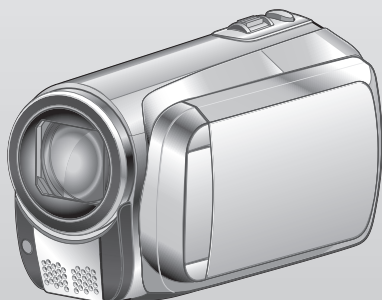# JVC

LYT1997-001A-M

INSTRUCTIONS
MANUAL DE INSTRUCCIONES

EN SP

HD MEMORY CAMERA
VIDEOCÁMARA HD CON MEMORIA

GZ-HM200 Ⓤ

Dear Customers
Thank you for purchasing this HD memory camera. Before use, please read the safety information and precautions contained on pages 2 and 3 to ensure safe use of this product.

For Future Reference:
Enter the Model No. (located on the bottom of the HD memory camera) and Serial No. (located on the battery pack mount of the HD memory camera) below.

Model No.

Serial No.

Apreciado cliente
Gracias por la compra de esta videocámara HD con memoria. Antes de usarla, lea la información de seguridad y las precauciones contenidas en las páginas 2 y 3 para garantizar un uso seguro de este producto.

Para futuras consultas:
Escriba a continuación el número de modelo (situado en la base de la videocámara HD con memoria) y el número de serie (situado en el compartimiento de la batería de la videocámara HD con memoria).

Número de modelo.

Número de serie.

Please read the instruction manual prior to connecting or operating this product.

Por favor, lea el manual de instrucciones antes de conectar u operar este producto.

For more details on the operations, refer to the GUIDEBOOK in the supplied CD-ROM.
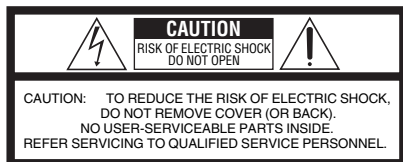
Para obtener más información sobre las operaciones, consulte la GUÍA incluida en el CD-ROM suministrado.

SDHC

◼◼ DOLBY
DIGITAL
STEREO CREATOR

HDMI
HIGH-DEFINITION MULTIMEDIA INTERFACE

AVCHD

ENGLISH
CASTELLANO

Safety Precautions

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: 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.

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 battery pack mount.
● The rating information and safety caution of the AC adapter are on its upper and lower sides.

Caution on Replaceable lithium battery

The battery used in this device may present a fire or chemical burn hazard if mistreated.
Do not recharge, disassemble, heat above 100°C or incinerate.
Replace battery with Panasonic (Matsushita Electric), Sanyo, Sony or Maxell CR2025.
Danger of explosion or Risk of fire if the battery is incorrectly replaced.
● Dispose of used battery promptly.
● Keep away from children.
● Do not disassemble and do not dispose of in fire.

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

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 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 the camcorder and to the user.
Carrying or holding the camcorder by the LCD monitor 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 camcorder.

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

CAUTION:
The mains plug shall remain readily operable.

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 sunshine, fire or the like.

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. Only use attachments/accessories specified by the manufacturer.
10. 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.
11. Unplug this apparatus during lightning storms or when unused for long periods of time.
12. 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.

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

Remember that this camcorder 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 and AVCHD logotype are trademarks of Matsushita Electric Industrial Co., Ltd. and Sony Corporation.
● Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.
● x.v.Color™ is a trademark of Sony Corporation.
● HDMI is a trademark of HDMI Licensing, 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.
● YouTube™ and the YouTube logo are trademarks and/or registered trademarks of YouTube LLC.
● iTunes, iMovie and iPhoto are trademarks of Apple Inc., registered in the U.S. and other countries.
● Other product and company names included in this instruction manual are trademarks and/or registered trademarks of their respective holders.

3

Charge the battery before recording

Turn off the camcorder and attach the battery pack.

Access lamp
blinks: Accessing files

Power/charge lamp
blinks: Charging
goes out: Charging finished

Do not remove the
AC adapter, the
battery pack or the
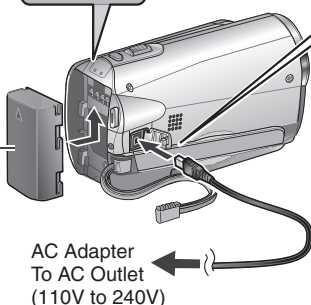SD card when the
lamp is blinking.

ACCESS POWER/
CHARGE

Open the cover

Battery Pack
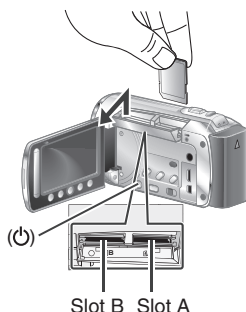
The battery pack
is not charged
at the time of
purchase.

AC Adapter
To AC Outlet
(110V to 240V)

CAUTION
● **Charge the battery pack**
  before use. (☞ p. 18)
● **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.

Insert the SD Card

Press Power (⏻) button to turn off the
camcorder.

(⏻)

Slot B Slot A

● Insert and remove an SD card
  only while the power is turned off.
  Otherwise, data on the card may be
  corrupted.
● Format an SD card when using it for
  the first time (☞ p. 21)

Grip Adjustment

Adjust the strap and fasten.

Grip Strap

Fasten

❶

❷

Tab
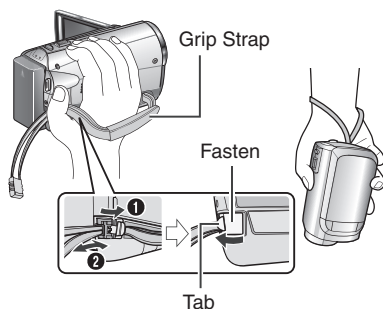
● Do not pull the strap when you open
  the fasten. Please pull the tab to open
  it.
● Fasten the belt when you grip the
  camcorder.
● When carrying the camcorder, please
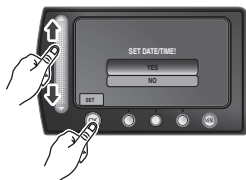 be careful not to drop it.

4

Date/Time Setting
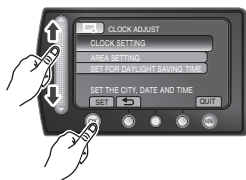
1 **Open the LCD monitor to turn on the camcorder**

Power Button
(⏻)

LCD monitor
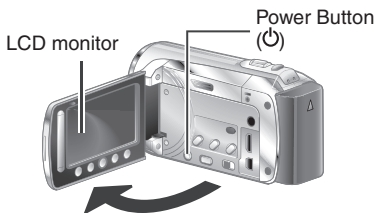
2 **Select [YES] within 10 seconds**
Slide your finger up and down on the sensor. Then touch **OK**.
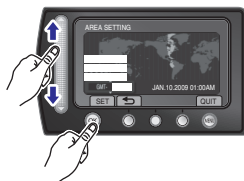
SET DATE/TIME!
YES
NO
SET

- When the message disappears, press the power button for at least 2 seconds to turn off the power, and then press it again for at least 2 seconds.
- Touch the sensors with your finger. The sensors do not function if you touch them with your finger nail or with gloves on.

3 **Select [CLOCK SETTING]**

CLOCK ADJUST
CLOCK SETTING
AREA SETTING
SET FOR DAYLIGHT SAVING TIME
SET THE CITY, DATE AND TIME
SET   QUIT

4 **Select the city closest to the area where you use the camcorder**

AREA SETTING
GMT: JAN.10.2009 01:00AM
SET   QUIT

5 **Select [ON] or [OFF]**
Select [ON] if daylight saving time is effective.

SET FOR DAYLIGHT SAVING TIME
DAYLIGHT SAVING TIME (DST)
OFF
JAN.10.2009 01:00AM
SET DAYLIGHT SAVING TIME
SET   QUIT
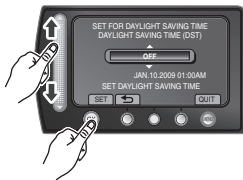
ON: Clock is advanced 1 hour from the normal time which you set.
OFF: Deactivates the function.

6 **Set the date and time**
Touch sensor: Sets the date and time.
➡: Moves the cursor to the right.
OK: Clock starts.

CLOCK SETTING
DATE   TIME
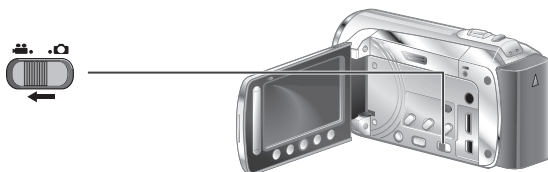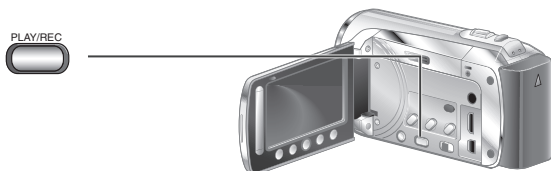NOV   GMT+9:00
SAVE   QUIT
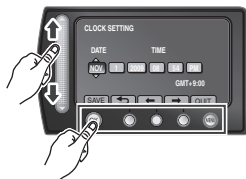
Video recording

- **This camcorder records video in accordance with the AVCHD format.**
- **Try recording with easy [AUTO] mode first.**

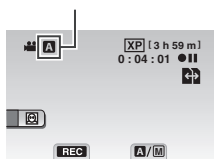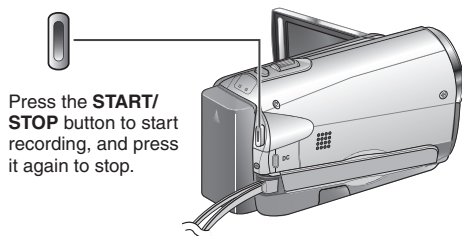**1** **Select ▲ (video) mode**

2 **Select recording mode**

PLAY/REC

The auto recording indicator appears.

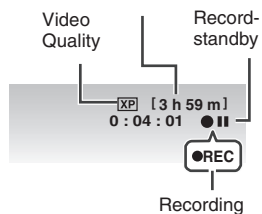**▲ Ⓐ**　　**XP [3 h 59 m]**
0 : 04 : 01 ●❙❙

REC　**Ⓐ/Ⓜ**

3 **Start recording**

Press the **START/STOP** button to start recording, and press it again to stop.

Remaining space on the SD card.

Video Quality　　Record-standby
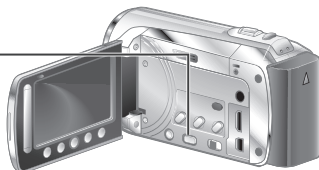
XP [3 h 59 m]
0 : 04 : 01 ●❙❙

●REC

Recording

Playing back

1 Select playback mode

PLAY/REC

The mode changes when you press the button.

2 Select the desired file

Index screen

> VIDEO PLAYBACK 1/2
> A
> NOV. 01.2009 04:55PM
> ▶ DIGEST Q 🗑
> OK ○ ○ ○ MENU

3 Select ▶ (Touch OK)

Playback screen

> XP 0. 00 : 00
> ⅠⅠ
> A
> JAN.12
> ▶ ■ ◀Ⅰ Ⅰ▶
> OK ○ ○ ○ MENU

■ **To perform operations such as forward search or reverse search (☞ p. 28)**
■ **To view files on TV (☞ p. 30)**

CAUTION

Don't forget to make copies after recording!
● To copy files onto discs (☞ p. 33)
● To dub files using a VCR/DVD recorder (☞ p. 36)
● To edit files on your computer (☞ p. 38)

JVC Software Licence Agreement

JVC SOFTWARE LICENCE AGREEMENT

IMPORTANT

TO CUSTOMERS: PLEASE MAKE SURE TO READ THIS CAREFULLY BEFORE INSTALLING OR USING THE SOFTWARE PROGRAM NAMED "DIGITAL PHOTO NAVIGATOR" ("Program") ON YOUR PC.

