Canon CPS PROFESSIONAL SERVICES

Update

December 1994

Introducing Canon EOS-1N

Now it's Canon. The professional choice.

- 5-point autofocus with choice of automatic or real-time focusing point selection via Quick Control dial.
- Improved shooting speed and focus prediction capability: Up to 6 frames per second (approx. 5 fps in AI Servo AF) with Power Drive Booster E1.
- Silent rewind: Up to 8 times quieter than the EOS 1.
- Choice of 5 metering patterns from 16-zone Evaluative to 2.3% Fine Spot.
- Improved flash system: Enhanced triple-zone TTL flash sensor plus built-in flash exposure compensation control.
- 14 Custom Functions including mirror lock for expanded flexibility.

Photo © Michel Tcherevkoff

Special Issue

EOS-1N Specifications

TYPE AND MAJOR COMPONENTS
Type: 35mm focal plane shutter SLR (Single-Lens Reflex) camera with multi-point autofocus, auto exposure and built-in motor drive.
Lens Mount: Canon EF Mount (fully electronic signal transfer system).
Usable Lenses: Canon EF Lenses
Viewfinder: Fixed eye-level pentaprism. Gives approx. 100% vertical and horizontal coverage of actual picture area and 0.72x magnification with 50mm lens at infinity at standard diopter (-1).
Focusing Screen (standard): Laser-matte screen with fine spot metering area mark. (Seven optional interchangeable screens are available.)
Dioptric Adjustment: -3 to +1 dpt
Eyepoint: 20mm
Shutter: Vertical-travel focal plane shutter, all speeds electronically controlled.
Shutter Speeds: 1/8000–30 sec. (in 1/3, 1/2 or 1 step increments) and bulb.
Maximum X-sync speed: 1/250 sec.
Mirror: Quick-return half-mirror (Mirror blockage: None to 1200mm f/5.6).

AUTOFOCUS
AF Control System: TTL-CT-SIR (Secondary Image Registration) phase detection type using multi-BASIS (Base Stored Image Sensor).
Focusing Point Selection: Selected automatically by camera or manually by user.
Focusing Modes: (1) One-shot AF (2) AI Servo AF (3) Manual focusing
AF Working Range: EV 0~18 (ISO 100).
AF Auxiliary Light: Specified Canon Speedlites automatically project light through an ultra-bright LED (peak sensitivity: 700mm) when required.

EXPOSURE CONTROL
Light Metering: TTL full-aperture metering using a 16-zone SPC (silicon photocell). Five metering modes available: evaluative metering (corresponds to 5 focusing points), partial metering (covers approx. 9% of the central picture area), fine spot metering (covers approx. 2.3% of central-picture area), spot metering (covers approx. 3.5% of the picture area at each AF frame position) and center-weighted average metering.
Metering Range: Evaluative and partial metering: EV 0~20. Fine spot metering: EV 3~20. (At normal temperature with 50mm f/1.4 lens at ISO 100).
Usable film speeds: ISO 6-6400 (ISO 25-5000 when automatically set by DX code)
Shooting Modes:
(1) Intelligent Program AE with variable shift (2) Shutter-priority AE (3) Aperture-priority AE (4) Depth-of-Field AE (5) A-TTL and TTL program flash AE (6) Manual (7) Bulb.
Exposure Compensation:
(1) AEB: ±3 steps in 1/3 or 1/2 step increments, repeatable.
(2) Manual compensation: ±3 steps in 1/3 or 1/2 step 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. (2) Manual AE lock: Possible in all AE modes by pressing AE lock button.
Depth-of-Field Preview: Possible in all exposure modes, by operation of independent depth-of-field preview button.

FILM TRANSPORT
Film Loading: Automatic. Film automatically advances to first frame when back cover is closed.
Film Wind: Automatic. Two modes available: Single (S) and Continuous (C).
Maximum Film Winding Speed

	One-Shot AF/Manual Focus	AI Servo AF
Continuous exposure	approx. 3 fps	approx. 2 fps

Film Rewind: Automatic at end of roll. Two rewinding speeds available: Silent and High-speed. (Maximum rewind speed with 24 exposure roll: approx. 5 sec. Rewind noise: High-Speed mode: 59 dB; Silent mode: 48 dB.) Mid-roll rewind possible.

POWER SOURCE
Battery: (1) One lithium battery pack (2CR5-6V), housed inside grip; (2) When the 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.
Battery Check: By pressing the battery check button; battery level shown in four-step display in the LCD panel.
Shooting Capacity: (with 24-exp. film)
Values in parentheses are for 36-exp. film

Temperature	Battery Type		
	EOS-1N alone or with BP-E1	With BP-E1	
	2CR5 lithium	AA-size Alkaline	AA-size Ni-Cd
Normal (20C/68F)	75 (50) rolls	45 (30) rolls	18 (12) rolls
Low (-20C/-4F)	12 (8) rolls	0 (0) rolls	12 (8) rolls

OTHER
Custom Functions: 14 custom functions available.
Flash Contacts: Direct contact at accessory shoe and PC socket (JIS-B type). Simultaneous use is possible.
Remote Control: 3-pin remote control socket provided.
Data Display: In viewfinder and LCD panel.
Multiple Exposures: Up to 9 exposures can be preset. Automatically clears upon completion.
Self-timer: Electronically controlled with 2- or 10-second delay, selectable.
Camera Back: Interchangeable with the optionally available Command Back E1.

SIZE
Dimensions: 161 (W) x 112.1 (H) x 71.8 (D) mm
6-5/16" (W) x 4-7/16" (H) x 2-13/16" (D)
Weight: 855 gr/30 oz (body only, without lithium battery)

WITH POWER DRIVE BOOSTER E1
Film Wind: Three modes available: Single frame (symbol), low-speed continuous exposure (symbol), and high-speed continuous exposure (symbol).
Maximum Film Winding Speed: (shutter speed: 1/250 sec. or faster)

	One-shot AF/Manual Focus	AI Servo AF
High-speed Continuous	approx. 6 fps	approx. 5 fps
Low-speed Continuous	approx. 3 fps	approx. 2 fps

Shooting Capacity: (with 24-exp. film)
Values in parentheses are for 36-exp. film

Temperature	Battery type	
	AA-size Alkaline	Ni-Cd Pack E1
Normal (20C/68F)	100 (65) rolls	65 (45) rolls
Low (-20C/-4F)	6 (4) rolls	45 (30) rolls

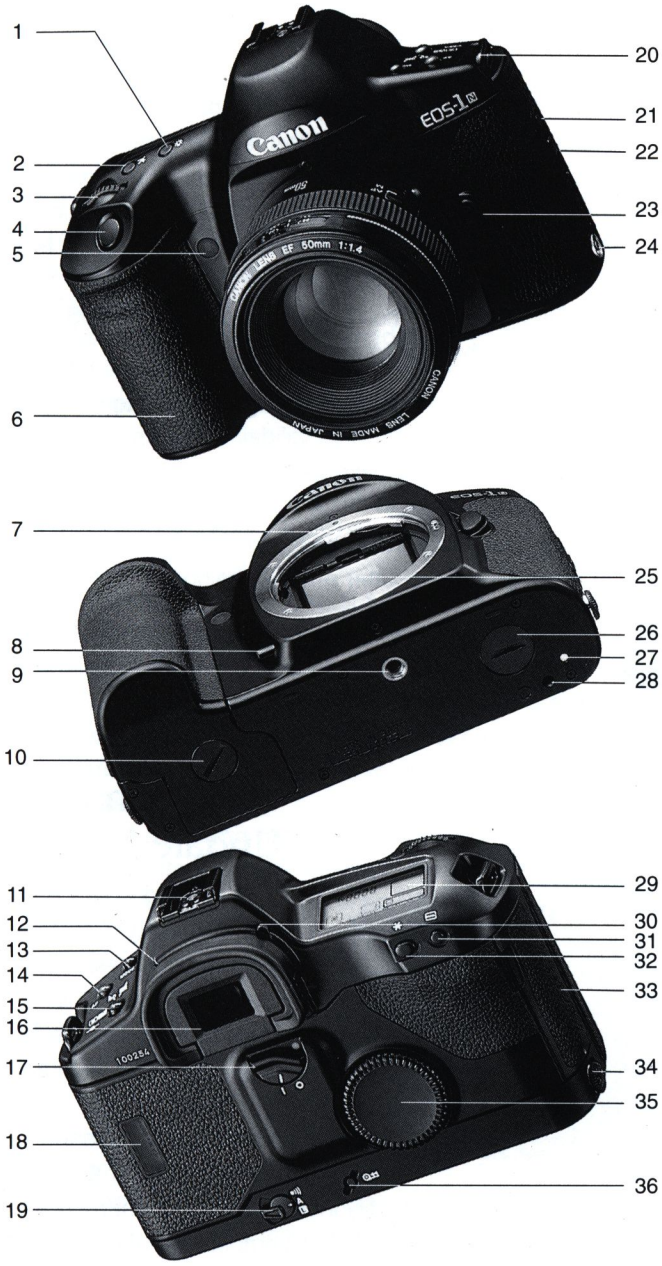
Power Source: Eight AA-size alkaline batteries, AA-size lithium batteries*, AA-size NiCd batteries or NiCd Pack E1.

*AA-size lithium batteries can only be used with the combination of the EOS-1N and Power Drive Booster E1 marked with the AE lock symbol (*). AA-size lithium batteries cannot be used with the EOS-1 under any circumstances.

SIZE (EOS-1 with Power Drive Booster E1 attached)
Dimensions: 161 (W) x 155.9 (H) x 78 (D) mm
6-5/16" (W) x 6-1/8" (H) x 3-1/16" (D)
Weight: 1300 gr/45.5 oz without batteries. 1500 gr/52.5 oz. with 8 AA-size alkaline batteries.

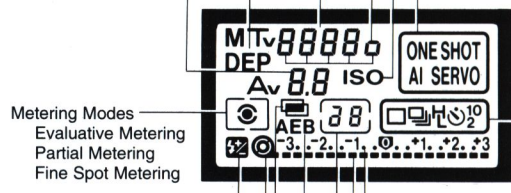
All data based on Canon's Standard Test Method. Subject to change without notice.

Nomenclature & Control Layout



1. LCD Panel Illumination Button (✲)
2. Exposure Compensation Button (+/–)
3. Main Dial
4. Shutter Button
5. Self-Timer Indicator
6. Grip/Battery Chamber
7. Lens Mount
8. Depth-of-Field Preview Button
9. Tripod Socket
10. Grip Screw
11. Accessory Shoe
12. Dioptric Adjustment Dial
13. Shooting Mode Selector
14. AF Mode Selector
15. Metering Mode Selector/ Flash Exposure Compensation Button
16. Viewfinder Eyepiece
17. Quick Control Dial Switch
18. Film Window
19. Main Switch (L, A, ▪))
20. Strap Fixture
21. Back Cover Lock Release Button
22. Back Cover Latch
23. Lens Release Button
24. PC Terminal (cover)
25. Mirror
26. Booster Coupler Cover
27. Booster Coupling Pin
28. Booster/Battery Pack Attachment Hole
29. LCD Panel
30. Eyepiece Shutter Lever
31. Focusing Point Selector (▭)
32. AE Lock Button (✲)
33. Palm Door
34. Remote Control Socket (Cover)
35. Quick Control Dial
36. Film Rewind Button (⟲)

LCD Panel



Shooting Modes
- Manual Exposure: M
- Shutter-priority AE: Tv
- Bulb Exposure: Bulb
- Program AE: P
- Aperture-priority AE: Av
- Depth-of-Field AE: DEP

Aperture Value
- Custom Function Control
- AEB Value
- Depth-of-Field AE

Metering Modes
- Evaluative Metering
- Partial Metering
- Fine Spot Metering

Flash Exposure Compensation

Film-Load Check

Film Rewind Completion

Multiple Exposures

AEB

Frame counter
- Bulb Exposure Time
- No. of Multiple Exposures
- Self-Timer Countdown

