PENTAX IMLIE SUPER



CONTENTS

IMPORTANT

All SMC Pentax lenses and Pentax accessories are engineered and produced meticulously to precise Pentax specifications. However, many of the commercially available lenses and accessories produced by other manufacturers are not made to these precise specifications and therefore. may cause difficulties with or actual damage to - a Pentax camera. Pentax does not assume any responsibility or liability for difficulties resulting from the use of lenses and accessories made by other manufacturers with Pentax cameras and photographical products.

Basic operating instructions	
"Your ME SUPER Quick Course"	2
Description of parts	4
Lens mounting	
Inserting batteries	7
Film loading and winding	8
Setting ASA film speed/memo holder	
The exposure mode dial	10
Aperture setting	13
Focusing and composing	14
Shooting on "AUTO"	15
Exposure compensation	18
Manual exposures	20
Holding the camera	26
Unloading the film	27
Auto flash photography (AF 200S/AF 160)	28
Other flash units	29
Self-timer/multiple exposures	30
Using a tripod/time exposures at "B"	31
Shooting pointers	32
Depth-of-field scale	
Depth-of-field table	35
Meter coupling range	36
Infrared photography	37
Using screw-mount takumar lenses	
Open-aperture and stop-down metering lenses	40
Resistance to temperature extremes and changes	41
Camera maintenance	42
Viewfinder diagram	44
Specifications	46
Narranty policy	48

Welcome to our growing Pentax family!

Since we know you'll want to begin using your new Pentax ME SUPER right away, we've provided an "ME SUPER Quick Course" on pages 2 and 3 which covers the basic operating instructions for the "AUTO" mode (the main operating mode) so you can get started. If you wish to familiarize yourself with operating the camera in its other modes, including the new revolutionary "pushbutton" manual mode, be sure to read the pertinent sections of the manual. We also recommend that you read the entire manual very carefully as soon as possible, so that you will understand the full capabilities of your camera and insure years of trouble-free operation.

BASIC OPERATING INSTRUCTIONS

"Your ME SUPER Quick Course"



1. Insert the two Alkaline batteries. (See page 7)



2. Load the film with the exposure mode dial set at "125X" and advance to the first exposure. (See page 8)



3. Set the ASA film speed. (See page 9)

4. Set the lens aperture. (See page 13)



5. Set the exposure mode dial to "AUTO." (See page 10)



6. Set the exposure compensation dial to 1X. (See page 18)

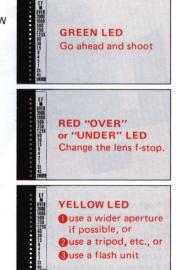




7. Look through the view-finder, focus and compose the picture. (See page 14)
8. Activate the camera's meter by pressing the shutter button until one of the LED dots beside the shutter speed scale in the viewfinder glows. If a GREEN LED glows (i.e., those between "2000" and "60" on the scale), take the picture by pressing the shutter button all the way down. If a RED LED glows at either

the OVER or UNDER

indications, change the f-stop until a GREEN LED appears (See pages 16-17). If a YELLOW LED glows (i.e., those between "30" and "45" on the viewfinder scale), you can 10 use a wider lens aperture where a GREEN LED appears (see page 17), or 2 shoot at the YELLOW LED, but steady the camera with a tripod, etc., (see page 31) or 8 switch to flash photography, (see pages 28 - 291With auto exposures, the fully automatic metering system of your new Pentax MF SUPER selects exactly the right shutter speed for the lighting conditions in your picture. To operate the camera in other modes refer to the section that covers those points.

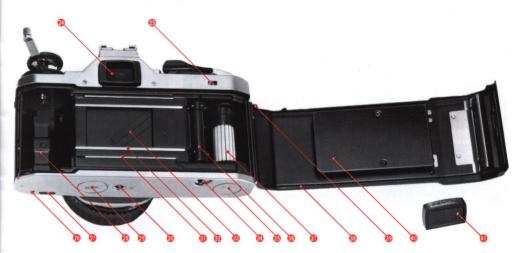




- Neck strap ring
- ② Exposure counter
- **8** Self-timer lever
- Shutter release button
- 6 Exposure mode index button
- **6** Exposure mode indications
- Rapid wind lever

- 6 Shutter-cocked indicator
- Manual shutter-speed control buttons
- Motshoe
- Auto flash contact
- Exposure compensation dial
- ® ASA film speed index
- film rewind crank

- Film rewind knob/Back cover release
- Lens release lever
- Lens alignment node
- Focusing ring.
- (1) Distance scale
- Depth-of-field scale
- 4 Aperture/Distance index

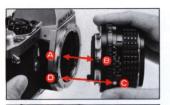


- Aperture ring
- X-synch socket
- Viewfinder eyepiece
- Film advance/rewind indicator
- @ Guide pin channel
- Winder contact terminal
- Film chamber

- @ Battery chamber
- Winder/Tripod receptacle
- Film guide rail
- Film rail
- Shutter blades
- Film rewind button
- Film transport coupler
- Sprockets

- Film take-up spool
- Back cover
- Back cover release lug
- Film pressure plate
- Finder cap

LENS MOUNTING







- 1. Remove the rear lens and body mount covers.
- 2. Match the red dot ② on the camera body with the red dot ③ on the lens. Insert the lens into the body and turn it clockwise until the lens locks with a click
- 3. In the dark, when the red dots are difficult to see, align the raised white node on the lens barrel with the lens release lever by touch.

 Then turn and lock as above.
- 4. To detach, hold the camera with your left hand. Depress the lens release lever while turning the lens counterclockwise with your right hand.



NOTE

If you have to put the lens down without the rear lens cap, place it only front-elementdown, never front-element-up.

When changing lenses outdoors with film in the camera, avoid direct sunlight.

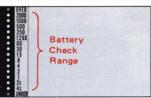
INSERTING BATTERIES



Two Alkaline batteries are packed separately. Be sure to insert them into the battery chamber before operating the camera.

• Insertion Open the battery chamber cover with a coin. Insert the two batteries into the chamber as shown above, each with the plus mark (+) facing down. Then, replace the cover and tighten firmly.

Do not throw dead batteries into a fire as they may explode.



