

Multi-Function DVD Recorder

Operating Instructions



VRD-MC5

Safety Regulations

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

To prevent fire or shock hazard, do not place objects filled with liquids, such as vases, on the apparatus.

Do not install this equipment in a confined space such as a bookshelf or similar unit.

CAUTION:

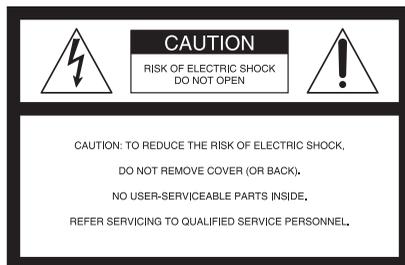
The use of optical instruments with this product will increase eye hazard. As the laser beam used in this multi function DVD recorder is harmful to eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the bottom exterior.

CLASS 1
LASER PRODUCT
LASER KLASSE 1
PRODUKT

LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT

This label is located on the laser protective housing inside the enclosure.



This symbol 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.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

This graphical symbol is located on the bottom of the unit.

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) 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.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11) Only use attachments/accessories specified by the manufacturer.

12) 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.



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

14) 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.

FCC Compliance Statements

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:

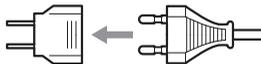
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

The manufacturer of this product is Sony Corporation, 1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan. The Authorized Representative for EMC and product safety is Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany. For any service or guarantee matters please refer to the addresses given in separate service or guarantee documents.

Notes on AC power adapter

- Please ensure that the socket outlet is installed near the equipment and shall be easily accessible.
- Be sure to use the supplied AC adapter and power cord.
- Do not use any other AC adapter. It may cause a malfunction.
- Connect the AC adapter to an easily accessible socket outlet.
- Do not touch the AC adapter with wet hands.
- Should you notice an abnormality in the AC adapter, disconnect it from the socket outlet immediately.
- Use a commercially available AC plug adapter, if necessary, depending on the design of the wall outlet.



- The set is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the set itself has been turned off.

The nameplate is located on the bottom of the unit.

For Customers in U.S.A

Owner's Record

The product label is located on the bottom of the unit. Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model: VRD-MC5

Serial Number: _____

For customers in the United Kingdom and Republic of Ireland

A molded plug complying with BS1363 is fitted to this equipment for your safety and convenience. Should the fuse in the plug supplied need to be replaced, a fuse of the same rating as the supplied one and approved by ASTA or BSI to BS1362, (i.e., marked with  or  mark) must be used. If the plug supplied with this equipment has a detachable fuse cover, be sure to attach the fuse cover after you change the fuse. Never use the plug without the fuse cover. If you should lose the fuse cover, please contact your nearest Sony service station.

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.

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- DVDDirect, Handycam, CyberShot, Memory Stick and each logos are trademarks, or registered trademarks of Sony Corporation.
- “PLAYSTATION” is a registered trademark of Sony Computer Entertainment Inc.
- Other system and product names used herein are registered trademarks or trademarks of their respective manufacturers, although the ™ and ® marks are not used in the text.
- Manufactured under license from Dolby Laboratories.
Dolby and the double-D symbol are trademarks of Dolby Laboratories.
- The authorized software on this product is used under license from eSOL Co. Ltd.

- ❑ Our product warranty is valid only when the supplied accessories are used in the specified or recommended system environment, in accordance with the documentation, and applies only to this DVDDirect. Our customer service and user support apply only under these product warranty conditions.
- ❑ Please note that we cannot accept responsibility for failure of the computer or other devices, incompatibility with special hardware, operating problems caused by improper installation of software, loss of data, discs or other accidental or incidental damage that might occur when using this product.
- ❑ The guarantee and user support for this product are valid only within the countries or sales regions specified on the warranty card.
- ❑ Specifications may be changed without notice in the interest of product improvement.

Copyright

Television programs, films, video tapes, discs, and other materials may be copyrighted. Unauthorized recording of such material may be contrary to the provisions of the copyright laws. Also, use of this product with cable television transmission may require authorization from the cable television transmitter and/or program owner.

Features

You can easily record videos or photos using the DVDirect. You do not need a computer.



Create video DVDs

- You can record videos from connected camcorders and AV devices directly onto DVDs without using a computer.
- You can dub the entire contents of your HDD, Memory Stick, DVD, or DV camcorder onto a DVD with one touch of the record button.

Create photo DVDs

- You can archive photos from a memory card and connected camcorders directly onto a DVD without using a computer.
- You can also create slideshows of the photos that will be playable on DVD players.

AVCHD dubbing

You can record HD (High Definition) videos taken with Sony High Definition Handycam[®] (HDD/Memory Stick) as they are. For detail about compatibility of AVCHD disc, see “Notes on compatibility of AVCHD disc” on page 26.

Navigation Display

The DVDirect automatically detects inserted memory cards and discs and input signals from connected devices. It then displays a message prompting the next necessary operation. Preparations for recording are made without any complicated button operations.

About this manual

Depending on the type of device that is connected, or the image quality (High Definition video or Standard Definition video), you can perform the following operations with the DVDirect.

In this manual, different icons for each operation or image quality appear in section headings. The functions of these icons are as follows.

Icon	Meaning
HDD CAM	Functions available for Sony Handycam® (HDD) recording to hard disc
MS CAM	Functions available for Sony Handycam® (Memory Stick) recording to Memory Stick
DVD CAM	Functions available for Sony Handycam® (DVD) recording to 8cm DVD
DV CAM	Functions available for Sony Handycam® (DV/D8) or DV digital video camera recording to digital video tape
Video Device	Functions available for various camcorders or video devices
Memory Card	Functions available for Memory Stick, Memory Stick Duo, SD Card, xD-Picture Card, Compact Flash
SD Video	Dubbing videos being recorded on Standard Definition image quality
HD Video	Dubbing videos being recorded on High Definition image quality (AVCHD format)
Photo	Dubbing still images shot by a digital still camera or Sony Handycam®

* In this manual, Handycam® refers to a Sony camcorder. In particular, High Definition Handycam® and AVCHD Handycam® refers to an HD (High Definition) AVCHD compatible camcorder. For details, see page 27 and 57.

Dubbing videos from Handycam® (HDD/Memory Stick)

 **page 32**

HDD CAM **MS CAM** **HD Video** **SD Video**

Create a DVD using video taken with a Handycam® (HDD/Memory Stick). Connect the Handycam® to the DVDirect via a USB cable.

Available functions:

One Touch Dubbing Through Handycam® Control

Full Dubbing

Incremental Dubbing

Playlist Dubbing

Scenes Selection Dubbing

Dubbing videos from Handycam® (DVD)

 page 43

DVD CAM **SD Video**

Create a DVD using video taken with a Handycam® (DVD). Connect the Handycam® to the DVDirect via a USB cable.

Available functions:

Full Dubbing

Consolidation Dubbing

Dubbing videos from DV digital video camera

 page 48

DV CAM **SD Video**

Create a DVD using video taken with a Handycam® (DV/D8) or DV digital video camera. Connect a Handycam® or DV digital video camera to the DVDirect via a DV (i.LINK) cable.

Available functions:

Full Dubbing

Manual Dubbing

Dubbing videos from miscellaneous video devices

 page 52

Video Device **SD Video**

Create a DVD using video taken with a camcorder, or using video from any other device equipped with a video output connector. To connect a device, use the AV cable supplied with your camcorder or standard video or S-video cables.

Available functions:

Manual Dubbing

Dubbing photos from memory cards

 page 60

Memory Card **Photo**

Create a DVD using photos taken with a digital still camera and stored on a memory card.

Available functions:

Full Dubbing, Photo Selection Dubbing

Dubbing photos from Handycam® (HDD/DVD/Memory Stick) page 60

HDD CAM **MS CAM** **DVD CAM** **Photo**

Create a DVD using photos taken with Handycam® (HDD/DVD/Memory Stick).

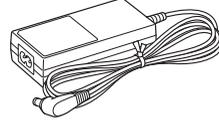
Available functions:

Full Dubbing, Photo Selection Dubbing

Package Contents

Please confirm that the package contains the following items. If any of these items are missing or damaged, please contact your dealer.

- DVDirect
- AC adapter



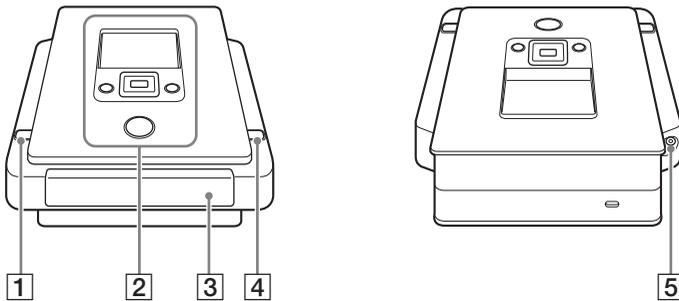
- AC power cord
- Quick Start Guide
- Operating Instructions (this document)
- Warranty card

Note

Use an AC power cord appropriate to the region or country of use.

Parts and Controls

Front and rear



1  **(power) button**

Turns the DVDirect on or off.

2 **Top panel**

The buttons and display for operating the DVDirect are located here (page 13).

3 **Disc tray**

Insert a disc here with the label side up (page 19).

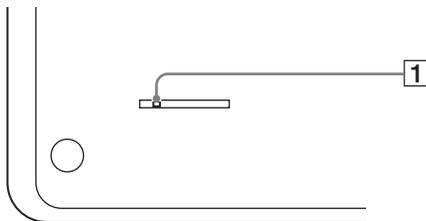
4  **(eject) button**

Opens and closes the disc tray.

5 **DC IN connector**

Connect the supplied AC adapter here (page 16).

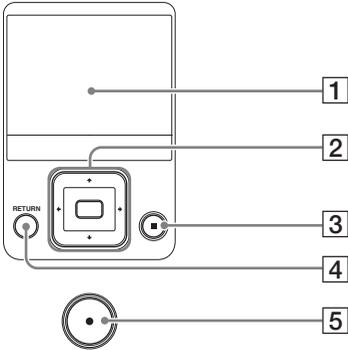
Bottom



1 **Emergency eject lever**

If you cannot open the disc tray with the  (eject) button, turn off and reverse the DVDirect. Slide the lever with a thin implement.

Top panel



1 Display window

Displays a menu screen, images from a playback device or memory card.

2 ↑↓←→ cursor / □ (select) button

Selects a function.

3 ◻ (stop) button

Stops recording.

4 RETURN button

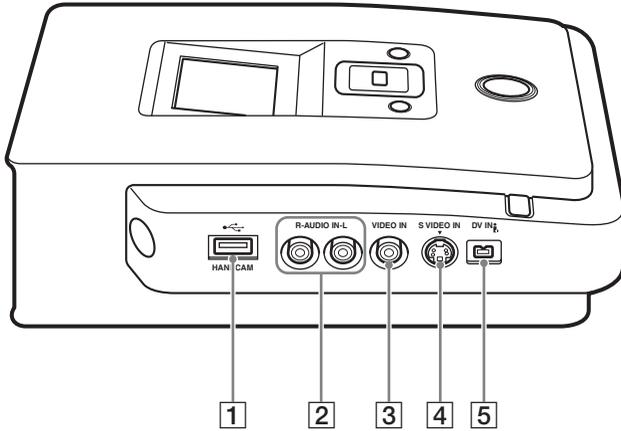
This returns the display to the menu screen or to the previous screen when operating the DVDirect.

5 ◉ (record) button

Starts recording.

Lights red during recording.

Left side panel



1 USB connector (Type A)

Connect the USB cable (not supplied) here when connecting a Handycam®.

2 AUDIO IN L/R connectors

Connect the audio plugs of an AV cable (not supplied) here when connecting the DVDirect to a video device, such as a camcorder or VCR.

3 VIDEO IN connector

Connect the video plug of an AV cable (not supplied) here when connecting the DVDirect to a video device, such as a camcorder or VCR.

