

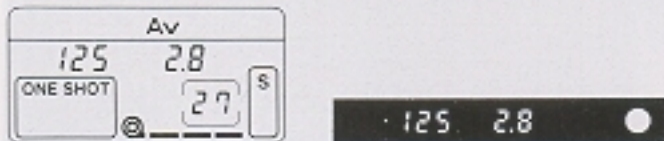
# Canon EOS 620-650

## Camera Manual

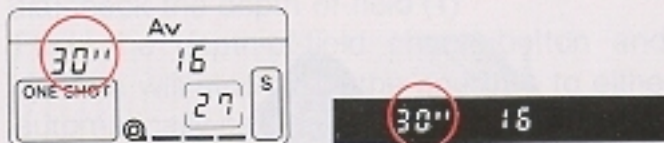
[TO FIRST PART OF MANUAL](#) - [TO THIRD PART OF MANUAL](#)

### [VIEWFINDER INFORMATION]

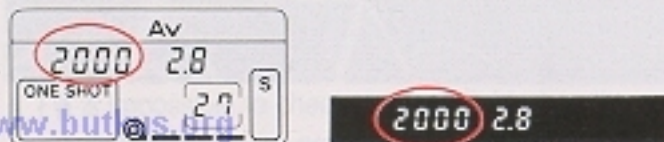
Correct exposure — Exposure will be correct if continuously lit values display.



Underexposure — The shutter speed of 30" starts blinking. Turn the electronic input dial and set a larger aperture until 30" stops blinking.



Overexposure—The shutter speed of 2000 with the EOS 650 or 4000 with the EOS 620 starts blinking. Turn the electronic input dial and set a smaller aperture until the shutter speed stops blinking.



*When the automatically-set shutter speed is too slow to hand-hold, the camera-shake warning sounds. We recommend using a tripod.*

## Depth of Field

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".

Depth of field has the following characteristics:

- 1) The smaller the aperture, the wider the depth of field and vice versa.
- 2) The shorter the lens focal length is, the greater the depth of field, provided that aperture and shooting distance are the same.
- 3) The farther the shooting distance, the greater the depth of field..
- 4) Depth of field is generally greater in the background than the foreground by a ratio of two to one.



To check the depth of field (1)

Push the depth-of-field check button and the camera will stop-down the aperture to either the automatically-calculated value (e.g. shutter-priority AK), or the one set manually (e.g. aperture priority AK). As you look through the viewfinder with the button pushed in, you can see the range of sharpness, i.e. the depth of field.

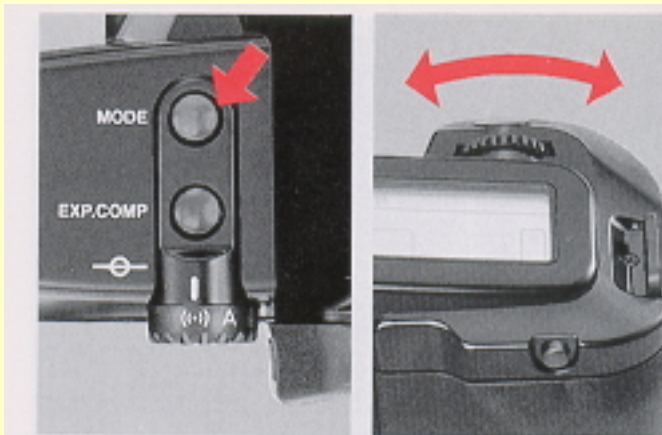
*It is impossible to check depth of field when the main Twitch is set at the green " [ ] " " mark*

To check the depth of field (2)

Press the shutter button halfway and note the aperture value. Find the two aperture values on the depth-of-field scale on the lens which correspond to that value. Then draw imaginary lines from those two values to the distance scale. The effective depth of field lies between those two distances. For example, using a standard 50mm lens focused at 5m with the aperture set at f/11, depth of field extends from approx. 2.7m to 10m (approx. 8.8ft to 32.8ft) away. Any subject from 2.7m to 10m away will be in reasonably sharp focus.

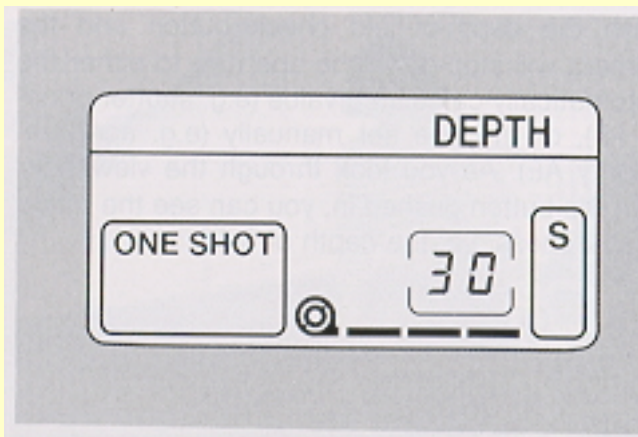
*There are some lenses which have no depth-of-field scale so follow (1).*

**(5) Depth of Field AE (EOS 650 Only)**



**[PURPOSE]**

This mode makes everything from a certain point in the foreground to the background in focus, using both the AF function and the depth of field. The camera automatically sets the correct aperture value and corresponding shutter speed for the lighting conditions. Use this mode for landscapes and large-group commemorative shots.

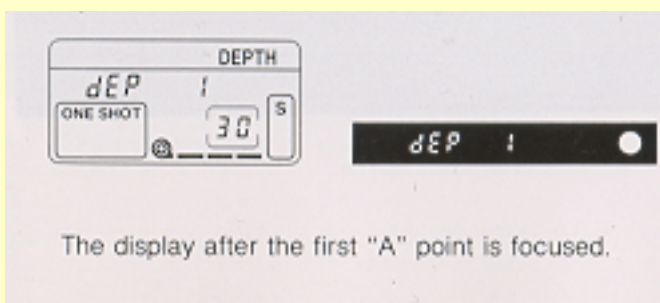


**[SETTING]**

1) While pressing the shooting mode selector, turn the electronic input dial until "DEPTH" appears in the display panel.

