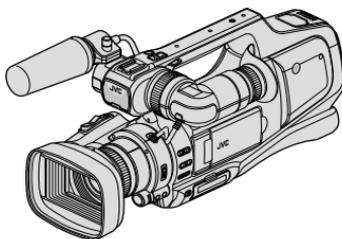


## Basic User Guide

### HD MEMORY CARD CAMERA RECORDER GY-HM70U



\* This illustration shows the GY-HM70U with an optional microphone.



For detailed operating instructions, refer to the "Detailed User Guide" in the CD-ROM. (p. 4)

#### Verifying the Accessories

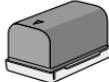
AC Adapter  
AP-V20U  
(1.9 m)



USB Cable  
(Type A - Mini Type B)  
(1 m)



Battery Pack  
BN-VF823U  
(x1)



CD-ROM



AV Cable  
(1 m)



Basic User Guide  
(this manual)



#### Dear Customers

Thank you for purchasing this JVC product. Before use, please read the Safety Precautions and Cautions on p. 2 and p. 24 to ensure safe use of this product.

#### For Future Reference:

Enter the Model No. (located on the bottom of the camera) and Serial No. (located on the bottom of the camera) below.

**Model No.**

**Serial No.**

# Safety Precautions

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
<b>CAUTION:</b> TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.**

	<b>ATTENTION</b> RISQUE D'ÉLECTROCUTION NE PAS OUVRIR	
<b>ATTENTION:</b> POUR ÉVITER TOUT RISQUE D'ÉLECTROCUTION, NE PAS OUVRIR LE BOÎTIER. AUCUNE PIÈCE INTÉRIEURE N'EST À RÉGLER PAR L'UTILISATEUR. SE RÉFÉRER À UN AGENT QUALIFIÉ EN CAS DE PROBLÈME.		



Le symbole de l'éclair à l'intérieur d'un triangle équilatéral est destiné à avertir l'utilisateur sur la présence d'une "tension dangereuse" non isolée dans le boîtier du produit. Cette tension est suffisante pour provoquer l'électrocution de personnes.



Le point d'exclamation à l'intérieur d'un triangle équilatéral est destiné à avertir l'utilisateur sur la présence d'opérations d'entretien importantes au sujet desquelles des renseignements se trouvent dans le manuel d'instructions.

**AVERTISSEMENT : POUR ÉVITER LES RISQUES D'INCENDIE OU D'ÉLECTROCUTION, NE PAS EXPOSER L'APPAREIL À LA PLUIE NI À L'HUMIDITÉ.**

## NOTES:

- The rating plate and safety caution are on the bottom and/or the back of the main unit.
- The serial number plate is on the bottom of the unit.
- The rating information and safety caution of the AC adapter are on its upper and lower sides.

## REMARQUES :

- La plaque d'identification et l'avertissement de sécurité se trouvent sous l'appareil et/ou au dos.
- La plaque du numéro de série est située sur la partie inférieure de l'appareil.
- Les informations d'identification et l'avertissement de sécurité de l'adaptateur secteur sont situés sur ses côtés supérieur et inférieur.

## For USA-California Only

This product contains a CR Coin Cell Lithium Battery which contains Perchlorate Material – special handling may apply. See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate)

## WARNING:

The battery pack, the camcorder with battery installed, and the remote control with battery installed should not be exposed to excessive heat such as direct sunlight, fire or the like.

When the equipment is installed in a cabinet or on a shelf, make sure that it has sufficient space on all sides to allow for ventilation (10 cm (3-15/16") or more on both sides, on top and at the rear). Do not block the ventilation holes. (If the ventilation holes are blocked by a newspaper, or cloth etc. the heat may not be able to get out.) No naked flame sources, such as lighted candles, should be placed on the apparatus. When discarding batteries, environmental problems must be considered and the local rules or laws governing the disposal of these batteries must be followed strictly. The apparatus shall not be exposed to dripping or splashing. Do not use this equipment in a bathroom or places with water. Also do not place any containers filled with water or liquids (such as cosmetics or medicines, flower vases, potted plants, cups etc.) on top of this unit. (If water or liquid is allowed to enter this equipment, fire or electric shock may be caused.)

Do not point the lens or the viewfinder directly into the sun. This can cause eye injuries, as well as lead to the malfunctioning of internal circuitry. There is also a risk of fire or electric shock.

## CAUTION!

The following notes concern possible physical damage to this unit and to the user. Carrying or holding this unit by the LCD monitor and/or the viewfinder can result in dropping the unit, or in a malfunction. Do not use a tripod on unsteady or unlevel surfaces. It could tip over, causing serious damage to the unit.

## CAUTION!

Connecting cables (Audio/Video, etc.) to this unit and leaving it on top of the TV is not recommended, as tripping on the cables will cause this unit to fall, resulting in damage.

## CAUTION:

The mains plug shall remain readily operable.

- Remove the mains plug immediately if the camcorder functions abnormally.

## Make a backup of important recorded data

JVC will not be responsible for any lost data. It is recommended to copy your important recorded data to a disc or other recording media for storage once every 3 months.

## IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
10. Only use attachments/accessories specified by the manufacturer.
11. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



### When using the AC adapter in areas other than the USA

The provided AC adapter features automatic voltage selection in the AC range from 110 V to 240 V.

#### USING HOUSEHOLD AC PLUG ADAPTER

In case of connecting the unit's power cord to an AC wall outlet other than American National Standard C73 series type use an AC plug adapter, called a "Siemens Plug", as shown. For this AC plug adapter, consult your nearest JVC dealer.

Plug Adapter



- Remove the AC adapter from the AC wall outlet when not in use.
- Do not leave dust or metal objects adhered to the AC wall outlet or AC adapter (power/DC plug).
- Be sure to use the supplied AC adapter.
- Do not use the supplied AC adapter with other devices.

### Remember that this unit is intended for private consumer use only.

Any commercial use without proper permission is prohibited. (Even if you record an event such as a show, performance or exhibition for personal enjoyment, it is strongly recommended that you obtain permission beforehand.)

