

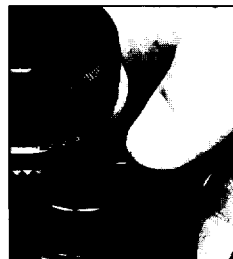
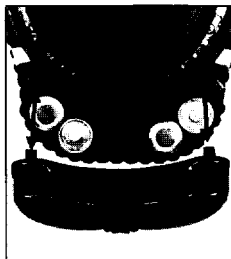
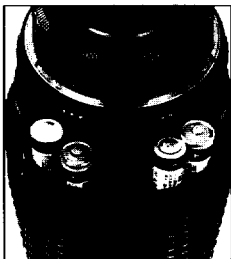
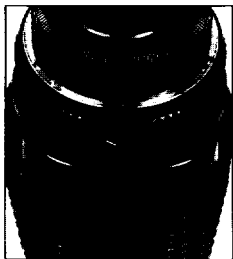
PENTAX

AF ZOOM

SMC PENTAX AF ZOOM 35-70mm f/2.8 LENS

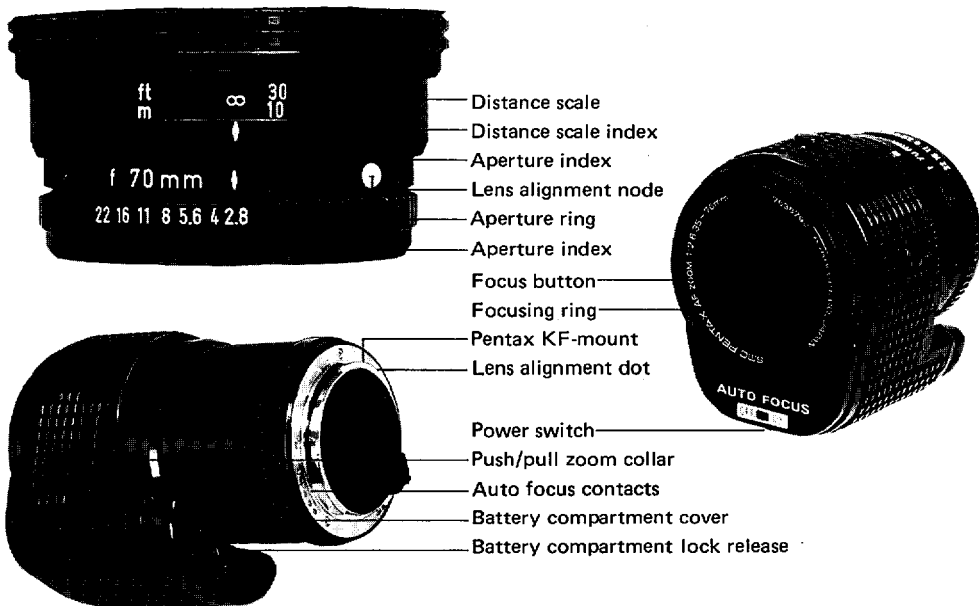


INSERTING BATTERIES



- The auto focus lens battery compartment is located at the back of the lens beneath the lens mount.
- To open the compartment, press the dial down and turn to the OPEN position. The cap will release.
- Insert four 1.5-volt AAA-size batteries according to the indications inside the compartment. Be sure to insert the batteries exactly as described for the motor to work.
- To close the compartment, replace the cover. Push the dial down and turn to "CLOSE." Your lens is now ready to use.

DESCRIPTION OF PARTS



The SMC Pentax AF 35mm–70mm Zoom Lens is a new type of auto focus lens which makes the task of focusing faster and easier than ever before. When used with the Pentax ME-F camera, the AF 35mm–70mm zoom lens lets you focus by simply pressing a button on the lens barrel. Not only is it one of the easiest lenses to focus, but since the auto focus control is built into the camera body itself, the lens is more compact than others. It also offers greater handling ease and its sophisticated TTL control system also offers greater accuracy.

Please read this manual carefully to thoroughly understand all the benefits your lens has to offer. Also, be sure to follow the lens care instructions carefully to ensure years of reliable use.

