Canon
SEE IMPOSSIBLE

SPEEDLITE EL-1

Version 2

Specifications

Flash

Compatible Cameras

Type-A EOS cameras (E-TTL II/E-TTL autoflash)

Flash Coverage (Focal length; for 35mm full-frame)

14mm	Wide Panel: Manual * Not compatible with EF15mm f/2.8 Fisheye or EF8-15mm f/4L Fisheye USM shooting angles of view
24mm	Zoom • A: Auto Flash coverage is set automatically, accounting for [Auto zoom for sensor size] and [Light distribution] settings at the lens focal length. • M: Manual Flash coverage is set manually [Auto zoom for sensor size] and [Light distribution] settings are not taken into account.
28mm	
35mm	
50mm	
70mm	
80mm	
105mm	
135mm	
200mm	

Guide Number

- The Guide No. is approximately 45.9 ft./14m at ISO 100.
  -When the extendable wide panel is pulled out, the flash coverage is 14mm.
- The maximum Guide No. is approximately 190.3 ft./58m at ISO 100 and 200mm flash coverage.
  -When the extendable wide panel is pulled out, the flash coverage is 14mm.

Maximum Energy

76 Ws.

Flash Modes (Exposure Control Modes)

Flash Mode	Flash Exposure Compensation	FEB	FE Lock	Wireless	
				Radio Transmission	Optical Transmission
E-TTL II/E-TTL autoflash*1	Yes	Yes	Yes	Yes	Yes
Manual Flash				Yes	Yes
Stroboscopic Flash				Yes	Yes
Auto External Flash Metering	Yes	Yes		Yes*2	
Manual External Flash Metering					
Continuous Shooting Priority Mode	Yes	Yes	Yes		
Group Firing*3	Yes	Yes	Yes*4	Yes	

*1: Set automatically when the camera shooting mode is set to Basic Zone modes.

*2: Only Group firing is available.

*3: Can only be set when the Speedlite is used as a sender in radio transmission wireless operation.

*4: Only groups set to E-TTL II / E-TTL autoflash.

<table>
<tr><td>Flash Exposure Compensation</td><td>±3 stops, in 1/3-stop or 1/2-stop*¹ increments.
* The Speedlite's flash exposure compensation takes precedence if flash exposure compensation is performed by both the Speedlite and the camera. Users who prefer to enable flash exposure compensation by the camera should set flash exposure compensation by the Speedlite to 0.
*1: Corresponds to exposure level increments on the camera.</td></tr>
<tr><td>FEB</td><td>±3 stops, in 1/3-stop or 1/2-stop*¹ increments.
* FEB is automatically deactivated after three shots.
* Can be used with flash exposure compensation and FE lock.
*1: Corresponds to exposure level increments on the camera.</td></tr>
<tr><td>FE Lock</td><td>Supported</td></tr>
<tr><td>FE Memory</td><td>Supported
• Stores the flash output of E-TTL II / E-TTL autoflash and automatically sets the stored output level if users switch the flash mode to manual flash.
* Flash output may vary slightly between E-TTL autoflash and manual flash.

• Colors may vary between E-TTL autoflash and manual flash under the following conditions:\
* When the color temperature of the Speedlite light differs greatly from that of ambient lighting and flash exposure compensation is set toward the negative end.
* When E-TTL balance is set to [Ambience priority].

• Differences in colors between E-TTL autoflash and manual flash may be reduced by taking one of the follow steps:
* Using the provided color filter.
* Setting white balance to an option other than AWB.

Set in P.Fn-05
<table>
<tr><td>0: Off</td><td>Disabled</td></tr>
<tr><td>1: On</td><td>Enabled</td></tr>
<tr><td>2: On / Mode ETTL - M</td><td>Enabled/ One-touch switching between E-TTL autoflash and manual flash</td></tr>
</table></td></tr>
<tr><td>Number of Flashes</td><td>Approx. 340–2,345 flashes.
* With a fully charged Battery Pack LP-EL.
* Based on Canon Testing Standards.</td></tr>
<tr><td>Recharge Time</td><td>
<table>
<tr><th rowspan="2">Power Supply</th><th colspan="4">Recharge Time (approx.)</th><th colspan="2" rowspan="2">Flash count (approx.)</th></tr>
<tr><th colspan="2">Normal Flash</th><th colspan="2">Quick Flash</th></tr>
<tr><th>Flash Power</th><th>Min.</th><th>Max.</th><th>Min.</th><th>Max.</th><th>Min.</th><th>Max.</th></tr>
<tr><td>Speedlite EL-1</td><td>0.1 sec.</td><td>0.9 sec.</td><td>01. sec.</td><td>0.8 sec.</td><td>340</td><td>2345</td></tr>
<tr><td>Speedlite EL-1
+ CP-E4N (AA/LR6 Alkaline batteries)</td><td>0.1 sec.</td><td>0.6 sec.</td><td>01. sec.</td><td>0.5 sec.</td><td>560</td><td>3920</td></tr>
<tr><td>Speedlite EL-1
+ CP-E4N (AA/LR6 Ni-MH batteries)</td><td>0.1 sec..</td><td>0.4 sec.</td><td>01. sec.</td><td>0.35 sec.</td><td>680</td><td>4760</td></tr>
</table>
* Based on Canon Testing Standards</td></tr>
<tr><td>Flash Range</td><td>Effective flash range with EF 50mm f/1.4 lens at ISO 100 [Light distibution: Standard]
1) Normal Flash: Approx. 1.6–85.6 ft./0.5–26.1m
2) Quick Flash (Flash-ready lamp: blinking): Approx. 1.6–52.5 ft./0.5–16.0m
3) High-speed Sync (at 1/250 sec. shutter speed): Approx. 1.6–45.3 ft./0.5–13.8m</td></tr>
</table>

