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back to my "Orphancameras" manuals /flash and light meter site

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The large manuals are split only for easy download size.





Thank you for purchasing the AE-1 PROGRAM. Designed with the most advanced electronics technology available, this high performance SLR camera offers you creative freedom through its many innovative features. Your AE-1 PROGRAM can be used in three automatic exposure (AE) modes: programmed AE, shutter-speed priority AE, or AE flash; manual override is possible, too. We know that you are anxious to begin using this camera. Thus, these instructions have been written so you can begin taking pictures almost immediately. For initial picture-taking, "Basic Steps" will provide the necessary information. Once you have a good understanding of these operations, move on to "Making the Most of your AE-1 PROGRAM." It contains information to assist you now and in the future, as your interest and skill in photography grow.

Unfold the front and back flaps of this booklet for easy reference to camera parts while you read the instructions.

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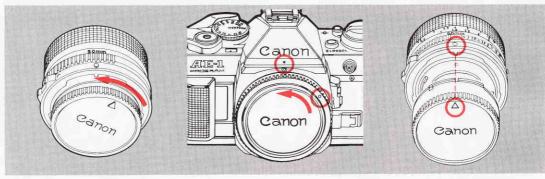
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Basic Steps



1. Attaching the Lens



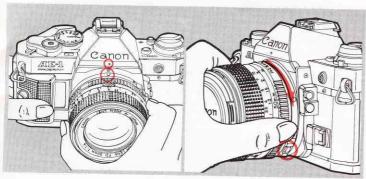
Turn the rear lens cap in the direction of the arrow until it stops and pull it off the lens.

Remove the body cap.



The instructions in this section concerning the lens are for an FD lens without a chrome mount ring. If your lens looks like this one with a chrome mount ring, read its instructions for handling the rear cap and mounting it on the camera.

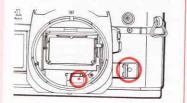
To reattach the rear lens cap, align it with the lens as illustrated. Then lightly push it in and turn it clockwise until it stops.



To mount the lens, first align the red positioning point on the lens with the red dot above the camera mount as illustrated.

If your camera looks like this, with a red dot showing inside the camera mount, do not mount the lens yet; correct exposure cannot be ensured if you do. To release the stop-down lever, unfold and lightly press it down so it pops out. Then mount the lens. Leave the stop-down lever as it is.

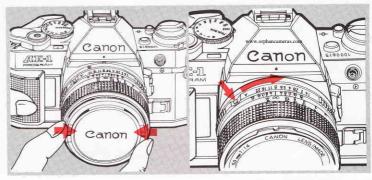
Then turn the lens in the direction of the arrow until it stops and the lens release button pops out with a click.

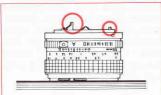


Make sure the lens release button has popped out. Otherwise, the lens will not work properly. DO NOT press the lens release button while mounting or it may not pop out.

When film is loaded, make sure it is completely advanced to the next frame before mounting the lens.

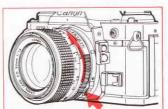
2. Setting the Lens for AE (Automatic | Photography





With the exception of the Canon Fish-eye 7.5mm f/5.6 lens, be sure to place the lens with its front end down (as illustrated) to avoid damaging the protruding pins.

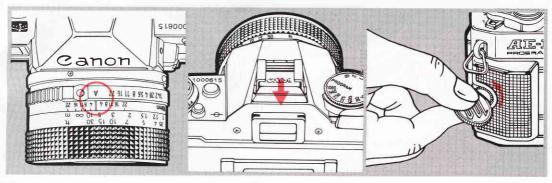
Remove the front lens cap.



To remove the lens, turn it in the direction of the arrow, while pressing the lens release button, until it stops.

While pressing in the AE lock pin, turn the aperture ring in the direction of the arrow until "A" click-stops at the distance index. "A" will be in line with the red dot on the camera. If you forget to do this, automatic exposure will be impossible. Note that both shutter-speed priority AE and programmed AE require this setting.

3. Loading the Battery



Remove the viewfinder cover from the accessory shoe.

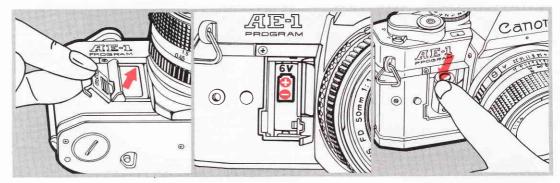
Remove the action grip by means of a coin or similar object

Notes

- AE photography is possible only with a Canon FD lens. See p. 57 for how to use a non-FD lens on the AE-1 PROGRAM.
- Some Canon FD lenses have a green circle in place of the "A" mark. It means the same thing as the "A" mark.

