





operations such as choosing items or switching images. Except for a few operations, the same operations are possible with the AVAD buttons. **Formatting Memory Cards**

Before you use a new memory card or one that has been formatted in other devices, you should format the card with this camera.

Formatting (initializing) a memory card erases all data on the memory card. As you cannot retrieve the erased data, exercise adequate caution before formatting the memory card.

Before formatting an Eye-Fi card (p. 188), be sure to install the software contained on the card to a computer.



Display the menu.

Press the MENU button.

Choose [Format].

- Press the **** buttons to choose the **?**[†] tab.
- Press the A v buttons or turn the dial to choose [Format], then press the button.

Choose [OK].

Press the
 buttons or turn the
 dial to choose [OK], then press the
 button.

Format the memory card.

- Press the ▲▼ buttons or turn the ♥ dial to choose [OK], then press the ♥ button.
- The memory card will be formatted.

Complete formatting.

When formatting ends, [Memory card formatting complete] will appear on the screen.
 Press the (**) button.

Press the (m) bu

22

Shooting RAW Images

Approximate Values for Paper Size (for 4:3 Aspect Ratios)



Suitable for sending images as e-mail attachments.

Shooting RAW Images

A RAW image is raw data recorded with nearly no deterioration in image quality resulting from image processing inside the camera. You can use the supplied software to adjust the image in any way you like with minimal loss in image quality.



Choose MG.

After pressing the () button, press the
 ▲▼ buttons to choose 𝔐.

Choose an option.

Press the ◀ buttons or turn the dial to choose or choose to choose or choose dial to choose dial to dial

Changing the Compression Ratio (Image Quality)

You can choose from the following two compression ratios (image quality): (Fine), (Normal).



Choose the compression ratio setting.

- Choose an option.
- Press the
 buttons or turn the
 dial to choose an option, then press the

 button.

79

The setting will appear on the screen.

Approximate Values for Recording Pixels and Compression Ratio (for 4:3 Aspect Ratios)

Recording Pixels	Compression	Single Image Data	Number of Shots per Memory Card	
	Ratio	Size (Approx. KB)	4 GB	16 GB
L (Large) 10 M/3648x2736		2565	1471	6026
	- 1	1226	3017	12354
M1 (Medium 1) 6 M/2816x2112		1620	2320	9503
		780	4641	19007
M2 (Medium 2) 2 M/1600x1200		558	6352	26010
		278	12069	49420
S (Small) 0.3 M/640x480		150	20116	82367
	1 A A	84	30174	123550

 The values in the table are measured according to Canon standards and may change depending on the subject, memory card and camera settings.

The values in the table are based on 4:3 aspect ratio. If the aspect ratio is changed (p. 78), more images can be shot because the data size per image will be smaller than with 4:3 images. However, since **M2** 16:9 images have a setting of 1920 x 1080 pixels, their data size will be larger than **4:3** images.

Changing the ISO Speed



2500 3200 AUTO

Choose the [SO speed.

 Turn the ISO dial to choose an ISO speed setting.

- When you choose an ISO speed that is available for setting, the ISO lamp lights orange.
- When you choose an ISO speed that is not available for setting, the ISO lamp will turn off, and the camera will automatically be set to \$\vec{M0}\$ (or \$\vec{M0}\$ when in M mode).
- The setting will appear on the screen.

ISO AUTO	Automatically adjusts the ISO speed to the Shooting mode shooting conditions.	
150 150 150 150 150 80 100 125 160 200	Low	Fine weather conditions, outdoor shooting
150 150 150 150 150 150 250 320 400 500 640 800	\$	Cloudy, twilight
150 150 150 150 150 150 1000 1250 1600 2000 2500 3200	High	Nightscapes, dark interiors

Changing the |SO speed

- Lowering the ISO speed results in sharper images, but there may be an increased chance of image blurring in certain shooting conditions.
- Raising the ISO speed results in a faster shutter speed, reducing image blurring and letting the flash reach greater distances to the subject. The images, however, will appear coarse.

What if images are still blurry?

If still is not enough to supress camera shake, ﷺ mode (p. 61) allows |SO speed settings of and . In ﷺ mode, press the ∰ button, then press the ▲▼ buttons to choose . Press the ◀▶ buttons or turn the ♣ dial to set the |SO speed.

When the camera is set to \$\$\$\$, you can press the shutter button halfway to display the automatically set ISO speed.

