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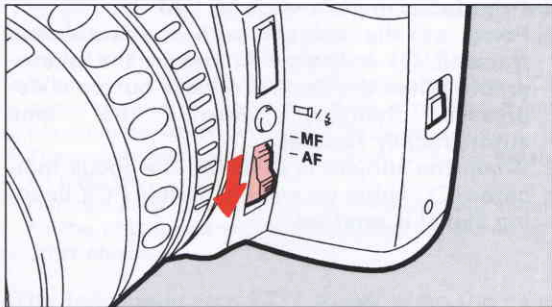


**[back to my "Orphancameras" manuals /flash and light meter site](#)**

**Only one "donation" needed per manual, not per multiple section of a manual !**

**The large manuals are split only for easy download size.**

## (5) SELECTING THE AUTOFOCUS MODE 33





**Set the focus mode switch to [ AF ].**


- When you depress the shutter release button halfway down, the lens automatically focuses.
- See page 49 for manual focusing.


## (6) TAKING A PICTURE



Set the focus mode switch to [ AF ].


1. Focus on the subject with the autofocus frame [  ] indicated in red in the photograph. When the shutter release button is depressed halfway down, the lens automatically focuses.
2. When the subject is in focus, the focus indicator [  ] lights up and an audible PCV beeping signal is emitted.

- When the shutter release button is depressed halfway down, the shutter speed and aperture setting are displayed in the viewfinder and the on LCD panel.
- When [  ] blinks in the viewfinder and on the LCD panel, the use of the built-in flash is recommended. For more details on the built-in flash, see page 37.
- The audible PCV signal can be turned OFF. See details on page 69.
- During autofocus operation, the focusing ring should not be obstructed with your fingers, hands, or any other object.

**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" subject on page 52.

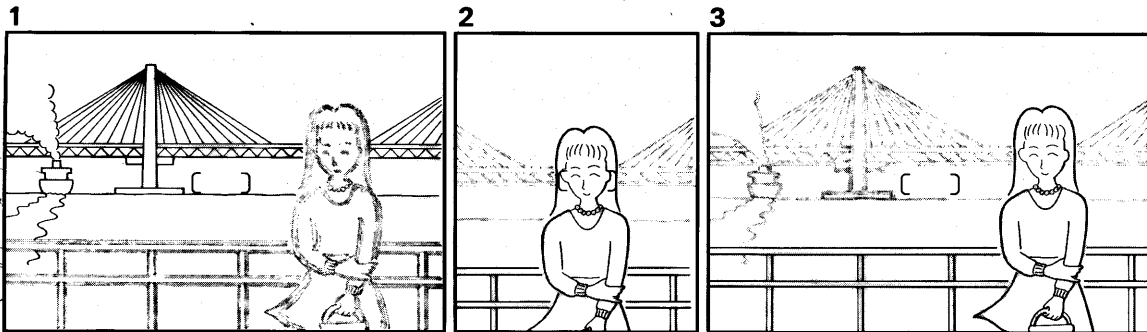
### **3. To release the shutter, gently depress the shutter release button fully.**

- 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.

### **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 release.



## Focus Lock Function Purpose

The camera focuses with the autofocus frame in the center of the viewfinder. When the main subject is off the autofocus frame, the main subject will not be focused properly. Use the focus lock technique to bring the main subject into focus.

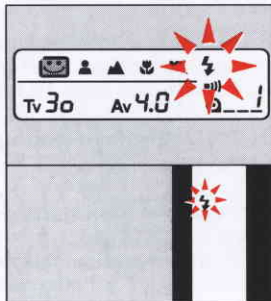
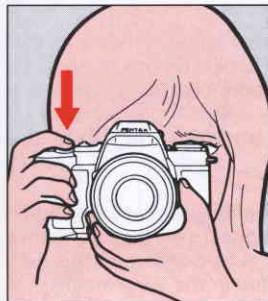
### How to use

**1. When the composition does not allow the autofocus frame to be placed over the most important subject in the picture, the camera will focus on the background as shown in the illustration.**

**2. To prevent this, center the autofocus frame on the main subject and keep depressing the shutter release button halfway down. The in-focus indicator remains on, indicating that the focus is temporarily locked.**

**3. While holding the shutter release button halfway down, re-aim the camera or recompose the picture, then depress the shutter release button all the way to release the shutter.**

- Lifting your finger off the shutter release button clears the in-focus indicator [○] in the viewfinder and cancels the focus lock function.
- To refocus on another subject, lift your finger off the shutter release button.

