DSC-HX9/HX9V
User Guide

Use this manual if you encounter any problems, or have any questions about the camera.
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Selecting a topic to display

The following illustrations take Internet Explorer 7 as an example.

1. Click a title in the side bar on the left of the browser window. The title’s topic list appears in the right pane.

2. Click a topic title in the list.

Descriptions appear in the right pane.
Changing the font size
Change the font size by changing the setting of your web browser. For how to change the font size setting, refer to the Help of your web browser.

Returning to a previous page
Use the back button of your web browser or the breadcrumb trail navigation to return to a page you previously viewed.

Printing out a page
Click the [Print] button to print out a page you are viewing.

Marks and notations used in this User Guide
In this User Guide, the sequence of operations is shown by arrows (→) (A). Operate the camera in the order indicated.
- Icons in the operating procedure sentences appear when the camera is in its default settings.
- The default setting is indicated by ✔.
- 🌟 indicates information that is useful to know.
The images used in this User Guide

- The images used as examples in this User Guide are reproduced images, and are not actual images shot using this camera.
Names of parts

1. Shutter button
2. Mode dial
3. For shooting: W/T (zoom) lever  
   For viewing: ≤ (Playback zoom) lever/ ≥ (Index) lever
4. Self-timer lamp/Smile Shutter lamp/AF illuminator
5. CUSTOM (Custom) button
6. Power/Charge lamp
7. ON/OFF (Power) button
8. Flash
   - When using the flash, the flash pops up automatically.
   - Do not cover the flash with your fingers.
9. Microphone
10. Lens
11 LCD screen
12 (Playback) button
13 Control wheel
14 GPS sensor (built-in, DSC-HX9V only)
15 MOVIE (Movie) button
16 Speaker
17 HDMI connector
18 Hook for wrist strap
19 (In-Camera Guide/Delete) button
20 MENU button

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Battery/Memory card cover
(TransferJet™) mark
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White Balance Shift |
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<thead>
<tr>
<th>Display</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>🎨</td>
<td>Vibration warning</td>
</tr>
<tr>
<td>📈</td>
<td>Metering Mode</td>
</tr>
<tr>
<td>⚽️</td>
<td>Anti Blink</td>
</tr>
<tr>
<td>IconButton</td>
<td>Scene Recognition</td>
</tr>
<tr>
<td>📦</td>
<td>Overlay icon for Superior Auto</td>
</tr>
<tr>
<td>Hi Lo</td>
<td>Burst Shooting Interval</td>
</tr>
<tr>
<td>BRK</td>
<td>Bracket shooting</td>
</tr>
<tr>
<td>BRKT</td>
<td>Bracket setting</td>
</tr>
<tr>
<td>⚘</td>
<td>Color Mode</td>
</tr>
<tr>
<td>Reset</td>
<td>Color Saturation</td>
</tr>
<tr>
<td>- +</td>
<td>Contrast</td>
</tr>
<tr>
<td>+</td>
<td>Sharpness</td>
</tr>
<tr>
<td>📸</td>
<td>Smile Detection Sensitivity indicator</td>
</tr>
<tr>
<td>× 1.4</td>
<td>Zoom scaling</td>
</tr>
</tbody>
</table>

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<th>Display</th>
<th>Indication</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>AE/AF lock</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Manual Focus</td>
<td>Manual Focus bar</td>
</tr>
<tr>
<td>ISO400</td>
<td>ISO number</td>
</tr>
<tr>
<td>NR</td>
<td>NR slow shutter</td>
</tr>
<tr>
<td>125</td>
<td>Shutter speed</td>
</tr>
<tr>
<td>F3.3</td>
<td>Aperture value</td>
</tr>
<tr>
<td>+2.0EV</td>
<td>Exposure value</td>
</tr>
<tr>
<td>AF</td>
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<th>Indication</th>
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<td>102</td>
<td>Recording folder</td>
</tr>
<tr>
<td>96</td>
<td>Number of recordable images</td>
</tr>
<tr>
<td></td>
<td>Buffer writing</td>
</tr>
<tr>
<td>CAPTURE</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>100Min</td>
<td>Recordable time</td>
</tr>
<tr>
<td><img src="image1" alt="Image" /></td>
<td>Recording Media (Memory card, internal memory)</td>
</tr>
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<td><img src="image2" alt="Image" /></td>
<td>Eye-Fi Mode display</td>
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<tr>
<td><img src="image3" alt="Image" /></td>
<td>Warning indicator pertaining to still image recording</td>
</tr>
<tr>
<td><img src="image4" alt="Image" /></td>
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<tr>
<td><img src="image5" alt="Image" /></td>
<td>GPS triangulating status (DSC-HX9V only)</td>
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<tr>
<td><img src="image6" alt="Image" /></td>
<td>Flash mode</td>
</tr>
<tr>
<td>C:32:00</td>
<td>Self-diagnosis display</td>
</tr>
<tr>
<td><img src="image7" alt="Image" /></td>
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</tr>
<tr>
<td><img src="image8" alt="Image" /></td>
<td>Red-eye reduction</td>
</tr>
<tr>
<td><img src="image9" alt="Image" /></td>
<td>Defocus Effect</td>
</tr>
<tr>
<td><img src="image10" alt="Image" /></td>
<td>Flash charging</td>
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<thead>
<tr>
<th>Display</th>
<th>Indication</th>
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</thead>
<tbody>
<tr>
<td><img src="image11" alt="Image" /></td>
<td>Self-timer</td>
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<tr>
<td><img src="image12" alt="Image" /></td>
<td>Face detection</td>
</tr>
<tr>
<td><img src="image13" alt="Image" /></td>
<td>Destination (DSC-HX9 only)</td>
</tr>
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<td><img src="image14" alt="Image" /></td>
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<td><img src="image15" alt="Image" /></td>
<td>Database file full/Database file error</td>
</tr>
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<td><img src="image16" alt="Image" /></td>
<td>Overheating warning</td>
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<tr>
<td><img src="image17" alt="Image" /></td>
<td>Write Date</td>
</tr>
<tr>
<td><img src="image18" alt="Image" /></td>
<td>Wind Noise Reduction</td>
</tr>
<tr>
<td><img src="image19" alt="Image" /></td>
<td>AF range finder frame</td>
</tr>
<tr>
<td><img src="image20" alt="Image" /></td>
<td>Spot metering cross-hairs</td>
</tr>
<tr>
<td><img src="image21" alt="Image" /></td>
<td>Histogram</td>
</tr>
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<td>REC</td>
<td>Recording a movie/Movie standby</td>
</tr>
<tr>
<td>Standby</td>
<td></td>
</tr>
<tr>
<td>0:12</td>
<td>Recording time (m:s)</td>
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<td>Battery remaining</td>
</tr>
<tr>
<td>![Low battery icon]</td>
<td>Low battery warning</td>
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<td>![Image size/Quality icon]</td>
<td>Image size/Panorama image size/Quality</td>
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<td>![View mode icon]</td>
<td>View mode</td>
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<td>![TransferJet settings icon]</td>
<td>TransferJet settings</td>
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<td>![3D icon]</td>
<td>3D images</td>
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<td>![Burst Images icon]</td>
<td>Burst Images</td>
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<tr>
<td>![Main image in the burst group icon]</td>
<td>Main image in the burst group</td>
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<td>![Protect icon]</td>
<td>Protect</td>
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<td>![DPOF icon]</td>
<td>Print order (DPOF)</td>
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<td>Playback zoom</td>
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<th>Indication</th>
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<tr>
<td>101-0012</td>
<td>Folder-file number</td>
</tr>
<tr>
<td>2011 1-1 9:30 AM</td>
<td>Recorded date/time of the playback image</td>
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<td>Playback folder</td>
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<tr>
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<td>Display</td>
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<td>------------</td>
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<td>Flash mode</td>
<td>Flash mode</td>
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<td>Metering Mode</td>
<td>Metering Mode</td>
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<td>White balance</td>
<td>White balance</td>
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<td>C:32:00</td>
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<td>Shutter speed</td>
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<td>+2.0EV</td>
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<td>F3.3</td>
<td>Aperture value</td>
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<tr>
<td>[FULL][ERR]</td>
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</tr>
<tr>
<td>[ ]</td>
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</tr>
<tr>
<td>[ ]</td>
<td>Playback</td>
</tr>
<tr>
<td>[ ]</td>
<td>Variable speed playback</td>
</tr>
<tr>
<td>-</td>
<td>Playback bar</td>
</tr>
<tr>
<td>00:00:12</td>
<td>Counter</td>
</tr>
<tr>
<td>[ ]</td>
<td>Direction</td>
</tr>
<tr>
<td>[ ]</td>
<td>GPS information</td>
</tr>
<tr>
<td>35°37´32´´N 139°44´31´´E</td>
<td>Latitude and longitude display</td>
</tr>
<tr>
<td>[ ]</td>
<td>Histogram</td>
</tr>
<tr>
<td>[ ]</td>
<td>Appears when histogram display is disabled.</td>
</tr>
<tr>
<td>[ ]</td>
<td>Volume</td>
</tr>
</tbody>
</table>

Copyright 2011 Sony Corporation
Using the wrist strap

Attach the strap and place your hand through the loop to prevent the camera from damage by being dropped.
Using the control wheel

Moving the selection frame on MENU screen, etc.

Selecting an image to be played back

The following functions are located on the up/down/right/left side of the control wheel: DISP, (Display Setting), (Self-Timer), (Flash) and (Burst Settings). Press the control wheel toward each icon to enter the setup screen for each function.

Turn the control wheel or press the up/down/right/left side of the wheel following the screen to move the selection frame.

Press in the center of the control wheel to set the selected item.

Moving the selection frame on MENU screen, etc.

Press the up/down/right/left side of the wheel to move the selection frame. In some modes, you can also move the selection frame by turning the control wheel.

Selecting an image to be played back

Press the right or left side of the control wheel, or turn the wheel to play back the next/previous image.
Using the internal memory

On image data stored in the internal memory
The camera has approximately 19 MB of internal memory. This memory is not removable. You can record still images on the internal memory when there is no memory card inserted in the camera.

When a memory card is inserted
[Recording]: Images are recorded on the memory card.
[Playback]: Images on the memory card are played back.
[Menu, Settings, etc.]: Various functions can be performed on images on the memory card.

When there is no memory card inserted
[Recording]: Images are recorded using the internal memory. However, movies cannot be recorded to the internal memory.
[Playback]: Images stored in the internal memory are played back.
[Menu, Settings, etc.]: Various functions can be performed on images in the internal memory.

On image data stored in the internal memory
We recommend that you copy (back up) data using one of the following methods.

To copy (back up) data on a hard disk of your computer
Without a memory card inserted in the camera, import the images into a computer. [Details]

To copy (back up) data on a memory card
Prepare a memory card with sufficient free capacity, then copy the images in the internal memory to the memory card. [Details]

Notes
- You cannot transfer image data on a memory card to the internal memory.
- By making a USB connection between the camera and a computer with a multi-use terminal USB cable, you can transfer data stored in the internal memory to a computer. However you cannot transfer data on a computer to the internal memory.
In-Camera Guide

This camera contains an internal function guide. This allows you to search the camera’s functions according to your needs. You can use the selected function after reading the guide.

1. Press the (In-Camera Guide) button.

   When shooting images:
   [In-Camera Guide] search methods are displayed.
   When viewing images:
   [Delete/In-Camera Guide] is displayed.
   Select [In-Camera Guide].

2. Select a search method.

   An operation guide is displayed so that you can operate the camera following the instructions on the screen.
   This is explained in [Shoot/ playback guide].

3. Select the desired mode.

   An operation guide is displayed so that you can operate the camera following the instructions on the screen.
   This is explained in [Shoot/ playback guide].
Functions available in the selected function is displayed.

4. Select the desired function, then press 🔄 on the control wheel.

The operation guide for the selected function is displayed.

5. Use ▲ / ▼ to switch the display from summary to operation to details.
   - The operation guide and details may not be displayed, depending on the selected function.
   - When you select [Use this function], the camera switches to the selected mode automatically.

6. To end [In-Camera Guide], press ?/icontent (In-Camera Guide) button.

Notes
   - ?/icontent (In-Camera Guide) button is not available in Easy Mode.
   - [Use this function] may not be available, depending on the selected functions.
Shooting still images

1. Set the mode dial to (Intelligent Auto), then press the ON/OFF (Power) button.

2. Hold the camera steady as illustrated.
   - Do not cover the flash with your fingers.

3. Press the shutter button halfway down to focus.
   When the image is in focus, a beep sounds and the indicator lights.

   - The shortest shooting distance is approximately 5 cm (2 inches) (W), 1 m 20 cm (3 ft 11 1/4 inches) (T) (from the lens).

4. Press the shutter button fully down.
Do not cover the part (A) showing with the illustration.
When using the flash, the flash (B) pops up automatically.

**If you shoot a still image of a subject that is difficult to focus on**
- When the camera cannot focus on the subject automatically, the AE/AF lock indicator changes to slowly flashing and the beep does not sound. Either recompose the shot or change the focus setting. [Details]
- Focusing may be difficult in the following situations:
  - It is dark and the subject is distant.
  - The contrast between the subject and the background is poor.
  - The subject is seen through glass.
  - The subject is moving quickly.
  - There is reflective light or shiny surfaces.
  - The subject is backlit or there is a flashing light.

**Related Topic**
- Viewing still images
- Still Image Size/Panorama Image Size

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Zoom

You can enlarge the image when shooting. The camera’s optical zoom function can enlarge images up to 16×.

1. Turn the W/T (zoom) lever.
   Turn the W/T (zoom) lever to T side to zoom in, W side to zoom out.

- Turning the lever slightly zooms slowly and turning the lever fully zooms fast.
- When the zoom scale exceeds 16×, set [Digital Zoom]. [Details]

Note

- Zoom is locked to the W side in the following situations:
  - In Intelligent Sweep Panorama mode
  - In 3D Sweep Panorama mode
  - In Sweep Multi Angle mode
Shooting movies

1. Set the mode dial to (Movie Mode), then press the ON/OFF (Power) button.

2. Press the MOVIE (Movie) button to start recording.

3. Press the MOVIE button again to stop recording.

**MOVIE button**

You can start recording a movie by pressing the MOVIE button, regardless of the position of the mode dial. If you want to start recording a movie immediately, press the MOVIE button without changing the position of the mode dial.

**Notes**

- The sound of the lens and lever operating will be recorded when the zoom function operates while shooting a movie. The sound of the MOVIE button operating may also be recorded when you press the MOVIE button to stop recording.
- Continuous shooting is possible for approximately 29 minutes at one time at the camera's default settings and when the temperature is approximately 25°C (77°F). When movie recording is finished, you can restart recording by pressing the MOVIE button again. Recording may stop to protect the camera depending on the ambient temperature.
Related Topic

Zoom
Shooting still images while recording a movie (Dual Rec)
Movie Quality/Movie Size
Movie format
Shooting still images while recording a movie (Dual Rec)

You can shoot still images while recording a movie. The camera keeps recording the movie even if you shoot still images.

1. Press the MOVIE (Movie) button to start recording a movie.

2. Press the shutter button.
   A still image is recorded.
   - The number of recordable still images (A) appears on the LCD screen when you press the shutter button halfway down.

3. Press the MOVIE button to stop recording the movie.
   After recording movies, the recorded still images are displayed in frames on the LCD screen.

Notes
- When movies are recorded in [AVC HD 28M (PS)] quality, you cannot use [Dual Rec].
- The sound of the shutter button operating may be recorded.
- Flash is not available for shooting still images during movie recording.
- The image size of still images is fixed to [16:9 (3M)]. If the movie image size is set to [MP4 3M], the still image size is fixed to [4:3 (2M)].
- When the Smile Shutter function is set to [On], the shutter releases automatically each time the camera detects a smiling face. You cannot switch [On] or [Off] for Smile Shutter during movie recording.
- When the camera is on [Standby] in movie mode, you cannot use [Smile Shutter].
- If the memory card capacity is insufficient, a icon appears on the screen. This icon indicates that no more still images can be shot.
Intelligent Sweep Panorama

Allows you to create a panoramic image from composite images. The camera also automatically detects people’s faces or moving subjects.

1. Set the mode dial to ④ (iSweep Panorama), then press the ON/OFF (Power) button.

2. Select a shooting direction using ▲ / ■ / ◊ / ■ on the control wheel.

   ▲ Pan the camera from down to up
   ■ Pan the camera from up to down
   ◊ Pan the camera from left to right
   ■ Pan the camera from right to left

3. Align the camera with the end of the subject to be shot and press the shutter button fully.
A black, translucent portion (A) appears before shooting. That part will not be recorded.

4. Pan the camera to the end of the guide (B), following the indication on the LCD screen.

**Shooting a high-resolution panoramic image**

If you set [Panorama Image Size] to [High Resolution], a 43 megapixel-size panoramic image (10480×4096) can be shot.

1. Hold the camera vertically.

2. Select a shooting direction using the control wheel.

3. Pan the camera to shoot.

**Tips for shooting a panorama image**

Pan the camera in an arc at a constant velocity in the direction indicated on the LCD screen. Subjects at rest are more suited for panorama shots than moving subjects. Radius as short as possible.
First, press the shutter button halfway so that you can lock the focus, exposure and white balance. Then, press the shutter button fully down and pan or tilt the camera.

If a section with greatly varied shapes or scenery is concentrated along a screen edge, the image composition may fail. In such case, adjust the frame composition so that the section is in the center of the image, then shoot again.

**Notes**

- If you cannot pan the camera across the entire subject within the given time, a gray area occurs in the composite image. If this happens, move the camera faster to record a full panorama image.
- Since several images are stitched together, the stitched part will not be recorded smoothly.
- Under low light conditions, panorama images may be blurred or the shooting may not be successful.
- Under lights that flicker, such as fluorescent lights, the brightness or color of the combined image will not always be the same.
- When the whole angle of panoramic shooting and the AE/AF locked angle are very different in brightness, color and focus, the shooting will not be successful. If this happens, change AE/AF locked angle and shoot again.
- Sweep Panorama is not suitable for the following situations:
  - Subjects are too close to the camera
  - Images with little contrast, such as sky, sandy beach or lawn
  - Images with constant changes, such as waves or waterfalls
- You cannot create panorama images in the following situations:
  - You pan the camera too quickly or too slowly.
  - There is too much camera shake.
- You may not be able to set some functions or MENU items depending on the selected REC mode. For details, see “Functions not available in some REC modes” [Details] and “MENU items not available in some REC modes.” [Details]

**Related Topic**

Scrolling the panorama images for display

Still Image Size/Panorama Image Size
## List of mode dial functions

Set the mode dial to the desired function.

![Mode dial](image)

<table>
<thead>
<tr>
<th>Mode Dial</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Intelligent Auto" /></td>
<td>Allows you to shoot still images with the settings adjusted automatically.</td>
</tr>
<tr>
<td><img src="image" alt="Superior Auto" /></td>
<td>Allows you to shoot still images in higher quality than with Intelligent Auto mode.</td>
</tr>
<tr>
<td><img src="image" alt="Program Auto" /></td>
<td>Allows you to shoot with the exposure adjusted automatically (both the shutter speed and the aperture value (F value)). Also you can select various settings using the menu.</td>
</tr>
<tr>
<td><img src="image" alt="Manual Exposure Shooting" /></td>
<td>Allows you to shoot after adjusting the exposure manually (both the shutter speed and the aperture (F value)).</td>
</tr>
<tr>
<td><img src="image" alt="Memory recall mode" /></td>
<td>Allows you to shoot an image after recalling commonly-used modes or camera settings registered in advance.</td>
</tr>
<tr>
<td><img src="image" alt="iSweep Panorama" /></td>
<td>Allows you to shoot a panorama image after composing images.</td>
</tr>
<tr>
<td><img src="image" alt="Movie Mode" /></td>
<td>Allows you to change the setting for movie recording.</td>
</tr>
<tr>
<td><img src="image" alt="3D Shooting" /></td>
<td>Allows you to shoot a 3D image after composing images.</td>
</tr>
<tr>
<td><img src="image" alt="Scene Selection" /></td>
<td>Allows you to shoot with preset settings according to the scene.</td>
</tr>
<tr>
<td><img src="image" alt="Background Defocus" /></td>
<td>Allows you to shoot an image with background defocus and define the subject.</td>
</tr>
</tbody>
</table>
Related Topic
Intelligent Auto
Superior Auto
Program Auto
Manual Exposure Shooting
Memory recall mode
Intelligent Sweep Panorama
Shooting movies
3D Shooting
Scene Selection
Background Defocus
Intelligent Auto

Allows you to shoot still images with the setting adjusted automatically.

1. Set the mode dial to \( \text{Intelligent Auto} \).
2. Shoot with the shutter button.

Note
- You may not be able to set some functions depending on the selected REC mode. For details, see “Functions not available in some REC modes” [Details] and “MENU items not available in some REC modes.” [Details]

On Scene Recognition

Scene Recognition operates in Intelligent Auto mode. This function lets the camera automatically recognize the shooting conditions and shoot the image.

In Scene Recognition, the position of an icon displayed on the LCD screen is different depending on the circumstances. It depends on whether the camera recognizes a scene or condition.

If the camera recognizes a scene, icons and guides such as \( \text{Portrait} \), \( \text{Infant} \), \( \text{Twilight Portrait} \), \( \text{Twilight} \), \( \text{Backlight Portrait} \), \( \text{Backlight} \), \( \text{Landscape} \), \( \text{Macro} \), \( \text{Spotlight} \) or \( \text{Low Light} \), are displayed on the first line. If the camera recognizes a condition, icons such as \( \text{Tripod} \) or \( \text{Move} \) are displayed on the second line. The camera may recognize both the scene and condition, or just one.

Related Topic
Scene Recognition
Superior Auto

The camera combines Scene Recognition and high-quality image technology to automatically shoot the images with the optimal settings.

1. Set the mode dial to  \( \text{(Superior Auto)} \).
2. Shoot with the shutter button.
   The camera shoots burst images when needed and overlays the multiple images. By overlaying the images, the camera records an image with less subject blur and noises.

What is the difference between Superior Auto mode and Intelligent Auto mode?
In Superior Auto mode, the camera shoots burst images based on the recognized scene, then creates a composite of the burst images (Overlay shooting).
The camera automatically corrects the backlight and reduces the noise by overlaying images, so a higher-quality image results than in Intelligent Auto mode.

A: Scene Recognition
- Twilight
- Twilight Portrait
- Backlight
- Backlight Portrait
- Landscape
- Macro
- Portrait
- Infant
- Spotlight
- Low Light
- Tripod
- Move

B: Overlaying processing
- Hand-held Twilight

Contents list
Anti Motion Blur

Backlight Correction HDR

- The camera automatically selects an overlaying mode based on the recognized scene, and the (overlay) appears on the LCD screen.

**Notes**

- When the camera overlays the images, it takes more time to record an image.
- In low light conditions such as night scenes, set [Flash] to [Off] to achieve the optimal effect of the overlaid images.
- The effect of reduced noise is less effective in the following situations:
  - Subjects are moving
  - Subjects are too close to the camera
  - Images with little contrast, such as sky, sandy beach or lawn
  - Images with constant changes, such as waves or waterfalls
- You may not be able to set some functions or MENU items depending on the selected REC mode. For details, see “Functions not available in some REC modes” [Details] and “MENU items not available in some REC modes.” [Details]

**Related Topic**

Scene Recognition
Program Auto

Allows you to shoot with the exposure adjusted automatically (both the shutter speed and the aperture value). Also you can select various settings using the menu.

1. Set the mode dial to P (Program Auto).
2. Shoot with the shutter button.

Note
- You may not be able to set some functions or MENU items depending on the selected REC mode. For details, see “Functions not available in some REC modes” [Details] and “MENU items not available in some REC modes.” [Details]
Manual Exposure Shooting

You can shoot at your favorite exposure by manually setting the shutter speed and aperture value.

1. Set the mode dial to **M** (Manual Exposure Shooting).
2. Press ⚪️ on the control wheel to select the shutter speed, aperture (F value), focus or ISO speed.
   - Each time you press the center of the control wheel, the item to be set will change.
   - When you want to set the focus, you can also select MENU ➔ [Focus] and select ◼️ (Flexible Spot AF), 🌊 (Semi Manual) or ◼️ (Manual Focus).
   - When shooting in Manual Exposure Shooting mode with Smile Shutter [On], ⚪️ on the control wheel is used for Tracking focus. Settings such as the shutter speed, aperture (F value), focus and ISO cannot be adjusted.
3. Turn the control wheel to select a value.

<table>
<thead>
<tr>
<th>Control wheel</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>⚪️️</td>
<td>Moving items</td>
</tr>
<tr>
<td></td>
<td>Shutter speed, aperture (F value), focus or ISO speed settings</td>
</tr>
</tbody>
</table>

- Select a shutter speed from 1/1600 seconds to 30 seconds.
- When zoom is set fully to W, you can select an aperture of F3.3 or F8 (when used with the Internal ND (Neutral Density) Filter).
- When zoom is set fully to T, you can select an aperture of F5.9 or F14 (when used with the Internal ND (Neutral Density) Filter).

4. Press the shutter button to shoot the image.

**Setting the shutter speed and aperture (F value)**

The difference between the settings and proper exposure judged by the camera appears as an EV on screen.

- **A**: Shutter speed
- **B**: Aperture (F value)
- **C**: EV
  - 0EV is the value judged as the most suitable by the camera.
  - When the shutter speed is one second or slower, the shutter speed is indicated by ["], for example, ["1"].
When you set the shutter speed slower, using a tripod is recommended to prevent the effects of vibration.

When the shutter speed becomes slower than a certain speed, the NR slow shutter function is activated automatically to reduce image noise, and NR appears on the screen.

If you select slow shutter speeds, it takes time to process the data.

**Notes**

- If proper exposure is not obtained by your settings, the setting value indicators on the screen will flash when the shutter button is pressed halfway down. You can shoot in this condition, but exposure readjustment is recommended.
- You may not be able to set some functions or MENU items depending on the selected REC mode. For details, see “Functions not available in some REC modes” [Details] and “MENU items not available in some REC modes.” [Details]

**Related Topic**

ISO
EV
Focus
Memory recall mode

Allows you to shoot an image after recalling commonly-used modes or camera settings registered in advance.

1. Set the mode dial to MR (Memory recall mode).
2. Press ◀ / ▶ on the control wheel or turn the control wheel to select the desired number → ●

Notes

- Register shooting settings in advance by MR \( \text{SET} \) (Register Setting). [Details]
- If you set MR (Memory recall mode) after completing the shooting settings, the registered settings are given priority and the original settings may become invalid. Check the indicators on the screen before shooting.
- You may not be able to set some functions or MENU items depending on the selected REC mode. For details, see “Functions not available in some REC modes” [Details] and “MENU items not available in some REC modes.” [Details]

Related Topic

Register Setting
Memory recall mode
3D Shooting

Shooting a 3D image.

1. Set the mode dial to 3D (3D Shooting).
2. 3D (3D Still Image) ➔ on the control wheel
3. Shoot with the shutter button.

Tips for various 3D shooting

In addition to [3D Still Image], this camera also includes other modes for creating stereoscopic images, such as [3D Sweep Panorama] and [Sweep Multi Angle].

For details, see “3D Functions.” [Details]
### Scene Selection

Allows you to shoot with preset settings according to the scene.

1. Set the mode dial to **SCN** (Scene Selection).
2. Select the desired mode → on the control wheel.
   - If you want to select the other Scene Selection mode, select from MENU.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soft Skin</td>
<td>Allows you to shoot faces for smoothness.</td>
</tr>
<tr>
<td>Soft Snap</td>
<td>Allows you to shoot images with a softer atmosphere for portraits and flowers, etc.</td>
</tr>
<tr>
<td>Anti Motion Blur</td>
<td>Allows you to shoot indoor shots without using the flash to reduce subject blur.</td>
</tr>
<tr>
<td>Landscape</td>
<td>Allows easy shooting of distant scenes by focusing in the distance. Shoots vivid blue sky and flora colors.</td>
</tr>
<tr>
<td>Backlight</td>
<td>Allows you to shoot three images having different exposures to create a single image with a greater range of gradation. The camera combines the dark parts of an image taken with a bright exposure setting and the bright parts of an image taken with a dark exposure setting.</td>
</tr>
<tr>
<td>Correction HDR</td>
<td>Allows you to shoot sharp images of people with the night view in the background without compromising the atmosphere.</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>🌃 (Twilight Portrait)</td>
<td>Allows you to shoot night scenes at far distance without losing the dark atmosphere of the surroundings.</td>
</tr>
<tr>
<td>💧 (Twilight)</td>
<td>Allows you to shoot night scenes with less noise without using a tripod.</td>
</tr>
<tr>
<td>🤖 (Hand-held Twilight)</td>
<td>Allows you to shoot images without a flash under low light conditions, reducing blur.</td>
</tr>
<tr>
<td>⏰ (High Sensitivity)</td>
<td>Shifts to Macro mode, allowing you to shoot food arrangements in delicious and bright color.</td>
</tr>
<tr>
<td>🍽️ (Gourmet)</td>
<td>Allows you to shoot images of your pet with the best settings.</td>
</tr>
<tr>
<td>(Beach)</td>
<td>Allows you to record the blue of the water clearly when shooting seaside or lakeside scenes.</td>
</tr>
<tr>
<td>(Snow)</td>
<td>Allows you to record clear images preventing sunken colors in snowy scenes or other places where the whole screen appears white.</td>
</tr>
<tr>
<td>(Fireworks)</td>
<td>Allows you to record fireworks in all their splendor.</td>
</tr>
<tr>
<td>(Advanced Sports Shooting)</td>
<td>Allows you to shoot subjects with fast movements such as sports. While the shutter is pressed halfway, the movement of the subject is predicted and the focus will be adjusted.</td>
</tr>
</tbody>
</table>

**Notes**
- When you shoot images using (Twilight Portrait), (Twilight) or (Fireworks) mode, the shutter speed is slower and the images tend to blur. To prevent blurring, the use of a tripod is recommended.
- Some Scene Selection modes are available also in movie mode, but the selectable modes are limited. [Details]
- You may not be able to set some functions or MENU items depending on the selected REC mode. For details, see “Functions not available in some REC modes” [Details] and “MENU items not available in some REC modes.” [Details]
Background Defocus

Allows you to shoot an image with image processing so that the background and the subject stands out.

