JVC

EN

HD MEMORY CAMERA
GC-FM1 U/E/AA

Detailed User Guide
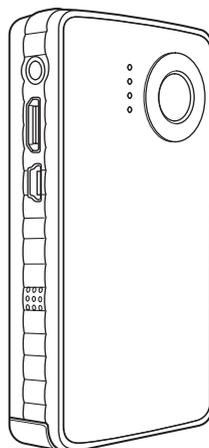
HDMI
HIGH-DEFINITION MULTIMEDIA INTERFACE

SD HC

ENGLISH

Safety Precautions

IMPORTANT:
In the event that any of the following occur, make a request for repair to the dealer.
- Smoke or abnormal odor is emitted.
- Damage from being dropped.
- Water or an object enters inside.

If malfunctioning occurs, stop using the unit immediately and consult your local JVC dealer.

Caution on camcorder
The camcorder may present a fire or chemical burn hazard if mistreated. Do not disassemble, heat above 100 °C or incinerate.
- Dispose of used camcorder promptly.
- Do not disassemble and do not dispose of in fire.

WARNING:
The camcorder shall not be exposed to excessive heat such as direct sunshine, fire or the like.

Declaration of Conformity
(For owners in the U.S.A.)
Model Number　　　:　GC-FM1U
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.

(For owners in the U.S.A.)
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.

FCC WARNING
(For owners in the U.S.A.)
This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

(For owners in the U.S.A.)
- The supplied interface cable must be used with the equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.
- Use an HDMI cable with the HDMI logo.

(For owners in Canada)
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.

Information for Users on Disposal of Old Equipment and Batteries

Products

Battery

Notice:
The sign Pb below the symbol for batteries indicates that this battery contains lead.

[European Union]
These symbols indicate that the electrical and electronic equipment and the battery with this symbol should not be disposed of as general household waste at its end-of-life. Instead, the products should be handed over to the applicable collection points for the recycling of electrical and electronic equipment as well as batteries for proper treatment, recovery and recycling in accordance with your national legislation and the Directive 2002/96/EC and 2006/66/EC.
By disposing of these products correctly, you will help to conserve natural resources and will help to prevent potential negative effects on the environment and human health which could otherwise be caused by inappropriate waste handling of these products.
For more information about collection points and recycling of these products, please contact your local municipal office, your household waste disposal service or the shop where you purchased the product. Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

[Business users]
If you wish to dispose of this product, please visit our web page www.jvc-europe.com to obtain information about the take-back of the product.

[Other Countries outside the European Union]
These symbols are only valid in the European Union. If you wish to dispose of these items, please do so in accordance with applicable national legislation or other rules in your country for the treatment of old electrical and electronic equipment and batteries.

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

Dear Customer,   **[European Union]**
This apparatus is in conformance with the valid European directives and standards regarding electromagnetic compatibility and electrical safety.
European representative of Victor Company of Japan, Limited is:
JVC Technical Services Europe GmbH
Postfach 10 05 04
61145 Friedberg
Germany

SOME DO'S AND DON'TS ON THE SAFE USE OF EQUIPMENT
This equipment has been designed and manufactured to meet international safety standards but, like any electrical equipment, care must be taken if you are to obtain the best results and safety is to be assured.
DO read the operating instructions before you attempt to use the equipment.
DO ensure that all electrical connections (including the mains plug, extension leads and interconnections between pieces of equipment) are properly made and in accordance with the manufacturer's instructions. Switch off and withdraw the mains plug when making or changing connections.
DO consult your dealer if you are ever in doubt about the installation, operation or safety of your equipment.
DO be careful with glass panels or doors on equipment.
DON'T continue to operate the equipment if you are in any doubt about it working normally, or if it is damaged in any way — switch off, withdraw the mains plug and consult your dealer.
DON'T remove any fixed cover as this may expose dangerous voltages.
DON'T leave equipment switched on when it is unattended unless it is specifically stated that it is designed for unattended operation or has a standby mode. Switch off using the switch on the equipment and make sure that your family knows how to do this. Special arrangements may need to be made for infirm or handicapped people.
DON'T use equipment such as personal stereos or radios so that you are distracted from the requirements of road safety. It is illegal to watch television whilst driving.
DON'T listen to headphones at high volume, as such use can permanently damage your hearing.
DON'T obstruct the ventilation of the equipment, for example with curtains or soft furnishings. Overheating will cause damage and shorten the life of the equipment.
DON'T use makeshift stands and NEVER fix legs with wood screws — to ensure complete safety always fit the manufacturer's approved stand or legs with the fixings provided according to the instructions.
DON'T allow electrical equipment to be exposed to rain or moisture.

ABOVE ALL
- NEVER let anyone especially children push anything into holes, slots or any other opening in the case — this could result in a fatal electrical shock;
- NEVER guess or take chances with electrical equipment of any kind — it is better to be safe than sorry!