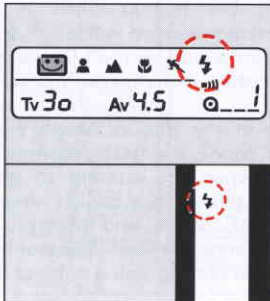
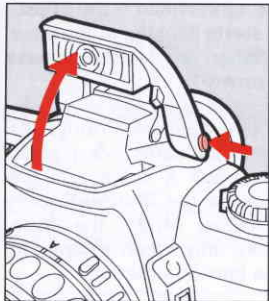


### The Flash-Recommended Indicator

If the built-in flash is recommended, the flash-recommended indicator [⚡] starts blinking in the viewfinder and on the LCD panel when the shutter release button is depressed halfway down.

- In the Picture Mode and the Aperture-Priority AE Mode, the flash-recommended indicator [⚡] blinks when you attempt to photograph a subject in low light, or in a backlit situation. In the Shutter-Priority AE Mode and Metered Manual Mode, the flash-recommended indicator blinks only when attempting to photograph a subject in a backlit situation.

1



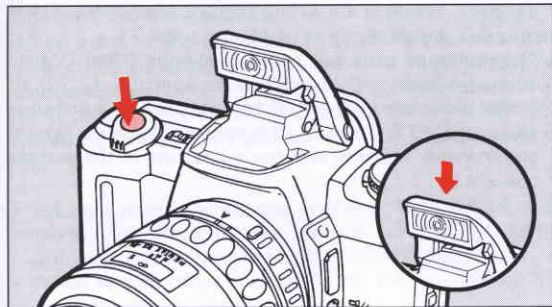
## Using the built-in flash

If [⚡] is displayed on the LCD panel, it indicates that the automatic flash function is set. Delete it from the LCD panel. See page 45 for more details.

### 1. Push the flash pop-up button to activate the flash.

- The built-in flash starts charging automatically. When it is fully charged, [⚡] appears on the LCD panel. When the shutter release button is depressed halfway down, [⚡] also appears in the viewfinder.
- 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.

2



**2. Depress the shutter release button fully, and the flash unit discharges. After using the flash, retract the built-in flash by pressing it down into the camera body.**

- The shutter cannot be released until the flash is fully charged.
- If the built-in flash is used continuously, the battery may become warm, but it does not mean the battery is faulty; it is one of the battery's characteristics.
- 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 77.



## Flash effective range in the Picture Mode with ISO 100 (400) is 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/2.8	approx. 0.7 - 2.8m (0.7- 4.0m) 2.3 - 9.2ft (2.3-13.1ft)
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.

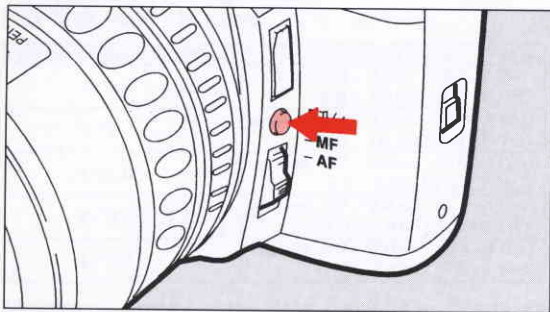
A lens with a maximum aperture of f/1.4 is marked as 1:1.4 on its barrel.

- This effective range table is only applicable when the exposure mode is set in the Picture Mode. When any other exposure mode is used, see page 71.
- The minimum effective range is always 0.7m (2.6ft) 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.

### **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 72.

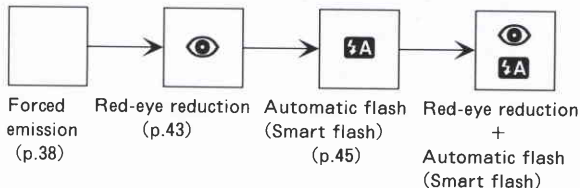
- Taking a picture while this warning is displayed may cause vignetting in the picture corners or semi-circular vignetting at the bottom of the picture.
- When lenses other than an F or FA are used, this warning will not appear.

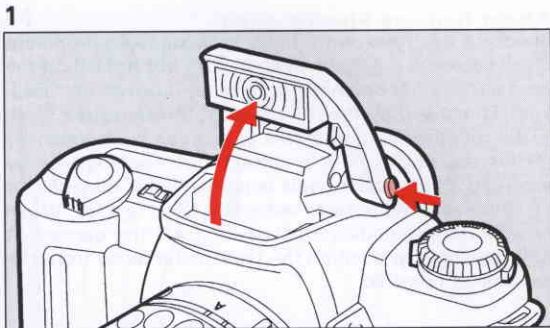


- The Automatic flash function will be set only with the Picture Mode set. If any other mode is set, the Red-eye reduction or Forced emission mode will be set.
- When the built-in flash is retracted, depressing the multi-function button switches the audible PCV signal ON and OFF.

