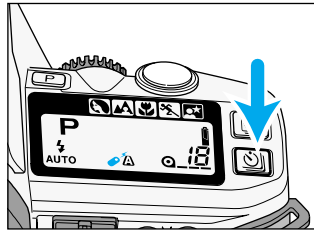


DRIVE MODES

Focus Lock in Remote Control Mode

When your subject is not centered in the focus frame, use manual focus or focus lock.



1 Set the camera to the remote-control mode.



2 Center your subject in the focus frame, then press the shutter-release button partway down until ● appears in the viewfinder.

3 Lift your finger from the shutter-release button.

- Focus and exposure is set for the picture.
- The shutter speed and aperture will be displayed on the data panel.



4 Recompose the picture.



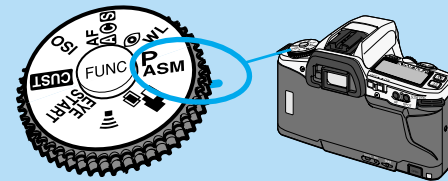
5 Point the remote toward the front of the camera and press the release or delay button.



CREATIVE EXPOSURE MODES

In this section you take full creative control of your camera. Depending on the selected exposure mode, you will control the aperture, shutter speed, or both when capturing your image.

In the previous sections, only the program (P) exposure mode was explored. Here you will learn to use the aperture priority (A), shutter priority (S), and manual (M) exposure modes. Select A mode to control the depth-of-field in your images. Set S mode to control the way moving subjects appear in your images. Set M mode when you want full control over the exposure.



APERTURE CONTROL

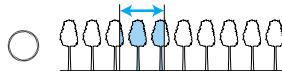
The size of the aperture (lens opening) determines the depth-of-field of the final image as well as the intensity of the light falling on the film. Depth-of-field is the range in front of and behind the subject that appears sharp in the final image. Depth of field increases as the focal length decreases. The wide angle position of the lens will have a greater depth of field at a given aperture than at the telephoto position.



Large ← f/2.8 f/4 f/5.6 f/8 f/11 f/16 → Small

Large Aperture
(small f-number)

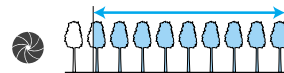
Range in focus is narrower.



Large apertures (small f-numbers) limit the depth-of-field to a narrow range in front of and behind the point of focus. Set a larger aperture when photographing portraits to make your subject stand out from the background.

Small Aperture
(large f-number)

Range in focus is deeper.



Small apertures (large f-numbers) provide greater depth-of-field. Set a small aperture when photographing landscapes to ensure your entire scene is sharp.

- Usable apertures will depend on the aperture range of the lens you are using.

SHUTTER CONTROL

In addition to controlling the duration of the exposure, shutter speeds determine how moving subjects will appear in the final image. Use a fast shutter speed to stop the motion of your subject, use a slow shutter speed to blur the motion.



Fast ← 1/4000s 1/250s 1/125s 1/45s 1/8s 1s 6s 30s → Slow

Fast Shutter Speed

Fast shutter speeds can stop the action and also help prevent blurring caused by camera movement during exposure, known as camera shake.

Slow Shutter Speed

Slow shutter speeds will make a moving subject appear to flow, creating a feeling of motion.

CREATIVE EXPOSURE

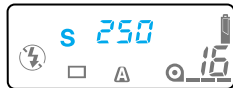
EXPOSURE MODES

Four exposure modes are available on this camera. Select the best exposure for your subject.



A mode (Aperture Priority) (p.55)

In A mode, you select the aperture and the camera automatically sets the shutter speed required for proper exposure. Set the camera to A mode when you want to control the depth-of-field in the image.



S mode (Shutter Priority) (p.59)

In S mode, you select the shutter speed and the camera automatically sets the aperture for the proper exposure. Use S mode when you want to control the blur caused by subject movement or stop the motion of your subject.



M mode (Manual Exposure) (p.61)

M mode gives you full control over the exposure by allowing you to set both the shutter speed and aperture. The camera's Ev scale displays how your settings compare to the exposure determined by the camera's metering system.

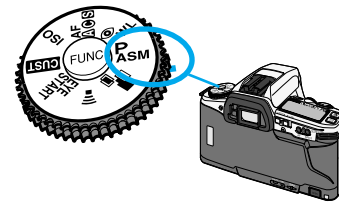


P mode (Programmed AE) (p.64)

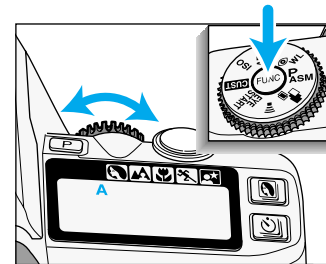
Select P mode when you want to give your full attention to your subject and composition by letting the camera control both the shutter speeds and aperture. The P mode software analyzes the subject's size, motion, and distance as well as the focal length of the lens, then controls the shutter speed and aperture to correctly expose the scene.

A MODE - APERTURE PRIORITY

In A mode, you select the aperture and the camera automatically sets the shutter speed required for proper exposure. Set the camera to A mode when you want to control the depth-of-field in the image.



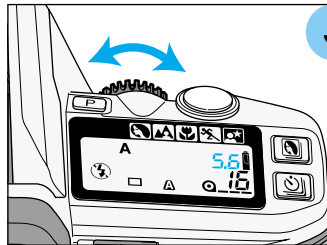
- 1 Turn the function dial to P_{AMS} .



- 2 While pressing the function button, turn the control dial until A appears on the data panel.

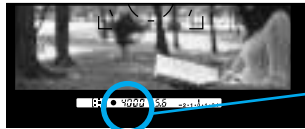
CREATIVE
EXPOSURE

A MODE - APERTURE PRIORITY



3 Release the function button. Turn the control dial to select the aperture.

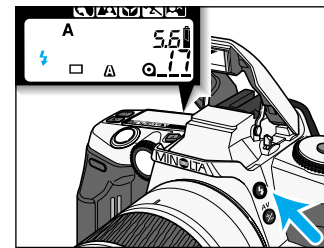
- If 4000 or 30" blinks on the data panel, the aperture setting is beyond the camera's shutter speed range. Turn the control dial until the shutter-speed display stops blinking.





- To return to P mode, repeat step 1 and 2 until P appears on the data panel.
- To return to P mode and fully-automatic operation, press the program-reset button.(p. 30)
- Press the depth-of-field preview button to see the effect of the change in aperture (p.58).

Flash with A Mode


In A mode, flash will not fire automatically. When you want to use flash, pop-up the built-in flash or attach an accessory flash.



Press the flash-mode button  to pop-up the built-in flash.


-  will appear on the data panel.
- The shutter speed will be set to 1/125 or slower.
- If 125 blinks in the viewfinder and on the data panel, the light level is too bright for the selected aperture. Turn the control dial to change the aperture until the blinking stops or cancel the flash.



- A smaller aperture (larger f-number) will result in a shorter flash range. Refer to flash range (p.36) to determine the range of the built-in flash at the selected aperture. The use of very small apertures (large f numbers) is not recommended.
- The  will appear in the viewfinder after the picture is taken to confirm the flash exposure.

Canceling the Flash

Push the built-in flash down or turn the accessory flash off.

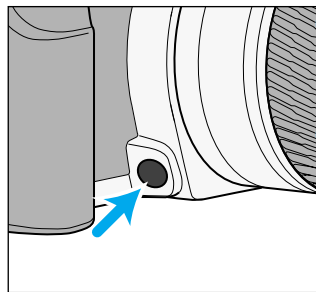
-  will be displayed on the data panel.

