

JVC

HD MEMORY CAMERA

GZ-HM550

Detailed User Guide



Everio

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Charging

- Refer to the operating instructions found in the animation on the Detailed User Guide.

Recording

- Refer to the operating instructions found in the animation on the Detailed User Guide.

Playback

- Refer to the operating instructions found in the animation on the Detailed User Guide.

Shooting Tips

Basic Way to Hold a Camcorder ~ Recording Stable Images ~



This is the standard way of shooting while standing up. Be sure to master this basic technique in order to achieve stable images.

■ [Getting Ready]

- ① Open your feet to the width of your shoulders.
- ② Keep the elbow of your right arm, which is holding the camcorder, close to your side.
- ③ Hold the LCD monitor with your left hand and adjust the angle accordingly.

Extending Your Hands to Shoot ~ High-Angle Shooting ~



Extend your hand when your subject is being hidden behind a crowd of people.

■ [Getting Ready]

- ① Open your feet to the width of your shoulders.
- ② Extend your right hand and hold the camcorder over your head.
- ③ Hold the LCD monitor with your left hand and adjust the angle accordingly.

CAUTION:

- Use this way of shooting only as a last resort as it is difficult to achieve stable images.
- Set to the wide angle as much as possible as the image will be prone to camera shake.
- Be considerate. Do not inconvenience the people around you.

Squatting and Shooting at Eye Level



Staying low is a common position to take when shooting small children. By recording from the eye level of the child, you can capture all his cute expressions clearly.

■ [Getting Ready]

- ① Kneel down with your left knee while keeping your right foot on the ground.
- ② Place the elbow of your right arm, which is holding the camcorder, on your right knee.
- ③ Hold the LCD monitor with your left hand and adjust the angle accordingly.

Panning

- Refer to the operating instructions found in the animation on the Detailed User Guide.

Use this method to shoot a wide angle of view.

■ [Getting Ready]

Shoot by rotating your body instead of moving your arms while keeping the basic way of holding a camcorder as stated above.

- ① Stand facing the direction where the rotation will stop.
- ② Twist your upper body to the direction where recording will start.
- ③ Press the start button and record for 2 seconds, then slowly twist back your body to face the front.
Record for another 2 seconds while facing the front, then press the stop button.
(The 90 degrees rotation should take about 5 seconds, giving the feeling of a slow motion.)

Holiday Season/Christmas

Record the happy Christmas celebration with your family!



Photo by 101st CAB, Wings of Destiny
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Decorating the Tree and Preparing the Dinner

The decoration of tree and preparation of dinner are part of the joy of Christmas. Be sure to record these happy family times!

■ Decorating the tree



A tree is the most important thing to bring out the mood of Christmas. Simply the scene of all family members engaging in the decorating of a fir tree with various colorful ornaments is full of the feeling of happiness.

■ Preparing the Dinner



Photo by Manicosity
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 Record the scenes as everyone helps to prepare the feast of the night. You can film the mother who is cooking, the children who are helping, and of course, the process of making a cake!

Recording the Christmas Party



Photo by InnerSpirit
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After all preparations, it is finally the Christmas party itself. Not only should you record the candle-blowing scene, but also the smiles of the family while being surrounded by good food, or even the father who is slightly drunk from champagne!

Finding the Presents



For children, the greatest joy of Christmas is receiving presents the next morning. Their expression of delight when finding a present next to their pillow is a recording opportunity not to be missed. Get ready to shoot before the children wake up!

Wedding

Create an awesome wedding video for the bride and groom!



Discussing and Planning Before the Event

Before the day of the wedding reception, it is important to discuss with the bride and groom about various details such as the order of the ceremony and whether there are any entertainment programs or change of clothes.

By understanding the preferences of the bride and groom, you will be able to shoot more appropriately.

Finding the Right Angle to Capture Both Bride and Groom

- **Composing the picture with the guests in front and the bride and groom at the back**



The main characters of a wedding are of course the bride and groom. Record their expressions clearly during the toast, speech, entertainment programs, and other scenes.

Another recommendation is to capture the face shots of the guests, then pan towards the groom. Picture composition containing the crowd of guests only lacks fun, so be sure to pay attention to the shooting angle and size.

Recording the Expressions and Comments of Guests

- **Setting the shot from eye level to chest level**



You can record comments from the guest by going around asking, "Please say a few words for the bride and groom".

This can be done at the guests' waiting room, when the bride and groom are changing, or during the entertainment programs.

Closing Up on the Bride's Face During the Thank You Speech

The climax of the event finally comes during the bride and groom's thank you speech and presentation of flowers. The touching words of appreciation from the bride and tears of joy from the parents are scenes that must not be missed.

Start by closing up on the bride's face using zoom. As the tears start to form in the bride's eyes, continue shooting for a little longer. Then, slowly zoom out to the wide angle to show the parents who are moved by the speech.

Advanced Operation with Two Camcorders

- **<Camcorder 1>**
Closing up on the bride and groom all the time
- **<Camcorder 2>**
Recording the congratulatory messages from friends at the same time



If video-editing is to be done, record using two camcorders so that a video with varying scenes can be created. You can try asking a close friend who has a camcorder at home.

Set the borrowed camcorder on a tripod to focus on taking close-up shots of the bride and groom. In this way, the other camcorder can be moved around to record other scenes, enabling an interesting video with changing scenes to be created through editing and compilation.

As most people own at least a digital camera nowadays, even if you are really unable to find an extra camcorder, inserting still pictures to the video at various points is also a good way to add variety. Do give it a try!

Travel

Capture all the good times of your domestic or overseas trips!



Bringing the Necessary Equipment

The necessary things to bring on a trip depends on your traveling purpose and the destination.

For overseas trips in particular, you have to think about what to bring in accordance to the local conditions.

Here are some suggestions for your consideration.

■ Camcorder

Think about how many hours of shooting you will usually perform in a day. Be sure to prepare enough recording medium especially for long overseas trips.

If you are recording in SD cards, get ready the sufficient number of cards, including some for backup.

■ Battery Pack

Prepare a battery pack that is ready for double the expected recording time in a day. For example, if you plan to record for 2 hours a day, prepare a battery pack that is ready for 4 hours (actual recording time).

For a day trip, you can prepare a battery with low capacity but for a long trip, do prepare a few batteries with high capacities.

■ AC Adapter

The JVC AC adapter supports voltages from 100 V to 240 V, and hence can be used anywhere in the world.

Bring along the adapter if you are traveling for a long time. Charge the battery pack while sleeping so that you can record with full battery power the next day.

■ Power Plug Adapter



The shape of the power plug varies according to countries. Be sure to check the shape of the power plug beforehand, and bring the appropriate power plug adapter.

"Charging the Battery Pack Overseas" (P.24)

■ Battery Charger



Recording cannot be performed when an AC adapter is connected to the camcorder for battery charging.

You can bring an additional battery charger to charge battery packs if you plan to use the camcorder for recording at night. You can also charge multiple battery packs by using both the battery charger and this camcorder at the same time.

■ Tripod



A tripod is an essential item to take stable images. Select an appropriate tripod in accordance to your purpose and style of traveling, such as a compact one to be used on a table or one that is at least 1 m tall.

Recording the Excitement Before Departure

It may be a little abrupt to start your travel video at the destination suddenly.

Record also the preparations prior to departure if it is a family trip, or the time when everyone is gathered at the meeting place if you are traveling with your friends.

For overseas trips, taking a shot of the signs and displays at the airport of the flight you are taking may be useful for future reference.



Using Pan at the Places of Interest

Tourists spots with beautiful scenery or historical sites are places that you would certainly want to record.

To capture the magnificence of a scene which cannot be fitted into a single frame, try the panning technique.

Refer to the "Shooting Tips" found in this website on how to use panning effectively.

In addition, you may also like to take a shot of the signs or monuments that can often be found at the tourist spots.



Showing Everyone Having a Good Time

When taking a video, it is rather dull to shoot only the scenery or historical sites.

Talk about your feelings while recording the breath-taking scenery of an attraction so that it will be an interesting scene to view later.

Amusement Park

Take more shots of the smiling faces of everyone in the family!



Taking Videos or Still Images According to the Attraction

You may choose to take videos all the time. However, you may want to take some still images too.

The following section explains the scenarios suitable for taking videos or still images.

■ Scenarios suitable for taking videos



Scenarios with changes in body movement are suitable for taking videos. This includes situations where there are rapid changes in facial expressions or voices of surprise and delight.

*Some amusement parks do not allow passengers to perform any recording. Be sure to check beforehand.

[Examples]

- Merry-go-round, go kart, coffee cup, etc.

■ Scenarios suitable for taking still images (photos)



Scenarios with little movement of the subject are suitable for taking still images.

Try to take the still images from an angle such that the surroundings can be seen clearly.

[Examples]

- Carousel, ferris wheel, fun bicycle rides, etc.

Inducing Responses by Calling Out



Videos with no waving of hands nor laughter are not only dull when you view them later, but also put the capability of the audio-recording function of the camcorder to a waste.

When recording, induce more reactions by enthusiastically waving your hands or shouting out "Is it fun?" and the like.

Capturing the Best Moment in a Video as a Still Image

Shots with the eyes closed are often taken by accident. To reduce such mistakes, make use of the function to capture still images from videos. As videos are actually continuous recording of 60 still images within 1 minute, using this function allows you to select the best moment and save it as a still image.

"Capturing a Still Image in the Video during Playback" (P.67)



Photo by justthatgoodguyjim

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Video Playback in Progress



Photo by talkrhubarb

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Capturing a Still Image



Photo by justthatgoodguyjim

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Video Playback in Progress

Advanced Operation with Backlight Compensation

It is useful to make use of backlight compensation when the subject's face is in backlight or when the expression cannot be seen clearly. Increase the brightness of the whole image by setting "BACKLIGHT COMP." if the faces appear too dark. Even the expressions of faces under shadows can be captured brightly and clearly.
"Setting Details" (P.36)

■ <Without backlight compensation>




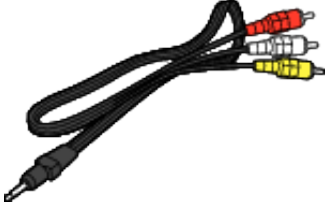



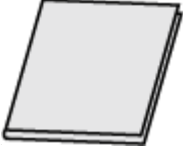


■ <With backlight compensation>



Verifying the Accessories

If any of the items are missing or defective, consult your JVC dealer or the nearest JVC service center.

Illustration	Description
	<p>AC Adapter AP-V30U</p> <ul style="list-style-type: none"> Connects to this unit to charge the battery pack. It can also be used when recording or playing back videos indoors.
	<p>Battery Pack BN-VG114U</p> <ul style="list-style-type: none"> Attaches to this unit to supply power.
	<p>Remote Control RM-V760U</p> <ul style="list-style-type: none"> Operates certain functions from a distance.
	<p>AV Cable</p> <ul style="list-style-type: none"> Connects this unit to a TV to play back recorded images on the TV.
	<p>Component Cable</p> <ul style="list-style-type: none"> Connects this unit to a TV to play back recorded images on the TV in a better quality.
	<p>USB Cable (Type A - Mini Type B)</p> <ul style="list-style-type: none"> Connects this unit to a PC.
	<p>CD-ROM</p> <ul style="list-style-type: none"> For installing the provided software "Everio MediaBrowser" on a PC.
	<p>Basic User Guide</p> <ul style="list-style-type: none"> Read well and keep in a safe place where it can be accessed easily when necessary.

Memo:

SD cards are sold separately.

"Types of Usable SD Card" (P.14)

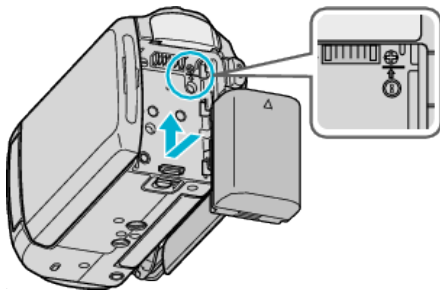
When using the AC adapter overseas, please prepare a commercially available converter plug for the country or region of visit.

"Charging the Battery Pack Overseas" (P.24)

Charging the Battery Pack

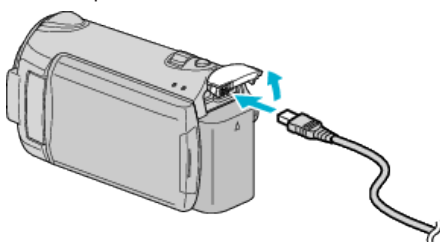
Charge the battery pack immediately after purchase and when the remaining battery power is low. The battery pack is not charged at the time of purchase.

1 Attach the battery pack.

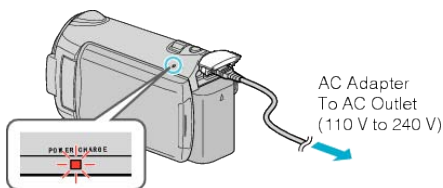


- Align the top of the battery with this unit, and slide in until the battery clicks into place.

2 Connect the AC adapter to the DC terminal.



3 Plug in the power.



- The charging lamp blinks when charging is in progress. It goes out when charging is finished.

CAUTION:

Be sure to use JVC battery packs.

- If you use any other battery packs besides JVC battery packs, safety and performance can not be guaranteed.
- Charging time: approx. 2 h 30 m (using supplied battery pack)
The charging time is when the unit is used at 25°C (77°F). If the battery pack is charged outside the room temperature range of 10°C to 35°C (50°F to 95°F), charging may take a longer time or it may not start. The recordable and playable time may also be shortened under some usage conditions such as at low temperature.

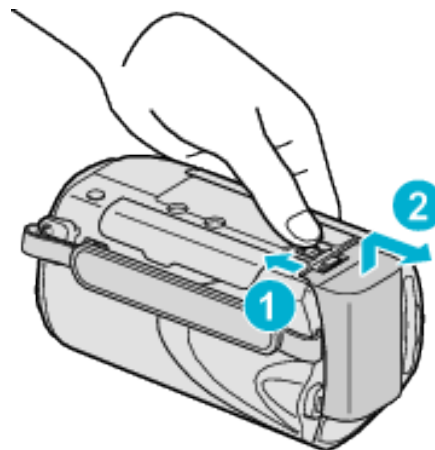
Rechargeable Batteries :

- When using the battery in a low temperature environment (10°C (50°F) or below), the operating time may be shortened, or it may not function properly. When using this unit outdoors in the winter weather, warm the battery, such as by placing it in the pocket, before attaching it. (Keep away from direct contact with a warm pack.)
- Do not expose the battery to excessive heat, such as direct sunlight or fire.
- After removing the battery, store it in a dry place between 15°C to 25°C (59°F to 77°F).
- If the battery pack is not to be used for a long time, use up the charge completely and detach it from this unit to prevent deterioration.

Memo:

- You can connect this unit to the AC adapter to record for long hours indoors. (Battery charging begins when the LCD monitor is closed.)

Detaching the Battery Pack



Slide the battery release lever to detach the battery from this unit.

Approximate Battery Charging Time

Battery Pack	Charging Time
BN-VG114U (Supplied)	2 h 30 m
BN-VG121U	3 h 30 m

- When the battery life is reached, the recording time becomes shorter even if the battery pack is fully charged. (Replace the battery pack with a new one.)
- * The charging time is when the unit is used at 25°C (77°F). If the battery pack is charged outside the room temperature range of 10°C to 35°C (50°F to 95°F), charging may take a longer time or it may not start. The recordable and playable time may also be shortened under some usage conditions such as at low temperature. "Approximate Recording Time (Using Battery)" (P.48)

Grip Adjustment



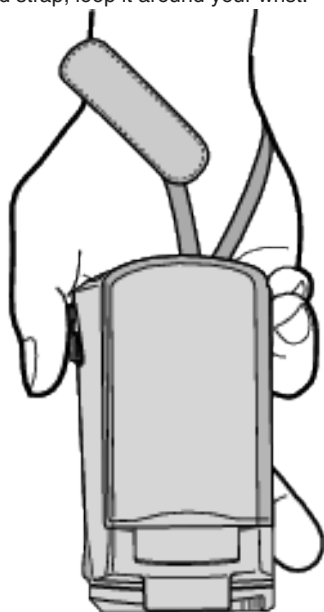
- ① Flip the grip belt over.
- ② Adjust the length of the belt.
- ③ Fasten the grip belt.

CAUTION:

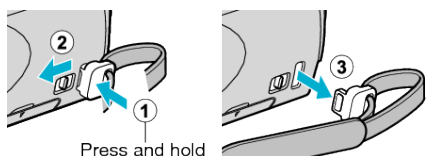
- Be sure to fasten the grip belt properly.
If the belt is loose, this unit may drop and result in injuries or damages.

Using the Hand Strap

When using the hand strap, loop it around your wrist.

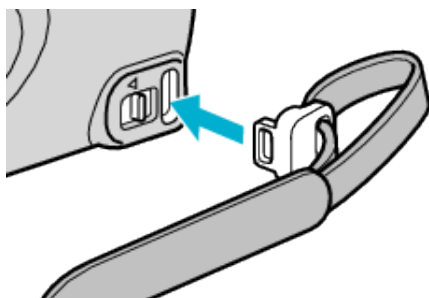


Removing the Strap



- While pressing ①, pull ② and remove the strap.

Attaching the Strap



Push in firmly until it clicks into place.

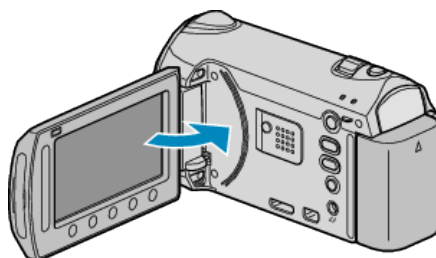
Inserting an SD Card

When a commercially available SD card is inserted, recordings can still be made to the card without stopping when the remaining recording time on the built-in memory runs out.

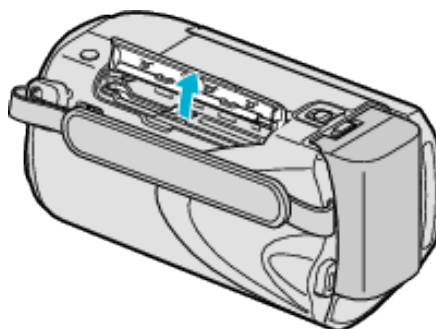
"Types of Usable SD Card" (P.14)

"Approximate Video Recording Time" (P.48)

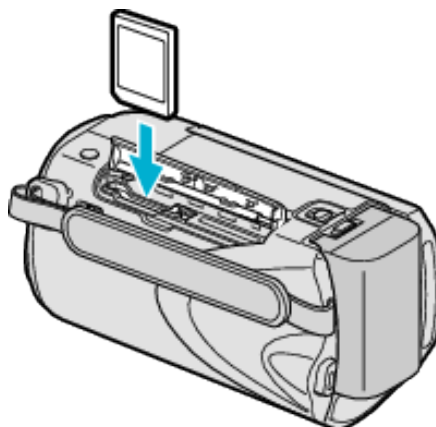
- 1 Close the LCD monitor.



- 2 Open the slot cover.



- 3 Insert an SD card.



- Insert with the label facing outward.

Warning

- Make sure not to insert the card in the wrong direction.
It may cause damage to the unit and card.
- Turn off the power of this unit before inserting or removing a card.
- Do not touch the metal contact area when inserting the card.

Memo:

- To record to the card, it is necessary to perform media settings.
When no card is available, set media settings to "BUILT-IN MEMORY" for recording.

"REC MEDIA FOR VIDEO" (P.136)

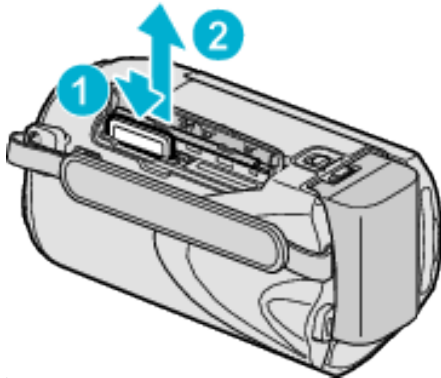
"REC MEDIA FOR IMAGE" (P.136)

- To use cards that have been used on other devices, it is necessary to format (initialize) the card using "FORMAT SD CARD" from media settings.

"FORMAT SD CARD" (P.137)

Removing the Card

Push the SD card inward once, then pull it out straight.



Types of Usable SD Card

The following SD cards can be used on this unit. Operations are confirmed on the SD cards from the following manufacturers.

- Panasonic
- TOSHIBA
- SanDisk
- ATP

SDHC Card



- Use a Class 4 or higher compatible SDHC card (4 GB to 32 GB) for video recording.
- To record videos with "VIDEO QUALITY" set to "UXP", use of a Class 6 compliant SDHC card is recommended.
- You can also use a Class 10 compliant SDHC card.

SD Card



- This unit supports 256 MB to 2 GB SD cards.

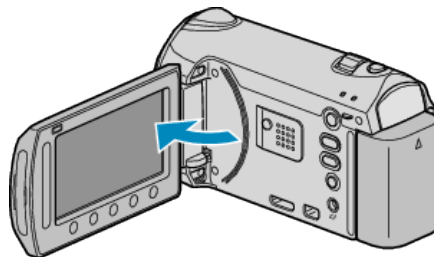
Memo:

- Using SD cards (including SDHC cards) other than those specified above may result in recording failure or data loss.
- Class 4 and Class 6 are guaranteed to have a minimum transfer rate of 4 MB/s and 6 MB/s respectively during reading or writing of data.

Clock Setting

The "SET DATE/TIME!" screen appears when you turn on this unit for the first time after purchase, when it has not been used for a long time, or when the clock is not set yet. Set the clock before recording.

1 Open the LCD monitor.



- This unit turns on.
- When the LCD monitor is closed, this unit turns off.

2 Select "YES" and touch \odot .



3 Set the date and time.



- Use the slider to adjust the year, month, day, hour, and minute in order.
- Touch the operation buttons "←" / "→" to move the cursor.
- After setting the date and time, touch \odot .

4 Select the region where you live and touch \odot .



- The city name and time difference are displayed.
- Touch \odot after the color of the selected region changes.

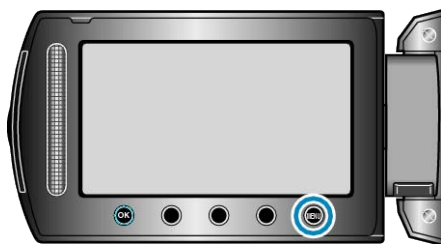
Memo:

- The clock can be reset again later.
- "Resetting the Clock" (P.15)
- When using this unit overseas, you can set it to the local time for recording.
- "Setting the Clock to Local Time when Traveling" (P.25)
- "SET DATE/TIME!" is displayed when you turn on this unit after it has not been used for a prolonged period. Charge this unit for more than 24 hours before setting the clock.
- "Charging the Battery Pack" (P.12)
- You can turn on or off the clock display during playback mode.
- "ON-SCREEN DISPLAY" (P.121)
- Touch the slider and buttons around the screen with your fingers.
- The slider and buttons do not function if you touch them with your fingernails or with gloves on.
- The displays on the screen do not work even if you touch them.

Resetting the Clock

Set the clock with "CLOCK ADJUST" from the menu.

- 1 Touch **MENU** to display the menu.



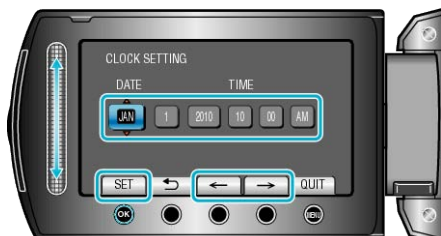
- 2 Select "CLOCK ADJUST" and touch **OK**.



- 3 Select "CLOCK SETTING" and touch **OK**.



- 4 Set the date and time.



- Use the slider to adjust the year, month, day, hour, and minute in order.
- Touch the operation buttons "←" / "→" to move the cursor.
- After setting the date and time, touch **OK**.

- 5 Select the region where you live and touch **OK**.

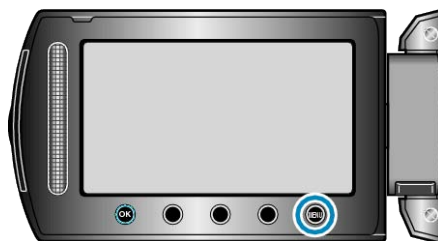


- The city name and time difference are displayed.
- Touch **OK** after the color of the selected region changes.

Changing the Display Language

The language on the display can be changed.

- 1 Touch **MENU** to display the menu.



- 2 Select "DISPLAY SETTINGS" and touch **OK**.



- 3 Select "LANGUAGE" and touch **OK**.

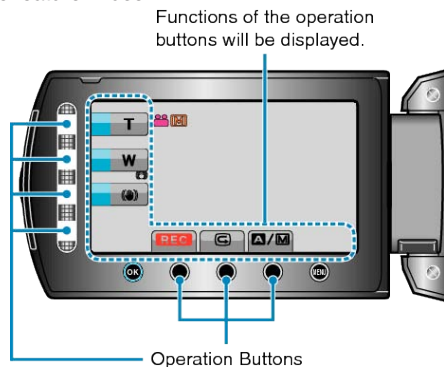


- 4 Select the desired language and touch **OK**.



Using the Operation Buttons

Functions of the operation buttons may be displayed on the screen according to the feature in use.



- To operate, touch the slider and buttons around the screen lightly with your fingers.

Memo:

- "Touch" denotes the touching of the operation buttons lightly.
- The slider and buttons do not function if you touch them with your fingernails or with gloves on.
- The displays on the screen do not work even if you touch them.

Using the Slider

Slide the ball of your finger along the slider for smooth operations. While the slider is being pressed, the cursor moves automatically. Fine operations such as moving the cursor one by one can be performed by touching the slider.

- Refer to the operating instructions found in the animation on the Detailed User Guide.

Memo:

- The slider and buttons do not function if you touch them with your fingernails or with gloves on.
- The displays on the screen do not work even if you touch them.

Holding this Unit

When holding this unit, keep your elbows close to your sides to prevent camera shake.



CAUTION:

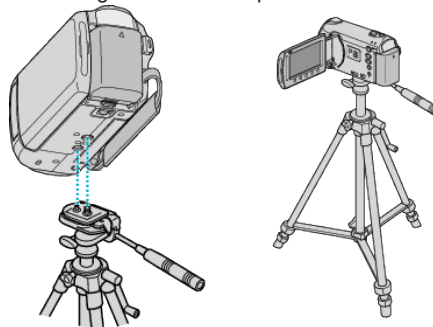
- Be careful not to drop this unit during transportation.
- Guardians should pay close attention when this unit is being used by children.

Memo:

- If camera shake is excessive, use the digital image stabilizer. "Reducing Camera Shake" (P.29)

Tripod Mounting

This unit can be mounted on a tripod. This is useful for preventing camera shake and recording from the same position.



- To prevent this unit from falling off, check the tripod mounting screw holes and positioning holes on the unit carefully before mounting, and turn the screws until they are fastened firmly.

CAUTION:

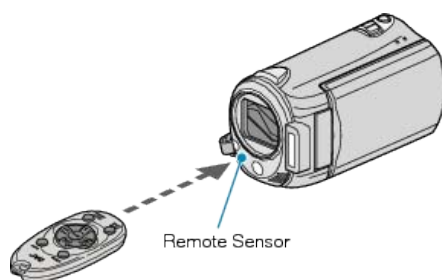
- To prevent injuries or damages which may result if this unit falls off, read the instruction manual of the tripod to be used and make sure that it is securely attached.

Memo:

- It is recommended to use the tripod when recording in conditions prone to camera shake (such as in dark places or when zoomed to the telephoto end).
- Set "DIS" to (OFF) when using a tripod for recording. "Reducing Camera Shake" (P.29)

Using the Remote Control

You can operate this unit from a distance away using the supplied remote control.



Memo:

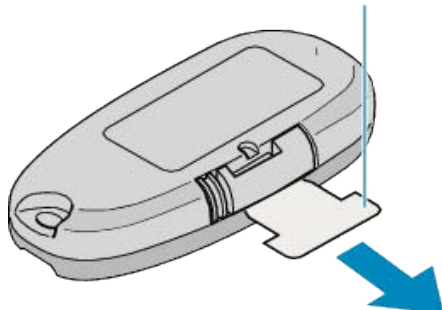
- Point the remote control toward the sensor directly and use it within 5 m from this unit.
- The transmitted beam may not be effective or may cause incorrect operation when the sensor is directly exposed to sunlight or powerful lighting.

Preparing the Remote Control



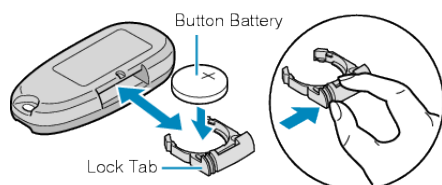
Using the Remote Control for the First Time

Pull out the insulation sheet



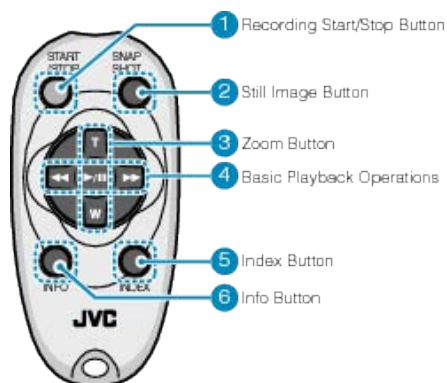
- A button battery (CR2025) is included inside the remote control at the time of purchase. Remove the insulation sheet before use.

Reinserting the Battery



- Pull out the battery holder by pressing the lock tab.
- Insert the button battery with the + side facing upward.

Operation Buttons on Remote Control Unit



1 Recording Start/Stop Button

- Starts/stops video recording.

2 Still Image Button

- Takes a still image.

3 Zoom Button

- T: Zooms in
- W: Zooms out

4 Basic Playback Operations

Operation Button	Description
Playback/Pause Button ▶ /	<ul style="list-style-type: none"> • Starts/pauses playback of videos or slide-shows.
Left Button ◀◀	<ul style="list-style-type: none"> • Moves the cursor to the left. • Performs reverse search during playback.
Right Button ▶▶	<ul style="list-style-type: none"> • Moves the cursor to the right. • Performs forward search during playback.
T Button T	<ul style="list-style-type: none"> • Zooms in. (during pause) • Turns up (+) the volume during video playback.
W Button W	<ul style="list-style-type: none"> • Zooms out. (during pause) • Turns down (-) the volume during video playback.

5 Index Button

- Stops playback and returns to thumbnail display.

6 Info Button

- Recording: Displays the remaining time (for video only) and battery power.
- Playback: Displays file information such as recording date.

Using Bluetooth-compliant Devices

This unit is equipped with Bluetooth function. You can do the following using a Bluetooth-compliant device via wireless connection.

Capabilities of Bluetooth-compliant Devices

Capability	Bluetooth-compliant Device
Control the camcorder	<ul style="list-style-type: none"> • Smartphone
Monitor the image during recording	<ul style="list-style-type: none"> • Smartphone
Import recorded still images	<ul style="list-style-type: none"> • Smartphone • BIP/OPP-compliant device (such as some mobile phones)
Record the location information *1	<ul style="list-style-type: none"> • Smartphone • GPS Receiver
Listen to audio sound/Record audio sound	<ul style="list-style-type: none"> • Headset

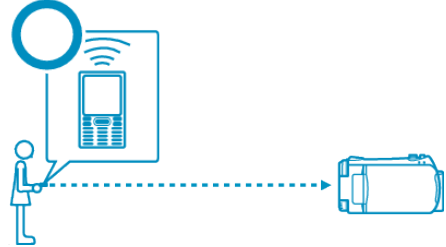
*1 The recorded location information can be used on the software provided with this unit. For more information, refer to the help file of Everio MediaBrowser.

Using a Bluetooth-compliant Device

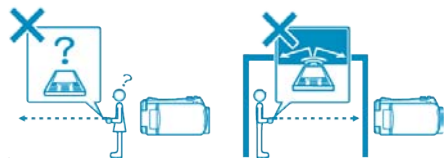
- 1 For smartphones, install its exclusive application.
- 2 Register (pair) a device.
"Registering a Bluetooth-compliant Device" (P.19)
- 3 Connect the Bluetooth-compliant device to the camcorder.
"Connecting to a Registered Device" (P.21)
- 4 Perform some rehearsals (test recordings) before the actual shooting.
- 5 Perform the actual shooting (operations).

Improving the Communication

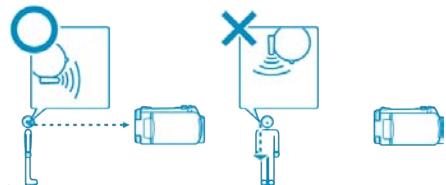
- ① Some connected devices may not be able to support the capabilities of this unit.
 - Verify the compatibility before using.
- ② Make sure that there are no obstacles between the Bluetooth-compliant device and the camcorder.
 - Position the Bluetooth-compliant device such that it can be seen by the camcorder.



- Any obstacles or human subjects between the Bluetooth-compliant device and the camcorder will interrupt the communication.



- When using a headset, use it while facing this unit directly.



- ③ Make use of the Bluetooth-compliant device as near to the camcorder as possible.
 - Although connections within a range of 10 m may be supported by this unit, the nearer the device, the better the communication.

*If the communication is weak, data transfer may take a longer time or there may be noise in the audio sound.

Compliant Bluetooth Devices

This unit can be connected to the following Bluetooth-compliant devices for use.

Refer to the instruction manual of the device, except smartphones, to check its Bluetooth profile.

Device Selection (Bluetooth setting on this unit)	Target Device/Compliant Profile
Smartphone	RIM <ul style="list-style-type: none"> BlackBerry Bold 9000 BlackBerry Curve 8900 BlackBerry Curve 8310 HTC <ul style="list-style-type: none"> Touch Diamond Touch Pro
BIP/OPP	BIP (Basic Imaging Profile, Imaging Re-sponsor) OPP (Object Push Profile, Push Server)
GPS Receiver	SPP (Serial Port Profile, Device B)
Headset	HSP (Headset Profile, HS)

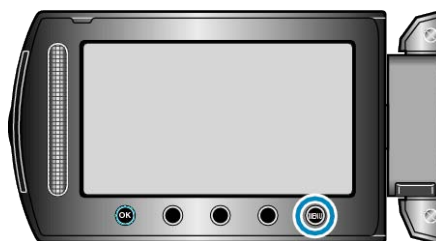
CAUTION:

- When registering a device, be sure to select the correct target device in Bluetooth settings.
If the target device is wrong, connection cannot be established even if the device is registered.
- Although connections within a range of 10 m may be supported by this unit, the nearer the device, the better the communication.
- Perform communication at a location that is at least 2 m away from other electrical products, such as AV or OA equipment. In particular, communication by this product is susceptible to influences by microwave ovens. In this case, allow a distance of at least 3 m. Failure to do so may result in communication errors. Also, reception of a TV or radio set may deteriorate if it is placed near this product.
- Communication may not be carried out properly near radio equipment or broadcasting stations. In this case, change the location accordingly.
- Radio wave interference by wireless LAN equipment
Wireless LAN equipment makes use of the same frequency bandwidth (2.4 GHz) as that of the Bluetooth devices. Using this product near such equipment may cause radio wave interference, and result in a drop in communication speed or connection failure. In this case, turn off the power of devices that are not in use.

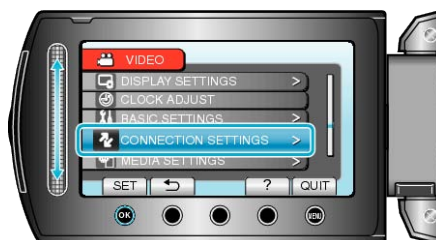
Registering a Bluetooth-compliant Device

In order to use a Bluetooth-compliant device with this unit, it is necessary to perform registration (pairing) on this unit.

- 1 Touch **MENU** to display the menu.



- 2 Select "CONNECTION SETTINGS" and touch **OK**.



- 3 Select "Bluetooth" and touch **OK**.



- 4 Select the type of device to register and touch "REG."



Headset	You can use a headset (headphone that is integrated with a microphone) to listen to the recorded audio sound during shooting. By configuring the "Bluetooth MIC AUDIO" setting in advance, you can insert narration into the movie while shooting.
GPS Receiver	You can use the GPS receiver to record the location information of a recorded movie or still image.
BIP/OPP	Transfers still image data to a Bluetooth-compliant device.
Smartphone	You can use a registered mobile phone as a remote control for this unit using the pre-installed application on the phone.

Getting Started

- 5 Select to enable search for the device to register and touch **OK**.



- The system starts to search for Bluetooth-compliant devices in the area that can be registered.
- The method of setting varies with the device. Refer also to the instruction manual of the device.

- 6 Select the device to register, and touch **OK**.



- If the device to register cannot be found, check the device settings again and restart search.
- Up to nine device names can be displayed at a time.
- If the device name cannot be acquired, the Bluetooth device address (BD address) will appear instead.
- Characters in the device name that cannot be displayed are shown as □.

- 7 Enter the passkey for the device to register.



- Use the slider to select a numeric value, and touch **OK** to enter it.
- Touch "CLE" to clear the last numeric character.
- After input of the numeric characters is complete, touch "SET".
- The number of digits in a passkey varies with the device to register.
- If authentication of the device is not necessary, the passkey entry screen will not appear.
- A passkey is also known as a "PIN code".
- For details on the passkey, refer to the instruction manual of the device to register.
- After registration of the device is complete, touch **OK**.

Memo:

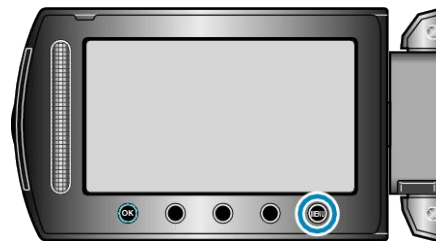
- Registration may fail depending on the device you are using. In addition, connection may fail to establish even if the device is registered.
- You can register up to two headsets and only one GPS receiver, BIP/OPP-compliant device, or smartphone.
- You can connect up to two headsets at the same time. Connection cannot be established if the device types are different. Disconnect the connected device and make a new connection.
- Results of device search vary according to the selected device, condition of signals, and position of the device.
- The auto power off, power-saving, and demo modes are not available during registration of a Bluetooth device.

Connecting to a Registered Device

To use a Bluetooth-compliant device on this unit, it is necessary to establish connection with the device after registering it.

To establish connection with a Bluetooth-compliant device, make use of the menu to set the connection with the device to ON.

- 1 Touch **MEMU** to display the menu.



- 2 Select "CONNECTION SETTINGS" and touch **OK**.



- 3 Select "Bluetooth" and touch **OK**.



- 4 Select the device to connect and touch **OK**.



- The icon changes from OFF to ON after connection with the device is established successfully. For headsets, GPS receivers, and smartphones, an icon indicating the radio reception status is displayed.

CAUTION:

- “UNABLE TO COMMUNICATE WITH THE Bluetooth DEVICE” appears when a device that cannot be supported by this unit is registered and connected. Check the registered device and register again.
- Up to two Bluetooth-compliant headsets can be connected to this unit.
- Different types of Bluetooth-compliant devices cannot be connected to this unit at the same time. (E.g. connecting a headset and a smartphone at the same time)
- Sending or receiving of audio data using the headset is not possible in the still image recording mode.
- When “FACTORY PRESET” in the basic settings menu is executed, all information of the registered Bluetooth-compliant devices will be erased.
- The auto power off, power-saving and demo modes are not available when a Bluetooth device is connected.

