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




STEP UP

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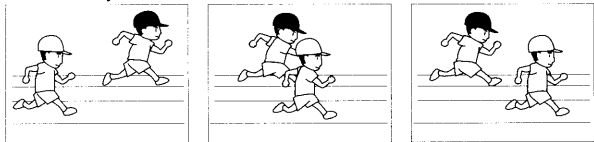
CAMERA OPERATION

Besides single-frame drive mode, the camera can be set as follows:


- **Consecutive-frame drive mode:** Pictures can be taken consecutively while holding down the shutter release button.  p.46
- **Multi-exposure mode:** Expose the same frame multiple times.  p.47
- **Self-timer mode:** A picture will be taken with a 12-second delay.  p.49
- **Wireless remote control:** The wireless remote control allows you to trip the shutter at a distance.  p.50
- **Auto bracketing:** Three pictures are taken consecutively as follows: Correctly exposed, underexposed, and overexposed.  p.53

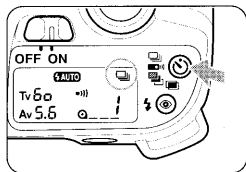
CONSECUTIVE-FRAME DRIVE

Keep the shutter release button pressed to take pictures continuously.



Setting the consecutive-frame drive mode

- 1 Turn the main switch to [ON].
- 2 Press the drive mode button until  appears on the LCD panel.



2 Shooting consecutive frames

- 1 Depress the shutter release button halfway down to focus the subject.
- 2 Depress and hold down the shutter release button completely.
- 3 To stop taking consecutive pictures, take your finger off the shutter release button.



The shutter cannot be released while the built-in flash is being charged.


MULTIPLE EXPOSURES ON A SINGLE FRAME

Picture can be exposed on the same frame multiple times. For example, you first take a picture of a dark background, then use flash to photograph someone on the same frame.

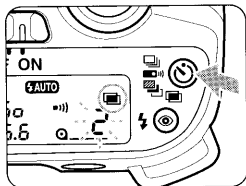


1

Setting the multi-exposure mode



- ① Turn the main switch to ON.
- ② Press the drive mode button until [] appears on the LCD panel.

The frame counter will blink.




2

Using the multi-exposure mode

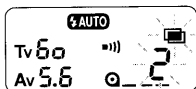
- ① Take the first picture.
The frame counter and [] on the LCD panel blink.
- ② Take the second picture.
The frame counter stops blinking and film is advanced to next frame then return to single frame drive mode [].



To exposed the third shot or more, press the drive button until [] appears after repeating step 1.




The multi-exposure mode remains in effect even after the main switch is turned [OFF]. To cancel the multi-exposure mode, remove the batteries once and load again.

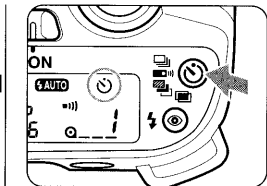


SELF-TIMER MODE


After you pressing the shutter release button, the picture will be taken about 12 sec. later. Use the self-timer when you want to be in the picture.

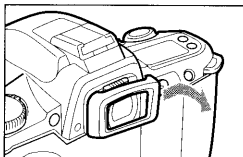
1 Setting the self-timer mode

- ① Turn the main switch to ON.
- ② Press the drive mode button until [] appears on the LCD panel.

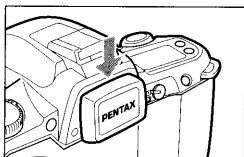


Preventing stray light from entering the eyepiece

Underexposure may occur if light enters the viewfinder during self-timer operation on auto picture mode and 6 picture modes. If you intend to move away from the viewfinder, attach the supplied finder cap or use AE lock function ( p.73).



Detaching Eyecup



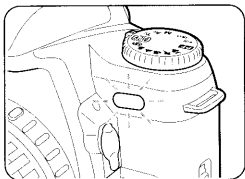
Attaching the finder cap

2 Using the self-timer mode

- ① Depress the shutter release button halfway down to focus the subject.

- 2 **Depress the shutter release button completely.**

The shutter will be released about 12 seconds after the shutter release button is depressed. The audible PCV signal is heard and the rate increases for the last two seconds.



3

Cancelling the self-timer mode

- 1 **Press the drive mode button to another setting.**

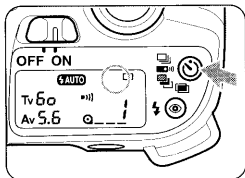
The self-timer mode is cancelled.



The stop the self-timer operation after it has been activated, press the drive mode button again.



The audible PCV signal can be stopped (p.74).

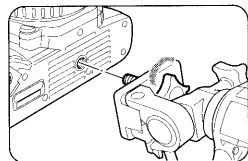



REMOTE CONTROL SHOOTING (OPTIONAL)

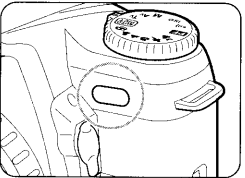
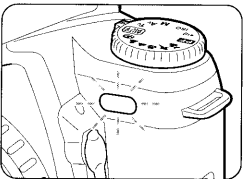
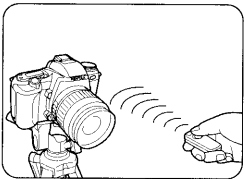
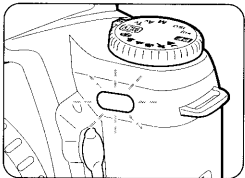
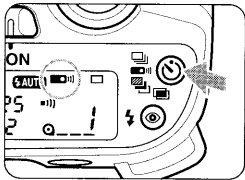
If you have purchased the optional wireless remote control, read this section.