CONTENTS

Description of parts	1
Inserting batteries	2
Battery care	3
Lens mounting	4
Lens operation	6
Zooming/focusing rings	12
Depth-of-field scales/infrared photography	14
Lens accessories	15
Precautions	16
Specifications	17
Warranty Policy	18

Battery Life

Battery life will vary depending on the frequency of use. When the batteries run down, lens operation will become sluggish. Replace all four immediately with the equivalent AAA-size batteries to ensure continued operation. Use only alkaline or manganese batteries for replacement. Do not use rechargeable NiCd batteries.

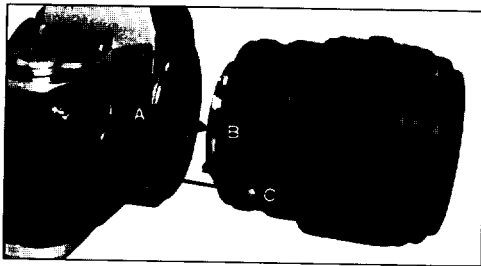
Camera Batteries: Camera battery voltage also must be sufficient for auto focus. When the focusing LEDs do not light inside the viewfinder, the lens will no longer focus automatically, although the camera exposure system will work for sometime. Replace all camera batteries together for continued auto focus (See the ME-F instruction manual).

Battery Care

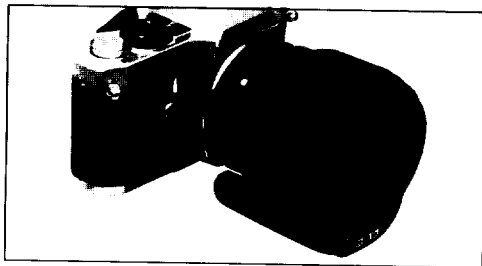
- Do not mix battery brands and types, or old and new batteries.
- Wipe the battery with a dry cloth before insertion and always handle by the edges to ensure proper contact.
- It is advisable to carry spare batteries when shooting in a cold climate where temporary failure due to extreme temperatures is not uncommon. Keep spares in a warm pocket.
- When not using the camera for long periods of time, remove the batteries to avoid battery leakage.

IMPORTANT! Never throw used batteries into a fire or expose them to excessive heat as a precaution against explosion. Always keep batteries out of the reach of children.

LENS MOUNTING



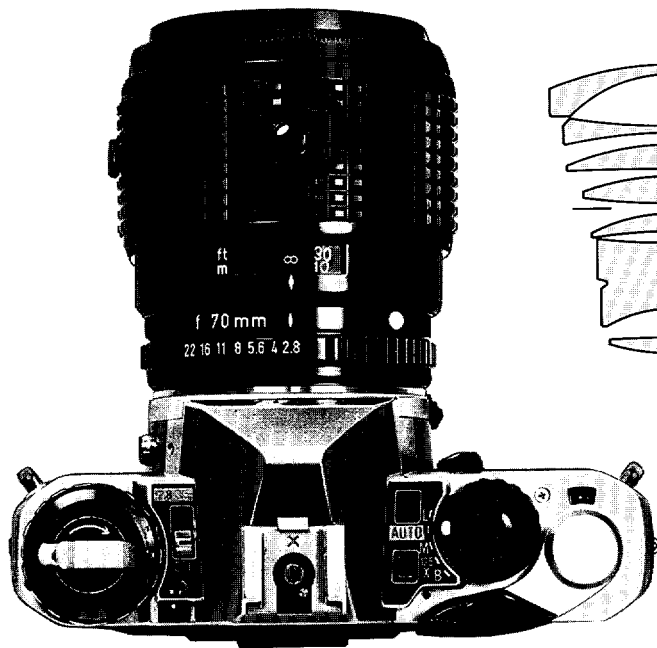
- Remove the rear lens and body mount covers. Hold the camera securely in your left hand and match the red dot **A** on the camera body with the red dot **B** on the lens.
- Seat the lens in the body mount and turn it clockwise until it locks into place with a "click." If it's dark and the red dots are difficult to see, align the raised white node **C** on the lens barrel with the lens release lever by touch and mount the lens as described.



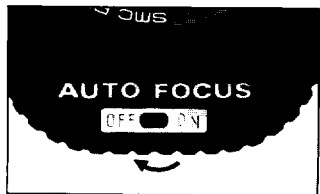
Removing the lens: To remove the lens, hold the camera in the left hand and press the lens release button while turning the lens counter-clockwise with the right hand.