• Check To check the batteries, set the exposure mode dial to either the "AUTO" or "M" (Manual) mode settings and lightly press the shutter button to activate the metering switch. NORMAL BATTERIES: If batteries are fully active, one of the LED shutter speed dots (i.e., those between "2000" and "4S") will glow continuously in the viewfinder on depressing the shutter button.

batteries are low, the "2000"

- "4S" LED shutter speed dots

will commence to flicker on and off. This indicates that batteries should be replaced shortly. (NOTE: the LEDs outside the "2000" - "4S" battery check range [i.e., "OVER" -"UNDER" - "EF" and "M"] normally flicker in certain modes and should be disregarded as low battery indication.) **DEAD BATTERIES:** If batteries fail to light entirely on depressing the shutter button in the "AUTO" or "M" modes, they are either dead or inserted improperly. If dead, replace both with new ones (NOTE: In emergencies, the camera may also be operated without batteries - see page 11).

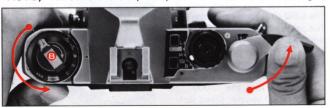
Avoid direct light when loading your film





1. Before loading and winding the film, set the exposure mode dial to "125X." Leave it at this setting until after the film has been wound to the first exposure.

NOTE: You can also advance the film to the first exposure with the exposure mode dial set to "AUTO" or "M" (Manual), but for convenience sake we recommend setting it to "125X." If you use "AUTO," remove the lens cap and point the camera toward the light;



otherwise inordinately long exposures will result, delaying film advance. Also, the same problem will occur if you use the "M" setting, unless a faster shutter speed is used.

- 2. Open the camera back by pulling up on the film rewind knob.
- 3. Place the film cartridge in the film chamber, and push down the rewind knob. Insert the film leader between any of the white pins surrounding the film take-up spool.
- 4. Advance the film by alternately advancing the rapid-wind lever and depressing the shutter button until both top and bottom sprockets engage the film perforations (a). Close the back by pressing it firmly.

SETTING ASA FILM SPEED/MEMO HOLDER

5. Advance the rapid-wind lever and confirm that the film rewind knob (a) turns counterclockwise, indicating that the film is properly loaded and is moving from the cartridge to the take-up spool (if the film is being properly advanced, the film advance indicator (A) will flicker). Trip the shutter and advance the film alternately until the exposure counter turns to "1." indicating that the first picture is ready to be taken. Reset the shutter dial to "AUTO."



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 is to light. To set the index, lift up the ASA dial and turn it until the ASA number of your film is opposite the orange index mark.

ASA Film Speed Range

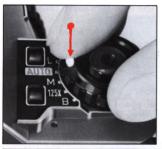
1250 1000 64	0 500 320 2	250 160 125	80 5	0 40	25	16
• 1 1 • 1		1 • 1 1	• •			•
1600 800	400	200 1	00 64	32	20	12



MEMO HOLDER

As a reminder of the type of film in your camera, tear off the top of film box and insert it into the Memo Holder on the back cover of the camera.

THE EXPOSURE MODE DIAL





Because the camera selects the shutter speed in the "AUTO" exposure mode and pushbuttons are used to set the shutter speed in the "M" (Manual) mode, the shutter speed dial has been eliminated on your ME SUPER. In its place is the exposure mode dial, whereby you simply choose the desired mode of exposure before shooting. In addition to the four exposure modes, the dial also features a shutter-button lock setting.

To set the dial: Press down on the small white button on top of the dial with your thumb or forefinger and rotate the dial until the white button aligns with the desired mode setting.

"AUTO": Your might consider "AUTO" the normal exposure mode and the others as auxiliary modes for special shooting situations. When the exposure mode dial is set to "AUTO," you merely preselect the lens aperture; the camera sets the shutter speed automatically, freeing you to concentrate on framing and composition. Keep the dial at this setting to take advantage of shooting opportunities when they arise. It's also an excellent mode for allowing novices to operate your camera. (See "SHOOTING ON AUTO," page 15, for operating instructions)

"M" (Manual): This is the ME SUPER's revolutionary new "pushbutton" manual exposure setting. While shutter speeds vary continuously in the: "AUTO" mode, by setting the exposure mode dial to "M" you may freeze the shutter speed at any one of the 14 shutter speed settings displayed in the viewfinder using the dual "pushbutton" control system. (See "MANUAL EXPOSURES." page 20.)

"125X": This is a 1/125 sec. mechanical shutter speed provided primarily for flash synchronization with electronic flash units other than the AF 200S. (See page 29) In addition, because the shutter operates mechanically without batteries at this setting, it comes in handy in even of battery failure. In this instance, set the dial to "125X" and adjust the lens aperture according to subject brightness (refer to the exposure guidelines accompanying your film). The 125X setting is also handy for preliminary film advance. (See page 8)

"B" (Bulb): When it is desired to make exposures longer than the 4-second range of the electronic exposure system, set the dial to "B". Time exposures lasting several minutes or hours may be made at this setting. (See "TIME EXPOSURES AT "B," page 31)

"L" (Lock): At this setting the shutter button may be temporarily locked while cocked to prevent accidental shutter release. To disengage the lock, set the dial to the desired exposure mode and release the shutter.









APERTURE SETTING





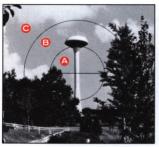
Preselection of the lens aperture is optional when shooting in the "M" (Manual) mode. However, when shooting on "AUTO", it is recommended that you preset the aperture. This is because the shutter speed selected by the automatic exposure system is determined in relation to the lens aperture used. By presetting the aperture control ring to an f-number that is appropriate for lighting conditions in the picture, problems of over and underexposure can be largely eliminated. When shooting on "AUTO" (or manual when applicable), preset the lens aperture as suggested in the following table.

Fine weather	f/8 - f/11
Cloud weather	f/4 - f/5.6
Indoors	f/1.4 - f/2.8

To set aperture: The calibrations on the aperture control ring of the lens are referred to as f-numbers or f-stops and denote the size of the lens aperture. To set the aperture, align the figure equivalent to the recommended f-number with the diamond index mark.

