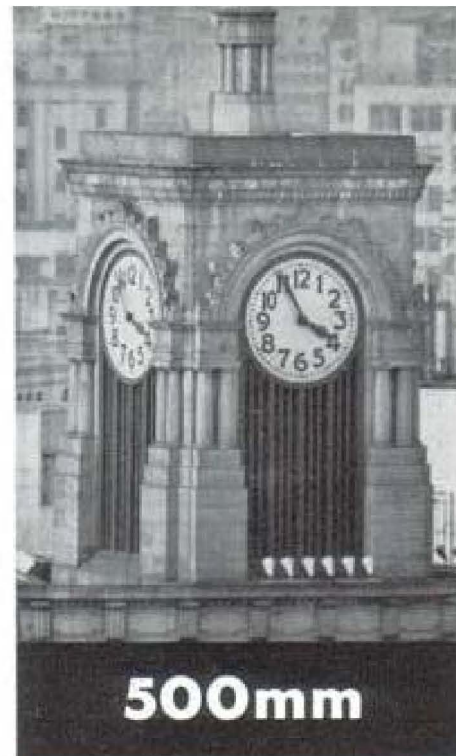


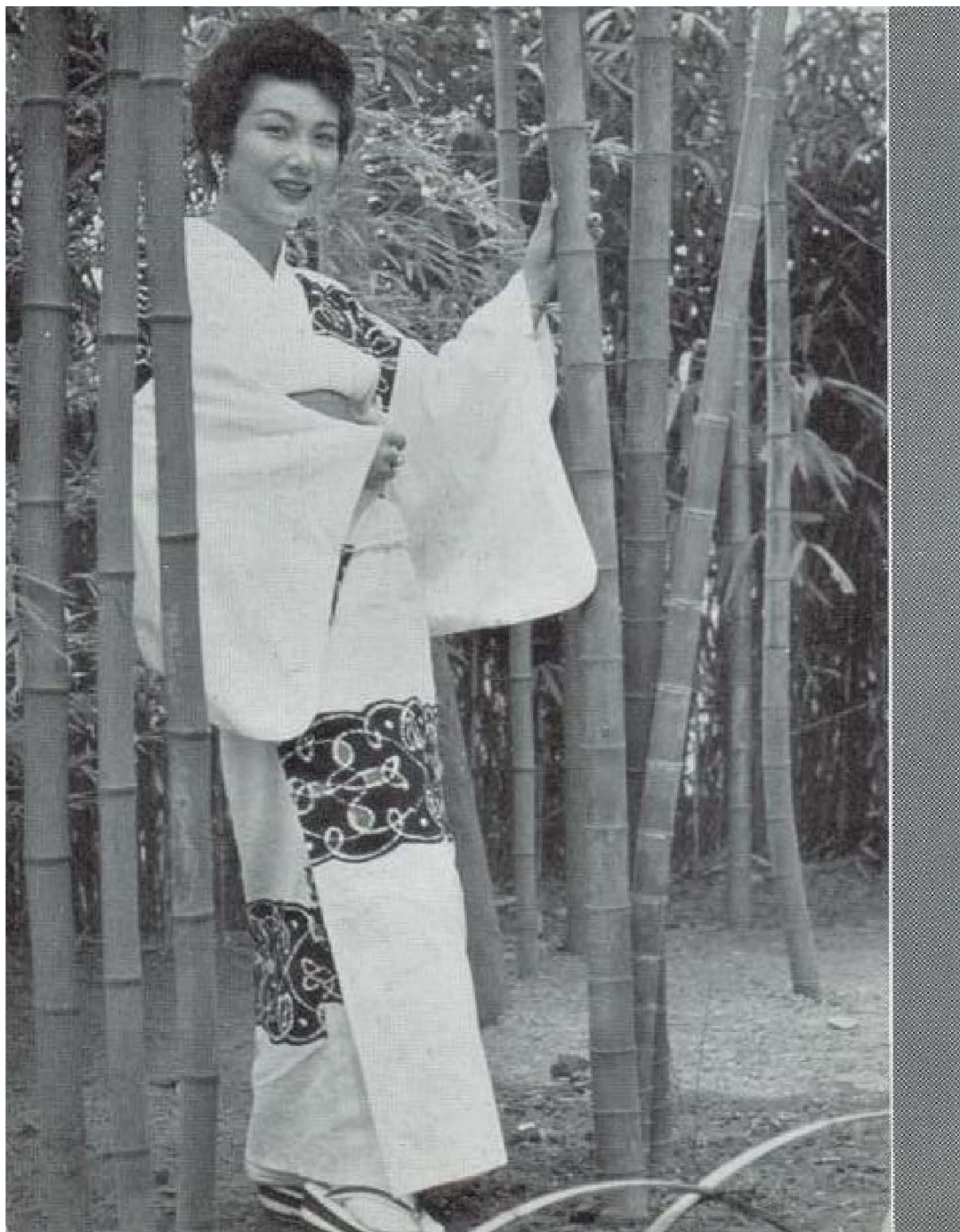
100mm

SUPERB TAKUMAR LENS SYSTEM

Fully color-corrected, coated lenses of highest optical quality offering pre-set diaphragm design and with the standard lens-mount common to some other single lens reflex cameras. All TAKUMAR lenses have been tested for resolving

power to conform to ASAHI standards, which are higher than those set by JIS (Japan Industrial Standards). All Asahi-TAKUMAR lenses bear the seal of the Japan Camera Inspection Institute which insures the high performance standards.





FILTERS & LENS HOOD



Filters are available in UV (ultra-violet), O-53 (light orange) and Y-47 (light yellow). All are 46mm screw-in types which are interchangeable for TAKUMAR 35mm f4, 55mm standard, 100mm and 135mm lenses.

Recommended for use whenever possible to avoid off-angle rays and when shooting against the light.



EXTENSION TUBE SET

These rings may be used in combination as desired. Ring No. 1 is suited for moderate close-up works as in copying documents. When all extension tubes are used with the standard lens, you will get a magnification of 1.06 of life size.



ASAHI COPY STAND