Correct Batteries	Examples
Alkaline-manganese, 6V	Eveready (UCAR) No. A544 IEC 4LR44
Silver Oxide, 6V	Eveready (UCAR) No. 544 Duracell PX 28, IEC 4SR44
Lithium, 6V	Duracell PX 28 L

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Open the battery chamber cover using the viewfinder cover.

Load a new battery so that its terminals are in the directions indicated by the diagram inside the battery chamber.

The camera will not function if the battery is loaded incorrectly.

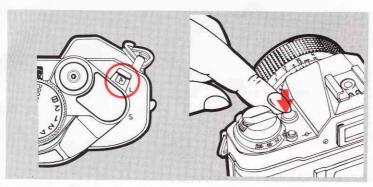
The AE-1 PROGRAM will not work without a battery. We recommend carrying a spare battery.

Insert the negative end first. Then push down and insert the positive end. Close the chamber cover.



Do not touch the battery terminals. Wipe them and the camera contacts with a clean, dry cloth before loading to prevent poor contact from dirt.

4. Checking the Battery



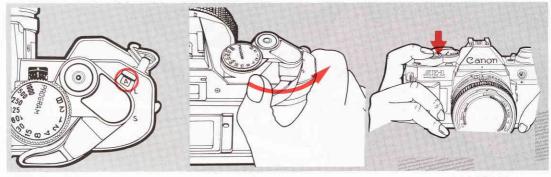
Turn the main switch to "A."

Press the battery check button. Shooting is possible if you hear about six or more "beeps" per second. If the camera beeps slowly (about three or fewer "beeps" per second), there is not enough power. In this case, replace the battery.

Notes

- 1. With normal use, the battery should last about one year.
- It is necessary to take special precautions with the battery when you are shooting in temperatures below 0°C (32° F). See p. 68.
- Remove the battery if you do not expect to use the camera for about three weeks or longer.

5. Learning to Operate Basic Controls



Make sure the main switch is on "A."

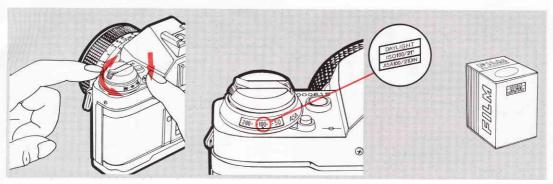
Turn the film advance lever in the direction of the arrow until it stops. You may turn it in one continuous stroke or in several short strokes. When film is loaded, this will advance it to the next frame.

The AE-1 PROGRAM has a two-step shutter button. Press it halfway to turn the meter on and to get a display in the viewfinder. Gently squeeze it all the way down to release the shutter. You cannot release the shutter again until the film is advanced.

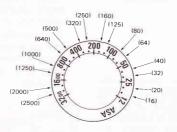
Turn the main switch to "L" to prevent accidental shutter release or battery drain whenever you are not using the camera.

Never jab the shutter button! Pressing it gently is important for getting sharp pictures.

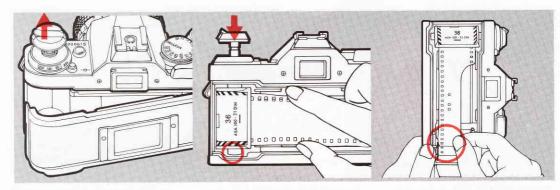
6. Setting the ASA



While pressing the lock release button, slide the ASA setting lever until the ASA speed of your film is aligned with the green index. This is necessary for getting correct exposure.



7. Loading the Film

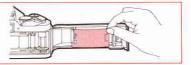


Pull up the rewind knob until the back cover pops open.

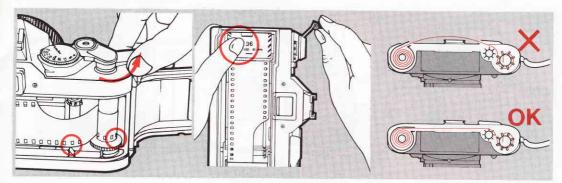
The AE-1 PROGRAM uses color (negative or slide) or black-and-white film in standard 35mm cartridges. Place the cartridge in the film chamber as shown. Then push the rewind knob down, turning it until it drops into its normal position.

Pull the film leader across the camera and insert it into any slot of the take-up spool.

