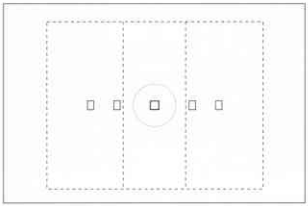
V Using Flash

Attaching an EOS dedicated speedlite to the camera's accessory shoe enables advanced flash photography with the operational simplicity of normal AE shooting. In addition to overall exposure compensation, independent compensation of just the flash exposure is possible from the camera side.



Operation of the built-in three-zone (center, right, left) automatic flash sensor corresponds to the five focusing points, increasing flash exposure precision by automatically weighting the exposure to the center when autofocusing at the center point, or to the left or right when autofocusing at one of the side points.

1. Using EOS Dedicated Speedlites

EOS dedicated Speedlites (540EZ, 430EZ, 420EZ, 300EZ, etc.) make flash photography as simple as pointing and shooting. Moreover, built-in advanced functions make it easy to achieve professional fill-in flash effects in outdoor settings as well as automatic control of flash exposure when shooting at night or indoors. These units feature a built-in AF auxiliary light function that assists autofocus in dark situations.

By simply attaching an EOS Speedlite to the camera and turning it on, an appropriate flash synchronization speed (1/250 sec. or slower) is automatically set on the camera. As soon as the flash is charged, the flash charge completion indicator appears in the viewfinder. For details, refer to your speedlite's instruction book.

- The 540EZ's AF auxiliary light is designed to work with all five of the EOS-1 N's focus points. Other EZ Speedlites' AF auxiliary light works with only the center focusing point.
- The 480EG does not emit an AF auxiliary light.
- The aperture values displayed on the camera and speedlite LCD panels may sometimes differ. However, the exposure will be correct.
- When using flash in AI Servo AF mode, the flash unit's AF auxiliary light will not function. In situations requiring use of the AF auxiliary light, switch to One-shot AF mode.

● Automatic Flash Output Reduction Control

When using a dedicated speedlite to take a photo of a subject lit by skylight-type illumination, the camera automatically reduces the flash unit's light output so as not to overexpose the subject.

Custom Function F 14

(Refer to pages 90–91)

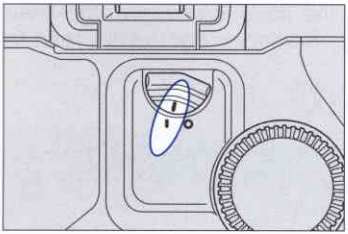
You can turn off the automatic flash output reduction control function for strongly-backlit subjects which need extra illumination from the flash.

2. Flash Exposure Compensation

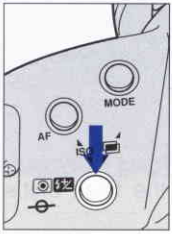
This function lets you vary the automatic flash exposure level of EOS dedicated speedlites. The flash exposure can be compensated up to ±3 stops in 1/3-stop increments.

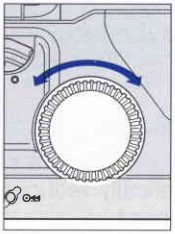
Custom Function F-5
(Refer to pages 86–87)

Flash exposure compensation can also be set in 1/2-stop increments.



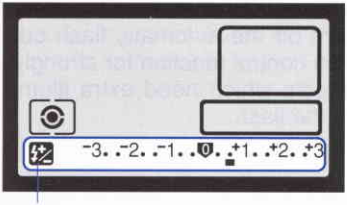
1 Set the quick control dial switch to I.





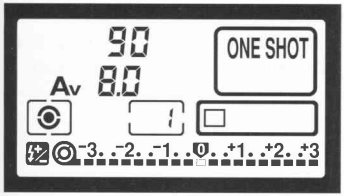
2 While pressing the metering mode selector / flash exposure compensation button, turn the quick control dial to set the desired compensation amount.

- The flash exposure compensation amount is displayed in the LCD panel's exposure compensation display.
- In the LCD display, the "+" side indicates overexposure compensation, and the "–" side indicates underexposure compensation.



Flash exposure compensation

- Example showing +2/3-stop flash exposure compensation.



3 Releasing the metering mode selector / flash exposure compensation button completes the flash exposure compensation setting. The LCD panel returns to its normal condition and ⚡ lights in the display to indicate that flash exposure compensation is set. (The compensation amount is not displayed.)

- Flash exposure compensation remains set until manually canceled. To cancel, repeat step 2 to return the flash exposure compensation amount to 0.
- The exposure compensation amount remains set even if the main switch is set to " L ".

The optionally available Command Back E1 does not have a quick control dial. When using this command back, set the flash exposure compensation by turning the main dial while simultaneously pressing the metering mode selector / flash exposure compensation button and focusing point selector.

● Speedlites Capable of Flash Exposure Compensation

This camera can perform flash exposure compensation with all Canon EOS dedicated Speedlites. The 540EZ and 430EZ Speedlites are also equipped with a built-in flash exposure compensation function. When this camera is used with the 540EZ or 430EZ and flash exposure compensation is set on both the camera and flash unit, the settings on the flash unit have priority and override the camera setting.

- Flash exposure compensation with EOS dedicated Speedlites is supported with the Canon Off-camera Shoe Cords and Canon multiple flash accessories connected to the camera by TTL Hot Shoe Adapters 2 and 3.

When using the 300TL Speedlite, set the flash mode button to a position other than MHi or MLo. TTL automatic flash exposure is possible.

Canon Speedlites other than those mentioned above can be used in manual mode.

3. Using Non-dedicated Flash Equipment

This camera's shutter can synchronize with non-dedicated portable flash units at up to 1/250 sec. and with studio strobes at up to 1/125 sec. Before use, test the flash unit at various shutter speeds to make sure it synchronizes properly with the camera.

● PC Terminal

Flash units equipped with a synchro cord can be used by connecting the cord to the camera's PC terminal. The PC terminal is equipped with a lock screw to prevent accidental disconnection.
The PC terminal provides only an X-sync contact and synchronizes at all shutter speeds up to 1/250 sec.

- TTL automatic flash control is not possible.

- Flash units can be connected to both the PC terminal and accessory shoe for multiple flash setups.

● We recommend using Canon dedicated speedlites with this camera.

- Use of flash units (having two or more contacts on the hot shoe) or flash accessories that are designed for dedicated use with other brands of cameras will not work properly and may result in damage to your EOS camera.
- Use of flash units of other brands with a trigger circuit voltage in excess of 6 volts DC may damage your camera. Consult your nearest authorized Canon service facility to confirm the compatibility.

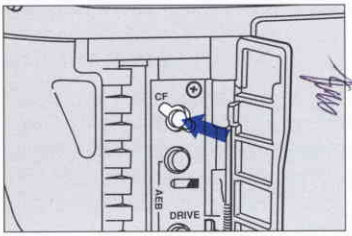
VI Custom Functions

Custom function control is provided to let you customize the camera's functions according to your personal preferences and shooting style.

1. Setting and Resetting Custom Functions

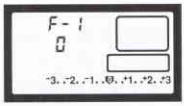
● Setting a Custom Function

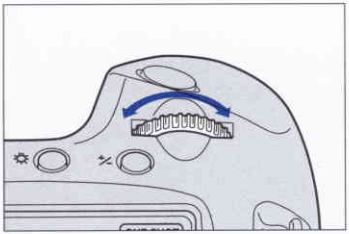
1 Set the main switch to "**A**" or " ▪)) ".



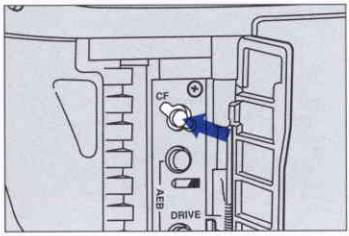
2 Open the palm door and press the custom function button.