The shutter will be released 3 seconds after the remote control's shutter release button is pressed.

- 1 **Attach the camera to a tripod.**

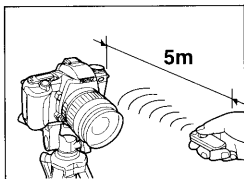



- ② Press the drive mode button until [] appears on the LCD panel.
- ③ The self-timer lamp starts blinking slowly.
- ④ Aim the remote control transmitter towards the remote control receiver on the camera, and then press the shutter release button on the remote control.
- ⑤ The self-timer lamp blinks rapidly for 3 seconds and then the shutter is released.
- ⑥ When the picture is taken, the self-timer lamp lights for approx. 2 seconds and return to blink slowly.





The operating distance of the wireless remote control is approx. 5m from in front of the camera.



- To cancel the remote control mode, press the drive mode button until [] disappears from LCD panel.
- To stop the remote control operation after it has been activated, press the drive button or turn the main switch off.
- Adjust the focus by pressing the shutter release button on the camera halfway down or manually and then press the remote control's release button.
- The remote control may not work in a backlit situation.
- The remote control does not work while the flash is being charged.
- When the remote control mode is left and is unused for 5 minutes, the single drive mode will be automatically set.



Battery life on the Remote Control

About 30,000 commands can be issued using the Remote Control. If the battery is exhausted, please have it replaced at your local Pentax Service center (there is a charge for this service).

AUTO BRACKETING

When you press the shutter release button, three consecutive frames will be taken at different exposures. The first frame is exposed with no compensation. The second frame is underexposed, and the third frame is overexposed. The initial bracketing amount is $\pm 1/2$ EV step.



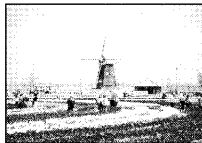
Auto bracketing amount can be set to $\pm 1/3$, $\pm 2/3$, ± 1 EV step with pentax Function. (p.113).



Exposure
with no compensation



-1/2 EV underexposure



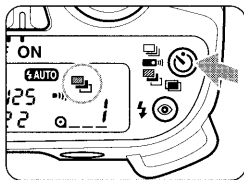
+1/2 EV overexposure



- If the exposure compensation amount is small, the effect will not be so noticeable with print film.

Setting the auto bracketing mode

- ① Turn the main switch to [ON].
- ② Press the drive mode button until [] appears on the LCD panel.



2

Using the auto bracketing mode

- 1 **Press the shutter release button halfway down to focus the subject.**

The bar graph is displayed in the viewfinder and the current exposure compensation amount blinks.



- The focus is locked at the first picture and remains locked until all pictures are taken.
- 2 **Hold down the shutter release button.**
In the viewfinder, the bar graph indicates the correct exposure for the first frame. For the second frame, it indicates the minus side for underexposure. For the third frame, it indicates the plus side for overexposure.



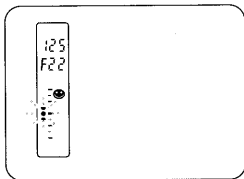
If you let go of the shutter release button during auto bracketing, the auto bracketing exposure setting will remain effective for about 20 sec. After that, the auto bracketing exposure for the first bracketed frame will take effect.



Taking pictures underexposed or overexposed only

You can use the auto bracketing mode for only underexposure or overexposure shots by combining the operation with exposure compensation.

( p.71)



● Taking pictures of overexposure only

[$\pm 1/2$] step (EV)Set the exposure compensation to [$+1/2$].

1st frame= $+1/2$ EV, 2nd frame= ± 0 EV, 3rd frame= $+1$ EV

● Taking pictures of underexposure only

[$\pm 1/2$] step (EV)Set the exposure compensation to [$-1/2$].

1st frame= $-1/2$ EV, 2nd frame= -1 EV, 3rd frame= ± 0 EV

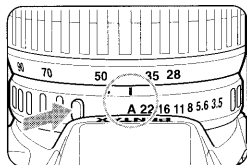


Only the amount of light of the flash can be changed continuously by using the auto bracketing mode following completion of charging of the built-in flash or external flash unit (TTL and P-TTL Auto only). However, in the case of an external flash unit, if three consecutive frames are taken while depressing the camera shutter button, the second and third frames may be taken prior to completion of charging. Always make sure to check completion of charging for each frame.

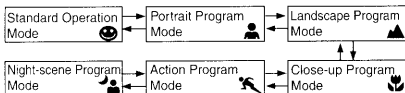
USING THE PICTURE MODE

The camera incorporates the Auto Picture Mode function. In this mode, the camera automatically selects the one of 5 picture modes depending on the camera-to-subject distance and the image magnification. You can also select your desired Picture Mode manually. The picture mode has a total of 6 modes as follows. See details for each mode on page 57 to 62.

1 Set the lens aperture ring to [A].

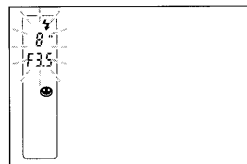
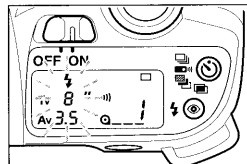
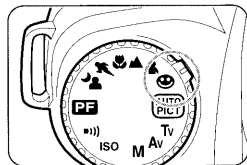


2 Set the mode dial to the desired exposure mode.



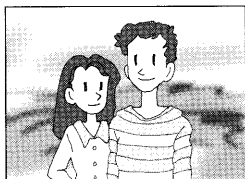
NOTE Exposure Warning

If the subject is too bright or too dark, the shutter speed and aperture setting in the viewfinder will blink. If the subject is too bright, use ND filter or select a darker subject. Use a flash if the subject is too dark.