A plastic insert is attached to the pressure plate of a new AE-1 PROGRAM to protect it in transport. Before loading the first film cartridge, remove this insert and throw it away.

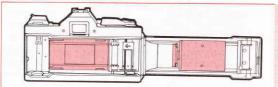


Shield the film from direct sunlight while loading.

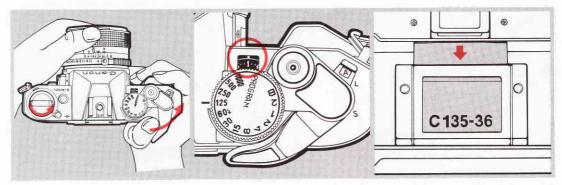


Advance the film once. Make sure the film perforations are engaged in the teeth of the film transport sprocket and the take-up spool.

The film should be taut. If there is slack, gently turn the rewind crank in the direction of the arrow until it stops. Close the back cover.



While loading the film, take care not to touch the shutter curtain, the film rails or the pressure plate (shown in red).



Take several blank shots, releasing the shutter and advancing the film, until the frame counter reads "1." While doing this, keep an eye on the rewind knob. If it rotates in the direction of the arrow, the film is loaded correctly.

Each time you advance the film, the frame counter also advances to the next frame. It can count up to 38 frames. The numbers 20 and 36 are in orange to call your attention to the fact that rolls with those numbers of frames are or are almost finished.

The back cover of this camera has a memo holder. It conveniently holds the end of the film box as a reminder of the type of film in use and the number of exposures.

Note

For film loading, in particular, do not set the shutter speed selector dial to "PROGRAM" if you have a lens cap attached to the lens or you are in dim light. We recommend setting the dial to any shutter speed from 1/125 to 1/1000 sec.

8. Learning to Hold the Camera Correctly



The slightest movement of your body during shutter release may cause blur in the picture. The best way to prevent camera movement is to hold the camera as steady as possible, with your left hand supporting the camera and lens. Press your left elbow to your body and lightly press the camera against your cheek or forehead. For a vertical shot, steady at least one elbow against your body. Spread your feet slightly apart, one



foot ahead of the other, and relax. Lean against a steady support if one is available.

Note

There is, of course, no one correct way to hold the camera. Experiment to find the most suitable way for you. Select a method that provides comfort in addition to stability. It may help to practice in front of a mirror.



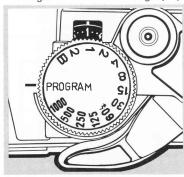
9. AE Photography

The AE-1 PROGRAM offers the following two AE modes, either of which you can choose according to the shooting situation or personal preference.

(1) Programmed AE for those who prefer the camera sets both the shutter speed and aperture settings. The advantage of this exposure mode is that it allows you to concentrate fully on your subject.

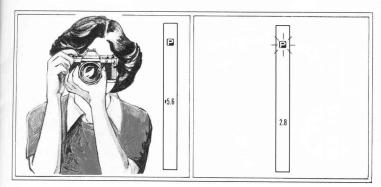
(2) Shutter-speed priority AE for controlling the subject's movement. Faster shutter speeds can be used to freeze subject motion, and slower shutter speeds can provide artistic blur effects.

1. Programmed AE Photography



Turn the shutter speed selector dial until "PROGRAM" is aligned with the index.

Do not set the shutter speed selector dial between the click-stop settings. Note that it does not turn past "PROGRAM" or "B."



Look into the viewfinder and press the shutter button half-way. A green "P" and a number will appear to the right of the field of view, indicating programmed AE and the aperture selected automatically by the camera.

Exposure will be correct if the aperture display does not blink. The "P" will blink to warn you of camera shake when the shutter speed is 1/30 sec. or slower. If the "P" blinks, use a flash or attach the camera to a tripod. You can also use a film with a higher ASA rating.

When there is not enough light for correct exposure, the maximum aperture of the lens blinks; "16" blinks to indicate too much light.

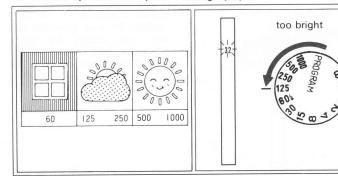
Note

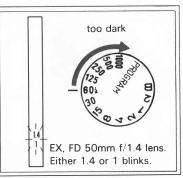
When shooting with a lens whose maximum aperture is f/1.8 or f/3.5, for example, the aperture display will indicate a maximum aperture of either f/1.4 or f/2, or f/2.8 or f/4 respectively.

See pp. 34—41 for further details on viewfinder information.