The right to use the Program is granted by Victor Company of Japan, Limited ("JVC") to You only on the condition that You agree to the following. Should You not agree to the terms hereof, You may not install or use the Program. HOWEVER, INSTALLING OR USING THE PROGRAM INDICATES YOUR ACCEPTANCE OF THESE TERMS AND CONDITIONS.

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You acknowledge that all copyrights and other intellectual property rights in the Program are owned by JVC and its licensor, and remain vested in JVC and such licensor. The Program is protected under the copyright law of Japan and other countries, and related Conventions.

2 GRANT OF LICENCE

(1) Subject to the conditions of this Agreement, JVC grants to You a non-exclusive right to use the Program. You may install and use the Program on a HDD or other storage devices incorporated in Your PC.

(2) You may make one (1) copy of the Program solely for your personal backup or archival purposes.

3 RESTRICTION ON THE PROGRAM

(1) You may not reverse engineer, decompile, disassemble, revise or modify the Program, except to the extent that expressly permitted by applicable law.

(2) You may not copy or use the Program, in whole or in part, other than as expressly specified in this Agreement.

(3) You have no right to grant a licence to use the Program, and may not distribute, rent, lease or transfer the Program to any third party or otherwise let them use the Program.

4 LIMITED WARRANTY

JVC warrants that any media in which the Program is embodied are free from any defects in materials and workmanship for a period of thirty (30) days from the date of Your purchasing any our products accompanying the Program. JVC's entire liability and your exclusive remedy in connection with the Program shall be replacement of such defective media. EXCEPT FOR THE EXPRESS WARRANTIES STATED HEREIN AND TO THE EXTENT PERMITTED BY APPLICABLE LAW, JVC AND ITS LICENSORS DISCLAIM ANY OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN REGARD TO THE PROGRAM AND THE ACCOMPANYING PRINTED MATERIALS. SHOULD THERE BE ANY PROBLEM ARISING FROM OR CAUSED BY THE PROGRAM, YOU SHOULD SETTLE ALL SUCH PROBLEM AT YOUR OWN COST AND EXPENSE.

5 LIMITED LIABILITY

TO THE EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL JVC AND ITS LICENSORS BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, REGARDLESS OF THE FORM OF ACTION WHETHER IN CONTRACT, TORT OR OTHERWISE ARISING OUT OF OR IN CONNECTION WITH THE USE OF OR INABILITY TO USE THE PROGRAM, EVEN IF JVC HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. YOU WILL INDEMNIFY AND HOLD HARMLESS JVC FROM ANY LOSS, LIABILITY OR COST ARISING OUT OF OR IN ANY WAY CONNECTED TO CLAIMS FROM ANY THIRD PARTY RELATING TO THE USE OF THE PROGRAM.

6 TERM

This Agreement will become effective on the date when You install and use the Program on Your machine, and continue to be in effect until the termination under the following provision. 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

(1) No modification, change, addition, deletion or other alternation of or to this Agreement will be valid unless reduced to writing and signed by an authorized representative of JVC.

(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

NOTE
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.

CAUTIONS:
● 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

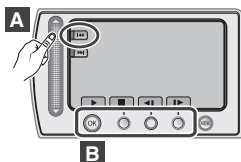# Read This First!

How to use the Touch Sensor

After the menu is displayed on the LCD monitor:
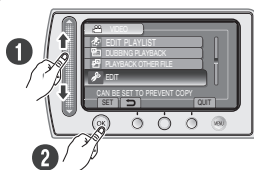
❶ Slide your finger up and down on the sensor.
❷ Select [SET]. (Touch **OK**.)

CAUTION

Touch the sensors with your finger. The sensors do not function if you touch them with your fingernail or with gloves on.

A To select an on-screen button appearing on the left side, touch the portion of the sensor next to the on-screen button.
B To select an on-screen button appearing at the bottom of the screen, touch the buttons underneath them.

Read these INSTRUCTIONS to enjoy your CAMCORDER. For more details on the operations, refer to the GUIDEBOOK in the supplied CD-ROM.
In order to view the GUIDEBOOK, Adobe® Acrobat® Reader™ or Adobe® Reader® must be installed.
Adobe® Reader® can be loaded from Adobe's web site:
http://www.adobe.com/

NOTE
Select your desired language with a single click.
The model name is indicated on the bottom of your camcorder.

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. (☞ p. 35)

Make a trial recording
Before the actual recording of important data, make a trial recording and play back the recorded data to check that the video and sound have been recorded correctly. We recommend you to use the same recording media when performing both the trial recording and the actual recording.

Reset the camcorder if it does not operate correctly
Close the LCD monitor and remove the power supply (battery pack or AC adapter) from the camcorder, then reattach it.

Precautions on handling batteries
● Be sure to use the JVC BN-VF808U/VF815U/VF823U battery packs. This product includes patented and other proprietary technology and is made to be used with the JVC battery and not with other batteries. JVC cannot guarantee safety or performance of this product when it is operated by other batteries
● If the camcorder is subjected to electrostatic discharge, turn off the power before using it again.

If a malfunction occurs, stop using the camcorder immediately and contact www.jvc.com or by phone at 1-800-252-5722
Recorded data may be erased while the camcorder is being repaired or inspected. Back up all data before requesting repairs or inspections.

Because camcorders may be used for demonstration in a shop, the demonstration mode is set to [ON] by default
To deactivate the demonstration mode, set [DEMO MODE] to [OFF].

When Using an SD Card
● Operations are confirmed on the following SD cards:
Class 4 or higher compatible SD or SDHC card. Panasonic, TOSHIBA, SanDisk, ATP SD card (256 MB to 2 GB) or SDHC card (4 GB to 32 GB)
For UXP mode, use Class 6 or higher.
● If other media are used, they may fail to record data correctly, or they may lose data that had already been recorded.
● MultiMediaCards are not supported.

Contents

ENGLISH

GETTING STARTED

RECORDING/ PLAYBACK

USING WITH TV

EDITING

COPYING

MENU SETTINGS

FURTHER INFORMATION

Accessories

AC Adapter
AP-V21U

Battery Pack
BN-VF808U

Component Cable
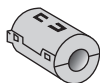
Audio/Video Cable

USB Cable

CD-ROM

Remote Control
RM-V751U

Lithium Battery
CR2025
Pre-installed in the
remote control unit.

(x 1)
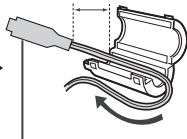(Component Cable)

(x 2)
(USB Cable and AC
Adapter)
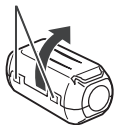
Core Filter

NOTE

Make sure to use the provided cables for connections. Do not use any other cables.
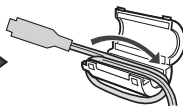
Attaching the Core Filter

The core filter reduces interference caused when connecting to other devices. Connect the end
of the cable with the core filter to the camcorder.
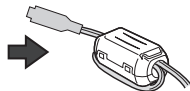
Release the stopper.   **3 cm (1-3/16")**

**To be connected to the
camcorder.**

**Component cable and
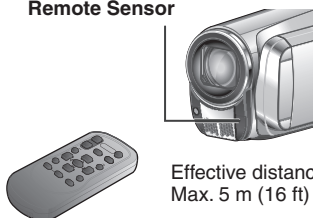USB cable: Wind once.
AC Adapter: Wind twice.**

Preparing the Remote Control

A battery is included inside the remote control at the time of purchase.
Remove the insulation sheet before use.

Beam Effective Area

Remote Sensor

Effective distance:
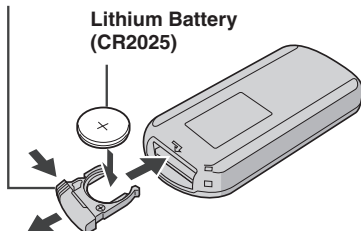Max. 5 m (16 ft)

NOTE

The transmitted beam may not be effective
or may cause incorrect operation when the
remote sensor is directly exposed to sunlight
or powerful lighting.

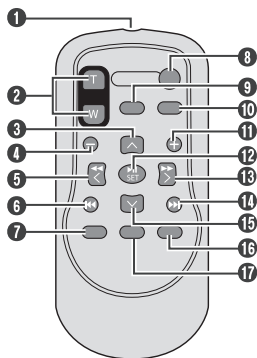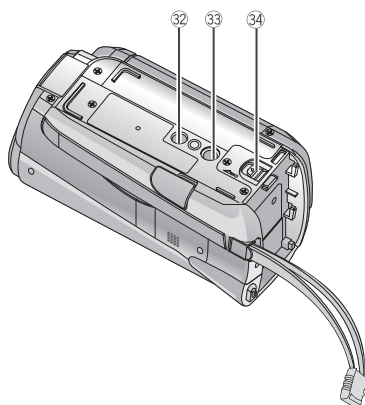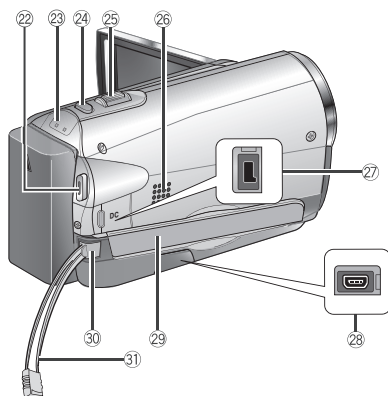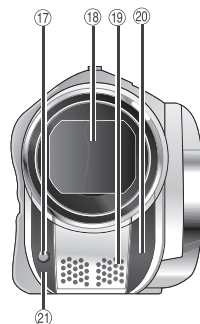### To Reinsert the Battery

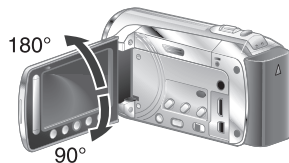Pull out the battery holder by pressing the
lock tab.

Lock Tab

**Lithium Battery
(CR2025)**

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Index
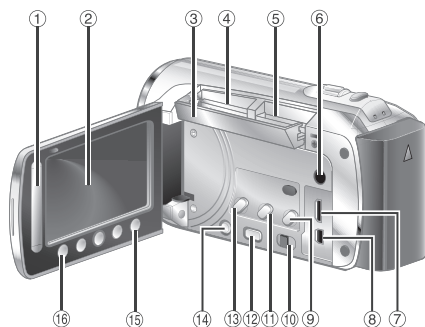
- Be careful not to cover ⑰, ⑱, ⑲, ⑳ and ㉑ during shooting.
- The LCD monitor can rotate 270°.