For exact and accurate copying with the single lens reflex camera. Maintains precise, parallel camera position, while providing close-up performance impossible with a tripod or other camera stand.



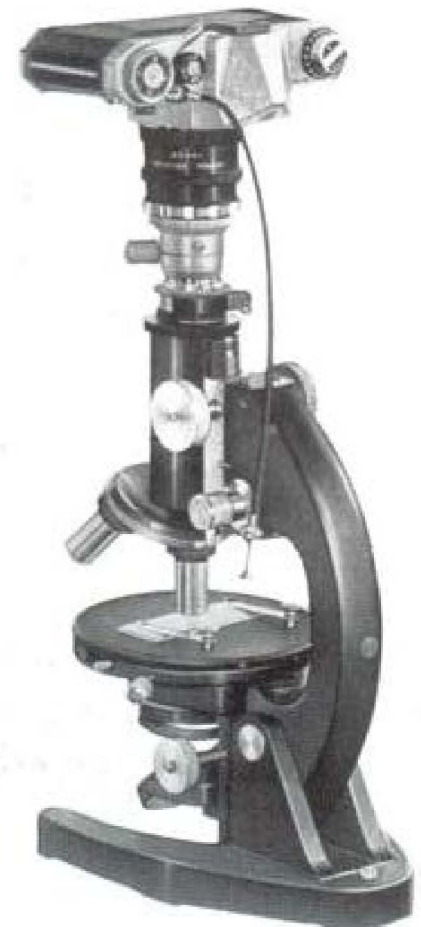
BELLOWS UNIT

An extremely flexible accessory for ultra-close-up photography. Permits use of the camera's own lens with special calibrated gear shaft. Pictures may be taken as close as 2 1/2 inches with standard lens. Unit collapses, shaft folds, for compact storage in small case.



MICROSCOPE ADAPTOR

By inserting this microscope adaptor between the camera body of the ASAHI PENTAX and the microscope tube, photomicrography can be easily and simply accomplished with the optic of the microscope.



INSTANT RETURN MIRROR

The ASAHI PENTAX incorporates the unique advantage of an instant return mirror which permits the photographer to find—shoot—and instantly see again the subject on the ground glass. This creates the advantage of the

evaluation of the exposure just completed so that the photographer may be ready for the next exposure to come. The accompanying photographs illustrate the differences between the instant return mirror action and the action of the standard single lens reflex mirror.