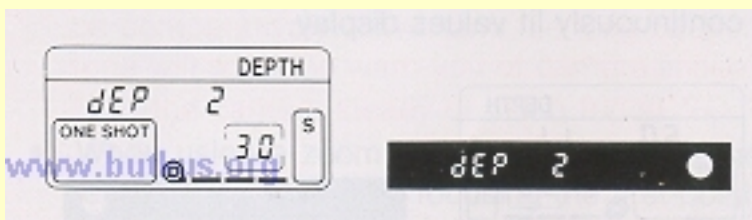


- 2) Compose the picture first.
- 3) Focus the subject in either the ONE SHOT or SERVO mode.
- 4) Center the AF frame ("[ ]") over the first point in the foreground (see illus. A).
- 5) Press the shutter button halfway to focus the "A" point and remove your finger from the shutter button when the AF in-focus indicator lights up.



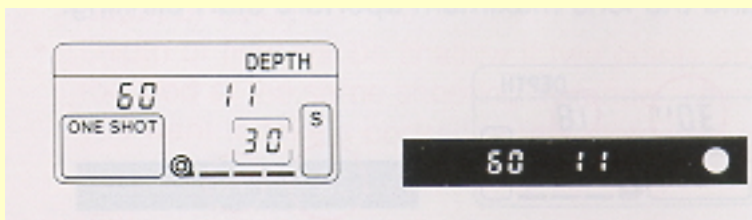
The display after the first "A" point is focused.

- 6) Focus the second "B" point of the background (see illus. B as you would for step 4)



The display after the second "B" point is focused.

- 7) Press the shutter button halfway once again. At this time, the correct aperture value and corresponding shutter speed are displayed.

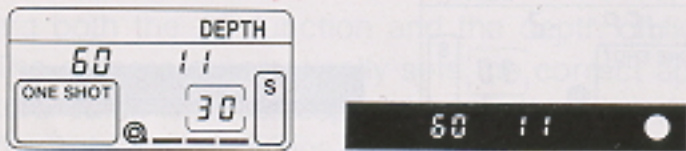


- 8) Gently press the shutter button completely to take the picture.

*When shooting continuously, it is not necessary to focus the same subject again provided you keep pressing the shutter button halfway after exposure. (To clear, press the shooting mode selector after you remove your finger from the shutter button.)*

### [VIEW FINDER INFORMATION]

Correct exposure- Exposure will be correct if continuously lit values display.



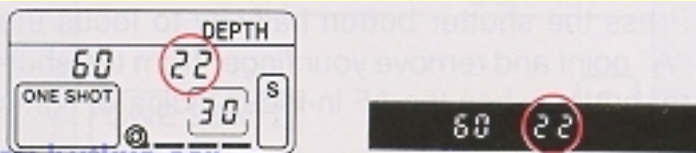
Underexposure - Both the shutter speed of 30" and the lens maximum aperture start blinking.



Overexposure - Both the shutter speed of "2000" and the lens minimum aperture start blinking; use an ND filter.



If it is impossible to get the distance range in focus, the lens minimum aperture value will start blinking. Exposure, however, will still be correct and you will get the best results under the existing shooting conditions. (see helpful hints on p. 41)



### [Helpful Hints]

1. Move back from the subject and follow steps 2 through 7 again. If the minimum aperture stops blinking, the distance range will be in sharp focus and the exposure will be correct.
2. Use a wide-angle lens (or wide-angle side when using a zoom lens) and follow steps 2 through 7 again. If the minimum aperture stops blinking, the distance range will be in sharp focus and the exposure will be correct.

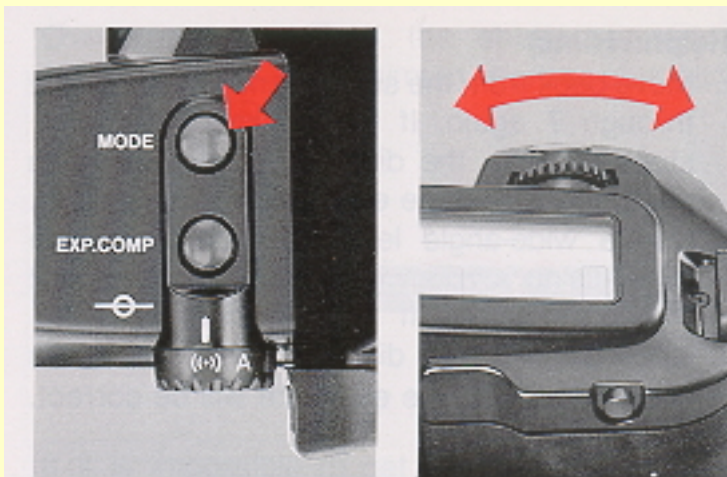


- When you try to focus extremely near and far points the automatically-set shutter

speed will be comparatively slower and the long beeper tone will sound to warn you of camera-shake. Hold the camera steady or use a tripod.

- When using a zoom lens, do not change the lens focal length after focusing the first point. Always be sure to compose the picture first.
- It is advisable to use a wide-angle lens to obtain maximum depth-of-field effect. (A lens focal length of more than 200mm is not recommended when you want maximum depth of field.)
- Depth of field will be shallow if two points are focused at the same shooting distance. When you want to take a portrait, a telephoto lens is recommended to strengthen the shallow effect.
- In depth of field AE, exposure is determined at the moment of shutter release even if the AF mode is set at ONE SHOT. (see p:24)
- Depth of field AE cannot be used in flash photography.
- Press the shooting mode selector to clear the depth of field AE while operating.

## (5) Manual Override

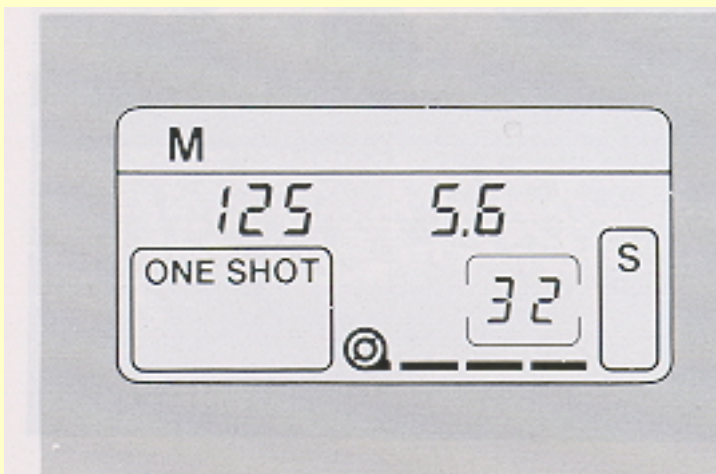


### [PURPOSE]

This creative mode allows you to control exposure by setting both the shutter speed and aperture.

