

HONEYWELL PENTAX

SPOTMATIC



OPERATING MANUAL

HONEYWELL PENTAX SPOTMATIC

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- A detailed top-down view of a Nikon F35 SLR camera. The camera is silver with a black lens. Various controls are labeled with letters: J (top of lens), W (lens barrel), M (lens barrel), N (lens mount), P (shutter speed dial), O (shutter speed dial), R (shutter speed dial), A (shutter speed dial), B (shutter speed dial), C (shutter speed dial), D (shutter speed dial), U (lens barrel), T (lens barrel), S (lens barrel), I (viewfinder), E (viewfinder), G (viewfinder), V (viewfinder), F (viewfinder).

Honeywell Pentax Spotmatic

When the Pentax Spotmatic was introduced to the public at the 1960 Photokina, the photographic world's fair in Cologne, Germany, it attracted immediate and keen attention. Not available for purchase at that time, it was a model of the advanced features and design that would be incorporated into cameras of the future.

Four years of extensive research, exhaustive experiments and intensive testing followed before it became available to serious amateur and professional photographers in late 1964.

With its unique behind-the-lens exposure meter of entirely new design, the Honeywell Pentax Spotmatic is now more than just another camera ... it is a new concept in photography.

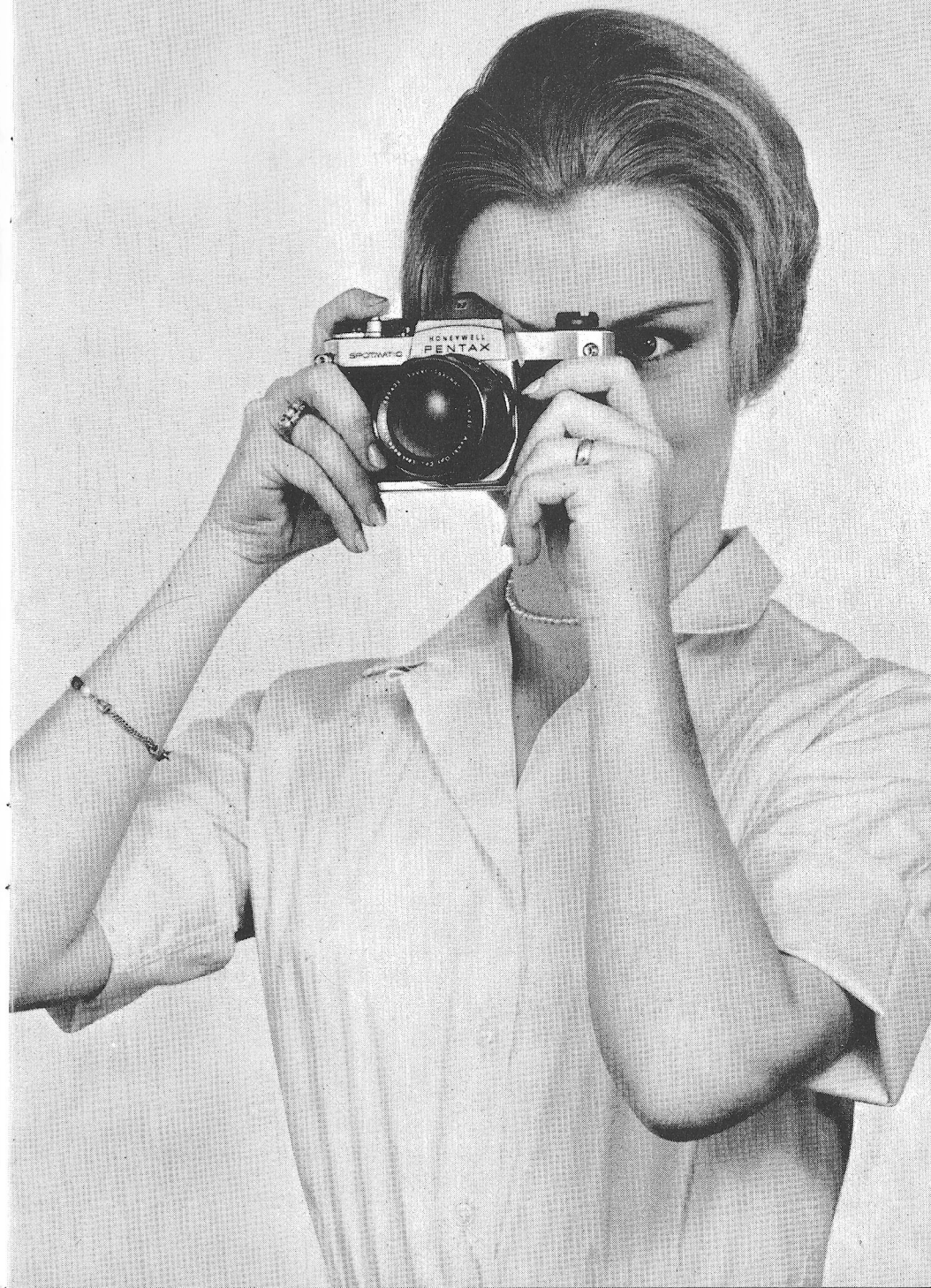
Hidden within the camera body, its through-the-lens meter utilizes two highly sensitive Cadmium Sulfide sensors to accurately measure light seen by the camera's lens as it is reflected from the subject being photographed. Therefore, by measuring the light as it passes through the lens and matching the exposure needle as seen through the viewfinder, you can be assured of properly exposed pictures under all but the most impossible lighting conditions. Macro- or microphotography pictures with telephoto lenses or with filters ... the Honeywell Pentax Spotmatic will give you correctly exposed photo-

graphs without the use of external meters or the need for cumbersome, time-consuming calculations!

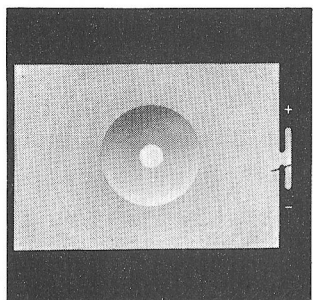
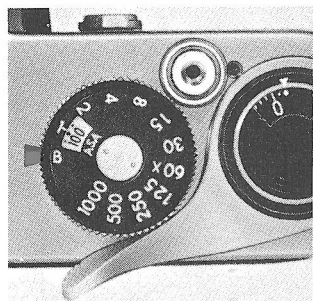
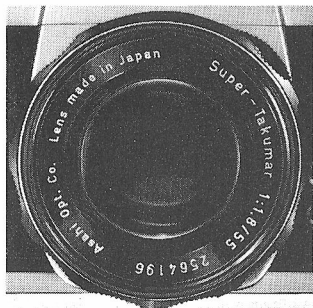
The Spotmatic may also be set manually the same as any other quality 35mm camera if special lighting or selective focus effects are desired. Just leave the exposure meter switch in its OFF position and select the f/stop and speed settings for the required effects.