Shutter Speed

Film Speed

Battery Check

Bulb

Depth-of-Field

Custom Function Control

Focusing Points

ISO Indicator

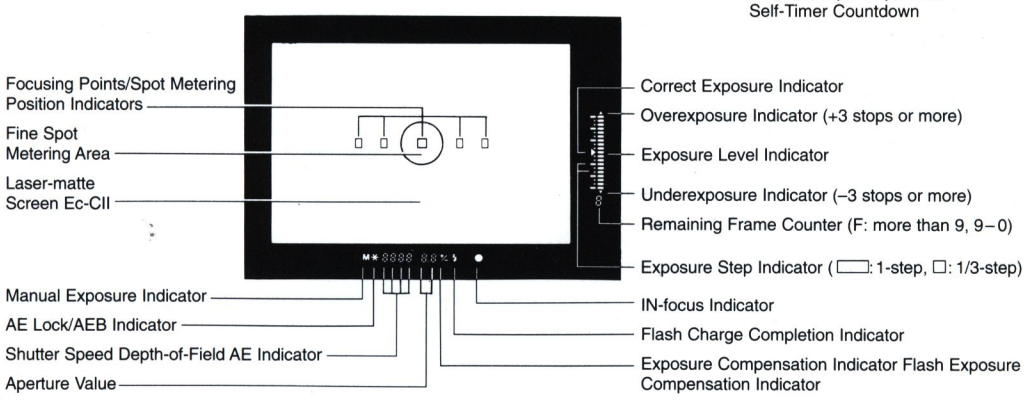
AF Mode Indicator
- One-Shot AF
- AI Servo AF

Exposure Compensation Value Index

Film Winding Mode Indicator
- Single Exposure:
- Continuous Exposure:
- Low-Speed Continuous Exposure: (EOS-1N HS only)
- Self-Timer: 10 (10 second timer), (2 second timer)

Film Transport (Wind/Rewind)
- Film Wind Completion Error
- Battery Check
- Exposure Level Indicator
- Bulb Exposure Time
- AEB Value Amount Indicator
- Flash Exposure Compensation Value Indicator
- Custom Function Setting Indicator

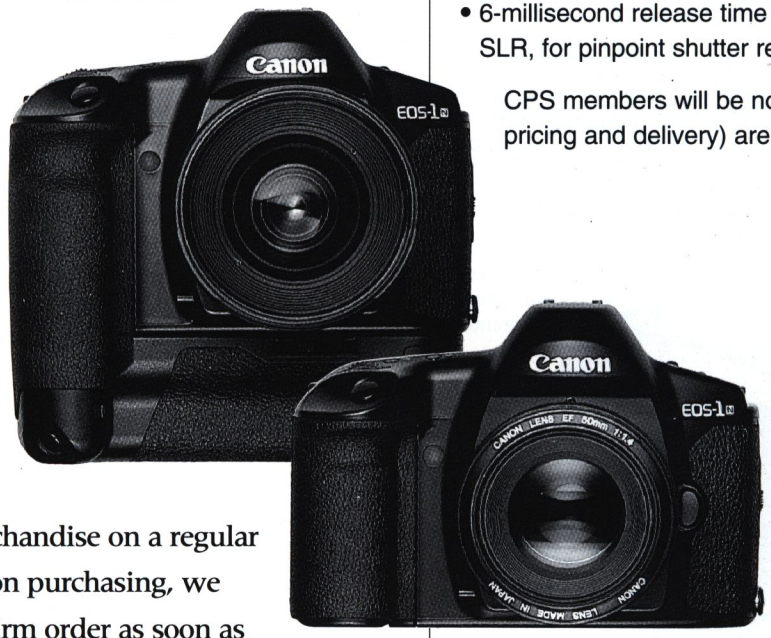
Viewfinder Information Display



A Note to CPS Members

By the time this issue of *CPS Update* arrives, some of you may already have purchased the EOS-1N. If so, we thank you very much and trust that you're already enjoying the improved features and performance of your new equipment. For those of you who have waited until now, this issue of the *Update* has been designed to answer questions concerning features and operation on the new camera and its accessories.

To say the least, the EOS-1N is already a big hit in the market. Most dealers have sold out their first shipments, and the camera is currently in short supply while Canon U.S.A. catches up with the demand. By the time you receive this, we expect that all Canon dealers who carry the EOS-1N will be receiving new merchandise on a regular basis. If you plan on purchasing, we suggest placing a firm order as soon as possible for early delivery.



EOS-1N Instruction Video

Based on your requests, we've prepared an instructional videotape to make it as easy as possible to gain a comprehensive working knowledge of the EOS-1N and its basic accessories. The EOS-1N Instruction Video is available at no charge by sending in the coupon supplied with every EOS-1N camera sold through Canon U.S.A. to its authorized dealers. Please allow approximately 6 weeks for delivery. After you've had a chance to review the tape, you'll receive a survey that asks for your comments and suggestions. Please help us by returning the survey as soon as possible!

What Next?

1995 promises to be the best year ever for CPS members, with a broad variety of important new professional products (including cameras and lenses) scheduled for introduction throughout the year. For instance, the next issue of *CPS Update* (in February, 1995) is scheduled to coincide with the official introduction of the EOS-1N RS, the newest professional camera in the EOS series.

Designed as a companion model for the EOS-1N, the RS offers the following main features:

- Pellicle mirror for full-time viewing of the image even during exposure
- Shooting rates up to 10 frames per second, ideal for fast-moving subjects
- 6-millisecond release time lag, the shortest ever for an SLR, for pinpoint shutter release timing

CPS members will be notified as more details (such as pricing and delivery) are released.

CPS Loan Policy Update

The growing popularity of the EOS system among professional photographers in the United States has resulted in a 25% increase in active CPS membership compared to the same period one year ago. Although we have steadily increased our inventory of loan equipment during the year, the combination of equipment allocations required for Canon-sponsored special events like the Winter Olympics, World Cup and the U.S. Open in addition to increased demand for evaluation loans often made it impossible for CPS to honor individual loan requests during 1994.

The outlook for 1995 is considerably better, due to fewer national events. However, we must remind you that CPS cannot operate successfully without your cooperation. This primarily means returning loan equipment in good condition and *on time*. It also means that CPS must adhere to its policy of limiting item count on individual loans and refusing to loan the same item more than once to the same photographer.

Thanks for your cooperation!

Canon EOS-1N: Evolution of a Legend

Five years ago, Canon revolutionized the SLR market with the EOS-1—a camera that for the first time truly validated the concept of autofocus with professional photographers. In combination with unique accessories such as the Power Drive Booster E1 and Canon's original USM lenses, the EOS-1 drastically expanded the range of shooting conditions that could be successfully photographed. In doing so, it established a new level of performance that has never been topped—until now.

As Canon's new flagship model, the EOS-1N is designed to build on the strengths of the EOS-1 and other popular cameras such as the EOS A2. Constructed to even higher standards of reliability than the original, the EOS-1N incorporates new technologies and design concepts that significantly increase performance and at the same time fulfill the requests of devoted EOS users.

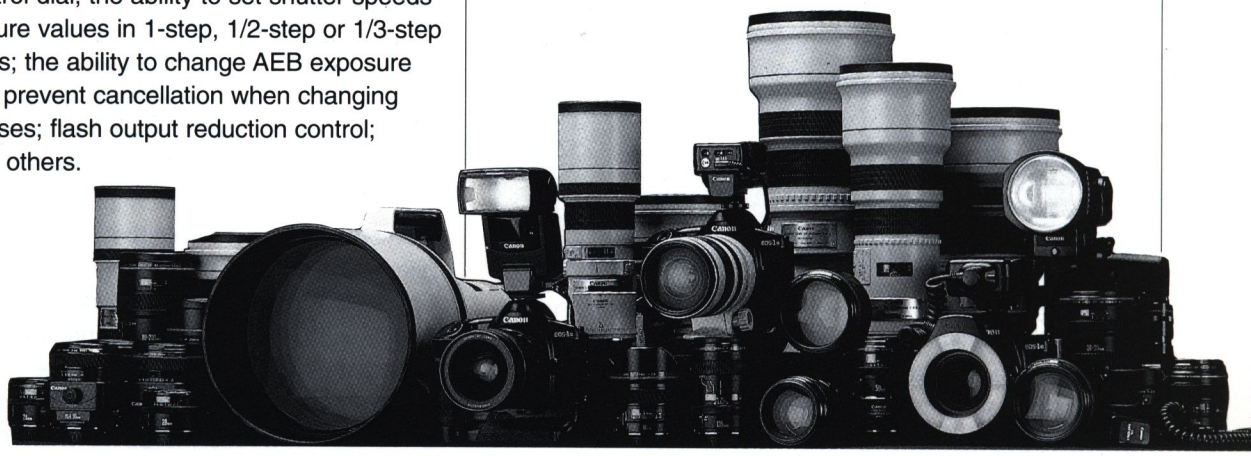
New features include:

- **Advanced Multi-BASIS AF (autofocus) sensor:** Now with five selectable focusing points for wide-area coverage.
- **Improved shooting speed and focus prediction capability:** Up to 6 frames per second (approximately 5 fps in AI Servo AF) with Power Drive Booster E1.
- **Five metering patterns:** Including 16-zone Evaluative, Center-weighted Average, 9.0% Partial, 3.5% Spot Metering linked to each focusing point, and 2.3% Fine Spot Metering.
- **Improved flash system:** Enhanced multiple-zone TTL flash sensor linked to each focusing point plus built-in flash exposure compensation control.
- **Silent rewind:** Rewind noise is now up to 8 times quieter than the EOS-1.
- **14 custom functions, including several with multiple settings:** These options provide more control over camera operation than ever before. New custom functions include: mirror lock; the ability to select individual focusing points with quick control dial; the ability to set shutter speeds and aperture values in 1-step, 1/2-step or 1/3-step increments; the ability to change AEB exposure order and prevent cancellation when changing film or lenses; flash output reduction control; and many others.

New System Accessories

The EOS-1N arrives with several new accessories designed to expand its capabilities and allow your customers to achieve their full creative potential.

- **Battery Pack BP-E1:** A dual power source for exclusive use with the EOS-1 and EOS-1N, which allows quick switching between the standard 2CR5 lithium battery or four AA-size alkaline-manganese or Ni-Cd batteries, according to the shooting conditions. The camera operates even when only one of the two battery types is installed. Compact and lightweight, BP-E1 is an attractive alternate power supply grip that offers enhanced flexibility in power source selection.
- **Speedlite 540EZ:** This powerful, high-output auto-zoom flash (Maximum GN 54/177, ISO 100 m/ft.) is compatible with focal lengths from 24mm wide-angle to 105mm medium-telephoto. With its built-in wide panel, it is capable of covering the angle of an ultra-wide 18mm lens. The 540EZ has an extremely wide range of features—a partial list includes A-TTL and TTL auto flash control (exposure can be confirmed after the shot), AF auxiliary light compatible with 5-point focusing, flash-fill ratio compensation over ±3 stops in 1/3-stop increments, first/second curtain sync, and enhanced tilting capability from -7° for close-ups to +90°for bounce flash. An LCD panel provides a wide range of status information, including an exposure level indicator.
- **Wireless Controller LC-3:** An infrared strobe-type wireless control system, designed for use with Canon SLRs featuring T3 terminals. The LC-3 has a maximum range of approximately 100m/330 ft. and incorporates a 2-stage switch which enables individual control of metering and shutter release. Three transmitter channels are available, and the receiver features a signal confirmation light and a special 1-step release mode for minimum time lag.



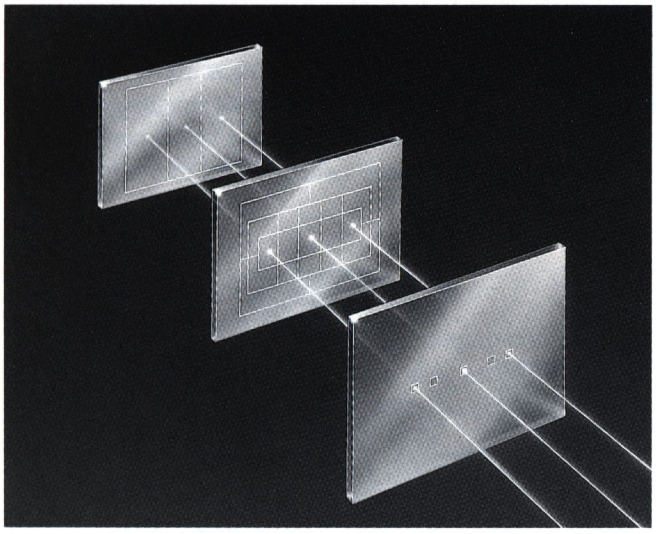
The AIM System: One step closer to the ideal camera

At Canon, we are in pursuit of the ideal camera, a camera that could be compared to the human eye. To get one step closer to our goal, we have linked focus and exposure in a sophisticated new way: the AIM (Advanced Integrated Multi-point control) system. This exclusive system gives you greater accuracy and greater flexibility—exactly what the EOS-1N was designed for.

