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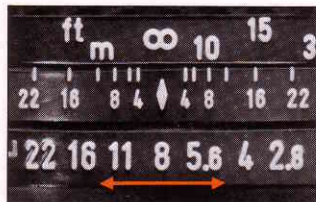
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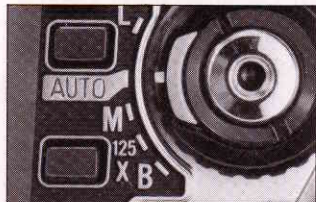
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SELECTING THE APERTURE-PRIORITY AE MODE



- Rotate the lens aperture ring to the desired f/stop. If the ring is locked at the "A" position, release it by depressing the aperture auto lock button.



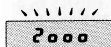
- Set the red index of the shutter dial to AUTO.



- Pressing the shutter release button slightly; the shutter speed will be digitally indicated both on the external LCD and the LCD inside the viewfinder. Further pressure will release the shutter. Shutter speed indication will disappear from both LCD indicators when the meter is automatically switched off by the built-in timer. Aperture-priority AE is the best mode for taking pictures with emphasis on depth-of-field. For more information, refer to page 48.

Aperture-priority AE mode warnings

If the subject is very bright, you will see a flickering



As remedy, shift the aperture ring towards smaller values (or, to the direction of f/22).

If the subject is dark you will see flickering.



Rotate the aperture ring towards the lens' maximum aperture (f/1.4). When the display stops flickering, you can take a proper exposure. If flickering continues even after the aperture is changed, the subject is too dark or too bright for a normal exposure. For very bright subjects, use a slower film or an ND filter, and dark subjects, use a faster film, flash or other artificial lighting.

SELECTING THE SHUTTER-PRIORITY AE MODE



- Set the green line of the aperture A index to the \blacklozenge marking while depressing the lens aperture auto lock button.

- Set the red line of the shutter dial to the "M" (Manual) position. The shutter speed will be digitally displayed on the LCDs both outside the camera and inside the viewfinder.



- Select the shutter speed by pressing either of the manual shutter speed select buttons (next to the shutter dial). The front button makes the shutter speed faster; the rear button makes it slower. The shutter speed changes step by step with each time you press the button, and the speed changes continuously if you keep your finger on the button.



- When you press the shutter release button lightly, the aperture value is indicated on the viewfinder LCD. To take a picture, put a little more pressure on the button. The meter switch turns off about 30 seconds after you remove your finger from the shutter release button. The aperture indication then goes out, but the shutter speed display remains on.

- If you set the red line of the shutter dial to 125x, a variation of Shutter-priority AE is possible, but the speed remains fixed at 1/125 sec.

Shutter-priority AE mode Warnings

If the camera cannot automatically select an appropriate aperture for the shutter speed you have chosen, you will see the following warnings.



Maximum aperture flickering.

In this case, change to a slower shutter-speed (towards 15 secs.). Even at maximum aperture there is not enough light to shoot at the original shutter speed.



Minimum aperture flickering.

If this indication appears, change to a faster shutter-speed (towards 1/2000 sec.). Even at minimum aperture there is too much light to shoot at the original shutter speed.

When the flickering stops, and you can start shooting.

If the subject brightness goes completely over the meter coupling range, both shutter-speed and aperture displays will flicker at high values:



If the subject is too dark for the meter, both displays will flicker at low values.



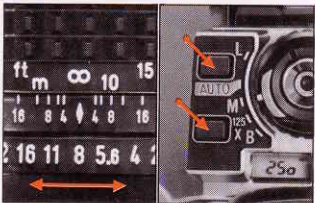
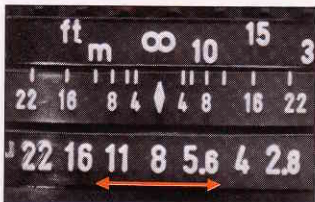
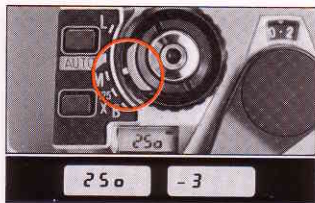
Should the subject be extremely bright, a lower sensitivity film or an ND filter will be effective. If the subject is too dark, the use of a higher speed film, flash or other supplemental lighting is recommended.



Flickering

Should you happen to shift the shutter dial to "B" (Bulb), a flickering "E" (Error) appears on LCDs both outside the camera and inside the viewfinder to warn against erroneous operation. The shutter cannot be released even if the button is depressed.

SELECTING THE METERED MANUAL MODE



- Set the shutter dial red-line index to "M" (manual) and select the desired shutter speed. The shutter speed will be displayed on LCDs both outside the camera and inside the viewfinder.

- Rotate lens aperture ring to an F value. Should the lens be locked at A (auto), release it by depressing the aperture auto lock button.

- Slightly depress the shutter release button, and you will see one of the following indications (+3, +2, +1, ± 0 , -1, -2, or -3) displayed on the aperture value window in the viewfinder. These figures show the steps of over- or under-exposure (EV value).

+ = over-exposure

± 0 = correct exposure

- = under-exposure

Should the lighting condition go over the limit of three steps, the +3 or -3 indication flickers.


- For normal shooting, adjust the lens aperture so that correct exposure, indicated by ± 0 , is obtained. Should you select the lens aperture prior to the shutter speed, adjust the shutter speed to obtain the correct exposure.