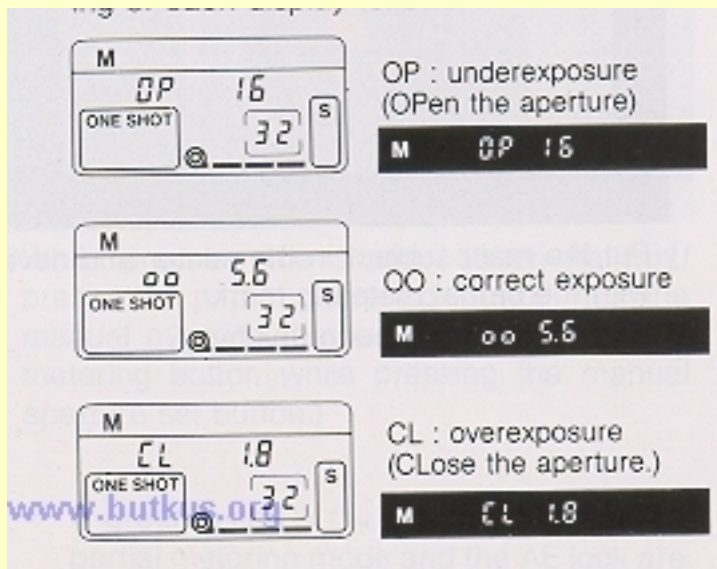
### [SETTING]

- 1) While pressing the shooting mode selector, turn the electronic input dial until "M" appears in the display panel.
- 2) Remove your finger from the shooting mode selector.
  - At this point, the initial setting is always 1/125 sec. at f/5.6.
- 3) Turn the electronic input dial to set the desired shutter speed.
- 4) Press the manual aperture set button.



- At this point, " OP ", " 00 ", or " CL " lights up instead of the shutter speed. (The aperture value remains unchanged.) The meaning of each display follows:





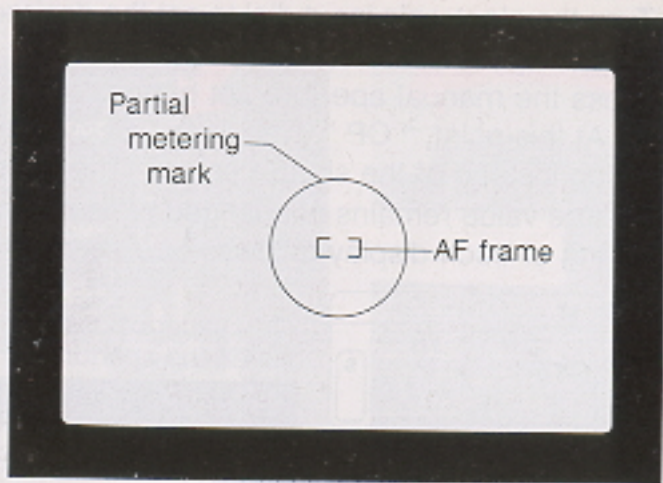
- 5) While pressing the manual aperture set button, turn the electronic input dial until " 00 " displays. The corresponding aperture value displays.
- 6) Remove your finger from the manual aperture set button.
- 7) Determine the exposure referring to the shutter speed/aperture combination. You must rely on your own experience for setting the exposure.

- Set a slower shutter speed if "OP" remains lit when the electronic input dial is turned to the lens maximum aperture.
- Set a faster shutter speed if "CL" remains lit when the electronic input dial is turned to the lens minimum aperture.
- The camera-shake warning does not sound in the manual mode.

## 5. Partial Metering

This camera has an evaluative metering function which allows you to obtain the correct exposure without exposure compensation in normal backlit photography (see p. 18). Use the partial metering mode, however, for stage photography where there is a big difference in brightness between the main subject and the background, and when you want to control the exposure.

- The partial metering mode can be used regardless of the camera's mode, except when the main switch is set to the full auto position ( 0 ).
- The partial metering area is approximately 6.5% of the picture area.
- The AE lock mechanism automatically works in the partial metering mode.



- 1) Put the main subject in the center and cover with the partial metering mark.
- 2) Press the shutter button halfway.

### **AE lock:**

*The original exposure value remains locked as long as the shutter button is pressed halfway, so even if you recompose the picture, correct exposure on the main subject will not be affected by changes in lighting conditions.*



- 1) Put the main subject in the center and cover with the partial metering mark.
- 2) Press the shutter button halfway.
- 3) While pressing the shutter button halfway, press the partial metering button. (In the manual override, however, press the partial metering button while pressing the manual aperture set button.)



- A green asterisk ("\*") indicating that the partial metering mode and the AE lock are on appears in the viewfinder.
- You can remove your finger from the partial metering button if you keep pressing the shutter button halfway.

- 4) Compose the picture while continuing to hold down the shutter button, then press the shutter button completely to take the picture.

### **Sequential AE lock photography**

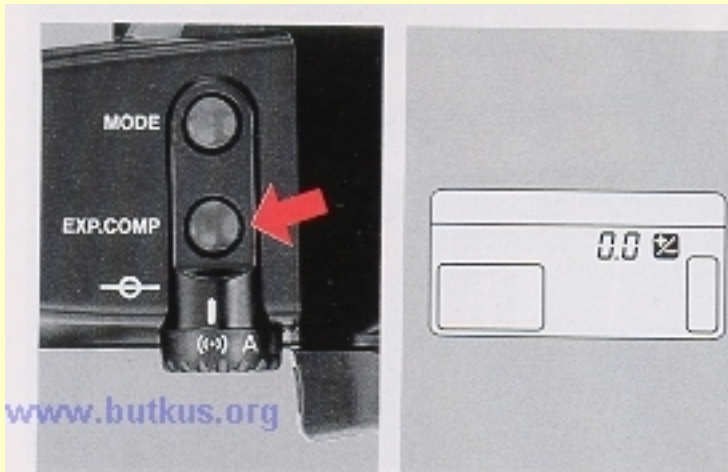
*When shooting continuously with AE lock in the same lighting conditions, it is not necessary to meter the subject for each shot provided you keep pressing the shutter button halfway after each exposure.*



