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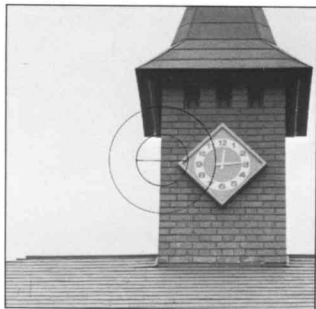
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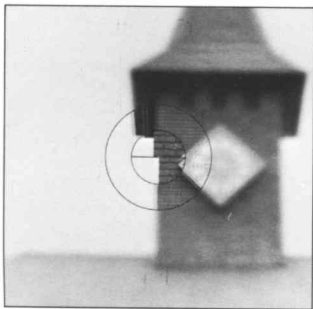
The large manuals are split only for easy download size.



The ME-F comes equipped with a split-image/microprism focusing screen which provides a split-image center spot surrounded by a microprism collar on a matte field. For situations where the TTL electronic focusing system does not apply you can focus manually using all three areas of the focusing screen.

To focus with the split-image center spot: simply turn the lens focusing ring until the broken image in the center spot of the viewfinder aligns as one.

To focus with the microprism collar: When using the microprism collar surrounding the center spot, rotate the lens focusing ring until the "shimmering" effect in the collar area seems to disappear.



The matte field: This is quite handy for focusing with long telephoto lenses having small apertures to which electronic focusing doesn't apply. To focus, turn the focusing ring of the lens until the image on the matte field appears sharp and crisp.

In the "Auto" exposure mode the camera automatically varies the shutter speed in relation to the preset lens aperture. In most cases, sharply focused, well-exposed photos are easily obtained simply by presetting the camera as outlined below. When it is very bright, however, or when lighting is limited, such as at dusk, dawn, night, indoors, etc.), some additional adjustments may be required. Usually, it is sufficient to change the lens aperture, but there will also be instances when use of a tripod, electronic flash, or the exposure compensation dial will bring improved results.

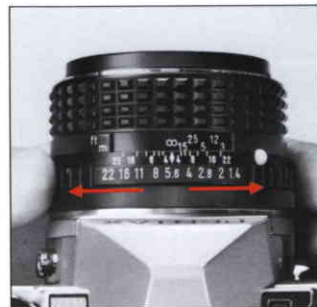
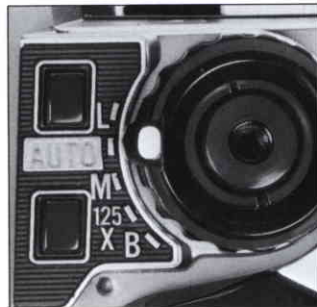
For exposures on "Auto" perform the following:

- Check that the film speed is set properly (page 15).
- Check that the exposure compensation dial is set to 1X.

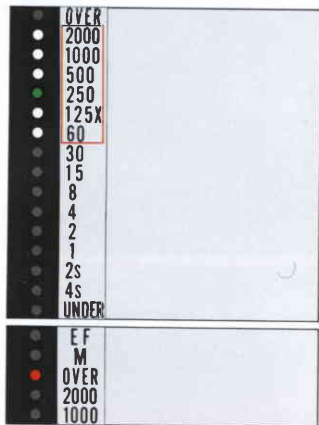
(1) Set the shutter mode dial to "AUTO."

(2) Preset the lens aperture according to lighting conditions.

Exposure Check: Look through the viewfinder and lightly press the shutter button; the LED (light-emitting-diode) shutter speed display on the left-hand side of the viewfinder will light. (The display shuts off automatically 10 seconds after you release your finger from the shutter button).



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.

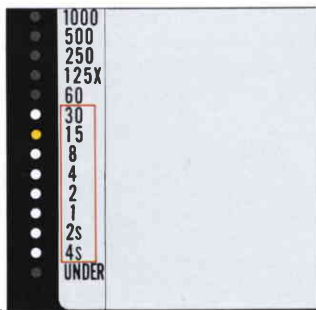
RED “OVER” LED – OVEREXPOSURE

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 54).

