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## **USING ZOOM LENSES**



Telephoto



Wide angle



Turning the zoom ring to the right makes the subject appear larger (telephoto) and turning it to the left makes the subject appear smaller (wide angle).

- The smaller the number on the zoom scale, the wider the angle. Conversely, the larger the number, the more magnified the image appears.
- The Image Size Tracking Mode, Zoom Clip Mode, Auto Zoom Effect Mode and Power Zoom function do not operate with this camera even if an FA power zoom lens is attached.

## HOLDING THE CAMERA

## Camera held horizontally



For best results, be sure to hold the camera correctly as shown in the illustrations.

Hold the camera firmly, with your left hand supporting the camera and lens as shown in the illustrations.

While taking a picture, hold your breath and gently depress the shutter release button. Sudden force on the shutter release button will cause camera shake, making the picture blurred.

## Camera held vertically



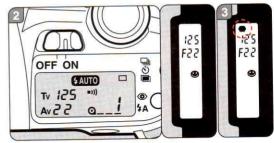
- To reduce camera shake, support your body or the camera on a solid object - a table, tree, or a wall for instance.
- When using an ultra-telephoto lens, a tripod that is heavier than the total weight of the camera and lens is recommended to avoid camera shake
- Although there are individual differences among photographers, in general the shutter speed for a hand held camera is the inverse of the focal length. For example, 1/50 of second when the focal length is 50mm, and 1/100 of second when it is 100mm. A tripod should be used for shutter speeds slower than this.

## TAKING A PICTURE



Confirm that the focus mode switch has been set to [AF] and the lens aperture ring has been set to [A].

- 1. Focus on the subject with the Autofocus [AF] frame [C 3] indicated in red in the photograph. When the shutter release button is depressed halfway down, the lens automatically focuses.
- When the shutter release button is depressed halfway down, the shutter speed, aperture setting and selected picture mode are displayed in the viewfinder.
- 3. When the subject is in focus, the focus indicator [♠] lights up and an audible PCV beeping signal is emitted.



- The subject will be in focus within the AF frame.
   As this camera has a wide area of AF frame, the subject will be focused properly even if the subject is slightly off the center of the AF frame.
- The audible PCV signal can be turned off. See details on page 56.

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

- The subject is too close. Adjust the camera-tosubject distance.
- 2. The subject is difficult to autofocus. See "HARD-TO-AUTOFOCUS" subject on page 60.

- 4. Take the picture. Gently depress the shutter release button.
- 5. The built-in flash pops up automatically when the use of flash is recommended.
- The shutter cannot be released if the subject is out of focus.
- Depress the shutter release button halfway down. While [♠] is on, the camera-to-subject distance is fixed (focus lock). To refocus on another subject, lift your finger off the shutter release button.
- The built-in flash does not retract automatically.
   To retract the flash, push it by the top until it clicks into the position.
- Note that the built-in flash pops up even when the subject is far away or beyond the maximum flash effective range. See page 35 for the maximum flash effective range.
- Note also that the built-in flash pops up even when the lens on your camera is not appropriate for shooting with a flash. For more details on COMPATIBILITY OF F AND FA LENSES WITH THE BUILT-IN FLASH, see page 63 for incompatible lenses.

### Predictive Autofocus Mode

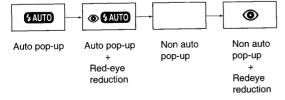
When the camera senses subject movement during the autofocus operation, the camera will automatically switch the focus mode to the predictive autofocus mode to measure the speed of a moving subject, and predict where it will be at the moment of shutter release to maintain sharp focus on the subject.

 If the subject is moving too fast, the shutter may not be released.

## SELECTING THE VARIOUS FLASH MODES



At each press of the flash mode button, the flash mode on the LCD panel switches as shown in the chart.



- The built-in flash pops up automatically when [FAUTO] is displayed on the LCD panel. But it discharges only when required. (Automatic flash function)
- [ANTO] or [ ANTO] can only be set when the one of the 6 picture modes is set.
- The auto pop-up function of the built-in flash does not work when the memory lock function is in use.
- The automatic flash function can also be used with the external flash.
- Even if [ ( AUTO ) is displayed on the LCD panel, the built-in flash does not pop up automatically when the external flash has been mounted.