#### Trademarks

- AVCHD Progressive/AVCHD and the AVCHD Progressive/AVCHD logo are trademarks of Panasonic Corporation and Sony Corporation.
- x.v.Color™ is a trademark of Sony Corporation. **x.v.Color**
- HDMI (High-Definition Multimedia Interface) and HDMI logo are either registered trademarks or trademarks of HDMI Licensing, LLC in the United States and/or other countries. **HDMI**  
MULTIMEDIA INTERFACE
- Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.
- SDXC and SDHC logos are trademarks of SD-3C, LLC.
- Windows® is either registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.
- Macintosh is a registered trademark of Apple Inc.
- iMovie and iPhoto are trademarks of Apple Inc., registered in the U.S. and other countries.
- Intel, Intel Core, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.
- Other product and company names included in this instruction manual are trademarks and/or registered trademarks of their respective holders.
- Marks such as ™ and © have been omitted in this manual.



If this symbol is shown, it is only valid in the European Union.

This product is licensed under the AVC Patent Portfolio License for the personal use of a consumer or other uses in which it does not receive remuneration to

- (i) encode video in compliance with the AVC standard ("AVC Video") and/or
- (ii) decode AVC Video that was encoded by a consumer engaged in a personal activity and/or was obtained from a video provider licensed to provide AVC Video. No license is granted or shall be implied for any other use. Additional information may be obtained from MPEG LA, L.L.C. See <http://www.mpegla.com>

# Table of Contents

Safety Precautions .....	2	<b>Playback</b>	
Names of Parts and Functions .....	5	Playing Back/Deleting Files on this Unit ..	16
Names of Buttons and Functions on the LCD Monitor .....	6	Playing Back on TV .....	18
Using the Icon Buttons/Thumbnails .....	7	<b>Copying</b>	
<b>Getting Started</b>		Copying to Computer .....	19
Charging the Battery Pack .....	8	<b>Other Problems</b>	
Grip Belt Adjustment .....	9	Changing Menu Settings .....	21
Inserting an SD Card .....	10	Troubleshooting .....	22
Clock Setting .....	12	Cautions .....	24
<b>Recording</b>		Recordable Time/Number of Images ...	26
Video Recording .....	13	Specifications .....	27
Still Image Recording .....	15		



## Viewing the Detailed User Guide

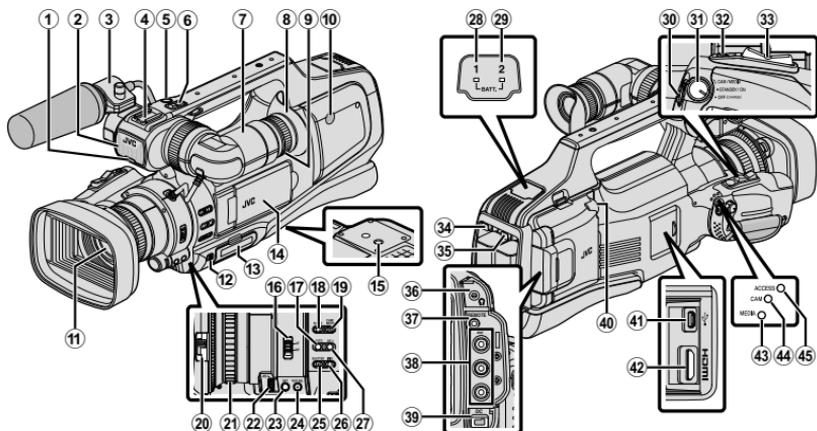
- ① Insert the supplied CD-ROM into your PC.
  - ② Double-click the CD-ROM icon in “Computer” or “My Computer”.
  - ③ Click the “GY-HM70U\_manual” folder.
- Detailed User Guides in PDF files are displayed.

### Memo

Adobe Acrobat Reader version 5 or higher or Adobe Reader is required to view the PDF file.

<http://www.adobe.com/>

# Names of Parts and Functions



\* Microphone is optional.

- ① Tally lamp
- ② Built-in microphone
- ③ Microphone holder
- ④ Shoe
- ⑤ “REC” (Record) button
- ⑥ Zoom lever
- ⑦ Viewfinder
- ⑧ Eyepiece
- ⑨ Eyepiece focus lever
- ⑩ Built-in speaker
- ⑪ Lens/Lens cover
- ⑫ “DOOR LOCK” lever
- ⑬ SD card slot A, B
- ⑭ LCD monitor
- ⑮ Tripod mounting holes
- ⑯ “AF/MF” Focus switch
- ⑰ i.AUTO (Intelligent Auto) button
- ⑱ MODE (Video/Still image) button
- ⑲ “CAM”/“MEDIA” button
- ⑳ Lens cover switch
- ㉑ Focus ring
- ㉒ “ADJ.” dial
- ㉓ “SET” button
- ㉔ “WHT BAL” White balance selection button
- ㉕ “SHUTTER” Shutter speed button
- ㉖ “IRIS” Iris button
- ㉗ “AE±” Exposure button
- ㉘ “BATT. 1” charge indicating lamp
- ㉙ “BATT. 2” charge indicating lamp
- ㉚ “REC” (Record) button
- ㉛ “STANDBY/ON OFF”/“CAM/MEDIA” Power/Operation mode selection switch
- ㉜ “SNAPSHOT” (Still image recording) button
- ㉝ Zoom lever
- ㉞ “BATT. 1” lock release button
- ㉟ “BATT. 2” lock release button
- ㊱ Headphone jack
- ㊲ “REMOTE” Remote jack
- ㊳ “AV” connector
- ㊴ “DC” connector
- ㊵ “MIC” jack
- ㊶ USB connector
- ㊷ HDMI connector
- ㊸ “MEDIA” Media mode indicating lamp
- ㊹ “CAM” Camera mode indicating lamp
- ㊺ “ACCESS” Access indicating lamp

# Names of Buttons and Functions on the LCD Monitor

The following screens are displayed during the video and still image modes, and operate as the touch screens.

