

Digital HD Video Camera Recorder

Operating Guide

HDR-MV1

English

Read this first

Before operating the unit, please read this manual thoroughly, and retain it for future reference.

Learning more about the camcorder (Music Video Recorder User Guide)

The Music Video Recorder User Guide is an online manual. Refer to it for in-depth instructions on the many functions of the camcorder.



- Access the Sony support page. <http://www.sony.net/SonyInfo/Support/>
- Select your country or region.
- Search for the model name of the camcorder within the support page. Check the model name on the bottom of the camcorder.



Supplied items

The numbers in () are the supplied quantity.

- Camcorder (1)
- USB cable (Micro USB cable) (1)
- Rechargeable battery pack NP-BX1 (1)
- Lens cap (1)
- Cap string (1)
- "Operating Guide" (This manual) (1)

Owner's Record

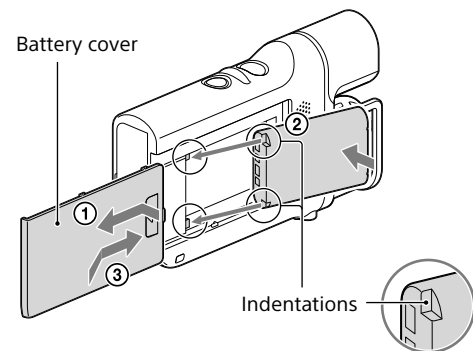
The model and serial numbers are located on the bottom. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding the camcorder.

Model No. HDR- _____
SerialNo. _____

In some models, the nameplate showing trademarks, certification marks, and other information is located beside the battery holder.

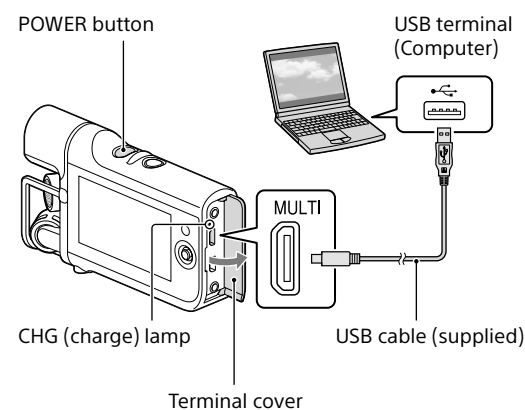
Installing the battery pack

- Remove the battery cover.
- Install the battery pack in the direction illustrated.
- Attach the battery cover.



Charging the battery pack

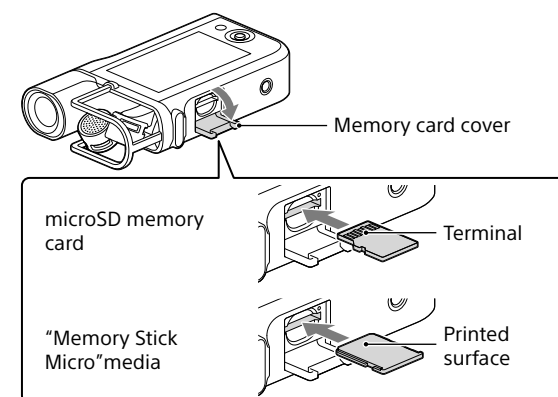
- Turn off the camcorder by pressing the POWER button.
- Open the terminal cover of the camcorder.
- Connect the camcorder to a running computer using the USB cable.



- Fully charging the battery pack takes approximately 245 minutes when connected to a computer or approximately 155 minutes when using the AC-UD10 AC Adaptor (sold separately).
- When you use a fully charged battery pack, available recording time is approximately 130 minutes (continuous recording time) or 75 minutes (typical recording time), or available playback time is approximately 210 minutes (at default settings).