Note on f-numbers: Lower f/numbers (such as f/1.4) denote wider lens apertures, while higher-f-numbers (such as f/22) denote smaller apertures. With the 50mm f/1.4 lens, for example, f/1.4 is the widest, aperture or "open-aperture," while f/22 is the smallest aperture or "minimum aperture." As the size of the aperture also affects the overall sharpness of the photo, you may occasionally wish to vary the aperture setting from the norm for different effects (See page 32.)

FOCUSING AND COMPOSING





The focusing screen inside the viewfinder of your ME SUPER is a split-image type surrounded by a microprism collar. For precise focus, turn the focusing ring of the lens until the two images in one. If you find focusing with the split-image circle difficult, focus with the microprism collar (a) by turning the focusing ring until the glitter disappears from inside the collar. In addition, the field surrounding the center spots may also be used for quick focusing: merely turning the ring until the image comes in clear in the overall viewfinder field. The surrounding field also gives better results than the center spot when using telephoto lenses having a small maximum aperture.

SHOOTING ON AUTO

When operating in the "AUTO" mode, the shutter speed is automatically varied by the camera in relation to the preset lens aperture. In most cases, sharply focused, well-exposed photos are easily obtained and the only adjustments required are the preliminaries outlined below. When it is extremely bright, however, or when lighting is limited (such as at dusk, dawn, night, shooting indoors, etc.) additional adjustments are sometimes required. Usually, simply changing the lens aperture is enough, but there are also instances when use of a tripod, electronic flash, or the exposure compensation dial will bring improved results.

Preliminaries: Before checking the exposure for auto operation, be sure you have performed the following:

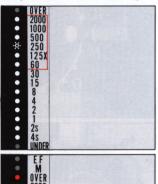
- (1) Check that the ASA film speed is set properly (page 9).
- (2) Preset the lens aperture as described on page 13.
- (3) Set the exposure mode dial to "AUTO."
- (4) Set the exposure compensation dial to 1X.

Exposure Check: Put your eye to the viewfinder and lightly press the shutter button until one of the Light Emitting Diode (LED) indicators glows. There is no need to maintain finger pressure on the shutter button to keep the display lit. Once it is turned on, it remains lit for approximately 20-35 seconds. If it goes out before you complete your exposure, simply press lightly on the shutter button once again.





The figures seen in the viewfinder from "2" to "2000" refer to the shutter speeds in fractions of seconds (i.e., 1/2 sec. to 1/2000 sec.), "1" to "4S" indicate full-second shutter speeds.



GREEN LED - CORRECT EXPOSURE "Go ahead and shoot"

If one of the GREEN LEDs light (i.e., those between "2000" and "60," no further adjustments are required. Simply focus, compose your picture and shoot by pressing the shutter button all the way down. A GREEN LED indicates that the shutter speed is fast enough to shoot while holding the camera in your hand.

RED "OVER" LED - OVEREXPOSURE

If the RED LED beside the "OVER" indication at the top of the shutter speed scale lights, your shot will be overexposed unless you adjust the lens aperture ring. To correct for overexposure, turn the aperture ring clockwise to a smaller aperture (i.e., f/5.6 to f/8, f/11, etc.) until one of the GREEN LEDs light. It is not necessary to stop when the LED lights at "2000" (when more depth-of-field is desired use a slower shutter speed and smaller lens aperture — see page 32).

CAUTION: If you should happen to press the shutter button while the shutter dial is set on AUTO with the lens cap on, or in very poor lighting conditions, the mirror may lock up, resulting in abnormally long exposure. To correct this, the shutter can be quickly closed by turning the shutter dial to 125X. After closing the shutter, be sure to reset the shutter dial to AUTO.

YELLOW LED - SLOW EXPOSURE/CAMERA SHAKE WARNING

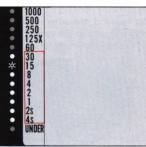
When the shutter speed drops below 1/60 sec., although exposure will be correct, the slightest movement of the camera — even vibration from pressing the shutter button — often produces "camera shake" at the critical moment of exposure; this in turn will cause blurred pictures. The LEDs between "30" and "45" illuminate in yellow to warn against camera shake. If a YELLOW LED lights, first try a wider lens aperture (i.e., f/5.6 to f/2.8, f/1.7, etc.) to see if a GREEN LED will appear. If the GREEN LED doesn't light before you reach the widest lens aperture, do either of the following: ① Shoot at the fastest possible shutter speed indicated by a YELLOW LED, but brace the camera on a firm surface: better still, use a tripod—to minimize camera shake (page 31) or, ② switch to flash (page28—29).

RED "UNDER" LED - UNDEREXPOSURE

When light is extremely limited, the RED LED beside the "UNDER" indication at the bottom of the scale glows to warn you against underexposure. If this LED lights, first try setting the lens to its widest aperture (f/2, f/1.4, etc.). If a GREEN LED lights, go ahead and shoot. If a YELLOW LED appears, follow the procedure outlined in "YELLOW LED — SLOW EXPOSURE" above. If the RED "UNDER" LED remains lit even at the widest aperture:

make a time exposure using a tripod at the "B" mode setting, or

switch to flash (pages 28 — 29).



	1000		
	500		
	250		
	125X		
	60		
• • • • • •	1000 500 250 125X 60 30 15 8 4 2 1 2s 4s UNDER		
	15		
	8		
	l i		
-	2		
	1		
	20		
	25		
	45		
•	UNDER		

EXPOSURE COMPENSATION (for AUTO EXPOSURE)

In difficult lighting situations where there is an extreme contrast between the subject and the background, the auto exposure system tends either to over or underexpose the subject somewhat, which results in the loss of detail. To compensate for such situations, your ME SUPER is provided with an exposure compensation dial which overrides the influence of the adverse lighting source.







The dial surrounds the film rewind crank and is scaled 4X, 2X, 1X, 1/2X and 1/4X (X indicates the exposure increase or decrease factor).

"Normal Exposure" is obtained at the 1X setting. Always keep the dial at this setting when exposure compensation is not needed.

Exposure Increase: At the 2X and 4X settings the camera is programmed automatically to double and quadruple the light reaching the film.

Exposure Decrease: Conversely, at the 1/2X and 1/4X settings, one-half and one-fourth the amount of light is delivered to the film.