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2. Shutter-speed Priority AE Photography





Turn the shutter speed selector dial from "PROGRAM" and set a shutter speed. Refer to the illustrations above when choosing a shutter speed. While looking in the view-finder, press the shutter release button halfway. Exposure will be correct as long as the aperture display does not blink

In the case of an overexposure warning, "32" blinks regardless of the lens' minimum aperture. When using a lens whose minimum aperture is f/16 or f/22, even when "32"

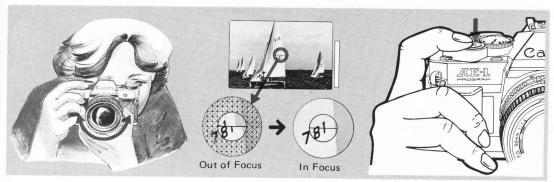
Note

See p.45 if you must set the shutter speed selector dial to a number below "60." If action is a particularly important element in the shot, you may wish to refer to p.44 for more information on choosing a shutter speed.

does not blink, choose a faster shutter speed until the number displayed in the viewfinder is equal to or smaller than the lens' minimum aperture.

To warn of underexposure, a number equal to or smaller than the lens' maximum aperture will blink. Choose a slower shutter speed until the aperture display stops blinking.

10. One Shot at a Time



Turn the focusing ring until the main subject is sharp and compose the picture.

Gently press the shutter button all the way down to take the picture.

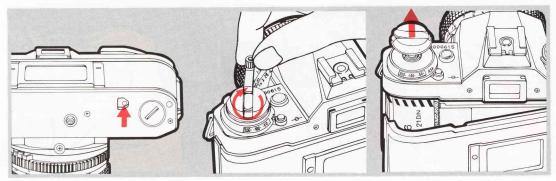
Note

If there is light, such as the sun or a window, behind your subject, see p.54 for details on exposure compensation.

Note

The AE-1 PROGRAM's focusing screen can be changed according to the subject you are shooting and the lens in use. See p. 70 for details.

11. Rewinding the Film

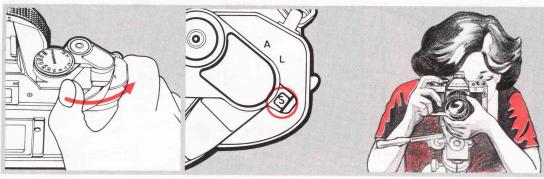


You can tell you have reached the end of the film by the frame counter and the film advance lever. Either the film advance lever will not turn at all or it will not turn all the way. First press in the rewind button.

Then turn the rewind crank in the direction of the arrow until the frame counter, which counts backwards as you rewind, reaches "S." Then open the back cover, remove the film cartridge and place it back in its canister. It should be developed as soon as possible.

DO NOT open the back cover until you have rewound the film back into the cartridge. If you do, light falling on the film may ruin all of the pictures.

* Self-Timer



Advance the film to the next frame and focus your subject.



Use the viewfinder cover to cover the eyepiece whenever your eye is not to it at the moment you take a shot. If it is uncovered, stray light entering from the rear may cause underexposure.

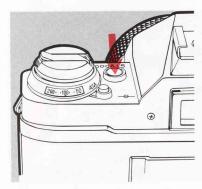
Set the main switch to "S."

The AE-1 PROGRAM sets the exposure the moment you press the shutter button. Do not stand in front of the lens while pressing the button or exposure may be incorrect.

To start the self-timer, press the shutter button. A "beepbeep" sound will be emitted. The shutter will be released automatically ten seconds later. At two seconds before shutter release, the camera will begin to beep at a faster rate.

Note

Following exposure, unless you want to use the self-timer for the next frame, reset the main switch to "A" or "L."



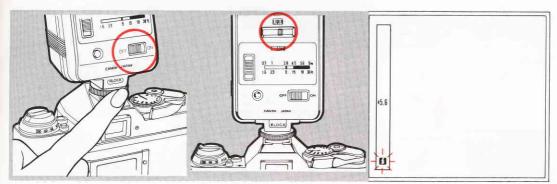
If you have started the self-timer and wish to cancel it before shutter release, press the battery check button or push the main switch back to "L."

Oh no! I started the self-timer but now I want to stop it. What shall I do?



Try pressing the battery check button or pushing the main switch back to "L."

* Dedicated Flash Photography with the Speedlite 188A

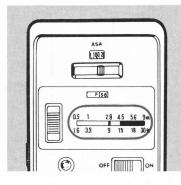


Make sure the main switch on the flash is OFF. Then slide the flash into the AE-1 PRO-GRAM's accessory shoe. Tighten the lock nut.