Inserting a memory card

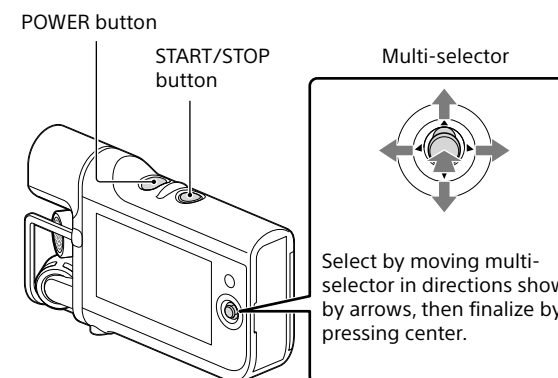
- Open the memory card cover.
- Insert the memory card straight in the direction illustrated until it clicks.
- Close the memory card cover.



- To eject the memory card, push it in lightly once.
- microSD memory cards, microSDHC memory cards, microSDXC memory cards and "Memory Stick Micro"(Mark2) media are compatible with the camcorder.
- Operation with all memory cards is not assured.

Recording

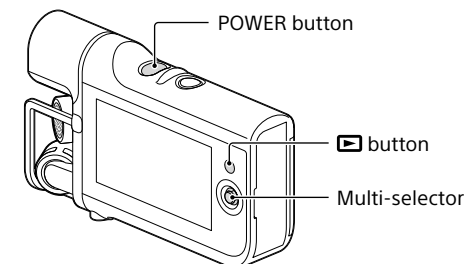
- Turn on the camcorder by pressing the POWER button.
- Press START/STOP to start recording. To stop recording, press START/STOP again.



- When you turn on the power for the first time, the date and time setting screen is displayed. Configure settings using the multi-selector.
- The camcorder can record MP4 movies.
- Noise may be recorded when recording by holding the camcorder because it is equipped with a high-sensitivity microphone.
- The LCD screen will be dark during recording (at default settings).

Playback

- Turn on the camcorder by pressing the POWER button.
- Press the [M] button on the camcorder to enter the playback mode.
- Select contents you want to play back using the multi-selector, then press the center of the selector.



Main buttons for playback operations

Volume	Previous/Next
Delete	Fast-reverse/fast-forward
Stop	Pause/Play

Transferring movies to your smartphone (Wi-Fi)

- Install the application on your smartphone.



Android 2.3 or later
(Android 4.0 or later if using NFC)

Search for and install PlayMemories Mobile from Google play.



iOS 4.3 or later
(NFC is not available.)

Search for and install PlayMemories Mobile from App Store.



- For details on PlayMemories Mobile, visit the following URL. (<http://www.sony.net/pmm/>)
- If PlayMemories Mobile is already installed in your smartphone, update the software to the latest version.
- This application is not guaranteed to work on all smartphones and tablets.
- The operation methods and display screens for the application are subject to change without notice by future upgrades.
- The information on supported OS versions is current as of September 1, 2013.

- Select a movie on the camcorder that you want to transfer, and then transfer it by connecting to your smartphone.

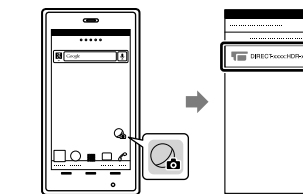
When connecting to an Android device compatible with NFC.

- Play back a movie on the camcorder that you want to transfer to your smartphone.
- Start the [Setting] menu and select [Other settings] on your smartphone, and confirm that [NFC] is enabled.
- Touch [N] (N mark) on the camcorder with [N] (N mark) on your smartphone.

When connecting without using NFC.

- Enter the playback mode on the camcorder, and select [MENU] → [Edit/Copy] → [Send to Smartphone] → [Select on This Device].
- Select the image you want to transfer, and add ✓ mark, and then select [OK] → [OK]. The SSID and the password are displayed, and the camcorder is ready for connection from your smartphone.
- On your smartphone, select the SSID that is displayed on the camcorder, and then enter the password.

Android device:
1 Start up PlayMemories Mobile, and then select the SSID that is displayed on the camcorder.

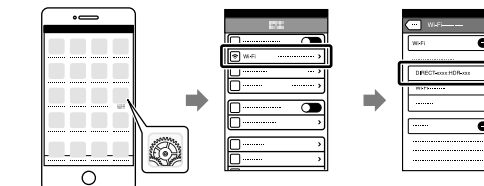


- Enter the password that is displayed on the camcorder (first time only).