The EOS 10s, which was introduced in 1990 with a 3-point autofocus system, was the first Canon SLR to incorporate the AIM system. The system evolved and was next employed in the 5-point autofocusing and Eye Controlled Focus system of the EOS A2E. With the EOS-1N, the system has been further improved in terms of providing maximum focusing and exposure control that best reflects the will of the photographer.

The EOS-1N's AIM system consists of 5-point AF, 16-zone evaluative metering, spot metering linked to each focusing point, and 3-zone flash exposure metering. The camera evaluates the lighting condition, taking the subject's position and size into account, and sets the best possible exposure immediately. In contrast to conventional single-point AF systems, there's no need to lock the focus and then reframe your shot.

The spot metering system can also be linked to the 5 focusing points. In this case, the metering applies to the selected focusing point only. The other element in AIM is the 3-zone flash exposure metering system. The whole image is divided into 3 zones that are linked to the focusing points. The flash is controlled automatically so that it provides optimum exposure for the main subject.

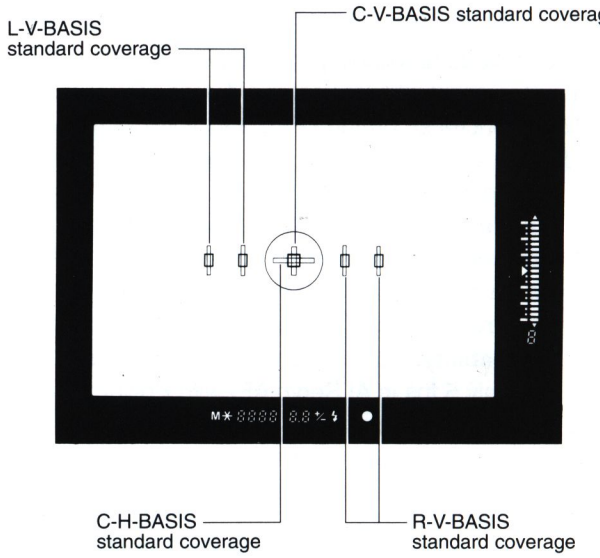


The AIM System

In any situation, the clear advantages of the AIM system are accuracy, reliability and speed. But perhaps the most important benefit for photographers is the ability to concentrate on the image instead of the camera controls.

Autofocus System

The EOS-1N's autofocus system makes use of our latest generation Multi-BASIS (Base-Stored Image Sensor) technology. This new multi-point sensor features four vertical sensors on the left and right sides, in addition to Canon's original cross-type sensor for the center focusing point. It provides enhanced focusing versatility, as well as superior wide-area coverage. The range of problematic situations for autofocus is greatly reduced, making overall autofocus performance even more reliable.



Focusing Modes

One-shot AF locks in razor-sharp focus.

In the One-Shot AF mode, the EOS-1N focuses automatically using the 5-point AF system, and locks in when focusing is completed. Until then, the shutter release is locked, so out-of-focus shots are eliminated. One-shot AF is ideal for stationary subjects.

AI Servo AF maintains clarity when shooting moving subjects.

With AI Servo AF, the camera continues to focus on the subject so you can concentrate on picture composition and the best timing for shutter release. When the subject reaches a certain speed toward or away from you, Focus Prediction Control automatically engages, assessing its speed and direction to forecast where it will be at the moment of exposure. The first frame has shutter release priority, so you can shoot regardless of whether AF is completed or not. When shooting continuously, subsequent frames are controlled by focus priority. The EOS-1N's high-speed AF is capable of capturing the action at 2 frames/sec., which can be increased to 5 frames/sec., with Focus Prediction Control by using Power Drive Booster E1.

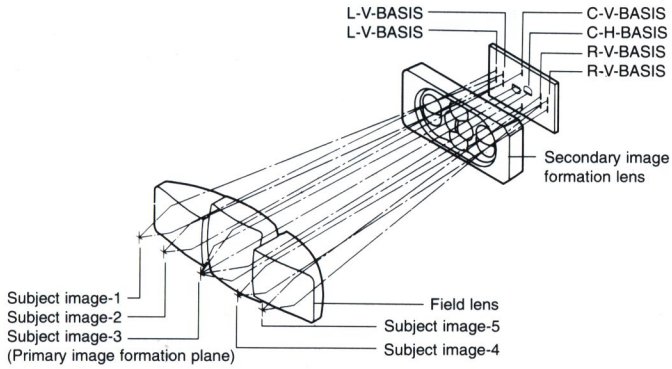
Focusing Point Selection

With the EOS-1N's wide-zone AF system, you can freely select any individual focusing point to compose the scene as desired, or you can let the camera select for you. Normally, you select the focusing point by pressing a button and turning the main dial, just like the EOS A2 & A2E. However, a unique new custom function (CF11-2) lets you select by turning the quick control dial, thus for the first time enabling you to change focusing points during continuous shooting sequences. This new focusing point selection method places the EOS-1N in a class of its own for action photography.

Automatic focusing point selection provides additional options. In One-shot AF, the system usually gives priority to the closest reliable subject, ideal for grab shots and similar situations where you may not have time to react. In AI Servo AF, the system always gives priority to the central cross-type sensor for the first exposure. After that, the EOS-1N's predictive focusing function will continue to track the subject, even if it moves to a different focusing point.

TTL-CT-SIR Ranging System

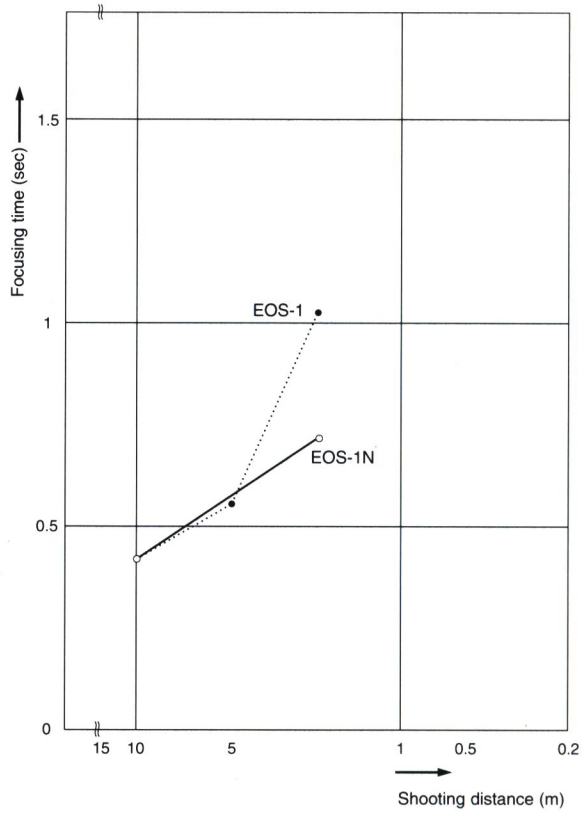
The TTL-CT-SIR (Through-the-Lens Cross-Type Secondary Image Registration) phase detection system determines focus by driving the lens after completing a sophisticated process of signal detection and analysis. The basic optical system used for rangefinding samples 12 light beams passing through the shooting lens, arranged in six pairs (five vertical and one horizontal). The mid-air image formed at the primary image formation plane (focus plane) is reproduced on the Multi-BASIS (Base-Stored Image Sensor) via four pairs of secondary image formation lenses, which are designed and manufactured with sub-micron precision.



Autofocus speed

An AF-dedicated microprocessor provides faster autofocusing than previous models, even with five focusing points compared to one, thanks to faster computational speed. This results in improved predictive focus performance during AI Servo AF.

AF focusing speed using the EF300mm f/2.8L USM



Autofocus precision

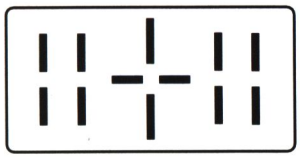
The EOS-1N's AF system provides exceptionally high precision, due to three main features. The first is a central cross-type sensor that matches the performance of the EOS-1. The second is an on-chip gain circuit that boosts the signals from the individual pixel amplifiers 20 times, for higher sensitivity and better S/N (signal-to-noise) ratio. The third is a control circuit that allows focusing of low contrast subjects down to 90:80.

The vertical component of the central cross-type sensor requires use of an EF lens with maximum aperture of f/2.8 or faster, while all other sensors are effective with EF lenses of f/5.6 maximum aperture or faster.

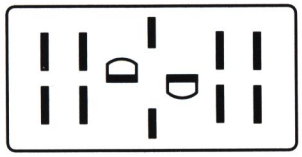
Continued on the next page.

Faster Shooting and Silent Rewind with an Expanded Choice of Power Supplies

* An important difference between the cross-type sensors used in the EOS-1N and EOS-1 (compared to the EOS A2 and A2E) is the increased baselength of the vertical sensor. Though it requires use of an EF lens with maximum aperture of f/2.8 or faster (compared to f/5.6 or faster with the A2/A2E), the result is significantly increased (3X) sensitivity to focusing changes when fast lenses are used, resulting in maximum focusing precision.



EOS A2/A2E
BASIS Sensor Layout



EOS-1N/EOS-1
BASIS Sensor Layout
with 2.3% Fine Spot Metering SPCs

Unfailing accuracy at all lighting levels

The autofocus system operates to professional standards of accuracy at light levels from EV 18 down to 0. It focuses quickly and precisely in dimly lit rooms, twilight conditions and other situations where even manual focusing is difficult due to limited visibility. And when combined with certain dedicated Speedlites, autofocus is possible even in pitch dark conditions, with the help of the auxiliary light emitted from the flash unit. Having accurate AF operation available for these tough situations creates new possibilities for sophisticated photography.

EOS-1N

EOS-1N with Battery Pack BP-E1

EOS-1N with Power Drive Booster E1

Built-in Motor Drive for rapid continuous shooting.

The EOS-1N features a built-in high-performance film transport system that gives you a choice of two modes. The single exposure mode advances the frame once each time the shutter is released. In continuous exposure mode, the built-in motor drive advances film at a speed of up to 3 frames/sec., using standard Grip E1 powered by a 6-volt 2CR5 lithium battery.

Introducing Battery Pack BP-E1

This dual power source for exclusive use with the EOS-1 and EOS-1N allows quick switching between the standard 2CR5 lithium battery or four AA-size alkaline-manganese or Ni-Cd batteries, according to the shooting conditions. The camera operates even when only one of the two battery types is installed. Compact and lightweight, BP-E1 is an attractive alternate power supply grip that offers enhanced flexibility in power source selection.

Power Drive Booster E1 lets you fire away at 6 frames per second

If your requirements include shooting faster than 3 frames per second, the optional Power Drive Booster E1 is what you need. Attach it to the EOS-1N to increase film winding speed up to 6 frames/sec., powered by eight AA-size batteries or NiCd Pack E1. Continuous exposure while tracking the subject's motion with Focus Prediction Control is possible at up to 5 frames/sec. For additional convenience, it has shutter and AE lock buttons positioned on the base, so you can operate the camera in a vertical position with as much ease as in the normal position.

*** How it Works**

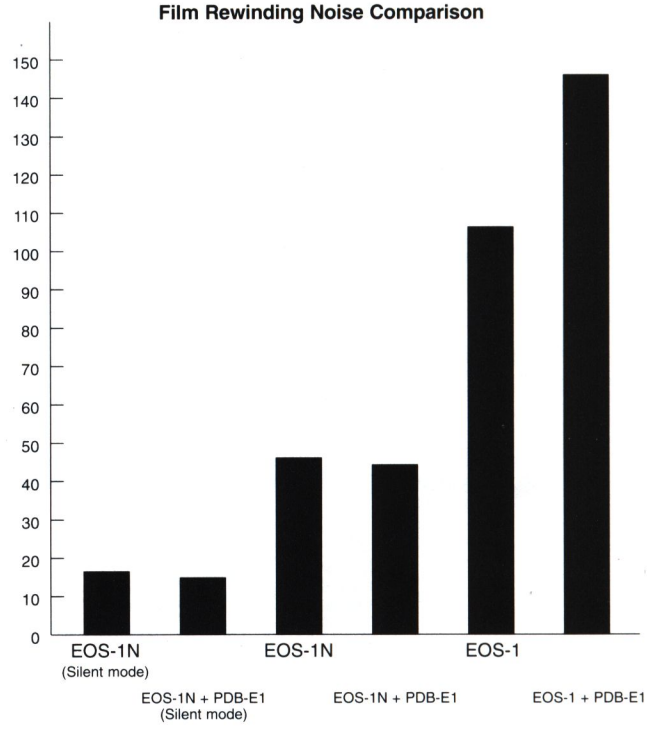
When the EOS-1N is equipped with its standard Grip E1 or Battery Pack BP-E1, it utilizes a built-in two-motor film transport system that operates with a 6-volt power supply. One motor advances the film, and the other charges the shutter and mirror mechanisms or rewinds the film, depending on the situation. Power Drive Booster E1 increases power supply voltage (with 8 AA-size batteries or sealed Ni-Cd Pack E1) and adds a third, much larger motor to the system. In this case, the Booster motor charges the shutter and mirror, while the body motors are used exclusively for film advance and rewind. Though the EOS-1N employs the same basic design as the EOS-1, it achieves a higher shooting speed (with no increase in power consumption) by modifying the gear ratios of its film transport motor and improving its stopping performance.