#### AF illuminator

If you depress the shutter release button halfway down where it is hard for autofocus to work, such as in a dark place, the built-in flash discharges continuously to provide illumination, making it easy for the autofous to work.

- The effective range of AF illuminator is approx.
   1m to 5m.
- The AF illuminator of the built-in flash does not work if you use the soptbeam of the external flash such as the AF500FTZ or AF330FTZ flash.
- The AF illuminator does not work either when the Action Program Mode has been selected, the focus mode switch has been set to the MF position or when the flash disable mode has been selected.
- The external flash discharges if the AF illuminator works when the AF500FTZ is attached and the slave flash function is in use. You should therefore set the focus mode switch to the MF position before using the slave function.

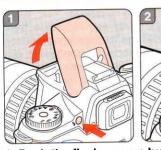
## Red-eye Reduction Flash Function

This camera includes a red-eye reduction flash function, which reduces the red-eye phenomenon utilizing preflash. In this mode, the preflash is discharged just before the shutter is released which reduces the diameter of the pupil of the eye. Then the main flash is discharged while the pupils are smaller, which in turn reduces the red-eye effect.

## **About Red-eye Phenomenon**

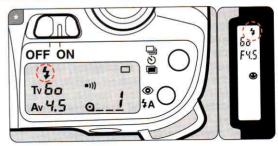
Shooting portraits with flash in a dark environment often causes a subject's eyes to turn out reddish in the print. This phenomenon, commonly known as "Red-Eye", is caused by the reflection of the electronic flash in the retina of your subjects eye. It can be reduced by taking the photo in a brighter light condition or by shooting with a wider angle lens at a closer distance, or by employing the redeye reduction flash feature. When using a Pentax dedicated flash unit off the camera, it may also help to position the flash as far away from the camera as possible.

# **ACTIVATE THE BUILT-IN FLASH MANUALLY**





- Push the flash pop-up button to activate the flash. Depress the shutter release button fully, and the flash unit discharges.
- 2. After using the flash, retract the built-in flash by pressing it down into the camera body.
- \*The built-in flash starts charging automatically. When it is fully charged, [ † ] appears on the LCD panel. The flash always discharges even if the subject is not required flash light.



- The built-in flash does not pop up even if the flash pop-up button is pushed when the mode dial set to [ ③ ].
- The shutter cannot be released until the flash is fully charged.
- When the built-in flash is used, using a lens hood is NOT recommended as it may obstruct the path of the light coming from the flash, causing vignetting in the picture corners.
- With the built-in flash popped-up, an external flash cannot be attached to the hot shoe. If you would like to use an external flash together with the built-in flash, see the flash connections on page 68.

# Flash effective range for the Picture Mode with ISO 100 (400) film used

Maximum Lens Aperture	Effective Range
f/1.4	approx. 0.8 - 3.9m (0.8 - 5.6m) 2.6 - 12.8ft (2.6 - 18.4ft)
f/2	approx. 0.8 - 3.3m (0.8 - 4.8m) 2.6 - 10.8ft (2.6 - 15.7ft)
f/3.5, f/4.7	approx. 0.7 - 2.4m (0.7 - 4.0m) 2.3 - 7.9ft (2.3 - 13.1ft)
f/5.6	approx. 0.7 - 2.0m (0.7 - 4.0m) 2.3 - 6.6ft (2.3 - 13.1ft)

The effective range of the flash depends on the maximum aperture of the lens is in use. A lens with a maximum aperture of f/1.4 is marked as 1:1.4 on its barrel

 This effective range table is only applicable when the exposure mode is set to the Picture Mode. When any other exposure mode is used, see page 62. • The minimum effective range is always 0.7m (2.3ft) even if a lens with a maximum aperture f/2.8 or smaller is in use. When a subject is shot at a distance closer than 0.7m (2.6ft), the correct exposure cannot be obtained, and you will see vignetting in the picture corners.



FLASH RECOMMENDED INFORMATION

The flash-recommended indicator [ \* ] on the LCD panel and the indicator in the viewfinder blink when you attempt to take a picture in low light to warn you of possible camera shake.

- In the Shutter-Priority AE Mode [Tv] and Metered-Manual Mode [M], the flash-recommended indicator blinks only when attempting to photograph a subject in a backlit situation.
- The indicator in the viewfinder stops blinking when the flash is fully charged.