Safety Precautions for the Camcorder
To reduce the risk of fire, electrical shock, and injury to person, carefully follow these instructions.
- Do not expose this product to liquid, rain, moisture, or extreme temperatures.
- Do not disassemble this unit.
- Do not insert foreign objects into the this unit - this may cause damage to internal components or cause injury to you.
- It is recommended to charge the battery connecting to PC with the USB cable.
- Do not charge this product if damaged, or has been immersed in liquids.
- Do not store this unit in extreme cold or high temperature areas.
- If the LCD breaks, do not touch the glass or liquid.
- Do not attempt to remove or replace the battery.
- Do not attempt to disassemble or repair the camcorder.
- Do not puncture or incinerate the battery.
- Do not dispose of this unit improperly. Check with local codes for proper disposal regulations.
- Dispose of batteries according to local and national regulations.
- Never allow children to play with this unit small parts may be a choking hazard.
- Observe caution when using this unit strap to prevent strangulation.
- When using the camcorder with a tripod, attach the camcorder to the tripod securely.

Product Care
- Operating and storage temperatures 5 °C to +40 °C
- Do not drop this unit or subject it to excessive shock or vibration.
- Do not use liquid or aerosol cleaners, as they may damage the unit or the finish of the product.
- KEEP THIS INSTRUCTIONS FOR FUTURE REFERENCE.

CAUTION:
- Dispose of used batteries according to the instructions.
- Risk of explosion if battery is replaced by an incorrect type.

ATTENTION:
On placing the unit: Some TVs or other appliances generate strong magnetic fields. Do not place such appliances on top of the unit as it may cause picture disturbance.

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**
- 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.
- iPod, iTunes are trademarks of Apple Inc., registered in the U.S. and other countries.
- YouTube and the YouTube logo are trademarks and/or registered trademarks of YouTube LLC.
- Other product and company names included in this instruction manual are trademarks and/or registered trademarks of their respective holders.

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Names of Components

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Macro Recording [🌷]

LCD Monitor

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Status (Warning) Lamp

Power Button [⏻]
Power Lamp

Recording Select Button
Video [🎥]
Still Image [📷]

Select Button [▶]
Recording/Playback

Delete Button [🗑]

Index Button [▦]

Reset Hole

Hand Strap
Attachment Area

∧ , ∨ , ⟨ , ⟩ Buttons
Zoom Buttons
Volume Buttons

Recording Start/Stop Button
Shutter Button
Set Button

AV Connector

Lens

HDMI Connector

USB Connector

Speaker

Microphone

SD Slot Cover

Tripod Mounting
Socket

Accessories

USB Cable
(WUU102SCP001)
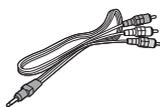
AV Cable
(WPU122SCP001)
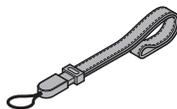
Hand Strap

Attaching the Hand Strap

To guard against dropping the camcorder, we recommend attaching the hand strap.
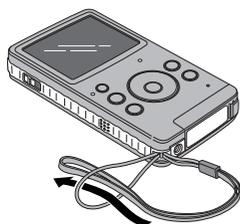
NOTE

- When carrying the camcorder, please be careful not to drop it. Dropping it may cause injury or a malfunction of your camcorder.
- When a child uses the camcorder, there must be parental guidance.

## Indications on LCD monitor

■ Index

**■ Videos / ◻ Still Images**

Mode Indicator   **Folder Number_File Number**

103_0078   [002/003]

**Current Page/
Total Number of Pages**

■ **To delete/redisplay characters and symbols on the LCD monitor**
Press the 🔀 button for more than 2 seconds.

Indications on LCD monitor (Continued)

