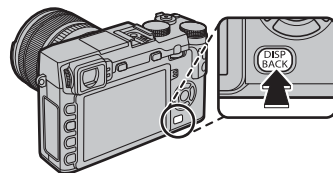


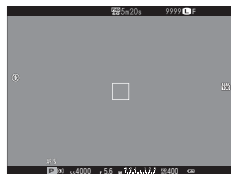
The DISP/BACK Button

The **DISP/BACK** button controls the display of indicators in the viewfinder and LCD monitor.



■ Viewfinder: Shooting

Standard

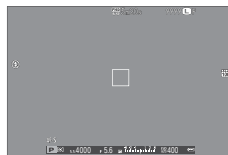


Information off

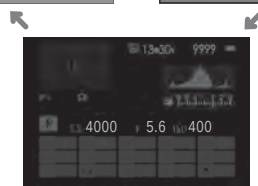


■ LCD Monitor: Shooting

Standard



Information off



Info display

■ Customizing the Standard Display

To choose the items shown in the standard display:

1 Display standard indicators.

Press the **DISP/BACK** button until standard indicators are displayed.

2 Select **DISP. CUSTOM SETTING**.

Select  **SCREEN SET-UP > DISP. CUSTOM SETTING** in the setup menu.

3 Choose items.

Highlight items and press **MENU/OK** to select or deselect.

- | | | |
|-------------------------|--------------------------|--------------------------|
| • FRAMING GUIDELINE | • INFORMATION BACKGROUND | • WHITE BALANCE |
| • ELECTRONIC LEVEL | • EXPOSURE COMPENSATION | • FILM SIMULATION |
| • FOCUS FRAME | • FOCUS MODE | • DYNAMIC RANGE |
| • AF DISTANCE INDICATOR | • PHOTOMETRY | • FRAMES REMAINING |
| • MF DISTANCE INDICATOR | • SHUTTER TYPE | • IMAGE SIZE/QUALITY |
| • HISTOGRAM | • FLASH | • MOVIE MODE & REC. TIME |
| • SHOOTING MODE | • CONTINUOUS MODE | • BATTERY LEVEL |
| • APERTURE/S-SPEED/ISO | • DUAL IS MODE | |

4 Save changes.

Press **DISP/BACK** to save changes.

5 Exit the menus.

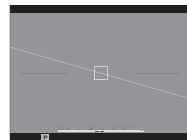
Press **DISP/BACK** as needed to exit the menus and return to the shooting display.

💡 See page 8 for the locations of these items in the displays.

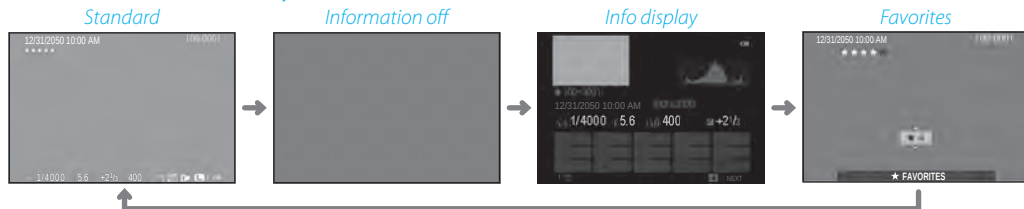
Virtual Horizon

Selecting **ELECTRONIC LEVEL** displays a virtual horizon. The camera is level when the two lines overlap.

❖ The virtual horizon may not be displayed if the camera lens is pointed up or down.

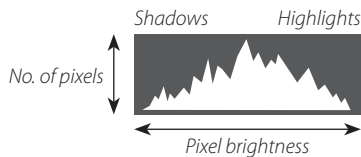


Viewfinder/LCD Monitor: Playback



Histograms

Histograms show the distribution of tones in the image. Brightness is shown by the horizontal axis, the number of pixels by the vertical axis.



Optimal exposure: Pixels are distributed in an even curve throughout the tone range.



Overexposed: Pixels are clustered on the right side of the graph.



Underexposed: Pixels are clustered on the left side of the graph.

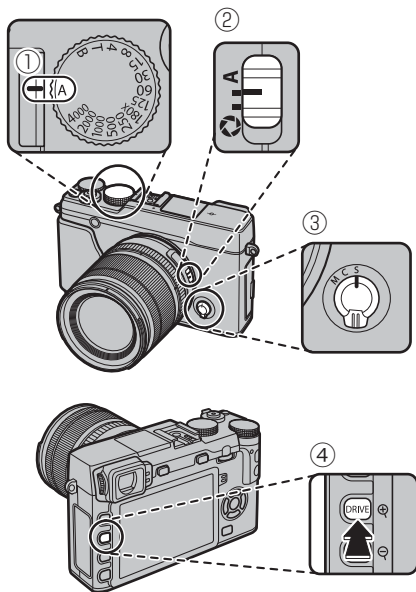


Basic Photography and Playback

Taking Photographs

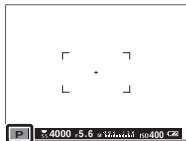
This section describes how to take pictures using program AE (mode **P**). See pages 000–000 for information on **S**, **A**, and **M** modes and pages 000 and 000 for information on the options available in auto mode.

1 Adjust settings for program AE.



- ① **Shutter speed** (000): Select **A** (auto)
- ② **Aperture** (000): Select **A** (auto)
- ③ **Focus mode** (000): Select **S** (single AF)
- ④ **DRIVE mode** (000): Select (still image)

Confirm that **P** appears in the display.



- ① If **AUTO** is displayed in red, press a function button (by default, **Fn2/AUTO**) to exit auto mode (000).

- Image stabilization (98) is recommended.



The Q Button

The **Q** button can be used to view and adjust camera settings (40).

2 Ready the camera.

Hold the camera steady with both hands and brace your elbows against your sides. Shaking or unsteady hands can blur your shots.



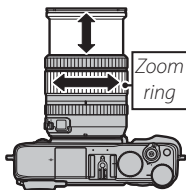
To prevent pictures that are out of focus or too dark (underexposed), keep your fingers and other objects away from the lens, flash, and AF-assist illuminator.



3 Frame the picture.

Lenses with Zoom Rings

Use the zoom ring to frame the picture in the display.



4 Focus.

Frame the picture with your subject in the center of the display and press the shutter button halfway to focus.



❖ If the subject is poorly lit, the AF-assist illuminator may light (📖 000).