<table>
<tr><td rowspan="3">AF Assist Beam</td><td>System:
Infrared AF-assist beam</td></tr>
<tr><td>Compatible AF System:-
TTL second image formation phase-difference AF
Supporting 1–191 AF points (28mm or longer focal length)
• Phase-difference AF during viewfinder shooting</td></tr>
<tr><td>Effective Range (Approx.):
At center: 2.0–32.8 ft./0.6–10.0m
At periphery: 2.0–16.4 ft./0.6–5.0m</td></tr>
<tr><td colspan="2">Modeling Lamp</td></tr>
<tr><td>Modeling Lamp</td><td>Supported
The modeling lamp (LED turns on under the following conditions
<table>
<tr><td>Brightness*1</td><td>Manual setting: 1 (Low) to 5 (High)
*Default setting: 5 (High)</td></tr>
<tr><td>Color temperatue*1</td><td>Manual setting: 1 (Orange) to 5 (White)
*Default setting: 1 (Orange)</td></tr>
<tr><td>On</td><td>Illuminated in response to the following operations
• Pressing the <LAMP> button
• Pressing the shutter button halfway twice (with C.Fn-18 set to 1).</td></tr>
<tr><td>Off</td><td>Off under the following conditions
• Releasing the shutter button
• Pressing the <LAMP> button
• Pressing the shutter button halfway twice (with C.Fn-18 set to 1)
• Timer: 5 min. / 30 min. / Unlimited (can be changed in P.Fn-09)</td></tr>
</table>
*1: set in P.Fn-08

Higher LED temperatue from prolonged illumination triggers the following safety functions
<table>
<tr><th rowspan="2">Temperature in-crease</th><th colspan="2">LCD Panel</th><th rowspan="2">Modeling Lamp Operation</th></tr>
<tr><th>Icon display</th><th>Illumination</th></tr>
<tr><td>Level 1</td><td>  </td><td>On</td><td>Modeling lamp brightness is lowered one level, if at the maximum level</td></tr>
<tr><td>Level 2</td><td>  </td><td>Blinking
(2 Hz)</td><td>Modeling lamp is turned off</td></tr>
</table></td></tr>
<tr><td colspan="2">Wireless Functions for Radio Transmission</td></tr>
<tr><td>Wireless Settings</td><td>
<table>
<tr><td>Sender</td><td>Supported
*Secondary and additional units serve as sub-senders and display a "SUB SENDER" icon.
* Sub-senders cannot be remotely controlled by a receiver unit</td></tr>
<tr><td>Receiver</td><td>Supported</td></tr>
</table></td></tr>
</table>

Communication Functions

Compliance standards	IEEE 802.15.4, ARIB STD-T66
Communication method	Primary modulation: OQPAK Secondary modulation: DS-SS
Transmission frequency	2405-2475 MHz
Channel	Channel 1-15 Setting: Auto / Manual
Wireless radio ID	0000 to 9999 Setting: Manual
Transmission range*1*2	Approx. 98.4 ft. / 30 m
Groups	Up to 5 groups (A-E) * Sender units are set to Group A
Number of possible units for communication	Up to 16 units of senders and receivers in total
Max. sender units	Up to 15 * Secondary and additional units serve as sub-senders
Max. receiver units	Up to 15

*1: Without any obstructions between senders and receivers, and without radio interference from other devices.

*2: Transmission range may be shorter depending on factors such as how units are arranged, the surrounding environment, and weather conditions.