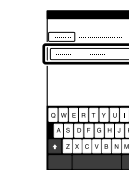


iPhone:

- On your smartphone, select [Wi-Fi] in the settings menu, and then select the SSID that is displayed on the camcorder.



- Enter the password that is displayed on the camcorder (first time only).



- Confirm that the SSID is selected.
- Start up PlayMemories Mobile.

Using your smartphone as a remote commander (Wi-Fi)

- Select [Wi-Fi] on the recording screen of the camcorder.

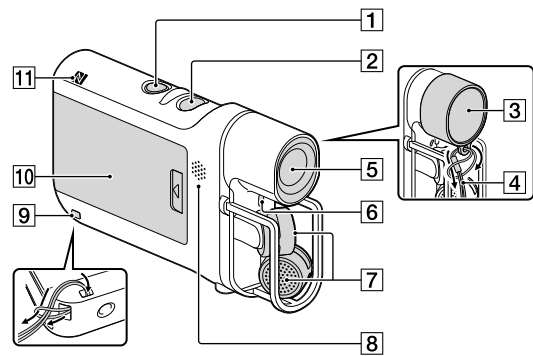
The SSID and the password are displayed on the camcorder, and the camcorder is ready for connection from your smartphone.

- On your smartphone, select the SSID that is displayed on the camcorder, and then enter the password.

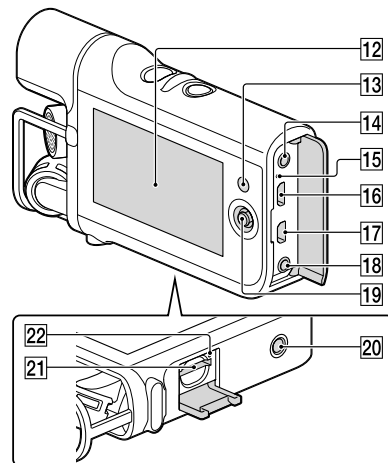
Perform the same procedure as in step ③ of "Transferring movies to your smartphone (Wi-Fi)" / "When connecting without using NFC." If you want to use NFC, enter the recording screen, and then touch [N] (N mark) on the camcorder with [N] (N mark) on your smartphone.

- Operate your smartphone.

Parts and controls



- 1 START/STOP button
- 2 POWER button
- 3 Lens cap
- 4 Cap string
- 5 Lens
- 6 Recording lamp
- 7 Microphones
- 8 Speaker
- 9 Loop for the cap string/the strap
- 10 Battery cover
- 11 NFC (N mark)
NFC: Near Field Communication



- 12 LCD screen
- 13 (Playback) button
- 14 (headphones) jack
- 15 CHG (charge) lamp
- 16 Multi/Micro USB terminal
Supports Micro USB compatible devices.
- 17 Micro HDMI OUT jack
- 18 LINE IN jack/ (microphone) jack (PLUG IN POWER)
- 19 Multi-selector
- 20 Tripod receptacle
- 21 Memory card slot
- 22 Memory card access lamp

Recommended functions

To adjust the recording sound level of the built-in microphones

Select on the recording screen.

To reduce low frequency sound such as that of air conditioners.

Select [MENU] → [Camera/Audio] → [Audio] → [Low Cut Filter] → [On].

To monitor sounds

Plug headphones into the (headphones) jack. To adjust the volume, select on the recording screen.

To synchronize the image on the LCD screen with the sound being monitored.

Select [MENU] → [Camera/Audio] → [Audio] → [Audio Output Timing] → [Lip Sync].

To use MTR (Multi Track Recorder) or an external microphone (sold separately)

Connect an MTR or external microphone to LINE IN jack of the camcorder. When the [Ext. Audio Input Set] screen appears, select the device you want to connect.

To record only sounds

Select [MENU] → [Recording Mode] → [Audio].

To change the audio recording format

Select [MENU] → [Camera/Audio] → [Audio] → [Audio Format], and then select the desired format.