If the camera is able to focus, it will beep twice and the focus indicator and area in focus will glow green. Focus and exposure will lock while the shutter button is pressed halfway.

If the camera is unable to focus, the focus frame will turn red, **!AF** will be displayed, and the focus indicator will blink white.

5 Shoot.

Smoothly press the shutter button the rest of the way down to take the picture.

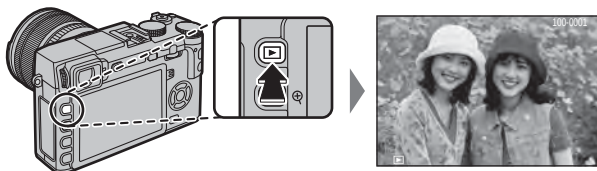


Viewing Pictures

Viewing Pictures Full Frame

Pictures can be viewed in the viewfinder or LCD monitor. When taking important pictures, take a test shot and check the results.

To view pictures full frame, press .



Additional pictures can be viewed by pressing the selector left or right or rotating the command dial. Press the selector or rotate the dial right to view pictures in the order recorded, left to view pictures in reverse order. Keep the selector pressed to scroll rapidly to the desired frame.



◆ Pictures taken using other cameras are marked with a  ("gift image") icon to warn that they may not display correctly and that playback zoom may not be available.

Favorites: Rating Pictures

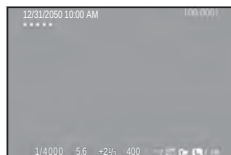
To rate the current picture, press **DISP/BACK** and press the selector up and down to select from zero to five stars.

Viewing Photo Information

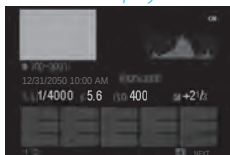
The photo information display changes each time the selector is pressed up.



Basic data

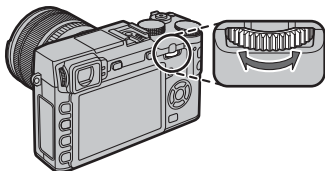


Info display 1



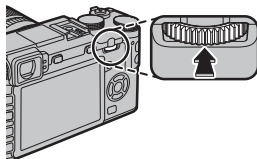
Info display 2

Rotate the command dial to view other images.



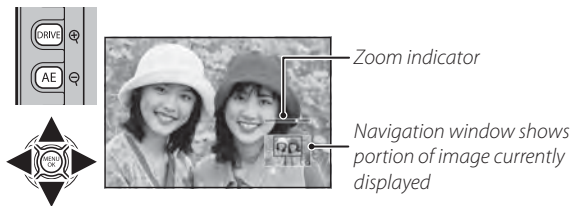
Zooming in on the Focus Point

Press the center of the command dial to zoom in on the focus point. Press the center of the command dial again to return to full-frame playback.



Playback Zoom

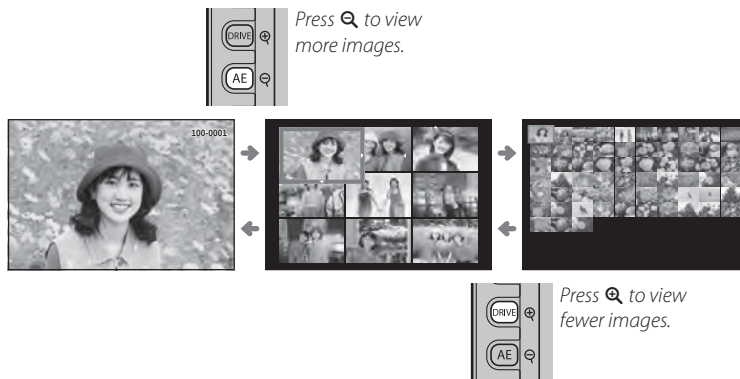
Press  to zoom in on the current picture,  to zoom out (to view multiple images, press  when the picture is displayed full frame;  34). When the picture is zoomed in, the selector can be used to view areas of the image not currently visible in the display. Press **DISP/BACK** or **MENU/OK** to exit zoom.



- ◆ The maximum zoom ratio varies with image size ( 93). Playback zoom is not available with cropped or resized copies saved at a size of **640**.

Multi-Frame Playback

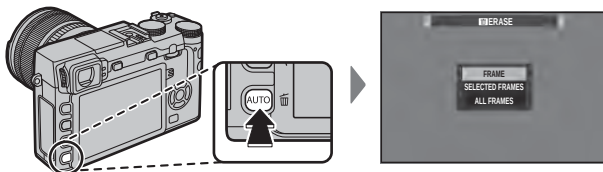
To change the number of images displayed, press  when a picture is displayed full frame.



Use the selector to highlight images and press **MENU/OK** to view the highlighted image full frame (to zoom in on the selected image, press  when the picture is displayed full frame;  33). In the nine- and hundred-frame displays, press the selector up or down to view more pictures.

Deleting Pictures

To delete individual pictures, multiple selected pictures, or all pictures, press the  button when a picture is displayed full frame and choose from the options below. **Note that deleted pictures can not be recovered.** *Copy important pictures to a computer or other storage device before proceeding.*



Option	Description
FRAME	Press the selector left or right to scroll through pictures and press MENU/OK to delete the current picture (a confirmation dialog is not displayed).
SELECTED FRAMES	Highlight pictures and press MENU/OK to select or deselect (pictures in photobooks or print orders are shown by ). When the operation is complete, press DISP/BACK to display a confirmation dialog, then highlight OK and press MENU/OK to delete the selected pictures.
ALL FRAMES	A confirmation dialog will be displayed; highlight OK and press MENU/OK to delete all unprotected pictures. Pressing DISP/BACK cancels deletion; note that any pictures deleted before the button was pressed can not be recovered.

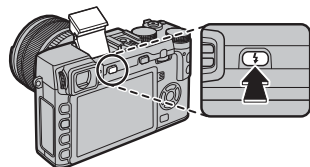
- ◆ Protected pictures can not be deleted. Remove protection from any pictures you wish to delete ( 101).
- ◆ Pictures can also be deleted by  **ERASE** from playback menu.
- ◆ If a message appears stating that the selected images are part of a DPOF print order, press **MENU/OK** to delete the pictures.

Using the Flash

Use the built-in flash for additional lighting when shooting at night or indoors under low light.