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.

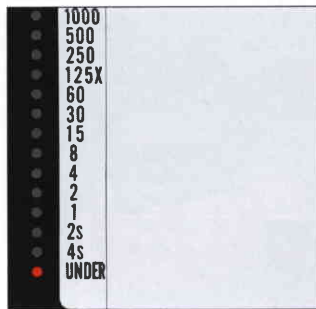
YELLOW LED – SLOW EXPOSURE/CAMERA SHAKE WARNING

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 “4S” 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 51) or, ② switch to flash (page 52–53).



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: ① make a time exposure using a tripod at the “B” mode setting, or ② switch to flash (page 52–53).



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 F 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 Spotlit 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.

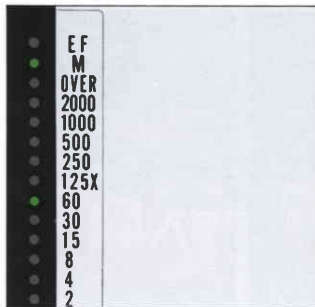
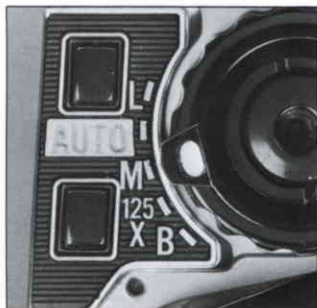


compensated



uncompensated





While the shutter speed in the “AUTO” mode varies continuously in relation to lighting conditions, the ME-F 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 10 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

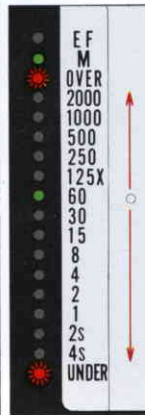
Two shutter speed control pushbuttons are provided to enable rapid shutter speed selection in the manual mode. These operate when the exposure mode dial is set to "M" (manual) and the shutter release button is partially depressed to light the LED display inside the viewfinder.

Shutter Speed Increase — Forward Button

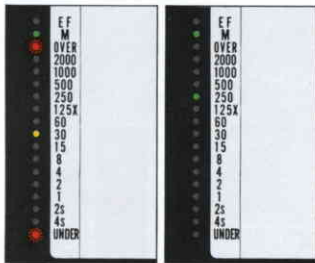
Press the forward button and the LED shutter speeds inside the viewfinder will increase from bottom to top. Let go of the button when the LED lights beside the desired shutter speed. When the display reaches "2000" at the top of the scale, it starts over from the bottom (for example: 1000 — 2000 — 4S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

Shutter Speed Decrease — Rear Button

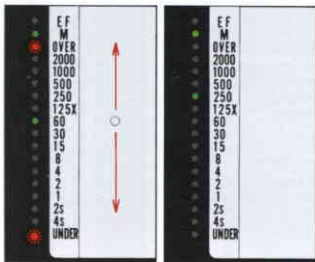
Press this button and the LED shutter speed display decreases from top to bottom. At the bottom of the scale, the display starts over again at the top (thus: 2S — 4S — 2000 — 1000 15 — 8 — 4 — 2 — 1 — 2S — 4S — 2000, etc.).



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. If the underexposure LED remains lit even after you have given maximum exposure, either make a time exposure at the "B" setting (page 51), or switch to flash photography (pages 52–53.)

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).



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.

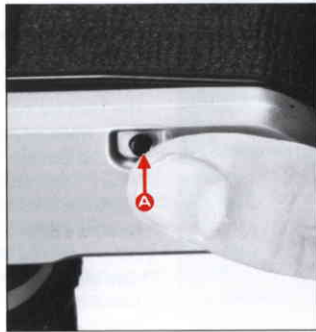
Hold your camera tightly to your forehead with your left hand, raise your right arm and draw your left arm to your body.