## Inappropriate lens warning when the built-in flash is used

When using an inappropriate F- or FA- lens, [ \$ ] will blink in the viewfinder and on the LCD panel when the shutter release button is depressed halfway down. For more details on COMPATIBILITY OF F AND FA LENSES WITH THE BUILT-IN FLASH, see page 63.

- Taking a picture while this warning is displayed may cause vignetting in the picture corners or semi-circular vignetting at the bottom of the picture
- When lenses other than an F or FA are used, this warning will not appear.

## III. ADVANCED OPERATIONS

## **SELECTING A DRIVE MODE 37**

This camera has a total of four drive modes as shown

## Types of Drive Modes

## Single-Frame Mode

[ ] : One picture is taken each time the shutter release button is depressed.

#### Consecutive-Frame Mode

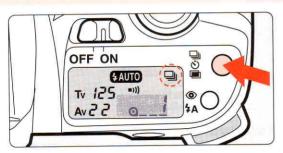
[밀]: Pictures can be taken consecutively while holding down the shutter release button. See page 38

#### Self-timer Mode

[ ) ]: A picture will be taken with a 12-seconddelay. See page 38.

## **Multiple-Exposure Mode**

[ ] : See page 40 for more details.



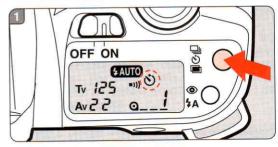
### **Consecutive-Frame Mode**

Consecutive pictures can be taken by holding down the shutter release button.

#### How to set

Depress the drive mode button until [4] appears on the LCD panel.

- The camera focuses on the subject frame by frame in this mode.
- The shutter cannot be released while the built-in flash is being charged.



#### Self-timer Mode

The self-timer mode delays the shutter release, and is useful for taking group shots that include the photographer. The shutter will be released about 12 seconds after the shutter release button is depressed.

#### How to set

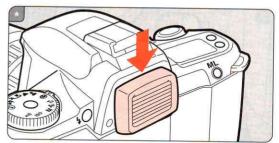
1. Depress the drive mode button until  $[\circlearrowleft]$  appears on the LCD panel.



- Focus on the subject first using the autofocus frame and by depressing the shutter release button halfway down. Then depress the shutter release button fully.
- \* When the self-timer is in operation, the audible PCV signal is heard and the rate increases for the last two seconds.
- The shutter will be released about 12 seconds later.

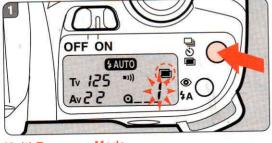
#### How to cancel

To cancel the self-timer operation after it has been activated, depress the drive mode button until  $[\circlearrowleft]$  disappears from the LCD panel.



- \* Underexposure may occur if light enters the viewfinder during self-timer operation. If you intend to move away from the viewfinder, attach the supplied finder cap as shown in the illustration.
- When using accessories such as the finder cap, remove the Eyecup FK. The Eyecup FK comes from the factory fitted to the camera's viewfinder accessory grooves.

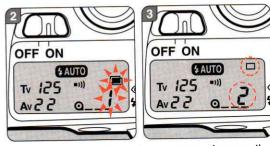




## **Multi-Exposure Mode**

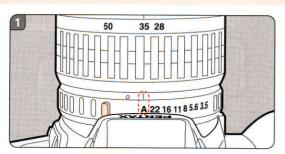
#### **Procedure**

- Depress the drive button until [ ] appears on the LCD panel. The frame counter on the LCD panel blinks.
- Depress the shutter release button to shoot an initial exposure. The film will not advance. The frame counter and [ ) on the LCD panel blink.
- 3. Recompose the frame and depress the shutter release button to shoot the second shot. The exposure counter on the LCD panel stops blinking. The single-frame shooting will be restored.

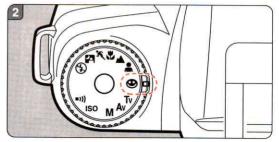


- To exposure the third shot or more, depress the drive button to stop [ ] blinking and repeat step
- In this mode, the data will not be imprinted.

## **USING THE PICTURE MODE**



You can select your desired Picture Mode by turning the mode dial. The picture mode has a total 7 modes as follows. See details for each mode on page 26 and 42 to 47.