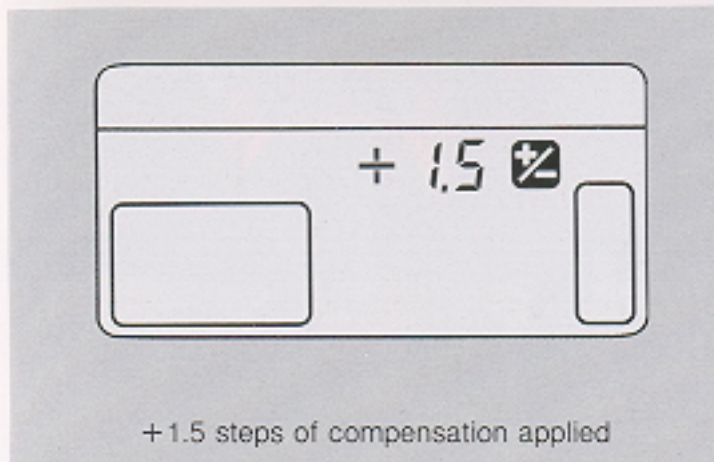
## 6. Exposure Compensation

Use exposure compensation for high-key (intentionally overexposed) or low-key (intentionally underexposed) shots. The range of exposure compensation is up to  $\pm 5$  steps in 1/2-step increments.

- "+" means increasing exposure while "--" means decreasing exposure.
- Exposure compensation can be used regardless of the metering or shooting mode, except when the main switch is set to the full auto position (O)

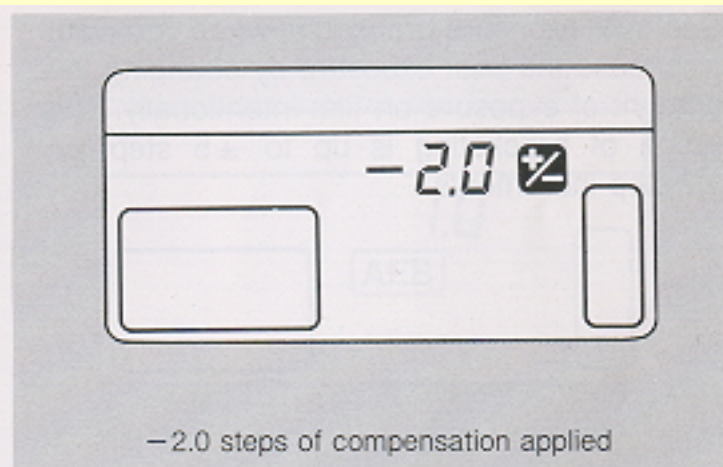


1) Press the exposure compensation button and "0.0+-" appears in the display panel.



2) While pressing the exposure compensation button, turn the electronic input dial to the desired exposure compensation value.

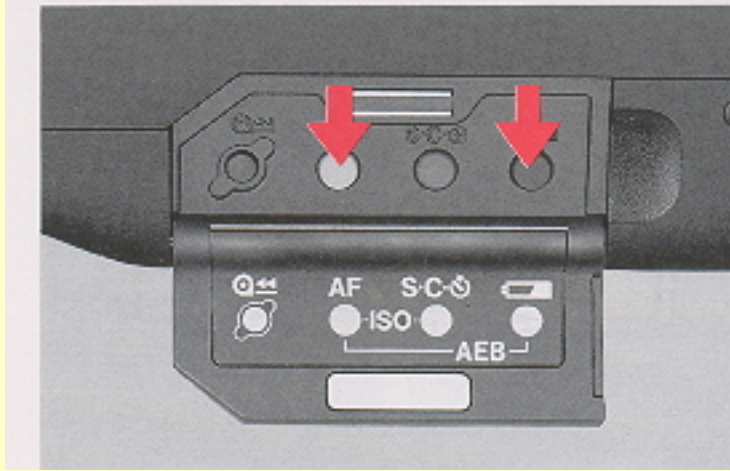
3) Remove your finger from the exposure compensation button.



- The "+/-" mark indicating exposure compensation status appears in the viewfinder and in the display panel.
- Reset the amount of compensation to "0.0\_" otherwise, subsequent frames will be incorrectly exposed.

## 7. Auto Exposure Bracketing (EOS 620 Only)

Use auto exposure bracketing when you want to choose the best exposure by changing the amount of exposure on film intentionally. The range of bracketing is up to +/- 5 steps in 1/2-step increments.



1) Open the switch cover and press both the AF mode selector and battery check button simultaneously to display the 0.0 and "AEB" indicating auto exposure bracketing.

• Once the buttons are depressed, you can remove your fingers because the 'AEB' display is held on for approximately eight seconds. To clear this status within eight seconds, press the shooting mode selector.

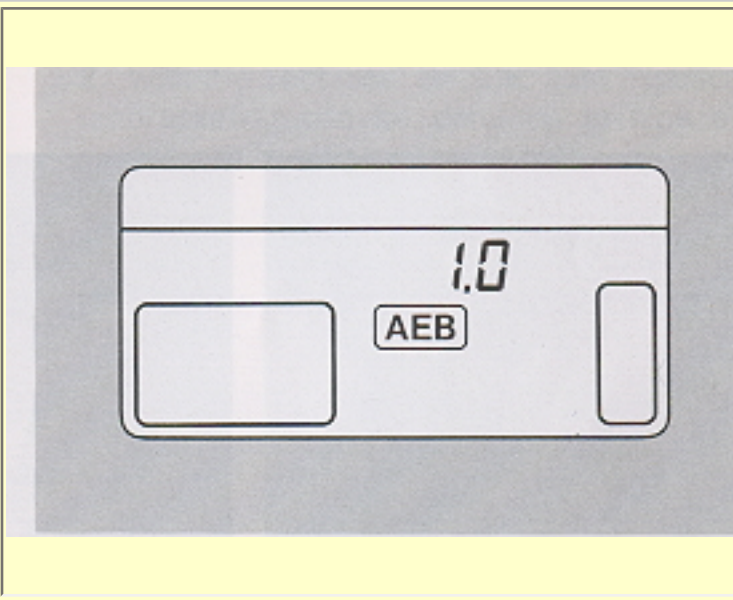


2) Turn the electronic input dial to the desired bracketing value.

• If you set 1.0 in the display panel, for example, the camera automatically makes three continuous exposures in sequence of -1.0 step of underexposure, correct exposure according to the camera's meter and +1.0 step of overexposure. Then the auto exposure bracketing status automatically clears.