1. Set the mode dial to (Background Defocus).
2. Shoot with the shutter button.

**Tips for adjusting the intensity of the background defocus**
- Before shooting, select MENU ➔ [Defocus Effect] ➔ [High], [Mid] or [Low] to change the intensity of the background defocus effect.

**Tips for defocusing the background**

**Position of the subject and the background**

If you shoot an image with the subject and background far apart, as shown in the illustration, the background can be defocused. Shoot from the recommended shooting distance indicated on the LCD screen.

**Subject is sufficiently removed from the background**

**Subject and background are too close**
Zoom scale and position of the subject

When you shoot a flower and a small item from close up, turn the W/T (zoom) lever to the W side. For shooting people, move a short distance away from the subject and turn the W/T (zoom) lever to the T side.

- To lock the focus on the subject more easily, use the Tracking focus function of the camera. [Details]

Notes

- When shooting, hold the camera still to reduce camera shake.
- The background may not be defocused in the following situations:
  - The scene is too bright or too dark.
  - The subject is moving.
  - The subject is too far from the camera. (The recommended shooting distance has been exceeded.)
  - The subject is too close to the background.
- The Background Defocus effect may not work effectively in the following situations:
  - The subjects are too small.
  - The subject is the same color as the background.
  - You moved the camera after setting the AE/AF lock.
- If you are unable to defocus effectively, try the following steps:
  - Turn the W/T (zoom) lever to the T side.
  - Approach the subject until you are within the recommended shooting distance.
  - Separate the subject and the background.
  - Shoot after focusing on the subject.
- You may not be able to set some functions or MENU items depending on the selected REC mode. For details, see “Functions not available in some REC modes” [Details] and “MENU items not available in some REC modes.” [Details]

Related Topic

Defocus Effect
Tracking focus
### Functions not available in some REC modes

In the table below, ✓ indicates a user-changeable function, while — indicates an unchangeable one. The icons below [Self-Timer] and [Flash] indicate the available modes.

<table>
<thead>
<tr>
<th>REC Mode</th>
<th>Self-Timer</th>
<th>Flash</th>
<th>Face Detection</th>
<th>Tracking focus</th>
<th>Burst/Bracket</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intelligent Auto)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓*2</td>
</tr>
<tr>
<td>(Superior Auto)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
</tr>
<tr>
<td>(Program Auto)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(Manual Exposure Shooting)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
<td>✓</td>
</tr>
<tr>
<td>(iSweep Panorama)</td>
<td>—</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>(3D Still Image)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
</tr>
<tr>
<td>(3D Sweep Panorama)</td>
<td>—</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>(Sweep Multi Angle)</td>
<td>—</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>(Background Defocus)</td>
<td>✓</td>
<td>✓</td>
<td>✓*1</td>
<td>✓</td>
<td>—</td>
</tr>
<tr>
<td>(Soft Skin)</td>
<td>✓</td>
<td>✓</td>
<td>✓*1</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(Soft Snap)</td>
<td>✓</td>
<td>✓</td>
<td>✓*1</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(Anti Motion Blur)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
</tr>
<tr>
<td>(Landscape)</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>✓</td>
</tr>
<tr>
<td>(Backlight Correction HDR)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
</tr>
<tr>
<td>(Twilight Portrait)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
</tr>
<tr>
<td>(Twilight)</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>(Hand-held Twilight)</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>(High Sensitivity)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
</tr>
<tr>
<td>(Gourmet)</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
<td>✓</td>
<td>—</td>
</tr>
<tr>
<td>(Pet)</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
<td>✓</td>
<td>—</td>
</tr>
<tr>
<td>(Beach)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
</tr>
<tr>
<td>(Snow)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>-------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>(Fireworks)</td>
<td>✗</td>
<td>✗</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>(Advanced Sports Shooting)</td>
<td>—</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

*1 [Off] cannot be selected for [Face Detection].
*2 [Bracket] cannot be selected.

**Note**

* When the above shooting modes are registered and recalled in MR (Memory recall mode), the conditions for whether settings can be changed or not remain the same as in the above table.
Tracking focus

The camera tracks the subject and adjusts focus automatically until you press the shutter button halfway down, even if the subject is moving.

1. Press \( \bullet \) on the control wheel.
   The target frame appears.

2. Place the target frame over the subject you want to focus on, and press \( \bullet \).
   Tracking begins.

3. Press the shutter button half way down.
   The position of the subject, focus and exposure are locked.

4. Press the shutter button fully down to shoot the image.

5. To cancel the tracking focus before shooting, press \( \bullet \) again.

_tracking a face_

If you use the tracking focus function while the Face Detection function is activated, you can select a face to be given priority and register that face with the camera. Even if the registered face disappears from the LCD screen, when it shows up on the LCD screen again, the camera focuses on the registered face.

- When a specified face is registered in the camera memory and you use the Smile Shutter function, the camera searches only for that face's smile.

Notes

- Tracking focus may fail to lock the focus, lose the subject or track different subject in the following situations:
  - The subject moves too quickly.
  - The subject is too small or too large.
  - The subject is the same color as the background.
  - Under low light conditions.
  - Under conditions where the brightness varies.
- Tracking focus is not available in the following situations:
  - When using the digital zoom
  - When [Focus] is set to [Flexible Spot AF], [Semi Manual] or [Manual Focus].
- Tracking focus will automatically be canceled when the subject disappears from the screen or has failed to be tracked. However, if the target of the tracking focus is a specified face, the camera keeps tracking on that face even if the face disappears from the screen.
- You may not be able to set some functions depending on the selected REC mode. For details, see "Functions not available in some REC modes." [Details]
## DISP (Display Setting)

### Histogram

1. Press **DISP** (Display Setting) on the control wheel.
2. Select the desired mode with the control wheel.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(OFF)</td>
<td>Displays only images. <img src="image1.jpg" alt="Image" /></td>
</tr>
<tr>
<td>(Detailed Info)</td>
<td>Displays the information. Exif data for the recorded image and the histogram are also displayed. <img src="image2.jpg" alt="Image" /></td>
</tr>
<tr>
<td>(ON)</td>
<td>Displays the information. <img src="image3.jpg" alt="Image" /></td>
</tr>
</tbody>
</table>

### Histogram

A histogram is a graph showing the brightness of an image. The graph display indicates a bright image when skewed to the right side (A), and a dark image when skewed to the left side (B).

1. Press **DISP** (Display Setting) on the control wheel, then select [Detailed Info].
**Notes**

- The histogram also appears when playing back a single image, but you cannot adjust the exposure.
- The histogram does not appear when:
  - Recording/playing back movies
  - Viewing vertical orientation images
  - Rotating still images
  - Shooting/viewing in Intelligent Sweep Panorama mode or 3D Sweep Panorama mode
  - When [Display Burst Group] is set to [Display Main Image Only]
- A large difference in the histogram displayed during shooting and playback may occur when:
  - The flash strobes.
  - The shutter speed is slow or fast.
- The histogram may not appear for images recorded using other cameras.
Flash

1. Press (Flash) on the control wheel.
2. Select the desired mode with the control wheel.

<table>
<thead>
<tr>
<th></th>
<th>Flash automatically operates in dark locations or when there is backlight.</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔</td>
<td>Flash always operates.</td>
</tr>
<tr>
<td>$</td>
<td>Flash always operates. The shutter speed is slow in a dark place to clearly shoot the background that is out of flash light.</td>
</tr>
<tr>
<td>(Off)</td>
<td>Flash does not operate.</td>
</tr>
</tbody>
</table>

💡 **When the “White circular spots” appears in flash photos**
This is caused by particles (dust, pollen, etc.) floating close to the lens. When they are accentuated by the camera’s flash, they appear as white circular spots.

How can the “White circular spots” be reduced?
- Light the room and shoot the subject without a flash.
- Select (Anti Motion Blur) or (High Sensitivity) mode in Scene Selection. ([Off] is automatically selected.)

Notes
- When using the flash, the flash pops up automatically.
- The flash goes down automatically in the following situations:
  - When the power is turned on/off.
  - When the camera switches to playback mode or USB mode.
  - When the mode dial is set to [Sweep Panorama] or [Movie Mode].
  - When the MOVIE button is pressed.
- The flash can be pushed down manually.
- The flash strobes twice. The first flash adjusts the light quantity.
- While charging the flash, is displayed.
- You cannot use the flash during burst shooting.
- You may not be able to set some functions or MENU items depending on the selected REC mode. For details, see “Functions not available in some REC modes” [Details] and “MENU items not available in some REC modes.” [Details]
Burst/Bracket

You can select Single (single-image), Burst or Bracket as the shooting mode.

1. Press (Burst Settings) on the control wheel.
2. Select the desired mode with the control wheel.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Single)</td>
<td>The camera shoots a single image.</td>
</tr>
<tr>
<td>(Burst)</td>
<td>The camera shoots up to 10 continuous frames in one burst when you hold down the shutter button.</td>
</tr>
<tr>
<td>BRK (Bracket)</td>
<td>The camera shoots a series of 3 images each with a different setting.</td>
</tr>
</tbody>
</table>

Notes
- [Flash] is set to [Off].
- When recording with the self-timer, a series of up to 10 images is recorded if [Burst] is selected and a series of 3 images, each with different settings, is recorded if [Bracket] is selected.
- When [Burst] is selected, [Focus], [White Balance], and [EV] are adjusted for the first image, and these settings are also used for the other images.
- When the battery level is low, or when the internal memory or a memory card is full, the burst stops.
- [VGA] image size will be set while recording on internal memory.
- You may not be able to set some functions or MENU items depending on the selected REC mode. For details, see “Functions not available in some REC modes” [Details] and “MENU items not available in some REC modes.” [Details]

Related Topic
Burst Shooting Interval
Bracket Setting
**Self-Timer**

**Automatic shooting with Self-portrait timer**

1. Press (Self-Timer) on the control wheel.
2. Select the desired mode with the control wheel.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off (Off)</td>
<td>Does not use the self-timer.</td>
</tr>
<tr>
<td>10 (10sec)</td>
<td>Sets the self-timer to a 10-second delay. When you press the shutter button, the self-timer lamp flashes and a beep sounds until the shutter operates. To cancel, press again.</td>
</tr>
<tr>
<td>2 (2sec)</td>
<td>Sets the self-timer to a 2-second delay.</td>
</tr>
<tr>
<td>One Person</td>
<td>Sets the self-timer to Self-portrait timer. When the camera detects the specified number of faces, a beep sounds, and the shutter operates 2 seconds later.</td>
</tr>
<tr>
<td>Two People</td>
<td></td>
</tr>
</tbody>
</table>

**Tips for preventing blur**

If your hands or body moves while holding the camera and pressing the shutter button, "Camera shake" occurs.

Camera shake occurs frequently under low-light or slow shutter speed conditions, such as those encountered in (Twilight Portrait) or (Twilight) mode. In such a case, shoot with the below tips in mind.

- Shoot with a 2-second delay self-timer and stabilize the camera by holding your arms firmly at your side after pressing the shutter button.
- Use a tripod or place the camera on a flat surface to hold the camera steady.

**Note**

- You may not be able to set some functions depending on the selected REC mode. For details, see "Functions not available in some REC modes." [Details]

**Automatic shooting with Self-portrait timer**

Point the lens at yourself so your face is reflected in the LCD screen. The camera detects the subjects, and then the shutter operates. The camera determines the optimal composition and prevents faces from being cut out of the LCD screen. Do not move your camera after the beep sounds.
You can also shoot an image by pressing the shutter button during this operation.
Using the CUSTOM (Custom) button

Pressing the CUSTOM (Custom) button allows you to recall previously registered functions.

For details on registering settings, see “Custom Button.” [Details]

Related Topic
Custom Button
Viewing still images

1. Press the (Playback) button to switch to playback mode.
2. Select an image with the control wheel.

Viewing images taken with a different camera
This camera creates an Image Database File on the memory card for recording and playing images. If the camera detects images not registered in the Image Database File on the memory card, a registration screen with the message “Files found which were not recognized Import files” will be displayed. To view unregistered images, register them by selecting [OK].

- Use a sufficiently charged battery to register images. If a battery with a low charge is used to register images, it may not be possible to register all of the data or the data may be corrupted if the battery charge runs out.

Viewing vertical images in full-screen display (DSC-HX9V only)
If the camera is rotated, the horizontal or vertical orientation of the image is determined and the image being played back is automatically rotated.
Playback zoom

Enlarges the image being played back.

1. Press (Playback) button to switch to playback mode.

2. Turn the W/T (zoom) lever to T side (T) during still image playback.

3. Adjust the position using / / / / on the control wheel.

   The frame in the lower left of the image shows which part of the total image is being displayed.

4. Change the zoom scale with the W/T (zoom) lever.

   Turn the W/T (zoom) lever to T side (T) to zoom in, W side (W) to zoom out.
   Press on the control wheel to cancel playback zoom.

To save enlarged images

You can save an enlarged image by using the trimming function.
Press MENU → [Retouch] → [Trimming (Resize)].
Image Index

Displaying images of the desired date/folder

Viewing images with the Calendar

Displays multiple images at the same time.

1. Press the (Playback) button to switch to playback mode.

2. Turn the W/T (zoom) lever to the W side ( ) to display the image index screen.
   Turn the lever again to display an index screen with more images.

3. To return to the single-image screen, select an image with the control wheel, then press .

Displaying images of the desired date/folder

Select the left side bar with the control wheel, then select the desired date range or folder using / .

Viewing images with the Calendar

When [View Mode] is set to [Date View] and the screen display is in index mode, turn the W/T (zoom) lever to W side ( ) to view images with the Calendar.

: Moves the selection frame to a different date.

: Displays the calendar of the next/previous month.

To select the month you want to display, select with the control wheel, then the desired month.

To view images in selected date in index mode, select the date with the control wheel and press .

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To cancel the calendar display and return to an index screen, select [X] using the control wheel, then press [●].
Delete button

Allows you to select unwanted images for deletion. You can also delete images from the MENU button. [Details]

1. Press the (Playback) button to switch to playback mode.
2. (Delete) button → desired mode → on the control wheel

<table>
<thead>
<tr>
<th>All Images on This Date</th>
<th>Deletes all images in the selected date range or folder, or all movies in [AVCHD view]. Press [OK] → after step 2.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All in This Folder</td>
<td></td>
</tr>
<tr>
<td>All AVCHD view files</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Multiple Images</th>
<th>Allows you to select and delete multiple images. Do as the following after step 2.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Select an image then press . A mark is attached to the selected image. Repeat the above steps until there are no more images to be deleted. Select an image with a mark again to release the mark.</td>
</tr>
<tr>
<td>2.</td>
<td>MENU → [OK] → .</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>This Image</th>
<th>Deletes the currently displayed image.</th>
</tr>
</thead>
</table>

| All Imgs in This         | Deletes all images in the selected burst group at once. Press [OK] → after step 2. |
| Burst Group              |                                                                                      |
| All but This Image       | Deletes all images in a burst group except the selected image in Display Burst      |

| Cancel                   | Cancels the deletion.                                                                |

💡 You can switch between index and single-image mode when selecting images

Turn the W/T (zoom) lever to the T side ( in index mode to return to single-image mode, and turn the lever to the W side ( in single-image mode to return to index mode.

- You can also switch between index and single-image mode in [Protect], [Send by TransferJet] or [Print (DPOF)].
In Easy Mode, you can select from [1 image] or [All] to delete an image.
When the internal memory is used to record images, [View Mode] is set to [Folder View].
Movies in [AVCHD view] are movies recorded with [Movie format] set to [AVCHD 60i/60p]
(for 1080 60i-compliant devices) or [AVCHD 50i/50p] (for 1080 50i-compliant devices).

Related Topic
Delete
Viewing burst images

▶ Tilt playback

▶ Unfold

You can select the playback method for continuous (burst) shots when [View Mode] is set to [Date View] and [Display Burst Group] is set to [Display Main Image Only]. [View Mode] is set to [Date View] and [Display Burst Group] is set to [Display Main Image Only] in its default setting.

1. Press the (Playback) button to switch to playback mode.
2. Select the burst images using the control wheel then operate as following.

<table>
<thead>
<tr>
<th>Control wheel</th>
<th>Action</th>
</tr>
</thead>
</table>
| ●             | Tilt playback  
You can view the burst images as a movie by tilting the camera to the right or left. |
| ▼/▶          | Next image |
| ▼/◀          | Previous image |
| ▼             | Unfold  
You can view the burst images in index. |

● Tilt playback

The burst shots are played back smoothly as a movie.

1. Press ● on the control wheel to enter the Tilt playback screen.
2. Tilt the camera to the right or left, with the center of the camera as the axis.
3. To exit Tilt playback, execute any operation, such as pressing • on the control wheel.

Unfold

The thumbnails of a series of burst shots are displayed on the bottom of the LCD screen. A selected image is enlarged.

1. Press ▼ on the control wheel to unfold the burst shots.
   A series of burst shots are displayed in an index.

![Unfold Example]

When images are displayed in an index, ‼️ is displayed on the main image.

2. Press ◀ / ▶ to display each image in a burst group.

3. Switch the display between single-image display and index display by pressing ●.

4. To cancel the display, press ▼.

Related Topic

View Mode
Display Burst Group
Viewing movies

Displaying the control panel
Capture a still image from a movie

1. Press the [ ] (Playback) button to switch to playback mode.
2. Select a movie with the control wheel.
3. Press [ ] .
   Movie playback starts.

On the movie viewing screen
Select the image you want to display using [ ]/ [ ] on the control wheel, and press [ ] .
The Playback bar appears, you can check a playback position of a movie.

<table>
<thead>
<tr>
<th>Control wheel</th>
<th>Action during playback</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>Stop</td>
</tr>
<tr>
<td>[ ]</td>
<td>Fast forward</td>
</tr>
<tr>
<td>[ ]</td>
<td>Fast rewind</td>
</tr>
<tr>
<td>[ ]</td>
<td>Frame advance</td>
</tr>
<tr>
<td>[ ]</td>
<td>Displays the control panel</td>
</tr>
</tbody>
</table>

The icon displayed may vary depending on image size and quality.

To display only movies on the index screen
You can view only movie thumbnails on the index screen by pressing MENU [ ] (View...).
Mode) —→ MP4 (Folder view (MP4)) or AVCHD (AVCHD view).

- **MP4 (Folder view (MP4))**: Displays MP4-format movie thumbnails on the index screen.
- **AVCHD (AVCHD view)**: Displays movies shot with the recording format set to [AVCHD 60i/60p] or [AVCHD 50i/50p]. [Details]
  - When a movie file is played back to the end, the camera automatically starts playing back the next movie file.

**Note**

- You may not be able to play back some images shot using other cameras.

### Displaying the control panel

Display the control panel, you can control slow movie playback and adjust the volume.

1. Press ▼ on the control wheel.
   
   The control panel appears.

2. Select a desired button with ◀ / ▶ , and press ● .

<table>
<thead>
<tr>
<th>Control panel</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>▶</td>
<td>Playback</td>
</tr>
<tr>
<td>■</td>
<td>Pause</td>
</tr>
<tr>
<td>▶▶</td>
<td>Fast forward</td>
</tr>
<tr>
<td>◀</td>
<td>Fast rewind</td>
</tr>
<tr>
<td>■▶</td>
<td>Slow playback</td>
</tr>
<tr>
<td>◀▶</td>
<td>Slow rewind playback</td>
</tr>
<tr>
<td>▶▶</td>
<td>Chapter advance</td>
</tr>
<tr>
<td>◀▶</td>
<td>Chapter rewind</td>
</tr>
<tr>
<td>▶▶</td>
<td>Frame advance</td>
</tr>
<tr>
<td>◀▶</td>
<td>Frame rewind</td>
</tr>
<tr>
<td>▶▶</td>
<td>Photo Capture</td>
</tr>
<tr>
<td>❌</td>
<td>Volume settings</td>
</tr>
<tr>
<td>X</td>
<td>Closes the control panel</td>
</tr>
</tbody>
</table>

**Note**

- The buttons on the control panel will vary depending on the playback status.
Capture a still image from a movie

1. Press \( \text{I} \) on the control panel during the scene you want to capture.

2. Select \( \text{I} \) using \( \leftarrow / \rightarrow \) on the control wheel, then press \( \text{○} \).
   - When the still image has been recorded, the camera will pause.
   - A still image recorded in [MP4 3M] movie format will save as [VGA]. Otherwise, the still image will save as [16:9(2M)].

Related Topic

View Mode
Scrolling the panorama images for display

You can scroll panorama images by pressing □ on the control wheel while panorama images are being displayed. Turn the W/T (zoom) lever to the W side to display the whole image again.

A: Shows the displayed area of the whole panorama image

<table>
<thead>
<tr>
<th>Control wheel</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>□</td>
<td>Starts scrolling playback/pauses scrolling playback</td>
</tr>
<tr>
<td>◁</td>
<td>Scrolls images</td>
</tr>
</tbody>
</table>

- Panorama images can also be played back using the supplied software “PMB”. [Details]
- Panorama images recorded using another camera may not scroll correctly when played.
- Turn the W/T (zoom) lever to the W side to display the whole image again.

**Note**
- A panoramic image recorded in [High Resolution] size requires a longer time to scroll than a normal size panoramic image.

**Related Topic**
Still Image Size/Panorama Image Size
3D Functions

The camera is compatible with 3D functions. The following three modes are installed on this camera:

Images recorded using the 3D functions can be played back stereoscopically on a 3D TV. The basic differences among the three 3D modes are described here. For details on each modes, click [Details] below.

- 3D Still Image [Details]
- 3D Sweep Panorama [Details]
- Sweep Multi Angle [Details]

![3D Functions Image]

* The image on the TV screen is only for reference.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Aspect ratio</th>
<th>Shooting mode</th>
<th>Playback method on this camera</th>
<th>Playback method on a 3D TV</th>
</tr>
</thead>
<tbody>
<tr>
<td>3D Still Image</td>
<td>4:3 or 16:9 (Same aspect ratio as a standard still image.)</td>
<td>Still image</td>
<td>Same as a standard still image.</td>
<td>Stereoscopically</td>
</tr>
<tr>
<td>3D Sweep Panorama</td>
<td>Panorama</td>
<td>Panorama</td>
<td>Same as a standard still image.</td>
<td>Stereoscopically</td>
</tr>
<tr>
<td>Sweep Multi Angle</td>
<td>Panorama</td>
<td>Panorama</td>
<td>Tilt the camera to the right or left to view a stereoscopic image.</td>
<td>Stereoscopically</td>
</tr>
</tbody>
</table>
### File name of the 3D image

A 3D image consists of both JPEG and MPO files. If you import images shot using 3D functions into a computer, the image data is stored on the computer as follows.

<table>
<thead>
<tr>
<th>File name on the computer</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3D Still Image</strong></td>
<td></td>
</tr>
<tr>
<td>DSC0 JPG MPO</td>
<td>For playing back the 3D images on a 3D TV</td>
</tr>
<tr>
<td><strong>3D Sweep Panorama</strong></td>
<td></td>
</tr>
<tr>
<td>DSC0 JPG MPO</td>
<td>For playing back the 3D images on a 3D TV</td>
</tr>
<tr>
<td><strong>Sweep Multi Angle</strong></td>
<td></td>
</tr>
<tr>
<td>DSC0 JPG MPO</td>
<td>For playing back the 3D images on a 3D TV</td>
</tr>
</tbody>
</table>

- If you shoot 3D images in [Sweep Multi Angle] mode, JPEG files and MPO files are stored on the computer for playing back on the camera and a 3D TV, respectively.
- If you delete either the JPEG file or the MPO file comprising a 3D image, that 3D image may not be played back successfully.
3D Still Image

The camera shoots an image that can be played back as 3D on a 3D TV.

1. Set the mode dial to \(\text{3D (3D Shooting)}\).

2. \(\text{3D (3D Still Image)}\) \(\rightarrow\) on the control wheel

3. Shoot with the shutter button.

**Tips for shooting 3D images**

Shoot from a location near the subject, with the subject and background far apart, as shown in the illustration.

The 3D effect may not work effectively when the scene is too dark, the subject is moving or you moved the camera after setting the AE/AF lock.

If you shoot the image in a dark place, noise may be highly visible.

**Note**

- The available image size is [16M] or [16:9(12M)].

**Related Topic**

Viewing 3D images on a 3D TV
3D Sweep Panorama

Multiple images are shot while the camera is moving, and these images are compiled into a 3D image. The recorded image can be played back on a 3D TV.

1. Set the mode dial to 3D (3D Shooting).
2. 3D (3D Sweep Panorama) → on the control wheel
3. Select a shooting direction with / / on the control wheel.
4. Align the camera with the end of the subject to be shot and press the shutter button.

- A black, translucent portion (A) may not be recorded.

5. Pan the camera to the end of the guide (B), following the indication on the LCD screen.

Tips for shooting in 3D Sweep Panorama mode

- To take 3D images correctly, sweep the camera slowly. (Aim for a 5-second semicircle.)
- If you are sweeping too quickly or too slowly, a message will be displayed on the LCD screen.
- We recommend that you practice it several times before shooting.
- Subjects at rest are best suited for 3D shots.
Determine the scene and press the shutter button halfway, so that you can lock the focus, exposure and white balance. Then, press the shutter button fully down and pan the camera.

**Notes**

- 3D shooting is not suitable for the following situations:
  - When there is a large subject
  - Moving subjects
  - When the main subject is too close to the camera
  - Images with little contrast, such as the sky, a sandy beach, or lawn
- 3D images consist of a JPEG file and an MPO file. If either file is deleted on your PC, the camera may not operate correctly.
- If you cannot pan the camera across the entire subject within the given time, a gray area occurs in the composite image. If this happens, move the camera faster to record a full 3D image.
- Since several images are stitched together, the stitched part will not be recorded smoothly.
- Under low light conditions, the images may be blurred. It is recommended that you shoot images in bright outside light.
- Under lights that flicker, such as fluorescent lights, the 3D shot may not be successful.
- If the entire angle of view of the 3D shot and the angle of view when the AE/AF was locked are extremely different in brightness, color or focus, the shot will not be successful. If this happens, change the location of the AE/AF lock and try again.
- 3D shooting may be canceled in the following situations:
  - You pan the camera too quickly or too slowly.
  - There is too much camera shake.

**Related Topic**

Viewing 3D images on a 3D TV

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Sweep Multi Angle

As you sweep the camera, the camera shoots multiple images, then compiles them into one stereoscopic image. It shoots an image that can be played back as a stereoscopic image by tilting the camera to the right or left, and an image that can be played back on a 3D TV.

1. Set the mode dial to 3D (3D Shooting).
2. (Sweep Multi Angle) on the control wheel
3. Align the camera with the end of the subject to be shot and press the shutter button.

4. Pan the camera to the end of the guide (B), following the indication on the LCD screen.

- A black, translucent portion (A) may not be recorded.

Shootable range in Sweep Multi Angle mode

Sweep the camera approximately 45 degrees to the left and right of the subject you want to focus on.
Refer also to the tips for 3D Sweep Panorama. [Details]
Notes

- In [Sweep Multi Angle] mode, you can select only the [16:9(2M)] panorama image size.
- Refer also to “Notes” for the 3D Sweep Panorama. [Details]

Related Topic

Viewing images shot in Sweep Multi Angle mode stereoscopically
Viewing images shot in Sweep Multi Angle mode stereoscopically

You can view the stereoscopic images shot in [Sweep Multi Angle] mode by tilting the camera to the right or left.

1. Press the (Playback) button to switch to playback mode.
2. Select an image shot in (Sweep Multi Angle) mode to be played back using the control wheel.
3. Press .
4. Tilt the camera to the right or left.
5. Press again to end playback.

Tips for playing back stereoscopically
To view images shot in Sweep Multi Angle mode stereoscopically, tilt the camera to the right or left as illustrated, keeping the camera horizontal.

Note
- 3D images shot in [3D Still Image], [3D Sweep Panorama] mode cannot be played back in 3D on the camera.
Viewing 3D images on a 3D TV

You can view 3D images recorded on the camera in 3D format by connecting the camera to a 3D TV using an HDMI Cable (sold separately).

Refer also to the operating instructions supplied with the TV.

1. Turn off both the camera and the TV.
2. Connect the camera to the TV using an HDMI Cable (sold separately).
3. Turn on the TV and set the input.
4. Press the (Playback) button to turn on the camera.
5. MENU → (3D Viewing) → • on the control wheel
   Images shot with the camera appear on the TV.
6. Select images and set the desired mode using the control wheel.