The EOS-1N's rewind isn't just quiet...it's virtually silent

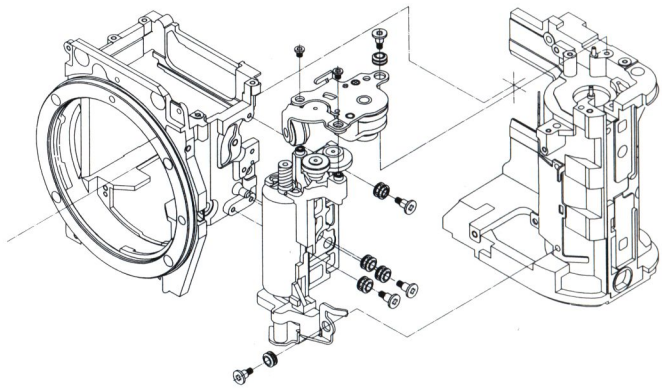
We put a great deal of effort into rewind noise reduction when designing the EOS-1N, and the results are impressive. First, we used a smooth and quiet coreless motor. Second, we changed the motor's initial output gear from the pinion type used in the EOS-1 to a worm gear, for significantly less noise and smoother transmission of drive power. Third, we gave the entire rewind unit the "floating" support system first introduced in the EOS 100/Elan, placing rubber bushings between the body and front plate at six locations. This isolates vibrations from the rewind unit, resulting in quieter operation. Finally, we added a Silent Rewind mode, which uses PWM (Pulse Width Modulation) to reduce the speed of the rewinding motor, resulting in even quieter operation. The resulting figures whisper for themselves: a noise level of 59 dB for high-speed rewinding (even with the Power Drive Booster E1), and an all-but-noiseless 48 dB in the Silent Rewind mode. That's 8 times quieter than the EOS-1!

Silent rewind, accessed through Custom Function 1, is useful for situations in which the sudden noise of a camera's rewind would cause disruption—for example, in a quiet theater or at a pro golf tournament.

Film Rewinding Noise Comparison



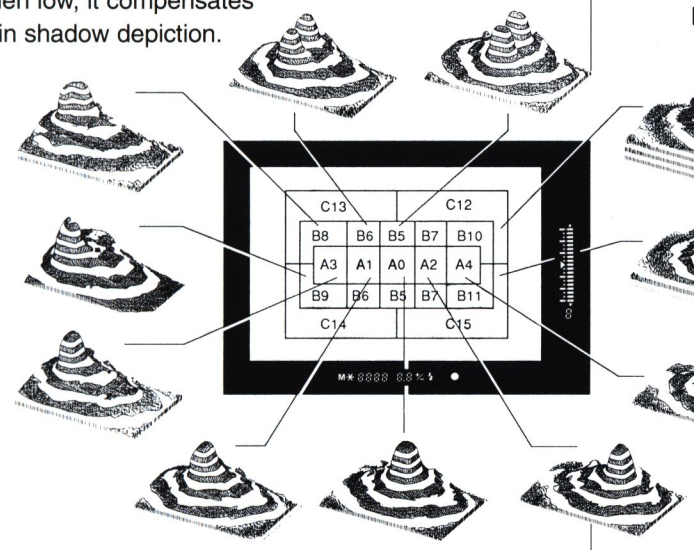
EOS-1N Rewinding System



5 Metering Patterns for Enhanced Versatility

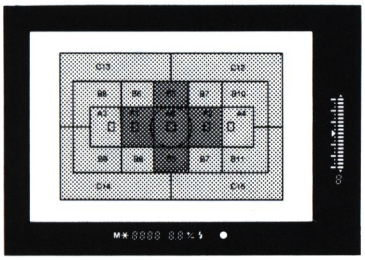
16-Zone Evaluative Metering for exceptionally fine precision

The EOS-1N employs Canon's most advanced light metering system, featuring a 16-zone silicon photocell (SPC) sensor. The main microprocessor uses complex algorithms to evaluate luminance in each of the 16 zones. Differences in brightness are compared, allowing the camera to recognize a wide range of lighting situations, including difficult ones such as backlighting. And because the EOS-1N features Canon's AIM system, the active focusing point is taken as the central zone, ensuring that the exposure is based on readings from the main subject. Subject size and surrounding conditions are factored in to make the final exposure decision. The metering system also detects variations in subject reflective luminance level. When the level is high, it compensates to obtain high-lighted depiction, and when low, it compensates to obtain shadow depiction.



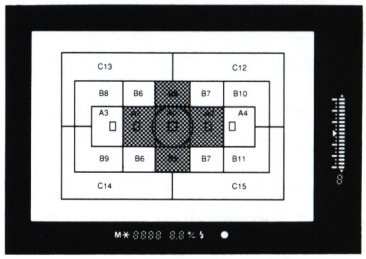
Center-weighted Averaging

Custom Function 8 exchanges Center-Weighted Average Metering for Evaluative Metering. In this mode, the metering system takes readings from the entire viewfinder area with maximum emphasis on the central area—regardless of subject position. Unlike Evaluative Metering, Center-Weighted Average Metering leaves the matter of exposure compensation completely up to the photographer, providing yet another creative tool that's always available on demand.



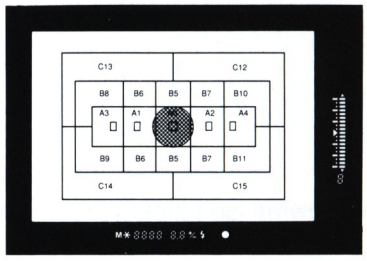
Partial Metering mode

Partial Metering limits readings to the center section, about 9% of the image area. You'll find it effective for situations where you want an accurate reading of the lighting in a certain area, without influence from bright or dark surroundings.

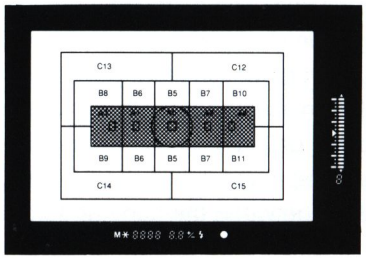


Spot Metering and Fine Spot Metering modes

Both of these modes are extremely selective. By using Custom Function 13, you can choose Spot Metering to measure the light from the single zone centered on any manually selected focusing point (about 3.5% of the image area). This is another noteworthy feature of the AIM system. Fine Spot Metering is even more precise, reading the area occupying only the central 2.3% of the image area (identified by the circular mark on the EOS-1N's standard focusing screen). These modes thus allow specific, precise metering of the key areas of your photograph. Canon has maximized the precision of EOS-1N fine spot metering by placing its sensor elements on the multi-BASIS autofocus chip.



2.3%
Fine Spot
Metering



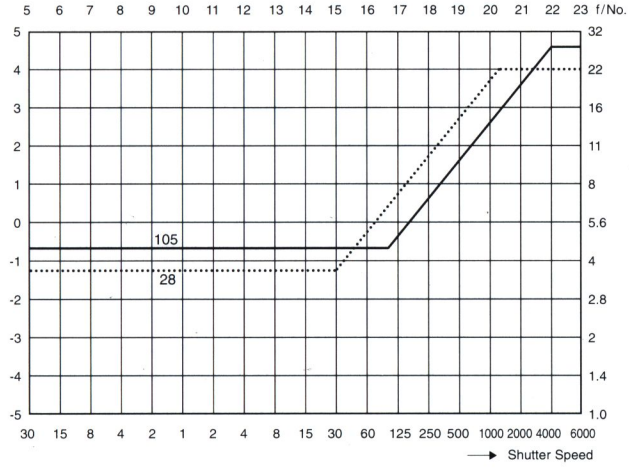
3.5%
Spot Metering
Linked to
Manually
Selected
Focusing Point

7 Exposure Modes Provide Full Creative Control

Intelligent Program AE

This mode calculates and sets both shutter speed and aperture, and is the one you'll rely on for average photographic situations. A particularly nice touch is that it automatically takes into account the focal length of the lens being used. If the shutter speed is too slow to hand-hold the lens, the program sets a larger aperture, permitting a faster shutter speed. The result is instant protection against camera shake. Even when a zoom lens is used, the selected focal length is noted and the program reacts to ensure optimum settings. If you want to change the shutter speed or aperture, simply turn the Main Electronic Dial and Intelligent Program AE will alter the setting accordingly.

When using the EF 28-105mm f/3.5-4.5



Aperture-Priority AE (Av)

In this mode, you use the Main Electronic Dial to select your desired aperture and the camera calculates the appropriate shutter speed for correct exposure. Aperture-Priority AE lets you control the depth-of-field: large apertures for out-of-focus backgrounds and small apertures for a deep focus zone. The values are normally set in 1/3-stop increments, but Custom Function 6 allows you to switch to 1/2- or 1-stop increments.

Shutter-Priority AE (Tv)

Again, the Main Electronic Dial is used to control the setting. You select the shutter speed, with the camera then determining the best aperture. Speeds can be set in 1/3-step increments from 30 seconds to 1/8000th second. (As in Av mode, Custom Function 6 will change the increments.) Naturally, the faster speeds are effective for freezing fast action (1/8000th will freeze virtually anything), but it's interesting to experiment with slower speeds for small or large amounts of blur to show the subject's motion or emphasize the direction of its movement.

Depth-of-Field AE

A remarkably easy way to get your desired depth of field. All you do is focus the nearest point you want to be sharp, then do the same for the farthest point. Then compose the picture and shoot. The EOS-1N selects the best focus point and aperture value so that everything between the two points is sharply in focus, as well as the correct shutter speed for optimum exposure according to the selected aperture value.

Manual Exposure

In manual mode, you gain full control, using the Main Electronic Dial to set shutter speed and the Quick Control Dial for aperture settings. Or if you prefer, these functions can be reversed with Custom Function 5. The viewfinder display shows both your settings, as well as the exposure value metered by the camera.

Bulb Mode

This mode is ideal for time exposures, and should be combined with the use of Remote Switch 60T3 and mirror lock (Custom Function 12) for best results. The camera's LCD panel provides a display of elapsed time up to 120 seconds in 1 second increments, and even longer timed exposures are possible through use of optional Command Back E1.

Exposure Overrides

Exposure Compensation

Fully aware of the professional's need for maximum control over each exposure, Canon designed the EOS-1N so that even when an auto exposure mode has been selected, the photographer has control over the final exposure value without leaving the AE mode. In Shutter-priority AE mode, for example, the aperture can be changed after AE metering has taken place. Likewise, in Aperture-priority AE mode, shutter speed can be changed. In both cases, manual exposure compensation is performed using the back-mounted Quick Control Dial. All AE compensation amounts can be monitored both in the viewfinder as well as in the LCD display panel on top of the EOS-1N. In the manual exposure mode, shutter speeds and aperture values can be set with one hand using the camera's twin input dials, and the degree of over- or underexposure can be seen in 1/3-step increments on a scale positioned to the right of the picture area in the viewfinder.

EOS-1N Flash System Improves Performance While Maintaining Compatibility

AE lock

Exposure is locked automatically upon focus completion when the EOS-1N is set for One-shot AF and evaluative metering, thus ensuring optimum results for most shooting situations. However, there will be times when you wish to lock exposure independently from AF operation, or when you wish to adjust exposure after focus has been determined in other metering modes. The EOS-1N provides an AE lock button for this purpose.