A MODE - APERTURE PRIORITY

Depth-of-field Preview

To check how much of your scene will appear in focus, press the depth-of-field preview button. The lens will stop down to the aperture that appearing on the display.

- The viewfinder may appear dark at larger f-number (smaller lens opening). The aperture is always at its brightest setting when looking through the viewfinder; the aperture is stopped down during exposure.



1 Focus on the subject and set the aperture.

2 Press the depth-of-field preview button.

- The lens will stop down to the selected aperture.
- Preview is cancelled when the depth-of-field button is released.

Depth-of-field can be increased by :

- Using smaller apertures.
- Using short focal length lenses.
- Moving farther away from your subject.

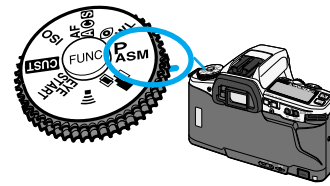
- Do not turn the focusing ring while pressing the depth-of-field button.
- Changing the aperture while pressing the depth-of-field preview button, does not affect the preview image. Depth of field can only be previewed after the aperture is set.
- If you press the depth-of-field preview button after pressing the shutter-release button partway down and ● glows in viewfinder, the shutter can be released.

Custom Function Notes

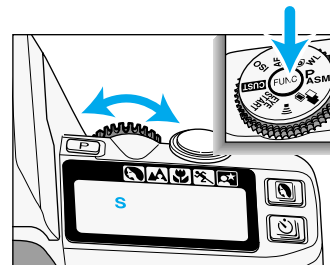
Cust-6: Focus-hold button on Minolta lenses can be used for focus lock (1), continuous-advance exposure bracketing (2) or depth-of field preview (3) (p.110).

S MODE – SHUTTER PRIORITY

In S mode, you select the shutter speed and the camera automatically sets the aperture required for proper exposure. Use S mode when you want to control the blur caused by subject movement or the stop the motion of the subject.



1 Turn the function dial to P_{AMS}.



2 While pressing the function button, turn the control dial until S appears on the data panel.

3 Release the function button. Turn the control dial to select the shutter speed.

- The shutter speed range is from 1/4000 to 30 seconds.



Fractions of a second are displayed without a numerator. The number 125 displayed stands for 1/125th of a second.

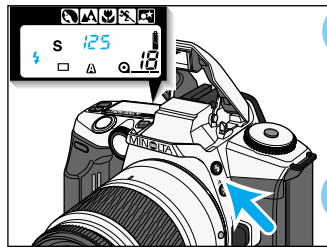
“ ” indicates full seconds. 2'' is two seconds.


If the aperture display blinks, the shutter speed is outside the aperture range of the lens. Turn the control dial until the blinking stops.


S MODE – SHUTTER PRIORITY

Flash with S Mode

In S mode, the flash will not fire automatically. When you want to use the flash, pop-up the built-in flash or attach an accessory flash.

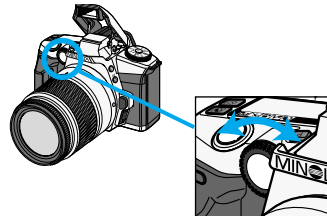


1 Press the flash-mode button  to pop-up the built-in flash.

-  will appear on the data panel.

2 Turn the control dial to select the shutter speed.

- The maximum shutter speed is 1/125 sec when using flash.
- The camera automatically sets the aperture for the selected shutter speed.
- With larger aperture numbers (smaller lens opening), the subject will be out of flash range. The use of smaller aperture numbers (larger lens opening) is recommended. See the flash range (p. 36).




Control dial

- Shutter speeds greater than 1/125 can be achieved using the high-speed sync function with 5600 HS(D), 3600HS(D), or 5400HS external flash units (sold separately) (p.97).

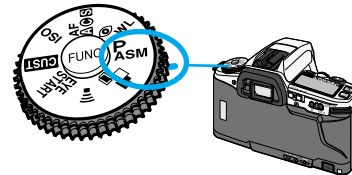
Canceling the Flash

Push the built-in flash down or turn the accessory flash off.

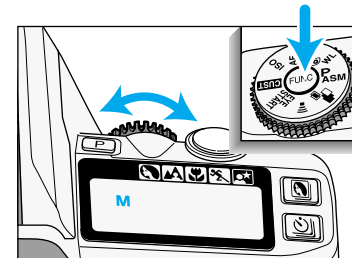
-  will be displayed on the data panel.

M MODE – MANUAL

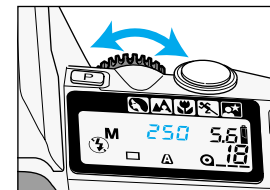
M mode gives you full control over exposure. The viewfinder's Ev scale displays the difference between your shutter speed and aperture settings and the exposure determined by the camera's metering system.



1 Turn the function dial to P_{AMS} .

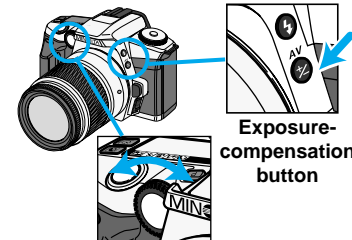


2 While pressing the function button, turn the control dial until M appears on the data panel. Release the function button.



3 To select the shutter speed, turn the control dial.

- The shutter-speed range is from 1/4000 to 30 seconds.

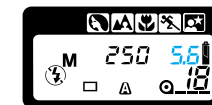


Exposure-compensation button

Control dial

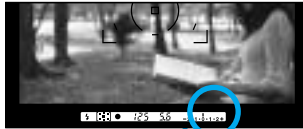
4 To select the aperture, turn the control dial while pressing the exposure-compensation button.

- The aperture range depends on the lens.

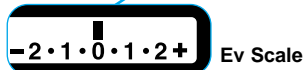


Continued on next page

M-MODE – MANUAL



5 Use the viewfinder's Ev Scale to compare your exposure setting with the camera's meter reading.



Ev Scale in the Viewfinder

The Ev scale displays the Ev difference between your settings and the exposure determined by the camera. The 0 position (null point) represents the recommended exposure using the selected metering pattern.

- The Ev scale is marked in 0.5 increments.



Your settings match the recommended exposure.



Your settings will overexpose the metered area by 1.5 Ev.



Your settings will underexpose the metered area by 1.5 Ev.



◀ or ▶ will glow on the Ev scale if the set exposure will over or underexpose the subject by 2.5.



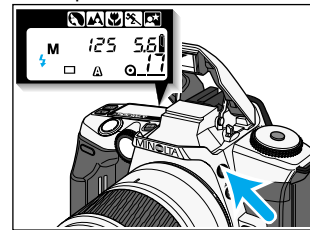
◀ or ▶ will blink on the Ev scale if the set exposure will over or underexpose the subject by 3.0.


- Any changes with exposure-compensation is canceled temporarily in M mode. If exposure compensation was set before switching to M mode, it will be reapplied when the exposure mode is changed back to another mode.
- Ev stands for exposure value. A change in one Ev adjusts the exposure by a factor of two. If your exposure is 1/30 sec. at f5.6 and is overexposed by 1 Ev, changing the shutter speed to 1/60 sec will correct the exposure. The control dial adjusts the shutter speeds and aperture values in 0.5 Ev increments. One Ev is equivalent to one stop.


Flash with M mode

In M mode, the flash will not fire automatically. When you want to use the flash, pop-up the built-in flash or attach an accessory flash.

- The camera's automatic flash metering system will ensure proper exposure.