<table>
<thead>
<tr>
<th>Control wheel</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>•</td>
<td>Plays back scrolling images shot in 3D Sweep Panorama mode.</td>
</tr>
<tr>
<td></td>
<td>• Press ◀ / ► to move the direction of scrolling.</td>
</tr>
<tr>
<td></td>
<td>• When playing back a 3D image shot in [16:9] image size, scrolling playback is not available.</td>
</tr>
<tr>
<td>▲</td>
<td>Continuously plays back only 3D images.</td>
</tr>
</tbody>
</table>
You can change the zoom scale for 3D still images using the W/T (zoom) lever.

**Notes**
- When you select (3D Viewing) mode, only 3D images are displayed.
- If you play back an image shot in [3D Still Image] or [3D Sweep Panorama] mode with the shooting direction set to up or down, the image is played back horizontally on the TV.
- The beep sound is fixed to [Shutter].
- Do not connect the camera and equipment to be connected using output terminals. When the camera and TV are connected using output terminals, no video and sound are produced. Such a connection can also cause trouble of the camera and/or connected equipment.
- This function may not work properly with some TVs. For example, you may not be able to view a video on your TV, output in 3D mode or hear sound from the TV.
- Use an HDMI Cable with the HDMI logo.
- When connecting the camera to a TV, use an HDMI Cable that can be connected to the mini jack on the camera end and to the TV jack.
- Recording may automatically stop to protect the camera after a period of time when you shoot movies in the condition where the camera and TV are connected by an HDMI Cable (sold separately).

**Related Topic**
3D Viewing
Using MENU items (Shooting)

You can select the various shooting functions easily from the MENU button.

1. Press the ON/OFF (Power) button and set the camera to shooting mode.
2. Press the MENU button to display the Menu screen.

3. Select the desired menu item with ▲ / ▼ on the control wheel.

4. Select the desired item with ◀ / ▶ on the control wheel or by turning the control wheel.

5. Press the MENU button to close the Menu screen.
Movie shooting scene

You can select the movie shooting mode when shooting movies.

1. Set the mode dial to (Movie Mode).
2. MENU → (Movie shooting scene) → desired mode

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intelligent Auto)</td>
<td>Allows you to shoot movies with the settings adjusted automatically.</td>
</tr>
<tr>
<td>SCN (Scene Selection)</td>
<td>Allows you to shoot movies with preset settings according to the scene.</td>
</tr>
</tbody>
</table>

On Scene Recognition

Scene Recognition operates in Intelligent Auto mode. This function lets the camera automatically recognize the shooting conditions and shoot the image.

In Scene Recognition, the position of an icon displayed on the LCD screen is different depending on the circumstances. It depends on whether the camera recognizes a scene or condition.

If the camera recognizes a scene, icons and guides such as (Portrait), (Infant), (Twilight Portrait), (Twilight), (Backlight Portrait), (Backlight), (Landscape), (Macro), (Spotlight) or (Low Light) are displayed on the first line. If the camera recognizes a condition, icons such as (Tripod), (Move) or (Walk) are displayed on the second line. The camera may recognize both the scene and condition, or just one.

For details, see “Scene Recognition.”

Note

• (Walk) is recognized only when [Movie SteadyShot] is set to [Active] in movie mode.
Select a shooting mode when the mode dial is set to 3D (3D Shooting). For details on each mode, see “3D Functions.” [Details]

1. Set the mode dial to 3D (3D Shooting).
2. Select the desired mode.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3D Still Image</td>
<td>Shoots an image that can be played back as 3D on a 3D TV.</td>
</tr>
<tr>
<td>3D Sweep Panorama</td>
<td>Shoots a panorama image that can be played back stereoscopically on a 3D TV.</td>
</tr>
<tr>
<td>Sweep Multi Angle</td>
<td>Shoots a panorama image that can be played back as a stereoscopic image by tilting the camera to the right or left, and a panorama image that can be played back stereoscopically on a 3D TV.</td>
</tr>
</tbody>
</table>

Related Topic

- 3D Still Image
- 3D Sweep Panorama
- Sweep Multi Angle
Scene Selection

Allows you to shoot with preset settings according to the scene.

**For still images:**
1. Set the mode dial to **SCN**(Scene Selection).
2. Select the desired mode.

**For movies:**
1. Set the mode dial to **i** (Movie Mode).
2. MENU → **i** (Movie shooting scene) → **SCN**(Scene Selection) → • on the control wheel
3. Select the desired mode.

Scene Selection modes with an * mark are not available for **SCN**(Scene Selection) in [Movie shooting scene].

<table>
<thead>
<tr>
<th><strong>Scene Selection</strong></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Soft Skin)*</td>
<td>Allows you to shoot faces for smoothness.</td>
</tr>
<tr>
<td>(Soft Snap)</td>
<td>Allows you to shoot images with a softer atmosphere for portraits and flowers, etc.</td>
</tr>
<tr>
<td>(Anti Motion Blur)*</td>
<td>Allows you to shoot indoor shots without using the flash to reduce subject blur.</td>
</tr>
<tr>
<td>(Landscape)</td>
<td>Allows easy shooting of distant scenes by focusing in the distance. Shoots the clear sky and trees and flowers in vivid colors.</td>
</tr>
<tr>
<td>Feature</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>(Backlight Correction HDR)*</td>
<td>Allows you to shoot three images having different exposures to create a single image with a greater range of gradation. The camera combines the dark parts of an image taken with a bright exposure setting and the bright parts of an image taken with a dark exposure setting.</td>
</tr>
<tr>
<td>(Twilight Portrait)*</td>
<td>Allows you to shoot sharp images of people with the night view in the background without compromising the atmosphere.</td>
</tr>
<tr>
<td>(Twilight)</td>
<td>Allows you to shoot night scenes at far distance without losing the dark atmosphere of the surroundings.</td>
</tr>
<tr>
<td>(Hand-held Twilight)*</td>
<td>Allows you to shoot night scenes with less noise without using a tripod.</td>
</tr>
<tr>
<td>(High Sensitivity)</td>
<td>For still images, allows you to shoot images without a flash under low light conditions, reducing blur. For movies, allows you to record low light scenes with more brightness.</td>
</tr>
<tr>
<td></td>
<td>Allows you to shoot food arrangements in delicious and bright colors using Macro mode.</td>
</tr>
<tr>
<td>Mode</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>(Gourmet)*</td>
<td>Allows you to shoot images of your pet with the best settings.</td>
</tr>
<tr>
<td>(Pet)*</td>
<td>Allows you to shoot images with the proper settings for seaside or lakeside scenes.</td>
</tr>
<tr>
<td>(Beach)</td>
<td>Allows you to record clear images preventing sunken colors in snow scenes or other places where the whole screen appears white.</td>
</tr>
<tr>
<td>(Snow)</td>
<td>Allows you to record fireworks in all their splendor.</td>
</tr>
<tr>
<td>(Fireworks)</td>
<td>Allows you to shoot subjects with fast movements such as sports. While the shutter is pressed halfway, the movement of the subject is predicted and the focus will be adjusted.</td>
</tr>
</tbody>
</table>

**Notes**
- When you shoot images using (Twilight Portrait), (Twilight) or (Fireworks) mode, the shutter speed is slower and the images tend to blur. To prevent blurring, the use of a tripod is recommended.
You may not be able to set some functions or MENU items depending on the selected REC mode. For details, see “Functions not available in some REC modes” [Details] and “MENU items not available in some REC modes.” [Details]
Memory recall mode

Allows you to select a setting registered in advance when the mode dial is set to MR (Memory recall mode).

1. 

2. Press ◀ / ▶ on the control wheel or turn the control wheel to select the desired number.

Note

- Register shooting settings in advance using SET (Register Setting).

Related Topic

Memory recall mode
Register Setting
Easy Mode

On Scene Recognition

Shooting functions available in Easy Mode (Shooting)

Allows you to shoot still images using the minimum necessary functions. The text size increases and indicators become easier to see.

1. Set the mode dial to (Intelligent Auto).
2. MENU → EASY (Easy Mode) →  on the control wheel
3. [OK] →  
4. Shoot with the shutter button.
   - To end Easy Mode, MENU → [Exit Easy Mode]

On Easy Mode (Viewing)

When you press the (Playback) button in Easy Mode, the playback screen text becomes larger and easier to see.

Delete currently displayed image:

(Delete) button → [OK] →  on the control wheel

Select between [1 image] and [All]:

MENU → [Delete] →  on the control wheel → desired mode →  

You can delete currently displayed image with [1 image] and delete all images in the selected date range or internal memory (if selected) with [All].

Use GPS function (DSC-HX9V only):

You can select the setting for [GPS setting] on the MENU screen in Easy Mode.

For details on the function, see [GPS setting]. [Details]

MENU → [GPS setting] → desired mode →  

Select between [On] and [Off] mode.
- [View Mode] is set to [Date View] when using a memory card.

Note

- The battery power may decrease faster because the screen brightness increases automatically.

On Scene Recognition

Scene Recognition operates in Easy Mode. This function lets the camera automatically recognize the shooting conditions and shoot the image.
In Scene Recognition, the position of an icon displayed on the LCD screen is different depending on the circumstances. It depends on whether the camera recognizes a scene or condition. If the camera recognizes a scene, icons such as (Portrait), (Infant), (Twilight Portrait), (Twilight), (Backlight Portrait), (Backlight), (Landscape), (Macro), (Spotlight) or (Low Light) are displayed on the first line. If the camera recognizes a condition, icons such as (Tripod), (Move) or (Walk) are displayed on the second line. The camera may recognize both the scene and condition, or just one. For details, see “Scene Recognition.” [Details]

### Shooting functions available in Easy Mode (Shooting)

<table>
<thead>
<tr>
<th>MOVIE (Movie) button</th>
<th>Allows you to record movies with their audio.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Still Image Size</strong></td>
<td>MENU → [Still Image Size] →  ● on the control wheel → desired mode →  ●  Select between [Large] or [Small] size.</td>
</tr>
<tr>
<td><strong>GPS setting (DSC-HX9V only)</strong></td>
<td>MENU → [GPS setting] →  ● on the control wheel → desired mode →  ●  Select between [On] or [Off] mode.</td>
</tr>
<tr>
<td><strong>Self-Timer</strong></td>
<td>〇 on the control wheel → desired mode  Select between [On] or [Off] mode.</td>
</tr>
<tr>
<td><strong>Flash</strong></td>
<td>● on the control wheel → desired mode  Select between [Auto] or [Off] mode.</td>
</tr>
</tbody>
</table>

**Related Topic**
- Scene Recognition
- GPS setting (DSC-HX9V only)

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Defocus Effect

Sets the level of background defocus effect when shooting in Background Defocus mode.

1. MENU → \(\text{Mid}\) (Defocus Effect) → desired mode

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lo (Low)</td>
<td>Adds a slight Background Defocus effect.</td>
</tr>
<tr>
<td>Mid (Mid)</td>
<td>Adds an average Background Defocus effect.</td>
</tr>
<tr>
<td>Hi (High)</td>
<td>Adds a strong Background Defocus effect.</td>
</tr>
</tbody>
</table>

Related Topic

Background Defocus
Still Image Size/Panorama Image Size

- Image size when shooting still images
- 3D Still Image Size
- Image size in Easy Mode
- Image size when shooting Sweep Panorama

The image size determines the size of the image file that is recorded when you take an image. The larger the image size, the more detail will be reproduced when the image is printed on large-format paper. The smaller the image size, the more images can be recorded.

💡 On “image quality” and “image size”
A digital image is made up of a collection of small dots called pixels. If it contains a large number of pixels (A), the image becomes large, it takes up more memory, and the image is displayed in fine detail. “Image size” is shown by the number of pixels. Although you cannot see the differences on the screen of the camera, the fine detail and data processing time differ when the image is printed or displayed on a computer screen.

1. **Image size: 16M**
   4608 pixels × 3456 pixels = 15,925,248 pixels

2. **Image size: VGA**
   640 pixels × 480 pixels = 307,200 pixels

Many pixels (Fine image quality and large file size)
### Image size when shooting still images

1. MENU → [Still Image Size] → desired size

<table>
<thead>
<tr>
<th>Image size</th>
<th>Usage guidelines</th>
<th>No. of images</th>
<th>Printing</th>
</tr>
</thead>
<tbody>
<tr>
<td>(4608×3456)</td>
<td>For prints up to A3+ size</td>
<td>Less</td>
<td>Fine</td>
</tr>
<tr>
<td>(3648×2736)</td>
<td>For prints up to A3 size</td>
<td>More</td>
<td>Rough</td>
</tr>
<tr>
<td>(2592×1944)</td>
<td>For prints from 10×15 cm up to A4 size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(640×480)</td>
<td>For e-mail attachments</td>
<td>More</td>
<td>Rough</td>
</tr>
<tr>
<td>(4608×2592)</td>
<td>For viewing on a high-definition TV and printing up to A3 size</td>
<td>Less</td>
<td>Fine</td>
</tr>
<tr>
<td>(1920×1080)</td>
<td>For viewing on a high-definition TV</td>
<td>More</td>
<td>Rough</td>
</tr>
</tbody>
</table>

### 3D Still Image Size

1. MENU → [Still Image Size] → desired size

<table>
<thead>
<tr>
<th>Image size</th>
<th>Usage guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>(4608×3456)</td>
<td>For prints up to A3+ size</td>
</tr>
<tr>
<td>(4608×2592)</td>
<td>For viewing on a high-definition TV and printing up to A3 size</td>
</tr>
</tbody>
</table>

**Note**
- When you print still images recorded at a 16:9 aspect ratio or panorama images, both edges may be cut off.

### Image size in Easy Mode

1. MENU → [Still Image Size] → desired size
### Image size when shooting Sweep Panorama

1. MENU → (Panorama Image Size) → desired size

<table>
<thead>
<tr>
<th>Mode</th>
<th>Dimensions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:9 (Standard)</td>
<td>(Horizontal: 1920 × 1080) (Vertical: 3424 × 1920)</td>
<td>Shoots images using standard size.</td>
</tr>
<tr>
<td>16:9 (Wide)</td>
<td>(Horizontal: 7152 × 1080) (Vertical: 4912 × 1920)</td>
<td>Shoots images using wide size.</td>
</tr>
<tr>
<td>16:9 (High Resolution)</td>
<td>(Horizontal: 10480 × 4096)</td>
<td>Shoots high-resolution panorama in 43 megapixel size.</td>
</tr>
</tbody>
</table>

**Note**
- If you cannot print panoramic images recorded in [High Resolution] size due to the large size, use the resize function in the supplied software “PMB”. “PMB” allows you to resize panoramic images recorded in [High Resolution] to 50% etc.
Movie Quality/Movie Size

The larger the size of the movie image, the higher the image quality. The higher the amount of data used per second (average bit-rate), the higher the image quality.

Select a movie recording format by pressing MENU ➔ (Settings) ➔ (Shooting Settings) ➔ [Movie format] in shooting mode. [Details]

If [Movie format] is [AVCHD 60i/60p] (for 1080 60i-compliant devices) or [AVCHD 50i/50p] (for 1080 50i-compliant devices), select the movie size from [Movie Quality]. If [Movie format] is [MP4], select from [Movie Size].

Movie quality (recording format: [AVCHD 60i/60p] (for 1080 60i-compliant devices) or [AVCHD 50i/50p] (for 1080 50i-compliant devices))

1. MENU ➔ [Movie Quality] ➔ desired mode
Movies shot in this format are recorded in AVCHD format, at approximately 60 fields/sec (for 1080 60i-compliant devices) or 50 fields/sec (for 1080 50i-compliant devices), in interlaced mode, with Dolby Digital audio.

Otherwise, movies shot in this format are recorded in AVCHD format, at approximately 60 frames/sec (for 1080 60i-compliant devices) or 50 frames/sec (for 1080 50i-compliant devices), in progressive mode, with Dolby Digital audio.

<table>
<thead>
<tr>
<th>Movie quality</th>
<th>Average bit-rate</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVC HD 28M (PS)</td>
<td>28 Mbps</td>
<td>Shoots at the highest picture quality of 1920×1080 (60p/50p) size</td>
</tr>
<tr>
<td>AVC HD 24M (FX)</td>
<td>24 Mbps</td>
<td>Shoots at the highest picture quality of 1920×1080 (60i/50i) size</td>
</tr>
<tr>
<td>AVC HD 17M (FH)</td>
<td>17 Mbps</td>
<td>Shoots at a high picture quality of 1920×1080 (60i/50i) size</td>
</tr>
<tr>
<td>AVC HD 9M (HQ)</td>
<td>9 Mbps</td>
<td>Shoots at a standard picture quality of 1440×1080 (60i/50i) size</td>
</tr>
</tbody>
</table>

Movie image size (recording format: MP4)

1. MENU ➔ [Movie Size] ➔ desired size
Movies shot with this camera are recorded in MPEG-4 format, at approximately 30 frames/sec (for 1080 60i-compatible devices) or approximately 25 frames/sec (for 1080 50i-compatible devices), in progressive mode, with AAC audio, mp4 format.

<table>
<thead>
<tr>
<th>Movie image size</th>
<th>Average bit-rate</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP4 12M</td>
<td>12 Mbps</td>
<td>Shoots at 1440×1080 size</td>
</tr>
<tr>
<td>MP4 6M</td>
<td>6 Mbps</td>
<td>Shoots at 1280×720 size</td>
</tr>
<tr>
<td>MP4 3M</td>
<td>3 Mbps</td>
<td>Shoots at VGA size</td>
</tr>
</tbody>
</table>
Notes

- A telephoto image is produced when [MP4 3M] image size is selected.
- Movies shot with the image quality set to [AVC HD 28M (PS)] cannot be recorded to a disc in the same quality. Convert the image using "PMB" before saving to a disc.
- DVD or AVCHD discs cannot be created from movies recorded in [AVC HD 24M (FX)] quality. Save [AVC HD 24M (FX)] quality movies to Blu-ray discs.
You can adjust the exposure manually in 1/3 EV steps in a range of –2.0 EV to +2.0 EV.

1. MENU → _EV_ (EV) → desired EV setting

### Adjusting the exposure for better looking images

- **A**: Overexposure (too much light)
- **B**: Correct exposure
- **C**: Underexposure (too little light)

**Notes**
- If you shoot a subject in extremely bright or dark conditions, or when you use the flash, the exposure adjustment may not be effective.
- You may not be able to set some MENU items depending on the selected REC mode. For details, see “MENU items not available in some REC modes.” [Details]
ISO

Adjusts the luminous sensitivity when the camera is set to Manual Exposure Shooting, Program Auto or (Advanced Sports Shooting) in Scene Selection. Adjusts the sensitivity using the control wheel in Manual Exposure Shooting Mode.

1. MENU → ISO (ISO) → desired mode

<table>
<thead>
<tr>
<th>ISO AUTO (Auto)</th>
<th>Sets the ISO sensitivity automatically.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO AUTO 100-3200</td>
<td>You can reduce image blurring in dark locations or with moving subjects by increasing the ISO sensitivity (select a larger number).</td>
</tr>
</tbody>
</table>

**Adjusting ISO Sensitivity (Recommended Exposure Index)**

ISO sensitivity is a speed rating for recording media that incorporates an image sensor that receives light. Even when the exposure is the same, images differ depending on the ISO sensitivity.

**High ISO sensitivity**

Records a bright image even in dark locations while increasing shutter speed to reduce blur. However, the image tends to become noisy.

**Low ISO sensitivity**

Records a smoother image. However, when the exposure is insufficient, the image may become darker.

**Hints for preventing blur**

Even though the camera is steady, the subject moves during the exposure and is captured blurred when the shutter button is pressed. Camera shake is reduced automatically, however, the function does not effectively reduce subject blur. Subject blur occurs frequently under low-light or slow shutter speed conditions. In such case, shoot with the below tips in mind.
• Select a higher ISO sensitivity so that the shutter speed is faster.
• Select ISO (High Sensitivity) mode in Scene Selection.

Notes
• You cannot select [Auto] when the camera is set to Manual Exposure Shooting. [ISO 100] is the default setting.
• [ISO Auto], [ISO 100] – [ISO 800] are available in burst shooting mode or bracket shooting mode.
• You may not be able to set some MENU items depending on the selected REC mode. For details, see “MENU items not available in some REC modes.” [Details]
White Balance

To capture the basic white color in [One Push Set] mode

Adjusts color tones according to the surrounding light conditions. Use this function if image color appears unnatural.

1. MENU → (White Balance) → desired mode

<table>
<thead>
<tr>
<th>WB</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Auto)</td>
<td>Adjusts the white balance automatically so that the colors appear natural.</td>
</tr>
<tr>
<td>(Daylight)</td>
<td>Adjusts for outdoors conditions on a fine day, evening views, night scenes,</td>
</tr>
<tr>
<td></td>
<td>neon signs, fireworks, etc.</td>
</tr>
<tr>
<td>(Cloudy)</td>
<td>Adjusts for a cloudy sky or a shady location.</td>
</tr>
<tr>
<td>(Fluorescent White Balance 1)</td>
<td>[Fluorescent White Balance 1]: Adjusts for white fluorescent lighting.</td>
</tr>
<tr>
<td>(Fluorescent White Balance 2)</td>
<td>[Fluorescent White Balance 2]: Adjusts for natural white fluorescent</td>
</tr>
<tr>
<td></td>
<td>lighting.</td>
</tr>
<tr>
<td>(Fluorescent White Balance 3)</td>
<td>[Fluorescent White Balance 3]: Adjusts for day white fluorescent lighting.</td>
</tr>
<tr>
<td>(Incandescent)</td>
<td>Adjusts for places under incandescent lamp, or under bright lighting, such</td>
</tr>
<tr>
<td></td>
<td>as in a photo studio.</td>
</tr>
<tr>
<td>(Flash)</td>
<td>Adjusts for the flash conditions.</td>
</tr>
<tr>
<td>(One Push)</td>
<td>Adjusts the white balance depending on the light source. The white color</td>
</tr>
<tr>
<td></td>
<td>membrorized in [One Push Set] mode becomes the basic white color. Use this</td>
</tr>
<tr>
<td></td>
<td>mode when [Auto] and other settings don’t provide accurate colors.</td>
</tr>
<tr>
<td>(One Push Set)</td>
<td>Memorizes the basic white color which will be used in [One Push] mode.</td>
</tr>
</tbody>
</table>

Effects of lighting conditions

The apparent color of the subject is affected by the lighting conditions. The color tones are adjusted automatically, but you can adjust color tones manually using the White Balance function.
Cloudy (Bluish)

Fluorescent (Green-tinged)

Incandescent (Reddish)

**Notes**

- Under fluorescent lights that flicker, the white balance function may not work correctly even though you select [Fluorescent White Balance 1], [Fluorescent White Balance 2] or [Fluorescent White Balance 3].
- When shooting with a flash in other than [Flash] mode, [White Balance] is set to [Auto].
- When [Flash] is [On] or [Slow Synchro], the white balance can only be adjusted to [Auto], [Flash], [One Push] or [One Push Set].
- [One Push Set] cannot be selected while charging the flash.
- You may not be able to set some MENU items depending on the selected REC mode. For details, see “MENU items not available in some REC modes.” [Details]

---

**To capture the basic white color in [One Push Set] mode**

1. Frame a white object such as a piece of paper filling the screen under the same lighting conditions as you will shoot the subject.
2. MENU → **WB** (White Balance) → [One Push Set] → ● on the control wheel
   - The screen momentarily turns black, and when the white balance has been adjusted and stored in the memory, the recording screen is displayed again.

**Notes**

- If the indicator flashes while shooting, the white balance is either not set or cannot be set. Use automatic white balance.
- Do not shake or strike the camera while [One Push Set] is in progress.
- When flash mode is set to [On] or [Slow Synchro], the white balance is adjusted to the condition with the flash emitting.
**White Balance Shift**

Allows you to use the selected white balance as the base value and apply the set correction value to change the color and record an image.

1. **MENU** → **WB±** (White Balance Shift) → desired mode
   - When using for the first time, set the correction value to [Shift Amount Adjust].

<table>
<thead>
<tr>
<th>WB± Off (Off)</th>
<th>Does not use [White Balance Shift].</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB± On (On)</td>
<td>Uses [White Balance Shift].</td>
</tr>
<tr>
<td>WB± Set (Shift Amount Adjust)</td>
<td>Sets the correction value. If you set a correction value, [White Balance Shift] will be set to [On] automatically.</td>
</tr>
</tbody>
</table>

### Set the White Balance Shift correction value

1. **MENU** → **WB±** (White Balance Shift) → [Shift Amount Adjust]
   - Set the correction value using ▲ / ▼ / ◀ / ▶ on the control wheel.

<table>
<thead>
<tr>
<th>Control wheel</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>▲ / ▼</td>
<td>G (Green) and M (Magenta) provide fine adjustments such as those achieved with a color correction (CC) filter.</td>
</tr>
<tr>
<td>◀ / ▶</td>
<td>B (Blue) and A (Amber) provide fine adjustments in the color temperature.</td>
</tr>
</tbody>
</table>

- If you set the [White Balance Shift] to [On] for the previously set correction value, it can be recalled.

**Notes**
- With [One Push Set], the setting becomes [Off].
- You may not be able to set some MENU items depending on the selected REC mode. For details, see "MENU items not available in some REC modes." [Details]
Focus

- **Using Flexible Spot AF**
- **Using Semi Manual/Manual Focus**

You can change the focus method. Use the menu when it is difficult to get the proper focus in auto focus mode.

AF stands for “Auto Focus,” a function that adjusts the focus automatically.

The selected AF range finder frame appears on the screen.

1. **MENU** → **(Focus)** → desired mode

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Multi AF)</td>
<td>Focuses on a subject in all ranges of the finder frame automatically. When you press the shutter button halfway down in still image shooting mode, a green frame is displayed around the area that is in focus.</td>
</tr>
<tr>
<td>(Center AF)</td>
<td>Focuses on a subject in the center of the finder frame automatically. Using the AF lock function together, you can compose the image the way you want.</td>
</tr>
<tr>
<td>(Flexible Spot AF)</td>
<td>Allows you to move the AF range finder frame to the desired point on the LCD screen and focus on an extremely small subject in a narrow area.</td>
</tr>
<tr>
<td>(Semi Manual)</td>
<td>Automatically and quickly focuses on the area around a set distance. Focuses on a subject in all ranges of the finder frame automatically. This mode is useful when repeatedly shooting a subject at the same distance.</td>
</tr>
<tr>
<td>(Manual)</td>
<td>Allows you to focus on the subject manually.</td>
</tr>
</tbody>
</table>
Notes

- When you use [Digital Zoom] or [AF Illuminator], the AF range finder frame is disabled and appears in a dotted line. In this case, the camera works to focus on the subjects at the center of the screen.
- When the focus mode is set to other than [Multi AF], you cannot use the Face Detection function.
- If Tracking focus is activated, the camera focuses with priority on the subject to be tracked.
- You may not be able to set some MENU items depending on the selected REC mode. For details, see “MENU items not available in some REC modes.” [Details]

Using Flexible Spot AF

This is useful when you shoot using a tripod and the subject not in the center of the frame.

A: AF range finder frame (yellow: adjustable/white: fixed)

1. Use the control wheel to adjust the position of the AF range finder frame where you want to focus, then press .

To reset the setting, press in the center again.

Note

- Once you change the focus method, the AF range finder frame you set up is cleared.

Using Semi Manual/Manual Focus

This is useful when it is difficult to get the proper focus, such as shooting images through a window.

A: Manual Focus bar
Focus range 5 cm (2 inches) to ∞ (W), 1 m 20 cm (3 ft 11 1/4 inches) to ∞ (T)

1. Use the control wheel to set the desired focus distance on the manual focus bar, then press .
   To correct the setting, press  again. Use ▲ / ▼ / ◄ / ► on the control wheel to set the position.
   You can turn the control wheel to make rough adjustments.

**Notes**
- If the focus distance is set very close, the image may show dust or fingerprints on the lens. Wipe the lens with a soft cloth, etc.
- The focus distance range is limited according to the zoom scaling.
- Once you change the focus method, the distance of the Manual Focus you set up is cleared.

**Related Topic**
Tracking focus
**Metering Mode**

Selects the metering mode that sets which part of the subject to measure to determine the exposure.

1. MENU → (Metering Mode) → desired mode

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Multi)</td>
<td>Divides into multiple regions and measures each region. The camera determines a well-balanced exposure (Multi-pattern metering).</td>
</tr>
<tr>
<td>(Center)</td>
<td>Measures the center of the image, and determines the exposure based on the brightness of the subject there (Center-weighted metering).</td>
</tr>
<tr>
<td>(Spot)</td>
<td>Align the spot metering cross hairs (A) on the subject to meter one part of the subject (Spot metering). This function is useful when the subject is backlit or when there is strong contrast between the subject and the background.</td>
</tr>
</tbody>
</table>

**Notes**
- If you set [Metering Mode] to other than [Multi], the Face Detection function cannot be used.
- You may not be able to set some MENU items depending on the selected REC mode. For details, see “MENU items not available in some REC modes.” [Details]
Burst Shooting Interval

Selects the number of images taken per second for Burst shooting.

1. MENU →  (Burst Shooting Interval) → desired mode

- **Hi (High)**: Shoots up to 10 images per second in succession.
- **Lo (Low)**: Shoots up to 2 images per second in succession.

**Note**
- In slow shutter speed conditions, the burst of shots per second may be decreased.

Related Topic

Burst/Bracket
Bracket Setting

You can set the type of shooting when [Burst Settings] is set to [Bracket]. In the bracket shooting mode, you can record a series of 3 images with the setting changed. You can select the most suitable image afterwards.