### Notes

1. Three continuous exposures are automatically made regardless of the film winding mode.



2. The original focus remains locked during three continuous exposures regardless of the AF mode.
3. To clear auto exposure bracketing before shooting, display the "AEB" and preset bracket value again by following step 1) above, then turn the electronic input dial until the bracket value returns to 0.0. (Clearing auto exposure bracketing is impossible while shooting.)
4. Bulb cannot be used with auto exposure bracketing.
5. Auto exposure bracketing is impossible with a flash.

### (Auto Exposure Bracketing Continued)



- 1.0 step of compensation applied



±0 step of compensation applied

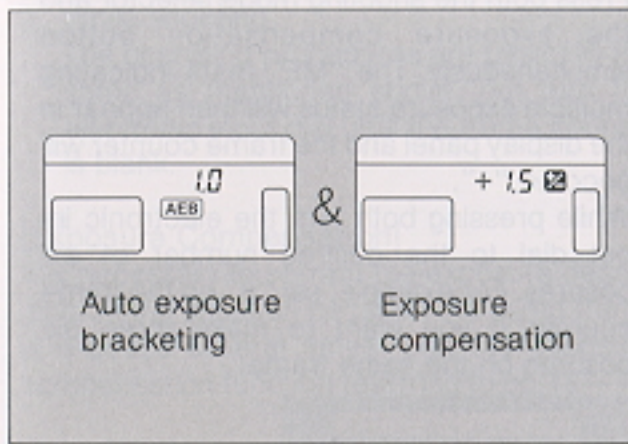


+ 1.0 step of compensation applied

### Helpful Hints

1. Use the exposure compensation function if, for example, you want particular overexposing-bracket exposures such as +/- 0.5, + 1.5 and + 2.5.





Example:

1) Set auto exposure bracketing value to 1.0--(- 1.0, +/- 0, + 1.0).

2) Set the exposure compensation value to + 1 .5.

The result will be three continuous exposures in sequence of + 0.5, + 1.5 and +2.5.

2. With the Technical Back E, auto exposure bracketing can be done up to nine exposures in 1/4-step increments.

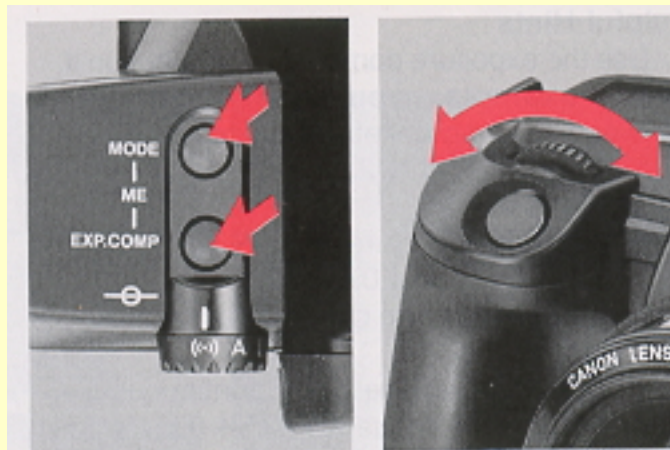
## 8. Multiple Exposures (EOS 620 Only)



The EOS 620's provision for multiple exposures allows you to take two or more exposures on the same frame for a creative effect. Preset multiple exposures up to nine frames with the single operation of the electronic input dial are possible.

1) Press both the shooting mode selector and the exposure compensation button simultaneously. The "ME" mark indicating multiple exposure status will then appear in the display panel and the frame counter will become " 1".

2) While pressing both turn the electronic input dial to the desired number of exposures. For example, set "3" on the frame counter if you want to make three exposures on the same frame.





- While shooting, the "ME" mark will blink to indicate the camera is in the multiple exposure status.
- After the preset number of exposures have been completed, the film automatically advances to the next frame.

### [Clearing Preset Exposures]

#### 1. Before shooting

Follow steps 1) and 2) on p. 52 and turn the electronic input dial to return the frame counter to "1".

#### 2. While shooting

The operating procedures are basically the same as mentioned above, but turn the electronic input dial until the frame counter is blank.

### [Exposure Compensation]

It is necessary to correct the exposure depending on the situation because the same frame is exposed several times. Use the exposure compensation function referring to pp.46-47.

Number of exposures	Exposure Compensation Setting
Double	-1.0
Triple	-1.5
Quadruple	-2.0

### Notes

1. The preceding table is a general guideline. The actual amount of exposure compensation varies according to the situation. Your technique will benefit greatly from practice.
2. It is not advisable to make multiple exposures on the first or last several frames due to possible film curl which may adversely affect image registration.
3. Generally, the first exposure of a series should be a relatively dark subject so that the image in the next exposure will show up clearly.
4. When using a negative film, please inform the developer that you have taken multiple exposures with the negative film, or your picture taken in multiple exposure may not be printed.

## 9. Difficult Subjects for Auto focus

Although the AF system of the camera is very accurate, it is not perfect. The following subjects are difficult for auto focus. When AF is impossible, the green AF in-focus indicator will blink in the viewfinder