Adjusting the White Balance

The white balance (WB) function sets the optimal white balance for natural looking colors to match the shooting conditions.



Choose the white balance function.

Choose an option.

- Press the 4 buttons or turn the dial to choose an option, then press the button.
- The setting will appear on the screen.

AWB	Auto	Automatically sets the optimal white balance for the shooting conditions.		
۲	Day Light	Fine weather conditions, outdoor shooting		
2	Cloudy	Cloudy, shady, twilight conditions		
*	Tungsten	Tungsten, bulb-type (3-wavelength) fluorescent lighting		
111	Fluorescent	Warm-white fluorescent, cool-white fluorescent, warm-wh type (3-wavelength) fluorescent lighting		
洲	Fluorescent H	Daylight fluorescent, daylight-type (3-wavelength) fluorescent lighting		
\$	Flash	For shooting with the flash.		
Ak	Underwater	Sets the optimum white balance, and tones down blues for taking pictures with natural colors underwater.		
	Custom	Manually sets a custom white balance.		

82

Shooting in Program AE

You can choose the settings for various functions to suit your preferences. AE stands for Auto Exposure.

The focusing range is approximately $5 \text{ cm} (2.0 \text{ in.}) - \text{infinity at maximum wide angle (IIII), and approximately <math>30 \text{ cm} (12 \text{ in.}) - \text{infinity at maximum telephoto ([]).}$



- Enter P mode.
 Set the mode dial to P.
- Adjust the settings according to your purposes (pp. 76 90).

Shoot.

What if the shutter speed and aperture value appear in orange?

If a correct exposure cannot be obtained when pressing the shutter button halfway, the shutter speed and aperture value are shown in orange. Try the following settings to obtain the correct exposure.

• Turn on the flash (p. 77)

Choose a higher ISO speed (p. 82)

Adjusting the Brightness (Exposure Compensation)

You can adjust the standard exposure set by the camera in 1/3-stop increments in the range of -2 to +2.



Adjust the brightness.

- While watching the screen, turn the exposure compensation dial to adjust the brightness.
- In shooting modes where exposure compensation is available, the exposure compensation lamp lights orange.
- The exposure compensation amount will appear on the screen.

76

Setting the Shutter Speed and Aperture Value

🛱 Safety Shift

With Tv and Av modes, if you press the MENU button to display the $rac{1}{2}$ tab and set [Safety Shift] to [On], the shutter speed or aperture value is automatically adjusted for the correct exposure when it cannot otherwise be obtained. Safety Shift is disabled when the flash is enabled.

You can also set the camera so that turning the *m* or **(a)** dial changes the shutter speed (p. 171).

Setting the Shutter Speed and Aperture Value

You can manually set the shutter speed and aperture to shoot images. \mathbf{M} stands for "Manual".



Set the mode dial to M.

Make the setting.

- Turn the *m* dial to set the shutter speed.
- Turn the dial to set the aperture value.
- The set exposure level appears on the indicator. You can check the difference against the standard exposure level.
- When the difference is more than ±2 stops, the set exposure level appears in orange. When you press the shutter button halfway, "-2" or "+2" appears in orange.

Changing the Metering Method



Set the focus.

Press the DISP. button.
Press the buttons or turn the dial to make the setting.

- In flash settings other than (\$) (p. 56), Focus Bracketing is not available.
- If you follow Step 1 on p. 98 to choose M and immediately press the button, the screen in Step 2 will appear.
- · Continuous shooting (p. 86) cannot be used in this mode.
- Only three shots will be taken, even if you use 3 (p. 56) to set a different number of shots.

Changing the Metering Method

You can change the metering method (brightness measuring function) to match the shooting conditions.



Choose the metering method.

 After pressing the (s) button, turn the dial to choose a metering method.

Evaluative	Suitable for standard shooting conditions, including back lit shots. Automatically adjusts the exposure to match the shooting conditions.
Center Weighted Avg.	Averages the light metered from the entire frame, but gives greater weight to the center.
[•] Spot	Only meters within the [] (Spot AE Point frame). The Spot AE Point frame can be linked to the AF frame.

Indicators

The indicators on the back of the camera (p. 43) will light or blink depending on the camera's status.

