

SONY®

4-156-864-11(2)

Multi-Function DVD Recorder

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Operating Instructions VRD-MC6



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Safety Regulations

WARNING

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

Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

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

CAUTION:

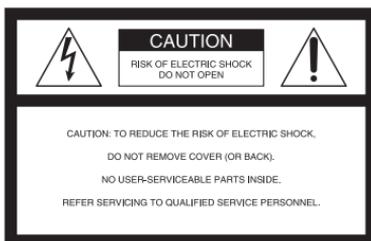
The use of optical instruments with this product will increase eye hazard. As the laser beam used in this multi function DVD recorder is harmful to eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

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:

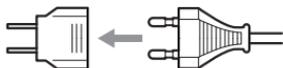
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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-MC6

Serial Number: _____

For the State of California, USA only

Perchlorate Material - special handling may apply, See www.dts.ca.gov/hazardouswaste/perchlorate

Perchlorate Material: Lithium battery contains perchlorate.

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.

- DVDirect, Handycam, CyberShot, Memory Stick and their logos are trademarks, or registered trademarks of Sony Corporation.
- AVCHD and the AVCHD logo are trademarks of Sony Corporation and Panasonic 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 in this product is used under license from eSOL Co. Ltd.

- | |
|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> 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 DVDirect. Our customer service and user support apply only under these product warranty conditions. <input type="checkbox"/> 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. <input type="checkbox"/> The guarantee and user support for this product are valid only within the countries or sales regions specified on the warranty card. <input type="checkbox"/> 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.

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Find a type of copy mode

Depending on your video device or the type of disc you are creating, you can select the copy mode and device connection that best serves your needs.

Select the type of disc to create

The following explains about selecting a copy mode of video. For details on copying a photo, refer to page 20.



I want to record HD (High Definition) video as is.

HD (High Definition) Disc (AVCHD format)

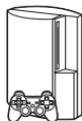
Compatible
players

AVCHD format compatible device

Sony Blu-ray Disc
player/recorder



Playstation3®



Not playable on DVD players/recorders.

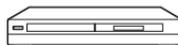


I want to enjoy playback on various DVD players.

SD (Standard Definition) Disc

Compatible
players

DVD player/recorder



Computer



About Handycam®

In this manual, Handycam® refers to a Sony camcorder. High Definition Handycam® and AVCHD Handycam® refer to a Sony HD (High Definition) camcorder.

Which device did you use to capture the video?



What image quality does the video have?

HD : High Definition
SD : Standard Definition

Type of copy mode

High Definition Handycam®

SD (Standard Definition) Handycam®

Other video device (video camera, VHS recorder, etc.)

HD

SD

You cannot create HD (High Definition) disc.

A

→ page 10

You cannot create HD (High Definition) disc.

Type of copy mode

High Definition Handycam®

SD (Standard Definition) Handycam®

Other video device (video camera, VHS recorder, etc.)

HD

Down-converted to SD (Standard Definition) during recording.

SD

SD

HD / **SD***

* Down-converted to SD (Standard Definition) during recording.

B

→ page 12

C

→ page 14

D

→ page 16

E

→ page 18

Type of copy mode

A

Connect HD Handycam[®] and record HD (High Definition) video as is

HD → HD

What is the recording media of your Handycam[®]?

**HDD****Built-in memory****“Memory Stick Duo”****8cm Disc****DV tape**

Connection and setup for your Handycam[®]

Use a USB cable

(supplied with Handycam[®] or sold separately)

→ page 31

**Use a USB cable**

(supplied with Handycam[®] or sold separately)

→ page 31

**Insert a “Memory Stick Duo” into the slot^{*1}**

→ page 36



^{*1} You can record video by connecting a Handycam[®] via a USB cable.

Recording is not available.

You can record by down-converting to SD (Standard Definition). See Type of copy mode **B** (page 12) for details.

Recording is not available.

You can record by down-converting to SD (Standard Definition). See Type of copy mode **B** (page 12) for details.

Select the copy mode and create a disc!