180°

90°

14

Camcorder

① Touch sensor
② LCD Monitor
③ SD Cover
④ SD Card Slot B (☞ p. 21)
⑤ SD Card Slot A (☞ p. 21)
⑥ Audio/Video Connector [AV] (☞ p. 30, 36)
⑦ HDMI Mini Connector [HDMI] (☞ p. 30)
⑧ Component Connector [COMPONENT] (☞ p. 30)
⑨ Direct Disc Button [DIRECT DISC] (☞ p. 35)/Information Button [INFO] (☞ p. 25)
⑩ Mode Switch [🎥, 📷]
⑪ Export Button [EXPORT] (☞ p. 42)
⑫ Playback/Recording Mode Switching Button [PLAY/REC]
⑬ Upload Button [UPLOAD] (☞ p. 43)
⑭ Power Switch [⏻]
(You can turn off the camcorder by pressing and holding this button.)
⑮ Menu Button [MENU] (☞ p. 44)
⑯ OK Button [OK]
⑰ LED Light (☞ p. 24)
⑱ Lens Cover/Lens
⑲ Stereo Microphone
⑳ Remote Sensor
㉑ Camera Sensor
㉒ Video Recording Start/Stop Button [START/STOP] (☞ p. 22)
㉓ Access Lamp [ACCESS] (Blinks when you access files. Do not turn off the power or remove the battery pack/AC adapter while accessing files.)
Power/Charge Lamp [POWER/CHARGE] (Blinks when you charge the battery.)
㉔ Still Image Shooting Button [SNAPSHOT] (☞ p. 22, 23)
㉕ Zoom Lever [W 🔲, T] (☞ p. 24)
Speaker Volume Control [–VOL+] (☞ p. 28)
㉖ Speaker
㉗ DC Connector [DC] (☞ p. 18)
㉘ USB Connector [🖥] (☞ p. 34, 38)
㉙ Grip Strap
㉚ Fasten
㉛ Belt Strap
㉜ Stud Hole
㉝ Tripod Mounting Socket (☞ p. 20)
㉞ Battery Release Button [BATT.] (☞ p. 18)

Remote Control

❶ Infrared Beam Transmitting Window
❷ ZOOM (T/W) Buttons
(Zoom in/out during playback.)
❸ Up Button
❹ Skip Backward Button
❺ Left Button
❻ Back Button
❼ PLAYLIST Button
❽ START/STOP Button
❾ S.SHOT (Snapshot) Button
❿ INFO Button
⓫ Skip Forward Button
⓬ PLAY/PAUSE/SET Button
⓭ Right Button
⓮ Next Button
⓯ Down Button
⓰ INDEX Button*
⓱ DISP Button

NOTE

You can move the zooming area with the up/down/left/right button during zoom in playback mode.

---

* Each time you press INDEX, the screen switches as shown below:

🎥 **mode:**
Index Screen ↔ Group Index Screen
📷 **mode:**
Index Screen ↔ Date Index Screen

15

Indications on LCD Monitor

During both Video and Still Image Recording

① Selected Operation Mode Indicator
(☞ p. 26)
Ⓐ : Auto Mode
Ⓜ : Manual Mode
② Effect Mode Indicator
③ Tele Macro Mode Indicator
④ LED Light Indicator (☞ p. 24)
⑤ Scene Select Mode Indicator
⑥ Quick Review Indicator (☞ p. 22)
⑦ Zoom Indicator (☞ p. 24)
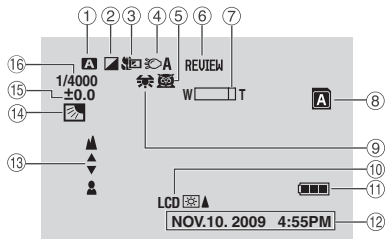⑧ SD Card Slot Indicator (☞ p. 21)
Ⓐ : Slot A (Default Setting)
Ⓑ : Slot B
⑨ White Balance Indicator
⑩ Monitor Backlight Indicator
⑪ Battery Indicator
⑫ Date/Time (☞ p. 19)
⑬ Manual Focus Adjustment Indicator
⑭ 🖼 : Backlight Compensation Indicator
🖼 : Face Detection Mode Indicator
(☞ p. 25)
⑮ Brightness Control Indicator
🖼 : Photometry Area Control Indicator
⑯ Shutter Speed

During Video Recording Only
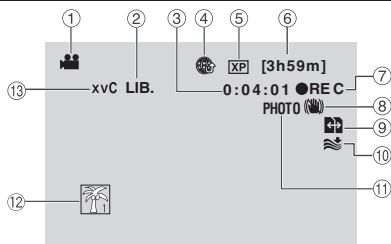
① Mode Indicator
② Export Mode Indicator (☞ p. 42)
③ Counter
④ Upload Mode Indicator (☞ p. 43)
⑤ Video Quality
⑥ Remaining Time
⑦ ●REC: (Appears during recording.)
●‖: (Appears during record-standby mode.)
⑧ Digital Image Stabilizer (DIS) Indicator
(Appears when [DIS] is set to [OFF].)
⑨ Auto Switch Rec Media Indicator
⑩ Wind Cut Indicator
⑪ Shooting Indicator (☞ p. 22)
⑫ Event Indicator
⑬ x.v.Color™ Indicator

During Still Image Recording Only
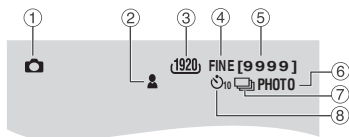
① Mode Indicator
② Focus Indicator (☞ p. 23)
③ Image Size Indicator
④ Image Quality Indicator
⑤ Remaining Number of Shots
⑥ Shooting Indicator (☞ p. 23)
⑦ Shutter Mode Indicator
⑧ Self-Timer Indicator

16

During Video Playback

① ② ③ ④ ⑤
⑪ ⑥
⑦

⑩

⑧
⑨
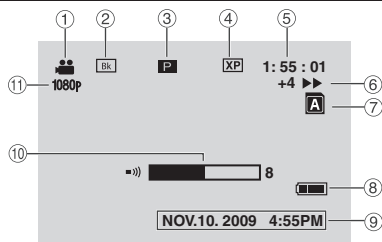
① Mode Indicator
② Wipe/Fader Effect Indicator (☞ p. 29)
③ 🅿 : Playlist Playback Indicator (Appears
   when playing back a playlist.)
   DIGEST: Digest Indicator (☞ p. 28)
④ Video Quality
⑤ Counter
⑥ Playback Mode (☞ p. 28)

   ▶ : Playback
   ❚❚ : Pause
   ▶▶ : Forward Search
   ◀◀ : Reverse Search
   ❚▶ : Forward Slow-Motion
   ◀❚ : Reverse Slow-Motion
   (The number on the left shows speed.)

⑦ Card Slot Indicator
⑧ Battery Indicator
⑨ Date/Time (☞ p. 19)
⑩ Volume Level Indicator
⑪ Output with 1080p

During Still Image Playback

① ②
⑦ ③
④

⑤
⑥
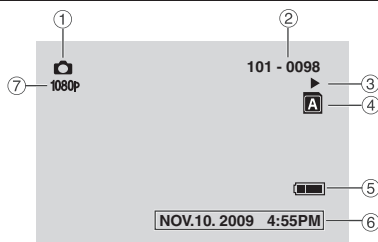
① Mode Indicator
② Folder/File Number
③ Slide Show Playback Indicator
④ Card Slot Indicator
⑤ Battery Indicator
⑥ Date/Time (☞ p. 19)
⑦ Output with 1080p

To display indication modes on LCD monitor

In playback mode:
1) Select [ON-SCREEN DISPLAY] from the MENU.
2) Select the desired setting:
   No indications/All indications/Only date and time/Display date for 5 seconds

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Necessary Settings before Use

Charging the Battery Pack

1 **Close the LCD monitor to turn off the camcorder.**

2 **Attach the battery pack, then connect the AC adapter.**
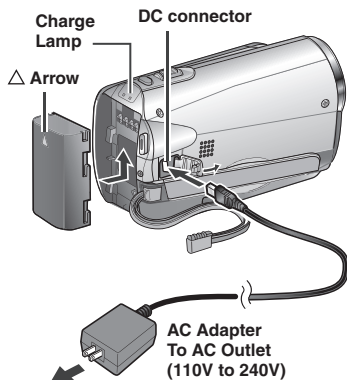
- With the "△" (arrow) on the battery pack pointing at the correct direction, slide the battery pack until it locks in place.

Charge Lamp

DC connector

△ **Arrow**

AC Adapter
To AC Outlet
(110V to 240V)

- The power/charge lamp blinks to indicate charging has started.
- When the lamp goes out, charging is finished.

■ **To check the remaining battery power**
See page 25.

■ **Required charging/recording time (approx.)**
*When the LED light is off and the monitor backlight is set to [STANDARD] mode.

Battery pack	Charging time	Recording time
BN-VF808U (Provided)	1 hr. 50 min.	1 hr. 25 min.*
BN-VF815U	2 hr. 40 min.	3 hr.*
BN-VF823U	3 hr. 40 min.	4 hr. 30 min.*

■ **To detach the battery pack**
Slide and hold **BATT.**, then remove the battery pack.

BATT.
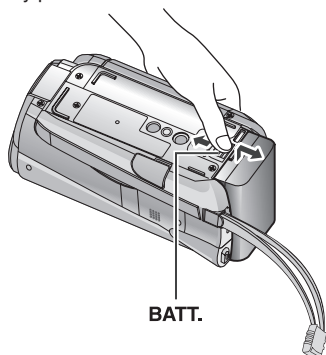
NOTE

- You can also use the camcorder with just the AC adapter.
- The actual recording time may shorten depending on the recording environment, such as when recording scenes with fast moving subject.
- Please do not pull or bend the AC adapter plug and cable. This may damage the AC adapter.

Date/Time Setting

1 **Open the LCD monitor to turn on the camcorder.**

2 **Touch MENU.**

3 **Select [DISPLAY SETTINGS].**

```
VIDEO
WIND CUT
AUTO SWITCH REC MEDIA
DISPLAY SETTINGS      >
BASIC SETTINGS        >
CONFIGURE ON-SCREEN DISPLAY
SET        QUIT
```

4 **Select [CLOCK ADJUST].**

```
DISPLAY SETTINGS
LANGUAGE
CLOCK ADJUST
DATE DISPLAY STYLE
MONITOR BRIGHT
SET DATE AND TIME
SET        QUIT
```

5 **Select [CLOCK SETTING].**

```
CLOCK ADJUST
CLOCK SETTING
AREA SETTING
SET FOR DAYLIGHT SAVING TIME
SET THE CITY, DATE AND TIME
SET        QUIT
```
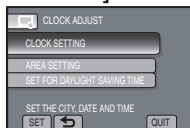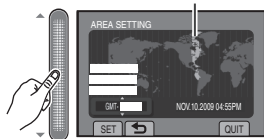
6 **Select the city closest to the area where you use the camcorder.**
Select the area by using the touch sensor.

Selected area is highlighted

```
AREA SETTING

GMT         NOV.10.2009 04:55PM
SET        QUIT
```
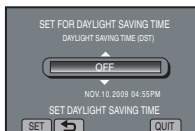
7 **Select [ON] if daylight saving time is effective.**

ON: Clock is advanced 1 hour from the normal time which you set.