The traditional classic design and simple elegance associated with earlier models of the famous Pentax have been retained in the Spotmatic despite the incorporation of many highly advanced features. Meticulously constructed by master craftsmen, the Pentax cameras remain the standard of excellence and precision in the world of 35mm single-lens-reflex cameras.

You will find the Honeywell Pentax Spotmatic even more versatile than the famous Pentax H3v. Its new 50mm f/1.4 and 55mm f/1.8 Super-Takumar lenses with completely automatic diaphragm will satisfy the demands of even the most critical professional. Like the H1a and H3v, the Honeywell Pentax Spotmatic has a 42mm threaded lens mount that accepts any of the superb Takumar lenses from the ultra-wide-angle 17 mm Takumar to the super-telephoto 1000mm Takumar.



Specifications



Type

35mm single-lens reflex with built-in light meter.

Film and Picture Size

35mm film (20 or 36 exposures). 24mm x 36mm.

Standard Lenses

Super-Takumar 55mm f/1.8 with fully automatic diaphragm. Filters and lenshood size: 49mm. Equipped with diaphragm preview lever which affords visual check of depth of field. Distance scale: 45cm (18") to infinity.

Shutter

Focal plane shutter, with single non-rotating dial. Speeds: B, 1-1/1000 sec. Film speed (ASA) setting dial and window on shutter speed dial. Built-in self-timer releases shutter in 5-13 seconds. Shutter curtains of special rubberized silk.

Warning Signal

The index of shutter speeds turns to red when the shutter and film speed settings are off the meter's measurability range. Refer to page 15.

Finder

Pentaprism finder with microprism Fresnel lens for instant focusing; 0.88x magnification with 50mm lens and approximately life-size with 55mm lens.

Focusing

Turn the distance scale ring until the subject image on the ground glass comes into focus.

Reflex Mirror

Instant return type with special shock absorbers for minimum vibration.

Film Advance

Ratchet-type rapid wind lever (for film advance and shutter cocking). 10° pre-advancing and 160° advancing angle.

"Cocked" Indicator

A red disk appears in a small window alongside the shutter release button when the shutter is cocked, and blacks out when it is released.

Film Exposure Counter

Automatic re-set type.

Lens Mount

42mm threaded lens mount.

Flash Synchronization

Equipped with FP and X flash terminals. Electronic synchronization at 1/60 sec.

Exposure Meter

Built-in meter measures the brightness of the ground glass, and couples directly to shutter and film speed settings. Film speed (ASA) setting ranges from 20 to 1600 (LV1-18 for ASA-100 film with standard lens.) Meter is powered with a mercury battery.

Film Rewind

Rapid rewind crank for speedy film take-up. Film rewind release button on bottom of camera body rotates while film is being rewound.

Loaded Film Indicator

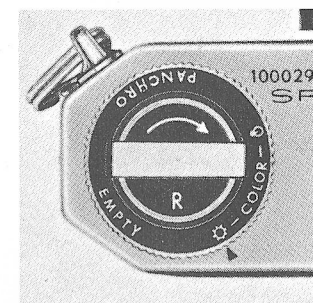
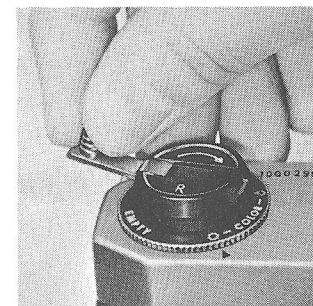
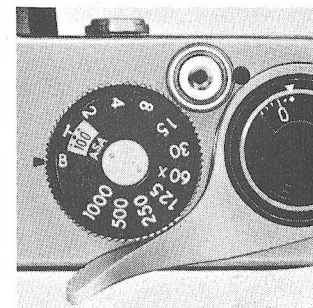
Loaded film reminder dial underneath film rewind knob is marked "PANCHRO" (black-and-white), "COLOR" and "EMPTY."

Dimension

Width 5.6" (143mm) x height 3.6" (92mm) x thickness 3.4" (88mm).

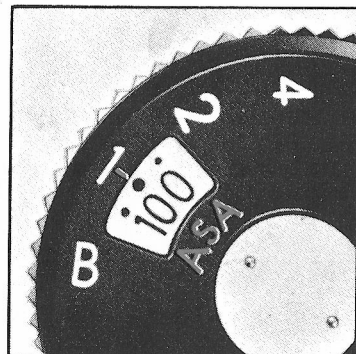
Weight

868 grams (1 lb. 14 oz.) with standard lens. Body alone: 621 grams (1 lb. 6 oz.)



Short operating course

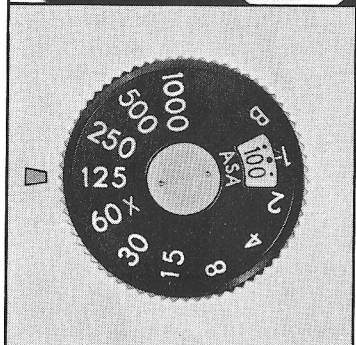
A mercury battery for the light meter is packed separately. Please be sure to insert it into the battery housing before operating the camera. For battery insertion, refer to page 16.



1

SET FILM SPEED.

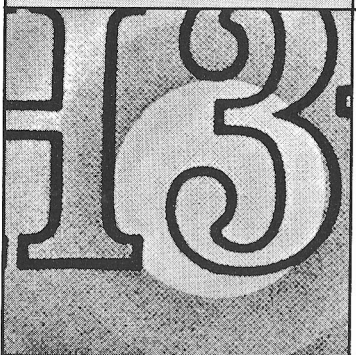
Lift the outer ring of the shutter speed dial, turn it around and set the same number as the ASA number of the loaded film to the small red index which appears alongside the figure 1. Then cock the rapid wind lever.



2

SET SHUTTER SPEED.

Turn the shutter speed dial and set the speed you wish to use to the index. When outdoors, set the speed at 1/125 sec. or faster, depending upon the lighting. When indoors, set it at 1/30, or in its neighbourhood. Change the shutter speed later, when necessary. (Refer to item 5, page 7.)