## Recording Screen (Video/Still Image)



- ① (Video (60i/60p)/Still Image) Mode Button
- ② Media Mode Button  
Switches to the media (playback) mode.
- ③ Recording Start/Stop Button  
  - Video Recording Start Button
  - Video Recording Stop Button
  - Still Image Recording Button
- ④ Menu Button
- ⑤ Display Button  
Simple display: Some displays disappear after approximately 3 seconds.  
Full display: Displays everything.  
Switches the display between full and simple with every tap of the button.
- ⑥ (Intelligent Auto/Manual) Button

## Playback Screen (Video)



- ① (Video (60i/60p)/Still Image) Mode Button
- ② Camera Mode Button  
Switches the camera (recording) mode.
- ③ Index Screen (Thumbnail Display) Button
- ④ Delete Button
- ⑤ Menu Button
- ⑥ Operation Buttons

## Playback Screen (Still Image)



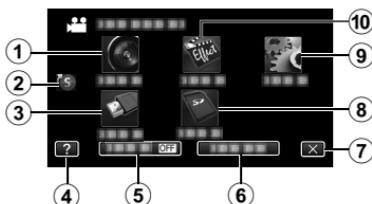
- ① (Video (60i/60p)/Still Image) Mode Button
- ② Operation Buttons
- ③ Camera Mode Button  
Switches the camera (recording) mode.
- ④ Index Screen (Thumbnail Display) Button
- ⑤ Delete Button
- ⑥ Menu Button

## Index Screen (Thumbnail Display)



- ① (Video (60i/60p)/Still Image) Mode Button
- ② Date Button
- ③ Camera Mode Button  
Switches the camera (recording) mode.
- ④ Still Image Mode Button (Still image only)
- ⑤ Delete Button
- ⑥ Playback Media Button  
Switches between the SD card slots.
- ⑦ Menu Button
- ⑧ Page Forward/Back Button

## Menu screen (recording mode)



- ① RECORD SETTING Menu
- ② Shortcut Menu
- ③ CONNECTION SETTINGS Menu
- ④ Help Button
- ⑤ SILENT Button
- ⑥ INFO. Button
- ⑦ Close Button
- ⑧ MEDIA SETTINGS Menu
- ⑨ SETUP Menu
- ⑩ SPECIAL RECORDING Menu

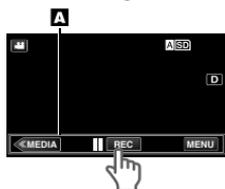
## Using the Icon Buttons/Thumbnails

There are two ways to operate the touch screen, namely “tap” and “drag”. The following are some examples.

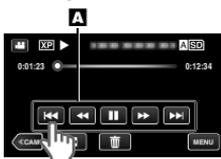
**A** Tap the displayed button (icon) or thumbnail (file) on the touch screen to make selection.

**B** Drag the thumbnails on the touch screen to search for the desired file.

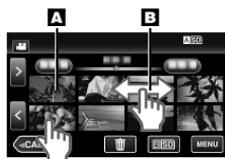
Recording Screen



Playback Screen



Index Screen

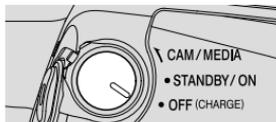


### Memo

- The touch screen of this unit is pressure-sensitive. When the touch screen does not respond smoothly, apply slightly more force to your fingertip.
- Do not press or rub with excessive force.
- Do not operate the touch screen using an object with a sharp tip.
- Pressing two or more places at a time may cause a malfunction.
- Tap the buttons (icons) on the touch screen accurately. The buttons may not respond if they are not tapped on the right area.
- Perform “TOUCH SCREEN ADJUST” if the reactive area of the screen is misaligned with the touched area.

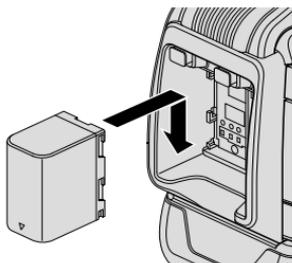
# Charging the Battery Pack

- 1** Set the "STANDBY/ON OFF" switch to "OFF".

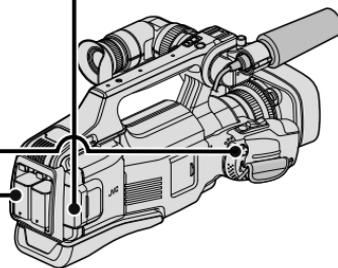
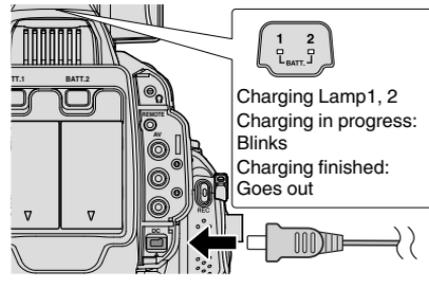


- 2** Attach the battery pack.

- Align the terminal of the battery pack with this unit.

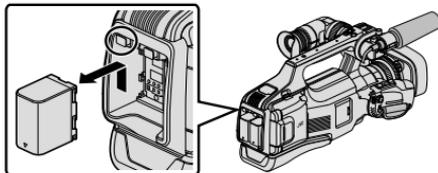


- 3** Connect the DC connector and plug in the power.



- Either BATT.1 or BATT.2 can be charged.
- If two battery packs are attached, BATT.1 is charged first. After the charging of BATT.1 is completed, BATT.2 is charged. However, if BATT.1 is attached while BATT.2 is being charged, BATT.1 will be charged after the charging of BATT.2 is completed. Both battery packs cannot be charged at the same time.

- The battery pack is not charged at the time of purchase.
- To detach the battery pack, press the battery lock release button, and slide the battery pack out of this unit.

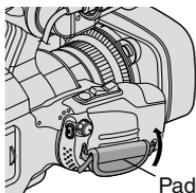


## Caution

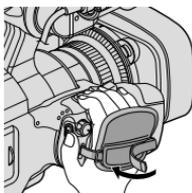
### Be sure to use JVC battery packs.

- If you use any other battery packs besides JVC battery packs, safety and performance cannot be guaranteed.
- If malfunctions (overcurrent, overvoltage, transmission error, etc) occur, or if any battery manufactured other than JVC is attempted for battery charge, charging stops. In these cases, the CHARGE lamp blinks quickly for notification.
- You can record or play back videos while the AC adapter is connected. (Battery charging cannot be performed during recording or playback.)  
Remove the battery when the unit is to be used for a long time. Performance of the battery may drop if it is left attached to the unit.
- Charging time: Approx. 3 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. CHARGE lamp blinks 2 times in a slow cycle for notification if the battery charge does not start. Also, please note that the recordable and playable time may be shortened under some usage conditions, such as at low temperature.
- You can use this unit even if only one battery pack is attached.