	Color	Status	Operation Status
Upper indicator	Green	Lit	Camera ready (p. 24) / Display off (p. 164)
		Blinking	Recording an image / Reading data / Transmitting data (p. 25)
	Orange	Lit	Shooting preparation complete (flash on) (p. 24)
		Blinking	Camera shake warning (p. 56)
Lower indicator	Yellow	Lit	🗴 (p. 77), Manual focus (p. 98), AF lock (p. 97)
		Blinking	Proximity warning (p. 26) / Cannot focus (p. 191)
Power lamp	Green	Lit	Power on
		Blinking	Battery depleted (p. 15)

When the indicator blinks green, data is being recorded to/read from the memory card or various information is being transmitted. Do not turn off the power, open the memory card slot/battery cover, shake or jolt the camera. These actions may corrupt the image data or cause the camera or memory card to malfunction.

FUNC. Menu – Basic Operations

You can set commonly used functions using the FUNC, menu. The menu items and options differ depending on the Shooting mode (pp. 200 – 201).



Choose a Shooting mode.

Set the mode dial to the desired shooting mode.



46

Display the FUNC. menu. Press the () button.

Changing the AF Frame Mode

You can change the AF (Auto Focus) frame mode to match the scene you want to shoot.



Choose [AF Frame].

 After pressing the MENU button, choose [AF Frame] in the tab, then press the
 buttons to choose an option.

Face AiAF

- Detects people's faces and sets the focus, exposure (evaluative metering only) and white balance (AWB only).
- When the camera is pointed at subjects, a white frame appears on the face the camera judges to be the main subject, and gray frames (max. 2) will appear on other faces.
- A frame will follow a moving subject within a certain range.
- When the shutter button is pressed halfway, up to 9 green frames will appear on faces that the camera focuses on.
 - If a face is not detected and only gray frames (no white frame) appear, up to 9 green frames will appear on the areas the camera focuses on when the shutter button is pressed halfway.
 - The AF frame will appear in the center of the screen if you press the shutter button halfway when Servo AF (p. 94) is set to [On] and a face is not detected.
 - Examples of faces that cannot be detected:
 - Subjects that are far away or extremely close.
 - Subjects that are dark or light.
 - Faces turned to the side or at a diagonal, or faces with a portion hidden.
 - The camera may mistakenly identify non-human subjects as a face.
 - If the camera cannot focus when you press the shutter button halfway, the AF frame will not appear.

Tracking AF

You can choose the subject you want to focus on and shoot (p. 95).

92

Changing the AF Frame Position and Size

FlexiZone/Center

A single AF frame will be used. This is effective for focusing on a specific point. In [FlexiZone], you can change the position and size of the AF frame (p. 93).



Changing the AF Frame Position and Size

When the AF frame mode is set to [FlexiZone] (see above) you can change the position and size of the AF frame.



Press the 語 button.

The AF frame will turn orange.



Move the AF frame.

- Turn the *m* or dial.
- Press the A I buttons to make fine adjustments.
- When faces are detected, each press of the MENU button will move the AF frame to another face.
- If you keep the button pressed, the AF frame will return to the original position (center).
- Change the AF frame size.
 Press the DISP, button.
 - The AF frame will become small.
 - Pressing the DISP, button again will restore the AF frame to normal size.

Shooting with Servo AF



Complete the settings.

Press the 🔁 button.

• The Spot AE Point frame can be linked with the AF frame (p. 101).

 The AF frame will be set to normal size when using Digital Zoom (p. 58) or Digital Tele-converter (p. 59).

Shooting with Servo AF

While the shutter button is pressed halfway, the focus and exposure will continue to adjust, allowing you to take pictures of moving subjects without missing a shot.



Choose [Servo AF].

Focus.

- The focus and exposure will be maintained where the blue AF frame appears while you press the shutter button halfway.
- The camera may not be able to focus in some conditions.
- In low light conditions, AF frames may not turn blue even after pressing the shutter button halfway. In this case, you can set the focus and exposure with the AF frame setting.
- If a correct exposure cannot be obtained, the shutter speed and aperture value appear in orange. Release your finger from the shutter button, then press it again halfway.
- You cannot shoot with the AF lock in this mode.
- The [AF-Point Zoom] option in the is not available in Servo AF mode.
- Not available when using 🕉 (p. 56).