Slide the Speedlite's ASA film speed switch to the ASA speed of your film. Then push the Aperture/MANU selection switch to select an aperture. The green and red positions each indicate the distance range which corresponds to the aperture you have set on the flash.

Turn the Speedlite's main switch ON. When the flash is charged, its pilot lamp will glow. When the shutter button is depressed halfway, the auto working aperture and a green

will appear in the view-finder, indicating that the flash is charged. Immediately following shutter release, continue to press the shutter button halfway; the green will flash on and off for two seconds if your shooting distance provided correct exposure.



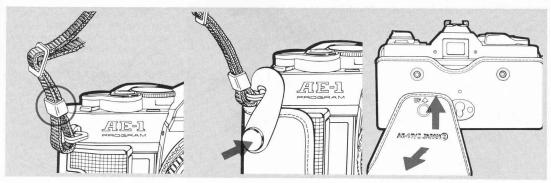
Note

For correct exposure, the subject must be within a certain range of distances from the camera. The required distance range is indicated on the Speedlite 188A by the red or green line.

Notes

- Canon offers six other Speedlites for the AE-1 PROGRAM. With slight differences, all seven are used in almost the same way. See page 63 and the Speedlite's instructions for more details.
 - Make sure the AE-1 PRO-GRAM's shutter speed selector dial is not on "B." Any other setting is okay.
- 2. If the 13 does not flash on and off for two seconds after shutter release, change your shooting distance so it is within the distance range specified on the flash.

* Carrying the Camera



Thread the ends of the strap through the rings on the camera as shown.

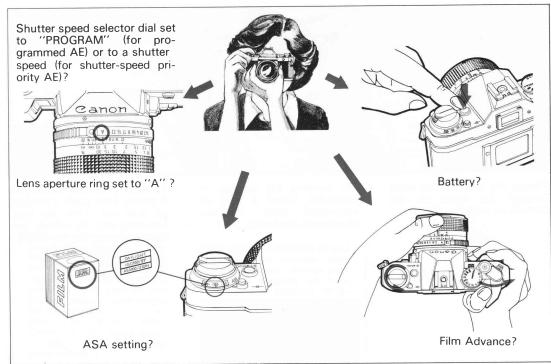
For carrying the camera, in particular, insert it into its semi-hard case (optional accessory) as shown.

To remove the top cover, turn it down, then push it straight up and out. Turn the lens' focusing ring to infinity (∞) before closing the top cover.

Note

Do not forget to turn the main switch to "L" to prevent accidental shutter release while carrying the camera.

Pre-shooting Checklist



Care

Your AE-1 PROGRAM is a precision instrument. Regular use with proper care will ensure maximum performance. Reliable under normal use, it can be damaged by moisture, heat, shock, water, sand or the use of force. We recommend periodic external cleaning with a blower brush and lens cleaning with lens cleaning tissue which has been moistened with a few drops of lens cleaning fluid. During prolonged storage, remove the camera from its case and wrap it in a clean, soft cloth. Remove the battery. See pp. 72-73 for additional tips on camera and lens care

Making the Most of Your AE-1 PROGRAM

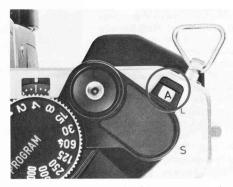


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12. Battery

1. Correct Batteries Examples

Alkaline- manganese 6V	Eveready (UCAR) No. A544 IEC 4LR44
Silver Oxide 6V	Eveready (UCAR) No. 544, Duracell PX 28 IEC 4SR44
Lithium 6V	Duracell PX 28 L



- 2. The AE-1 PROGRAM's battery check circuit not only tells you whether the battery is good but also how good it is. First make sure the main switch is on "A." Then press the battery check button for two to three seconds. If the battery's power is sufficient, the camera will emit about six or more "beeps" per second. If the battery is weak and needs replacing, the camera will beep at the slower rate of about three "beeps" or fewer per second.
- The battery is exhausted if, after pressing the battery check button for about three seconds, no sound is emitted. Replace the battery with a new one.