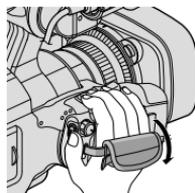
## Grip Belt Adjustment



① Pull back the Pad



② Adjust the length of the belt



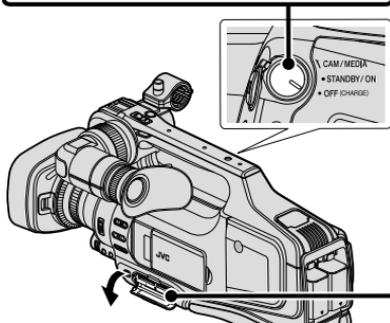
③ Attach the Pad

# Inserting an SD Card

Insert a commercially available SD card before recording.

This unit comes with two SD card slots. When two SD cards are inserted and “SEAMLESS RECORDING” in the “RECORD SETTING” menu is set to “ON”, recordings can be continued on the other card even if one card is full or error occurs on one card.

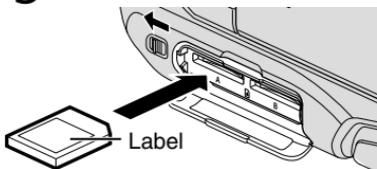
- 1 Set the “STANDBY/ON OFF” switch to “OFF”.



※ Turn off the power of this unit before inserting or removing a SD card.

- 2 Open the door.
  - Slide the “DOOR LOCK” lever to the left, and pull the door towards you.

- 3 Insert an SD card into slot A.



- 4 Close the door.
  - After closing the door, slide the “DOOR LOCK” lever to the right to lock the door.

## ■ To remove the card

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

### Memo

Operations are confirmed on the following SD cards.

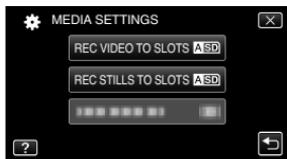
Manufacturer	Panasonic, TOSHIBA, SanDisk
Video 	Class 4 or higher compatible SD card (2 GB)/ Class 4 or higher compatible SDHC card (4 GB to 32 GB)/ Class 4 or higher compatible SDXC card (48 GB to 128 GB) <ul style="list-style-type: none"><li>• When recording with video quality “UXP”, Class 6 or higher is recommended.</li><li>• When recording in progressive format (60p), Class 6 or higher is required.</li></ul>
Still Image 	SD card (256 MB to 2 GB) / SDHC card (4 GB to 32 GB) / SDXC card (48 GB to 128 GB)

- Using SD cards (including SDHC/SDXC cards) other than those specified above may result in recording failure or data loss.
- This unit is not guaranteed to operate with all SD cards, even when using the ones specified above. Some SD cards may not work due to specification changes, etc.
- To protect the data, do not touch the terminals of the SD card.
- When using an SDXC card, check its compatibility with the OS of your computer by referring to the Detailed User Guide.

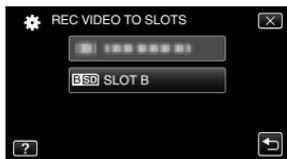
## ■ To use an SD card in SLOT B

Recording can be performed on a card when “REC VIDEO TO SLOTS” or “REC STILL TO SLOTS” of “MEDIA SETTINGS” menu is set to “SLOT B”.

- ① Open the LCD monitor.
- ② Tap “MENU”.
- ③ Tap “MEDIA SETTINGS”.
- ④ Tap “REC VIDEO TO SLOTS” or “REC STILL TO SLOTS”.



- ⑤ Tap “SLOT B”.

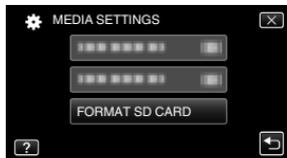


## ■ To use SD cards that have been used on other devices

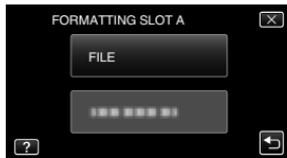
Format (initialize) the card using “FORMAT SD CARD” from “MEDIA SETTINGS”.

**All data on the card will be deleted when it is formatted. Copy all files on the card to a PC before formatting.**

- ① Perform steps ① - ③ from “To use an SD card”.
- ② Tap “FORMAT SD CARD”.



- ③ Tap the slot with the card to format.
- ④ Tap “FILE”.

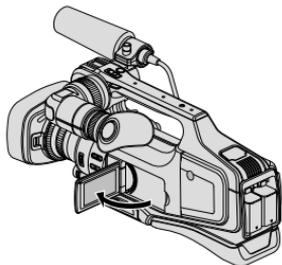


- ⑤ Tap “YES”.
- ⑥ After formatting, tap “OK”.

# Clock Setting

- 1 Set the "STANDBY/ON OFF" switch to "ON".

- 2 Open the LCD monitor.



- 3 Tap "YES" when "SET DATE/TIME!" is displayed.



- 4 Set the date and time.



- When the year, month, day, hour, or minute item is tapped, "▲" and "▼" will be displayed. Tap "▲" or "▼" to adjust the value.
- Repeat this step to input the year, month, day, hour, and minute.

- 5 After setting the date and time, tap SET.

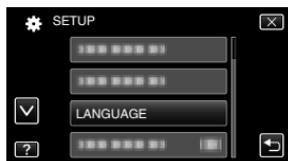
- 6 Select the region where you live and tap "SAVE".

- Time difference between the selected city and the GMT (Greenwich Mean Time) is displayed.
- Tap "<" or ">" to select the city name.

## To change the display language

The language on the display can be changed.

- ① Open the LCD monitor.
- ② Tap "MENU".
- ③ Tap "SETUP".
- ④ Tap "LANGUAGE".



- ⑤ Tap the desired language.

## Memo

- If "SET DATE/TIME!" appears after the clock has been set, the internal clock battery is drained. For details on replacing the battery, contact your nearest JVC dealer or JVC service center.