- A custom function number is displayed in the LCD panel.

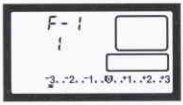


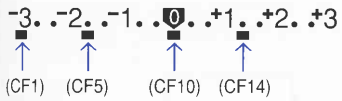


3 Turn the main dial to the left or right until the desired custom function number is displayed in the LCD panel.



4 Press the custom function button until the number corresponding to the desired setting for the selected custom function appears in the LCD panel. The number changes each time the custom function button is pressed.





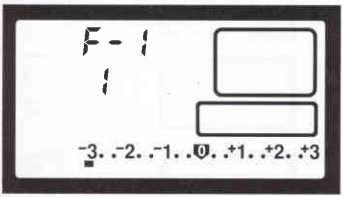
- Display example indicating that custom functions No. 1, No. 5, No. 10 and No. 14 are set.

- Dots are displayed below the exposure scale to indicate custom function settings which have been selected.

  A dot below "–3" indicates that custom function No. 1 is set. Dots for other custom functions (Nos. 2~14) are displayed in sequence to the right of the "–3" position.

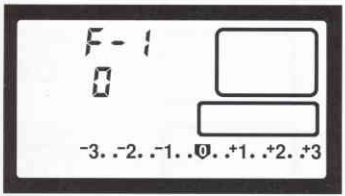
- You can check the custom function setting status at any time by pressing the custom function button to activate the status display.

5 Press the shutter button halfway to complete the setting and restore the LCD panel to the original display.

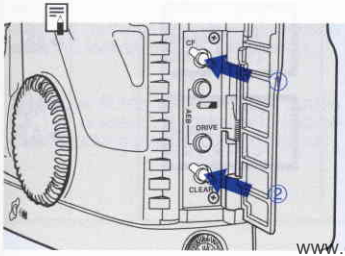


● Resetting a Custom Function

1 To reset a custom function to the standard setting, select the custom function and then press the custom function button to change the number in the LCD panel to "0".



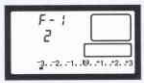
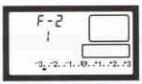
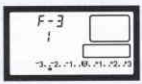
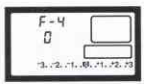
2 Press the shutter button halfway to complete the reset operation and restore the LCD panel to the original display.



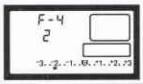
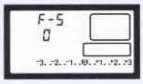
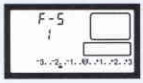
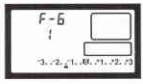
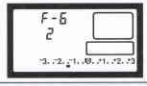
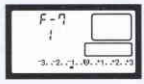
Resetting All Custom Functions At Once

You can reset all the custom functions at once to their default (0) settings by pressing the clear button after pressing the custom function button, while the camera is in the custom function setting mode.

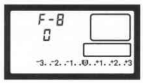
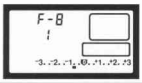
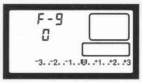
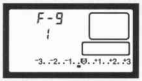
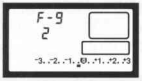
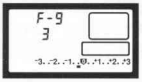
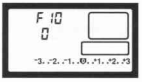
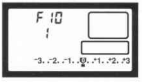
2. Custom Function Chart

Type	Custom Function No.	Affected Function	LCD Panel Display	Setting No.	Sticker Symbol
Film handling	F-1	Automatic film rewind operation		0	
				1	
				2	
				3	
	F-2	Film leader retrieval after rewinding		0	
				1	
	F-3	Film speed setting		0	ISO DX
				1	ISO M
Focus	F-4	AF operation method		0	●AF •AEL
				1	●AEL •AF

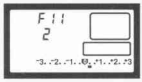
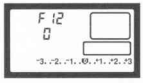
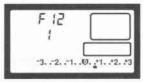
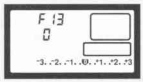
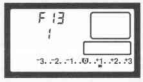
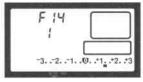
Operation	Useful Situations	Reference Page No.
High-speed automatic rewind. Automatic rewind prohibited. • Pressing film rewind button activates high-speed rewind. Silent automatic rewind. (Low speed) Automatic rewind prohibited. • Pressing film rewind button activates silent rewind. (Low speed)	This function is useful for situations in which silence is required — for example, in a quiet theater or at a pro golf tournament — where the sudden noise of a camera's rewind would cause disruption and be frowned upon.	69
Rewinds film leader fully into the cartridge. Leaves the film leader outside the cartridge after rewinding.	This function is useful for individuals or news companies who do their own film processing. The film leader is left outside of the cartridge after the film is rewound automatically or in mid-roll.	69
Film speed set automatically according to DX code. Film speed set manually. (DX code is ignored.)	This option is for photographers who shoot film at ISO settings determined from their own tests. Setting this function frees the photographer from having to change the film speed every time a new roll is loaded.	66
Autofocus starts when shutter button is pressed halfway. Exposure is locked when AE lock button (*) is pressed. Autofocus starts when AE lock button (*) is pressed. Exposure is locked when shutter button is pressed halfway.	1: This option lets the photographer carry out metering and autofocusing independently.	31 41

Type	Custom Function No.	Affected Function	LCD Panel Display	Setting No.	Sticker Symbol
Focus	F-4	AF activation		2	● AF ● AFL
Exposure	F-5	Shutter speed and aperture value setting method in manual exposure mode		0	Tv Av
				1	Av Tv
	F-6	EV steps for the shutter speed, aperture, exposure compensation, flash exposure compensation, and AEB		0	1/3 STEP
				1	1 STEP
				2	1/2 STEP
Focus	F-7	Manual focusing with the electronic manual focusing ring		0	AF M
				1	AF

Operation	Useful Situations	Reference Page No.
Autofocus starts when shutter button is pressed halfway. Focus is locked when AE lock button (✱) is pressed. • AE lock is not possible when "2" is set.	2: For sports photography using focus prediction in AI Servo AF mode, this option lets the photographer temporarily stop the focus.	
Shutter speed set by main dial. Aperture value set by quick control dial or by combined operation of exposure compensation button (⅟) and main dial. Aperture value set by main dial. Shutter speed set by quick control dial or by combined operation of exposure compensation button (⅟) and main dial. • For operation when combined with custom function F-11, refer to "Combined Use of Custom Functions F-5 and F-11" on page 92.	When making manual exposure adjustments, this function lets the photographer choose whether to use the main dial for adjusting the shutter speed or aperture value. This option is convenient for studio flash photography where the shutter speed is kept constant while the aperture is frequently varied to alter depth of field and exposure.	60
Shutter speed, aperture value and exposure compensation, flash exposure compensation and AEB step amounts set in 1/3-stop increments. Shutter speed and aperture value set in 1-stop increments, and exposure compensation, flash exposure compensation and AEB step amounts set in 1/3-stop increments. Shutter speed, aperture value and exposure compensation, flash exposure compensation and AEB step amounts set in 1/2-stop increments.	This function lets the photographer input shutter speed and aperture settings in any increment that he or she is used to. 1/2-stop exposure compensation settings are also possible, providing wide flexibility to satisfy various shooting styles.	42 45 51 54 60 78
Manual focusing is possible. • This function works only with lenses equipped with an electronic manual focusing ring. Manual focusing is prohibited. • Manual focusing by setting the lens' focus mode switch to "**M**" is possible.	This option disables the manual focusing capability of the electronic ring provided on many USM lenses, eliminating the possibility of accidentally turning the ring and shifting the focus after autofocusing is completed. Compatible Lenses EF 50/1.0L USM EF 85/1.2L USM EF 200/1.8L USM EF 300/2.8L USM EF 400/2.8L USM EF 500/4.5L USM EF 600/4L USM EF 1200/5.6L USM EF 28-80/2.8-4L USM	36