AE lock is particularly effective in combination with partial or spot metering for backlit subjects and other situations where there is extremely strong contrast between the subject and background. The viewfinder exposure level display shows both the locked reading and the current (real-time) reading, enabling you to scan the picture area. If you use AE lock to register a shadow reading of your subject and then change the scene composition to read a highlight area (or vice versa), you can use exposure compensation as described above to adjust the exposure level based on the brightness range of the scene.

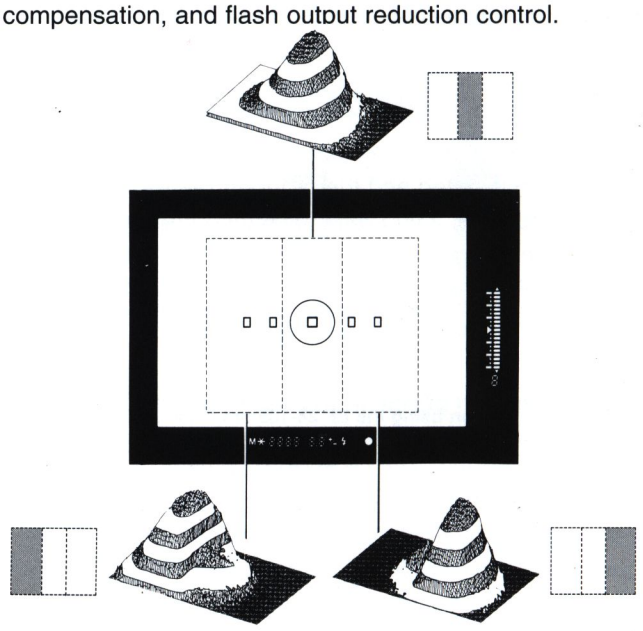
AEB

The EOS-1N also incorporates automatic exposure-bracketing (AEB). With this feature engaged, the camera takes three successive exposures at various settings—one underexposure, one correct exposure, and one overexposure. The amount of over- or underexposure can be set up to plus or minus 3 steps in 1/3- or 1/2-step increments in any exposure mode, including manual. A new feature, Custom Function 9, allows the photographer to change the order of exposures to Correct/Under/Over. This setting is useful for live subjects or changing scenes, where the first shot will most likely capture the best expression or composition. The film winding mode offers a further degree of control over AEB. With the camera set for single frame advance, the photographer presses the shutter release three times—one for each exposure in the AEB sequence. This gives the photographer control over exactly when each exposure is made, ideal for studio flash photography, among other things. In the continuous shooting mode, one press of the shutter button will automatically make all three exposures, or the release can be feathered to shoot individual frames.

Multiple Exposure

Multiple exposures are also possible with the EOS-1N. The camera can be preset to make up to nine exposures on a single frame. The multiple exposure sequence can be extended or canceled in mid-sequence by resetting the function as desired.

The EOS-1N is fully compatible with all current EOS system Speedlites and dedicated flash accessories, and adds even more functionality than previous models. New features include a 3-zone flash sensor, built-in flash exposure compensation, and flash output reduction control.



Multi-Zone Flash Sensor

A-TTL and TTL flash exposure control is carried out according to the focusing point in use by a dedicated 3-zone sensor whose metering pattern is illustrated here. Flash illumination reflected from the film during exposure is detected by all three sensors, with normal sensitivity at the selected focusing point and reduced sensitivity with the other two sensors. In other words, if all three sensors receive an even amount of flash illumination, the sensor corresponding to the selected focusing point will reach the correct flash exposure level first and effectively control the exposure. As a result, exposure accuracy is improved with all subjects, even when they are off-center. The EOS-1N flash exposure control system is an integral part of the AIM system, and it works with all EF lenses and EOS Speedlites.

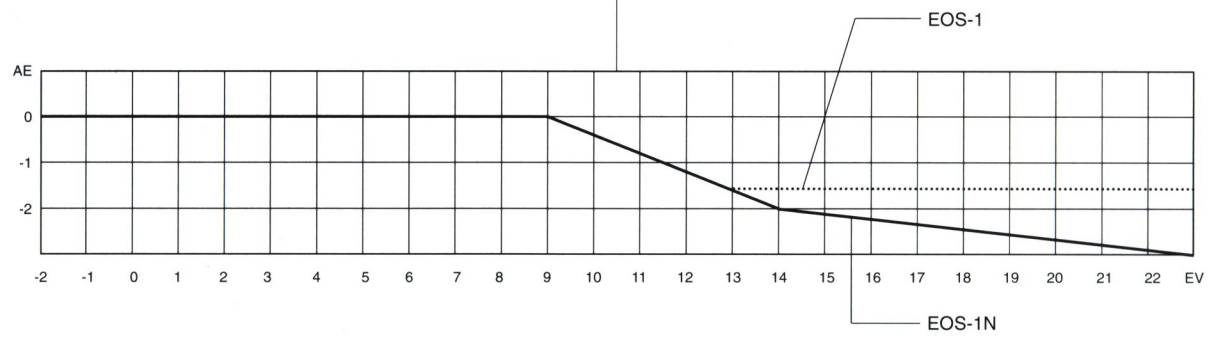
Flash Exposure Compensation

The EOS-1N features a new built-in flash exposure compensation function which allows the photographer to adjust flash illumination independently from existing light exposure with any EOS dedicated Speedlite, whether directly coupled to the camera or connected using EOS off-camera or multiple flash accessories. The level of compensation can be set in 1/3-stop increments up to ±3 stops. However, when using a 540EZ or 430EZ directly coupled to the camera's hot shoe or connected by Off-Camera Shoe Cord 1 or 2, compensation settings on the flash unit have priority over the camera's flash exposure compensation settings.

Flash Output Reduction Control

Flash exposure compensation is extremely effective during fill-flash photography for fine-tuning the balance between flash illumination and available light exposure. However, be sure to remember that the EOS-1N, like all other EOS cameras, uses a built-in flash exposure control program that automatically adjusts flash exposure compensation according to the level of existing light, as shown in this chart. This factor comes into play when you attempt to set your own flash exposure compensation settings as described above. Normally, any settings you make are applied in addition to, not instead of automatic flash reduction control. Unsatisfactory results may occur if you fail to take this into account.

For this situation, the EOS-1N provides a new Custom Function (CF14) that disables the camera's built-in automatic flash reduction algorithm. This option provides maximum control over flash exposure compensation and is recommended for heavily backlit subjects, or any time you plan on making your own flash compensation settings.



X-Sync Shutter Speed and Aperture Settings

The EOS-1N is consistent with other EOS cameras in the variety of exposure modes that can be used for flash photography depending on the desired results. The following table shows how aperture and shutter speeds are set according to the camera's shooting mode when used 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 according to A-TTL or TTL program.
Tv (Shutter-priority AE)	Manually set to any shutter speed of 1/250 sec. 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)	Manually set to any shutter speed of 1/250 sec. or slower.	Manually set to desired aperture.

*The camera automatically resets the shutter speed to 1/250 sec. if a faster speed is set.

Custom Functions: Designed for professional efficiency the serious photographer will appreciate.

14 Custom Functions let you make the EOS-1N *your* camera

After listening to the opinions and requests of EOS-1 users, the choice of custom functions on the EOS-1N has been expanded to 14. In addition to the increased number of custom functions, the EOS-1N provides greater customization capability by allowing selection of up to four options (0, 1, 2, 3) on selected custom functions instead of two (0, 1) as on previous EOS cameras.

Custom Function	Description/Options	Useful Situations
1	**Automatic film rewind operation** 0: High-speed automatic rewind 1: Automatic rewind prohibited (Pressing film rewind button activates high-speed rewind). 2: Silent (low speed) automatic rewind. 3: Automatic rewind prohibited (Pressing rewind button activates silent rewind).	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.
2	**Film leader position after rewinding** 0: Rewinds film leader fully into cartridge. 1: Leaves the film leader outside the cartridge after rewinding.	This function is useful for individuals or news agencies who do their own film processing. The film leader is left outside the cartridge after the film is rewound automatically or in mid-roll.
3	**Film speed setting** 0: Film speed automatically set according to DX code. 1: 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.
4	**AF activation** 0: Autofocus starts when the shutter button is pressed halfway. 1: Autofocus starts when the AE lock button is pressed. Exposure is locked when the shutter button is pressed halfway. 2: Autofocus starts when the shutter button is pressed. Autofocus is temporarily suspended when the AE lock button is pressed. (AE lock is not available when "2" is set.	1. This option lets the photographer carry out metering and autofocusing independently. 2. For sports photography using focus prediction in AI Servo AF mode, this option lets the photographer temporarily stop the focus.
5	**Shutter speed and aperture value setting method in manual exposure mode** 0: Shutter speed set by main dial. Aperture set by quick control dial or by combined operation of exposure compensation button and main dial. 1: Aperture set by main dial. Shutter speed set by quick control dial or by combined operation of exposure compensation button and main dial.	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.
6	**Increment used for setting shutter speed and aperture values, as well as exposure compensation and flash exposure compensation amounts** 0: Shutter speed, aperture value and all exposure compensation amounts set in 1/3-step increments. 1: Shutter speeds and aperture values set in 1-stop increments, and all exposure compensation amounts set in 1/3-step increments. 2: Shutter speed, aperture value and all exposure compensation amounts set in 1/2-step increments.	This function lets the photographer input shutter speed and aperture settings in any increment that he or she is used to. 1/2-step exposure compensation amounts are also possible, providing wide flexibility to suit various shooting styles.
7	**Electronic manual focusing after AF completion or failure** 0: Manual focusing is possible. (This function works only with lenses equipped with a manual focusing ring.) 1: Manual focusing is prohibited. Manual focusing is possible by setting the lens' focus mode switch to "M."	This option disables the manual focusing capability of the electronic ring provided on many USM L-series lenses, eliminating the possibility of accidentally turning ring and shifting the focus after AF is complete. Compatible lenses: EF28-80/2.8-4L USM, EF50/1.0L USM, EF85/1.2L USM, EF200/1.8L USM, EF300/2.8L USM, EF400/2.8L USM, EF500/4.5L USM, EF600/4L USM, EF1200/5.6L USM
8	**Evaluative metering operation** 0: Evaluative metering 1: Center-weighted average metering (The LCD panel still shows the evaluative metering symbol.)	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.
9	**AEB exposure sequence** 0: Under/Correct/Over 1: Under/Correct/Over 2: Correct/Under/Over 3: Correct/Under/Over (0 and 2: AEB operation is canceled when main switch is set to L, lens is exchanged, film is replaced or rewound, bulb exposure mode is set, flash charge completion is detected, or the clear button is pressed.) (1 and 3: AEB operation is not canceled when main switch is set to L, lens is exchanged, or film is replaced or rewound. Also, in this mode, the user can activate AEB by pressing the AF mode and shooting mode selectors.)	2,3: These settings change the bracket sequence to "Correct/Under/Over," 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 setting are useful for photographers who frequently use AEB, because it prevents AEB from being canceled every time the main switch is set to L, lens is exchanged, or film is rewound or exchanged. Also, in this mode, the user can activate AEB without having to open the camera's palm door.
10	**Focusing point superimposed on focusing screen** 0: Focusing point superimposed in red 1: Superimpose 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.
11	**Focusing point selection method** 0: Focusing point selector and main dial 1: Exposure compensation button and main dial 2: Independent operation of quick control dial or exposure compensation button and main dial.	0: This option makes it possible to match the EOS-1N's button operation to the photographer's existing camera (EOS-1 or EOS A2/E). 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 focus prediction control in AI Servo AF.
12	**Mirror up operation** 0: Normal operation 1: 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.
13	**Focusing point and spot metering** 0: Fine spot metering in center of image area 1: Spot metering linked to the manually selected focusing point	This function links spot metering to the manually selected focusing point, allowing the user to spot meter the subject without changing the framing of the scene.
14	**Flash output control** 0: Automatic flash output reduction control activated 1: Automatic flash output reduction control prohibited	This function prevents underexposure of strongly backlit subjects during fill-in flash photography with Canon EOS Speedlites.

Ease of Use and Reliability

The priority when developing the EOS-1N was to design a body and control layout that enable the photographer to act swiftly. Thus, an emphasis was placed on comfort, simplicity and precise placement of key controls. The smoothly contoured body fits naturally into the hand, and the layout of the three main controls — the shutter release, main electronic input dial and Quick Control dial — is such that they can be operated easily with the right hand while looking through the viewfinder. The right side grip is covered with rubber and synthetic leather to prevent slipping.