To set the Dial: Place your fingers on the outer rim of the dial and turn it until the figure representing the amount of compensation required aligns with the orange index pointer. When exposure compensation is employed, the red LED beside the "EF" indication at the top of the viewfinder scale will flash when you activate the exposure meter to warn that an "exposure factor" is being employed.

Compensation for Backlit Subjects: For subjects with the sun behind them, or against a bright snowy background, brightly lit window, etc., increase the exposure by setting the dial either to 2X or 4X. (Use your own judgement of the brightness of the scene in determining which factor to use.)

Compensation for Spotlighted Subjects: When the subject is spotlighted on stage, etc., or for any intensely lit subject against a dark background, decrease the exposure by setting the dial to 1/2X or 1/4X to help bring out the details of the subject.

ALWAYS SET THE EXPOSURE COMPENSATION DIAL BACK TO 1X WHEN COMPENSATION IS NO LONGER REQUIRED.



compensated



uncompensated





MANUAL EXPOSURES





While the shutter speed in the "AUTO" mode varies continuously in relation to lighting conditions, the ME SUPER's revolutionary new "pushbutton" manual exposure system lets you freeze the shutter speed at any one of the 14 LED shutter speed settings displayed inside the viewfinder — a handy feature for fast moving subjects and other special exposure situations. To select the manual shutter speed, just turn the exposure mode dial to "M," activate the exposure meter and press either the shutter speed increase or decrease button. As shutter speed setting is done completely with the eye to the viewfinder, the fumbling characteristic of the traditional shutter speed dial has been eliminated

Exposure Metering: After setting the exposure mode dial to "M," depress the shutter button lightly. This activates the meter and lights the LED shutter speed display inside the viewfinder. As with auto exposures, the display remains lit for approx. 20-35 sec. and goes out. If additional metering time is required, simply press the shutter button lightly once again.

Manual Shutter Speed Indication: Each time you activate the meter while operating in the manual mode, the "M" (manual) indicator lights as a reminder that you are making manual exposures. In addition, the shutter speed to which the system was set prior to activating the meter will also light (even when you turn the mode dial away from the "M" setting, the manual

exposure memory circuit displays your previous manual shutter speed when you reactivate the meter on switching back to "M").

Shutter Speed Control Pushbuttons

Two shutter speed control pushbuttons are provided to enable rapid shutter speed selection in the manual mode. These operate when the exposure mode dial is set to "M" (manual) and the shutter release button is partially depressed to light the LED display inside the viewfinder.

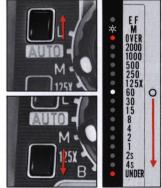
Shutter Speed Increase - Forward Button

Press the forward button and the LED shutter speeds inside the viewfinder will increase from bottom to top. Let go of the button when the LED lights beside the desired shutter speed. When the display reaches "2000" at the top of the scale, it starts over from the bottom (for example: $1000 - 2000 - 4S - 2S - 1 - 2 \dots$ 500 - 1000 - 2000 - 4S - 2S, etc.).

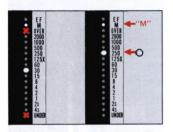
Shutter Speed Decrease - Rear Button

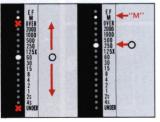
Press this button and the LED shutter speed display decreases from top to bottom. At the bottom of the scale, the display starts over again at the top (thus: $2S - 4S - 2000 - 1000 \dots$ 15 - 8 - 4 - 2 - 1 - 2S - 4S - 2000, etc.).





EXPOSURE SETTING: With the manual exposure system you have the option of setting either the shutter speed or the lens aperture first. The "OVER and "UNDER" LEDs flash in the viewfinder to serve as guides for setting the correct exposure.





Shutter Speed First: Set the desired shutter speed with the shutter speed control pushbuttons. If the "OVER" LED still flashes, stop the lens down to a smaller aperture (i.e., f/5.6 to f/11, f/16, etc.) until it goes out. If the "UNDER" LED remains lit, set the lens to a wider aperture (i.e., f/5.6 to f/2, f/1.4, etc.). Exposure is correct when the shutter speed and the "M" LED are the only LEDs that remain lit in the viewfinder.

Aperture First: Set the f-number you wish to shoot at with the aperture control ring, then match up the shutter speed with the shutter speed control pushbuttons. When the "OVER" LED is lit, increase the shutter speed until it goes out. When the "UNDER" LED is lit, decrease the shutter speed until the "UNDER" indication goes out.

Exposure is correct when the shutter speed and the "M" LED are the only LEDs that remain lit in the viewfinder.

Overexposure: If the "OVER" LED fails to go out when you set the exposure by presetting the shutter speed, use a faster shutter speed; conversely, if it remains lit when you preset the lens aperture, use a smaller aperture.

Low-Light Exposures/Underexposure: With either method, when exposure conditions require that you use a slow shutter speed below 1/60 sec., be sure to take precautions against camera shake (page 17). If the underexposure LED remains lit even after you have given maximum exposure, either make a time exposure at the "B" setting (page 31), or switch to flash photography (pages 28—29.)



NOTE

Shortcut: When changing from a slow to a fast shutter speed, it is not necessary to use the shutter speed increase button. If the given shutter speed is 2 sec. and you desire to increase to 1/1000 sec., for example, simply press the decrease button until the LED lights at "1000." (When going from a fast to a slow shutter speed, reverse the procedure by taking a shortcut with the shutter speed increase button.)



Exposure in Difficult Lighting: The exposure compensation dial does not function with the manual exposure system because exposure factors may be employed freely by varying the aperture or shutter speed setting as desired. Generally, for backlit subjects, open the aperture 1 or 2 additional stops, or decrease the shutter speed 1 or 2 stops. With spotlighted and other intensely lit/subjects, either stop the aperture down 1 or 2 stops, or increase the shutter speed 1 or 2 additional stops. Accordingly, either the "OVER" or "UNDER" LED will remain lit while exposure factors are being employed. (NOTE: With the TTL metering system, filter, close-up and other such exposure factors are automatically compensated for by the built-in exposure meter.)