# Video Recording

You can record without worrying about the setting details by using the Intelligent Auto mode. Settings such as exposure and focus will be adjusted automatically to suit the shooting conditions.

**Before recording an important scene, it is recommended to conduct a trial recording.**

1 Open the lens cover.

2 Check if the recording mode is video.



- If the mode is still image, tap still image icon on the touch screen, then tap video icon to switch.

(Still image icon): 60i (interlace) mode

(Video icon): 60p (progressive) mode

3 Check if the recording mode is Intelligent Auto.

- If the mode is Manual, tap Manual icon on the touch screen, then tap i.A. to switch.

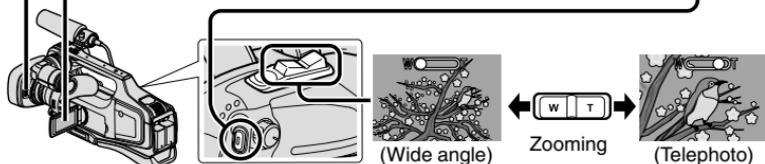


4 Start recording.



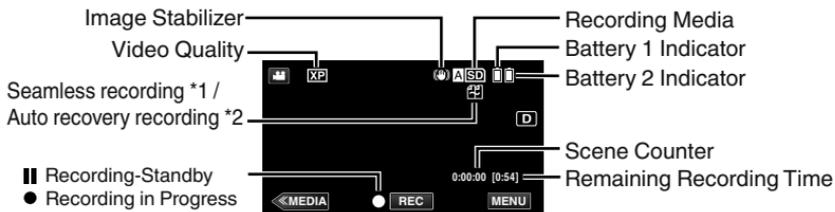
REC

- Press again to stop.



- The mode can also be switched between video and still image by pressing the “MODE” button on this unit.
- The mode can also be switched between Intelligent Auto and Manual by pressing the “i.AUTO” button on this unit.
- You can also tap **REC** on the touch screen to record. To stop recording, tap **REC**.
- The “REC” button and zoom lever on the handle can also be used.
- To use the viewfinder during recording, close the LCD monitor.
- To view images on the viewfinder, adjust the focus by turning the eyepiece focus lever at the bottom of the viewfinder.

## ■ Indications during video recording



- \*1 Seamless recording:  
Automatically switches to a different media and continues recording when two SD cards are inserted to this unit and the remaining space on the current recording media runs out.
- \*2 Auto recovery recording:  
Automatically switches to a different media and continues recording when two SD cards are inserted to this unit and there is an error in the recording media.
- When only one SD card is being inserted, seamless recording and auto recovery recording cannot be performed.  will appear. The icon does not appear when “SEAMLESS RECORDING” in the “RECORD SETTING” menu is set to “OFF”.

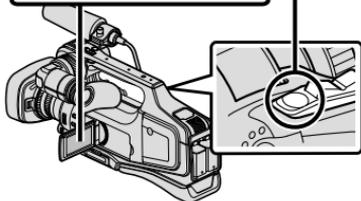
### Memo

- After using, slide the lens cover switch to close the lens cover.
- The estimated recording time of the supplied battery pack is approximately 1 hour 5 minutes.
- When recording is in progress with one battery attached, another battery can be attached without stopping recording.
- When 2 batteries are attached, removing one battery won't cause the power to be turned off if there is remaining battery power on either one or both.
- Do not remove the AC adapter, or SD card when the access lamp is lighted. The recorded data may become unreadable.
- Do not turn off the camera when the access lamp is lighted. The recorded data may become unreadable.
- The angle of view may change when the image stabilizer is turned on or off.
- Videos recorded in 60p mode (select “60p” in “SYSTEM SELECT”) can be played back only by the AVCHD Progressive compatible devices.
- While this unit may be used with the LCD monitor reversed and closed, the temperature rises more easily. Leave the LCD monitor open when using this unit.
- The power may turn off to protect the circuit if the temperature of this unit rises too much.

# Still Image Recording

**1** Check if the recording mode is  still image.

- If the mode is  on the touch screen, tap  to switch.



**2** Set the focus on the subject.

SNAPSHOT

Press halfway



Lights up in green when focused

**3** Take a still image.

SNAPSHOT

Press fully



Lights up during still image recording

- Image stabilization only starts when the button is pressed halfway.
- You can also tap  on the touch screen to record. However, focus cannot be set by pressing halfway.

# Playing Back/Deleting Files on this Unit

Select and play back the recorded videos or still images from an index screen (thumbnail display).

1 Tap or to select the video or still image mode.

(): 60i (interlace) mode

(): 60p (progressive) mode)

2 Tap “<<MEDIA” on the touch screen to select the playback mode.

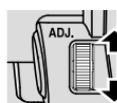
\* Tap “<<CAM” to return to the recording mode.

3 Tap on the file to play back.



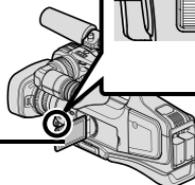
- Tap **A[SD]** / **B[SD]** at the bottom to select the media for playback.
- Tap to pause playback.
- Tap to return to the index screen.

Volume adjustment during playback



+ side: Turn up the volume

- side: turn down the volume



■ To delete unwanted files

① Tap .

② Tap on the files to delete.

A delete mark appears on the selected file. To remove the delete mark, tap again.



③ Tap “SET”.

④ Tap “EXECUTE” when the confirmation message appears.

⑤ Tap “OK”.

- The button on the index screen is only displayed during still image playback. Still images that are recorded continuously within 2 seconds or with the continuous shooting mode will be grouped together and displayed with a green frame on a separate index screen.

The index screen changes between the normal index screen and group index screen with every tap of the button.

■ To capture a still image during playback

Pause the playback and press the SNAPSHOT button.