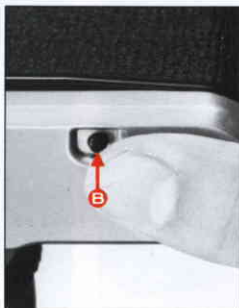


UNLOADING THE FILM

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 **B** 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.





Self-Timer

The self-timer delays release of the shutter 4 – 10 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 **B** 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

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 (0.22 in.) 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.

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.

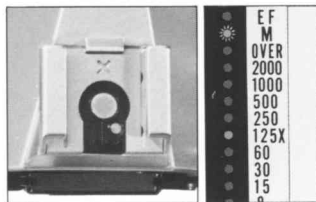




When used with any one of the Pentax "Dedicated" Automatic Flash Units,* your ME-F offers the convenience of "dedicated" flash—automatic synchronization for flash on charging and flash ready indication right inside the viewfinder.

For Dedicated Auto Flash: Leave the shutter mode dial of the camera set at "Auto" or "M", and attach the flash to the camera hotshoe. Set the flash mode in accordance with the instructions provided with the unit and switch the flash on. When the unit charges, the camera synchronize automatically for flash at 1/125 second; in addition, the green "M" and "125X" LEDs will flash inside the viewfinder signaling that the flash is ready. After taking your photo, the camera reverts to the non-flash exposure mode in use until the unit has recycled. To cancel the flash exposure, simply switch the flash unit off.

*Presently four of these are available—AF-200S, AF-160, AF-280T and AF080C Ring Light.



OTHER FLASH UNITS

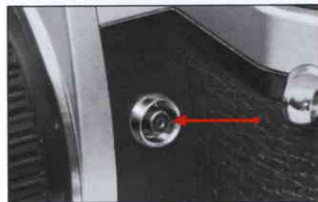
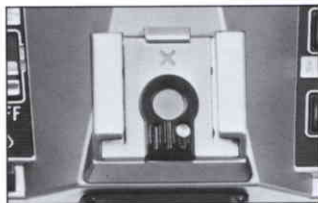
The ME-F may also be used with a variety of other flash units, including both hotshoe type units and bracket-mount type requiring cord hook up. If your flash is the hotshoe type it synchronizes directly via the hotshoe.

If it requires cord hook up, plug the cord into the "X" synch terminal beside the lens mount.

For Flash Operation: Synchronize the unit manually for flash by pressing the white button and setting the shutter mode dial to "125X." Then, set the flash exposure as indicated in the instruction manual accompanying your flash unit.

NOTE: Viewfinder flash synchronization and flash ready indication are not given when the manual "125X" setting is used.

IMPORTANT: Use of dedicated flash units other than Pentax brand may damage the camera's electronic circuitry and precaution should be taken. Also, when using the Pentax Superlite II, synchronize for flash at the mechanical 125X shutter speed setting only.





The tri-colored viewfinder indications of your ME-F's automatic exposure system and the electronic focusing make it extremely easy to obtain good results in a wide variety of shooting situations. However, there are also a few basic aperture and shutter speed control techniques which are handy in order to obtain good results with moving subjects, creating interesting effects, and so forth. If SLR photography is relatively new to you, it will certainly be worthwhile to take the time to learn these few basic techniques.

Optimum Apertures

The aperture guide listed on page 18 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).

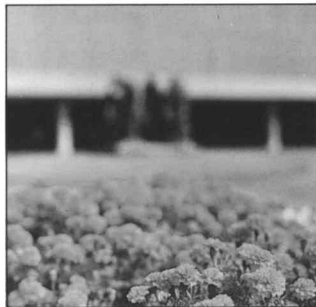
Stopping the Action: With moving subjects such as bicycles, automobiles, horses, children at play, birds in flight, etc., a fast shutter speed is necessary to stop the action and prevent the subject from blurring. With manual exposures, this problem is solved by preselecting a fast shutter speed such 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.