About Disconnections :

Connection of this unit with the Bluetooth-compliant device will be cut off automatically in the following cases.

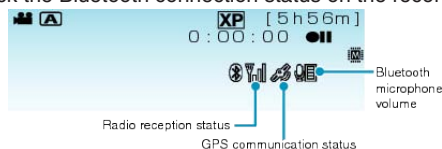
- When the power of this unit is turned off
- When this unit is connected to a DVD writer or PC with a USB cable
- When time-lapse shooting is performed
- When “FACTORY PRESET” in the basic settings menu is executed

Memo:

- When communication with the connected device fails, this unit will disconnect the device after about 10 seconds.
- As different types of Bluetooth-compliant devices cannot be connected to this unit at the same time, disconnect the device that was connected earlier when connecting a device of a different type.
- All connected Bluetooth devices will be disconnected when time-lapse shooting is performed, a USB cable is connected, or the factory preset setting is executed.
*When the factory preset setting is executed, registered information will also be erased.

Indications when a Bluetooth-compliant Device is Connected

You can check the Bluetooth connection status on the recording screen.



Icon Display	Description
Radio Reception Status	Displays the radio reception status of the Bluetooth connection.
GPS Communication Status	Displays the communication status with the GPS. The icon will appear blinking if location information cannot be acquired from the GPS.
Bluetooth Microphone Volume	Displays the microphone's volume level when the Bluetooth microphone is enabled.

Memo:

- The radio reception status is only a guide. It is not displayed in real-time.
- Indications may not be updated according to the condition of signals. The response is especially slow when the radio reception status changes from weak to strong.
- The radio reception status is not displayed during BIP/OPP connection.
- As communication with the connected device is necessary to retrieve radio reception status, the status may not be updated if communication is interrupted suddenly such as by turning off the power.

Table of Compatible Connections

Number of Connections	1	1	1	1	1	2
Connection Case	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Headset 1	✓	—	—	—	—	✓
Headset 2	—	✓	—	—	—	✓
GPS Receiver	—	—	✓	—	—	—
BIP/OPP	—	—	—	✓	—	—
Smartphone	—	—	—	—	✓	—

When Two Headsets are Registered

When two headsets are registered, the microphone can only make use of one of them.

The microphone can be used with the headset that is indicated with a microphone icon beside it.



- To select the other headset for use with the microphone, do so by touching “MIC.”

Memo:

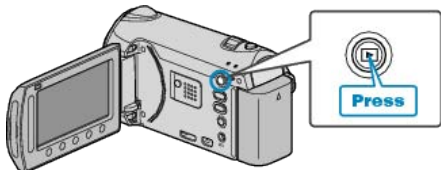
- You can change the Bluetooth microphone audio setting.

“Bluetooth MIC AUDIO” (P.133)

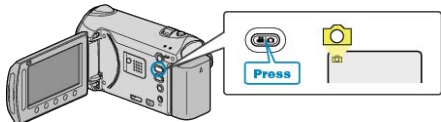
Transferring Still Images to Bluetooth-compliant Devices

When Bluetooth connection is established with a BIP/OPP-compliant device, you can transfer recorded still image data to this device.

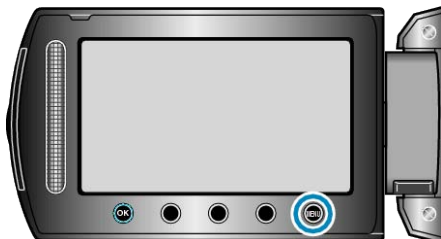
1 Select the playback mode.



2 Select still image mode.



3 Touch **Ⓜ** to display the menu.



4 Select "STILL IMAGE TRANSFER" and touch **Ⓚ**.



5 Set the connected device to the data reception mode.

• For detailed operating instructions, refer to the instruction manual of the connected device.

6 Check to ensure that the image to be transferred is correct, select "YES", and touch **Ⓚ**.



- The image to be transferred is displayed on this screen.
- Touch the operation buttons "←" / "→" to select the previous or next file.
- After image transfer is complete, touch **Ⓚ**.

Memo:

- If the connected device is compliant with both BIP and OPP, BIP connection takes priority. Selection of connection is not possible. OPP connection will only take place if BIP connection fails.
- Before starting image transfer, be sure to turn on the Bluetooth connectivity of the connected device and set it to the data reception mode. Transmission will fail if the Bluetooth connectivity is set after image transfer starts.
- Only one still image can be transferred at a time. To transfer more still images, repeat the same steps.
- Still images cannot be transferred from the connected device to the camcorder.
- Depending on the specifications of the connected device, you may not be able to see or edit the file even if it is transferred successfully. To see or edit the file on the connected device, refer to the instruction manual of the connected device for the compatible image size. Set to the same or smaller image size when recording.

About BIP Connection :

- The conditions (image size, data size) for still image transfer are obtained from the connected device. Still images are then transferred as follows according to the obtained conditions.
 - (1) If the image size meets the conditions, the image will be transferred without any changes.
 - (2) If the image size is too big, the image will be reduced to VGA (640×480) or FWVGA (854×480).
 - (3) If the data size is too big, the image will also be reduced to VGA (640×480) or FWVGA (854×480).

About OPP Connection :

- Still image transfer may fail even if the connected device is compliant with OPP connection. It depends on the file format that can be received by the device.
- Regardless of the image size, the still image to transfer will be reduced to the following sizes.
 - For still images with 4:3 aspect ratio: VGA (640×480)
 - For still images with 16:9 aspect ratio: FWVGA (854×480)

Operation Using a Smartphone

You can use a smartphone as a remote control for this unit using the pre-installed application on the phone.

This unit supports the following smartphones.

Manufacturer	Recommended Products
RIM	<ul style="list-style-type: none"> • BlackBerry Bold 9000 • BlackBerry Curve 8900 • BlackBerry Curve 8310
HTC	<ul style="list-style-type: none"> • Touch Diamond • Touch Pro

Memo:

- For smartphone application software downloads and usage, refer to the following.

<http://www.jvc-victor.co.jp/english/download/bluetooth/index.html>
(effective March 5, 2010)

CAUTION:

- When a smartphone is used as a remote control, the simultaneous still image recording function on this unit will be disabled.

Memo:

- Data packet charges may be incurred when using GPS.
- When the smartphone is connected to other Bluetooth-compliant devices, connection of the phone with this unit may fail.
- When the smartphone is connected to this unit, connection of the phone with other Bluetooth-compliant devices may fail.
- Disconnection may occur due to requests from the smartphone. Restart the application on the phone if it is disconnected.

Radio Waves Used by this Product

This product makes use of radio waves in the ISM band (2.4 GHz). Although a radio station license is not required for using this product, please take note of the following.

■ Do not use this product near the following places.

- Industrial, scientific, or medical equipment, such as microwave ovens and pacemakers
- In-plant radio stations for detecting moving objects, such as those employed in the manufacturing lines of plants (radio station license required)
- Specified low-power radio stations (radio station license not required)
- Wireless LAN equipment

Equipment such as the above mentioned devices makes use of the same frequency bandwidth as that of Bluetooth.

Using this product near the above equipment may cause radio wave interference, and result in communication failure or a drop in communication speed.

■ Avoid using this product near a TV or radio set.

TV or radio sets make use of a radio wave frequency bandwidth that is different from that of Bluetooth, and therefore has no effect on communication by this product or the TV/radio set.

However, when a TV/radio set is placed close to a Bluetooth product, electromagnetic waves emitted by the latter may cause noise to occur in the sound or images of the TV/radio.

■ Radio signals are unable to penetrate through reinforced steel, metal, or concrete.

The radio waves used by this product are unable to penetrate through reinforced steel, metal, or concrete materials.

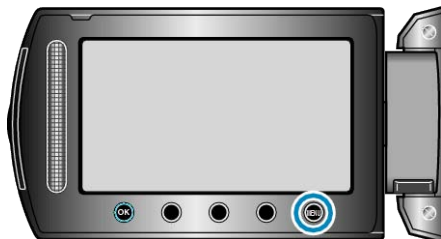
Communication cannot be established if two rooms or floors are separated by these materials.

*Communication also gets weaker when there are human subjects or parts of the body in between the Bluetooth devices. Make sure that there are no obstructions in between the devices when in use.

Setting the Clock to Local Time when Traveling

Change the date and time display to the local time by selecting your travel destination in "AREA SETTING" of "CLOCK ADJUST". Restore the region settings after you returned from the trip.

1 Touch **Ⓜ** to display the menu.



2 Select "CLOCK ADJUST" and touch **Ⓚ**.



3 Select "AREA SETTING" and touch **Ⓚ**.



4 Select the area you are traveling to and touch **Ⓚ**.



- The city name and time difference are displayed.

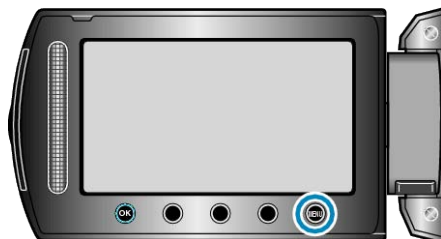
Memo: _____

- Setting "AREA SETTING" changes the clock time such that time difference is accounted for.
After returning to your country, re-select the region that was set initially to restore the original clock settings.

Setting Daylight Saving Time

When "ON" is selected in "SET FOR DAYLIGHT SAVING TIME" of "CLOCK ADJUST", the time is set 1 hour ahead.

1 Touch **Ⓜ** to display the menu.



2 Select "CLOCK ADJUST" and touch **Ⓚ**.



3 Select "SET FOR DAYLIGHT SAVING TIME" and touch **Ⓚ**.



4 Set daylight saving time and touch **Ⓚ**.



Memo: _____

- What is daylight saving time?
Daylight saving time is the system of setting the clock 1 hour ahead for a fixed period in summer. It is used mainly in the Western countries.
- Restore the daylight saving time settings after you returned from the trip.

Optional Accessories

You can record for a longer time by using the optional battery pack.

Product Name	Description
Battery Pack • BN-VG114U • BN-VG121U	<ul style="list-style-type: none"> Provides a longer recording time than the battery pack that comes with this unit. It can also be used as a spare battery pack.
Battery Charger • AA-VG1U	<ul style="list-style-type: none"> Enables the battery pack to be charged without using this unit.
DVD Writer • CU-VD3U	<ul style="list-style-type: none"> Enables the images recorded on this unit to be copied to a DVD without using a PC.
DVD Writer • CU-VD50U	<ul style="list-style-type: none"> Creates DVDs and functions as an external DVD drive when connected to a PC. In addition, created DVDs can be played back by connecting the CU-VD50U to a TV.
Component Cable • QAM1266-001	<ul style="list-style-type: none"> For viewing in high picture quality.
USB Cable • QAM0852-001	<ul style="list-style-type: none"> Connects this unit to a BD writer or a recommended USB external hard disk drive (see table below).

Memo:

- For more information, refer to the catalog.
- BN-VG114U is the same battery pack that comes with this unit.

Approximate Recording Time (Using Battery)

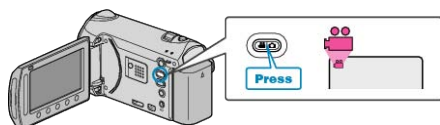
Battery Pack	Actual Recording Time	Continuous Recording Time
BN-VG114U (Supplied)	45 m	1 h 20 m
BN-VG121U	1 h 10 m	2 h 5 m

- The above are values when "LIGHT" is set to "OFF" and "LCD BACK-LIGHT" is set to "STANDARD".
- The actual recording time may be shorter if zooming is used or if recording is stopped repeatedly. (It is recommended to prepare battery packs ready for three times the expected recording time.)
- When the battery life is reached, the recording time becomes shorter even if the battery pack is fully charged. (Replace the battery pack with a new one.)

Taking Videos in Auto Mode

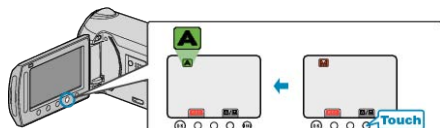
You can record without worrying about the setting details by using the auto mode.

- 1 Open the LCD monitor and select the video mode.



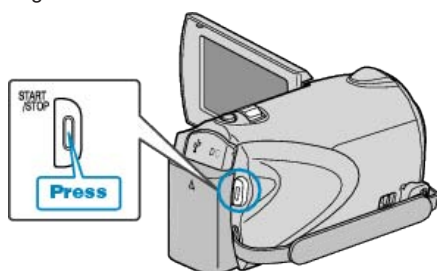
- The video mode icon appears.

- 2 Check if the recording mode is Auto.



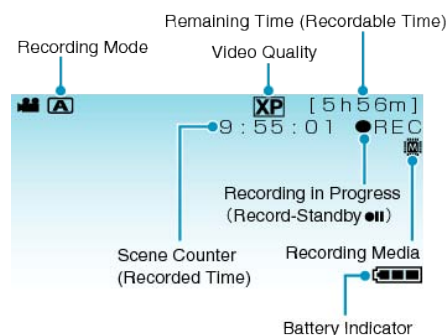
- If the mode is Manual, touch the **A/M** button. The mode changes between Auto and Manual with every touch.

- 3 Start recording.



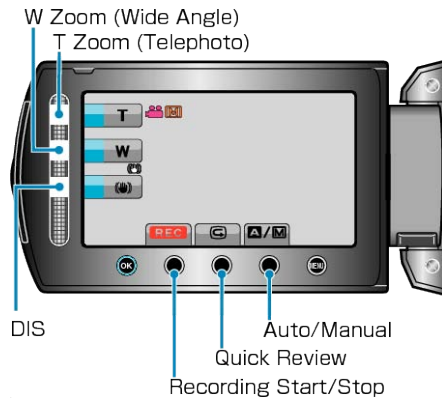
- Press again to stop.

Indications During Video Recording



Display Icon	Description
Recording Mode	Press the A/M button to switch the recording mode between A (Auto) and M (Manual).
Video Quality	Displays the icon of the "VIDEO QUALITY" setting selected in the recording menu. "VIDEO QUALITY" (P.109)
Remaining Time (Recordable Time)	Displays the remaining time for video recording.
Recording in Progress	Appears when video recording is in progress.
Record-Standby	Appears when video recording is paused.
Scene Counter (Recorded Time)	Displays the elapsed time of the video that is currently being recorded.
Recording Media	Displays the icon of the media where videos are recorded to. The recording media can be changed. "REC MEDIA FOR VIDEO" (P.136)
Battery Indicator	Displays the approximate remaining battery power. Details of the battery power can be displayed by pressing the INFO button. "Remaining Recording Time/Battery Power" (P.47)

Operation Buttons for Video Recording



Operation Button	Description
T/W Zoom	Allows the same functions as the zoom lever to be performed. Camera shake that often occurs when using the zoom lever can be minimized. "Zooming" (P.29)
DIS	Sets whether to reduce camera shake. "Reducing Camera Shake" (P.29)
Recording Start/Stop	Functions as the START/STOP button. "RECORD BUTTON" (P.129)
Quick Review	Enables the most recently captured video to be viewed. "Checking the Captured Image Immediately" (P.29)
Auto/Manual	Switches the recording mode between Auto and Manual.

Memo:

- The slider operation button cannot be used when the LCD monitor is flipped.
- The zoom appears when the slider is touched.

Useful Settings for Recording

- Videos can be found easily during playback by categorizing them when recording.
- "Registering Files to Events Before Recording" (P.41)
- When "QUICK RESTART" is set to "ON", this unit turns on immediately if you open the LCD monitor within 5 minutes after the power is turned off by closing the monitor.
- "QUICK RESTART" (P.129)
- When "AUTO POWER OFF" is set to "ON", this unit turns itself off automatically to conserve power when it is not operated for 5 minutes. (only when using the battery pack)
- "AUTO POWER OFF" (P.128)
- When "FACE PRIORITY AE/AF" is set to "ON" (default setting), this unit detects faces and automatically adjusts its brightness and focus to record the faces more clearly.
- "Capturing Human Subjects Clearly (Face Detection AE/AF)" (P.38)
- If the remaining space on the recording media runs out while "SEAMLESS RECORDING" is set to "ON", recording continues after switching to another recording media.
- "SEAMLESS RECORDING" (P.111)

CAUTION:

- Do not expose the lens to direct sunlight.
- Do not use this unit in the rain, snow, or places with high humidity like the bathroom.
- Do not use this unit in places subject to excessive humidity or dust, as well as places exposed to steam or smoke directly.
- The access lamp lights up when video recording is in progress. Do not remove the battery pack, AC adapter, or SD card when the lamp is lighted.
- Make a backup of important recorded data
It is recommended to copy your important recorded data to a DVD or other recording media for storage. JVC will not be responsible for any lost data.

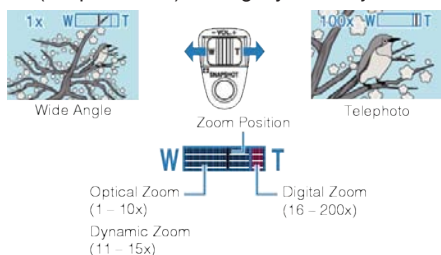
Memo:

- Before recording an important scene, it is recommended to conduct a trial recording.
- Check the remaining recording time in the media before you start shooting. If there is not enough space, move (copy) the data to a PC or disc.
- Do not forget to make copies after recording!
- Recording stops automatically as it cannot be performed for 12 or more consecutive hours according to specifications. (It may take some time to resume recording.)
- For long recordings, the file is split into two or more files if the size exceeds 4 GB.
- You can connect this unit to the AC adapter to record for long hours indoors.

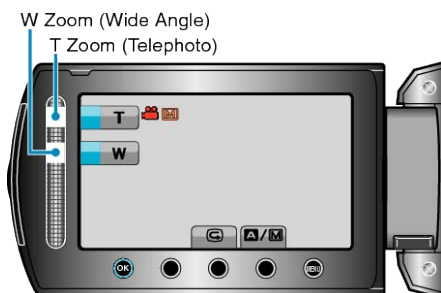
Zooming

The angle of view can be adjusted using zoom.

- Use the W end (wide angle end) to shoot a wider field of view.
- Use the T end (telephoto end) to magnify the subject for shooting.



- You can also use the slider's T/W zoom to zoom.



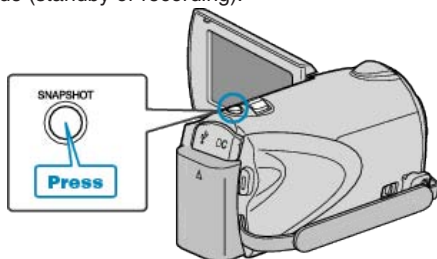
Memo:

- You can expand the zoom area without degrading the image quality by using dynamic zoom.
- When digital zoom is used, the image becomes grainy as it is digitally enlarged.
- The zoom ratio range can be changed.

"ZOOM" (P.110)

Capturing Still Images During Video Recording

Still images can be captured by pressing the SNAPSHOT button while in the video mode (standby or recording).



- "PHOTO" lights up on the screen when a still image is being captured.



- The still images captured during video recording are saved to the destination set in media settings.

"REC MEDIA FOR IMAGE" (P.136)

Memo:

- The size of the still image that is captured in the video mode is 3200 x 1800.
 - Setting "SHUTTER MODE" to "CONTINUOUS SHOOTING" enables you to take continuous shots of still images.
- "SHUTTER MODE" (P.112)
- The picture quality varies with the "IMAGE QUALITY" setting.
- "IMAGE QUALITY" (P.116)
- When an effect (black and white/sepia) is applied to the video, the same effect will be applied to the still image.

"EFFECT" (P.118)

Reducing Camera Shake

When DIS is turned on, camera shake during recording can be effectively reduced.



- The setting of DIS switches with every touch.

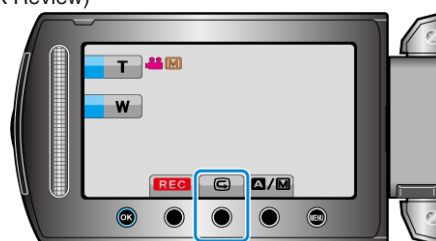
Display	Setting
(Image stabilizer 1)	Activates image stabilizer.
(Image stabilizer 2)	Reduces camera shake more effectively when shooting bright scenes on the wide angle end. *Only on the wide angle end (approx. 5x)
(OFF)	Deactivates image stabilizer.

Memo:

- It is recommended to switch off this mode when using a tripod and recording a subject with little movement.
- Complete stabilization may not be possible if camera shake is excessive.
- This setting is effective for video recording only.

Checking the Captured Image Immediately

You can check the most recently captured images while in the recording mode. (Quick Review)



Memo:

- You can also delete the image after checking.
- Quick Review can no longer recall the most recently captured image once the power is turned off.
Use the playback mode to check the image in this case.

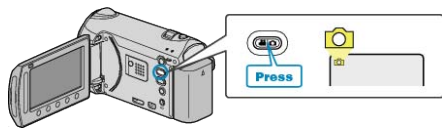
- Still Image

"Checking the Captured Image Immediately(Still Image)" (P.31)

Taking Still Images in Auto Mode

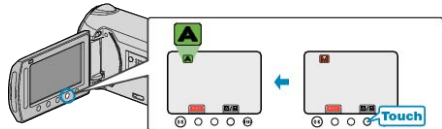
You can record without worrying about the setting details by using the auto mode.

1 Open the LCD monitor and select the still image mode.



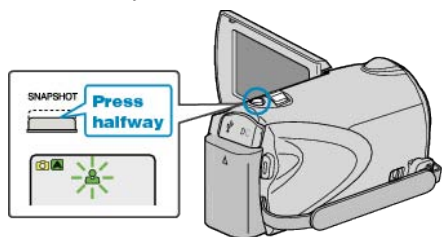
- The still image mode icon appears.

2 Check if the recording mode is Auto.



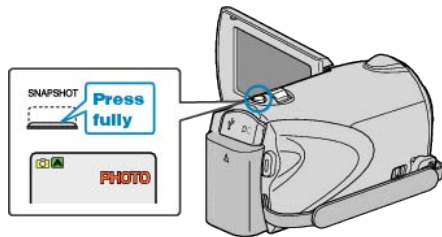
- If the mode is Manual, touch the **A/M** button. The mode changes between Auto and Manual with every touch.

3 Set the focus on the subject.



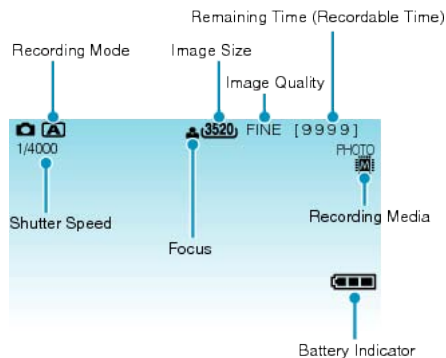
- When focused, the focus icon lights up in green.

4 Take a still image.



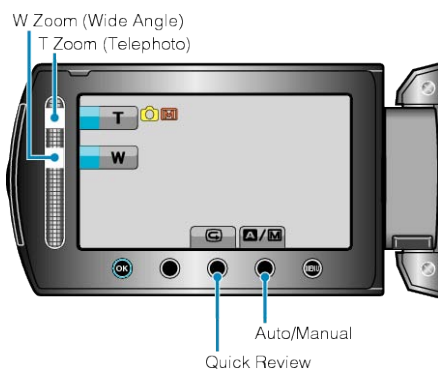
- PHOTO lights up when a still image is being captured.

Indications During Still Image Recording



Display Icon	Description
Recording Mode	Press the A/M button to switch the recording mode between A (Auto) and M (Manual).
Image Size	Displays the icon of the image size. <ul style="list-style-type: none"> • The size of still images can be changed. "IMAGE SIZE" (P.116)
Image Quality	Displays the icon of the "IMAGE QUALITY" setting selected in the recording menu. "IMAGE QUALITY" (P.116)
Number of Shots (Recordable Number of Shots)	Displays the remaining number of shots for still image recording.
Shutter Speed	Displays the shutter speed.
Focus	Lights up in green when focused.
Recording in Progress	Appears when a still image is being captured.
Recording Media	Displays the icon of the media where still images are recorded to. The recording media can be changed. "REC MEDIA FOR IMAGE" (P.136)
Battery Indicator	Displays the approximate remaining battery power. Details of the battery power can be displayed by pressing the INFO button. "Remaining Recording Time/Battery Power" (P.47)

Operation Buttons for Still Image Recording



Operation Button	Description
T/W Zoom	Functions as the zoom lever. "Zooming" (P.31)
Quick Review	Enables the most recently captured still image to be viewed. "Checking the Captured Image Immediately" (P.31)
Auto/Manual	Switches the recording mode between Auto and Manual.

Memo:

- The slider operation button cannot be used when the LCD monitor is flipped.
- The zoom appears when the slider is touched.

Useful Settings for Recording

- When "QUICK RESTART" is set to "ON", this unit turns on immediately if you open the LCD monitor within 5 minutes after the power is turned off by closing the monitor.
- "QUICK RESTART" (P.129)
- When "AUTO POWER OFF" is set to "ON", this unit turns itself off automatically to conserve power when it is not operated for 5 minutes. (only when using the battery pack)
- "AUTO POWER OFF" (P.128)
- When "FACE PRIORITY AE/AF" is set to "ON" (default setting), this unit detects faces and automatically adjusts its brightness and focus to record the faces more clearly.
- "Capturing Human Subjects Clearly (Face Detection AE/AF)" (P.38)
- To perform recording in a dark location, do so after setting "FLASH".
- "FLASH" (P.115)

CAUTION:

- Do not expose the lens to direct sunlight.
- Do not use this unit in the rain, snow, or places with high humidity like the bathroom.
- Do not use this unit in places subject to excessive humidity or dust, as well as places exposed to steam or smoke directly.
- The access lamp lights up when still image recording is in progress. Do not remove the battery pack, AC adapter, or SD card when the lamp is lighted.

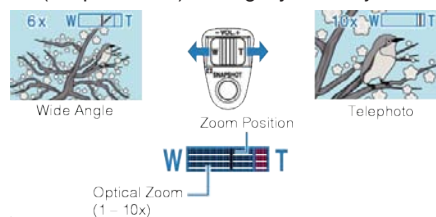
Memo:

- Before recording an important scene, it is recommended to conduct a trial recording.
- DIS does not work when recording still images.

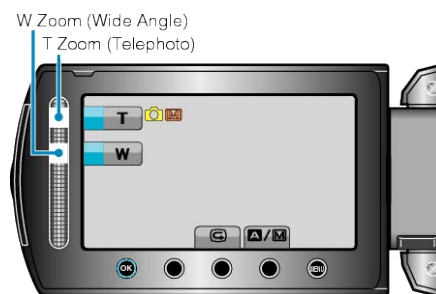
Zooming

The angle of view can be adjusted using zoom.

- Use the W end (wide angle end) to shoot a wider field of view.
- Use the T end (telephoto end) to magnify the subject for shooting.



- You can also use the slider's T/W zoom to zoom.

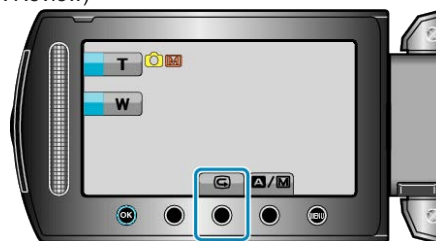


Memo:

- Only optical zoom is available in the still image recording mode.

Checking the Captured Image Immediately

You can check the most recently captured images while in the recording mode. (Quick Review)



Memo:

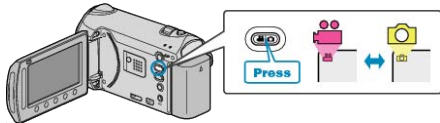
- You can also delete the image after checking.
 - Quick Review can no longer recall the most recently captured image once the power is turned off. Use the playback mode to check the image in this case.
 - Video
- "Checking the Captured Image Immediately(Video)" (P.29)

Manual Recording

You can adjust settings, such as brightness and shutter speed, by using the manual mode.

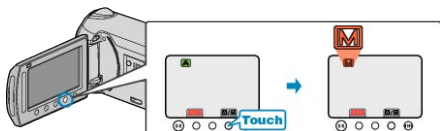
Manual recording can be set for both video and still image modes.

1 Select video or still image mode.



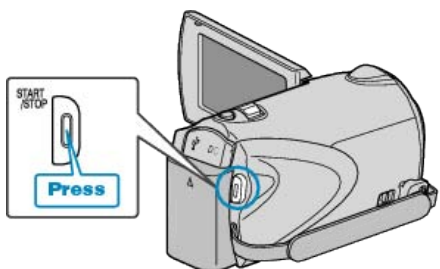
- The video or still image mode icon appears.

2 Select the Manual recording mode.



- The mode changes between Auto and Manual with every touch.

3 Start recording.



- Press again to stop.

Memo:

- The manual settings are displayed only in the manual mode.


Manual Recording Menu

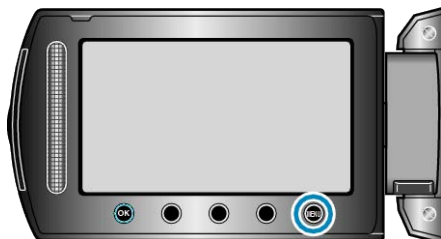
The following items can be set.

Name	Description
SCENE SELECT	<ul style="list-style-type: none"> • Recordings that suit the shooting conditions can be performed easily. "Scene Selection" (P.33)
FOCUS	<ul style="list-style-type: none"> • Use manual focus if the subject is not focused automatically. "Adjusting Focus Manually" (P.34)
FOCUS ASSIST	Focused subject is outlined in color for more precise focus. "Using Focus Assist" (P.34)
BRIGHTNESS ADJUST	<ul style="list-style-type: none"> • Overall brightness on the screen can be adjusted. • Use this when recording in a dark or bright location. "Adjusting Brightness" (P.35)
SHUTTER SPEED	<ul style="list-style-type: none"> • Shutter speed can be adjusted. • Use this when shooting a fast-moving subject or to emphasize the subject's movement. "Setting Shutter Speed" (P.35)
WHITE BALANCE	<ul style="list-style-type: none"> • Overall color on the screen can be adjusted. • Use this when the color on the screen appears differently from the actual color. "Setting White Balance" (P.36)
BACKLIGHT COMP.	<ul style="list-style-type: none"> • Corrects the image when the subject appears dark due to backlight. • Use this when shooting against the light. "Setting Backlight Compensation" (P.36)
METERING AREA/TYPE	<ul style="list-style-type: none"> • Brightness of a specified area can be set as the standard. "Setting Metering Area" (P.37)
EFFECT	<ul style="list-style-type: none"> • Images that look like old photographs or black-and-white movies can be taken. "Recording with Effects" (P.37)
TELE MACRO	<ul style="list-style-type: none"> • Use this to take close-up (macro) shots of the subject. "Taking Close-up Shots" (P.38)

Scene Selection

Common scenes that are often encountered can be recorded with the most suitable settings.

1 Touch  to display the menu.



2 Select "MANUAL SETTING" and touch .



3 Select "SCENE SELECT" and touch .

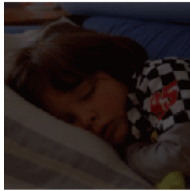

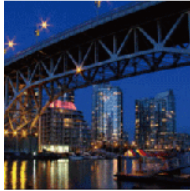

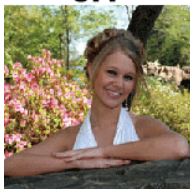



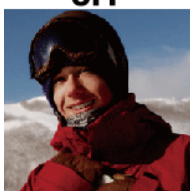





4 Select the scene and touch .



• After setting, touch .

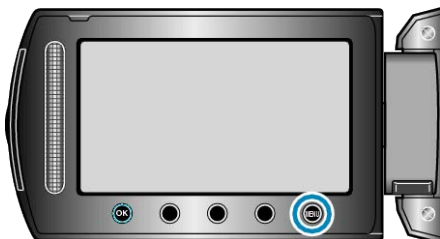
*The image is only an impression.

Setting	Effect
NIGHT EYE	Increases gain and brightens the scene automatically using a slow shutter when the surrounding is dark. To prevent camera shake, use a tripod. OFF  ON 
NIGHT	Captures night scenes naturally. OFF  ON 
PORTRAIT	Blurs the background to bring out the people in the picture. OFF  ON 
SPORTS	Captures fast-moving subjects clearly in every single frame. OFF  ON 
SNOW	Prevents the subject from appearing too dark when recording snow scenes on a sunny day. OFF  ON 
SPOTLIGHT	Prevents the human subject from appearing too bright under light. OFF  ON 

Adjusting Focus Manually

Set this when the focus is not clear in "AUTO" or when manual focusing is desired.

1 Touch **MENU** to display the menu.



2 Select "MANUAL SETTING" and touch **OK**.



3 Select "FOCUS" and touch **OK**.



4 Select "MANUAL" and touch **OK**.



5 Adjust the focus with the slider.



- Slide upward to focus on a distant subject.
- Slide downward to focus on a near subject.

6 Touch **OK** to confirm.

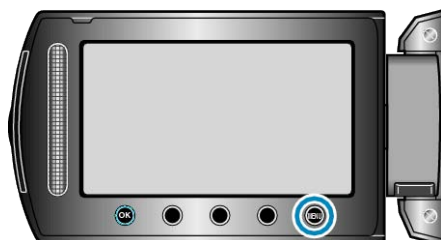


Memo:
• A subject that is focused at the telephoto (T) end remains in focus when it is zoomed out to the wide angle (W) end.

Using Focus Assist

Focused subject is outlined in color for more precise focus.

1 Touch **MENU** to display the menu.



2 Select "MANUAL SETTING" and touch **OK**.



3 Select "FOCUS ASSIST" and touch **OK**.



4 Adjust the focus with the slider.



- Slide upward to focus on a distant subject.
- Slide downward to focus on a near subject.

5 Touch **OK** to confirm.




Memo:
• The image becomes black and white while the outline of the focused object is displayed in the selected color. Change outline color if it becomes difficult to see.

"FOCUS ASSIST COLOR" (P.125)

Adjusting Brightness

You can adjust the brightness to your preferred level.

1 Touch  to display the menu.



2 Select "MANUAL SETTING" and touch .



3 Select "BRIGHTNESS ADJUST" and touch .



4 Select "MANUAL" and touch .



5 Select the brightness value with the slider.



- Compensation range during video recording: -6 to +6
- Compensation range during still image recording: -2.0 to +2.0
- Slide upward to increase the brightness.
- Slide downward to decrease the brightness.

6 Touch  to confirm.



Memo:

- Settings can be adjusted separately for videos and still images.

Setting Shutter Speed

You can set the shutter speed to suit the type of subject.

1 Touch  to display the menu.



2 Select "MANUAL SETTING" and touch .



3 Select "SHUTTER SPEED" and touch .



4 Select "MANUAL" and touch .



5 Select the shutter speed with the slider.



- Shutter speed can be set from 1/2 to 1/4000. (Up to 1/500 for still image.)
- Slide upward to increase the shutter speed.
- Slide downward to decrease the shutter speed.

6 Touch  to confirm.



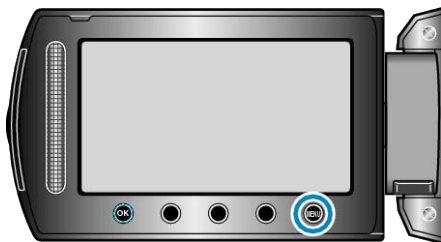
Memo:

- Settings can be adjusted separately for videos and still images.

Setting White Balance

You can set the color tone to suit the light source.

1 Touch **MENU** to display the menu.



2 Select "MANUAL SETTING" and touch **OK**.



3 Select "WHITE BALANCE" and touch **OK**.



4 Select the white balance setting and touch **OK**.



Setting	Details
AUTO	Adjusts automatically to the natural colors.
MWB	Use this when the problem of unnatural colors is not resolved.
FINE	Set this when shooting outdoors on a sunny day.
CLOUD	Set this when shooting on a cloudy day or inside a shade.
HALOGEN	Set this when shooting under illumination such as a video light.

Using MWB

1 Hold a sheet of plain white paper in front of the lens so that the white paper fills the screen.

2 Select "MWB" and keep touching **OK**.

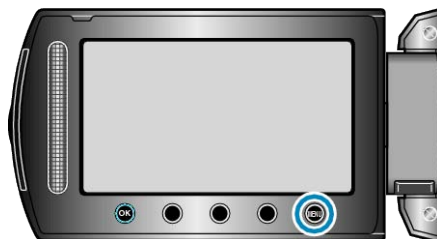
- The cursor blinks.

3 Release **OK** after the menu disappears.

Setting Backlight Compensation

You can correct the image when the subject appears too dark due to backlight.

1 Touch **MENU** to display the menu.



2 Select "MANUAL SETTING" and touch **OK**.



3 Select "BACKLIGHT COMP." and touch **OK**.



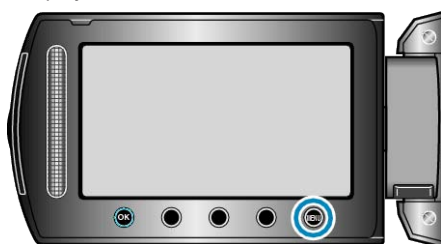
4 Select "ON" and touch **OK**.



Setting Metering Area

You can set the brightness of a specified area as the standard.

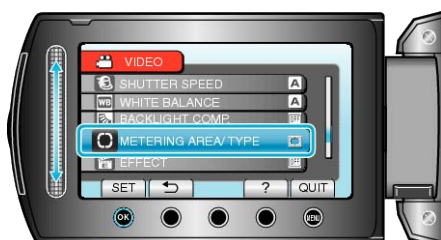
1 Touch **MENU** to display the menu.



2 Select "MANUAL SETTING" and touch **OK**.



3 Select "METERING AREA/ TYPE" and touch **OK**.



4 Select "SPOT" and touch **OK**.



- When "SPOT" is selected, select the position of the spot frame by touching the operation buttons "←"/"→". After selecting, touch **OK** to confirm.

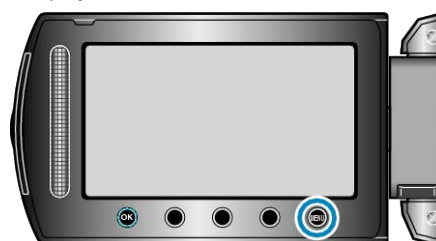
Recording with Effects

You can add various effects to videos and still images to create a different atmosphere from the usual recording.



*The image is only an impression.

1 Touch **MENU** to display the menu.



2 Select "MANUAL SETTING" and touch **OK**.



3 Select "EFFECT" and touch **OK**.



4 Select the effect setting and touch **OK**.



Setting	Details
OFF	No effect.
SEPIA	Gives images a brownish tint like old photographs.
BLACK & WHITE	Records in black and white like old TV images.
CLASSIC FILM	Skips frames to give images of the effect of an old movie. <ul style="list-style-type: none"> This can only be set in the video mode.
STROBE	Enables the image to look like a series of consecutive snapshots by skipping frames. <ul style="list-style-type: none"> This can only be set in the video mode.

Memo:

- Settings can be adjusted separately for videos and still images.

Taking Close-up Shots

You can take close-up shots of an object using the tele macro function.



*The image is only an impression.