### Subjects

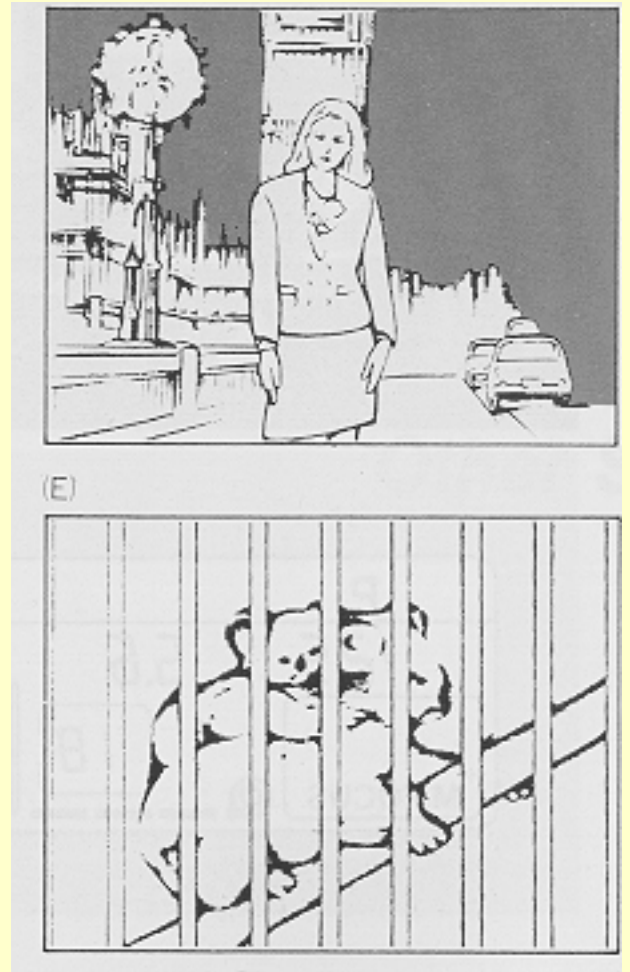
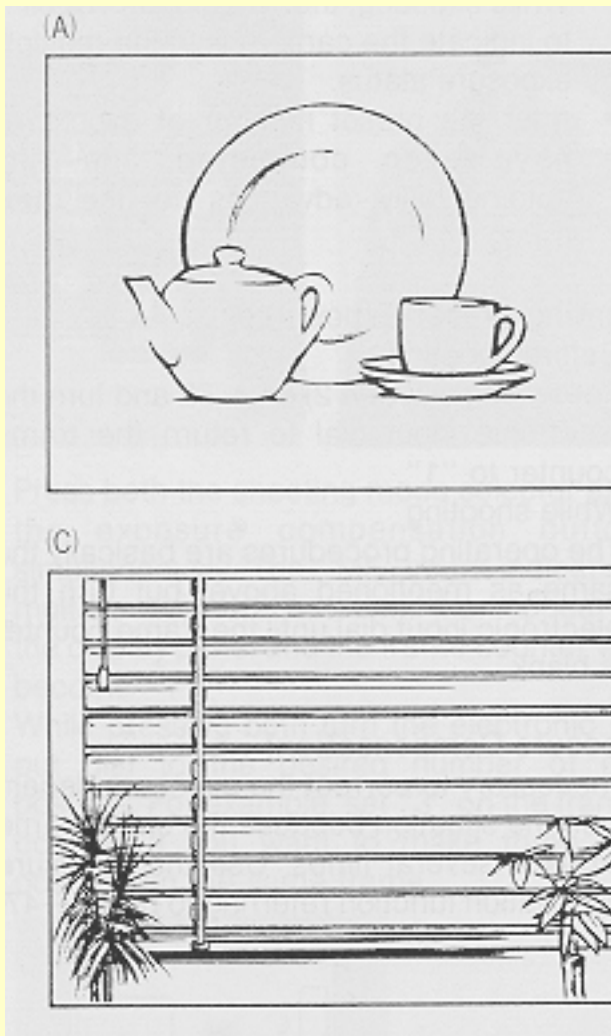
- Low contrast subjects  
(misty scenes, light-colored or white objects) .....(A)
- Subjects in extremely low-light situations  
(a dark room, night scenes) .....(B)
- Subjects having generally horizontal patterns  
(window blinds) .....(C)
- Subjects in extremely strong backlight with  
strong reflections .....(D)
- Subjects with an object in front of them  
(caged zoo animals) .....(E)
- Fast-moving subjects  
(difficult to keep within the AF frame) .....(F)

(Focus)

Focus these subjects as follows:

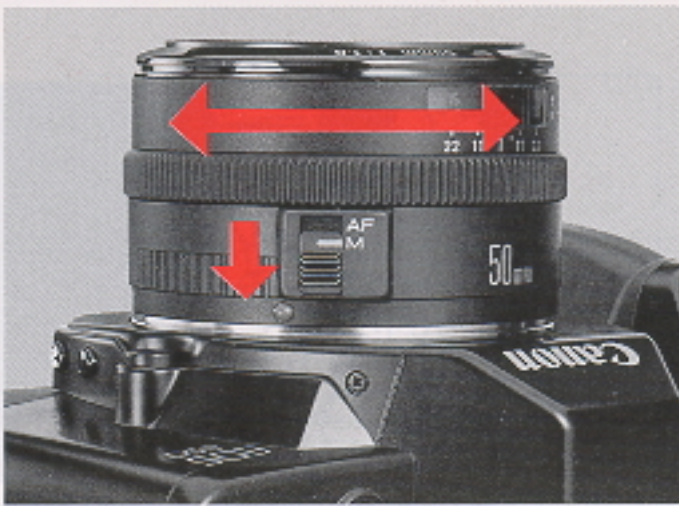
1. Auto focus a substitute subject at the same distance from the camera as your main subject,, and then recompose the picture (A)
2. Hold the camera vertically and focus the subject using auto-focus then recompose the picture (C)
3. Manually focus the subject following the steps on the next page.



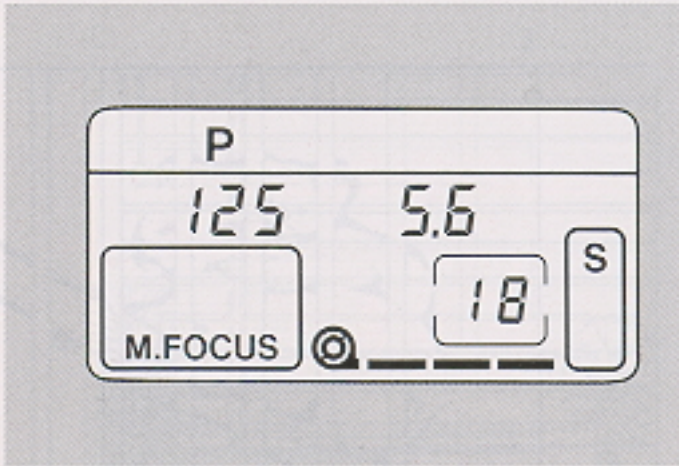


## 10. Manual Focusing

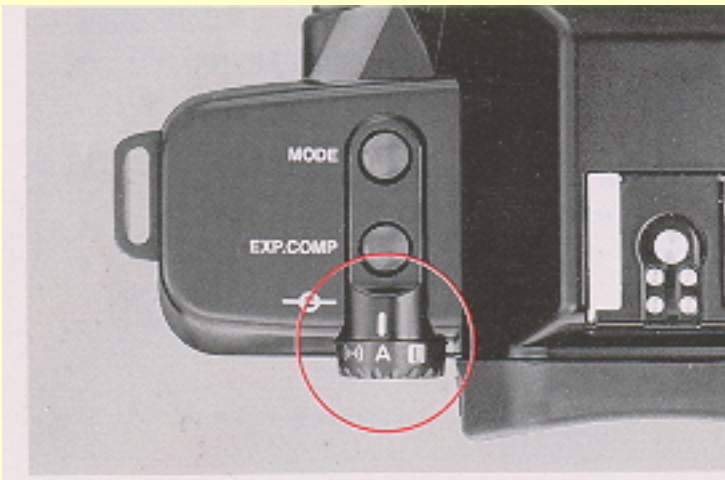
1) Slide the lens focus mode switch to "M".