#### How to set

- 1. Set the lens aperture ring to [A].
- 2. Set the mode dial to the desired exposure mode.



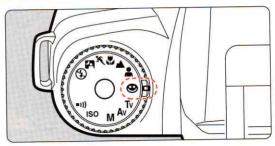
The shutter cannot be released when the lens aperture ring is set to any position other than the A position or if used with a lens that does not have the A position.



\* 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, select a darker subject. Use a flash if the subject is too dark.





**Green Operation Mode** 

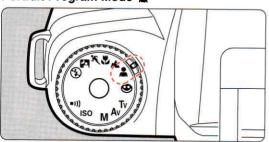
For easy picture taking, use the Green Operation Mode. You simply depress the shutter release button. The camera selects the best combination of aperture and shutter speed setting.

#### How to set:

Set the mode dial to [ .

\* When the shutter release button is depressed halfway, [ ) will be displayed in the viewfinder. The shutter speed and aperture setting are also displayed in the viewfinder and on the LCD panel.

## Portrait Program Mode .







This mode is suitable for taking portrait photography.

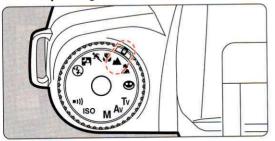
#### How to set

## Set the mode dial to [ . ].

\* When the shutter release button is depressed halfway down, [ . ] is displayed in the viewfinder. The shutter speed and aperture setting are also displayed in the viewfinder and on the LCD panel.

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







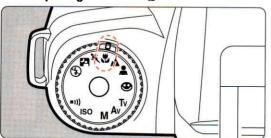
This mode is ideal for landscape photography and scenic snapshots.

#### How to set

## Set the mode dial to [ $\blacktriangle$ ].

\* When the shutter release button is depressed halfway down, [ •] is displayed in the viewfinder. The shutter speed and aperture setting are also displayed in the viewfinder and on the LCD panel.

## Close-up Program Mode &







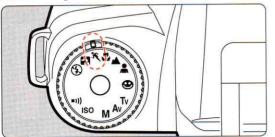
This mode is useful for close-up photography. This mode favors smaller apertures to maximize the depth of field, ensuring sharp focus of a close-up subject.

#### How to set

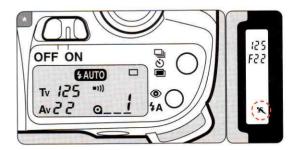
## Set the mode dial to [ ...].

\* When the shutter release button is depressed halfway down, [ is displayed in the viewfinder. The shutter speed and aperture setting are also displayed in the viewfinder and on the LCD panel.

## Action Program Mode %







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

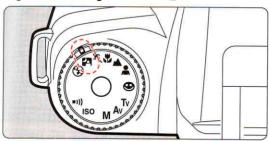
#### How to set

### Set the mode dial to [ %].

\* When the shutter release button is depressed halfway down, [ \* ] is displayed in the viewfinder. The shutter speed and aperture setting are also displayed in the viewfinder and on the LCD panel.

This mode freezes the action and prevent blurred images. This mode is especially convenient for active photography.

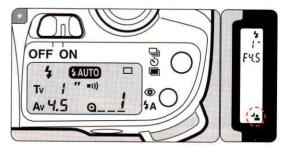
## Night-scene Program Mode 🚣



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

## How to set Set the mode dial to [4].



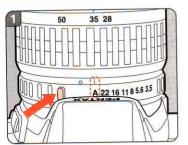


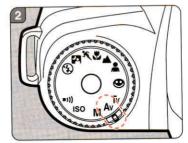
\* When the shutter release button is depressed halfway down, [-12] is displayed in the viewfinder. The shutter speed and aperture setting are also displayed in the viewfinder and on the LCD panel.

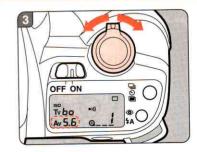
It is possible to photograph subjects and background in a balanced way by using the flash to properly expose the foreground subject and a slow-speed to expose the low light background. The shutter speed automatically changes in the range of 1/100 to 1 second.