1 Touch **MENU** to display the menu.



2 Select "MANUAL SETTING" and touch **OK**.



3 Select "TELE MACRO" and touch **OK**.



4 Select "ON" and touch **OK**.



Setting	Details
OFF	Enables close-up shots up to 1 m at the telephoto (T) end. Enables close-up shots up to 5 cm at the wide angle (W) end.
ON	Enables close-up shots up to 60 cm at the telephoto (T) end. Enables close-up shots up to 5 cm at the wide angle (W) end.

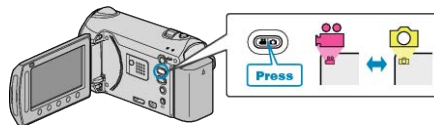
CAUTION:

- When you are not taking close-up shots, set TELE MACRO to "OFF". Otherwise, the image may be blur.

Capturing Human Subjects Clearly (Face Detection AE/AF)

"FACE PRIORITY AE/AF" automatically adjusts the detected face with an appropriate focus to brightness. This function is available for both movies and still images.

1 Select video or still image mode.



2 Touch **MENU** to display the menu.



3 Select "FACE PRIORITY AE/AF" and touch **OK**.



4 Select "ON" and touch **OK**.

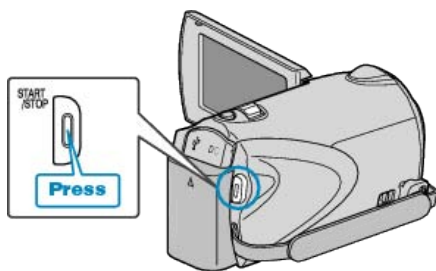


5 Point the camera toward the human subject.



- A frame appears around the face of the subject, and the focus and brightness are automatically adjusted.
- If multiple faces are detected, the face that is closest to the camera will be focused.

6 Start recording.

**CAUTION:**

- When "FACE PRIORITY AE/AF" is set to "ON", the following settings will change.
 - If "SCENE SELECT" is set to "SPOTLIGHT", it will be switched to "OFF".
 - If "FOCUS" is set to "MANUAL", it will be switched to "AUTO".
 - If "BACKLIGHT COMP." is set to "ON", it will be switched to "OFF".
 - If "METERING AREA/ TYPE" is set to "SPOT", it will be switched to "ENTIRE SCREEN".
- When the following settings are made, "FACE PRIORITY AE/AF" will switch to "OFF".
 - When "SCENE SELECT" is set to "SPOTLIGHT"
 - When "FOCUS" is set to "MANUAL"
 - When "FOCUS ASSIST" is selected
 - When "BACKLIGHT COMP." is set to "ON"
 - When "METERING AREA/ TYPE" is set to "SPOT"

Memo:

- The camera is able to detect up to 16 faces.
- Some faces may not be detected depending on the recording environment.
- If appropriate results cannot be obtained, record with "FACE PRIORITY AE/AF" set to "OFF".

Taking Group Shots (Self-timer)

The 10-second self-timer and Face Detection self-timer are convenient functions for taking group photos. The 2-second self-timer is useful for preventing camera shake caused by pressing the shutter button.

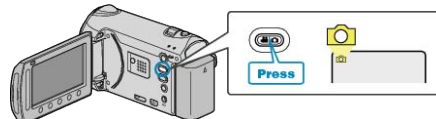
Memo:

When shooting a photo using the self-timer function, use of a tripod is recommended.

"Tripod Mounting" (P.16)

Using the 2-/10-second Self-timer

- Select still image mode.



- Touch MENU to display the menu.



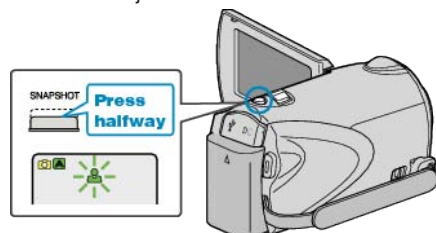
- Select "SELF-TIMER" and touch OK .



- Select "2SEC" or "10SEC", and touch OK .

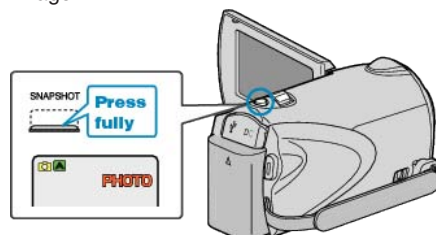


- Set the focus on the subject.



- When focused, the focus icon lights up in green.

- Take a still image.



- A timer appears and countdown to shooting starts.
- To stop the self-timer, press the SNAPSHOT button again.

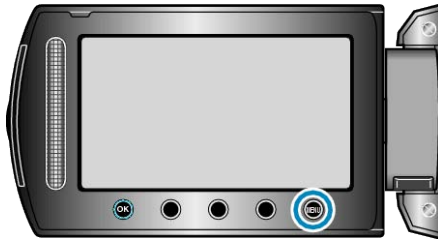
Using the Face Detection Self-timer

Pressing the SNAPSHOT button starts face detection, and shooting is performed three seconds after another person enters the frame. This function is useful when you want to include the photographer in the group photo.

1 Select still image mode.



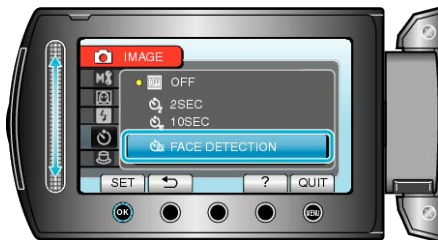
2 Touch **MENU** to display the menu.



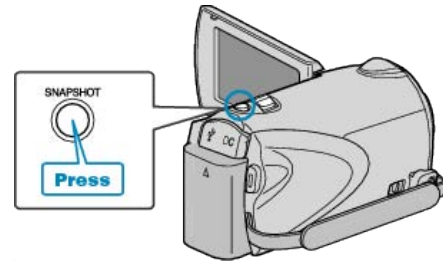
3 Select "SELF-TIMER" and touch **OK**.



4 Select "FACE DETECTION" and touch **OK**.



5 After making sure that everyone is facing the camera, press the SNAPSHOT button.



- Frames appear around the faces of the subjects.
- Pressing the SNAPSHOT button again with the frames around the faces starts the 10-second self-timer.

6 The photographer enters the frame.



- The shutter is released three seconds after the photographer enters the frame.
- To stop the self-timer, press the SNAPSHOT button again.

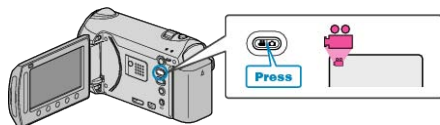
Memo:

- The "FACE DETECTION" function may fail to detect faces depending on the shooting environment.

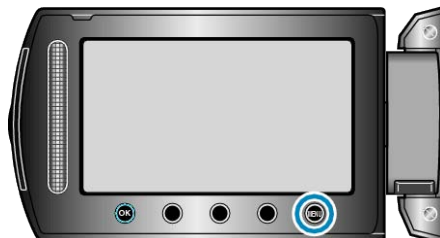
Registering Files to Events Before Recording

Videos can be found easily during playback by categorizing them when recording.

1 Select video mode.



2 Touch \odot to display the menu.



3 Select "REGISTER EVENT" and touch \odot .



4 Select the event type and touch \odot .



Event Type
VACATION
HOLIDAY
SPORTS
ANNIVERSARY
CONGRATULATIONS
BABY
SON
DAUGHTER
BIRTHDAY
GRADUATION

- An icon appears on the screen and the video is recorded under the selected event.
(Videos will continue to be recorded to the same event until a change is made.)

Memo:

- To cancel event registration, touch "CANCEL" in step 4.
- The registered event can be changed again later.

"Changing the Event of the Currently Displayed File" (P.65)

"Changing the Event of the Selected Files" (P.66)

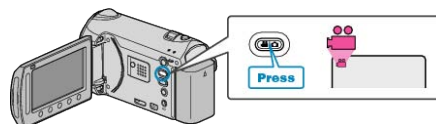
Taking Videos in YouTube Format

You can share your enjoyable memories with family and friends easily by posting your videos on the video sharing website YouTube. Through upload shooting, videos that are suitable for uploading to YouTube (within 10 minutes) may be taken directly.

Memo:

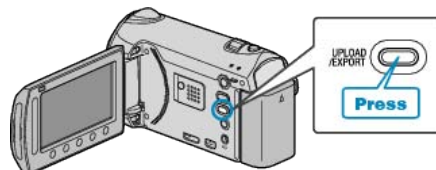
For more information on YouTube, please visit the following website.
<http://www.youtube.com/>

1 Select video mode.



- The video mode icon appears.

2 Press the UPLOAD/EXPORT button to display the "UPLOAD SHOOTING"/"EXPORT SHOOTING" menu.

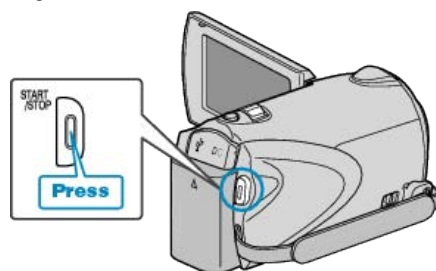


3 Select "UPLOAD SHOOTING" and touch the \odot button.



- The mode switches between ON and OFF with every press.
- When set to ON, a "📺" mark appears on the screen.
- To cancel this setting, set to "OFF".
- After setting, touch the \leftarrow button.

4 Start recording.



- Press again to stop.
- The maximum recording length of a video in upload mode is 10 minutes.
Recording stops automatically after 10 minutes.

Memo:

- Upload recording can only be performed for up to 10 minutes, the time limit of YouTube.
- Changing videos to the file format for uploading cannot be performed on this unit.
To upload video files, refer to "Uploading Videos" below.
- The upload recording icon disappears when recording stops.
To record another video in upload mode, perform the settings again.

Uploading Videos

You can upload your videos to YouTube using the provided software "Everio MediaBrowser".

Install the software on your PC and connect this unit to the PC.

- For details on how to use the software, refer to the help file.

"Installing the Provided Software" (P.100)

"Connecting this Unit to PC" (P.101)

Trouble with Uploading Videos

- Check if you have created an account with YouTube.
(You need a YouTube account to upload files to YouTube.)
- Refer to "Q&A", "Latest Information", "Download Information", etc. in "Click for Latest Product Info" in the help file of the provided software "Everio MediaBrowser".

Taking Videos in iTunes Format

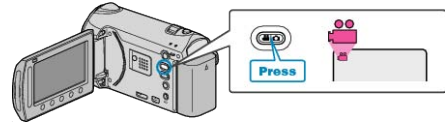
By recording with the EXPORT setting turned on, you can transfer the videos to Apple's software "iTunes" when this unit is connected to a PC. "LIB." is displayed when recording videos in iTunes format. Use the provided software to transfer the videos. "Installing the Provided Software" (P.100)

Memo:

For more information on iTunes and iPod, please visit the following web-site.

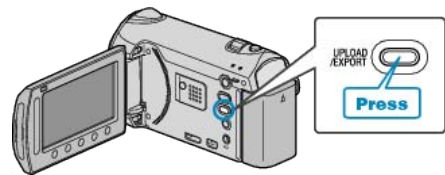
<http://www.apple.com/itunes/>

- 1 Select video mode.



- The video mode icon appears.

- 2 Press the UPLOAD/EXPORT button to display the "UPLOAD SHOOTING"/"EXPORT SHOOTING" menu.

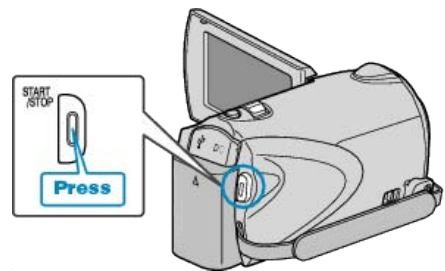


- 3 Select "EXPORT SHOOTING" and touch the OK button.



- The mode switches between ON and OFF with every press.
- When set to ON, a "LIB." mark appears on the screen.
- To cancel this setting, set to "OFF".
- After setting, touch the button.

- 4 Start recording.



- Press again to stop.

Memo:

- The export mode icon disappears when recording stops.
To record another video in export mode, perform the settings again.

Transferring Recorded Videos to iPod

You can export videos to iTunes using the provided software "Everio MediaBrowser".

Install the software on your PC and connect this unit to the PC.

- For details on how to use the software, refer to the help file.
- For details on transferring files to iPod, refer to the help file of iTunes.

"Installing the Provided Software" (P.100)

"Backing Up All Files" (P.101)

Trouble with Exporting Files to iTunes

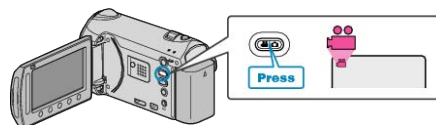
- Refer to "Q&A", "Latest Information", "Download Information", etc. in "Click for Latest Product Info" in the help file of the provided software "Everio MediaBrowser".

Slow-motion (High-speed) Recording

You can increase the recording speed or emphasize the movements using slow-motion recording.

This is a handy function for checking movements, such as golf swings.

- 1 Select video mode.



- 2 Touch MENU to display the menu.



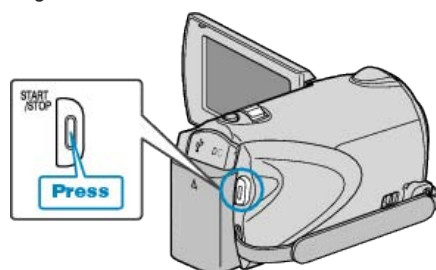
- 3 Select "HIGH SPEED RECORDING" and touch OK .



- 4 Select a recording speed and touch OK .



- 5 Start recording.



- Recording starts by counting down to the end of the maximum duration. Shooting stops when the timer reaches "0:00:00".
- After recording is complete, it will be saved as a movie.
- Pressing the START/STOP button during countdown of the timer stops the recording process.
- The high-speed setting you have selected will be stored on the camera. To cancel the setting, set "HIGH SPEED RECORDING" to "OFF".

Recording

Recording Speed	Maximum Duration	Movie Playback Time
120fps	Up to 4 seconds	2 times of recording duration (up to 8 seconds)
300fps	Up to 4 seconds	5 times of recording duration (up to 20 seconds)
600fps	Up to 2.4 seconds	10 times of recording duration (up to 24 seconds)

Memo:

- "VIDEO QUALITY" is automatically set to "XP".
 - "VIDEO QUALITY" (P.109)
 - When high-speed recording is enabled, only the optical zoom can be used.
 - Recording is performed at a resolution that is lower than the standard setting, and the video is stored after being converted into the high-definition quality. As such, images may appear grainier than other movies, and a black frame appears around the image.
 - Audio sound is not recorded together with the video.
 - Increasing to a higher recording speed results in grainier and darker images.
- During high-speed recording, it is recommended that a tripod be used, and recording be performed in a bright location with the subject magnified as much as possible.

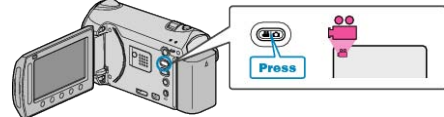
"Tripod Mounting" (P.16)

Recording at Intervals (TIME-LAPSE RECORDING)

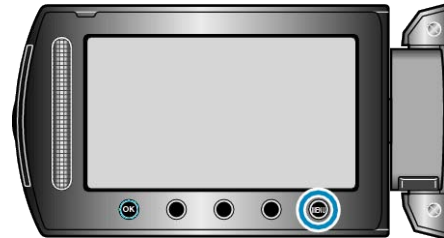
This function enables the changes of a scene that occur slowly over a long period to be shown within a short time by taking frames of it at a certain interval.

This is useful for making observations such as the opening of a flower bud.

- 1 Select video mode.



- 2 Touch MENU to display the menu.



- 3 Select "TIME-LAPSE RECORDING" and touch OK .

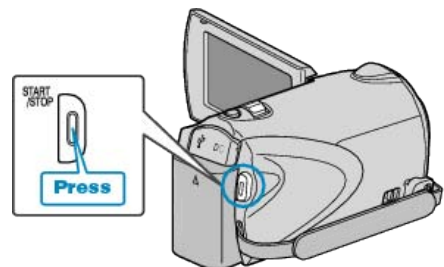


- 4 Select a recording interval (1 to 80 seconds) and touch OK .



- The greater the number of seconds, the longer the recording interval.

- 5 Start recording.



- A frame is taken at intervals of the selected period.
- When the recording interval is set to "20SEC INTERVAL" or higher, this unit switches to the power-saving mode between recordings. At the next point to record, the power-saving mode will be turned off and recording will start automatically.
- Press the START/STOP button again to stop recording.

Indications During Time-Lapse Recording



Display	Description
Speed Indicator	Displays the recording interval that is set.
Video Quality	Displays the icon of the video quality that is set.
Remaining Recording Time	Remaining time left to record with the currently selected video quality.
Recording in Progress	Appears when video recording is in progress. When in the power-saving mode, it blinks.
Record-Standby	Appears when video recording is paused.
Actual Elapsed Time	Displays the actual elapsed time after recording starts.
Recorded Time	Displays the actual recorded time of the video. Recorded time increases in units of frames.

Time-Lapse Setting

The greater the number of seconds, the longer the recording interval.

Setting	Details
OFF	Deactivates the function.
1SEC INTERVAL	Takes a frame at 1-second intervals. Recorded videos will be played back at 30 times speed.
2SEC INTERVAL	Takes a frame at 2-second intervals. Recorded videos will be played back at 60 times speed.
5SEC INTERVAL	Takes a frame at 5-second intervals. Recorded videos will be played back at 150 times speed.
10SEC INTERVAL	Takes a frame at 10-second intervals. Recorded videos will be played back at 300 times speed.
20SEC INTERVAL	Takes a frame at 20-second intervals. Recorded videos will be played back at 600 times speed.
40SEC INTERVAL	Takes a frame at 40-second intervals. Recorded videos will be played back at 1 200 times speed.
80SEC INTERVAL	Takes a frame at 80-second intervals. Recorded videos will be played back at 2 400 times speed.

CAUTION:

- Audio cannot be recorded during time-lapse recording.
- Zooming, simultaneous still image recording, and DIS are not available in time-lapse recording.
- When recording is stopped with the recorded time less than "0:00:00:17", the video will not be saved.
- Automatic switching of recording media is disabled in seamless recording.

Memo:

- Settings of time-lapse recording are saved even when the power is turned off. When the power is turned on, "TIME LAPSE" appears on the screen.
- Recording stops automatically 99 hours after it is started.
- Make use of a tripod and AC adapter for time-lapse recordings with long intervals. It is also recommended to fix the focus and white balance manually.

"Tripod Mounting" (P.16)

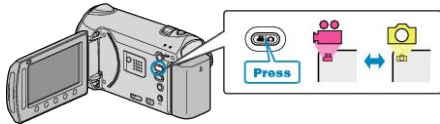
"Adjusting Focus Manually" (P.34)

"Setting White Balance" (P.36)

Recording Automatically by Sensing Movements (AUTO REC)

This function enables the unit to record automatically by sensing the changes in subject's movement (brightness) within the red frame displayed on the LCD monitor. (AUTO REC)
It can be set for both video and still image modes.

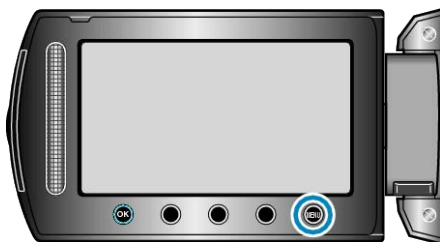
1 Select video or still image mode.



2 Compose the picture according to the subject.

- Adjust the angle of view with the zoom, etc.

3 Touch **MENU** to display the menu.



4 Select "AUTO REC" and touch **OK**.



5 Select "ON" and touch **OK**.



6 Recording starts automatically when the subject within the red frame moves.



- A red frame appears 2 seconds after the menu display disappears.
- For video recording, recording continues while there are still movements of the subject (changes in brightness) within the red frame. When there are no more movements of the subject (changes in brightness) within the red frame, recording will stop in 5 seconds.
- To stop video recording manually, press the START/STOP button. However, as the AUTO REC setting remains at ON even after the video recording is stopped, recording starts again when movements of the subject (changes in brightness) are detected within the red frame. To cancel AUTO REC, set it to "OFF".

CAUTION:

- The only manual recording setting available is "TELE MACRO".

The rest are all set to "AUTO".

- Digital zoom, DIS, self-timer, and continuous shooting are not available after AUTO REC is set.
- AUTO REC cannot be used together with TIME-LAPSE RECORDING. When both are set, priority is given to TIME-LAPSE RECORDING.
- IMAGE SIZE cannot be changed after AUTO REC is selected. Set it before selecting AUTO REC.
- The auto power off and power-saving modes are not available after AUTO REC is set.

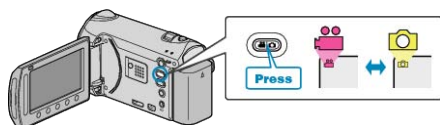
Memo:

- Recording stops when there are no changes for 5 seconds during video recording.
- Recording may not start when the movements of the subject within the red frame are too fast or the changes in brightness are too small.
- Recording may start due to changes in brightness even if there is no movement within the red frame.
- While zooming, recording cannot be started.

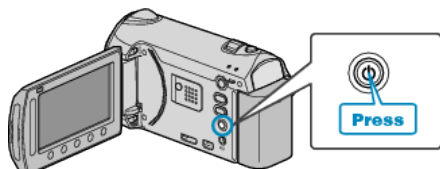
Remaining Recording Time/Battery Power

You can check the remaining video recording time on the built-in memory and SD card as well as the remaining battery power.

- 1 Select video or still image mode.





- 2 Press the  button.



- If in the still image mode, go directly to step 4.



- 3 Display the remaining recording time.




- The remaining recording time is displayed only in the video recording mode.
- Press the  button to check the remaining recording time of each recording media.
- While the remaining recording time is being displayed, touch the operation button "BATTERY ICON" to display the remaining battery power.
- To exit the display, touch the  button.

- 4 Display the remaining battery power.



- To exit the display, press the  button or touch the  button.
- Remaining battery power will not be displayed when the AC adapter is connected.

Memo:

- You can change the video quality from the remaining recording time display.
Select the video quality with the slider and touch .

Approximate Video Recording Time

Quality	Built-in Memory (32 GB)	SDHC Card	SDHC Card	SDHC Card	SDHC Card
		4 GB	8 GB	16 GB	32 GB
UXP	2 h 57 m	21 m	44 m	1 h 29 m	2 h 58 m
XP	4 h 9 m	31 m	1 h 2 m	2 h 5 m	4 h 12 m
SP	5 h 54 m	43 m	1 h 28 m	2 h 58 m	5 h 57 m
EP	14 h 45 m	1 h 49 m	3 h 41 m	7 h 26 m	14 h 53 m

- The actual recording time may shorten depending on the shooting environment.

Approximate Number of Still Images (Unit: Number of Shots)

Image Size	Quality	SDHC Card	SDHC Card	SDHC Card	SDHC Card	Built-in Memory (32 GB)
		4 GB	8 GB	16 GB	32 GB	
3520×2640 (4:3)	FINE	940	1900	3800	7690	7610
	STANDARD	1460	2940	5890	9999	9999
3072×2304 (4:3)	FINE	1230	2490	4980	9999	9960
	STANDARD	1960	3960	7920	9999	9999
2592×1944 (4:3)	FINE	1740	3500	7000	9999	9999
	STANDARD	2720	5490	9999	9999	9999
1600×1200 (4:3)	FINE	4440	8950	9999	9999	9999
	STANDARD	7500	9999	9999	9999	9999
640×480 (4:3)	FINE	9999	9999	9999	9999	9999
	STANDARD	9999	9999	9999	9999	9999
3520×1984 (16:9)	FINE	1250	2510	5030	9999	9999
	STANDARD	1960	3960	7920	9999	9999
3072×1728 (16:9)	FINE	1660	3350	6710	9999	9999
	STANDARD	2610	5250	9999	9999	9999
2592×1456 (16:9)	FINE	2260	4560	9120	9999	9999
	STANDARD	3530	7100	9999	9999	9999
1920×1080 (16:9)	FINE	4140	8330	9999	9999	9999
	STANDARD	6310	9999	9999	9999	9999
1280×720 (16:9)	FINE	8570	9999	9999	9999	9999
	STANDARD	9999	9999	9999	9999	9999

- When the number of recordable still images is more than 10000, "9999" is displayed on the screen.
The file number returns to "0001" after 9999 still images are recorded.

Approximate Recording Time (Using Battery)

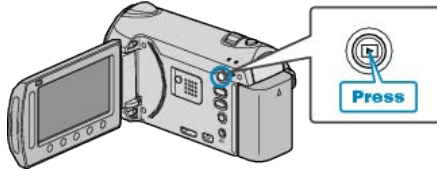
Battery Pack	Actual Recording Time	Continuous Recording Time
BN-VG114U (Supplied)	45 m	1 h 20 m
BN-VG121U	1 h 10 m	2 h 5 m

- The above are values when "LIGHT" is set to "OFF" and "LCD BACKLIGHT" is set to "STANDARD".
- The actual recording time may be shorter if zooming is used or if recording is stopped repeatedly.
(It is recommended to prepare battery packs ready for three times the expected recording time.)

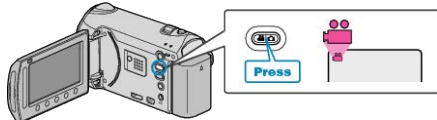
Playing Back Videos

You can select and play back the recorded videos from an index screen (thumbnail display). The contents of the saving destination selected in "REC MEDIA FOR VIDEO" are displayed on the index screen. "REC MEDIA FOR VIDEO" (P.136)

1 Select the playback mode.




2 Select video mode.



3 Select the desired video and touch OK.







- When faces are detected in a recorded video, the faces are zoomed in and displayed in the thumbnail.
- Touch  to stop playback.

Operation Buttons for Video Playback

During Index Screen Display









Select video (Press and hold to move pages)



Display	Description
	Starts playback of the selected file.
DIGEST	You can play back a digest of the recorded videos.
	You can search for a specific file by the recording date or registered category (event).
	Deletes the selected file.
	Press and hold to move the pages of the index screen.

During Video Playback



Display	Description
	Playback/pause
	Stop (returns to thumbnail display)
	Advances to the next video
	Returns to the beginning of the scene
	Forward search
	Reverse search
	Forward slow-motion
	Reverse slow-motion

Memo:

- Touch the slider and buttons around the screen with your fingers.
- The slider and buttons do not function if you touch them with your fingernails or with gloves on.
- The displays on the screen do not work even if you touch them.
- You can search for a specific file by the recording date or registered category (event). This is useful when searching from a large number of files.

"Group Search" (P.54)

"Date Search" (P.55)

"Event and Date Search" (P.55)

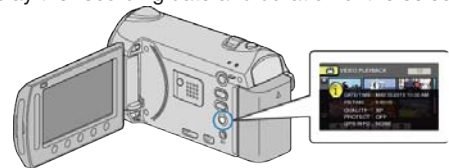
CAUTION:

- Make a backup of important recorded data. It is recommended to copy your important recorded data to a DVD or other recording media for storage. JVC will not be responsible for any lost data.

Checking the Recording Date and Other Information

Press .

You can display the recording date and duration of the selected file.



Increasing/Decreasing the Number to Display on the Index Screen.

Operate the zoom lever when the index screen is displayed (thumbnail display) to change the number of files on the screen in the following order: 6 files → 12 files → 3 files.

- Information of the files also appear when 3 files are displayed.

Checking the Content of Videos Quickly

You can play back a digest of the recorded videos (Digest Playback). This is useful for checking the content of the videos quickly.



- To start Digest Playback, touch the DIGEST button.

Operation Buttons for Digest Playback

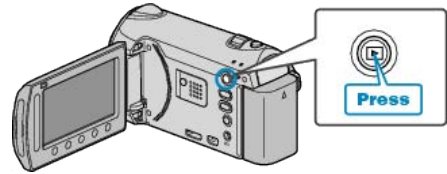


Display	Description
▶ /	Playback/pause
■	Stop (returns to thumbnail display)
▶ NORM	Returns to normal playback.
▶▶▶	Advances to the next video
◀◀◀	Returns to the beginning of the scene
▶▶	Forward search
◀◀	Reverse search
▶	Forward slow-motion
◀	Reverse slow-motion

Playing a Video with Defective Management Information

Plays videos with defective management information.

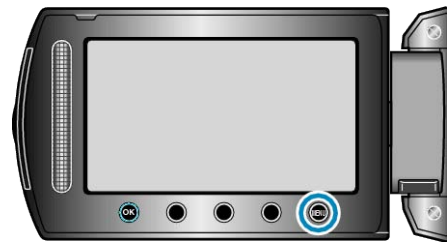
- 1 Select the playback mode.



- 2 Select video mode.



- 3 Touch to display the menu.



- 4 Select "PLAYBACK OTHER FILE" and touch .



- 5 Select the desired video and touch .

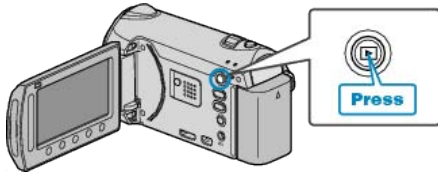


"Playing Back Videos" (P.49)

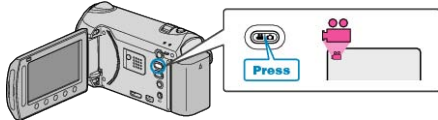
Playback with Special Effects

You can add effects to the beginning and end of recorded videos.

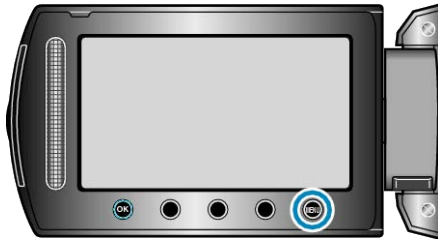
1 Select the playback mode.



2 Select video mode.



3 Touch \odot to display the menu.



4 Select "WIPE/FADER" and touch \odot .



5 Select a desired effect and touch \odot .



6 Select the desired video and touch \odot .



Setting	Details
OFF	Turns off the effect.
FADER-WHITE	Fades in or out with a white screen.
FADER-BLACK	Fades in or out with a black screen.
WIPE-SLIDE	Wipes in from right to left, or wipes out in the opposite way.
WIPE-DOOR	Wipes in as the two halves of a black screen which open to the left and right revealing the scene, or wipes out in the opposite way.
WIPE-SCROLL	Wipes in from the bottom to the top of a black screen, or wipes out in the opposite way.
WIPE-SHUTTER	Wipes in from the center of a black screen toward the top and bottom, or wipes out in the opposite way.

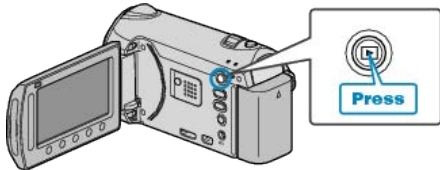
Memo:

- The effect will not be applied to a recorded video less than 7 seconds.
- The wipe/fader effects are temporary. They do not affect the images directly, and can be disabled when the function is set to "OFF".
- These effects will not be reflected when you create a disc using a DVD writer or external Blu-ray drive.

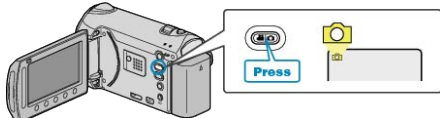
Playing Back Still Images

You can select and play back the recorded still images from an index screen (thumbnail display). The contents of the saving destination selected in "REC MEDIA FOR IMAGE" are displayed on the index screen. "REC MEDIA FOR IMAGE" (P.136)

1 Select the playback mode.



2 Select still image mode.



3 Select a still image and touch **OK** to start playback.



• Touch **■** to stop playback.

Operation Buttons for Still Image Playback

During Index Screen Display

Select still image
(Press and hold to move pages)



Display	Description
▶	Starts playback of the selected file.
🔍	You can search for a specific file by the recording date.
🗑️	Deletes the selected file.
▲ / ▼	Press and hold to move the pages of the index screen.

During Still Image Playback



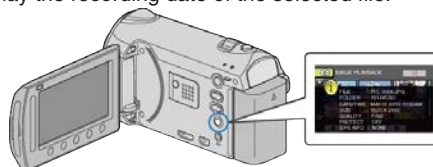
Display	Description
▶ /	Start/pause slideshow
■	Stop (returns to thumbnail display)
▶▶	Advances to the next still image
◀◀	Returns to the previous still image
◀	Plays back in reverse order during a slideshow.
▶	Plays back in normal ascending order during a slideshow.
🔍	Face Detection Zoom "Face Detection Zoom" (P.53)

Memo:

- Touch the slider and buttons around the screen with your fingers.
- The slider and buttons do not function if you touch them with your fingernails or with gloves on.
- The displays on the screen do not work even if you touch them.
- You can search for a specific file by the recording date. This is useful when searching from a large number of files. "Date Search" (P.55)

Checking the Recording Date and Other Information

Press **🔍**.
You can display the recording date of the selected file.



Increasing/Decreasing the Number to Display on the Index Screen.

Operate the zoom lever when the index screen is displayed (thumbnail display) to change the number of files on the screen in the following order: 6 files → 12 files → 3 files.

- Information of the files also appear when 3 files are displayed.

Slideshow Playback

Still images can be played back in a slideshow. Start the slideshow by pressing the **OK** button during still image playback.



"Operation Buttons for Still Image Playback" (P.52)

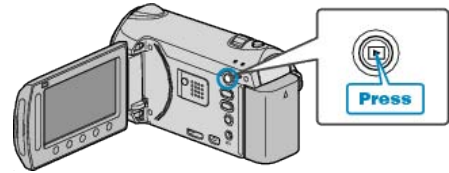
Memo:

- Effects can be added to the transitions in slideshow playback.
- "SLIDE SHOW EFFECTS" (P.123)

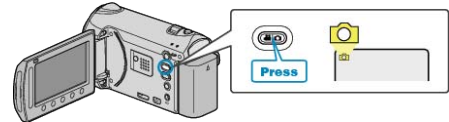
Face Detection Zoom

You can enlarge the part including a face in a still image and save it as a new file.

1 Select the playback mode.



2 Select still image mode.



3 Select a still image and touch **OK** to start playback.



4 Touch **OK**.



- A frame appears around the face of the subject.

5 Select the face to zoom and touch **OK**.



- The face that is highlighted in red is zoomed in.

6 Touch **OK** repeatedly to change the zoom ratio.



- You can select a different subject using the slider.
- To end playback, touch **Return**.

Saving Zoomed Images of Subject's Faces

① After step 6, touch "SAVE".



- Zoom images are saved in 16:9 aspect regardless of the original aspect.

② Select "YES" and touch **OK**.



Searching for a Specific Video/Still Image

When there is a large number of recorded videos and still images, it is difficult to look for the desired file from the index screen. Use the search function to find the file you want.

- For videos, you can search by "GROUP", "SEARCH DATE", or "SEARCH EVENT".
 - For still images, you can search by "SEARCH DATE".
- "To search by groups with similar recording dates" (P.54)
 "To search by recording dates" (P.55)
 "To search by events and recording dates" (P.55)

Group Search

You can search and play videos which are automatically grouped according to similar recording dates.

- The contents of the saving destination selected in "REC MEDIA FOR VIDEO" are searched.

1 Display the search function.



- You can also display the search menu by selecting "SEARCH" on the playback menu.

2 Select "GROUP" and touch **OK**.



3 Select from the index screen (thumbnails) and touch **OK** to start playback.



- The video starts playing.
- Touch **■** to stop playback.

Memo:

- Touch "DIGEST" to play back a few seconds from each video, allowing you to check the contents of many videos in a short time.
- Groups are created automatically according to recording dates.
- The group may change when the recording is continued.

Date Search

You can search and play videos or still images according to recording dates.

- The contents of the saving destination selected in "REC MEDIA FOR VIDEO" or "REC MEDIA FOR IMAGE" are searched.
- Still images can only be searched by "SEARCH DATE".

1 Display the search function.



- You can also display the search menu by selecting "SEARCH" on the playback menu. For still images, select "SEARCH DATE" on the menu.
- Searching can be performed in both the video and still image modes.
*The image shows the video mode.

2 Select "SEARCH DATE" and touch **OK**.



3 Select a recording date and touch **OK**.



- The starting day of the week on the calendar switches between Sunday and Monday with every touch of the **☰** button.

4 Select the desired video or still image and touch **OK** to start playback.



- You can select videos in the video mode and still images in the still image mode.
- Only the videos recorded on the selected date are displayed.

Deleting Files of a Selected Date : _____
 Select "DELETE" from the playback menu to delete unwanted files.
 "Deleting Unwanted Files" (P.61)

Event and Date Search

You can search and play videos according to events and recording dates.

- The contents of the saving destination selected in "REC MEDIA FOR VIDEO" are searched.
 - Events that are not registered will not appear.
- "Registering Files to Events Before Recording" (P.41)

1 Display the search function.



- You can also display the search menu by selecting "SEARCH" on the playback menu.

2 Select "SEARCH EVENT" and touch **OK**.



3 Select the event type and touch **OK**.



4 Select a recording date and touch **OK**.



- Only the videos recorded on the selected date are displayed.
- The starting day of the week on the calendar switches between Sunday and Monday with every touch of the **☰** button.

5 Select the desired file and touch **OK** to start playback.



Deleting Files of a Selected Date : _____
 Select "DELETE" from the playback menu to delete unwanted files.
 "Deleting Unwanted Files" (P.61)

Connecting to and Viewing on TV

You can output images from the HDMI connector, COMPONENT connector, or AV connector. Select the connector that best suits your TV.

- Refer also to the instruction manual of the TV in use.
- "Connecting via the HDMI Mini Connector" (P.56)
- "Connecting via the Component Connector" (P.57)
- "Connecting via the AV Connector" (P.58)

Unnatural Displays on TV

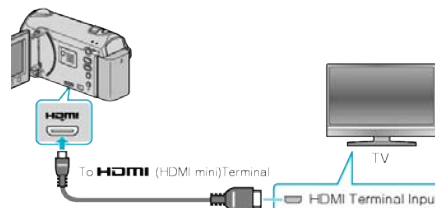
Trouble	Action
Images do not appear on the TV properly.	<ul style="list-style-type: none"> • Disconnect the cable and connect again. • Turn off and on this unit again. • When connected via the component connector, check if the setting of "COMPONENT OUTPUT" in the connection settings menu suits the connected TV. (Set to "1080i" by default) "COMPONENT OUTPUT" (P.134)
Images are projected vertically on the TV.	<ul style="list-style-type: none"> • Set "VIDEO OUTPUT" in the connection settings menu to "4:3". "VIDEO OUTPUT" (P.134)
Images are projected horizontally on the TV.	<ul style="list-style-type: none"> • Adjust the TV's screen accordingly.
The color of images looks strange.	<ul style="list-style-type: none"> • If the video was recorded with "x.v.Color" set to "ON", set the x.v.Color setting of the TV to on. "x.v.Color" (P.112) <ul style="list-style-type: none"> • Adjust the TV's screen accordingly.
HDMI-CEC functions do not work properly, and the TV does not work in conjunction with this unit.	<ul style="list-style-type: none"> • TVs may operate differently depending on the specifications, even if they are HDMI-CEC compliant. Therefore, the HDMI-CEC functions of this unit cannot be guaranteed to operate in combination with all the TVs. In such cases, set "HDMI CONTROL" to "OFF". "HDMI CONTROL" (P.135)
The language on the display changed.	<ul style="list-style-type: none"> • It may occur when you connect this unit to a TV with different language setting using an HDMI mini cable.

Connecting via the HDMI Mini Connector

If you are using an HDTV, you can play back in HD quality by connecting to the HDMI terminal.