### Depress the multi-function button with the built-in flash popped up

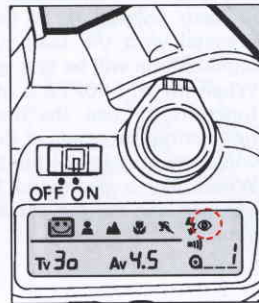
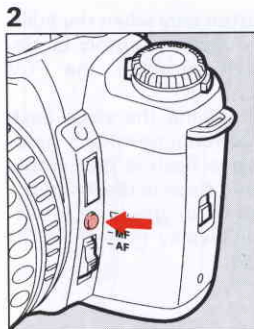
At each press of the multi-function button, the flash mode on the LCD panel switches as shown in the chart.





### 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.



### How to set

1. Push the flash pop-up button to activate the flash.
2. Depress the multi-function button until [👁] appears on the LCD panel.

### How to cancel

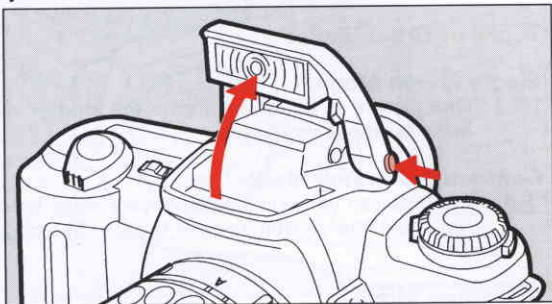
With the built-in flash popped-up, depress the multi-function button until [👁] disappears from LCD panel.

- Depress the multi-function button only when the built-in flash popped-up. If multi-function button is depressed with the built-in flash retracted, the PCV Signal Mode will be changed.
- When the AF500FTZ is attached and the slave flash function is in use, the Red-eye reduction flash function cannot be used as the slave flash is discharged when the preflash of the built-in flash is discharged.
- When only a dedicated flash is in use and is discharged, the red-eye reduction display from the LCD panel is disregarded.

### 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 red-eye 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.

1



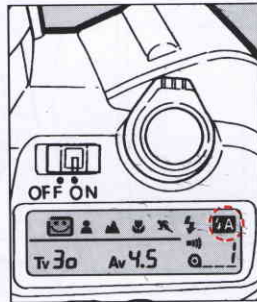
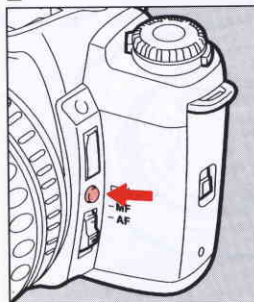
### AUTOMATIC FLASH FUNCTION (SMART FLASH FUNCTION)

This is a convenient built-in flash mode that the flash discharges only when it is necessary even if the flash is in the popped-up position.

#### How to set

1. Push the flash pop-up button to activate the flash.
2. Depress the multi-function button until appears on the LCD panel.

2



- In the Picture Mode, the automatic flash function will only operate when the subject is in a low light or backlit condition.
- Depress the multi-function button with the built-in flash in its popped up position. If the button is depressed with the built-in flash in its retracted position, the PCV audible beep mode will be switched on/off.

#### How to cancel

With the built-in flash in its popped up position, depress the multi-function button until disappears from the LCD panel.

## (1) SELECTING A DRIVE MODE


This camera has a total of three drive modes as shown.

### Types of Drive Modes


#### Single-Frame Mode

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

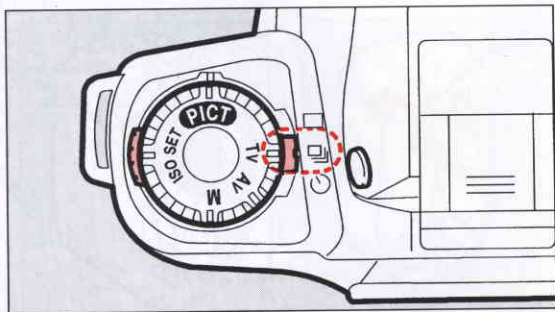
#### Consecutive-Frame Mode

[] : Pictures can be taken consecutively while holding down the shutter release button. See page 47.

#### Self-timer Mode

[] : A picture will be taken with a 12-second-delay. See page 47.