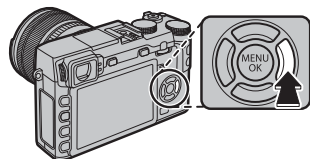
1 Press the **⚡** button to raise the flash.

- ① The flash may contact accessories mounted on the hot shoe. If necessary, remove accessories before raising the flash.



2 Press the function button (**Fn5**) to display the following options, then use the selector to highlight an option and press **MENU/OK** to select.

Mode	Description
AUTO (AUTO FLASH)/  (RED EYE REDUCTION)*	The flash fires when required. Recommended in most situations.
⚡ (FORCED FLASH)/  (FORCED FLASH)*	The flash fires whenever a picture is taken. Use for backlit subjects or for natural coloration when shooting in bright light.
 (SLOW SYNCHRO)/  (RED EYE & SLOW)*	Capture both the main subject and the background under low light (note that brightly lit scenes may be overexposed).
 (2ND CURTAIN SYNC.)/  (2ND CURTAIN SYNC.)*	The flash fires immediately before the shutter closes.
 (COMMANDER)	The built-in flash can be used to control optional remote flash units.
 (SUPPRESSED FLASH)	The flash does not fire even when the subject is poorly lit. A tripod is recommended.



* Red-eye removal is available in these modes when Intelligent Face Detection is active ( 000) and red-eye removal is on ( 000). Red-eye removal minimizes “red-eye” caused when light from the flash is reflected from the subject’s retinas as shown in the illustration at right.



- ① Depending on the distance to the subject, some lenses may cast shadows in photos taken with the flash.
- 🔍 Lowering the flash turns the flash off (🔍) and prevents it firing even when the subject is poorly lit; use of a tripod is recommended. Lower the flash where flash photography is prohibited or to capture natural lighting under dim light. We also recommend that you lower the flash when the camera is off.
- 🔍 If ⚡ is displayed when the shutter button is pressed halfway, the flash will fire when the photo is taken.
- 🔍 Except in commander mode, the flash may fire several times with each shot. Do not move the camera until shooting is complete.

Flash Sync Speed

The flash will synchronize with the shutter at shutter speeds of $\frac{1}{180}$ s or slower.

Optional Flash Units

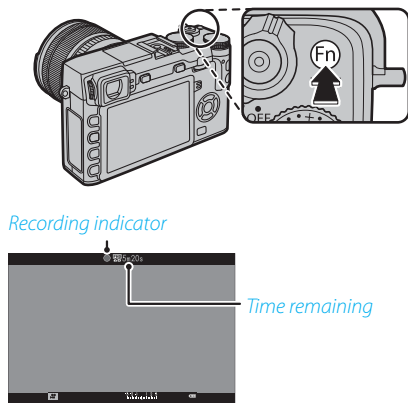
The camera can also be used with optional FUJIFILM shoe-mounted flash units. Do not use third-party flash units that apply over 300V to the camera hot shoe.

Basic Movie Recording and Playback

Recording Movies

The camera can be used to record short high-definition movies. Sound is recorded in stereo via the built-in microphone; do not cover the microphone during recording.

- 1 Press the function button (**Fn7/Fn**) to start recording.



- 2 Press the button again to end recording. Recording ends automatically when the maximum length is reached or the memory card is full.

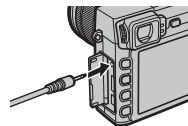
- Zoom can be adjusted while recording is in progress.
- Sensitivity and frame size and rate can be selected using the **MOVIE SET-UP** option (000). Focus mode is selected using the focus mode selector (68); for continuous focus adjustment, select **C**, or choose **S** and enable Intelligent Face Detection (000,000). Intelligent Face Detection is not available in focus mode **M**.
- During recording, exposure compensation can be adjusted by up to ± 2 EV.
- The indicator lamp lights while movies are being recorded.
- The microphone may pick up lens noise and other sounds made by the camera during recording.
- Vertical or horizontal streaks may appear in movies containing very bright subjects. This is normal and does not indicate a malfunction.

Depth of Field

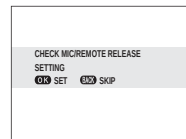
Adjust aperture before recording begins. Choose low f-numbers to soften background details.

Using an External Microphone

Sound can be recorded with external microphones that connect using jacks 2.5 mm in diameter; microphones that require bus power can not be used. See the microphone manual for details.



- ◆ The dialog shown at right will be displayed when a microphone is connected to the microphone/remote release connector. Press **MENU/OK** and select **MIC/REMOTE RELEASE** > **MIC** (000).



Viewing Movies

During playback, movies are displayed as shown at right. The following operations can be performed while a movie is displayed:

Operation	Description
Start/pause playback	Press the selector down to start playback. Press again to pause. While playback is paused, you can press the selector left or right to rewind or advance one frame at a time.
End playback	Press the selector up to end playback.
Adjust speed	Press the selector left or right to adjust playback speed during playback.
Adjust volume	Press MENU/OK to pause playback and display volume controls. Press the selector up or down to adjust the volume; press MENU/OK again to resume playback. Volume can also be adjusted using the SOUND SET-UP > PLAYBACK VOLUME option in the playback menu (107).



Movie icon

Progress is shown in the display during playback.

- ⓘ Do not cover the speaker during playback.
- ⓘ Sound is not played back if **OFF** is selected for **SOUND & FLASH** (000).

Progress bar



Playback Speed

Press the selector left or right to adjust playback speed during playback. Speed is shown by the number of arrows (▶ or ◀).



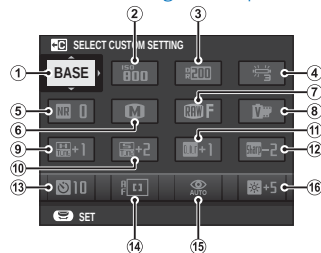
The Q (Quick Menu) Button

Using the Q Button

Press **Q** for quick access to selected options.

The Quick Menu Display

At default settings, the quick menu contains the following items.



①	SELECT CUSTOM SETTING	84	⑨	HIGHLIGHT TONE	94
②	ISO	75	⑩	SHADOW TONE	94
③	D-Rng	93	⑪	COLOR	94
④	WB	82	⑫	SHARPNESS	94
⑤	NR	94	⑬	SELF-TIMER	79
⑥	IMAGE SIZE	93	⑭	AF MODE	000
⑦	IMAGE QUALITY	93	⑮	FLASH MODE	36
⑧	FILM SIMULATION	59	⑯	EVF/LCD BRIGHTNESS	108

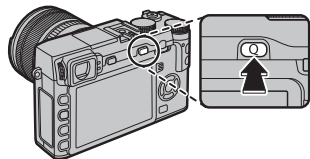
🔍 **CUSTOM** and **K** **COLOR TEMPERATURE** white balance options can not be accessed using the **Q** button. Use a function button or the shooting menu.