As important as ease of use is reliability, and here too Canon took special care when designing the EOS-1N. The central body and chassis are made of diecast aluminum surrounded with a glass-fiber reinforced polycarbonate resin carefully selected for maximum strength and light weight. Resistance to moisture and dust is equal to that of the Canon EOS-1 through use of similar gaskets and seals. There are special water drains for the input dial assembly and the Power Booster E1 attachment area. All shutter blades are coated with a water-repellent lubricant. Reliability is further improved through use of double terminals for all important electrical contacts.

The EOS-1N has been thoroughly tested in blazing heat, frigid cold, and high humidity, proving over and over that it meets our standards for professional reliability. Flawless operation is confirmed from –20˚C to 45˚C (–4˚F to 113˚F), and to 85% humidity, based on our standard test method.

High-performance shutter

The EOS-1N employs a new shutter unit featuring a top speed of 1/8000th sec., a maximum flash sync speed of 1/250th sec., and ultra-high precision. What's more, by reducing the weight and load of the shutter blades with the use of carbon fiber and duralumin materials, durability has been further enhanced.

Speedlite System

Speedlite 540EZ

The Canon Speedlite 540EZ is a high-performance flash unit developed simultaneously with the EOS-1N and designed for use with all EOS series cameras. It incorporates a rich selection of features, including an auto zoom function, A-TTL and TTL automatic flash exposure control, and powerful light output sufficient for virtually any shooting situation. When used with an EOS camera, the 540EZ is capable of everything from simple, automated flash shooting to advanced techniques such as flash exposure compensation, automatic flash control based on user-selected shutter speed and/or aperture settings, manual firing with eight selectable output levels, and intricate multiple-flash lighting setups using EOS multi-flash accessories.

Dimensions:
80 x 138 x 112 mm
3-1/8 x 5-7/16 x 4-7/16 inches
(W x D x H)

Weight:
405 grams/14 oz.
(without batteries)

540EZ Features

- **A-TTL Automatic Flash Control**
  A-TTL automatic flash control stands for Advanced Through The Lens automatic flash control. When used with an EOS camera set to Program AE or Full Auto mode, the camera and flash unit work together to automatically set the appropriate aperture and shutter speed for proper flash exposure for indoor and low-light scenes as well as backlit subjects in daylight.

- **TTL Automatic Flash Control**
  TTL automatic flash control shooting is possible in other shooting modes such as aperture-priority AE, shutter-priority AE, or manual exposure mode. When the 540EZ is combined with aperture-priority AE for an indoor shot or a night scene, the camera automatically sets a slow shutter speed to properly expose the background while the flash fires to properly expose the subject.

Continued on the next page.

- **Three-Zone Flash Metering for Multi-Point Autofocus Systems**
  When the 540EZ is used with an EOS camera that has multiple focusing points, the flash automatically weights the exposure in the area of the user-selected focusing point using the camera's 3-zone flash metering system.

- **Automatic Flash Exposure Confirmation**
  After a picture is taken using flash, an LED on the back of the flash unit lights for two seconds to indicate whether proper flash exposure was achieved.

- **Auto Zoom**
  The flash head automatically zooms to set the proper flash coverage angle according to the lens focal length. Settings from 24mm wide-angle to 105mm telephoto are possible with the flash alone, and coverage for super-wide-angle lenses down to 18mm is possible using the built-in wide panel. The flash coverage angle can also be set manually to any desired position.

- **Flash Exposure Compensation**
  The 540EZ allows the flash exposure to be adjusted independently of the camera, providing a compensation range of ±3 stops in 1/3-stop increments.

- **Manual Firing at Eight Power Levels**
  The flash output can be set manually to any of eight power levels, from full (1/1) power to 1/128 power.

- **Bounce Flash**
  The flash head can be angled upward or to the right or left for bouncing the flash off of nearby surfaces such as a ceiling or wall to create a softer lighting effect. The flash head can also be angled 7° downward to provide full flash coverage for close-up shots. The wide panel doubles as a built-in bounce card, providing a catchlight photography function.

- **AF Auxiliary Light Corresponding to Five Focusing Points**
  The built-in AF auxiliary light automatically fires in low light and low-contrast situations to aid the camera's auto focusing system. When combined with the EOS-1N, the AF auxiliary light emission automatically corresponds to the camera's five autofocusing points.

- **Stroboscopic Flash**
  The 540EZ can be set to automatically fire several flash bursts during a single exposure, creating a stroboscopic effect that records the flow of subject movement. The stroboscopic firing speed can be freely set to frequencies as fast as 100 bursts per second.

- **Flash Sync Timing**
  The sync timing can be set to either first-curtain sync, which fires the flash as soon as the shutter is fully opened, or second-curtain sync, which fires the flash immediately before the shutter closes.

- **SE (Save Energy) Function**
  When the flash is set to SE mode, the power automatically turns off after 90 seconds of non-operation in order to conserve battery power. A 3-position main switch allows full-time operation as well.

- **Rich Selection of External Power Supplies**
  Three types of external power supplies are available, including Compact Battery Pack E.

- **System Accessories for Professional Lighting Techniques**
  Canon's line of dedicated flash accessories include the Off-Camera Shoe Cord 2 for separating the flash from the camera, as well as adapters and cords for configuring elaborate multiple flash setups. Even when using more than one flash, the flash exposure can be controlled automatically by the EOS TTL system.

Power Supply		Battery life (No. of bursts) (approx.)	Recycle time (sec.)	
			Quick firing (approx.)	Normal firing (approx.)
Built-in batteries	Alkaline-manganese AA (LR6/AM3)	120-800	0.2–2	0.2–12
	NiCd AA (KR15/51)	50-350	0.2–1.5	0.2–6
External power supplies	Compact Battery Pack E (6 AA Alkaline)	400-2500	0.2–1.5	0.2–5
	Transistor Pack E (Ni-Cd Pack TP)	350-2000	0.2–1	0.2–3
	Transistor Pack E (Battery Magazine TP)	400-2500	0.2–1.5	0.2–5

540EZ Guide Number Chart (ISO 100, ft.)

Coverage angle (mm)		18	24	28	35	50	70	80	105
Normal (Full-power) firing (G.N.)		52	92	98	118	138	151	164	177
Quick firing		Same as manual firing at 1/2-1/16 output levels							
Manual firing (Guide number)	1/1	52	92	98	118	138	151	164	177
	1/2	37	65	70	84	97	107	116	125
	1/4	26	46	49	59	69	76	82	89
	1/8	19	33	35	42	49	54	58	63
	1/16	13	23	24	30	35	38	41	45
	1/32	9	16	17	21	24	27	29	31
	1/64	6.6	11	12	15	17	19	21	22
	1/128	4.6	8.2	8.9	10	12	13	14	16

Speedlite 480EG

A high-output (maximum GN 68/223, ISO 100·m/ft.) grip-type flash with twin xenon tubes for extremely flat, uniform light distribution. Wide and tele panels provide coverage for 20mm and 135mm focal lengths. Other features are: TTL auto flash control, external sensor auto flash control (with four auto flash control apertures), variable power manual flash control, bounce flash capability and quick-recycle function with optional Transistor Pack E.

Dimensions:
291 x 256.5 x 114.3mm
11-7/16 x 10-1/8 x 4-1/2 inches
(W x D x H)
(With clamp and bracket)

Weight:
1,065 grams/37.3 oz.
(without batteries)

Optional Slave Unit E Simplifies Wireless Off-Camera Flash Setups

Wireless synchronization of Speedlite 480EG is possible by attaching Slave Unit E to the socket on the back of the flash head. The maximum range is approximately 23m/75 ft., with a maximum reception angle of approximately 110°.

External Power Sources Combine High Power with Short Recycling Times

Compact Battery Pack E (with soft case)

This lightweight pocket-size power source for exclusive use with the Speedlite 540EZ and 430EZ operates on six AA-size alkaline-manganese or Ni-Cd rechargeable batteries.

Transistor Pack E

For use with Speedlite 540EZ, 480EG, and 430EZ. (includes Battery Magazine TP and Connecting Cord E)

Transistor Pack E Ni-Cd Set

(includes Ni-Cd Pack TP, Ni-Cd Charger TP and Connecting Cord E)

Transistor Pack E can be used with a choice of power supplies, including Battery Magazine TP which holds six C-size alkaline-manganese batteries and Ni-Cd Pack TP, a rechargeable sealed battery pack.

Speedlite 300EZ

Easy to use in any situation, the 300EZ couples to all EOS cameras for fully automatic control. Maximum guide number is 30/98 (ISO 100·m/ft.). Features include A-TTL and TTL flash exposure modes, internal automatic zoom from 28mm to 70mm, rapid-fire flash, second curtain sync and AF auxiliary light.

Dimensions:
66 x 100.5 x 89mm
2-9/16 x 3-15/16 x 3-1/2 inches
(W x D x H)

Weight:
220 grams/7.8 oz.
(without batteries)

Speedlite 200E

This compact, economical flash provides fully automatic operation with any EOS camera. Guide number is 20/66 (ISO 100·m/ft.). Main features include TTL automatic flash exposure, flash coverage angle sufficient for focal lengths as wide as 35mm (28mm with optionally available Wide Adapter 200E).

Dimensions:
64 x 41 x 104mm
2-1/2 x 1-5/8 x 4-1/8 inches
(W x D x H)

Weight:
130 grams/4.6 oz.
(without batteries)

Battery Pack BP-E1

Optional grip extension for exclusive use with EOS-1 and EOS-1N allows quick switching between 2CR5 lithium battery in the grip or 4 AA-size alkaline or Ni-Cd rechargeable batteries in the magazine for convenience and operational speed. The camera operates even when only one of the two battery types is installed, but shooting capacity is extended when both types are loaded.

DImensions: 156.9 x 73.6 x 99.9mm 6-3/16 x 2-7/8 x 3-15/16 inches (W x D x H)
Weight: 280 grams/9.8 oz. (without batteries)

Off-Camera Shoe Cord 2

This useful accessory maintains all on-camera flash functions for on Canon Speedlite used off-camera, at distances up to 60cm/2 ft. Moving the Speedlite off-camera results in better control over lighting angle. Off-camera Shoe Cord 2 is not compatible with the EOS 630 or RT. Although fully functional with all other EOS models, radio interference emitted by this product may exceed the specified limits in the United States (FCC). Canada (DOC), and Germany (FTZ) when used with cameras other than the EOS-1N, EOS-1, EOS 620 and EOS 650.

Off-Camera TTL Multiple Flash Accessories

TTL Hot Shoe Adapter 3

Placed in the EOS camera's accessory shoe, this device controls up to 4 off-camera Speedlites.

Off-Camera Shoe Adapter

Off-camera Speedlites are placed in this accessory, which accepts one connecting cord.

TTL Distributor

System connector, accepts up to 4 connecting cords.

Connecting Cord 60

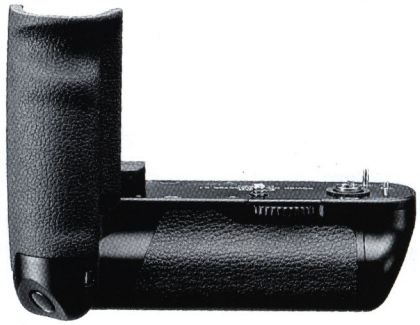
60 cm/2 ft. coiled cord, with connectors on both ends.

Connecting Cord 300

3 m/9.8 ft. straight cord, with connectors on both ends.

Power Drive Booster E1

Boosts the EOS-1 and EOS-1N's motor drive power and focus prediction capabilities. Superior holding characteristics are maintained, and auxiliary shutter and AE lock buttons provide the same superior operability whether shooting vertically or horizontally. Powered by eight AA-size alkaline-manganese, lithium*, or rechargeable Ni-Cd bateries, or by the optionally available Ni-Cd Pack E1. The optional Hand Strap E1 provides maximum holding security.



Ni-Cd Pack E1

Sealed Ni-Cd pack for Power Drive Booster E1. Especially effective in low temperatures. A full charge provides enough power for approximately 30 rolls of 36-exposure film at -20°C/-4°F.

Ni-Cd Charger E1

Dedicated charger for Ni-Cd Pack E1. Charges two Ni-Cd Packs E1 sequentially with a quick recharge time of just 90 minutes per pack. Automatically adapts to power source voltages from 100VAC to 240VAC for use anywhere in the world simply by attaching a plug adapter.

* AA-size lithium batteries can only be used with the combination of the EOS-1N and newer models of Power Drive Booster E1 imprinted with the AE lock symbol (*), AA-size lithium batteries cannot be used with the EOS-1 under any circumstances.