Type	Custom Function No.	Affected Function	LCD Panel Display	Setting No.	Sticker Symbol
Exposure	F-8	Center-weighted average metering		0	
				1	
	F-9	AEB exposure sequence		0	
				1	
				2	
				3	
Focus	F-10	Elimination of AF frame display		0	
				1	

Operation	Useful Situations	Reference Page No.
Evaluative metering. Center-weighted average metering. • The LCD panel still shows the evaluative metering indication.	Setting this function to center-weighted average metering provides the photographer with a predictable metering pattern for determining exposure. This is useful for experienced photographers who have over many years developed an ability to accurately determine exposure combining average metering and exposure compensation.	38
Under → Correct → Over Under → Correct → Over Correct → Under → Over Correct → Under → Over • 0 & 2: AEB operation is canceled when main switch is set to " L ", lens is exchanged, film is loaded or rewound, bulb exposure mode is set, flash charge completion is detected, or the clear button is pressed. • 1 & 3: AEB operation is not canceled when main switch is set to " L ", lens is exchanged or film is loaded or rewound. AEB mode can be selected by simultaneous pressing AF mode and shooting mode selectors + main dial operation.	2, 3: These settings change the bracketing sequence to "0 → − → +", which is useful when shooting live subjects or changing scenes where the first shot will most likely capture the best expression or composition. 1, 3: These settings are useful for photographers who frequently use AEB, as it prevents AEB mode from being canceled every time the lens is exchanged, the main switch is set to " L ", or the film is rewound or exchanged, and allows the user to activate AEB mode using an external setting operation, eliminating the need to open the camera's palm door.	45 47
Focusing point superimposed (red). Superimpose is prohibited.	This option is for users who are annoyed by the AF frame illumination in the viewfinder, as well as for those who frequently use manual focusing to adjust the final focus.	30

Type	Custom Function No.	Affected Function	LCD Panel Display	Setting No.	Sticker Symbol
Focus	F-11	Focusing point selection		0	
				1	
				2	
Mirror operation	F-12	Mirror up operation		0	
				1	
Beeping on/off	F-12 (RS)	Beeping when in focus		0	
				1	
Exposure	F-13	Spot metering at the AF frame		0	
				1	
Flash operation	F-14	Fill-in flash control		0	
				1	

Operation	Useful Situations	Reference Page No.
Focusing point selector (▭) + main dial Exposure compensation button (⁺⁄₋) + main dial Independent operation of quick control dial, or exposure compensation button (⁺⁄₋) + main dial. • Focusing point selection using the quick control dial is possible during metering operation, when the 6-second metering timer is activated, or during continuous shooting in AI Servo AF mode. After the far left or far right focusing point is selected, selection cannot proceed in the same direction.	0, 1: This option makes it possible to match the EOS-1 N's button operations to the photographer's existing camera (EOS-1 or EOS 5•A2/A2E). 2: This option lets the user track the subject with the focusing point in real-time by operating the quick control dial, which is useful when tracking a moving subject using the focus prediction control in AI Servo AF mode. To set the aperture during exposure compensation or manual exposure, press the focusing point selection button and turn the main dial.	30 33 60
Normal operation. Mirror up operation.	This is effective for preventing camera shake caused by mirror operation shock when making long exposures. Use of a tripod is recommended.	72
No beeping when the subject is in focus. Beeps when the subject is in focus.	Set to suit your shooting style and the environment. • In the RS mode, there is no beeping.	102
Fine spot metering in center of image area. Spot metering linked to the manually selected focusing point. • In automatic focusing point selection mode, spot metering is carried out for the center focusing point only.	This function links spot metering to the focusing point, allowing the user to spot meter the subject without changing the framing of the scene.	39
Automatic flash output reduction control active. Automatic flash output reduction control prohibited.	This function prevents underexposure of strongly backlit subjects, such as when shooting portraits backed by light from the late afternoon sun.	77

● Combined Use of Custom Functions F-5 and F-11

When custom functions F-5 and F-11 are combined, shutter speed and aperture value settings are carried out as shown in the following table.

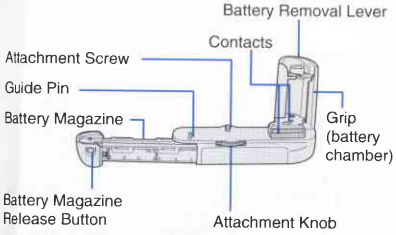
Custom function number		F-5	
	Selection No.	0	1
F-11	0	Shutter speed: Set by main dial Aperture value: 1) Set by quick control dial or 2) Set by exposure compensation button (⁺⁄₋) and main dial	Aperture value: Set by main dial Shutter speed: 1) Set by quick control dial or 2) Set by exposure compensation button (⁺⁄₋) and main dial
	1	Shutter speed: Set by main dial Aperture value: 1) Set by quick control dial or 2) Set by focusing point selector (▭) and main dial	Aperture value: Set by main dial Shutter speed: 1) Set by quick control dial or 2) Set by focusing point selector (▭) and main dial
	2	Shutter speed: Set by main dial Aperture value: Set by focusing point selector (▭) and main dial	Aperture value: Set by main dial Shutter speed: Set by focusing point selector (▭) and main dial

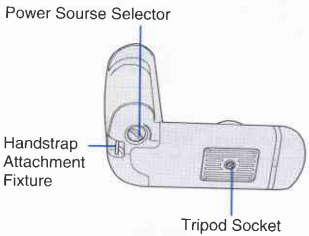
Additional Information for the EOS-1 N DP Model

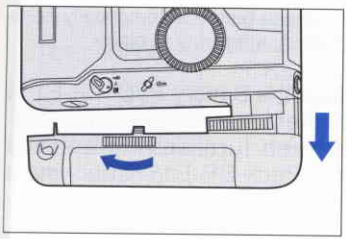
A combination of the EOS-1 N with the compact Battery Pack BP-E1 provides a switch that lets you power the camera either from the standard 2CR5 lithium battery stored in the grip or from four AA-size (LR6) alkaline-manganese or Ni-Cd batteries housed in the battery pack. This dual pack (DP) system lets you use AA-size batteries during normal temperature shooting and switch to the 2CR5 lithium battery when shooting in cold conditions. Moreover, the camera will operate even when only one of the two battery types is installed. Also, the Handstrap E1 (optional) can be attached to improve holding stability.

- Battery Pack BP-E1 is compatible with both the EOS-1 N and the EOS-1.

● Nomenclature

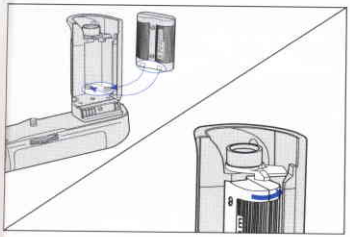




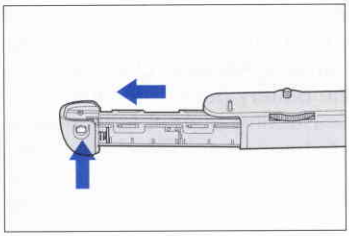


● Loading Batteries

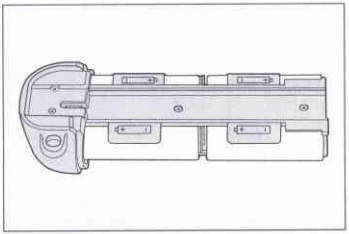
1 Turn the Battery pack BP-E1's attachment knob in the direction of the arrow and remove the BP-E1 from the camera.