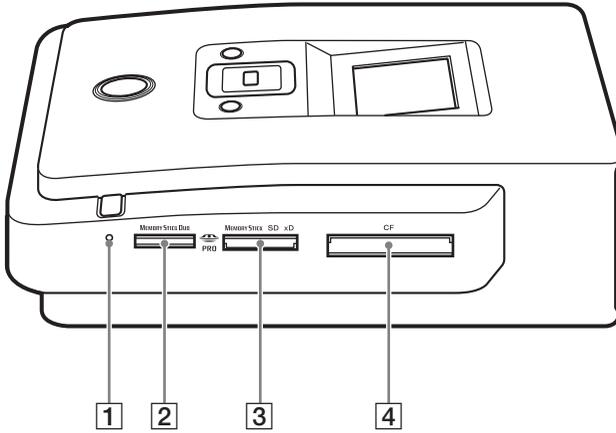
4 S VIDEO IN connector

Connect an S-video cable (not supplied) here when connecting the DVDirect to a video device with an S-video connector, such as a camcorder or VCR.

5 DV IN connector (4-pin)

Connect a DV (i.LINK) cable (not supplied) here when connecting the DVDirect to a DV camcorder with DV connector.

Right side panel



1 Memory card LED

Lights amber when accessing the memory card.

2 Memory Stick Duo slot

Insert a "Memory Stick Duo" here.

3 Multi memory card slot

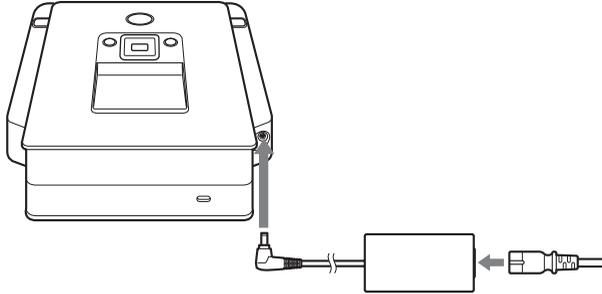
Insert a "Memory Stick," SD Card, or xD-Picture Card here.

4 CompactFlash card slot

Insert a CompactFlash here.

Turning the Power On/Off

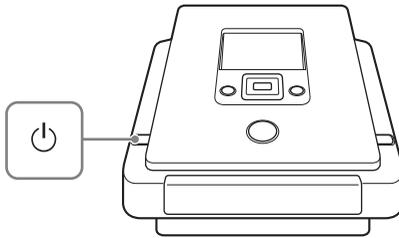
- 1 Connect the supplied AC power cord to the AC adapter.
- 2 Insert the power plug of the AC adapter into the DVDirect's DC IN connector.
- 3 Insert the power plug of the AC power cord into a power outlet.



Notes

- Be sure to use the supplied AC power cord and the AC adapter.
- Do not use damaged cables, such as cables with deformed connectors.

- 4 Press the  (power) button.



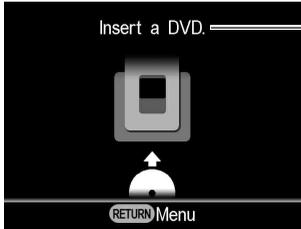
After the display window lights and the DVDirect logo appears, a different screen appears depending on the DVDirect's current status. For details, see "Navigation Display" on page 17. When you press the RETURN button, the menu is displayed. For details, see "Accessing functions from the menu" on page 18.

To turn power off

Press the  (power) button again.

Navigation Display

After the power is turned on, the DVDirect automatically detects inserted memory cards and DVD discs and input signals from connected devices. A message indicating how to prepare for recording then appears in the display window. By following this message, you can automatically move on to the recording procedure you intended without complicated button operations.



Messages and illustrations indicate the operations to perform next.

When recording videos from a High Definition Handycam®

When connecting a High Definition Handycam® (HDD/Memory Stick) to the DVDirect, videos are recorded by the Navigation Display procedure as follows.

- When storing only HD (High Definition) video, or both HD (High Definition) video and SD (Standard Definition) video, the DVDirect automatically detects HD (High Definition) video and records it on the disc.
- When storing only SD (Standard Definition) video, the DVDirect automatically records it on the disc.

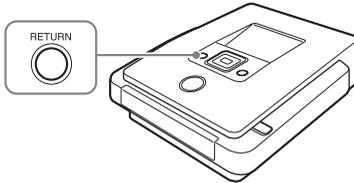
Note

When storing HD (High Definition) video and SD (Standard Definition) video on your High Definition Handycam® and you want to record SD (Standard Definition) video, use the menu display (page 18).

Accessing functions from the menu

You can perform recording procedures manually by selecting options from the menu. You can also go to the setup screen (Setup menu) from the menu for various settings.

Press the RETURN button to return to the menu display (You cannot go back to the menu display while recording or from some of operating status).



Press **↑** or **↓** to select the desired operation, and press the **□** (select) button.

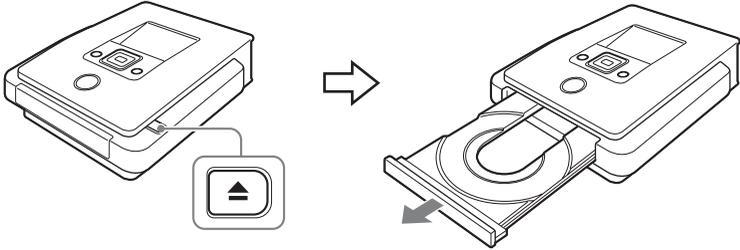
Menu	Function
Video ➔ DVD	Create a video DVD (page 35, 52).
Photo ➔ DVD	Create a photo DVD (page 60).
DVD Preview	Playback a created video DVD or photo DVD. (page 68).
AVCHD Dubbing	Record HD (High Definition) video to a disc with a High Definition Handycam® connected to the DVDirect.
Setup	Configure various settings (page 71).

Inserting a Disc

To insert a disc, perform the following while the DVDirect is turned on.

1 Press the ▲ (eject) button.

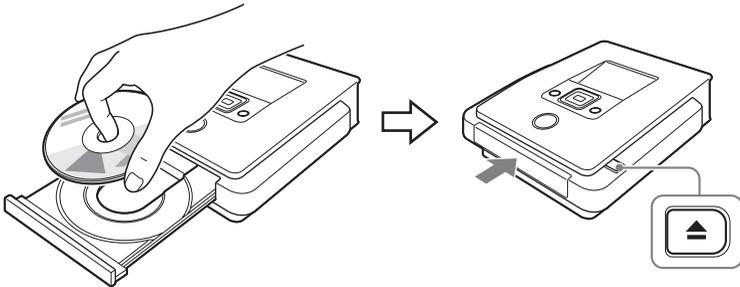
The disc tray ejects.



2 Place the disc in the disc tray with its label facing up, and press the ▲ (eject) button again.

Note

Do not touch the recording side of the disc.



When the ▲ (eject) button is pressed again, the disc tray closes and the DVDirect starts reading the inserted disc.

When a new disc is inserted

When connecting a video device to the VIDEO IN, S VIDEO IN, or DV IN connector, and dubbing manually with a new disc (page 50), the following display appears.



When recording, press **↑** or **↓** to select “OK,” and press the **[]** (select) button. Format is started. This may take several seconds to complete. For other types of dubbing, the disc may be automatically formatted depending on the dubbing mode.

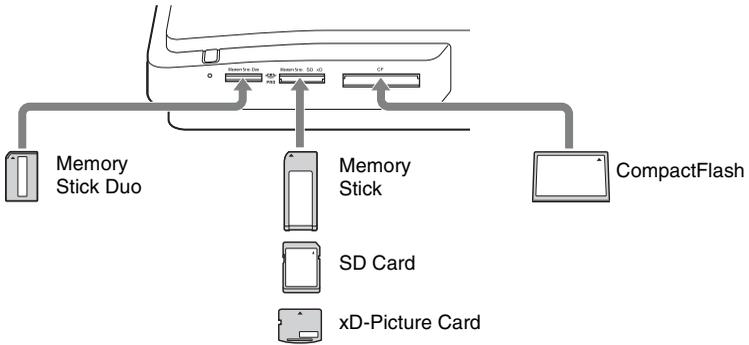
Formatting is a necessary process before recording to a disc.

Note

For a disc formatted according to the message on this display, you can only record video with the VIDEO IN, S VIDEO IN, or DV IN connector. When formatting a DVD+RW or DVD-RW disc according to the message on this display, you can use the disc to record in other dubbing modes, for example AVCHD Dubbing, if you erase the contents of the disc.

Inserting a Memory Card

Insert the memory card into its corresponding memory card slot.



Memory Stick Duo

Push the “Memory Stick Duo” into the slot until you hear a click. To remove, push the “Memory Stick Duo” and pull out.

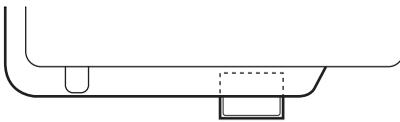
Memory Stick/SD Card/xD-Picture Card

Push the card into the slot until you hear a click. To remove, push the card and pull out.

CompactFlash

Push the card into the CompactFlash slot. To remove, pull out the CompactFlash.

The CompactFlash stays half exposed.



Notes

- Insert only one memory card into a memory card slot. Furthermore, do not use more than one memory card slot at a time.
- Do not insert another memory card while recording onto a disc. Doing so may cause a writing error.
- Do not insert a “Memory Stick Duo” with a Memory Stick Duo adapter into the multi memory card slot.
- Never remove the memory card while the memory card LED is lit. Otherwise data in the memory card may be damaged.

Creating a Video DVD and AVCHD disc

Simply by connecting your camcorder or video device to the DVDirect, you can record videos. If you connect a Sony High Definition Handycam[®], you can dub High Definition (AVCHD) video in the same quality.

Types of Dubbing

Depending on your camcorder or type of video DVD you are creating, you can select the dubbing mode as follows.

One Touch Dubbing Through Handycam[®] Control (page 32)

HDD CAM **MS CAM**

This mode allows you to record video from a Handycam[®] onto a disc by simply pressing the DISC BURN or DVD BURN button on the Handycam[®]. You can record additional video onto a disc that has been previously recorded on, as with Incremental Dubbing (see page 23).

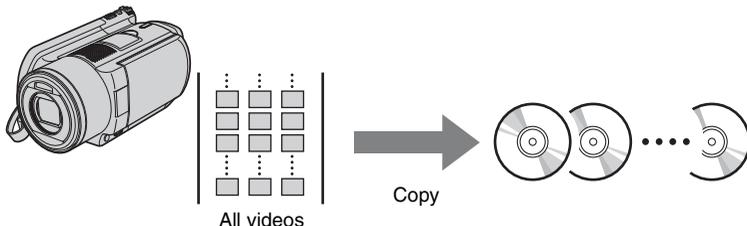
Full Dubbing

HDD CAM **MS CAM** **DVD CAM** **DV CAM**

This mode allows you to record video from a digital video camera connected to the DVDirect with a single touch of the  (record) button onto a DVD. The DVDirect controls the camcorder during the entire process, and completes creation of the video DVD or AVCHD disc. The completed disc is automatically finalized, allowing immediate playback on DVD players. The AVCHD disc created can be played on AVCHD compatible devices. The video is recorded as follows:

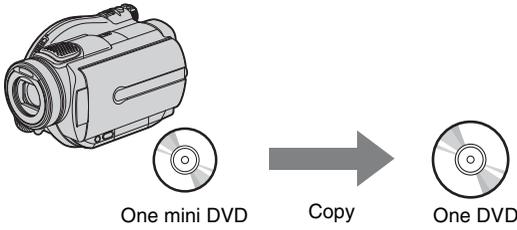
Handycam[®] (HDD or Memory Stick) (page 37)

The entire video content of the HDD or Memory Stick is recorded onto a disc. (Several discs may be required depending on the length of the video.)