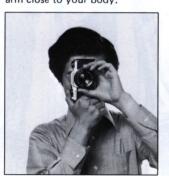


As a general rule, your camera can be held more firmly in the left hand, which does not release the shutter. If you hold your camera with the right hand — the hand that releases the shutter — this may cause camera movement. Often, blurred pictures are due to camera movement.

Horizontal position A.
Hold the camera firmly with
your left hand, and draw your
arms close to your body.



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



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.



After the last picture on the roll has been taken, the rapid-wind lever will not advance any further (Caution: do not try to force the lever), indicating that the film must be rewound. Lift up the rewind crank. Depress the film rewind button (a) and turn the rewind crank as indicated to rewind the film into its cartridge. If the film is being properly rewound, the film rewind indicator (a) will flicker. Rewind until the tension on the crank lessens, indicating that the leader end of the film has been released from the take-up spool. Pull out the film rewind knob (the back will open automatically), and remove the film cartridge.

AVOID DIRECT LIGHT WHEN UNLOADING THE FILM.

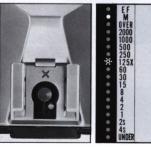






AUTO FLASH PHOTOGRAPHY WITH THE AF 200S/AF 160





Your Pentax ME SUPER features the added convenience of automatic flash synch when used with either the Pentax AF 200S or AF 160 Auto Flash. Regardless of whether the camera is operated in the "AUTO" or "M" (Manual) modes, there's no need to touch the exposure mode dial to synchronize the camera with the flash unit. Simply leave the dial set at "AUTO" or "M", and switch on the unit the flash synchronizes automatically at 1/125 sec. when the unit changes.

Viewfinder "Flash Ready" Indication: Moreover, when you use the AF 200S or AF 160, there's no need to remove your eye from the viewfinder to know when the flash unit has charged; nor do you need to partially depress the shutter button. When the flash charges, the green "M" LED indicator will flash on and off to signal that the unit is ready to fire; simultaneously, the green "125X" LED shutter speed indicator will light to signal automatic flash synchronization. After taking the picture, the camera reverts to the non-flash "AUTO" or "M" exposure mode until the unit has recycled. You can also revert to the previous non-flash mode simply by switching the flash unit off.

F/number Setting: After mounting the flash unit, set the auto flash control of the flash unit and the lens aperture according to the instructions accompanying the unit.

OTHER FLASH UNITS

The ME SUPER may also be used with a variety of other flash units, including both the direct-synch cordless type and those requiring a cord hook-up. Small shoe-mount type units fit directly to the hot-shoe on top of the camera; larger professional grip-type units may be mounted, usually via an extension bracket, to the tripod socket at the base of the camera. If the unit is a cordless shoe-mount type, synchronization is direct via the camera hotshoe. If your unit requires a cord connection, plug the cord into the "X" socket beside the lens mount.

Shutter Speed Synch: Unlike the AF 200S, other flash units do not feature automatic shutter-speed syncronization with the camera. Synchronize them manually by turning the exposure mode dial to "125X." Also note that the viewfinder LED flash ready and shutter-speed indication is not given when the manual "125X" shutter speed setting is used.

F/number Setting, etc: As flash operating instructions vary depending upon the type of flash unit you are using, refer to the instructions accompanying your flash unit for flash mode setting, aperture setting and other operating instructions.





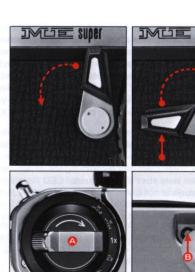


Self-Timer

The self-timer delays release of the shutter $4-10\,\mathrm{sec.}$, depending upon how far the self-timer lever is advanced. To operate the self-timer, push the lever counterclockwise until it stops. To start, push up slightly on the self-timer lever. Note: Cover the viewfinder eyepiece with the accessory Finder Cap when using the self-timer; otherwise, light entering from the rear of the camera may adversely affect the exposure.

Multiple Exposures

For deliberate multiple exposures, make the first exposure in the normal way. Then tighten the film by turning the rewind knob (a), and keep hold of the rewind knob. Depress the film rewind button (a) and advance the rapid-wind lever. This cocks 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. As the exposure counter continues to function each time the shutter is cocked, a double exposure will be counted as two frames.



USING A TRIPOD/TIME EXPOSURES AT "B"

Using a Tripod

The camera may be mounted directly to a tripod by screwing the tripod into the socket at the base of the camera. Be sure the tripod screw protrudes no more than 5.5mm (0.22in.) from the tripod. This is the depth of your camera's tripod socket. Don't use a longer screw as it may puncture the bottom of the tripod socket if tightened too firmly.

Tripod Spacer: In order to prevent large diameter lenses from interfering with proper mounting of the camera to the tripod, insert the Spacer Ring (packed with the camera) between camera and tripod. Finder Cap: When you make exposures with your eye away from the viewfinder while using a tripod (or at any other time), cover the viewfinder eyepiece with the accessory Finder Cap; otherwise, light entering from the rear may adversely affect the exposure.

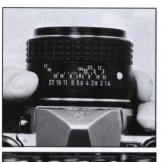
Time Exposures at "B"

Exposures longer than 4 sec., exceed the range of the camera's electronic shutter and must be made at the "B" setting of the exposure mode dial. Here the shutter remains opened as long as the shutter release button is held depressed. To prevent movement of the camera during exposure, mount it on a tripod and attach a cable release to the hole in the shutter button to release the shutter. For exposures lasting several minutes or hours, use a cable release with a locking device.





SHOOTING POINTERS





Your ME SUPER's automatic exposure system featuring color-coded shutter speed indications in the viewfinder makes it extremely easy to obtain excellent results in nearly all general shooting situations. However, there are also a few basic aperture and shutter speed control techniques that enable you to vary the effect of your photos for better results with fast subjects and so forth. If SLR photography is new to you, it will be well worth your while to master these few simple techniques.

Optimum Apertures

The aperture guide listed on page 13 is sufficient for almost all shooting purposes and correct exposure will be obtained as long as one of the green shutter speed LEDs light. However, you may add more interest to your pictures with certain subjects by varying from the norm. Any aperture setting may be used as long as either a green or yellow LED shutter speed indicator lights (in the case of the latter, provided you take precautions against camera shake).