To change the movie recording mode

Select [MENU] → [Image Quality/Size] → [REC Mode], and then select [1080] (1920x1080 30p) or [720] (1280x720 30p).

To record without worrying about the battery level

Connect the AC-UD10 AC Adaptor (sold separately) to the camcorder with the battery installed.

Notes on use

Notes on using your camcorder

- It is recommended to format the memory card with the camcorder before the first use.
- Confirm the direction of the memory card. If you forcibly insert the memory card in the wrong direction, the memory card, memory card slot, or contents data may be damaged.
- Compensation for the contents of recordings cannot be provided, even if recording or playback is not possible due to a malfunction of the camcorder, recording media, etc.
- During periods of extended recording, the temperature of the camcorder may rise to a point where recording stops automatically. With the power is turned off, leave the camcorder for 10 minutes or longer to allow the temperature inside to decrease to a safe level.
- Under high ambient temperatures, the temperature of the camcorder rises quickly.

- When the temperature of the camcorder rises, the image quality may deteriorate. It is recommended that you wait until the temperature of the camcorder drops before continuing to record.
- The surface of the camcorder may get hot. This is not a malfunction.
- Playback of contents recorded with other devices, is not assured on the camcorder.
- Use the nearby wall outlet (wall socket) when using the AC-UD10 AC Adaptor (sold separately). Disconnect the AC Adaptor from the wall outlet (wall socket) immediately if any malfunction occurs while using the apparatus.
- MP4 movies recorded with [Audio Format] set to [Linear PCM] cannot be played back on some equipment or services, including Blu-ray Disc players (including Sony products). For detailed information, check the camcorder support page before use.

About the software

- The content management and editing software can be downloaded from the following URL:
www.sony.net/pm/mvr/

Notice regarding wireless networks

- Sony bears no responsibility whatsoever for any loss or damages that may occur as a result of unauthorized access to or use of the access point registered to the camcorder if it is lost or stolen.

Specifications

Movie recording format: Video: MPEG-4 AVC/H.264, Audio: MPEG-4 Linear PCM 2ch, MPEG-4 AAC LC 2ch
Audio recording format: Linear PCM (WAV)
Power requirements: DC 3.6 V (Battery pack), DC 5 V 1 500 mA (AC Adaptor)

USB charging (Multi/Micro USB terminal): DC 5 V 800 mA
Average power consumption: 2.1 W (when recording movies at default settings)

Rechargeable battery pack NP-BX1:
Maximum charge voltage: DC 4.2 V
Maximum charge current: 1.89 A

For more specifications, refer to "Specifications" in the Music Video Recorder User Guide.
Design and specifications are subject to change without notice.

On trademarks

- "Memory Stick," "microSDXC," and "Memory Stick Micro" are trademarks or registered trademarks of Sony Corporation.
- microSDXC logo is a trademark of SD-3C, LLC.
- The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.
- Mac, Mac OS and App Store are registered trademarks of Apple Inc.
- Android and Google Play are trademarks or registered trademarks of Google Inc.
- iOS is a registered trademark or trademark of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.
- iPhone is a trademark or a registered trademark of Apple Inc.
- Wi-Fi, the Wi-Fi logo, Wi-Fi PROTECTED SET-UP, Wi-Fi Direct, WPA and WPA2 are registered trademarks of the Wi-Fi Alliance.
- The N mark is a trademark or registered trademark of NFC Forum, Inc. in the United States and in other countries.

All other product names mentioned herein may be the trademarks or registered trademarks of their respective companies. Furthermore, ™ and ® are not mentioned in each case in this manual.



WARNING

To reduce the risk of fire or electric shock,
1) do not expose the unit to rain or moisture.
2) do not place objects filled with liquids, such as vases, on the apparatus.
Do not expose the batteries to excessive heat such as sunshine, fire or the like.

CAUTION

Battery pack

If the battery pack is mishandled, the battery pack can burst, cause a fire or even chemical burns. Observe the following cautions.