Transmission Status Display

Transmission status	Display		<LINK> lamp	LCD Panel
	Sender	Receiver		
Connected	Yes	Yes	On (in green)	Sender, Receiver
Not Connected	0.1 sec.	0.9 sec.	Off	Sender, Receiver
Too many units/Error	0.1-0.6 sec.		Blinking at 2 Hz (green)	Sender, Receiver
Sub-sender	0.1-0.4 sec.		On (in green)	Sub Sender
Confirmation of linked shooting	Yes		On (in green)	RELEASE

Wireless Firing Control

Wireless firing control via radio transmission

Flash Mode	E-TTL II / E-TTL autoflash	
	Manual flash	
	Stroboscopic flash	
	Group firing	E-TTL II / E-TTL autoflash
		Manual flash
		Auto external flash metering

E-TTL II / ETTL autoflash details

ALL
A:B
A:B+C

Manual flash details

ALL	Flash ratio seting: 1/8192*1*2 to 1/1
A+B	Flash output seting: 1/8192*1*2 to 1/1
A+B+C	Flash output seting: 1/8192*1*2 to 1/1

*1: Minimum of 1/128 for high-speed sync.

*2: Speedlites that do not support a minimum flash output of 1/8192 use their minimum flash output instead.

Stroboscopic flash details

Flash count	1-100
Flash frequency	1-500 Hz
ALL	Flash ratio seting: 1/8192 to 1/4
A+B	Flash output seting: 1/8192 to 1/4
A+B+C	Flash output seting: 1/8192 to 1/4

Group firing details	Enables separate configuration of flash firing control conditions 1-3 below for each groups (A, B, C, D, E), to combine multiple methods of flash firing control. (1) E-TTL II / E-TTL autoflash (2) Manual flash (3) Auto external flash metering For all flash output set for groups A-E above, the same flash exposure compensation can be set. * Flash exposure compensation ±3 stops
Test flash	Available (Sender/Receiver)
Modeling flash	Available (Sender/Receiver)
Modeling lamp	Available (Sender only)
Remote control from a receiver	Functions on sender units that can be controlled remotely from receiver units: •Remote release • Test flash • Modeling flash * Sub-senders cannot be controlled remotely

Wireless functions for Optical Transmission

Communication functions

Compliance method	Optical pulses
Channel	Channel 1-4
Transmission range (approx.)	From front of flash head • Indoors: 2.3 - 49.2 ft. / 0.7 - 15 m. • Outdoors: 2.3 - 32.8 ft. / 0.7 - 10 m.
Reception angle (approx.)	• Horizontally: 45° • Upward: 27°, Downward: 20°
Groups	Up to 3 groups (A-C)
Max. sender units	Unlimited
Max. receiver units	Unlimited

Wireless settings

Sender	Supported
Receiver	Supported
Individual receiver	Supported

Wireless

Overview of optical wireless firing control

Sender flash firing	On: Fires as Group A
	OFF: Does not fire. * Firing (optical transmission) to control receivers may be visible in shots.
Flash mode	E-TTL II / E-TTL autoflash
	Manual flash
	Stroboscopic flash

E-TTL II / E-TTL autoflash details

ALL	Flash metering control of all groups (A, B, C) as if they were a single flash unit. • Flash exposure compensation: ±3 stops
A:B	Flash metering control to obtain the flash ratio set for groups A and B. • Flash ratio setting: 8:1 to 1:8 • Flash exposure compensation: ±3 stops
A:B+C	(1) Flash metering control to obtainv the flash ratio set for groups A and B • Flash ratio setting: 8:1 to 1:8 (2) Flash metering control of group C as if it were a single flash unit • Flash exposure compensation: ±3 stops The same flash exposure compensation can be set for (1) and (2) above • Flash exposure compensation: ±3 stops