## ■ Usable operation buttons during playback

	During Video Playback	During Still Image Playback
	Playback/pause	Start/pause slideshow
	Stop (returns to index screen)	Stop (returns to index screen)
	Advances to the next video	Advances to the next still image
	Returns to the beginning of the scene	Returns to the previous still image
	Forward search	-
	Reverse search	-
	During pause forward slow-motion / During pause press and hold to start slow playback	-
	During pause reverse slow-motion / During pause press and hold to start reverse slow playback	-
	-	Rotates 90 degrees counterclockwise
	-	Rotates 90 degrees clockwise
	-	Continuous playback of images taken by continuous shooting

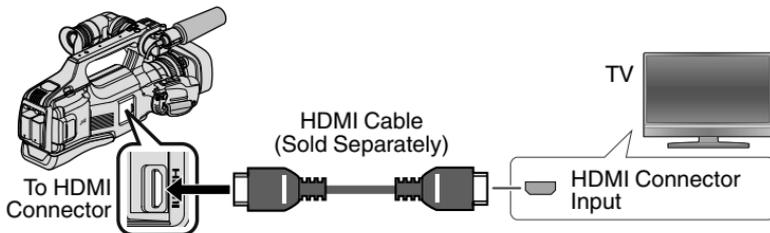
- The buttons disappear after approximately 5 seconds. Tap on the screen to display the buttons again.

# Playing Back on TV

## Preparation:

- Turn off both camera and TV.

### To connect using the HDMI connector

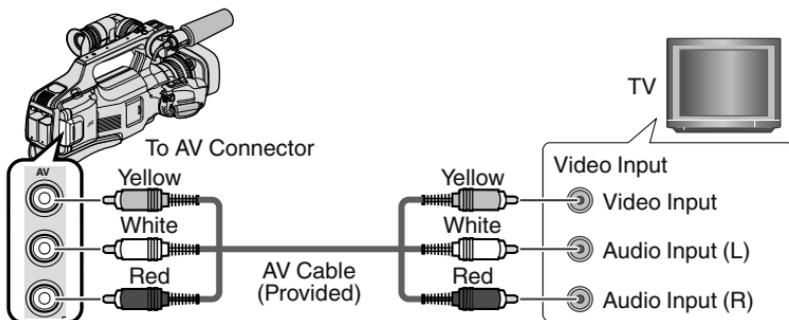


## Memo

- Use a High Speed HDMI cable.

### To connect using the AV connector

Change the settings of "VIDEO OUTPUT" in "CONNECTION SETTINGS" according to the connection.



## Playback Operation

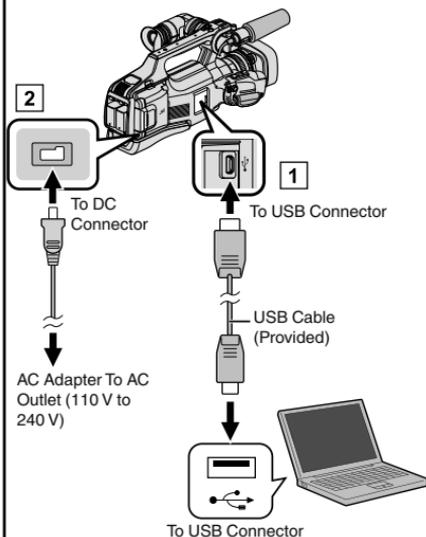
After the connection with TV is completed

- ① Connect the AC adapter. (p. 8)
- ② Turn on the camera and the TV.
- ③ Select the TV input switch.
- ④ Start playback on the camera.

# Copying to Computer

You can read and copy the files on the SD card by connecting this unit to a computer using a USB cable.

- 1 Connect the USB cable and the AC adapter.



- 1 Connect using the provided USB cable.
- 2 Connect the AC adapter to this unit.
- 3 Turn on the camera.

- Be sure to use the supplied JVC AC adapter.
- The “SELECT DEVICE” menu appears.

- 2 Tap “CONNECT TO PC”.



- 3

## Windows

Select “Computer” (Windows Vista) / “My Computer” (Windows XP) / “Computer” (Windows 7) from the “Start” menu, then click on the “JVCCAM\_SD” icon.

## Mac Computer

Double-click on the “No Name” icon, then click on the “JVCCAM\_SD” icon.

- Open the folder with the desired files. (p. 20)

- 4

Copy the files to any folder in the computer (desktop, etc).

## Disconnecting this Unit from Computer (Windows)

- 1 Click "Safely Remove Hardware and Eject Media".



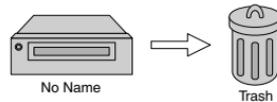
- 2 Click "Safely Remove USB Mass Storage Device".

- 3 (For Windows Vista) Click "OK".

- 4 Disconnect the USB cable from the computer.

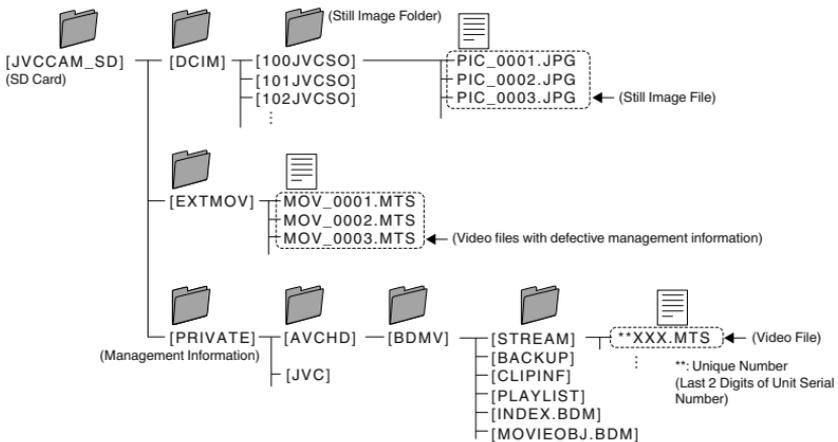
## Disconnecting this Unit from Computer (Mac Computer)

Throw the "No Name" icon into the trash can.



## List of Files and Folders

Folders and files are created in the SD card as shown below. They are created only when necessary.



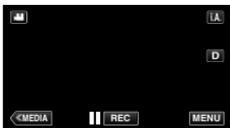
### Caution

- When the camera and PC are connected by an USB cable, recorded media are read-only.

# Changing Menu Settings

To change camera settings, tap [MENU] and select the item which you want to change.

## 1 Tap "MENU".



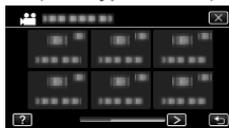
## 2 Tap the desired menu.