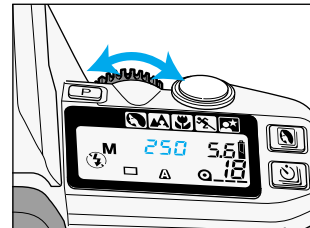


1 Press the flash-mode button  to pop-up the built-in flash.

-  will appear on the data panel.

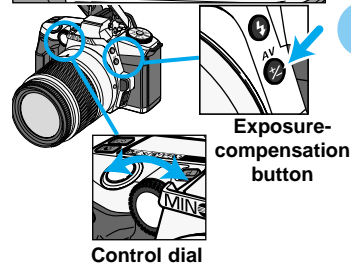
2 To select the shutter speed, turn the control dial.

- The maximum shutter speed is 1/125 sec when using flash. The shutter speeds slower than 1/125 can be used
- Shutter speeds greater than 1/125 can be achieved using the high-speed sync (p. 97) function with 5600 HS(D), 3600HS(D), or 5400HS external flash units (sold separately).



3 To select the aperture, press the exposure-compensation button while turning the control dial.

- Refer to the flash range on page 36 to determine the aperture setting.



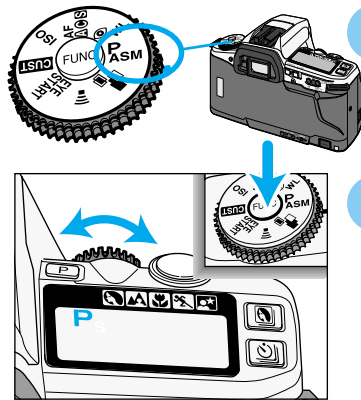
Canceling the Flash

Push the built-in flash down or turn the accessory flash off.

-  will be displayed on the data panel.

P MODE

Select P mode when you want to give your full attention to your subject and composition by letting the camera control both the shutter speeds and aperture. The P mode software analyzes the subject's size, motion, and distance as well as the focal length of the lens, then controls the shutter speed and aperture to correctly expose the scene.

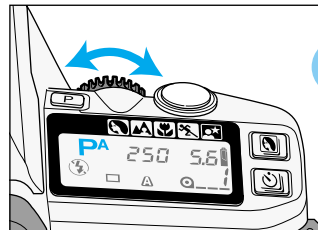


1 Turn the function dial to P_{AMS}.

2 While pressing the function button, turn the control dial until P appears on the data panel.

PA Mode

The aperture can be changed in P mode with the Custom 8-2 setting.(p.111).



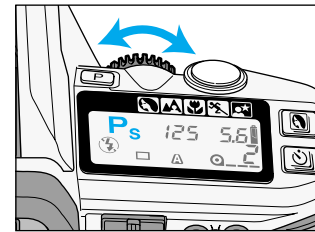
1 Set the camera to custom 8-2. See page 111 for instructions.

2 Press the shutter-release button partway down to display the shutter speed and aperture value. Turn the control dial to change the aperture.

- The shutter speed is automatically adjusted to ensure correct exposure.

PS Mode

The shutter speed can be changed in P mode with the Custom 8-3 setting.(p.111).



1 Set the camera to custom 8-3. See page 111 for instructions.

2 Press the shutter-release button partway down to display the shutter speed and aperture value. Turn the control dial to change the shutter speeds.

- The aperture is automatically adjusted to ensure correct exposure.

- The built-in flash and accessory flashes cannot be used with PA or Ps modes. PA and Ps modes are canceled when the built-in flash is up or an accessory flash is on. The PA and Ps custom settings are still active and can be used when the built-in flash or accessory flash is turned off.
- To turn off the PA/Ps function, change the custom setting to 8-1. Turning the function dial to other modes, or popping up the built-in flash will temporarily cancel the PA/Ps mode.
- When an operation is not made for five seconds, the aperture display (Ps) or the shutter speed display (PA) will go blank on the data panel. A few seconds later, the S/A on the data panel will turn off; the camera returns to P mode. PA/Ps can be activated again by simply pressing the shutter-release button partway down to display the shutter speed and aperture display and then turn the control dial to reactivate the PA/Ps mode.

EXPOSURE WARNINGS

Indicators will blink in the viewfinder or data panel when the level of available light is beyond the camera's control.

MODE	DISPLAY	CAUSE	ACTION
P A S M		The light level is beyond the camera's metering range.*	Bright Light Use slower speed film, a neutral density (ND) filter, or reduce the light level of your surroundings.
P		The required exposure is beyond the shutter-speed and aperture range.*	Low Light Use higher speed film or a flash.
A/Pa		The required exposure is beyond the shutter-speed range.	Select a larger or smaller aperture until the display stops blinking.
S/Ps		The required exposure is beyond the aperture range of the lens.	Select a faster or slower shutter speed until the display stops blinking.

* The warnings may appear with subject programs.

DETAILED OPERATION

In this section you can move on to the detailed operation to expand your expertise. Read those pages pertaining to the areas of your interest and need.



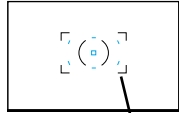
Taking Time Exposures (p.81)



Multiple Exposures (p.90)

FOCUS AREA

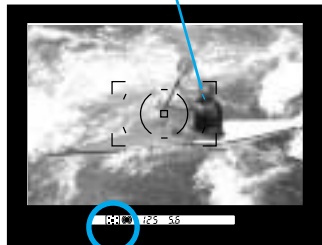
Wide Focus Area



Wide focus frame

The wide focus frame uses seven focus sensors (the spot focus area and six local focus areas) to automatically focus on your subject. The wide focus area provides greater framing flexibility and makes it easier for the camera to focus on moving subjects.

Local focus area LED




Press the shutter-release button partway down to activate the wide focus area.

- A local focus area LED or spot focus area LED in the viewfinder will glow to indicate the point of focus within the wide focus area for less than one second.
- When the subject is moving, LEDs may not illuminate.
- All the focus area indicators in the viewfinder turn on when the wide focus frame is being used.



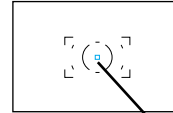
Focus area indicator

- With continuous AF  (p.73) or the sports subject-program mode (p.43), the local focus area LEDs will not glow in the viewfinder. The LEDs may not glow in continuous advance.

Custom Function Notes

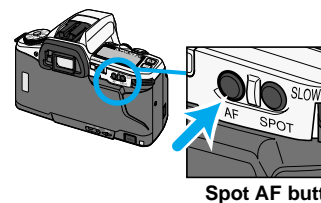
Cust-13: When focus is confirmed, the local focus area LEDs will illuminate for approx. 0.3s (1), or for approx. 0.6s (2). The local focus area LEDs will only illuminate when an area is selected by the user (3) (p.113).

Spot Focus Area



Spot focus area

By simply pressing the spot AF button, the center spot focus area is selected. The focus and exposure settings will be made with the center spot focus area.



Spot AF button

1 Place your subject inside the spot focus area.

2 Press and hold the spot AF button.

- The spot focus area in the viewfinder will glow for a second after focus is confirmed.
- [■] will appear in the viewfinder, indicating the center focus sensor is being used.
- Focus and exposure remain locked until the spot focus button is released.

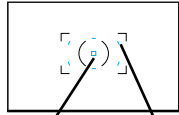


3 While holding the spot AF button, press the shutter-release button all the way down to take the picture.

- When you release the spot AF button, the wide focus frame will be displayed.