If you prefer over- or under-exposure, you can freely select any exposure applying the indication as a guidance.


As soon as the meter switch is turned off by the built-in timer, the aperture indication goes out, but the shutter speed display remains on.

Warnings for Metered Manual mode

The following indications will be given for over- or under-exposure.


 Aperture LCD Flickering


This indicates over-exposure of more than three steps. Change to a faster shutter speed (towards 1/2000 sec.), or select a smaller aperture by rotating the aperture ring toward f/22.

 Aperture LCD Flickering

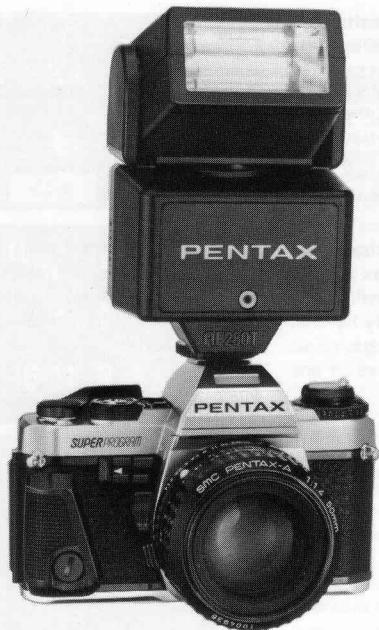
In this case, the exposure is more than three steps under. Change to a slower shutter speed (towards 15 secs.), or rotate the aperture ring towards f/1.4. When your shutter/aperture combination comes within the range of ± 3 , the flickering stops.

If the situation is beyond the meter coupling range, indications are as follows.

 Both flickering at high values. The subject is too bright.

 Both flickering at low values. The subject is too dark.

In either case, the subject is not within the Pentax Super Program's meter coupling range. So you will not be able to obtain a proper exposure simply by changing aperture and shutter speed settings.



The combination of your Pentax Super Program and any Pentax dedicated auto flash unit allows a variety of convenient functions as outlined in the following page.

If your flash unit requires the use of a synch cord, connect the cord to the X-synch socket found on your Pentax Super Program. Operations/functions of each electronic flash unit are fully explained in their respective operating manuals.

Note: When you use the Super Program with AF400T, connect the flash unit with 4P Sync Cord B to the camera hotshoe.

*TTL Auto Flash units.

Flash functions of Pentax Super Program with:	*AF400T	*AF280T	*AF200T	*AF080C	AF200S	AF160
Flash recycling displayed in Viewfinder by $\frac{1}{2}$ mark.	○	○	○	○	○	○
When camera is set at AUTO, shutter speed automatically switches to X-synch speed (1/125 sec) for flash photography.	○	○	○	○	○	○
Correct auto flash exposure is confirmed by lighting or flickering of $\frac{1}{2}$ mark immediately after the flash emission.	○	○	○	○		
Film-plane-metering for auto flash is available (TTL Auto Flash).	○	○	○	○		
In manual mode, flash photography is possible with shutter speeds slower than 1/125 sec.	○	○	○	○	○	○
Proper aperture is automatically set in Programmed AE mode and/or Shutter-priority AE mode.	○	○	○	○		

Note: When any of the above flash units other than the AF-160 is used with the Super Program with the flash mode set at AUTO, the flash may not fire if the subject is too bright for flash photography.

SELECTING THE TTL AUTO FLASH MODE

When you set the camera to the Aperture-priority AE or the Metered Manual mode;

- You can set any desired f-number on the lens aperture ring for the TTL Auto Flash control.
- The LCDs indicate the automatically set synchronization shutter speed of 1/125 sec. as the TTL Auto Flash recycles. (Rf. page 43 for the slow speed synchronization in the Metered Manual mode.)

When you choose the Programmed AE or the Shutter-priority AE mode;

- The lens aperture is automatically set to f/4 (in the case of the AF080C, f/8) and the LCDs indicate the automatically set synchronization shutter speed of 1/125 sec. For instance, the camera is set to the Programmed AE mode and the ASA/ISO is set at 100, the LCD indications automatically change as follows.



- When you use other films than ASA/ISO 100, the aperture will change according to the film speed registered on the camera.

Note

If you leave the power switch of the Pentax dedicated auto flash on in any mode, the camera's exposure control circuitry will also be automatically switched on. And it will remain on, consuming the camera's battery power. So remember to turn off the flash power switch. If you use a Pentax dedicated flash unit in the M or MS mode, the flash's automatic coupling system will not function with the camera set in Programmed AE or Shutter-priority AE mode.

SELECTING THE PROGRAMMED AUTO FLASH MODE

When you set the camera to the Programmed AE or the Shutter-priority AE mode;

- Choose an Auto position on the flash mode selector (red, green, yellow) of the dedicated TTL Auto Flash unit.
- As the TTL Auto Flash unit recycles, the shutter speed will be automatically changed to the synchronization speed of 1/125 sec. and the lens aperture is also automatically set to the predetermined value shown in the table below according to the Auto position (red, green, yellow) you choose.

(With ASA/ISO 100 film)

	AF200T	AF280T	AF400T
"Red" mode	f/2.8	f/4	f/4
"Green" mode	f/5.6	f/8	f/8
"Yellow" mode	—	—	f/11

For instance, if you set the flash mode selector to the red position of the AF200T, at ASA/ISO 100, the LCD indication shall be as follows.





When you use other films than ASA/ISO 100, the aperture will change according to the film speed registered on the camera.