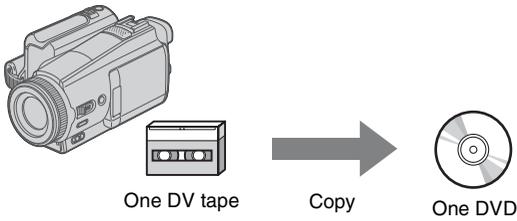
Handycam® (DVD) (page 45)

The entire video content of the camcorder's 8-cm disc is recorded onto a 12-cm disc.



Handycam® (DV/D8) or DV digital video camera (page 49)

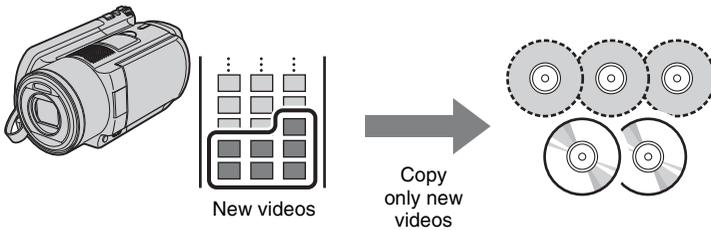
The entire content of the DV tape or Digital 8 tape is recorded onto a single disc.



Incremental Dubbing (page 38)

HDD CAM **MS CAM**

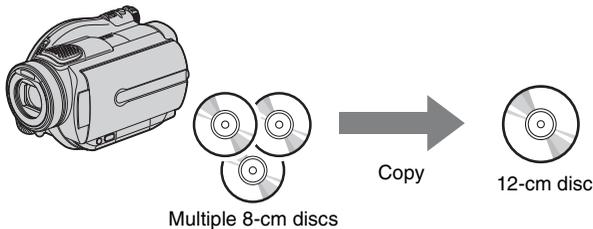
Using this mode, you can record only the newly taken contents of a camcorder whose previous contents have already been recorded onto a disc.



Consolidation Dubbing (page 46)

DVD CAM

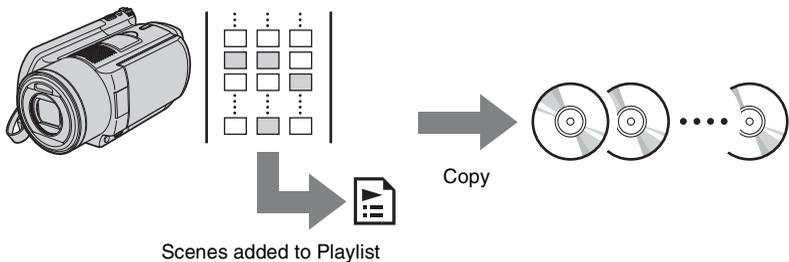
This mode allows you to record the contents of multiple 8-cm discs from a Handycam® (DVD) onto a single 12-cm disc.



Playlist Dubbing (page 40)

HDD CAM MS CAM

This mode allows you to record videos within a Playlist created on your Handycam® (HDD/Memory Stick). If you select videos beforehand and create a Playlist on your Handycam®, you can record these videos on DVD easily. For Playlist editing, refer to your camcorder's operating instructions.



Scenes Selection Dubbing (page 41)

HDD CAM MS CAM

This mode allows you to record videos selected by viewing thumbnails or shooting date.

Selecting from Thumbnail:



Selecting from Shooting date:



Manual Dubbing (page 50)

DV CAM

Video Device

This mode allows you to create a video DVD using the  (record) and  (stop) buttons on the DVDirect and the play, pause, and stop buttons on the device connected to the DVDirect. You can record while watching the video you want to record on the display.

About Video DVDs and AVCHD discs

Video DVDs –SD (Standard Definition) image quality discs–

You can create a video DVD while watching a video by connecting multiple camcorders or video devices. By connecting a Handycam[®] via a USB cable, you can also create a video DVD with the same video quality when recording. The disc created can be played on a compatible DVD player. And you can also set your favorite photo for a DVD menu (page 73).

AVCHD discs –HD (High Definition) image quality discs–

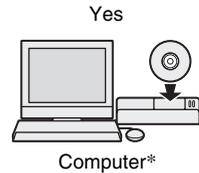
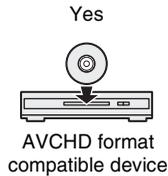
You can record HD (High Definition) video as is, by connecting a High Definition Handycam[®] (HDD/Memory Stick) via a USB cable. The AVCHD disc created can be played on an AVCHD compatible devices. You can enjoy HD (High Definition) image quality with playing back the AVCHD disc if an HD (High Definition) TV is used.

Notes on compatibility of AVCHD disc

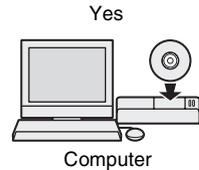
- An AVCHD disc cannot be played on an AVCHD incompatible DVD player or recorder.
- Do not insert an AVCHD disc in an AVCHD incompatible DVD player or recorder. The DVD player or recorder may fail to eject the disc and may erase its contents without warning.
- An AVCHD disc can be played on a compatible Blu-ray Disc player/recorder, Playstation 3[®] or other compatible device.

Devices that can play the disc will vary, depending on the image quality.

AVCHD disc (a disc containing High Definition videos)



Video DVD



* Install the application compatible AVCHD on your computer before this operation. Even in the case of a computer environment that satisfies system requirements, there may be noise in video playback, frames may be dropped, or sound may be lost intermittently. (This does not depend on the quality of AVCHD disc created.)

Camcorders/video devices, recording quality, and the interface

When dubbing, use the input jack appropriate for the connecting device and the image quality. Since the input jack here affects the disc selection, see also “Usable disc” (page 29).

Type of device	Image quality	Input jacks on DVDirect			
		USB	DV IN	VIDEO IN	S VIDEO IN
Sony Handycam® (HDD)	HD Video	✓			
	SD Video	✓		✓	✓
Sony Handycam® (Memory Stick)	HD Video	✓			
	SD Video	✓		✓	✓
Sony Handycam® (DVD)	HD Video				
	SD Video	✓		✓	✓
Sony Handycam® (DV/D8/HDV)	HD Video				
	SD Video		✓	✓	✓
Sony Handycam® (MICROMV)	SD Video			✓	✓
Other camcorders with DV jack	SD Video		✓	✓	✓
Other camcorders/video devices	HD Video				
	SD Video			✓	✓

Hints

- You can down-convert HD (High Definition) videos to SD (Standard Definition) quality by dubbing via the VIDEO IN or S VIDEO IN jack.
- When the [i.LINK CONV] setting on the Handycam® (HDV) is preset to [ON], you can down-convert videos recorded in HDV format to SD (Standard Definition) quality by dubbing via the DV IN jack.

Note

Note that you cannot dub:

- videos directly from a memory card inserted to the memory card slots on the DVDirect. These card slots are for photo import only.
- both HD (High Definition) and SD (Standard Definition) videos to a single DVD.
- both the videos and photos stored in the camcorder at the same time.
- from an 8 cm DVD-RW formatted in VR mode in a Handycam® (DVD).
- videos with copy-protection signals (commercial DVDs, VHS software, some programs from satellite or CATV receivers., etc.).

Notes on presetting camcorders

- The [USB SPEED] setting on Handycam[®] (HDD/Memory Stick) must be set to [AUTO]. ([AUTO] is the default setting.)
- The [A/V → DV OUT] setting on Handycam[®] (DV/D8) must be set to [OFF]. ([OFF] is the default setting.)
- When dubbing the 16:9 pictures (pictures shot with the camcorder's setting set to 16:9) via the DV IN, VIDEO IN, or S VIDEO IN jack on the DVDirect, set the TV type setting on the camcorder to 4:3.
- If you erase or edit a video on a Handycam[®] with a computer or Playstation 3[®], it is not possible to dub videos properly by connecting the Handycam[®] to the DVDirect. Erase or edit video using the Handycam[®].

Notes on time required for recording

When recording from Handycam[®] (HDD/Memory Stick or DVD) connected via USB cable, the length of time required depends on the REC mode (XP, HQ, SP, or LP) used to shoot the video and the number of scenes the Handycam[®] contains. In general, videos shot in higher image quality modes take longer to be recorded onto a disc. The following provides a general estimate of the time required to record a 1-hour video containing one scene onto a disc.

Recording HD (High Definition) video

Mode	From a High Definition Handycam [®] (HDD/Memory Stick)
XP	about 40 min
HQ	about 25 min
SP	about 20 min
LP	about 15 min

Recording SD (Standard Definition) video

Mode	From a High Definition Handycam [®] (HDD/Memory Stick)	From Handycam [®] (DVD)
HQ	about 20 min	about 40 min
SP	about 15 min	about 30 min
LP	about 10 min	about 20 min

Usable disc

Select according to the input jack that you are connecting the device to.

Disc Type	Input jacks on DVDirect	
	USB	DV/VIDEO IN/ S VIDEO
DVD+R 	✓	✓
DVD+R DL (Double layer) 		✓
DVD+RW 	✓	✓
DVD-R 	✓	✓
DVD-R DL (Dual layer) 		
DVD-RW 	✓	✓

Notes on recording on discs

- When adding video to a previously recorded disc (unfinalized disc), you must use the same interface used for the previous recording. For example, you cannot add video from a Handycam[®] (DVD) connected via an S-video or video input cable onto a disc with video dubbed from a Handycam[®] (DVD) connected via a USB cable.
- You cannot add recordings to a disc created on a PC or other DVD device.
- When dubbing HD (High Definition) videos, always use a new disc. You cannot add HD (High Definition) videos to the same AVCHD disc that you have previously recorded.

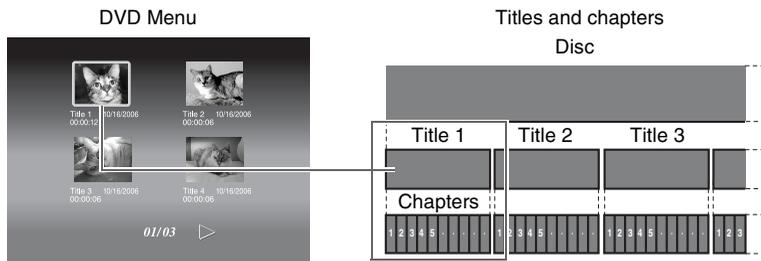
About Created Video DVDs and AVCHD discs

The contents of a disc consist of sections, called titles, and smaller sub-sections, called chapters.

A DVD Menu is displayed each time a DVD is inserted into a DVD player and serves as a title page or table of contents for playing the video DVD.

You can create a video DVD that display thumbnail images of titles in the DVD Menu screen.

And you can also use pictures or favorite photos as wallpaper for the DVD menu screen.



When you create a video DVD or AVCHD disc with the DVDirect, titles and chapters are created as follows:

For video DVDs (Manual Dubbing or Dubbing from DV camcorders connected via DV (i.LINK) cable)

Title	Titles are created between the points where you start and stop a recording on the DVDirect.
Chapter	Chapters are created according to the “Auto Chapter” setting configured in the Setup menu (page 72).
DVD menu	You can set the display selected from “DVD Menu” or your favorite photo (page 73).
Previewing on DVDirect	You can play the video on the DVDirect.

For video DVDs (Dubbing from Handycam® connected via USB cable)

Title	Titles* ¹ are created at points in the video where the date recorded changes.
Chapter	Chapters are created for each scene* ² in the title.
DVD menu	You can set the display selected from “DVD Menu” or your favorite photo (page 73).
Previewing on DVDirect	You can play the video on the DVDirect.

AVCHD discs

Title	One title is created.
Chapter	Chapters are created for each scene* ² in the title.
DVD menu	DVD Menu cannot be created.
Previewing on DVDirect	You cannot play the video.

*¹Titles are also created if you change the REC mode (from HQ or SP to LP or vice versa), or aspect ratio (from 4:3 to 16:9 or vice versa) in video you record.

*²Scenes are created each time recording is started and then stopped.