1. MENU → \( \mathcal{B} \) (Bracket Setting) → desired mode

<table>
<thead>
<tr>
<th>Bracket Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \pm 0.3 ) (EXP)</td>
<td>Records a series of 3 images with the exposure shifted in the following order: standard, dark, and bright. The larger the bracket step value, the larger the shift of the exposure value.</td>
</tr>
<tr>
<td>( \pm 0.7 ) (EXP)</td>
<td>Records a series of 3 images with the white balance shifted in the following order: current color tone, toward blue, and toward red. When you set [White Balance] to other than [Auto], the color tone is shifted based on the selected white balance.</td>
</tr>
<tr>
<td>( \pm 1.0 ) (EXP)</td>
<td></td>
</tr>
</tbody>
</table>

**Notes**
- You cannot select [White Balance] when the mode dial is set to SCN (Scene Selection).
- You may not be able to set some functions or MENU items depending on the selected REC mode. For details, see “Functions not available in some REC modes” [Details] and “MENU items not available in some REC modes.” [Details]
Scene Recognition

Advanced mode

The camera automatically detects shooting conditions, and then takes the shot. When a motion is detected, the ISO sensitivity is increased according to the movement to reduce subject blur. When the camera is set to Intelligent Auto mode, you can select [Advanced] mode, in which the camera automatically shoots two images.

In Scene Recognition, the position of an icon displayed on the LCD screen is different depending on the circumstances. It depends on whether the camera recognizes a scene or condition. If the camera recognizes a scene, icons and guides such as (Portrait), (Infant), (Twilight Portrait), (Twilight), (Backlight Portrait), (Backlight), (Landscape), (Macro), (Spotlight) or (Low Light) are displayed on the first line. If the camera recognizes a condition, icons such as (Tripod) or (Move) are displayed on the second line. The camera may recognize both the scene and condition, or just one.

1. Set the mode dial to (Intelligent Auto).
2. MENU → SCN (Scene Recognition)

<table>
<thead>
<tr>
<th>SCN (Auto)</th>
<th>SCN+ (Advanced)</th>
</tr>
</thead>
<tbody>
<tr>
<td>When the camera recognizes the scene, it switches to the optimal settings and shoots the image.</td>
<td>When the camera recognizes the scene, it switches to the optimal settings. When the camera recognizes (Twilight), (Twilight Portrait), (Backlight) or (Backlight Portrait), it automatically changes the setting and shoots another image.</td>
</tr>
<tr>
<td></td>
<td>• When you shoot two images consecutively, the + mark on the SCN+ icon will turn green.</td>
</tr>
<tr>
<td></td>
<td>• When two frames are shot, the two images are displayed side by side immediately after shooting.</td>
</tr>
<tr>
<td></td>
<td>• When [Anti Blink] is displayed, 2 images are taken automatically and the image with the eyes open is selected automatically. [Details]</td>
</tr>
</tbody>
</table>

Notes

- Scene Recognition function does not operate when you shoot images using digital zoom.
- The available flash settings are [Auto] and [Off].
- These scenes may not be recognized depending on the situation.
- In Tracking focus mode, (Portrait), (Twilight Portrait) or (Backlight Portrait) are not recognized.
- If the environment causes vibrations to be transferred to the camera when (Tripod) and (Twilight) conditions are recognized at the same time, (Tripod) condition may not be
Sometimes a slow shutter results when (Tripod) and (Twilight) conditions are recognized at the same time. Keep the camera still during shooting.

When shooting movies, Advanced mode is not available.

You may not be able to set some MENU items depending on the selected REC mode. For details, see “MENU items not available in some REC modes.” [Details]

---

### Advanced mode

In [Advanced] mode, the camera shoots two images consecutively with different settings as follows when it recognizes (Twilight), (Twilight Portrait), (Backlight) or (Backlight Portrait) scenes, which tend to blur or when (Twilight) and (Tripod) conditions are recognized at the same time. You can select the desired image from the two images shot.

<table>
<thead>
<tr>
<th>First Image*</th>
<th>Second Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>龙头企业</td>
<td>Shoots in Slow Synchro</td>
</tr>
<tr>
<td>龙头企业</td>
<td>Shoots in Slow Synchro with the face which the flash strobes on as guide</td>
</tr>
<tr>
<td>龙头企业</td>
<td>Shoots in Slow Synchro</td>
</tr>
<tr>
<td>龙头企业</td>
<td>Shoots with the face which the flash strobes on as guide</td>
</tr>
</tbody>
</table>

* When [Flash] is set to [Auto].

**What is the Anti Blink function?**

When set to [Advanced], the camera automatically shoots two images consecutively* when it recognizes (Portrait) or (Infant). The camera will select, display, and record the image which the eyes are not blinked automatically. If the eyes are closed in both images, the message “Blinked eye detected” is displayed.

* except when the flash strobes/when the shutter speed is slow.
**Soft Skin Effect**

When the Face Detection function is activated, sets whether to use the Soft Skin effect, and the effect level.

1. **MENU → 📷 (Soft Skin Effect) → desired mode**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Does not use the Soft Skin Effect.</td>
</tr>
<tr>
<td>Lo</td>
<td>Adds light Soft Skin Effect.</td>
</tr>
<tr>
<td>Mid</td>
<td>Adds moderate Soft Skin Effect.</td>
</tr>
<tr>
<td>Hi</td>
<td>Adds strong Soft Skin Effect.</td>
</tr>
</tbody>
</table>

**Notes**
- The [Soft Skin Effect] may not be visible depending on the subject.
- You may not be able to set some MENU items depending on the selected REC mode. For details, see “MENU items not available in some REC modes.” [Details]
Smile Shutter

When the camera detects a smile, the shutter is released automatically.

1. MENU → (Smile Shutter) → [On]
2. Wait for a smile to be detected.

   When a smile is detected and the smile level exceeds the point on the indicator, the camera records images automatically.
   - If you press the shutter button during Smile Shutter, the camera shoots the image, and then returns to Smile Shutter mode.

| Off (Off) | Does not use the [Smile Shutter] function. |
| On (On)   | Uses the [Smile Shutter] function.        |

Tips for better capturing of smiles

1. Do not cover the eyes with the bangs. Do not obscure the face by hat, masks, sunglasses, etc.
2. Try to orient the face in front of the camera and be as level as possible. Keep the eyes narrowed.
3. Give a clear smile with an open mouth. The smile is easier to detect when the teeth are shown.
   - The shutter operates when any person whose face is being detected smiles.

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You can select or register the priority subject for face detection with [Face Detection]. When the selected face is registered in the camera memory, Smile Detection is performed only for that face. [Details]

If a smile is not detected, select MENU → [Smile Detection Sensitivity], then set the value to [Slight Smile].

Notes

- Shooting using the Smile Shutter ends automatically when either the memory card or internal memory becomes full.
- Smiles may not be detected correctly depending on the conditions.
- You cannot use the digital zoom function.
- When shooting in Manual Exposure Shooting mode with Smile Shutter [On], on the control wheel is used for Tracking focus. Settings such as the shutter speed, aperture (F value), focus and ISO cannot be adjusted.
- You may not be able to set some MENU items depending on the selected REC mode. For details, see “MENU items not available in some REC modes.” [Details]

Related Topic

Smile Detection Sensitivity
Smile Detection Sensitivity

Sets the sensitivity of the Smile Shutter function for detecting smiles.

1. MENU → 😊 (Smile Detection Sensitivity) → desired mode

<table>
<thead>
<tr>
<th>Sensitivity</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>😊 (Big Smile)</td>
<td>Detects a big smile.</td>
</tr>
<tr>
<td>🧘 (Normal Smile)</td>
<td>Detects a normal smile.</td>
</tr>
<tr>
<td>😌 (Slight Smile)</td>
<td>Detects even a slight smile.</td>
</tr>
</tbody>
</table>

Notes
- Smiles may not be detected correctly depending on the conditions.
- You may not be able to set some MENU items depending on the selected REC mode. For details, see “MENU items not available in some REC modes.” [Details]

Related Topic
Smile Shutter
Face Detection

When the Face Detection function is used, the camera detects the faces of your subjects and adjusts the focus, flash, exposure, white balance and red-eye reduction settings automatically.

When the camera detects more than one subject, the camera will judge which is the main subject and set focus by priority. The frame for which the focus is set will turn green by pressing the shutter button halfway down.

1. **MENU →** [Face Detection] → desired mode

<table>
<thead>
<tr>
<th>Mode</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Off)</td>
<td>Cannot use Face Detection.</td>
</tr>
<tr>
<td>(Auto)</td>
<td>Selects the face the camera is to automatically focus on.</td>
</tr>
<tr>
<td>(Child Priority)</td>
<td>Detects and shoots with priority on child’s face.</td>
</tr>
<tr>
<td>(Adult Priority)</td>
<td>Detects and shoots with priority on adult's face.</td>
</tr>
</tbody>
</table>

**Notes**
- [Off] is not available when [Self-Timer] is set to [Self-portrait One Person] or [Self-portrait Two People].
- You can select [Face Detection] only when the focus mode is set to [Multi AF] and the metering mode is set to [Multi].
- The Face Detection function does not work when using the digital zoom.
- Up to 8 faces of your subjects can be detected.
- Adults and children may not be recognized correctly depending on the conditions.
- During Smile Shutter shooting, [Face Detection] is automatically set to [Auto] even if it is set to [Off].
- You may not be able to set some MENU items depending on the selected REC mode. For details, see “MENU items not available in some REC modes.” [Details]

**Related Topic**

Tracking focus
## Color Mode

You can change the vividness of the image, and use special effects.

1. **MENU → △ (Color Mode) → desired mode**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔  (Standard)</td>
<td>Set the image to standard color.</td>
</tr>
<tr>
<td>☓ + (Vivid)</td>
<td>Set the image to bright and deep color.</td>
</tr>
<tr>
<td>☓ + (Real)</td>
<td>Set the image similar to real color.</td>
</tr>
<tr>
<td>☓ + (Sepia)</td>
<td>Set the image to sepia color.</td>
</tr>
<tr>
<td>☓ + (B &amp; W)</td>
<td>Set the image to black and white.</td>
</tr>
</tbody>
</table>
Note

- You may not be able to set some MENU items depending on the selected REC mode. For details, see "MENU items not available in some REC modes." [Details]
Color Saturation

Adjusts the vividness (color saturation) of the image.

1. **MENU** → [Color Saturation] → desired mode

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-)</td>
<td>Products muted colors.</td>
</tr>
<tr>
<td>(Standard)</td>
<td></td>
</tr>
<tr>
<td>(+)</td>
<td>Products bright colors.</td>
</tr>
</tbody>
</table>

**Note**

- You may not be able to set some MENU items depending on the selected REC mode. For details, see “MENU items not available in some REC modes.” [Details]
Contrast

Adjusts the contrast of the image.

1. MENU → [Contrast] → desired mode

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ STD (Standard)</td>
<td>Reduces the contrast.</td>
</tr>
<tr>
<td>☑ + (+)</td>
<td>Enhances the contrast.</td>
</tr>
</tbody>
</table>

**Note**

- You may not be able to set some MENU items depending on the selected REC mode. For details, see “MENU items not available in some REC modes.” [Details]
Sharpness

Adjusts the sharpness of the image.

1. MENU → [Sharpness] → desired mode

<table>
<thead>
<tr>
<th>Setting</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] (-)</td>
<td>Softens the image.</td>
</tr>
<tr>
<td>[ ] (Standard)</td>
<td></td>
</tr>
<tr>
<td>(+)</td>
<td>Sharpens the image.</td>
</tr>
</tbody>
</table>

**Note**

- You may not be able to set some MENU items depending on the selected REC mode. For details, see “MENU items not available in some REC modes.” [Details]
Anti Blink

When Scene Selection is set to (Soft Skin) or (Soft Snap) and the subject blinks while you are shooting an image, the camera automatically shoots two images consecutively. The camera will select, display and record the image which the eyes are not blinked automatically.

1. MENU → \[\text{Anti Blink} \] → desired mode

<table>
<thead>
<tr>
<th>[\text{Anti Blink} ]</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Auto)</td>
<td>When Face Detection is active, the Anti Blink function operates so that images with the subject’s eyes open are recorded.</td>
</tr>
<tr>
<td>(Off)</td>
<td>Does not use the Anti Blink function.</td>
</tr>
</tbody>
</table>

Notes

- Anti Blink does not function in the following situations:
  - When using the flash
  - During burst shooting
  - When the Face Detection function does not work
  - When the Smile Shutter function is activated
- Sometimes the Anti Blink function does not work depending on the situation.
- When the Anti Blink function is set to [Auto] but only images with the subject’s eyes closed are recorded, the message “Blinked eye detected” is displayed on the LCD screen. Shoot again as necessary.

Related Topic

Scene Selection
Movie SteadyShot

The strength of the SteadyShot effect when shooting movies can be adjusted.

1. MENU → (Movie SteadyShot) → desired mode

| (Standard) | Provides the SteadyShot effect under stable recording conditions. |
| (Active)   | Provides a more powerful SteadyShot effect.                    |

**Note**
- If you change the setting for [Movie SteadyShot], the angle of view will change.

**Related Topic**
Shooting movies
Position Information (DSC-HX9V only)

The GPS triangulating status can be checked. Set the camera to triangulate when the position information is being displayed.

1. MENU → (Position Information) → on the control wheel

The position information is displayed on your camera.

GPS indicators
The indicator (A) changes according to the strength of GPS signal reception when GPS is activated.

<table>
<thead>
<tr>
<th>GPS indicators</th>
<th>Triangulating status</th>
<th>GPS reception status</th>
</tr>
</thead>
<tbody>
<tr>
<td>No indicator</td>
<td>Off</td>
<td>[GPS setting] is set to [Off] or an error occurred.</td>
</tr>
<tr>
<td>No GPS signal</td>
<td>Difficult</td>
<td>Your camera cannot find a GPS signal, therefore, it cannot acquire the location information. Use your camera in an open area.</td>
</tr>
<tr>
<td>Searching</td>
<td>Searching</td>
<td>Searching for GPS satellites. It may take several minutes to start triangulating.</td>
</tr>
<tr>
<td>Triangulating</td>
<td>Triangulating</td>
<td>Your camera is receiving a GPS signal, and can acquire location information. Latitude and longitude (B) are displayed when triangulating.</td>
</tr>
</tbody>
</table>

Satellite and triangulating indicators
The satellite’s position can be checked on the position information display (C). The satellite information acquisition status is displayed on the triangulating indicator (D). The triangulating indicator turns green when triangulation is successfully completed.

Notes
- Even when the camera acquires information from satellites, triangulation may take time or fail according to the time or place.
- Do not cover the GPS sensor with your finger when searching for GPS satellites or when triangulating. This decreases the sensitivity of the GPS sensor and triangulation may fail.
Related Topic
GPS setting (DSC-HX9V only)
GPS (DSC-HX9V only)
Register Setting

Items that can be registered
To recall registered settings

Allows you to register up to 3 commonly-used modes or camera settings in the camera. You can recall the settings using MR (Memory recall mode).

1. Set the camera to the setting you want to register.

2. MENU → MR SET (Register Setting) → desired number → [OK] → ● on the control wheel

Note
- When correcting settings, follow steps 1 – 2 again.

Items that can be registered

The following shooting settings can be registered.
- Shooting modes set using the mode dial (< P/M/A/S>/<DISPO >)
- Functions set using the control wheel ( )
- CUSTOM (Custom) button
- MENU items (Shooting)
- Zoom scale

To recall registered settings

1. Set the mode dial to MR (Memory recall mode).

2. Press ◀ / ▶ on the control wheel or turn the control wheel to select the desired number → ●

Notes
- If you set MR (Memory recall mode) after completing the shooting settings, the registered settings are given priority and the original settings may become invalid. Check the indicators on the screen before shooting.
- You may not be able to set some MENU items depending on the selected REC mode. For details, see “MENU items not available in some REC modes.” [Details]
In-Camera Guide

This camera contains an internal function guide. This allows you to search the camera's functions according to your needs. You can use the selected function after reading the guide.

1. MENU → ? (In-Camera Guide)
2. Select a search method from [In-Camera Guide].

<table>
<thead>
<tr>
<th>Search method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoot/ playback guide</td>
<td>Search for various operation functions in shooting/viewing mode.</td>
</tr>
<tr>
<td>Icon guide</td>
<td>Search the function and meaning of displayed icons.</td>
</tr>
<tr>
<td>Troubleshooting</td>
<td>Search common problems and their solution.</td>
</tr>
<tr>
<td>Objective guide</td>
<td>Search functions according to your needs.</td>
</tr>
<tr>
<td>Keyword</td>
<td>Search functions by key words.</td>
</tr>
<tr>
<td>History</td>
<td>Display the last 12 items displayed in [In-Camera Guide].</td>
</tr>
</tbody>
</table>
### MENU items not available in some REC modes

In the table below, ✓ indicates settings that can be changed, while — indicates settings that cannot be changed. The icons below SCN indicate the available modes. A setting may be fixed or restricted depending on the shooting mode. For details, see each topic.

<table>
<thead>
<tr>
<th>Scene Selection</th>
<th>P</th>
<th>SCN</th>
<th>M</th>
<th>MR</th>
<th>3D</th>
<th>6D</th>
<th>7D</th>
<th>8D</th>
<th>9D</th>
<th>10D</th>
<th>11D</th>
<th>12D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory recall mode</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Easy Mode</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Defocus Effect</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>✓</td>
</tr>
<tr>
<td>Still Image Size</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Movie shooting scene</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>3D Shooting</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
</tr>
<tr>
<td>Panorama Image Size</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>✓</td>
<td>—</td>
</tr>
<tr>
<td>EV</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ISO</td>
<td>—</td>
<td>—</td>
<td>✓</td>
<td>—</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>White Balance*1</td>
<td>—</td>
<td>—</td>
<td>✓</td>
<td>—</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>White Balance Shift</td>
<td>—</td>
<td>—</td>
<td>✓</td>
<td>—</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Focus</td>
<td>—</td>
<td>—</td>
<td>✓</td>
<td>—</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Metering Mode</td>
<td>—</td>
<td>—</td>
<td>✓</td>
<td>—</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Burst Shooting</td>
<td>✓</td>
<td>—</td>
<td>✓</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

*1 White Balance Shift may be fixed depending on the White Balance mode.
<table>
<thead>
<tr>
<th></th>
<th>Interval</th>
<th>(Anti Motion Blur)</th>
<th>(Soft Background Defocus)</th>
<th>(Soft Skin)</th>
<th>(Soft Skin).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bracket Setting</td>
<td>– –</td>
<td>✓</td>
<td>✓</td>
<td>– –</td>
<td>– –</td>
</tr>
<tr>
<td>Scene Recognition</td>
<td>✓ – – – – – – – – – – –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soft Skin Effect*2</td>
<td>– – – – – – – – – – –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smile Shutter</td>
<td>✓ – ✓ –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smile Detection Sensitivity</td>
<td>✓ – ✓ –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Face Detection*3</td>
<td>✓ ✓ ✓ – – ✓ ✓ – –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color Mode</td>
<td>– – ✓ – ✓ – – – – – – – – –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color Saturation</td>
<td>– – ✓ – ✓ – – – – – – – –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contrast</td>
<td>– – ✓ – ✓ – – – – – – – –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sharpness</td>
<td>– – ✓ – ✓ – – – – – – – –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anti Blink</td>
<td>– – – – – – – – – – – – –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Movie Quality</td>
<td>✓ ✓ ✓ ✓ ✓ – – ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Movie Size</td>
<td>✓ ✓ ✓ ✓ ✓ – – ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Movie SteadyShot</td>
<td>✓ ✓ ✓ ✓ ✓ ✓ – – ✓ ✓ ✓ ✓ ✓ ✓ ✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position Information (DSC-HX9V only)</td>
<td>✓ ✓ ✓ ✓ ✓ ✓ – – ✓ ✓ ✓ ✓ ✓ ✓ ✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Register Setting</td>
<td>– – ✓ ✓ ✓ ✓ ✓ – – – – – – – –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-Camera Guide</td>
<td>✓ ✓ ✓ ✓ ✓ ✓ – – ✓ ✓ ✓ ✓ ✓ ✓ ✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1 [Flash] cannot be selected for [White Balance] when Scene Selection is set to 🌙 (Anti Motion Blur), 🌙 (Hand-held Twilight) or ISO (High Sensitivity).

*2 [Off] cannot be selected for [Soft Skin Effect] when Scene Selection is set to 🌙 (Soft Skin).

*3 [Off] cannot be selected for [Face Detection] when Scene Selection is set to 🌙 (Soft Skin), 🌙 (Soft Snap) or the mode dial is set to 🌙 (Background Defocus).
Notes

- Only the items that are available for each mode are displayed on the screen.
- When the above shooting modes are registered and recalled in MR (Memory recall mode), the conditions for whether settings can be changed or not remain the same as in the above table.
Using MENU items (Viewing)

You can select the various viewing functions easily from the MENU button.

1. Press the (Playback) button to switch to playback mode.
2. Press the MENU button to display the Menu screen.

3. Select the desired menu item with / on the control wheel.

4. Select the desired item with / on the control wheel or by turning the control wheel.

5. Press in the center of the control wheel to execute the function.
Slideshow

- Continuous Playback
- Slideshow with music

Images are automatically played back in succession.

1. Press the \( \text{Playback} \) button to switch to playback mode.
2. MENU \( \rightarrow \) \( \text{Slideshow} \) \( \rightarrow \) desired slideshow \( \rightarrow \) on the control wheel

<table>
<thead>
<tr>
<th>Continuous Playback</th>
<th>Starts playback from the currently displayed image. Playback stops at the image just before the starting image.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Slideshow with music)</td>
<td>Plays back still images in succession along with effects and music.</td>
</tr>
</tbody>
</table>

**Note**
- [Slideshow] is not available when [View Mode] is set to [Folder view (MP4)] or [AVCHD view].

### Continuous Playback

1. Select the desired image for playing with the control wheel.
2. MENU \( \rightarrow \) \( \text{Slideshow} \) \( \rightarrow \) [Continuous Playback] \( \rightarrow \) 

<table>
<thead>
<tr>
<th>Control wheel</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>●</td>
<td>Stop</td>
</tr>
<tr>
<td>▲</td>
<td>Sets the display settings.</td>
</tr>
</tbody>
</table>
| ▼             | Displays the volume control screen. 
|               | • Adjust the volume using \( \text{← / →} \) on the control wheel. Press ● to close the volume control screen. |
| ◀             | Rewinds image. |
| ▶             | Forwards image. |
Viewing panoramic images during continuous playback
The whole panoramic image is displayed for 3 seconds.
You can scroll a panoramic image by pressing ●.

Slideshow with music
1. MENU → (Slideshow) → [Slideshow with music] → ● on the control wheel
   Displays the setting screen.
2. Select a desired setting.
3. [Start] → ●
4. Press ● to end the slideshow.

Note
[Slideshow with music] is not available for the following images:
- Panoramic images
- 3D images recorded in [Standard] or [Wide] size

Playback Selection
Selects the group of images to be shown. The setting is fixed to [Folder] when the internal memory is used to record images.

<table>
<thead>
<tr>
<th>All</th>
<th>Plays a slideshow of all the images in order.</th>
</tr>
</thead>
<tbody>
<tr>
<td>This Date</td>
<td>Plays a slideshow of images with the currently selected date range when View Mode is [Date View].</td>
</tr>
<tr>
<td>Folder</td>
<td>Plays a slideshow of images in the currently selected folder in Folder View.</td>
</tr>
</tbody>
</table>

Effects
Selects the playback speed and mood for slideshows. If the playback time of movie is long, an image is taken from it and displayed.

<table>
<thead>
<tr>
<th>Simple</th>
<th>A simple slideshow switching images at a preset interval. The playback interval is adjustable in [Interval] and you can thoroughly enjoy your images.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nostalgic</td>
<td>A moody slideshow reproducing the atmosphere of a movie scene.</td>
</tr>
<tr>
<td>Stylish</td>
<td>A stylish slideshow proceeding at a middle tempo.</td>
</tr>
<tr>
<td>Active</td>
<td>A high-tempo slideshow suitable for active scenes.</td>
</tr>
</tbody>
</table>

Music
Specifies the music to be played during slideshows. You can select more than one background music track. Press ▼ on the control wheel to display the volume control screen, then press ◀ / ▶ to adjust the volume.

<table>
<thead>
<tr>
<th>Music1</th>
<th>The default setting for a [Simple] slideshow.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music2</td>
<td>The default setting for a [Nostalgic] slideshow.</td>
</tr>
<tr>
<td>Music3</td>
<td>The default setting for a [Stylish] slideshow.</td>
</tr>
<tr>
<td>Music4</td>
<td>The default setting for an [Active] slideshow.</td>
</tr>
</tbody>
</table>
Muting

Does not use BGM.

**Note**
- The movies are played back without their audio.

---

### Interval

Sets the screen switching interval. The setting is fixed to [Auto] when [Simple] is not selected as the [Effects].

<table>
<thead>
<tr>
<th>Interval</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 sec</td>
<td></td>
</tr>
<tr>
<td>✔ 3 sec</td>
<td>Sets the display interval of images for a [Simple] slideshow.</td>
</tr>
<tr>
<td>5 sec</td>
<td></td>
</tr>
<tr>
<td>10 sec</td>
<td></td>
</tr>
<tr>
<td>Auto</td>
<td>The interval is set to suit the selected [Effects] item.</td>
</tr>
</tbody>
</table>

---

**💡 Selecting background music**

You can transfer a desired music file from your CDs or MP3 files to the camera to play back during slideshow. To transfer music, install the "Music Transfer" software (supplied) to your computer. [Details]

- You can record up to four pieces of music on the camera. (The 4 preset pieces (Music1 – Music4) can be replaced with the ones you transferred.)
- The maximum length of each music file for music playback of the camera is about 5 minutes.
- If you cannot play back a music file due to damage or other malfunctions of the file, execute [Empty Music] and transfer the music again. [Details]

---

**Related Topic**

"Music Transfer"

Installing "PMB" and "Music Transfer" (Windows)

Installing "Music Transfer" (Macintosh)

---

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3D Viewing

Select [3D Viewing] when you want to play back images shot in 3D mode on the 3D TV. Connect the camera and the 3D TV using an HDMI Cable (sold separately). [Details]

1. Press the (Playback) button to switch to playback mode.
2. MENU → (3D Viewing) → on the control wheel

Related Topic
Viewing 3D images on a 3D TV

Back to top
Send by TransferJet

Receiving images using TransferJet
Using separately sold TransferJet-compatible devices

TransferJet is a close-up, wireless transfer technology that allows data to be transferred by closely aligning two products that you want to communicate with each other.

To find out whether your camera is equipped with the TransferJet function, check for the (TransferJet) mark on the bottom of the camera.

Using a Memory Stick with TransferJet (sold separately) allows images to be transferred between TransferJet-compatible devices.

For more details on TransferJet, see the operating instructions supplied with Memory Stick with TransferJet.

1. Insert a Memory Stick with TransferJet into the camera.
2. Press the (Playback) button to switch to playback mode.
3. MENU → (Send by TransferJet) → desired mode → on the control wheel
4. Transfer images by closely aligning the (TransferJet) marks on the camera and other device.
A notification sound is emitted when connection is made.

<table>
<thead>
<tr>
<th>(This Image)</th>
<th>Sends the currently displayed image in single-image mode.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Multiple Images)</td>
<td>You can select and send multiple images. After step 3, perform the following.</td>
</tr>
<tr>
<td>1 Select an image then press .</td>
<td>Repeat the above step until there are no more images to be sent.</td>
</tr>
<tr>
<td></td>
<td>Select an image with a mark to release the mark.</td>
</tr>
<tr>
<td>2 MENU → [OK] →</td>
<td></td>
</tr>
</tbody>
</table>

Notes
- Only still images can be transferred.
- Up to 10 images can be transferred at once. However, for 3D images, both the MPO file and the JPEG file are transferred. Depending on the receiving device, up to 20 images are received.
- Set [TransferJet] to [On] in (Settings). [Details]
- On an airplane, set [TransferJet] to [Off] in (Settings) [Details]. In addition, follow the rules of the place where you use.
- The connection is cut if transfer cannot be made within about 30 seconds. If this happens, select [Yes] and realign the two (TransferJet) marks on the camera and another device.
- Memory Stick with TransferJet and camera models with TransferJet are not sold in some countries and regions due to local laws and regulations.
- Set the [TransferJet] function to [Off] in countries and regions other than where you purchased your camera. Depending on the country or region, if you use the TransferJet function, you may be liable due to local restrictions on transmission of electromagnetic waves.
Receiving images using TransferJet

1. Press the Playback button to switch to playback mode.
2. Closely align the TransferJet marks on the camera and sending device to receive images.
   A notification sound is emitted when connection is made.

Tips for sending and receiving data successfully

Closely align the TransferJet mark on the camera and other device.

- The transfer rate and range differ depending on the angle at which the TransferJet marks are aligned.
- It may be necessary to alter the position/angle of the camera until communication can be obtained.
- Sending and receiving data is easier if the TransferJet marks are aligned with both cameras parallel to each other as shown in the figure.

Notes

- Only images that can be played back on the camera can be sent or received.
- This camera can receive only JPEG and MPO files.
- If an Image Database File error occurs during saving, a Recover Image Database File screen will appear.
- Play images that cannot be registered in the Image Database File using [Folder view (Still)].

Using separately sold TransferJet-compatible devices

Using separately sold TransferJet-compatible devices allows you to transfer images to a PC and can broaden your enjoyment of transferring data.

For details, see the operating instructions supplied with your TransferJet-compatible device.