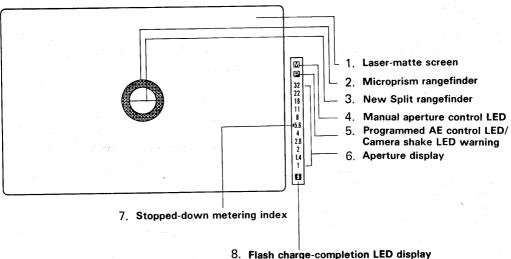


- 4. Pressing the battery check button, the shutter button, the exposure preview switch, or the AE lock switch uses battery power. Take care that nothing presses on any of these when the camera is not in use.
- Remove the battery if you do not expect to use the camera for about three weeks or longer. With normal use, the battery should last about one year.
- Do not try to take the battery apart and never dispose of it in fire.

- 7. Try to make a habit of checking the battery at the following times:
 - After loading a new battery.
 - If the shutter won't function when the main switch is on "A."
 - Before and after making many long exposures.
 - After storing the camera for a long time.
 - When you are using the camera in low temperatures (see p.68).
 - Before going on a trip.
 - When the camera is used very frequently.
 - Before shooting important events.

13. Viewfinder

Viewfinder Information



 Flash charge-completion LED display and when using Speedlite 188A, auto-exposure flash confirmation signal The AE-1 PROGRAM's viewfinder is especially bright to facilitate viewing and focusing. It displays only the necessary information, using a Light-Emitting Diode (LED) system of illumination. The degree of LED illumination changes in four stages depending on the brightness of the subject. When the subject is brighter, the LED brightness is slightly higher; it is slightly lower with a darker subject. Thus the LED maintains an almost consistent degree of brightness to the human eye.

Correct exposure is provided by the Central Emphasis Averaging System, which reads the entire viewing area with emphasis on the central portion where the subject is most likely to be placed. Since a new type of split-image rangefinder is used in the center of the viewfinder, the brightness of the split-image rarely changes even when using a lens whose maximum aperture is f/5.6 or smaller.

Focusing



Out of Focus

1 - 3 are aids to help you focus. They can be used alone or in combination. The New Split rangefinder 3 divides the subject in half horizontally and is especially useful for a subject which has vertical lines. The subject is in focus when the two halves merge to become one unbroken image. When it is difficult to focus the subject, use the laser-matte screen.



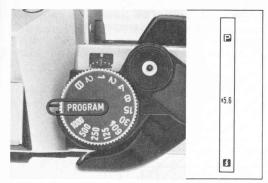
In Focus

When the subject is out of focus, the microprism ring 2 breaks the subject into tiny fragments, causing a shimmering effect. It is clear and steady when your subject is in focus.

The laser-matte screen 1 appears fuzzy until the subject is in focus. It is particularly effective when you are using accessories for copying or close-ups. See p. 60.

Canon offers eight different types of interchangeable focusing screens. See p. 70 for further details.

*When using a lens with a maximum aperture of f/5.6 or smaller, half of the split-image range-finder may take on a slight color.



When the lens' aperture ring is set to "A" and the shutter speed selector dial to "PROGRAM," a green "P" LED 5 is displayed, indicating programmed AE photography.

If the shutter speed selected automatically by the camera is 1/30 sec. or slower, the "P" will blink. This is to warn you that your picture may be blurred due to camera movement if you are hand-holding the camera.

The aperture selected automatically 6 by the AE-1 PROGRAM is displayed in the view-finder.

The meter index 7 is for setting exposure with a non-FD lens and in close-up photography (see pp. 57-58).

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When using a Canon Speedlite 011A, 133A, 155A, 177A, 188A, 199A, 533G or 577G, a green flash charge-completion signal 8 lights up when the flash is charged.

When using the Speedlite 188A, this signal 8 flashes on and off for two seconds after the shutter is released if the flash-to-subject distance was within the auto coupling range.

Meter coupling range

When using an FD 50mm f/1.4 lens and ASA 100 film, the built-in exposure meter couples within a range of EV1 (f/1.4 at 1 sec.) to EV18 (f/16 at 1/1000 sec.). At given film speeds, the built-in exposure meter couples with the aperture and shutter speed, as indicated in the chart on the next page. If the shutter speed and aperture combination are outside the coupling range, the camera warns you by flashing the appropriate display inside the viewfinder.

The dotted line indicates the meter coupling range in programmed AE. 2.8 60 125 250 500 1000 -Shutter Speed(sec.)

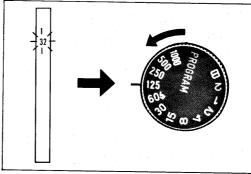
In the programmed AE mode, continuous frame photography with a Motor Drive MA or Power Winder A or A2 is recommended only if the light is bright enough to give an aperture display of f/4 or larger. In this case, the shutter speed will be at least 1/60 sec.