■ During Recording

📹 Video

Mode Indicator

Remaining Time

📹 REC

00h59m

Video Quality
1080p/720p/VGA/
QVGA

1080p

01:11 — **Counter**

🌸

Macro Recording

🔋

W ▭ T

Battery Indicator
Display changes depending on
the remaining battery level

Zoom Bar
W: Wide side, T: Tele side

📷 Still image

Mode Indicator

Remaining Number of Shots

📷

3095

Image Size
8M/5M/2M/VGA

8M

🌸

Macro Recording

🔋

W ▭ T

Zoom Bar
W: Wide side, T: Tele side
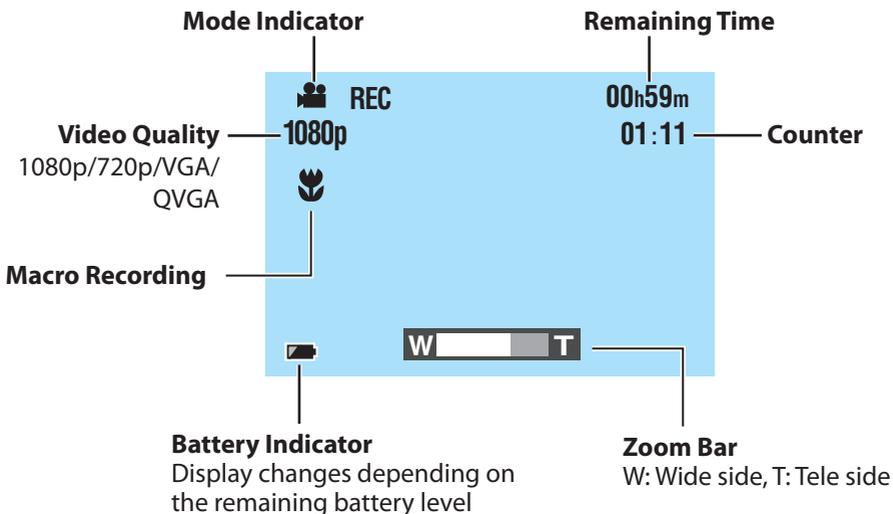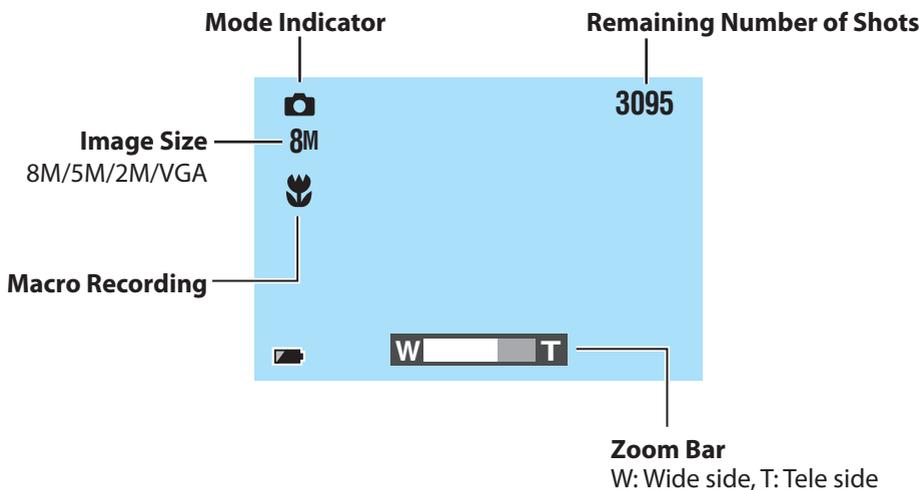
Indications on LCD monitor (Continued)

■ During Playback

Video

Folder Number_File Number   **Recording Time**

Playback Time (minutes : seconds)

103_0050   01:48
1080p   00:20

Video Quality
1080p/720p/VGA/
QVGA

Playback Mode
► : Playback
I◄◄ : Reverse search
►►I : Forward search
II : Pause

Volume Indicator

Still image

Folder Number_File Number

103_0050

Image Size
8M/5M/2M/VGA

8M

8
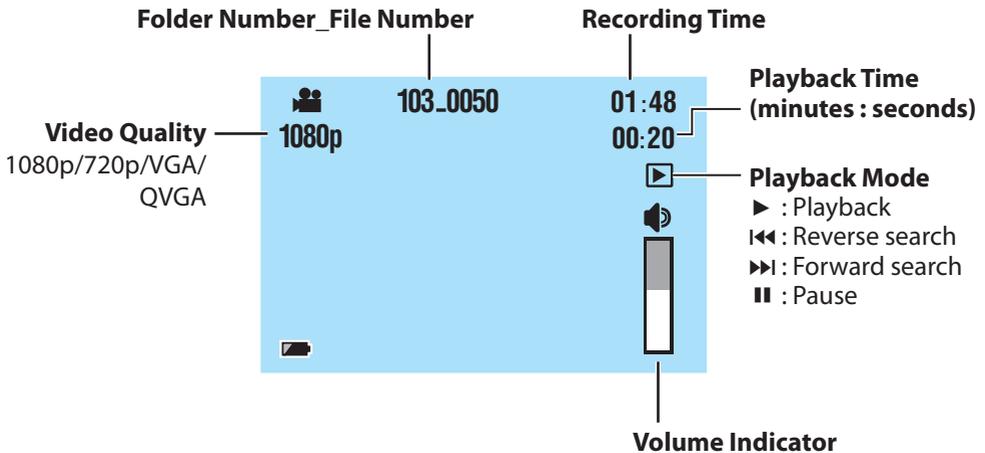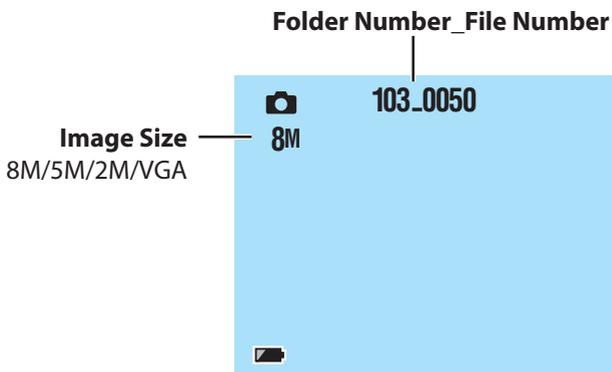
Charging

Charge the battery connecting to the computer with the USB cable.