Dubbing From a Handycam[®] (HDD/ Memory Stick) –One Touch Dubbing–

HDD CAM

MS CAM

HD Video

SD Video

You can create video DVDs from your Handycam[®] (HDD/Memory Stick) simply by pressing the DISC BURN button on the Handycam.

As from the next dubbing, additional video can be dubbed onto a disc without dubbing the previous contents again.

Note

When storing both HD (High Definition) video and SD (Standard Definition) video on an AVCHD Handycam[®] (HDD/Memory Stick), the DVDirect automatically detects HD (High Definition) video and records it on the disc.

- 1 Press the  (power) button to turn on the DVDirect.

A message prompting you to insert a disc appears in the display window.

- 2 Insert a disc (page 19).

The DVDirect starts reading the inserted disc.

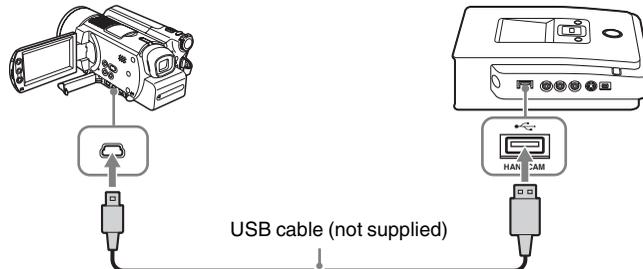
Note

If you create an AVCHD disc, insert a new disc.

- 3 Turn on the camcorder.

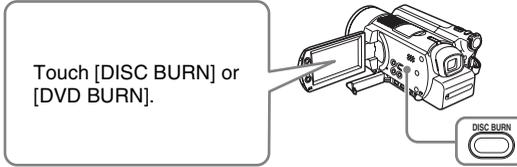
- 4 Connect the camcorder to the DVDirect.

Connect the camcorder's USB connector (Type mini B) to the DVDirect's USB connector (Type A) using a USB cable (not supplied).



After connecting the USB cable, the [USB SELECT] screen appears in the camcorder's LCD screen.

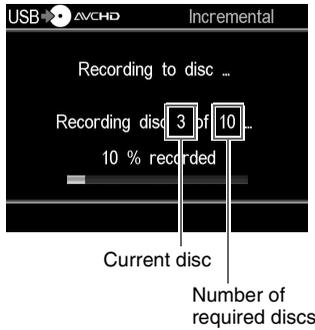
- 5 Touch [DISC BURN] on the camcorder's LCD screen, or press DISC BURN button on the camcorder or Handycam Station.



Note

Depending on camcorder type, the display that appears in the camcorder's LCD screen or button names on the camcorder may differ.

Dubbing starts, and the progress appears in the display window.



Hint

When the contents of the camcorder do not fit on a single disc, the disc will be finalized once it becomes full, and the following message will appear in the display window. Remove the completed disc, and insert a blank disc. Dubbing will resume automatically.



6 Dubbing is complete.

When dubbing HD (High Definition) video:

The disc is automatically ejected.

When dubbing SD (Standard Definition) video:

“Complete” appears in the display window and recording automatically stops.

Press the ▲ (eject) button to eject the disc, and select whether to finalize the disc (page 65). Or, press the RETURN button to go back to the menu display.

To stop dubbing

You cannot stop while recording is in progress. You can only cancel dubbing by pressing the ◻ (stop) button when replacing a disc.

Note on One Touch Dubbing

This function is only available when the DVDirect is in the following states:

- no button on the DVDirect is pressed after the power is turned on (“Navigation Display” on page 17)
- the menu appears in the display window

Dubbing From a Handycam[®] (HDD/ Memory Stick) –Using the Dubbing Mode–

HDD CAM

MS CAM

HD Video

SD Video

When Handycam[®] (HDD/Memory Stick) is connected to the DVDirect, you can use one of four dubbing modes as preferred.

Note

When storing both HD (High Definition) video and SD (Standard Definition) video on an AVCHD Handycam[®] (HDD/Memory Stick), the DVDirect automatically detects HD (High Definition) video and records it on the disc.

Before selecting a dubbing mode...

- 1 Press the  (power) button to turn on the DVDirect, and insert a disc (page 19).

The DVDirect starts reading the inserted disc.

Hint

You can also operate from the “Menu” display to record video.

When dubbing HD (High Definition) video:

Press the RETURN button to display the “Menu,” and select “AVCHD Dubbing.”

When dubbing SD (Standard Definition) video:

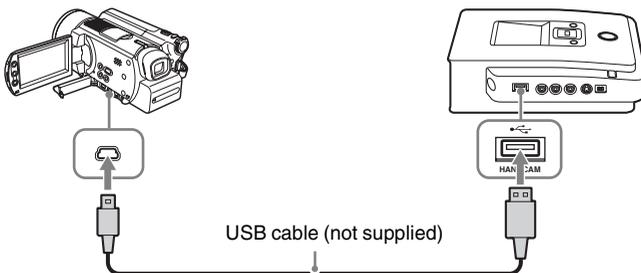
Press the RETURN button to display the “Menu,” and select “Video → DVD.”

Then select “USB” in the input selection screen.

- 2 Turn on the camcorder.

- 3 Connect the camcorder to the DVDirect.

Connect the camcorder’s USB connector (Type mini B) to the DVDirect’s USB connector (Type A) using a USB cable (not supplied).

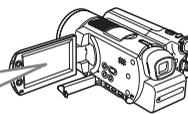


After connecting the USB cable, the [USB SELECT] screen appears in the camcorder’s LCD screen.

4 Touch [COMPUTER] on the camcorder's LCD screen.

When using a Handycam® (HDD):
Touch [⊖ COMPUTER] or
[HDD].

When using a Handycam®
(Memory Stick):
Touch [□ Memory Stick].

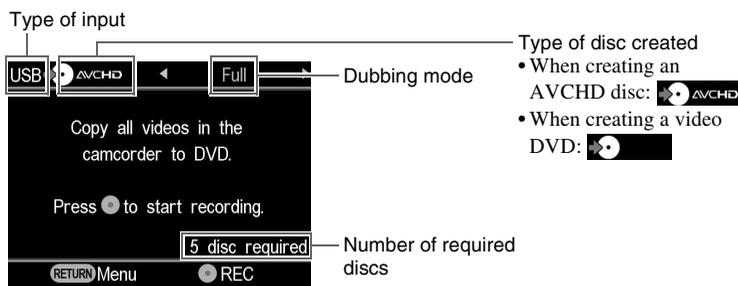


Once you touch the button on the camcorder's LCD screen, the DVDirect detects the connected camcorder, and the display window on the DVDirect changes.

Note

Depending on the camcorder you are using, the above [USB SELECT] screen may not appear automatically and connection configuration may be required beforehand. And depending on camcorder type, the display that appears in the camcorder's LCD screen or button names on the camcorder may differ. Refer to the section on connecting to computers in the operating instructions of your camcorder. You can complete connecting the DVDirect by the same operation as connecting to the computer.

5 The following appears in the DVDirect's display window.



You can select a dubbing mode, which can be displayed in the top right of the display window by pressing ◀ or ▶.

For selecting each dubbing mode, refer to the page below.

- Full (All) Dubbing page 37
- Incremental Dubbing page 38
- Playlist Dubbing page 40
- Scene Selection Dubbing page 41

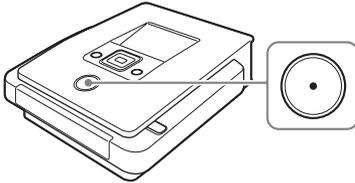
Full (All) Dubbing

You can use Full Dubbing to dub the video contents of the camcorder onto a disc or more than a disc with a single touch of a button.

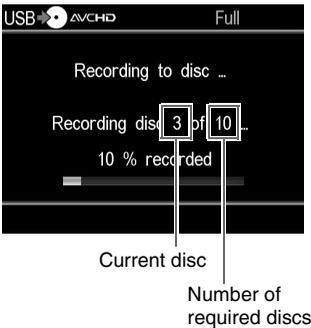
- 1 Press **←** or **→** until “Full” is displayed at the top right of the display window.



- 2 Press the **⊙** (record) button to start dubbing.



The DVDDirect starts dubbing after the disc has been formatted. “Recording to disc ...” appears in the display window, and the **⊙** (record) button lights up during dubbing.



3 Change to a blank disc when the disc is full.

If the contents of the camcorder do not fit onto a single disc, the disc will be finalized once it becomes full. The disc will be automatically ejected, and the following message will appear in the display window.



Insert a blank disc. Dubbing will resume automatically.

4 Stop dubbing automatically when dubbing is complete.

When dubbing is complete, the disc is automatically ejected. The video DVD (or AVCHD disc) is completed, and you can now play it on DVD players or the DVD drives of computers. An AVCHD disc can be played on an AVCHD compatible device.

To stop dubbing

You cannot stop while recording is in progress. You can only cancel dubbing by pressing the  (stop) button when replacing a disc.

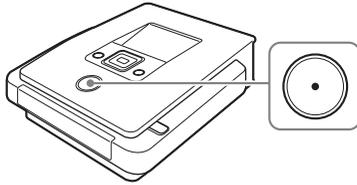
Incremental Dubbing

After the video contents of an camcorder are dubbed onto discs, additional video taken with the same camcorder can be dubbed onto discs without dubbing the previous contents again.

1 Press or until "Incremental" is displayed at the top right of the display window.



- 2 Press the  (record) button to start dubbing.



“Recording to disc ...” appears in the display window, and the  (record) button lights up during dubbing.



- 3 Change to a blank disc when the disc is full.

If the contents of the camcorder do not fit onto a single disc, the disc will be finalized once it becomes full. The disc will be automatically ejected, and the following message will appear in the display window.



Insert a blank disc. Dubbing will resume automatically.

Note

If the camcorder does not contain new video (all of the video contents have already been recorded onto a DVD), Incremental Dubbing is not available.

- 4 Stop dubbing automatically when dubbing is complete.

When dubbing HD (High Definition) video:
The disc is automatically ejected.

When dubbing SD (Standard Definition) video:
“Complete” appears in the display window and dubbing automatically stops.

Press the ▲ (eject) button to eject the disc, and select whether to finalize the disc (page 65). Or, press the RETURN button to go back to the menu display.

Hint

If you eject a disc without finalizing after videos have been dubbed, you can add videos onto the same disc later.

To stop dubbing

You cannot stop while recording is in progress. You can only cancel dubbing by pressing the ⏏ (stop) button when replacing a disc.

Note on Incremental Dubbing

This function is started over in the following states:

- a different Memory Stick than previously used to dub is inserted in the Handycam® (Memory Stick).
- a different Handycam® (HDD) than previously used to dub is connected to the DVDirect.

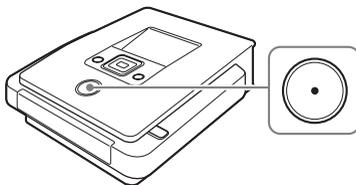
Playlist Dubbing

You can dub all scenes within a Playlist created on your camcorder. Create a Playlist on your camcorder beforehand to use the Playlist Dubbing.

- 1 Press ← or → until “Playlist” is displayed in the top right of the display window.



- 2 Press the ● (record) button to start dubbing.



“Recording to disc ...” appears in the display window, and the  (record) button lights up during dubbing.



- 3 Follow steps 3 to 4 of “Incremental Dubbing” (page 38).

To stop dubbing

You cannot stop a recording once it has started. You can only cancel dubbing by the  (stop) button when replacing a disc.

Scenes Selection Dubbing

You can record scenes selected by viewing thumbnails or shooting date.