## III. ADVANCED OPERATIONS



### 1. Consecutive-Frame Mode

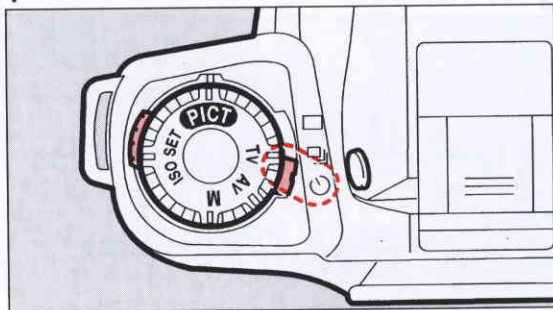
Consecutive pictures can be taken by holding down the shutter release button.

#### How to set

Set the drive mode switch to [📷].

- 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.

1



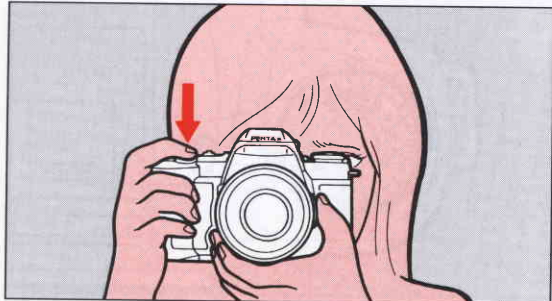
### 2. Self-Timer Mode

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 is depressed.

1. Set the drive mode switch to [🕒].



2



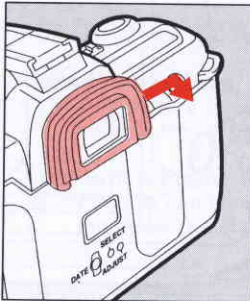
**2. Focus on the subject first using the autofocus frame and by depressing the shutter release button halfway down. Then depress the shutter release button fully.**

- The shutter will be released about 12 seconds later.
- When the self-timer is in operation, the audible PCV signal is heard and the rate increases for the last two seconds.

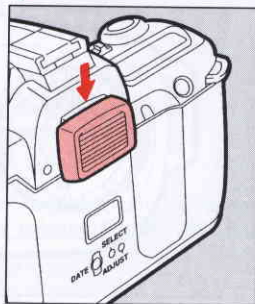
### How to cancel

To cancel the self-timer operation after it has been activated, move the drive mode switch to a position other than [S].

\*



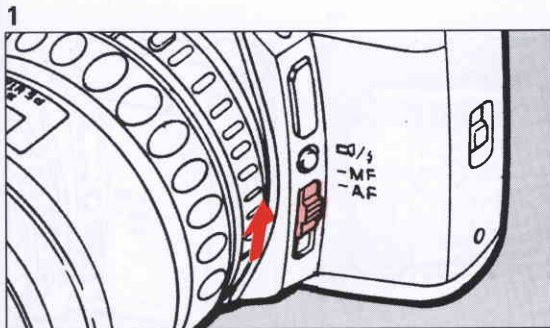
\*



- \* 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 F<sub>H</sub>. The Eyecup F<sub>H</sub> comes from the factory fitted to the camera's viewfinder accessory grooves.

## (2) MANUAL FOCUSING

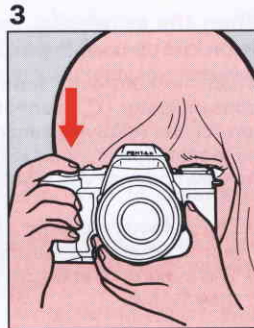
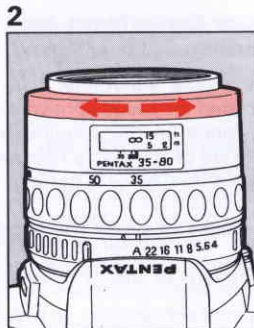
49



### Using a manual-focus lens

When mounting a non-autofocus lens (A-lens) with a maximum aperture of  $f/5.6$  or larger ( $f/1.2$  to  $f/5.6$ ), you can use the manual focus mode to focus the lens with the aid of the in-focus indicator [  $\square$  ] in the viewfinder.

- When the subject comes into focus, the focus indicator [  $\square$  ] lights up in the viewfinder and an audible PCV signal is heard. The audible PCV signal can be canceled. See page 69.



### How to focus

1. Set the focus mode switch to [MF].
2. While looking through the viewfinder, turn the focusing ring to the right or left while holding the shutter release button halfway down.
3. When the subject comes into focus, the in-focus indicator [  $\square$  ] lights up in the viewfinder. Depress the shutter release button fully to take the photograph.