FOCUS AREA

Local Focus Areas



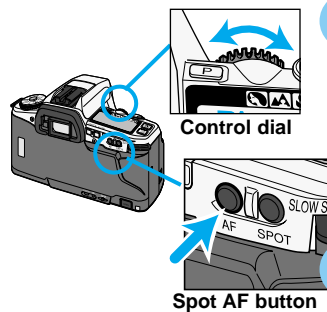
Local focus area

Spot focus area

Any of the seven local focus sensors (the spot focus area and six local areas) can be individually selected. Use the local focus areas with off-center subjects when changing the camera position is difficult such as when it is attached to a tripod.

Selecting Local Focus Areas with the Spot AF button

This is the camera's default setting. Changing between the local focus areas and the wide focus area is simple when using the spot AF button.

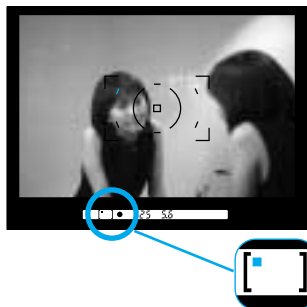


1 While holding the spot AF button, turn the control dial to select a local focus area.

- As the local focus areas are selected, the corresponding LED will glow in the viewfinder.
- The selected local focus area is also indicated by the focus area indicator.

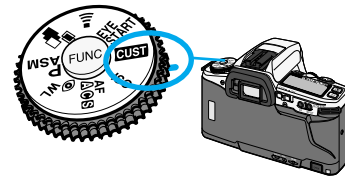
2 While holding the spot AF button, press the shutter-release button all the way down to take the picture.

- If the spot AF button is released, selected local focus area is cancelled and the wide focus area is activated.



Selecting Local Focus Areas with the Custom Function

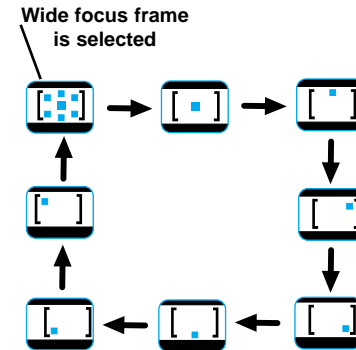
When the focus-area custom function is set, the focus area in use will not change. The focus area can be changed with the spot AF button.



1 Set Custom 9-2. See the page 107.

2 While holding the spot AF button, turn the control dial to select the focus area.

- As the local focus areas are selected the corresponding LED will glow in the viewfinder.
- The selected local focus area is also indicated by the focus area indicator.
- The focus areas will cycle as indicated in the diagram when turning the control dial clockwise. Turning the control dial counterclockwise will cycle through the focus areas in reverse order.



3 Press the shutter-release button all the way down to take the picture.

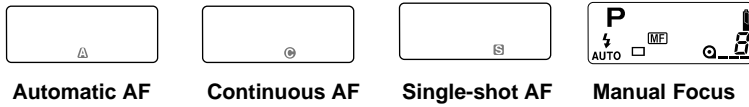
- The selected focus area will remain active until changed using the spot AF button and control dial.

Custom Function Notes

Cust-9: Local focus areas are selected with the control dial while pressing the spot AF button. When the spot AF button is released, the wide focus area is active(1). Wide focus area and local focus areas set with the control dial while pressing the spot AF button (2). To switch between the spot focus area and wide focus frame every time the spot AF button is pressed (3) (p.111).

FOCUS MODES

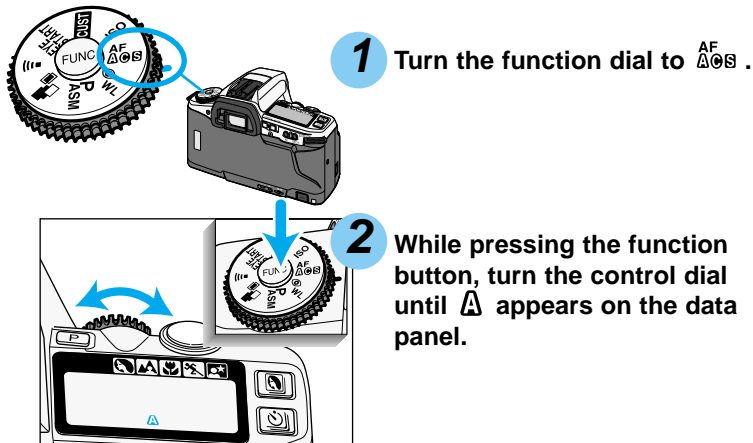
Your camera has four focus modes:



- All the autofocus modes work with the exposure modes: P A S M.
- The subject programs use automatic AF, except for sports mode, which uses continuous AF.

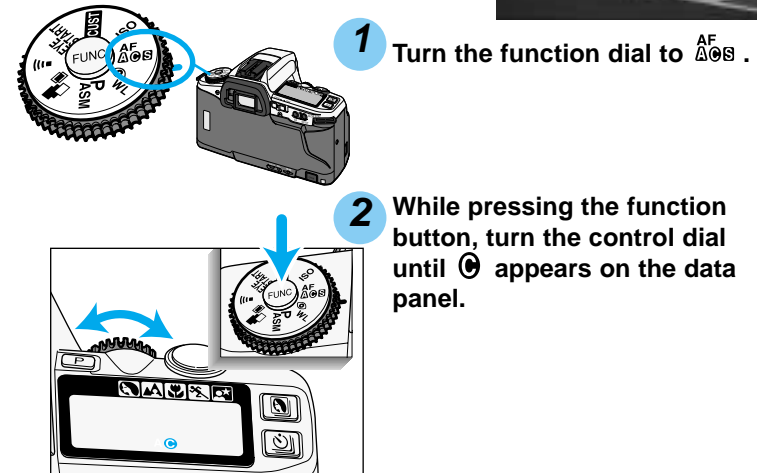
Automatic AF

Designed to work well in most situations, automatic AF is suited to events that have both moving and static subjects. When the subject is moving, continuous AF is used; when static, single-shot AF is employed.



Continuous AF

Use continuous AF when shooting sporting events or when the subject is in constant motion.

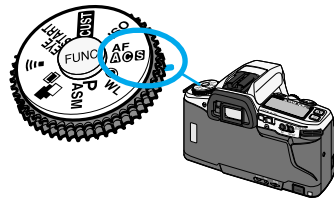


- When taking pictures, the camera continues to focus while the shutter-release button is pressed partway down. Focus lock cannot be used with continuous AF.
- Focus can be locked with the spot AF button in continuous AF.
- Continuous AF does not use audio signals or local focus area LEDs to indicate focus.

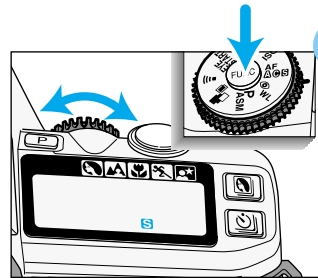
FOCUS MODES

Single-Shot AF **S**

Use single-shot AF when photographing static subjects.



1 Turn the function dial to **AF S**.

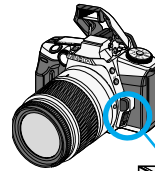


2 While pressing the function button, turn the control dial until **S** appears on the data panel.

- Focus lock (p.34) can be used with single-shot AF.

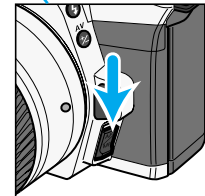
Manual Focus **MF**

The autofocus system can be used to monitor focus and indicate when a subject in the focus frame is in focus. The lens can be focused manually when autofocus and focus lock is not possible.



1 Hold the focus-mode switch down and release.

- **MF** will appear on the data panel.