OFF: Deactivates the function.

```
SET FOR DAYLIGHT SAVING TIME
DAYLIGHT SAVING TIME (DST)

OFF

NOV.10. 2009 04:55PM
SET DAYLIGHT SAVING TIME
SET        QUIT
```

8 **Set the date and time.**

Select the item by using the touch sensor and select [➡] to set.

```
CLOCK SETTING
DATE              TIME
NOV                    AM
                       GMT+ 9:00
SAVE        ←    →    QUIT
```

9 **Select [SAVE].**

To reset the setting, select [QUIT]

Setting the clock to local time when traveling

After performing steps 1 - 4

5 **Select [AREA SETTING].**

```
CLOCK ADJUST
CLOCK SETTING
AREA SETTING
SET FOR DAYLIGHT SAVING TIME
SET WHEN IN ANOTHER COUNTRY
SET        QUIT
```
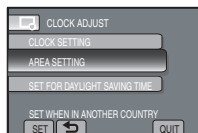
6 **Select the city closest to the area you are traveling.**

Selected area is highlighted

Principal city of the selected area

Time difference to GMT

```
AREA SETTING

GMT         NOV.10.2009 04:55PM
SET        QUIT
```
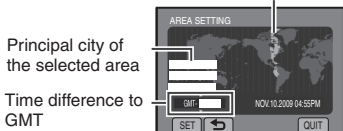
■ **To return to the previous screen**
Select ↰.
■ **To quit the screen**
Touch the **MENU** button.

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Other Settings

Language Setting

The language on the display can be changed.

1 **Open the LCD monitor to turn on the camcorder.**

2 **Touch MENU.**

3 **Select [DISPLAY SETTINGS].**

	VIDEO
≈	WIND CUT
⟳	AUTO SWITCH REC MEDIA
⤷	DISPLAY SETTINGS ＞
↕	BASIC SETTINGS ＞

CONFIGURE ON-SCREEN DISPLAY

SET ↰   QUIT

4 **Select [LANGUAGE].**

	DISPLAY SETTINGS
AB	LANGUAGE
⊙	CLOCK ADJUST
⬚	DATE DISPLAY STYLE
⬛	MONITOR BRIGHT

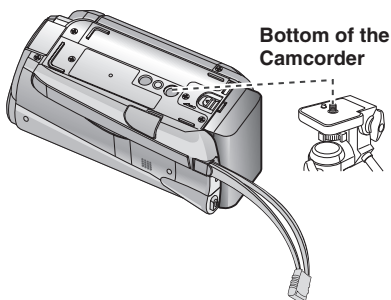ON-SCREEN DISPLAY LANGUAGE

SET ↰   QUIT

5 **Select the desired language.**

■ **To return to the previous screen**
Select ↰.
■ **To quit the screen**
Select [QUIT]

Tripod Mounting

Align the camcorder stud hole with the tripod stud, and the mounting socket with the screw, and lock it in place.

Bottom of the Camcorder

NOTE

Do not use a tripod on unsteady or unlevel surfaces. It could tip over, causing serious damage to the camcorder.

Using an SD Card

● Operations are confirmed on the following SD cards:
Class 4 or higher compatible SD or SDHC card. Panasonic, TOSHIBA, SanDisk, ATP SD card (256 MB to 2 GB) or SDHC card (4 GB to 32 GB)
For UXP mode, use Class 6 or higher.
● If other media are used, they may fail to record data correctly, or they may lose data that had already been recorded.
● MultiMediaCards are not supported.
● Cards used to record video on this camcorder cannot be played back on other devices.
● Some card readers (including internal card readers in PCs) may not be able to support SDHC format. If you use an SDHC card for recording and encounter any reading error, the card reader you are using, might be a non-SDHC supported device. Please use the camcorder or other SDHC compatible devices to access the card.
● Video data may not be recorded onto the SD cards on which video data have already been recorded using the devices from other manufacturers.

Insert an SD card

Preparation:
Press Power (⏻) button to turn off the camcorder.

1 Open the SD card cover.
Push the cover up gently, to open it.

2 Firmly insert the card with its clipped edge first.

Clipped Edge
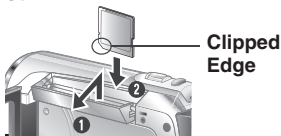
3 Close the SD card cover.

■ To remove an SD card
Push the SD card once.
After the card comes out a little, pull it out.

NOTE

● Insert and remove the SD card only while the power is turned off. Otherwise, data on the card may be corrupted.
● Do not touch the terminal on the reverse side of the label.

Change the recording medium

The camcorder is programmed to record in [SLOT A] when it is shipped from the factory. You can change the recording medium to [SLOT B].

From the MENU.
Set [VIDEO SLOT SELECTION] and [IMAGE SLOT SELECTION] to [SLOT A] or [SLOT B].

MEDIA SETTINGS

A SLOT A
B SLOT B

SET ⤺ QUIT
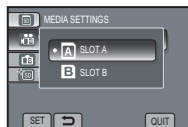
INFORMATION

● Recording media switches automatically from Slot A to Slot B and vise versa after the card in the selected slot is full.
● You can conveniently record your video and shoot still image in separate SD cards by selecting the card slot (A or B) for each purpose.

Format an SD card when using it for the first time

From the MENU.
Select [FORMAT SD CARD] to format the card.

MEDIA SETTINGS
VIDEO SLOT SELECTION A
IMAGE SLOT SELECTION A
FORMAT SD CARD
ERASE ALL DATA ON
SET ⤺ QUIT

21
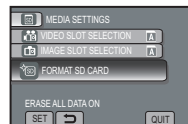
Recording Files

Video Recording

Preparation: ● Open the LCD monitor to turn on the camcorder.
● Insert an SD card.
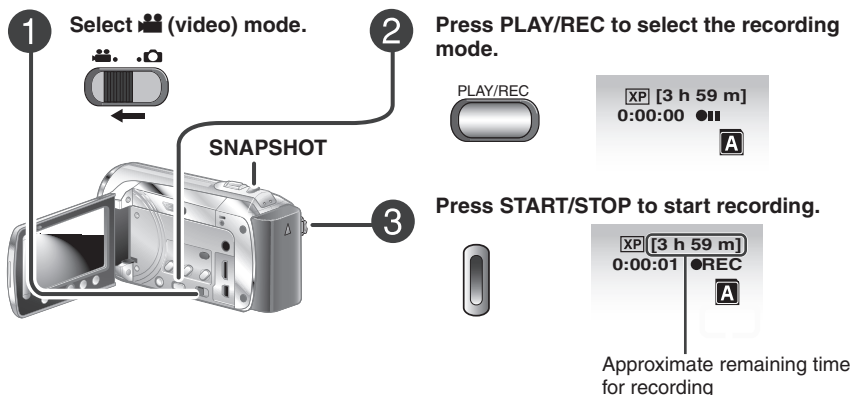
① **Select 📹 (video) mode.**

📹. .📷

SNAPSHOT

② **Press PLAY/REC to select the recording mode.**

PLAY/REC

⟨XP⟩ **[3 h 59 m]**
0:00:00 ●❙❙
Ⓐ

③ **Press START/STOP to start recording.**

⟨XP⟩⟨**[3 h 59 m]**⟩
0:00:01 ●**REC**
Ⓐ

Approximate remaining time for recording

You can also start/stop recording by selecting [REC] on the LCD monitor (On-screen recording control).

■ **To stop recording**
Press the **START/STOP** button or select [REC] again.

■ **To view the video you just recorded**
Select ⟨↩⟩ while recording is paused. Selecting ⟨🗑⟩ during playback deletes that scene.

■ **To change the video quality**
Change the settings in [VIDEO QUALITY] from the MENU.

■ **To record a still image during video recording**
Press **SNAPSHOT**.

■ **To record a video clip (approx. 10 minutes)**
See page 43.

■ **To turn on the face detection mode**
See page 25.
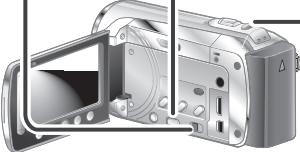
NOTE

● The video recording mode is automatically selected when you turn the camcorder's power off and then on again.

● If the camcorder is not operated for 5 minutes while the power is on, it turns itself off automatically to conserve power. To turn the camcorder on again when using the battery pack, close the LCD monitor and open it again. When using the AC adapter, perform any operation such as zooming.

● After recording video for 12 consecutive hours, recording stops automatically. To ensure continuous recording, set the [AUTO SWITCH REC MEDIA] to [ON] before you start recording.

● A new file will be created for every 4 GB of continuous shooting.

Still Image Recording

Preparation: ● Open the LCD monitor to turn on the camcorder.
● Insert an SD card.

1 **Select ▣ (still image) mode.**

2 **Press PLAY/REC to select the recording mode.**

PLAY/REC

3 **Press and hold SNAPSHOT halfway.**

FINE

The ♟ indicator becomes green when the captured image is focused.

4 **Press SNAPSHOT fully to take the picture.**

FINE [9999]
PHOTO

■ **To view the last recorded image**
Select 🔄 after shooting.
Selecting 🗑 during playback deletes that image.

■ **To change the image quality**
Change the settings in [IMAGE QUALITY] from the MENU.

■ **To record still images continuously**
Set to [CONTINUOUS SHOOTING] in [SHUTTER MODE] from the MENU.

■ **To change the aspect ratio of the image**
Change the settings in [IMAGE SIZE] from the MENU.

■ **To turn on the face detection mode**
See page 25.

NOTE

● DIS (Digital Image Stabilizer) does not function during still image recording.
● If the camcorder is not operated for 5 minutes while the power is on, it turns itself off automatically to conserve power. To turn on the camcorder again when using the battery pack, close the LCD monitor and open it again. When using the AC adapter, perform any operation such as zooming.

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Recording Files (Continued)

Zooming

Preparation:
● Select 📹 or 📷 mode.
● Select the recording mode.

Zoom out   **Zoom in**
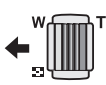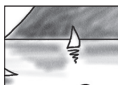
W: Wide angle   **T**: Telephoto

You can also zoom out/zoom in by selecting [W] or [T] on the LCD monitor. (On-screen zoom control)

Maximum zoom ratio: 20X/OPTICAL (Factory-preset)

■ **To change the maximum zoom ratio (for 📹 mode only)**
Change the settings in [ZOOM] from the MENU.

NOTE

Macro shooting is possible as close as approx. 5 cm (2") to the subject when the zoom lever is set all the way to **W**.

LED Light

Preparation:
● Select 📹 or 📷 mode.
● Select the recording mode.

1 Touch MENU.

2 Select [LIGHT].

3 Select the desired setting.

ON	The LED light remains on regardless of the surrounding conditions.
AUTO	The LED light turns on automatically when shooting in insufficient light conditions.
OFF	Deactivates this function.

Turning on the Face Detection Mode

If you set this mode on, the camcorder detects the faces and adjust brightness and focus so that the faces are recorded clearly.

Preparation:
• Select 🎥 or 📷 mode.
• Select the recording mode.

Select 🙂.

■ **To turn off the face detection mode**
Select 🙂 again.

NOTE

● If the LCD monitor is turned upside down, 🙂 is not displayed. Change the setting when the LCD monitor is in the normal position.
● Depending on the condition, faces may not be detected.
● If the face detection does not work correctly, turn off the mode before recording.

Checking the Remaining Battery Power

Preparation:
● Disconnect the AC adapter from the camcorder.
● Attach the battery pack.
● Select the recording mode.

For 🎥 mode:
Press **INFO** three times or **INFO** and then select 🔋.
For 📷 mode:
Press the **INFO** button.
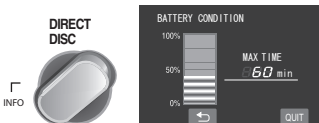
■ **To return to the normal screen**
Select [QUIT] or press **INFO**.

NOTE
The recordable time display should only be used as a guide. It is displayed in 10-minute units.