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

# SELECTING AN EXPOSURE MODE







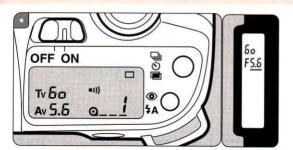
## **Using the Aperture-Priority AE Mode**

### **Purpose**

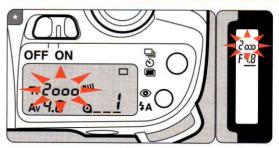
When the desired aperture is selected, an appropriate shutter speed is automatically set by the camera for a proper exposure. This mode is ideal for shooting landscapes with increased depth of field, or a portrait against a blurred background.

#### How to set

- 1. Set the lens aperture ring to [ A ].
- 2. Set the mode dial to [ AV ].
- Select the desired aperture by moving the select switch.

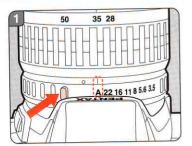


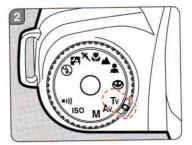
\* When the shutter release button is depressed halfway down, the shutter speed and aperture value will be displayed in the viewfinder and on the LCD panel. The bar underneath the aperture value indicates that you can change the aperture setting.

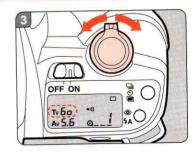


## \* Exposure Warning

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.







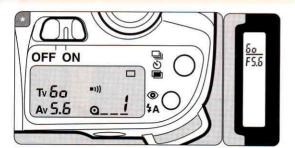
Using the Shutter-Priority AE Mode

### **Purpose**

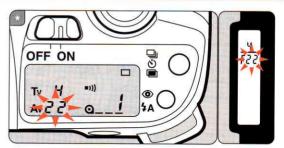
When the desired shutter speed is selected, the appropriate aperture is automatically set by the camera for a proper exposure according to the brightness of the subject. This mode is suitable for freezing the action with a fast shutter speed or capturing a flowing dynamic image with a slow shutter speed.

#### How to set

- 1. Set the lens aperture ring to [ A ].
- 2. Set the mode dial to [ Tv ].
- 3. Select the desired shutter speed by moving the select switch.

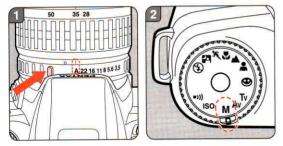


\* When the shutter release button is depressed halfway down, the shutter speed and aperture value will be displayed in the viewfinder and on the LCD panel. The bar underneath the shutter speed indicates that you can change the shutter speed.



### \* Exposure Warning

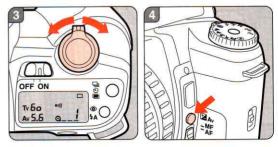
If the subject is too bright or too dark, the shutter speed and aperture setting in the viewfinder blink. When the subject is too bright, choose a faster shutter speed. If it is too dark, choose a slower shutter speed. When the shutter speed indication stops blinking, you can take the picture. If both 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.



**Using the Metered Manual Mode** 

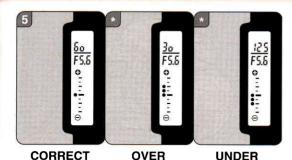
## **Purpose**

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 over-exposed photographs.



#### How to set

- 1. Set the lens aperture ring to [ A ].
- 2. Set the mode dial to [ M ].
- 3. Move the select switch to change the shutter speed.
- 4. Move the select switch while holding the exposure compensation button to change the aperture.



- 5. The dot displayed in the center of the bar graph indicates the correct exposure.
- \* When the dots are displayed to the [ + ] side on the bar graph, it indicates overexposure and when the dots are 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 (3EV), [+] or [-] indicator will blink.

- 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.
- The memory lock does not operate in the Metered Manual Mode.

### \* Exposure Warning

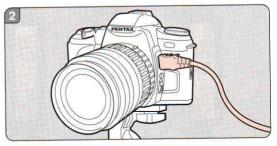
If the subject is too bright or too dark, both shutter speed and aperture setting will blink in the viewfinder as a warning as shown. It means that the exposure is out of metering range, unable to obtain a correct exposure even if the aperture is adjusted. Select a darker subject or use a flash if it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



## **Bulb Exposure Mode**

## **Purpose**

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.



#### How to set

- 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 F" after removing the Release Socket Cap F.
- The shutter remains open as long as the shutter release button held down.
- Up to approx. 8 hours of time exposure are possible with a new lithium battery at room temperatures.
- The memory lock does not operate in the Buld Exposure Mode.