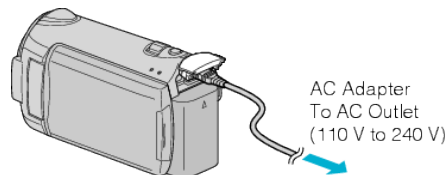
- We recommend using the Category 2 HDMI cable (High Speed cable).
- Refer also to the instruction manual of the TV in use.

1 Connect to the TV.

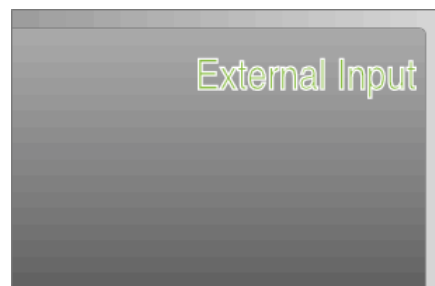


- Press and hold the power button for 2 seconds or more to turn off the power.

2 Connect the AC adapter to this unit.



3 Press the external input button on the TV to switch to the input from this unit via the connected terminal.



4 Play back a file.



"Playing Back Videos" (P.49)

"Playing Back Still Images" (P.52)

Memo:

- To play back with date/time display, set "DISPLAY ON TV" in the connection settings menu to "ON". Set "ON-SCREEN DISPLAY" in the playback menu to "DISPLAY ALL" or "DISPLAY DATE ONLY".

"DISPLAY ON TV" (P.133)

"ON-SCREEN DISPLAY" (P.121)

- Change the settings in "HDMI OUTPUT" according to the connection.

"HDMI OUTPUT" (P.135)

- When connecting to the HDMI mini cable, the image or sound may not appear on the TV properly depending on the TV connected. In such cases, perform the following operations.

- 1) Disconnect the HDMI mini cable and connect it again.
- 2) Turn off and on this unit again.

- For questions about the TV or method of connection, contact your TV's manufacturer.

Operating in Conjunction with TV via HDMI

Connecting this unit to an HDMI-CEC-enabled TV using the HDMI cable allows linked operations with the TV to be performed.

- HDMI-CEC (Consumer Electronics Control) is an industry standard that enables interoperability between HDMI-CEC compliant devices that are connected via HDMI cables.

Memo:

- Not all HDMI-control devices comply with the HDMI-CEC standard. The HDMI control function of this unit will not work when connected to these devices.
- This unit is not guaranteed to operate with all HDMI-CEC-enabled devices.
- Depending on the specifications of each HDMI-CEC-enabled device, some functions may not work with this unit. (For details, refer to the instruction manual of your TV.)
- Unintended operations may occur with some connected devices. In these cases, set "HDMI CONTROL" to "OFF".

"HDMI CONTROL" (P.135)

Preparations

- Connect an HDMI cable between this unit and the TV.
- "Connecting via the HDMI Mini Connector" (P.56)
- Turn on the TV and set the HDMI-CEC related setting to "ON". (For details, refer to the instruction manual of the TV.)
 - Turn on this unit and set "HDMI CONTROL" to "ON".
- "HDMI CONTROL" (P.135)

Operation Method 1

- 1 Turn on this unit.
 - 2 Select the playback mode.
 - 3 Connect the HDMI cable.
- TV turns on automatically and switches to HDMI input mode when this unit is turned on.

Operation Method 2

- 1 Turn off the TV.
- This unit turns off automatically.

Memo:

- Depending on the TV connected, the display language of this unit will automatically switch to the language that is selected for the TV when this unit is turned on.
(This is applicable only if this unit supports the language selected for the TV.) To use this unit with a language that differs from the display language of the TV, set "HDMI CONTROL" to "OFF".
- The display language of the TV will not switch automatically, even if the display language of this unit is changed.
- These functions may not work correctly when devices such as amplifier and selector are connected. Set "HDMI CONTROL" to "OFF".
- If HDMI-CEC does not work properly, turn off and on this unit again.

CAUTION:

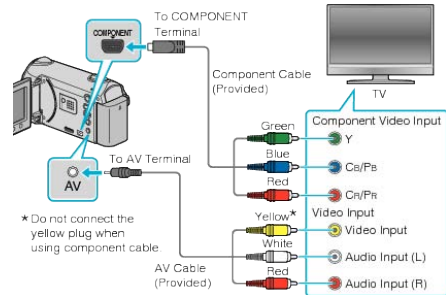
- Do not remove the recording medium or perform any other operation (such as turning off the power) while accessing files. Also, be sure to use the provided AC adapter, as the data on the recording medium may be corrupted if the battery becomes exhausted during operation. If the data on the recording medium becomes corrupted, format the recording medium to use the medium again.

Connecting via the Component Connector

You can connect this camera to the component terminal of a TV to play back videos in analog high-definition quality.

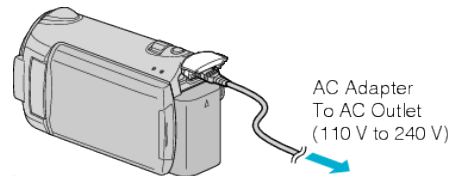
- Refer also to the instruction manual of the TV in use.

1 Connect to the TV.

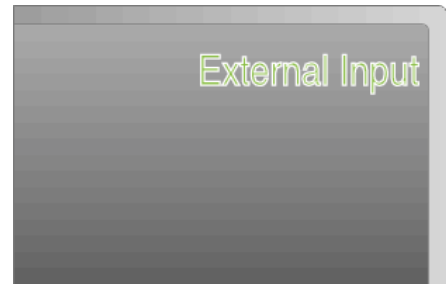


- Press and hold the power button for 2 seconds or more to turn off the power.

2 Connect the AC adapter to this unit.



3 Press the external input button on the TV to switch to the input from this unit via the connected terminal.



4 Play back a file.



- "Playing Back Videos" (P.49)
- "Playing Back Still Images" (P.52)

Memo:

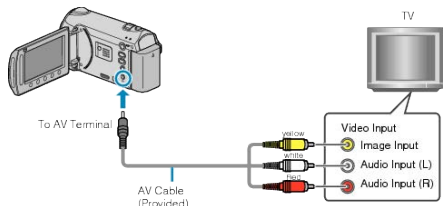
- To play back with date/time display, set "DISPLAY ON TV" in the connection settings menu to "ON". Set "ON-SCREEN DISPLAY" in the playback menu to "DISPLAY ALL" or "DISPLAY DATE ONLY".
- "DISPLAY ON TV" (P.133)
- "ON-SCREEN DISPLAY" (P.121)
- When playing back in HD quality, set "COMPONENT OUTPUT" in the connection settings menu to "1080i".
- The video is output in standard quality if the setting remains at "480i".
- "COMPONENT OUTPUT" (P.134)
- For questions about the TV or method of connection, contact your TV's manufacturer.

Connecting via the AV Connector

By connecting the supplied AV cable to the video terminal, videos can be played back on a TV.

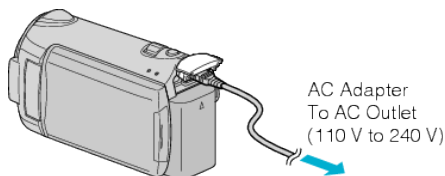
- Refer also to the instruction manual of the TV in use.

1 Connect to the TV.

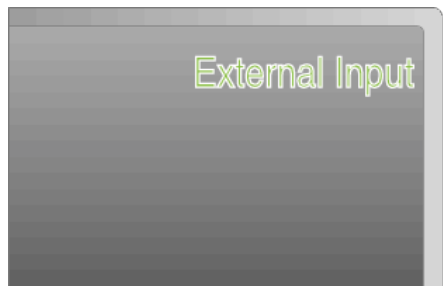


- Press and hold the power button for 2 seconds or more to turn off the power.

2 Connect the AC adapter to this unit.



3 Press the external input button on the TV to switch to the input from this unit via the connected terminal.



4 Play back a file.



"Playing Back Videos" (P.49)

"Playing Back Still Images" (P.52)

Memo:

- To play back with date/time display, set "DISPLAY ON TV" in the connection settings menu to "ON". Set "ON-SCREEN DISPLAY" in the playback menu to "DISPLAY ALL" or "DISPLAY DATE ONLY".

"DISPLAY ON TV" (P.133)

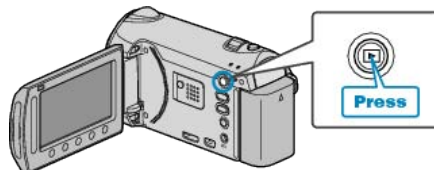
"ON-SCREEN DISPLAY" (P.121)

- For questions about the TV or method of connection, contact your TV's manufacturer.

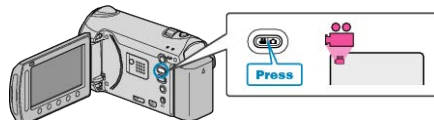
Playing Back Playlists

Play back the playlists that you have created.

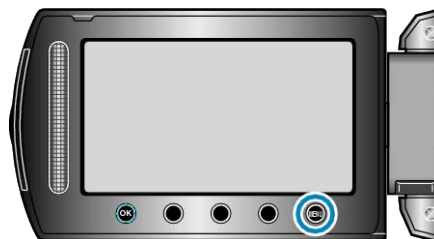
1 Select the playback mode.



2 Select video mode.



3 Touch MENU to display the menu.



4 Select "PLAYBACK PLAYLIST" and touch OK .



5 Select the desired playlist and touch OK to start playback.



"Playing Back Videos" (P.49)

- Touch "CHECK" to check the content of the selected playlist.
- To exit the playback, touch MENU .

Creating Playlists :

"Creating Playlists from the Recorded Videos" (P.74)

"Creating a Playlist with Title" (P.81)

Playing Back a BD/DVD Created on this Unit

BD/DVDs created using the backup function on this unit can be played back on TV using an optional DVD writer (DVDs only) with playback function (CU-VD50U) or a normal BD/DVD player. DVDs can also be played back on this unit by connecting the optional DVD writer with playback function.

Playback Device	DVD (DVD-Video format)	DVD (AVCHD format)	Blu-ray Disc
DVD writer connected to this unit	✓	✓	-
External Blu-ray drive connected to this unit	✓	✓	✓
DVD player/DVD recorder	✓	✓ *	-
Blu-ray player/Blu-ray recorder	✓	✓ *	✓
DVD writer with playback function (CU-VD50U)	✓	✓	-

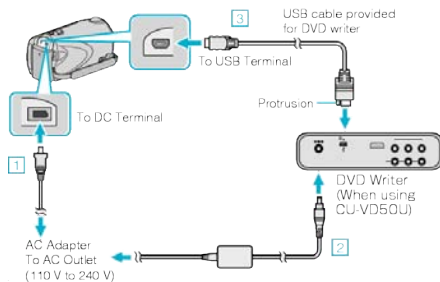
*Only for AVCHD compatible devices

CAUTION:

- DVDs that are created in AVCHD format cannot be played back on DVD players with standard quality. You may not be able to remove the disc from the player.

Playing Back with a DVD Writer

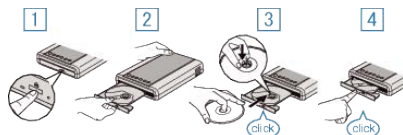
1 Close the LCD monitor and connect.



- 1 Connect the AC adapter to this unit.
- 2 Connect the AC adapter of the DVD writer.
- 3 Connect the USB cable provided with the DVD writer.

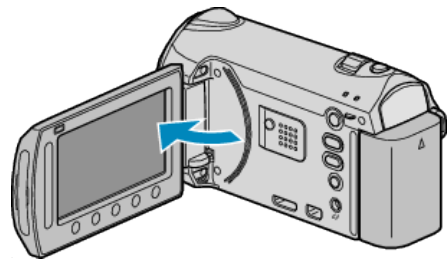
- To view on a TV, connect this unit to the TV. "Connecting to and Viewing on TV" (P.56)

2 Load a DVD created on this unit into the DVD writer.



- 1 Press the power button to turn on the power.
- 2 Press the eject button to open the disc tray.
- 3 Pull out the tray completely and load a new disc properly.
- 4 Push the disc tray in until it clicks into place.

3 Open the LCD monitor.



- This unit turns on and the BACK-UP menu appears.
- While the USB cable is connected, the BACK-UP menu is displayed.

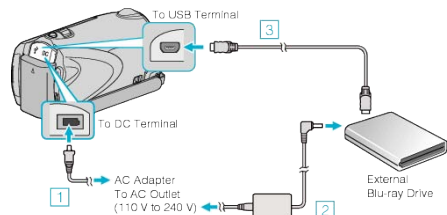
4 Select "PLAYBACK" and touch OK.



- Playback starts. "Operation Buttons for Video Playback" (P.49)

Playing Back with an External Blu-ray Drive

1 Close the LCD monitor and connect.

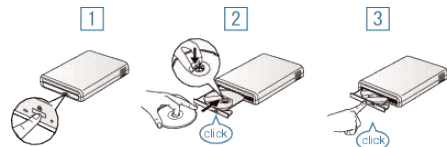


- 1 Connect the AC adapter to this unit.
- 2 Connect the AC adapter of the external Blu-ray drive.
- 3 Connect the USB cable of the external Blu-ray drive to this unit.

- Refer also to the instruction manual of the external Blu-ray drive.
- To view on a TV, connect this unit to the TV. "Connecting to and Viewing on TV" (P.56)

2 Load a Blu-ray disc created on this unit into the external Blu-ray drive.

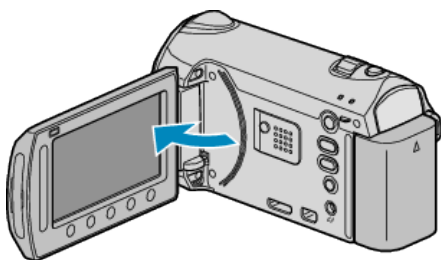
- Press the power button on the external Blu-ray drive to turn on the power.



- 1 Press the eject button to open the disc tray.
- 2 Pull out the tray completely and load a new disc properly.
- 3 Push the disc tray in until it clicks into place.

Playback

3 Open the LCD monitor.



- This unit turns on and the BACK-UP menu appears.
- While the USB cable is connected, the BACK-UP menu is displayed.

4 Select "PLAYBACK" and touch **OK**.



- Playback starts.

"Operation Buttons for Video Playback" (P.49)

CAUTION:

- Be sure to turn off the power when connecting the devices. Otherwise, electric shocks or malfunctions may occur.

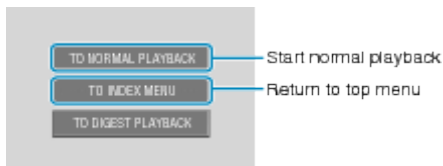
Memo:

- Only DVDs and Blu-ray discs created on this unit can be played back.
- Chapters are not displayed on the menu.

Digest Playback on a DVD Writer

You can view a few seconds of each video in the disc continuously by playing back the created disc in a player and selecting "DIGEST PLAYBACK" from the top menu. Use this to check the content of videos or to look for the desired scene.

- To return to normal playback, press the top menu button on the remote control of the player and select "TO NORMAL PLAYBACK".



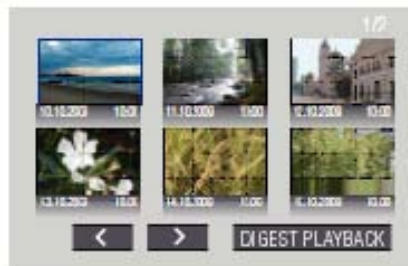
Digest Playback on a DVD Player

You can play back a few seconds from each scene of the recorded videos in the created DVD.

1 Load the created DVD on a DVD player.

2 Select "DIGEST PLAYBACK" on the TV.

- The digest is played back continuously.



(The screen does not appear on this unit.)

Memo:

- To normal playback/To index menu
 - 1) Press the top menu button on the remote control of the DVD device during digest playback.
 - 2) Select the desired item.
- "DIGEST PLAYBACK" menu is not available when the DVD is created using the provided Everio MediaBrowser software.

Deleting Unwanted Files

Delete unwanted videos and still images when the space in the recording media is running out.

The capacity of the recording media can be restored after deleting the files.

"Deleting the Currently Displayed File" (P.61)

"Deleting Selected Files" (P.61)

"Deleting All Files" (P.62)

Memo:

- Deleted files cannot be restored.
- When files in a playlist are deleted, the playlist changes.
- Files that are protected cannot be deleted.
Release protection before deleting the file.

"Protecting Files" (P.63)

- Be sure to back up important files on a PC.

"Backing Up All Files" (P.101)

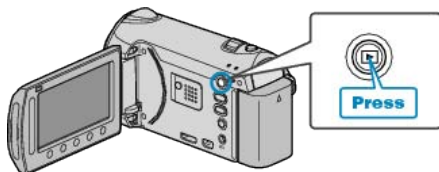
Deleting the Currently Displayed File

Deletes the currently displayed file.

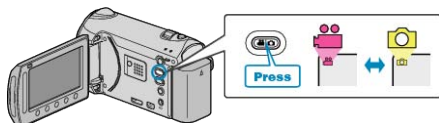
CAUTION:

- Deleted files cannot be restored.

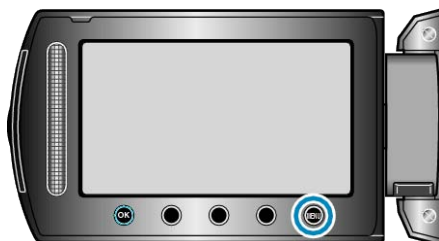
1 Select the playback mode.



2 Select video or still image mode.



3 Touch \odot to display the menu.



4 Select "DELETE" and touch \odot .



5 Select "CURRENT" and touch \odot .



6 Check that it is the file to delete, select "YES" and touch \odot .



- The file to delete appears on this screen.
- Touch the operation buttons " \leftarrow " / " \rightarrow " to select the previous or next file.
- After deleting, touch \odot .

Memo:

- When files in a playlist are deleted, the playlist changes.
- Files that are protected cannot be deleted.
Release protection before deleting the file.

"Protecting Files" (P.63)

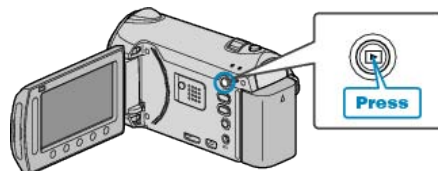
Deleting Selected Files

Deletes the selected files.

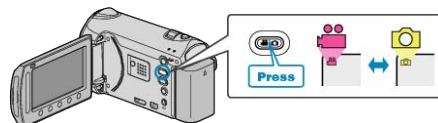
CAUTION:

- Deleted files cannot be restored.

1 Select the playback mode.



2 Select video or still image mode.



3 Touch \odot to display the menu.



4 Select "DELETE" and touch \odot .



5 Select "FILE SELECT" and touch **OK**.



6 Select the desired file and touch **OK**.



- A delete mark appears on the selected file. To remove the delete mark, touch **OK** again.
- Touch "CHECK" to check the selected file.

7 After selecting all the files to delete, touch "EXEC".



8 Select "YES" and touch **OK**.



- After deleting, touch **OK**.

Memo:

- When files in a playlist are deleted, the playlist changes.
- Files that are protected cannot be deleted. Release protection before deleting the file.

"Protecting Files" (P.63)

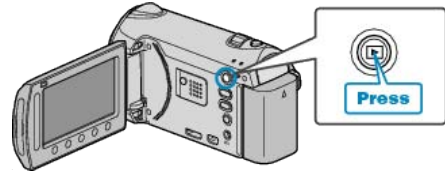
Deleting All Files

Deletes all files.

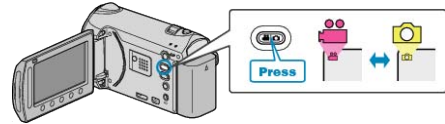
CAUTION:

- Deleted files cannot be restored.

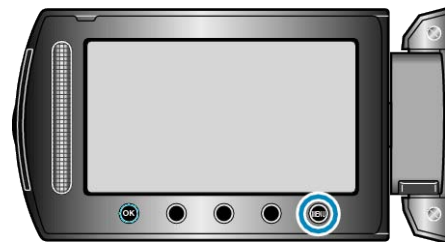
1 Select the playback mode.



2 Select video or still image mode.



3 Touch **MEMO** to display the menu.



4 Select "DELETE" and touch **OK**.



5 Select "DELETE ALL" and touch **OK**.



6 Select "YES" and touch **OK**.



- After deleting, touch **OK**.

Memo:

- When files in a playlist are deleted, the playlist changes.
- Files that are protected cannot be deleted. Release protection before deleting the file.

"Protecting Files" (P.63)

Protecting Files

Prevent important videos/still images from being deleted accidentally by protecting them.

"Protecting the Currently Displayed File" (P.63)

"Protecting Selected Files" (P.63)

"Protecting All Files" (P.64)

"Releasing Protection of All Files" (P.65)

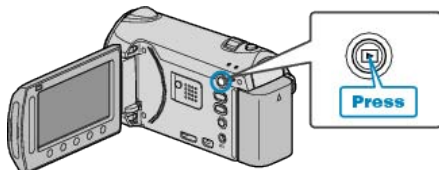
CAUTION:

- When the recording media is formatted, even the protected files will be deleted.

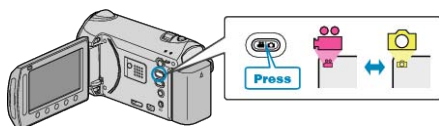
Protecting the Currently Displayed File

Protects or releases protection of the currently displayed file.

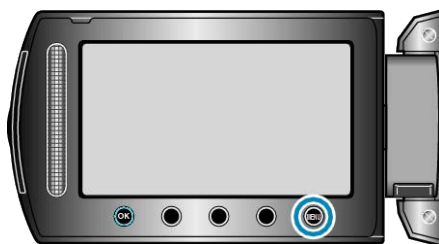
1 Select the playback mode.



2 Select video or still image mode.



3 Touch **OK** to display the menu.



4 Select "EDIT" and touch **OK**.



5 Select "PROTECT/CANCEL" and touch **OK**.



6 Select "CURRENT" and touch **OK**.



7 Check that it is the file to protect, select "YES" and touch **OK**.

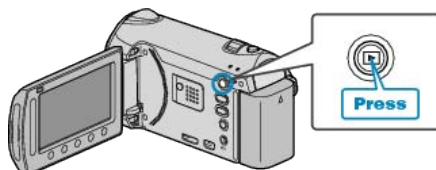


- The file to protect appears on this screen.
- Touch the operation buttons "←" / "→" to select the previous or next file.
- After setting, touch **OK**.
- To exit the screen, touch **MENU**.

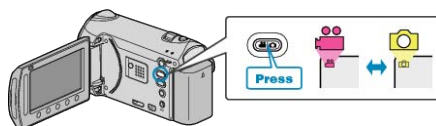
Protecting Selected Files

Protects or releases protection of the selected files.

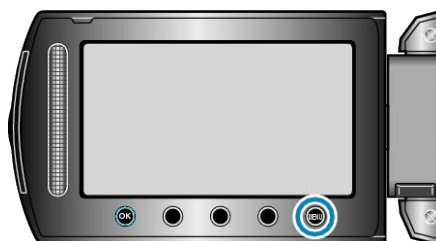
1 Select the playback mode.



2 Select video or still image mode.



3 Touch **OK** to display the menu.



4 Select "EDIT" and touch **OK**.



5 Select "PROTECT/CANCEL" and touch **OK**.



6 Select "FILE SELECT" and touch **OK**.



7 Select the desired file and touch **OK**.



- A protect mark appears on the selected file. To remove the protect mark, touch **OK** again.
- Touch "CHECK" to check the selected file.

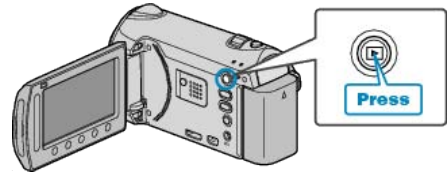
8 After selecting all the files to protect or release protection of, touch **OK**.



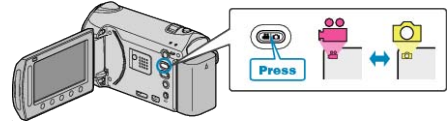
Protecting All Files

Protects all files.

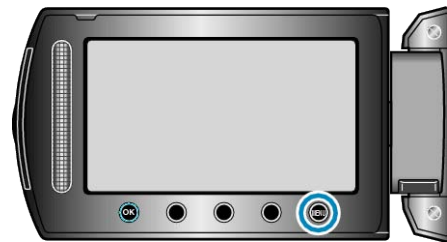
1 Select the playback mode.



2 Select video or still image mode.



3 Touch **MENU** to display the menu.



4 Select "EDIT" and touch **OK**.



5 Select "PROTECT/CANCEL" and touch **OK**.



6 Select "PROTECT ALL" and touch **OK**.



7 Select "YES" and touch **OK**.

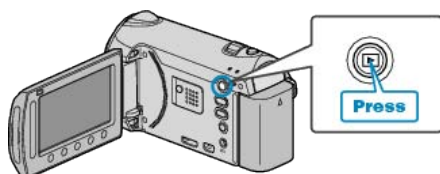


- After setting, touch **OK**.

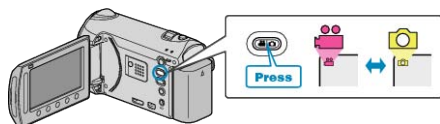
Releasing Protection of All Files

Releases protection of all files.

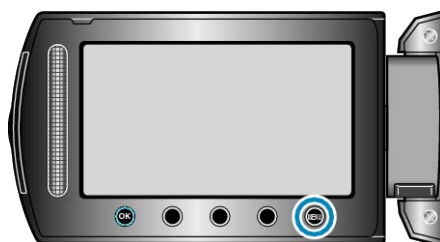
- 1 Select the playback mode.



- 2 Select video or still image mode.



- 3 Touch **MENU** to display the menu.



- 4 Select "EDIT" and touch **OK**.



- 5 Select "PROTECT/CANCEL" and touch **OK**.



- 6 Select "CANCEL ALL" and touch **OK**.



- 7 Select "YES" and touch **OK**.



- After setting, touch **OK**.

Changing Event Registration of Videos

Find your recorded videos for playback easily by registering them to suitable items from the list of various events.

"Changing the Event of the Currently Displayed File" (P.65)

"Changing the Event of the Selected Files" (P.66)

Memo:

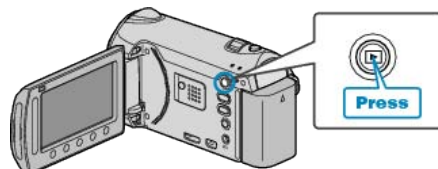
- You can also register files to events before recording if the content has been decided.

"Registering Files to Events Before Recording" (P.41)

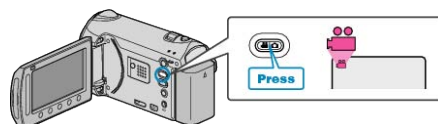
Changing the Event of the Currently Displayed File

Checks and changes the event of the currently displayed file.

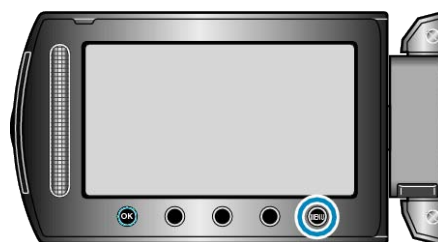
- 1 Select the playback mode.



- 2 Select video mode.



- 3 Touch **MENU** to display the menu.



- 4 Select "EDIT" and touch **OK**.




- 5 Select "CHANGE EVENT REG." and touch **OK**.



- 6 Select "CURRENT" and touch **OK**.





7 Select "YES" and touch .



- Touch the operation buttons "←" / "→" to select the previous or next file.

8 Select a new event and touch .

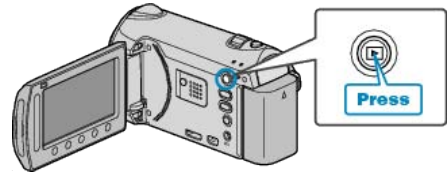


- You can cancel the registered event by touching "CANCEL".
- After setting, touch .
- To exit the screen, touch .

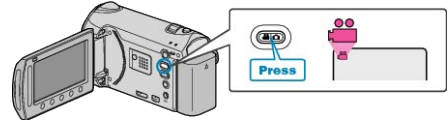
Changing the Event of the Selected Files


Changes the event of multiple files by specifying a range.

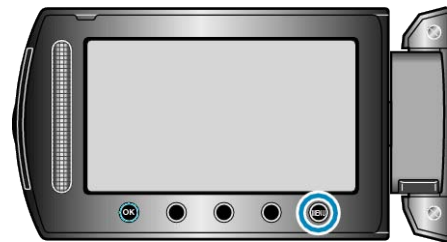
1 Select the playback mode.



2 Select video mode.



3 Touch  to display the menu.



4 Select "EDIT" and touch .




5 Select "CHANGE EVENT REG." and touch .



6 Select "TO RESET RANGE" and touch .



7 Select the first file of the range and touch .



- Touch "CHECK" to check the selected file.

8 Select the last file of the range and touch **OK**.



9 Select a new event and touch **OK**.

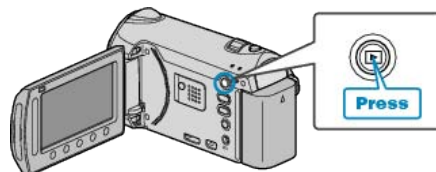


- You can cancel the registered event by touching "CANCEL".
- After setting, touch **OK**.
- To exit the screen, touch **MENU**.

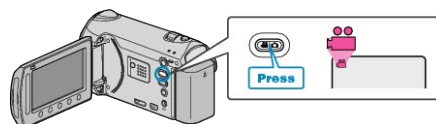
Capturing a Still Image in the Video during Playback

You can capture still images of the scenes you like in the recorded videos.

1 Select the playback mode.



2 Select video mode.



3 Select the desired video and touch **OK**.

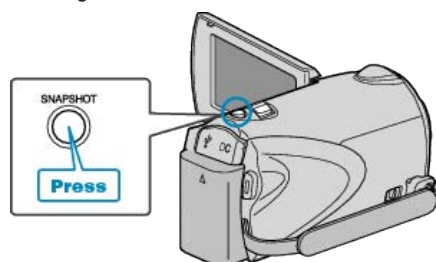


4 Touch pause at the desired scene during playback.



- After pausing the video, you can fine-tune the point to capture by using the forward slow-motion **||>** and reverse slow-motion **<||** operation buttons.

5 Capture a still image.



Memo:

- Still images are captured with a size of 1920x1080.
- Captured still images are stored in the media specified in "REC MEDIA FOR IMAGE".

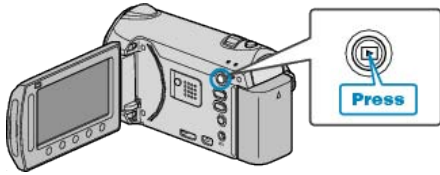
"REC MEDIA FOR IMAGE" (P.136)

Dividing Files

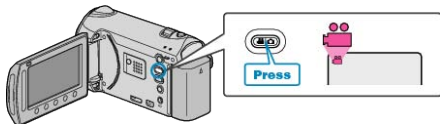
You can divide a selected video into two.

- The original video cannot be recovered after it is divided.

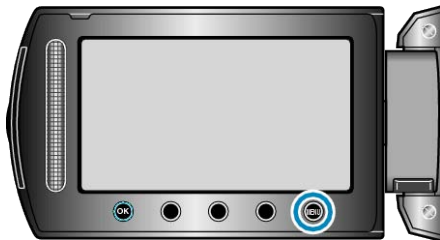
1 Select the playback mode.



2 Select video mode.



3 Touch MENU to display the menu.



4 Select "EDIT" and touch OK .



5 Select "DIVIDE" and touch OK .



6 Select the desired video and touch OK .



- Playback of the selected video starts.

7 Touch OK to pause playback, then touch "SET" at the point you want to divide the file.



- The actual division point may differ slightly from the point that is set.

8 Select "DIVIDE HERE" and touch OK .



- To select the division point again, select "CANCEL".
- After dividing, touch OK .
- The original image is now replaced by two divided images.

Memo:

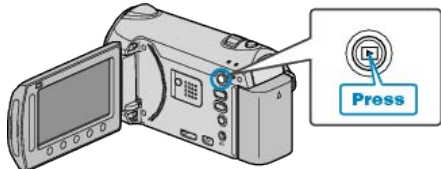
- When playing back the divided file, the recording date of the division point is displayed.
- The division point may deviate slightly from the selected scene.
- Videos cannot be divided if the upload or EXPORT settings are enabled.
- Upload or EXPORT settings are disabled if videos are divided.

Combining Videos Recorded by Seamless Recording

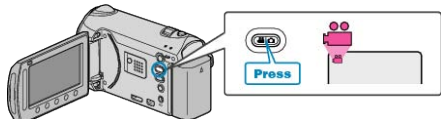
Videos that are recorded on two separate media and with “SEAMLESS RECORDING” in the video recording menu enabled can be combined into a single video.

“SEAMLESS RECORDING” (P.111)

1 Select the playback mode.



2 Select video mode.



3 Touch \odot to display the menu.



4 Select “SEAMLESS REC CTRL” and touch \odot .



5 Select “COMBINE SCENES” and touch \odot .



- This unit starts a search to detect seamless videos. Combining cannot be performed if no seamless videos are found.

6 Select “YES” and touch \odot .



7 Select the media for copying and touch \odot .



8 Select “YES” and touch \odot .



- Combining of the videos starts.
- After videos are combined, touch \odot .

Memo:

- Seamless videos cannot be combined if there is not enough free space in the built-in memory or SD card. Check the amount of remaining free space before combining.

How to Enable Seamless Video Recording Again

To start seamless recording again after the previous session is complete, it is necessary to combine seamless videos, or delete the combination information of the seamless videos.

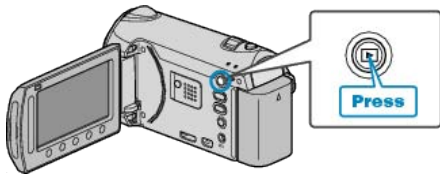
To delete the combination information of seamless videos, select “DEL SCENE COMBI INFO” in step 5.

Capturing a Required Part in the Video

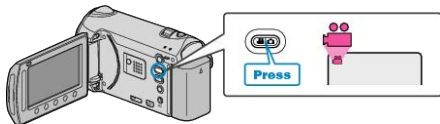
Select the required part of a video and save it as a new video file.

- The original video remains in its existing location.

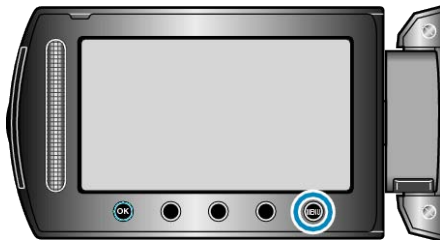
1 Select the playback mode.



2 Select video mode.



3 Touch **MENU** to display the menu.



4 Select "EDIT" and touch **OK**.



5 Select "TRIMMING" and touch **OK**.



6 Select the desired video and touch **OK**.



- Playback of the selected video starts.

7 Touch **OK** to pause playback, then touch "SET" to set the start point.



- Touch **OK** to resume playback.
"Playing Back Videos" (P.49)

8 Touch **OK** to pause playback, then touch "SET" to set the point to stop copying.



- To reset the start point, touch CANCEL.

9 Select "CAPTURE TRIMMED FILE" and touch **OK**.



10 Select "YES" and touch **OK**.



- After copying, touch **OK**.
- When copying finishes, the copied file is added to the index screen.
- To exit the screen, touch **MENU**.

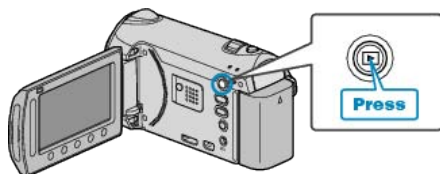
Memo:

- The division point may deviate slightly from the selected scene.

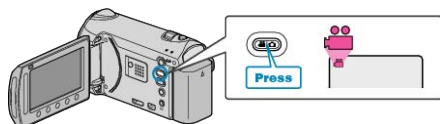
Capturing Videos for Uploading to YouTube

Capture and copy a part of a recorded video (maximum 10 minutes) for uploading to YouTube, and save it as a YouTube video. When capturing videos for YouTube, the duration cannot be longer than 10 minutes.

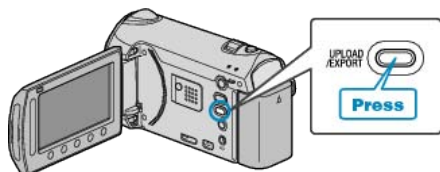
1 Select the playback mode.



2 Select video mode.



3 Press the UPLOAD/EXPORT button to display the UPLOAD SETTINGS/EXPORT SETTINGS menu.



4 Select "UPLOAD SETTINGS" and touch \odot .



5 Select the desired video and touch \odot .



6 Select "TRIM" and touch \odot .

• When trimming is not necessary, select "DO NOT TRIM" and touch \odot to complete the setting.



• If the selected video is more than 10 minutes, trimming is necessary.

7 Touch \odot to pause playback, then touch "SET" to set the start point to copy.



• Resume playback after setting the start point. "Playing Back Videos" (P.49)

8 Touch \odot to pause playback, then touch "SET" to set the point to stop copying.



• To reset the start point, touch "CANCEL".
• When capturing videos for YouTube, the duration cannot be longer than 10 minutes.

9 Select "CAPTURE TRIMMED FILE" and touch \odot .



10 Select "YES" and touch \odot .



• When copying finishes, the copied file is added to the index screen.
• To exit the screen, touch \odot .

Memo:

- The division point may deviate slightly from the selected scene.
- You can take videos in YouTube format by setting upload shooting before recording.

"Taking Videos in YouTube Format" (P.41)

Uploading Videos to YouTube

You can upload your videos to YouTube using the provided software "Everio MediaBrowser". Install the software on your PC and connect this unit to the PC.

- For details on how to use the software, refer to the help file.

"Installing the Provided Software" (P.100)

"Connecting this Unit to PC" (P.101)

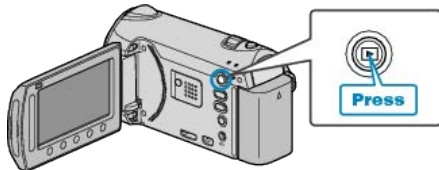
Trouble with Uploading Videos : _____

- Check if you have created an account with YouTube. (You need a YouTube account to upload files to YouTube.)
 - Refer to "Q&A", "Latest Information", "Download Information", etc. in "Click for Latest Product Info" in the help file of the provided software "Everio MediaBrowser".
-

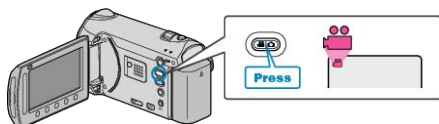
Preparing Videos to Transfer to iTunes

Set EXPORT attributes to the recorded videos by adding a "LIB." mark. When EXPORT attributes are set, the videos can be registered to iTunes easily using the supplied software on a PC.

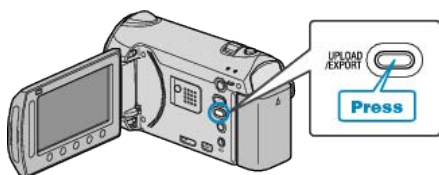
- 1 Select the playback mode.



- 2 Select video mode.