IMPORTANT

- When changing lenses outdoors with film in the camera, take the added precaution of avoiding direct sunlight.
- If it's necessary to put the lens down without the rear lens cap, make sure you rest the lens with the front element down, or rest it on the battery compartment as a precaution against tumbling. Never put the lens down with the front element up; this can damage the rear elements.



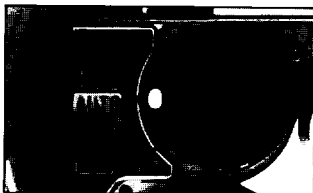
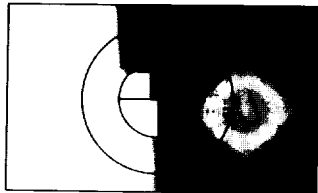
LENS OPERATION



- Set the power switch on the front of the lens to ON.

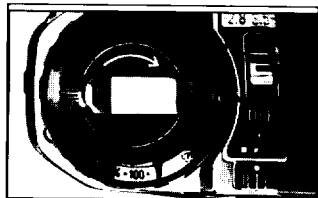
- Look through the viewfinder and center your subject in the split-image center spot.

Make sure that the points of highest contrast bisect the split-image line.

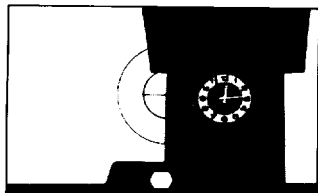


- Set the shutter mode dial of the camera to "Auto" (other settings except "B" may also be used).




- Press either of the focusing buttons on the lens barrel. When it reaches the point of correct focus, the lens will stop turning; the large green LED display in the viewfinder will light, indicating focus is correct.



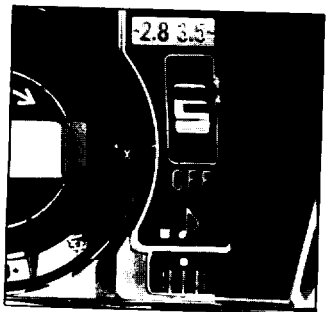
- Set the electro-focus button on top of the camera to ~2.8.



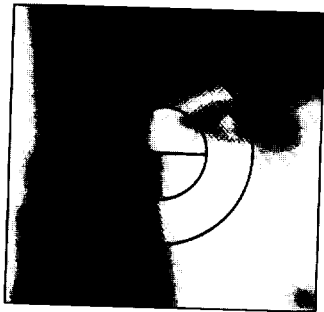
As the motor turns, the following indications are possible.

	ONE ARROW: Direction in which the lens is focusing.
	TWO ARROWS: Lighting/contrast is too flat for auto focus—focus manually.
	GREEN LIGHT (LED): Subject is in focus; make exposure reading and take the picture.
TO FOCUS, PRESS THE BUTTON ON THE LENS BARREL, CENTER THE SUBJECT IN VIEWFINDER: TAKE PHOTO WHEN LENS STOPS TURNING.	

NOTE: The subject doesn't have to be aligned precisely in the split-image center spot for correct focus with the auto focus lens.



Audio Focus Indication: The ME-F provides you with an audible signal which accompanies the LED correct focus indicator. This signal tells you when to take the picture. To operate the audio focus indicator, set the audio focus switch to the musical note. When not needed, turn the audio focus indicator off simply by sliding the switch from the musical note back to the black square.



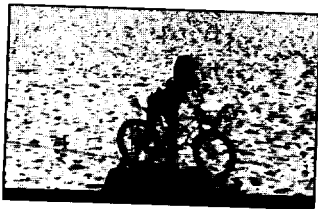
Hints for good results: Your ME-F's through-the-lens auto focusing system will give you perfectly focused photos when used properly. For best results, be sure to place the highest contrast portion of the subject in the split-image center spot. For example, if photographing a person, focus on his or her silhouette as it stands out from the background. For close-up portraits, focus on facial details.

Foreground Information: The TTL auto focusing system focuses for the object in the center of the viewfinder that is closest to the camera. For this reason, make sure that objects in front of your key subject do not cross the split-image center line. Correct focus will be obtained even with foreground objects as long as they do not cross the split-image center line.



Picture Composition: When composing a picture, first focus on the key subject. Remember, the auto focusing system reads only the subject which bisects the split-image line of the viewfinder, so keep the subject in the center until the focus locks on the subject; then frame your subject as you like.