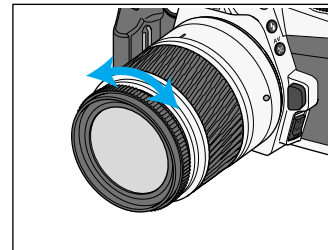


Focus-mode switch



2 Turn the focusing ring until your subject appears sharp.

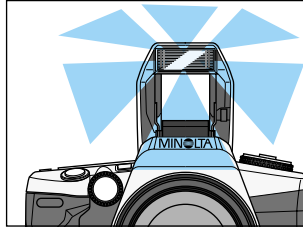
- While pressing the shutter-release button partway down, ● appears in the viewfinder when the subject in the focus frame is in focus.
- To return to the autofocus mode, push the focus-mode switch down a second time



- In manual focus mode with any lens except the 'D' series lenses, the camera switches to center-weighted metering. The metered exposure may be different between autofocus and manual focus.

AF ILLUMINATOR

The built-in flash is used as an AF Illuminator. When the scene is too dark for the camera to focus, the built-in flash fires a few short bursts when the shutter-release button is pressed partway down to provide the light necessary for the camera to focus.



- Pressing the spot AF button can also activate the AF illuminator.
- The range of the AF Illuminator is approximately 1 to 5 m (3.3 to 16.5 ft.).
- The AF illuminator will not fire in continuous AF mode () or if flash cancel () is selected.
- The AF illuminator may not operate with focal lengths of 300mm or longer.
- The AF illuminator will not operate with 3x-1x Macro Zoom.
- When an accessory flash is attached, the flash will be used as the AF illuminator in place of the camera's built-in flash unit.

Custom Function Notes

Cust-11: AF illuminator active (1), AF illuminator disabled (2) (p.112)

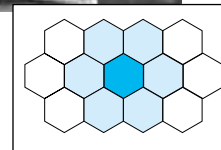
EXPOSURE – Metering System

14-Segment Honeycomb-Pattern Metering

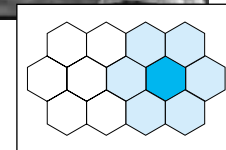
This is the camera's standard metering mode and is appropriate for most photographic situations.

- 14-segment honeycomb-pattern metering uses information from the autofocus system to set the metering pattern according to the position of the main subject. The light metered by each segment is then evaluated to determine the degree of spot-lighting or backlighting in the scene.

Subject in the center



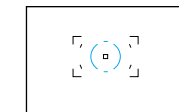
Subject on the right



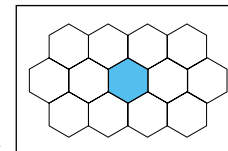
- In manual focus mode with any lens except the 'D' series lenses, the camera switches to center-weighted metering. The metered exposure may be different between autofocus and manual focus.

Spot Metering

When pressing the spot AE-lock button, only the spot metering area will be used to calculate the exposure.



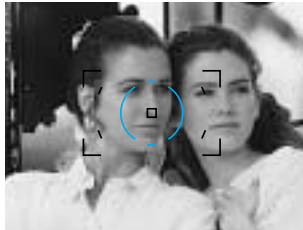
Spot metering area



EXPOSURE – AE-LOCK

Spot-AE Lock

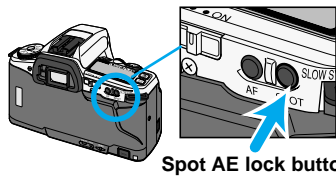
Spot metering uses only the center honeycomb segment shown by the spot metering area in the viewfinder. You can lock the metered exposure without locking the focus. With a high or low key subject, an object away from the subject can be used to set the shutter speed and aperture. The exposure remains locked until the spot AE lock button is released.



1 Place the spot metering area on the area to be metered.

- Make sure the light falling on the metered area is the same as the light falling on the subject.

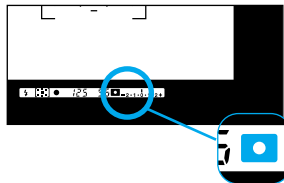
Spot metering area



Spot AE lock button

2 Press and hold the spot AE lock button.

- will be displayed in the viewfinder to indicate the exposure is locked.



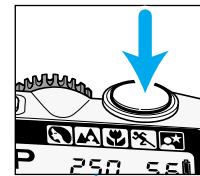
- When using flash, pressing the spot-AE lock button sets the flash mode to slow-sync (p.96).



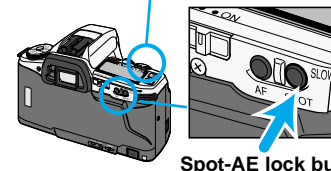
-2 · 1 · 0 · 1 · 2+
Ev Scale

3 While pressing the AE-lock button, re-compose the scene.

- The Ev scale will show the difference in relative brightness between the metered area and the object in the spot metering area (p. 80).



4 While still pressing the AE-lock button, press the shutter-release button all the way down to take the picture.



Spot-AE lock button

- If the spot AE-lock button is not released after taking the picture, the exposure setting will remain locked.
- Slow-sync is activated when appears in the viewfinder (p.96).

Custom Function Notes

Cust-10: Spot-AE lock: activated when the AE lock button is pressed and held (1), or activated when the button is pressed once and then canceled when it is pressed again (2) (p.112).

EXPOSURE – AE-LOCK

Ev Scale Display When Using the Spot-AE Lock

The Ev scale will display the difference between the exposure set with the spot AE lock and the relative luminance of the subject.

With the object to be metered in the spot metering area, press the AE-lock button.



While pressing AE-lock button, recompose the picture.



-2 · 1 · 0 · 1 · 2 +

Set exposure

-2 · 1 · 0 · 1 · 2 +

Set exposure

Relative brightness of the object in the spot metering area

-2 · 1 · 0 · 1 · 2 +

◀ or ▶ will glow on the Ev scale if the set exposure will over or underexpose the subject by 2.5.

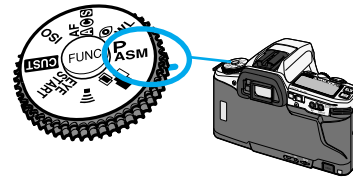
-2 · 1 · 0 · 1 · 2 +

◀ or ▶ will blink on the Ev scale if the set exposure will over or underexpose the subject by 3.0.

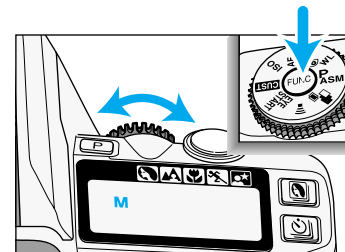
- With slide film, if the difference between the metered area and the subject area is within ± 2 Ev, the subject area will retain detail and will not be washed out or blocked up.

TAKING TIME EXPOSURES (buLb)

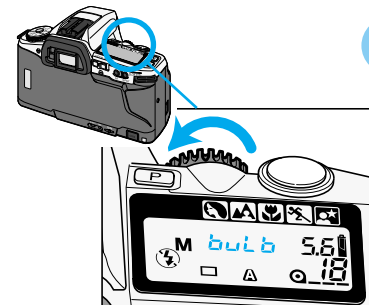
Set the shutter speed to bulb when you want to take time exposures. When bulb is selected, the shutter remains open as long as the shutter-release button is pressed. The camera's exposure meter does not work with bulb.



- 1 Mount the camera on a tripod. Set the camera to M mode (p.61).

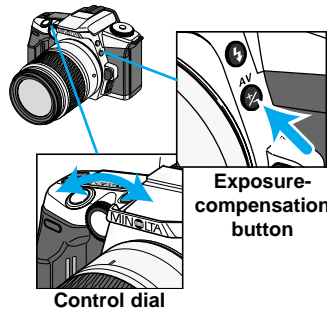


- 2 Turn the control dial counterclockwise until *bulb* appears on the data panel.