The quick menu shows the options currently selected for items ②—⑯, which can be changed as described on page 000. The **SELECT CUSTOM SETTING** item (item ①) shows the current custom settings bank:

- **BASE**: No custom settings bank selected.
- **C1 — C7**: Select a bank to view the settings saved using the **EDIT/SAVE CUSTOM SETTING** option in the shooting menu (000).

Viewing and Changing Settings

1 Press **Q** to display the quick menu during shooting.



2 Use the selector to highlight items and rotate the command dial to change.

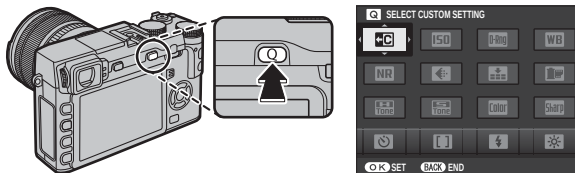


3 Press **Q** to exit when settings are complete.

Editing the Quick Menu

To choose the items displayed in the quick menu:

- 1 Press and hold the **Q** button during shooting.



- 2 The current quick menu will be displayed; use the selector to highlight the item you wish to change and press **MENU/OK**. You will be given the following choice of items to assign to the selected position:

- SELECT CUSTOM SETTING
- ISO
- DYNAMIC RANGE
- WHITE BALANCE
- NOISE REDUCTION
- IMAGE SIZE
- IMAGE QUALITY
- FILM SIMULATION
- HIGHLIGHT TONE
- SHADOW TONE
- COLOR
- SHARPNESS
- SELF-TIMER
- FACE DETECTION
- PHOTOMETRY
- AF MODE
- FLASH MODE
- FLASH COMPENSATION
- IS MODE
- MF ASSIST
- MOVIE MODE
- MOVIE ISO
- MIC LEVEL ADJUSTMENT
- SOUND & FLASH
- EVF/LCD BRIGHTNESS
- SHUTTERTYPE
- NONE

- ◆ Select **NONE** to assign no option to the selected position. When **SELECT CUSTOM SETTING** is selected, current settings are shown in the quick menu by the label **BASE**.

- 3 Highlight the desired item and press **MENU/OK** to assign it to the selected position.

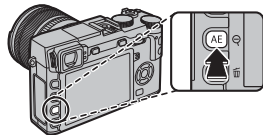
- ◆ The quick menu can also be edited using the **⌚ BUTTON/DIAL SETTING > EDIT/SAVE QUICK MENU** option in the setup menu (📖 000).

The Fn (Function) Buttons

Using the Function Buttons

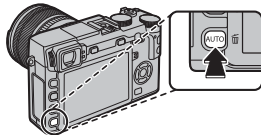
The roles played by each of the function buttons can be selected by pressing and holding the button. The default options are shown below:

Fn1/AE button



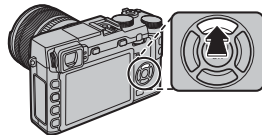
Photometry (📖 000)

Fn2/AUTO button



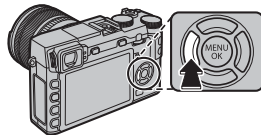
Auto mode on/off (📖 000)

Fn3 button



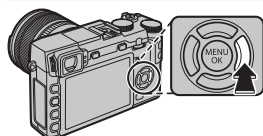
AF mode (📖 000)

Fn4 button



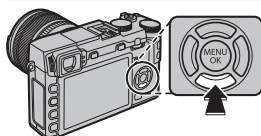
Film simulation (📖 000)

Fn5 button



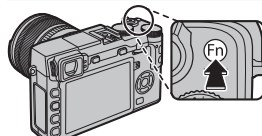
Flash mode (📖 000)

Fn6 button



Focus-frame selection (📖 000)

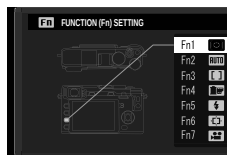
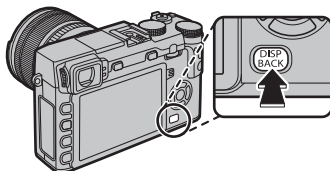
Fn7/Fn button



Movie recording (📖 000)

Assigning Roles to the Function Buttons

To assign roles to the function buttons, press and hold the **DISP/BACK** button until the menu below is displayed. Select buttons to choose their roles.



- PREVIEW DEPTH OF FIELD (📖 000)
- ISO (📖 000)
- SELF-TIMER (📖 000)
- IMAGE SIZE (📖 000)
- IMAGE QUALITY (📖 000)
- DYNAMIC RANGE (📖 000)
- FILM SIMULATION (📖 000)
- WHITE BALANCE (📖 000)
- PHOTOMETRY (📖 000)
- AF MODE (📖 000)
- FOCUS AREA (📖 000)
- FLASH MODE (📖 000)
- FLASH COMPENSATION (📖 000)
- SELECT CUSTOM SETTING (📖 000)
- MOVIE (📖 000)
- FACE DETECTION (📖 000)
- RAW (📖 000)
- APERTURE SETTING (📖 000)
- WIRELESS COMMUNICATION (📖 000)
- SHUTTER TYPE (📖 000)
- PREVIEW EXP. IN MANUAL MODE (📖 000)
- PREVIEW PIC. EFFECT (📖 000)
- COMMAND DIAL SETTING (📖 000)
- AUTO MODE ON/OFF (📖 000)
- EVF/LCD SETTING (📖 000)
- NONE (📖 000)

- 🔍 To disable the selected button, choose **NONE**.
- 🔍 You can also display options for any of the function buttons by pressing and holding the button.
- 🔍 The roles played by the function buttons can also be selected using **📖 BUTTON/DIAL SETTING > FUNCTION (Fn) SETTING (📖 000)**.