One Touch Disc Burn Press the button on Handycam®	Copying All Contents The entire contents of Handycam®	Copying Only New Video Only the new contents of Handycam®	Copying Playlist Playlist contents on Handycam®	Copying Visual Index Lists Select by a scene/shooting date
 page 52	page 38	page 40	page 43	page 45
 —	page 38	page 40	page 43	page 45
 page 52* ²	page 38	page 40	page 43	page 45

*² Recording possible only when connected to a Handycam® via USB cable. Only some models support One Touch Disc Burn.

B**Connect HD Handycam[®] and down-convert videos to SD (Standard Definition) quality****HD** → **SD**

What is the recording media of your Handycam[®]?

**HDD****Use an AV cable**(supplied with Handycam[®] or sold separately)

➔ page 34

**Built-in memory****Use an AV cable**(supplied with Handycam[®] or sold separately)

➔ page 34

**8cm Disc****Use an AV cable**(supplied with Handycam[®] or sold separately)

➔ page 34

**“Memory Stick Duo”****Use an AV cable**(supplied with Handycam[®] or sold separately)

➔ page 34

**DV tape****Use an AV cable**(supplied with Handycam[®] or sold separately)

➔ page 34

**Use a DV (i.LINK) cable**(supplied with Handycam[®] or sold separately)Set the [i.LINK CONV] setting on the Handycam[®] to [ON].

➔ page 33



Select the copy mode and create a disc!



Copying Manually

Recording while operating Handycam®

page 50

page 50

page 50

page 50

page 57

Copying All Contents

The entire contents of Handycam®

page 55

Copying Manually

Recording while operating Handycam®

page 57

C Connect HD Handycam® and record SD (Standard Definition) video as is



What is the recording media of your Handycam®?



HDD



Built-in memory



8cm Disc



“Memory Stick Duo”



DV tape

All of the above media

Connection and setup for your Handycam®

Use a USB cable

(supplied with Handycam® or sold separately)

➔ page 31



Use a USB cable

(supplied with Handycam® or sold separately)

➔ page 31



Use a USB cable

(supplied with Handycam® or sold separately)

➔ page 31



Insert a “Memory Stick Duo” into the slot*¹

➔ page 36



*¹ You can record video by connecting a Handycam® via a USB cable.

Use a DV (i.LINK) cable

(supplied with Handycam® or sold separately)

➔ page 33



Use an AV cable

(supplied with Handycam® or sold separately)

➔ page 34



Select the copy mode and create a disc!



One Touch Disc Burn Press the button on Handycam®	Copying All Contents The entire contents of Handycam®	Copying and Consolidating Contents Consolidate the video onto one disc	Copying Only New Video Only the new contents of Handycam®	Copying Playlist Playlist contents on Handycam®	Copying Visual Index Lists Select by a scene/shooting date
page 52	page 38	—	page 40	page 43	page 45
—	page 38	—	page 40	page 43	page 45
—	page 38	page 48	—	—	—
page 52* ²	page 38	—	page 40	page 43	page 45
Copying All Contents The entire contents of Handycam®			Copying Manually Recording while operating Handycam®		
page 55			page 57		
—			page 50		

*² Recording only possible when connected to a Handycam® via USB cable. Only some models support one touch disc burn.

Type of copy mode

D

Connect SD Handycam[®] and record SD (Standard Definition) video as is



What is the recording media of your Handycam[®]?



HDD



Built-in memory



8cm Disc



“Memory Stick Duo”



**DV tape
D8 (Digital 8) tape**

All of the above media

Other media
(8mm tape, MICROMV tape, etc.)

Connection and setup for your Handycam[®]

Use a USB cable

(supplied with Handycam[®] or sold separately)

➔ page 31



Use a USB cable

(supplied with Handycam[®] or sold separately)

➔ page 31



Use a USB cable

(supplied with Handycam[®] or sold separately)

➔ page 31



Insert a “Memory Stick Duo” into the slot^{*1}

➔ page 36



^{*1} You can record video by connecting a Handycam[®] via a USB cable.

Use a DV (i.LINK) cable

(sold separately)

➔ page 33



Use an AV cable

(supplied with Handycam[®] or sold separately)

➔ page 34



Select the copy mode and create a disc!