3

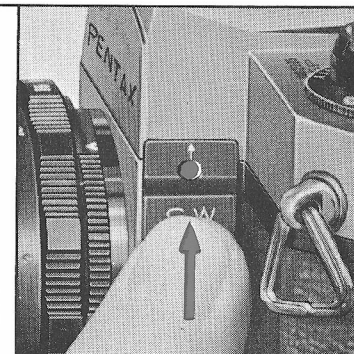
COMPOSE AND FOCUS

While viewing through the viewfinder, turn the distance scale ring with your thumb and index finger until you get the sharpest image of your subject at the microprism centre of the finder.

4

TURN ON LIGHT METER SWITCH.

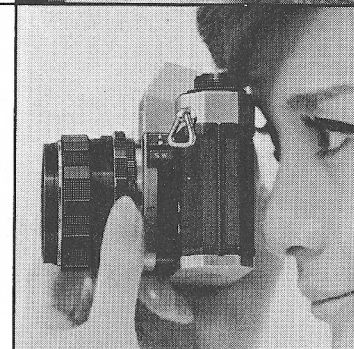
Push up the switch button with your thumb, and the small window on the switch button will turn to red indicating that the meter is switched on. Through the viewfinder, you will observe the movement of the meter's needle on the right side of the ground glass. Be sure to turn off the meter's switch when not actually taking readings.



5

ROTATE DIAPHRAGM RING.

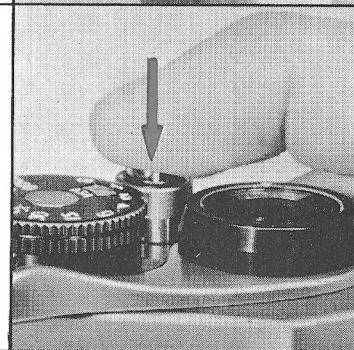
The needle moves up and down with the turn of the diaphragm ring. When the needle rests at the centre, you will get correct exposure. If the needle does not come to the centre no matter how far you turn the diaphragm ring, change the shutter speed. When the needle is off centre and close to the (+) mark, you will get over-exposure: change the shutter speed to a faster setting. If the needle is closer to the (-) mark, you will get under-exposure: change the shutter speed to a slower setting.



6

RELEASE SHUTTER.

Hold your camera firmly and trip the shutter. When the shutter is released, the meter switch will automatically turn off, and the needle will remain fixed off and underneath the centre. The diaphragm will reopen to its full aperture and the overall image will look brighter. Cock the rapid wind lever for the next picture. (When taking a series of pictures under the same lighting conditions, it is not necessary to repeat instructions 4 and 5.)



How to hold your camera



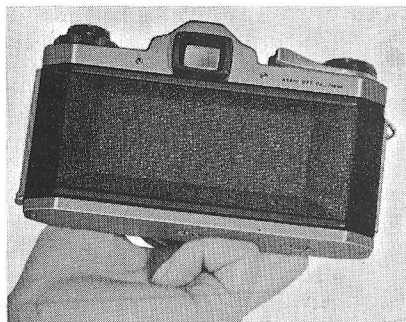
In horizontal position A. Hold the camera firmly with your left hand, and draw your arm close to your body.



In vertical position B. Hold your camera tightly to your forehead with your left hand, and draw your right arm close to your body.



In vertical position C. Hold your camera tightly to your forehead with your left hand, raise your right arm and draw your left arm to your body.



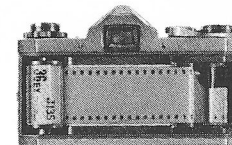
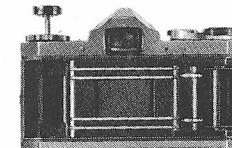
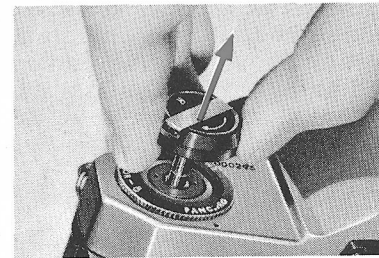
As a general rule, your camera should be held more firmly by the left hand which does not release the shutter. If you hold your camera with the right hand—the hand which releases the shutter—it may cause camera movement. Very often, pictures

which are not sharp are due to movement of the camera. When you focus with the camera held horizontally (Position A), hold the lens barrel as illustrated in photograph. Put the camera on your left hand thumb and little finger. Turn the distance scale ring with your thumb and index finger. When holding the camera vertically, some people release the shutter with the thumb (Position B), while others release it with the index finger (Position C). Position C is more desirable for fast focusing and shooting. With the Honeywell Pentax, whether held vertically or horizontally, you see your subject image through the taking lens, enabling you to compose, focus and shoot with a minimum of time and effort.

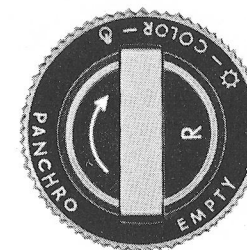
Film loading

Avoid direct sunlight when loading your film.

- 1 Open the back by pulling out the rewind knob until back cover snaps open.
- 2 Place the film cassette into the cassette chamber, and push back the rewind knob. Draw out the film leader and crease across one or two perforations back from the end of the leader. Insert the creased portion into slot of the take-up spool.
- 3 Advance the film by alternately turning the rapid wind lever and releasing the shutter until both sprockets have properly engaged the film perforations. Close the back by pressing it firmly.
- 4 If the film is properly loaded, the rewind knob will turn counter-clockwise when you advance the film by turning the rapid wind lever.

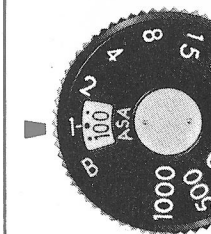


Film type reminder dial



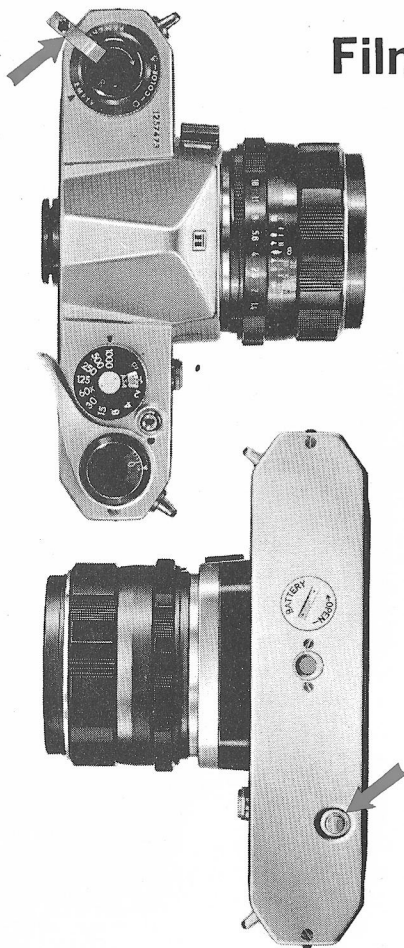
Use the film type dial to show what type of film is in your camera. Simply turn the dial so that the type of film in the camera is opposite the ▲ mark. To check whether the camera is loaded, turn the film rewind knob clockwise. If it turns freely, the camera is not loaded.