Stopping the Action: With moving subjects such as bicycles, automobiles, horses, children at play, birds in flight, etc., a fast shutter speed is necessary to stop the action and prevent the subject from blurring. With manual exposures, this problem is solved by preselecting a fast shutter speed such as 1/250 sec., 1/500 sec., 1/1000 sec., etc. However, when shooting on "AUTO," you can usually select a shutter speed fast enough to stop the action simply by using

a wide lens aperture. As the camera automatically chooses the fastest possible shutter speed for the given exposure, wide apertures will give you shutter speeds in excess of 1/250 sec. when lighting is sufficient. (NOTE: This technique does not work in low-lighting as low lighting necessitates a slow shutter speed.)

Depth-of-Field Control: Depending upon the aperture in use, the over-all sharpness of the picture area in front and behind the subject will vary greatly. This effect is known as "depth of field" and can be used to vary the over-all effect of your photos.

Maximum Depth of Field: The depth of field becomes progressively deeper as the lens is stopped down to smaller lens apertures and is greatest at minimum aperture. Thus, if you desire to have both your subject and the background in focus, use a small aperture such as f/11 or f/16 (be sure to take precautions against camera shake if a yellow LED lights). Small apertures are also useful for critical close-up work, but for this, refer to a close-up photography guide. Out-of-Focus Highlights: The depth of field becomes progressively shallower at wide lens apertures, and is shallowest at f/2, f/1.7 or f/1.4, depending upon which is the maximum aperture of your lens. A shallow depth of field produces an out-of-focus effect which highlights your subject. As long as the LED does not light at the "OVER" setting, you can obtain this effect, even on a bright, sunny day, by using a wide maximum aperture.





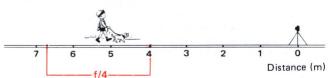
DEPTH-OF-FIELD SCALE

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

If you want to know how great the depth of field is at a certain aperture, focus on the subject and look at the depth-of-field scale on the lens. In the photograph below the distance scale is set at 5 meters; that is, the lens is focused on a subject 5 meters 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 a lens opening of f/4 is to be used, the range on the distance scale ring covered within the figure 4 on the depth-of-field scale indicates the area in focus at that lens opening. You will note from the depth-of-field scale in the photograph that the range from approximately 4 to 7m is in focus. Note that as the lens apertures change, the effective depth of field also changes. For the depth of field at different apertures and distances, refer to the next page.





DEPTH-OF-FIELD TABLE: SMC PENTAX-M 50mm LENS

60	15m	5m	3m	2m	1.6m	1m	0.6m	0.45m	Distance scale
52.93 ~	11.712 ~ 20.868	4.579 ~ 5.506	2.846 ~ 3.172	1.932 ~ 2.073	1.557 ~ 1.645	0.984 ~ 1.017	0.595 ~ 0.605	0.447 ~ 0.453	f/1.4
37.07	10.707 ~ 25.077	4.420 ~ 5.757	2.785 ~3.252	1.904 ~ 2.106	1.539 ~ 1.666	0.977 ~ 1.024	~ 0.593 ~ 0.608	0.446 ~ 0.454	f/2
26.49	9.609 ~ 34.313	4.225 ~6.128	2.708 ~3.365	1.869 ~ 2.152	1.516 ~ 1.694	0.969 ~ 1.034	0.590 ~ 0.611	0.445 ~ 0.455	f/2.8
18.55	8.329 ~ 76.783	~ 3.962 ~ 6.786	~ 2.599 ~ 3.550	1.818 ~ 2.224	~ 1.483 ~ 1.737	0.956 ~ 1. 04 9	~ 0.586 ~ 0.615	~ 0.443 ~ 0.458	f/4
13.26	7.075 ~ ∞	~ 3.659 ~ 7.922	~ 2.468 ~ 3.832	1.754 ~ 2.329	~ 1.441 ~ 1.799	~ 0.939 ~ 1.070	~ 0.580 ~ 0.622	~ 0.440 ~ 0.461	f/5.6
9.30	5.774 ~ ∞	3.284 ~ 10.585	~ 2.294 ~ 4.351	1.667 ~ 2.506	1.383 ~ 1.901	0.915 ~ 1.103	0.572 ~ 0.631	~ 0.436 ~ 0.466	f/8
6.77	4.697 ~ ∞	2.911 ~ 18.301	~ 2.109 ~ 5.242	1.569 ~ 2.771	1.316 ~ 2.047	0.887 ~ 1.148	0.562 ~ 0.644	0.430 ~ 0.472	f/11
4.67	3.588 ~ ∞	2.450 ~ ∞	1.861 ~ 7.978	1.430 ~3.366	1.219 ~2.348	0.844 ~1.231	0.546 ~0.667	0.422 ~ 0.482	f/16
3.41	2.799 ~ ∞	2.061	~ 1.631 ~ 21.588	1.294 ~ 4.545	1.120 ~ 2.855	0.798 ~ 1.349	~ 0.529 ~ 0.696	~ 0.413 ~ 0.496	f/22
•	25'	12'	8'	6'	3'	2.5'	1.9'	1.55′	Distance scale
173.686	21.905' ~ 29.122'	11.252' ~ 12.856'	7.667' ~ 8.364'	5.814' ~6.198'	2.957' ~3.045'	2.471′ ~ 2.530′	1.884' ~ 1.916'	1.540' ~ 1.560'	f/1.4
121.62	~ 31.339	10.960' ~ 13.262'	7.533' ~ 8.530'	5.738' ~6.287'	2.939' ~3.064'	2.459° ~ 2.543°	1.878′ ~ 1.923′	1.536′ ~ 1.564′	f/2
86.91	19.495' ~ 34.884'	10.593' ~ 13.845'	7.361′ ~ 8.763′	5.640' ~6.410'	~ 3.091′	~ 2.443' ~ 2.560'	1.869' ~ 1.932'	~ 1.531' ~ 1.570'	f/2.8
60.88	17.817' ~ 42.020'	10.087' ~ 14.824'	7.118' ~9.137'	5.499' ~6.604'	~ 2.880° ~ 3.131°	~ 2.419' ~ 2.587'	1.856° ~ 1.946°	~ 1.523' ~ 1.573'	f/4
43.53	15.986' ~ 57.817'	9.485' ~ 16.370'	6.818' ~ 9.690'	5.322' ~6.882'	2.835' ~ 3.187'	~ 2.388' ~ 2.624'	~ 1.839' ~ 1.965'	~ 1.512' ~ 1.590'	f/5.6
30.51	~ 13.855° ~ 132.990°	8.706' ~ 19.414'	6.414' ~ 10.660'	5.078' ~ 7.347'	~ 2.769' ~ 3.275'	2.343' ~ 2.681'	1.815' ~ 1.995'	1.497' ~ 1.608'	f/8
22.23	11.882′	7.898' ~ 25.319'	5.973' ~ 12.190'	~ 4.802′ ~ 8.027′	~ 2.692′ ~ 3.393′	~ 2.290' ~ 2.756'	1.785' ~ 2.033'	1.478′ ~ 1.631′	f/11
	9.611'	6.845	5.361' ~ 16.047'	4.406' ~ 9.500'	2.573' ~ 3.609'	2.206' ~ 2.892'	2.101' ~ 1.737'	1.447' ~ 1.670'	f/16
15.32	~ ∞	~ 51.597'							