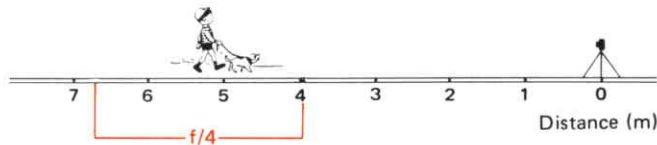
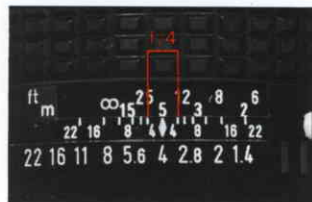


DEPTH-OF-FIELD SCALE

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 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

unit=meter

Distance scale	0.45m	0.6m	1m	1.6m	2m	3m	5m	15m	∞
f/1.4	0.447 ~ 0.453	0.595 ~ 0.605	0.984 ~ 1.017	1.557 ~ 1.645	1.932 ~ 2.073	2.846 ~ 3.172	4.579 ~ 5.506	11.712 ~ 20.868	52.938 ~ ∞
f/2	0.446 ~ 0.454	0.593 ~ 0.608	0.977 ~ 1.024	1.539 ~ 1.666	1.904 ~ 2.106	2.785 ~ 3.252	4.420 ~ 5.757	10.707 ~ 25.077	37.070 ~ ∞
f/2.8	0.445 ~ 0.455	0.590 ~ 0.611	0.969 ~ 1.034	1.516 ~ 1.694	1.869 ~ 2.152	2.708 ~ 3.365	4.225 ~ 6.128	9.609 ~ 34.313	26.491 ~ ∞
f/4	0.443 ~ 0.458	0.586 ~ 0.615	0.956 ~ 1.049	1.483 ~ 1.737	1.818 ~ 2.224	2.599 ~ 3.550	3.962 ~ 6.786	8.329 ~ 76.783	18.557 ~ ∞
f/5.6	0.440 ~ 0.461	0.580 ~ 0.622	0.939 ~ 1.070	1.441 ~ 1.799	1.754 ~ 2.329	2.468 ~ 3.832	3.659 ~ 7.922	7.075 ~ ∞	13.268 ~ ∞
f/8	0.436 ~ 0.466	0.572 ~ 0.631	0.915 ~ 1.103	1.383 ~ 1.901	1.667 ~ 2.506	2.294 ~ 4.351	3.284 ~ 10.585	5.774 ~ ∞	9.300 ~ ∞
f/11	0.430 ~ 0.472	0.562 ~ 0.644	0.887 ~ 1.148	1.316 ~ 2.047	1.569 ~ 2.771	2.109 ~ 5.242	2.911 ~ 18.301	4.697 ~ ∞	6.776 ~ ∞
f/16	0.422 ~ 0.482	0.546 ~ 0.667	0.844 ~ 1.231	1.219 ~ 2.348	1.430 ~ 3.386	1.861 ~ 7.978	2.450 ~ ∞	3.588 ~ ∞	4.672 ~ ∞
f/22	0.413 ~ 0.496	0.529 ~ 0.696	0.798 ~ 1.349	1.120 ~ 2.855	1.294 ~ 4.545	1.631 ~ 21.588	2.061 ~ ∞	2.799 ~ ∞	3.410 ~ ∞