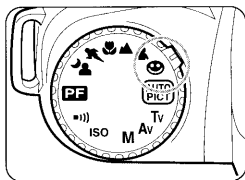
STANDARD OPERATION MODE ☺

For take a picture easily, use the Green Operation Mode. You simply depress the shutter release button. The camera selects the best combination of aperture and shutter speed setting.



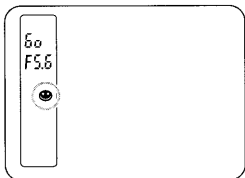
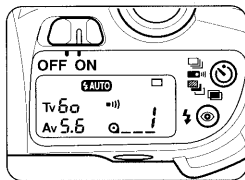
1 Set the mode dial to [☺].

[☺] on the mode dial lights up.



2 When the shutter release button is depressed halfway, the shutter speed and aperture setting are displayed in the viewfinder and on the LCD panel.

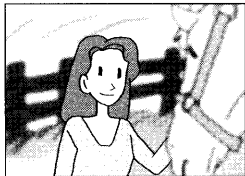
[☺] is also displayed in the viewfinder.



STEP UP ADVANCED OPERATIONS


1 PORTRAIT PROGRAM MODE

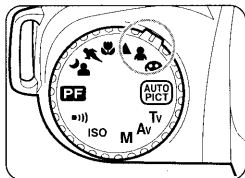
This mode is suitable for taking portrait photography.



1

Set the mode dial to [].

[] on the mode dial lights up.



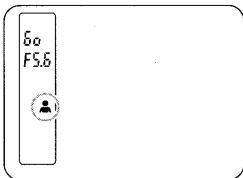
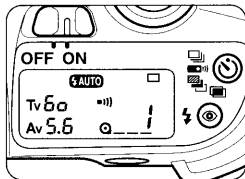
2

When the shutter release button is depressed halfway down, the shutter speed and aperture settings are displayed in the viewfinder and on the LCD panel.

[] is also displayed in the viewfinder.



In this mode, the telephoto lens produces a portrait in crisp focus against the out-of-focus background, while the wide angle lens enables you to shoot group photography or snapshots in sharp and clear focus with the extended depth-of-field.

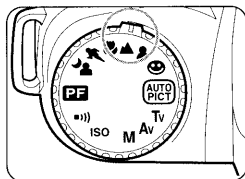


LANDSCAPE PROGRAM MODE ▲

This mode is ideal for landscape photography and scenic snapshots.



- 1 Set the mode dial to [▲].
[▲] on the mode dial lights up.

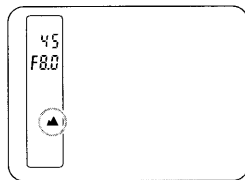
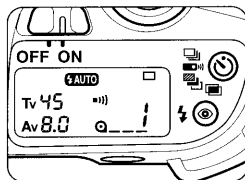


- 2 When the shutter release button is depressed halfway down, the shutter speed and aperture settings are displayed in the viewfinder and on the LCD panel.

[▲] is also displayed in the viewfinder.

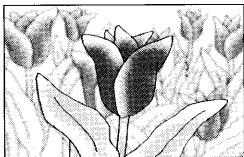


When a photo of a landscape is taken in this mode, the resulting photograph will be in focus for the entire landscape, including objects close up and those in the distance.



CLOSE-UP PROGRAM MODE

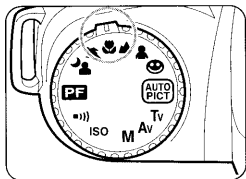
This mode is convenient when taking close-up photos of flowers and so forth.



1

Set the mode dial to [].

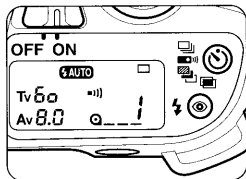
[>] on the mode dial lights up.



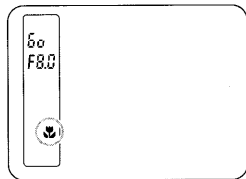
2

When the shutter release button is depressed halfway down, the shutter speed and aperture settings are displayed in the viewfinder and on the LCD panel.

[>] is also displayed in the viewfinder.

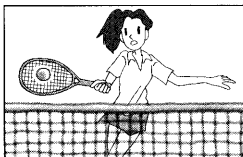


This mode favors smaller apertures to maximize the depth of field, ensuring sharp focus of a close-up subject.




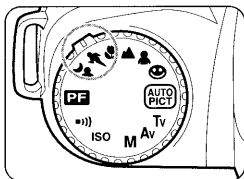
ACTION PROGRAM MODE

This mode selects a faster shutter speed to capture a moving subject.




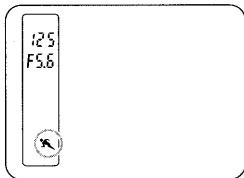
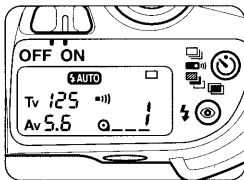
1 Set the mode dial to [].

[] on the mode dial lights up.