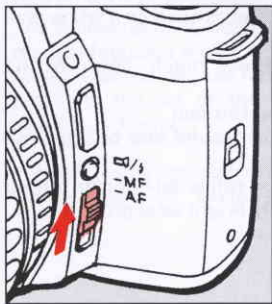


### **When the autofocus mode or the in-focus indicator is not usable for focusing**

When the autofocus function or the viewfinder's in-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.

- a) The in-focus indicator [○] blinks because the subject is difficult to autofocus.
- b) The maximum aperture of the lens in use is smaller than  $f/5.6$ .

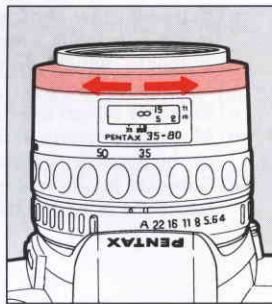
1



### How to focus on the subject

1. Set the focus mode switch to [ MF ].
2. While looking through the viewfinder, turn the focusing ring to the right or left until the image in the viewfinder is clearest.

2



### Using the snap-in focus function

When the subject comes to the point where the lens was prefocused, the shutter is automatically released.

### How to use

1. Use a non-autofocus (A-lens) lens.
2. Set the focus mode switch to [ AF ].
3. Focus at the point where you wish to capture the subject.
4. Using the optional "Cable Switch F", keep the trigger release button depressed so that the autofocus and metering systems stay active.
5. The camera releases the shutter automatically when the subject comes into focus at the point selected.

## 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 such a case, 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 (see page 51).

Subjects which may fool the autofocus system include:

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

### Notes on accessories

The following condition does not allow autofocusing or manual focusing with the in-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.

- When using special effect filters or "Magic Image Attachment" or "Stereo Adapter".

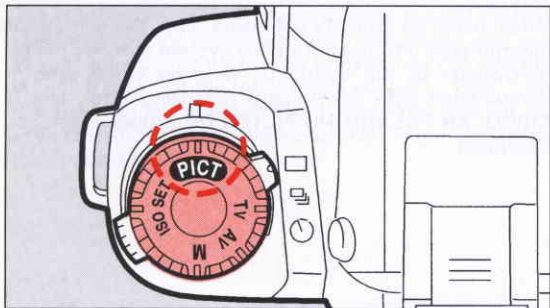
### Using a Polarizing Filter

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.



# (3) USING THE PICTURE MODE

1



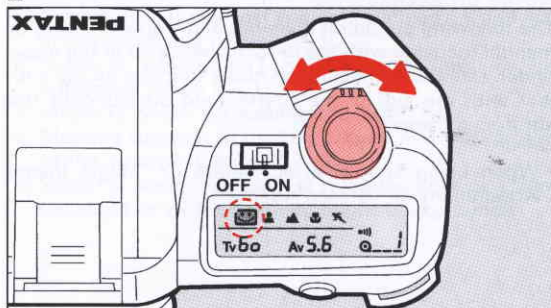
You can also select your desired Picture Mode manually. The picture mode has a total of 5 modes as follows. See details for each mode on page 55 - 59.

## How to set

Set the lens aperture ring to [ A ].

1. Set the mode dial to [ **PICK** ].

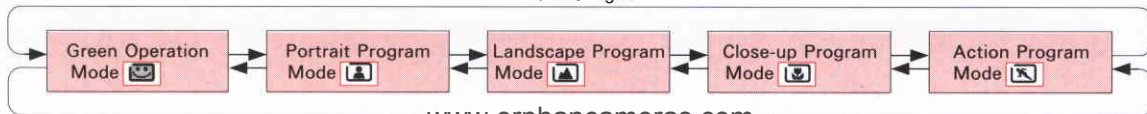
2



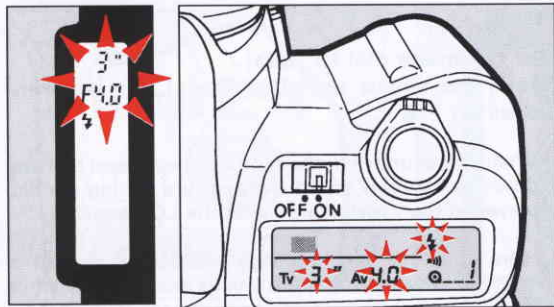
2. To select the desired picture mode, move the select switch until [  ] superimposes on the picture mode displayed on the LCD panel.

- When the lens aperture ring is set to a position other than the A position, a correct exposure may not be obtained.