Charge Lamp

⏻ Button

Power Lamp

To Computer

USB Connector
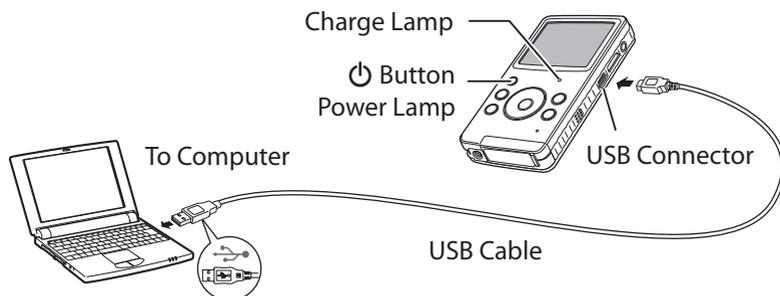
USB Cable

1 Press the ⏻ button to turn off the camcorder.

The power lamp goes out.

2 Connect the camcorder to a computer.

Camcorder's LCD monitor will turn off when the USB cable is connected. This occurs during battery charging or when connected to a PC.

Charge lamp	turns on: Charging
	goes out: Charging finished
Charging time	approx. 180 minutes

When the charging is finished, disconnect the camcorder from the computer.

NOTE

- Charging is not possible while the camcorder is turned on.
- Make sure that the computer is turned on during charging.
- The camcorder is not charged when it is shipped. Charge the camcorder before using it for the first time.
- If there is a trouble in charging, the charge lamp/warning lamp blinks in green. Connect the camcorder to the computer again.

■ Battery Indicator

🔋	**Fully charged**
🔋	**Medium**
🔋	**Very low** Recharge the battery at an early opportunity.
🔋 Blinking	**Empty** The camcorder will turn off. Recharge the battery immediately.

Turning the Power On and Off

1 **Press the ⏻ button for more than 1 second.**

The power lamp turns on.

2 **To turn off the power, press the ⏻ button again.**

The power lamp goes off.

NOTE

- To conserve power, the camcorder turns off automatically if there is no operation for 3 minutes.
- If the only operation is turning on the power, the camcorder enters the video recording ready status.
- When you first turn on the power after purchasing the camcorder, the [Time setup] screen appears. Set the date and time before using the camcorder. (☞ p. 11)

Inserting an SD Card

Operation-confirmed SD cards

Operations are confirmed on the following SD cards. Panasonic, TOSHIBA, SanDisk, ATP.

Video recording: Class 4 or higher compatible SDHC card (4 GB to 32 GB)

Still image recording: SD card (256 MB to 2 GB) or SDHC card (4 GB to 32 GB)

* If other media are used, they may fail to record data correctly, or they may lose data that had already been recorded.

Preparation: Turn off the camcorder.

1 **Unlock the SD card slot and open the cover.**
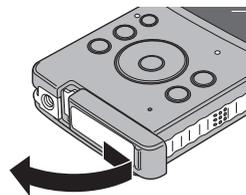
2 **Insert an SD card.**
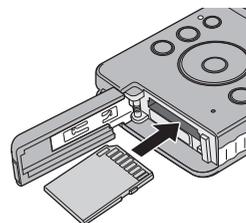
3 **Return the cover of the SD card slot and lock it.**

NOTE

- When the SD card is removed or inserted, the power turns off.
  Turn off the power before inserting the card.
- When an SD card is inserted, the SD card is prioritized as the destination for data saving.

Necessary Settings before Use

Setting Date and Time

Preparation:
Turn on the power and select the recording mode.

1 **While pressing the 🗑 button, press the ▦ button.**

2 **Select [Time setup], and then press the set button.**

```
Setup menu
  Time setup
  Video out
  Firmware version
  Format
  Exit
```

3 **Set the date and time by selecting items with ⌃ , ⌄ and setting values with ⟨ , ⟩.**

```
Time setup
  Year      ◄  2009  ►
  Month     ◄   10   ►
  Day       ◄   15   ►
  Hour      ◄   17   ►
  Minute    ◄   25   ►
```
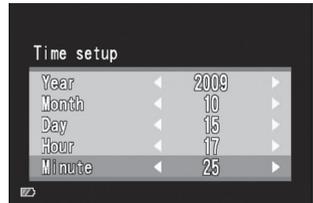
4 **After completing the setting, press the set button.**

■ **To quit the screen**
    Select [Exit], and then press the set button.