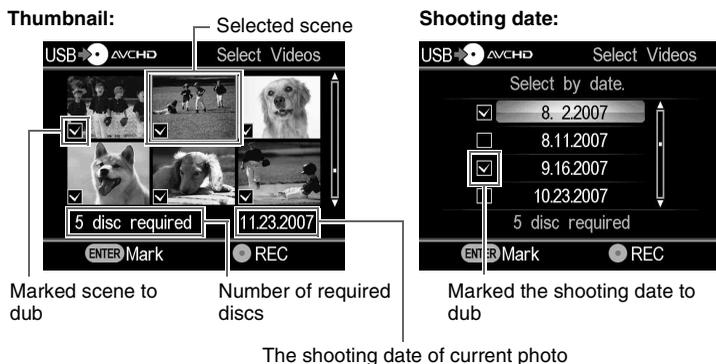
- 1 Press  or  until “Select Videos” is displayed in the top right of the display window.



- 2 Press  or  to select “Thumbnail” or “Shooting Date,” and press the  (select) button.



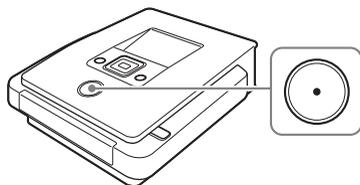
- 3** Press **↑ ↓ ← →** to select the thumbnail or shooting date you want to dub and press the **□** (select) button to mark. Only the marked scenes or videos selected by shooting date is dubbed.



Hint

Pressing the **□** (select) button repeatedly, marks or unmarks in the display.

- 4** Press the **⊙** (record) button to start dubbing.



“Recording to disc ...” appears in the display window, and the **⊙** (record) button lights up during dubbing.



- 5** Follow steps 3 to 4 of “Incremental Dubbing” (page 38).

To stop dubbing

You cannot stop a recording once it has started. You can only cancel dubbing by the **■** (stop) button when replacing a disc.

Dubbing From a Handycam[®] (DVD)

DVD CAM

SD Video

When a Handycam[®] (DVD) is connected to the DVDirect, you can select Full or Consolidation Dubbing, and then record.

Before selecting a dubbing mode...

- 1 Press the  (power) button to turn on the DVDirect, and insert a disc (page 19).

The DVDirect starts reading the inserted disc.

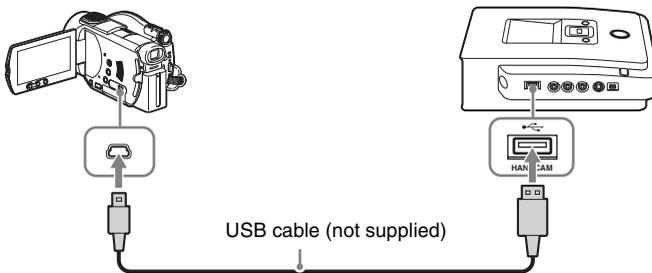
Hint

You can also operate from the “Menu” display to record video. Press the RETURN button to display the “Menu,” and select “Video → DVD.” Then select “USB” in the input selection screen.

- 2 Turn on the camcorder, and set it to playback mode.

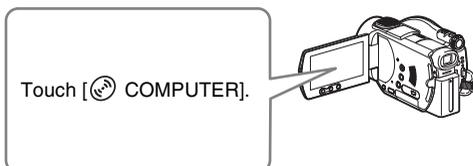
- 3 Connect the camcorder to the DVDirect.

Connect the camcorder’s USB connector (Type mini B) to the DVDirect’s USB connector (Type A) using a USB cable (not supplied).



After connecting the USB cable, the [USB SELECT] screen appears in the camcorder’s LCD screen.

- 4 Touch [COMPUTER] on the camcorder’s LCD screen.



Once you touch the button on the camcorder's LCD screen, the DVDirect detects the connected camcorder, and the display window on the DVDirect changes.

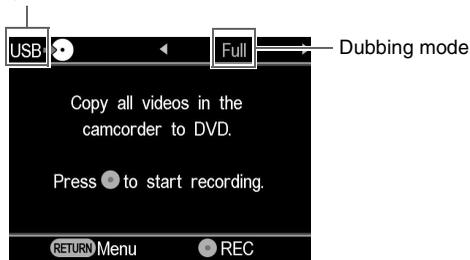
Note

Depending on the camcorder you are using, the above [USB SELECT] screen may not appear automatically and connection configuration may be required beforehand. And depending on camcorder type, the display appeared in the camcorder's LCD screen or button names on the camcorder may differ.

Refer to the section on connecting to computers in the operating instructions of your camcorder. You can complete connecting the DVDirect by the same operation as connecting to the computer.

5 The following appears in the DVDirect's display window.

Type of input



You can select a dubbing mode displayed in the top right of the display window by pressing **←** or **→**.

For selecting each dubbing mode, refer to the page below.

- Full (All) Dubbing page 45
- Consolidation Dubbing page 46

Full (All) Dubbing

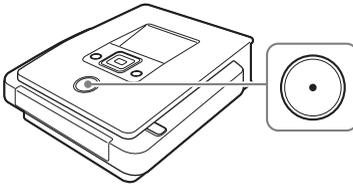
You can use Full Dubbing to dub the video contents of an 8cm DVD onto a disc with a single touch of a button.

- 1 Press **←** or **→** until “Full” is displayed in the top right of the display window.

The following appears in the DVDirect’s display window.



- 2 Press the **⊙** (record) button to start dubbing.



The DVDirect starts dubbing after the disc has been formatted. “Recording to disc ...” appears in the display window, and the **⊙** (record) button lights up during dubbing.



- 3 Stop dubbing automatically when dubbing is complete.

When dubbing is complete, the disc is automatically ejected. The video DVD is completed, and you can now play it on other DVD players or computer DVD drives.

Note

You cannot stop a dubbing once it has started.

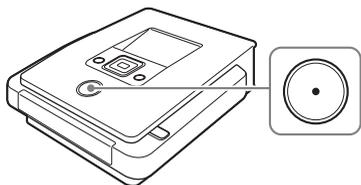
Consolidation Dubbing

When you have multiple 8-cm discs containing video taken with a DVD camcorder, you can consolidate and dub the video onto one 12-cm disc.

- 1 Press **←** or **→** until “Consolidation” is displayed in the top right of the display window.



- 2 Press the **⊙** (record) button to start dubbing.



During dubbing, the progress appears in the display window.



- 3 Stop dubbing automatically when dubbing is complete. “Complete” appears in the display window and automatically stops. Press the **⬆** (eject) button to eject the disc, and select whether to finalize the disc (page 65). Or, press the RETURN button to go back to the menu display.

Hints

- To consolidate the video contents of another 8-cm disc onto the current disc, replace the 8-cm disc in the DVD camcorder with the new 8-cm disc, and press the  (record) button on the DVDirect.
- If you eject a 12-cm disc from the DVDirect without finalizing after videos have been dubbed, you can consolidate videos recorded on other 8-cm discs onto the same 12-cm disc later.

Note

You cannot stop while dubbing is in progress. Wait until it stops automatically.

Dubbing From a Handycam[®] (DV/D8) or DV digital video camera

DV CAM

SD Video

When a Handycam[®] (DV/D8) or DV digital video camera is connected to the DVDirect via a DV (i.LINK) cable, you can select Full or Manual Dubbing.

Before selecting a dubbing mode...

- 1 Press the  (power) button to turn on the DVDirect, and insert a disc (page 19).

The DVDirect starts reading the inserted disc.

Hint

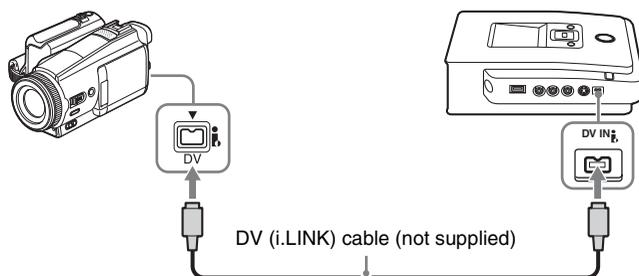
You can also operate from the “Menu” display to record video. Press the RETURN button to display the “Menu,” and select “Video → DVD.” Then select “DV” in the input selection screen.

- 2 Turn on the camcorder, and set it to playback mode.

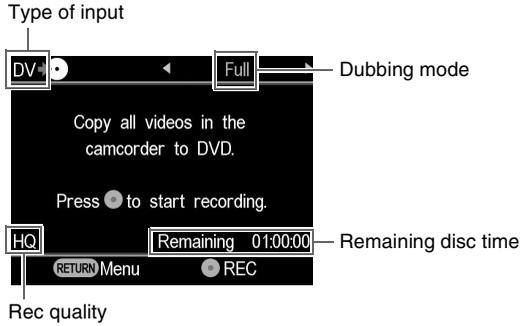
For most camcorders, switch the power/mode button to playback, PLAY/EDIT or VTR mode to play video or perform recording. For details, refer to the operating instructions for your camcorder.

- 3 Connect the camcorder to the DVDirect.

Connect the camcorder’s DV connector to the DVDirect’s DV IN connector using a DV (i.LINK) cable (not supplied).



4 The following appears in the DVDirect's display window.



You can select a dubbing mode displayed at the top right of the display window by pressing ← or →.

For selecting each dubbing mode, refer to the page below.

- Full (All) Dubbing page 49
- Manual Dubbing page 50

Full (All) Dubbing

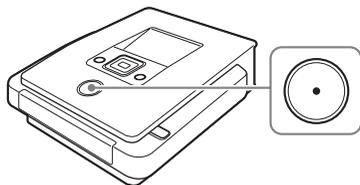
You can use Full Dubbing to dub the video contents of a video tape onto a disc. When Full Dubbing is selected, the play or stop mode on the camcorder is automatically operated with the single touch of a button on the DVDirect.

1 Press ← or → until "Full" is displayed in the top right of the display window.

The following appears in the DVDirect's display window.



- 2 Press the  (record) button to start dubbing.



The DVDDirect starts dubbing at the same time the camcorder starts playback. When the video tape is not at its beginning, it will automatically rewind and the DVDDirect starts dubbing. “Recording” appears in the display window, and the  (record) button lights up during dubbing.



- 3 Stop dubbing automatically when dubbing is complete.

When dubbing is complete, the disc is automatically ejected. The video DVD is completed, and you can now play it on DVD players, or DVD drives of computers.

Hint

When a blank portion of the DV tape is reached, dubbing automatically stops and the  (record) button dims.

Manual Dubbing

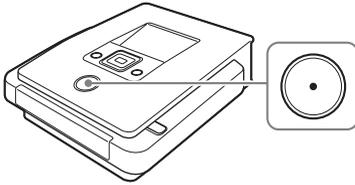
While you operate the play button or stop button on your DV camcorder manually, you can dub a video using the  (record) and  (stop) buttons on the DVDDirect.

- 1 Operate the camcorder to start video playback.

Video playback appears in the DVDDirect’s display window.



- 2** Press the  (record) button to start dubbing.



During dubbing, “Recording” appears in the display window during video playback.

- 3** Press the  (stop) button to stop dubbing.

Wait a moment until the display window changes.

- 4** To dub additional video, repeat steps 1 to 3.

When dubbing is complete, press the  (eject) button to eject the disc and select whether to finalize the disc (page 65). Or, press the RETURN button to go back to the menu display.

To pause dubbing

Press the  (record) button while dubbing is in progress. To restart dubbing, press the  (record) button again.

Notes on Manual Dubbing

- If you start dubbing after more than 10 minutes since you inserted the disc into the DVDirect, dubbing will take a few seconds to start. Start dubbing immediately after inserting the disc.
- If you stop playback on the camcorder during dubbing, the DVDirect pauses dubbing. To resume dubbing, restart playback on the video device. If no video signal is detected for 2 minutes, dubbing stops.
- If you press the  (stop) button, you may hear the noise of the disc turning momentarily.

Dubbing From Video Devices

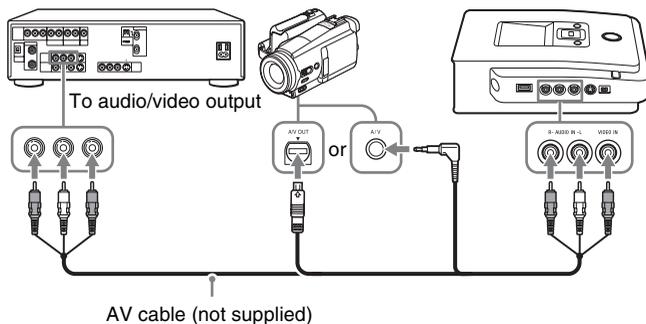
Video Device

You can manually dub the portions of video you want to dub by alternating between the play and stop buttons.