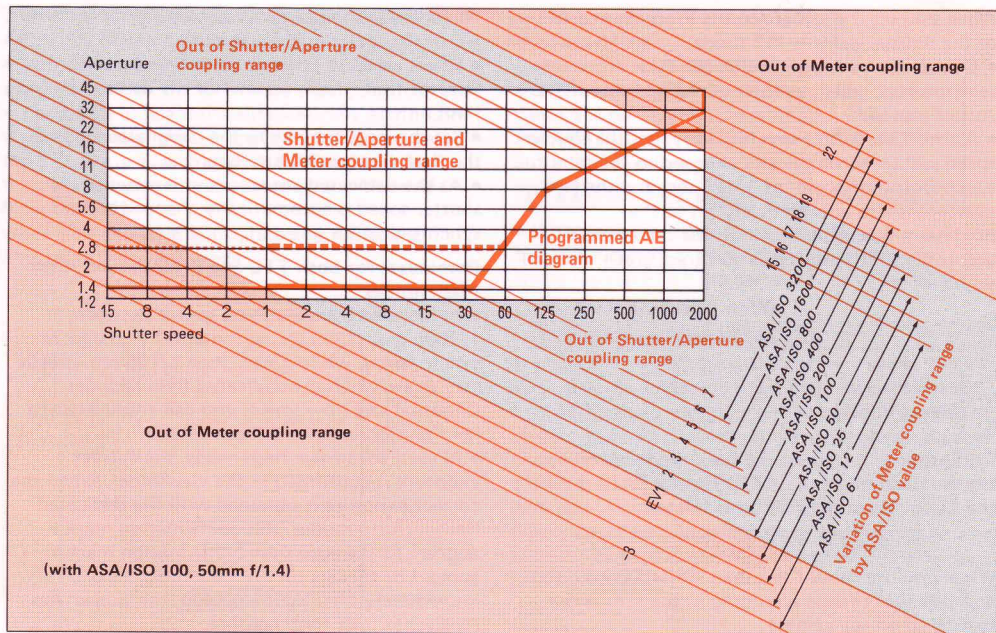
When you set the camera to the Aperture-priority AE or the Metered Manual mode;

- Select an Auto position on the flash mode selector (red, green, yellow) of the dedicated auto flash unit.
- Set the lens aperture to the designated value on the flash unit's calculator board.
- As the dedicated auto flash unit recycles the shutter speed is automatically changed to the synchronization speed of 1/125 sec.

Reminders for both TTL and Programmed Auto Flash modes:

- In Metered Manual mode, speeds between 1/2000 and 1/250 sec. automatically change to synch. speed, while slower than 1/125 sec. speeds stay as are when the dedicated flash recycles. Choosing any slow speed, you can enjoy existing light photography with flash fill-in.
- In each automatic flash mode, the correct exposure is confirmed in the viewfinder. When the correct exposure is obtained with the dedicated flash in Auto modes, this confirmation mark  appears. If the auto flash confirmation mark  appears or flickers on the viewfinder LCD immediately after light emission, the subject has received proper flash lighting.

PROGRAMMED AE DIAGRAM, SHUTTER/APERTURE COUPLING RANGE, METER COUPLING RANGE.



The Super Program's shutter-speed and aperture combination in the Programmed AE mode is shown in the chart.

The red line represents the variation of shutter-speed and aperture combination with an f/1.4 lens. Note that only the shutter-speed slows down after the lens aperture reaches its limit of f/1.4 in combination with a speed of approx. 1/30 sec. When you use a lens with a different maximum aperture, the exposure program varies the aperture and the shutter-speed in combination until reaching the maximum aperture of your lens. For example, with an f/2.8 lens the program varies the combination as shown by the red dotted line. Note that only the shutter-speed changes after the maximum aperture is reached. The fine red line in the Programmed AE diagram indicates the Automatic Exposure control range for a lens with minimum aperture smaller than f/22, or for a film with ASA/ISO speed other than 100. The fine red-dotted line indicates the range for a lens with maximum aperture smaller than f/1.4, or for a film with ASA/ISO speed other than 100.

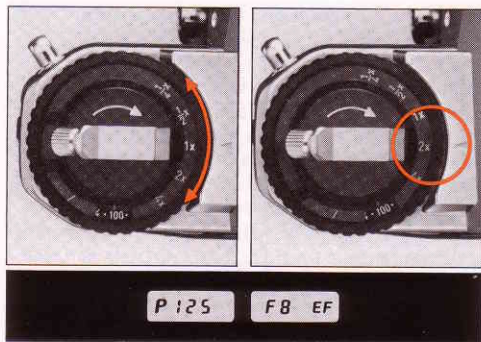
Meter coupling range and Shutter/Aperture coupling range

The meter coupling range means the range of subject luminance within which the built-in exposure-meter works to control exposure. The shutter/aperture coupling range is that part of the meter coupling range within which shutter-speed and aperture value can be combined for proper exposure control. When you use a 50mm f/1.4 normal lens and an ASA/ISO 100 film, the meter coupling range is from EV 1 (f/1.4-1 sec. or f/2-2 sec.) to EV 19 (f/22-1/1000 sec. or f/16-1/2000 sec.). The range varies according to film speed (ASA/ISO). The variation of the meter coupling range is shown by slanting lines which shift with ASA/ISO ratings. The frame in the center shows the meter and shutter/aperture control coupling range.