2 When the shutter release button is depressed halfway down, the shutter speed and aperture settings are displayed in the viewfinder and on the LCD panel.

[] is also displayed in the viewfinder.

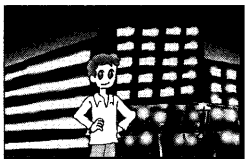




This mode freezes the action and prevent blurred images. This mode is especially convenient for active photography. It is also suitable for portraits with blurred background.


This mode focuses the subject continuously when the shutter release button is depressed halfway down, and the shutter can be released even when the subject is in focus or out of focus.

NIGHT-SCENE PROGRAM MODE

This mode is useful when taking a portrait photograph with a night scene in the background.



- 1 Set the mode dial to [].**
[>] on the mode dial lights up.
- 2 Set the auto pop-up flash on.**
- 3 When the shutter release button is depressed halfway down, the shutter speed and aperture settings are displayed in the viewfinder and on the LCD panel.**

[>] is also displayed in the viewfinder.

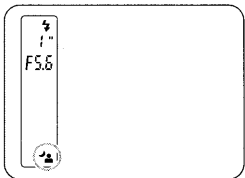
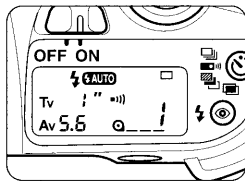
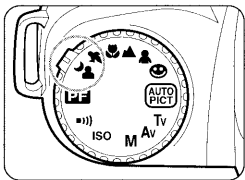


It is possible to photograph subjects and background in a balanced way by using the flash to properly expose the foreground subject and a slow-speed to expose the low light background. The shutter speed automatically changes in the range of 1/100 to 1 second.









- Use of a tripod is recommended.
- The Standard Operation Mode is automatically set when the built-in flash is not in use.

M. Butkus, U.S.A.



SELECTING AN EXPOSURE MODE

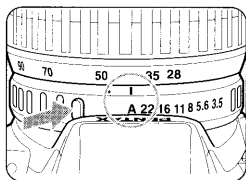
The exposure mode varies on the selection of the camera's mode dial and lens aperture ring setting as shown on the table below.

	Mode dial	AUTO PICT	     	TV	AV	M
Lens aperture	Lens aperture set to A position	Auto Picture AE	Picture Mode AE	Shutter-Priority AE	Aperture-Priority AE	Metered-Manual
	Lens aperture set to other than A	Aperture-Priority AE	Aperture-Priority AE	Aperture-Priority AE	Aperture-Priority AE	Metered-Manual

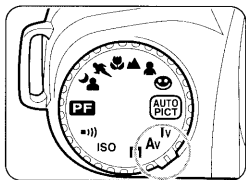
USING THE APERTURE-PRIORITY AE MODE

When the desired aperture is selected, an appropriate shutter speed is automatically set by the camera for a proper exposure. This mode is ideal for shooting landscapes with increased depth of field, or a portrait against a blurred background.

- 1 Set the lens aperture ring to [A] while pressing the aperture -A- lock button.

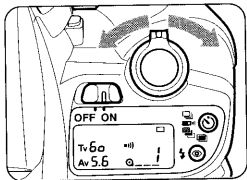


- 2 Set the mode dial to [Av]



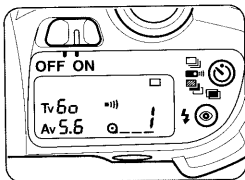
3

Select the desired aperture value by moving the select switch.

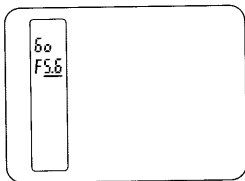


4

When the shutter release button is depressed halfway down, the shutter speed and aperture value will be displayed in the viewfinder and on the LCD panel.

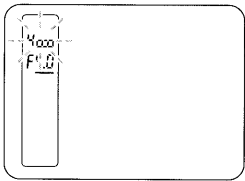
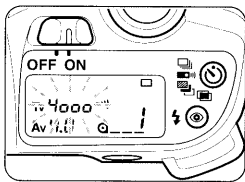


- The bar underneath the aperture value indicates that you can change the aperture setting by the select switch.
- The Aperture-Priority AE Mode can also set when the lens aperture ring is set to desired f-stop other than [A]. Set the mode dial to either [AUTO PICT], [☺], [👤], [▲], [🍃], [🏠] or [👤].
- The approximate aperture indication appears in the viewfinder. It may not the same indication as you select the lens aperture.
- The approximate aperture indication appears only an FA or F lens is attached.



NOTE Exposure Warning

If the subject is too bright or too dark, the selected shutter speed will blink in the viewfinder and on the LCD panel as a warning as shown. When the subject is too bright, choose a smaller aperture, if available; when it is too dark, choose a larger aperture, if available. When the shutter speed indication stops blinking, you can take the picture. If both shutter and aperture blink, it means that the exposure is out of metering range, unable to obtain a correct exposure even if the aperture is adjusted. Select a darker subject if it is too bright, or use a flash if it is too dark.

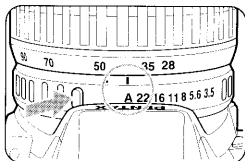


STEP UP ADVANCED OPERATIONS

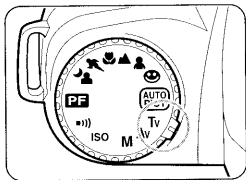
USING THE SHUTTER-PRIORITY AE MODE

When the desired shutter speed is selected, the appropriate aperture is automatically set by the camera for a proper exposure according to the brightness of the subject. This mode is suitable for freezing the action with a fast shutter speed or capturing a flowing dynamic image with a slow shutter speed.