Checking the Remaining Space on the Recording Media

Preparation:
● Select 🎥 mode.
● Select the recording mode.

Press the INFO button once (Slot A) or twice (Slot B).

The maximum recording time is displayed for each picture quality mode.

■ **To change the video quality**
1) Select the video quality.
2) Select [SET].
■ **To change the recording media**
1) Press **INFO** to select SLOT A or SLOT B.
2) Select [SET].
■ **To quit the screen**
Select [QUIT].

Manual Recording

Manual recording mode enables you to set the focus and screen brightness, etc. manually.

Changing to Manual Recording Mode

Preparation:
- Select 🎥 or 📷 mode.
- Select the recording mode.

Select [A/M] twice.

XP [3 h 59 m]

A/M
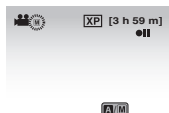
■ **To return to the auto recording mode**
Select [A/M] so that the A indicator appears.

Manual Setting in Menu

In the manual recording mode;

1 Touch MENU.

2 Select [MANUAL SETTING].

VIDEO

MANUAL SETTING
LIGHT   OFF
REGISTER EVENT
VIDEO QUALITY   XP
USE DETAIL SETTINGS BASED
SET   ↩   QUIT

3 Select the desired menu.

VIDEO

ADJUST BRIGHTNESS   A
SHUTTER SPEED   A
WB   A
BACKLIGHT COMP.   OFF
TO CORRECT BACKLIT SUBJECT
SET   ↩   QUIT

4 Select the desired setting.

VIDEO

OFF OFF
ON ON

SET   ↩   QUIT
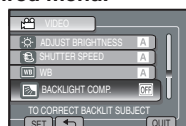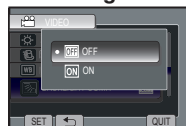
Depending on the kind of settings you select, you can set the value by using the touch sensor.

■ **To return to the previous screen**
Select ↩.
■ **To quit the screen**
Select [QUIT].

Scene Select/Effect

Scene Select
You can record videos or still images with optimum brightness by adjusting the exposure and shutter speed to suit your surroundings or the subject.

Effect
You can record videos or still images with special effects.

After performing steps **1** - **2** on left column.

3 Select [SCENE SELECT] or [EFFECT].

4 Select the desired setting.

■ **To cancel scene select/effect**
Select [OFF].

■ **Items for scene select setting**
- 📷 **NIGHT:**
  Records with more sensitivity in dim locations by adjusting the shutter speed automatically.
- 📷 **TWILIGHT:**
  Makes evening scenes look more natural.
- 📷 **PORTRAIT:**
  The subject in the foreground is accentuated by blurring the background.
- 📷 **SPORTS:**
  Records fast moving subjects clearly.
- 📷 **SNOW:**
  Compensates for subjects that may appear too dark when shooting in extremely bright surroundings, such as in snow.
- 📷 **SPOTLIGHT:**
  Select this when a spotlight makes a subject appear too bright.

■ **Items for effect setting**
- ◢ **SEPIA:**
  The image is given a brownish tint like an old photo.
- B/W **MONOTONE:**
  This effect skips frames to give images of an old movie atmosphere.
- 🎞 **CLASSIC FILM*:**
  The image is given an old movie atmosphere by the effect of skipping frames.
- 📷 **STROBE***:
  The image looks like a series of consecutive snapshots.
- * 📹 mode only.

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Playing Back Files

Video/Still Image Playback

Preparation:
- Open the LCD monitor to turn on the camcorder.
- Insert an SD card.

1 **Select 🎥 (video) or 📷 (still image) mode.**

2 **Press the PLAY/REC button to select playback mode.**

PLAY/REC
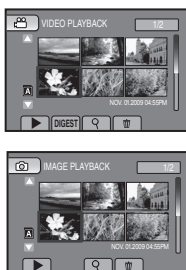
The index screen appears.

3 **Select the desired file.**

- ■ **To move to the previous or next page**
  Touch [▲] or [▼] for over a second.
- ■ **To play back a few seconds from each select scene of the recorded videos**
  Touch [DIGEST].
- ■ **To delete a video/still image**
  Select 🗑 when playback is stopped.
- ■ **To change the number of thumbnails (6 thumbnails / 12 thumbnails)**
  Move the zoom lever to [**T**] or [**W**].
- ■ **To adjust the sound volume of videos.**

Turn down the volume   Turn up the volume

─ VOL. +

■ **Operations during Video Playback**

① ▐◀◀
② ▶▶▐

③ ④ ⑤ ⑥
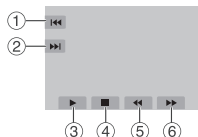
① ▐◀◀ : Return to the first scene of the file
② ▶▶▐ : Go to the first scene of the next file
③ ▶ : Playback
   ❚❚ : Pause
④ ■ : Return to the index screen
⑤ ◀◀ : Reverse search (during playback)
   ◀▐ : Frame-by-frame playback in reverse direction (during pause)*
⑥ ▶▶ : Forward search (during playback)
   ▐▶ : Frame-by-frame playback in forward direction (during pause)*

* Slow playback starts when you keep touching the sensor button under ◀▐ / ▐▶ for a while.

■ **Operations during Still Image Playback**

① ◀
② ▶

③ ④ ⑤ ⑥
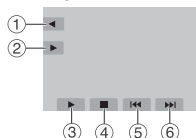
① ◀ : Change playback order of slide show in reverse direction
② ▶ : Change playback order of slide show in forward direction
③ ▶ : Start the slide show
   ❚❚ : End the slide show
④ ■ : Return to the index screen
⑤ ▐◀◀ : Display the previous file
⑥ ▶▶▐ : Display the next file

Playback with Special Effects

Wipe or fader effects
Add effects at the beginning and end of
videos. These effects cannot be set for still
images.

Preparation:
- Select ▶️ mode.
- Select the playback mode.

1 Touch MENU.

2 Select [WIPE/FADER].

```
🎥  VIDEO
📁  DUBBING PLAYBACK
📁  PLAYBACK OTHER FILE
🔧  EDIT
📁  WAPE/FADER
    CREATE EFFECTS TO THE START
    SET   ↩             QUIT
```

3 Select a desired effect.
For details on each effect, see the right
column.

```
🎥  VIDEO
    Off  OFF
    Wh   FADER-WHITE
    Bk   FADER-BLACK
    ▣    WIPE-SLIDE
    SET   ↩             QUIT
```
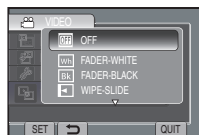
4 Select the file you want to play back.

■ **To turn off the effect**
Select [OFF] in step **3**.
■ **To quit the screen**
Select [QUIT].

■ **Items for WIPE/FADER setting**
- Wh **FADER-WHITE:**
  Fades in or out with a white screen.
- Bk **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.

NOTE

No effect will be applied on files with a play
time shorter than 7 seconds.

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Viewing Files on TV

This camcorder is designed to be used with high-definition or NTSC-type color television signals. It cannot be used with a television of a different standard.

Connection with TV

You can output videos from the HDMI mini connector, COMPONENT connector, or AV connector.
We recommend using the Category 2 HDMI cable (High Speed cable) for viewing in higher picture quality.

Preparation: Turn off all units.

■ To connect using the HDMI mini connector

HDMI Mini Connector   DC Connector

HDMI Cable (optional)
(Mini to full-sized HDMI cable)

AC Adapter

To AC Outlet
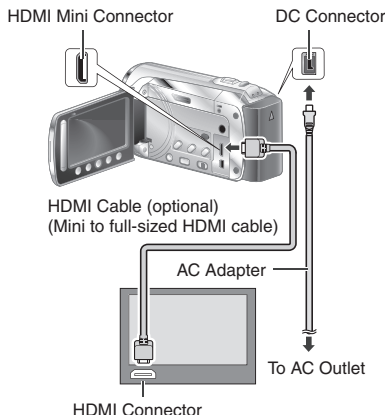
HDMI Connector

NOTE
● When connecting to the HDMI 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 cable and connect it again.
  2) Turn off and on the camcorder again.

■ To connect using the COMPONENT/AV connector

COMPONENT
Connector   AV Connector   DC Connector

Component Cable
AV Cable
AC Adapter

To AC Outlet

COMPONENT   Audio L/R Input   Video Connector
Input Connector   Connector   is not in use.
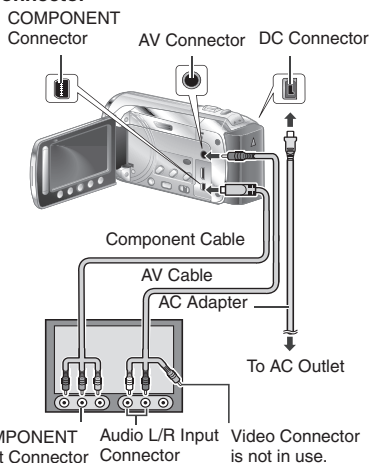
NOTE
• From the MENU, change the settings in [COMPONENT OUTPUT] according to the connection.
• From the MENU, change the settings in [VIDEO OUTPUT] to suit the screen size of your television.

Playback Operation

After the connection with TV is completed

1 Turn on the camcorder and the TV.

2 Set the TV to its VIDEO mode.

3 (Only when connecting the camcorder to the VCR/DVD recorder)

Turn on the VCR/DVD recorder, and set the VCR/DVD recorder to its AUX input mode.

4 Start playback on the camcorder. (☞ p. 28)

■ To display camcorder's on-screen display on TV
Set [DISPLAY ON TV] to [ON] from the MENU.

NOTE

When the video was recorded with x.v.Color™ set to [ON], change the x.v.Color™ setting on TV. For details, refer to the TV's instruction manual.

Operating Together with TV via HDMI

Connecting the camcorder to an HDMI-CEC*-enabled TV using the HDMI cable allows you to utilize the following convenient functions.
* HDMI-CEC (Consumer Electronics Control) is an industry standard that enables interoperability between HDMI-CEC compliant devices that are connected via HDMI cables.

NOTE

• Not all HDMI-control devices comply with the HDMI-CEC standard. The HDMI control function of the camcorder will not work when connected to these devices.
• The camcorder is not guaranteed to operate with all HDMI-CEC-enabled devices.
• HDMI-CEC does not function immediately after inserting the AC adapter to the AC outlet. Open the LCD monitor to turn on the camcorder.

Preparation:
• Connect an HDMI cable between the camcorder and the TV. (☞ p. 30)
• 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 the camcorder and set [HDMI CONTROL] to [ON] from the MENU.

■ **Playback on TV**

Select the playback mode.

The TV automatically switches to the HDMI input. (Turn on the TV beforehand.)

■ **Switching off TV and Camcorder**
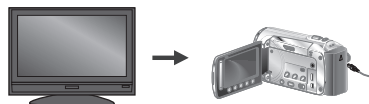
Turn off the TV.

The camcorder turns off automatically.

■ **Switching Display Language**
Depending on the TV connected, the display language of the camcorder will automatically switch to the language that is used for the TV when the camcorder is turned on.
(This is applicable only if the camcorder supports the language selected for the TV.)
To use the camcorder with a language that differs from the display language of the TV, set [HDMI CONTROL] to [OFF] from the MENU.

NOTE

● The display language of the TV will not switch automatically, even if the display language of the camcorder is changed.
● These functions may not work correctly when devices such as amplifier and selector are connected. Set [HDMI CONTROL] to [OFF] from the MENU.
● If HDMI-CEC does not work properly, turn off and on the camcorder again.