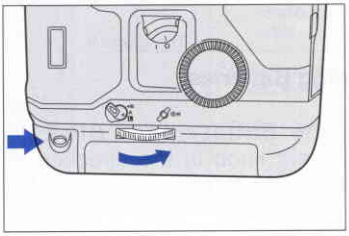
2 Load the lithium 2CR5 battery so that battery contacts contact the Battery pack BP-E1's contacts in the grip.



3 Press the Battery Pack BP-E1's battery magazine release button and remove the battery magazine.



4 Insert four AA-size batteries into the battery magazine as shown in the diagram.



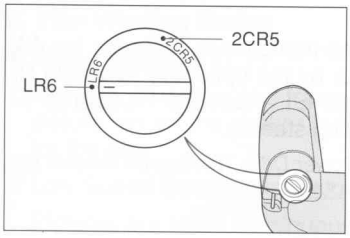
5 Insert the battery magazine into the Battery Pack BP-E1.

- The release button automatically holds the battery magazine in place.

6 Reattach the Battery Pack BP-E1 to the camera as shown in the diagram, then turn and tighten the Battery Pack BP-E1's attachment knob.

1. Power Source Selector

Use the power source selector to select the desired power source. The relationship between the selector and power source is as follows:



1) 2CR5: Camera is powered from the 2CR5 lithium battery stored in the grip.

2) LR6: Camera is powered from the AA-size alkaline-manganese or Ni-Cd batteries housed in the battery magazine.

- Do not change the power source during camera operation (such as during film rewinding or long exposures), since it may cause misoperation.

- Canon recommends that AA-size lithium batteries not be used in this product since its initial high voltage may cause damage to the product.

2. Shooting Capacity

Temperature	Shooting capacity by battery type (rolls)		
	2CR5 lithium	AA-size alkaline	AA-size Ni-Cd
Normal (+20°C)	75 (50)	45 (30)	18 (12)
Low (–20°C)	12 (8)	0 (0)	12 (8)

- Data based on Canon's Standard Test Method using new batteries, EF50mm f/1.4 USM lens and 24-exposure film. Values in parentheses are for 36-exposure film.
- Repeated autofocus operation without taking any pictures will reduce the overall shooting capacity.

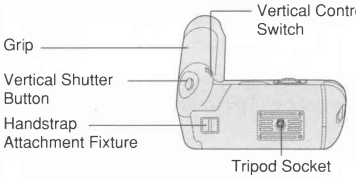
Additional Information for the EOS-1 N HS Model

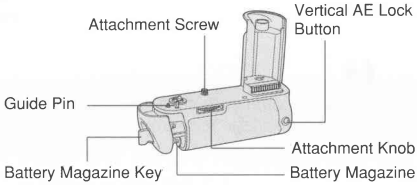
A combination of the EOS-1 N with the Power Drive Booster E1 expands the choice of film winding modes to three and benefits from higher shooting capacity (refer to page 98). Moreover, the EOS-1 N HS is designed for improved operability with features such as a separate shutter button and AE lock button (✳) for vertical shooting.

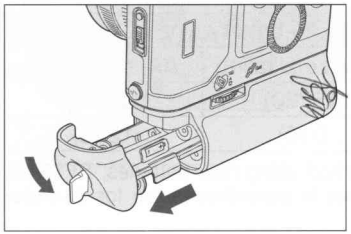
Power is supplied by eight AA-size alkaline-manganese batteries (or AA-size Ni-Cd or AA-size lithium batteries*), or by the optionally available Ni-Cd Pack E1 and dedicated Ni-Cd Charger E1. Also, the Handstrap E1 (optional) can be attached to improve holding stability.

* AA-size lithium batteries can be used with Power Drive Booster E1 models that are marked with the AE lock button indication "✳".

● Nomenclature



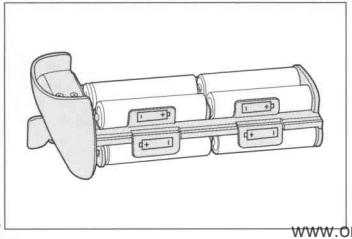




● Loading Batteries

1 Turn the Power Drive Booster E1's battery magazine key 90° (quarter turn only) and remove the battery magazine.

- To re-install the battery magazine, perform the reverse procedure.



2 Insert eight AA-size batteries into the battery magazine as shown in the diagram.

The above procedure is also used when loading batteries into the EOS-1 N RS.

1. Vertical Position Shooting

To use the vertical shutter button and AE lock button set the vertical control switch to the ON position (red dot showing).

2. Film Winding Modes

- Single Exposure (□)

  The film advances one frame after each picture is taken. After taking a picture, return the shutter button to the half-pressed position to prepare for the next exposure.

- Low-Speed Continuous Exposure ($\square_L$)

  Pictures are taken continuously at a rate of up to approx. 3 frames per second as long as the shutter button is held pressed.

- High-Speed Continuous Exposure ($\square_H$)

  Pictures are taken continuously at a rate of up to approx. 6 frames per second as long as the shutter button is held pressed.

3. Maximum Continuous Shooting Speed in Different AF Modes

	One-shot AF/Manual	AI Servo AF
Low-speed continuous ($\square_L$)	Approx. 3 fps	Approx. 2.5 fps
High-speed continuous ($\square_H$)	Approx. 6 fps	Approx. 5 fps

- AA-size lithium batteries can only be used with the EOS-1 N combined with a power Drive Booster E1 that has a "✳"symbol printed on the AE lock button.
  Canon recommends that AA-size lithium batteries not be used in this product since its initial high voltage may cause damage to the product.

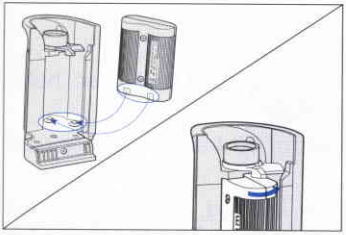
4. Shooting Capacity

Power source / Temperature	Shooting capacity by battery type (rolls)		
	AA-size alkaline	Ni-Cd Pack E1	Size AA lithium batteries (FR6x8)
Normal (+20°C / 68°F)	100 (65)	65 (45)	250 (165)
Low (–20°C / –4°F)	6 (4)	45 (30)	90 (60)

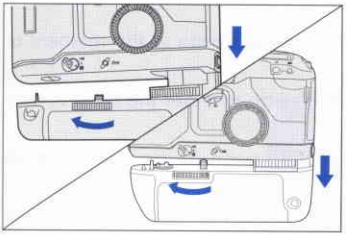
- Data based on Canon's Standard Test Method using new batteries, EF50mm f/1.4 USM lens and 24-exposure film. Values in parentheses are for 36-exposure film.
- Repeated autofocus operation without taking any pictures will reduce the overall shooting capacity.

Attaching the Standard Grip

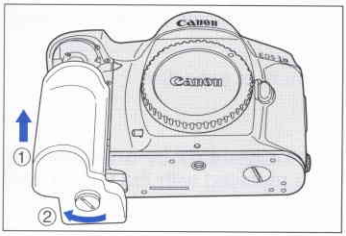
The Battery Pack BP-E1 or Power Drive Booster E1 can be removed and replaced with the EOS-1 N's standard grip GR-E1 (optional) using the procedure below.



1 Load a battery into the standard grip GR-E1 (see page 14).



2 Turn the Battery Pack BP-E1/Power Drive Booster E1's attachment knob to loosen, then pull the assembly downward to remove from the camera.
For EOS-1 N HS users, attach the booster coupler cover (supplied with the GR-E1) to the camera's booster coupler.