One Touch Disc Burn Press the button on Handycam®	Copying All Contents The entire contents of Handycam®	Copying and Consolidating Contents Consolidate the video onto one disc	Copying Only New Video Only the new contents of Handycam®	Copying Playlist Playlist contents on Handycam®	Copying Visual Index Lists Select by a scene/shooting date
page 52	page 38	—	page 40	page 43	page 45
—	page 38	—	page 40	page 43	page 45
—	page 38	page 48	—	—	—
—	page 38	—	page 40	page 43	page 45

Copying All Contents The entire contents of Handycam®	Copying Manually Recording while operating the Handycam®
page 55	page 57
—	page 50

Type of copy mode



Connect other video device and record SD (Standard Definition) video

HD / SD → SD

What is the recording media of your video device?

Video device with DV connector, capable of outputting DV signals

Connection and setup for your video device

You cannot record via a USB cable.

Use a DV (i.LINK) cable
(sold separately)

→ page 33



Video device with AV OUT

Use an AV cable
(supplied with DVDirect or sold separately)

→ page 34



Select the copy mode and
create a disc!



Copying All Contents

The entire contents of Handycam®

Copying Manually

Recording while operating the Handycam®

page 55

page 57

—

page 57

Copying a photo from Handycam[®]/memory card

Photos are recorded as a JPEG file. You can create a slideshow of the disc contents.

What is the recording media or memory card?

Recording media



HDD



Built-in memory



8cm Disc



“Memory Stick Duo”

Memory card

“Memory Stick Duo”

“Memory Stick”

SD Card

xD Picture Card

Connection and setup for your Handycam[®]/memory card

Use a USB cable

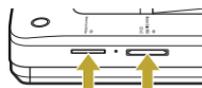
(supplied with Handycam[®] or sold separately)

→ page 31



Insert a Memory card into the slot

→ page 36



Select the copy mode and create a disc!

Copying All Contents

The entire contents of Handycam®

page 60

Copying Visual Index Lists

Select by a scene/shooting date

page 62

Copying All Contents

The entire contents of Handycam®

page 60

Copying Visual Index Lists

Select by a scene/shooting date

page 62

The created disc

Photo disc

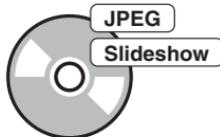
- The photo (JPEG file) is copied.



Playable on a computer or DVD player/recorder capable of playing JPEG files.

Slideshow disc

- The photo (JPEG file) is copied.
- The slideshow disc (Standard Definition) is created.



Playable on a computer or commercial DVD player/recorder.

About this manual

Before you start recording video or photo contents to a disc, read the “Selecting copy mode” pages.

“Selecting copy mode” shows you the required connections for your device and guides you through the recording process.

Videos

Selecting copy mode (page 8)

Use the chart “Find a type of copy mode” (page 8) to determine a method appropriate for your device, and the type of disc you wish to create. Next, use the “Type of copy mode (A - E)” on page 10 through 18 to determine the connection and device operation.



Preparations for Recording (page 29)

Connect your device to the DVDirect as instructed in the “Type of copy mode (A - E).” Configure your device if necessary.



Copying (pages 38, 55)

Select an available copy mode (A - E) best suited to your needs. Follow the instructions on the page referred to in this manual.



Photos

Selecting copy mode and preparations for recording (page 20)

Determine the connection and device operation then configure your device if necessary.



Copying (pages 60, 62)

Select an available copy mode best suited to your needs. Follow the instructions on the page referred to in this manual.

Icons

In this manual, section headings have different icons depending on the device or operation. Use these icons to determine the connection or device operation.

Icon	Meaning
 HDD	Functions available for Handycam [®] recording to hard disk
 Built-in Memory	Functions available for Handycam [®] recording to built-in memory
 8cm Disc	Functions available for Handycam [®] recording to 8cm disc
 "Memory Stick"	Functions available for "Memory Stick Duo" for Handycam [®]
 DV Tape	Functions available for Handycam [®] recording to DV or D8 (Digital8) tapes
DV Device	Functions available for various camcorders with a DV connector
Video Device	Functions available for various camcorders or video devices such as VHS tape recorders
Memory Card	Functions available for "Memory Stick," "Memory Stick Duo," SD Card, and xD-Picture Card recorded photos

About Handycam[®]

In this manual, Handycam[®] refers to a Sony camcorder. High Definition Handycam[®] refers to an HD (High Definition) compatible camcorder.