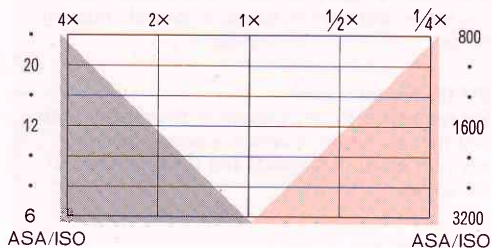
EV (Exposure Value)

EV represents a combination of the shutter-speed and the lens aperture which is determined by the film speed (ASA/ISO) and the brightness of the subject.

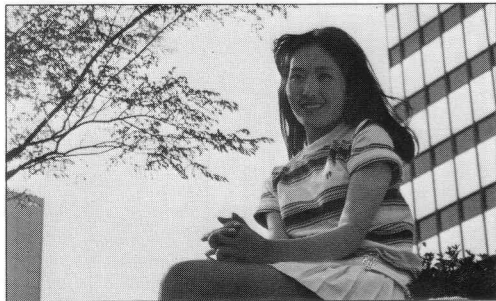
EXPOSURE COMPENSATION



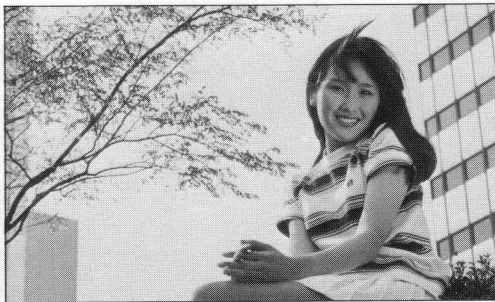
Exposure compensation range



1X



2X



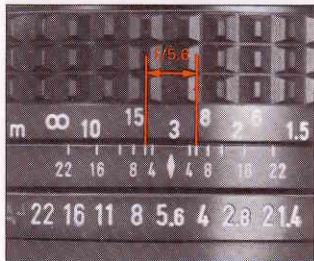
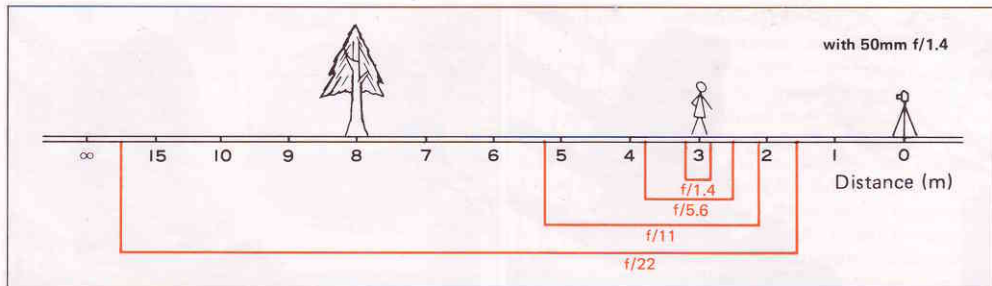
1X



1/2X

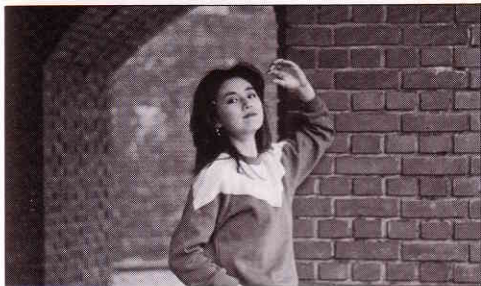


DEPTH-OF-FIELD



Depth-of-field is the range between the nearest and farthest distances which are in focus at a given lens aperture.

The minimum aperture (for example f/22) gives you the greatest depth-of-field, or area in focus. The maximum aperture (for example f/1.4) gives you the smallest depth-of-field. When you vary aperture value, the range "in focus" changes accordingly, so that you can create different photographic effects in your pictures. As illustrated in the pictures on the right (examples of f/1.4 and f/22), the distance range in focus can be confirmed by the depth-of-field scale on the lens.

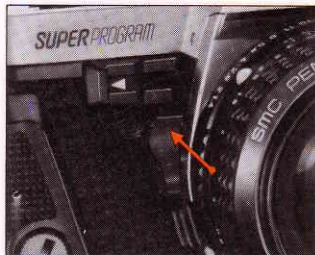


f/1.4 (2.85 ~ 3.16)



f/22 (1.67 ~ 16.88)





Depth-of-field preview

Your Super Program is equipped to help you preview just what will and what will not be sharp in your pictures. By depressing the preview lever near the lens mount, you can close the lens down to whatever aperture you have set. You can then preview how much sharpness you will get in your picture by examining the picture area on the ground glass. After previewing your picture, if you release the preview lever, the lens will return to full aperture for focusing. You cannot, however, preview the depth of field with your Super Program set in the Programmed AE and Shutter-priority AE modes.

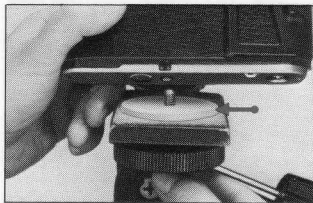
Note: Taking pictures with the preview lever depressed will result in incorrectly exposed pictures.