Setting ASA film speed



The ASA film speed rating of all 35mm films is given in the data sheet packed with each roll of film. The higher the ASA number, the more sensitive the film. Lift the outer ring of the shutter speed dial and rotate it until the ASA number of your film is opposite the red index mark.

Be sure to set your film speed on the shutter speed dial because the dial is connected to the exposure meter system.



Film wind and rewind

knob automatically turns counter-clockwise, indicating that the film is moving from cassette to take-up spool. Trip the shutter. Cock the rapid wind lever for the first picture; the exposure counter automatically turns to '1', indicating that the first picture is ready to be taken.

- 1 Before turning the rapid wind lever, slowly turn the film rewind knob clockwise until a slight resistance is felt. This prevents loosening or warping of the film.
- 2 The first portions of the film cannot be used for picture taking as they have already been exposed to light. Generally, two blank exposures should be made before taking your first picture. Cock the rapid wind lever until it stops. Watch to see that the film rewind

- 3 After the final picture on the roll (20 or 36 exposures) has been taken, the rapid wind lever will not turn all the way as you stroke it. This indicates that the final picture has been taken on your film, and that the film must be rewound. **DON'T** open the back of the camera, or *all* exposed frames will be ruined.

- 4 Unfold the film rewind crank.
- 5 Depress the film rewind release button. Turn the rewind crank to rewind the film into the film cassette. The film rewind crank permits rewinding at a smooth, even rate. (Under some atmospheric conditions, erratic or too rapid rewinding will cause static electricity marks on the film.) You will feel the tension on the rewind crank lessen as the leader end of the film slips off the take-up spool.

Stop rewinding when you feel this happen. **AVOID DIRECT SUNLIGHT WHEN UNLOADING YOUR FILM.** (The rewind release button will return to normal position as you load your next film and turn the rapid wind lever.)

- 6 Pull out the film rewind knob (the back will open automatically), and remove the film cassette.



Bright field focusing

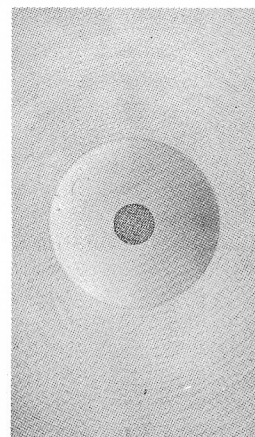
- 1 You can start viewing and focusing before and after cocking the rapid wind lever. When the preview lever is in "AUTO" (automatic) position, and the meter is at "OFF", the diaphragm is fully open except for the moment of exposure.
- 2 Turn the distance scale ring until your subject image is clearly in focus. It is not always necessary for you to view and focus with the diaphragm fully open. In bright sunlight, you can easily focus with diaphragm closed to f/5.6 or f/8 and still observe the depth of field. It is easier, however, to focus with the diaphragm fully open as your subject image is much brighter.

When the letters "MAN" appears beside the lever, the lens is in manual position; when "AUTO" appears, it is in automatic position.

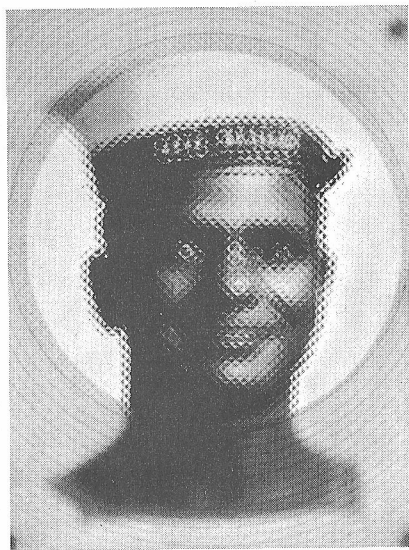
Micoprism

Honeywell Pentax cameras have a Fresnel lens with a micoprism center underneath the ground glass. As you look through the finder, you will see that the Fresnel lens consists of many concentric rings which provide the brightest possible image on the ground glass.

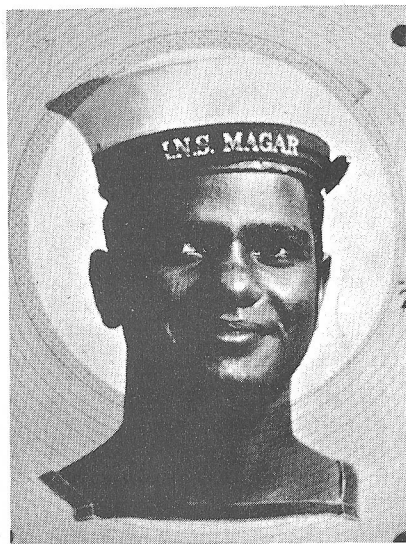
The micoprism is the center portion of this diaphragm. When your subject is in focus, the image in the micoprism will be sharp and perfectly clear. If your subject is not in focus, the micoprism will break the image up into many small dots, much like an engraver's screen. You can focus your subject on any portion of the ground glass.