- 3 Press the UPLOAD/EXPORT button to display the UPLOAD SETTINGS/EXPORT SETTINGS menu.



- 4 Select "EXPORT SETTINGS" and touch \odot .



- 5 Select the desired video and touch \odot .



- A "LIB." mark appears on the selected file.
To remove the "LIB." mark, touch \odot again.
- Touch "CHECK" to check the selected file.
- To exit EXPORT SETTINGS, touch \odot .

Memo:

- You can take videos in iTunes format by setting EXPORT shooting before recording.
"Taking Videos in iTunes Format" (P.42)
- The format of recorded videos changes when they are transferred to a PC using the supplied software.
Files that are stored on this unit will not be affected.
- The "LIB." mark does not appear on other index screens.

Transferring Converted Videos to iPod

You can export videos to iTunes using the provided software "Everio MediaBrowser".

Install the software on your PC and connect this unit to the PC.

- For details on how to use the software, refer to the help file.
- For details on transferring files to iPod, refer to the help file of iTunes.

"Installing the Provided Software" (P.100)

"Backing Up All Files" (P.101)

Trouble with Exporting Files to iTunes :

- Refer to "Q&A", "Latest Information", "Download Information", etc. in "Click for Latest Product Info" in the help file of the provided software "Everio MediaBrowser".

Creating Playlists from the Recorded Videos

A list created by selecting your favorite videos from the recorded ones is called a playlist.

By creating a playlist, you can play back only your favorite videos in the order you like.

The original video file remains even when it is registered to a playlist.

- To create a new playlist

"Creating Playlists with Selected Files" (P.75)

"Creating Playlists by Group" (P.76)

"Creating Playlists by Date" (P.77)

"Creating Playlists by Event" (P.78)

- To edit or delete a created playlist

"Editing Playlists" (P.79)

"Deleting Playlists" (P.80)

"Adding Title Screens to Playlists" (P.81)

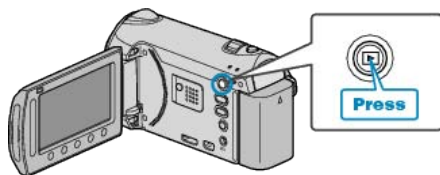
Memo:

- When a video file is deleted or moved, the same file will be removed from the playlist.
-

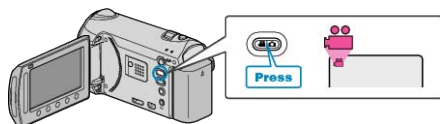
Creating Playlists with Selected Files

Create a playlist by arranging the files one by one.

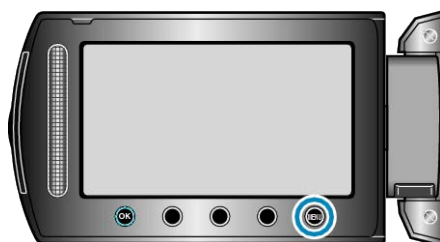
1 Select the playback mode.



2 Select video mode.



3 Touch MENU to display the menu.



4 Select "EDIT PLAYLIST" and touch OK .



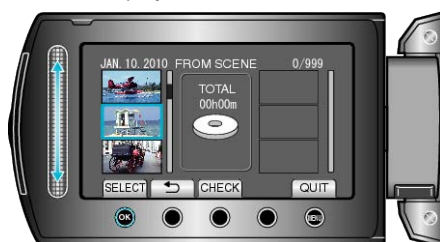
5 Select "NEW LIST" and touch OK .



6 Select "CREATE FROM SCENE" and touch OK .



7 Select the file to add to playlist and touch OK .



- Touch "CHECK" to check the selected video.

8 Touch OK to insert the video onto the right side.



- Repeat steps 7-8 and arrange the videos in the playlist.
- To change the position of a video, select the insertion point with the slider after step 7 and touch OK .
- To delete a video from the playlist, touch "→" to select the video and touch OK .

9 After arranging, touch MENU .



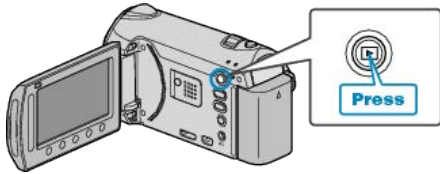
10 Select "SAVE AND THEN QUIT" and touch OK .



Creating Playlists by Group

Create a playlist by arranging multiple files according to group.

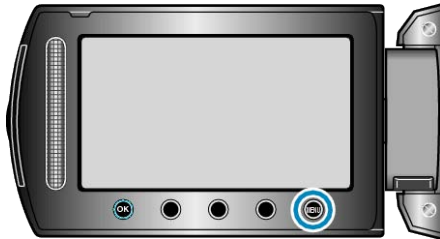
1 Select the playback mode.



2 Select video mode.



3 Touch **MENU** to display the menu.



4 Select "EDIT PLAYLIST" and touch **OK**.



5 Select "NEW LIST" and touch **OK**.



6 Select "CREATE BY GROUP" and touch **OK**.



7 Select the group to add to playlist and touch **OK**.



- Touch "CHECK" to check the selected video.

8 Touch **OK** to insert the video onto the right side.



- Repeat steps 7-8 and arrange the videos in the playlist.
- To change the position of a video, select the insertion point with the slider after step 7 and touch **OK**.
- To delete a video from the playlist, touch "→" to select the video and touch **OK**.

9 After arranging, touch **MENU**.



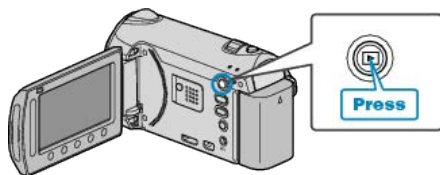
10 Select "SAVE AND THEN QUIT" and touch **OK**.



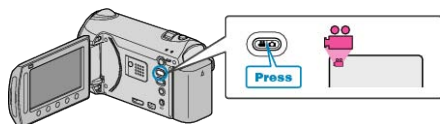
Creating Playlists by Date

Create a playlist by arranging multiple files according to recording date.

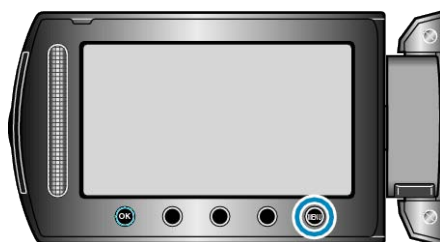
1 Select the playback mode.



2 Select video mode.



3 Touch MENU to display the menu.



4 Select "EDIT PLAYLIST" and touch OK .



5 Select "NEW LIST" and touch OK .



6 Select "CREATE BY DATE" and touch OK .



7 Select the date to add to playlist and touch OK .



- Touch "CHECK" to check the selected video.

8 Touch OK to insert the video onto the right side.



- Repeat steps 7-8 and arrange the videos in the playlist.
- To change the position of a video, select the insertion point with the slider after step 7 and touch OK .
- To delete a video from the playlist, touch "→" to select the video and touch OK .

9 After arranging, touch MENU .



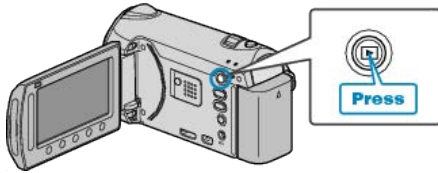
10 Select "SAVE AND THEN QUIT" and touch OK .



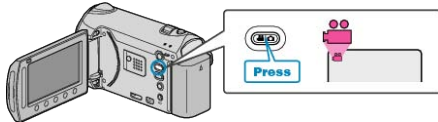
Creating Playlists by Event

Create a playlist by arranging multiple files according to events and recording dates.

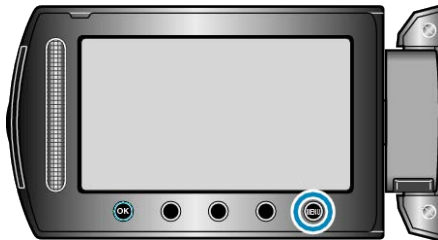
1 Select the playback mode.



2 Select video mode.



3 Touch **MENU** to display the menu.



4 Select "EDIT PLAYLIST" and touch **OK**.



5 Select "NEW LIST" and touch **OK**.



6 Select "CREATE BY EVENT" and touch **OK**.



7 Select an event and touch **OK**.



8 Select the date to add to playlist and touch **OK**.



- Touch "CHECK" to check the selected video.

9 Touch **OK** to insert the video onto the right side.



- Repeat steps 8-9 and arrange the videos in the playlist.

- To change the position of a video, select the insertion point with the slider after step 8 and touch **OK**.

- To delete a video from the playlist, touch "→" to select the video and touch **OK**.

10 After arranging, touch **MENU**.



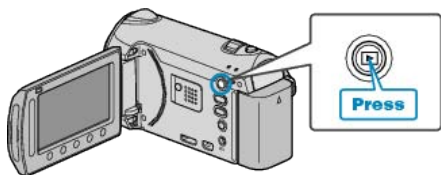
11 Select "SAVE AND THEN QUIT" and touch **OK**.



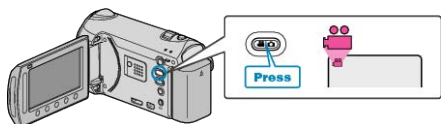
Editing Playlists

You can change the content of a created playlist.

1 Select the playback mode.



2 Select video mode.



3 Touch MENU to display the menu.



4 Select "EDIT PLAYLIST" and touch OK .



5 Select "EDIT" and touch OK .



6 Select the playlist you want to edit and touch OK .



7 Select the file to add to playlist and touch OK .



- Touch "CHECK" to check the selected video.

8 Touch OK to insert the video onto the right side.



- Repeat steps 7-8 and arrange the videos in the playlist.
- To change the position of a video, select the insertion point with the slider after step 7 and touch OK .
- To delete a video from the playlist, touch "→" to select the video and touch OK .

9 After arranging, touch MENU .



10 Select "SAVE AND THEN QUIT" and touch OK .

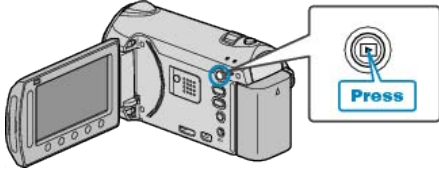


- After deleting, touch .

Deleting Playlists

Delete the playlists that you have created.

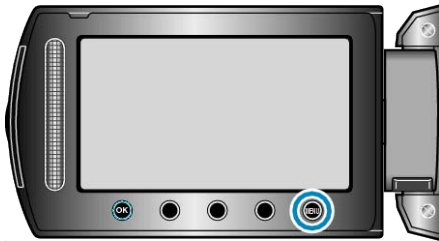
- 1 Select the playback mode.



- 2 Select video mode.



- 3 Touch  to display the menu.




- 4 Select "EDIT PLAYLIST" and touch .




- 5 Select "DELETE" and touch .



- 6 Select the playlist you want to delete and touch .



- All created playlists will be deleted when "DELETE ALL" is selected.

- 7 Select "YES" and touch .

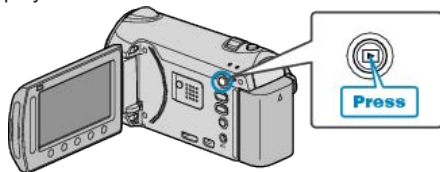


- After deleting is complete, the screen returns to the delete playlist selection screen.

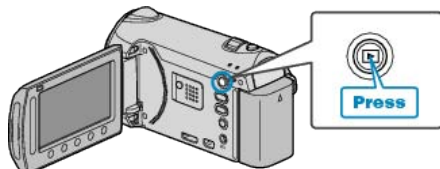
Adding Title Screens to Playlists

Add a title screen to a created playlist.

1 Select the playback mode.



2 Select video mode.



3 Touch **Ⓜ** to display the menu.



4 Select "EDIT PLAYLIST" and touch **Ⓚ**.



5 Select "SET TITLE" and touch **Ⓚ**.



6 Select the desired playlist and touch **Ⓚ**.



• Touch "CHECK" to check the content of the selected playlist.

7 Select a title and touch **Ⓚ**.

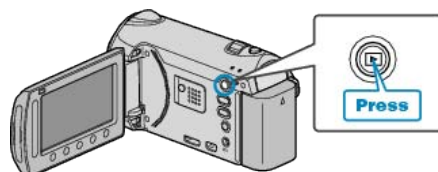


- Touch "CHECK" to check the title.
- To delete the title, select "NO TITLE".

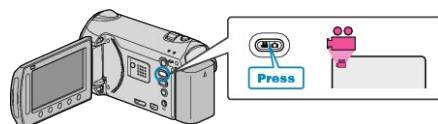
Creating a Playlist with Title

Create a playlist simply by selecting a recording date and a title screen from the list.

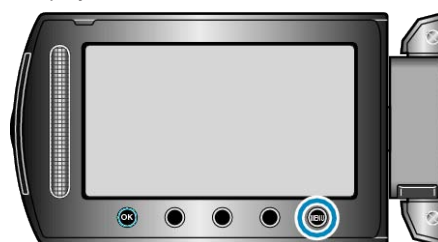
1 Select the playback mode.



2 Select video mode.



3 Touch **Ⓜ** to display the menu.



4 Select "PICTURE TITLE" and touch **Ⓚ**.



5 Select a title and touch **Ⓚ**.



• Touch "CHECK" to check the title.

6 Select the desired recording date and touch **Ⓚ**.



• Touch "CHECK" to check the selected video.

Memo:

- Play back the DVD created from a playlist with title on a DVD player. The title will not be played back if you connect this unit to a DVD writer (optional).
- To add a title to a playlist that is already created, refer to the following. "Adding Title Screens to Playlists" (P.81)

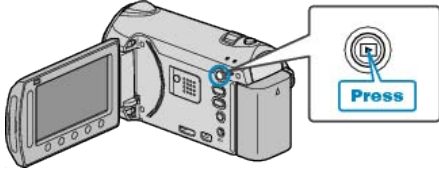
Copying Files to Card

You can copy videos and still images to another SD card.
"Copying All Files" (P.82)
"Copying Selected Files" (P.83)

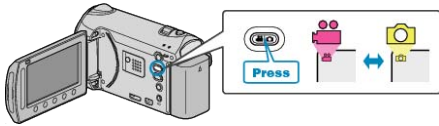
Copying All Files

Copies all videos and still images to another media.

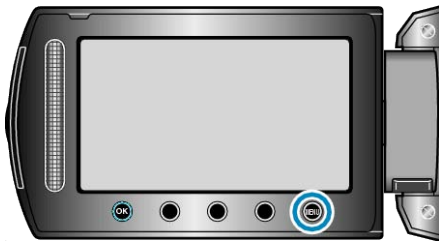
1 Select the playback mode.



2 Select video or still image mode.



3 Touch **OK** to display the menu.



4 Select "EDIT" and touch **OK**.



5 Select "COPY" and touch **OK**.



6 Select the direction of copying and touch **OK**.



7 Select "COPY ALL" and touch **OK**.



8 Select "YES" and touch **OK**.

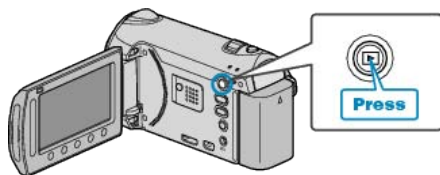


- Copying starts.
- After copying, touch **OK**.

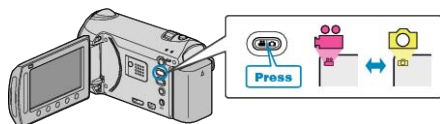
Copying Selected Files

Copies selected videos and still images to another media.

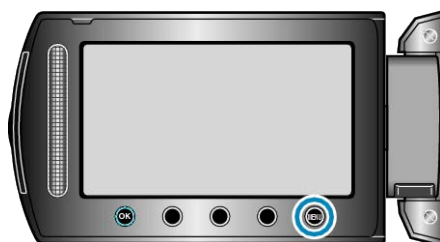
1 Select the playback mode.



2 Select video or still image mode.



3 Touch \odot to display the menu.



4 Select "EDIT" and touch \odot .



5 Select "COPY" and touch \odot .



6 Select the direction of copying and touch \odot .



7 Select "SELECT AND COPY" and touch \odot .



8 Select the desired file and touch \odot .



- A check mark appears on the selected file. To remove the check mark, touch \odot again.

9 After selecting all the files to copy, touch "EXEC".



10 Select "YES" and touch \odot .



- Copying starts.
- After copying, touch \odot .

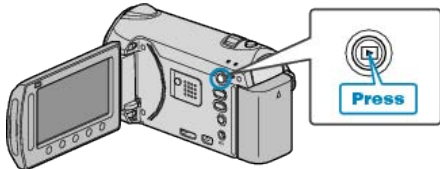
Moving Files

You can move videos and still images to another SD card.
Files that are moved will be deleted from the original media.
Moving still images to SD cards makes it convenient to bring them to the shop for printing (developing).
"Moving All Files" (P.84)
"Moving Selected Files" (P.85)

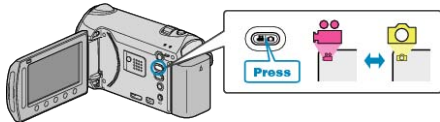
Moving All Files

Moves all videos and still images to another media.
Files that are moved will be deleted from the original media.
Files with a protect mark will not be deleted from the original media.

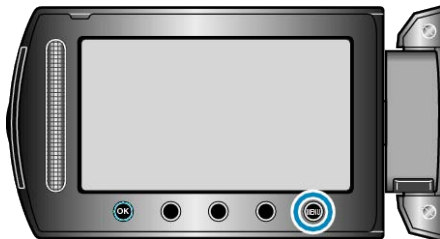
1 Select the playback mode.



2 Select video or still image mode.



3 Touch MENU to display the menu.



4 Select "EDIT" and touch OK .



5 Select "MOVE" and touch OK .



6 Select the direction of moving and touch OK .



7 Select "MOVE ALL" and touch OK .



8 Select "YES" and touch OK .

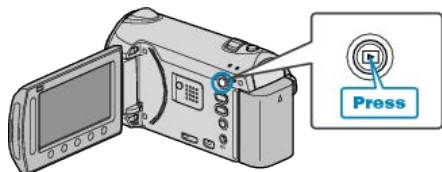


- Moving of files starts.
- After moving, touch OK .

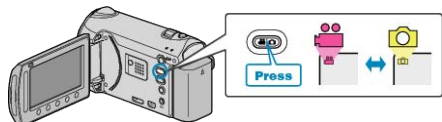
Moving Selected Files

Moves selected videos and still images to another media. Files that are moved will be deleted from the original media.

1 Select the playback mode.



2 Select video or still image mode.



3 Touch **OK** to display the menu.



4 Select "EDIT" and touch **OK**.



5 Select "MOVE" and touch **OK**.



6 Select the direction of moving and touch **OK**.



7 Select "SELECT AND MOVE" and touch **OK**.



8 Select the desired file and touch **OK**.



- A check mark appears on the selected file. To remove the check mark, touch **OK** again.

9 After selecting all the files to move, touch EXEC.



10 Select "YES" and touch **OK**.



- Moving of files starts.
- After moving, touch **OK**.

Creating Discs with a DVD Writer or External Blu-ray Drive

You can copy the recorded files to discs using an optional DVD writer or External Blu-ray Drive.

Compatible DVD Writers

Product Name	Description
DVD Writer • CU-VD3U	<ul style="list-style-type: none"> Enables the images recorded on this unit to be copied to a DVD without using a PC.
DVD Writer • CU-VD50U	<ul style="list-style-type: none"> Creates DVDs and functions as an external DVD drive when connected to a PC. In addition, created DVDs can be played back by connecting the CU-VD50U to a TV.

Compatible External Blu-ray Drive

- LG: Model No. BE06LU10

Creating Discs with a DVD Writer or External Blu-ray Drive

■ Preparing a DVD Writer or External Blu-ray Drive

"Preparing a DVD Writer (CU-VD50U)" (P.86)

"Preparing a DVD Writer (CU-VD3U)" (P.87)

"Preparing an External Blu-ray Drive" (P.87)

"Changing Recording Media (video mode only)" (P.88)

■ Copying to BD/DVD

"Copying All Files" (P.88)

"Copying Files by Date" (P.89)

"Copying Files by Event" (P.90)

"Copying Selected Playlists" (P.91)

"Copying Selected Files" (P.93)

■ Other Operations

"Playing Back a BD/DVD Created on this Unit" (P.59)

"Digest Playback on a DVD Player" (P.60)

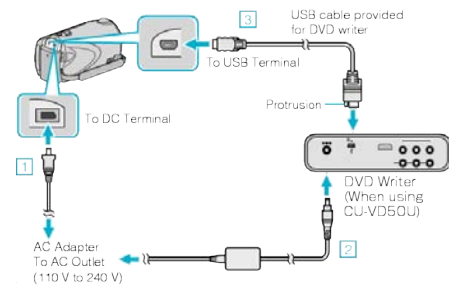
"Finalizing Discs After Copying" (P.94)

Memo:

- The recordable time on the disc varies according to the way of recording.

Preparing a DVD Writer (CU-VD50U)

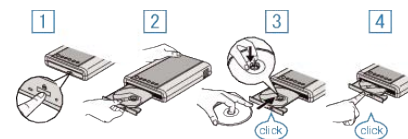
1 Close the LCD monitor and connect.



- 1 Connect the AC adapter to this unit.
- 2 Connect the AC adapter of the DVD writer.
- 3 Connect the USB cable provided with the DVD writer.

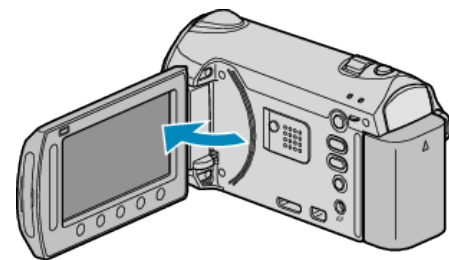
- Refer also to the instruction manual of the DVD writer.

2 Turn on the DVD writer and insert a new disc.



- 1 Press the power button to turn on the power.
- 2 Press the eject button to open the disc tray.
- 3 Pull out the tray completely and load a new disc properly.
- 4 Push the disc tray in until it clicks into place.

3 Open the LCD monitor.



- This unit turns on and the BACK-UP menu appears.
- While the USB cable is connected, the BACK-UP menu is displayed.

CAUTION:

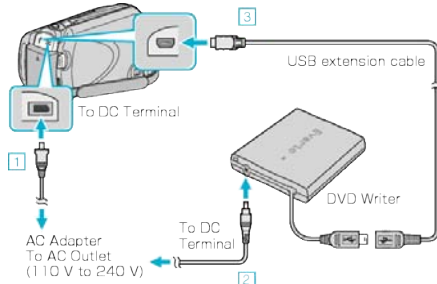
- Be sure to turn off the power when connecting the devices. Otherwise, electric shocks or malfunctions may occur.

Memo:

- When connected to this unit, all buttons on the DVD writer CU-VD50U, other than the power and eject buttons, will not work.

Preparing a DVD Writer (CU-VD3U)

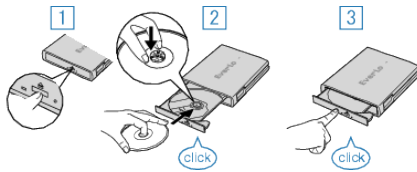
1 Close the LCD monitor and connect.



- ① Connect the AC adapter to this unit.
- ② Connect the AC adapter of the DVD writer.
- ③ Connect the USB cable of the DVD writer to this unit.

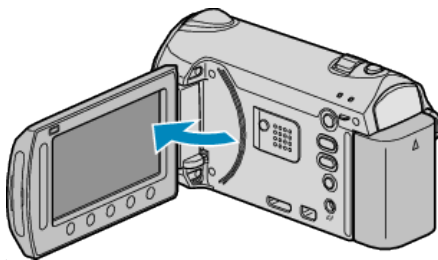
• Refer also to the instruction manual of the DVD writer.

2 Insert a new disc.



- ① Press the eject button to open the disc tray.
- ② Pull out the tray completely and load a new disc properly.
- ③ Push the disc tray in until it clicks into place.

3 Open the LCD monitor.



- This unit turns on and the BACK-UP menu appears.
- While the USB cable is connected, the BACK-UP menu is displayed.

CAUTION:

- Be sure to turn off the power when connecting the devices. Otherwise, electric shocks or malfunctions may occur.

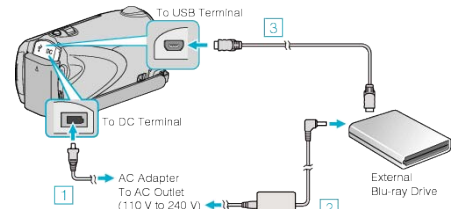
Preparing an External Blu-ray Drive

Memo:

When connecting to the external Blu-ray drive, use a USB cable with Mini-A (Male) – B (Male) connectors. The USB cable bundled with this camera cannot be used. To use the USB cable provided with the external Blu-ray drive, purchase the USB extension cable.

- Mini-A (Male) – A (Female)
(Part number: QAM0852-001)

1 Close the LCD monitor and connect.



- ① Connect the AC adapter to this unit.
- ② Connect the AC adapter of the external Blu-ray drive.
- ③ Connect the USB cable of the external Blu-ray drive to this unit.

• Refer also to the instruction manual of the external Blu-ray drive.

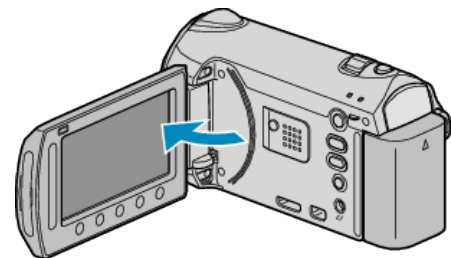
2 Insert a new disc.

- Press the power button on the external Blu-ray drive to turn on the power.



- ① Press the eject button to open the disc tray.
- ② Pull out the tray completely and load a new disc properly.
- ③ Push the disc tray in until it clicks into place.

3 Open the LCD monitor.



- This unit turns on and the BACK-UP menu appears.
- While the USB cable is connected, the BACK-UP menu is displayed.

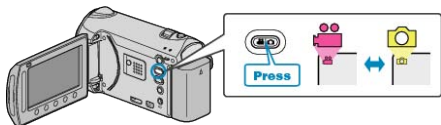
CAUTION:

- Be sure to turn off the power when connecting the devices. Otherwise, electric shocks or malfunctions may occur.

Changing Recording Media (video mode only)

Set the type and video quality of the disc to be created using a BD/DVD writer. Adjustment is necessary when making DVDs with a BD writer or DVDs in standard quality with a DVD writer.

1 Select video or still image mode.



2 Select "CHANGE REC. MEDIA" and touch **OK**.



Backing Up Videos with a DVD Writer

Setting	Details
DVD(AVCHD)	Saves videos in a DVD in the high-definition quality.
DVD-Video	Saves videos in a DVD after converting to the standard image quality.

Backing Up Videos with a BD Writer

Setting	Details
Blu-ray DISC	Saves videos in a BD in the high-definition quality.
DVD(AVCHD)	Saves videos in a DVD in the high-definition quality.
DVD-Video	Saves videos in a DVD after converting to the standard image quality.

Cautions when Backing Up in the DVD-Video Format :

- It takes about 1.2 times the recording time to convert a video from high-definition to standard image quality. (The original video remains in high-definition quality.)
- Each scene is saved as a chapter. The video pauses at the switching of scenes, but this is not a malfunction.
- Videos cannot be saved to DVD-R DL (double layer) discs. Use a DVD-R or DVD-RW disc.

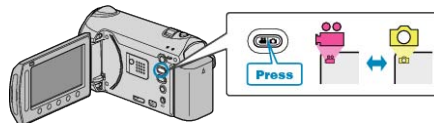
Memo:

- DVDs that are created with "DVD-Video" selected can be played back on normal DVD players.
- When backing up still images, "Blu-ray DISC" or "DVD" can be selected. Image quality of the still images will not be changed.

Copying All Files

All videos and still images recorded on this unit will be copied. You can also select and copy only the videos or still images that have never been copied.

1 Select video or still image mode.



2 Select "CREATE FROM ALL" (video) or "SAVE ALL" (still image), and touch **OK**.



3 Select the media for copying and touch **OK**.



4 Select the desired menu and touch **OK**.



"ALL SCENES" (video)/"ALL IMAGES" (still image):

All videos and still images in this unit are copied.

"UNSAVED SCENES" (video)/"UNSAVED IMAGES" (still image):

Videos and still images that have never been copied are automatically selected and copied.

5 Select "EXECUTE" and touch **OK**.



- The number of discs required to copy the files is displayed. Prepare the discs accordingly.

6 Select "YES" or "NO" and touch **OK**. (👤 mode only)



- When "YES" is selected, videos with similar recording dates are displayed in groups.
- When "NO" is selected, videos are displayed according to recording dates.

7 Select "EXECUTE" and touch **OK**.



- When "INSERT NEXT DISC" appears, change the disc.

8 After copying, touch **OK**.



9 Close the LCD monitor, then disconnect the USB cable.

CAUTION:

- Do not turn off the power or remove the USB cable until copying is complete.
- Files that are not on the index screen during playback cannot be copied.

Memo:

- To check the created disc, select "PLAYBACK" in step 1.

When "DO YOU WANT TO FINALIZE?" appears

This appears when "AUTO FINALIZE" in the camera settings menu is set to "OFF".

"AUTO FINALIZE" (📖 P.130)

- To play back on other devices, select "YES" and touch **OK**.
- To add more files to the DVD later, select "NO" and touch **OK**.

Memo:

- When two or more DVDs are created simultaneously, all the discs other than the last one will be finalized automatically even when "AUTO FINALIZE" is set to "OFF".
- You can finalize a DVD even when "FINALIZE" is selected in the "BACK-UP" menu.

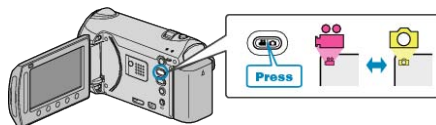
"Finalizing Discs After Copying" (📖 P.94)

- To play back a BD-R disc on other devices, select "FINALIZE" after creating the disc.
(The "AUTO FINALIZE" function on the camera settings menu can only be used for creating DVDs.)

Copying Files by Date

Videos are sorted and copied according to the date on which they were recorded.

1 Select video or still image mode.



2 Select "SELECT AND CREATE" (video) or "SELECT AND SAVE" (still image), and touch **OK**.



3 Select the media for copying and touch **OK**.



4 Select "CREATE BY DATE" and touch **OK**.



5 Select the desired recording date and touch **OK**.



- You cannot select more than one recording date for copying.

6 Select "EXECUTE" and touch **OK**.



- The number of discs required to copy the files is displayed. Prepare the discs accordingly.
- Touch "CHECK" to check the file to copy.

Copying

7 Select "YES" or "NO" and touch . (M mode only)



- When "YES" is selected, videos with similar recording dates are displayed in groups.
- When "NO" is selected, videos are displayed according to recording dates.

8 Select "EXECUTE" and touch .



- When "INSERT NEXT DISC" appears, change the disc.

9 After copying, touch .



10 Close the LCD monitor, then disconnect the USB cable.

CAUTION:

- Do not turn off the power or remove the USB cable until copying is complete.
- Files that are not on the index screen during playback cannot be copied.



Memo:

- To check the created disc, select "PLAYBACK" in step 1.

When "DO YOU WANT TO FINALIZE?" appears

This appears when "AUTO FINALIZE" in the camera settings menu is set to "OFF".

"AUTO FINALIZE" (P.130)

- To play back on other devices, select "YES" and touch .
- To add more files to the DVD later, select "NO" and touch .

Memo:

- When two or more DVDs are created simultaneously, all the discs other than the last one will be finalized automatically even when "AUTO FINALIZE" is set to "OFF".
- You can finalize a DVD even when "FINALIZE" is selected in the "BACK-UP" menu.

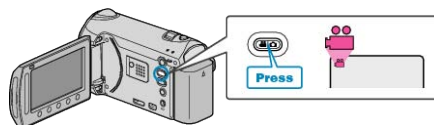
"Finalizing Discs After Copying" (P.94)

- To play back a BD-R disc on other devices, select "FINALIZE" after creating the disc.
(The "AUTO FINALIZE" function on the camera settings menu can only be used for creating DVDs.)

Copying Files by Event

Videos are sorted and copied according to the registered event.

1 Select video mode.



2 Select "SELECT AND CREATE" and touch .



3 Select the media for copying and touch .



4 Select "CREATE BY EVENT" and touch .



5 Select the desired event and touch .



6 Select "EXECUTE" and touch .



- The number of discs required to copy the files is displayed. Prepare the discs accordingly.
- Touch "CHECK" to check the file to copy.

7 Select "YES" or "NO" and touch **OK**.



- When "YES" is selected, videos with similar recording dates are displayed in groups.
- When "NO" is selected, videos are displayed according to recording dates.

8 Select "EXECUTE" and touch **OK**.



- When "INSERT NEXT DISC" appears, change the disc.

9 After copying, touch **OK**.



10 Close the LCD monitor, then disconnect the USB cable.

CAUTION:

- Do not turn off the power or remove the USB cable until copying is complete.
- Files that are not on the index screen during playback cannot be copied.

Memo:

- To check the created disc, select "PLAYBACK" in step 1.
- To register files to events

"Registering Files to Events Before Recording" (P.41)

"Changing Event Registration of Videos" (P.65)

When "DO YOU WANT TO FINALIZE?" appears

This appears when "AUTO FINALIZE" in the camera settings menu is set to "OFF".

"AUTO FINALIZE" (P.130)

- To play back on other devices, select "YES" and touch **OK**.
- To add more files to the DVD later, select "NO" and touch **OK**.

Memo:

- When two or more DVDs are created simultaneously, all the discs other than the last one will be finalized automatically even when "AUTO FINALIZE" is set to "OFF".

- You can finalize a DVD even when "FINALIZE" is selected in the "BACK-UP" menu.

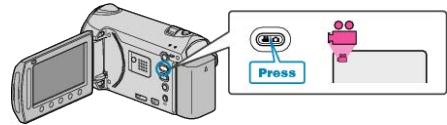
"Finalizing Discs After Copying" (P.94)

- To play back a BD-R disc on other devices, select "FINALIZE" after creating the disc.
(The "AUTO FINALIZE" function on the camera settings menu can only be used for creating DVDs.)

Copying Selected Playlists

Arrange and copy the created playlists in the order you like.

1 Select video mode.



2 Select "SELECT AND CREATE" and touch **OK**.



3 Select the media for copying and touch **OK**.



4 Select "CREATE BY PLAYLIST" and touch **OK**.



5 Select the desired playlists and touch **OK**.



- Touch "CHECK" to check the selected playlist.

6 Select the insertion point and touch **OK**.



- The selected videos are added to the playlist on the right.
- To delete a video from the playlist, touch "→" to select the video and touch **OK**.
- Repeat steps 4-5 and arrange the videos in the playlist.

Copying

7 After arranging, touch "SAVE".



8 Select "EXECUTE" and touch \odot .



- The number of discs required to copy the files is displayed. Prepare the discs accordingly.
- Touch "CHECK" to check the file to copy.

9 Select "EXECUTE" and touch \odot .



- When "INSERT NEXT DISC" appears, change the disc.

10 After copying, touch \odot .



11 Close the LCD monitor, then disconnect the USB cable.

CAUTION:

- Do not turn off the power or remove the USB cable until copying is complete.
- Files that are not on the index screen during playback cannot be copied.

Memo:

- A list of playlists is displayed on the top menu of the created DVD.
- To check the created disc, select "PLAYBACK" in step 1.
- To create a playlist

"Creating Playlists from the Recorded Videos" (P.74)

"Creating a Playlist with Title" (P.81)

When "DO YOU WANT TO FINALIZE?" appears

This appears when "AUTO FINALIZE" in the camera settings menu is set to "OFF".

"AUTO FINALIZE" (P.130)

- To play back on other devices, select "YES" and touch \odot .
- To add more files to the DVD later, select "NO" and touch \odot .

Memo:

- When two or more DVDs are created simultaneously, all the discs other than the last one will be finalized automatically even when "AUTO FINALIZE" is set to "OFF".
- You can finalize a DVD even when "FINALIZE" is selected in the "BACK-UP" menu.

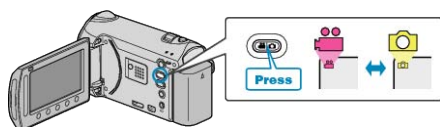
"Finalizing Discs After Copying" (P.94)

- To play back a BD-R disc on other devices, select "FINALIZE" after creating the disc.
(The "AUTO FINALIZE" function on the camera settings menu can only be used for creating DVDs.)

Copying Selected Files

Select and copy the desired videos.

1 Select video or still image mode.



2 Select "SELECT AND CREATE" (video) or "SELECT AND SAVE" (still image), and touch **OK**.



3 Select the media for copying and touch **OK**.



4 Select "SELECT FROM SCENES" (videos) or "SELECT FROM IMAGES" (still images), and touch **OK**.



5 Select the video or still image to save, and touch **OK**.



- A check mark appears on the selected video. To remove the check mark, touch **OK**.
- Touch "CHECK" to check the video.

6 After selecting, touch "SAVE".



7 Select "EXECUTE" and touch **OK**.



- The number of discs required to copy the files is displayed. Prepare the discs accordingly.
- Touch "CHECK" to check the file to copy.

8 Select "YES" or "NO" and touch **OK**. (👤 mode only)



- When "YES" is selected, videos with similar recording dates are displayed in groups.
- When "NO" is selected, videos are displayed according to recording dates.

9 Select "EXECUTE" and touch **OK**.



- When "INSERT NEXT DISC" appears, change the disc.

10 After copying, touch **OK**.



11 Close the LCD monitor, then disconnect the USB cable.

CAUTION:

- Do not turn off the power or remove the USB cable until copying is complete.
- Files that are not on the index screen during playback cannot be copied.

Memo:

- To check the created disc, select "PLAYBACK" in step 1.

When “DO YOU WANT TO FINALIZE?” appears

This appears when “AUTO FINALIZE” in the camera settings menu is set to “OFF”.

“AUTO FINALIZE” (P.130)

- To play back on other devices, select “YES” and touch **OK**.
- To add more files to the DVD later, select “NO” and touch **OK**.

Memo:

- When two or more DVDs are created simultaneously, all the discs other than the last one will be finalized automatically even when “AUTO FINALIZE” is set to “OFF”.
- You can finalize a DVD even when “FINALIZE” is selected in the “BACK-UP” menu.

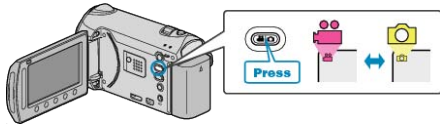
“Finalizing Discs After Copying” (P.94)

- To play back a BD-R disc on other devices, select “FINALIZE” after creating the disc.
(The “AUTO FINALIZE” function on the camera settings menu can only be used for creating DVDs.)

Finalizing Discs After Copying

Finalizes the disc after copying is finished. This enables the disc to be played back using this unit, on PC, BD/DVD writer or BD/DVD player that supports the BD-MV and AVCHD formats.

- 1 Select video or still image mode.



- 2 Select “FINALIZE” and touch **OK**.



- 3 Select “YES” and touch **OK**.

- After finalizing, touch **OK**.

Using a USB External Hard Disk Drive

You can copy video and still image files to a USB external hard disk drive from this unit. You can also play the files in the USB external hard disk drive on this unit.