94

Magnifying the Focal Point

- The camera will detect a subject even if you press the shutter button halfway without pressing the button. When shooting completes, will appear in the center of the screen.
 - Servo AF (p. 94) is set to [On].
- The camera may not be able to track the subject if the subject is too small, moves too quickly or if the contrast between the subject and the background is too low.
- Not available in \$.

Magnifying the Focal Point

If you press the shutter button halfway, the AF frame will magnify and you can check the focus.



Choose [AF-Point Zoom].

 Press the MENU button to choose [AF-Point Zoom] in the tab, then press the
 buttons to choose [On].



Check the focus.

- Press the shutter button halfway.
- In [Face AiAF] (p. 92), the face detected as the main subject will appear magnified.
- In [FlexiZone] or [Center] (p. 93), the contents of the AF frame will appear magnified.

What if the display does not magnify?

The display will not appear magnified in [Face AiAF] if a face cannot be detected or is too big in relation to the screen. In [Center], it will not appear magnified if the camera cannot focus.

Shooting with the AE Lock

Linking the Spot AE Point Frame to the AF Frame





Follow the Step above to choose [•].

- Choose [Spot AE Point].
 - Press the MENU button to choose [Spot AE Point] in the tab, then press the buttons to choose [AF Point].
- The Spot AE Point frame will be linked to the AF frame that was moved.

Cannot be used when [AF Frame] is set to [Face Detect] or [Tracking AF] (p. 92).

Shooting with the AE Lock

You can lock the exposure and shoot, or set the focus and exposure separately to shoot. AE stands for "Auto Exposure".



Lock the exposure.

- Point the camera toward the subject and press the + button.
- When ★ appears, the exposure will be locked.
- When you shoot one image, * will disappear and AE will unlock.
- Compose the scene and shoot.

Drogram Shift

If you lock the exposure and turn the **(**ref) dial, you can change the shutter speed and aperture value combination.

Viewing Images

You can view the images you have taken on the screen.







Choose an image.

Press the button.

Enter Playback mode.

The last image you took will appear.

- Pressing > or turning the dial clockwise will cycle through images in the order they were taken, from oldest to newest.
- The images change more quickly if you keep the buttons pressed, but they will appear coarse.
- The lens will retract after approximately 1 minute elapses.
- Pressing the button again while the lens is retracted will turn off the power.

Switching to Shooting mode

Pressing the shutter button halfway while in Playback mode switches the camera to Shooting mode.

Magnifying Images





Approximate Location of

Displayed Area

Move the zoom lever toward Q.

 The display will zoom in on the image. If you continue to hold the zoom lever, it will zoom in up to a maximum factor of 10x.

- If you press the ATT buttons, you can move the location of the displayed area.
- Move the zoom lever toward to zoom out, or continue to hold it to return to single image playback.
- If you turn the dial, you can switch images while zoomed.

In magnified display, pressing the MENU button restores single image playback.

Displaying Various Images (Smart Shuffle)

The camera will choose four images based on the displayed image. If you choose one of those images, the camera will choose four more images letting you enjoy the playing back of images in an unexpected order. This will work best if you take many shots of various scenes.



Choose [Smart Shuffle].

- Press the MENU button to choose [Smart Shuffle] in the
 tab, then press the

 button.
- Four images will appear as possibilities.

Checking the Focus

You can magnify the area of a recorded image that was inside the AF Frame, or the area of a face that was detected, to check the focus.





Press the DISP, button to switch to the focus check display (p. 44).

- A white frame will appear where the AF frame or face was when the focus was set.
- A gray frame will appear on a face detected during playback.
- The area within the orange frame appears magnified.

Switch frames.

- Move the zoom lever toward Q once.
- The screen shown to the left will appear.

Change the magnification level or location.

- Use the zoom lever to change the display size, and the A I buttons to change the display position while checking the focus.
- Pressing the MENU button resets the display to Step 1.

131

Continuous Shooting



- Turn the *** or *dial*, and adjust the correction amount for B, A, M, and G.
- To reset the correction level, press the MENU button.
- Press the DISP. button to complete the setting.

• B stands for blue, A for amber, M for magenta, and G for green.

- Even if you change the white balance setting in Step 1 after making adjustments in the correction level, those adjustments will be retained. However, the adjustments will be reset if Custom White Balance data is recorded.
- One level of the blue/amber correction is equivalent to 7 mireds of a color temperature conversion filter. (Mired: Measuring unit indicating the density of a color temperature conversion filter.)
- You can also display the B and A adjustment screen by turning the or dial.