METER COUPLING RANGE

The red area in the table indicates the coupling range of the meter, 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 ASA 100 film, you may use any shutter speed from 4 sec. to 1/2000 sec., the actual shutter speed depending upon the aperture being used. 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 ASA 100 film, an aperture from f/1.4 (the maximum aperture of this lens) to f/22 (the minimum aperture) may be used with any shutter speed from 1 sec. to 1/2000 sec. that will illuminate either the green or yellow LEDs.

SHUTTER	R SPEED	4	2	1	1 2	1/4	1 8	1 15	1 30	<u>1</u>	1125	<u>1</u> 250	1 500	1000	1 2000
20 223	12		7.										PHI TO		
	25			100											HELITETIA S
ASA	50						La paraci	1075	7					117	
	100												P. Land		
	200				2100		197	Table 1							
	400							201							
	800									100					
	1,600														

INFRARED PHOTOGRAPHY

If you intend to take infrared photographs, remember to use the infrared mark indicated with an orange line on the depth-of-field scale. First, bring your subject into sharp focus. Next, determine the subject-to-camera distance from the distance scale on the lens. Then match your subject-to-camera distance to the infrared mark

by turning the focusing ring accordingly. For instance, if your subject is in focus at infinity, turn the focusing ring and move the infinity (∞) mark to the infrared mark.

• NOTE: An infrared focusing adjustment is not required when working with infrared color film.





Conventional screw-mount Takumar lenses (both Super-Takumar and SMC Takumar) can be easily mounted onto your camera by attaching them first to the Mount Adaptor K. However, when Adaptor K is used, the following is true.

- 1. Due to the difference in coupling systems, the automatic diaphragm will not function.
- 2. Full-aperture metering lenses will function as stop-down metering lenses.



How to Use Mount Adaptor K

- 1. Screw the conventional Takumar lens into the Mount Adaptor K.
- 2. Attach the Adapter/lens unit to the camera body by aligning the red dots (2) and (3), and turning the lens clockwise until it locks with a click. (This takes slightly less than a quarter of a revolution.)
- 3. To remove the lens, leaving the Mount
 Adapter K attached to the camera body, simply
 unscrew the lens counterclockwise. Other screw-







mount Takumar lenses can then be attached in the normal way.

- 1. To remove the Mount Adaptor K from the camera body, first remove the screw-mount lens. Then press, with your thumbnail or a pointed object such as a ballpoint pen, against the spring pin

 Output

 Description:
- 2. Turn the Mount Adaptor K counterclockwise until you feel it release, and take it out.
- 3. Since the mechanism for locking in the Mount Adapter K is totally different from that which locks in an SMC Pentax bayonet-mount lens, the lens release lever ① on the camera body plays no part at all.

OPEN-APERTURE AND STOP-DOWN METERING LENSES

Open-aperture SMC Pentax lenses have a diaphragm coupling lever on the back of the lens which couples with the camera body to permit open-aperture metering. The ultra telephotos do not have a diaphragm coupler, so they must be used with the stop-down metering system. Use of the Auto-Extension Tube Set K permits open-aperture metering. Use of other K Series accessories — standard Extension Tube Set K, Helicoid Extension Tube K, Auto-Bellows M and Bellows Unit III — requires stop-down metering. Whenever any one of these is used between the camera body and an SMC Pentax lens, the stop-down metering system must be used.



RESISTANCE TO TEMPERATURE EXTREMES AND CHANGES

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 if small drops of moisture freeze, causing them to expand.

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.

CAMERA MAINTENANCE





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 of a lens 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.

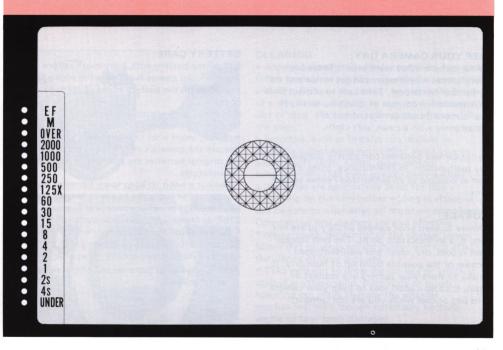
STORAGE:

• 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.

BATTERY CARE:

- Wipe the battery with a dry cloth before insertion and always handle by the edges. Oily skin acids on the battery could cause poor contact.
- In freezing temperatures, batteries may temporarily malfunction due to the cold. In this instance, insert a set of warm spare batteries to operate the camera's electronic systems until the original batteries are warmed to room temperatures.
- Make it a habit to keep spare batteries on hand at all times in event the batteries in your camera wear down. For replacement, use Eveready S76E or Mallory MS76H or equivalent.
- Do not allow children to play with the camera shutter button. Excessive activation of the exposure meter could greatly reduce battery life.

Also, always keep batteries out of the reach of small children.