Depth-of-field Table: SMC Pentax-A 50mm Lens

unit=meter

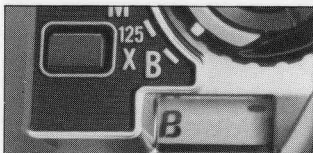
Distance scale	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22
0.45m	~ 0.448 ~ 0.453	~ 0.446 ~ 0.454	~ 0.445 ~ 0.455	~ 0.443 ~ 0.457	~ 0.440 ~ 0.460	~ 0.436 ~ 0.465	~ 0.431 ~ 0.471	~ 0.423 ~ 0.481	~ 0.414 ~ 0.493
0.5m	~ 0.497 ~ 0.503	~ 0.495 ~ 0.505	~ 0.494 ~ 0.507	~ 0.491 ~ 0.509	~ 0.487 ~ 0.513	~ 0.482 ~ 0.519	~ 0.476 ~ 0.527	~ 0.466 ~ 0.540	~ 0.454 ~ 0.557
0.6m	~ 0.595 ~ 0.605	~ 0.593 ~ 0.607	~ 0.590 ~ 0.610	~ 0.586 ~ 0.615	~ 0.581 ~ 0.621	~ 0.573 ~ 0.630	~ 0.564 ~ 0.642	~ 0.549 ~ 0.663	~ 0.532 ~ 0.691
0.8m	~ 0.791 ~ 0.810	~ 0.787 ~ 0.814	~ 0.781 ~ 0.820	~ 0.774 ~ 0.828	~ 0.764 ~ 0.840	~ 0.749 ~ 0.859	~ 0.732 ~ 0.883	~ 0.705 ~ 0.927	~ 0.675 ~ 0.987
1.0m	~ 0.985 ~ 1.016	~ 0.978 ~ 1.023	~ 0.970 ~ 1.032	~ 0.958 ~ 1.046	~ 0.942 ~ 1.066	~ 0.919 ~ 1.098	~ 0.892 ~ 1.140	~ 0.851 ~ 1.218	~ 0.806 ~ 1.328
1.5m	~ 1.464 ~ 1.538	~ 1.449 ~ 1.555	~ 1.430 ~ 1.578	~ 1.402 ~ 1.613	~ 1.366 ~ 1.664	~ 1.316 ~ 1.746	~ 1.259 ~ 1.861	~ 1.174 ~ 2.093	~ 1.086 ~ 2.462
2.0m	~ 1.935 ~ 2.070	~ 1.908 ~ 2.101	~ 1.874 ~ 2.144	~ 1.825 ~ 2.213	~ 1.764 ~ 2.312	~ 1.679 ~ 2.478	~ 1.584 ~ 2.724	~ 1.449 ~ 3.265	~ 1.314 ~ 4.298
3.0m	~ 2.853 ~ 3.164	~ 2.794 ~ 3.239	~ 2.719 ~ 3.346	~ 2.615 ~ 3.521	~ 2.487 ~ 3.785	~ 2.318 ~ 4.265	~ 2.137 ~ 5.073	~ 1.892 ~ 7.426	~ 1.665 ~ 16.883
10.0m	~ 8.488 ~ 12.171	~ 7.973 ~ 13.421	~ 7.375 ~ 15.552	~ 6.631 ~ 20.422	~ 5.846 ~ 35.101	~ 4.966 ~ ∞	~ 4.181 ~ ∞	~ 3.313 ~ ∞	~ 2.655 ~ ∞
∞	~ 55.370 ~ ∞	~ 38.772 ~ ∞	~ 27.707 ~ ∞	~ 19.408 ~ ∞	~ 13.876 ~ ∞	~ 9.726 ~ ∞	~ 7.086 ~ ∞	~ 4.885 ~ ∞	~ 3.565 ~ ∞





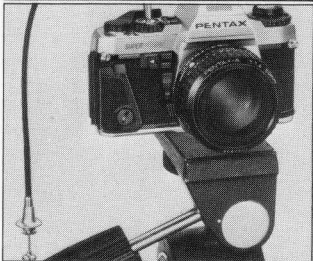
Tripod

In order to prevent large diameter lenses from interfering with proper mounting of the camera on a tripod, insert the accessory spacer ring. To prevent movement of the camera during long exposures, use a tripod and cable release.



Bulb (B)

Bulb is used to make long exposures of more than 15 seconds. Set the shutter dial index (red line) to the "B" position, and the shutter will remain open as long as the shutter release button is depressed. The shutter speed LCD inside the viewfinder indicates "B". Bulb cannot be used when the aperture ring of an A lens is set at A (Auto). Should the "B" be set on the shutter dial, the "E" (error) indication flickers as a warning on the shutter speed LCD.

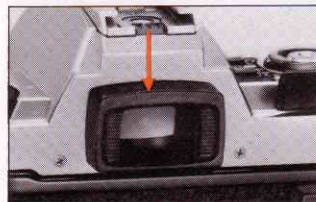


Time Exposures

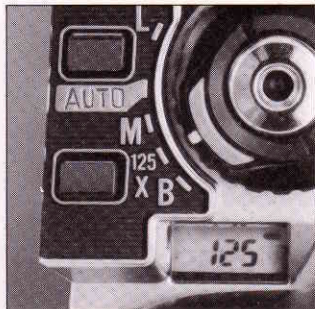
For time exposures use Pentax Cable Release Type 30 or 50 with the shutter dial set at "B."