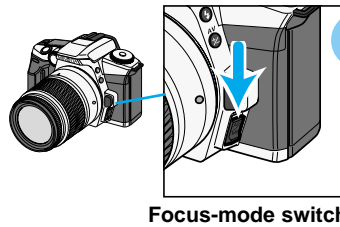
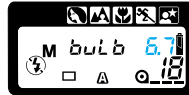


Continued on next page

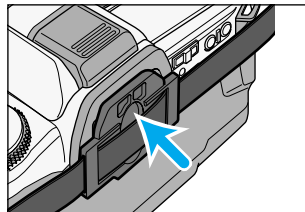
TAKING TIME EXPOSURES (buLb)



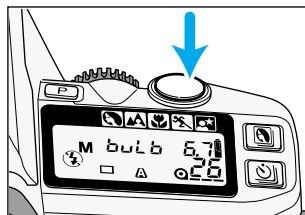
- 3** While pressing the exposure-compensation button, turn the control dial to select the aperture.



- 4** Compose the scene and focus on your subject.
- If the scene is too dark for the autofocus to operate, press the focus-mode switch and focus the lens manually (p. 75).



- 5** Firmly press the eyepiece cap into the eyepiece.
- The eyepiece cap prevents light from entering through the viewfinder and fogging the film.



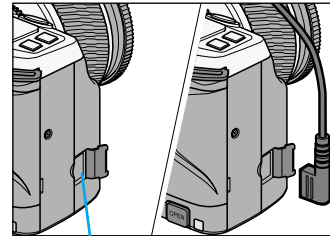
- 6** Press and hold the shutter-release button to take the picture.
- The shutter remains open as long as the button is pressed.

82

Attaching the Remote Cord (Sold Separately)

To reduce the camera shake or for long exposures, the shutter can be released with the Remote Cord RC-1000S or RC-1000L.

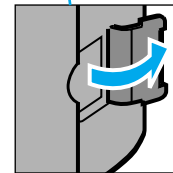
- Do not use the Wireless Controller IR-1N with this camera. Its use may permanent damage the camera.



- 1** Open the remote-control-terminal cover.

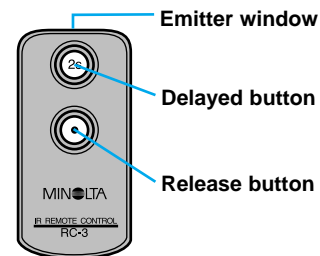
- 2** Insert the plug into the terminal.

- When removing the Remote Cord RC-1000S or RC-1000L, take care not to pull out the remote-terminal cover with the Remote Cord.
- The Remote-cord Clip (sold separately) can be used to attach the remote cord to the camera strap.



Using the Remote-Control with Bulb(Sold Separately)

To reduce camera shake, use the optional remote-control IR-3. (sold separately) (p.49).



- 1** Set the camera to remote-control mode (p.49).

- 2** Press the release button to open the shutter.
- Hold the remote control near the sensor on the grip. Take care not to stand in front of the lens.

- 3** Press release button again to close the shutter.

DETAILED
OPERATION

83

EXPOSURE COMPENSATION



Compensated Exposure

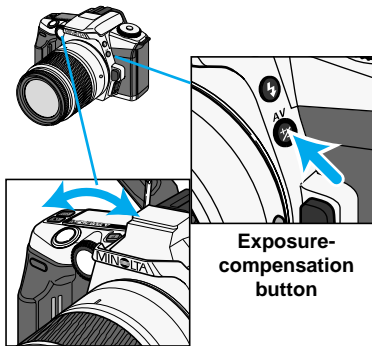
The scene on the left was underexposed because of the snow. By compensating the exposure by +2Ev, the snow appears white and fresh.

- This effect is most visible with slide film.
- Exposure compensation is not available in M mode.

The metering system in this camera averages the scene's light values to determine the exposure. This is an accurate method for scenes with a normal tones. Bright scenes, such as snowy landscapes or sandy beaches, can deceive the camera's meter and be underexposed. Dark scenes can be overexposed.



Metered Exposure



Control dial

Exposure-compensation button

While pressing the exposure-compensation button, turn the control dial until the desired compensation value appears on the data panel.

- The metered exposure can be adjusted by ± 3 Ev in 0.5 Ev increments.

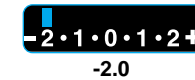


Checking Exposure Compensation

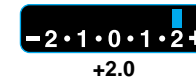
The Ev scale shows the amount of compensated.



Ev Scale



-2.0



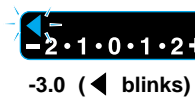
+2.0



-2.5 (◀ glows)



+2.5 (▶ glows)



-3.0 (◀ blinks)



+3.0 (▶ blinks)



After releasing the exposure compensation button, \oplus or \ominus remains on the data panel and in the viewfinder to indicate that the exposure is being compensated.



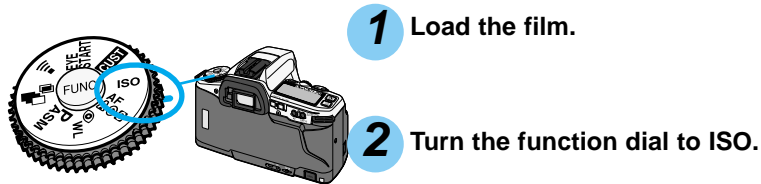
DETAILED OPERATION

- To cancel exposure compensation, the camera must be reset manually to 0.0 .

SETTING THE ISO MANUALLY

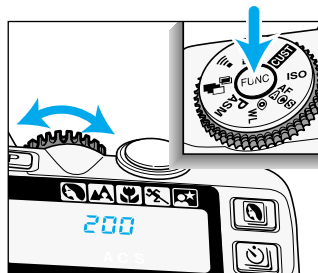
Set the film speed manually when you want to override DX-coded film or when using non-DX-coded film. Film speeds can be set from ISO 6 to 6400 in 1/3Ev increments.

- Non-DX coded film is initially set to the previous roll's ISO.



1 Load the film.

2 Turn the function dial to ISO.



3 While pressing the function button, turn the control dial until the desired ISO value appears on the data panel.

4 Release the function button. The selected film speed will be set.

- The data panel returns to the usual display.

- Exposure compensation in 1/3 Ev increments can be made using the ISO function. Care should be taken because no warning will be displayed indicating the ISO has been changed.

Custom Function Notes

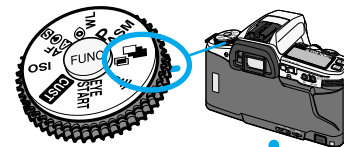
Cust-4: Manual ISO settings will be canceled when the film is rewound (1), or the manual ISO setting will be stored and applied to future rolls of film with the same DX-coded ISO (2) (p.109).

EXPOSURE BRACKETING

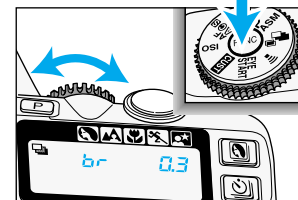
Bracketing automatically exposes a series of three frames with differing exposures. Bracket your exposures when shooting slides and other films with a low tolerance for exposure error.

- The bracket can be set in increments of 0.3, 0.5, 0.7, or 1.0 Ev.
- The flash cannot be used with bracketing.
- Exposure compensation can be used to adjust the bracket series.