3 Attach the standard grip to the camera, and tighten the attachment screw so that the grip is firmly attached.

4 Attach the contact protector cover (supplied with the GR-E1) to the Battery Pack BP-E1/Power Drive Booster E1 to protect the electronic contacts.

Additional Information for the EOS-1 N RS Model

In addition to all the features of the EOS-1 N, the EOS-1 N RS also has a fixed, hard-coat, new pellicle mirror, a high-speed motor drive, and the RS mode. The EOS-1 N RS is a single-lens reflex camera having the fastest AF (autofocus) operation.

Major Features of the EOS-1 N RS

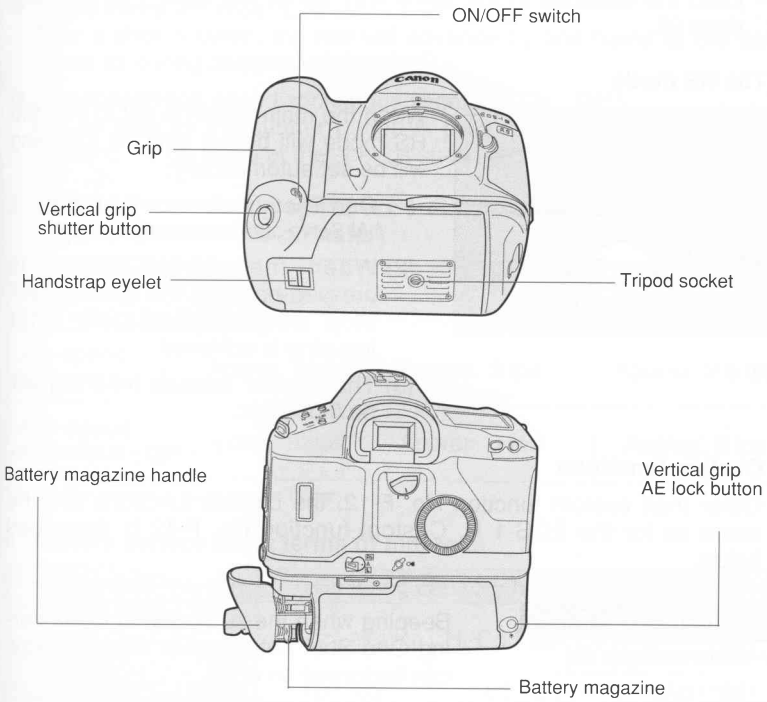
- In the RS mode, the short shutter release time lag of 0.006 sec. helps you capture the decisive moment more easily.
- A high-speed continuous shooting speed of 10 frames per sec. can be attained.
- Since the hard-coat, new pellicle mirror is fixed, the image in the viewfinder is not blocked out during the exposure. This brings the following advantages:

- While looking through the viewfinder, you can see the image at the moment of exposure.
- While looking through the viewfinder, you can confirm whether the flash is synchronized.
- Even during continuous shooting, the subject's image in the viewfinder is steady.
- For flash photography at slow shutter speeds, it is easier to decide the timing of the flash.
- For multiple flash exposures or multiple exposures on a single frame, it is easier to set the composition.
- You can notice any camera shake during the moment of exposure.

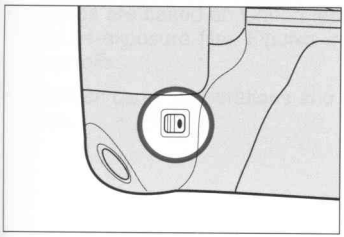
Note:

- The EOS-1 N RS's battery magazine cannot be separated from the camera body. Therefore, the battery magazine cannot be replaced with the GR-E1 normal grip or the BP-E1 size AA battery pack.

Nomenclature



Using the vertical grip



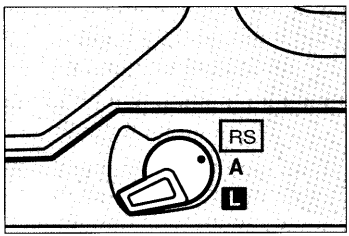
To use the vertical grip and the corresponding shutter button and AE lock button, turn on the ON/OFF switch.

Additional Information for the EOS-1 N RS Model

1. Batteries for the EOS-1 N RS

- Load the batteries in the same way as for the EOS-1 N HS. See page 98.

2. The RS mode



When the main switch is set to RS, the RS mode will be set and the following will be set automatically:

(1) One Shot autofocus will be set.
* AI Servo autofocus cannot be set.

(2) When the shutter button is pressed halfway, the aperture will stop down immediately after focusing is achieved.

(3) The shutter release time lag will be 0.006 sec.

3. Custom functions

Other than custom function No. F-12, the custom functions are the same as for the EOS-1 N. Custom function No. F-12 is described below.

Custom Function F 12 (Refer to pages 92)	Beeping when the subject is in focus during One Shot autofocus or manual focus can be turned on or off.

4. Film advance mode

- Single frame advance (□)
  After a shot is taken, the film will advance by one frame at the same speed as during continuous shooting.
- Low-speed/High-speed continuous shooting ($\square_L$ / $\square_H$)
  For as long as the shutter button is pressed completely, continuous shooting will continue at the speeds shown in the table below.

5. Continuous shooting speed according to AF mode (frames/sec. at shutter speeds 1/250 or faster)

	RS Mode	Normal Modes	
		One-shot AF/Manual	AI Servo AF
Low-speed continuous ($\square_L$)	Approx. 3 fps	Approx. 3 fps	Approx. 2.5 fps
High-speed continuous ($\square_H$)	Approx. 10 fps	Approx. 6 fps	Approx. 5 fps

* At shutter speeds 1/1000 sec. or faster.

6. Battery service life in terms of film rolls

	Shooting capacity by battery type (rolls)		
Power source / Temperature	AA-size alkaline	Ni-Cd Pack E1	Size AA lithium batteries (FR6x8)
Normal (+20°C / 68°F)	100 (65)	65 (45)	250 (165)
Low (–20°C / –4°F)	6 (4)	45 (30)	90 (60)

- Figures are based on Canon tests using new batteries, an EF 50mm f/1.4 lens, and 24-exposure film. Figures in parentheses indicate the number of 36-exposure rolls.
- Filmless camera operations and autofocus operations will reduce the above figures.

8. EOS-1 N RS Operation Notes

- When the shutter button is pressed lightly, there will be a sound as if the shutter was released. This is only the shutter's rear curtain positioning itself.
- Use a blower brush to lightly blow off any dust from the pellicle mirror. If the mirror is really dirty, consult your nearest Canon Service Center.
- During self-timer operation, etc., when the eyepiece is left uncovered, light entering through the eyepiece may affect the proper exposure setting. It may even strike the film. Be sure to cover the eyepiece with the eyepiece shutter.

- During manual flash photography, use the following formula to compensate for the reduced amount of light reaching the film due to the pellicle mirror.
  Guide No. x 0.8 / Subject distance = Aperture setting
- When the Canon Speedlite 480EG is used for automatic flash photography, increase the normal aperture setting by 2/3 stop or decrease the 480EG's ISO setting by 2/3 EV (open up) to compensate for the reduced amount of light reaching the film due to the pellicle mirror.
- The flash distance range for automatic flash exposures will be 20 percent shorter than the flash unit's specified distance range. (The 420EZ, 430EZ, and 540EZ flash unit's will display the flash distance range after the compensation is set.)
- When using a handheld exposure meter to set the exposure manually, set an exposure compensation of +2/3 EV or set the handheld meter's ISO setting to 2/3 EV less than the normal ISO. This is to compensate for the reduced amount of light reaching the film due to the pellicle mirror.
- When the EF 50mm f/1.0L USM lens is used, vignetting will occur due to the frame holding the fixed pellicle mirror in place.