Automatic diaphragm*



OUT OF FOCUS

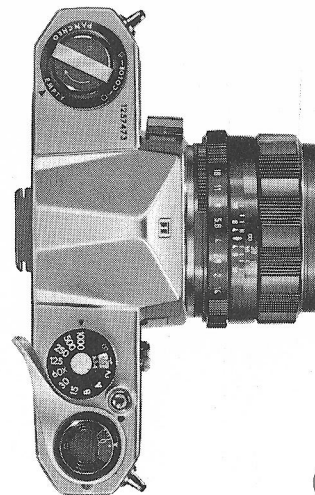


IN FOCUS

When the preview lever is in "AUTO" (automatic) position, and the exposure meter is turned to "OFF", the fully automatic diaphragm is at its largest aperture at all times, except for the instant of exposure, no matter what aperture is set on the diaphragm ring. When you release the shutter, the diaphragm automatically stops down to the predetermined aperture and the shutter curtains start traveling instantly. When the exposure is completed, the diaphragm reopens to maximum aperture completely automatically and you are ready to compose, focus and shoot your next pictures. If you wish to visually check exact depth-of-field before making the exposure, move the preview lever to "MAN" (manual) position. This stops the diaphragm to the aperture selected and shows you exactly how much depth-of-field will appear in your picture. The preview lever may be moved back to "AUTO" (automatic) position before or after making your exposure, or, if you are making pictures in bright sunlight, it may be left in manual position, which permits a constant check of depth of field.

**When the exposure meter switch is turned to the "on" position, the lens diaphragm changes from the automatic to manual position even though the preview lever is in the "AUTO" (automatic) position. When the shutter is released, the lens diaphragm will automatically return to its automatic position if the lever is set on "AUTO".*

Turn the shutter speed dial clockwise or counter-clockwise to the shutter speed desired. The shutter



speed may be set either before or after cocking the rapid wind lever. As you cock the shutter by turning the rapid wind lever, the "cocked" indicator turns to red showing that the shutter is cocked.

The indicator window blacks out as you trip the shutter button. For use of the X setting on the shutter speed dial, refer to page 17.

With the shutter speed dial set on B (bulb), the shutter will stay open as long as you depress the shutter button. As you release your finger from the shutter button, the shutter closes. 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.

Cautions

- 1 At slow speeds—slower than 1/30—support your camera rigidly or use a tripod to prevent movement of your camera.
- 2 To protect the shutter mechanism, trip the shutter release before putting the camera out of use for any extended period.

Depth-of-field guide

the range on the distance scale ring covered within the figure 8 on the depth-of-field guide indicates the area in focus at the lens opening. You will note from the depth-of-field guide in the photograph that the range from approximately 10 to 25 feet is in focus. Note that as the lens apertures change, the effective depth of field also changes. For the depth of fields at different apertures and distances, refer to page 14.

If you want to know how great the depth of field is at a certain aperture, look at the depth-of-field guide. In the above photograph, the distance scale is set at 15 feet... the lens is focused on a subject 15 feet away. The calibrations on each side of the distance index correspond to the diaphragm setting and indicate the range of in-focus distance for different lens apertures. For example, if the lens opening of f/8 is to be used,

Depth of field is the range between the nearest and farthest distances which are in focus at different lens apertures.

Depth-of-field table: Super-Takumar 50mm lens

Distance Scale f Setting	1'6"	2'	3'	5'	10'	15'	30'	∞
f/1.4	1' 6.12" 1' 6.13"	1'11.8" 2' 0.2"	2'11.5" 3' 0.6"	4'10.4" 5' 1.7"	9' 5.6" 10' 7.2"	13' 9.7" 16' 4.9"	25' 6.6" 36' 4.2"	169' 9.2" ∞
f/2	1' 5.9" 1' 6.1"	1'11.6" 2' 0.4"	2'11.3" 3' 0.8"	4' 9.8" 5' 2.4"	9' 3.1" 10'10.6"	13' 4.3" 17' 1.2"	24' 0.2" 39'11.8"	118' 3.5" ∞
f/2.8	1' 5.8" 1' 6.2"	1'11.5" 2' 0.5"	2'10.9" 3' 1.1"	4' 9" 5' 3.4"	8'11.9" 11' 3.2"	12' 9.6" 18' 1.4"	22' 3" 46' 1.4"	84'11.6" ∞
f/4	1' 5.6" 1' 6.4"	1'11.4" 2' 0.6"	2'10.6" 3' 1.7"	4' 7.7" 5' 5"	8' 7.4" 11'11.2"	12' 0.6" 19'11"	20' 0.4" 59'11.6"	59' 6.4" ∞
f/5.6	1' 5.5" 1' 6.5"	1'11.2" 2' 1"	2'10" 3' 2.3"	4' 6.2" 5' 7.2"	8' 1.9" 12'11.2"	11' 2" 22'10.7"	17' 8.3" 100' 1.3"	42' 6.8" ∞
f/8	1' 5.4" 1' 6.6"	1'10.8" 2' 1.3"	2' 9.1" 3' 3.4"	4' 4.1" 5'10.9"	7' 6.8" 14' 9.5"	10' 1" 29' 7.2"	15' 0.7" ∞	29'10.2" ∞
f/11	1' 5.2" 1' 7"	1'10.4" 2' 1.9"	2' 8.2" 3' 4.8"	4' 1.6" 6' 4.2"	6'11.3" 18' 0.6"	8'11.8" 46' 9.7"	12' 8.4" ∞	21' 9" ∞
f/16	1' 4.8" 1' 7.3"	1' 9.7" 2' 2.9"	2' 6.7" 3' 7.6"	3'10" 7' 3"	6' 1.2" 28' 7.6"	7' 7.2" ∞	10' 1" ∞	15' ∞

Depth-of-field table: Super-Takumar 55mm lens

Distance Scale f Setting	1'6"	2'	3'	5'	10'	15'	30'	∞
f/1.8	1' 5.9" 1' 6.1"	1'11.8" 2' 0.2"	2'11.5" 3' 0.6"	4'10.4" 5' 1.7"	9' 5.6" 10' 7.2"	13' 9.7" 16' 5"	25' 6.4" 36' 4.7"	168' 2.4" ∞
f/2	1' 5.9" 1' 6.1"	1'11.8" 2' 0.2"	2'11.4" 3' 0.6"	4'10.3" 5' 1.8"	9' 4.9" 10' 8"	13' 8.3" 16' 7.1"	25' 1.3" 37' 3.2"	151' 4.8" ∞
f/2.8	1' 5.9" 1' 6.1"	1'11.6" 2' 0.4"	2'11.2" 3' 0.8"	4' 9.6" 5' 2.6"	9' 2.3" 10'11.5"	13' 2.8" 17' 4"	23' 7" 41' 3.4"	108' 2.3" ∞
f/4	1' 5.8" 1' 6.2"	1'11.5" 2' 0.5"	2'10.8" 3' 1.2"	4' 8.6" 5' 3.8"	8'10.7" 11' 5.3"	12' 7.1" 18' 6.7"	21' 7.2" 49' 2.8"	75' 9.5" ∞
f/5.6	1' 5.6" 1' 6.4"	1'11.4" 2' 0.7"	2'10.4" 3' 1.8"	4' 7.4" 5' 5.4"	8' 6.1" 12' 1.7"	11'10.1" 20' 6.2"	19' 5.2" 66' 3.4"	54' 2.3" ∞
f/8	1' 5.5" 1' 6.5"	1'11" 2' 1"	2' 9.8" 3' 2.5"	4' 5.6" 5' 8.2"	8' 13' 4.4"	10'10.3" 24' 4.6"	16'10.7" 138' 2.8"	37'11.9" ∞
f/11	1' 5.4" 1' 6.7"	1'10.8" 2' 1.3"	2' 9" 3' 3.6"	4' 3.6" 5'11.8"	7' 5.4" 15' 3.7"	9'10.1" 31'10.8"	14' 6.2" ∞	27' 8.2" ∞
f/16	1' 5.2" 1' 7"	1'10.3" 2' 2"	2' 7.8" 3' 5.5"	4' 0.6" 6' 6.8"	6' 8.2" 20' 3"	8' 6.2" 66' 9.2"	11' 9.4" ∞	19' 1" ∞