unit=feet

Distance scale	1.55'	1.9'	2.5'	3'	6'	8'	12'	25'	∞
f/1.4	1.540' ~ 1.560'	1.884' ~ 1.916'	2.471' ~ 2.530'	2.957' ~ 3.045'	5.814' ~ 6.198'	7.667' ~ 8.364'	11.252' ~ 12.856'	21.905' ~ 29.122'	173.686' ~ ∞
f/2	1.536' ~ 1.564'	1.878' ~ 1.923'	2.459' ~ 2.543'	2.939' ~ 3.064'	5.738' ~ 6.287'	7.533' ~ 8.530'	10.960' ~ 13.262'	20.802' ~ 31.339'	121.623' ~ ∞
f/2.8	1.531' ~ 1.570'	1.869' ~ 1.932'	2.443' ~ 2.560'	2.915' ~ 3.091'	5.640' ~ 6.410'	7.361' ~ 8.763'	10.593' ~ 13.845'	19.495' ~ 34.884'	86.915' ~ ∞
f/4	1.523' ~ 1.573'	1.856' ~ 1.946'	2.419' ~ 2.587'	2.835' ~ 3.131'	5.499' ~ 6.604'	7.118' ~ 9.137'	10.087' ~ 14.824'	17.817' ~ 42.020'	60.884' ~ ∞
f/5.6	1.512' ~ 1.590'	1.839' ~ 1.965'	2.388' ~ 2.624'	2.835' ~ 3.187'	5.322' ~ 6.882'	6.818' ~ 9.690'	9.485' ~ 16.370'	15.986' ~ 57.817'	43.530' ~ ∞
f/8	1.497' ~ 1.608'	1.815' ~ 1.995'	2.343' ~ 2.681'	2.769' ~ 3.275'	5.078' ~ 7.347'	6.414' ~ 10.660'	8.706' ~ 19.414'	13.855' ~ 32.990'	30.514' ~ ∞
f/11	1.478' ~ 1.631'	1.785' ~ 2.033'	2.290' ~ 2.756'	2.692' ~ 3.393'	4.802' ~ 8.027'	5.973' ~ 12.190'	7.898' ~ 25.319'	11.882' ~ ∞	22.231' ~ ∞
f/16	1.447' ~ 1.670'	2.101' ~ 1.737'	2.206' ~ 2.892'	2.573' ~ 3.609'	4.406' ~ 9.500'	5.361' ~ 16.047'	6.845' ~ 51.597'	9.611' ~ ∞	15.329' ~ ∞
f/22	1.413' ~ 1.721'	1.684' ~ 2.188'	2.114' ~ 3.075'	2.445' ~ 3.911'	4.012' ~ 12.205'	4.778' ~ 25.969'	5.906' ~ ∞	7.827' ~ ∞	11.188' ~ ∞

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.

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



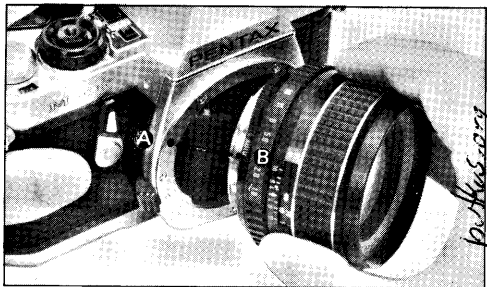
How to Use Mount Adaptor K

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 **A** and **B**, and turning the lens clockwise until it locks with a click. (This takes slightly less than a quarter of a revolution.)

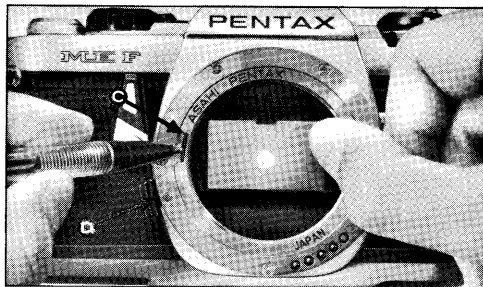
3. To remove the lens, leaving the Mount Adapter K attached to the camera body, simply unscrew the lens counterclockwise. Other screw-mount Takumar lenses can then be attached in the normal way.



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 **C**

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 **D** on the camera body plays no part at all.





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.

Open-aperture SMC Pentax lenses have a diaphragm coupling lever **A** 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.



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.

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.

The meter coupling range of your ME-F assures accurate exposure reading over a broad range of shutter speed/film speed combinations.

The working EV range of for both auto and manual exposure systems also varies with the lens in use and is reflected in the chart to the right.