Exposure Warnings

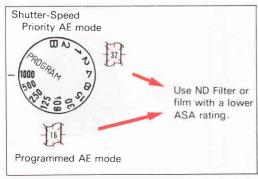
When taking pictures in excessively bright or low light, the aperture display blinks in the view-finder. Depending on the warning displayed, make the appropriate adjustment as follows.

Besides pressing the shutter button halfway, you can also turn the meter on to check exposure in the viewfinder by pressing the exposure preview switch. Pressing it uses battery power. Be careful not to press it unintentionally.

Overexposure Warning



Shutter-speed priority AE mode: "32" blinks regardless of the minimum aperture of the lens in use. Choose a faster shutter speed until the display stops blinking. When using a lens whose minimum aperture is f/22 or f/16, even when "32" does not blink, turn the shutter speed selector dial until a number equal to or smaller than the lens' minimum aperture is displayed.



Shutter-speed priority AE mode: When "32" blinks and the shutter speed selector dial is set to 1000: or

Programmed AE mode: When "16" blinks,

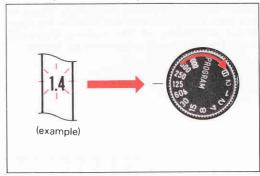
vou can

a) Attach an ND filter; or

b) Use a film with a lower ASA rating.

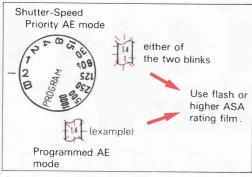
*An ND (neutral density) filter reduces the light intensity while having no effect on colors. Optional.

Underexposure Warning



Shutter-speed priority AE mode: A number equal to or smaller than the lens' maximum aperture blinks. Choose a slower shutter speed so that the aperture stops blinking.

14. Exposure



Shutter-speed priority AE mode: When 2 sec. is set on the shutter speed selector dial and a number equal to or smaller than the lens' maximum aperture blinks; or

Programmed AE mode: When the lens' maximum aperture blinks,

you can a) Use flash or other additional light;

b) Use a film with a higher ASA rating.

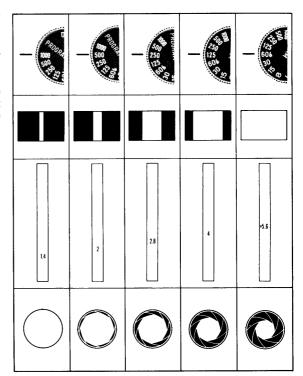
With the shutter button pressed halfway, a red "M" LED 4 appears whenever you remove the aperture ring of the lens from "A" or when you mount a non-FD lens. See pp. 57—58. It warns you that exposure will not be automatic.

Taking a picture is a matter of letting light fall on the film under controlled conditions. This is called exposure. When you press the shutter button, some blades (called a diaphragm) inside the lens shift to form an opening called the aperture. Almost simultaneously, the first shutter curtain starts to move inside the camera. A second shutter curtain follows it after a fixed interval which you control with the shutter speed selector dial. The amount of light that exposes a frame depends on the shutter speed and the size of the aperture.

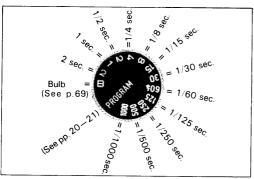
For the same exposure, a change in the shutter speed requires an equal and opposite change in the aperture. The AE-1 PROGRAM makes this

change in aperture automatically by means of the shutter-speed priority AE mode. In programmed AE, the camera automatically chooses a combination of shutter speed and aperture for correct exposure.

There are usually several combinations of shutter speed and aperture which will give the same exposure. This fact is the key to one of the most creative tools in photography. Find out more about it in the next three sections.



15. How to Choose a Shutter Speed



The shutter controls exposure by the length of time it remains open.

The basic function of shutter speed is to get correct exposure, but you can also use it to control the expression of your subject's motion and to control the effect of camera movement.

Blurring part of the picture can heighten the sense of action. In most cases, however, image blur is undesirable. To avoid blurred pictures from camera movement, use a shutter speed of at least 1/60 second for handheld shooting with a standard (50 mm) lens. Even higher speeds are necessary with a telephoto lens. See pp.45-46.





1. Freezing Motion

Usually a certain shutter speed is chosen to freeze the motion of a subject. The faster the subject is moving, the higher the shutter speed required to stop the action. While it is possible to freeze the motion of a pedestrian at 1/60 second, you need 1/1000 second for a moving train. The motion of the bird in this photo was frozen at 1/1000 second



2. Blurring the Subject's Motion

Blurring part of the picture intentionally can give a convincing sense of action. To blur the subject, simply set a shutter speed which is too slow to freeze its action. In this photo it was blurred at 1/125 second.