<table>
<tr><td>Manual Flash Details</td><td>
<table>
<tr><td>ALL</td><td>Flash output setting: 1/128 to 1/1</td></tr>
<tr><td>A+B</td><td>Flash output setting: 1/128 to 1/1</td></tr>
<tr><td>A+B+C</td><td>Flash output setting: 1/128 to 1/1</td></tr>
</table>
</td></tr>
<tr><td>Stroboscopic Flash Details</td><td>
<table>
<tr><td>Number of Flashes</td><td>1-40</td></tr>
<tr><td>Flash frequency</td><td>1-199 Hz</td></tr>
<tr><td>ALL</td><td>Flash output setting: 1/128 to 1/4</td></tr>
<tr><td>A+B</td><td>Flash output setting: 1/128 to 1/4</td></tr>
<tr><td>A+B+C</td><td>Flash output setting: 1/128 to 1/4</td></tr>
</table>
</td></tr>
<tr><td>Individual Receiver Details</td><td>
<table>
<tr><td>Manual flash</td><td>Flash output setting: 1/8192 to 1/1</td></tr>
<tr><td>Stroboscopic flash</td><td>• Flash output setting: 1/8192 to 1/4
• Flash count: 1-100
• Flash frequency: 1-199 Hz</td></tr>
</table>
* All settings are configured on the receiver.
</td></tr>
<tr><td>Test Flash</td><td>Available (Sender/Receiver)</td></tr>
<tr><td>Modeling Flash</td><td>Available (Sender/Receiver)</td></tr>
<tr><td>Modeling Lamp</td><td>Available (Sender only)</td></tr>
<tr><td colspan="2">Linked Shooting via Radio Transmission</td></tr>
<tr><td>Linked Functions</td><td>Supports linked shooting with automatic shutter release of up to 16 cameras (sender:1, receivers:15) linked to shutter release on the sender camera.
*Shooting is not simultaneous, because receiver cameras shoot slightly after the sender camera shutter release timing.</td></tr>
<tr><td colspan="2">Information Display</td></tr>
<tr><td>Type</td><td>Reflective memory LCD (normally black)</td></tr>
<tr><td>Size</td><td>Approx. 1.89(H) x 1.04(V) in.</td></tr>
<tr><td>Display Format</td><td>Dot-matrix display</td></tr>
<tr><td>Dot Count</td><td>Approx. 56,000 dots (320x176)</td></tr>
<tr><td colspan="2">General</td></tr>
<tr><td>Power Source</td><td>Battery Pack LP-EL
* AA/LR6 Alkaline Batteries and Ni-MH batteries cannot be used.</td></tr>
<tr><td>Battery Charger</td><td>Battery Charger LC-E6 /LC-E6E
Car Battery Charger CBC-E6</td></tr>
<tr><td>External Power Source</td><td>Supported
* Optional - Supports CP-E4N Battery Pack</td></tr>
<tr><td>PC Terminal</td><td>Supported</td></tr>
<tr><td>Modeling Lamp Illumination Time</td><td>Approx. 3 hr 20 min. Continously
* With P.Fn-09 set to [2], and using a fully charged Battery Pack LP-EL</td></tr>
<tr><td>Dust-and-Water Resistance</td><td>Supported
* Water-resistant performance to EOS-1D series</td></tr>
<tr><td>Dimensions (W x H x D)</td><td>Approx. 3.32" x 5.87" x 5.37"</td></tr>
<tr><td>Weight (Approx.)</td><td>19.97oz (Body Only) 2
24.23 oz (Body and Battery</td></tr>
</table>

Functions

Light Distribution

Set in C.Fn-21

0: Standard	A light distribution setting that balances light distribution and the guide number.
1: Guide number priority	Prioritizes illumination at the center of the screen, the periphery may be dark.
2: Light distribution priority	Light distribution that reduces peripheral darkness.

Custom Functions

14 Functions

Function	Number	Setting
C.Fn-00: Distance indicator display	0	m (display in meters)
	1	ft. (display in feet)
C.Fn-01: Auto power off	0	ON (90 sec.)
	1	OFF
C.Fn-02: Modeling flash	0	Depth-of-field preview button
	1	Test flash button
	2	DOF/Test flash button
	3	OFF
C.Fn-03: FEB auto cancel	0	ON
	1	OFF
C.Fn-04: FEB sequence	0	0 -> - -> +
	1	_->0-> +
C.Fn-08: AF-assist beam firing	0	ON
	1	OFF
C.Fn-10: Receiver auto power off timer	0	60 min.
	1	10 min.
C.Fn-11: Receiver auto power off timer	0	Within 8 hours
	1	Within 1 hour
C.Fn-12: Flash recycle with external power	0	External and internal pwer
	1	External power only
C.Fn-13: Flash exposure compensation setting	0	Button and dial
	1	Direct setting with the dial
C.Fn-18: Modeling lamp lit	0	with lamp button
	1	Press the shutter button halfway twice *Lamp button can also be used
C.Fn-21: Light distribution	0	Standerd
	1	Guide number priority
	2	Even coverage
C.Fn-22: LCD panel illumination	0	Stay on for 12 sec. after operation
	1	Disable panel illumination
	2	Illumination always on
C.Fn-23: Receiver charge confirmation	0	AF-assist beam blinking and flash-ready lamp
	1	Flash-ready lamp

Personal Functions

9 Functions

Function	Number	Setting
P.Fn-01: AF-assist beam emission method	0	Infrared
	1	Emmitting small series of flashes
P.Fn-02: Quick flash	0	ON
	1	OFF
P.Fn-03: Flash firing during linked shooting	0	OFF
	1	ON
P.Fn-04: Change settings with the direct dial operation	0	OFF
	1	ON
P.Fn-05: FE memory	0	OFF
	1	ON
	2	ON / MODE: ETTL<-> M
P.Fn-06: Beep	0	ON
	1	OFF
P.Fn-07: Fan	0	ON
	1	OFF
P.Fn-08: Modeling lamp (brightness, color)		Brightness: 5 levels
		Color: 5 levels
P.Fn-09: Modeling lamp (lit time)	0	5 min.
	1	30 min.
	2	Unlimited