With the SMC Pentax AF zoom with ASA 100 film it extends from EV-1 (f/2.8 at 4 seconds) to EV 19 (f/16 at 1/2000th second; f/22 at 1/1000th second); with the f/1.4 50mm standard lens it runs from EV-1 (f/1.4 at 1 second) to EV-19 (f/16 at 1/2000th second; f/22 at 1/1000th second).

You can calculate what the working EV range would be at other film speeds by mentally adjusting the accurate exposure coupling range. Simply move the ASA arrow at the right of the chart up or down and adjust the chart accordingly. At ASA 50 with the 50mm f/1.4 lens, for example, it would run from EV-0 (f/1.4 at 2 seconds; f/2 at 4 seconds) to EV-18 (f/22 at 1/500th second; f/16 at 1/1000th second).

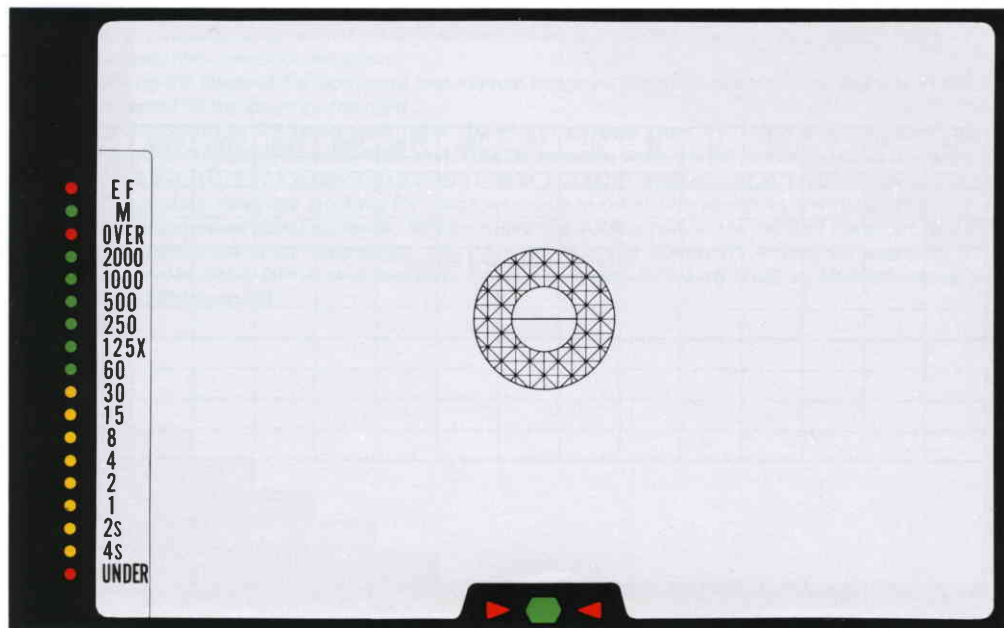
4 s	2 s	1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{15}$	$\frac{1}{30}$	$\frac{1}{60}$	$\frac{1}{125}$	$\frac{1}{250}$	$\frac{1}{500}$	$\frac{1}{1000}$	$\frac{1}{2000}$	
														1 2
														1.4
														2
														2.8
														4
														5.6
														8
														11
														16
														22





Meter Coupling Range

ASA ▶

Adjust vertically

12
25
50
100
200
400
800
1600



Indication	Color	Function
EF	RED	Exposure compensation indicator ("EF"=Exposure Factor), flashes red when exposure compensation is employed.
M	GREEN	(1) Manual Exposure Warning (glows green). (2) Auto Flash Ready Indicator (flashes green when dedicated Auto Flash has charged).
OVER	RED	Overexposure Warning
2000	GREEN	1/2000 sec. shutter speed setting
1000	GREEN	1/1000 sec.
500	GREEN	1/500 sec.
250	GREEN	1/250 sec.
125X	GREEN	1/125 sec. (doubles as auto flash synch)
60	GREEN	1/60 sec.
30	YELLOW	1/30 sec. shutter speed setting
15	YELLOW	1/15 sec.
8	YELLOW	1/8 sec.
4	YELLOW	1/4 sec.
2	YELLOW	1/2 sec.
1	YELLOW	1 sec.
2S	YELLOW	2 sec.
4S	YELLOW	4 sec.
UNDER	RED	Underexposure Warning.
Focusing LEDs		Direction to turn the lens to focus.
		"in-focus" indication.
	 	Out of "electronic focus range; focus manually.