SELF-TIMER

The self-timer is used when you want to include yourself in the picture with your family, friends, etc. Draw the self-timer lever in the direction of the arrow, and depress the shutter release button. The timer delays shutter release for about 12 seconds. Self-timer operation is indicated by red light and electronic beeping. 2 seconds before a shutter release, the frequency of flickering and beeping increases. The self-timer can be cancelled even after pressing the shutter, by returning the lever to its original position. The self-timer cannot be used with the shutter set at "B". "E" flickers on LCDs both outside the camera and inside the viewfinder to warn you of an erroneous setting. When using the self-timer, cover the viewfinder eyepiece with the accessory finder cap; otherwise, light entering from the rear of the camera may make the shutter speed faster, adversely affecting the exposure.

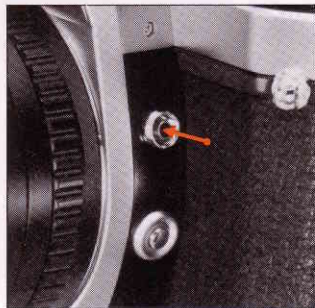


USE OF NON-DEDICATED FLASH UNITS



- In using an ordinary flash unit, adjust the shutter dial index (red line) to 125X. The shutter speed will be indicated as 125, but there will be no LCD indication of f/stop.
- Set the lens aperture according to the camera-to-subject distance (Refer to the instructions accompanying the flash unit).
- When using a synch-cord, connect it to X-synch socket on your Super Program.

Note: Flash units available from other makers with dedicated flash coupling capability, special purpose flash units, etc., will tend to cause malfunctions or damage to the electronic systems of your Super Program.

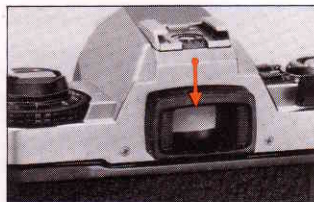


DIOPTER ADJUSTMENT, CHANGING BACK COVER

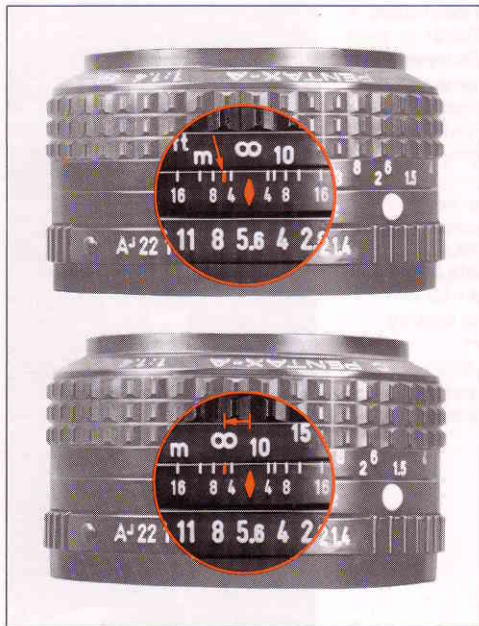
Correction lenses M are available for the Super Program viewfinder. There are 8 auxiliary M lenses: -5, -4, -3, -2, -1, +1, +2 and +3D. Choose the one that suits your eye, and put it in the eyepiece accessory slots as illustrated. Before buying one, try it for yourself with the lens actually attached to your camera.

Changing the back cover

The back cover must be removed from your Pentax Super Program to use such accessories as the Dial Date ME or Digital Data M data-imprinting devices. Open the back cover, and pull it slight-by while pushing down the back cover release pin to disengage the locking mechanism. Then the cover can be easily removed. When reattaching it, first put the lower back-cover-release lug into position, then match the upper lug with the release pin pushed downward. Release the pin to attach the back to camera body.



INFRARED INDEX MARK



If you intend to take infrared photographs using infrared film and R2 or O2 filters, it is necessary to compensate for the difference between visible light focus and infrared focus. As shown on the left, note the subject-to-camera distance on the lens distance scale as you focus through the viewfinder and turn the focusing ring until that distance setting aligns with the red infrared index mark. The figure shows an example in which the subject-to-camera distance is set at infinity (∞).

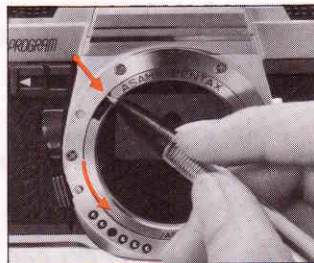
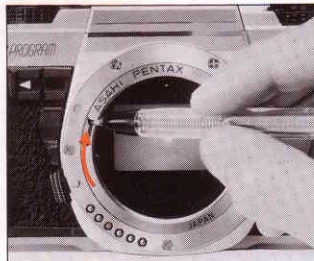
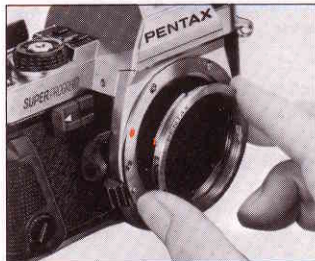
As for exposure control required in infrared photography, refer to the instructions contained in the film package.

Conventional screw-mount lenses can be easily attached to the lens mount of your Pentax Super Program by using the optional Mount Adaptor K. But there are some limitations.

- Put the Mount Adaptor K in the body mount by matching both marks.
- To lock it, rotate the adaptor clockwise (65°) with a pointed object such as a ball-point pen. Now your Super Program can accept any conventional Pentax screw-mount lenses.
- To remove the adaptor, press the spring pin on the adaptor with some pointed aid and rotate it counterclockwise until it stops.