To the right



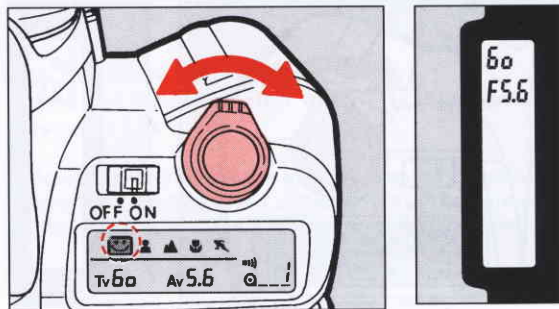
\*



### \* 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

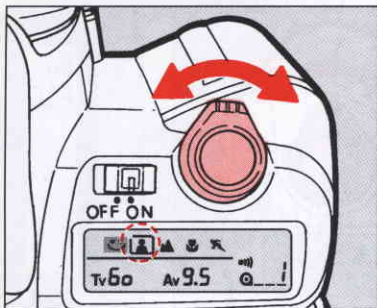
Set the mode dial to .

Move the select switch until  superimposes on .

- When the shutter release button is depressed halfway, the shutter speed and aperture setting are 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 .

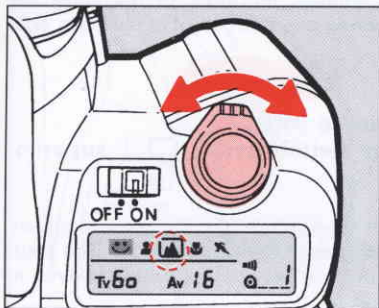
Move the select switch until  superimposes on .

- When the shutter release button is depressed halfway down, the shutter speed and aperture setting are 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

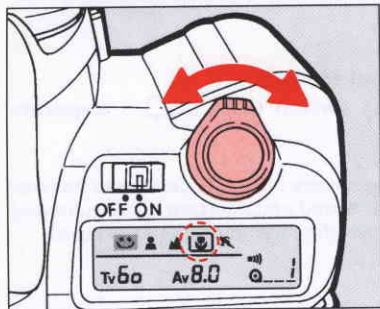
Set the mode dial to .

Move the select switch until  superimposes on .

- When the shutter release button is depressed halfway down, 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

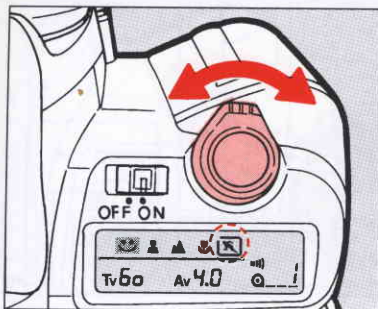
Set the mode dial to .

Move the select switch until  superimposes on .

- 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

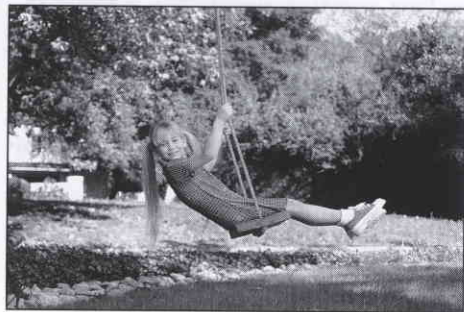
Set the mode dial to .

Move the select switch until  ;  
poses on .

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

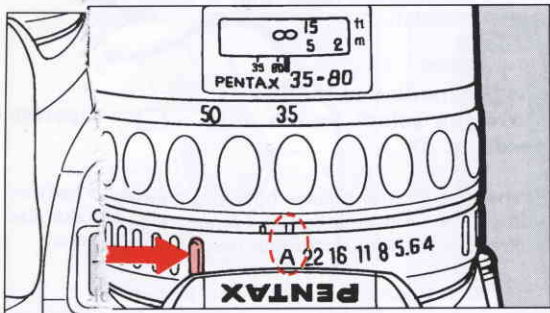
This mode freezes the action and prevents blur. This mode is especially convenient for sports photography. It is also suitable for portraits with a blurred background.

aperture settings too



# (5) SELECTING AN EXPOSURE MODE

Close-up

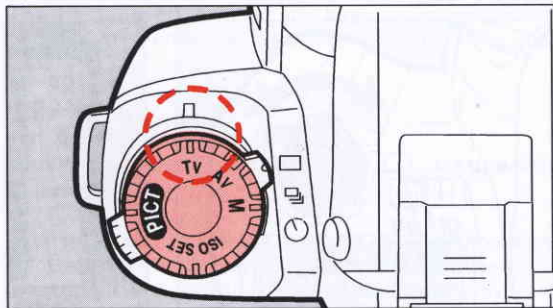


## Shutter-Priority AE Mode



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. For details on the effect of the shutter speed, see page 86.