ASAHI



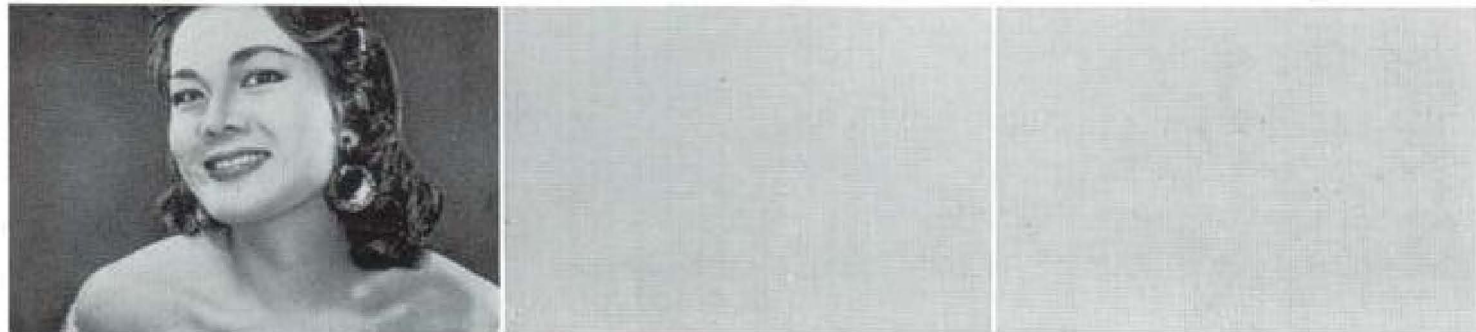
Focus

Expose

Instantly See Again

Because of the human eye's image-retentiveness combined with the instant return feature of the ASAHI PENTAX mirror, the image is only partially lost during the moment of exposure.

OTHERS



Focus

Expose

Image Blackout

BRIGHT GROUND GLASS

For maximum optical brilliance even in weak light conditions or when the lens has been closed to a small f-stop, the ASAHI PENTAX has been equipped with a Fresnel lens beneath the ground glass. This lens insures brilliant images in the corners of the ground glass with all interchangeable lenses. The illustrations on this page indicate the advantages provided in this superior viewing system design.