NOTE

• [Hour] is displayed in 24 hour format only.

# Necessary Settings before Use (Continued)

Setting the Video Output

Preparation:
Turn on the power and select the recording mode.

1 **While pressing the 🗑 button, press the ⊞ button.**

2 **Press the ∧ , ∨ buttons to select [Video out], and then press the set button.**

```
Setup menu
Time setup
Video out
Firmware version
Format
Exit
```

3 **Press the ∧ , ∨ buttons to select [NTSC] or [PAL], and then press the set button.**

```
Video out
NTSC
PAL
```
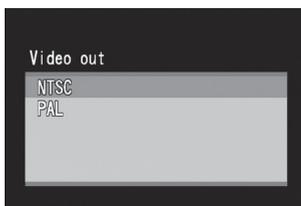
■ **To quit the screen**
Select [Exit], and then press the set button.

NOTE

• Set the camcorder's video output to the system that is appropriate for your TV.

| NTSC: Japan, USA, South Korea, etc. | PAL: Europe, China, etc. |

Viewing the firmware version of the unit

You can confirm the firmware version of the unit.

1) While pressing the 🗑 button, press the ⊞ button.
2) Press the ∧ , ∨ buttons to select [Firmware version], and then press the set button.

```
Setup menu
Time setup
Video out
Firmware version
Format
Exit
```

■ **To quit the screen**
Select [Exit], and then press the set button.

Formatting an SD Card

Preparation:
- Insert an SD card.
- Turn on the power and select the recording mode.

1 **While pressing the 🗑 button, press the ▦ button.**

2 **Press the ∧ , ∨ buttons to select [Format], and then press the set button.**

```
Setup menu
Time setup
Video out
Firmware version
Format
Exit
```

3 **Press the ⟨ , ⟩ buttons to select [Yes], and then press the set button.**

```
Format
Format memory card?

        Yes        No
```

■ **To quit the screen**
Select [Exit], and then press the set button.

NOTE

• Formatting erases all data (videos and still images) on the SD card.

📹 Recording/Playback

Video Recording

1 **Press the ⏻ button to turn on the power.**

The camcorder enters the video recording ready status.

During recording, the screen display changes to red

2 **Press the set button.**

The recording starts.

■ **To stop recording**
Press the set button again.

■ **To change the quality**
Press the 〈 button twice. Each time you press the 〈 button twice, you can change the quality.
1080p(default) → 720p → VGA → QVGA

■ **To zoom**
Press the ∧, ∨ buttons.

NOTE

• Zoom is performed digitally, therefore image quality degrades when zooming.

Video Playback

1 **Press the ▶ button to select the playback mode.**

2 **Press the ∧, ∨, 〈, 〉 buttons to select a video.**

3 **Press the set button to start playback.**

Press it again to stop the playback.

■ **To return to the index**
Press the ▦ button.

■ **To change the volume**
Press the ∧, ∨ buttons during playback.

■ **To perform forward search or reverse search**
Press and hold the 〈, 〉 buttons during playback. When the button is released, normal playback resumes.

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🖻 Recording/Playback

Still Image Recording

1 **Press the ⏻ button to turn on the power.**

2 **Press the 🎥/🖻 button to select 🖻.**

3 **Press the set button.**
The recorded still image is saved.

■ **To change the image size**
Press the ‹ button twice. Each time you press the ‹ button twice, you can change the image size.
8M (default) → 5M → 2M → VGA

■ **To zoom**
Press the ∧ , ∨ buttons.

NOTE

• Zoom is performed digitally, therefore image quality degrades when zooming.

Still Image Playback

1 **Press the ▶ button to select the playback mode.**

2 **Press the 🎥/🖻 button to select 🖻.**

3 **Press the ∧ , ∨ , ‹ , › buttons to select a still image.**

4 **Press the set button.**

■ **To return to the index**
Press the 🔳 button.

15
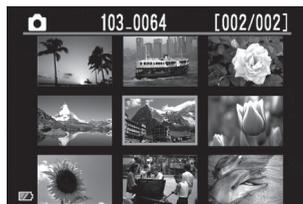
Deleting Files

Preparation:
Select the playback mode.

1 **Press the ⊞ button.**

2 **Press the ∧ , ∨ , 〈 , 〉 buttons to select a file.**

3 **Press the 🗑 button.**

**4** **Press the 〈 , 〉 buttons and press the set button to select [Yes].**
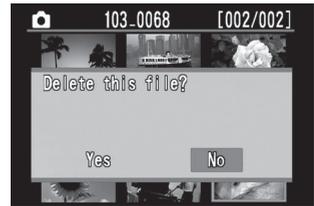
> **NOTE**
> • You can also delete by pressing the 🗑 button while a video is playing back or a still image is displayed.
> • You cannot delete all the files at once.