- 1 Press the  (power) button to turn on the DVDirect.
A message prompting you to insert a disc appears in the display window.
- 2 Insert a disc (page 19).
The DVDirect starts reading the inserted disc.
- 3 Connect the video device to the DVDirect.
Use an AV or S-video cable (both not supplied) when connecting a video device such as a VCR or DVR to the DVDirect.

For AV cables:

Connect the video device's audio/video output connectors to the DVDirect's AUDIO IN/VIDEO IN connectors using an AV cable (not supplied).

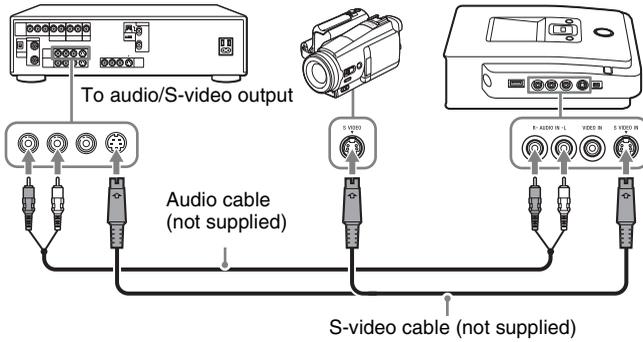


Hint

The connectors on a video device differ depending on the device. Refer to the operating instructions for your device, and use the appropriate AV cable.

For S-video cables:

Connect the video device's S-video out connector to the DVDirect's S VIDEO IN connector using the S-video cable (not supplied). You must also connect an audio cable for audio input.



Hint

If your video device has an S-video connector, use an S-video cable for improved picture quality (compared to video cable quality).

4 Operate the video device to start playback of video.

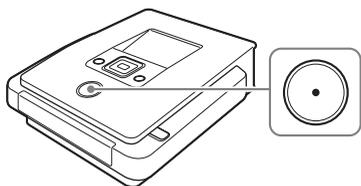
Video playback appears in the DVDirect's display window.



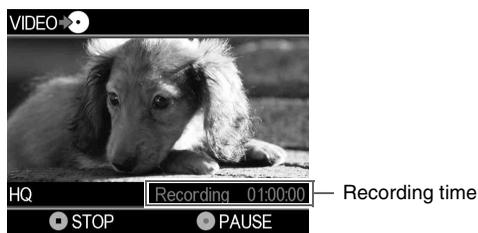
Hint

The DVDirect detects and selects video input signals automatically when you play back video from the connected video device. You can also use the menu display to select the input connector. Press the RETURN button to show the "Menu" display, then select "Video → DVD." Select "VIDEO" or "S VIDEO," according to the connection to your video device. The input connector selected is displayed in the top left of the display window.

- 5 Press the  (record) button to start dubbing.



“Recording” appears in the display window during video playback.



- 6 Press the  (stop) button to stop dubbing.
Wait a moment until the display window changes.
- 7 To dub additional video, repeat steps 4 to 6.
- 8 When you are finished dubbing, press the RETURN button to go back to the menu display.
- 9 Press the  (eject) button to eject the disc (page 65). Select whether to finalize the disc.
For details on finalizing discs, see “What is ‘finalize disc’?” (page 66).

To pause dubbing

Press the  (record) button while dubbing is in progress. To restart dubbing, press the  (record) button again.

Notes on dubbing from video devices

- If you start dubbing after more than 10 minutes since you inserted the disc into the DVDirect, dubbing will takes a few seconds to start. Start dubbing immediately after inserting the disc.
- If you stop playback on the camcorder or video device during dubbing (or the video signal is interrupted), the DVDirect pauses dubbing. To resume dubbing, restart playback on the video device. If no video signal is detected for 2 minutes, dubbing stops.
- If you press the  (stop) button, you may hear the noise of the disc turning momentarily.

Creating a Photo DVD

You can easily record photos taken with your digital still camera from a memory card onto a DVD.

Still images stored on a Handycam® (HDD/DVD/Memory Stick) can also be recorded onto a disc.

If you select to create a slideshow, you can create a DVD playable on the other DVD players.

Types of Dubbing

Two types of dubbing are available for creating photo DVDs:

Full Dubbing

This method allows you to select entire photos stored on HDD or 8-cm DVD in Handycam® or on memory card and dub them onto a DVD.

Photo Selection dubbing

This method allows you to select only scenes (photos) or the shooting date you want to dub and record them onto a disc.

Dubbing by Visual Index (Thumbnail)

This method allows you to dub selected photos by viewing thumbnails onto a disc.

Dubbing by Shooting Date

This method allows you to dub photos selected by shooting date onto a disc.

About Created Photo DVDs –Types of Photo DVD–

The following types of photo DVD can be created with the DVDirect.

Photo backup DVD

Photo backup DVDs allow you to store photos (JPEG files) taken with a digital still camera or Handycam® on a DVD disc. You can view the photo backup DVD created with the DVDirect in the display window or view it using the DVD drive of a computer. And you can also view the photo using a DVD player capable of playing JPEG files.

Slideshow DVD

In addition to storing photos (JPEG files), slideshow DVDs allow you to view these photos as a slideshow. A slideshow DVD can be played on commercial DVD players, and can even include background music.

Hints

- The picture quality of the photos played back in a slideshow is equivalent to that of video DVDs.
- Using the DVD drive of a computer, or DVD player capable of playing JPEG files, you can view higher quality photos on both a photo backup DVD and a slideshow DVD.

Notes on creating a Photo DVD

- Up to 2000 photos can be dubbed on a disc.
- You cannot dub both video and still images stored in the camcorder onto a disc at the same time.

Camcorders/photo devices, recorded media, and the interface

Use either the USB jack or one of the memory card slots on the DVDirect, according to your device and the media on which photos are recorded.

Type of device	Media	Input jack/memory card slots on DVDirect			
		USB	MS Duo	Multi Card	CF
Sony Handycam® (HDD)	Built-in HDD	✓			
	Memory Stick Duo		✓		
Sony Handycam® (Memory Stick)	Memory Stick Duo	✓	✓		
Sony Handycam® (DVD)	8cm DVD	✓			
	Memory Stick Duo		✓		
Sony Handycam® (HDV/DV/D8)	Memory Stick			✓	
	Memory Stick Duo		✓		
Sony CyberShot®	Memory Stick			✓	
	Memory Stick Duo		✓		
Other Digital Still Cameras	SD card			✓	
	xD Picture Card			✓	
	CompactFlash				✓

Usable Discs for Creating Photo DVDs

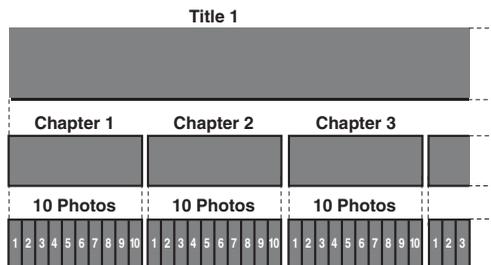
The following discs can be used for creating a photo DVD.

Disc Type	Logo	Interface on DVDirect	
		USB	Memory card slots
DVD+R		✓	✓
DVD+R DL (Double layer)			
DVD+RW		✓	✓
DVD-R		✓	✓
DVD-R DL (Dual layer)			
DVD-RW		✓	✓

About Created Photo DVDs

Slideshow DVDs

The contents of a slideshow DVD consist of titles and chapters as a Video DVD (page 30). When you create a slideshow DVD, a chapter is created for every 10 photos. And up to 99 chapters per title can be created.

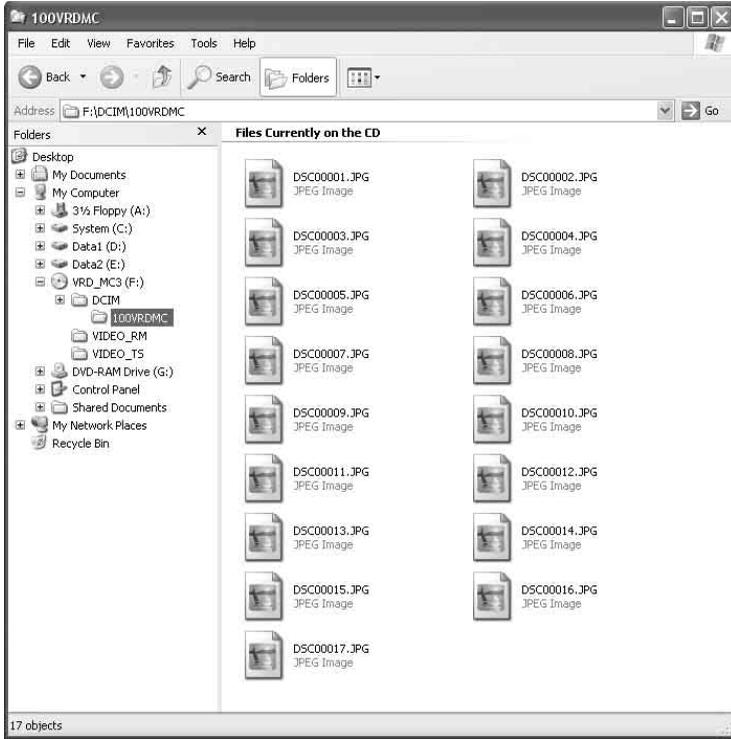


You can create the DVD menu using pictures or favorite photos as a wallpaper with a slideshow DVD (page 74).

You can also set background music while playing a slideshow DVD (page 73).

Storage locations on photos (JPEG files)

Some folders are created on a photo DVD, and all photos (JPEG files) are stored in the folder “100VRDMC.”



Hint

File names are automatically created when the photo DVD is created.

Dubbing Photos Stored on a Memory Card/Handycam®

HDD CAM

MS CAM

DVD CAM

Memory Card

Photo

- 1 Press the \odot (power) button to turn on the DVDirect, and insert a disc (page 19).

The DVDirect starts reading the inserted disc.

Hint

You can also operate from the “Menu” display to record the photos. Press the RETURN button to display the “Menu,” and select “Photo \rightarrow DVD” in the “Menu” display. When dubbing photos from a memory card in the memory card slot, select “Memory Card.” When dubbing from a connected camcorder, select “USB.”

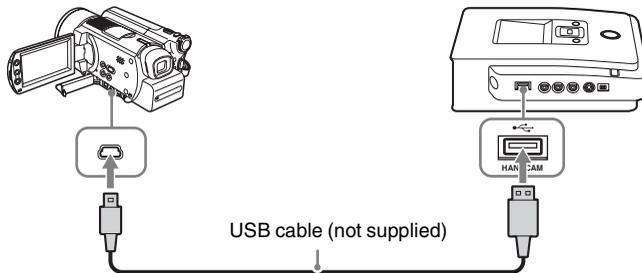
- 2 Insert the memory card into its corresponding memory card slot (page 21), or turn on and connect your camcorder.

Note

When connecting to a DVD camcorder, set the camcorder to PLAY or PLAY/EDIT mode.

When connecting your camcorder:

Connect the camcorder’s USB connector (Type mini B) to the DVDirect’s USB connector (Type A) using a USB cable (not supplied).



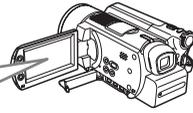
After connecting the USB cable, the [USB SELECT] screen appears in the camcorder’s LCD screen.

Touch the media display storing photos on your camcorder's LCD screen.

When using a Handycam® (HDD):
Touch [⊖ COMPUTER] or [HDD].

When using a Handycam® (Memory Stick):
Touch [□ COMPUTER].

When using a Handycam® (DVD):
Touch [⊕ COMPUTER].