About Images

In this manual, "images" refer to both photos (still images) and videos.

About the DVDirect

In this manual, "DVDirect" refers to the VRD-MC6.

About illustrations

The on-screen display illustrations used in this manual may not match the graphics displayed on your screen.

Features

You can easily record videos or photos using the DVDirect.



Recording videos

HD (High Definition) discs (AVCHD format)

You can record HD (High Definition) videos taken with a High Definition Handycam[®]. Created discs can be played on an AVCHD compatible device.

For details about AVCHD disc compatibility, see “Notes on HD (High Definition) disc compatibility” on page 82.

You can record videos from:

High Definition Handycam[®] (HDD/Built-in memory/“Memory Stick Duo”)

SD (Standard Definition) discs

You can record videos from various camcorders and AV devices directly onto discs in SD (Standard Definition) image quality. Created discs can be played on DVD players and other DVD devices.

You can record videos from:

- Handycam[®]
- Video camera
- AV device such as a VHS tape recorder

Recording photos

You can archive photos from a memory card taken with a digital still camera, or a connected Handycam[®] directly onto a disc.

You can archive photos from:

- Handycam[®] (HDD/Built-in memory/8cm disc/“Memory Stick Duo”)

- Memory card (“Memory Stick”/“Memory Stick Duo”/SD Card/xD-Picture Card)

Before you begin

Notes on copying on discs

- You cannot copy:
 - videos with copy-protection signals (commercial DVDs, VHS software, some programs from satellite or CATV receivers, etc.).
 - videos taken with a digital still camera or a mobile phone and stored on its memory card.
 - videos to a disc (unfinalized) created with a device other than the DVDirect.
- You cannot copy the following HD (High Definition) videos to the disc as is. These HD (High Definition) videos can be copied by down-converting to SD (Standard Definition) quality:
 - HD videos recorded on an 8cm DVD using a High Definition Handycam[®] (HDV format).
 - HD videos recorded on a DV tape using a High Definition Handycam[®] (HDV format).
 - HD videos recorded with an HD (High Definition) compatible camcorder other than a High Definition Handycam[®].
- You cannot simultaneously copy images when storing multiple types of image*¹ on a Handycam[®] or “Memory Stick Duo.”
- You cannot simultaneously copy images stored in different media in case of multiple types of media*² on a Handycam[®].
- If you erase or edit a video on a Handycam[®] with a computer or Playstation 3[®], you may not be able to copy videos properly by connecting the Handycam[®] to the DVDirect. Use the Handycam[®] to erase or edit video.

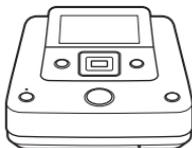
*¹ HD (High Definition) video, SD (Standard Definition) video or photo

*² HDD, built-in memory, 8cm disc or “Memory Stick Duo”

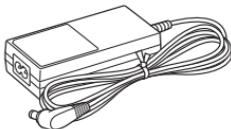
Package Contents

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

VRD-MC6 (DVDirect) (1)



AC adapter (1)



AC power cord (1)

Operating Instructions (this document) (1)

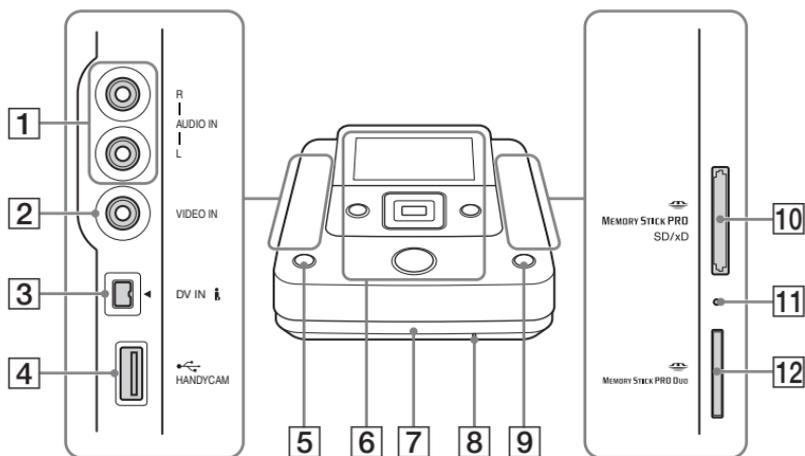
Note

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

Parts and Controls

Main unit

Front and sides



1 AUDIO IN connectors (page 34)

2 VIDEO IN connector (page 34)

3 DV IN connector (page 33)

4 USB (Type A) port (page 31)

5 (power) button (page 29)

6 Top panel (page 28)

7 Disc tray (page 30)

8 Emergency eject hole

If you cannot open the disc tray with the (eject) button, turn off the DVDirect. Insert a pin or straightened paper clip into this hole to open the disc tray.