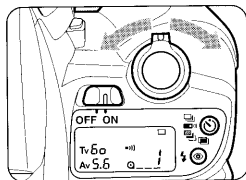
1 Set the lens aperture ring to [A] while pressing the aperture -A- lock bottom.



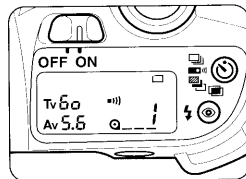
2 Set the mode dial to [Tv].



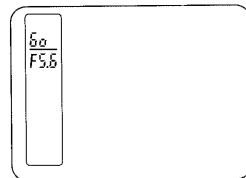
3 Select the desired shutter speed by moving the select switch.



4 When the shutter release button is depressed halfway down, the shutter speed and aperture value will be displayed in the viewfinder and on the LCD panel.

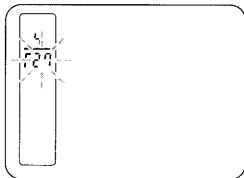
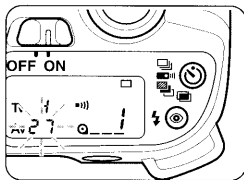


The bar underneath the shutter speed indicates that you can change the shutter speed setting.



**NOTE****Exposure Warning**

If the subject is too bright or too dark, the selected aperture value will blink in the viewfinder and on the LCD panel as warning as shown. When the subject is too bright, choose a faster shutter speed. If it is too dark, choose a slower shutter speed. When the shutter speed indication stops blinking, you can take the picture. If both selected shutter speed and aperture blink, it means that the exposure is out of metering range, unable to obtain a correct exposure even if the shutter speed is adjusted. Select a darker subject if the subject is too bright. Use a flash if it is too dark.

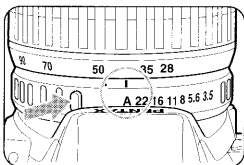


STEP UP ADVANCED OPERATIONS

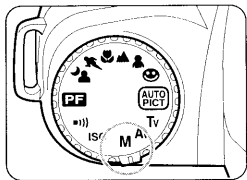
USING THE METERED MANUAL MODE

The manual exposure mode is a convenient exposure mode for taking pictures using the same shutter speed and aperture setting combination, or taking creatively under or overexposed photographs.

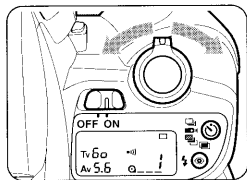
Set the lens aperture ring to [A] while pressing the aperture -A- lock button.



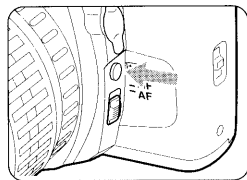
2 Set the mode dial to [M].



3 Move the select switch to change the shutter speed.

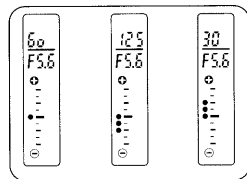


4 Move the select switch to change the aperture while holding the exposure compensation button.



5 The dot displayed in the center of the bar graph indicates the correct exposure.

Moving one dot on the bar graph indicates 0.5 step (0.5EV).

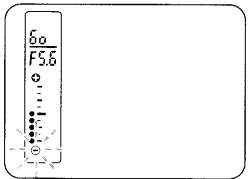
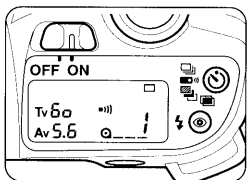
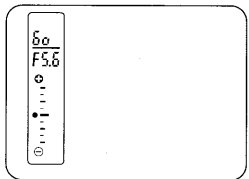
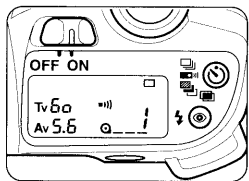


- 6** When the shutter release button is depressed halfway down, the shutter speed and aperture value will be displayed in the viewfinder and on the LCD panel.

- 7** When under or over exposure is set beyond + 2 or - 2 steps (2EV), [⊕] or [⊖] indicator will blink.



- The bar underneath the shutter speed indicates that you can change the shutter speed. With the exposure compensation button pressed, the bar appears underneath the aperture that indicates you can change the aperture value.
- The AE lock and exposure compensation do not work in the Metered Manual Mode.
- The metered manual mode can be used even if the aperture ring is not set to "A". Turn the lens aperture ring to select the desired aperture ring. Since the indication of aperture value inside the viewfinder only serves as a general reference, it may differ from the set aperture value.



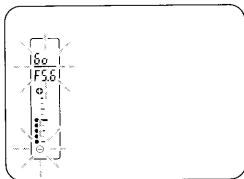
- When lenses other than an F or FA lens is used, no approximate aperture indication will appear in the viewfinder.
- The indicator in the viewfinder turns to orange when the shutter speed changes to a slower shutter speed which causes camera shake.



NOTE

Exposure Warning

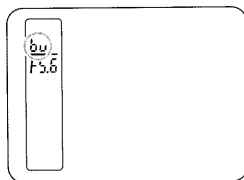
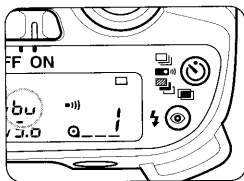
If the subject is too bright or too dark, both shutter speed, aperture setting and [+]/[-] will blink in the viewfinder as a warning as shown. It means that the exposure is out of metering range, unable to obtain a correct exposure even if the aperture is adjusted. Select a darker subject or use a flash if it is too dark.