- Refer also to the instruction manual of the external hard disk drive.

Compatible External Hard Disk Drives

- Seagate: FreeAgent™ Desk series
- LaCie: Design by Neil Poulton series

USB external hard disk drives with the capacity over 2 TB cannot be used.

Copying and Playback with a USB External Hard Disk Drive

“Preparing a USB External Hard Disk Drive” (P.95)

“Copying All Files” (P.95)

“Playing Back Files in the USB External Hard Disk Drive” (P.96)

“Deleting Folders in the USB External Hard Disk Drive” (P.96)

Memo:

- Format the USB external hard disk drive when connecting it to this unit for the first time. (All data is deleted.)
- “Formatting the USB External Hard Disk Drive” (P.97)
- Refer to the help file of the provided Everio MediaBrowser software when you use the PC to operate the data in the USB external hard disk drive directly copied from this unit.

CAUTION:

- Disconnect the USB external hard disk drive when using other USB devices such as a BD/DVD writer or another USB external hard disk drive.
- Avoid the following operations during copying and playing back.
 - Turning off the unit or the USB external hard disk drive.
 - Disconnecting the USB cable.
- Files deleted from this unit cannot be written to a disc using a BD/DVD writer even if they have been copied to the USB external hard disk drive.
- Do not format the USB external hard disk drive using the PC. If you did, format again using this unit. (All the data in the USB external hard disk drive will be erased.)
- Avoid the following operations using the PC.
 - Deleting files or folders in the USB external hard disk drive.
 - Moving files or folders in the USB external hard disk drive.
 - Changing the name of files or folders in the USB external hard disk drive.
 These operations make the data impossible to be played back on this unit.
- When you use the PC to edit the data in the USB external hard disk drive, copy the data to the PC before editing. Editing the data in the USB external hard disk drive directly from the PC makes the data impossible to be played back on this unit.

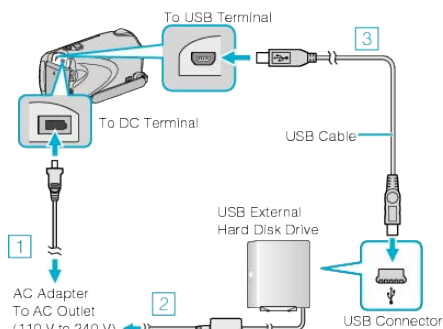
Preparing a USB External Hard Disk Drive

Memo:

To use the USB cable provided with the external hard disk drive, purchase the following USB extension cable.

- Mini-A (Male) – A (Female)
(Part number: QAM0852-001)

1 Close the LCD monitor and connect.

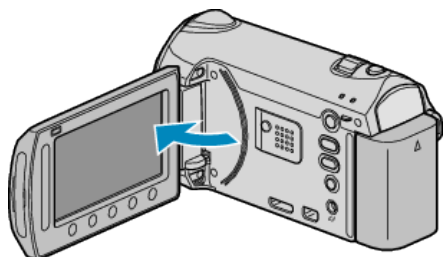


- 1 Connect the AC adapter to this unit.
- 2 Connect the AC adapter of the USB external hard disk drive.
- 3 Connect the USB cable provided with the USB external hard disk drive.

• Refer also to the instruction manual of the external hard disk drive.

2 Turn on the external hard disk drive.

3 Open the LCD monitor.



- This unit turns on and the BACK-UP menu appears.
- While the USB cable is connected, the BACK-UP menu is displayed.

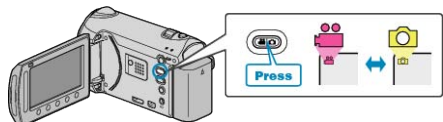
CAUTION:

- Be sure to turn off the power when connecting the devices. Otherwise, electric shocks or malfunctions may occur.
- Do not connect a USB hub between this unit and the USB external hard disk drive.

Copying All Files

All videos and still images recorded on this unit will be copied. You can also select and copy only the videos or still images that have never been copied.

1 Select video or still image mode.



2 Select "BACK UP" and touch **OK**.



3 Select the media for copying and touch **OK**.



4 Select the desired menu and touch **OK**.



"ALL SCENES" (video)/"ALL IMAGES" (still image):

All videos and still images in this unit are copied.

"UNSAVED SCENES" (video)/"UNSAVED IMAGES" (still image):
Videos and still images that have never been copied are automatically selected and copied.

5 Start backup.



- Check that there is sufficient remaining space on the HDD, select "OK", and touch **OK**.

6 After copying, touch **OK**.



7 Close the LCD monitor, then disconnect the USB cable.

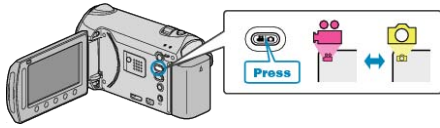
CAUTION:

- Do not turn off the power or remove the USB cable until copying is complete.
- Files that are not on the index screen during playback cannot be copied.
- Copying may take time. (For example, saving 1 hour video in XP mode takes about 20 minutes.)

Playing Back Files in the USB External Hard Disk Drive

Videos or still images saved in an external hard disk drive can be played back on this camera.

- 1 Select video or still image mode.



- 2 Select "PLAYBACK" and touch **OK**.



- 3 Select the desired folder and touch **OK**.



- 4 Select the desired file and touch **OK**.



- Touch **■** to stop playback.

Memo:

- Sound or video may be interrupted during playback.

Deleting Folders in the USB External Hard Disk Drive

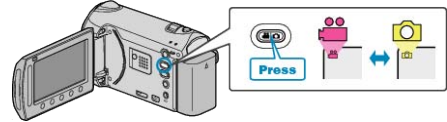
Files that are copied to the external hard disk drive can be deleted.

CAUTION:

- Deleted files cannot be restored.
- Be sure to back up important files on a PC.

"Backing Up All Files" (P.101)

- 1 Select video or still image mode.



- 2 Select "DELETE" and touch **OK**.



- 3 Select the desired folder and touch **OK**.



- 4 Select "DELETE" and touch **OK**.



- After deleting, touch **OK**.

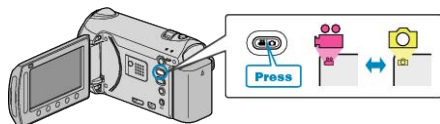
Formatting the USB External Hard Disk Drive

All files on the external hard disk drive can be deleted.

CAUTION:

- All data on the external hard disk drive will be deleted when it is formatted. Copy all files on the card to a PC before formatting.

1 Select video or still image mode.



2 Select "FORMAT" and touch **OK**.



3 Select "YES" and touch **OK**.

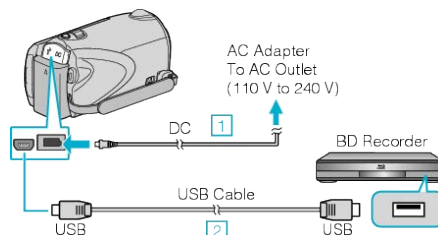


- After formatting, touch **OK**.

Creating a Disc Using a Connected Blu-ray Recorder

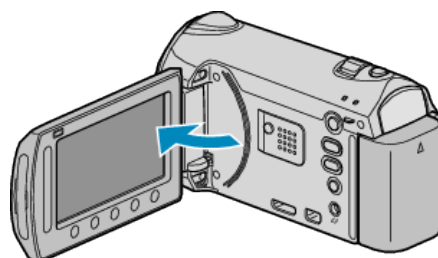
You can create discs using a Blu-ray recorder by connecting it to this camera using a USB cable.

1 Close the LCD monitor and connect.



- 1 Connect the AC adapter to this unit.
- 2 Connect using the provided USB cable.

2 Open the LCD monitor.



- The USB MENU appears.

3 Select "BACK UP" and touch **OK**.



4 Perform dubbing on the Blu-ray recorder.

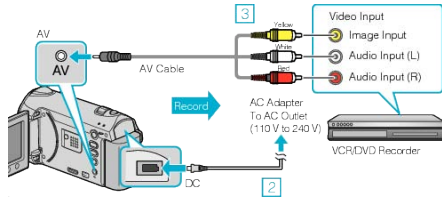
- Refer also to the instruction manual of the Blu-ray recorder.

Dubbing Files to a DVD Recorder or VCR

You can dub videos by connecting to a DVD recorder or VCR.

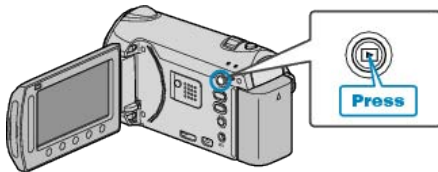
- Refer also to the instruction manuals of the TV, DVD recorder, VCR, etc.

1 Connect to a VCR/DVD recorder.



- ① Press and hold the power button for 2 seconds or more to turn off the power.
- ② Connect the AC adapter to this unit.
- ③ Connect using the provided AV cable.
- ④ Press and hold the power button for 2 seconds or more to turn on the unit.

2 Select the playback mode.



3 Prepare the TV/VCR for recording.

- Switch to a compatible external input.
- Insert a DVD-R or video tape.

4 Prepare this unit for playback.

- Set "VIDEO OUTPUT" in the connection settings menu to the aspect ratio (4:3 or 16:9) of the connecting TV.

"VIDEO OUTPUT" (P.134)

- To include the date during dubbing, set "DISPLAY ON TV" in the connection settings menu to "ON". Set "ON-SCREEN DISPLAY" in the playback menu to "DISPLAY DATE ONLY".

"DISPLAY ON TV" (P.133)

"ON-SCREEN DISPLAY" (P.121)

5 Start recording.

- Start playback on this unit and press the record button on the VCR/DVD recorder.

"Playing Back Videos" (P.49)

- After playback is complete, stop the recording.

Memo:

- When there are many videos to dub, you can create a playlist in advance and play it back so that all your favorite videos can be dubbed at once.

"Creating Playlists with Selected Files" (P.75)

"Playing Back Playlists" (P.58)

Copying to Windows PC

You can copy files to a PC using the provided software.

DVDs can also be created using the PC's DVD drive.

If the provided software is not installed, this unit will be recognized as an external storage when connected.

Memo:

- To record to discs, a recordable BD/DVD drive is required for the PC in use.
- Still images cannot be recorded to discs using the provided software.

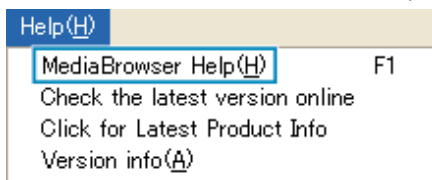
Trouble with Using the Provided Software Everio MediaBrowser

Consult the customer service center below.

- Pixela User Support Center

Telephone	USA and Canada (English): +1-800-458-4029 (toll-free) Europe (UK, Germany, France, and Spain) (English/German/French/Spanish): +800-1532-4865 (toll-free) Other Countries in Europe (English/German/French/Spanish): +44-1489-564-764 Asia (Philippines) (English): +63-2-438-0090 China (Chinese): 10800-163-0014 (toll-free)
Homepage	http://www.pixela.co.jp/oem/jvc/mediabrowser/e/

- For details on how to upload to Youtube or transfer files to iTunes, refer to "MediaBrowser Help" in the "Help" menu of Everio MediaBrowser.



Verifying System Requirements (Guideline)

Right-click on "Computer" (or "My Computer") in the "Start" menu and select "Properties" to check the following items.

Windows Vista/Windows 7

- Refer to the operating instructions found in the animation on the Detailed User Guide.

Windows XP

- Refer to the operating instructions found in the animation on the Detailed User Guide.

	Windows Vista/Windows 7	Windows XP
OS	Windows Vista 32/64-bit Home Basic or Home Premium (Pre-installed versions only) Service Pack 2 Windows 7 32/64-bit Home Premium (Pre-installed versions only)	Windows XP Home Edition or Professional (Pre-installed versions only)Service Pack 3
CPU	Intel Core Duo CPU 1.66 GHz or higher Intel Core 2 Duo CPU 2.13 GHz or higher recommended	Intel Core Duo CPU 1.66 GHz or higher Intel Core 2 Duo CPU 2.13 GHz or higher recommended
RAM	At least 1 GB (1024 MB)	At least 512 MB

Memo:

- If your PC does not meet the above system requirements, operations of the provided software cannot be guaranteed.
- For more information, contact your PC's manufacturer.

Installing the Provided Software

You can display the recorded images in calendar format and perform simple editing using the provided software.

Windows Vista / Windows 7

- Refer to the operating instructions found in the animation on the Detailed User Guide.

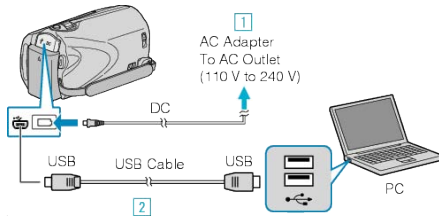
Windows XP

- Refer to the operating instructions found in the animation on the Detailed User Guide.

Backing Up All Files

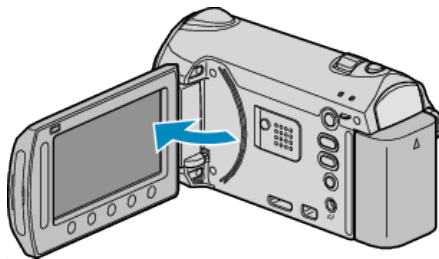
Before making backup, make sure that enough free space is left in the PC's hard disk (HDD).

1 Connect the USB cable and the AC adapter.



- ① Connect the AC adapter to this unit.
- ② Connect using the provided USB cable.

2 Open the LCD monitor.



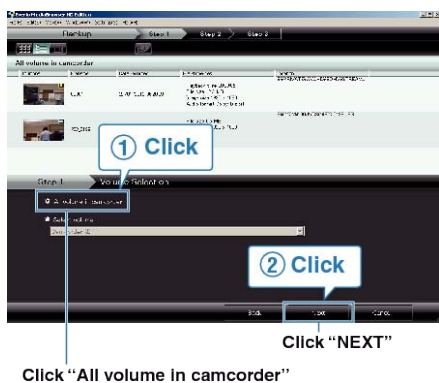
- The USB MENU appears.

3 Select "BACK UP" and touch **OK**.

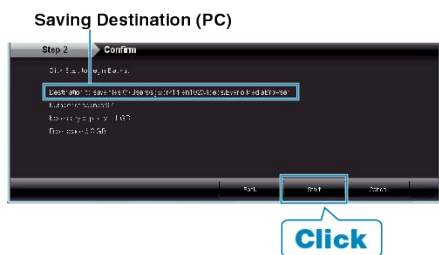


- The provided software Everio MediaBrowser starts up on the PC. The subsequent operations are to be performed on the PC.

4 Select the volume.

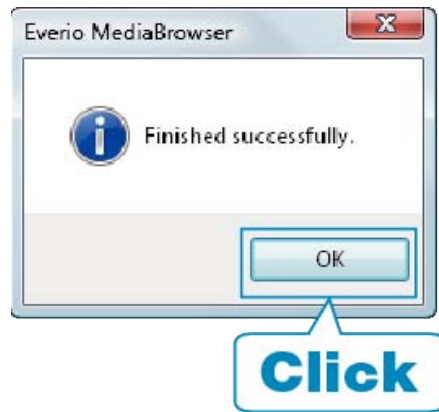


5 Start backup.



- Backup starts.

6 After backup is complete, click "OK".



Memo:

- Before making backup, load the SD card in which the videos and still images are stored on this unit.
- If you encounter any problems with the provided software Everio MediaBrowser, please consult the "Pixela User Support Center".

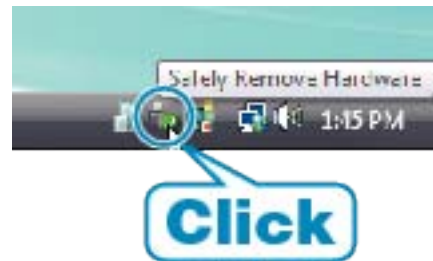
Tele- phone	USA and Canada (English): +1-800-458-4029 (toll-free) Europe (UK, Germany, France, and Spain) (English/German/French/Spanish): +800-1532-4865 (toll-free) Other Countries in Europe (English/German/French/Spanish): +44-1489-564-764 Asia (Philippines) (English): +63-2-438-0090 China (Chinese): 10800-163-0014 (toll-free)
Home- page	http://www.pixela.co.jp/oem/jvc/mediabrowser/e/

- Delete unwanted videos before making backup. It takes time to back up many videos.

"Deleting Unwanted Files" (P.61)

Disconnecting this Unit from PC

1 Click "Safely Remove Hardware".



2 Click "Safely Remove USB Mass Storage Device".

3 (For Windows Vista) Click "OK".

4 Disconnect the USB cable and close the LCD monitor.

Organizing Files

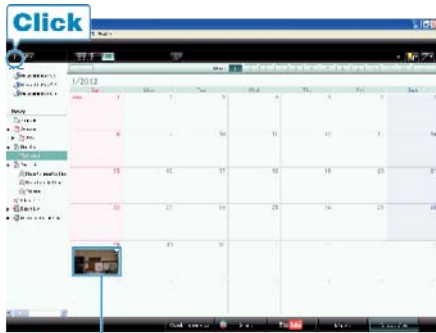
After backing up your files, organize them by adding labels such as "Family Trip" or "Athletic Meet". This is useful not only for creating discs, but for viewing the files too.

1 Display the month of the files to organize.



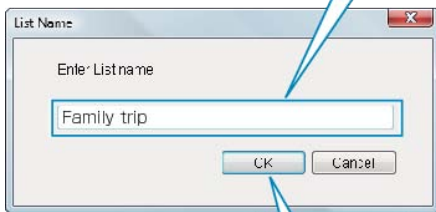
Recording Month

2 Create a user list.



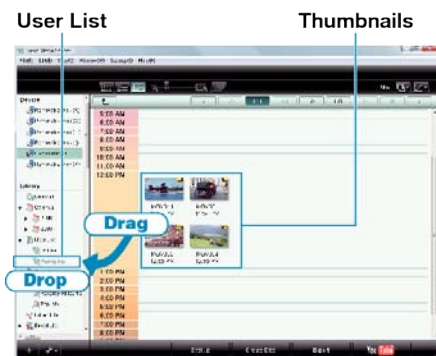
Recording Date

1 Input the name of the new user list



2 Click

- A new user list is added to the user list library.
- 3 Click on the recording day.
- The thumbnails of the files recorded on the day are displayed.
- 4 Register files to the created user list.



Identifying Video or Still Image : _____

- You can select files using the "SELECT" menu on the top right of the screen.
- Check the video/still image icon on the top right corner of the thumbnail.



Memo: _____

- If you encounter any problems with the provided software Everio MediaBrowser, please consult the "Pixela User Support Center".

Telephone	USA and Canada (English): +1-800-458-4029 (toll-free) Europe (UK, Germany, France, and Spain) (English/German/French/Spanish): +800-1532-4865 (toll-free) Other Countries in Europe (English/German/French/Spanish): +44-1489-564-764 Asia (Philippines) (English): +63-2-438-0090 China (Chinese): 10800-163-0014 (toll-free)
Home-page	http://www.pixela.co.jp/oem/jvc/mediabrowser/e/

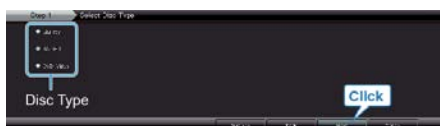
Recording Videos to Discs

Copy the files that are arranged using the user list to DVDs.

- 1 Insert a new disc into the PC's recordable BD/DVD drive.
- 2 Select the desired user list.

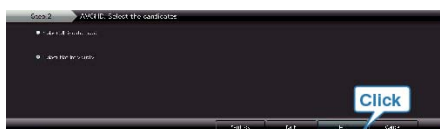


- 3 Select the disc type.



- Image quality is set to standard when DVD-Video is selected.

- 4 Select the method of file selection.



- If you select "Select all files displayed", only the displayed videos are copied to the disc. Proceed to step 6.
 - If you select "Select files individually", proceed to step 5.
- 5 (When "Select files individually" is selected) Select the files to copy to disc in order.



- After selecting, click "NEXT".

- 6 Set the top menu of the disc.



- Set the title and menu background.

- 7 Copying to disc starts.



- After copying, click "OK".

Memo:

- The following types of discs can be used on the provided software Everio MediaBrowser.
 - DVD-R
 - DVD-R DL
 - DVD-RW
 - DVD+R
 - DVD+R DL
 - DVD+RW
 - BD
- Everio MediaBrowser supports 3 disc formats: DVD-Video, AVCHD and BD.
- When copying videos recorded in XFP recording mode to create an AVCHD disc, the videos need to be converted to XP recording mode before copying. Therefore, it may take a longer time than copying videos recorded in other modes.
- Use Everio MediaBrowser Player to play back the disc. Refer to the help file of the provided Everio MediaBrowser software to operate.
- To view the help file of Everio MediaBrowser, select "Help" from the Everio MediaBrowser's menu bar or press F1 on the keyboard.
- If you encounter any problems with the provided software Everio MediaBrowser, please consult the "Pixela User Support Center".

Telephone	USA and Canada (English): +1-800-458-4029 (toll-free) Europe (UK, Germany, France, and Spain) (English/German/French/Spanish): +800-1532-4865 (toll-free) Other Countries in Europe (English/German/French/Spanish): +44-1489-564-764 Asia (Philippines) (English): +63-2-438-0090 China (Chinese): 10800-163-0014 (toll-free)
Home-page	http://www.pixela.co.jp/oem/jvc/mediabrowser/e/

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Should You breach any provision of this Agreement, JVC may terminate this Agreement without giving any notice to You. In this event, JVC may claim against You for any damages caused by Your breach. Should this Agreement be terminated, You must immediately destroy the Program stored in Your machine (including the erasing from any memory in Your PC), and no longer own such Program.

7 EXPORT CONTROL

You agree that You will not ship, transfer or export the Program or underlying information and technology to any countries to which Japan and other relevant countries have initiated an embargo on such goods.

8 U.S. GOVERNMENT USER

If You are an agency of the United States of America (the "Government"), You acknowledge JVC's representation that the Program is a "Commercial Item" as defined in Federal Acquisition Regulation (FAR) part 2.101 (g) consisting unpublished "Commercial Computer Software" as those items are used at FAR part 12.212 and is only licenced to You with the same use rights JVC grants all commercial end users pursuant to the terms of this Agreement.

9 GENERAL

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- ② If any part of this Agreement is held invalid by or in conflict with any law having jurisdiction over this Agreement, the remaining provisions will remain in full force and effect.
- ③ This Agreement shall be governed by and interpreted under the laws of Japan. The Tokyo District Court has jurisdiction over all disputes which may arise with respect to the execution, interpretation and performance of this Agreement.

Victor Company of Japan, Limited

Memo:

- If You acquired the Program in Germany, the provisions of Sections 4 (Limited Warranty) and 5 (Limited Liability) provided above will be replaced with those of the German version of this Agreement.

CAUTION:

- Operate this equipment according to the operating procedures described in this manual.
- Use only the provided CD-ROM. Never use any other CD-ROM to run this software.
- Do not attempt to modify this software.
- Changes or modifications not approved by JVC could void user's authority to operate the equipment.

How to handle a CD-ROM :

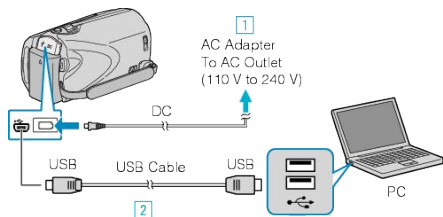
- Take care not to soil or scratch the mirror surface (opposite to the printed surface). Do not write anything or put a sticker on either the front or back surface. If the CD-ROM gets dirty, gently wipe it with a soft cloth outward from the center hole.
- Do not use conventional disc cleaners or cleaning spray.
- Do not bend the CD-ROM or touch its mirror surface.
- Do not store your CD-ROM in a dusty, hot or humid environment. Keep it away from direct sunlight.

You can find the latest information (in English) on the provided software program at our world wide web server at <http://www.jvc-victor.co.jp/english/global-e.html>

Copying to Mac Computer

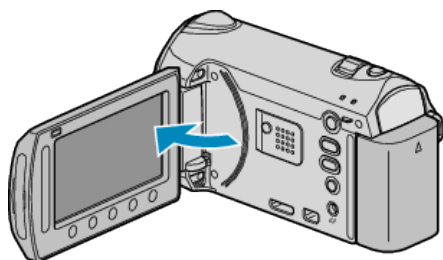
Copy the files to a Mac computer using the following method.

1 Connect the USB cable and the AC adapter.



- ① Connect the AC adapter to this unit.
- ② Connect using the provided USB cable.
 - The provided software is not required for this process.

2 Open the LCD monitor.



- The USB MENU appears.

3 Select "PLAYBACK ON PC" and touch \odot .

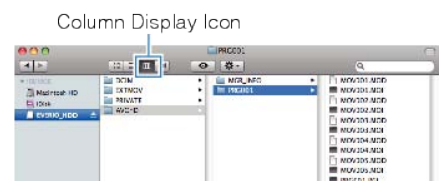


- The subsequent operations are to be performed on the PC.

4 Click on the "EVERIO_MEM" or "EVERIO_SD" icon on the desktop.

- The folder opens.

5 Click on the column display icon.



- Search the folder with the desired files.
- "List of Files and Folders" (P.105)

6 Copy the files to any folder in the PC (desktop, etc).



CAUTION:

- When the folders or files are deleted/moved/renamed in the computer, they cannot be played back on this unit anymore.
- MTS files that are copied to a Mac computer cannot be imported to iMovie. To use MTS files with iMovie, import the files using iMovie.

Memo:

- To edit/view the files, use a software that supports AVCHD (video)/JPEG (still image) files.
- When removing this unit from the computer, drag and drop the "EVERIO_MEM" or "EVERIO_SD" icon on the desktop to the trash bin.

iMovie and iPhoto

You can import files from this unit to a computer using Apple's iMovie'08, '09 (video) or iPhoto (still image). To verify the system requirements, select "About This Mac" from the Apple menu. You can determine the operating system version, processor and amount of memory.

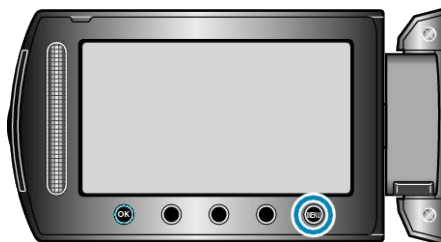
- For the latest information on iMovie or iPhoto, refer to the Apple website.
- For details on how to use iMovie or iPhoto, refer to the help file of the respective software.
- There is no guarantee that the operations will work with all computer environments.


Operating the Menu

Use the slider and operation buttons to set the menu.


- The menu differs according to the mode in use.

1 Touch  to display the menu.






2 Select the desired menu and touch .



3 Select the desired setting and touch .



Memo:

- To close the menu, touch .
- To return to the previous screen, touch .
- To display the help file, touch .

Returning All Settings to Default :

- Set using "FACTORY PRESET" in the camera settings menu.

"FACTORY PRESET" ( P.131)

Recording Menu (Video)

You can adjust various settings, such as brightness and white balance, to suit the subject or purpose. You can also change settings such as picture quality and gain.

Setting	Details
MANUAL SETTING	Recording settings can be adjusted manually. <ul style="list-style-type: none"> They are displayed only when recording in the manual mode. "Manual Recording" (P.32)
FACE PRIORITY AE/AF	Detects faces and adjusts the brightness and focus automatically. "Capturing Human Subjects Clearly (Face Detection AE/AF)" (P.38)
LIGHT	Turns on/off the light. "LIGHT" (P.109)
REGISTER EVENT	Categorizes your videos according to events (such as "Travel", "Athletic Meet") by registering the file before recording. "Registering Files to Events Before Recording" (P.41)
VIDEO QUALITY	Sets the video quality. "VIDEO QUALITY" (P.109)
ZOOM	Sets the maximum zoom ratio. "ZOOM" (P.110)
GAIN UP	Makes the subject appear bright automatically when recording in dark places. "GAIN UP" (P.110)
HIGH SPEED RECORDING	Performs recording at an increased speed, or in slow-motion to emphasize the movements. "Slow-motion (High-speed) Recording" (P.43)
TIME-LAPSE RECORDING	Enables the changes of a scene that occur slowly over a long period to be shown within a short time by taking frames of it at a certain interval. "Recording at Intervals (TIME-LAPSE RECORDING)" (P.44)
AUTO REC	Enables the unit to start or stop recording automatically by sensing the changes in brightness within the red frame displayed on the LCD monitor. "Recording Automatically by Sensing Movements (AUTO REC)" (P.46)
SEAMLESS RECORDING	Automatically switches to a different media and continues recording when the remaining space on the current recording media runs out. For example, when the remaining space on the SD card runs out during recording, the recording continues on the built-in memory without stopping. "SEAMLESS RECORDING" (P.111)
SHUTTER MODE	Continuous shooting settings can be adjusted. "SHUTTER MODE" (P.112)
x.v.Color	Records with "x.v.Color". "x.v.Color" (P.112)
WIND CUT	Reduces the noise caused by wind. "WIND CUT" (P.113)

FACE PRIORITY AE/AF

Detects faces and adjusts the brightness and focus automatically.
 Operating Details
 "Capturing Human Subjects Clearly (Face Detection AE/AF)" (P.38)

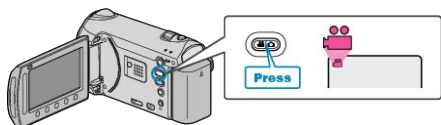
LIGHT

Turns on/off the light.

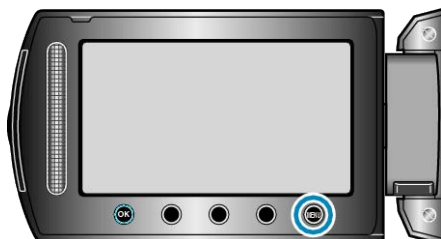
Setting	Details
OFF	Does not light up.
AUTO	Lights up automatically when the surrounding is dark.
ON	Lights up at all times.

Displaying the Item

1 Select video mode.



2 Touch \odot to display the menu.



3 Select "LIGHT" and touch \odot .



REGISTER EVENT

Categorizes your videos according to events (such as "Travel", "Athletic Meet") by registering the file before recording.
 Operating Details
 "Registering Files to Events Before Recording" (P.41)

VIDEO QUALITY

Sets the video quality.

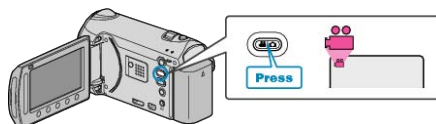
Setting	Details
UXP	Enables recording in the best picture quality. • Applies to BDs only. Videos taken in high-definition quality cannot be saved to DVDs.
XP	Enables recording in high picture quality.
SP	Enables recording in standard quality.
EP	Enables long recordings.

Memo:

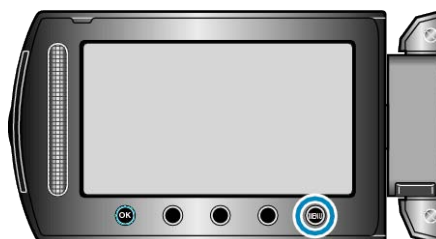
- Set to UXP or XP mode when recording fast-moving scenes or scenes with extreme change of brightness to avoid noise.
- Use a BD writer to save videos recorded in UXP mode.
- You can change the video quality from the remaining recording time display. Select the video quality with the slider and touch \odot .

Displaying the Item

1 Select video mode.



2 Touch \odot to display the menu.



3 Select "VIDEO QUALITY" and touch \odot .



ZOOM

Sets the maximum zoom ratio.

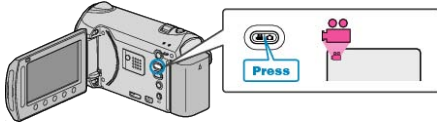
Setting	Details
10x/OPTICAL	Enables zooming up to 10x.
16(15)x/DYNAMIC	Enables zooming up to 16x when set to image stabilizer ① or when image stabilizer is turned off. Enables zooming up to 15x when set to image stabilizer ②.
64x/DIGITAL	Enables zooming up to 64x.
200x/DIGITAL	Enables zooming up to 200x.

Memo:

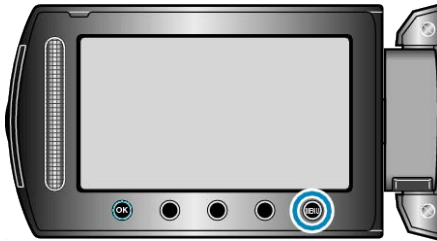
- You can expand the zoom area without degrading the image quality by using dynamic zoom.
- When digital zoom is used, the image becomes grainy as it is digitally enlarged.

Displaying the Item

- 1 Select video mode.



- 2 Touch **MENU** to display the menu.



- 3 Select "ZOOM" and touch **OK**.



GAIN UP

Makes the subject appear bright automatically when recording in dark places.

Setting	Details
OFF	Deactivates the function.
AGC	Electrically brightens the scene when it is dark.
AUTO	Automatically brightens the scene when it is dark.

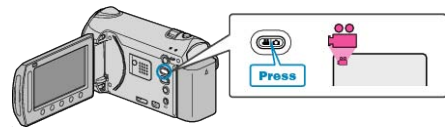
Memo:

- Although "AUTO" brightens the scene more than "AGC", movements of the subject may become unnatural.
- Setting can be adjusted separately for still images.

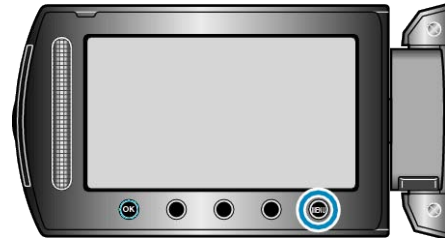
"GAIN UP(Still Image)" (P.117)

Displaying the Item

- 1 Select video mode.



- 2 Touch **MENU** to display the menu.



- 3 Select "GAIN UP" and touch **OK**.



HIGH SPEED RECORDING

You can increase the recording speed or emphasize the movements using slow-motion recording.

This is a handy function for checking movements, such as golf swings.

Operating Details

"Slow-motion (High-speed) Recording" (P.43)

TIME-LAPSE RECORDING

This function enables the changes of a scene that occur slowly over a long period to be shown within a short time by taking frames of it at a certain interval.

This is useful for making observations such as the opening of a flower bud.

Operating Details

"Recording at Intervals (TIME-LAPSE RECORDING)" (P.44)

AUTO REC

Records automatically by sensing the changes in brightness.

Operating Details

"Recording Automatically by Sensing Movements (AUTO REC)" (P.46)

SEAMLESS RECORDING

Automatically switches to a different media and continues recording when the remaining space on the current recording media runs out.

For example, when the remaining space on the SD card runs out during recording, the recording continues on the built-in memory without stopping.

Setting	Details
OFF	Does not switch recording media automatically.
ON	Switches recording media automatically.

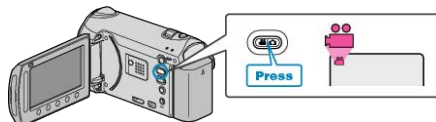
Memo:

- Seamless recording cannot be performed if there is not enough free space in the built-in memory or SD card.
- The seamless recording setting switches to "OFF" automatically after seamless recording is complete.
- To start seamless recording again after the previous session is complete, it is necessary to combine seamless videos, or delete the combination information of the seamless videos.

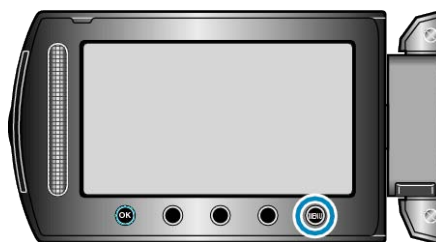
"Combining Videos Recorded by Seamless Recording" (P.69)

Displaying the Item

1 Select video mode.



2 Touch **OK** to display the menu.



3 Select "SEAMLESS RECORDING" and touch **OK**.



SHUTTER MODE

Continuous shooting settings can be adjusted.

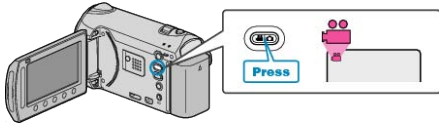
Setting	Details
RECORD ONE SHOT	Records one still image.
CONTINUOUS SHOOTING	Records still images continuously while the SNAPSHOT button is pressed.

Memo:

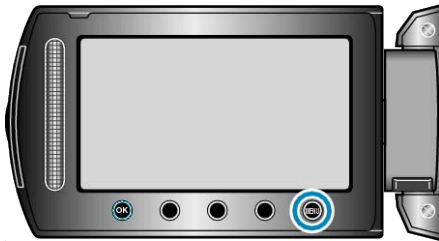
- You can change the continuous shooting speed with CONT. SHOOTING SPEED in the basic settings menu.
- "CONT. SHOOTING SPEED" (P.127)
- Performing continuous shooting while video recording is in progress switches the mode to "LOW SPEED" temporarily.
- The size of the still image that is captured in the video mode is 3200 x 1800.
- Some SD cards may not support continuous shooting.
- The continuous shooting speed will drop if this function is used repeatedly.

Displaying the Item

- 1 Select video mode.



- 2 Touch to display the menu.



- 3 Select "SHUTTER MODE" and touch .



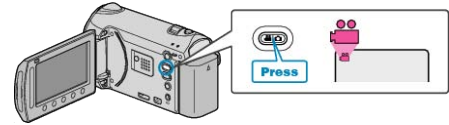
x.v.Color

Records with "x.v.Color".

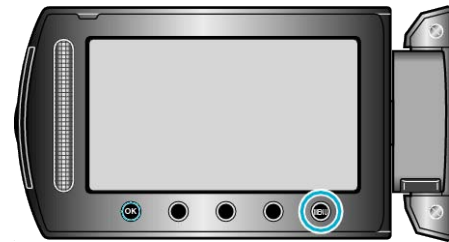
Setting	Details
OFF	Deactivates the function.
ON	Activates the function.

Displaying the Item

- 1 Select video mode.



- 2 Touch to display the menu.



- 3 Select "x.v.Color" and touch .



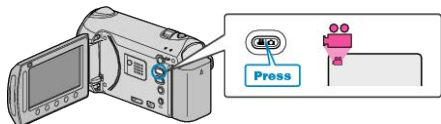
WIND CUT


Reduces the noise caused by wind.

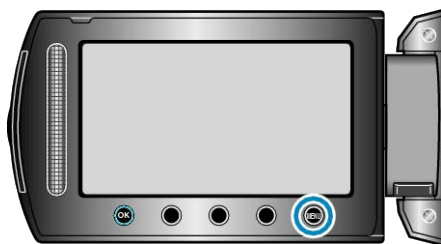
Setting	Details
OFF	Deactivates the function.
ON	Activates the function.

Displaying the Item

1 Select video mode.



2 Touch  to display the menu.



3 Select "WIND CUT" and touch .



Recording Menu (Still Image)

You can adjust various settings, such as brightness and white balance, to suit the subject or purpose. You can also change settings such as picture quality and gain.