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Managing Files

Do not remove the recording medium (SD cards) 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.

Capturing a Still Image from a Video

You can capture the desired scene from a recorded video, and store it as a still image.

Preparation:
● Select ▶ mode.
● Select the playback mode.

Press SNAPSHOT when playback is paused.

SNAPSHOT

NOTE

● Captured still images are stored at a resolution of 1920 x 1080. The image can be elongated in the horizontal or vertical directions depending on the picture quality of the source video file.
● The continuous shooting function cannot be used to capture images.
● You cannot capture video during playback.

Deleting Files

● Protected files cannot be deleted. To delete them, release the protection first.
● Once files are deleted, they cannot be restored. Check files before deleting.

Preparation:
● Select ▶ or ◯ mode.
● Select the playback mode.

1 Touch MENU.

2 Select [DELETE]


```
VIDEO
🗑 DELETE
⬆ UPLOAD SETTINGS
🔍 SEARCH
⬚ PLAYBACK PLAYLIST
DELETE RECORDED VIDEO
SET  ⬏              QUIT
```
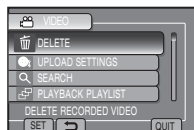
Deleting the Currently Displayed File

After performing steps 1 - 2

3 Select [CURRENT].


```
VIDEO DELETE
CURRENT
FILE SELECT
DELETE ALL
DELETE ONE SCENE AT A TIME
SET              QUIT
```

4 Select [YES].


```
DELETE?
(REMAINING SCENES:0009)
YES
NO
SET  ⬅        ➡  QUIT
```
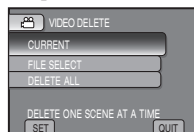
You can select the previous or next file by selecting ⬅ or ➡.

■ **To quit the screen**
Select [QUIT].

Copying Files

Types of Copying and Connectable Device

The Camcorder
You can copy files between the SD cards with this camcorder alone.
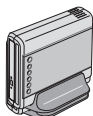
DVD Burner (CU-VD50 /CU-VD3)
You can copy files recorded on this camcorder onto discs. (☞ p. 35)
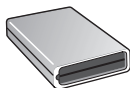
BD Burner LaCie Model No. 301828
You can copy files recorded on this camcorder onto discs. (☞ p. 34)

USB External Hard Disk Drive
You can copy files recorded on this camcorder onto a usb external hard disk drive.

PC
You can copy files from the camcorder to a disc using a PC. (☞ p. 40)

VCR/DVD Recorder
You can dub video recorded on this camcorder onto VCR/DVD recorder. (☞ p. 36)

NOTE

● It is recommended to use the JVC DVD burner (CU-VD50/CU-VD3). When using CU-VD20 or CU-VD40, the recording time may take approx. 2 times longer than the time that is described in the instruction manual of DVD burner.

● Recommended USB external hard disk drive

| Seagate | FreeAgent™ Desk series |
| LaCie | Design by Neil Poulton series |

● USB external hard disk drive with the capacity over 2 TB cannot be used.

Copying/Moving Files

Preparation:
● Select 🎥 or 📷 mode.
● Select the playback mode.
● Make sure that SD card is inserted in the SD Slot.
● Make sure that enough free space is left in the copy/move destination medium.

1 Touch MENU.

2 Select [EDIT].

> VIDEO
> 🎬 EDIT PLAYLIST
> 📺 DUBBING PLAYBACK
> 📼 PLAYBACK OTHER FILE
> 🔧 EDIT
> CAN BE SET TO PREVENT COPY
> SET ↩   QUIT

3 Select [COPY] or [MOVE].

> VIDEO
> 🗐 COPY
> 🗖 MOVE
> 🔒 PROTECT/CANCEL
> ✂️ DIVIDE
> COPY FILES BETWEEN
> SET ↩   QUIT

● **[COPY]:**
Files are copied to the destination medium while leaving original files in the source medium.

● **[MOVE]:**
Files are moved to the destination medium while deleting original files (except read-only files) in the source medium.

4 Select the direction.
[SLOT A ➞ SLOT B] or
[SLOT B ➞ SLOT A]

> 📷 COPY VIDEO
> SELECT COPY DIRECTION
> SLOT A ➞ SLOT B
> SLOT B ➞ SLOT A
> B ◀ A
> SET   QUIT

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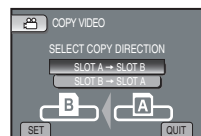
Copying Files (Continued)

5 Select the desired menu.

```
🎬 COPY VIDEO

SELECT THE OBJECT
TO BE COPIED

COPY ALL
SELECT AND COPY

SET  ⤴             QUIT
```

- **[COPY ALL]/[MOVE ALL]:**
  Select this to transfer all files in the recording medium.
  When the size of all files in one SD card is larger than the free space of the other SD card, only the files that can be contained in the free space will be copied.

- **[SELECT AND COPY]/[SELECT AND MOVE]:**
  Select when you want to transfer the selected files.
  1) Select the desired file, and touch **OK**. The ✔ mark appears on the file. To select other files, repeat this step.
  2) Select [EXEC].

6 Select [YES].

```
🎬 COPY VIDEO

COPY QUANTITY:0016
START COPY?

YES
NO

SET  ⤴             QUIT
```

File transfer starts. When [COPYING COMPLETED]/[MOVING COMPLETED] appears, touch **OK**.

■ **To quit the screen**
  Select [QUIT].
■ **To stop the file transfer**
  1) Select [STOP].
  2) When [QUIT?] appears, select [YES].

Using a BD/DVD Burner

The files in the camcorder can be backed up to a disc using a BD/DVD burner.
● Use one of the following methods to view the disc. (If you try to play back the disc with incompatible player, the disc may not be ejected.)

- Playback the disc using the camcorder.
- Playback the disc using a BD/DVD burner.*
- Playback on a PC.*
- Playback the disc using a BD/DVD player that supports BD-MV and AVCHD.*
* The disc must first be finalized on the camcorder.
● Discs other than the created BD/DVD using a BD/DVD burner cannot be played.
● When connecting a DVD burner (CU-VD50) to a TV, you can play back the created disc without using the camcorder. When playing back, disconnect the USB cable.

Connection with a BD/DVD Burner

Preparation:
Turn on the camcorder first, then turn on the BD/DVD burner.

DC Connector

USB Connector

To AC Outlet

USB Cable*

AC Adapter

BD/DVD Burner
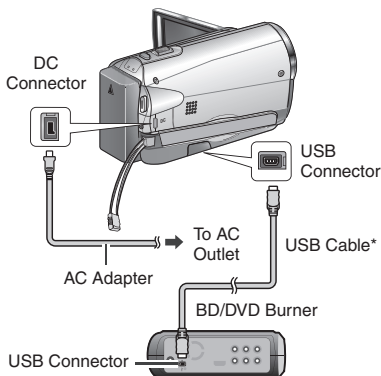
USB Connector

NOTE

Refer also to the optional BD/DVD burner's instruction manual.
*
● When connecting to a DVD burner, use the USB cable that came with the DVD burner.
● When connecting to a BD burner, use a USB cable with Mini-A(Male) and B(Male) connectors. JVC's QAM0852-001 (optional) is recommended. Refer to page 41 for details.

Backup All Files

Preparation:
- Connect the camcorder to the BD/DVD burner.
- Select 🎥 or 📷 mode.
- Make sure that SD card is inserted in the SD Slot.
- When using a BD burner, select [CHANGE REC. MEDIA] and select the disc type.

1 **Select [CREATE FROM ALL] (🎥 mode) or [SAVE ALL] (📷 mode).**

```
📹  VIDEO BACKUP
🔄  CREATE FROM ALL
🔄  SELECT AND CREATE
🔄  PLAYBACK
🔄  FINALIZE
    TO AUTOMATICALLY SAVE
    SET
```

2 **Select the desired menu.**

```
📹  CREATE FROM ALL
ALL SCENES
UNSAVED SCENES

SAVE ALL VIDEOS
SET   ↩
```
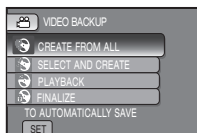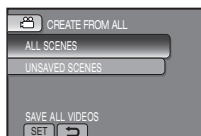
- **🎥 mode: [ALL SCENES]**
  📷 mode: [ALL IMAGES]
  All files in the recording medium are copied.
- **🎥 mode: [UNSAVED SCENES]**
  📷 mode: [UNSAVED IMAGES]
  Files that have never been copied are automatically selected and copied.

3 **Select [EXECUTE].**

```
ALL SCENES

QUANTITY REQUIRED
DVD : 1 / DVD(DL) : 1
PREPARE AN EMPTY DISC
EXECUTE
RETURN
SET            QUIT
```

4 **Select [YES] or [NO].**

- [YES]: Displays the thumbnails by group.
- [NO]: Displays the thumbnails by date.

5 **Select [EXECUTE].**

- The files are copied on the disc. When [COMPLETED] appears, touch **OK**.
- When [INSERT NEXT DISC PRESS [STOP] TO EXIT CREATE] appears, change the disc. Remaining files are copied on the second disc.
- To cancel copying, select [STOP].

Copying Video Files that Have Never Been Copied

Files that have never been copied to the discs are automatically selected and copied.

1 **Open the LCD monitor to turn on the camcorder.**

2 **Press DIRECT DISC.**

```
DIRECT
DISC

INFO
```

3 **Select [YES] or [NO].**
- [YES]: Displays the thumbnails by group.
- [NO]: Displays the thumbnails by date.

4 **Select [EXECUTE].**

```
UNSAVED SCENES
        DVD       1
        DVD(DL)   1

        EXECUTE
        CANCEL
SET              QUIT
```

- The disc begins to be created. When [COMPLETED] appears, touch **OK**.
- When [INSERT NEXT DISC PRESS [STOP] TO EXIT CREATE] appears, change the disc. Remaining files are copied on the second disc.
- To cancel the disc creation, select [STOP].

■ **To quit the screen**
  1) Select [QUIT].
  2) When [QUIT?] appears, select [YES].

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Copying Files (Continued)

Dubbing Files to a VCR/DVD Recorder

Preparation:
● Create a playlist.
● Turn off all units.

■ **To connect using the AV connectors (analog dubbing)**

DC Connector

AV Connector

AV Cable

VCR/DVD Recorder

AV Connector (input)

AC Adapter

To AC Outlet
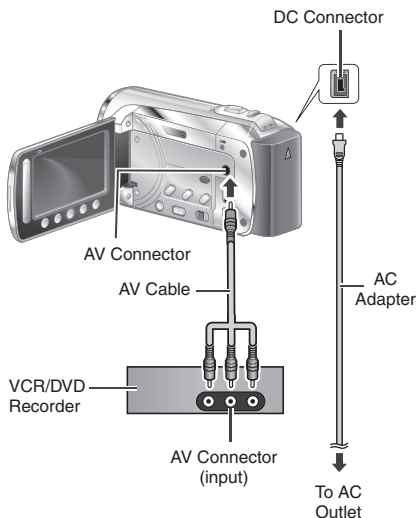
1 **Open the LCD monitor to turn on the camcorder.**

2 **Set the VCR/DVD recorder to its AUX input mode.**
Check that the images from the camcorder are input correctly to the VCR/DVD recorder.

3 **Play back playlists on the camcorder.**
1) Touch **MENU**.
2) Select [DUBBING PLAYBACK].
3) Select the desired playlist.
4) Select [YES]. (A black screen is displayed for 5 seconds at the first and the last scene.)