- Note the following points when using TransferJet-compatible devices.
  - Before use, set the camera to playback mode.
  - If no image is displayed, press MENU ➔ [ (Settings) ➔ Ê (Main Settings) ➔ [LUN Setting] ➔ [Single].
  - While connected, data cannot be written to or deleted from the camera.
  - Do not disconnect while importing images to “PMB”.

Related Topic
TransferJet
TransferJet standard
**View Mode**

### Displaying the Calendar

1. Press the (Playback) button to switch to playback mode.
2. Press MENU (View Mode) on the control wheel.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Date View)</td>
<td>Displays images by date.</td>
</tr>
<tr>
<td>(Folder view (Still))</td>
<td>Displays still images.</td>
</tr>
<tr>
<td>(Folder view (MP4))</td>
<td>Displays MP4-format movies.</td>
</tr>
<tr>
<td>AVCHD (AVCHD view)</td>
<td>Displays movies shot with the recording format set to [AVCHD 60i/60p] or [AVCHD 50i/50p].</td>
</tr>
</tbody>
</table>

**Note**

- When the internal memory is used to record images, View Mode is set to Folder View.

### Displaying the Calendar

1. Press the (Playback) button to switch to playback mode.
2. Press MENU (View Mode) on the control wheel.

- Turn the W/T (zoom) lever to W side ( ) repeatedly until the Calendar is displayed.
- Use the control wheel to select ( ), then select the month you want to display. Select the date and press ( ) to view images of the selected date in index mode.

### Viewing images taken with a different camera

This camera creates an Image Database File on the memory card for recording and playing images. If the camera detects images not registered in the Image Database File on the memory card, a registration screen with the message “Files found which were not recognized Import files” will be displayed.

- To view unregistered images, register them by selecting [OK].
- Use a sufficiently charged battery to register images. If a battery with a low charge is used to register images, it may not be possible to transfer all of the data or the data may be corrupted if the battery charge runs out.
Display Burst Group

You can select to display burst images in groups or display all images during playback.

1. Press the (Playback) button to switch to playback mode.
2. MENU → (View Mode) → [Date View] → on the control wheel
3. MENU → (Display Burst Group) → desired setting →

<table>
<thead>
<tr>
<th>Display Burst Group</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Display Main Image Only]</td>
<td>Groups burst images, then plays back the main image only. When Face Detection is performed in burst mode, the camera determines and displays the optimum image as the main image. When Face Detection is not performed, the first image in the burst group is displayed as the main image.</td>
</tr>
<tr>
<td>![Display All]</td>
<td>Plays back all burst images one at a time.</td>
</tr>
</tbody>
</table>

Related Topic

Viewing burst images
## Retouch

Retouches a recorded image and saves it as a new file. The original image is retained.

1. Press the (Playback) button to switch to playback mode.
2. MENU → (Retouch) → desired mode → on the control wheel
3. Perform retouching according to the operation method in each mode.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="Trimming" alt="Trimming" title="Resize" /></td>
<td>Records the zoomed playback image.</td>
</tr>
<tr>
<td></td>
<td>① Turn the W/T (zoom) lever to the T (عزيز) side to zoom in, and to the W side to zoom out.</td>
</tr>
<tr>
<td></td>
<td>② Set the zoom point using ▲ / ▼ / ◀ / ▶ on the control wheel.</td>
</tr>
<tr>
<td></td>
<td>③ MENU → select an image size to save →  ●</td>
</tr>
<tr>
<td></td>
<td>④ [OK] →  ●</td>
</tr>
<tr>
<td></td>
<td>● The quality of trimmed images may deteriorate.</td>
</tr>
<tr>
<td></td>
<td>● The image size that you can trim may vary depending on the image.</td>
</tr>
<tr>
<td>![Red Eye](Red Eye Correction)</td>
<td>Corrects the red-eye phenomenon caused by flash.</td>
</tr>
<tr>
<td></td>
<td>Select [OK] with the control wheel →  ●</td>
</tr>
<tr>
<td></td>
<td>● You may not be able to correct the red-eye phenomenon depending on the image.</td>
</tr>
<tr>
<td>![Unsharp](Unsharp masking)</td>
<td>Sharpens the image within a chosen frame.</td>
</tr>
</tbody>
</table>
1 Select the area (frame) of the desired image to retouch using ἄ / ἅ / ἅ / ἅ on the control wheel → MENU.
2 [OK] → ●
• Depending on the image, sufficient correction may not be applied and the image quality may deteriorate.

**Note**
• You cannot retouch the following images:
  – Panoramic images
  – 3D images
  – Movies
  – Images displayed in a burst group

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Delete

Allows you to select unwanted images for deletion. You can also delete images using the (Delete) button. [Details]

1. Press the (Playback) button to switch to playback mode.
2. MENU → (Delete) → desired mode → ● on the control wheel
3. [OK] → ●

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(All but This Image)</td>
<td>Deletes burst group images other than the selected image in Display Burst Group mode. Press [OK] → ● after step 2.</td>
</tr>
<tr>
<td>(All Imgs in This Burst Group)</td>
<td>Deletes all images in the selected burst group at once. Press [OK] → ● after step 2.</td>
</tr>
<tr>
<td>(This Image)</td>
<td>Deletes the currently displayed image in single-image mode.</td>
</tr>
<tr>
<td>(Multiple Images)</td>
<td>Allows you to select and delete multiple images. Do as the following after step 2.</td>
</tr>
<tr>
<td></td>
<td>① Select an image then press ●.</td>
</tr>
<tr>
<td></td>
<td>Repeat the above steps until there are no more images to be deleted.</td>
</tr>
<tr>
<td></td>
<td>Select an image with a □ mark again to release the □ mark.</td>
</tr>
<tr>
<td></td>
<td>② MENU → [OK] → ●</td>
</tr>
<tr>
<td>(All Images on This Date)</td>
<td>Deletes all images in the selected date range or folder, or all movies in [AVCHD view]. Press [OK] → ● after step 2.</td>
</tr>
<tr>
<td>(All in This Folder)</td>
<td></td>
</tr>
<tr>
<td>(All AVCHD view files)</td>
<td></td>
</tr>
</tbody>
</table>

Notes

- In Easy Mode, you can select from [1 image] or [All].
- When the internal memory is used to record images, View Mode is set to Folder View and still images and movies are displayed in the same folder.
- Movies in [AVCHD view] are movies recorded with [Movie format] set to [AVCHD 60i/60p] (for 1080 60i-compliant devices) or [AVCHD 50i/50p] (for 1080 50i-compliant devices).

Related Topic
Delete button
Protect

To cancel the protection

Protects recorded images against accidental erasure.

1. Press the (Playback) button to switch to playback mode.

2. MENU → (Protect) → desired mode → on the control wheel

- (This Image)
  - Protects the currently displayed image in single-image mode.

- (Multiple Images)
  - You can select and protect multiple images.
  - Do as the following after step 2.

  1. Select an image then press .
  2. Repeat the above steps until there are no more images to be protected.
  3. Select an image with a mark to release the mark.

- (Set All Burst Images.)
  - Protect all images in the selected burst group at once in Display Burst Group mode.

- (Remove All Burst Images.)
  - Release all protected images in the selected burst group at once in Display Burst Group mode.

Note

- When the internal memory is used to record images, [View Mode] is set to Folder view and still images and movies are displayed in the same folder.

To cancel the protection

Select the image for which you want to cancel protection, and unlock it by pressing on the control wheel as the same procedure to protect it. The indicator disappears, and the protection is released.
Print (DPOF)

Clearing the DPOF mark

DPOF (Digital Print Order Format) is a function that allows you to specify the images of the memory card that you want to print out later. The DPOF (Print order) mark is displayed for registered images.

1. Press the (Playback) button to switch to playback mode.
2. MENU → Print (DPOF) → desired mode → on the control wheel

<table>
<thead>
<tr>
<th>DPOF (This Image)</th>
<th>Orders printing the currently displayed image in single-image mode.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPOF (Multiple Images)</td>
<td>You can select and order printing multiple images. Do as the following, after step 2.</td>
</tr>
<tr>
<td></td>
<td><strong>Select an image then press .</strong></td>
</tr>
<tr>
<td></td>
<td>Repeat the above steps until there are no more images to be printed.</td>
</tr>
<tr>
<td></td>
<td>Select an image with a mark to release the mark.</td>
</tr>
<tr>
<td></td>
<td><strong>MENU → [OK] →</strong></td>
</tr>
</tbody>
</table>

Notes

- The DPOF (Print order) mark cannot be added to the following images:
  - Movies
  - Images in the internal memory
- You can add a DPOF (Print order) mark to a maximum 999 images.

Clearing the DPOF mark

Select the image to clear the DPOF registration, then press on the control wheel in the same procedure as when making a DPOF mark. The DPOF mark disappears and the DPOF registration is cleared.

Related Topic

Printing still images
Rotate

You can rotate a still image counter-clockwise. Use this to display a horizontal orientation image in vertical orientation.

1. Press the (Playback) button to switch to playback mode.
2. MENU → (Rotate) → on the control wheel
3. Press  on the control wheel.
   The still image will be rotated counter-clockwise.
   If you want to rotate the image again, repeat step 3.

Notes

- You cannot rotate the following images:
  - 3D images
  - Movies
  - Images displayed in a burst group
- You may not be able to rotate images shot with other cameras.
- When viewing images on a computer, the image rotation information may not be reflected depending on the software.
In-Camera Guide

This camera contains an internal function guide. This allows you to search the camera’s functions according to your needs.

You can use the selected function after reading the guide.

1. MENU → (In-Camera Guide)

2. Select a search method from [In-Camera Guide].

<table>
<thead>
<tr>
<th>Search method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoot/ playback guide</td>
<td>Search for various operation functions in shooting/viewing mode.</td>
</tr>
<tr>
<td>Icon guide</td>
<td>Search the function and meaning of displayed icons.</td>
</tr>
<tr>
<td>Troubleshooting</td>
<td>Search common problems and their solution.</td>
</tr>
<tr>
<td>Objective guide</td>
<td>Search functions according to your needs.</td>
</tr>
<tr>
<td>Keyword</td>
<td>Search functions by key words.</td>
</tr>
<tr>
<td>History</td>
<td>Display the last 12 items displayed in [In-Camera Guide].</td>
</tr>
</tbody>
</table>
MENU items that cannot be set according to View Mode

In the table below, ✓ indicates a user-changeable function, while — indicates an unchangeable one.

<table>
<thead>
<tr>
<th>Menu items</th>
<th>Memory card</th>
<th>Internal Memory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Date View</td>
<td>Folder view (Still)</td>
</tr>
<tr>
<td>(Slideshow)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(3D Viewing)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(Send by TransferJet)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(View Mode)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(Display Burst Group)</td>
<td>✓</td>
<td>—</td>
</tr>
<tr>
<td>(Retouch)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(Delete)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(Protect)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Print (DPOF)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(Rotate)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(In-Camera Guide)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(Settings)</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Note**
- Only the items that are available for each mode are displayed on the screen.
Changing camera settings

You can change the settings on the (Settings) screen.

1. Press the MENU button to display the Menu screen.

2. Select (Settings) with ▲ / ▼ on the control wheel, then press ◀ on the control wheel to display the setup screen.

3. Select the desired category by using ▲ / ▼ on the control wheel or turning the control wheel, then press ●.

4. Select the desired item by using ▲ / ▼ on the control wheel or turning the control wheel, then press ●.

5. Select the desired setting, then press ●.

Notes
• [Shooting Settings] appears only when settings have been entered from shooting mode.
• [Memory Card Tool] appears only when a memory card is inserted in the camera, while [Internal Memory Tool] appears only when a memory card is not inserted.
Movie format

You can set the recording method used to record movies.

1. Set the camera to shooting mode.

2. MENU → (Settings) → (Shooting Settings) → [Movie format] → desired mode

<table>
<thead>
<tr>
<th>Format</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVCHD 60i/60p or AVCHD 50i/50p</td>
<td>[AVCHD 60i/60p] (for 1080 60i-compliant devices) or [AVCHD 50i/50p] (for 1080 50i-compliant devices) movies are recorded. Sets the recording method to AVCHD, which is suitable for viewing smooth video images on a high-definition television. Blu-ray discs, AVCHD discs and DVD-Video discs can be created using the supplied software “PMB”. However, movies shot with the image quality set to [AVC HD 28M (PS)] cannot be recorded to a disc in the same quality. Convert the image using “PMB” before saving to a disc. DVD or AVCHD discs cannot be created from movies recorded in [AVC HD 24M (FX)] quality. Save [AVC HD 24M (FX)] quality movies to Blu-ray discs.</td>
</tr>
<tr>
<td>MP4</td>
<td>MP4 (AVC) movies are recorded. Sets the recording method to MP4, which is suitable for WEB uploads and e-mail attachments. No discs can be created from MP4 movies, even if you use the supplied software “PMB”.</td>
</tr>
</tbody>
</table>

Related Topic

AVCHD format
AF Illuminator

The AF illuminator supplies fill light to focus more easily on a subject in dark surroundings. The AF illuminator emits red light allowing the camera to focus easily when the shutter button is pressed halfway, until the focus is locked. The ON indicator appears at this time.

1. Set the camera to shooting mode.

2. MENU → (Settings) → (Shooting Settings) → [AF Illuminator] → desired mode

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto</td>
<td>Uses the AF illuminator.</td>
</tr>
<tr>
<td>Off</td>
<td>Does not use the AF illuminator.</td>
</tr>
</tbody>
</table>

Notes

- Focus is achieved as long as the AF illuminator light reaches the subject, regardless of whether light fails to reach the center of the subject.
- You cannot use the AF illuminator in the following situations:
  - In movie mode
  - In Intelligent Sweep Panorama mode
  - When (Landscape), (Twilight), (Pet), (Fireworks) or (Advanced Sports Shooting) mode is selected in Scene Selection.
  - When [Self-Timer] is set to [Self-portrait One Person] or [Self-portrait Two People].
- When you use the AF illuminator, the normal AF range finder frame is disabled and a new AF range finder frame is displayed by a dotted line. AF operates with priority on subjects located near the center of the frame.
- The AF illuminator emits very bright light. Although there is no health hazard, do not look directly into the AF illuminator emitter at close range.
Grid Line

With reference to the grid lines, you can easily set a subject in a horizontal/vertical position.

1. Set the camera to shooting mode.

2. MENU → (Settings) → (Shooting Settings) → [Grid Line] → desired mode →

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>On</td>
<td>Displays the grid lines. The grid lines are not recorded.</td>
</tr>
<tr>
<td>Off</td>
<td>Does not display the grid lines.</td>
</tr>
</tbody>
</table>

Back to top
Digital Zoom

Total zoom scale when using Smart zoom (including optical zoom 16×)

Selects the digital zoom mode. The camera enlarges the image using optical zoom (up to 16×). When the zoom scale is exceeded, the camera uses either smart or precision digital zoom.

1. Set the camera to shooting mode.
2. MENU → (Settings) → (Shooting Settings) → [Digital Zoom] → desired mode

<table>
<thead>
<tr>
<th>Smart (        )</th>
<th>Enlarges the image digitally within the range where the image will not be distorted, according to the image size (Smart zoom).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precision (     )</td>
<td>Enlarges all image sizes by the total zoom scale of approximately 64×, including the optical zoom 16×. However, note that the image quality deteriorates when the optical zoom scale is exceeded (Precision digital zoom).</td>
</tr>
<tr>
<td>Off</td>
<td>Does not use the digital zoom.</td>
</tr>
</tbody>
</table>

Notes

- The Digital Zoom function does not operate in the following situations:
  - In Intelligent Sweep Panorama mode
  - When the Smile Shutter function is activated.
  - When [Self-Timer] is set to [Self-portrait One Person] or [Self-portrait Two People].
- The Smart zoom is not available when the image size is set to [16M] or [16:9(12M)].
- The Smart zoom is not available when recording movies.
- The Face Detection function does not work when using the digital zoom.

Total zoom scale when using Smart zoom (including optical zoom 16×)

The supported zoom ratio differs depending on the image size.

<table>
<thead>
<tr>
<th>Size</th>
<th>Total zoom scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>10M</td>
<td>Approx. 20×</td>
</tr>
<tr>
<td>5M</td>
<td>Approx. 28×</td>
</tr>
<tr>
<td>VGA</td>
<td>Approx. 115×</td>
</tr>
<tr>
<td>16:9(2M)</td>
<td>Approx. 38×</td>
</tr>
</tbody>
</table>
Wind Noise Reduct.

Reduces the noise of the wind when shooting movies.

1. Set the camera to shooting mode.

2. MENU → (Settings) → (Shooting Settings) → [Wind Noise Reduct.] → desired mode →

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Does not reduce the noise of the wind.</td>
</tr>
<tr>
<td>On</td>
<td>Reduces the noise of the wind.</td>
</tr>
</tbody>
</table>

**Note**

- If [Wind Noise Reduct.] is set to [On] even though the wind is not blowing strongly, the recorded sounds other than the wind may be hard to hear.
Red Eye Reduction

The flash strobes two or more times before shooting to reduce the red-eye phenomenon when using the flash.

1. Set the camera to shooting mode.
2. MENU → (Settings) → (Shooting Settings) → [Red Eye Reduction] → desired mode →

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto</td>
<td>When the Face Detection function is activated, the flash strobes automatically to reduce the red-eye phenomenon.</td>
</tr>
<tr>
<td>On</td>
<td>The flash always strobes to reduce the red-eye phenomenon.</td>
</tr>
<tr>
<td>Off</td>
<td>Does not use Red Eye Reduction.</td>
</tr>
</tbody>
</table>

What causes the red-eye phenomenon?
Pupils become dilated in dark environments. Flash light is reflected off the blood vessels at the back of the eye (retina) (A), causing the “red-eye” phenomenon.

Other ways to reduce red-eye
- Select ISO (High Sensitivity) mode in Scene Selection. (The flash is set to [Off] automatically.)
- When the eyes of the subject turn out red, correct the image with [Retouch] → [Red Eye Correction] on the viewing menu or with the supplied software “PMB”.

Notes
- To avoid blurring of images, hold the camera firmly until the shutter is released. It usually takes a second until the shutter is released, and also be sure not to allow the subject to move during this period.
- Red Eye Reduction may not produce the desired effects. It depends on individual differences and conditions, such as distance to the subject, or if the subject looked away from the pre-strobe.
- If you do not use the Face Detection function, Red Eye Reduction does not work, even when you select [Auto].
- [Red Eye Reduction] is set to [Off] in the following situations:
  - In Background Defocus mode
  - In 3D shooting mode
  - When Sensitivity), (Gourmet), (Pet) or (Fireworks) mode is selected in Scene Selection.
- When Smile Shutter function is activated.
Blink Alert

When an image with the subject's eyes closed is recorded while Face Detection is activated, the message "Blinked eye detected" is displayed.

1. Set the camera to shooting mode.

2. MENU ➔ (Settings) ➔ (Shooting Settings) ➔ [Blink Alert] ➔ desired mode ➔

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto</td>
<td>Displays the &quot;Blinked eye detected&quot; message.</td>
</tr>
<tr>
<td>Off</td>
<td>Does not display the message.</td>
</tr>
</tbody>
</table>
Write Date

Sets whether to record a shooting date on the still image.

1. Set the camera to shooting mode.
2. MENU →  (Settings) →  (Shooting Settings) → [Write Date] → desired mode

<table>
<thead>
<tr>
<th></th>
<th>Off</th>
<th>On ( )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Does not record a shooting date.</td>
<td>Records a shooting date. When [On] is selected, the mark will appear on the bottom right of the LCD screen while shooting. However, in some shooting modes that cannot record dates on images, the mark will disappear.</td>
</tr>
</tbody>
</table>

Notes

- You cannot record dates in the following situations:
  - In movie mode
  - When shooting still images while recording a movie (Dual Rec)
  - In burst shooting mode
  - In Easy Mode
  - In 3D shooting mode
  - In Sweep Multi Angle mode
- If you shot images with the date once, you cannot delete the date from the images later.
- The dates are doubly printed, if you set the camera to superimpose the dates when printing.
- The recorded time of the image cannot be superimposed on the image.
**Expanded Focus**

Expands the center part of the screen approximately 2× in Manual Focus mode.

1. Set the camera to shooting mode.
2. **MENU** → **(Settings) → (Shooting Settings) → [Expanded Focus] → desired mode**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>On</td>
<td>Expands approximately 2×.</td>
</tr>
<tr>
<td>Off</td>
<td>Does not expand approximately 2×.</td>
</tr>
</tbody>
</table>
Custom Button

Set the commonly-used function to the Custom button.

1. Set the camera to shooting mode.

2. MENU → (Settings) → (Shooting Settings) → [Custom Button] → desired mode → ●

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV</td>
<td>Sets the EV.</td>
</tr>
<tr>
<td>ISO</td>
<td>Sets the ISO.</td>
</tr>
<tr>
<td>White Balance</td>
<td>Sets the White Balance.</td>
</tr>
<tr>
<td>Metering Mode</td>
<td>Sets the Metering Mode.</td>
</tr>
<tr>
<td>Smile Shutter</td>
<td>Sets the Smile Shutter.</td>
</tr>
</tbody>
</table>

Note
- [Custom Button] is not available in Easy Mode.
Beep

Selects the sound produced when you operate the camera.

1. MENU → (Settings) → (Main Settings) → [Beep] → desired mode →

<table>
<thead>
<tr>
<th>Shutter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>On</td>
<td>Turns on the shutter sound when you press the shutter button.</td>
</tr>
<tr>
<td>Off</td>
<td>Turns off the beep/shutter sound.</td>
</tr>
</tbody>
</table>

On

Turns on the beep/shutter sound when you press the control wheel/shutter button.
Panel Brightness

You can select the LCD brightness from levels 1 to 5. The LCD screen becomes brighter as the number rises.

When you use the camera in bright outside light, select a higher number to see the screen easier.

1. MENU → (Settings) → (Main Settings) → [Panel Brightness] → desired mode

Notes
- The brighter the LCD screen, the faster the battery pack runs out.
- The LCD screen grows dark if you do not operate the camera while the power is on.
- When the high-temperature indicator (elleicht) is displayed, the LCD screen may grow dark regardless of the settings. [Details]
Language Setting

Selects the language to be used in the menu items, warnings and messages.

1. MENU → (Settings) → (Main Settings) → [Language Setting] → desired mode

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Display color

Sets the color of the screen display.

1. MENU → (Settings) → (Main Settings) → [Display color] → desired mode

- **Black**
- **White** Sets the background color of the LCD screen.
- **Pink**
Demo Mode

You can set whether to use a demonstration of Smile Shutter or playback movies in [AVCHD view]. When there is no need to view a demonstration, set to [Off].

1.  MENU ➔ (Settings) ➔ (Main Settings) ➔ [Demo Mode] ➔ desired mode ➔

| Demo Mode1 | A demonstration of the shooting functions will be performed. |
| Demo Mode2 | Automatically starts the Smile Shutter demonstration when no operation is performed for 15 seconds. |
| Demo Mode3 | If no operation is performed for a set period of time while the camera is connected to an HD TV, a demonstration of playback movies in [AVCHD view] will automatically start. |

☑ Off Does not perform a demonstration.

Notes

- Pressing the shutter button during the Smile Shutter demonstration operates the shutter, but no image is recorded.
- During a demonstration, if the number of images saved in the internal memory increases, the camera may automatically delete the images. It is recommended to make a backup copy of the images on the internal memory before a demonstration.
- Movies in [AVCHD view] are movies recorded with [Movie format] set to [AVCHD 60i/60p] (for 1080 60i-compliant devices) or [AVCHD 50i/50p] (for 1080 50i-compliant devices).

[Details]

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Initialize

Initializes the setting to the default setting. Even if you execute this function, the images are retained.

1. MENU → (Settings) → (Main Settings) → [Initialize] → desired mode → [OK]

<table>
<thead>
<tr>
<th>REC Settings</th>
<th>Initializes only the shooting settings. Select [REC Settings] to shoot with the camera’s default settings.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Settings</td>
<td>Initializes all camera settings.</td>
</tr>
</tbody>
</table>

**Note**
- Be sure not to turn off the camera while initializing.
Function Guide

You can select whether or not the function guide is displayed when you operate the camera.

1. MENU → (Settings) → (Main Settings) → [Function Guide] → desired mode

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>On</td>
<td>Displays the function guide.</td>
</tr>
<tr>
<td>Off</td>
<td>Does not display the function guide.</td>
</tr>
</tbody>
</table>
HDMI Resolution

When you connect the camera to a High Definition (HD) TV with HDMI terminals using an HDMI Cable (sold separately), you can select HDMI Resolution to output images to the TV.

1. MENU → (Settings) → (Main Settings) → [HDMI Resolution] → desired mode

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto</td>
<td>The camera automatically recognizes an HD TV and sets the output resolution.</td>
</tr>
<tr>
<td>1080p</td>
<td>Outputs signals in HD picture quality (1080p).</td>
</tr>
<tr>
<td>1080i</td>
<td>Outputs signals in HD picture quality (1080i).</td>
</tr>
</tbody>
</table>

Note

- If you cannot display the screen properly with the [Auto] setting, select either [1080i] or [1080p] depending on the TV to be connected.
CTRL FOR HDMI

This setting allows (TV) remote control of a camera that is connected to a “BRAVIA” Sync TV using the HDMI Cable (sold separately). [Details]

1. MENU → (Settings) → (Main Settings) → [CTRL FOR HDMI] → desired mode

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>On</td>
<td>Enables remote-controlled operation.</td>
</tr>
<tr>
<td>Off</td>
<td>Disables remote-controlled operation.</td>
</tr>
</tbody>
</table>

**Note**
- You can perform the operation of the camera with the remote controller of your TV by connecting your camera to a “BRAVIA” Sync-compatible TV.

**Related Topic**
- Viewing an image on a “BRAVIA” Sync-compatible TV
USB Connect Setting

Selects the USB mode when connecting the camera to a computer or a USB device using the multi-use terminal USB cable.

1. MENU → (Settings) → (Main Settings) → [USB Connect Setting] → desired mode

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Auto</td>
</tr>
<tr>
<td></td>
<td>MTP</td>
</tr>
<tr>
<td></td>
<td>Mass Storage</td>
</tr>
</tbody>
</table>

Note

- If Device Stage* does not appear when connecting the camera to a Windows 7 computer, set [USB Connect Setting] to [Auto].
* Device Stage is a menu screen to manage connected devices, such as a camera. (Function of Windows 7)
USB Power Supply

Set whether to use the USB power supplied function when the camera is connected to a computer or a USB device using the multi-use terminal USB cable.

1. MENU → [Settings] → [Main Settings] → [USB Power Supply] → desired mode

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On</strong></td>
<td>Power is supplied when connected using the multi-use terminal USB cable.</td>
</tr>
<tr>
<td><strong>Off</strong></td>
<td>Disables USB power supplied function even if you connect the camera to a device such as a computer using a multi-use terminal USB cable.</td>
</tr>
</tbody>
</table>
LUN Setting

Sets the display method for the recording media displayed on a computer screen or other monitor when the camera is connected with a computer or AV component using a USB connection.

1. MENU → 📷 (Settings) → ☰ (Main Settings) → [LUN Setting] → desired mode →

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi</td>
<td>The images both on the memory card and in the internal memory are displayed. Select this setting when you connect the camera to a computer.</td>
</tr>
<tr>
<td>Single</td>
<td>When the memory card is inserted into the camera, the images on the memory card are displayed; when it is not inserted, the images in the internal memory are displayed. Select this setting in cases where the images of both the memory card and the internal memory are not displayed when the camera is connected to a device other than a computer.</td>
</tr>
</tbody>
</table>

Note

- Set [LUN Setting] to [Multi] when uploading images to a media service using “PMB Portable”.

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Download Music

You can use “Music Transfer” in the CD-ROM (supplied) to change background music tracks.

1. MENU → (Settings) → (Main Settings) → [Download Music] →

   The message “Connect to PC” is displayed.

2. Make a USB connection between the camera and a computer, then start “Music Transfer”.
3. Follow the instructions on the screen to change music files.
Empty Music

You can delete all the background music files stored in the camera. It can be used in cases such as when the background music files are damaged and cannot be played.

1. MENU →  (Settings) →  (Main Settings) → [Empty Music] → [OK] →

Restoring the music preset at the factory to the camera

You can use “Music Transfer” in the CD-ROM (supplied) to reset music files to the preset ones. For details on using “Music Transfer”, see the help in “Music Transfer”.

1. Execute [Download Music], then make a USB connection between the camera and a computer.
2. Start “Music Transfer”, then restore the default music.
GPS setting (DSC-HX9V only)

Checking triangulating status

The built-in GPS and direction sensor of this camera acquire the information on location or the shooting direction, and record on images. Using the supplied software “PMB”, you can import photos and movies recorded with location and shooting direction information to a computer and enjoy viewing them with a map which shows their shooting location. See “PMB Help” for details.

1. MENU ➔ [Settings] ➔ [Main Settings] ➔ [GPS setting] ➔ desired mode ➔

<table>
<thead>
<tr>
<th>On</th>
<th>GPS direction sensor is activated.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>GPS direction sensor is inactivated. If you do not want to record location and direction information, select [Off] for the GPS setting.</td>
</tr>
</tbody>
</table>

To receive a GPS signal

- Proper triangulation is not possible indoors or near tall buildings. Use your camera in an open area outside, and turn on your camera again.
- If no triangulation icon appears, even if you wait for several minutes, you may be in an area where GPS signal reception is difficult or impossible. Begin shooting where you are, or move to an open area outside. If you shoot where you are, no location information will be recorded.