Continuous Shooting

As long as you hold the shutter button down, the camera will shoot continuously.



Choose a Drive mode.

Choose an option.

Press the ↓ buttons or turn the ♣ dial to choose ☐ or ♣ , then press the ֎ button.

Shoot.

As long as you hold the shutter button down, the camera will shoot successive images.

86

Turning the Flash Off

You can shoot with the flash turned off.



Press the button.



Choose 🟵.

- Press the
 buttons or turn the

 choose
 then press the
- Once set, (3) will appear on the screen.
- To turn the flash back on, follow the Steps above to return the setting to ⁴/₄.



What if the indicator blinks orange and a flashing Q appears?

When you press the shutter button halfway in low light conditions where camera shake is likely, the indicator will blink orange and a flashing will appear on the screen. Attach the camera to a tripod to prevent it from moving.

Using the Self-Timer

The self-timer can be used to shoot a group photo that includes the photographer. You can set the delay from when you press the shutter button until the image is taken (0 - 30 seconds) and the number of shots (1 - 10 shots).



Press the **v** button.

Adjusting the Flash Exposure Compensation

Red-eye correction may be applied to areas other than red eyes. For example, when red make-up has been used around eyes.

- You can correct recorded images (p. 150).

Adjusting the Flash Exposure Compensation

Just like with Exposure Compensation (p. 76), you can adjust the exposure ± 2 stops in 1/3-stop increments when using the flash.



Choose the compensation amount.

່ລິ Safety FE

The camera automatically changes the shutter speed or aperture value when the flash fires to avoid overexposing and blowing out the highlights in the scene. If you press the MENU button to display the tab and set [Safety FE] in [Flash Control] to [Off], the shutter speed and aperture value will not automatically adjust.

- You can also set the flash exposure compensation with the following
- methods. However, it cannot be set with the ▶ button when an external flash (sold separately) is attached. In this case, set the flash output using methods with an asterisk *.

 - Press the ▶ button, then the MENU button, or press and hold the ▶ button for more than 1 second, and the setting screen will appear. Choose [Flash Exp. Comp], then press the ◀▶ buttons.

110

Changing the Aspect Ratio

You can change the width to height ratio of an image.



Choose an aspect ratio.

Choose an option.

Press the
 buttons or turn the
 dial to choose an option, then press the
 button.

- 16:9 Same aspect ratio as wide screen high definition televisions.
- 3:2 Same aspect ratio as 35mm film. Suitable for printing out 5" x 7" or postcard sized images.
- 4:3 Same aspect ratio as the screen of this camera. Suitable for printing out 3.5" x 5" sized images.
- 1:1 Square-shaped aspect ratio.
- 4:5 An aspect ratio well suited for portraits.
 - The aspect ratio for III and III (p. 80) images is fixed at 4:3.
- She digital zoom (p. 58) is only available in 4:3
- You can also set the camera so that turning the *m* or *d* dial changes the aspect ratio.

Changing the Recording Pixel Setting (Image Size)

You can choose from four recording pixel (image size) settings.



Choose the recording pixel setting.

Choose an option.

- Press the
 buttons or turn the
 dial to choose an option, then press the
 button.
- The setting will appear on the screen.

Returning the Camera to Default Settings

When you have mistakenly changed a setting, you can reset the camera to the default settings.



Display the menu.

Press the MENU button.

Choose [Reset All].

- Press the **** buttons to choose the **?** tab.
- Press the A v buttons or turn the dial to choose [Reset All], then press the button.



Reset the settings.

- Press the
 buttons or turn the
 dial to choose [OK], then press the
 button.
- The camera will reset to the default settings.

Are there functions that cannot be reset?

- The [Date/Time] (p. 20) in the **f**^{*} tab, [Language] (p. 21), [Video System] (p. 133), [Time Zone] (p. 164), and the image registered in [Start-up Image] (p. 161).
- The saved data for custom white balance (p. 85).
- Colors that were chosen in Color Accent (p. 113) or Color Swap (p. 114).
- The shooting direction chosen in Stitch Assist mode (p. 116).
- The scene mode chosen in SCN (p. 62).
- Exposure compensation and values set with the exposure compensation dial and the ISO speed dial (pp. 76, 82).
- Movie Mode (p. 118)

2

Calibration settings for the electronic level (p. 108)