Limitations in using screw-mount lenses on the Super Program

- The distance scale of the lens is usable as it is, up to infinity (∞).
- Automatic diaphragm coupling doesn't function due to the difference in coupling system.
- The exposure is metered with aperture stopped down.
- Programmed AE and Shutter-priority AE modes cannot be used with screw-mount lenses.
- There is not automatic aperture setting even with dedicated flash units.



HOW TO USE VARIOUS ACCESSORIES WITH YOUR SUPER PROGRAM

- When you attach the following accessories to the Super Program, use the stop-down (or working aperture) metering mode or Metered Manual mode:

Bellows Unit III

Microscope Adaptor K

Helicoid Extension Tube K

Extension Tube K Set

Reverse Adaptor K 49mm/52mm

6 x 7 Lens Mount Adaptor K

Telescope Adaptor K

- When you attach the following accessories to the Super Program, use the Aperture-priority AE mode or Metered Manual exposure mode:

Auto Bellows A Set and M Set new

Auto Extension Tube K Set

Auto Extension Tube K 100mm/50mm

Rear Converter K T6-2X

Note: The scale and double cable release of the Auto Bellows M Set new cannot be used with the Super Program.

- Use the Refconverter A because with the Refconverter M the viewfinder LCD of the Super Program is not visible.
- When using the Winder ME II with the Super Program, be sure to set the AUTO/125X indicator of the winder at AUTO. If set at 125X, it may cause malfunction.
- Do not use the Winder ME with the Super Program, as they are not designed to work properly.
- The Super Program's Programmed AE and Shutter-priority AE modes do not function with a Pentax dedicated flash set at "M" (manual) or "MS" (manual synchronization).
- As you set up for multi-flash photography with dedicated flash units, use your Pentax Super Program in the Aperture-priority AE or the Metered Manual mode.

- **With the shutter dial set to "AUTO" the viewfinder LCD fails to indicate anything.**

Did you slightly depress the shutter release button? Are batteries properly inserted in your camera? (See details on page 6)

- **What happens if the batteries are completely depleted?**

LCDs outside the camera and inside the viewfinder are blank. Even if the shutter is pressed, the shutter cannot be released. Replace the batteries with new ones. (See page 7.)

- **What is ASA/ISO 100?**

It shows the sensitivity of the film in use. You cannot obtain proper exposures unless you set the camera to the proper film speed. (See page 15)

- **Why are my pictures out of focus?**

Always be sure to focus accurately by using the split image and/or microprism on the finder screen. Camera shake often causes blurred pictures. Use shutter-speeds faster than 1/60 sec., and hold your camera tightly while shooting. (See pages 19 and 20)

- **Only the "1000" indication appears on the shutter speed LCD in spite of the fact that the exposure mode is properly set.**

Repeat film advancing operation until the film counter registers "1". (See page 7)

CLEANING:

- Always keep the viewfinder eyepiece, lens and filters as clean as possible. To remove loose dust and dirt, first use the blower and then the brush. Do not try to wipe off granular dirt or dust — it's an excellent way of scratching the glass.
- Smudges, such as fingerprints, should be carefully wiped away with either lens tissue or a clean, soft cloth. Clean, plain cotton handkerchiefs that have already been washed a few times are particularly good for this. Breathing on the lens before wiping is effective; but be sure to wipe away all moisture completely. Commercial lens cleaners are also effective.
- Never touch the mirror or the shutter leaves. Minor dirt or spots on the mirror will not affect the clarity of your pictures.
- Take care not to drop the camera or knock it against anything solid. Accidents or rough handling can easily damage the internal mechanism, even though externally nothing seems to have been damaged.

KEEP YOUR CAMERA DRY:

- Your camera is *not* waterproof. There are several places where water can get inside and do a great deal of damage. Take care to protect both body and lens from rain or splashing water. If your camera should get wet, dry it off immediately with a clean, soft cloth.
- If your camera becomes completely soaked, it may malfunction. In this instance, bring it as soon as possible to an authorized Pentax service center.

STORAGE:

- Where to keep your camera while you are not using it is an important point. The best storage place is cool, dry, clean and well-ventilated. Because of the possible build up of humidity, it is risky to store your camera in a cabinet or closet. It's also a good idea to keep your camera in its bag or case while you are not using it.

The temperature range at which your camera will continue to function properly stretches from 50°C to -20°C. However, resistance to cold could be hampered by dirty oil. Therefore, if the camera is to operate at full efficiency in very cold conditions, it must be overhauled and all oil must be replaced. Sudden changes in temperature will often cause moisture to condense inside or outside your camera. This is a possible source of rust, which may be extremely harmful to the mechanism. Furthermore, if the camera is taken from a warm temperature to a sub-freezing one, further damage may result from the formation of icelets.

Thus, sudden temperature changes should be avoided as much as possible. As a guide, a temperature change of 10°C should be allowed to take place gradually over a period of at least 30 minutes. If this is not possible, keeping the camera in its case or bag will help somewhat in minimizing the effects of a rapid temperature change.

Extremely low temperature reduces the efficiency of the battery. Therefore, the camera should be protected against low temperature. Put the batteries into the camera right before shooting. For extremely low temperature, use new batteries.

A few notes on the LCD (Liquid Crystal Display):

In high temperature, approximately 60°C or 140°F or above, the LCD windows may turn black. In low temperature, the response-time of the display may slow down considerably.