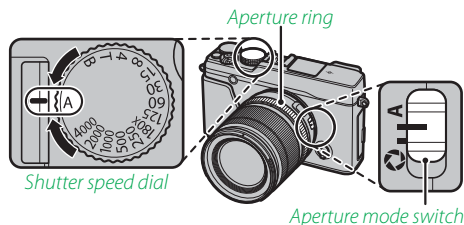
More on Photography and Playback

Mode Selection

The camera offers a choice of modes in which you can manually adjust shutter speed and/or aperture (**P**, **S**, **A**, and **M** modes; 000, 000, 000, 000) and auto modes in which settings are automatically adjusted for the subject or the selected scene (000).

P, S, A, and M Modes

Choose **P**, **S**, **A**, or **M** mode for manual control over shutter speed and/or aperture. The role of the command dial varies with the mode selected.

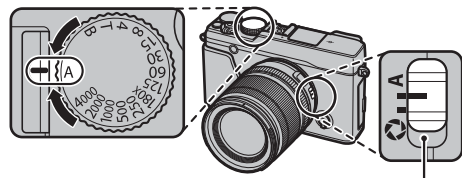


Mode	Description	Role of command dial	
P	Program AE: The camera adjusts settings automatically, but you can use the command dial to choose from combinations of shutter speed and aperture that will produce optimal exposure (program shift).	Program shift	000
S	Shutter-priority auto: You choose the shutter speed using the shutter speed and command dials and let the camera adjust aperture for optimal exposure.	Shutter speed fine-tuning	000
A	Aperture-priority auto: You choose the aperture using the aperture ring and let the camera adjust shutter-speed for optimal exposure.	—	000
M	Manual exposure: You control both shutter speed and aperture.	Shutter speed fine-tuning	000

💡 For information on the role of the command dial when the camera is used with lenses not equipped with an aperture ring, see “Lenses with No Aperture Rings” (000).

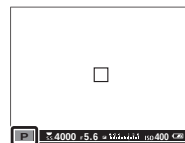
■ Program AE (P)

To allow the camera to adjust both shutter speed and aperture for optimal exposure, set shutter speed and aperture to **A**. **P** will appear in the display.



Aperture mode switch

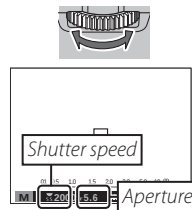
- ① If **AUTO** is displayed in red, press a function button (by default, **Fn2/AUTO**) to exit auto mode (000).
- ① If the subject is outside the metering range of the camera, the shutter speed and aperture displays will show “---”.



● Program Shift

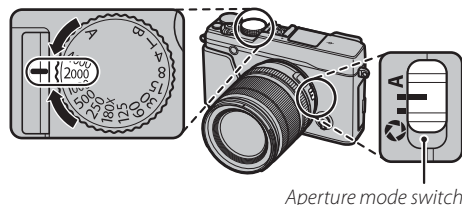
If desired, you can rotate the command dial to select other combinations of shutter speed and aperture without altering exposure (program shift). The new values for shutter speed and aperture are shown in yellow. Program shift is not available if the attached flash supports TTL auto, or if an auto option is selected for **D-Ring DYNAMIC RANGE** in the shooting menu (93). To cancel program shift, turn the camera off.

- ◆ For information on the role of the command dial when the camera is used with lenses not equipped with an aperture ring, see “Lenses with No Aperture Rings” (000).



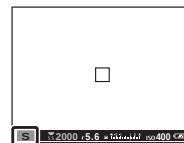
■ Shutter-Priority AE (S)

To adjust shutter speed manually while letting the camera select aperture for optimal exposure, set aperture to **A** and use the shutter speed dial. **S** will appear in the display.



Aperture mode switch

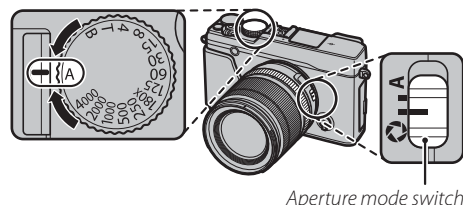
- ① If **AUTO** is displayed in red, press a function button (by default, **Fn2/AUTO**) to exit auto mode (📖 000).



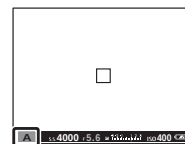
- ◆ At settings other than **180X**, shutter speed can also be adjusted in increments of $\frac{1}{3}$ EV by rotating the command dial. Shutter speed can be adjusted even while the shutter button is pressed halfway.
- ◆ For information on the role of the command dial when the camera is used with lenses not equipped with an aperture ring, see “Lenses with No Aperture Rings” (📖 000).
- ① If the correct exposure can not be achieved at the selected shutter speed, aperture will be displayed in red when the shutter button is pressed halfway. Adjust shutter speed until the correct exposure is achieved.
- ① If the subject is outside the metering range of the camera, the aperture display will show “--”.

■ Aperture-Priority AE (A)

To adjust aperture manually while letting the camera select shutter speed for optimal exposure, rotate the shutter speed dial to **A** and adjust aperture as desired. **A** will appear in the display.



- ① If **AUTO** is displayed in red, press a function button (by default, **Fn2/AUTO**) to exit auto mode (000).

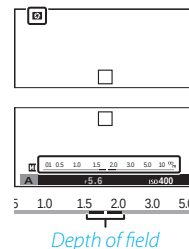


- ◆ Aperture can be adjusted even while the shutter button is pressed halfway.
- ① If the correct exposure can not be achieved at the selected aperture, the shutter speed will be displayed in red when the shutter button is pressed halfway. Adjust aperture until the correct exposure is achieved.
- ① If the subject is outside the metering range of the camera, the shutter speed display will show "----".

● Previewing Depth of Field

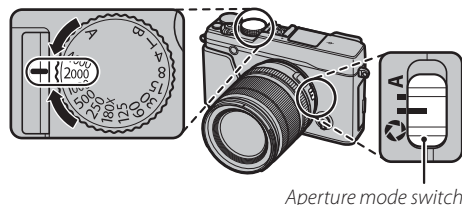
When **PREVIEW DEPTH OF FIELD** is assigned to a function button (000), pressing the button stops aperture down to the selected setting, allowing depth of field to be previewed in the display.

Depth of field can also be previewed using the depth-of-field indicator in the standard display. Press **DISP/BACK** to cycle through display modes until standard indicators are displayed.



Manual Exposure (M)

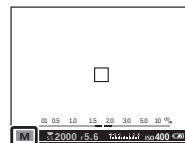
Exposure can be altered from the value suggested by the camera by setting both shutter speed and aperture to values other than **A**. **M** will appear in the display.