Dedicated Accessories

Command Back E1

The Command Back E1 provides a variety of timer control operations and data imprinting options. Data is imprinted in the lower right corner of the frame, and may be combined with timer operation or used separately. The auto-calendar is programmed until the year 2029, automatically correcting for leap years.

Data Imprinting Functions:

- Year/Month/Day, Day/Month/Year, Month/Day/Year
- Day/Hour/Minute (with 24-hour display)
- Arbitrary 6-digit code or 4-digit code combined with letters A, B, C, D, E or F
- Auto-incrementing 4-digit consecutive frame counter (Fc0001–9999)

Timer Functions:

- Self-timer function for shooting after pre-determined time
- Interval timer to set delay between individual exposures
- Long-release timer to control bulb exposure duration
- Frame counter to control the number of exposures per sequence

All timer functions can be set in 1-second increments up to 23 hours, 59 minutes and 59 seconds. The various timer functions can be used individually or in combination.

Remote Control Accessories

These accessories are handy for taking pictures of subjects that are difficult to approach, or to minimize vibration for close-ups and time exposures.

Remote Switch 60T3

This is an electromagnetic cable release fitted with a 60cm/2 ft. cord and a three-pin terminal that allows independent control of light metering and shutter release. This device and all other T3 accessories are compatible with the EOS-1, EOS-1N, EOS-1N RS, and EOS 5/A2/A2E. They can also be used via optional Grip GR-20 with the EOS 620, 630, 650 and RT.

Extension Cord 1000T3

This 10m/33 ft. cord can be used with any other T3 accessory for extension.

Remote Switch Adapter T3

This small adapter cord enables use of remote control devices with standard 2-pin subminiature jacks with T3-compatible EOS cameras.

Cable Release Adapter T3

This small adapter cord enables use of standard mechanical cable releases with T3-compatible EOS cameras.

Wireless Controller LC-3

An infrared strobe-type wireless control system, designed for use with Canon SLRs featuring T3 terminals. The LC-3 has a maximum range of approximately 100m/330 ft. and several sets can be linked together for further extension. There are four control modes: single exposure, continuous exposure, test and 3.5-second delay. A 2-stage switch enables individual control of metering and shutter release. Three transmitter channels are available, as well as an "All" position for operating several cameras from an individual transmitter via multiple receivers. The receiver features a signal confirmation light and a special 1-step release mode for minimum time lag. LC-3 transmitters and receivers are available individually or in matched sets, and each unit is powered by 4 AA-size alkaline-manganese or Ni-Cd rechargeable batteries.

Dimensions (W x H x D):
(Transmitter)
69 x 163 x 22mm
2-3/4 x 6-5/16 x 7/8 inches
(Receiver)
64 x 75 x 93mm
2-1/2 x 3 x 3-11/16 inches

Weight (without batteries):
(Transmitter) 130 grams/4.6 oz.
(Receiver) 120 grams/4.2 oz.

LC-3 Transmitter

LC-3 Receiver

Focusing Screens

Viewing Accessories

Eyecup Ec-II

For EOS-1, EOS-1N, EOS-1N RS. Replaces Eyecup Ec. Made from synthetic rubber that resists tearing. New design for more secure attachment to eyepiece.

Rubber Frame Ec

For EOS-1, EOS-1N, EOS-1N RS when used with a Series E Dioptric Adjustment Lens.

Dioptric Adjustment Lens E

Provides near- and far-sighted users a clear viewfinder image without eyeglasses. Available in ten types from –4 to +3 dpt to match your eyesight. Extends range of variable diopter eyepiece lens from –3~+1 to –5.6~+5.4.

Angle Finder B

Attaching the rotatable Angle Finder B lets you adjust the viewing angle while providing a full-screen image that also shows exposure data. Provided with built-in dioptric adjustment for variations in eyesight.

Magnifier S

High-quality loupe that magnifies the center of the viewfinder image by 2.5X for critical manual focusing confirmation. Provided with built-in dioptric adjustment for variations in eyesight.

Eyepiece Extender EP-EX15*

Extends the eyepiece 15mm·5/8-inch from the camera body and reduces viewfinder magnification by 30%. Useful for eyeglass wearers and others to keep the tip of the nose from touching the camera body.

*Cannot be combined with Eyecup Ec-II when mounting on EOS-1, EOS-1N or EOS-1N RS.

Focusing Screens

Selecting the right focusing screen facilitates focusing and composition. Installed through the lens mount using the provided tool.

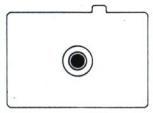
SI Screen

The EOS-1N uses a new device called an SI screen to superimpose an illuminated display of its 5 focusing points in the viewfinder. Because the SI screen is part of the camera rather than the focusing screen, focusing points are displayed with all Ec-series focusing screens when used with the EOS-1N.

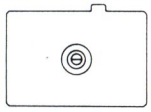
Ec Series

For exclusive use with EOS-1, EOS-1N, EOS-1N RS.

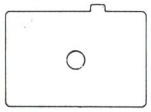
Ec-A: Laser Matte with Microprism
Matte field with microprism focusing spot in the center. Used for general photography with all lenses, best results obtained when using an aperture of f/5.6 or faster.



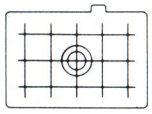
Ec-B: Laser Matte with New Split
Matte field with split-image focusing spot in the center. Used for general photography with all lenses.



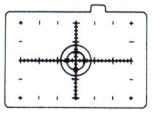
Ec-CII: Standard Laser Matte
Matte field with spot metering mark in center. Standard screen for EOS-1N.



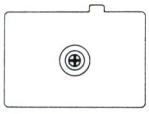
Ec-D: Laser Matte with Sections
Matte field with sections. Grid lines assist in determining accurate picture composition. Especially well-suited for close-up photography or for copy work using EF macro lenses. Can also be used for general photography with all lenses.



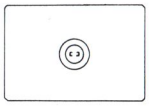
Ec-H: Laser Matte with Scale
Matte field with vertical and horizontal scales marked in millimeters. Effective for close-up photography and photomicrography. Useful in determining magnification ratios and composition. Can be used with all lenses.



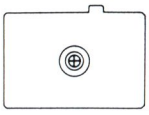
Ec-I: Laser Matte with Double Cross-Hair Reticle
Matte field with clear center spot containing double cross-hair reticle. Focusing is possible using the floating image of the central cross-hair. Particularly recommended for photomicrography and astrophotography. Surrounding matte field can be used with all lenses.



Ec-K: Bright Laser Matte
Produces a viewfinder image that is approximately 1 f/stop brighter compared to Ec-C or Ec-CII standard screens. Intended for use with lenses of 85mm or longer focal length. Use of fine (2.3%) spot metering or external meter recommended when using lenses shorter than 85mm or zoom lenses. Exposure compensation required when using evaluative, partial or center-weighted average metering. Can be installed by user, but must be removed at an Authorized Canon Service Facility.



Ec-L: Laser Matte with Cross-Split Image
Matte field with cross-split image in the center, which divides the subject in half both vertically and horizontally for accurate manual focusing. Can be used for general photography with all lenses, best results obtained when using an aperture of f/5.6 or faster.



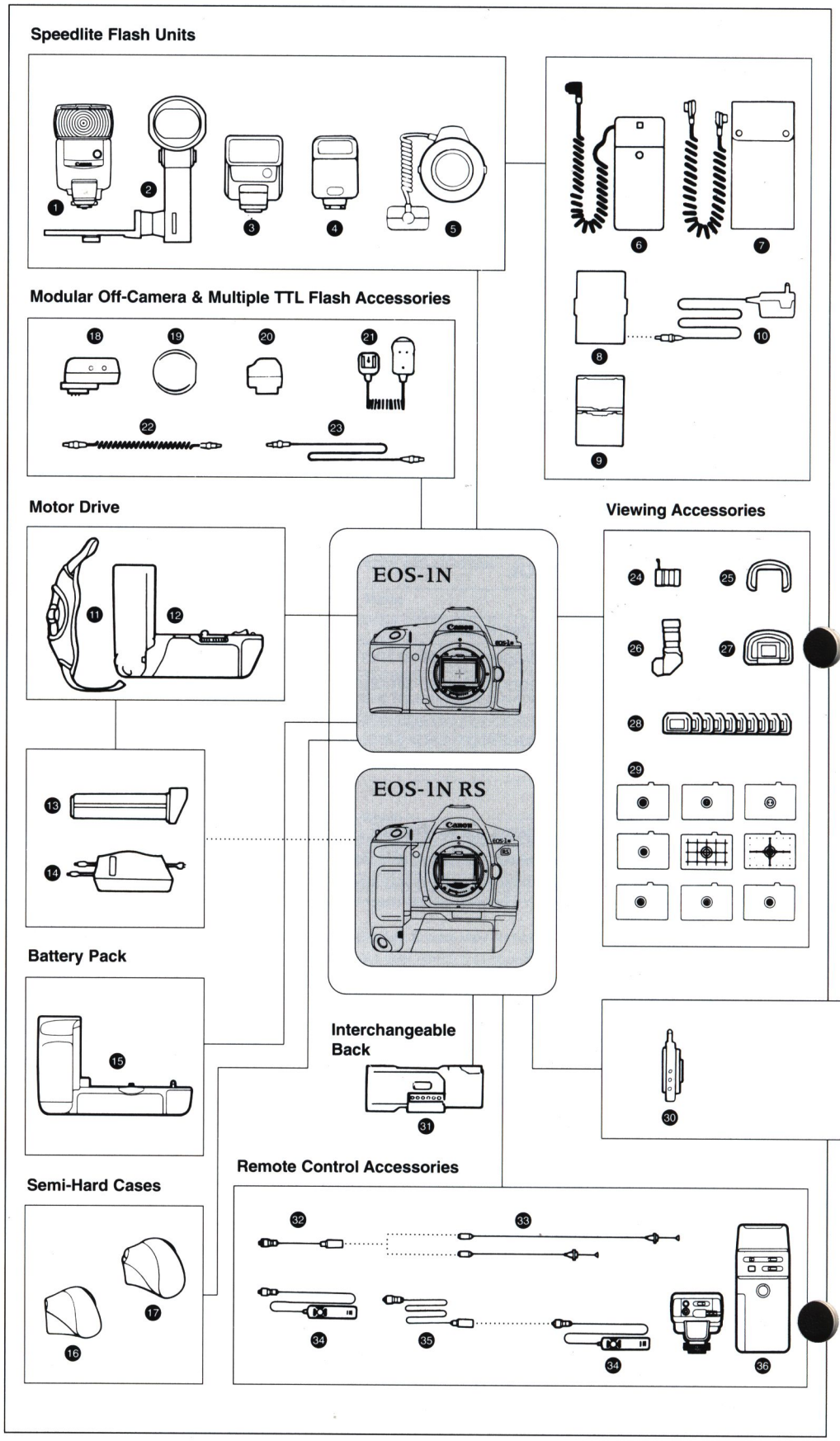
Feature Comparison: EOS-1N vs. EOS-1 and EOS A2/A2E