USING THE BULB EXPOSURE MODE

This mode is useful for the long exposures required for shooting night scenes and fireworks. The shutter remains open as long as the shutter release button is held down.

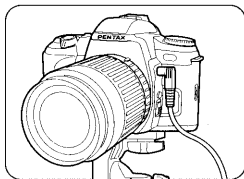
1. With the Metered-Manual Mode set, move the select lever to change the shutter speed until [Bu] appears in the viewfinder and on the LCD panel.



- 2 When using this mode, use a steady tripod to prevent camera shake and attach the optional "Cable Switch CS-205" after opening the release socket cap.



- Up to approx. 8 hours of time exposure are possible with new lithium batteries at ambient temperatures.
- With the remote control shooting mode set, the shutter remains open as long as the remote control's shutter release button held down.
- The indicator in the viewfinder turns to orange color.



ABOUT EXPOSURE COMPENSATION



The exposure compensation allows you to deliberately overexposure (brighten) or underexposure (darken) a subject, or compensate for difficult lighting conditions which may fool the camera's built-in exposure meter.





- Exposure compensation does not work in the Metered manual mode and Bulb Exposure Mode.

Setting the exposure compensation amount



- ① While holding down the exposure compensation button, move the select switch to set the desired compensation value on the LCD panel.

[>] is displayed on the LCD panel. The bar graph which indicates the compensation value and [>] appear in the viewfinder.

- ② The exposure compensation can also be confirmed in the viewfinder. When the dot is displayed to the [>] side, it indicates overexposure and when the dot is displayed to the [>] side, it indicates underexposure.

Moving one dot on the bar graph indicates 0.5 step (0.5EV).

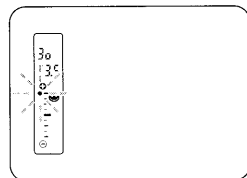
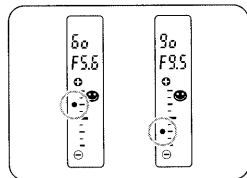
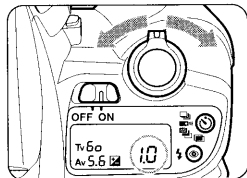
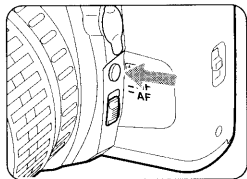


When under or over exposure is set beyond +2 or -2 steps, [>] or [>] indicator will blink.



- The exposure compensation range is -3EV to +3EV in 0.5EV.
- Exposure compensation does not work in the metered manual mode and Bulb exposure mode.
- The exposure compensation cannot be canceled even if the power is turned OFF or any other exposure mode is set.

M. Butkus, U.S.A.



AE LOCK FUNCTION

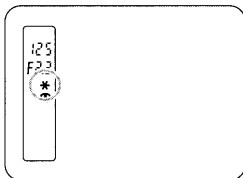
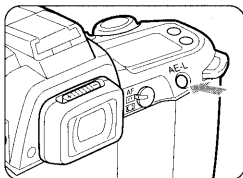
You can lock the exposure setting before you take the picture. If the subject is too small for a proper exposure setting to be obtained, you can zoom in on the subject to obtain a proper exposure setting. Then you can lock the exposure setting and recompose the shot before taking the picture.

Setting AE Lock

- ① Position the area to be measured in the viewfinder metering area and press the AE Lock button [AE-L].
- ② [*] is displayed in the viewfinder.



- The current exposure setting will be locked for about 20 sec.
- If the shutter release button or AE Lock button is pressed while the AE Lock timer is operating, the memorized meter reading will remain even if the finger is released from the button.
- When the AE lock button is depressed, the audible PCV signal is heard. This PCV signal can be turned off. See page 74.
- The auto pop-up built-in flash function does not work while the AE Lock is used.

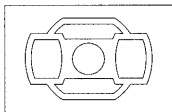


MULTI(6)-SEGMENT METERING

This mode automatically measures light in six different zones, enabling proper exposure value in a wide variety of normal and adverse lighting conditions.



When a lens other than an A, F or FA lens is attached, the center-weighted metering mode is automatically set .

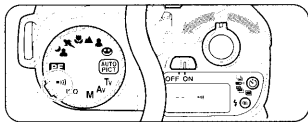


CANCEL THE AUDIBLE PCV SIGNAL

You can change the audible PCV signal on or off when the self-timer, remote control, AE Lock function is in use or when the focus is in-focus.

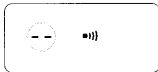
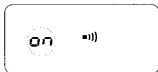
1

Set the mode dial to [M]



2

Move the select switch to display [ON] or [--] on the LCD panel.





The shutter cannot be released when the mode dial is set to [M]



ABOUT FOCUSING

The autofocus modes, and manual focus mode are explained here.

USING AUTOFOCUS

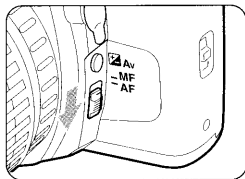


When the autofocus function or the viewfinder's focus indicator [] cannot be used for focus confirmation for the following reasons, focus on the subject in the manual focus mode with the aid of the matte field in the viewfinder as you would with a non-AF SLR camera. ( p.79)

- The focus indicator [] is blinking. (The subject is difficult to autofocus.) ( p.76)
- The maximum aperture of the lens in use is smaller than f/5.6.
- A bellows 100mm f/4 lens, Shift 28mm f/3.5 (shifted) lens, or Reflex lens is in use.
- An old type screw-mount lens fitted with an optional "Mount Adapter K" is in use.