The display window on the DVDDirect changes.

Note

Depending on the camcorder you are using, the above [USB SELECT] screen may not appear automatically and connection configuration may be required beforehand. And the display that appears in the camcorder's LCD screen, or button names on the camcorder may differ. Refer to the section on connecting to computers in the operating instructions of your camcorder. You can complete connecting to the DVDDirect by the same operation as connecting to the computer.

3 Press ← or → to switch the dubbing mode.

Pressing ← or → switches the dubbing mode displayed in the top right of the display window.

For Full Dubbing:

Press ← or → until "Full" displays.

Type of input
USB: Handycam
M.S.: Memory Stick
M.S.Duo: Memory Stick Duo
SD: SD Card
xD: xD-Picture Card
CF: Compact Flash

Dubbing mode

Copy photos from a camcorder to DVD.
Press [RECORD] to start recording.

RETURN Menu [RECORD]

For Select Photo Dubbing:
 Press ← or → until “Select Photos” displays.



Press ↑ or ↓ to select “Thumbnail” or “Shooting Date.”



Press ↑ ↓ ← → to select the thumbnail or shooting date you want to dub and press the (select) button to mark.

Thumbnail



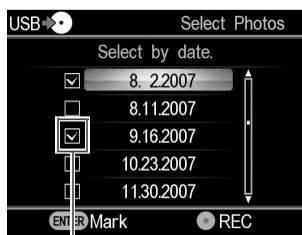
Current photo/
 Number of recorded
 photos

The shooting
 date of current
 photo

Selected photo

Marked photo to dub

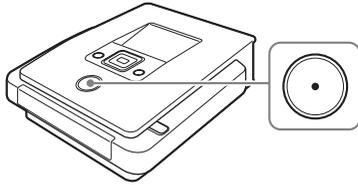
Shooting Date



Marked the shooting date to
 dub

Pressing the (select) button repeatedly, marks or unmarks in the display.

- 4** Press the  (record) button to start dubbing.



During dubbing, the progress appears in the display window, and the  (record) button remains lit.



- 5** Stop dubbing automatically when dubbing is complete.

When all the photos are dubbed onto the disc, “Complete” appears in the display window and dubbing automatically stops.



When dubbing is complete, press the  (eject) button to eject the disc (page 65). To preview photos dubbed on the disc or dub additional photos to the same disc, press the RETURN button to go back to the menu display.

To display only one photo

Press the  (stop) button when thumbnails are displayed.



The photo selected is displayed in full.

The photo can be rotated 90 degrees right with each press of the  button.

The photo can be rotated 90 degrees left with each press of the  button.

Removing/Finalizing the Created Disc

When dubbing is complete, press the ▲ (eject) button to eject the disc. Then you can select whether to keep the disc unfinalized (to add videos or photos later), or to create a completed disc (finalized) (page 66).

For photo DVD, you can select whether to create a slideshow.

According to the following operation, complete creating the disc.

Note

In the following cases, the disc is automatically ejected when dubbing is complete:

- create the AVCHD disc.
- create the video DVD in Full Dubbing mode.
- select “ON” on “Slideshow Creation” in the setup menu, and create the photo DVD.

1 Press the ▲ (eject) button.

A message asking whether to finalize the disc just recorded on appears.



Hint

This message will not appear when using a DVD+RW disc for dubbing video (except when dubbing video on a camcorder connected via the USB connector).

2 Select whether to finalize the disc.

For details on finalizing discs, see “What is ‘finalize disc?’” (page 66).

To finalize the disc:

Select “Yes” and press the (select) button. A confirmation message will appear, so select “OK” and press the (select) button again. When creating a photo DVD, a message asking whether to create a slideshow appears. Move on to step 3.

To not finalize the disc:

Select “No” and press the (select) button. The disc will be ejected without finalization.

3 Select whether to create a slideshow for a photo DVD.



Press **↑** or **↓** to select whether to create a slideshow, and press the (select) button.

To complete the disc as a photo backup DVD, select “No.”

To complete the disc as a slideshow DVD, select “Yes.”

Note

It takes a few minutes to complete finalizing for a photo backup DVD. The amount of time it takes to complete a slideshow DVD depends on the number and size of the photos. (For example, it may take 20 minutes or more to record 100 files (5-megapixel photos) onto a DVD.)

When all processing is complete, the disc is ejected and the video DVD or photo DVD is complete.

To create a slideshow DVD with a single button touch

You can create a slideshow DVD with a single touch of the  (record) button when “Slideshow Creation” is set to “ON” in the Setup menu (page 74).

What is “finalize disc”?

To finalize a disc means to make the disc playable on other DVD devices.

When ejecting a disc immediately after recording, the DVDirect asks you if you want to finalize the disc or not.

Even if you eject the disc without finalizing, you can finalize the disc from the Setup menu (page 71).

Generally, you complete the disc by finalizing.

The finalized disc can be played in the same way as DVD-Video or DVD-ROM discs on a DVD device.

Check the following to see if finalizing is necessary for your intended purposes.

Finalize the disc

- to create a disc playable on DVD players.
- to create a disc readable on DVD drives of computers.
- to create a disc to be distributed to others.
- To create a 100% complete disc as a video DVD or photo DVD (you do not intend to add videos or photos later).

Do not finalize the disc

- when you want to add videos to the same disc with the DVDirect later.
- when you want to add photos to the same disc with the DVDirect later.

Hint

When using a DVD+RW disc for dubbing video (except when dubbing video on a camcorder connected via the USB connector), finalizing is unnecessary; no message prompting finalization appears when ejecting the disc, and there is no need to finalize from the Setup menu.

You can always add videos on the DVD+RW disc with the DVDirect, and the disc can always be played on a DVD player, or DVD drive of a computer.

Previewing a Video DVD and a Photo DVD

You can play back and check a video DVD and a photo DVD dubbed with the DVDirect in the display window on the top of the unit.

Notes

- Sound cannot be heard when previewing the disc on the DVDirect.
- You cannot output video images to an external device, such as a TV.
- You cannot play back an AVCHD disc.
- You cannot play back discs recorded on a device other than the DVDirect, or a disc recorded with commercial DVD.

- 1 Press the  (power) button to turn on the DVDirect.
- 2 Press the RETURN button to display the menu. Press  or  to select “DVD Preview,” and then press the  (select) button.



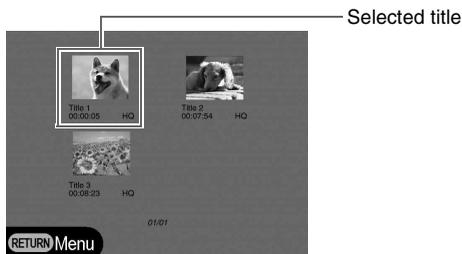
- 3 Insert a DVD created with the DVDirect.

After the disc is finished being read, its contents are displayed in the display window.

When a finalized video DVD is inserted:

The video titles dubbed on the disc appear in the display window.

Press     to select the title you want to view, and press the  (select) button. The selected title starts to play. To stop playback, press the  (stop) button.



When a video DVD that has not been finalized is inserted:
The first title on the disc starts to play automatically.



Current title number/total title number

Press **←** or **→** to select the title you want to view. To stop playback, press the **■** (stop) button.

When a photo backup DVD or a photo DVD that has not been finalized is inserted:

You can select a photo in a DVD manually and be displayed it.



The shooting date of current photo

Current photo/Number of recorded photos

Press **↑** or **↓** to select a photo that you want to view. To stop viewing, press the **■** (stop) button.

When a slideshow DVD is inserted:

The following display appears.

Press **↑** or **↓** to select “Photo Slideshow” or “Original Photos.”



When “Photo Slideshow” is selected, photos on a DVD are automatically displayed in rotation. When you select a title from the DVD Menu to play as a video DVD, photos within the title are played.

When “Original Photos” is selected, you can view a photo in a DVD manually. You can view photos as you would view a photo backup DVD.

Hints

- If you insert a finalized DVD immediately after turning on the DVDDirect, Navigation Display activates and the video or photo recorded on the disc appear in the display window automatically.
- For details on titles, see “About Created Video DVDs and AVCHD discs” (page 30) or “About Created Photo DVDs” (page 58).

Using the Setup Menu

You can change the various settings for creating discs in the setup menu screen.

The default setting is underlined in the following list.

1 Press the  (power) button to turn on the DVDDirect.

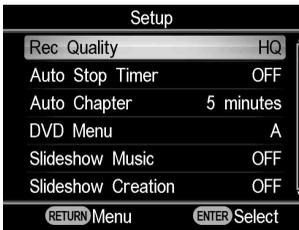
2 Press the RETURN button.

The “Menu” display appears.



3 Press  to select “Setup,” and press the  (select) button.

The setup menu appears.



Move the cursor by pressing  or  to select items or options to change, and press the  (select) button to change the setting or confirm.

Rec Quality

DV CAM

Video Device

Select the recording quality to use when creating a video DVD.

Rec Quality	Picture quality	Recording time (approx.)	
		Single layer disc	Double layer disc
HQ	High	1 hour	2 hours
HSP	↑	1.5 hours	3 hours
SP	Standard	2 hours	4 hours
LP	↑	3 hours	6 hours
SLP	Low	6 hours	12 hours

Auto Stop Timer

Video Device

Select the preset time used to stop recording automatically when creating a video DVD.

Setting	Feature
OFF	
30min to 8h	Recording automatically stops when the preset time has passed after recording starts. 30 min, 60 min, 90 min, 2h, 3h, 4h, 6h, 8h are available.

Note

The “Auto Stop Timer” setting is cancelled when the recording is completed, the  (Stop) button is pressed during recording, or the power is turned off.

Auto Chapter

DV CAM

Video Device

Specify a time interval at which to create chapters automatically on a video DVD.

Setting	Feature
OFF	No chapter is inserted.
5min	Inserts chapters at approximately 5-minute intervals.
10min	Inserts chapters at approximately 10-minute intervals.
15min	Inserts chapters at approximately 15-minute intervals.

DVD Menu

HDD CAM **MS CAM** **DVD CAM** **DV CAM** **Video Device**
SD Video **Photo**

Select a background image to apply to the DVD Menu screen of a video DVD or a slideshow DVD.

Setting	Feature
A, B, C, D	Applies the selected image to the DVD Menu screen.
JPEG	Sets your favorite photo (JPEG file) for the Menu screen of a video DVD or slideshow DVD.

To use a JPEG file in a DVD Menu

When “JPEG” is selected, you can set your favorite photo (JPEG file) for the DVD Menu screen of a video DVD or a Slideshow DVD.

Using your computer, store only a single photo (JPEG file) for the DVD Menu on the top directory in the memory card beforehand. Insert the memory card into the DVDDirect’s memory card slot before creating a disc.

Notes

- Save only a single JPEG file in the top directory of a memory card. If there are many photos in the top directory of the Memory Card, the desired photo may not be set for the DVD Menu.
- Use on certain JPEG files may not be possible in a DVD Menu.

Slideshow Music

HDD CAM **MS CAM** **DVD CAM** **Memory Card** **Photo**

Select whether to record background music onto a photo DVD (slideshow DVD).

Setting	Feature
ON	Background music is recorded.
OFF	No background music is recorded.
MP3	Records your favorite music (MP3 file) for background music on a Slideshow DVD.

To use an MP3 file as background music in a Slideshow DVD

If “MP3” is selected, you can record your chosen music (MP3) as background music for a Slideshow DVD.

Using your computer, store only a single MP3 file in the top directory in the memory card beforehand. Insert the memory card into the DVDDirect’s memory card slot before creating a disc.

Notes

- There should only be one MP3 file saved in the top directory of Memory Card. If there are many files in the top directory of the Memory Card, the desired music may not be set as the background music.
- When you hand the created Slideshow DVD to others, ensure that any background music is not copyrighted.