4 **At the point you want to start dubbing, start recording on the VCR/DVD recorder.**
Refer to the VCR/DVD recorder's instruction manual.

■ **To stop dubbing**
Stop recording on the VCR/DVD recorder.
■ **To hide the date or icons on the screen**
Change the settings in [DISPLAY ON TV] from the MENU.

Creating a Disc using a PC

Creating a Disc using a PC

You can copy the data from the camcorder and create a disc using a PC.

❶ Installing the software to the PC

System Requirements

Windows Vista

OS:	Windows Vista® Home Basic (SP1) Home Premium (SP1) (32-bit, pre-installed)
CPU:	Intel® Core™ Duo, 1.66 GHz or higher (Intel® Core™ 2 Duo 2.13 GHz or higher recommended.)
RAM:	At least 2 GB

Windows XP

OS:	Windows® XP Home Edition (SP2/SP3) Professional (SP2/SP3) (pre-installed)
CPU:	Intel® Core™ Duo, 1.66 GHz or higher (Intel® Core™ 2 Duo 2.13 GHz or higher recommended.)
RAM:	At least 1 GB

■ **To check the PC specification**
Right-click on [Computer] (or [My Computer]) in the [Start] menu and select [Properties].

NOTE
- Make sure your PC has a recordable BD/DVD drive.
- If your system does not meet the requirements, it is recommended to copy files using the BD/DVD burner. (☞ p. 35)
- Macintosh users may use the software included with their Macintosh (iMovie '08, iPhoto) to copy files to their computer.

Preparation:
Load the provided CD-ROM into the PC.
In Windows Vista, the auto play dialog box appears.

1 Click [Easy Installation].
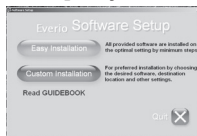
Follow the on-screen instructions.

2 Click [Yes].
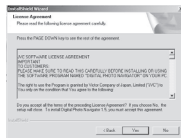
3 Select the desired language and click [Next].

4 Click [Next].

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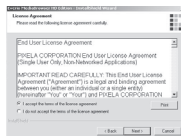
Creating a Disc using a PC (Continued)

5 Click [Finish].
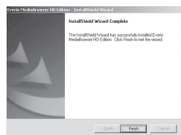
Everio Media Browser icon is created on the desktop.

INFORMATION

Everio MediaBrowser video editing capability is available for files copied from the camcorder to the PC.

■ **To see the Instruction Guide for Everio MediaBrowser**

1) Double-click the icon of Everio MediaBrowser.
2) Click [Help], and click [MediaBrowser Help].

Click   Click

---

❾ **Making Backup on the PC**

Preparation:
● Install the software to the PC.
● Make sure that enough free space is left in the PC's harddisk.
● Close the LCD monitor to turn off the camcorder.

DC Connector

USB Cable

AC adapter

To AC outlet

USB Connector

1 Open the LCD monitor to turn on the camcorder.

2 Select [BACK UP].

USB MENU
CREATE DISC
UPLOAD
EXPORT TO LIBRARY
BACK UP
SAVE RECORDED VIDEO / STILL
SET   QUIT

Everio MediaBrowser starts on the PC.

BACK-UP

3 Click [All volume in camcorder] and click [Next].

4 Click [Start].

Backup starts.

■ To disconnect the camcorder from the PC
1) Right-click the icon (Safely Remove Hardware) on the task bar and select [Safely remove USB Mass Storage Device].
2) Follow the on-screen instructions and make sure that the device can be safely removed.
3) Disconnect the USB cable and close the LCD monitor.

NOTE

It takes time to back up many videos.

❸ Making User Lists to Arrange the Files

You can make a user list of a certain subject (such as Travel, Athletic meet) and put the files related to the subject into the user list.

Preparation:
Make backup on the PC.

1 Double-click the icon and open the calendar.
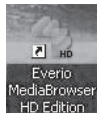
2 Select [Movies only].

3 Click [+].

4 Input the name of the new user list and click [OK].

5 Click the recording date.

The files recorded on the day are displayed.

6 Drag the file and drop into the user list.

To add other files into the user list, repeat steps **5** and **6**.

Creating a Disc using a PC (Continued)

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❶ Copying Files to a disc

Everio MediaBrowser supports 3 disc formats. Select the one that suits your purpose.

DVD-Video disc:	Suitable if you will give the disc to your friends and relatives.
AVCHD disc:	Suitable for high quality video.
BD:	Suitable for high quality video with long recording time.

1 Select the user list and click [Create Disc].

2 Select the disc type and click [Next].

3 Click [Select files individually] and click [Next].
To add all the files onto discs, click [Select all files displayed], then go to step **5**.

4 Drag the file, and drop into the part at the bottom and click [Next].

5 Input the disc name, select the top menu style and click [Next].

6 Click [Start].

NOTE

- When copying video recorded in UXP recording mode to create an AVCHD disc, the video needs to be converted to XP recording mode before copying. Therefore, it may take longer time than copying video recorded in other modes.
- Use Everio MediaBrowser Player to playback the disc. Refer to the help of the provided Everio MediaBrowser software to operate.
- For detail on operating Everio MediaBrowser, click [Help] and refer to [MediaBrowser Help].
- Adobe® Reader® must be installed to read [MediaBrowser Help]. Adobe® Reader® can be loaded from Adobe's web site: http://www.adobe.com
- For assistance in operating the provided software, refer to the support information. (☞ p. 41)

Folder Structure and Extensions

Recording medium   **X = number**

— [DCIM] ·························· Contains the still image folders.
  └─ [XXXJVCSO]
     ⋮

— [EXTMOV] ······················ Video files with defective management information are also saved.
  └─ [MOV_XXXX.MTS]

— [PRIVATE] ························ Contains management information files of event and/or disc
  [JVC]   creation information for the files taken with the camcorder.
  └─ [AVCHD]
       └─ [BDMV]
            ├─ [STREAM]
            │   └─ [XXXXX.MTS] ······ Video file in AVCHD format
            │   ⋮
            ├─ [BACKUP]
            ├─ [CLIPINF]
            ├─ [PLAYLIST]
            ├─ [INDEX.BDM]
            └─ [MOVIEOBJ.BDM]

Customer Support Information

Use of this software is authorized according to the terms of the software licence.

JVC

When contacting the nearest JVC office or agency in your country (refer to the JVC Worldwide Service Network at http://www.jvc-victor.co.jp/english/worldmap/index-e.html) about this software, please have the following information ready.
● Product Name, Model, Problem, Error Message.
● PC, (Manufacturer, Model (Desktop/Laptop), CPU, OS, Memory (MB), Available Hard Disk Space (GB)).

Please note that it may take some time to respond to your questions, depending on their subject matter. JVC cannot answer questions regarding basic operation of your PC, or questions regarding specifications or performance of the OS, other applications or drivers.

Pixela

Region	Language	Phone #
USA and Canada	English	+1-800-458-4029 (toll-free)
Europe (UK, Germany, France and Spain)	English/Germany/France/Spanish	+1-800-1532-4865 (toll-free)
Other Countries in Europe	English/Germany/France/Spanish/ Italian/Dutch	+44-1489-564-764
Asia (Philippines)	English	+63-2-438-0090
China	Chinese	+86-21-5385-3786

Homepage: http://www.pixela.co.jp/oem/jvc/e/index.html
Please check our website for latest information and downloading.

Using with a Portable Media Player

Turning on the Export Mode

You can easily transfer videos recorded in export mode to iTunes®. All the files with the export setting turned on are transferred to PC. For details on transferring, refer to the operation guide of MediaBrowser in the CD-ROM.

Preparation:
● Select 🎥 mode.
● Select the recording mode.

Press EXPORT twice.

EXPORT

ON
EXPORT TO
LIBRARY MODE

■ **To turn off the export mode**
 Press **EXPORT** twice.

Changing the Export Setting

You can set the recorded videos to the export setting.

Preparation:
● Select 🎥 mode.
● Select the playback mode.

1 Press EXPORT.

EXPORT

2 Select the file and select [LIB.].

EXPORT SETTINGS 1/3

LIB. CHECK DONE

• To check the content of the file, select [CHECK].

3 Select [DONE].

■ **To cancel the export setting**
 Select the file and press **LIB.** again.
■ **To quit the screen**
 1) Select [DONE].
 2) Select [YES].

Transferring the Files to PC

Preparation:
Install iTunes® on a PC.
http://www.apple.com/itunes/

1 Connect the camcorder to the PC with the USB cable.

2 Select [EXPORT TO LIBRARY].

USB MENU
CREATE DISC
UPLOAD
EXPORT TO LIBRARY
BACK UP
EASY VIDEO REGISTRATION
SET QUIT

EXPORT TO LIBRARY
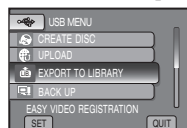
All the files with the export setting turned on are transferred to PC.

■ **Cannot export the file to iTunes®.**
Refer to "Q&A", "Latest Information", "Download Information", etc. in [Click for Latest Product Info] in the help of the provided Everio MediaBrowser software.

Uploading Files to Websites

Turning on the Upload Mode

You can upload the file to video sharing websites (YouTube™) quickly after recording. For more information on YouTube™, visit YouTube™ web site: http://youtube.com/

Preparation:
● Select ▲ mode.
● Select the recording mode.

Press UPLOAD twice.

UPLOAD

●
ON
UPLOAD REC

If you record a file with the upload mode set on, the recording stops automatically 10 minutes after the recording is started. The remaining time is displayed on the LCD monitor.

NOTE

The upload mode turns off each time recording is finished.

Uploading Files

For details on uploading files, refer to the operation guide of MediaBrowser in the CD-ROM.

1 Connect the camcorder to the PC with the USB cable.

2 Select [UPLOAD].
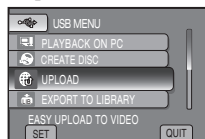
USB MENU
PLAYBACK ON PC
CREATE DISC
UPLOAD
EXPORT TO LIBRARY
EASY UPLOAD TO VIDEO
SET   QUIT

■ **Cannot upload the file to YouTube™**
● You need your YouTube™ account to upload files to YouTube™. Create your account.
● Refer to "Q&A", "Latest Information", "Download Information", etc. in [Click for Latest Product Info] in the help of the provided Everio MediaBrowser software.

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Changing the Menu Settings

1 Touch MENU.

2 Select the desired menu.

3 Select the desired setting.
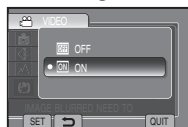
■ **To return to the previous screen**
Select ⤺.
■ **To quit the screen**
Select [QUIT].

Troubleshooting

Before requesting service, consult the following chart. If the solutions indicated in the chart do not solve the problem, consult your nearest JVC dealer or JVC service center for instructions.
Refer also to the FAQ of new products on JVC's website.

The following phenomena are not malfunctions.
● The camcorder heats up when it is used for a long time.
● The battery heats up during charging.
● When playing back a video, the image stops momentarily or the sound is interrupted at junctions between scenes.
● LCD monitor momentarily become red or black when sunlight is recorded.
● Black spots, or red, green, or blue spots appear on the LCD monitor.
 (The LCD monitor contains 99.99% effective pixels, but 0.01% of fewer pixels may be ineffective.)