You can also blur the background by "panning." Choose a shutter speed suitable for the subject's motion and release the shutter as you follow the movement, turning the upper part of your body. See p. 87 for a colorful example.

16. Shooting at Shutter Speeds Slower Than 1/60 Sec.

With a standard 50 mm lens on your AE-1 PRO-GRAM, a shutter speed of 1/30 second or slower is liable to result in blurred pictures because of camera movement when you are handholding the camera. Instead of using such slow shutter speeds, it is better to raise the shutter speed, if possible, add light or use a flash.

If you cannot do any of these things, mount the camera on a sturdy tripod and use a cable release. Attach the camera to the tripod via the tripod socket. A cable release is an accessory which screws into a socket in the shutter button and allows you to release the shutter without touching the camera.

With a wide-angle (less than 50 mm) lens, it may be possible to use shutter speeds slightly slower than 1/60 second for handheld shooting. With a telephoto (more than 55 mm) lens, even faster shutter speeds are necessary to prevent blurring.



Note

Canon offers an optional accessory called Tripod Adapter A. If the tripod head is quite large, it may be helpful to place this accessory between the camera and the head. Otherwise, it may be difficult to turn the focusing and aperture rings. This accessory also prevents damage to the camera when the tripod screw is too long for the camera's tripod socket.

I wonder what we're supposed to do if we don't have a flash or a tripod and a cable release?

Let's try steadying the camera on this table and then releasing the shutter with the AE-1 PRO-GRAM's self-timer. I'm sure it will reduce the possibility of camera movement.



Rule of Thumb:

Generally, do not use a number on the shutter speed scale which is any smaller than the focal length of the lens for handheld shooting. For handheld shooting with a 100 mm lens, for instance, set a shutter speed of 1/125 second or faster; with a 200 mm lens, at least 1/250 second. If this is not possible, use a tripod and a cable release.

Note

In the programmed AE mode, the "P" blinks when the shutter speed is 1/30 or slower to warn you of the possibility of camera movement if you are handholding the camera.

17. Aperture, Exposure's Other Half



[Example Shown: FD 50mm f/1.4. Maximum and minimum apertures differ depending on lens]

The lens has diaphragm blades. They open and close to form certain-sized holes, or apertures, which control the amount of light allowed to expose the film. The aperture scale can be found on the lens' aperture ring. The numbers on the scale are called f-numbers or f/stops.

When taking pictures using shutter-speed priority AE or programmed AE, the lens' aperture ring must be set to the "A" mark. With the lens on this setting, the AE-1 PROGRAM automatically selects the correct aperture, based on lighting, the film speed, and the shutter speed. When you press the shutter button halfway, the f/stop the AE-1 PROGRAM has set auto-

matically appears in the viewfinder. Because the meter reads light continuously, as the lighting conditions change, the different apertures which compensate for the change appear in the viewfinder. The AE-1 PROGRAM does not fix the aperture until you press the shutter button to take the picture.

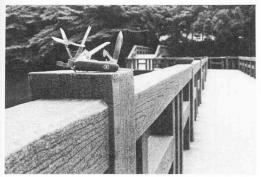
In addition to controlling the quantity of light, the aperture influences depth of field which, in turn, affects the way a picture will look. When your subject is in focus, there is a certain area in front of it and behind it which will also be in focus. This range of sharpness is called depth of field.

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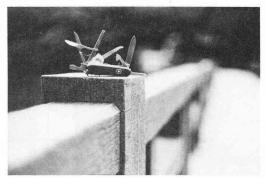
In portraits and still-life shots, a particular aperture may be more important to your picture than a particular shutter speed. To get the aperture you want in shutter-speed priority AE, simply turn the shutter speed selector dial, while pressing the exposure preview switch, until the desired f-number appears in the viewfinder. Keep in mind that the shutter speed should not be slower than 1/60 second for handheld shooting with a standard lens



How the Aperture Affects the Picture



 The smaller the aperture, the wider the range of sharpness. This is illustrated by this picture above which was taken at f/16. Compare it with the photo to its right. This extended depth of field is especially good for such subjects as landscapes.



2. The larger the aperture, the narrower the range of sharpness. An aperture of f/1.4, for instance, can isolate your subject from its surroundings. This is often used to blur a disturbing background in portraiture.