Slideshow Creation

HDD CAM **MS CAM** **DVD CAM** **Memory Card** **Photo**

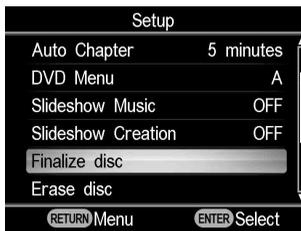
Select whether to display a message prompting slideshow creation when you press the **▲** (eject) button after recording for a photo DVD.

Setting	Feature
OFF	When you press the ▲ (eject) button after recording to a disc, a message asking whether to create a slideshow always appears in the display window.
ON	After the photos are recorded onto the disc, a slideshow is created and the disc is finalized automatically allowing immediate playback on a DVD player.

Finalize disc

If you eject a disc without finalizing, you can finalize the disc later. For details on finalizing discs, see “What is “finalize disc”?” (page 66).

- 1 Insert a disc to finalize, press **↓** to select “Finalize disc,” and press the **□** (select) button.



The following message appears.



- 2 Press **↑** or **↓** to select “Yes,” and press the (select) button.
The following message appears.



- 3 Press **↑** or **↓** to select “OK,” and press the (select) button.
4 The DVDirect starts finalization.

For video DVDs

The following message appears.



For photo DVDs

The following message appears.



To complete the disc as a photo backup DVD, select “No.”
To complete the disc as a slideshow DVD, select “Yes.”

Notes

- It takes a few minutes to complete finalizing of a video DVD or photo backup DVD.
- The amount of time it takes to complete a slideshow DVD depends on the number and size of the photos.

After finalizing is completed, the disc can be ejected.

Erase disc

Erase videos or photos recorded on a DVD+RW or DVD-RW disc. The erased disc is reusable as a blank disc.

Note

Be aware that this operation erases all data.

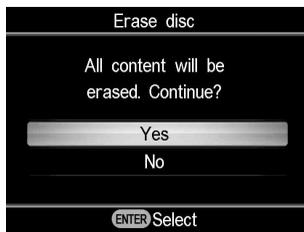
- 1 Insert a disc to erase, press **↓** to select “Erase disc,” and press the **□** (select) button.



The following message appears.



- 2 Press **↑** or **↓** to select “Yes,” and press the **□** (select) button. The following message appears.



- 3 Press **↑** or **↓** to select “Yes,” and press the **□** (select) button. The DVDdirect starts erasing. After erasing is completed, the disc can be ejected.

System Info

You can check the system software version of the DVDDirect. Press **↓** to select “System Info,” and press the (select) button to display the software version in the display window.

Hint

The system software is the built-in software that makes the DVDDirect work.

Demo

Select whether to enable the demo.

Setting	Feature
ON	Enables the demo. When the DVDDirect is not operated for a set period of time, the demo automatically appears in the display window.
OFF	Disables the demo.

Color System

Displays the color system used to create discs with the DVDDirect.

Setting	Feature
NTSC	Records to discs in the NTSC color system.
PAL	Records to discs in the PAL color system.

Notes

- Do not change the setting of the color system usually. The appropriate color system is preset, or the setting cannot be changed depending on the country or region of use.
- If the DVDDirect’s color system is different to the color system of the camcorder connected, you cannot record to a disc.
- If the DVDDirect’s color system that you created the disc is different to the color system of a DVD player for playing the disc created, you cannot play the disc.

Language

Select the language display for the display window.

About Discs

Compatible Writable Discs

The following writable discs are compatible with the DVDirect. However, not all disc operations are supported.

Disc type	Logo	Video DVD	Photo DVD & AVCHD disc
DVD+R		✓	✓
DVD+R DL (Double layer)		✓*	
DVD+RW		✓	✓
DVD+RW High speed		✓	✓
DVD-R		✓	✓
DVD-R DL (Dual layer)			
DVD-RW		✓	✓

* Only use when connecting to the DV IN, VIDEO IN, or S-VIDEO IN connector.

Note

DVD-R DL, CD-R, CD-RW and 8-cm DVD cannot be used.

Notes on using discs

- The quality of commercially made recordable discs can vary. Sub-standard discs may not record normally.
- Some recorded discs cannot be played on playback devices due to the recording quality or physical condition of the disc, or the characteristics of the playback device and playback software. The disc will not play if it has not been correctly finalized. For more information, see the operating instructions for the playing device.

About Memory Cards

About “Memory Stick”

The types of “Memory Stick” that can be used with the DVDirect are listed in the table below. However, proper operation is not guaranteed for all “Memory Stick” products.

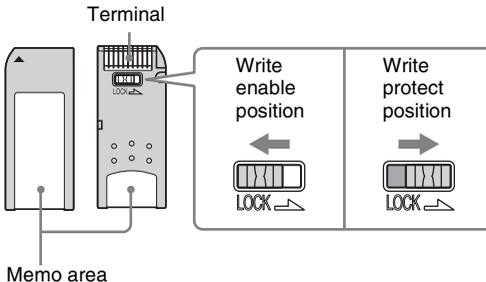
“Memory Stick” type	Read
Memory Stick	○
Memory Stick (MagicGate/High-speed data transfer compatible)	○* ¹
Memory Stick Duo	○
Memory Stick Duo (MagicGate/High-speed data transfer compatible)	○* ¹
MagicGate Memory Stick	○* ¹
MagicGate Memory Stick Duo	○* ¹
Memory Stick PRO	○* ¹
Memory Stick PRO Duo	○* ¹ * ²

*¹Reading of data that requires MagicGate functions cannot be performed with the DVDirect.

*²Sony “Memory Stick PRO Duo” operation is supported up to 8GB.

Notes on using “Memory Stick”

- If you slide the write-protect switch to LOCK with a fine-tipped object, you cannot record, edit, or delete images.



- Insert a “Memory Stick” into the Multi memory card slot, and insert a “Memory Stick Duo” into the Memory Stick Duo slot. When inserting a “Memory Stick Duo” with an adapter into the Multi memory card slot, the DVDirect may not work correctly.
- Not all memory card operations with other card adapters are supported.
- Slide the write protect switch with a thin implement.
- Format the “Memory Stick” using your camcorder or digital still camera. A “Memory Stick” formatted with your computer may not work correctly.
- The position and shape of the write-protect switch may differ depending on the “Memory Stick” you use.
- Do not remove the “Memory Stick” while accessing data.
- Data may be corrupted in the following cases:
 - when the “Memory Stick” is removed or the DVDirect is turned off during a read operation
 - when the “Memory Stick” is used in locations subject to static electricity or electrical noise

About the CompactFlash/SD/xD-Picture Cards

The DVDirect is compatible with the following memory cards. But not all memory card operations are supported.

- SD Memory Card*¹
- SDHC Memory Card*²
- xD –Picture Card
- CompactFlash (Type 1/Type 11) and CF+Card (Type 1/Type 11)-compatible CompactFlash*³

*¹SD Memory Card operation is supported up to 2GB.

*²SDHC Memory Card operation is supported up to 4GB.

*³Use CompactFlash with a power specification of 3.3V or 3.3V/5V. You cannot them with a power specification of 5V or 3V. Do not insert other types of CompactFlash into the DVDirect’s insertion slot. The DVDirect may be damaged.

Notes on using memory cards

- Do not use a commercial card adapter that does not support required operations.
- Do not use a metallic card adapter as malfunction may result.
- Copyright protected data cannot be read.

Precautions

Operation and storage conditions

Avoid using or storing the DVDirect in hot or humid locations, or places where it might be subject to severe vibration or direct sunlight.

Transportation

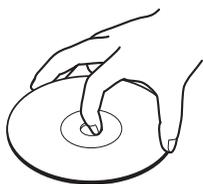
- Please repack the DVDirect in its original carton when shipping by itself.
- If the DVDirect is to be shipped, remove any disc beforehand.

Moisture condensation

Do not expose the DVDirect to sudden temperature changes. Do not use the DVDirect immediately after moving it from a cold to warm location or raising the room temperature suddenly, as condensation may have formed within the DVDirect. If the temperature changes suddenly while using the DVDirect, keep the power on, but stop using it for at least an hour.

Handling discs

- Handle discs only by the edges. Never touch the recording surface.



- Do not affix labels on discs.



- Do not store discs in dusty or humid locations, in direct sunlight, or near heat-generating devices.

- To protect important data, always keep discs in their cases.
- Do not wipe writable discs using a disc cleaner before recording data. Instead, use a blower to remove any dust.
- Data may not be recorded properly if there are scratches or dust on the unrecorded area of writable discs. Handle discs very carefully.

Handling memory cards

- Do not drop, bend, or submit the memory cards to external shock.
- Do not disassemble or modify the memory cards.
- Avoid touching the terminal of a memory card or touching it with a metal object.
- Avoid getting liquids on a memory card or using them in areas subject to high humidity.
- Avoid using or storing a memory card in a location subject to:
 - extremely high temperature, such as the interior of a car, outdoors exposed to direct sunlight, or near a heater.
 - direct sunlight
 - high humidity
 - corrosive substances
 - excessive dust
 - electrostatic or electronic noises
 - magnetic fields
- When storing or carrying a memory card, keep it in its original case to ensure protection of important data.
- Avoid removing a memory card from its slot or turning off the power button while the DVDirect is accessing it, as data may be rendered unreadable.

Specifications

VIDEO RECORDING

Creatable discs

- Video DVD
(Playable on DVD players/recorders or PCs with DVD drive)
- AVCHD disc *
(Playable on Blu-ray Disc players/recorders/Playstation3[®] consoles, or devices supporting AVCHD format playback)
- * Requires a Sony High Definition Handycam[®] (HDD/Memory Stick).

Supported input devices

- Video devices with video/audio outputs
- Sony Handycam[®] (DV/D8) or DV digital video camera
- Sony Handycam[®] (HDD/DVD/Memory Stick)

PHOTO RECORDING

Creatable discs

- Photo Slideshow DVD
(Playable on DVD players/recorders or PCs with DVD drive)
- Photo Backup DVD
(Playable on PCs with a DVD drive, or DVD players/recorders supporting playback of JPEG image files)

Supported input devices

- MemoryStick Duo, MemoryStick PRO Duo, MemoryStick, MemoryStick PRO, SD Memory Card, SDHC Memory Card, xD-Picture Card, CompactFlash
- Sony Handycam[®] (HDD/DVD/Memory Stick)

Supported photo format

JPEG, DCF2.0 compliant

VIDEO/PHOTO PREVIEW

Previewing* on built-in LCD display

* only Video DVD and Photo DVD created with VRD-MC5

RECORDABLE DISCS

DVD+R, DVD+RW, DVD-R, DVD-RW, *DVD+R DL

* video recording via S-VIDEO / VIDEO / DV IN jack only
12cm disc

Interface

DV IN¹⁾

4-pin i.LINK (IEEE1394), S100, DVC-SD input

VIDEO input

1 Vp-p/75 ohms

S VIDEO input

Y: 1 Vp-p/75 ohms

C: 0.286 Vp-p/75 ohms

AUDIO input

2 Vrms, Impedance more than 47 kilohms

Memory Card slot

Memory Stick Duo, Memory Stick²⁾, SD Memory Card²⁾, xD-Picture Card²⁾, CompactFlash

USB port

Type A ³⁾

¹⁾ For DV input from DV digital video camera only.
You cannot record video from MICROMV or HDV camcorders (HDV format) and other digital video devices having the i.LINK connector.

²⁾ Multi card slot

³⁾ For Sony Handycam[®] (HDD/DVD/Memory Stick) connection only.

General

Power

DC 12 V (supplied from the DC IN jack)

Consumption

Max. 2.5 A

AC adapter*

Type: AC-NB12A

Input: 100 V - 240 V

Output: DC 12 V/2.5 A

* Use an AC power cord appropriate to the region or country of use.

Size

Approx. 193 × 65 × 222.5 mm
(W×H×D)

Weight

Approx. 1.5 kg

Operating temperature

5 °C to 35 °C

Design and specifications are subject to change without notice.

Screen displays in this manual may not be the same as those of the product.

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<http://www.sony.net/>