Notes

- The shooting direction is not recorded when shooting movies.
- The location and direction information is not recorded when the movie is recorded on the internal memory.
- During take off and landing of an airplane, turn off the camera, as you will be instructed to do by the on-board announcement.
- Use GPS in accordance with the regulations of the place or situation.
- It may take from several tens of seconds to several minutes to acquire the location information when you use the GPS for the first time or use it again after long intervals. Triangulating time can be shortened by taking in GPS assist data. [Details]
- The information on the shooting direction acquired by this camera is based on magnetic north (the direction a compass needle points).
- If the camera is in close proximity to a magnetic source or a metal, an error may arise in the direction sensor. Keep the camera away from a magnetic source or a metal, if at all possible.
- The correct shooting direction may not be recorded or displayed in the following cases:
  - Near a building, a footbridge, an iron bridge, a vehicle, an iron tower
  - Near electric apparatus, such as a television, speaker, refrigerator, mobile phone,
headphones

- Near a steel desk or steel chair, etc.
- Direction information will become unstable if this camera is pointed upwards.
- Do not cover the GPS sensor with your finger when searching for GPS satellites or when triangulating. This decreases the sensitivity of the GPS sensor and triangulation may fail.

### Checking triangulating status

The indicator changes according to the strength of GPS signal reception when GPS is activated. The triangulating status can also be checked using [Position Information]. [Details] You can check the shooting direction with the direction icon displayed on the screen.

<table>
<thead>
<tr>
<th>Triangulating status</th>
<th>GPS indicators</th>
<th>GPS reception status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>No indicator</td>
<td>[GPS setting] is set to [Off] or an error occurred.</td>
</tr>
<tr>
<td>Difficult</td>
<td><img src="image" alt="GPS NO SIGNAL" /></td>
<td>Your camera cannot find a GPS signal, therefore, it cannot acquire the location information. Use your camera in an open area.</td>
</tr>
<tr>
<td>Searching</td>
<td><img src="image" alt="GPS Searching" /></td>
<td>Searching for GPS satellites. It may take several minutes to start triangulating.</td>
</tr>
<tr>
<td>Triangulating</td>
<td><img src="image" alt="GPS Triangulating" /></td>
<td>Your camera is receiving a GPS signal, and can acquire location information.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shooting direction</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td><img src="image" alt="North" /></td>
</tr>
<tr>
<td>West</td>
<td><img src="image" alt="West" /></td>
</tr>
<tr>
<td>South</td>
<td><img src="image" alt="South" /></td>
</tr>
<tr>
<td>East</td>
<td><img src="image" alt="East" /></td>
</tr>
</tbody>
</table>

**Related Topic**

- Position Information (DSC-HX9V only)
- GPS assist data (DSC-HX9V only)
- Auto Clock ADJ (DSC-HX9V only)
- Auto Area ADJ (DSC-HX9V only)
- GPS (DSC-HX9V only)
GPS assist data (DSC-HX9V only)

The time for the GPS acquiring location information can be shortened by taking in GPS assist data. The state of GPS assist data can be checked on the camera.

1. **MENU → （Settings） → （Main Settings） → [GPS assist data] → ●**

   If you connect the camera to an Internet-enabled computer and use the supplied software “PMB” or “PMB Portable”, the GPS assist data can be updated automatically.

**Using GPS support tool**

- You can also update the GPS assist data by inserting a memory card into the computer. Start up [GPS Support Tool] from （PMB Launcher), select the memory card drive from your computer, and then update the GPS assist data.

**Notes**

- If [Date & Time Setting] is not set, or set time is shifted greatly, the time for the GPS acquiring location information cannot be shortened. Set the date and time correctly by **MENU → （Settings） → [Date & Time Setting].**
- If the term of validity of GPS assist data has run out, the time until you can record location information cannot be shortened.

**Related Topic**

- GPS setting (DSC-HX9V only)
- GPS (DSC-HX9V only)
TransferJet

You can select TransferJet communication settings. TransferJet is a close-up, wireless transfer technology that allows data to be transferred by closely aligning two products that you want to communicate with each other. To find out whether your camera is equipped with the TransferJet function, check for the (TransferJet) mark on the bottom of the camera.

Using a Memory Stick with TransferJet (sold separately) allows images to be transferred between TransferJet-compatible devices.

For more details on TransferJet, see the Operating Instructions supplied with Memory Stick with TransferJet.

1. MENU → (Settings) → (Main Settings) → [TransferJet] → desired mode →

- On: Communicates using TransferJet.
- Off: Does not communicate using TransferJet.

What is TransferJet?

TransferJet allows you to share images by sending and receiving image data. Insert a Memory Stick with TransferJet in your camera and align two (TransferJet) marks of the camera and another device that supports this function.

For details on image transfer, see “Send by TransferJet.” [Details]

Notes

- In Easy Mode, [TransferJet] is fixed to [Off].
- While aboard an airplane, set [TransferJet] to [Off]. In addition, always follow all regulations governing the location in which the camera is being used.
- The connection is cut if transfer cannot be made within about 30 seconds. If this happens, select [Yes] and again align two (TransferJet) marks on the camera and another device.
- Memory Stick with TransferJet and camera models with TransferJet are not sold in some countries and regions due to local laws and regulations.
- Set the [TransferJet] function to [Off] in countries and regions other than where you purchased your camera. Depending on the country or region, if you use the TransferJet function, you may be liable due to local restrictions on transmission of electromagnetic waves.
Eye-Fi

Transferring image data using the Eye-Fi card

Sets whether to use the upload function of an Eye-Fi card (commercially available), when you use the Eye-Fi card with this camera. [Eye-Fi] is displayed only when the Eye-Fi card is inserted in the camera.

1. MENU → (Settings) → (Main Settings) → [Eye-Fi] → desired mode →

<table>
<thead>
<tr>
<th>On</th>
<th>Uses the upload function. The Eye-Fi mode display icon on the LCD screen will change depending on the communication mode of the Eye-Fi card.</th>
</tr>
</thead>
<tbody>
<tr>
<td>🔥</td>
<td>Eye-Fi card is in standby mode. There is no image to be sent.</td>
</tr>
<tr>
<td>🔥 :</td>
<td>Eye-Fi card is in upload standby mode.</td>
</tr>
<tr>
<td>🔥</td>
<td>Eye-Fi card is in connecting mode.</td>
</tr>
<tr>
<td>🔥</td>
<td>Eye-Fi card is uploading images.</td>
</tr>
<tr>
<td>🔥</td>
<td>An error has occurred.</td>
</tr>
<tr>
<td>Off</td>
<td>Does not use the upload function.</td>
</tr>
</tbody>
</table>

Notes
- As of December 2010, Eye-Fi cards are sold in the U.S.A., Canada, Japan and some countries in the European Union.
- For more information on the Eye-Fi card, contact the manufacturer or seller of Eye-Fi cards directly.
- Eye-Fi cards are permitted only in the countries and regions in which they were purchased. You may be held liable due to local restrictions.
- The Eye-Fi card has a wireless LAN function. Do not insert the Eye-Fi card where wireless LAN is prohibited, such as while aboard an airplane. If the Eye-Fi card is inserted, set [Eye-Fi] to [Off]. When the uploading function of the Eye-Fi card is set to [Off], "OFF" is displayed on the LCD screen.

Transferring image data using the Eye-Fi card

1. Set the wireless LAN access point settings or the transferring direction settings of the Eye-Fi card. For details, refer to the operating instructions supplied with the Eye-Fi card.
2. After the settings are finished, insert the Eye-Fi card into the camera, and shoot the images. The recorded images are automatically transferred via the wireless LAN to the PC, etc.

Notes
- When you use a new Eye-Fi card for the first time, copy the install file of the PC application written in the Eye-Fi card first, then format the card.
- Before using the Eye-Fi card, upgrade the firmware of the Eye-Fi card to the latest version. For details on version upgrades, refer to the operating instructions supplied with the Eye-Fi card.
- When uploading image data, [Power Save] is not available.
- If the "error" icon is displayed, eject and re-insert the Eye-Fi card, or turn the power of
the camera off and on again. If the \[ \textbf{error} \] icon is still displayed, the Eye-Fi card may be corrupted. For details, contact Eye-Fi, Inc.

- Wireless LAN communication may be interrupted by the other communication devices. If data reception is insufficient, move the camera closer to the access point.
- For details on content that can be uploaded, refer to the operating instructions supplied with the Eye-Fi card.
- Some Eye-Fi cards have an “Endless Memory Mode.” This product does not support “Endless Memory Mode.” Make sure that Eye-Fi cards that you insert into this product have “Endless Memory Mode” turned off. For details on setting “Endless Memory Mode”, refer to the operating instructions supplied with the Eye-Fi card.
Power Save

Sets the length of time until the LCD screen goes dark and the time until the camera turns off. If you do not operate the camera for a certain period of time while the power is on using the battery pack, the screen goes dark and the camera later turns off automatically to prevent wearing down the battery pack (Auto power-off function).

1. MENU →  (Settings) →  (Main Settings) → [Power Save] → desired mode →

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stamina</td>
<td>Proactively saves the battery power. If the camera is not operated for a certain period of time, the power turns off automatically. In shooting mode, the LCD screen automatically goes dark before the power turns off.</td>
</tr>
<tr>
<td>✔️ Standard</td>
<td>If the camera is not operated for a certain period of time, the power turns off automatically. In shooting mode, the LCD screen automatically goes dark before the power turns off. It takes longer before the power turns off than when set to [Stamina].</td>
</tr>
<tr>
<td>Off</td>
<td>Does not use the Auto power-off function.</td>
</tr>
</tbody>
</table>

**Note**

- The camera does not enter Power Save mode under conditions such as during a slideshow, during movie playback or when the camera is connected to a TV or a computer.
Format

Formats the memory card or the internal memory.
When you use a memory card with this camera for the first time, it is recommended to format the card using the camera for stable performance of the memory card before shooting. Note that formatting permanently erases all data on the memory card, and is unrecoverable. Save precious data on a computer, etc.

1. MENU ➔ (Settings) ➔ (Memory Card Tool) or (Internal Memory Tool) ➔ [Format] ➔ [OK] ➔ ✓

Note
• Note that formatting permanently erases all data including even protected images.
Create REC.Folder

Creates a folder in a memory card for recording images. Images are recorded in the newly created folder until you create another folder or select another recording folder.

1. MENU → (Settings) → (Memory Card Tool) → [Create REC.Folder] → [OK]

On the folders

After a new folder is created, you can change the storage destination folder. [Details]

Notes

- This item is not displayed when the internal memory is used to record images.
- When you insert a memory card that was used with other equipment into the camera and shoot images, a new folder may be automatically created.
- Up to 4,000 images can be stored in one folder. When the folder capacity is exceeded, a new folder is automatically created.
Change REC.Folder

Changes the folder in the memory card that is currently used for recording images.

1. MENU → (Settings) → (Memory Card Tool) → [Change REC.Folder]

2. Select a folder with / on the control wheel.

3. [OK] →

Notes
- This item is not displayed when the internal memory is used to record images.
- You cannot select a folder with a number that has only "MSDCF" or "ANV01" as a recording folder.
- You cannot move recorded images to another folder.
Delete REC.Folder

Deletes a folder for recording images in a memory card.

1. MENU → (Settings) → (Memory Card Tool) → [Delete REC.Folder]

2. Select a folder with / on the control wheel.

3. [OK] →

Notes

- This item is not displayed when the internal memory is used to record images.
- If you delete the folder set as the recording folder using [Delete REC.Folder], the folder that has the largest folder number is selected as the next recording folder.
- If a folder contains protected images or files that cannot be played back by the camera, images other than these images are deleted and the folder will remain.
Copy

Copies all images in the internal memory to a memory card.

1. Insert a memory card with sufficient free capacity into the camera.

2. MENU → (Settings) → (Memory Card Tool) → [Copy] → [OK]

Notes
- Use a fully charged battery pack. If you attempt to copy image files using a battery pack with little remaining charge, the battery pack may run out, causing copying to fail or possibly corrupting the data.
- Images cannot be copied individually.
- The original images in the internal memory are retained even after copying. To delete the contents of the internal memory, remove the memory card after copying, then format the internal memory ([Format] in [Internal Memory Tool]).
- The data will be copied to the recording folder that is currently being used, with a number one higher than the largest data number in that folder. [Details]
**File Number**

Selects the method used to assign file numbers to images.

1. MENU → (Settings) → (Memory Card Tool) → [File Number] → desired mode

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Assigns numbers to files in sequence even if the recording folder or the memory card is changed. (When the replaced memory card contains a file with a number higher than the last assigned number, a number one higher than the largest number is assigned.)</td>
</tr>
<tr>
<td>Reset</td>
<td>Starts from 0001 each time the folder is changed. (When the recording folder contains a file, a number one higher than the largest number is assigned.)</td>
</tr>
</tbody>
</table>
### Area Setting

**DSC-HX9:**
Adjusts the time to the local time of a selected area.
Setting a frequently visited destination lets you easily adjust the time when you visit that destination.

1. **MENU** → (Settings) → (Clock Settings) → [Area Setting] → desired setting →

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="200x200" alt="Home" /></td>
<td>You use the camera in your area. When the currently set area differs from your home area, you must make the Area Setting.</td>
</tr>
<tr>
<td><img src="200x200" alt="Destination" /></td>
<td>You use the camera set to the time at your destination. Set the destination area.</td>
</tr>
</tbody>
</table>

2. Select the area part for [Destination], then press .

3. Press / on the control wheel or turn the control wheel to select the desired area, then select Daylight Savings time using / .

**DSC-HX9V:**
Sets the area in which you are using this camera.
If [Auto Area ADJ] is set to [On], the camera adjusts the area automatically when the area changes. [Details]

1. **MENU** → (Settings) → (Clock Settings) → [Area Setting] →

2. Press / on the control wheel or turn the control wheel to select the desired area, then select Daylight Savings time using / .

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Cyber-shot User Guide

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Shooting
Viewing
Using 3D Functions
Using MENU items (Shooting)
Using MENU items (Viewing)
Changing settings
Viewing images on a TV
Using with your computer
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Troubleshooting
Precautions/About this camera

Contents list
Date & Time Setting

Sets the date and time again.

1. MENU  \(\Rightarrow\) (Settings)  \(\Rightarrow\) (Clock Settings)  \(\Rightarrow\) [Date & Time Setting] \(\Rightarrow\) desired setting \(\Rightarrow\)  

2. Select the item to be changed using  \(\uparrow\) /  \(\downarrow\) /  \(\leftarrow\) /  \(\rightarrow\) on the control wheel.

3. Press  \(\uparrow\) /  \(\downarrow\) on the control wheel or turn the control wheel to set the numeric value.

4. [OK] \(\Rightarrow\)

<table>
<thead>
<tr>
<th>Date &amp; Time Format</th>
<th>You can select the date and time display format.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer Time/Daylight Savings</td>
<td>You can select Daylight Savings [On]/[Off].</td>
</tr>
<tr>
<td>Date &amp; Time</td>
<td>You can set the date and time.</td>
</tr>
</tbody>
</table>

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Auto Clock ADJ (DSC-HX9V only)

Your camera maintains correct clock time by using GPS to acquire time information during starting up.

1. MENU → (Settings) → (Clock Settings) → [Auto Clock ADJ] → desired mode

- On Adjusts the clock automatically.
- Off Does not adjust the clock automatically.

Notes
- [Auto Clock ADJ] is invalid if [GPS setting] is set to [Off].
- You must set [Date & Time Setting] on the camera before using it.
- There may be discrepancies of a few seconds.
- Depending on the area, it may not function correctly.

Related Topic
- GPS setting (DSC-HX9V only)
- GPS (DSC-HX9V only)
Auto Area ADJ (DSC-HX9V only)

If a time-zone difference is detected, your camera adjusts the area by using the GPS to acquire location information.

1. **MENU** → (Settings) → (Clock Settings) → [Auto Area ADJ] → desired mode

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On</strong></td>
<td>Adjusts time-zone differences automatically.</td>
</tr>
<tr>
<td><strong>Off</strong></td>
<td>Does not adjust time-zone differences automatically.</td>
</tr>
</tbody>
</table>

**Notes**
- [Auto Area ADJ] is invalid if [GPS setting] is set to [Off].
- You must set [Date & Time Setting] on the camera before using it.
- Depending on the area, [Auto Area ADJ] may not function correctly. In that case, set [Auto Area ADJ] to [Off].

**Related Topic**
- GPS setting (DSC-HX9V only)
- GPS (DSC-HX9V only)
Viewing an image on an HD TV using the HDMI Cable (sold separately)

Connect the camera to an HD (High Definition) TV that has an HDMI jack using the HDMI Cable (sold separately).

1. Turn off both the camera and the TV.
2. Connect the HDMI connector of the camera (A) and the HDMI jack of the TV (B) using an HDMI Cable (sold separately) (C).
3. Turn on the TV and set the input.
4. Press the (Playback) button to turn on the camera. Images shot with the camera appear on the TV. Select the desired image with the control wheel.

“PhotoTV HD”

This camera is compatible with the “PhotoTV HD” standard. By connecting a Sony TV compatible with “PhotoTV HD” using an HDMI Cable (sold separately), a whole new world of photos can be comfortably enjoyed in breathtaking Full HD quality.

• “PhotoTV HD” allows for a highly-detailed, photo-like expression of subtle textures and colors.
• When the camera is connected to a Sony TV compatible with Video A mode using an HDMI Cable, your TV is automatically set to the picture quality suitable for still images. When the setting of the TV is set to Video, the picture quality is set to that suitable for movies.
• When playing back a movie in [AVCHD view], it is recommended that you set [View Mode] to [AVCHD view].
• For details, see the operating instructions of the TV.

Notes

• Images shot in [VGA] image size cannot be played back in the HD format.
• [Beep] is fixed to [Shutter].
• Do not connect the camera and equipment to be connected using both output terminals. When the camera and TV are connected using output terminals, no video or sound are produced. Such a connection can also cause problems with the camera and/or connected equipment.
- The camera may not work properly with some HD TVs. For example, you may not be able to view a video on your HD TV or hear sound from the HD TV.
- Use an HDMI Cable with the HDMI logo.
- Use an HDMI mini connector on one end (for the camera), and a connector suitable for connection to your TV on the other end.
- Recording may automatically stop to protect the camera after a period of time if you are shooting movies when the camera and TV are connected by an HDMI Cable (sold separately).
- Movies in [AVCHD view] are movies recorded with [Movie format] set to [AVCHD 60i/60p] (for 1080 60i-compliant devices) or [AVCHD 50i/50p] (for 1080 50i-compliant devices).

**Related Topic**

Viewing 3D images on a 3D TV
When you use a TV that has “BRAVIA” Sync (compatible with SYNC MENU) support, you can operate the playback functions of the camera using the remote controller supplied with the TV by connecting the camera to the TV using an HDMI Cable (sold separately).

1. Connect the HDMI connector of the camera (A) and the HDMI jack of the TV (B) using an HDMI Cable (sold separately) (C).

2. Turn on the TV and set the input.
3. Press the (playback) button of the camera to turn on the camera.
4. MENU → (Settings) → (Main Settings) → [CTRL FOR HDMI] → [On] →
5. Press the SYNC MENU button of the TV’s remote controller to select the desired mode.

<table>
<thead>
<tr>
<th>Menu</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slideshow with music</td>
<td>Automatically plays back images with sound effects or background music in a continuous loop.</td>
</tr>
<tr>
<td>Single Image</td>
<td>Plays back a single image at a time.</td>
</tr>
<tr>
<td>Image Index</td>
<td>Displays multiple images at the same time.</td>
</tr>
<tr>
<td>3D Viewing</td>
<td>Plays back 3D images recorded in 3D shooting mode.</td>
</tr>
<tr>
<td>Delete</td>
<td>Deletes recorded images.</td>
</tr>
<tr>
<td>PB Zoom</td>
<td>Plays back enlarged images.</td>
</tr>
<tr>
<td>Rotate</td>
<td>Rotates a still image.</td>
</tr>
<tr>
<td>View Mode</td>
<td>Selects the display format for viewing multiple images.</td>
</tr>
<tr>
<td>Exit</td>
<td>Exit from the playback operations.</td>
</tr>
</tbody>
</table>

Notes

- When the camera is connected to a TV set using an HDMI Cable, the functions that you can operate are limited.
- You can perform the operation of the camera with the remote controller of your TV by connecting your camera to a “BRAVIA” Sync-compatible TV. For details, see the operating instructions of the TV.
- If the camera functions in an undesired manner when you are controlling it using the TV’s remote controller, such as when connected via HDMI to another manufacturer’s TV, press MENU → (Settings) → (Main Settings) → [CTRL FOR HDMI] → [Off].
- When the camera is in Easy Mode, SYNC MENU does not appear on the TV.
Viewing an image on a Standard Definition (SD) TV

You can view images recorded on the camera in standard picture quality by connecting the camera to a Standard Definition (SD) TV using a USB/AV/DC IN Cable for multi-use terminal (sold separately). Refer also to the operating instructions supplied with the TV.

1. Turn off both the camera and the TV.

2. Connect the multi connector of the camera (A) and the audio/video input jacks on the TV (B) using a USB/AV/DC IN Cable for multi-use terminal (sold separately) (C).

   - Use a Type3b-compliant USB/AV/DC IN Cable for multi-use terminal (sold separately).

3. Turn on the TV and set the input.

4. Press (Playback) button to turn on the camera.
   Images shot with the camera appear on the TV. Select the desired image with the control wheel.
Recommended computer environment (Windows)

The following computer environment is recommended when using the supplied software “PMB”, “Music Transfer” and “PMB Portable”, and when importing images via a USB connection.

<table>
<thead>
<tr>
<th>OS (pre-installed)</th>
<th>Microsoft Windows XP<em>1 SP3/Windows Vista</em>2 SP2/Windows 7</th>
</tr>
</thead>
</table>
| Others             | CPU: Intel Pentium III 800 MHz or faster (For playing/editing the High Definition movies: Intel Core Duo 1.66 GHz or faster/Intel Core 2 Duo 1.66 GHz or faster/Intel Core 2 Duo 2.26 GHz or faster is required when processing HD FX/HD FH movies, and Intel Core 2 Duo 2.40 GHz or faster is required when processing HD PS movies)  
Memory: 512 MB or more (For playing/editing the High Definition movies: 1 GB or more)  
Hard Disk: Disk space required for installation—approximately 500 MB  
Display: Screen resolution: 1,024 × 768 dots or more |

*1 64-bit editions and Starter (Edition) are not supported.  
Windows Image Mastering API (IMAPI) Ver.2.0 or later is required to use the function for creating discs.  
*2 Starter (Edition) is not supported.

Notes
● Operation is not assured in an environment based on an upgrade of the operating systems described above or in a multi-boot environment.  
● If you connect two or more USB devices to a single computer at the same time, some devices, including the camera, may not operate, depending on the types of USB devices you are using.  
● Connecting the camera using a USB interface that is compatible with Hi-Speed USB (USB 2.0) allows advanced transfer (high speed transfer), as the camera is compatible with Hi-Speed USB (USB 2.0).  
● When your computer resumes activity from suspend or sleep mode, communication between the camera and your computer may not recover at the same time.
Recommended computer environment (Macintosh)

The following computer environment is recommended when using the supplied software “Music Transfer” and “PMB Portable” and when importing images via a USB connection.

<table>
<thead>
<tr>
<th>OS (pre-installed)</th>
<th>USB Connection: Mac OS X (v10.3 to v10.6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Music Transfer/PMB Portable: Mac OS X* (v10.4 to v10.6)</td>
</tr>
</tbody>
</table>

* Equipped with Intel Processor

Notes

- Operation is not assured in an environment based on an upgrade of the operating systems described above or in a multi-boot environment.
- If you connect two or more USB devices to a single computer at the same time, some devices, including the camera, may not operate, depending on the types of USB devices you are using.
- Connecting the camera using a USB interface that is compatible with Hi-Speed USB (USB 2.0) allows advanced transfer (high speed transfer), as the camera is compatible with Hi-Speed USB (USB 2.0).
- When your computer resumes activity from suspend or sleep mode, communication between the camera and your computer may not recover at the same time.
“PMB (Picture Motion Browser)”

- “PMB” allows you to import images shot with the camera to a computer for display. Make a USB connection between the camera and your computer, and click [Import].
- Images on a computer can be exported to a memory card, and displayed on the camera. Make a USB connection between the camera and your computer, click [Export] → [Easy Export (PC Sync)] in the [Manipulate] menu, and click [Export].
- You can save and print images with the date.
- You can display images stored on a computer by shooting date in a calendar display.
- You can correct (Red Eye Correction, etc.) still images, and change the shooting date and time.
- Blu-ray discs, AVCHD discs and DVD-Video discs can be created from movies in [AVCHD view] imported to a computer. (An Internet connection is required when creating a Blu-ray disc or a DVD-Video disc for the first time.) However, movies shot with the image quality set to [AVC HD 28M (PS)] cannot be recorded to a disc in the same quality. Convert the image using “PMB” before saving to a disc. DVD or AVCHD discs cannot be created from movies recorded in [AVC HD 24M (FX)] quality. Save [AVC HD 24M (FX)] quality movies to Blu-ray discs.
- You can upload images to a network service. (An internet connection environment is required.)
- You can import photos and movies recorded with location and shooting direction information to a computer and enjoy viewing them with a map which shows their shooting location (DSC-HX9V only).
- For other details, see (PMB Help).
- Movies in [AVCHD view] are movies recorded with [Movie format] set to [AVCHD 60i/60p] (for 1080 60i-compliant devices) or [AVCHD 50i/50p] (for 1080 50i-compliant devices).
“Music Transfer”

“Music Transfer” allows you to replace the Music files provided in the camera at the factory with your favorite tracks, and to delete and add Music files.

You can also restore the tracks stored at the factory to your camera.

- The following track types can be imported using “Music Transfer”.
  - MP3 files stored on the hard disk of your computer
  - Music CD tracks
  - Preset-music saved on the camera
- Before starting up “Music Transfer” perform MENU → 📜 (Settings) → ⌎ (Main Settings) → [Download Music], and connect the camera to the computer.

For other details, see the help in “Music Transfer”.

Related Topic
- Download Music
- Empty Music
Installing “PMB” and “Music Transfer” (Windows)

1. Turn on your computer and insert the CD-ROM (supplied) into the CD-ROM drive. The installation menu screen appears.
   - If it does not appear, double-click [Computer] (in Windows XP, [My Computer]) → (SONYPMB).
   - If the AutoPlay screen appears, select “Run Install.exe” and follow the instructions that appear on the screen to proceed with the installation.

2. Click [Install].
   The “Choose Setup Language” screen appears.

3. Select the desired language, then proceed to the following screen.
   The “License Agreement” screen appears.

4. Carefully read the agreement, click the radio button ( ) to accept the terms of the agreement, and then click [Next].

5. Follow the instructions on the screen to complete the installation.
   - Restarting the computer may be necessary. When the restarting confirmation message appears, restart the computer following the instructions on the screen.
   - DirectX may be installed depending on the system environment of your computer.

6. Connect the camera to your computer when the connecting confirmation message appears.
   - When the camera is not connected to your computer, some functions cannot be used, such as importing images.

7. Remove the CD-ROM after the installation is complete.

8. Start up the software.
   - To start up “PMB,” click (PMB) on the desktop.
     For the detailed operation method, see the following PMB support page (English only):
     http://www.sony.co.jp/pmb-se/
     or click (PMB Help).
   - To start up “PMB” from the Start menu, select [Start] → [All Programs] → (PMB).
   - If “PMB” was installed on your computer and if you re-install “PMB” using the supplied CD-ROM, you can start up all the applications from “PMB Launcher.” To start up “PMB Launcher,” double-click (PMB Launcher) on the desktop.

Notes

- Log on as Administrator.
- When “PMB” is started up for the first time, the confirmation message of the Information tool appears on the screen. Select [Start].
- If “PMB” has been already installed on your computer and that “PMB” version number is lower than that of the supplied CD-ROM, re-install “PMB” using the supplied CD-ROM.
- If the version number is higher than that of the supplied CD-ROM, you do not need to re-install “PMB”. When you connect the camera and the computer via USB cable, the available “PMB” function is activated.
- If “PMB” has already been installed on your computer and that “PMB” version number is lower than 5.0, some functions may become invalid after you install “PMB” using the supplied CD-ROM. Also, you can start up “PMB” or other various software from “PMB Launcher” installed at the same time. To start up “PMB Launcher” double-click (PMB Launcher) on the desktop.
Installing "Music Transfer" (Macintosh)

1. Turn on your Macintosh computer, and insert the CD-ROM (supplied) into the CD-ROM drive.
2. Double-click (SONYPMB).

Notes
- "PMB" is not compatible with Macintosh computers.
- Shut down all other application software before you install "Music Transfer".
- For installation, you need to log on as Administrator.
Connecting the camera to the computer

1. Connect the camera to your computer using a multi-use terminal USB cable (supplied) (A).
   - When a USB connection is established for the first time, your computer automatically runs a program to recognize the camera. Wait for a while.
   - When connecting the camera to a computer using the multi-use terminal USB cable, power feeding from the computer starts if [USB Power Supply] is set to [On]. ([On] is the default setting.)

Related Topic
USB Connect Setting
LUN Setting
Importing images to a computer (Windows)

“PMB” allows you to easily import images.
For details on “PMB” functions, see the “PMB Help”.