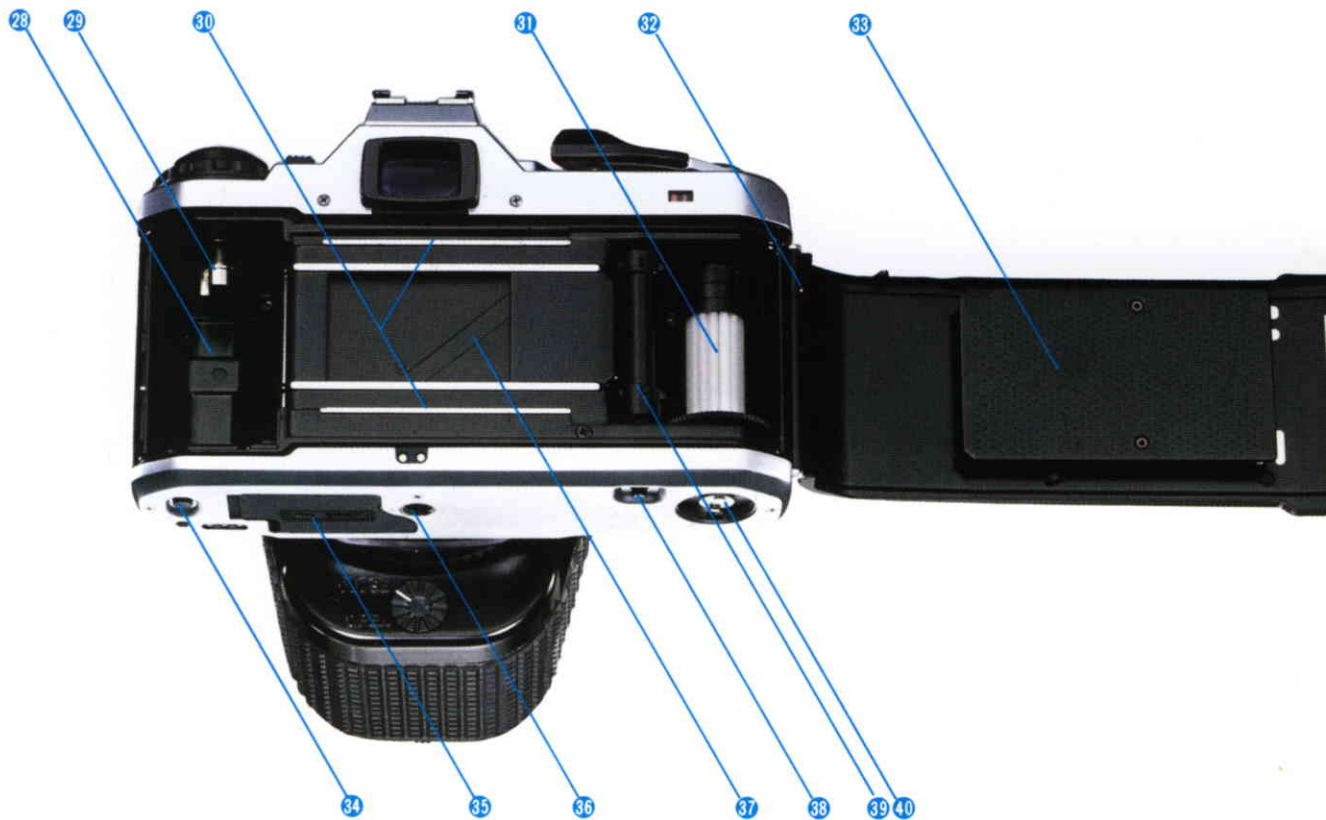
Indications 1/2000 sec. thru 1/60 sec. are given in green to signal adequate speed for handheld shooting.