Viewing Files on TV

**Preparation:**
• Turn on the TV.
• Turn on the camcorder and select the playback mode.

■ To connect using the AV connector

AV Connector

TV

① button

AV cable
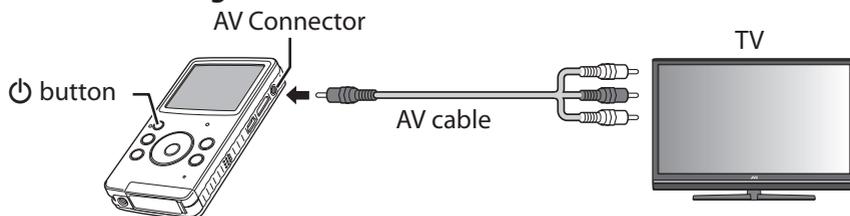
■ To connect using the HDMI mini connector (optional)

HDMI Connector

TV

① button

HDMI Cable (optional)
(Mini to full-sized HDMI cable)
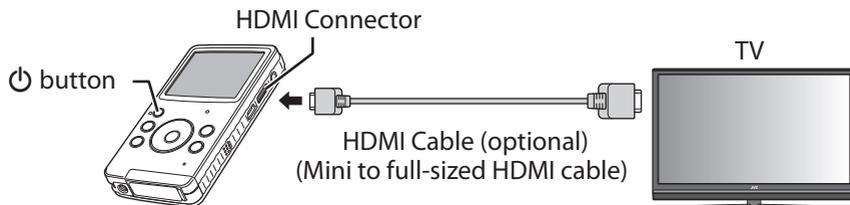
1 **Connect the camcorder to a TV.**

After being connected, the camcorder switches automatically to monitor display.

2 **Switch to the TV's external input connector.**

3 **Press the ⊞ button.**

4 **Start the playback.**

Video (☞ p. 14)
Still image (☞ p. 15)

NOTE

• When an AV cable and an HDMI cable are connected, output to the HDMI cable is prioritized.
• Also refer to instruction manual of the TV.
• Set the camcorder's video output to the playback system that is appropriate for your TV. (☞ p. 12)
• We recommend using the Category 2 HDMI cable (High Speed cable).

Saving Files on a Computer

Preparation:
- Turn on the computer.
- Turn on the camcorder.

You can save recorded videos and still images on a computer.
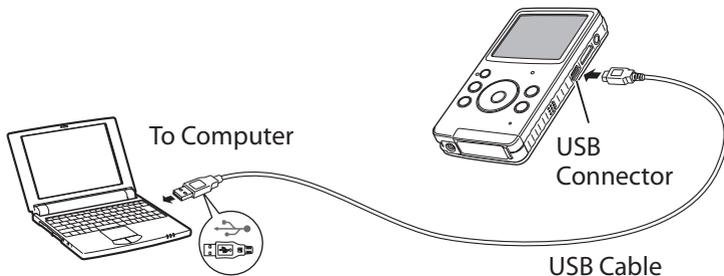
To Computer

USB Connector

USB Cable

1 **Connect the camcorder to a computer.**

Camcorder's LCD monitor will turn off when the USB cable is connected. This occurs during battery charging or when connected to a PC.

2 ■ **Windows: Double-click [FMCAM_SD]/[FMCAM_INT] in [My Computer].**
   ■ **Macintosh: Double-click [NO_NAME] on the desktop.**

3 **Copy the video or still image files from the "DCIM" folder.**

[FMCAM_SD] SD Card

[FMCAM_INT] Internal Memory

[DCIM]

[100JVCSO]
[101JVCSO]
[102JVCSO]
⋮

PIC_XXXX.MOV
PIC_XXXX.MOV — Videos
PIC_XXXX.JPG
PIC_XXXX.JPG — Still Images
⋮
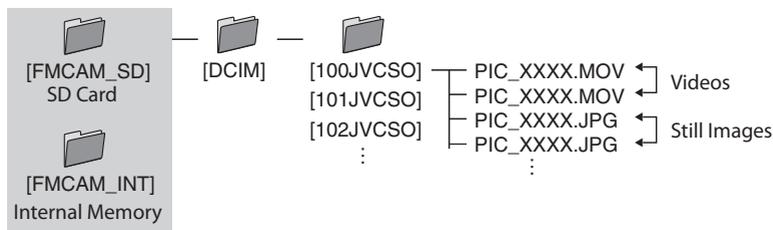
■ **To disconnect the camcorder from a computer (Windows)**
1) Click the 🖭 icon in the task tray on the computer screen.
2) The [Safely Remove Hardware] window appears.
3) Select [USB Mass Storage Device] and then click [Stop].