Range of light measurement

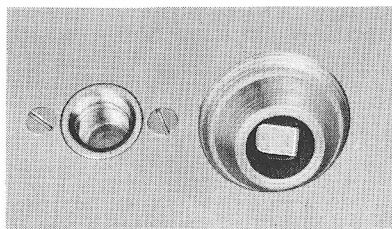
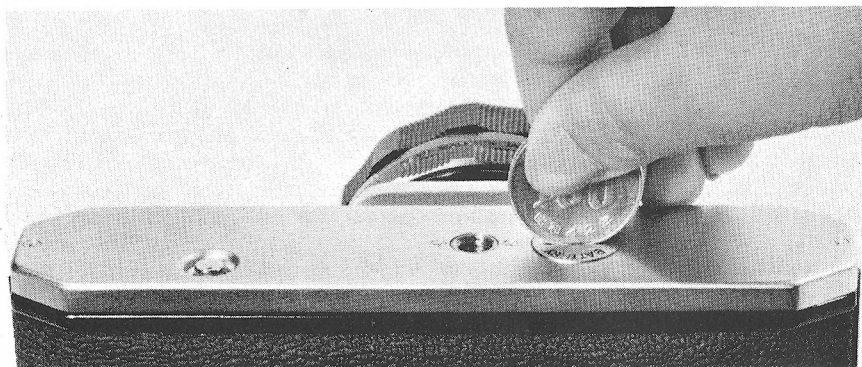
The exposure meter of the Spotmatic measures the brightness of the ground glass. Therefore, the meter should be turned on *after* you have focused your subject on the ground glass. The following table shows the range of the meter's light measurement, and should not be interpreted as the camera's total range of f/stop-shutter speed combinations. As you will note from the table below, with an ASA100 film, you may use any shutter speed from 1 sec. to 1/1000 sec. in combination with

any aperture that will bring the meter needle to the midpoint in the viewfinder. The total range of the aperture settings is, of course, determined by the minimum and maximum apertures of the lens being used. For example, with the 50mm f/1.4 lens and ASA100 film, an aperture from f/1.4 (the maximum aperture of this lens) to f/16 (the minimum aperture) may be used with any shutter speed from 1 sec. to 1/1000 sec. that will bring the meter needle to midpoint.

ASA	B	1	1/2	1/4	1/8	1/15	1/30	1/60	1/125	1/250	1/500	1/1000
20												
• (25)												
32												
• (40)												
• (50)												
64												
• (80)												
100												
• (125)												
• (160)												
200												
• (250)												
• (320)												
400												
• (500)												
• (640)												
800												
• (1000)												
• (1250)												
1600												

The area A indicates the reading range of the meter. The area B indicates that although the shutter speed index is black and the meter needle moves, the meter is NOT operating properly. When the meter needle is centered with the shutter speed dial set at B using ASA 20~50 films, this indicates that the exact shutter speed required is 2 seconds. Please expose your picture for 2 seconds

Mercury battery



How to insert it

Open the battery housing cover on the bottom cover plate with a coin. Insert the battery with (+) side toward the top of the camera. For replacement, use Mallory PX-400 or RM-400-R or equivalent.

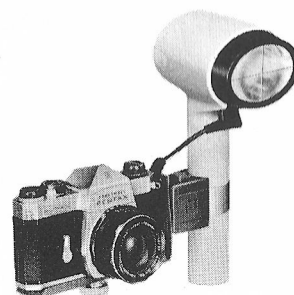
How to check it

1. Set the shutter speed dial to B (bulb) position.
2. Turn the ASA dial to ASA 100.
3. Push the meter switch to "on" position.

Look at the meter's needle through the viewfinder: If the needle rapidly drops, the meter battery has sufficient capacity; if it does not, replace the mercury battery.

CAUTION: The mercury battery is like a phonograph record. It can be damaged by skin acids. Handle by the edges with a dry cloth only. Be sure the battery is cleaned with the cloth before insertion into the camera. The battery is not rechargeable.

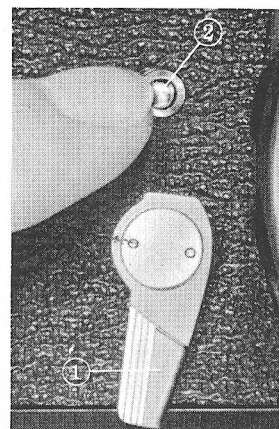
DANGER! A serious accident has been reported of a small child who has put a mercury battery into his mouth and has been hospitalized for serious gripes and stomach inflammation. Please always keep a mercury battery from the reach of small children.



Flash synchronization

The Honeywell Pentax has two sets of terminals—FP and X. The table below shows which flash contact, which shutter speed and which flash bulb may be combined for maximum lamp efficiency. Unless these combinations are rigidly followed, there will be a failure in flash synchronization. Note the "X" setting is exactly at the 60 marked on the speed dial. This indicates the highest shutter speed at which Honeywell Strobosnars or other electronic flash units may be used.