Importing images to a computer without using “PMB”
When the AutoPlay Wizard appears after making a USB connection between the camera and a computer, click [Open folder to view files] → [OK] → [DCIM] or [MP_ROOT] → copy the desired images to the computer.

Notes
- Use “PMB” for operations such as when importing movies in [AVCHD view] to a computer.
- If operations are performed on files or folders for movies in [AVCHD view] on the camera from a PC while the camera is connected to a PC, the image file may be destroyed or playback may become impossible. Do not delete or copy movies in [AVCHD view] from a PC to the camera’s memory card. Sony bears no responsibility for the result of operations of this type.
- Use “PMB” to import the movies with GPS location information to a computer (DSC-HX9V only).
- The camera creates a 3D image by combining a JPEG file with an MPO file. If you delete either file on a PC, you cannot playback the 3D image.
- Movies in [AVCHD view] are movies recorded with [Movie format] set to [AVCHD 60i/60p] (for 1080 60i-compliant devices) or [AVCHD 50i/50p] (for 1080 50i-compliant devices).
Importing images to a computer (Macintosh)

1. Connect the camera to your Macintosh computer first. Double-click the newly recognized icon on the desktop → the folder where the images you want to import are stored.

2. Drag and drop the image files to the hard disk icon. The image files are copied to the hard disk.

3. Double-click the hard disk icon → the desired image file in the folder containing the copied files. The image is displayed.

Notes
- If operations are performed on files or folders for movies in [AVCHD view] on the camera from a PC while the camera is connected to a PC, the image file may be destroyed or playback may become impossible. Do not delete or copy movies in [AVCHD view] from a PC to the camera’s memory card. Sony bears no responsibility for the result of operations of this type.
- The camera creates a 3D image by combining a JPEG file with an MPO file. If you delete either file on a PC, you cannot playback the 3D image.
- Movies in [AVCHD view] are movies recorded with [Movie format] set to [AVCHD 60i/60p] (for 1080 60i-compliant devices) or [AVCHD 50i/50p] (for 1080 50i-compliant devices).
Deleting the USB connection

Perform the procedures from step 1 to 3 below before:

- Disconnecting the cable.
- Removing a memory card.
- Inserting a memory card into the camera after copying images from the internal memory.
- Turning off the camera.

1. Double-click the disconnect icon (UBLISH) on the tasktray.

   Windows Vista
   ![Disconnect icon]

   Windows XP
   ![Disconnect icon]

2. Click (USB Mass Storage Device) → [Stop].

3. Confirm the device on the confirmation window, then click [OK].

Notes

- Drag and drop the icon of the memory card or the drive icon to the “Trash” icon beforehand when you use a Macintosh computer, and the camera is disconnected from the computer.
- The disconnect icon may not appear when you use a Windows 7 computer. In this case, you can disconnect the camera from the computer without following the above steps.
“PMB Portable”

This camera has a built-in application “PMB Portable”. You can use this application to do the following:
- You can easily upload images to a blog or other media service.
- You can upload images from a computer connected to the Internet even when you are away from home or the office.
- You can easily register the media services (such as blogs) you use frequently.

For details on “PMB Portable”, see the “PMB Portable” help.

Notes on “PMB Portable”

“PMB Portable” makes it possible to download the URLs of a number of websites from the server administered by Sony (the “Sony server”). In order to use “PMB Portable” to enjoy the benefits of the image uploading service or other services (the “services”) provided by these and other websites, you must consent to the following.
- Some websites require registration procedures and/or fees to use their services. In using such services, you must comply with the terms and conditions established by the websites concerned.
- Services may be terminated or changed in accordance with the convenience of the website operators. Sony will not be held responsible for any trouble occurring between the users and third parties or any inconvenience caused to users relating to the utilization of the services inclusive of the termination of or changes to such services.
- To view a website, you will be redirected to it by the Sony server. There may be times when you cannot access the website because of server maintenance or for other reasons.
- If the operation of the Sony server is to be terminated, you will be notified of the termination ahead of time on Sony’s website, etc.
- The URLs to which you are redirected by the Sony server and other information may be recorded for the purposes of improving Sony’s future products and services. However, no personal data will be recorded on such occasions.
Starting up “PMB Portable” (Windows)

For Windows, when using “PMB Portable” for the first time, you must select the language. Follow the procedure below to make the selection. Once the language selection has been made, steps 3 to 5 are unnecessary the next time you use “PMB Portable”.

1. Connect the camera to a computer.
   - Windows 7: Activate Device Stage*.
   * Device Stage is a menu screen to manage connected devices, such as a camera. (Function of Windows 7)

2. Click [PMB Portable].
   The User Agreement screen appears.

3. Select the desired language, then click [OK].
   The Region Selection screen appears.

4. Select the appropriate [Region] and [Country/Area], and then click [OK].
   The User Agreement screen appears.

5. Read the agreement carefully. If you accept the terms of the agreement, click [I Agree]. “PMB Portable” starts up.

Notes
- “PMB Portable” is not supported for movies in [AVCHD view].
- Set [LUN Setting] in [Main Settings] to [Multi].
- If you cannot start up “PMB Portable”, set [USB Connect Setting] to [Mass Storage].
- Always connect to a network when using “PMB Portable”.
- When uploading images over the Internet, the cache may remain in the computer being used depending on the service provider. This is also true when this camera is used for this purpose.
- When a bug occurs in “PMB Portable” or you delete “PMB Portable” by mistake, you can repair “PMB Portable” by downloading the PMB Portable installer from the website.
- If the Auto Play Wizard does not appear with Windows XP/Windows Vista, click [Computer] (in Windows XP, [My Computer]) → [PMBPORTABLE], and double-click [PMBP_Win.exe].
- If Device Stage does not activate with Windows 7, click [Computer] and double-click camera icon → media icon → [APPLICATION] → [PMBP_MTP.exe].
- The initial screen for Device Stage that does not contain specific information about the model may appear, depending on the settings of your computer when using Windows 7. If this happens, download the latest information following the instructions on the screen.
- When using Windows 7, the screen automatically switches to Mass Storage connection when starting up “PMB Portable”.
- Movies in [AVCHD view] are movies recorded with [Movie format] set to [AVCHD 60i/60p] (for 1080 60i-compliant devices) or [AVCHD 50i/50p] (for 1080 50i-compliant devices).
Starting up “PMB Portable” (Macintosh)

When using with a Macintosh computer, it is necessary to set the region the first time. Perform the setting as explained below. After setting the region, steps 3-4 are unnecessary when used after that.

1. Make a USB connection between the camera and a Macintosh computer. When you connect the camera and your computer, [PMBPORTABLE] appears on the desktop. Click [×] to close any unnecessary drives.


3. Select the appropriate [Region] and [Country/Area], and then click [OK]. The User Agreement screen appears.

4. Read the agreement carefully. If you accept the terms of the agreement, click [I Agree]. “PMB Portable” starts up.

Notes
- “PMB Portable” is not supported for movies in [AVCHD view].
- Set [LUN Setting] in [Main Settings] to [Multi].
- If you cannot start up “PMB Portable”, set [USB Connect Setting] to [Mass Storage].
- Always connect to a network when using “PMB Portable”.
- When uploading images over the Internet, the cache may remain in the computer being used depending on the service provider. This is also true when this camera is used for this purpose.
- When a bug occurs in “PMB Portable” or you delete “PMB Portable” by mistake, you can repair “PMB Portable” by downloading the PMB Portable installer from the website.
- Movies in [AVCHD view] are movies recorded with [Movie format] set to [AVCHD 60i/60p] (for 1080 60i-compliant devices) or [AVCHD 50i/50p] (for 1080 50i-compliant devices).
Selecting the method for creating a disc of movies

You can create a disc from movies in [AVCHD view] that have been recorded with this camera. Select the method that suits your disc player.

For details on the method for creating a disc using "PMB", see “PMB Help.”

To import movies into a PC, see “Importing images to a computer” [Details] (Windows)/[Details] (Macintosh).

### Characteristics of each type of disc

You can create a disc from movies in [AVCHD view] that have been recorded with this camera. Select the method that suits your disc player.

### Characteristics of each type of disc

<table>
<thead>
<tr>
<th>Player</th>
<th>Creation method</th>
<th>Disc type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blu-ray disc playback devices (Blu-ray disc player, PlayStation®3, etc.)</td>
<td>Importing movies to a computer using “PMB” and creating a Blu-ray disc</td>
<td>Blu-ray</td>
</tr>
<tr>
<td>AVCHD format playback devices (Sony Blu-ray disc player, PlayStation®3, etc.)</td>
<td>Importing movies to a computer using “PMB” and creating an AVCHD format disc</td>
<td>AVCHD</td>
</tr>
<tr>
<td>Ordinary DVD playback devices (DVD player, computer that can play DVDs, etc.)</td>
<td>Importing movies to a computer using “PMB” and creating a standard definition image quality (STD) disc</td>
<td>STD</td>
</tr>
</tbody>
</table>

### Notes

- If you create a disc using Sony DVDirect (DVD Writer), use the memory card slot of the DVD Writer or connect the DVD Writer via USB connection to transfer the data.
- If you use Sony DVDirect (DVD Writer), check that the firmware is updated to the newest version.
  For details, see the following URL:
- Movies in [AVCHD view] are movies recorded with [Movie format] set to [AVCHD 60i/60p] (for 1080 60i-compliant devices) or [AVCHD 50i/50p] (for 1080 50i-compliant devices).
Standard definition image quality (STD) movies converted from high-definition image quality (HD) movies can be recorded on DVD media, such as DVD-R discs, and a standard definition image quality (STD) disc is created.

**Types of discs that can be used with “PMB”**

The following 12-cm discs can be used with “PMB”. For information on Blu-ray discs, see “Creating Blu-ray discs.” [Details]

- DVD-R / DVD+R / DVD+R DL: Cannot be re-written.
- DVD-RW / DVD+RW: Can be re-written and used again.
  - Always maintain your PlayStation®3 to use the latest version of the PlayStation®3 system software.
  - The PlayStation®3 may not be available in some countries/regions.
Creating AVCHD discs

An AVCHD disc with HD picture quality can be created from movies in [AVCHD view] imported to a PC using the supplied “PMB” software.

1. Turn on the power of the PC and insert an unused disc in the DVD drive.
2. Start “PMB”.
3. Select the movies in [AVCHD view] to be recorded to the disc.
4. Click (Create Discs), then select [Create AVCHD Format Discs (HD)].
5. Create the disc by following the on-screen instructions.

Playing an AVCHD disc on a PC

AVCHD discs can be played on a PC using “Player for AVCHD” installed along with “PMB”. To start the software, click on [Start] → [All Programs] → [PMB] → [PMB Launcher] → [View] → [Player for AVCHD].

For detailed operations, see the Help for “Player for AVCHD”.
- Images may not play back smoothly depending on the PC environment.

Notes
- Be sure that “PMB” has already been installed. [Details]
- You cannot record the following images on an AVCHD disc:
  - Still images
  - MP4 movies
  - Movies recorded in [AVC HD 28M (PS)] or [AVC HD 24M (FX)]
- Disc creation may take time.
- Movies in [AVCHD view] are movies recorded with [Movie format] set to [AVCHD 60i/60p] (for 1080 60i-compliant devices) or [AVCHD 50i/50p] (for 1080 50i-compliant devices).
Creating standard definition image quality (STD) discs

DVD discs with standard definition image quality (STD) can be created using the supplied “PMB” software and by selecting a movie in [AVCHD view] imported to the PC.

1. Turn on the power of the PC and insert an unused disc in the DVD drive.
   - If software other than “PMB” starts automatically, exit that software.

2. Start “PMB”.

3. Select the AVCHD movie to be written to the disc.

4. Click ![Create Discs](Create Discs), then select [Create DVD-Video Format Discs (STD)].

5. Create the disc by following the on-screen instructions.

Notes
- Be sure that “PMB” has already been installed. [Details]
- Discs cannot be created for MP4 movies.
- Disc creation may take time as a movie in [AVCHD view] must be converted to standard definition image quality (STD).
- The PC must be connected to the Internet the first time a DVD-Video disc is created.
- Movies in [AVCHD view] are movies recorded with [Movie format] set to [AVCHD 60i/60p] (for 1080 60i-compliant devices) or [AVCHD 50i/50p] (for 1080 50i-compliant devices).
Creating Blu-ray discs

You can create Blu-ray discs from movies in [AVCHD view] imported to a PC.
The PC in question must be capable of creating Blu-ray discs. BD-R (not re-writable) or BD-RE (re-writable) discs can be used. Multi-session recordings cannot be made.
To create Blu-ray discs, be sure to install [BD Add-on Software] on the "PMB" installation screen.
To install, your PC must be connected to the Internet.
For detailed operations, see "PMB Help".

Notes
- When saving movies shot with the image quality set to [AVC HD 28M (PS)] to a Blu-ray disc, convert the image using "PMB" before saving to a disc.
- Movies in [AVCHD view] are movies recorded with [Movie format] set to [AVCHD 60i/60p] (for 1080 60i-compliant devices) or [AVCHD 50i/50p] (for 1080 50i-compliant devices).
Printing still images

You can print still images using the following methods.

- Printing directly using a printer which supports your memory card type.
  For details, see the operating instructions supplied with the printer.
- Printing using a computer
  You can import images to a computer using the supplied “PMB” software and print the images.
  For details, see the “PMB Help”.
- Printing at a shop [Details]

Notes

- When you print still images shot in [16:9] mode, both edges may be cut off.
- You cannot print panorama images depending on the printer.
Printing at a shop

You can take a memory card containing images shot with the camera to a photo printing service shop. As long as the shop supports photo printing services conforming to DPOF, you can make a DPOF (Print order) mark on images in advance in the playback mode so that you do not have to reselect them when you print them out at the shop.

Notes

- You cannot print images stored in the internal memory at a print shop directly from the camera. Copy the images to a memory card, then take the memory card to the print shop. [Details]
- Consult your photo printing service shop as to what types of memory card they handle.
- A memory card adaptor (sold separately) may be necessary. Consult your photo printing service shop.
- Before you take image data to a shop, always copy (back up) your data to a disk.
- You cannot set the number of prints.

Related Topic

Print (DPOF)
If you have problems

If you experience trouble with the camera, try the following solutions.

1. Check the items under “Troubleshooting”, then check your camera.
   If a code such as “C/E: 00 : 00 ” appears on the screen, see “Self-diagnosis display”.

2. Remove the battery pack, wait for about one minute, re-insert the battery pack, then turn on the power.

3. Initialize the settings. [Details]

4. Consult your Sony dealer or local authorized Sony service facility.
   Be aware that by sending the camera for repair, you give consent that the contents of the internal memory, music files may be checked.

Additional information on this product and answers to frequently asked questions can be found at our Customer Support Website.
http://www.sony.net/

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Battery pack and power

Cannot insert the battery pack into the camera.

- Make sure the direction of the battery pack is correct, and insert it until the battery eject lever is locked.

Cannot turn on the camera.

- After inserting the battery pack into the camera, it may take a few moments for the camera to power up.
- Make sure that the battery pack is inserted correctly.
- The battery pack is discharged. Charge the battery pack.
- The battery pack terminals are dirty. Gently wipe away any dirt with a soft cloth.
- Check that the battery pack type is NP-BG1 or NP-FG1.

The power turns off suddenly.

- Depending on the camera and battery temperature, the power may turn off automatically to protect the camera. In this case, a message is displayed on the LCD screen before the power turns off.
- If you do not operate the camera for a certain period of time while the power is on and [Power Save] is set to [Standard] or [Stamina], the camera turns off automatically to prevent wearing down the battery pack. Turn on the camera again.

The remaining charge indicator is incorrect.

- This is caused when you use the camera in an extremely hot or cold location.
- A discrepancy arose between the remaining charge indicator and the actual remaining battery charge. Fully discharge the battery pack once, then charge it to correct the indication. The remaining charge indicator may not be correct under certain circumstances.
- Battery capacity decreases over time and through repeated use. If decreased usage time between charges becomes significant, it is probably time to replace it with a new one.

The Power/charge lamp of the camera flashes while charging the battery.

- Check that the battery pack type is NP-BG1 or NP-FG1.
- The Power/charge lamp of the camera flashes infrequently when you use a battery pack that has not been used for a long time. In such cases, remove the battery pack from the camera and re-insert it.
- For details, see “Battery pack.” [Details]
The battery is not charged even if the Power/charge lamp turns off and charging is finished.

- This happens when you charge the battery pack in an extremely hot or cold location. Charge the battery pack within the proper charging temperature range of between 10°C to 30°C (50°F to 86°F).

The camera makes a noise when it is shaken.

- If the power is not on, the camera may make a noise when it is shaken. This is not a malfunction.
Shooting still images/movies

Cannot record images.

- If images are recorded on the internal memory even when a memory card is inserted into the camera, make sure that the memory card is fully inserted into the camera.
- Check the free capacity of the internal memory or memory card. If it is full, do one of the following:
  - Delete unnecessary images. [Details]
  - Change the memory card.
- You cannot record images while charging the flash.
- When recording movies, it is recommended that you use the following memory cards:
  - “Memory Stick PRO Duo” (Mark2) media, “Memory Stick PRO-HG Duo” media
  - SD memory card, SDHC memory card or SDXC memory card (Class 4 or faster)
- Set [Demo Mode] to [Off]. [Details]

Smile Shutter function does not work.

- No image is shot if a smiling face is not detected. [Details]
- Set [Demo Mode] to [Off]. [Details]

Anti-blur function does not work.

- The anti-blur function may not work properly when shooting night scenes.
- Shoot after pressing the shutter button halfway down.

Recording takes a long time.

- When the shutter speed becomes slower than a certain speed, for example, when you shoot images in dark locations, the camera automatically reduces the image noise. This function is called NR (noise reduction) slow shutter and the shooting time takes longer.

The image is out of focus.

- The subject is too close. When shooting, make sure to position the lens farther away from the subject than the shortest shooting distance (approximately 5 cm (2 inches) (W)/1 m 20 cm (3 ft 11 1/4 inches) (T) from the lens).
- 🌃 (Twilight ), 🌃 (Landscape), 🎆 (Fireworks) or 🏼 (Advanced Sports Shooting) mode is selected in the Scene Selection when shooting still images.

Zoom does not work.

- You cannot use the optical zoom when:
  - Shooting in Intelligent Sweep Panorama mode
Shooting in 3D Sweep Panorama mode
Shooting in Sweep Multi Angle mode

You cannot use the Smart zoom depending on the image size. [Details]

You cannot use the digital zoom when:
- Shooting in Superior Auto mode
- Shooting in Background Defocus mode
- Shooting 3D still images
- — (Backlight Correction HDR) or (Advanced Sports Shooting) mode is selected in the Scene Selection.
- The Smile Shutter is working.
- [Self-Timer] is set to [Self-portrait One Person] or [Self-portrait Two People].

**Cannot select the Face Detection function.**

- You can select Face Detection only when the focus mode is set to [Multi AF] and the metering mode is set to [Multi].

**The flash does not work.**

- You cannot use the flash when:
  - Shooting in Background Defocus mode
  - Burst mode is selected. [Details]
  - — (Anti Motion Blur) mode, (Twilight) mode, (Hand-held Twilight) mode, (High Sensitivity) mode, (Fireworks) or (Advanced Sports Shooting) mode is selected in Scene Selection.
  - Shooting in Sweep Panorama mode
  - Shooting in 3D mode
  - Shooting in movie mode

- Set the flash to [On] when the camera is set to Manual Exposure Shooting or Scene Selection mode is set to — (Landscape), — (Backlight Correction HDR), — (Gourmet), — (Pet), — (Beach) or (Snow) mode. [Details]

**Fuzzy white circular spots appear in images shot using the flash.**

- Particles (dust, pollen, etc.) in the air reflected the flash light and appeared in the image. This is not a malfunction. [Details]

**The close-up shoot function (Macro) does not work.**

- The camera automatically adjusts the focus. Press and hold the shutter button halfway down. Focus adjustment may take some time when shooting a close subject.

- — (Landscape), (Twilight), (Fireworks) or (Advanced Sports Shooting) mode is selected in the Scene Selection.

**The date and time are not displayed on the LCD screen.**

- While shooting, the date and time are not displayed. They are displayed only during playback.

**The F value and shutter speed flash when you press and hold the shutter button halfway down.**

- The exposure is incorrect. Correct the exposure. [Details]
The image colors are not correct.

- Adjust the White Balance [Details] or the White Balance Shift [Details].

Noise appears in the image when you view the screen in a dark place.

- The camera is attempting to increase the visibility of the screen by temporarily brightening the image under conditions of low illumination. There is no effect on the recorded image.

You can see a dark shadow on the image.

- Depending on the brightness of the subject, you may see a dark shadow when you change the aperture. This is not a malfunction.

The eyes of the subject come out red.

- Set [Red Eye Reduction] to [Auto] or [On]. [Details]
- Shoot the subject at a distance closer than the flash range using the flash.
- Light the room and shoot the subject.
- Retouch the image using [Retouch] → [Red Eye Correction] in viewing menu [Details], or correct using “PMB”.

Dots appear and remain on the screen.

- This is not a malfunction. These dots are not recorded.

Cannot shoot images in succession.

- The internal memory or memory card is full. Delete unnecessary images. [Details] [Details]
- The battery level is low. Insert a charged battery pack.

The same image is shot several times.

- Set [Burst Settings] to [Single]. [Details]
- [Scene Recognition] is set to [Advanced]. [Details]

When the brightness of the subject changes, there will be a clicking sound.

- This is the sound of the ND filter inside the lens working. It is not a malfunction.
### Viewing images

#### Cannot play back images.
- Make sure that the memory card is fully inserted into the camera.
- The folder/file name has been changed on your computer.
- No guarantees are made for playing back, on this camera, files containing images which were processed on a computer or images which were shot using other cameras.
- The camera is in USB mode. Delete the USB connection. [Details]
- Use “PMB” to play images stored on a PC with this camera.

#### Cannot play back stereoscopic images on the camera.
- Stereoscopic images can be played back on this camera only when that image has been recorded using [Sweep Multi Angle] mode.
- 3D images consist of a JPEG file and an MPO file. If either file is deleted on the PC, the camera may not operate correctly.

#### The date and time are not displayed.
- The screen display is set to display images only. Press DISP (Display Setting) on the control wheel to display information. [Details]

#### Cannot hear music during slideshow.
- Slideshow is played back with [Continuous Playback]. Select [Slideshow with music] and play back.
- Transfer music files to the camera with “Music Transfer”. [Details]
- Confirm that the volume setting and slideshow setting are correct. [Details]

#### The image does not appear on the TV.
- For viewing movies, the camera and television must use the same color television system. [Details]
- Check whether the connection is correct. [Details]

#### The 3D images do not appear on the TV even though the camera is in [3D Viewing] mode.
- Check that the TV is set to display the 3D images.
Deleting

Cannot delete an image.
- Cancel the protection. [Details]
GPS (DSC-HX9V only)

The camera is not receiving a GPS signal.
- Set [GPS setting] to [On]. [Details]
- Your camera may not be able to receive radio signals from GPS satellites because of obstructions.
- To triangulate the location information correctly, bring your camera to an open area, and turn on the camera again.

Excessive error in location information.
- The margin of error can be up to several-hundred meters depending on surrounding buildings, weak GPS signals, etc.

It takes time to triangulate although [GPS assist data] is taken in.
- [Date & Time Setting] is not set, or set time is shifted greatly. Set the date and time correctly. [Details]
- The term of validity of GPS assist data has expired. Update GPS assist data. [Details]
- As the positions of GPS satellites vary constantly, it may take longer to determine the location or the receiver may not be able to determine the location at all, depending on the location and time you use the camera.
- “GPS” is a system for determining geographic location by triangulating radio signals from GPS satellites. Avoid using the camera in places where radio signals are blocked or reflected, such as a shadowy place surrounded by buildings or trees, etc. Use the camera in open sky environments.

The location or direction information has not been recorded.
- The shooting direction is not recorded when shooting movies.
- Use “PMB” to import the movies with GPS location information to your computer.

Excessive error in compass information.
- Do not place the camera in close proximity to a magnetic source, or a metal.
Computers

“Memory Stick PRO Duo” media is not recognized by a computer with a “Memory Stick” media slot.

- Check that the computer and the “Memory Stick” media Reader/Writer support “Memory Stick PRO Duo” media. Users of computers and “Memory Stick” media Readers/ Writers made by manufacturers other than Sony should contact those manufacturers.
- If “Memory Stick PRO Duo” media is not supported, connect the camera to the computer. The computer recognizes the “Memory Stick PRO Duo” media. [Details]

Your computer does not recognize the camera.

- Use the multi-use terminal USB cable (supplied).
- Disconnect the USB cable from both the computer and the camera, and connect it again firmly.
- Disconnect all equipment other than the camera, the keyboard and the mouse from the USB connectors of your computer.
- Connect the camera directly to your computer without passing through a USB hub or other device.
- Set [USB Power Supply] to [Off]. Your computer may recognize the camera.

Cannot import images.

- Connect the camera and your computer correctly making a USB connection. [Details]
- When you shoot images with a memory card formatted by a computer, you may not be able to import the images to a computer. Shoot using a memory card formatted by the camera. [Details]

After making a USB connection, “PMB” does not start automatically.

- Make the USB connection after the computer is turned on.

After making a USB connection, “PMB Portable” does not start.

- Set [LUN Setting] to [Multi]. [Details]
- Set [USB Connect Setting] to [Auto]. If “PMB Portable” still does not start, set [USB Connect Setting] to [Mass Storage]. [Details]
- Connect the computer to the network.

Cannot play back images on your computer.

- If you are using “PMB”, refer to “PMB Help”. [Details]
● Consult the computer or software manufacturer.

The image and sound are interrupted by noise when you view a movie on a computer.

● You are playing back the movie directly from the memory card. Import the movie to your computer using “PMB” and play it back. [Details]

Images once exported to a computer cannot be viewed on the camera.

● Use “PMB” to play images stored on a PC with this camera.

● Register the image in the Image Database File and play in [Date View]. [Details]
Memory card

Cannot insert a memory card.
- Insert the memory card in the correct direction.

You have formatted a memory card by mistake.
- All the data on the memory card is deleted by formatting. You cannot restore it.

Images are recorded on the internal memory even when a memory card is inserted into the camera.
- Make sure that the memory card is fully inserted into the camera.
Internal memory

Cannot play back or record images using the internal memory.

- There is a memory card inserted in the camera. Remove it.

Cannot copy the data stored in the internal memory to a memory card.

- The memory card is full. Copy to a memory card with sufficient capacity.

Cannot copy the data on the memory card or the computer to the internal memory.

- This feature is not available.
Printing

**Cannot print an image.**
- Refer to the operation manual of the printer.

**Images are printed with both edges cut off.**
- Depending on your printer, all the edges of the image may be cut off. Especially when you print an image shot with the image size set to [16:9], the lateral end of the image may be cut off.
- When printing images using your printer, cancel the trimming or borderless settings. Consult the printer manufacturer as to whether the printer provides these functions or not.
- When having images printed at a digital print shop, ask the shop whether they can print the images without cutting off both edges.

**Cannot print images with the date.**
- Select MENU → [Date] (Shooting Settings) → [Write Date] → [On] to insert a date on the image. Make sure that once the date is inserted, you cannot remove that date from the image.
- Using "PMB", you can insert the date on still images that have been recorded without a date. [Details]

**Cannot print the 3D images as they are displayed on the camera's LCD screen.**
- The 3D images displayed on the camera are MPO files, but the images to be printed are JPEG files, so in some cases, the images to be printed out are not the same as the ones displayed on the LCD screen.
Others

The lens gets fogged.
- Moisture condensation has occurred. Turn off the camera and leave it for about an hour before using it.

The camera turns off with the lens portion extended.
- The battery pack is discharged. Replace it with a charged battery pack, then turn the camera on again.
- Do not attempt to force the lens that has stopped moving.

The camera becomes warm when you use it for a long time.
- This is not a malfunction.

The Clock Set screen appears when you turn on the camera.
- Set the date and time again. [Details]
- The internal rechargeable backup battery has discharged. Insert a charged battery, and set aside for 24 hours or more with the power left off.

The date or time is incorrect.
- The Area Setting is set to a different location than your current location. Change the setting by MENU → [Settings] → [Clock Settings] → [Area Setting].
Self-diagnosis display

If a code starting with a letter of the alphabet appears, the self-diagnosis function on the camera is working. The last two digits (indicated by □ □ ) will differ depending on the state of the camera.

If you cannot solve the problem even after trying the following corrective actions a few times, the camera may need repair.
Contact your Sony dealer or local authorized Sony service facility.

**C:32:** □ □
- There is trouble with the camera's hardware. Turn the power off and on again.

**E:95:** □ □
- The camera cannot read or write data on the memory card. Try turning off and on the camera again, or taking out and inserting the memory card several times.
- The internal memory has experienced a format error, or an unformatted memory card is inserted. Format the internal memory or the memory card. [Details]
- The inserted memory card cannot be used with the camera, or the data is damaged. Insert a new memory card.

**E:61:** □ □
**E:62:** □ □
**E:91:** □ □
- A camera malfunction has occurred. Initialize the camera, then turn the power on again. [Details]

**E:94:** □ □
- There is a malfunction when writing or deleting data. Repair is required. Contact your Sony dealer or local authorized Sony service facility. Be prepared to give all numbers in the error code beginning from the E.
Messages

If the following messages appear, follow the instructions.

- The battery level is low. Charge the battery pack immediately. Depending on the conditions of use or the type of battery pack, the indicator may flash even though there are still 5 minutes to 10 minutes of remaining battery time left.