Aperture mode switch

❗ If **AUTO** is displayed in red, press a function button (by default, **Fn2/AUTO**) to exit auto mode (📖 000).

💡 At settings other than **180X**, shutter speed can also be adjusted in increments of $\frac{1}{3}$ EV by rotating the command dial.

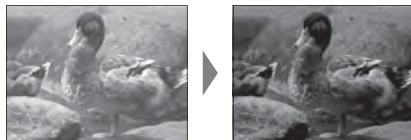


💡 The manual exposure display includes an exposure indicator that shows the amount the picture would be under- or over-exposed at current settings.

💡 For information on the role of the command dial when the camera is used with lenses not equipped with an aperture ring, see "Lenses with No Aperture Rings" (📖 000).

Exposure Preview

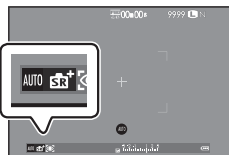
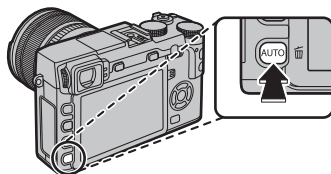
To preview exposure in the LCD monitor, select **ON** for ☒ **SCREEN SET-UP > PREVIEW EXP. IN MANUAL MODE**. Select **OFF** when using the flash or on other occasions on which exposure may change when the picture is taken.



Auto Modes

Press a function button (by default, **Fn2/AUTO**) to select an auto mode in which the camera automatically adjusts settings according to the scene or shooting conditions.

- 1 Press the function button (**Fn2/AUTO**) to enable auto mode.



- ① **AUTO** is displayed in red when auto mode is selected.

- 2 Press **MENU/OK** in shooting mode to display the shooting menu. Press the selector up or down to highlight **SCENE POSITION** and press **MENU/OK**.
- 3 Press the selector up or down to highlight the desired option and press **MENU/OK** to select.

Mode	Description
ADVANCED SR AUTO	The camera automatically optimizes settings to suit the scene (p. 52).
PORTRAIT	Choose for portraits.
PORTRAIT ENHANCER	Processes portraits to give the subject a smooth, natural-looking complexion.
LANDSCAPE	Choose for daylight shots of buildings and landscapes.
SPORT	Choose when photographing moving subjects.
NIGHT	Choose for poorly lit twilight or night scenes.
NIGHT (TRIPOD)	Choose this mode for slow shutter speeds when shooting at night.
FIREWORKS	Slow shutter speeds are used to capture the expanding burst of light from a firework.
SUNSET	Choose this mode to record the vivid colors in sunrises and sunsets.
SNOW	Choose for crisp, clear shots that capture the brightness of scenes dominated by shining white snow.

Mode	Description
 BEACH	Choose for crisp, clear shots that capture the brightness of sunlit beaches.
 UNDERWATER	Reduces the blue cast typically associated with underwater lighting.
 PARTY	Capture indoor background lighting under low-light conditions.
 FLOWER	Effective for taking more vivid shots of flowers.
 TEXT	Take clear pictures of text or drawings in print.

■ **SR⁺ ADVANCED SR AUTO**

The scene selected by the camera in **SR⁺ ADVANCED SR AUTO** mode is shown by an icon in the display.

 **AUTO**

 **LANDSCAPE**

 **NIGHT**

 **NIGHT (TRIPOD)**

 **MACRO**

 **SUNSET**

 **SKY**

 **SKY & GREENERY**

 **BACKLIT PORTRAIT**

 **PORTRAIT&MOTION**

 **BEACH**

 **SNOW**

 **GREENERY**

 **PORTRAIT**

 **MOVING OBJECT**

 **BACKLIT PORTRAIT&MOTION**



- ① The mode selected may vary with shooting conditions. If the mode and subject do not match, select a scene manually.

Long Time-Exposures (T/B)

Select a shutter speed of **T** (time) or **B** (bulb) for long time-exposures.

- Use of a tripod is recommended to prevent the camera from moving during the exposure.
- To reduce “noise” (mottling) in long time-exposures, select **ON** for **LONG EXPOSURE NR** in the shooting menu (94). Note that this may increase the time needed to record images after shooting.

Time (T)

- 1 Rotate the shutter speed dial to **T**.



- 2 Rotate the command dial to choose the exposure time.



- 3 Press the shutter button all the way down to take a picture at the selected shutter speed. A count-down timer will be displayed while the exposure is in progress.



- For information on the role of the command dial when the camera is used with lenses not equipped with an aperture ring, see “Lenses with No Aperture Rings” (000).

Bulb (B)

- 1 Rotate the shutter speed dial to **B**.



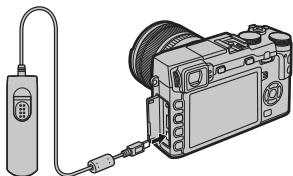
- 2 Press the shutter button all the way down. The shutter will remain open for up to 60 minutes while the shutter button is pressed; the display shows the time elapsed since the exposure started.



- Selecting an aperture of **A** fixes shutter speed at 30 s.

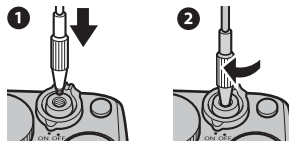
Using a Remote Release

An optional RR-90 remote release can be used for long time-exposures. See the manual provided with the RR-90 for more information.

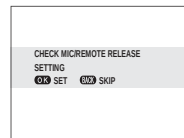
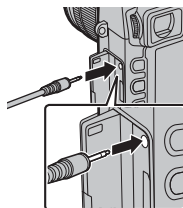


Third-Party Remote Releases

- Third-party remote releases (available from third-party suppliers) can be connected as shown below.

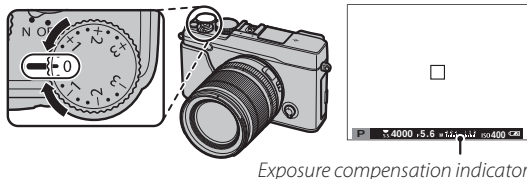


- Electronic releases from third-party suppliers can be connected via the microphone/remoterelease connector. A confirmation dialog will be displayed when a third-party release is connected; press **MENU/OK** and select **REMOTE** for **MIC/REMOTE RELEASE**.



Exposure Compensation

Rotate the exposure compensation dial to adjust exposure when photographing very bright, very dark, or high-contrast subjects. The effect is visible in the display.