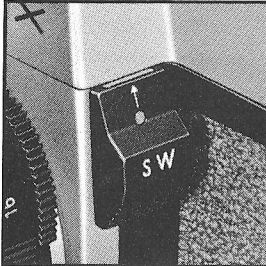

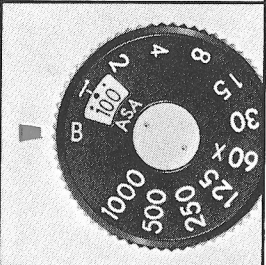
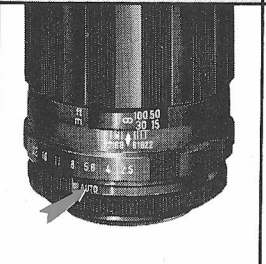
SHUTTER SPEED FLASH TERMINAL	1/1000	1/500	1/250	1/125	1/60 x	1/30	1/15	1/8	1/4	1/2	1
FP	FP Class (Screw Base)										
	FP Class (Bayonet Base)										
X							F Class				
							M Class & MF Class				
							Electronic Flash				

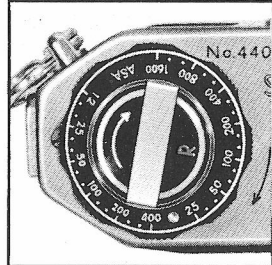
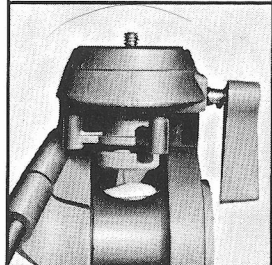


Self-timer

Depending upon how far down you turn the self-timer cocking lever ①, it will release the shutter in 5-13 seconds. When operating the self-timer, always depress the self-timer release button ② to release the shutter. Do not depress the shutter button ... it will immediately release the shutter without delayed action. The self-timer cocking lever should be turned down at least 90° or the release button will not operate.

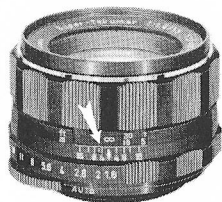
Important notes

	<p>1</p> <p>Always keep the meter switched off when not actually taking readings. Leaving the meter switched on will rapidly exhaust the battery. It is also necessary to keep the meter switched off when mounting a Super-Takumar lens on the Spotmatic camera body. If it is switched on, the tip of the automatic diaphragm release pin of the lens will hit the pin release plate inside the camera body and it may get damaged.</p>
	<p>2</p> <p>When removing the Super-Takumar 50mm f/1.4 lens from the camera body, do not place it on its threaded end without the rear mount cap in place, or you will scratch its rear element lens.</p>
	<p>3</p> <p>When the index of the shutter speeds turns to red, it indicates that the shutter and film speed settings are off the meter's measurability range. Change the shutter speed setting to a faster or slower setting. Refer to page 15.</p>
	<p>4</p> <p>When the meter is switched on, the lens (any Super-Takumar lens) is in its manual position even when the diaphragm preview lever is in "AUTO" (automatic) position. When the meter is switched off manually, or automatically after shutter release, the lens returns to its automatic position when it is set in "AUTO" position.</p>

<p>No!</p> <p>Exposure factor</p> <ul style="list-style-type: none"> x1.63 x1.96 x3.20 x4.80 x5.46 	<p>5</p> <p>Exposure increase factors which apply when taking pictures with filters, close-ups, macro- and micro-photos, do not apply to the Spotmatic.</p>
	<p>6</p> <p>Do not use the Super-Takumar 50mm f/1.4 lens with any other camera or any other Honeywell Pentax model except with models H3v and H1a, having orange-colored "R" marking on the film rewind knob, or you will damage the rear element of the lens.</p>
	<p>7</p> <p>The length of the tripod's screw should not exceed the normal length of 3/16" (4.5mm). Do not extend it longer than this length when mounting your camera on tripod. Forcing longer screws into the tripod socket of the camera will damage the mechanism.</p>
<p>No!</p>	<p>8</p> <p>We do not guarantee the quality of photographs when brands other than Takumar lenses and Pentax accessories, such as lens extenders, are used.</p>

Infra-red photography

55mm
f/1.8



50mm
f/1.4

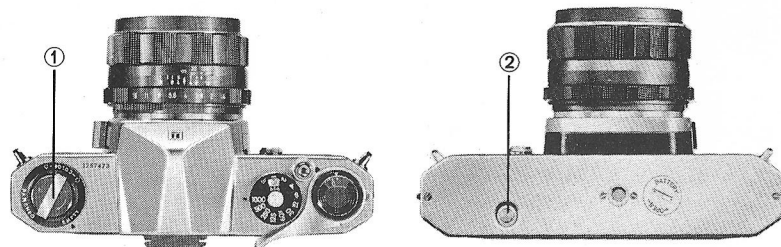


If you intend to take infra-red photographs, remember to use the small "R" index marked on the depth-of-field guide. Some of the Takumar lenses, however, like the above picture of Super-Takumar 50mm f/1.4, do not have the "R" mark. The index is just a short orange line.

First, focus your lens on your subject. Determine the lens to subject distance from the distance scale. Then match your lens to subject distance to the "R" mark by turning the distance scale accordingly. For instance, if your subject is in focus at infinity, turn the distance ring and move the infinity (∞) mark to the "R" index.

The "R" index marking on the Takumar lenses is based on the lens setting at infinity.

How to make deliberate double exposure



For deliberate double exposures, make the first exposure in the normal way. Then tighten the film by turning the rewind knob ①, and keep hold of the rewind knob. Depress the film rewind release button ② and cock the rapid wind lever. This tensions the shutter without advancing the film. Finally, release the shutter to make the second exposure. Then make one blank exposure, before taking the next picture, to avoid overlapping.

Interchangeable Lenses

The Honeywell Pentax offers many interchangeable lenses in a wide variety of focal lengths, all of which are highly respected by both professional and amateur photographers for their fine resolution. The photographic coverage of the various Takumar lenses is illustrated on page 22. With focal length longer than 55mm, the subject image is seen through the viewfinder larger than its life size.

Regardless of the lens selected for your Honeywell Pentax, 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 ring. When attaching a lens, filter, or lenshood, do not screw it too tightly, as you may find it difficult to remove.

Fixed Focusing Setting

Because of the considerable depth of field of wide-angle lenses, you can use them as fixed focus lens if the diaphragm and distance scales are set properly. For your convenience, the Super-Takumar lenses shown on page 23 have a fixed fo-

cus mark. Just align with the index the orange-colored figures of the diaphragm and distance scales, and the lens will be in fixed focus from foreground to infinity. You'll find this extremely convenient for fast shooting.