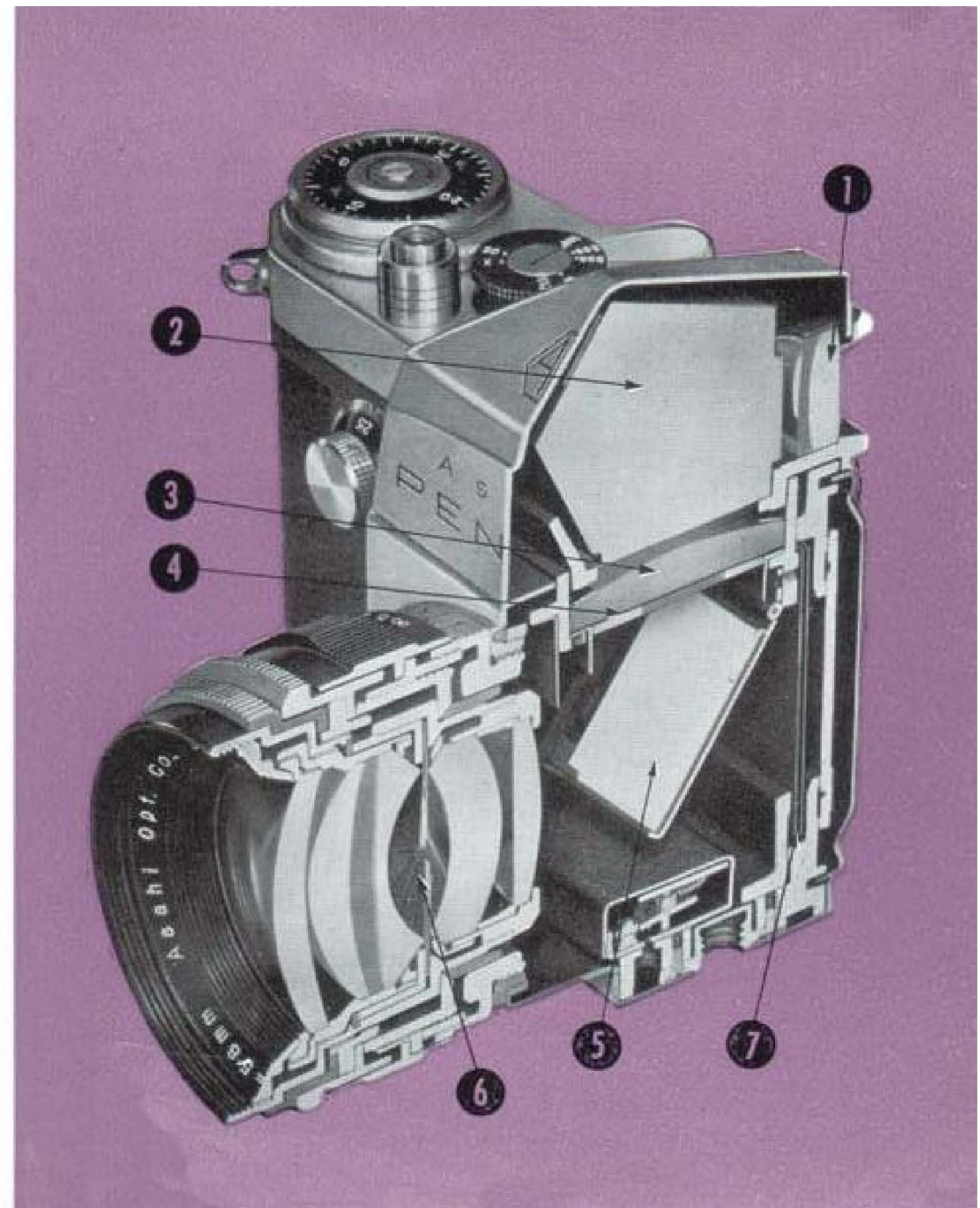
PENTA-PRISM OPERATION

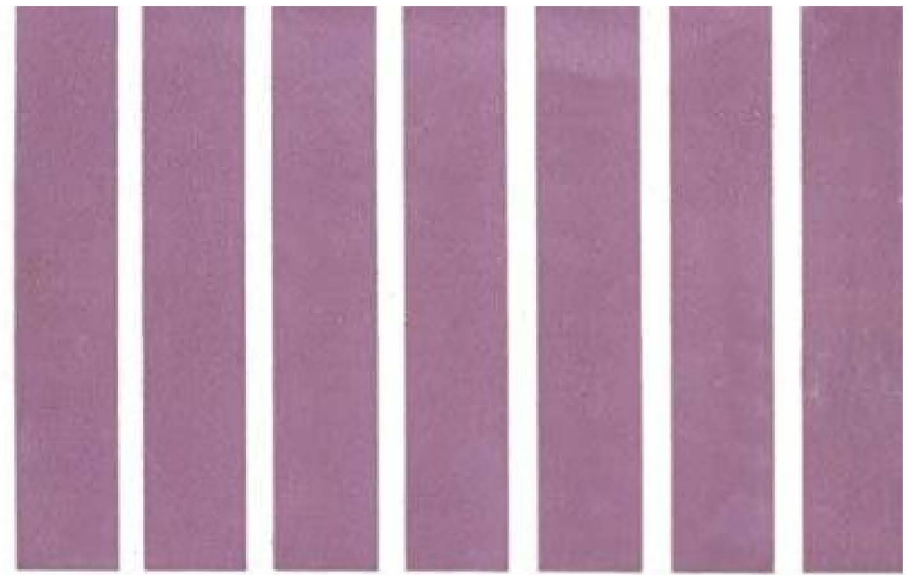
For improved single lens reflex operation, the ASAHI PENTAX incorporates a penta-prism which, in addition to correcting the mirror image reversal of waist-level type reflex cameras, adds the advantage of simplified vertical and horizontal camera handling.



PROOF OF PRECISION

- ① Magnifying lens
- ② Penta-prism
- ③ Ground glass
- ④ Fresnel lens
- ⑤ Reflex mirror
- ⑥ Diaphragm
- ⑦ Shutter curtains





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