- "SILENT": sets the camera to "silent mode".
- "INFO.": displays "remaining recording time".
- Tap  to display "shortcut menu".

## 3 Tap the desired item to change the settings.

(Icon type screen)



- Tap < or > to scroll the screen.  
(List type screen)



- Tap "▲" or "▼" to scroll the screen.

■ To exit the screen

Tap "X".

■ To return to the previous screen

Tap "←".

# Troubleshooting

If you encounter problems with this unit, check the following before requesting service.

- 1 Refer to “Trouble” below.
- 2 Refer to the “Troubleshooting” section in the “Detailed User Guide”.  
If you have difficulties operating the unit, refer to the detailed descriptions in the “Detailed User Guide”.
- 3 This unit is a microcomputer-controlled device. Electrostatic discharge, external noise and interference (from a TV, a radio, etc.) might prevent it from functioning properly.  
In such a case, reset the unit.
  - ① Turn off the power.
  - ② Remove the AC adapter and battery pack from this unit, reattach them, turn on the power.
- 4 If the above do not solve the problem, consult your nearest JVC dealer or JVC service center.

## Trouble

	Trouble	Action	Page
Power supply	POWER/CHARGE lamp starts blinking when the power is turned off.	<ul style="list-style-type: none"> <li>• The battery pack is being charged.</li> </ul>	8
	Recording cannot be performed.	<ul style="list-style-type: none"> <li>• Check the /  button.</li> <li>• Set to the recording mode by tapping the “&lt;&lt;CAM” button.</li> </ul>	13 16
Recording	Recording stops automatically.	<ul style="list-style-type: none"> <li>• Turn off this unit, wait for a while, and turn it on again. (This unit stops automatically to protect the circuit when the temperature rises.)</li> <li>• Recording stops automatically after 12 hours of continuous recording.</li> </ul>	- -
	Unable to record properly in the Intelligent Auto mode.	<ul style="list-style-type: none"> <li>• When there are multiple light sources and depending on the shooting conditions, exposure and focus may not be adjusted correctly in the Intelligent Auto mode. In this case, adjust the settings manually.</li> </ul>	-
Playback	Sound or video is interrupted.	<ul style="list-style-type: none"> <li>• Sometimes playback is interrupted at the connecting section between two scenes. This is not a malfunction.</li> </ul>	-

The lamp does not flash during battery pack charging.

- Check the remaining battery power. (When the battery pack is fully charged, the lamp does not flash.)
- When charging in either a hot or cold environment, ensure that battery is being charged within the permitted temperature range. (Otherwise, charging may stop to protect the battery pack.)

8  
-  
8

This unit heats up.

- This is not a malfunction. (This unit may become warm when used for a long time.)

-

## Warning Indications

Warning Indications	Action	Page
RECORDING FAILURE	<ul style="list-style-type: none"> <li>• Turn off and on this unit again.</li> <li>• 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.)</li> </ul>	- -
DATA RECORDED FILE IS TOO SMALL TO BE SAVED	<ul style="list-style-type: none"> <li>• When "TIME-LAPSE RECORDING" is stopped with the recorded time less than "0:00:00:17", the video will not be saved.</li> </ul>	-
MEMORY CARD ERROR!	<ul style="list-style-type: none"> <li>• Turn off and on this unit again.</li> <li>• Remove the AC adapter and battery pack, then remove and re-insert the SD card.</li> <li>• Remove any dirt from the SD card terminals.</li> <li>• 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.)</li> </ul>	- - - -

# Cautions

## Battery Pack

The supplied battery pack is a lithium-ion battery. Before using the supplied battery pack or an optional battery pack, be sure to read the following cautions:

- **To avoid hazards**

... **do not** burn.

... **do not** short-circuit the terminals. Keep it away from metallic objects when not in use. When transporting, make sure the provided battery cap is attached to the battery. If the battery cap is misplaced, carry the battery in a plastic bag.

... **do not** modify or disassemble.

... **do not** expose the battery to temperatures exceeding 60°C (140°F), as this may cause the battery to overheat, explode or catch fire.

... use only specified chargers.

- **To prevent damage and prolong service life**

... do not subject to unnecessary shock.

... charge within the temperature range of 10°C to 35°C (50°F to 95°F). Cooler temperatures require longer charging time, or in some cases stop charging at all. Warmer temperatures prevent complete charging, or in some cases stop charging at all.

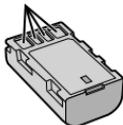
... store in a cool, dry place. Extended exposure to high temperatures will increase natural discharge and shorten service life.

... keep a 30% battery level (  ) if the battery pack is not to be used for a long period of time. In addition, fully charge and then fully discharge the battery pack every 6 months, then continue to store it at a 30% battery level (  ).

... remove from charger or powered unit when not in use, as some machines use current even when switched off.

... do not drop or subject to strong impact.

## Terminals



## Recording Medium

- **Be sure to follow the guidelines below to prevent corruption or damage to your recorded data.**

- Do not bend or drop the recording medium, or subject it to strong pressure, jolts or vibrations.

- Do not splash the recording medium with water.

- Do not use, replace, or store the recording medium in locations that are exposed to strong static electricity or electrical noise.

- Do not turn off the camcorder power or remove the battery or AC adapter during shooting, playback, or when otherwise accessing the recording medium.

- Do not bring the recording medium near objects that have a strong magnetic field or that emit strong electromagnetic waves.

- Do not store the recording medium in locations with high temperature or high humidity.

- Do not touch the metal parts.

- When formatting or erasing data using the camcorder, only the file administration information is changed. The data is not completely erased from the recording medium. If you want to completely erase all of the data, we recommend either using commercially available software that is specially designed for that purpose, or by physically destroying the camcorder with a hammer etc.

## LCD Monitor

- **To prevent damage to the LCD monitor, DO NOT**

... push it strongly or apply any shocks.

... place the camcorder with LCD monitor on the bottom.

- **To prolong service life**

... avoid rubbing it with coarse cloth.

## ATTENTION:



The product you have purchased is powered by a rechargeable battery that is recyclable.

Please call 1-800-8-BATTERY for information on how to recycle this battery.