Using the autofocus mode (AF)

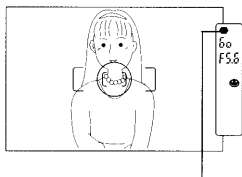
- 1 Set the focus mode switch to [AF].



2

Taking a picture

- ① **Focus on the subject with the 3 point AF frame [[]].**
When the shutter release button is depressed halfway down, the lens automatically focuses.
- ② **When the shutter release button is depressed halfway down, the shutter speed, aperture setting and selected picture mode are displayed in the viewfinder and the LCD panel.**
- ③ **When the subject is in focus, the focus indicator [●] lights up and an audible PCV beeping signal is emitted.**
- ④ **Take a picture. Gently depress the shutter release button.**



Focus indicator



- As this camera incorporates the 3- point autofocus system, the subject will be focused properly even if the subject is slightly off.
- The audible PCV signal can be turned off. p.74



The focus indicator [●] blinks when the camera is not able to obtain proper focus for one of the following reasons.

- ① **The subject is too close. Adjust the camera-to-subject distance.**
- ② **The subject is difficult to autofocus. See “HARD-TO-AUTOFOCUS SUBJECTS” on page 77.**



HARD-TO-AUTOFOCUS SUBJECTS

The autofocus system is highly precise, but not perfect. Depending on brightness, contrast, shape, and size of your subject, the autofocus system may not operate. In this situation, use the focus-lock technique (p.80) or set the focus mode switch to [MF] and use the manual mode to focus the lens on the subject with the aid of the matte field viewfinder (p.79).

Subjects which may fool the autofocus system include:

- Extremely low-contrast subjects such as a white wall in the autofocus frame.
- Subjects which don't reflect much light in the autofocus frame.
- Subjects with complex or detailed patterns.
- Subjects which are moving too fast.
- Multiple subjects in the foreground and background of the autofocus frame.
- Subjects positioned against reflected light or strong backlight or with extremely bright backgrounds.



■ Notes on accessories

The following conditions do not allow autofocus or manual focusing with the focus indicator in the viewfinder. Use the manual focus mode to focus on the subject with the aid of the matte field surrounding the autofocus frame. (p.79)

- When using Stereo Adapter.
- When using Extension Tubes or an Auto Bellows for close-up photography.
- When using an ordinary polarizing filter; the half mirror incorporated into the autofocus system reduces the effectiveness of the autofocus function when used in combination with an ordinary polarizing filter. Use a CIRCULAR POLARIZING FILTER for proper autofocus operation.

■ Note on the SMC Pentax SOFT 85mm/f2.8 lens

When shooting at a distance closer than approx. 1.5m(4.9ft), set the lens to a manual f-stop setting between f/2.8 and f/4.5. A smaller aperture (f/5.6 to f/32) may cause the autofocus system and the viewfinder's focus indicator to malfunction. To remedy this problem, temporarily set the lens to f/4.5. After focusing on the subject, lock focus, and set the lens to the required f-stop.



HARD-TO-AUTOFOCUS SUBJECTS

The autofocus system is highly precise, but not perfect. Depending on the brightness, contrast, shape, and size of your subject, the autofocus system may not operate. In this situation, use the focus-lock technique (p.80) or set the focus mode switch to [MF] and use the manual focus mode to focus the lens on the subject with the aid of the matte field in the viewfinder (p.79).

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- Subjects with complex or detailed patterns.
- Subjects which are moving too fast.
- Multiple subjects in the foreground and background of the autofocus frame.
- Subjects positioned against reflected light or strong backlight or with extremely bright backgrounds.



■ Notes on accessories

The following conditions do not allow autofocus or manual focusing with the focus indicator in the viewfinder. Use the manual focus mode to focus on the subject with the aid of the matte field surrounding the autofocus frame. (p.79)

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- When using Extension Tubes or an Auto Bellows for close-up photography.
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**Memo**

Using the snap-in focus function

When the subject comes to the point where the lens was pre-focused, the shutter is automatically released.

- ① Use a non-autofocus lens.
- ② Set the focus mode switch to [AF].
- ③ Focus at the point where you wish to capture the subject.
- ④ Using optional cable switch, keep the trigger button pressed so that the autofocus and metering systems stay active.

The shutter will be released automatically when the subject comes into focus at the point selected.

MANUAL FOCUSING

When you focus manually, you can either look at the focus indicator [●] or the viewfinder's matte field to check if the subject is in focus.

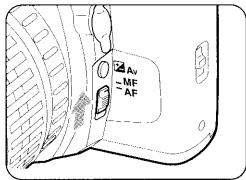
◆ Using the focus indicator [●]

**Memo**



If the maximum aperture of the attached lens is f/5.6 or larger (f/1.2 - f/5.6), you can use the focus indicator [●] as a guide to achieve focus. With slower lenses, adjust a focus on the matte screen in the viewfinder.

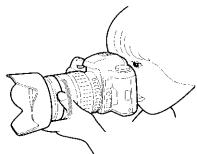
Setting manual focus (MF)

- ① Set the focus mode switch to [MF].