Choose positive values (+) to increase exposure



Choose negative values (–) to reduce exposure



Exposure Value (EV)

The exposure value is determined by the sensitivity of the image sensor and the amount of light to which the sensor is exposed. Doubling the amount increases EV by one, while halving it reduces EV by one. The amount of light entering the camera can be controlled by adjusting aperture and shutter speed.

Choosing an Exposure Compensation Value

- **Backlit subjects:** Choose values from $+\frac{2}{3}$ EV to $+1\frac{2}{3}$ EV.



- **Highly reflective subjects or very bright scenes** (e.g., snowfields): +1 EV



- **Scenes that are mostly sky:** +1 EV
- **Spotlit subjects** (particularly if photographed against dark backgrounds): $-\frac{2}{3}$ EV
- **Subjects with low reflectivity** (pine trees or dark-colored foliage): $-\frac{2}{3}$ EV

① The amount of compensation available varies with the shooting mode.

Focus/Exposure Lock

To compose photographs with off-center subjects:

- 1 Focus:** Position the subject in the focus frame and press the shutter button halfway to lock focus and exposure. Focus and exposure will remain locked while the shutter button is pressed halfway (AF/AE lock).



- ◆ Focus and exposure can also be locked with the **AF-L** and **AE-L** buttons, respectively (if **AE/AF LOCK** is selected for **AF-L** **AF-LOCK BUTTON** in the shooting menu, pressing the **AF-L** button will lock both focus and exposure; 95).

- 2 Recompose:** Keep the shutter button pressed halfway or keep the **AF-L** or **AE-L** button pressed.

- ◆ Focus and/or exposure will remain locked while the **AF-L** or **AE-L** button is pressed, whether or not the shutter button is pressed halfway. If **AE&AF ON/OFF SWITCH** is selected for **AE/AF-L** **AE/AF-LOCK MODE** (95), focus and/or exposure lock when the button is pressed and remain locked until the button is pressed again.



- 3 Shoot:** Press the shutter button all the way down.

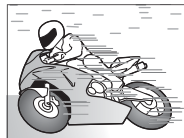


- ◆ The roles of the **AE-L** and **AF-L** buttons can be reversed using the **⚙️ BUTTON/DIAL SETTING > AE-L/AF-L BUTTON SETTING** option in the setup menu.

Autofocus

Although the camera boasts a high-precision autofocus system, it may be unable to focus on the subjects listed below.

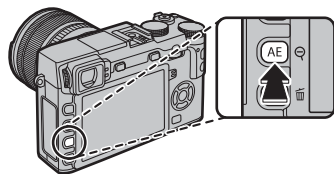
- Very shiny subjects such as mirrors or car bodies.
- Fast-moving subjects.
- Subjects photographed through a window or other reflective object.
- Dark subjects and subjects that absorb rather than reflect light, such as hair or fur.
- Insubstantial subjects, such as smoke or flame.
- Subjects that show little contrast with the background (for example, subjects in clothing that is the same color as the background).
- Subjects positioned in front of or behind a high-contrast object that is also in the focus frame (for example, a subject photographed against a backdrop of highly contrasting elements).



Metering

To choose how the camera meters exposure, press the function button (**Fn1/AE**) to display metering options. Use the selector to highlight an option and press **MENU/OK** to select.

❗ The selected option will only take effect when Intelligent Face Detection is off (📖 000).

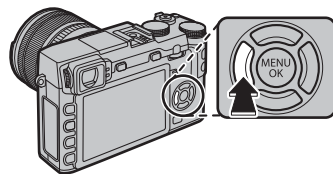


Mode	Description
 (MULTI)	The camera instantly determines exposure based on an analysis of composition, color, and brightness distribution. Recommended in most situations.
 (SPOT)	The camera meters lighting conditions in an area at the center of the frame equivalent to 2% of the total. Recommended with backlit subjects and in other cases in which the background is much brighter or darker than the main subject.
 (AVERAGE)	Exposure is set to the average for the entire frame. Provides consistent exposure across multiple shots with the same lighting, and is particularly effective for landscapes and portraits of subjects dressed in black or white.

💡 Metering options can also be accessed from the shooting menu (📖 000).

Film Simulation

Simulate the effects of different kinds of film, including black-and-white (with or without color filters). Press the function button (**Fn4**) to display the following options, then use the selector to highlight an option and press **MENU/OK** to select.

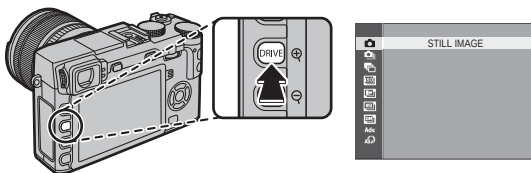


Option	Description
STD (PROVIA/STANDARD)	Standard color reproduction. Suited to a wide range of subjects, from portraits to landscapes.
Vi (Velvia/VIVID)	A high-contrast palette of saturated colors, suited to nature photos.
S (ASTIA/SOFT)	Enhances the range of hues available for skin tones in portraits while preserving the bright blues of daylight skies. Recommended for outdoor portrait photography.
C (CLASSIC CHROME)	Soft color and enhanced shadow contrast for a calm look.
NH (PRO Neg. Hi)	Offers slightly more contrast than NS (PRO Neg. Std). Recommended for outdoor portrait photography.
NS (PRO Neg. Std)	A soft-toned palette. The range of hues available for skin tones is enhanced, making this a good choice for studio portrait photography.
CM (MONOCHROME)	Take pictures in standard black and white.
Bv (MONOCHROME + Ye FILTER)	Take black-and-white pictures with slightly increased contrast. This setting also slightly tones down the brightness of the sky.
BR (MONOCHROME + R FILTER)	Take black-and-white pictures with increased contrast. This setting also tones down the brightness of the sky.
BG (MONOCHROME + G FILTER)	Soften skin tones in black-and-white portraits.
SP (SEPIA)	Take pictures in sepia.

- 🔍 Film simulation options can be combined with tone and sharpness settings (📖 94).
- 💡 Film simulation options can also be accessed from the shooting menu (📖 000).

The DRIVE Button

The **DRIVE** button gives you access to the following options.