IMPORTANT: When contrast and lighting are insufficient for focusing, the motor will turn back and forth slowly. If this occurs, stop focusing immediately to avoid wasting batteries.

On some occasions you will have to focus manually

While your auto focus system is extremely accurate, there will be occasions when you will have to focus manually.

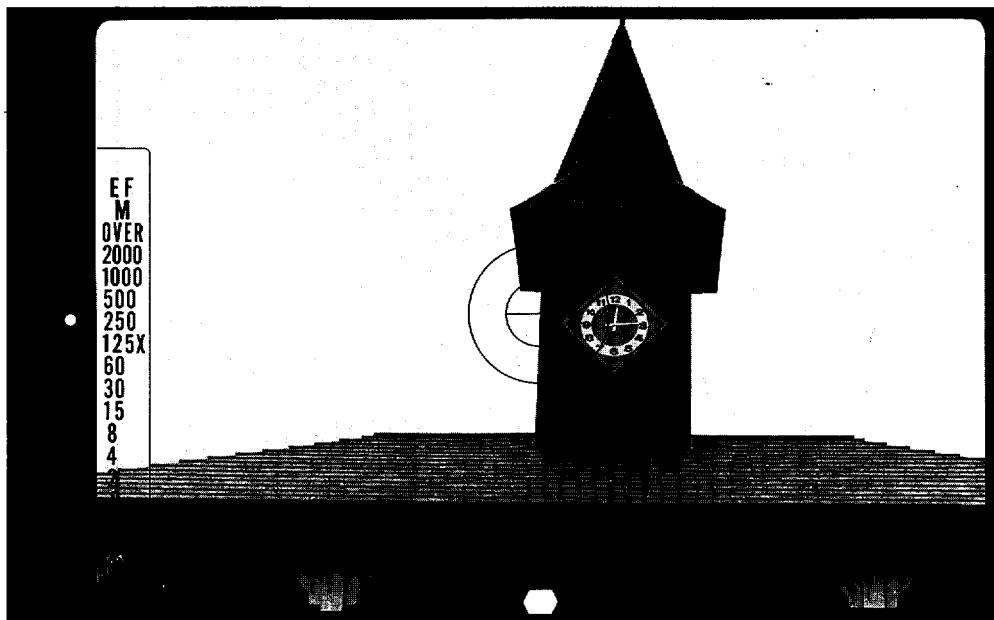
When manual focus is required, both directional LEDs light simultaneously (or flash depending on lighting conditions), informing you to focus manually.

For manual focus, turn the front of the lens barrel and focus in the conventional manner with the split-image, microprism or entire focusing screen (refer to camera instruction manual).

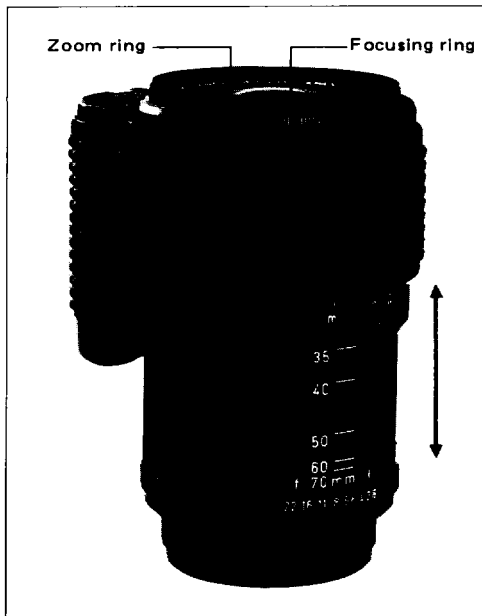
These situations arise mainly when lighting is insufficient or contrast is too flat or extreme for the sensor to read the subject. Examples include photographing indoors in dimly lit rooms, outdoors at early dawn, twilight or in heavy shade or overcast (Below EV 5.5 at ASA 100 1 sec. at f/6.7).

Subjects without contrast, such as a white wall also present a problem, as do excessively bright subjects, strong backlighting, fast moving subjects, very fine patterns or lines, and subjects with extreme contrast (over EV 17.5, 1/500 sec. at f/19).