■ **To disconnect the camcorder from a computer (Macintosh)**
Move [NO_NAME] from the desktop to [Trash], and then disconnect the USB cable.

System Requirements (Windows)

The system configuration described below is required in order to use this software.

■ **OS**
Microsoft Windows XP Service Pack 3
- Home Edition/-Professional (pre-installed)
Microsoft Windows Vista Service Pack 2 (32 bit)
- Home Basic/-Home Premium (pre-installed)

■ **CPU**
Intel Core Duo 1.66 GHz or higher
(Intel Core 2 Duo 2.13 GHz or higher recommended)

■ **Memory**
Windows XP: 1 GB or more
Windows Vista: 2 GB or more

■ **Hard disk**
250 MB or more disk space is required for software installation.

■ **Display**
1024 x 768 pixels, 16 bit (High-color) or more.
(1280 x 1024 pixels, 32 bit or more,
Intel G965 (onboard VGA) or higher recommended)

■ **Others**
Standard USB 2.0 port

Installing the Supplied Software

Preparation:
- Turn on the camcorder.
- Connect the camcorder to a computer.

* The screenshots in the steps below are for Windows XP.

1 **[FMCAM_FRM] window appears.**
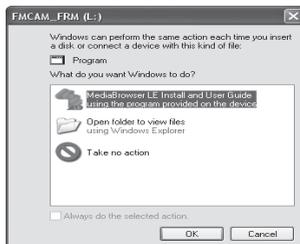
2 **Select [MediaBrowser LE Install and User Guide] and click [OK].**

3 **Select [MediaBrowser LE].**
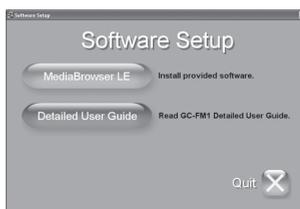
4 **In the [Choose Setup Language], select a language and click [Next].**

Follow the on-screen instructions.
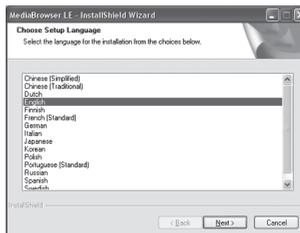
5 **Click [Finish].**

An icon appears on the desktop.

NOTE

• For details about operations in MediaBrowser LE, see its Help.

Exporting to iTunes®

You can easily transfer videos recorded to iTunes® and play back them on iPod®, using the supplied MediaBrowser LE software.
For details about iTunes® and iPod®, see the website.
☞ http://www.apple.com/itunes/

Preparation:
• Install the supplied MediaBrowser LE software to the computer. (☞ p. 20)
• After the software is installed, disconnect the camcorder from the computer.
• If the software is already installed, turn on the camcorder.

1 **Connect the camcorder to a computer.**

MediaBrowser LE starts.

2 **Edit the file using MediaBrowser LE if necessary.**

3 **Transfer files using the [Export] function of MediaBrowser LE.**

> **NOTE**

• For details about operations in MediaBrowser LE, see its Help.

Uploading to YouTube™
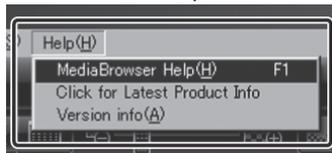
You can easily upload videos to YouTube™, the video sharing website, using the supplied MediaBrowser LE software.
For details about YouTube™, see the website.
☞ http://www.youtube.com/

Preparation:
• Install the supplied MediaBrowser LE software to the computer. (☞ p. 20)
• Turn on the camcorder.

1 **Connect the camcorder to a computer.**
MediaBrowser LE starts.

2 **Click the [Device] icon of MediaBrowser LE.**

🎥 : Internal memory

🎥 : SD card

3 **Click the date containing video files, then drag and drop the selected files to [Show all] in the [Library].**
The files are imported into MediaBrowser LE.

4 **Disconnect the camcorder from the computer.**

5 **Upload files to YouTube™ using the [YouTube] (uploading) function of MediaBrowser LE.**

NOTE

• When you operate video files using MediaBrowser LE, copy them to the computer from the camcorder. If you operate the video files in the camcorder directly, they may be damaged due to battery exhaustion.
• For details about operations in MediaBrowser LE, see its Help.
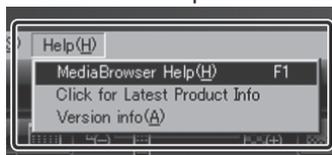
Warning Indications

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 section on JVC's website

> **The following phenomena are not malfunctions.**
> • 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% or fewer pixels may be ineffective.)

The camera is a microcomputer-controlled device. Electrostatic discharge, external noise and interference (from a TV, a radio, etc.) might prevent it from functioning properly. In such a case, reset the camera.