- Do not disassemble.
 - Do not crush and do not expose the battery pack to any shock or force such as hammering, dropping or stepping on it.
 - Do not short circuit and do not allow metal objects to come into contact with the battery terminals.
 - Do not expose to high temperature above 60°C (140°F) such as in direct sunlight or in a car parked in the sun.
 - Do not incinerate or dispose of in fire.
 - Do not handle damaged or leaking lithium ion batteries.
 - Be sure to charge the battery pack using a genuine Sony battery charger or a device that can charge the battery pack.
 - Keep the battery pack out of the reach of small children.
 - Keep the battery pack dry.
 - Replace only with the same or equivalent type recommended by Sony.
 - Dispose of used battery packs promptly as described in the instructions.
- Excessive sound pressure from earphones and headphones cause hearing loss.

For Customers in the U.S.A. and Canada

RECYCLING LITHIUM-ION BATTERIES

Lithium-Ion batteries are recyclable.
You can help preserve our environment by returning your used rechargeable batteries to the collection and recycling location nearest you.



For more information regarding recycling of rechargeable batteries, call toll free 1-800-822-8837, or visit <http://www.cal2recycle.org/>

Caution: Do not handle damaged or leaking Lithium-Ion batteries.

Battery pack

This device complies with Part 15 of the 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.

CAN ICES-3 B/NMB-3 B

This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that are deemed to comply without testing of specific absorption ratio (SAR).

Important Safety Instructions

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings.
- Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.

- 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.

- Unplug this apparatus during lightning storms or when unused for long periods of time.
- 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.

For Customers in the U.S.A.

UL is an internationally recognized safety organization. The UL Mark on the product means it has been UL Listed.

If you have any questions about this product, you may call:
Sony Customer Information Center 1-800-222-SONY (7669).
The number below is for the FCC related matters only.

Regulatory Information

Declaration of Conformity

Trade Name: SONY
Model No.: HDR-MV1
Responsible Party: Sony Electronics Inc.
Address: 16530 Via Esprillo, San Diego, CA 92127 U.S.A.
Telephone No.: 858-942-2230

This device complies with Part 15 of the 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.

This equipment must not be co-located or operated in conjunction with any other antenna or transmitter.

CAUTION

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Note

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.

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.

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

FOR CUSTOMERS IN EUROPE



Hereby, Sony Corporation, declares that this HDR-MV1 Digital HD Video Camera Recorder is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. For details, please access the following URL:
<http://www.compliance.sony.de/>



Notice for the customers in the countries applying EU Directives
Manufacturer: Sony Corporation, 1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan

For EU product compliance: Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany

This product has been tested and found compliant with the limits set out in the EMC regulation for using connection cables shorter than 3 meters (9.8 feet).

The electromagnetic fields at the specific frequencies may influence the picture and sound of this unit.

Notice

If static electricity or electromagnetism causes data transfer to discontinue midway (fail), restart the application or disconnect and connect the communication cable (USB, etc.) again.



Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment.

By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.



Disposal of waste batteries (applicable in the European Union and other European countries with separate collection systems)

This symbol on the battery or on the packaging indicates that the battery provided with this product shall not be treated as household waste.

On certain batteries this symbol might be used in combination with a chemical symbol. The chemical symbols for mercury (Hg) or lead (Pb) are added if the battery contains more than 0.0005% mercury or 0.004% lead.

By ensuring these batteries are disposed of correctly, you will help prevent potentially negative consequences for the environment and human health which could otherwise be caused by inappropriate waste handling of the battery. The recycling of the materials will help to conserve natural resources.

In case of products that for safety, performance or data integrity reasons require a permanent connection with an incorporated battery, this battery should be replaced by qualified service staff only.

To ensure that the battery will be treated properly, hand over the product at end-of-life to the applicable collection point for the recycling of electrical and electronic equipment.

For all other batteries, please view the section on how to remove the battery from the product safely. Hand the battery over to the applicable collection point for the recycling of waste batteries. For more detailed information about recycling of this product or battery, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

For Customers in Singapore

Complies with IDA Standards DB00353