**For use with compatible battery only**

- The battery inserted is not an NP-BG1 (supplied) or NP-FG1 (sold separately) battery pack.

**Camera overheating Allow it to cool**

- The camera temperature has risen. The power may turn off automatically, or you may be unable to record movies. Leave the camera in a cool location until the temperature goes down.

**Internal memory error**

- Turn the power off and then on again.

**Reinsert the memory card.**

- The inserted memory card cannot be used in the camera. [Details]

- The terminal section of the memory card is dirty.

- The memory card is damaged.

**This memory card is not formatted correctly.**

- The inserted memory card cannot be used in the camera. [Details]

**This memory card may not be able to record or play images correctly.**

- The inserted memory card cannot be used in the camera. [Details]

**Buffer overflow. Writing to the media was not completed in time.**

- If you use a memory card that has been recorded and erased repeatedly, or that was formatted on a different camera, the data writing speed may be too slow. First back up any data on the card to a computer, and then reformat the card before using it. [Details]

- The writing speed of the memory card you are using is not sufficient for movie recordings. Use a “Memory Stick PRO-HG Duo” media, “Memory Stick PRO Duo” (Mark2) media, or an
SD card (Class 4 or faster).

The memory card is locked. Check the tab.
- You are using the memory card with the write-protect switch, and the switch is set to the LOCK position. Set the switch to the recording position.

This is a read-only memory card.
- The camera cannot record or delete images on this memory card.

Writing to the memory card was not completed correctly. Recover data
- Reinsert the memory card, and follow the instructions on the screen.

No images
- No images that can be played back have been recorded in the internal memory.
- No images that can be played back have been recorded in this folder of the memory card.

No still images
- There are no 3D images that can be played back in [3D Viewing] mode.
- The selected folder or date does not contain a file that can be played back in a slideshow.

File found which was not recognized
- You tried to delete a folder containing a file that cannot be played on this camera. Delete the file on a computer and then delete the folder.

Folder error. Cannot record to the selected folder. Please select a different folder.
- A folder with the same first three digit number already exists on the memory card (for example: 123MSDCF and 123ABCDE). Select another folder [Details], or create a new folder [Details].

Cannot create more folders
- The folder with a name beginning with “999” exists on the memory card. You cannot create any folders if this is the case.

Empty folder contents
- You tried to delete a folder containing one or more files. Delete all of the files and then delete the folder.

Folder protected
- You tried to delete a folder that is protected as read only on a computer.

File Error.
An error occurred while the image was playing back. No guarantees are made for playing back, on this camera, files containing images which were processed on a computer or images which were shot using other cameras.

**Read only folder**
- You have selected a folder that cannot be set as a recording folder on the camera. Select another folder. [Details]

**File protected**
- Release the protection. [Details]

**Image size over limit**
- You are playing back an image with size that cannot be played back on the camera.

**Unable to detect face for retouch**
- You may not be able to retouch the image depending on the image.

**[Vibration warning indicator]**
- Camera shake may occur due to insufficient light. Use the flash, or mount the camera on a tripod to secure the camera.

**MP4 12M is not supported with this memory card. MP4 6M is not supported with this memory card.**
- For recording movies, it is recommended that you use a "Memory Stick PRO Duo" (Mark2) media, a "Memory Stick PRO-HG Duo" media or an SD card (Class 4 or faster).

**Turn the power off and on again**
- The lens malfunction.

**Maximum number of images already selected.**
- Up to 10 files can be selected when using [TransferJet].
- Up to 100 files can be selected when using [Multiple Images].
- You can add DPOF (Print order) marks to up to 999 files.

**Error Playing Music**
- Delete the Music file, or replace it with a normal Music file.
- Execute [Empty Music], then download a new Music file.

**Error Formatting Music**
- Execute [Empty Music].

**Operation cannot be executed in unsupported files.**
- Processing and other editing functions of the camera cannot be performed on image files that have been processed using a computer or images that were recorded with other cameras.

**Preparing image database file. Please wait.**
- The camera restores the date information, etc., in cases where images have been deleted on a PC, etc.
- The necessary Image Database File is created after the memory card is formatted.

- The number of images exceeds that for which date management in a database file by the camera is possible. To register additional images in the Image Database File, delete images in [Date View].

**Inconsistencies found in image database file. Do you want to repair the image database file?**
- Movies in [AVCHD view] cannot be recorded or played because the Image Database File is corrupt. Follow the on-screen instructions to recover the Image Database File.
- Movies in [AVCHD view] are movies recorded with [Movie format] set to [AVCHD 60i/60p] (for 1080 60i-compliant devices) or [AVCHD 50i/50p] (for 1080 50i-compliant devices).

- It is not possible to record to the camera’s Image Database File or play back using [Date View]. Use “PMB” to back up all images to a PC and use it to restore a memory card.

**Image Database File error. Cannot recover data.**
- Import all of the images to the computer with “PMB”, and format the memory card or the internal memory. To view the images again with the camera, export the imported images to the camera with “PMB”. [Details]

**Recording function unavailable due to high internal temperature.**
- The camera temperature has risen. You cannot record images until the temperature has gone down.

**Recording has stopped due to increased camera temperature.**
- Recording has stopped due to a rise in temperature while recording a movie. Please wait until the temperature goes down.

- When you record movies for a long time, the camera temperature rises. In this case, stop recording movies.

**Connection failed**
- Check the TransferJet reception port and transfer data correctly. [Details]
Some files were not sent
Some files were not received

- Either communication was cut off during image transfer, or transfer was cut off because device memory is full. Check the available memory capacity and try transferring data using TransferJet again.
- You may not be able to receive the image depending on the image.
Precautions

- Internal memory and memory card back up
- On database files
- Do not use/store the camera in the following places
- On carrying
- On operating temperatures
- On moisture condensation
- Functions built into this camera
- What is 1080 60p/50p?
- On image data compatibility
- Notes when playing movies on other devices
- Notes on the LCD screen and lens
- Notes on the flash

Internal memory and memory card back up

Do not turn off the camera, remove the battery pack, or remove the memory card while the access lamp is lit. Otherwise, the internal memory data or the memory card may be damaged. Be sure to make a backup copy to protect your data.

On database files

When you insert a memory card without a database file into the camera and turn on the power, part of the memory card capacity is used to automatically create a database file. It may take some time until you can perform the next operation.

Do not use/store the camera in the following places

- In an extremely hot, cold or humid place
  In places such as in a car parked in the sun, the camera body may become deformed and this may cause a malfunction.
- Under direct sunlight or near a heater
  The camera body may become discolored or deformed, and this may cause a malfunction.
- In a location subject to rocking vibration
- Near strong magnetic place
- In sandy or dusty places
  Be careful not to let sand or dust get into the camera. This may cause the camera to malfunction, and in some cases this malfunction cannot be repaired.

On carrying

- Do not sit down in a chair or other place with the camera in the back pocket of your trousers or skirt, as this may cause malfunction or damage the camera.

On operating temperatures
Your camera is designed for use under the temperatures between 0°C and 40°C (32°F and 104°F). Shooting in extremely cold or hot places that exceed this range is not recommended.

**On moisture condensation**

- If the camera is brought directly from a cold to a warm location, moisture may condense inside or outside the camera. This moisture condensation may cause a malfunction of the camera.
- If moisture condensation occurs, turn off the camera and wait about an hour for the moisture to evaporate. Note that if you attempt to shoot with moisture remaining inside the lens, you will be unable to record clear images.

**Functions built into this camera**

- This manual describes the function of GPS-compatible/incompatible devices, TransferJet-compatible/incompatible devices, 1080 60i-compatible devices and 1080 50i-compatible devices.

To determine whether your camera supports the GPS function, check the model name of your camera.

GPS-compatible device: DSC-HX9V
GPS-incompatible device: DSC-HX9

To check if your camera supports the TransferJet function, and whether it is a 1080 60i-compatible device or 1080 50i-compatible device, check for the following marks on the bottom of the camera.

- TransferJet-compatible device: 📤 (TransferJet)
- 1080 60i-compatible device: 60i
- 1080 50i-compatible device: 50i

- In an airplane, make sure to turn off the camera following cabin announcements.
- Do not watch 3D images shot with this camera for extended periods of time on 3D-compatible monitors.
- When you view 3D images shot with this camera on a 3D-compatible monitor, you may experience discomfort in the form of eye strain, fatigue, or nausea. To prevent these symptoms, we recommend that you take regular breaks.

However, you need to determine for yourself the length and frequency of breaks you require, as they vary according to the individual. If you experience any type of discomfort, stop viewing the 3D images until you feel better, and consult a physician as necessary. Also refer to the operating instructions supplied with the device or software you have connected or are using with this camera. Note that a child’s eyesight is still at the development stage (particularly children below the age of 6). Consult a pediatrician or ophthalmologist before letting your child view 3D images, and make sure he/she observes the above precautions when viewing such images.

**What is 1080 60p/50p?**

- Unlike standard recording modes up to now, which record in an interlacing method, this camera records using a progressive method. This increases the resolution, and provides a smoother, more realistic image.

**On image data compatibility**

- The camera conforms with DCF (Design rule for Camera File system) universal standard established by JEITA (Japan Electronics and Information Technology Industries Association).
- Sony does not guarantee that the camera will play back images recorded or edited with other equipment, or that other equipment will play back images recorded with the camera.

**Notes when playing movies on other devices**

- This camera uses MPEG-4 AVC/H.264 High Profile for AVCHD format recording. Movies recorded in AVCHD format with this camera cannot be played by the following devices.
- Other devices compatible with AVCHD format that does not support High Profile
- Devices incompatible with the AVCHD format

This camera also uses MPEG-4 AVC/H.264 Main Profile for MP4 format recording. For this reason, movies recorded in MP4 format with this camera cannot be played on devices other than those that support MPEG-4 AVC/H.264.

- You can play a high-definition image quality (HD) disc only on AVCHD format playback devices. A DVD player or DVD recorder cannot play back a disc recorded in high-definition image quality (HD) because they are not compatible with the AVCHD format. In addition, if you insert a high-definition image quality (HD) disc recorded in AVCHD format into a DVD player or DVD recorder, you may not be able to eject the disc.

### Notes on the LCD screen and lens

- The LCD screen is manufactured using extremely high-precision technology so over 99.99% of the pixels are operational for effective use. However, some tiny black and/or bright dots (white, red, blue or green) may appear on the LCD screen. These dots are a normal result of the manufacturing process and do not affect the recording.
- Exposing the LCD screen or the lens to direct sunlight for long periods may cause malfunctions. Be careful when placing the camera near a window or outdoors.
- Do not press against the LCD screen. The screen may be discolored and that may cause a malfunction.
- Images may trail across on the LCD screen in a cold location. This is not a malfunction.
- Be careful not to bump the movable lens, and be careful not to apply force to it.

### Notes on the flash

- When using the flash, the flash pops up automatically.
- The flash may go down automatically. [Details]
- Do not cover the flash with your fingers.
- Do not carry the camera by the flash unit, or use excessive strength on it.
- If water, dust or sand get into the open flash unit, it may cause a malfunction.
On the internal rechargeable backup battery

This camera has an internal rechargeable battery for maintaining the date and time and other settings regardless of whether the power is on or off. This rechargeable battery is continually charged as long as you are using the camera. However, if you use the camera for only short periods, it discharges gradually, and if you do not use the camera at all for about one month it becomes completely discharged. In this case, be sure to charge this rechargeable battery before using the camera. However, even if this rechargeable battery is not charged, you can still use the camera, but the date and time will not be indicated.

Charging method of the internal rechargeable backup battery

Insert charged battery pack in the camera, and then leave the camera for 24 hours or more with the power off.
Battery pack

- **On charging the battery pack**
  - Charge the battery pack (supplied) before using the camera for the first time.
  - You can charge the battery pack even if it is not completely discharged. In addition, even if the battery pack is not fully charged, you can use the partially charged capacity of the battery pack as is.
  - We recommend charging the battery pack in an ambient temperature of between 10°C to 30°C (50°F to 86°F). The battery pack may not be effectively charged in temperatures outside this range.

- **Effective use of the battery pack**
  - Battery performance decreases in low temperature surroundings. So in cold places, the operational time of the battery pack is shorter. We recommend the following to ensure longer battery pack use:
    - Put the battery pack in a pocket close to your body to warm it up, and insert it in the camera immediately before you start shooting.
      - (If there are any metal objects such as keys in your pocket, be aware of short-circuits.)
    - The battery pack will run out quickly if you use the flash or zoom frequently.
    - We recommend having spare battery packs handy for two times or three times the expected shooting time, and making trial shots before taking the actual shots.
    - Do not expose the battery pack to water. The battery pack is not water-resistant.
    - Do not leave the battery pack in extremely hot places, such as in a car or under direct sunlight.
    - You may not be able to turn on the camera or the battery pack may not be effectively charged if the terminal section of the battery is dirty. In this case, wipe any dust off lightly using a soft cloth or a cotton swab to clean the battery.

- **Remaining battery charge**
  - A remaining charge indicator appears on the LCD screen.

  ![Remaining battery charge indicator](image)

  - **A**: High
  - **B**: Low
  - It takes about one minute until the correct remaining charge indicator appears.
• The remaining charge indicator may not be correct under certain circumstances.
• When [Power Save] is set to [Standard] or [Stamina], if you do not operate the camera for a certain period of time while the power is on, the LCD screen becomes dark, then the camera turns off automatically (Auto power-off function).

### How to store the battery pack

- Fully discharge the battery pack before storing and store it in a cool, dry place. To maintain the battery pack’s function, charge the battery pack and then fully discharge it on the camera at least once a year while storing.
- To use the battery pack up, leave the camera in slideshow playback mode until the power goes off.
- To prevent staining the terminal, short-circuiting, etc., be sure to use a supplied battery case when carrying or storing.

### On battery life

- The battery life is limited. Battery capacity decreases over time and through repeated use. If decreased usage time between charges becomes significant, it is probably time to replace it with a new one.
- The battery life varies according to how it is stored and the operating conditions and environment in which each battery pack is used.

### Compatible battery pack

- The NP-BG1 (supplied) can be used only in G type compatible Cyber-shot models.
- If you use the NP-FG1 battery pack (sold separately), the minutes also appear after the battery remaining indicator (60 Min).

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AC Adaptor

- The supplied AC Adaptor is dedicated to this camera. Do not connect with other electronic devices. Doing so may cause a malfunction. Also, make sure to use a genuine Sony AC Adaptor.

- If the Power/charge lamp of the camera flashes during charging, remove the battery pack being charged, and then insert the same battery pack into the camera securely again. If the Power/charge lamp flashes again, this may indicate a battery error or that a battery pack other than the specified type has been inserted. Check that the battery pack is the specified type. If the battery pack is the specified type, remove the battery pack, replace it with a new or different one and check that the battery is charged correctly. If the battery is charged correctly, a battery error may have occurred.

- If the Power/charge lamp does not light even if the AC Adaptor is connected to the camera and the wall outlet (wall socket), this indicates that the charging has stopped temporarily and is on standby. Charging stops and enters standby status automatically when the temperature is outside of the recommended operating temperature. When the temperature returns to the appropriate range, charging resumes and the Power/charge lamp lights up again. We recommend charging the battery pack in an ambient temperature of between 10°C to 30°C (50°F to 86°F).

- Using the supplied AC Adaptor, you can charge the battery pack inserted in the camera. In addition, power supply via AC Adaptor in playback mode is also available. However, in shooting mode, power supply via AC Adaptor is not available. You need an AC-LS5 AC Adaptor (sold separately) and a VMC-MD3 Cable for multi-use terminals (sold separately) to have a power supply from the wall outlet (wall socket) during shooting.
Memory card

Memory card

Memory card

Note on using the memory card adaptor (sold separately)

“Memory Stick” media

When using a “Memory Stick Duo” media with standard sized “Memory Stick” media slot

Notes on using a “Memory Stick Micro” media (sold separately)

Memory card

The types of memory cards that can be used with the camera are “Memory Stick PRO Duo” media, “Memory Stick PRO-HG Duo” media, “Memory Stick Duo” media, SD memory card, SDHC memory card and SDXC memory card. MultiMediaCard cannot be used.

In this User Guide, “Memory Stick PRO Duo” media, “Memory Stick PRO-HG Duo” media and “Memory Stick Duo” media are called “Memory Stick Duo” media and SD memory cards, SDHC memory cards and SDXC memory cards are called SD cards.

- “Memory Stick Duo” media of up to 32 GB and SD cards of up to 64 GB have been tested and proven to operate with your camera.
- When recording movies, it is recommended that you use the following memory cards:
  - MEMORY STICK PRO DUO (Mark2) (“Memory Stick PRO Duo” (Mark2) media)
  - MEMORY STICK PRO-HG DUO (“Memory Stick PRO-HG Duo” media)
  - SD card (Class 4 or faster)

Notes

- To ensure stable operations of the memory card, we recommend that you use this camera to format any memory card being used with this camera for the first time. Note that formatting will erase all data recorded on the memory card. This data cannot be restored. Be sure to backup any important data to a PC or other storage location.
- If you repeatedly record/delete images, fragmentation of data may occur on the memory card. Movies may not be able to be saved or recorded. In such a case, save your images to a PC or other storage location, then [Format].
- A memory card formatted with a computer is not guaranteed to operate with the camera.
- Data read/write speeds differ depending on the combination of the memory card and the equipment used.
- Data may be corrupted in the following cases:
  - When the memory card is removed or the camera is turned off during a read or write operation
  - When the memory card is used in locations subject to static electricity or electrical noise
- We recommend backing up important data.
- Do not attach a label on the memory card itself nor on a memory card adaptor.
- Do not touch the terminal section of the memory card with your hand or a metal object.
- Do not strike, bend or drop the memory card.
- Do not disassemble or modify the memory card.
- Do not expose the memory card to water.
- Do not leave the memory card within the reach of small children. They might accidentally swallow it.
- Insert a memory card that fits the memory card slot size. Otherwise, it will cause a malfunction.
- Do not use or store the memory card under the following conditions:
Note on using the memory card adaptor (sold separately)

- When inserting a memory card into a memory card adaptor, make sure the memory card is inserted facing in the correct direction, then insert it all the way in. Incorrect insertion may result in a malfunction.

“Memory Stick” media

The types of “Memory Stick Duo” media that can be used with the camera are listed in the table below. However, proper operation cannot be guaranteed for all “Memory Stick Duo” media functions.

<table>
<thead>
<tr>
<th>“Memory Stick” media type</th>
<th>Recording/Playback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory Stick Duo (without MagicGate)</td>
<td>*1</td>
</tr>
<tr>
<td>Memory Stick Duo (with MagicGate)</td>
<td>*2</td>
</tr>
<tr>
<td>MagicGate Memory Stick Duo</td>
<td><em>1</em>2</td>
</tr>
<tr>
<td>Memory Stick PRO Duo</td>
<td><em>2</em>3</td>
</tr>
<tr>
<td>Memory Stick PRO-HG Duo</td>
<td><em>2</em>3</td>
</tr>
</tbody>
</table>

*1 High-speed data transfer using a parallel interface is not supported.
*2 “Memory Stick Duo” media, “MagicGate Memory Stick Duo” media, “Memory Stick PRO Duo” media and “Memory Stick PRO-HG Duo” media are equipped with MagicGate functions. MagicGate is copyright protection technology that uses encryption technology. Data recording/playback that requires MagicGate functions cannot be performed with the camera.
*3 Movies in [AVCHD view], [MP4 12M] and [MP4 6M] size movies cannot be recorded to “Memory Stick” media other than “Memory Stick PRO Duo” media or “Memory Stick PRO-HG Duo” media.

When using a “Memory Stick Duo” media with standard sized “Memory Stick” media slot

You can use the “Memory Stick Duo” media by inserting it into the “Memory Stick Duo” media Adaptor (sold separately).

Notes on using a “Memory Stick Micro” media (sold separately)

- This product is compatible with “Memory Stick Micro” media (“M2”). “M2” is an abbreviation for “Memory Stick Micro” media.
- To use a “Memory Stick Micro” media with the camera, be sure to insert the “Memory Stick Micro” media into an “M2” Adaptor as large as of Duo size. If you insert a “Memory Stick Micro” media into the camera without an “M2” Adaptor as large as of Duo size, you might not be able to remove it from the camera.
- Do not leave the “Memory Stick Micro” media within the reach of small children. They might accidentally swallow it.
On cleaning

Cleaning the LCD screen
Wipe the screen surface with an LCD cleaning kit (sold separately) to remove fingerprints, dust, etc.

Cleaning the lens
Wipe the lens with a soft cloth to remove fingerprints, dust, etc.

Cleaning the flash
Clean the flash surface before use. The heat of flash emission may cause dirt on the flash surface to become discolored or to stick to the flash surface, resulting in insufficient light emission.

Cleaning the camera surface
Clean the camera surface with a soft cloth slightly moistened with water, then wipe the surface with a dry cloth. To prevent damage to the finish or casing:
- Do not expose the camera to chemical products such as thinner, benzine, alcohol, disposable cloths, insect repellent, sunscreen or insecticide.
- Do not touch the camera with any of the above on your hand.
- Do not leave the camera in contact with rubber or vinyl for a long time.
Number of still images

The number of still images may vary depending on the shooting conditions and the memory card. (Units: Images)

<table>
<thead>
<tr>
<th>Size</th>
<th>Internal memory</th>
<th>Memory card formatted with this camera</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Approx. 19 MB</td>
<td>2 GB</td>
</tr>
<tr>
<td>16M</td>
<td>3</td>
<td>335</td>
</tr>
<tr>
<td>10M</td>
<td>4</td>
<td>430</td>
</tr>
<tr>
<td>5M</td>
<td>7</td>
<td>730</td>
</tr>
<tr>
<td>VGA</td>
<td>98</td>
<td>9600</td>
</tr>
<tr>
<td>16:9(12M)</td>
<td>3</td>
<td>355</td>
</tr>
<tr>
<td>16:9(2M)</td>
<td>21</td>
<td>2100</td>
</tr>
</tbody>
</table>

Notes
- When the number of remaining shootable images is greater than 9,999, the “>9999” indicator appears.
- When an image shot with other cameras is played back on this camera, the image may not appear in the actual image size.
Recordable time of movies

The table below shows the approximate maximum recording times. These are the total times for all movie files. The recordable time may vary depending on the shooting conditions and the memory card. (h (hour), m (minute))

<table>
<thead>
<tr>
<th>Quality/Size</th>
<th>Internal memory</th>
<th>Memory card formatted with this camera</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Approx. 19 MB</td>
<td>2 GB</td>
</tr>
<tr>
<td>AVC HD 28M (PS)</td>
<td>—</td>
<td>9m (9m)</td>
</tr>
<tr>
<td>AVC HD 24M (FX)</td>
<td>—</td>
<td>10m (10m)</td>
</tr>
<tr>
<td>AVC HD 17M (FH)</td>
<td>—</td>
<td>10m (10m)</td>
</tr>
<tr>
<td>AVC HD 9M (HQ)</td>
<td>—</td>
<td>25m (15m)</td>
</tr>
<tr>
<td>MP4 12M</td>
<td>—</td>
<td>20m (15m)</td>
</tr>
<tr>
<td>MP4 6M</td>
<td>—</td>
<td>35m (15m)</td>
</tr>
<tr>
<td>MP4 3M</td>
<td>—</td>
<td>1h 10m</td>
</tr>
</tbody>
</table>

The number in ( ) is the minimum recordable time. Continuous shooting is possible for approximately 29 minutes at one time. The maximum size of an MP4-format movie file is up to approximately 2 GB.

**Note**
- The recordable time of movies varies because the camera is equipped with VBR (Variable Bit Rate), which automatically adjusts image quality depending on the shooting scene. When you record a fast-moving subject, the image is clearer but the recordable time is shorter because more memory is required for recording.
- The recordable time also varies depending on the shooting conditions, the subject or the image quality/size settings.
Using the camera abroad

You can use the AC Adaptor (supplied) in any country or region where the power supply is within 100 V to 240 V AC, 50 Hz/60 Hz.

**Note**
- An electronic voltage transformer is unnecessary and its use may cause a malfunction.
On TV color systems

To view movies shot using this camera on a television, the camera and television must use the same color television system. Check the color TV system for the country or region where you are using the camera.

**NTSC system**
Bahama Islands, Bolivia, Canada, Central America, Chile, Colombia, Ecuador, Jamaica, Japan, Korea, Mexico, Peru, Surinam, Taiwan, the Philippines, the U.S.A., Venezuela, etc.

**PAL system**
Australia, Austria, Belgium, China, Croatia, Czech Republic, Denmark, Finland, Germany, Holland, Hong Kong, Hungary, Indonesia, Italy, Kuwait, Malaysia, New Zealand, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Spain, Sweden, Switzerland, Thailand, Turkey, United Kingdom, Viet Nam, etc.

**PAL-M system**
Brazil

**PAL-N system**
Argentina, Paraguay, Uruguay

**SECAM system**
Bulgaria, France, Greece, Guiana, Iran, Iraq, Monaco, Russia, Ukraine, etc.
Intelligent Pantilter

Intelligent Pantilter (sold separately) allows you to take pictures automatically, by having the camera detect people’s faces. For details, see the operating instructions supplied with Intelligent Pantilter.
AVCHD format

The AVCHD format has been developed for high-definition digital video cameras when recording an HD (High-Definition) signal at the 1080i*1 or 720p*2 specification using high-efficiency compression coding technology. The MPEG-4 AVC/H.264 format is adopted to compress video data, and the Dolby Digital or Linear PCM system is used to compress audio data. The MPEG-4 AVC/H.264 format is capable of compressing images at higher efficiency than that of the conventional image compressing format. The MPEG-4 AVC/H.264 format enables a high definition video signal shot on a digital video camera recorder to be recorded on 8 cm DVD discs, hard disk drive, flash memory, memory card, etc.

Recording and playback on the camera

Based on the AVCHD format, your camera records with the high definition image quality (HD) mentioned below.

Video signal*3:
- 1080 60i-compatible device
  - MPEG-4 AVC/H.264 1920×1080/60i, 1440×1080/60i
- 1080 50i-compatible device
  - MPEG-4 AVC/H.264 1920×1080/50i, 1440×1080/50i

Audio signal: Dolby Digital 2ch

Recording media: Memory card

*1 1080i specification
A high definition specification which utilizes 1,080 effective scanning lines and the interface system.

*2 720p specification
A high definition specification which utilizes 720 effective scanning lines and the progressive system.

*3 Data recorded in AVCHD format other than the above mentioned cannot be played on your camera.
GPS (DSC-HX9V only)

This system allows you to pinpoint your exact location on the earth. The GPS satellites are located in 6 orbits, 20,000 km above the earth. The GPS system consists of 24 or more GPS satellites. A GPS receiver receives radio signals from the satellites, and calculates the current location of the receiver based on the orbital information and travel time of the signals, etc. Determining a location is called “triangulating”. A GPS receiver can determine the location’s latitude and longitude by receiving signals from 3 or more satellites.

- As the positions of GPS satellites vary constantly, it may take longer to determine the location or the receiver may not be able to determine the location at all, depending on the location and time you use the camera.
- “GPS” is a system for determining geographic location by triangulating radio signals from GPS satellites. Avoid using the camera in places where radio signals are blocked or reflected, such as a shadowy place surrounded by buildings or trees, etc. Use the camera in open sky environments.
- You may not be able to record location information at locations or in situations where radio signals from the GPS satellites do not reach the camera as follows.
  - In tunnels, indoors or under the shade of buildings.
  - Between tall buildings or at narrow streets surrounded by buildings.
  - In underground locations, locations surrounded by dense trees, under an elevated bridge, or in locations where magnetic fields are generated, such as near high voltage cables.
  - Near devices that generate radio signals of the same frequency band as the camera: near 1.5 GHz band mobile telephones, etc.

On triangulating errors
- If you move to another location right after turning on the camera, it may take a longer time for the camera to start triangulating, compared to when you stay in the same place.
- Error caused by the position of GPS satellites
  The camera automatically triangulates your current location when the camera receives radio signals from 3 or more GPS satellites. The triangulating error allowed by the GPS satellites is about 30 m (98 feet). Depending on the environment of the location, the triangulating error can be greater. In this case, your actual location may not match the location on the map based on the GPS information. Meanwhile, the GPS satellites are controlled by the United States Department of Defense, and the degree of accuracy may be changed intentionally.
- Error during the triangulating process
  The camera acquires location information periodically. There is a slight time difference between when the location information is acquired and when the location information is recorded on an image, therefore, the actual recording location may not match exactly the location on the map based on the GPS information.

On the restriction of use of GPS on an airplane
- During take off and landing of an airplane, turn off the camera, as you will be instructed to do by the onboard announcement.
- If you do not want to record location and direction information, select [Off] for the GPS setting.

On the other restriction
- Use GPS in accordance with the regulations of the place or situation.

On the geographic coordinate system
- The "WGS-84" geographic coordinate system is used.
TransferJet standard

TransferJet communications conform to the standard given below.

**TransferJet standard:**
Conforms to PCL Spec. Rev. 1.0

**Protocol Class Name (communication type):**
SCSI Block Device Target
OBEX Push Server
OBEX Push Client

- Use the “SCSI” communication protocol above when connecting to a TransferJet-compatible device (sold separately). Or, use the “OBEX” communication protocol when sharing data between cameras.
Notes on the License

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Source code is provided on the web. Use the following URL to download it.
http://www.sony.net/Products/Linux/

We would prefer you do not contact us about the contents of source code.

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