Super-Multi-Coated (SMC) Takumars

Pentax SMC Takumar lenses are the world's first 7-layer multi-coated lenses. A truly remarkable optical achievement. Conventional lenses have only 1-3 layer coatings. The additional coating of SMC Takumar lenses let in more lighting resulting in truer colors. Reflection is reduced to 0.2% allowing the remaining 99.8% of light to pass through. This means higher light transmission, and the brightest lens possible. Colors pass through with equal in-

tensity so color balance is strikingly improved. Brighter blues. Vibrant reds. Truer yellows. SMC Takumar lenses make it possible. And, no ghosts or flares even when shooting against the sun. Ultra-violet light is reflected off the glass surface. So, only true colors are absorbed. Undesired rays are kept out. SMC Takumar lenses are for people interested in the ultimate in photographic lenses.



WARRANTY POLICY

Your new Honeywell Pentax camera is warranted for one year against defects in material or workmanship. This covers either the original purchaser or the gift recipient. Any defect in your Spotmatic will be repaired or replaced (at our option) and defective parts will be replaced without cost to you within the 12-month period, provided the camera has not been abused, altered or operated contrary to instructions. Honeywell will not be liable for damages from delay or loss of use or other indirect consequential damages.

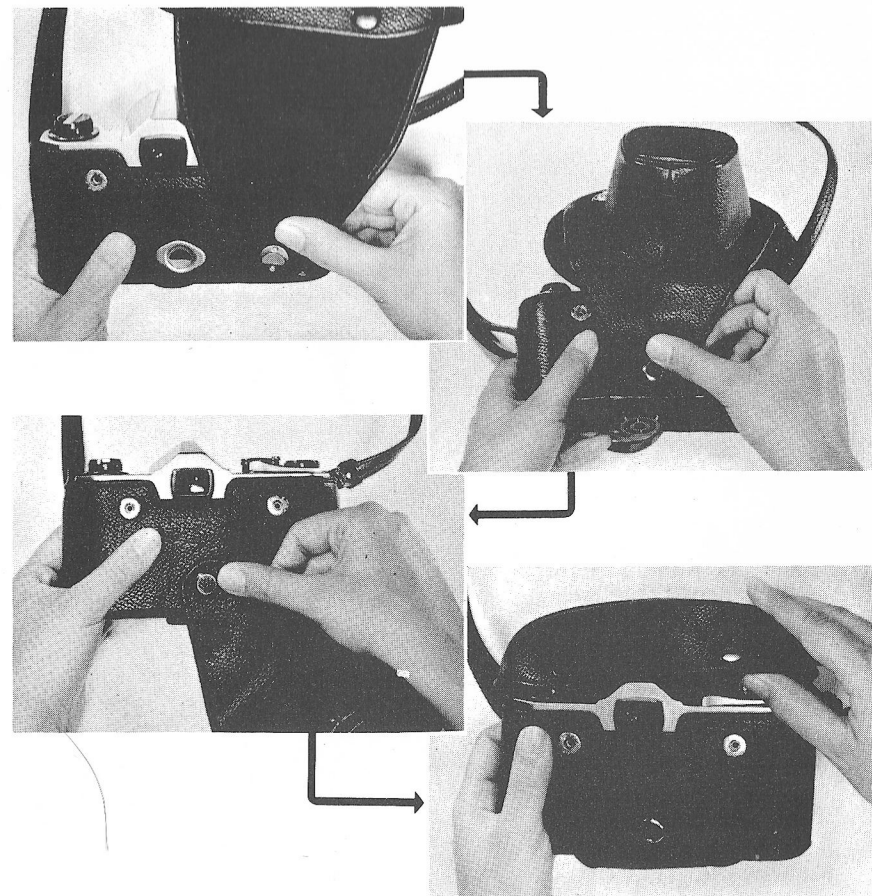
If your camera should require service, you may send it to the most convenient factory center listed.

PENTAX INTERNATIONAL WARRANTY

If you intend taking your Pentax abroad during the warranty period, you may obtain a Honeywell Pentax international warranty card by writing to us. With your request, include your name, address, camera and lens serial numbers, dealer's name and address, and date purchased.

HONEYWELL REGIONAL SERVICE CENTERS:

HONEYWELL INC. 5200 East Evans Avenue, Denver, Colorado 80222	(303) 756-8336
HONEYWELL INC. 24-30 Skillman Ave., Long Island City, New York 11101	(212) 392-4300
HONEYWELL INC. 128 Newbury, Boston, Massachusetts 02116	(617) 262-2146
HONEYWELL INC. 1150 17th Street, N.W., Washington, D.C. 20036	(202) 659-8980
HONEYWELL INC. 4275 Wendell Drive S.W., Atlanta, Georgia 30336	(404) 691-5900
HONEYWELL INC. No. 141 The Old Arcade, Cleveland, Ohio 44114	(216) 696-2216
HONEYWELL INC. 3201 Old Glenview Road, Wilmette, Illinois 60091	(312) 256-6161
HONEYWELL INC. 6620 Telegraph Road, Los Angeles, California 90040	(213) 723-6611
HONEYWELL INC. 554 Mission Street, San Francisco, California 94105	(415) 398-4640
HONEYWELL INC. 45 South Ninth Street, Minneapolis, Minnesota 55402	(612) 333-7293



HOW TO REMOVE THE FRONT COVER

As you see from the above photographs, the rear side of the front cover has a half-moon convex clip and the body side has a half-moon concave clip, which accepts the convex clip. When removing the front cover, turn it 180°. Do not try to remove it with force without turning it 180°.

CAUTION

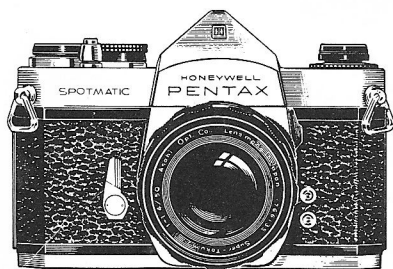
Mercury Battery

The mercury battery should be kept dry. Don't touch it with your finger unnecessarily. Before inserting it into its housing, wipe its surface completely with a dry piece of cloth. Don't try to measure the short current or to charge the battery, to prevent rapid deterioration. Don't throw a used battery into fire ... it may explode. Keep the battery out of the camera's battery housing when you do not intend to use it for a lengthy period of time. See page 16.

Should you need additional information about your Honeywell Pentax, address your questions to: Consumer Affairs at the address below:

Honeywell

P. O. Box 22083
Denver, Colorado 80222



Honeywell