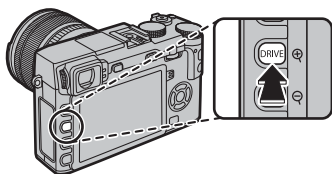


Drive mode		Available in
STILL IMAGE	—	All shooting modes
CONTINUOUS	000	
AE BKT	000	Modes P , S , A , and M
ISO BKT	000	
FILM SIMULATION BKT	000	
WHITE BALANCE BKT	000	
DYNAMIC RANGE BKT	000	
Adv. MODE		All shooting modes (but note that camera functions in auto mode when auto mode is selected)
MOTION PANORAMA	000	
MULTIPLE EXPOSURE	000	
ADVANCED FILTER	000	

Continuous Shooting (Burst Mode)

Capture motion in a series of pictures.

- 1 Press the **DRIVE** button to display drive options.



- 2 Press the selector up or down to highlight , then press the selector left or right to choose a frame rate of  (high) or  (low). Press **MENU/OK** to proceed when settings are complete.

- 3 Press the shutter button halfway to focus.

- 4 Press the shutter button the rest of the way down to start shooting. Shooting ends when the shutter button is released, the maximum number of pictures has been taken, or the memory card is full.

- ◆ Frame rate varies with the subject, shutter speed, sensitivity, and focus mode and may slow as more shots are taken.
- ◆ The flash turns off automatically; the previously-selected flash mode is restored when burst shooting is disabled.
- ◆ Additional time may be required to record pictures when shooting ends.
- ◆ If file numbering reaches 999 before shooting is complete, the remaining pictures will be recorded to a new folder (📁 000).
- ◆ In some drive modes, shooting may not begin if the space available on the memory card is insufficient.

Focus and Exposure

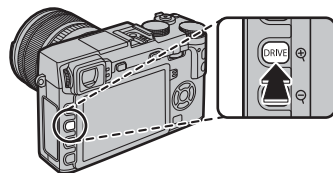
To vary focus and exposure with each shot, select focus mode **C**; in other modes, focus and exposure are determined by the first shot in each series.

- ① Selecting  in focus mode **C** restricts the choice of focus frames (📁 000).
- ① Exposure and focus tracking performance may vary with aperture, sensitivity, and shooting conditions.

Bracketing

Automatically vary settings over a series of pictures.

- 1 Press the **DRIVE** button to display drive options and press the selector up or down to highlight one of the following:



Option	Description
AE BKT	Press the selector left or right to highlight a bracketing amount. Each time the shutter button is pressed, the camera will take three shots: one using the metered value for exposure, the second overexposed by the selected amount, and the third underexposed by the same amount (regardless of the amount selected, exposure will not exceed the limits of the exposure metering system).
ISO BKT	Press the selector left or right to highlight a bracketing amount. Each time the shutter is released, the camera will take a picture at the current sensitivity (📖 75) and process it to create two additional copies, one with sensitivity raised and the other with sensitivity lowered by the selected amount (regardless of the amount selected, sensitivity will not exceed ISO 6400 or fall below ISO 200).
FILM SIMULATION BKT	Each time the shutter is released, the camera takes one shot and processes it to create copies with the film simulation settings selected for 📖 FILM SIMULATION BKT in the shooting menu (📖 96).
WHITE BALANCE BKT	Press the selector left or right to choose the bracketing amount. Each time the shutter button is pressed, the camera takes three shots: one at the current white balanced setting, one with fine-tuning increased by the selected amount, and another with fine-tuning decreased by the selected amount.
DYNAMIC RANGE BKT	Each time the shutter button is pressed, the camera takes three shots with different dynamic ranges (📖 93): 100% for the first, 200% for the second, and 400% for the third. While dynamic range bracketing is in effect, sensitivity will be restricted to a minimum of ISO 800; the sensitivity previously in effect is restored when bracketing ends.

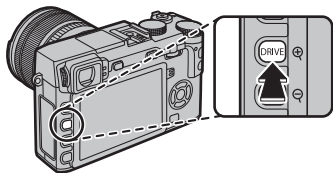
- 2 Press **MENU/OK** to select the highlighted option.

- 3 Take photographs.

Panoramas

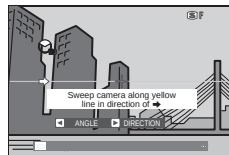
Follow an on-screen guide to create a panorama.

- 1 Press the **DRIVE** button to display drive options. Press the selector up or down to highlight **Adv.**, then press the selector left or right to highlight  **MOTION PANORAMA** and press **MENU/OK**.



- 2 To select the size of the angle through which you will pan the camera while shooting, press the selector left. Highlight a size and press **MENU/OK**.
- 3 Press the selector right to view a choice of pan directions. Highlight a pan direction and press **MENU/OK**.
- 4 Press the shutter button all the way down to start recording. There is no need to keep the shutter button pressed during recording.

- 5 Pan the camera in the direction shown by the arrow. Shooting ends automatically when the camera is panned to the end of the guides and the panorama is complete.



- Shooting ends if the shutter button is pressed all the way down during shooting. No panorama may be recorded if the shutter button is pressed before the panorama is complete.

- ① Panoramas are created from multiple frames; exposure for the entire panorama is determined by the first frame. The camera may in some cases record an greater or lesser angle than selected or be unable to stitch the frames together perfectly. The last part of the panorama may not be recorded if shooting ends before the panorama is complete.
- ① Shooting may be interrupted if the camera is panned too quickly or too slowly. Panning the camera in a direction other than that shown cancels shooting.
- ① The desired results may not be achieved with moving subjects, subjects close to the camera, unvarying subjects such as the sky or a field of grass, subjects that are in constant motion, such as waves and waterfalls, or subjects that undergo marked changes in brightness. Panoramas may be blurred if the subject is poorly lit.



For Best Results

For best results, use a lens with a focal length of 35 mm or less (50 mm or less in 35 mm format). Prop your elbows against your sides and move the camera slowly in a small circle at a steady speed, keeping the camera parallel or at right angles to the horizon and being careful only to pan in the direction shown by the guides. Use a tripod for best results. If the desired results are not achieved, try panning at a different speed.

Viewing Panoramas

To zoom in on a panorama in full-frame playback, press the  button and use the  and  buttons to zoom in and out. Alternatively, you can play the panorama back using the selector. Press the selector down to start playback and press again to pause. While playback is paused, you can scroll the panorama manually by pressing the selector left or right; vertical panoramas will scroll vertically, horizontal panoramas horizontally. To exit to full-frame playback, press the selector up.