	Trouble	Action
Card	**Cannot insert the SD card.**	● Check that the SD card is facing the right direction.
Power	**No power is supplied.**	● Connect the AC adapter correctly. ● Recharge the battery.
Recording	**Recording cannot be performed.**	● SD card is full. Delete unnecessary files or replace the SD card.
	Recording stops by itself.	● Insert a commercially available SD card, and set each of the [VIDEO SLOT SELECTION] and [IMAGE SLOT SELECTION] to [SLOT A] or [SLOT B]. ● Recording stops automatically after 12 hours of non-stop recording. To ensure continuous recording, set [AUTO SWITCH REC MEDIA] to [ON] before you start recording.
	Vertical lines appear on recorded images.	● Such a phenomenon occurs when shooting a subject illuminated by bright light. This is not a malfunction.

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	Trouble	Action
Display	**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.
	The remaining battery display is not correct.	● Fully charge the battery, run it down, and then recharge it again. ● If the camcorder is used for long periods of time in high or low temperatures, or if the battery is repeatedly charged, the amount of remaining battery may not be displayed correctly.
Playback	**Sound or video are interrupted.**	● Sometimes playback is interrupted at the connecting section between two scenes.
	Cannot find a recorded video/image.	● Select [PLAYBACK OTHER FILE] then search the video on the index screen. (Video files that have damaged management information can be played back.) ● Cancel group display and date search functions. ● Change the setting in [VIDEO SLOT SELECTION] or [IMAGE SLOT SELECTION]. (Files on other media are not displayed.) ● Slide the mode switch to select the desired mode (🎥 or 📷).
Other problems	**The camcorder operates slowly when switching between video mode and still image mode, or when switching the power on or off.**	● If there are many files (such as video) in the camcorder, it takes time for the camcorder to respond. It is recommended that you copy all files from the camcorder onto your computer, and erase the files from the camcorder.
	The lamp does not flash during battery charging.	● Check the remaining battery charge. (When the battery is fully charged, the lamp does not flash.) ● When recharging in either a hot or cold environment, ensure that battery is being charged within the permitted temperature range. (If the battery is being recharged outside the permitted temperature range, recharging may stop to protect the battery.)
	When connecting to the HDMI cable, the image or sound does not appear on the TV properly.	● When connecting to the HDMI 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 cable and connect it again. 2) Turn off and on the camcorder again.
	HDMI-CEC functions do not work properly, and the TV does not work in conjunction with the camcorder.	● TVs may operate differently depending on the specifications, even if they are HDMI-CEC compliant. Therefore, the HDMI-CEC functions of the camcorder cannot be guaranteed to operate in combination with all the TVs. In such cases, set [HDMI CONTROL] to [OFF].

FURTHER INFORMATION

Troubleshooting (Continued)

|	Trouble	Action
Other problems	**Cannot upload the file to YouTube™**	• You need your YouTube™ account to upload files to YouTube™. Create your account. • Refer to "Q&A", "Latest Information", "Download Information", etc. in [Click for Latest Product Info] in the help 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 of the provided Everio MediaBrowser software.

■ **To reset the camcorder when it does not operate normally**
① Close the LCD monitor and remove the power supply (battery pack or AC adapter) from the camcorder, then reattach it.
② Execute [FACTORY PRESET].

Warning Indications

Indication	Action
SET DATE/TIME!	• Set the clock. If the message still appears after setting the clock, the battery for the clock has been depleted. Consult your nearest JVC dealer.
COMMUNICATING ERROR	• Be sure to use JVC battery packs.
CANNOT USE IN VIDEO MODE	• Replace the SD card. (Files recorded with other devices that support AVCHD cannot be played back on this camcorder.)
NOT FORMATTED	• Select [OK] and select [YES] to perform formatting.
FORMAT ERROR!	• Check the operating procedure, and perform once again. • Turn off the camcorder, and turn it on again.
DATA DELETION ERROR	
MEMORY CARD ERROR!	• Turn off the camcorder, and turn it on again. • Remove and re-insert the SD card. (MultiMediaCard cannot be used.) • Remove any dirt from the SD card terminals. • Insert the SD card before switching the power on. • If the problem persists, back up all data, and then perform formatting. All data is deleted.
CANNOT TAKE MORE STILL IMAGES AT THE MOMENT	• Stop video recording, and then record a still image. (If an SD card is removed or inserted during video recording, a still image cannot be recorded.)
RECORDING CANCELLED	• Insert a new or formatted SD card. Set [VIDEO SLOT SELECTION] to different slot, then record to an SD card in [SLOT A] or [SLOT B]. • Turn off the camcorder and turn it on again.

Indication	Action
RECORDING FAILURE	● Remove and re-insert the SD card. (MultiMediaCard cannot be used.)
PLAYBACK FAILED	● Remove any dirt from the SD card terminals. ● Insert the SD card before switching the power on.
USE AC ADAPTOR	● Use the AC Adapter as power supply.
POWER IS OFF, OR USB DEVICE IS UNSUPPORTED	● Turn on the power of the connected USB device. ● Connect the AC adapter to the BD/DVD burner.
DVD-RW DISC HAS BEEN ALREADY USED	● Replace the disc of the BD/DVD burner with another disc.
FINALIZATION FAILED	● Replace the disc of the BD/DVD burner with another disc.
NO FILES	● Slide the mode switch to select the desired mode (🎥 or 📷).
VIDEO MANAGEMENT FILE IS DAMAGED, RECOVERY IS REQUIRED TO RECORD/ PLAYBACK, RECOVER?	● Select [OK] to restore.
NO EVENT REGISTERED SCENES	● Register events to the files before you start recording.
CANNOT DETECT FACE	● Turn the face detection mode on before you perform recording or snapshot.

Cleaning

Before cleaning, turn off the camcorder and remove the battery pack and AC adapter.

■ To clean the camcorder
Wipe the camcorder gently with a soft cloth. If the camcorder is particularly dirty, dip the cloth into diluted mild soap and wring it out well. After wiping with the wet cloth, wipe again with a dry cloth.

■ To clean the LCD monitor
Wipe the monitor gently with a soft cloth. Be careful not to damage the monitor.

■ To clean the lens
Wipe gently with lens cleaning paper.

NOTE
● Avoid using strong cleaning agents such as benzine or alcohol.
● Mold may form if the lens is left dirty.
● When using a cleaner or chemically treated cloth, refer to the cautions for each product.

Specifications

Camcorder

■ For general
Power supply
DC 11 V (Using AC adapter)
DC 7.2 V (Using battery pack)
Power consumption
Approx. 3.3 W*
* When the LED light is off and the monitor backlight is set to [STANDARD] mode.
Rated Current Consumption:
1A
Dimensions (W x H x D)
54.5 mm x 65 mm x 112.5 mm
(2-3/16" x 2-9/16" x 4-7/16")
Weight
Approx. 260 g (0.57 lbs)
Approx. 310 g (0.68 lbs) (incl. battery and grip belt)
Operating temperature
0°C to 40°C (32°F to 104°F)
Operating humidity
35% to 80%
Storage temperature
–20°C to 50°C (–4°F to 122°F)
Pickup
1/4" (2,800,000 pixels) progressive CMOS
Lens
F 1.9 to 3.2,
f = 2.9 mm to 58.0 mm,
20:1 power zoom lens
Filter diameter
ø30.5 mm
LCD monitor
2.7" diagonally measured,
LCD panel/TFT active matrix system
LED Light
Within 1.5 m (4.9 ft)
(recommended shooting distance)

■ For video/audio
Recording/Playback format
Video: MPEG-4 AVC/H.264
Audio: Dolby Digital (2ch)

Signal format
1080i/60

Recording mode (video)
UXP: 1920 x 1080 pixels, average of 24 Mbps (VBR)
XP: 1920 x 1080 pixels, average of 17 Mbps (VBR)
SP: 1920 x 1080 pixels, average of 12 Mbps (VBR)
EP: 1920 x 1080 pixels, average of 5 Mbps (VBR)

Recording mode (audio)
48 kHz, 256 kbps

■ For still image
Format
JPEG
Image size
1920 x 1080
1440 x 1080
640 x 480
Picture quality
FINE / STANDARD

■ For connectors
HDMI
HDMI™ (V.1.3 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 kΩ
USB
Mini USB type A and type B,
USB 2.0 compliant

AC Adapter

Power requirement
AC 110 V to 240 V , 50 Hz/60 Hz
Output
DC 11 V ⎓ , 1 A

Remote Control

Power supply
DC 3 V
Battery life
Approx. 1 year
(depending on the frequency of use)
Operating distance
Within 5 m (16.4 ft)
Operating temperature
0°C to 40°C (32°F to 104°F)

Dimensions (W x H x D)
42 mm x 14.5 mm x 91 mm
(1-11/16" x 5/8" x 3-5/8")
Weight
Approx. 30 g (0.07 lbs)
(incl. battery)

Design and specifications are subject to change without notice.

Approximate recording time (for video)　　　　　　　　　**h: hour/m: minute**

Recording medium		SD or SDHC Card			
Quality		4 GB	8 GB	16 GB	32 GB
AVCHD	UXP	20 m	40 m	1 h 20 m	2 h 40 m
	XP	30 m	1 h	2 h	4 h
	SP	44 m	1 h 28 m	2 h 56 m	5 h 52 m
	EP	1 h 50 m	3 h 40 m	7 h 20 m	14 h 40 m

Approximate number of storable images (for still image)

Recording medium		SD or SDHC Card						
Image size/Quality		512 MB	1 GB	2 GB	4 GB	8 GB	16 GB	32 GB
16:9	1920 x1080 / FINE	510	1030	2100	4140	8330	9999	9999
	1920 x 1080 / STANDARD	810	1620	3210	6310	9999	9999	9999
4:3	1440 x 1080 / FINE	680	1360	2770	5450	9999	9999	9999
	1440 x 1080 / STANDARD	1070	2140	4360	8570	9999	9999	9999
	640 x 480 / FINE	3330	6670	9999	9999	9999	9999	9999
	640 x 480 / STANDARD	5990	9999	9999	9999	9999	9999	9999

The recordable time and the number of still images are approximate and may differ depending on the recording environment, the condition of the SD card, or the remaining battery power.

Cautions

AC Adapter

**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.

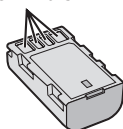For this AC plug adapter, consult your nearest JVC dealer.

Plug Adapter
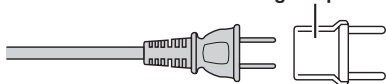
Battery Packs

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:

Terminals

● **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). This is a chemical reaction type battery — cooler temperatures impede chemical reaction, while warmer temperatures can prevent complete charging.
... store in a cool, dry place. Extended exposure to high temperatures will increase natural discharge and shorten service life.
... fully charge and then fully discharge the battery every 6 months when storing the battery pack over a long period of time.
... remove from charger or powered unit when not in use, as some machines use current even when switched off.

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.

RECYCLE
R B R C
Li-ion
1-800-822-8837

Recording Medium (SD Card)

● **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.

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.

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.
- ... 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.
- ... place the camcorder in dusty or sandy areas, such as on a beach.

- **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.

Declaration of Conformity
Model Number : GZ-HM200U
Trade Name : JVC
Responsible party : JVC AMERICAS CORP.
Address : 1700 Valley Road Wayne, N. J. 07470
Telephone Number : 973-317–5000

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 B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
Consult the dealer or an experienced radio/ TV technician for help.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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Terms

JVC