Note: Even with subjects lacking contrast, the system can sometimes be made to work if a pronounced feature of the subject is placed in the center spot of the viewfinder (such as the bicycle tire in the top photo). There may be occasional misreadings with extremely high contrast subjects or when the background is brighter than the main subject. For these few instances, check your focus manually.



ZOOMING/FOCUSING RINGS



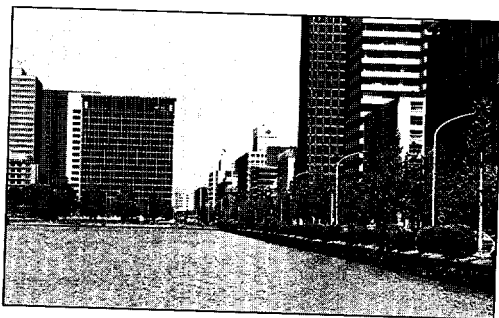
Zooming: Your ME-F features a push/pull zoom collar, which makes zooming easy even while you focus. Standard focal length settings marked on the lens barrel, while all settings in-between settings can also be used. For wider focal lengths, push the collar out; for telephoto focal lengths push the collar in.

Use with Tripod: The auto focus lens cannot be used with a tripod at the 70mm setting as the battery compartment will hit against the tripod seat of most tripods.

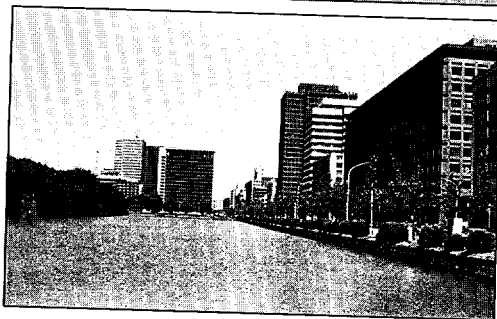
Focusing Ring: When not using the auto focus system, the AF lens can be focused like a conventional zoom lens. For manual focus, grasp the serrated focusing ring at the front and rotate the lens barrel until the image comes in clear.

Electronic Focus: If the lens batteries go out and you're caught without spares, you can still use the focus indicator system inside the camera for electronic focus guidance while you turn the lens barrel manually. Simply leave the focus sensor switch on top of the camera at the ~2.8 setting, and turn the lens barrel in the direction of the arrow until the green focusing LED lights (See ME-F camera instruction manual).

Zoom Ratio: The 35mm–70mm AF zoom lens features a 2:1 zooming ratio. This gives you twice as great an angle of view at the 35mm setting as at the 70mm setting; it doubles the image size at the 70mm setting.

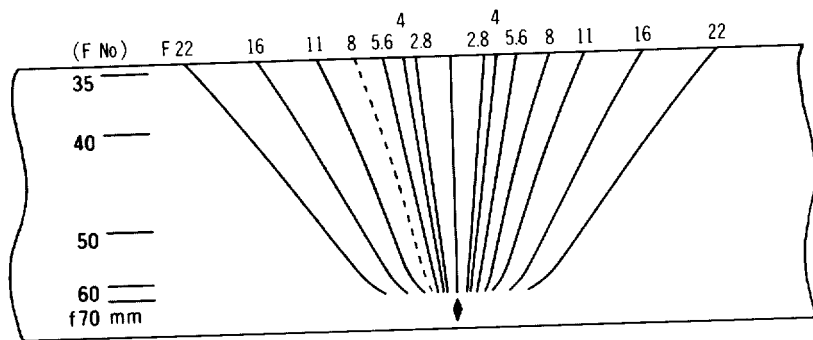


Focusing Tip: When photographing at wider-angle focal lengths, the best results will be obtained if you focus at the telephoto setting first, then zoom out to your desired focal length. This way, you have a larger focusing image and foreground matter which might distract the focusing sensor is easily eliminated.



DEPTH OF FIELD SCALES/INFRARED PHOTOGRAPHY

Depth of field and infrared indices are not engraved on the AF 35mm-70mm lens. Use the chart below as a depth of field guide for the different lens apertures and the adjustable focal lengths. The f/8 line also serves as the focal shift guide for black and white infrared photography.



LENS ACCESSORIES

AF ZOOM LENS FRONT CASE **A**

A specially designed case for carrying the 35mm—70mm zoom lens together with the ME-F (optional).