- The panel display automatically changes to "M. FOCUS" and the AF mode cannot be set.
- 2) Turn the lens manual focusing ring and focus your subject using the matte-surface.
- The subject is in focus when the image is not fuzzy.



## *Other Shooting*




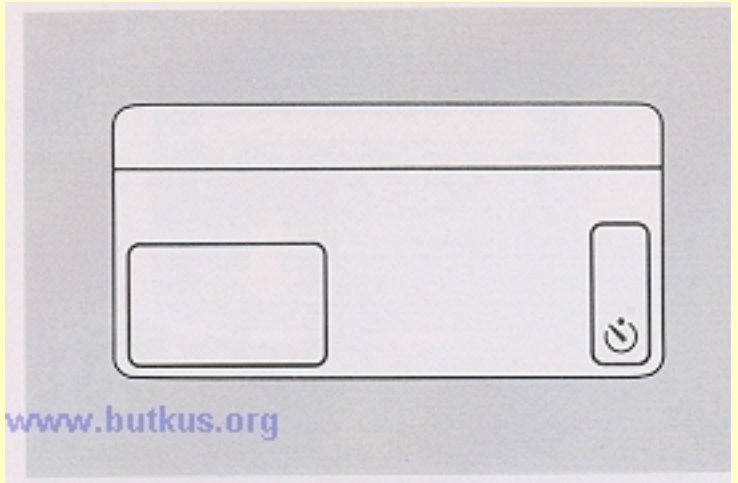
The self-timer allows you to delay shutter release for ten seconds.

To set:

- 1) Put the camera on a table, tripod, or other flat surface.
- 2) Set the main switch to either "A" or "((\*))"

3) Open the switch cover and press the blue film winding mode selector (see p. 26).

4) Turn the electronic input dial until "  " mark appears in the display panel.



5) Focus the subject in either the ONE SHOT or SERVO mode.

6) Make sure the exposure is correct and then press the shutter button. The self-timer operation indicator will start blinking and the frame counter displays the countdown.

- The shutter automatically releases ten seconds after being pressed. Two seconds before shutter release, the indicator starts blinking faster.

- To cancel the self-timer before shutter release, press the battery check button.

- Do not stand in front of the camera when you press the shutter button.



If your eye will not be at the viewfinder when you press the shutter button, cover the viewfinder as shown to prevent stray light from entering at the rear, using the viewfinder cover attached to the neck strap shoulder pad.





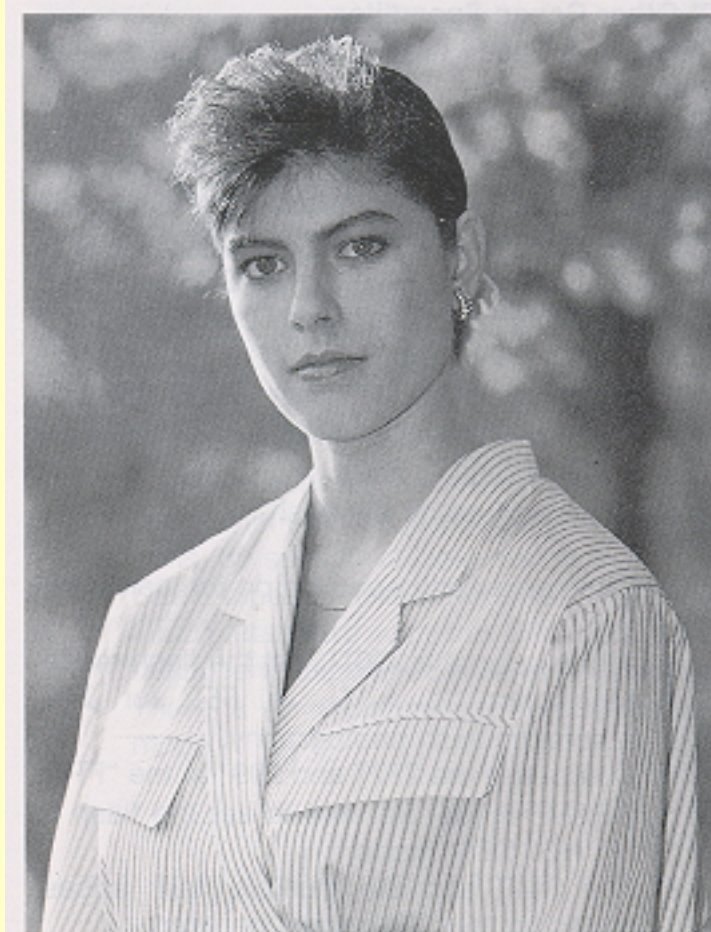
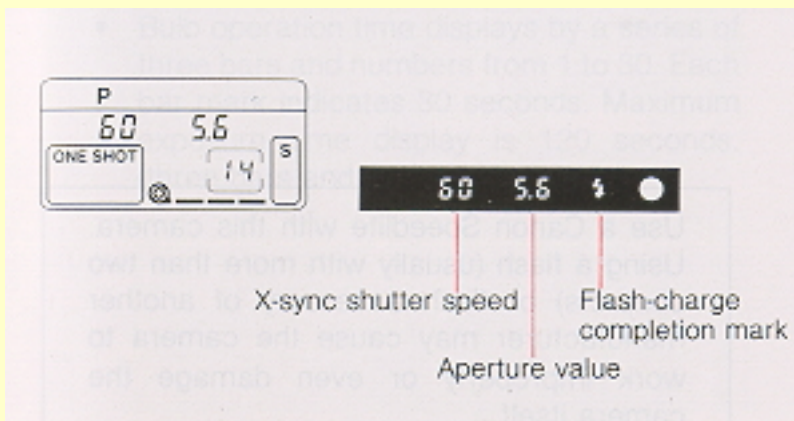


**(1) Use the Canon Speedlites 420e and 300** as fill-in flash in outdoor settings as well as for normal flash when shooting at night or in a dimly-lit room. These units feature a built-in AF auxiliary light function for dark situations, so you can perform AF flash photography.