- When custom function CF-4 is set to "1" (AF operation with the AE lock button and AE lock with the shutter button pressed halfway) and the RS mode is used, allow the autofocus operation to be completed before pressing the shutter button halfway.
  - * If the shutter button is pressed halfway, the autofocus will not operate even when the AE lock button is pressed.
  - * If the AE lock button is pressed and the shutter button is pressed halfway during the autofocus operation, the aperture will stop down after focusing is achieved.
- Do not use Command Back E1 if you want a high continuous shooting speed. Using Command Back E1 while in the RS mode will give a maximum continuous shooting speed of only 1 frame/sec. even without any data being imprinted. Also, if data is imprinted, the maximum continuous shooting speed will vary depending on the film's ISO rating. For ISO 64 film, it will be 4 frames/sec.
- In the RS mode, AEB cannot be used.

Troubleshooting

If you run into a problem operating your camera, check the following table to see if you can find the cause of the problem. If the trouble persists, take the camera to your nearest Canon service center. (A list of service centers is provided at the back of this instruction book.)

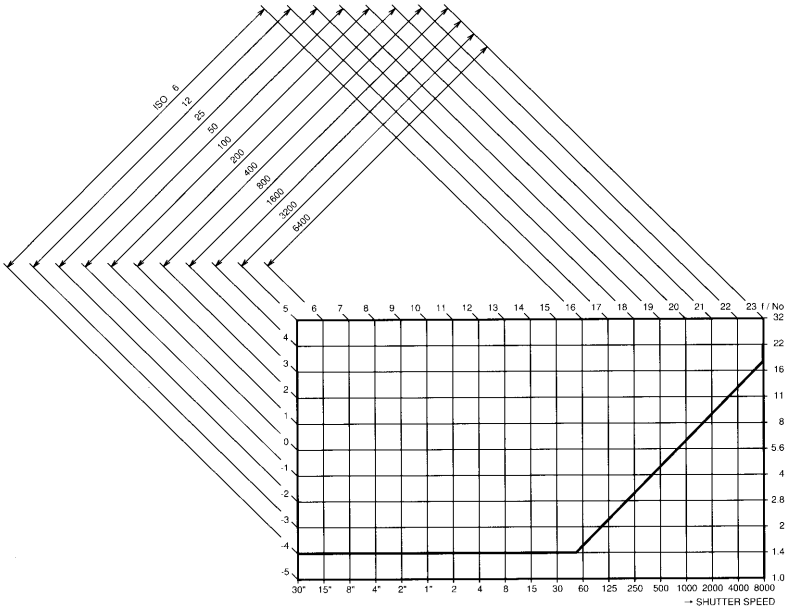
Symptom	Cause	Remedy	Referral page
Nothing appears in the LCD panel.	The main switch is set to L.	Set the main switch to **A** or ▪)).	16
	The battery is exhausted.	Replace the battery with a new one.	14
	The battery is inserted upside down.	Reload the battery correctly.	14
The automatic film loading function does not operate.	The main switch is set to L.	Set the main switch to **A** or ▪)).	16
	The film is not loaded correctly. (The film transport (wind/rewind) (----) is blinking in the LCD panel.)	Remove the film and reload it correctly.	23
The camera settings cannot be changed.	The main switch is set to L.	Set the main switch to **A** or ▪)).	16
	The quick control dial switch is not set to I.	Set the quick control dial switch to I.	10
Autofocusing does not operate.	The lens' focus mode switch is set to **M**.	Set the lens' focus mode switch to **AF**.	18
	Custom function F-4 is set to 1.	Press AE lock button to autofocus, or set custom function F-4 to 0 and press shutter button halfway.	82 84
The shutter does not release.	The main switch is set to L.	Set the main switch to **A** or ▪)).	16
	The film is not loaded correctly. (The film transport (wind/rewind) (----) is blinking in the LCD panel.)	Remove the film and reload it correctly.	23
	A roll of rewound film is still in the camera. (The film rewind completion (◎) is blinking in the LCD panel.)	Remove the exposed film and load a new roll.	25

Symptom	Cause	Remedy	Referral page
The shutter does not release.	The subject is not focused. (The in-focus indicator is blinking in the viewfinder.)	Press the shutter button again halfway to refocus the subject. If the subject still cannot be focused, refer to "3. Difficult Subjects for Autofocus" on page 34.	20
The film does not rewind.	The camera is being used in a cold environment.	The battery capacity quickly depleted due to the cold. Replace it with a new battery.	14
	Custom function F-1 is set to 1 or 3.	Set custom function F-1 to 0 or 2.	82 84
" bc " blinks in the LCD panel.	The battery is extremely depleted.	Replace the battery with a new one. If the " bc " indicator goes out, the camera will operate normally.	7
	The camera has undergone some type of malfunction.	Remove the battery from the camera and reload it. If the blinking " bc " indicator disappears, the camera will operate normally. • If the " bc " indicator does not stop blinking after repeating the above operations several times, there is a malfunction in the camera. Take the camera to your nearest Canon service center for diagnosis and repair.	7 14 Back cover

Program Line Characteristics

Program characteristics for Program AE [**P**] mode using an EF50mm f/1.4 USM lens.

For EOS-1 N mounted with an EF 50mm f/1.4 USM lens



Specifications

RS indicates the specification for the EOS-1 N RS

■ TYPE AND MAJOR COMPONENTS	
Type:	35mm focal plane shutter SLR (single-lens reflex) camera with autofocus, auto exposure and built-in motor drive. RS Built-in high-speed motor drive, 35mm focal-plane shutter, fixed half mirror, AF/AE single-lens reflex camera
Format:	24 mm × 36 mm
Usable Lenses:	Canon EF lenses
Lens Mount:	Canon EF mount (fully electronic signal transfer system)

■ VIEWFINDER	
Type:	Fixed eye-level pentaprism.
Coverage:	Gives 100% vertical and horizontal coverage of actual picture area.
Magnification:	0.72 × (–1 dpt, with 50mm lens at infinity).
Standard diopter:	–1 dpt, built-in dioptric adjustment mechanism provided with adjustment range of –3 ~ +1 dpt (eyepoint: 20 mm).
Focusing Screen:	Interchangeable (8 types available); standard screen: Ec-CII. RS Interchangeable (8 screens) by a Canon Service Center. Type Ec-R installed as standard equipment.
Mirror:	Quick return half-mirror (Mirror blockage: None to 1200mm f/5.6) RS Fixed pellicle mirror (transmission:reflection = 65:35)
Viewfinder Information:	(1) Within viewing area: Five focusing points, fine spot metering area mark (with Ec-CII) (2) Below viewing area: Shutter speed, aperture value, ✳ (AE lock, blinks at 2 Hz during AEB operation), **M** (manual), ↯ (flash charge completion indicator), ⁺⁄₋ (lights when exposure compensation or flash exposure compensation is set), ● (in-focus indicator, blinks at 8 Hz when AF is impossible)