AF ZOOM LENS CASE **B**

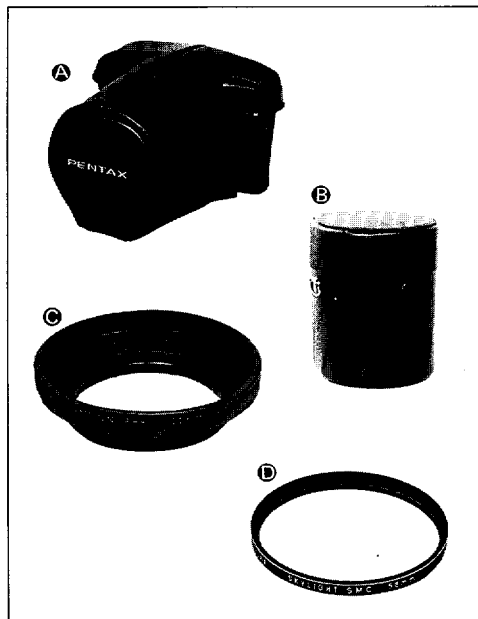
A case for carrying the AF 35mm—70mm zoom lens separately (optional).

LENS HOOD **C**

An exclusive lens hood which screws to the threads on front of the lens (optional).

FILTERS **D**

Standard 58mm screw-in and 58mm SMC Pentax screw-in type filters are used in conjunction with your lens; with certain dark black and white filters, manual focus is required.



PRECAUTIONS

Auto Focus Contacts: Be sure to keep the auto focus contacts of both the camera body mount clean, wipe occasionally with a dry cloth to keep them from becoming oily.

Power Switch: The power switch can be left on while using the lens. When inserting the lens in its case or when storing, however, set the switch to OFF. Also, set the switch to off and remove the batteries when not using the lens for an extended period of time.

Winder: When using a winder with the auto focus lens, use only the single-frame mode and set the AUTO dial to 125X (100X). In the continuous mode with moving subjects, focus will be correct only for the first time.

Lens Care: Your lens is a precision optic, and the utmost care should be taken in handling to ensure years of high quality performance. Please observe the following.

- Always handle carefully, and do not toss the lens into the camera bag. When not using the lens, make sure both front and rear lens caps are used.
- When using at the beach, do not allow sand to accumulate on the lens. If it does, wipe it away immediately as the sand can scratch the lens and disrupt the lens mechanics as well. Never leave

the lens in hot places such as glove compartment or dash panel of a car.

- Always keep the lens as clean as possible. Remove loose dust and dirt by first using a lens blower and then brush gently with a camel's hair lens brush. Smudges and fingerprint marks should be carefully wiped off using lens cleaning solution and lens tissue or a soft cloth.
- Store your lens in a cool, dry, well-ventilated place when it's not in use to avoid condensation build-up. The lens performs best between 50° ~ -20°. However, when working at temperatures below freezing, batteries often can malfunction due to the cold. In cold climates, carry spare batteries in a warm pocket for easy replacement.
- Sudden temperature changes should be avoided as much as possible. Keep the lens in a protective case to help reduce the shock of extreme changes.
- Pentax quality performance is guaranteed when both Pentax cameras and its accessories are used together. The Pentax system is tested and designed to work as one. The manufacturer cannot guarantee its performance when interchanged with other systems.

SPECIFICATIONS

Construction	7 elements in 7 groups.
Mount	Pentax KF-Mount (for K-Mount, KF-Mount cameras).
Angle of View	63.5° at 35mm; 34.5° at 70mm.
Focusing	Complete TTL auto focus with Pentax ME-F; manual focus with K-mount Pentaxes.
Diaphragm	Fully automatic with open-aperture metering.
Aperture Range	f/2.8 - f/22
Minimum Focus	1.2 meters.
Zooming System	Push/Pull zoom collar.
Lens Coating	Pentax Super-Multi-Coating.
Power Source	Four 1.5-volt AAA-size batteries power micromotor.
Switches/Controls	Focus motor power switch, focus button (two) on lens.
Filter Size	58mm (screw-in type)
Lens Hood	Slip-on rubber hood.
Size	87mm(H) x 73mm(dia) x 76.5mm (Length).
Weight	580 g (without batteries).

WARRANTY POLICY

All Pentax lenses purchased through authorized bona fide photographic distribution channels are guaranteed 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 of 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 lens 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 lens 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 camera or lens 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 owner. 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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