Setting	Details
MANUAL SETTING	Recording settings can be adjusted manually. <ul style="list-style-type: none"> They are displayed only when recording in the manual mode. "Manual Recording" (P.32)
FACE PRIORITY AE/AF	Detects faces and adjusts the brightness and focus automatically. "Capturing Human Subjects Clearly (Face Detection AE/AF)" (P.38)
FLASH	For setting the flash. "FLASH" (P.115)
SELF-TIMER	Use this when taking a group photo. "Taking Group Shots (Self-timer)" (P.39)
SHUTTER MODE	Continuous shooting settings can be adjusted. "SHUTTER MODE" (P.115)
IMAGE SIZE	Sets the image size (number of pixels) for still images. "IMAGE SIZE" (P.116)
IMAGE QUALITY	Sets the image quality. "IMAGE QUALITY" (P.116)
GAIN UP	Makes the subject appear bright automatically when recording in dark places. "GAIN UP" (P.117)
AUTO REC	Enables the unit to record still images automatically by sensing the changes in brightness within the red frame displayed on the LCD monitor. "Recording Automatically by Sensing Movements (AUTO REC)" (P.46)

FACE PRIORITY AE/AF

Detects faces and adjusts the brightness and focus automatically.
 Operating Details
 "Capturing Human Subjects Clearly (Face Detection AE/AF)" (P.38)

FLASH

For setting the flash.

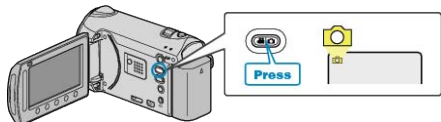
Setting	Details
OFF	Flash does not fire.
AUTO	Flash fires automatically when the surrounding is dark.
AUTO RED-EYE	Fires a pre-flash to reduce red-eye effects.
ON	Fires flash at all times.
SLOW SYNCHRO	Fires flash at all times, and slows down the shutter speed to capture both the subject and background brightly.

Memo:

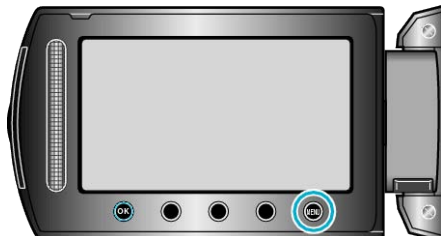
- The flash icon displayed on the screen blinks while the flash is charging.
- The flash does not fire when "SHUTTER MODE" or "NIGHT EYE", "NIGHT", or SNOW in "SCENE SELECT" are set.

Displaying the Item

1 Select still image mode.



2 Touch to display the menu.



3 Select "FLASH" and touch .



SELF-TIMER

Use this when taking a group photo.
 "Taking Group Shots (Self-timer)" (P.39)

SHUTTER MODE

Continuous shooting settings can be adjusted.

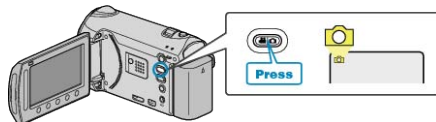
Setting	Details
RECORD ONE SHOT	Records one still image.
CONTINUOUS SHOOTING	Records still images continuously while the SNAPSHOT button is pressed.

Memo:

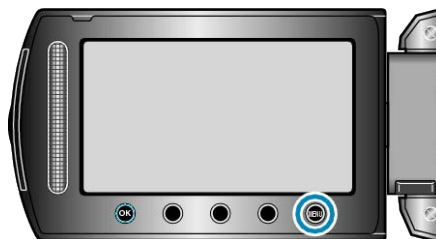
- You can change the continuous shooting speed with CONT. SHOOTING SPEED in the basic settings menu.
- "CONT. SHOOTING SPEED" (P.127)
- Some SD cards may not support continuous shooting.
- The continuous shooting speed will drop if this function is used repeatedly.

Displaying the Item

1 Select still image mode.



2 Touch to display the menu.



3 Select "SHUTTER MODE" and touch .



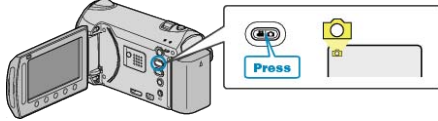
IMAGE SIZE

Sets the image size (number of pixels) for still images.

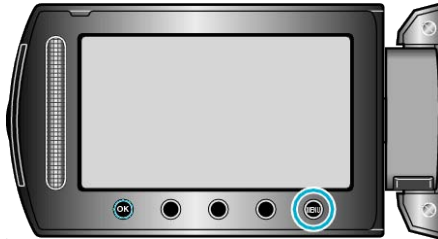
Setting	Details
3520X2640(9.3M) 3072X2304(7M) 2592X1944(5M) 1600X1200(1.9M) 640X480(0.3M)	Takes still images with aspect ratio 4:3.
3520X1984(7M) 3072X1728(5.3M) 2592X1456(3.8M) 1920X1080(2M) 1280X720(0.9M)	Takes still images with aspect ratio 16:9. <ul style="list-style-type: none"> The sides of still images recorded in 16:9 aspect ratio may be cut off when printed.

Displaying the Item

1 Select still image mode.



2 Touch \odot to display the menu.



3 Select "IMAGE SIZE" and touch \odot .



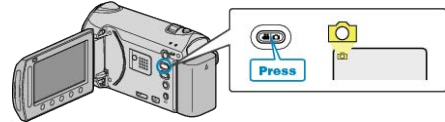
IMAGE QUALITY

Sets the image quality.

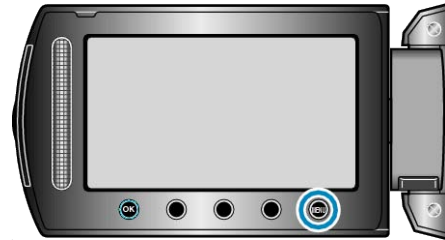
Setting	Details
FINE	Enables recording in high picture quality, but number of recordable images becomes lesser.
STANDARD	Enables recording in standard quality.

Displaying the Item

1 Select still image mode.



2 Touch \odot to display the menu.



3 Select "IMAGE QUALITY" and touch \odot .



GAIN UP

Makes the subject appear bright automatically when recording in dark places.

Setting	Details
OFF	Deactivates the function.
AGC	Electrically brightens the scene when it is dark.

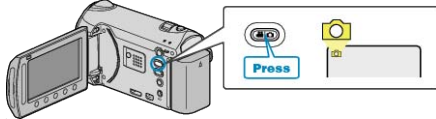
Memo:

- Setting can be adjusted separately for videos.

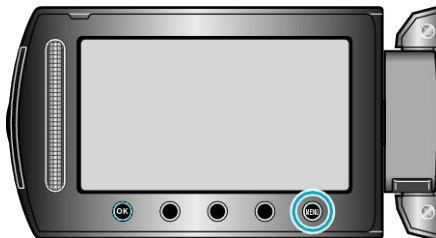
"GAIN UP(Video)" (P.110)

Displaying the Item

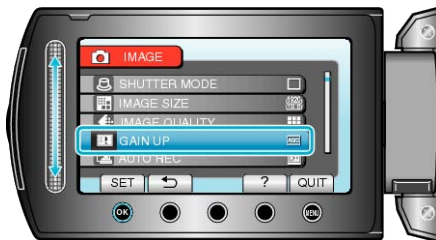
- 1 Select still image mode.



- 2 Touch \odot to display the menu.



- 3 Select "GAIN UP" and touch \odot .



AUTO REC

Records automatically by sensing the changes in brightness.

Operating Details

"Recording Automatically by Sensing Movements (AUTO REC)" (P.46)

Manual Settings Menu

Recording settings can be adjusted manually.

Memo:

- They are displayed only when recording in the manual mode.

Setting	Details
SCENE SELECT	Settings to suit the shooting condition can be selected. "Scene Selection" (P.33)
FOCUS	Focus can be adjusted manually. "Adjusting Focus Manually" (P.34)
FOCUS ASSIST	Focused subject is outlined in color for more precise focus. "Using Focus Assist" (P.34)
BRIGHTNESS ADJUST	Adjusts the overall brightness of the screen. "Adjusting Brightness" (P.35)
SHUTTER SPEED	Shutter speed can be adjusted. "Setting Shutter Speed" (P.35)
WHITE BALANCE	Adjusts the color according to the light source. "Setting White Balance" (P.36)
BACKLIGHT COMP.	Corrects the image when the subject appears dark due to backlight. "Setting Backlight Compensation" (P.36)
METERING AREA/ TYPE	Enables you to adjust the brightness in the desired area. "Setting Metering Area" (P.37)
EFFECT	Records videos or still images with special effects such as sepia or black and white. "Recording with Effects" (P.37)
TELE MACRO	Enables close-up shots when using the telephoto (T) end of the zoom. "Taking Close-up Shots" (P.38)

SCENE SELECT

Settings to suit the shooting condition can be selected.

Operating Details

"Scene Selection" (P.33)

FOCUS

Focus can be adjusted automatically or manually.

Operating Details

"Adjusting Focus Manually" (P.34)

FOCUS ASSIST

Focused subject is outlined in color for more precise focus.

Operating Details

"Using Focus Assist" (P.34)

BRIGHTNESS ADJUST

Adjusts the overall brightness of the screen.

Operating Details

"Adjusting Brightness" (P.35)

SHUTTER SPEED

Shutter speed can be adjusted.

Operating Details

"Setting Shutter Speed" (P.35)

WHITE BALANCE

Adjusts the color according to the light source.

Operating Details

"Setting White Balance" (P.36)

BACKLIGHT COMP.

Corrects the image when the subject appears dark due to backlight.

Operating Details

"Setting Backlight Compensation" (P.36)

METERING AREA/TYPE

Enables you to adjust the brightness in the desired area.

Operating Details

"Setting Metering Area" (P.37)

EFFECT

Records videos or still images with special effects such as sepia or black and white.

Operating Details

"Recording with Effects" (P.37)

TELE MACRO

Enables close-up shots when using the telephoto (T) end of the zoom.

Operating Details

"Taking Close-up Shots" (P.38)

Playback Menu (Video)

You can delete or look for specific videos.

Setting	Details
DELETE	Deletes unwanted videos. "Deleting the Currently Displayed File" (P.61) "Deleting Selected Files" (P.61) "Deleting All Files" (P.62)
PICTURE TITLE	Create a playlist simply by selecting a recording date and a title screen from the list. "Creating a Playlist with Title" (P.81)
SEARCH	Refines the index screen of videos according to group, recording date, or event. "Group Search" (P.54) "Date Search" (P.55) "Event and Date Search" (P.55)
PLAYBACK PLAYLIST	Play back the playlists that you have created. "Playing Back Playlists" (P.58)
EDIT PLAYLIST	Creates or edits a playlist. "Creating Playlists with Selected Files" (P.75) "Creating Playlists by Group" (P.76) "Creating Playlists by Date" (P.77) "Creating Playlists by Event" (P.78) "Editing Playlists" (P.79) "Deleting Playlists" (P.80) "Adding Title Screens to Playlists" (P.81)
PLAYBACK OTHER FILE	Plays videos with defective management information. "Playing a Video with Defective Management Information" (P.50)
EDIT	<ul style="list-style-type: none"> • COPY Copies files to another media. "Copying All Files" (P.82) "Copying Selected Files" (P.83) • MOVE Moves files to another media. "Moving All Files" (P.84) "Moving Selected Files" (P.85) • PROTECT/CANCEL Protects files from being deleted accidentally. "Protecting the Currently Displayed File" (P.63) "Protecting Selected Files" (P.63) "Protecting All Files" (P.64) "Releasing Protection of All Files" (P.65) • DIVIDE "Dividing Files" (P.68) • TRIMMING Select the required part of a video and save it as a new video file. "Capturing a Required Part in the Video" (P.70) • CHANGE EVENT REG. Changes the event that is registered. "Changing the Event of the Currently Displayed File" (P.65) "Changing the Event of the Selected Files" (P.66)
SEAMLESS REC CTRL	Videos that are recorded on two separate media and with "SEAMLESS RECORDING" in the video recording menu enabled can be combined into a single video. "Combining Videos Recorded by Seamless Recording" (P.69)
WIPE/FADER	Adds effects at the beginning and end of recorded videos. "Playback with Special Effects" (P.51)
ON-SCREEN DISPLAY	Sets whether to show on-screen displays such as icons during playback. "ON-SCREEN DISPLAY" (P.121)

DELETE

Deletes unwanted videos.

Operating Details

"Deleting the Currently Displayed File" (P.61)

"Deleting Selected Files" (P.61)

"Deleting All Files" (P.62)

PICTURE TITLE

Create a playlist simply by selecting a recording date and a title screen from the list.

Operating Details

"Creating a Playlist with Title" (P.81)

SEARCH

Refines the index screen of videos according to group, recording date, or event.

Operating Details

"Group Search" (P.54)

"Date Search" (P.55)

"Event and Date Search" (P.55)

PLAYBACK PLAYLIST

Play back the playlists that you have created.

Operating Details

"Playing Back Playlists" (P.58)

EDIT PLAYLIST

A list in which your favorite videos are arranged is called a playlist.

By creating a playlist, you can play back only your favorite videos in the order you like.

The original video file remains even when it is registered to a playlist.

Operating Details

"Creating Playlists with Selected Files" (P.75)

"Creating Playlists by Group" (P.76)

"Creating Playlists by Date" (P.77)

"Creating Playlists by Event" (P.78)

"Editing Playlists" (P.79)

"Deleting Playlists" (P.80)

"Adding Title Screens to Playlists" (P.81)

PLAYBACK OTHER FILE

Plays videos with defective management information.

Operating Details

"Playing a Video with Defective Management Information" (P.50)

EDIT

You can perform operations such as copying or protecting videos.

Setting	Details
COPY	Copies files to another media. "Copying All Files" (P.82) "Copying Selected Files" (P.83)
MOVE	Moves files to another media. "Moving All Files" (P.84) "Moving Selected Files" (P.85)
PROTECT/CANCEL	Protects files from being deleted accidentally. "Protecting the Currently Displayed File" (P.63) "Protecting Selected Files" (P.63) "Protecting All Files" (P.64) "Releasing Protection of All Files" (P.65)
DIVIDE	Divides a selected video into two. "Dividing Files" (P.68)
TRIMMING	Select the required part of a video and save it as a new video file. "Capturing a Required Part in the Video" (P.70)
CHANGE EVENT REG.	Changes the event that is registered. "Changing the Event of the Currently Displayed File" (P.65) "Changing the Event of the Selected Files" (P.66)

COPY

Copies files to another media.

Operating Details

"Copying All Files" (P.82)

"Copying Selected Files" (P.83)

MOVE

Moves files to another media.

Operating Details

"Moving All Files" (P.84)

"Moving Selected Files" (P.85)

PROTECT/CANCEL

Protects files from being deleted accidentally.

Operating Details

"Protecting the Currently Displayed File" (P.63)

"Protecting Selected Files" (P.63)

"Protecting All Files" (P.64)

"Releasing Protection of All Files" (P.65)

DIVIDE

Divides a selected video into two.

Operating Details

"Dividing Files" (P.68)

TRIMMING

Select the required part of a video and save it as a new video file.

Operating Details

"Capturing a Required Part in the Video" (P.70)

CHANGE EVENT REG.

Changes the event that is registered.

Operating Details

"Changing the Event of the Currently Displayed File" (P.65)

"Changing the Event of the Selected Files" (P.66)

SEAMLESS RECORDING

Videos that are recorded on two separate media and with “SEAMLESS RECORDING” in the video recording menu enabled can be combined into a single video.

Operating Details

“Combining Videos Recorded by Seamless Recording” (P.69)

WIPE/FADER

Adds effects at the beginning and end of recorded videos.

Operating Details

“Playback with Special Effects” (P.51)

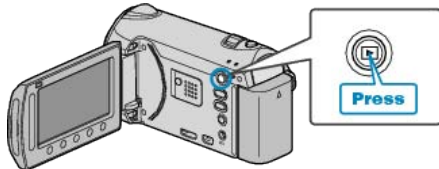
ON-SCREEN DISPLAY

Sets whether to show on-screen displays such as icons during playback.

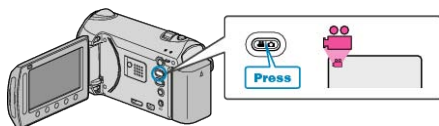
Setting	Details
OFF	No display at all.
DISPLAY ALL	Displays everything.
DISPLAY DATE ONLY	Displays the date only.

Displaying the Item

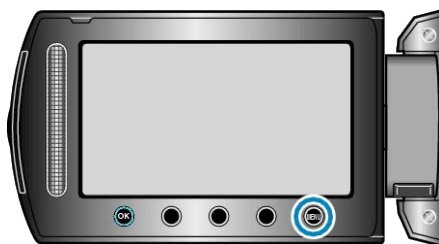
- 1 Select the playback mode.



- 2 Select video mode.



- 3 Touch \odot to display the menu.



- 4 Select “ON-SCREEN DISPLAY” and touch \odot .



Playback Menu (Still Image)

You can delete or look for specific still images.

Setting	Details
DELETE	Deletes unwanted still images. "Deleting the Currently Displayed File" (P.61) "Deleting Selected Files" (P.61) "Deleting All Files" (P.62)
SEARCH DATE	You can search and play videos or still images according to recording dates. "Date Search" (P.55)
EDIT	<ul style="list-style-type: none"> COPY Copies files to another media. "Copying All Files" (P.82) "Copying Selected Files" (P.83) MOVE Moves files to another media. "Moving All Files" (P.84) "Moving Selected Files" (P.85) PROTECT/CANCEL Protects files from being deleted accidentally. "Protecting the Currently Displayed File" (P.63) "Protecting Selected Files" (P.63) "Protecting All Files" (P.64) "Releasing Protection of All Files" (P.65)
SLIDE SHOW EFFECTS	Effects can be added to the transitions in slideshow playback. "Slideshow Playback" (P.53)
ON-SCREEN DISPLAY	Sets whether to show on-screen displays such as icons during playback. "ON-SCREEN DISPLAY" (P.123)
STILL IMAGE TRANSFER	When Bluetooth connection is established with a BIP/OPP-compliant device, you can transfer recorded still image data to this device. "Transferring Still Images to Bluetooth-compliant Devices" (P.22)

DELETE

Deletes unwanted still images.

Operating Details

"Deleting the Currently Displayed File" (P.61)

"Deleting Selected Files" (P.61)

"Deleting All Files" (P.62)

SEARCH DATE

You can search and play videos or still images according to recording dates.

Operating Details

"Date Search" (P.55)

EDIT

You can perform operations such as copying or protecting still images.

Setting	Details
COPY	Copies files to another media. "Copying All Files" (P.82) "Copying Selected Files" (P.83)
MOVE	Moves files to another media. "Moving All Files" (P.84) "Moving Selected Files" (P.85)
PROTECT/CANCEL	Protects files from being deleted accidentally. "Protecting the Currently Displayed File" (P.63) "Protecting Selected Files" (P.63) "Protecting All Files" (P.64) "Releasing Protection of All Files" (P.65)

COPY

Copies files to another media.

Operating Details

"Copying All Files" (P.82)

"Copying Selected Files" (P.83)

MOVE

Moves files to another media.

Operating Details

"Moving All Files" (P.84)

"Moving Selected Files" (P.85)

PROTECT/CANCEL

Protects files from being deleted accidentally.

Operating Details

"Protecting the Currently Displayed File" (P.63)

"Protecting Selected Files" (P.63)

"Protecting All Files" (P.64)

"Releasing Protection of All Files" (P.65)

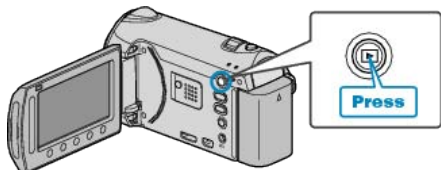
SLIDE SHOW EFFECTS

Effects can be added to the transitions in slideshow playback.

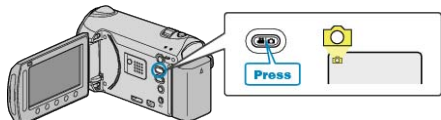
Setting	Details
SLIDE	Switches the screen by sliding in from right to left.
BLINDS	Switches the screen by dividing into vertical strips.
CHECKERBOARD	Switches the screen by changing through a checkered pattern.
RANDOM	Switches the screen with a random effect from "SLIDE", "BLINDS", and "CHECKERBOARD".

Displaying the Item

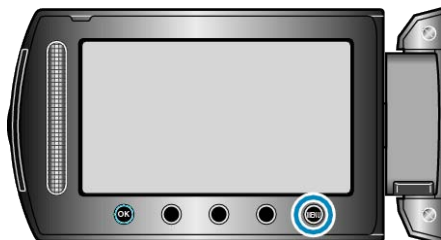
1 Select the playback mode.



2 Select still image mode.



3 Touch \odot to display the menu.



4 Select "SLIDE SHOW EFFECTS" and touch \odot .



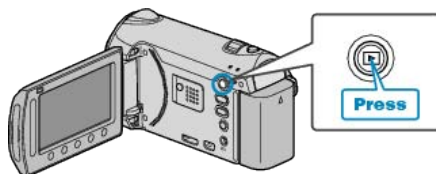
ON-SCREEN DISPLAY

Sets whether to show on-screen displays such as icons during playback.

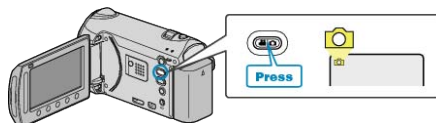
Setting	Details
OFF	No display at all.
DISPLAY ALL	Displays everything.
DISPLAY DATE ONLY	Displays the date only.

Displaying the Item

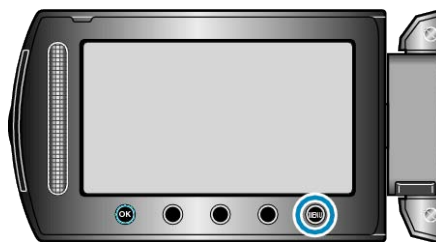
1 Select the playback mode.



2 Select still image mode.



3 Touch \odot to display the menu.



4 Select "ON-SCREEN DISPLAY" and touch \odot .



STILL IMAGE TRANSFER

When Bluetooth connection is established with a BIP/OPP-compliant device, you can transfer recorded still image data to this device.

Operating Details

"Transferring Still Images to Bluetooth-compliant Devices" (P.22)

Display Settings Menu

You can adjust various display settings such as the LCD monitor's brightness, etc.

Setting	Details
LANGUAGE	The language on the display can be changed. "Changing the Display Language" (P.15)
DATE DISPLAY STYLE	Sets the order of year, month, day and the time display format (24H/12H). "DATE DISPLAY STYLE" (P.124)
MONITOR BRIGHTNESS	Sets the brightness of the LCD monitor. "MONITOR BRIGHTNESS" (P.124)
LCD BACKLIGHT	Sets the brightness of the backlight of the monitor. "LCD BACKLIGHT" (P.125)
FOCUS ASSIST COLOR	Sets the color of the outline of a focused object when Focus Assist is used. "FOCUS ASSIST COLOR" (P.125)

LANGUAGE

The language on the display can be changed.
Operating Details
"Changing the Display Language" (P.15)

DATE DISPLAY STYLE

Sets the order of year, month, day and the time display format (24H/12H).

1 Touch to display the menu.



2 Select "DISPLAY SETTINGS" and touch .



3 Select "DATE DISPLAY STYLE" and touch .



4 Set the style of date and time display.

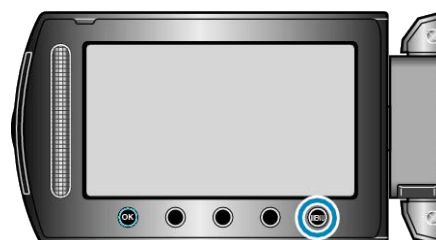


- For date display, set to any format from "month.day.year", "year.month.day", and "day.month.year".
- For time display, set to any format from "12h" and "24h".
- Touch the operation buttons "←" / "→" to move the cursor.
- After setting, touch .

MONITOR BRIGHTNESS

Sets the brightness of the LCD monitor.

1 Touch to display the menu.



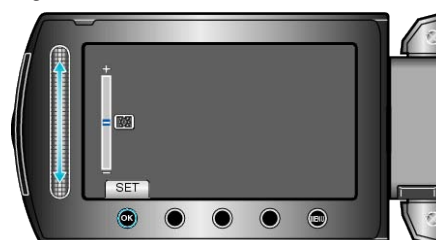
2 Select "DISPLAY SETTINGS" and touch .



3 Select "MONITOR BRIGHTNESS" and touch .



4 Adjust the brightness of the monitor.




- Slide upward to increase the brightness.
- Slide downward to decrease the brightness.
- After setting, touch .

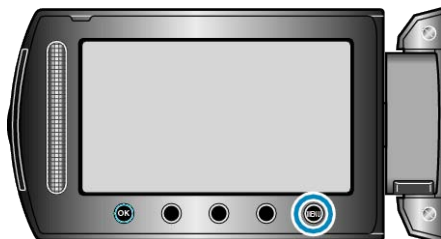
LCD BACKLIGHT

Sets the brightness of the backlight of the monitor.

Setting	Details
BRIGHTER	Brightens the backlight of the monitor regardless of the surrounding conditions.
STANDARD	Sets to the standard brightness. Helps to save battery life when selected.
AUTO	Sets the brightness automatically to "BRIGHTER" when using outdoors and to "STANDARD" when using indoors.

Displaying the Item

- 1 Touch  to display the menu.



- 2 Select "DISPLAY SETTINGS" and touch .



- 3 Select "LCD BACKLIGHT" and touch .




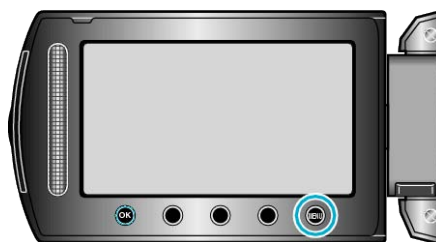
FOCUS ASSIST COLOR

Sets the color of the outline of a focused object when Focus Assist is used.

Setting	Details
RED	Outlines the focused object in red.
GREEN	Outlines the focused object in green.
BLUE	Outlines the focused object in blue.

Displaying the Item

- 1 Touch  to display the menu.



- 2 Select "DISPLAY SETTINGS" and touch .




- 3 Select "FOCUS ASSIST COLOR" and touch .




CLOCK ADJUST

Resets the current time or sets to the local time when using this unit overseas.

Operating Details

"Clock Setting" ( P.14)

"Setting the Clock to Local Time when Traveling" ( P.25)

"Setting Daylight Saving Time" ( P.25)

Basic Settings Menu

You can adjust various camera settings such as operation sound, etc.

Setting	Details
CONT. SHOOTING SPEED	For setting the shooting interval during continuous shooting. "CONT. SHOOTING SPEED" (P.127)
DEMO MODE	Introduces the special features of this unit in digest form. "DEMO MODE" (P.127)
AUTO POWER OFF	Prevents the situation of forgetting to turn off the power when this is set. "AUTO POWER OFF" (P.128)
OPERATION SOUND	Turns on or off the operation sound. "OPERATION SOUND" (P.128)
RECORD BUTTON	Displays the REC button on the LCD monitor and enables it to be used as the START/STOP button. "RECORD BUTTON" (P.129)
QUICK RESTART	Reduces the power consumption within 5 minutes after the LCD monitor is closed to 1/3 of that used during recording. "QUICK RESTART" (P.129)
REMOTE	Enables operation of this unit with the provided remote control. "REMOTE" (P.130)
AUTO FINALIZE	Sets the created discs to a readable state that can be played back on a DVD writer. "AUTO FINALIZE" (P.130)
UPDATE	Updates the functions of this unit to the latest version. "UPDATE" (P.131)
FACTORY PRESET	Returns all the settings to their default values. "FACTORY PRESET" (P.131)

CONT. SHOOTING SPEED

For setting the shooting interval during continuous shooting.

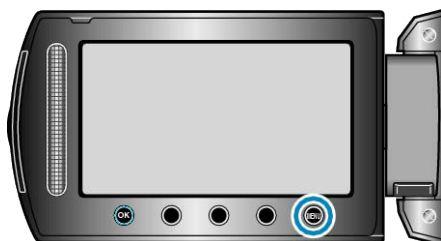
Setting	Details
HIGH SPEED	<ul style="list-style-type: none"> Shoots up to six still images continuously in the still image mode in about 0.4 second. Shoots up to 11 still images continuously in the video mode in about 0.4 second.
MEDIUM SPEED	<ul style="list-style-type: none"> Shoots up to six still images continuously in the still image mode in about 0.9 second. Shoots up to 11 still images continuously in the video mode in about 1.1 seconds.
LOW SPEED	Shoots continuously until the recording media is full.

Memo:

- Shooting speed slows down gradually as continuous shooting goes on in the "LOW SPEED" mode.
- Performing continuous shooting while video recording is in progress switches the mode to "LOW SPEED" temporarily.

Displaying the Item

- 1 Touch  to display the menu.



- 2 Select "BASIC SETTINGS" and touch .



- 3 Select CONT. SHOOTING SPEED and touch .




DEMO MODE

Starts playback of the demo mode which introduces the features of this unit.

Setting	Details
OFF	Deactivates the function.
ON	Plays a demonstration of the special features of this unit.


Displaying Demo Mode

- 1 Remove the battery pack and SD card.
- 2 Connect the AC adapter.
- 3 Open the LCD monitor and turn on the power.
 - Demonstration starts playing after 3 minutes.
 - To stop playback, touch .

Memo:

- This mode is not available in the playback mode.

Displaying the Item

- 1 Touch  to display the menu.



- 2 Select "BASIC SETTINGS" and touch .



- 3 Select "DEMO MODE" and touch .



AUTO POWER OFF

Prevents the situation of forgetting to turn off the power when this is set.

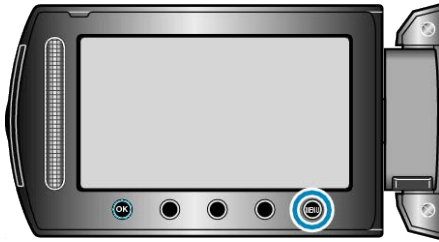
Setting	Details
OFF	Power is not turned off even if this unit is not operated for 5 minutes.
ON	Turns off the power automatically if this unit is not operated for 5 minutes.

Memo:

- When using battery, power is turned off automatically if this unit is not operated for 5 minutes.
- When using the AC adapter, this unit goes into standby mode.

Displaying the Item

- 1 Touch  to display the menu.



- 2 Select "BASIC SETTINGS" and touch .



- 3 Select "AUTO POWER OFF" and touch .




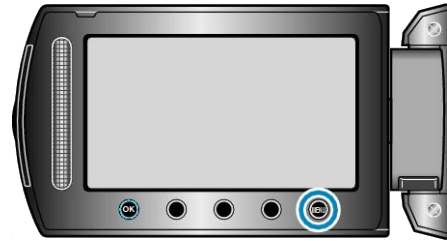
OPERATION SOUND

Turns on or off the operation sound.

Setting	Details
OFF	Turns off the operation sound.
ON	Turns on the operation sound.

Displaying the Item

- 1 Touch  to display the menu.



- 2 Select "BASIC SETTINGS" and touch .



- 3 Select "OPERATION SOUND" and touch .



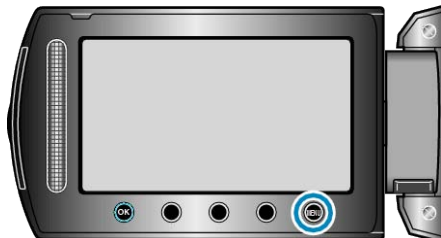
RECORD BUTTON

Displays the "REC" button on the LCD monitor and enables it to be used as the START/STOP button.

Setting	Details
OFF	No display.
ON	Displays the REC button on the LCD monitor.

Displaying the Item

1 Touch **MENU** to display the menu.



2 Select "BASIC SETTINGS" and touch **OK**.



3 Select "RECORD BUTTON" and touch **OK**.



QUICK RESTART

Enables recording to be performed immediately when the LCD monitor is opened.

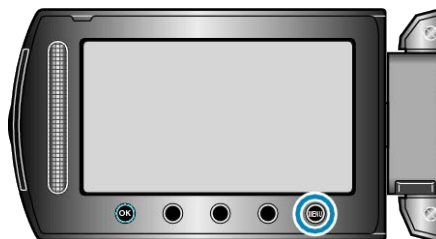
Setting	Details
OFF	Deactivates the function.
ON	Enables the power to turn on quickly when the LCD monitor is opened again within 5 minutes.

Memo:

- The power consumption within 5 minutes after the LCD monitor is closed is reduced to 1/3 of that used during recording.

Displaying the Item

1 Touch **MENU** to display the menu.



2 Select "BASIC SETTINGS" and touch **OK**.



3 Select "QUICK RESTART" and touch **OK**.



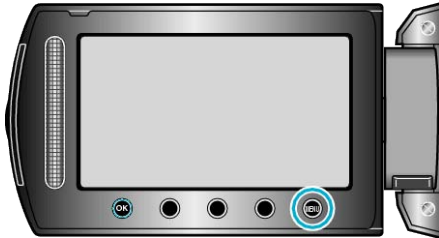
REMOTE

Enables operation of this unit with the provided remote control.

Setting	Details
OFF	Does not receive operation signals from the remote control.
ON	Receives operation signals from the remote control.

Displaying the Item

1 Touch **MENU** to display the menu.



2 Select "BASIC SETTINGS" and touch **OK**.



3 Select "REMOTE" and touch **OK**.



AUTO FINALIZE

Sets the created discs to a readable state that can be played back on a DVD writer.

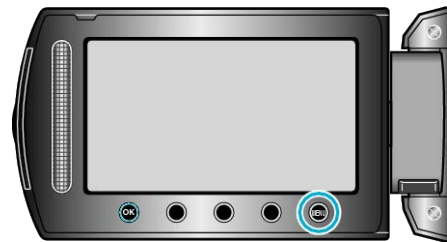
Setting	Details
OFF	Makes created discs recordable (not playable on devices other than this unit).
ON	Finalizes the created discs so that they can be played back on a DVD writer.

Memo:

- DVD-Video discs will automatically be finalized regardless of the setting.

Displaying the Item

1 Touch **MENU** to display the menu.



2 Select "BASIC SETTINGS" and touch **OK**.



3 Select "AUTO FINALIZE" and touch **OK**.



UPDATE


Updates the functions of this unit to the latest version.

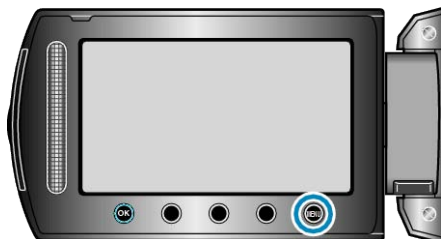
For details, refer to the JVC homepage.

(When no program to update the software of this unit is available, nothing will be provided on the homepage.)

FACTORY PRESET

Returns all the settings to their default values.

1 Touch  to display the menu.




2 Select "BASIC SETTINGS" and touch .



3 Select "FACTORY PRESET" and touch .



4 Select "YES" and touch .



- All settings return to their default values.

Connection Settings Menu

You can adjust various settings for connecting to a TV or DVD recorder.

Setting	Details
Bluetooth	By registering (pairing) devices that support Bluetooth, such as headsets or smartphones, to this unit, wireless connection can be established within a range of about 10 m. "Registering a Bluetooth-compliant Device" (P.19) "Connecting to a Registered Device" (P.21)
Bluetooth MIC AUDIO	For specifying the audio recording settings when a Bluetooth-compliant headset is connected. "Bluetooth MIC AUDIO" (P.133)
DISPLAY ON TV	Displays icons and date/time on a TV screen. "DISPLAY ON TV" (P.133)
VIDEO OUTPUT	Sets the aspect ratio (16:9 or 4:3) according to the connecting TV. "VIDEO OUTPUT" (P.134)
COMPONENT OUTPUT	Sets the definition of the video output from the COMPONENT connector. "COMPONENT OUTPUT" (P.134)
HDMI OUTPUT	Sets the definition of the video output from the HDMI mini connector. "HDMI OUTPUT" (P.135)
HDMI CONTROL	Sets the linked operations ON/OFF when the TV and this unit are connected using the HDMI mini connector. "HDMI CONTROL" (P.135)

Bluetooth

By registering (pairing) devices that support Bluetooth, such as headsets or smartphones, to this unit, wireless connection can be established within a range of about 10 m.

Operating Details

"Registering a Bluetooth-compliant Device" (P.19)

"Connecting to a Registered Device" (P.21)

Bluetooth MIC AUDIO

For specifying the audio recording settings when a Bluetooth-compliant headset is connected.

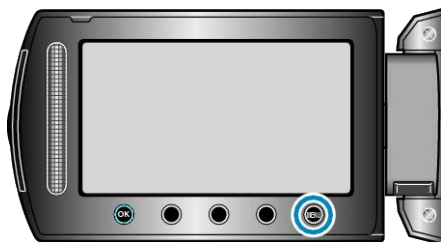
Setting	Details
OFF	Records only the audio sound from the built-in microphone of this unit.
ON	Records mixed audio sounds from both the microphone of the headset connected via Bluetooth and the built-in microphone of this unit.

CAUTION:

- Echoes may be heard when the microphone of the headset is set to "ON".

Displaying the Item

1 Touch to display the menu.



2 Select "CONNECTION SETTINGS" and touch .



3 Select Bluetooth MIC AUDIO and touch .



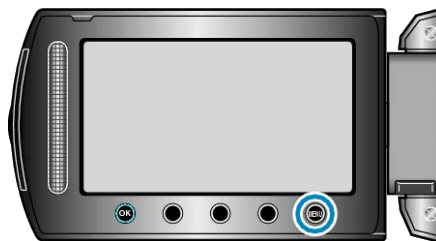
DISPLAY ON TV

Displays icons and date/time on a TV screen.

Setting	Details
OFF	Does not display icons and date/time on TV.
ON	Displays icons and date/time on TV.

Displaying the Item

1 Touch to display the menu.



2 Select "CONNECTION SETTINGS" and touch .



3 Select "DISPLAY ON TV" and touch .



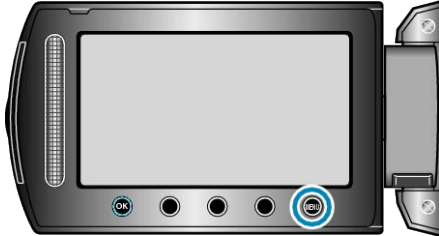
VIDEO OUTPUT

Sets the aspect ratio (16:9 or 4:3) according to the connecting TV.

Setting	Details
16:9	Select this when connecting to a widescreen TV (16:9).
4:3	Select this when connecting to a conventional TV (4:3).

Displaying the Item

1 Touch **MENU** to display the menu.



2 Select "CONNECTION SETTINGS" and touch **OK**.



3 Select "VIDEO OUTPUT" and touch **OK**.



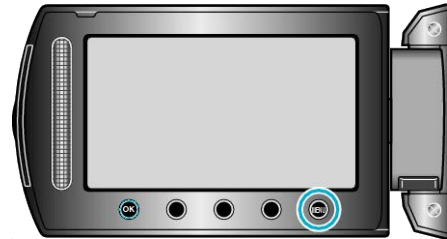
COMPONENT OUTPUT

Sets the definition of the video output from the COMPONENT connector.

Setting	Details
480i	Outputs at 480i.
1080i	Outputs at 1080i.

Displaying the Item

1 Touch **MENU** to display the menu.



2 Select "CONNECTION SETTINGS" and touch **OK**.



3 Select "COMPONENT OUTPUT" and touch **OK**.



HDMI OUTPUT


Sets the definition of the video output from the HDMI mini connector.