	(3) To the right of viewing area: Exposure level scale (±3 stops in 1/3-stop increments), exposure level indicator (① AE mode, exposure compensation amount, ② AE lock, real-time meter deviation value, ③ manual exposure level, ④ AEB step amount, ⑤ background exposure when using flash), remaining frame number display
Depth-of-Field Preview:	Possible, by operation of depth-of-field preview button.
■ EXPOSURE CONTROL	
Light Metering:	TTL full-aperture metering using a 16-zone SPC (silicon photocell). Five metering modes available: evaluative metering, partial metering (covers approx. 9% of the central picture area), fine spot metering (covers approx. 2.3% of the central picture area: In continuous exposure mode, first frame metered in real time, second and successive frames shot at same settings (AE lock)), spot metering (covers approx. 3.5% of the picture area at each AF frame position) and center-weighted average metering.
Shooting Modes:	① Shutter-priority AE (1/3-stop increments) ② Aperture-priority AE (1/3-stop increments) ③ Depth-of-Field AE ④ Intelligent Program AE ⑤ A-TTL program flash AE ⑥ TTL program flash AE ⑦ Manual exposure ⑧ Bulb RS No depth-of-field-priority AE.
Metering Range:	At normal temperature with 50mm f/1.4 lens at ISO 100: ① Evaluative metering, partial metering: EV 0 ~ 20 ② Fine spot metering: EV 3 ~ 20 RS ① EV 1-20 for evaluative and partial metering*, ② EV 1-20 for fine spot metering* (*At room temperature with a 50mm f/1.4 lens and ISO 100 film.)
Usable film speeds:	ISO 6~6400 (ISO 25~5000 when automatically set by DX code)
Exposure Compensation:	(1) AEB: ±3 stops in 1/3-stop increments, shot according to film winding mode in sequence of underexposure → correct exposure → overexposure; repeatable, can be used with self-timer for delayed 3-sequence exposure. RS In the RS mode, AEB cannot be set.

	(2) Manual compensation: ±3 stops in 1/3-stop increments, by independent operation of quick control dial or combination of exposure compensation button + main dial; can be used together with AEB.
AE Lock:	(1) Auto AE lock: AE lock occurs simultaneously with AF completion in one-shot AF mode with evaluative metering. RS (1) Auto AE lock. During One Shot autofocus and evaluative metering, AE locks when focusing is achieved. (2) Manual AE lock: Possible in all metering modes by pressing AE lock button. RS (2) Manual AE lock. AE lock button enables all metering modes. In the RS mode, AE lock will not work after autofocusing is achieved.
Multiple Exposures:	Up to nine exposures can be preset (can be canceled or reset in mid-operation)
■ AUTOFOCUS	
AF Control System:	TTL-CT-SIR (Secondary Image Registration) phase detection type using Cross-type multi-BASIS (Base-Stored Image Sensor). Focus completion indicated by LED lamp and audible beep (Lamp blinks at 8 Hz when autofocusing is impossible; beep sound can be turned off)
Focusing Points:	Five focusing points provided.
Focusing Point Selection:	Selected automatically by camera or manually by user.
Focusing modes:	(1) One-shot AF: At focus completion, AF operation stops, AF lock occurs and the shutter release is enabled. (2) AI Servo AF: AF system tracks moving subject until immediately prior to exposure, includes predictive focusing function, shutter release enabled at all times (however, predictive focus control has priority in continuous exposure mode); in-focus indicator does not light when focus is achieved, but blinks at 8 Hz when autofocusing is impossible. RS In the RS mode, AI Servo autofocus cannot be set.

	(3) Manual focusing: Possible by setting the lens' focus mode switch to "**M**" and operating the lens' manual focusing ring. In-focus indicator lights up when focus is achieved (with EF lenses having maximum aperture of f/5.6 or larger). RS Manual focusing with the electronic ring is enabled during exposure and continuous shooting.
AF Working Range:	EV 0 ~ 18 (ISO 100).
■ SHUTTER	
Type:	Vertical-travel, focal plane shutter with all speeds electronically controlled. RS Electronically-controlled (at all speeds), vertical-travel, double curtain focal-plane shutter
Shutter Speed:	1/8000 ~ 30 sec. (in 1/3-stop increments) and bulb. Maximum X-sync speed: 1/250 sec.
Shutter Release:	Soft-touch electromagnetic release. RS Shutter release time lag In the RS mode, the exposure starts 0.006 sec. after the shutter button is pressed down fully.
Self-timer:	Electronically controlled with 2- or 10-second delay, selectable; operation indicated by blinking lamp (blinking speed: 2 Hz when first activated, increasing to 8 Hz for final two seconds); self-timer counted down in camera's LCD panel; can be automatically canceled by setting the main switch to " L ".
■ FILM TRANSPORT	
Film Loading:	Automatic. Film automatically advances to first frame when back cover is closed.
Film Wind:	Automatic using built-in motor. (1) EOS-1 N alone: Two modes available: □ (single exposure) and ⧉ (continuous exposure). (2) With Power Drive Booster E1 attached: Three modes available: □ (single exposure), $⧉_L$ (low-speed continuous exposure) and $⧉_H$ (high-speed continuous exposure). RS Three modes: (single frame), (low-speed continuous shooting), (high-speed continuous shooting)

Film Rewind:	Automatic rewind at end of roll using built-in motor. (Rewind speed with 24-exp. film: approx. 5 sec; with 36-exp. film: approx. 8 sec.); mid-roll rewind possible. Rewind noise: Normal mode: 59 dB; Silent mode: 48 dB. RS High-speed film rewind: Approx. 5 sec. for 24-exposure film and 8 sec. for 36-exposure film Silent film rewind for 24-ex. and 36-ex. films: Approx. 13 sec. and 20 sec. respectively

■ CAMERA BODY

Flash Contacts:

(1) Accessory shoe:
X contact, directly-coupled contacts

(2) PC terminal:
JIS B socket (with lock screw)
* (1) and (2) can be used at the same time.

Automatic Flash Exposure:

• **X-sync Shutter Speed and Aperture Settings** (with EOS dedicated speedlites)

Shooting mode	X-sync shutter speed	Aperture value
P (program AE)	Automatically set to 1/60 ~ 1/250 sec. based on A-TTL or TTL program	Automatically set acording to A-TTL or TTL program
Tv (Shutter-priority AE)	Manually set to any shutter speed of 1/250 or slower.*	Automatically set according to ambient light level and shutter speed.
Av (Aperture-priority AE)	Automatically set between 30 sec. and 1/250 sec. according to ambient light level and set aperture value.	Manually set to desired aperture.
M (Manual exposure)	Manually set to any shutter speed of 1/250 or slower.	Manually set to desired aperture.

* If a shutter speed faster than 1/250 sec is set, the camera automatically sets the shutter speed to 1/250 sec.

Fourteen built-in custom functions selectable by user: (1) Automatic film rewind setting, (2) Film leader status at end of rewind, (3) Film speed setting, (4) AF activation method, (5) Manual shutter speed and aperture value setting method, (6) Shutter speed, aperture value, exposure compensation, flash exposure compensation and AEB setting increments.

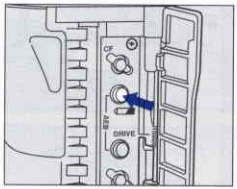
Custom Function Control:	(7) Manual focusing using the electronic manual focusing ring,(8) Selection of center-weighted average metering, (9) AEB shooting sequence, (10) Cancellation of super-imposed focusing points, (11) Focusing point selection method, (12) Mirror up photography, (13) Spot metering linked to focusing points, (14) flash output control. RS Except for custom function No. F-12, same as in the EOS-1 N. F-12 set to "0": No beeping when autofocusing is achieved in the A mode. F-12 set to "1": Beeping when autofocusing is achieved in the A mode. (No beeping in the RS mode.)
LCD Panel:	Displays necessary information including AF mode, film winding mode, metering mode, shutter speed, aperture value, film speed, battery condition and exposure compensation.
Remote Control:	3-pin remote control socket provided.
Battery:	(1) One six-volt 2CR5 lithium battery, housed in the grip; (2) When the Power Drive Booster E1 is attached, the lithium battery is removed and power is supplied from the booster's power source (eight AA-size alkaline-manganese batteries [or AA-size Ni-Cd batteries or AA-size lithium batteries] or Ni-Cd Pack E1); (3) When the AA-size battery pack BP-E1 is attached, power is supplied either by the camera's lithium battery or by four AA-size alkaline-manganese or Ni-Cd batteries. RS 8 size AA alkaline manganese batteries (Ni-Cd or lithium) or Ni-Cd Battery Pack E1
Battery Check:	By pressing the battery check button; battery level shown in four-step display in the LCD panel
Camera Back:	Interchangeable with the optionally available Command Back E1.
Dimensions:	161 (W) × 112.1 (H) × 71.8 (D) mm 6-5/16" (W) × 4-7/16" (H) × 2-13/16" (D) RS 6-5/16" (W) x 6-1/8" (H) x 3-1/16" (D) mm
Weight:	855 gr / 30 oz without battery (body only, without lithium battery) RS 1,295 gr / 36.7 oz (including battery magazine without batteries)