(USA and Canada only)

While the LCD monitor screen and viewfinder have more than 99.99% effective pixels, 0.01% of the pixels may be bright spots (red, blue, green) or dark spots. This is not a malfunction. The spots will not be recorded.

## Main Unit

### ● For safety, DO NOT

- ... open the camcorder's chassis.
- ... disassemble or modify the unit.
- ... allow inflammables, water or metallic objects to enter the unit.
- ... remove the battery pack or disconnect the power supply while the power is on.
- ... leave the battery pack attached when the camcorder is not in use.
- ... place naked flame sources, such as lighted candles, on the apparatus.
- ... expose the apparatus to dripping or splashing.
- ... leave dust or metal objects adhered to the power plug or an AC wall outlet.
- ... insert any objects in the camcorder.

### ● Avoid using the unit

- ... in places subject to excessive humidity or dust.
- ... in places subject to soot or steam such as near a cooking stove.
- ... in places subject to excessive shock or vibration.
- ... near a television set.
- ... near appliances generating strong magnetic or electric fields (speakers, broadcasting antennas, etc.).
- ... in places subject to extremely high (over 40°C or 104°F) or extremely low (under 0°C or 32°F) temperatures.

### ● DO NOT leave the unit

- ... in places of over 50°C (122°F).
- ... in places where humidity is extremely low (below 35%) or extremely high (above 80%).
- ... in direct sunlight.
- ... in a closed car in summer.
- ... near a heater.
- ... in high places such as on a TV. Leaving the unit in high places while a cable is connected may result in a malfunction if the cable is caught and the unit falls onto the floor.

### ● To protect the unit, DO NOT

- ... allow it to become wet.
- ... drop the unit or strike it against hard objects.
- ... subject it to shock or excessive vibration during transportation.
- ... keep the lens directed at extremely bright objects for long periods.
- ... expose the lens to direct sunlight.
- ... swing it excessively when using the hand strap.
- ... swing the soft camcorder case excessively when the camcorder is inside it.
- ... store the camcorder in a dusty or sandy area.
- ... cover camcorder with a towel, cloth and so on.

### ● To prevent the unit from dropping,

- Fasten the grip belt securely.
- When using the camcorder with a tripod, attach the camcorder to the tripod securely. If the camcorder drops, you may be injured and the camcorder may be damaged. When a child uses the unit, there must be parental guidance.

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not approved by JVC could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CAN ICES-3 A/NMB-3 A

# Recordable Time/Number of Images

## Approximate Video Recording Time

Quality	SDHC/SDXC card						
	4 GB	8 GB	16 GB	32 GB	48 GB	64 GB	128 GB
60p	15 m	35 m	1 h 10 m	2 h 30 m	3 h 50 m	5 h	10 h 10 m
UXP	20 m	40 m	1 h 20 m	2 h 50 m	4 h 10 m	5 h 40 m	11 h 30 m
XP	30 m	1 h	2 h	4 h	6 h	8 h 10 m	16 h 20 m
SP	40 m	1 h 20 m	2 h 50 m	5 h 50 m	8 h 30 m	11 h 30 m	23 h 10 m
EP	1 h 40 m	3 h 30 m	7 h 10 m	14 h 40 m	21 h 30 m	28 h 50 m	57 h 50 m
SSW	1 h 20 m	2 h 40 m	5 h 30 m	11 h 20 m	16 h 40 m	22 h 20 m	44 h 50 m
SEW	2 h 50 m	5 h 40 m	11 h 30 m	23 h 30 m	34 h 30 m	46 h 10 m	92 h 40 m

- The approximate recording time is only a guide. The actual recording time may shorten depending on the shooting environment.

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

Image Size	SDHC Card			
	4 GB	8 GB	16 GB	32 GB
4000x3000 (12M) (4:3)	500	1100	2200	4500
2816x2112 (5.9M) (4:3)	1100	2200	4500	9200
2048x1536 (3.1M) (4:3)	2100	4200	8500	9999
1920x1080 (2.1M) (16:9)	3100	6500	9999	9999
640x480 (0.3M) (4:3)	9999	9999	9999	9999

## Approximate Recording Time (Using Battery)

Battery Pack	Actual Recording Time	Continuous Recording Time
BN-VF815U	1 h 15 m	2 h 25 m
BN-VF823U (supplied)	1 h 50 m	3 h 30 m

- The battery pack is not charged at the time of purchase.
- The actual recording time is an estimated length of time when operations such as to start/stop recording, turning on/off the power, zooming are performed. It may be shortened in the actual use. (It is recommended to prepare battery packs ready for three times the expected recording time.)
- The above are values when "MONITOR BRIGHTNESS" is set to "3" (standard), and "SYSTEM SELECT" is set to 60i.

# Specifications

## Camera

Power supply	Using AC adapter: DC 11 V, Using battery pack: DC 7.2 V
Power consumption	3.6 W (when "MONITOR BRIGHTNESS" is set to "3" (standard)) Rated Current Consumption : 1A
Dimensions (mm)	227 mm x 232 mm x 472 mm (8-15/16" x 9-3/16" x 18-5/8") (W x H x D: excluding grip belt)
Mass	Approx. 2.9 kg (6.4 lbs) (camera only), Approx. 3.1 kg (6.9 lbs) (when 2pcs of the battery BN-VF823U are attached)

The specifications and appearance of this product are subject to changes for further improvement without prior notice.

For more information, please refer to the Detailed User Guide.

### ■ Para Brasil

#### Informação sobre eliminação de baterias

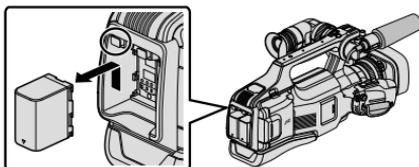
Este produto não deverá ser eliminado como lixo doméstico em geral.

Devolva a bateria velha ao comerciante ou para a rede autorizada, para que seja devolvida ao fabricante ou importador.

A reciclagem e eliminação de lixo em uma maneira adequada, ajudarão para preservar recursos, prevenindo, ao mesmo tempo, contra efeitos prejudiciais sobre a nossa saúde e o meio ambiente.

#### Para Retirar a Bateria Recarregável

Pressione botão e puxe a bateria para fora.



# JVC