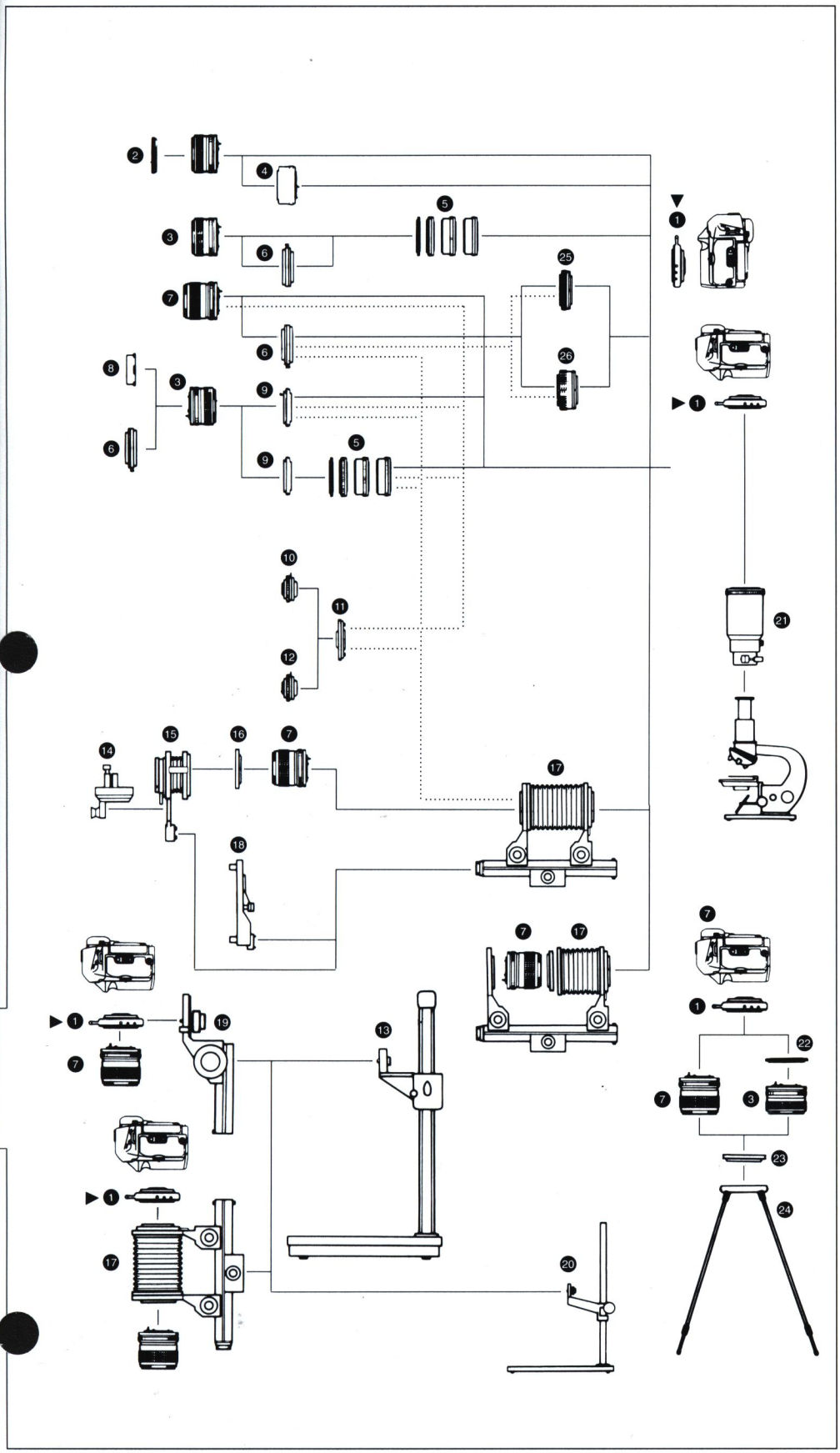
CATEGORY	EOS-1N	EOS-1	EOS A2/A2E
DURABILITY			
Diecast aluminum mirror box, heavy-duty body construction	Yes		No
Moisture-resistant (coverplate fully sealed)	Yes		No
Gold-plated double electrical contacts (DX, grip section)	Yes		No
AUTOFOCUS SYSTEM			
AF focusing area (number of points)	I I + I I (5)	+(1)	I I + I I (5)
Automatic focusing point selection	Yes	No	Yes
Manual focusing point selection	Yes	No	Yes
Eye Controlled Focus	No		Yes (A2E)
AF Working Range (EV, ISO 100)	0 to 18	-1 to 18	0 to 18
METERING MODES			
Evaluative metering/number of zones	Yes / 16	Yes / 6	Yes / 16
Center-weighted average metering	Yes	Yes	Yes
Partial metering/%	Yes / 9%	Yes / 5.8%	No
Spot metering linked to focusing points (3.5%)	Yes	No	Yes
Fine spot metering (2.3%)	Yes		No
A-TTL/TTL flash metering (type)	Multi-zone	CW Average	Multi-zone
EXPOSURE CONTROL			
Shutter speed range	1/8000 - 30 sec.		
Maximum X-sync shutter speed	1/250		1/200
Manual shutter speed/aperture value increment(EV)	0.3 / 0.5 / 1.0	0.3 / 1/0	0.5
Exposure compensation/AEB step amount	±3 steps 0.3 / 0.5 EV	±3 steps 0.3 EV	±2 steps 0.5 EV
Flash exposure compensation step amount	±3 steps 0.3 / 0.5 EV	None	±2 steps 0.5 EV
FILM TRANSPORT			
Maximum Winding Speed, One-shot AF (fps)	6.0*	5.5*	5.0
Maximum Winding speed, AI Servo AF (fps)	5.0*	4.5*	3.0
Rewind Noise Level (High Speed/Low Speed), (dB)	59 / 48	69* / 66	50 / 42
VIEWFINDER			
Superimposed display	Yes	No	Yes
Fine spot metering mark	Yes		No
Remaining frame count indicator	Yes		No
Manual metering indicator	Scale		Zero method
Variable-dioptric correction eyepiece/dpt range	Yes / -3 to +1		A2 / -2.75 to +0.75
Built-in eyepiece shutter	Yes	No	
Viewfinder coverage (% of actual picture area)	100%		92% V x 94% H
OTHER			
Custom Functions (Multiple Choice/Number)	Yes / 14	No / 8	No / 16
Independent depth-of-field preview button	Yes		No
Mirror Lock maximum delay	Yes / 30 sec	No	Yes / 2 sec
Built-in pop-up flash	No		Yes
DIMENSIONS & WEIGHT			
Width (mm/in)	161 / 6.3		154 / 6.1
Height (mm/in)	112.1 / 4.4	106.6 / 4.2	121 / 4.8
Depth (mm/in)	71.8 / 2.8		75 / 3.0
Weight (gr/oz)	855 / 30.2	850 / 30.0	665 / 23.5

*with Power Drive Booster E1

EOS System Chart

1. 540EZ
2. 480EG
3. 300EZ
4. 200E
5. Macro Ring Lite ML-3
6. Compact Battery Pack E
7. Transistor Pack E
8. NiCd Pack TP
9. Battery Magazine (C-size)
10. NiCd Charger TP
11. Hand Strap E1
12. Power Drive Booster E1
13. NiCd Pack E1
14. NiCd Charger E1
15. Battery Pack BP-E1
16. EH2N-L
17. EH2NLL
18. TTL Hot Shoe Adapter 3
19. TTL Distributor
20. Off-Camera Shoe Adapter
21. Off-Camera Shoe Cord 2
22. Connecting Cord 60
23. Connecting Cord 300
24. Magnifier S
25. Rubber Frame
26. Angle Finder B
27. Standard Eyecup Ec-CII
28. Dioptric Adjustment Lens E
29. Ec Series Focusing Screens
30. Macro Lens Mount Converter FD-EOS
31. Command Back E1
32. Cable Release Adapter T3
33. Release 50
    Release 30
34. Remote Switch 60 T3
35. Extension Cord 1000 T3
36. Wireless Controller LC-3





1. Macro Lens Mount Converter FD-EOS
2. Close up 450/240
3. FD 50mm f/1.4
4. Extension Tube FD 25U·50U
5. Extension Tube M Set
6. Macro Auto Ring
7. FD 50mm f/3.5 MACRO
8. Macro Hood 2*
9. Macrophoto Adapter MA-52·55·58*
10. Macrophoto Lens 35mm f/2.8
11. Macrophoto Lens Adapter
12. Macrophoto Lens 20mm f/3.5
13. Copy Stand 5
14. Roll Film Stage*
15. Duplicator 35-52R
16. Slide Duplicator Attachment Ring for 48, 52, 55, 58*
17. Auto Bellows
18. Macro Stage*
19. Focusing Rail
20. Copy Stand 4*
21. Photomicro Unit F
22. Extension Tube M5
23. Attachment Ring for Handy Stand F 48·52·55·58*
24. Handy Stand F*
25. Vari-Extension Tube M30-55
26. Vari-Extension Tube M15-25

* Indicates discontinued products. Availability varies from area to area.

Close-up accessories that can be combined with the macro-lens mount converter FD-EOS.

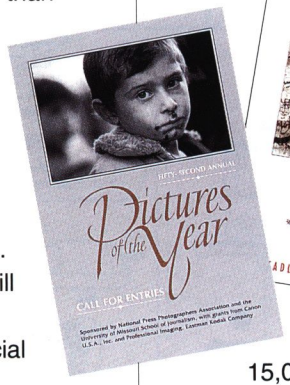
POY & World Press Photo Contest Entry Forms Enclosed

Entry forms for the 1995 POY and World Press Photo contests are enclosed with this issue of *CPS Update.* Here is some background information:

Pictures of the Year (POY)

The 52nd Annual Pictures of the Year competition is sponsored by National Press Photographers Association and the University of Missouri School of Journalism, with grants from Canon U.S.A., Inc. and the Professional Imaging division of Eastman Kodak Company. POY recognizes excellence in photojournalism by honoring press photographers and editors and the institutions where they are employed. Highest honors go to the ***Newspaper Photographer of the Year***, the ***Magazine Photographer of the Year***, the ***Canon Photo Essayist Award winner, the Kodak Crystal Eagle Award for Impact in Photojournalism*** winner, and the ***Angus McDougall Overall Excellence in Editing Award*** winner.

Individual awards in 39 categories will also be presented for newspaper and magazine photojournalism and for picture editing. In last year's competition, 1,526 photographers entered POY and submitted more than 24,000 photographs and tearsheets for judging.



Awards and Prizes

Newspaper and ***Magazine Photographers of the Year*** each will receive a trophy, a Canon camera, $1,000 in Kodak products and $2,000. The runner-up will receive a plaque and $500. Third-place entrants will receive a plaque and $250.

The Canon Photo Essay Award winner will receive a bronze and marble sculpture, a Canon camera and $2,000. Essays judged worthy of special recognition will receive a plaque and $250.

The Kodak Crystal Eagle Award for Impact in Photojournalism winner will receive a crystal trophy, $1,000 in Kodak products and $2,000. Entries judged worthy of special recognition will receive a plaque and $250.

General Information

Entry Fees: The entry fee is $50 for photographers and editors who are not members of NPPA; NPPA members enter free.

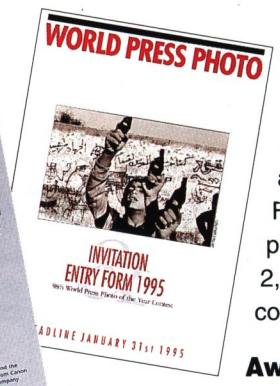
Contest Rules: All entries must be sent prepaid and be received by contest officials in Columbia, Missouri no later than ***Friday, January 20, 1995.*** All entries must have been taken or published for the first time between January 1, 1994 and December 31, 1994 except for entries in the Canon Photo Essay and Kodak Crystal Eagle Award categories, which have no time restrictions. Please review the POY Entry Form for other rules and instructions.

World Press Photo of the Year Contest

The World Press Photo Foundation is a nonprofit organization, sponsored by Canon, KLM Royal Dutch Airlines and the Professional Imaging division of Eastman Kodak Company. The World Press Photo Foundation Board invites press photographers and photojournalists throughout the world to participate in the 38th World Press Photo of the Year contest. This competition accepts press photographs in black & white or color taken during 1994 and intended for publication. The award for World Press Photo of the Year 1994 will go to the photographer who has been most successful in portraying the essence of an event or a situation. The picture will be judged on news value as well as creative perception. All entries will be judged by an international jury composed of picture editors, photographers and representatives of photo agencies.

Black & white or color prints and 35mm transparencies may be entered in the following categories:

General News, Spot News, People in the News, Sports, The Arts, Science and Technology, Nature and the Environment and ***Daily Life.***



The prizewinning pictures and a number of runners-up selected by the international jury will appear in the yearbook and will be exhibited in over 35 countries around the world under the auspices of the foundation. For the 1994 contest 22,775 pictures were submitted by 2,429 photographers from 93 countries.

Awards and Prizes

The Premier Award carries a cash prize of NLG 15,000 (US$8,823*) and an invitation to Amsterdam, including a return flight and hotel accommodation, to attend the awards ceremony at the end of April, 1994. In each category, both the photographer of the best single picture and photographer of the best picture story will receive the Golden Eye trophy, a cash prize of NLG 2,500 (US$1,470*) and an invitation, including a return flight and hotel accommodation, to attend the awards ceremony.

General Information

Entry Fees: There is no entry fee.

Contest Rules: Entries for this year's contest accompanied by a completed entry form must be sent to the foundation's office in Amsterdam. ***THE DEADLINE FOR ARRIVAL OF ENTRIES IS JANUARY 31, 1995.*** Please review the World Press Photo Contest entry form for other rules and instructions.

• Based on exchange rate as of 11/8/94. Subject to fluctuations in exchange rate.