#### **Fill in flash:**

This technique utilizes a flash unit as an auxiliary light to prevent subject underexposure in backlit situations. Generally, the exposure level between the main subject illuminated by the flash and the background in ambient light must be balanced to avoid unnatural effects. With the Canon Speedlites 420EZ and 300EZ there is no need to balance this exposure level because it is automatically controlled.

Upon flash charge completion in the Program AE mode, the aperture value and the X-sync shutter speed are automatically set. X-sync shutter speed is set between 1/60 and 1/125 sec with the EOS 650 and between 1/60 and 1/250 sec with the EOS 620.



*Please consult the Speedlite's instruction book for further details.*

## **(2) Other Canon Speedlites**

Follow the steps below for automatic flash photography:

- 1) Set the camera's shooting mode to "M".
- 2) Set the desired X-sync shutter speed between 30 and 1/125 sec with the EOS 650 and between 30 and 1/250 sec with the EOS 620.
  - If the shutter speed is faster than 1/125 sec (EOS 650) or 1/250 sec (EOS 620), it is automatically set to 1/125 sec (EOS 650) or 1/250 sec (EOS 620).
- 3) Set the aperture on the flash.
- 4) Set the same flash aperture on the camera.
  - When using the 300TL, set the flash mode set button to A-TTL or FEL for TTL automatic flash photography.
  - Do not use the 277T and 299T in the "PROGRAM" mode. Be sure to set the flash to "F. NO. SET" mode.
  - The 244T and the multiple flash accessories for the T90 cannot be used.

## **(3) Other Manufacturers' Flashes**

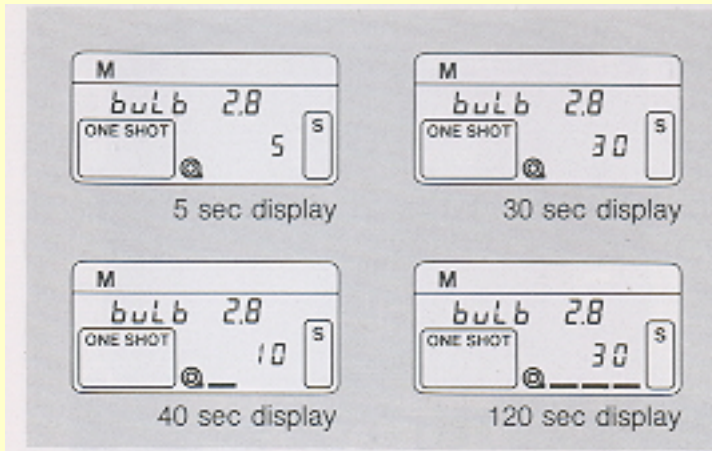
The X-sync speed can be set to 1/125 or slower with the EOS 650 and 1/250 sec or slower with the EOS 620. (1/60 sec or slower with the EOS 650 and 1/125 sec or slower with the EOS 620 with a large, studio-type flash), but please confirm correct

synchronization before use (due to their flash duration).

*Use a Canon Speedlite with this camera. Using a flash (usually with more than two contacts) or flash accessory of another manufacturer may cause the camera to work improperly or even damage the camera itself.*

*When a large, studio-type flash or general cable connection type flash is used with this camera, the Canon Hot Shoe Adapter is required to connect the flash with the camera.*

### 3. Bulb (Long Exposure)



Use the bulb mode for exposures longer than 30 seconds like astro or night photography.

- 1) Set the shooting mode to "M".
- 2) Turn the electronic input dial until "bulb" (next to 30") displays.
- 3) Set the aperture value by turning the electronic input dial while pressing the manual aperture set button.

- The camera requires relatively little power in the bulb mode saving battery usage.

- Bulb operation time displays by a series of three bars and numbers from 1 to 30. Each bar mark indicates 30 seconds. Maximum exposure time display is 120 seconds. (three bars and 30).

- Use the Technical Back E to control the exposure time within a period of 23 hrs. 59 mins. 59 sees. (available optionally)
- Use a tripod, Remote Switch 60T3 and Grip GR20 (standard with the EOS 620) when taking long exposures (available optionally).
- There is no exposure warning in the bulb mode.

### 4. Shooting with Infrared Film





When using black-and-white infrared film make a slight adjustment in focus with the red infrared index.

For example, focus the subject first, then if the lens is focused at 5m on the distance scale, turn the manual focusing ring to align the 5m mark with the red dot and release the shutter.



· *When using infrared film, use a deep red filter as specified by the manufacturer.*

· *The infrared index mark position has been computed for infrared film usage with peak sensitivity at 800nm.*

· *Read the manufacturer's instructions when using color infrared film.*

## Accessories

### Speedlites 420EZ/300EZ

These are high-performance, electronic flash units featuring A (Advanced)-TTL automatic flash output control, which respond to a wide range of illumination from dark surroundings to bright (fill-in flash). They have a built-in auto internal zoom mechanism in the flash head which automatically adjusts the flash coverage angle to use flash energy more effectively. In addition, the rapid-fire flash system enables you to take a flash picture in no less than 1 second with the 300EZ or 1.5 seconds with the 420EZ. The guide numbers are 35 (ISO 100.m) or 116 (ISO 100-ft.) with the 420EZ, and 28 (ISO 100.m) or 93 (ISO 100.ft.) with the 300EZ.

· The above figures show the guide numbers when the flash head is set at the 50mm position

at full charge.



## EF Lenses

The greatest feature of SLR cameras is that they accept a variety of interchangeable lenses ranging from fish-eye to telephoto. Canon provides the following 13 different interchangeable lenses plus an extender exclusively for the EF 300mm f/2.8L for just as many applications. Canon EF lenses succeed the ED lens' established reputation for high resolution, superb color balance and easy handling.

### Helpful Hint:

The most important point in lens selection is identifying a clear idea of the kind of subjects you want to photograph. For example, a short telephoto is indispensable for a portrait, while a wide-angle and a telephoto are necessary for landscape photography. Most people, however, want enough flexibility to take shots of the family, travel scenery, sports events, and other subjects. That's why Canon's lens system offers

various types of zoom lenses.



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