Indication	Color	Function							
EF	RED	Exposure compensation indicator ("EF"=Exposure Factor), flashes red when exposure compensation is employed.							
М	GREEN	(1) Manual Exposure Warning (glows g(2) Auto Flash Ready Indicator (flashe	reen) es green when AF 200S Auto Flash has charged						
OVER	RED	Overexposure Warning (glows red for ov overexposure in the manual mode).	verexposure in the auto mode, flashes red for						
2000	GREEN	1/2000 sec. shutter speed setting							
1000	GREEN	1/1000 sec.							
500	GREEN	1/500 sec.	Indications 1/2000 sec. thru 1/60 sec.						
250	GREEN	1/250 sec. are given in green to signal adequate speed for handheld shooting.							
125X	GREEN	1/125 sec. (doubles as auto flash synch indicator for AF 200S Auto	Flash).						
60	GREEN	1/60 sec.							
30	YELLOW	1/30 sec. shutter speed setting	THE REPORT OF STREET						
15	YELLOW	1/15 sec. 1/8 sec. 1/4 sec. 1/2 sec. 1 sec. 2 sec.							
8	YELLOW								
4	YELLOW								
2	YELLOW								
1	YELLOW								
28	YELLOW								
48	YELLOW	4 sec.							
UNDER	RED	Underexposure Warning (glows red for u for underexposure in manual mode).	underexposure in the auto mode, flashes red						

SPECIFICATIONS

Type: 35mm SLR camera with aperture-perferred automatic exposure; "pushbutton"

electronic manual; auto flash synch (with AF 200S and AF 160 Units).

Mount: Pentax Bayonet Mount with fully automatic diaphragm linkage. Standard lenses:

SMC Pentax 50mm f/1 2 SMC Pentax-M 40mm f/2 8 SMC Pentax-M 50mm f/1 4

SMC Pentax-M 50mm f/1.7

SMC Pentax-M 50mm f/2

Shutter: Seiko MFC-E2 vertical-run metal focal plane shutter; automatic shutter

speeds electronically controlled between 4 sec. and 1/2000 sec. (stepless variation): electronic manual shutter speeds at 14 viewfinder settings (varied by dual pushbutton controls), plus mechanical settings of "125X" and "B" (operates without batteries at mechanical settings); selection via exposure

mode dial: shutter button lock also provided.

Auto flash synch: Synchronizes automatically with AF 200S or AF 160 Flash Units at

1/125 sec. via hotshoe in both "AUTO" and "M" modes. LED flash

synch/ready indication provided in viewfinder.

Manual flash synch: Direct X synch via hotshoe or cord synch via X socket on camera body:

1/125 sec. flash synch speed at "125X" setting of exposure mode dial.

Self-timer: Delays shutter release 4 - 10 seconds.

Exposure metering: Open aperture, center-weighted through-the-lens light metering by GPD cells. Exposure range from EV 1 - EV 19 (ASA 100 with 50mm f/1.4 lens).

Film speed range: ASA 12 - 1600; 3-color LED shutter-speed readout in viewfinder. (20 - 35 sec. display given on partially pressing shutter button)

which acts as metering switch) ±2EV exposure compensation via dial

(1/4X, 1/2X, 2X, 4X).

Viewfinder:

Silver-coated pentaprism finder with split-image/microprism focusing screen; shows 92% of the picture area, 0.95X magnification with 50mm lens; -1.0 diopter eyepiece (accepts correction eyepieces).

Viewfinder indications:

2-color shutter speed readout: GREEN LEDs indicate speeds from 1/60 to 1/2000 sec. (adequate range for handheld shooting) YELLOW LEDs give camera shake warning for speeds from 4 sec. thru 1/30 sec.; RED LED "OVER/UNDER" exposure warning; RED LED exposure compensation warning, "M" (manual) exposure warning when "M" LED is continuously lit, auto flash ready indication when "M" LED flashes; auto flash synch indicated by GREEN LED at "125X."

Film loading:

Magic-needle quick/sure loading.

Film advance and rewind:

Single-stroke, rapid wind lever, plastic-tipped for winding comfort. 135° throw with 30° standoff angle. Rewind via film rewind crank. Couplings provided for use with 2 fps Winder ME II automatic film winder (also accepts Winder ME).

Exposure counter:

Automatic reset type

Batteries/battery check:

Two 1.5 Alkaline (LR44) or Silver-oxide (G13) batteries power electronic systems in both AUTO and "M" exposure modes. LEDs in viewfinder flicker

when batteries are low, cease to light on battery failure.

Back cover:

Standard camera back with spring catch; removable for use of camera with Dial Data ME; memo holder on back.

Body size:

131.5 x 83 x 49.5mm (5.13 x 3.24 x 1.93 in.)

Body weight:

445 grams (15.7 oz)

All Pentax cameras purchased through authorized bona fide photographic distribution channels are quaranteed against defects of material or workmanship for a period of twelve months from date of purchase. Service will be rendered and defective parts will be replaced without cost to you within that period, provided the equipment has not been abused, altered, or operated contrary to instruction. Because the tolerances, quality, and design compatibility of lenses other than Pentax lenses are beyond our control, damage caused by use of such lenses will not be covered by this warranty policy. The manufacturer or its authorized representatives shall not be liable for any repair or alterations except those made with its written consent and shall not be liable for damages from delay or loss of use or from other indirect or consequential damages of any kind, whether caused by defective material or workmanship or otherwise; and it is expressly agreed that the liability of the manufacturer or its representatives under all guarantees or warranties, whether expressed or implied, is strictly limited

to the replacement of parts as hereinbefore provided.

Procedure During 12-month Warranty Period Any Pentax which proves defective during the 12-month warranty period should be returned to the dealer from whom you purchased the equipment or to the manufacturer. If there is no representative of the manufacturer in your country, send the equipment to the manufacturer. with postage prepaid. In this case, it will take a considerable length of time before the equipment can be returned to you owing to the complicated customs procedures required in Japan in importing and re-exporting photographic equipment. If the equipment is covered by warranty, repairs will be made and parts replaced free of charge, and the equipment will be returned to you upon completion of servicing. If the equipment is not covered by warranty. regular charges of the manufacturer or of its representatives will apply. Shipping charges are to be borne by the owner. If your Pentax was purchased outside of the country where you wish

to have serviced during the warranty period. regular handling and servicing fees may be charged by the manufacturer's representatives in that country. Notwithstanding this, your Pentax returned to the manufacturer will be serviced 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.



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