Metered Exposure 0.5 Ev Under 0.5 Ev Over



1 Turn the function dial to



2 While pressing the function button, turn the control dial to set the bracketing increment.

- Increments of 0.3, 0.5, 0.7 or 1.0 EV can be selected.



OFF



0.3EV



0.5EV



Multiple Exposure (p.90)



1.0EV



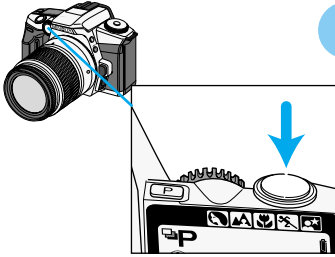
0.7EV

DETAILED OPERATION

EXPOSURE BRACKETING

Continuous Advance Bracketing

To make an automatic three-frame bracket. The drive mode is automatically set to continuous advance when bracketing is selected.

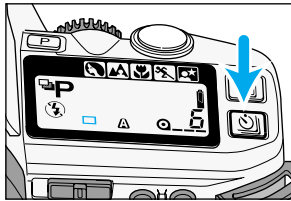


1 Hold the shutter-release button all the way down to make the bracket.

- Three frames will be taken. Do not release the shutter button until all three exposures are made.
- If the shutter button is released before the three exposures are made, the current bracket will be canceled.
- Exposure is locked with the first frame of the series.

Single Frame Advance Bracketing

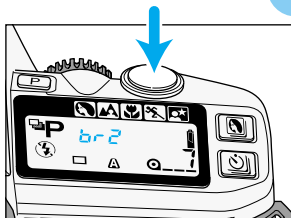
To take each picture of the three-frame bracket individually, set the drive mode to single frame advance.



1 Press the drive-mode button until \square appears on the data panel.

- *br 1* will appear on the data panel after pressing the shutter-release button partway down to indicate the first bracket.

2 Press the shutter button all the way down to take each bracket.

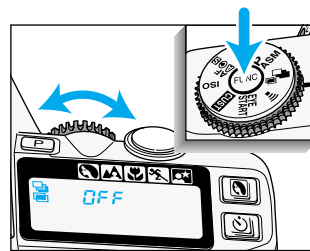


- The shutter-release button must be pressed for each bracket.
- To cancel the bracketing series, turn the camera off.
- Exposure is locked with the first frame of the series.
- *br 2* and *br 3* will appear on the data panel to indicate the bracket frame.

Flash Notes

- The built-in flash is set to flash cancel ⓧ when bracketing is selected.
- An attached Minolta accessory flash will be turned off when bracketing is selected.

Canceling Bracketing



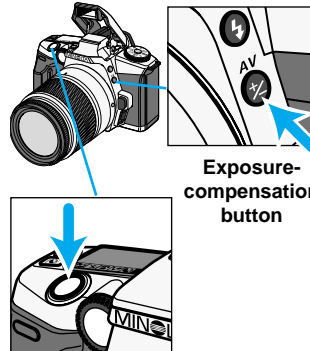
1 Turn the function dial to ⓧ .

2 Press the function button and turn the control dial until *OFF* appears on the data panel.

- Sliding the main switch to OFF in the middle of a bracketing series resets the bracketing series to the first frame (*br 1*).

Bracketing with the Exposure-compensation Button

This function is a shortcut to take a three-frame bracket in increments of 0.5 Ev.



While pressing the exposure-compensation button, press and hold the shutter-release button all the way down.

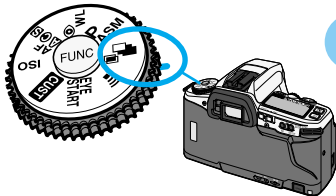
- The camera automatically exposes a three-frame bracketed series.
- Releasing the shutter-release button before the series is complete, cancels the exposure series.

MULTIPLE EXPOSURE

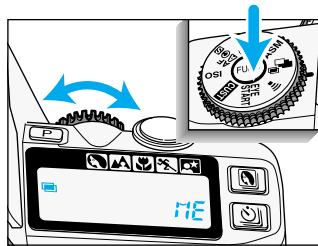


The multiple-exposure function makes it possible to expose two or more images on the same frame.

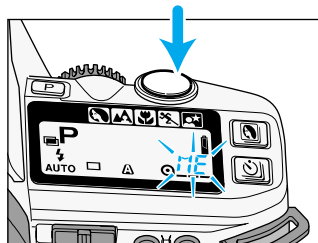
- Flash cannot be used with multiple exposure.



1 Turn the function dial to .



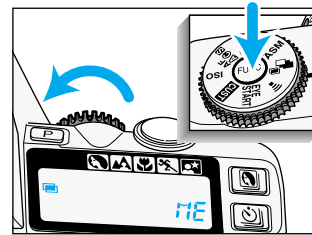
2 While pressing the function button, turn the control dial until *ME* appears on the data panel.



3 Press the shutter-release button all the way down to take the first exposure.

- ME* blinks on the data panel indicating the next exposure will be the last in the series.
- Go to step 7 when making only 2 exposures.

Taking more than 2 exposures

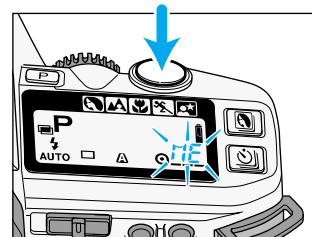


4 While pressing the function button, turn the control dial one click counterclockwise to stop the *ME* from blinking.

5 Press the shutter-release button to take the picture.

6 Repeat 4 and 5 for each additional exposure.

Taking last exposure



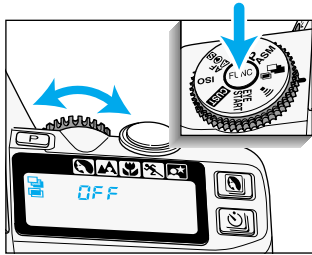
7 While *ME* is blinking on the data panel, press the shutter-release button all the way down to take the last exposure.

- Multiple-exposure mode is cancelled after the last exposure has been taken.
- The film will be advanced to the next frame.

MULTIPLE EXPOSURE

Canceling Multiple Exposure

The multiple exposure series can be canceled before the last frame is taken.



1 Turn the function dial to .

2 Press the function button and turn the control dial until **OFF** appears on the data panel.

- Sliding the main switch to OFF does not cancel multiple exposure mode.

Metering Multiple Exposure

The meter in your camera determines exposure (Ev) based on the assumption that only one exposure will be made for each picture. When making multiple exposures, the combined exposure of the series must equal the exposure required for one picture.

- Compensation is not necessary if all of the exposures have dark backgrounds and the subjects of the exposures will not overlap.

Compensate the exposures as follows:

Number of Exposures	1	2	3	4	5	6
Exposure Adjustment	0.0	-1.0	-1.5	-2.0	-2.5	-3.0

- The above corrections are intended as a general guideline. Some testing may be necessary to produce the desired results.
- When using negative film, inform the photofinisher that multiple-exposure pictures are included on the film.

FLASH

Your camera's built-in flash provides coverage for a 28mm wide-angle lens, with a flash guide number of 12 (ISO100). This section of your manual covers the operation of accessory flashes as well as the built-in flash.

The high accuracy of your camera's flash is achieved by ADI (Advanced Distance Integration) flash metering in combination with the newly developed D series flash units and lenses. Compared with conventional TTL flash metering, ADI flash metering is less influenced by background conditions or the subject's reflectance, providing optimum flash exposures every time.



ADI flash metering



Conventional TTL metering

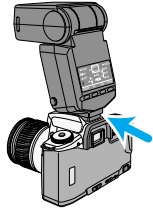
Program Flash

An optional accessory flash, such as the 5600HS(D) or 3600HS(D), improves flash performance over the built-in flash. The flash units fit in the accessory shoe located on the top of the camera.