2 Focusing

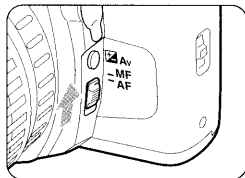
- 1 Frame the subject, then press the shutter release button halfway down.
- 2 Turn the focusing ring on the lens until the subject is in focus.
 - When focus is achieved, the focus indicator [] lights and the audible PCV signal beeps.
- 3 Check that the focus indicator [] is lit, then press the shutter release button completely.



◆ Using the viewfinder's matte screen.

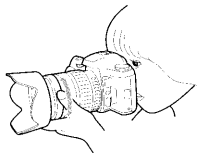
1 Setting manual focus (MF)

- 1 Set the focus mode switch to [MF].



2 Focus the subject

- 1 Frame the subject, then turn the focusing ring on the lens until the subject is in focus.
 - Focus until the subject looks sharp in the viewfinder.
- 2 Check that the subject is in sharp focus, then depress the shutter release button completely.



SPOT AF MODE

Select the Spot AF Mode to critically focus on a specific spot of the subject which is in the Spot AF autofocus frame.

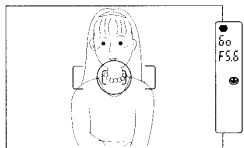
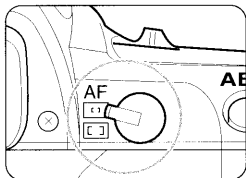
1

Using the Spot AF Mode

- 1 Set the AF mode switch to [[]].
- 2 Focus on the subject with the spot AF frame and press the shutter release button halfway down, the lens automatically focuses.



If the subject is not covered with the AF frame, the camera cannot automatically focus on the subject. In this situation, use the focus lock technique.

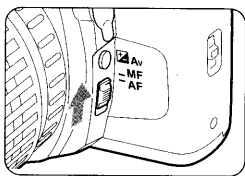


USING FOCUS LOCK

If the subject is not covered by any of the focus points, the camera cannot automatically focus the subject. In this situation, you can aim the focus point on the subject, use focus lock, then recompose the picture.

1 Setting the autofocus mode

- ① Set the focus mode switch to [AF].



2 Using focus lock

- ① Frame the subject. If the subject you want to focus is not on any of the focus is not on the AF frame, you can use focus lock.

Figure to the right shows the person is not focused and the background is focused instead.

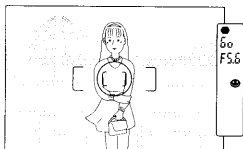
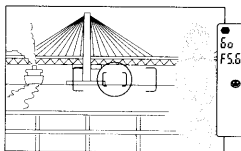
- ② Aim the center of the viewfinder over the subject, then press the shutter release button halfway down.

While the focus indicator [●] is lit, the focus will be locked (focus lock).

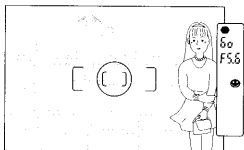


- You can lock the focus by pressing the shutter release button halfway down
 - Rotating the zooming ring in focus lock mode may cause the subject out of focus.
- ③ Re-compose the picture while pressing the shutter release button halfway down.
- ④ Check that the focus indicator [●] is lit in the viewfinder, then press the shutter release button completely.

The desired framing



Aim the center of the viewfinder over the subject, then press the shutter release button halfway.



The person is focused.

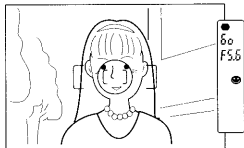
PREVIEWING THE DEPTH OF FIELD

Before taking a picture, you can check the depth of field in the viewfinder.

1

Focusing the subject.

- ① Adjust focus to the subject.



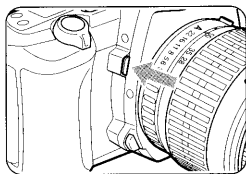
2

Previewing the depth of field

- ① While looking through the viewfinder, press the preview button. You can check the focused area in the viewfinder.



- The depth of field can be previewed in any exposure mode.
- The focus range display in the viewfinder may differ slightly from the actual picture.

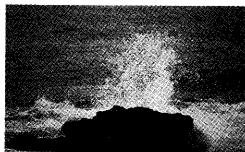


EFFECT OF APERTURE AND SHUTTER SPEED

A correct exposure is established by a combination of shutter speed and aperture setting according to the subject brightness. There are many correct combinations of shutter speed and aperture for a particular subject brightness. Different shutter speed and aperture settings produce different effects.

◆ Effect of Shutter Speed

The shutter speed determines the film exposure time, or the length of time that light is allowed to strike the film. If the subject is moving, the image will be blurred when a slow shutter speed is used. It is possible to enhance the effect of motion, (The movement of a wave or waterfall) by intentionally using a slower speed. Choosing a faster shutter speed will allow the image of a moving subject to be frozen. A faster shutter speed also helps prevent camera shake.



faster shutter speed



slower shutter speed

◆ Effect of Aperture

The aperture increases or reduces the amount of reflected light from an object which passes through the lens, controlling how much light strikes the film. If the aperture is opened up to increase the amount of light, objects in front of and behind an in-focus subject will not be focused. That is, the range of focus (depth of field) becomes small. If the aperture is closed down to reduce the amount of light, the depth of field increases. For instance, if you shoot a person against a landscape with the aperture open, the landscape in front of and behind the person will be blurred, making the person appear to rise out of the landscape. By contrast, closing down the aperture increases the in-focus range.



closed down aperture



open aperture