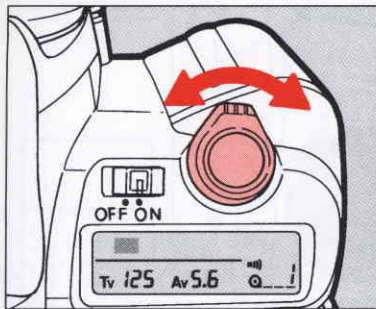
2



## How to set

1. Set the lens aperture ring to the A position.
  - When the lens aperture ring is set to a position other than the A position, a correct exposure may not be obtained.
2. Set the mode dial to [ Tv ].

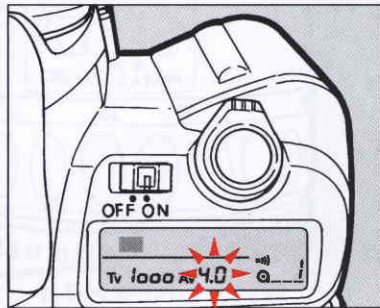
3



### 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 indication will be displayed in the viewfinder and on the LCD panel.
- The bar underneath the shutter speed will also be displayed.

\*

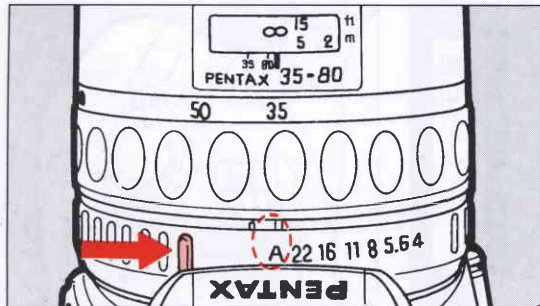


### \* Exposure Warning

If the subject is too bright or too dark, the 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.



1

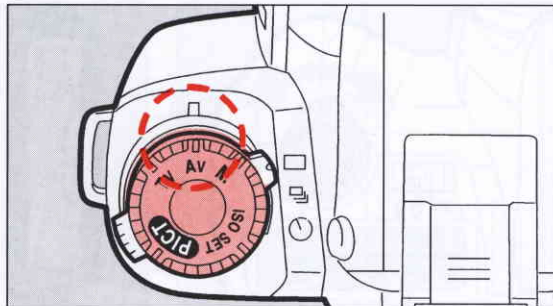


## Using the Aperture-Priority AE Mode

### 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. For details on the effect of the aperture setting, see page 87.

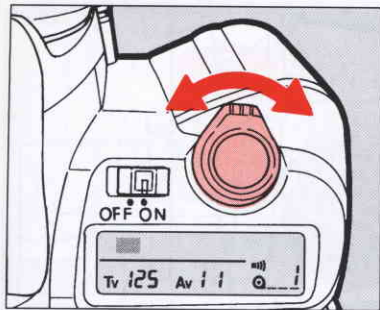
2



### How to set

1. Set the lens aperture ring to the A position.
  - When the lens aperture ring is set to a position other than the A position, a correct exposure may not be obtained.
2. Set the mode dial to [ Av ].

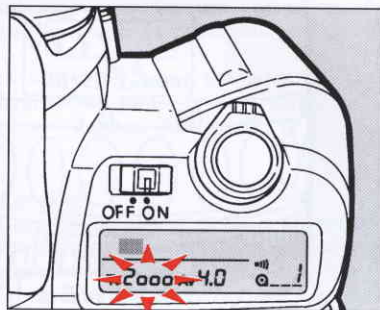
3



3. Set the desired f-stop by moving the select switch.

- When the shutter release button is depressed halfway down, the shutter speed and the aperture indication will be displayed in the viewfinder and on the LCD panel.
- The bar underneath the aperture indication will also be displayed.

\*



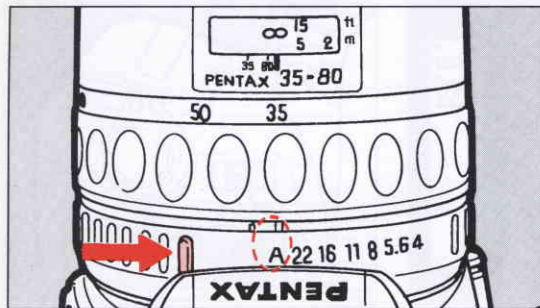
### \* Exposure Warning

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.