These phenomena do not indicate either camera break-down or break-down of the LCDs themselves. They are characteristic of LCDs, and the LCDs will return to normal when the temperature becomes normal.

SPECIFICATIONS

Type:	35mm SLR camera with multi-mode automatic exposure controls, electronically-controlled focal plane shutter, and open-aperture center-weighted Through-The-Lens metering.
Six Exposure Control Modes:	Programmed AE, Aperture-priority AE, Shutter-priority AE, Metered Manual, TTL Auto Flash, and Programmed Auto Flash mode.
Exposure Control Mode Setting:	By using combinations of settings on shutter dial and aperture ring of "A" series lenses.
Film:	35mm film.
Format:	24 x 36 mm
Lens Mount:	Pentax K _A Bayonet (A Pentax K bayonet mount with electrical contact).
Shutter:	Seiko MFC-E3 vertical-run metal focal-plane shutter, automatic exposure and manual settings electronically-controlled speeds from 15 to 1/2000 sec., 1/125 sec., and B. Electro-magnetic shutter release with release button lock.
Exposure Indication in Viewfinder:	Liquid Cristal Display (LCD) Automatic and manual shutter speeds, automatically set lens apertures, exposure factor warning, shutter-speed setting error warning, battery life warning, and Programmed AE indication (P). LCD window illumination.
External Indication:	Automatic and manual shutter speeds, Programmed AE indication (P) and shutter cocked indicator.
Flash Synchronization:	Hot shoe (X-Synch contact, dedicated flash contacts), X-synch at 1/125 sec.
Dedicated Automatic Flash Coupling:	Automatic setting of 1/125 sec. synch speed with dedicated automatic flash units. TTL-automatic flash control provides film-plane metering. Slower than 1/125 sec. synch flash photography is possible at Manual mode setting.
Self-Timer:	Electronically controlled, delay time indication by flashing lamp and electronic buzzer, approx. 12 sec. delay time, possible to cancel at any time; initiate process by pressing shutter release button.
Viewfinder:	Silver-coated pentaprism finder with split-image/micropism focusing screen; shows 92% of the picture area, 0.82X magnification with 50mm lens at infinity; -1.1 Diopter eyepiece.

Mirror: Back-swing type instant-return mirror.

Film loading: Magic-needle loading.

Film Transport: Single-stroke, rapid wind lever with 135° throw and 30° standoff angle; LCD shutter cocked indicator; film advance and rewind indicator window. Accepts Winder ME II, Motor Drive A.

Exposure Counter: Additive type, automatic resetting. Automatically sets shutter-speed at 1/1000 sec. up to '0' frame on the counter when shutter dial is set at AUTO or M.

Film Rewind: Crank type.

Exposure Metering: Open aperture, Through-The-Lens, center weighted, average area metering system with GPD cell. Film-plane Metering for dedicated automatic electronic flashes.

Metering Range: EV 1 (f/1.4 1 sec.) – EV 19 (f/16, 1/2000 sec. or f/22, 1/1000 sec.) with 50mm f/1.4 lens and ASA/ISO 100 film.

ASA/ISO Range: 6 – 3200.

Exposure Compensation Exposure: Compensation dial indexed at 4X, 2X, 1X, 1/2X and 1/4X.

Depth-of-Field Preview: Via depth-of-field preview lever when aperture set manually.

Power Source: Two 1.5V alkaline or silver-oxide batteries, or one 3V lithium battery.

Metering Circuit Main Switch: Switched on by shutter release button and remains on for about 30 sec., shut-off by built-in timer.

Battery Warning: When batteries grow weak, LCD alternately flashes exposure designations and 'ooo' sign. When batteries exhausted, LCDs go blank and shutter locks.

Back Cover: Standard camera back with spring catch, built-in memo holder/grip, fully interchangeable with Dial Data ME and Digital Data M.

Size & Weight: 131mm x 86.5mm x 47.5mm, 490g (body only, without batteries)
131mm x 86.5mm x 84.5mm, 725g (with f/1.4 lens, without batteries)

free of charge according to this procedure and warranty policy. In any case, however, shipping charges and customs clearance fees are to be borne by the sender. To prove the date of your purchase when required, please keep the receipts or bills covering the purchase of your equipment for at least a year. Before sending your equipment for servicing, please make sure that you are sending it to the manufacturer's authorized representatives or their accredited repair shops, unless you are sending it directly to the manufacturer. Always obtain a quotation of the service charge, and only after you accept the quoted service charge, instruct the service station to proceed with the servicing.

This warranty policy does not apply to Pentax products purchased in the U.S.A., U.K., or Canada. The local warranty policies available from Pentax distributors in those countries supersede this warranty policy.

- ③⑤ Film rewind shaft
- ③⑥ Film guide rails
- ③⑦ Eyepiece accessory slots
- ③⑧ Viewfinder eyepiece
- ③⑨ Viewfinder frame
- ④⑩ Sprocket
- ④① Film take-up spool
- ④② Film advance/Rewind indicator
- ④③ Back cover release pin
- ④④ Back cover
- ④⑤ Film pressure plate
- ④⑥ Connector
- ④⑦ Film chamber
- ④⑧ Battery compartment cover
- ④⑨ Tripod socket
- ⑤⑩ Cordless contact terminal
- ⑤① Shutter blades
- ⑤② Film rewind button
- ⑤③ Film transport coupler