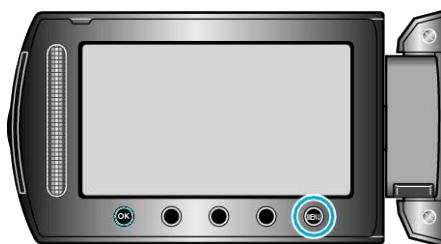
Setting	Details
AUTO 1	It is recommended to select "AUTO 1" usually.
AUTO 2	Select this when the video is not output in "AUTO 1" correctly.
480p	Select this when the video is not output in "AUTO 2" correctly.

Memo:

- "1080P" will be displayed on the LCD monitor if a 1080p compatible TV is connected to this unit in playback mode.

Displaying the Item

- 1 Touch  to display the menu.



- 2 Select "CONNECTION SETTINGS" and touch .



- 3 Select "HDMI OUTPUT" and touch .




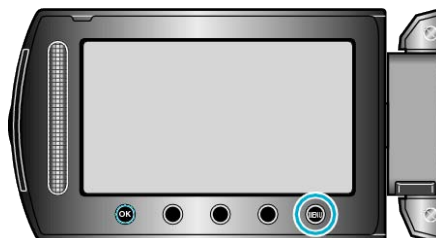
HDMI CONTROL

Sets the linked operations ON/OFF when the TV and this unit are connected using the HDMI mini connector.

Setting	Details
OFF	Turns off linked operations.
ON	Turns on linked operations.

Displaying the Item

- 1 Touch  to display the menu.



- 2 Select "CONNECTION SETTINGS" and touch .



- 3 Select "HDMI CONTROL" and touch .



Media Settings Menu

You can perform various settings for the recording media.

Setting	Details
REC MEDIA FOR VIDEO	Sets the recording/playback media of videos. "REC MEDIA FOR VIDEO" (P.136)
REC MEDIA FOR IMAGE	Sets the recording/playback media of still images. "REC MEDIA FOR IMAGE" (P.136)
FORMAT BUILT-IN MEM.	Deletes all files on the built-in memory. "FORMAT BUILT-IN MEM." (P.137)
FORMAT SD CARD	Deletes all files on the SD card. "FORMAT SD CARD" (P.137)
ERASE ALL DATA	Execute this process when disposing of this unit or passing it to another person. "ERASE ALL DATA" (P.138)

REC MEDIA FOR VIDEO

Sets the recording/playback media of videos.

Setting	Details
BUILT-IN MEMORY	Records videos to the camcorder's built-in memory.
SD CARD	Records videos to the SD card.

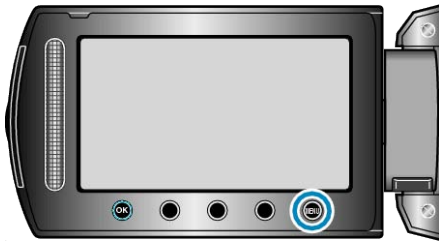
REC MEDIA FOR IMAGE

Sets the recording/playback media of still images.

Setting	Details
BUILT-IN MEMORY	Records still images to the camcorder's built-in memory.
SD CARD	Records still images to the SD card.

Displaying the Item

1 Touch **MENU** to display the menu.



2 Select "MEDIA SETTINGS" and touch **OK**.

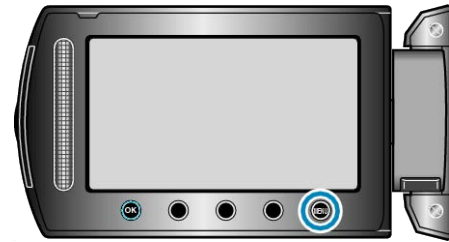


3 Select "REC MEDIA FOR VIDEO", and touch **OK**.



Displaying the Item

1 Touch **MENU** to display the menu.



2 Select "MEDIA SETTINGS" and touch **OK**.



3 Select "REC MEDIA FOR IMAGE" and touch **OK**.



FORMAT BUILT-IN MEM.

Deletes all files on the built-in memory.

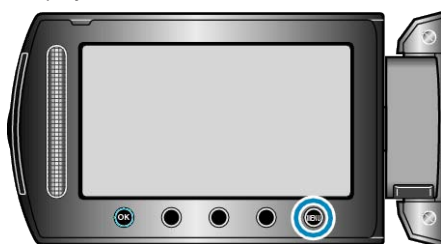
Setting	Details
FILE	Deletes all files on the built-in memory.
FILE + MANAGEMENT NO	Deletes all files on the internal memory and resets the folder and file numbers to "1".

CAUTION:

- All data on the built-in memory will be deleted when it is formatted. Copy all files on the built-in memory to a PC before formatting.
- Make sure that the battery pack is fully charged or connect the AC adapter as the formatting process may take some time.

Displaying the Item

- 1 Touch **MENU** to display the menu.



- 2 Select "MEDIA SETTINGS" and touch **OK**.



- 3 Select "FORMAT BUILT-IN MEM." and touch **OK**.

**FORMAT SD CARD**

Deletes all files on the SD card.

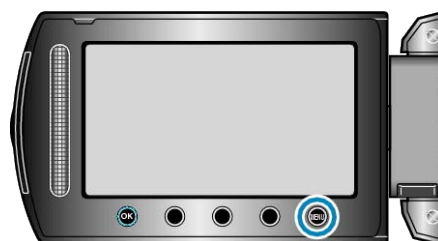
Setting	Details
FILE	Deletes all files on the SD card.
FILE + MANAGEMENT NO	Deletes all files on the SD card and resets the folder and file numbers to "1".

CAUTION:

- Not available for selection when no SD card is inserted.
- All data on the card will be deleted when it is formatted. Copy all files on the card to a PC before formatting.
- Make sure that the battery pack is fully charged or connect the AC adapter as the formatting process may take some time.

Displaying the Item

- 1 Touch **MENU** to display the menu.



- 2 Select "MEDIA SETTINGS" and touch **OK**.



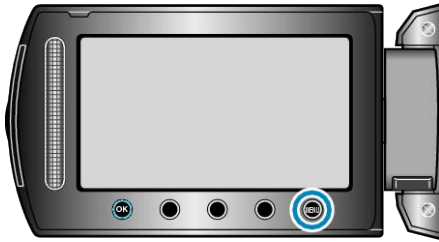
- 3 Select "FORMAT SD CARD" and touch **OK**.



ERASE ALL DATA

Execute this process when disposing of this unit or passing it to another person.

1 Touch  to display the menu.




2 Select "MEDIA SETTINGS" and touch .




3 Select "ERASE ALL DATA" and touch .



4 Select "YES" and touch .



- After deleting the data, touch .

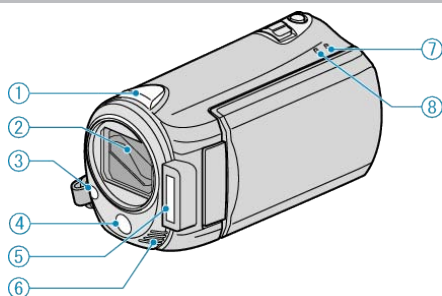
CAUTION:

- Connect the AC adapter as it may take some time to delete data.

Memo:

- Repeat the process to make data restoration even more difficult.
-

Front

**1** Bluetooth Antenna

"Using Bluetooth-compliant Devices" (P.18)

2 Lens/Lens Cover

- Do not touch the lens and lens cover.
- Do not cover the lens with your fingers during video recording.

3 Light

- Turn on the light when shooting in dark places.

"LIGHT" (P.109)

4 Remote Sensor

- Do not cover the sensor with your fingers when using the remote control.

"Using the Remote Control" (P.17)

5 Flash

"FLASH" (P.115)

6 Stereo Microphone

- Do not cover the microphone with your fingers during video recording.

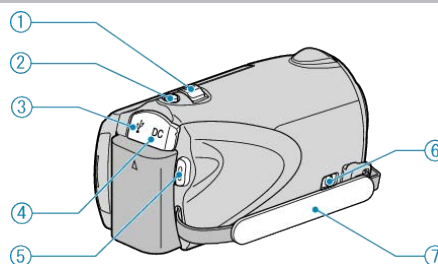
7 POWER/CHARGE Lamp

- Lights up: Power "ON"
- Blinks: Charging in progress
- Goes out: Charging finished

8 ACCESS Lamp

- Recording or playback is in progress when the lamp lights up or blinks. Do not remove the battery pack, AC adapter, or SD card.

Rear

**1** Zoom/Volume Lever

- During shooting: Adjusts the shooting range.
- During playback (index screen): Changes the number of images to display.
- During video playback: Adjusts the volume.

2 SNAPSHOT (Still image recording) Button

- Takes a still image.

3 USB Terminal

- Connects to PC using a USB cable.

4 DC Terminal

- Connects to an AC adapter to charge the battery.

5 START/STOP (Video recording) Button

- Starts/stops video recording.

6 Grip Belt Release Lever

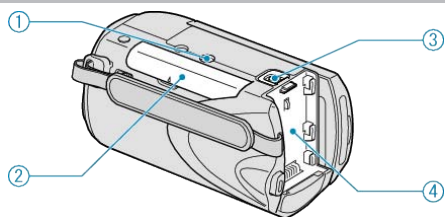
- Allows the grip belt to be removed and used as a hand strap.

7 Grip Belt

- Pass your hand through the grip belt to hold this unit firmly.

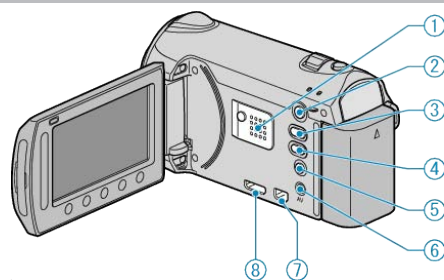
"Grip Adjustment" (P.13)

Bottom



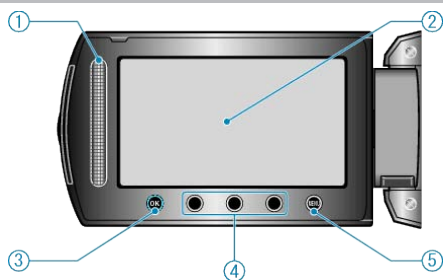
- 1** Tripod Mounting Hole
 "Tripod Mounting" (P.16)
- 2** SD Card Slot
- Insert an optional SD card.
- "Inserting an SD Card" (P.13)
- 3** Battery Release Lever
 "Charging the Battery Pack" (P.12)
- 4** Battery Mount

Interior



- 1** Speaker
- Outputs audio sound during video playback.
- 2** (Play) Button
- Switches between the recording and playback modes.
- 3** (Video/Still Image) Button
- Switches between video and still image.
- 4** UPLOAD/EXPORT (Upload/Export to iTunes) Button
- Recording: Takes videos in YouTube or iTunes format.
 - Playback: Changes the video to YouTube or iTunes format.
- 5** (Power/Info) Button
- Recording: Displays the remaining time (for video only) and battery power.
 - Playback: Displays file information such as recording date.
 - Press and hold to turn the power on/off while the LCD monitor is opened.
- 6** AV Terminal
- Connects to a TV.
- 7** COMPONENT Terminal
- Connects to a TV.
- 8** HDMI Terminal
- Connects to an HDMI TV.

LCD Monitor

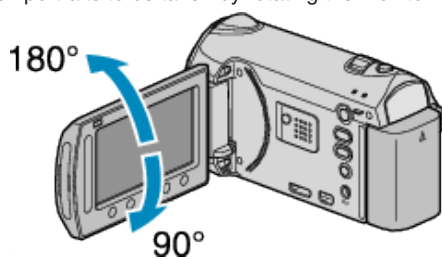


1 Slider LASER TOUCH OPERATION

- Selects items or images from the menu or index screen.
"Using the Operation Buttons" (P.16)

2 LCD Monitor

- Turns the power on/off by opening and closing.
- Enables self-portraits to be taken by rotating the monitor.



3 OK Button

- Confirms the selected item or image.

4 Operation Buttons

- Functions of the operation buttons may be displayed.

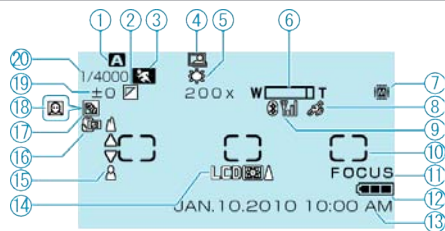
5 MENU Button

- Displays the settings menu.

CAUTION:

- Do not press against the surface with force or subject it to strong impact.
Doing so may damage or break the screen.

Common Recording Indications



1 Recording Mode

"Taking Videos in Auto Mode" (P.27)

"Manual Recording" (P.32)

2 Effect

"Recording with Effects" (P.37)

3 Scene Select

"Scene Selection" (P.33)

4 Auto REC

"Recording Automatically by Sensing Movements (AUTO REC)" (P.46)

5 White Balance

"Setting White Balance" (P.36)

6 Zoom

"ZOOM" (P.110)

7 Media

"REC MEDIA FOR VIDEO" (P.136)

"REC MEDIA FOR IMAGE" (P.136)

8 GPS Communication Status

"Connecting to a Registered Device" (P.21)

9 Radio Reception Status

"Connecting to a Registered Device" (P.21)

10 Metering Area "SPOT"

"Setting Metering Area" (P.37)

11 Focus Assist

"Using Focus Assist" (P.34)

12 Battery Indicator

"Remaining Recording Time/Battery Power" (P.47)

13 Date/Time

"Clock Setting" (P.14)

14 Monitor Backlight

"LCD BACKLIGHT" (P.125)

15 Focus

"Adjusting Focus Manually" (P.34)

16 Tele Macro

"Taking Close-up Shots" (P.38)

17 Backlight Compensation

"Setting Backlight Compensation" (P.36)

18 Face Priority AE/AF

"Capturing Human Subjects Clearly (Face Detection AE/AF)" (P.38)

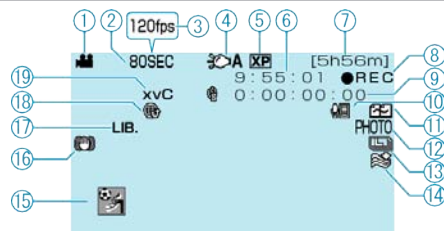
19 Brightness

"Adjusting Brightness" (P.35)

20 Shutter Speed

"Setting Shutter Speed" (P.35)

Video Recording



1 Video Mode

"Video/Still Image Button" (P.140)

2 Time-Lapse Recording

"Recording at Intervals (TIME-LAPSE RECORDING)" (P.44)

3 High-Speed Recording

"Slow-motion (High-speed) Recording" (P.43)

4 Light

"LIGHT" (P.109)

5 Video Quality

"VIDEO QUALITY" (P.109)

6 Scene Counter

7 Remaining Recording Time

8 Recording in Progress

"Taking Videos in Auto Mode" (P.27)

9 Time-Lapse Recording Counter

"Recording at Intervals (TIME-LAPSE RECORDING)" (P.44)

10 Bluetooth Microphone Volume

"Bluetooth MIC AUDIO" (P.133)

11 Seamless Recording

"SEAMLESS RECORDING" (P.111)

12 Still Image Recording

"Capturing Still Images During Video Recording" (P.29)

13 Continuous Shooting

"SHUTTER MODE" (P.112)

"CONT. SHOOTING SPEED" (P.127)

14 Wind Cut

"WIND CUT" (P.113)

15 Event Recording

"Registering Files to Events Before Recording" (P.41)

16 DIS

"Reducing Camera Shake" (P.29)

17 EXPORT Recording

"Taking Videos in iTunes Format" (P.42)

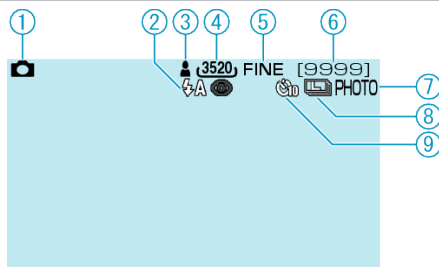
18 UPLOAD Recording

"Taking Videos in YouTube Format" (P.41)

19 x.v.Color

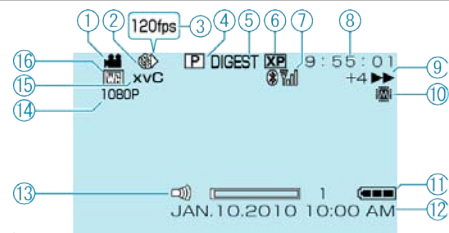
"x.v.Color" (P.112)

Still Image Recording



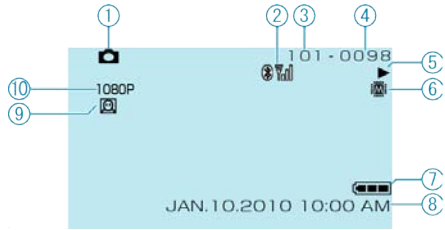
- 1** Still Image Mode
"Video/Still Image Button" (P.140)
- 2** Flash
"FLASH" (P.115)
- 3** Focus
"Taking Still Images in Auto Mode" (P.30)
- 4** Image Size
"IMAGE SIZE" (P.116)
- 5** Image Quality
"IMAGE QUALITY" (P.116)
- 6** Remaining Number of Shots
- 7** Recording in Progress
- 8** Continuous Shooting
"SHUTTER MODE" (P.115)
"CONT. SHOOTING SPEED" (P.127)
- 9** Self-Timer
"Taking Group Shots (Self-timer)" (P.39)

Video Playback





- 1** Video Mode
"Video/Still Image Button" (P.140)
- 2** Time-Lapse Recording
"Recording at Intervals (TIME-LAPSE RECORDING)" (P.44)
- 3** High-Speed Recording
"Slow-motion (High-speed) Recording" (P.43)
- 4** Playlist Playback
"Playing Back Playlists" (P.58)
- 5** Digest Playback
"Checking the Content of Videos Quickly" (P.50)
- 6** Video Quality
"VIDEO QUALITY" (P.109)
- 7** Radio Reception Status
"Connecting to a Registered Device" (P.21)
- 8** Scene Counter
- 9** Operation Indicator
"Playing Back Videos" (P.49)
- 10** Media
"REC MEDIA FOR VIDEO" (P.136)
- 11** Battery Indicator
"Remaining Recording Time/Battery Power" (P.47)
- 12** Date/Time
"Clock Setting" (P.14)
- 13** Speaker Volume Adjustment
- 14** Output with 1080p
"HDMI OUTPUT" (P.135)
- 15** x.v.Color
"x.v.Color" (P.112)
- 16** Wipe/Fader
"Playback with Special Effects" (P.51)

Still Image Playback



1 Still Image Mode

" /  (Video/Still Image) Button" (P.140)

2 Radio Reception Status

"Connecting to a Registered Device" (P.21)

3 Folder Number

4 File Number

5 Operation Indicator

"Playing Back Still Images" (P.52)

6 Media

"REC MEDIA FOR IMAGE" (P.136)

7 Battery Indicator

"Remaining Recording Time/Battery Power" (P.47)

8 Date/Time

"Clock Setting" (P.14)

9 Face Detection Zoom

"Face Detection Zoom" (P.53)

10 Output with 1080p

"HDMI OUTPUT" (P.135)

Battery Pack

Unable to turn on the power when using the battery pack.

Recharge the battery pack.
"Charging the Battery Pack" (P.12)

If the terminal of this unit or the battery pack is dirty, wipe it with a cotton swab or something similar.

If you use any other battery packs besides JVC battery packs, safety and performance can not be guaranteed. Be sure to use JVC battery packs.

Short usage time even after charging.

Battery deterioration occurs when a battery pack is charged repeatedly. Replace the battery pack with a new one.
"Optional Accessories" (P.26)

Unable to charge the battery pack.



When the battery pack is fully charged, the lamp does not flash.
If the terminal of this unit or the battery pack is dirty, wipe it with a cotton swab or something similar.
Using a non-original battery pack may result in damage to this unit. Be sure to use an original battery pack.

The remaining battery display is not correct.

Remaining battery power is not displayed when the AC adapter is connected.
If this unit is used for long periods of time in high or low temperatures, or if the battery pack is repeatedly charged, the amount of remaining battery may not be displayed correctly.

Recording

Recording cannot be performed.

Check the  switch.
"Interior" (P.140)
Set to the recording mode with the  (Play) Button.
"Interior" (P.140)

Recording stops automatically.

Recording stops automatically as it cannot be performed for 12 or more consecutive hours according to specifications. (It may take some time to resume recording.)
Turn off the power, wait for a while, and start recording again. (This unit stops automatically to protect the circuit when the temperature rises.)

The continuous shooting speed of still images is slow.

The continuous shooting speed will drop if this function is used repeatedly.
Continuous shooting speed may drop depending on the SD card or under certain recording conditions.

The focus is not adjusted automatically.

If you are recording in a dark place or a subject that has no contrast between dark and light, adjust the focus manually.
"Adjusting Focus Manually" (P.34)
Wipe the lens with a lens cleaning cloth.
Cancel manual focus on the manual recording menu.
"Adjusting Focus Manually" (P.34)

Zoom does not work.

Digital zoom is not available in the still image recording mode.
Zoom operation is not available in time-lapse shooting. (Simultaneous still image recording and DIS are also not available.)
To use digital zoom, set "ZOOM" in the menu to "64x/DIGITAL" or "200x/DIGITAL".
"ZOOM" (P.110)

Mosaic-type noise occurs when recording scenes with fast movements or extreme changes in brightness.

Set the "VIDEO QUALITY" to "UXP" or "XP" for recording.
"VIDEO QUALITY" (P.109)

Card

Cannot insert the SD card.

Make sure not to insert the card in the wrong direction.
"Inserting an SD Card" (P.13)

Unable to copy to SD card.

To record to the card, it is necessary to perform media settings.
"REC MEDIA FOR VIDEO" (P.136)
To use cards that have been used on other devices, it is necessary to format (initialize) the card using "FORMAT SD CARD" from media settings.
"FORMAT SD CARD" (P.137)

Playback

Sound or video is interrupted.

Sometimes playback is interrupted at the connecting section between two scenes. This is not a malfunction.

There is no sound.

Audio sound is not recorded for videos taken in high-speed recording.
"Slow-motion (High-speed) Recording" (P.43)

The same image is displayed for a long time.

Replace the SD card. (When the SD card is damaged, difficulty in reading the data occurs. This unit will try to play back as much as possible, but it will stop eventually if the condition persists.)
Execute "FORMAT SD CARD" in the media settings menu. (All data will be deleted.)
"FORMAT SD CARD" (P.137)

The motion is choppy.

Replace the SD card. (When the SD card is damaged, difficulty in reading the data occurs. This unit will try to play back as much as possible, but it will stop eventually if the condition persists.)
Execute "FORMAT SD CARD" in the media settings menu. (All data will be deleted.)
"FORMAT SD CARD" (P.137)
Verify the system requirements of your PC when using Everio Media-Browser to play back.
"Verifying System Requirements (Guideline)" (P.100)

Cannot find a recorded file.

Cancel group display and date search functions.
"Searching for a Specific Video/Still Image" (P.54)
Change the setting in "REC MEDIA FOR VIDEO" or "REC MEDIA FOR IMAGE". (Files on other media are not displayed.)
"REC MEDIA FOR VIDEO" (P.136)
Select "PLAYBACK OTHER FILE" then search the video on the index screen. (Video files that have damaged management information can be played back.)
"Playing a Video with Defective Management Information" (P.50)

Face detection zoom does not work.

Face detection zoom does not work for slanted faces, side profiles, and faces that do not fit into the screen.

No date/time display.

Set "ON-SCREEN DISPLAY" in the menu accordingly.
"ON-SCREEN DISPLAY" (P.121)
Set "DISPLAY ON TV" in the menu to "ON".
"DISPLAY ON TV" (P.133)

Images do not appear on the TV properly.

Disconnect the cable and connect again.
"Connecting via the HDMI Mini Connector" (P.56)
Turn off and on this unit again.
When connected via the component connector, check if the setting of "COMPONENT OUTPUT" in the connections setting menu is suitable for the connected TV. (Set to "1080i" by default)
"COMPONENT OUTPUT" (P.134)

Images are projected vertically on the TV.

Set "VIDEO OUTPUT" in the connection settings menu to "4:3".
"VIDEO OUTPUT" (P.134)
Adjust the TV's screen accordingly.

The image displayed on TV is too small.

Set "VIDEO OUTPUT" in the connection settings menu to "16:9".
"VIDEO OUTPUT" (P.134)

Unable to play back DVD with title.

The title will not be played back if you connect this unit to a DVD writer (optional).

Editing/Copying

Unable to delete file.

Files that are protected cannot be deleted. Release protection before deleting the file.

"Protecting Files" (P.63)

Unable to copy/move files to SD card.

If the SD card is write protected, set it to off.

Unable to create DVD with a DVD writer.

The USB cable is not connected correctly.

"Preparing a DVD Writer (CU-VD50U)" (P.86)

"Preparing a DVD Writer (CU-VD3U)" (P.87)

BACK-UP menu does not disappear.

While the USB cable is connected, the BACK-UP menu is displayed.

Unable to turn off the BACK-UP menu.

Turn off the power of this unit and the DVD writer, or remove the AC adapter.

Unable to delete folder in USB external hard disk drive.

Delete the folder using a PC.

(When files are added or folders moved/renamed with a PC, they cannot be deleted on this unit.)

PC

Unable to copy files to the PC's HDD.

Connect the USB cable correctly.

"Backing Up All Files" (P.101)

If the provided software "Everio MediaBrowser" is not installed, some functions may not work properly.

"Installing the Provided Software" (P.100)

Before making backup, make sure that enough free space is left in the PC's hard disk (HDD).

Unable to copy files to DVD with a PC.

To record to discs, a recordable DVD drive is required for the PC in use.

Cannot upload the file to YouTube.

Check if you have created an account with YouTube. (You need a YouTube account to upload files to YouTube.)

Upload recording can only be performed for up to 10 minutes, the time limit of YouTube.

Changing videos to the file format for uploading cannot be performed on this unit.

Refer to "Q&A", "Latest Information", "Download Information", etc. in "Click for Latest Product Info" in the help file of the provided Everio MediaBrowser software.

Cannot export the file to iTunes.

Refer to "Q&A", "Latest Information", "Download Information", etc. in "Click for Latest Product Info" in the help file of the provided Everio MediaBrowser software.

Screen/Image

The LCD monitor is difficult to see.

The LCD monitor may be difficult to see if used in bright areas such as under direct sunlight.

A band or a ball of bright light appears on the LCD monitor.

Change the direction of this unit to prevent the light source from coming into view. (A band or a ball of bright light may appear when there is a bright light source near this unit, but this is not a malfunction.)

The recorded subject is too dark.

Use backlight compensation when the background is bright and the subject is dark.

"Setting Backlight Compensation" (P.36)

Use "LIGHT" or "FLASH" in the menu.

"LIGHT" (P.109)

"FLASH" (P.115)

Use "NIGHT EYE" in SCENE SELECT.

"Scene Selection" (P.33)

Use "GAIN UP" in the menu.

"GAIN UP" (P.110)

Set "BRIGHTNESS ADJUST" in the manual settings menu to the "+" side.

"Adjusting Brightness" (P.35)

The recorded subject is too bright.

Set the backlight compensation to "OFF" if it is being used.

"Setting Backlight Compensation" (P.36)

Set "BRIGHTNESS ADJUST" in the manual settings menu to the "-" side.

"Adjusting Brightness" (P.35)

The color looks strange. (Too bluish, too reddish, etc.)

Wait for a while until natural colors are achieved. (It may take some time for white balance to be adjusted.)

Set "WHITE BALANCE" in the manual settings menu to "MANUAL". Select from "FINE"/"CLOUD"/"HALOGEN" according to the light source. Select "MWB" and adjust accordingly.

"Setting White Balance" (P.36)

The color looks different.

Set "WHITE BALANCE" in the manual settings menu to "MANUAL". Select from "FINE"/"CLOUD"/"HALOGEN" according to the light source. Select "MWB" and adjust accordingly.

"Setting White Balance" (P.36)

If the video was recorded with "x.v.Color" set to "ON", set the x.v.Color setting of the TV to on.

"x.v.Color" (P.112)

Other Problems

The slider and operation buttons do not work.

Touch the slider and buttons around the screen with your fingers. The slider and buttons do not function if you touch them with your fingernails or with gloves on.

The displays on the screen do not work even if you touch them.

The remote control does not work.

Replace the battery.

"Reinserting the Battery" (P.17)

Set "REMOTE" in the basic settings menu to "ON".

"REMOTE" (P.130)

The remote control may not operate outdoors or in places exposed to strong light.

The unit operates slowly when switching between video mode and still image mode, or when switching the power on or off.

It is recommended that you copy all videos and still images onto your computer, and erase the files from this unit. (If there are many recorded files on this unit, it takes time for the unit to respond.)

The image is grainy.

When digital zoom is used, the image becomes grainy as it is digitally enlarged.

During high-speed recording, the image becomes grainy.

"Slow-motion (High-speed) Recording" (P.43)

The unit heats up.

This is not a malfunction. (This unit may become warm when used for a long time.)

Make a backup of important recorded data

It is recommended to copy your important recorded data to a DVD or other recording media for storage. JVC will not be responsible for any lost data.

Error Message?

SET DATE/TIME!

Connect the AC adapter, charge the battery for more than 24 hours and set the clock. (If the message still appears, the clock battery is exhausted. Consult your nearest JVC dealer.)

"Clock Setting" (P.14)

COMMUNICATION ERROR

Reconnect the USB cable.

Turn off this unit and the devices connected to it, and turn them on again.

Reattach the battery pack.

FORMAT ERROR!

Check the operating procedure, and perform once again.

"FORMAT BUILT-IN MEM." (P.137)

Turn off this unit, and turn it on again.

DATA DELETION ERROR

Check the operating procedure, and perform once again.

"ERASE ALL DATA" (P.138)

Turn off this unit, and turn it on again.

ERROR IN BUILT-IN MEMORY!

Turn off this unit, and turn it on again.

If the above does not solve the problem, back up your files and execute "FORMAT BUILT-IN MEM." in the media settings menu. (All data will be deleted.)

"FORMAT BUILT-IN MEM." (P.137)

MEMORY CARD ERROR!

Turn off this unit, and turn it on again.

Remove and re-insert the SD card after detaching the AC adapter and battery pack.

Remove any dirt from the SD card terminals.

If the above does not solve the problem, back up your files and execute "FORMAT SD CARD" in the media settings menu. (All data will be deleted.)

"FORMAT SD CARD" (P.137)

NOT FORMATTED

Select "OK", then select "YES" on the "DO YOU WANT TO FORMAT?" screen.

RECORDING FAILURE

Turn off this unit, and turn it on again.

VIDEO MANAGEMENT FILE IS DAMAGED, RECOVERY IS REQUIRED TO RECORD/PLAYBACK, RECOVER?

Select "OK" to restore. (Videos that cannot be restored will not be displayed on the index screen, but you may be able to play them back using "PLAYBACK OTHER FILE" in the menu.)

"Playing a Video with Defective Management Information" (P.50)

UNSUPPORTED FILE!

Use files recorded with this unit. (Files recorded with other devices may not be playable.)

THIS FILE IS PROTECTED

Switch off the "PROTECT/CANCEL" function in the "EDIT" menu.

"Protecting Files" (P.63)

CHECK CARD'S WRITE PROTECTION SWITCH

Set the write protect switch of the SD card to off.

INSUFFICIENT AVAILABLE SPACE

Delete files, or move files to a PC or other devices.

Replace the SD card with a new one.

Seamless videos cannot be combined if there is not enough free space in the built-in memory or SD card. Check the amount of remaining free space before combining.

MAXIMUM QUANTITY RECORDING FOLDERS/ FILES HAS BEEN REACHED

① Move the files or folders to a PC or other device. (Back up your files.)

② Select "FILE + MANAGEMENT NO" in "FORMAT BUILT-IN MEM." or "FORMAT SD CARD" of the media settings menu. (All data on the built-in memory or SD card will be deleted.)

NUMBER OF FOLDERS OVERFLOW

① Move the files or folders to a PC or other device. (Back up your files.)

② Select "FILE + MANAGEMENT NO" in "FORMAT BUILT-IN MEM." or "FORMAT SD CARD" of the media settings menu. (All data on the built-in memory or SD card will be deleted.)

FILE QUANTITY LIMIT EXCEEDED

① Move the files or folders to a PC or other device. (Back up your files.)

② Select "FILE + MANAGEMENT NO" in "FORMAT BUILT-IN MEM." or "FORMAT SD CARD" of the media settings menu. (All data on the built-in memory or SD card will be deleted.)

PLAYLIST QUANTITY EXCEEDS LIMIT

Reduce the number of the playlist to 99 files or less. (Up to 99 playlists can be created.)

NO FILES

Change the setting in "REC MEDIA FOR VIDEO" or "REC MEDIA FOR IMAGE", and check that files are not recorded to the other media.

"REC MEDIA FOR VIDEO" (P.136)

NO REGISTERED EVENT SCENES

Set the event.

"Changing Event Registration of Videos" (P.65)

NO REGISTERED SCENES IN PLAYLIST SOME SCENES MAY NOT PLAY BACK

Delete the playlist, and then create a new one.

"Creating Playlists from the Recorded Videos" (P.74)

POWER IS OFF, OR USB DEVICE IS UNSUPPORTED

Turn on the power of the connected USB device.

Connect the AC adapter to the DVD writer.

INSERT DISC/CHANGE DISC

Open the tray of the DVD writer, check and reset the DVD, then close the tray.

Replace the disc in the DVD writer.

UNABLE TO COMMUNICATE WITH THE Bluetooth DEVICE

Make sure that there are no obstacles between the Bluetooth-compliant device and the camcorder.

"Improving the Communication" (P.18)

Check the registered device and register again.

"Registering a Bluetooth-compliant Device" (P.19)

Refer to the instruction manual of the connected device.

Maintenance

Perform regular maintenance of this unit to enable it to be used for a long time.

CAUTION:

- Be sure to detach the battery pack, AC adapter, and power plug before performing any maintenance.
-

Camcorder

- Wipe this unit with a dry, soft cloth to remove any dirt.
- When it is extremely dirty, soak the cloth in a solution of neutral detergent, wipe the body with it, and then use a clean cloth to remove the detergent.

CAUTION:

- Do not use benzene or thinner. Doing so may cause damage to the unit.
 - When using a chemical cloth or cleaner, be sure to observe the warning labels and instructions of the product.
 - Do not leave the device in contact with rubber or plastic products for a long time.
-

Lens/LCD Monitor

- Use a lens blower (commercially available) to remove any dust, and a cleaning cloth (commercially available) to wipe off any dirt.
Mold may form if the lens is left dirty.

Camera	
Item	Details
Power supply	Using AC adapter: DC 5.2 V Using battery pack: DC 3.6 V
Power consumption	3.2 W (when "LIGHT" is set to "OFF" and "LCD BACKLIGHT" is set to "STANDARD"), Rated Current Consumption: 1.8A
Dimensions (mm)	55 x 62 x 110 (2-1/4" x 2-1/2" x 4-3/8") (W x H x D: excluding grip belt)
Mass	Approx. 260 g (0.58 lbs) (camera only), Approx. 300 g (0.67 lbs) (including supplied battery pack)
Operating environment	Allowable operating temperature: 0°C to 40°C (32°F to 104°F) Allowable storage temperature: -20°C to 50°C (-4°F to 122°F) Allowable operating humidity: 35 % to 80 %
Image pickup device	1/2.3" 10,620,000 pixels (CMOS)
Recording area (Video)	5,650,000 pixels (optical zoom) 2,070,000 to 5,650,000 pixels (dynamic zoom, image stabilizer OFF) 2,070,000 to 4,770,000 pixels (dynamic zoom, image stabilizer ②)
Recording area (Still Image)	9,290,000 pixels (4:3), 6,980,000 pixels (16:9)
Lens	F2.8 to F4.5, f= 6.7 mm to 67.0 mm (35 mm conversion video: 48.3 mm to 483 mm, Still image: 39.9 mm to 399 mm)
Filter diameter	ø37 mm
Lowest illumination	10 lux (GAIN UP: AGC) 4 lux (GAIN UP: AUTO) 1 lux (SCENE SELECT: NIGHT EYE mode)
Flash	Recommended shooting distance: Within 2 m (6.6ft.)
Zoom (during video recording)	Optical zoom: Up to 10x Dynamic zoom: Up to 16x (Image stabilizer ①), Up to 15x (Image stabilizer ②) Digital zoom: Up to 200x
Zoom (during still image recording)	Optical zoom: Up to 10x
Continuous shooting speed (during simultaneous still image recording with video recording)	HIGH SPEED: Approx. 30 images/second MEDIUM SPEED: Approx. 10 images/second LOW SPEED: Approx. 1 image/second (maximum)
Continuous shooting speed (during still image recording)	HIGH SPEED: Approx. 15 images/second MEDIUM SPEED: Approx. 7 images/second LOW SPEED: Approx. 1.4 images/second (maximum)
LCD monitor	2.7" wide, 12.3 megapixels, polysilicon color LCD
Recording Media	Built-in memory (32 GB), SD/SDHC card (commercially available) "Types of Usable SD Card" (P.14)
Clock battery	Rechargeable battery

Connectors	
Item	Details
HDMI	HDMI™ mini connector (V1.3 with x.v.Color™)
Component output	Y, Pb, Pr component output Y: 1.0 V (p-p), 75 Ω Pb/Pr: 0.7 V (p-p), 75 Ω
AV output	Video output: 1.0 V (p-p), 75 Ω Audio output: 300 mV (rms), 1 K Ω
USB	Mini USB Type AB, USB 2.0 compliant

Video	
Item	Details
Recording/Playback format	AVCHD standard Video: MPEG-4 AVC/H.264 Audio: Dolby Digital 2ch
Extension	.MTS
Signal system	NTSC standard
Image quality (Video)	UXP 1920 x 1080 pixels Average Approximate 24 Mbps XP 1920 x 1080 pixels Average Approximate 17 Mbps SP 1920 x 1080 pixels Average Approximate 12 Mbps EP 1920 x 1080 pixels Average Approximate 4.8 Mbps
Sound quality (Audio)	48 kHz, 256 kbps

Still Image	
Item	Details
Format	JPEG standard
Extension	.JPG
Image size	"Approximate Number of Still Images (Unit: Number of Shots)" (P.48)
Quality	FINE / STANDARD

AC Adapter (AP-V30U)

Item	Details
Power supply	AC 100 V to 240 V, 50 Hz/60 Hz
Output	DC 5.2 V, 1.8 A
Allowable operating temperature	0°C to 40°C (32°F to 104°F) (10°C to 35°C (50°F to 95°F) during charging)
Dimensions (mm)	78 x 34 x 46 (3-1/8" x 1-3/8" x 1-13/16") (W x H x D: excluding cord and AC plug)
Mass	Approx. 107 g (0.24 lbs)

Battery Pack (BN-VG114U)

Item	Details
Power voltage	3.6 V
Capacity	1400 mAh
Dimensions (mm)	31 x 21.5 x 43 (1-1/4" x 7/8" x 1-3/4") (W x H x D)
Mass	Approx. 40 g (0.09 lbs)

Remote Control (RM-V760U)

Item	Details
Power supply	DC 3 V (button battery CR2025)
Battery life	Approx. 1 year (depending on frequency of use)
Operating distance	Approx. 5 m (facing up)
Allowable operating temperature	0°C to 40°C (32°F to 104°F)
Dimensions (mm)	32.5 x 15.6 x 68 (1-1/4" x 5/8" x 2-11/16") (W x H x D)
Mass	Approx. 16 g (0.04 lbs)

Memo:

- The specifications and appearance of this product are subject to changes for further improvement without prior notice.

"Optional Accessories" (P.26)

JVC