1

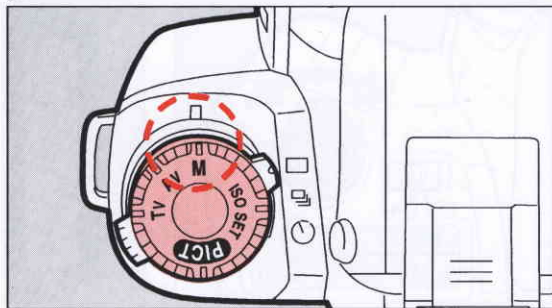


### Using the Metered Manual Mode

#### 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 overexposed photographs.

2

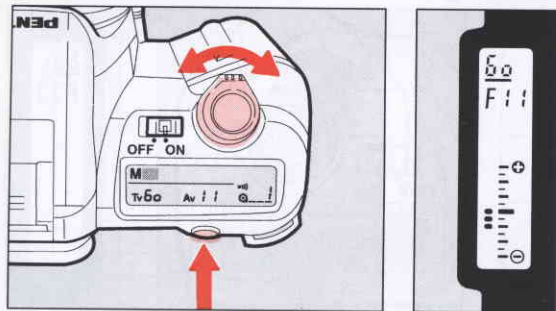


#### How to set

1. Set the lens aperture ring to the A position.
2. Set the mode dial to [ M ].

- [ M ] appears on the LCD panel to indicate that the Manual Exposure Mode is set.
- If a lens without the A position or an F or FA lens with the aperture set other than A position is attached, the bar graph in the view finder will blink.

3



**3. Change the shutter speed by moving the select switch or the aperture by moving the select switch while holding down the exposure compensation button.**

- To obtain the proper exposure, change the aperture setting or the shutter speed until the dot is displayed in the center of the bar graph in the viewfinder.
- When the shutter release button is depressed halfway, the shutter speed, aperture and bar graph will be displayed in the viewfinder.
- The bar underneath the shutter speed will be displayed and the bar underneath the aperture indication will also be displayed when the exposure compensation button is depressed.

- 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). However, when under or over exposure is set beyond +3 or -3 steps (3EV), [⊕] or [⊖] indicator will blink.

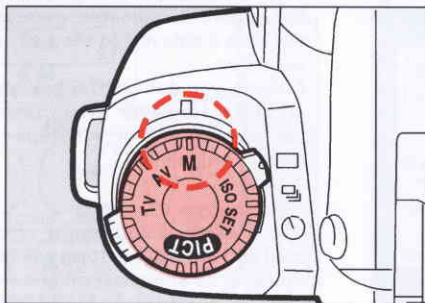
### \* Exposure Warning

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.

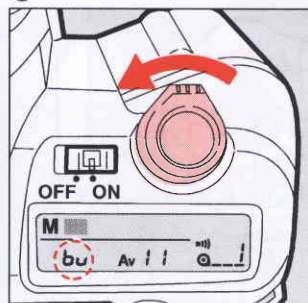
1



2



3



## Bulb Exposure Mode

### Purpose

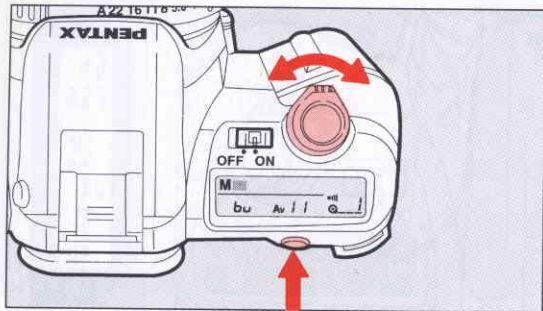
This mode is useful for the long exposures required for shooting night scenes and fireworks. The shutter remains open as long as the shutter release button is held down.

### How to set

1. Set the lens aperture ring to the A position.
2. Set the mode dial to [ M ].
3. Adjust the shutter speed to slower side by moving the select switch until [ bu ] appears on the LCD panel.

- [ M ] appears on the LCD panel.
- When the shutter release button is depressed half-way, [ bu ] and the aperture indication appear in the viewfinder and on the LCD panel.
- The bar underneath [ bu ] appears in the viewfinder.

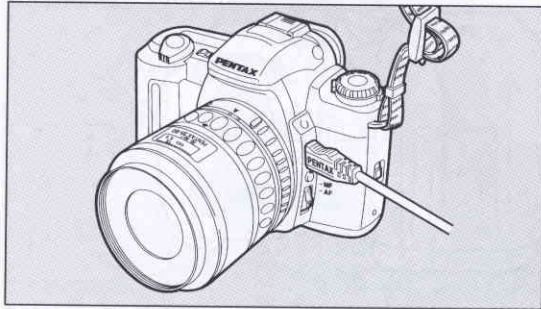
4



4. Select the desired aperture by moving the select switch while depressing the exposure compensation button.

- Up to approx. 8 hours of time exposure are possible with a new lithium battery at room temperatures.

\*



- \* 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.