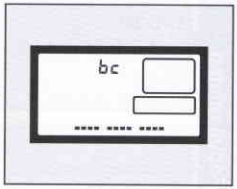
Quick Guide to EOS-1 N Functions

Make sure the main switch is set to "**A**" before performing the following operations:

Power source related

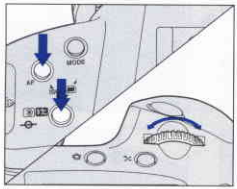
Check the battery level
(refer to page 15)

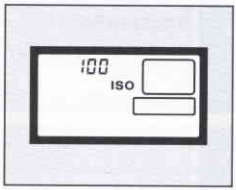




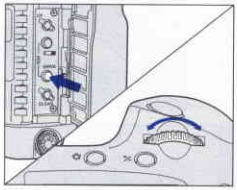
Film related

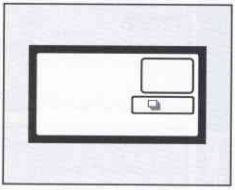
Check the set film speed
(refer to page 22)



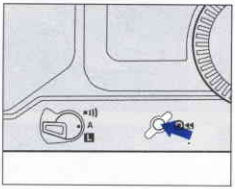


Take pictures in rapid sequence
(refer to page 67)



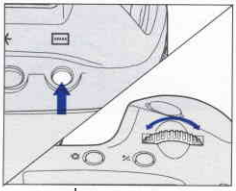


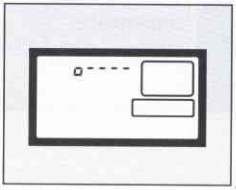
Rewind the film in mid-roll
(refer to page 25)



Focus related

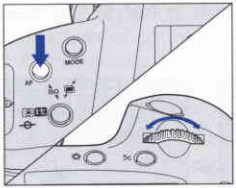
Select the focusing point
(refer to page 29)

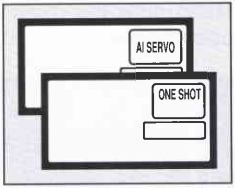




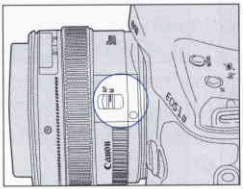
Focus related

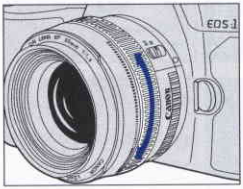
Select the AF mode
(refer to page 32)





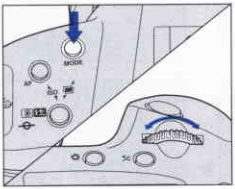
Focus the subject manually
(refer to page 36)

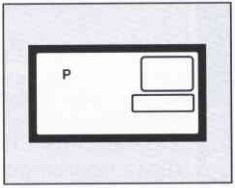




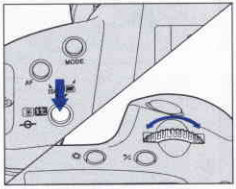
Exposure related

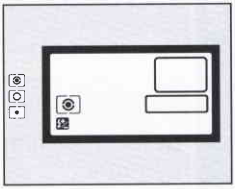
Select the shooting mode
(refer to page 48)



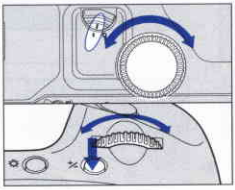


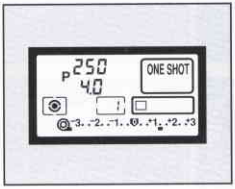
Select the metering mode
(refer to page 37)





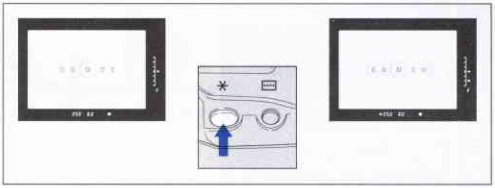
Compensate the exposure
(refer to page 42•44)





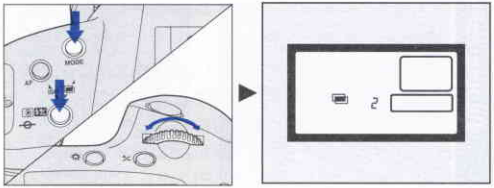
Exposure related

Use AE lock to lock the exposure reading
(refer to page 40)

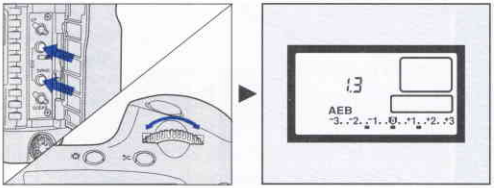


Photographic applications

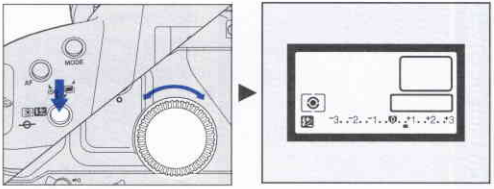
Take multiple exposures on one frame
(refer to page 63)



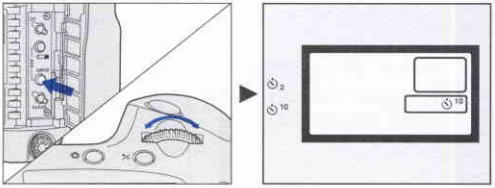
Use automatic exposure bracketing
(refer to page 45)



Compensate the flash exposure
(refer to page 78)

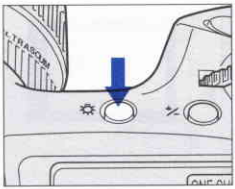


Use the self-timer
(refer to page 70)

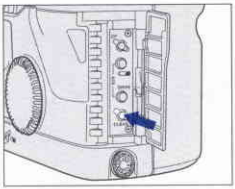


Photographic applications

Illuminating the LCD panel
(refer to page 74)

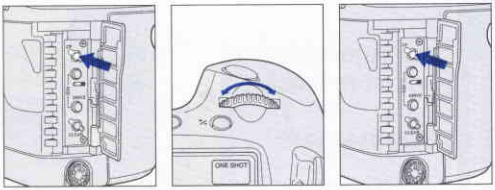


Reset all functions (clear button) [except for custom functions]
(refer to page 75)

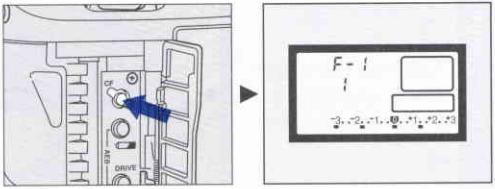


Custom functions

Set a custom function
(refer to page 82)



Check the current custom function settings
(refer to page 83)



Reset all custom functions at once
(refer to page 75)