- The flash signals for the accessory flash are the same as those for the built-in flash (p. 35).
- Refer to the accessory flash's instruction manual for the flash range. For the 5600HS(D), 5400HS, and 5400xi, the flash range is on the back of the flash units.
- Refer to the accessory flash's instruction manual to attach the flash.

FLASH

Attaching the Accessory Flash



The accessory flash units fit in the shoe located on the top of your camera.

Flash Metering

Flash metering changes according to the flash unit and lens being used. The metering mode also changes when the HSS mode on the flash is turned on or off.

	D lens and HSS on	D lens and HSS off	Other lens and HSS on	Other lens and HSS off
5600HS(D) 3600HS(D)	ADI metering with pre-flash	ADI metering without pre-flash	Pre-flash metering	TTL metering
5400HS	Pre-flash metering	TTL metering	Pre-flash metering	TTL metering
Built-in flash	–	ADI metering without pre-flash	–	TTL metering
Other flashes	–	TTL metering	–	TTL metering

• For more information on HSS (high-speed sync) flash mode, see page 97.

- When an off-camera cable or bounce flash is used, the TTL metering mode will be automatically set.
- If Wireless/Remote flash is used, the TTL metering mode will be automatically set.

TTL metering (Through The Lens):

The TTL flash metering system controls the flash during the exposure automatically.

Pre-flash metering:

In combination with TTL metering, a pre-flash fires before the main exposure. The pre-flash is metered with 14 segment honeycomb pattern and fed back to the flash exposure system to determine the reflectance of the scene.

ADI metering (Advanced Distance Integration):

Flash metering is controlled by distance information from D series lenses in addition to TTL metering. With the 5600HS (D) and 3600HS (D) accessory flash units, a pre-flash is also used. With ADI metering, flash output is less influenced by background conditions or the subject's reflectance.

Use of a Flash/Color Meter with Pre-Flash

When pre-flash fires, a flash/color meter cannot meter accurately. This is because the purpose of pre-flash is to assist ADI/Pre-flashmetering, not to provide illumination for the picture. Cancel HSS (see flash manual) or eliminate the influence on metering using Custom 12-2 (p. 113). However, if you use the test-flash button on the flash, the pre-flash will not fire.

When Using a Close-up Diffuser, Certain Filters and Lenses

When close-up diffuser CD-1000, or a filter whose stop's increase is not 0 (i.e., ND) is used, or when the focus-range limiter or macro release of certain lenses are used, the proper exposure will not be obtained by ADI or Pre-flash metering.

SLOW SYNC

In P and A modes, slow-shutter sync sets the shutter speed and aperture value for ambient lighting and balances the flash output with the exposure.

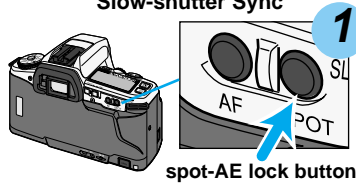
- Slow sync cannot be used in S mode, or M mode.



Slow-shutter Sync



Conventional Flash



1 With ⚡ or ⚡_{AUTO} on the data panel, press the spot-AE lock button to set the ambient light exposure.

- In P mode, the flash will automatically be activated. In A mode, press the flash-mode button to activate the built-in flash.
- ⚡ and the locked exposure will be displayed in the viewfinder.



2 While holding the spot-AE lock button, press the shutter-release button all the way down to take the picture.

- The slow-sync effect is the same as the night portrait subject program (p.44).
- Use a tripod if the shutter speed is too slow to allow sharp, hand-held pictures.
- When ⚡ is not on the data panel, the camera is in spot-metering mode and not in slow sync (p.78).

Custom Function Notes

Cust-10: Spot-AE lock: activated when the AE lock button is pressed and held (1), or activated when the button is pressed once and then canceled when it is pressed again (2) (p.112).

HIGH-SPEED SYNC (HSS)

The maximum flash-sync speed for this camera is 1/125. However, with the 5600HS (D), 3600HS (D), and 5400HS accessory flashes (sold separately) shutter speeds up to 1/4000 can be used. High-speed sync is a function built into the HS series flash units.

High-speed sync (HSS) allows faster shutter speeds with fill flash when photographing moving subjects outdoors. HSS also lets you use large aperture/high shutter-speed combinations to separate your subject from the background by limiting the depth-of-field.



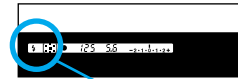
High-speed Sync



Conventional Fill Flash

Attach the accessory flash to the camera and set the flash to high-speed sync (HSS).

- **H** will appear in the camera's viewfinder and data panel to indicate that the flash unit is set to high-speed sync.
- Refer to the flash unit's instruction manual for details on its use.



- The use of high-speed sync reduces the flash range. Refer to the flash unit's instruction manual.
- HSS cannot be used under fluorescent lights.
- When ◀ or ▶ blinks on the viewfinder's Ev scale before taking the picture, proper flash exposure might not be achieved. High-speed sync cannot be used.
- Flash and color meters cannot be used with high-speed sync.

WIRELESS/REMOTE FLASH

Photographs taken with the flash attached to the camera are flat as shown in photo ①. Use an accessory flash positioned away from the camera to obtain three-dimensional lighting as shown in photo ②. The output of the built-in flash can be used as a fill light to change the lighting ratio of the subject. See wireless/remote flash ratio on page 101

When taking this type of photograph, the camera and the flash unit are most commonly connected by cable. The use of the 5600HS (D), 3600HS (D), 5400HS, 5400xi, or 3500xi flash unit eliminates the need for a cable. The flash units are controlled by the camera's built-in flash. This type of flash control is referred to as wireless or remote flash. The proper exposure is determined automatically by the camera.



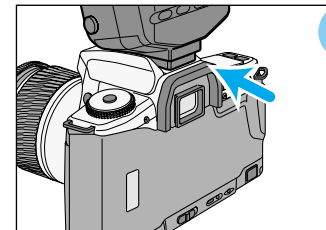
Normal flash



Wireless flash

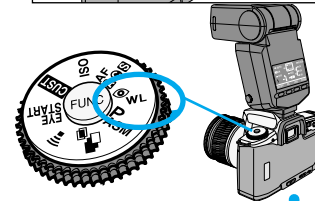
- HSS with wireless/remote flash is available only with 3600HS(D), 5600HS(D).
- With an accessory flash other than 3600HS(D) and 5600HS(D), the shutter speed will be set to slower than 1/45 second automatically.
- Flash and color meters cannot be used with wireless/remote flash.

Setting Wireless/Remote Flash Mode

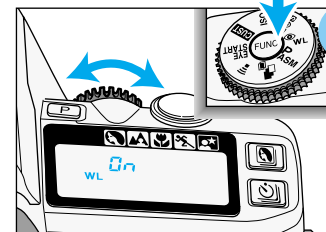



1 Attach the accessory flash to the camera before turning the flash and camera on.

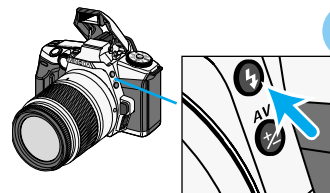
- The flash must be mounted on the accessory shoe because the camera needs to send a signal to the flash to turn on its wireless/remote function.



2 With the camera and flash on, turn the function dial to  WL.



3 While pressing the function button, turn the control dial until WL and  appear on the camera's data panel.



4 Detach the accessory flash, then press the camera's flash-mode button to raise the built-in flash.

Flash-mode button