Indications for speeds 1/30 sec. thru 4 sec. given in Yellow as a warning against camera shake.

Type	35mm full-frame, Auto/Manual exposure SLR camera.
Body Mount	Pentax KF-Mount (accepts K-Mount Lenses, and KF-mount AF lens).
Standard Lenses	SMC Pentax AF Zoom 35mm—70mm f/2.8, SMC Pentax-M 50mm f/1.2, M 50mm f/1.4, M 50mm f/1.7, M 50mm f/2, M 40mm f/2.8.
Shutter	Seiko MFC-E2 vertical-run metal focal plane shutter; automatic shutter speeds electronically controlled from 1/2000th to 4 seconds; electronic manual speeds from 1/2000th to 4 seconds at 14 viewfinder settings; plus "125X" and "B"; mechanical self-timer with 4 - 10 second delay.
Flash Synch	Automatic at 1/125 sec. via hotshoe (with Pentax AF-160, AF-200S, AF-280T, AF-080C); manual at 1/125X via hotshoe or terminal on camera body with other units.
Exposure Control	Open-aperture, center-weighted, through-the-lens light metering by GPD cells. Exposure range from EV-1 to EV-19 (ASA 100, f/1.4); ASA 12 - 1600. Auto exposure compensation up to + 2EV via dial; meter activated by light pressure on shutter button or focus button of AF lens. 10 - 12 sec. exposure display.
Viewfinder	Pentaprism finder with split-image microprism focusing screen; shows 92% of picture area, 0.87X magnification (50mm 1.4 lens) -1.0 diopter eyepiece. Green LEDs in finder indicate handholdable shutter speeds from 1/2000th second to 1/60th second, yellow LED camera "shake warning (1/30th to 4 sec.); red LED over/under exposure warning; Manual and Exposure compensation warnings; flash synch/ready indication, Auto/electro "in-focus", directional and "out-of-range" indicators.

TTL EFC SYSTEM	(Through-the-Lens Electronic Focus Control). Microcomputer circuitry inside camera and MOS image sensor measure subject contrast, provide focus guidance with regular SMC Pentax Lenses (24mm–300mm), full auto focus with Pentax AF Lens (AF ZOOM 35mm–70mm f/2.8). EV range from EV-4 to EV-16 (with 50mm lens at f/1.4); electro focus switch varies image sensor sensitivity.
Power Source	Four 1.5-volt silver-oxide batteries, (S-76 or equivalent) power all focus indication and exposure systems (alkaline batteries not recommended).
Film Transport	Pentax Magic Needle Loading System; single-stroke rapid wind lever with 130° throw and 35° standoff angle; crank film rewind; built-in shutter-cocked indicator; accepts Winder ME-II, ME for auto film advance.
Other Features	Interchangeable camera back accepts data printer (Dial Data ME), Tripod socket, strap hooks; accepts wide range of Pentax system accessories.
Size	32mm x 87.5mm x 49mm.
Weight	480g (without batteries); 675g with f/1.7 lens.

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 battereis).





- 28 Film chamber
- 29 Film advance claw
- 30 Film guide rail
- 31 Film take-up spool
- 32 Back cover release lug
- 33 Film pressure plate
- 34 Battery compartment lock release
- 35 Battery compartment
- 36 Winder/tripod receptacle
- 37 Shutter
- 38 Film rewind button
- 39 Sprocket
- 40 Film transport coupler
- 41 Viewfinder eyepiece
- 42 Cordless Dial Data Contact
- 43 Memo holder
- 44 Back cover
- 45 Film advance/rewind indicator