■ To Reset the Camcorder

If the camcorder malfunctions, push into the reset hole with a pointed object such as a wire to initialize the camcorder. (☞ p. 5)

Indication	Action	☞
Memory card is full	• Delete files or move them to a computer or other storage.	10, 16, 18
Internal memory is full	• Replace the SD card with a new one.	
Memory card is protected	• Unlock the write-protect switch of the SD card.	–
Memory card is low speed	• Replace the SD card with specifications one that is compatible with high-speed transfer.	10
Memory card cannot be used	• Format the SD card. • Replace the SD card with a new one.	10, 13
No Files	• Remove the SD card and check whether the data on the SD card was recorded using this camcorder.	–
Invalid		
This file is protected	• Deletion cannot be performed on the camcorder. Cancel the protection on a computer and then delete the file.	–
Insufficient battery. Please charge it.	• Recharge the battery.	9
Format failed.	• Make sure that you used the correct procedure and try again. • Turn off the camcorder and then turn on again. • If the actions above do not resolve the issue, replace the SD card with a new one.	10 13
Recovery failed.	• Move files to a computer, and then format the SD card. • Replace the SD card with a new one.	10, 13, 18
Delete failed.	• Make sure that you used the correct procedure and try again. • If the actions above do not resolve the issue, replace the SD card with a new one.	13, 16
The file number reaches a maximum. Please delete all files in the memory card or the internal memory for recording.	• Delete all files. • Replace the SD card with a new one.	10, 16

Specifications

■ General
Power consumption
1.9 W
Dimensions (W × H × D)
53.0 mm × 97.0 mm × 17.0 mm
(2-1/8" × 3-7/8" × 11/16")
Weight
95 g (0.21 lbs)
100 g (0.23 lbs) (Including SD card)
Operating environment
Operating temperature:
   5 ℃ to 40 ℃ (41 ℉ to 104 ℉)
Storage temperature:
   –20 ℃ to 60 ℃ (–4 ℉ to 140 ℉)
Operating humidity:
   35 % to 85 %

■ Camera/LCD monitor
Pickup
1/3.2" (8,170,000 pixels) progressive CMOS
Lens
F 2.8, f = 3.9 mm
35 mm equivalent
   Video: 1080p   55 mm
            720p   42 mm
            VGA   30 mm
            QVGA   30 mm
   Still image: 30 mm
LCD monitor
2.0-inch LCD
Zoom
Digital ×4

■ Connectors
AV connector
ø 3.5 mm
   Video output: 1.0 V (p-p), 75 Ω
   Audio output: 300 mV (rms), 1 kΩ
USB connector
Mini USB type B
(USB 2.0 High Speed compliant)
HDMI connector
HDMI Mini Connector (V1.3)
Output: 1080i

■ Video
Recording/Playback format
Video: MPEG-4 AVC/H.264
Audio: AAC
Signal format
Digital high definition format
1080/30p
Video quality
1080p (16 : 9)	1440 × 1080p
720p (16 : 9)	1280 × 720p
VGA (4 : 3)	640 × 480p
QVGA (4 : 3)	320 × 240p

■ Still image
Recording format
JPEG
Image size (4 : 3)
8M	3264 × 2448
5M	2592 × 1944
2M	1600 × 1200
VGA	640 × 480

■ Media
Internal
Recordable capacity: approx. 34.5 MB
Commercially available SD cards

■ Approximate recordable time (for video)

Quality \ Recording medium	Internal memory	SDHC Card			
		4 GB	8 GB	16 GB	32 GB
1080p	24 s	41 m	1 h 24 m	2 h 47 m	5 h 42 m
720p	24 s	41 m	1 h 24 m	2 h 47 m	5 h 42 m
VGA	1 m 05 s	2 h 05 m	4 h 14 m	8 h 23 m	17 h 07 m
QVGA	5 m 42 s	10 h 27 m	21 h 17 m	42 h 8 m	85 h 57 m

h: hour/ m: minute/ s: second

- If you record 29 minutes continuously, it will stop recording automatically.
- When the battery life is too low even if it is in full charge, the battery comes to the end of its life.

■ Approximate number of images (for still image)

Quality \ Recording medium	Internal memory	SD Card	SDHC Card			
		2 GB	4 GB	8 GB	16 GB	32 GB
3264 × 2448	10	870	1710	3480	6900	9999
2592 × 1944	20	1370	2710	5510	9999	9999
1600 × 1200	60	3560	7010	9999	9999	9999
640 × 480	360	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 SD card, or the remaining battery power.

Design and specifications subject to change without notice.

Customer Support Information

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

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/GB), 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/German/French/Spanish	+800-1532-4865 (toll-free)
Other Countries in Europe	English/German/French/Spanish/Italian/Dutch	+44-1489-564-764
Asia (Philippines)	English	+63-2-438-0090
China	Chinese	10800-163-0014 (toll-free)

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

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