9 (eject) button (page 30)

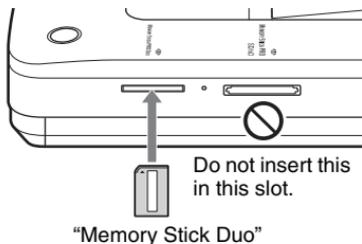
10 Multi memory card slot (page 36)
Insert a "Memory Stick," SD Card or xD-Picture Card here.

11 Memory card access LED
Lights amber when accessing a memory card.

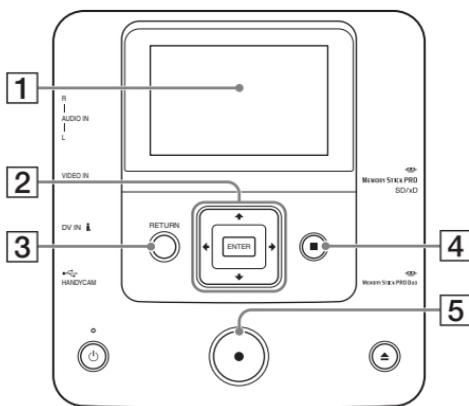
12 "Memory Stick Duo" slot (page 36)

Note

- "Memory Stick Duo" uses a different slot from other memory cards. Make sure to insert a "Memory Stick Duo" into the "Memory Stick Duo" slot, and other types of memory cards into the multi memory card slot. If you try to insert a "Memory Stick Duo" into the multi memory card slot, it may become jammed.



Top panel



1 Display window

Displays the operation screen, and images from a playback device or memory card.

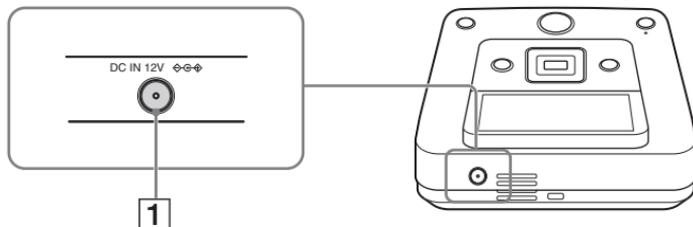
2 ▲/▼/◀/▶ cursor / ENTER button (pages 57, 65, 66)

3 RETURN button (page 67)

4 STOP button (pages 38, 57, 65, 66)

5 RECORD button (pages 38, 57)

Rear panel



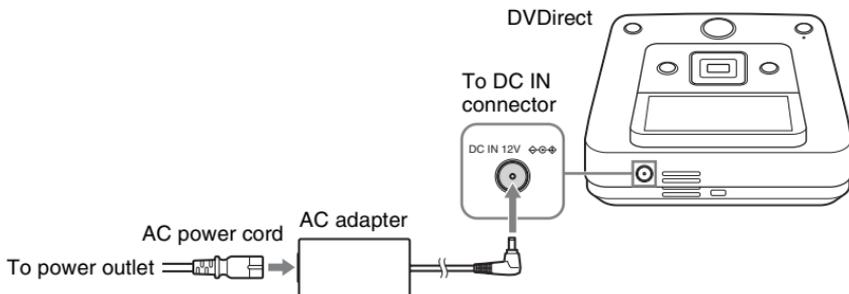
1 DC IN connector (page 29)

Note

- Metallic parts, such as terminals, etc., may become warm after the DVDirect is used. This is not a malfunction.

Turning the Power On

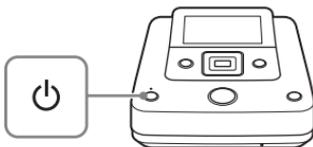
- 1 Connect the supplied AC power cord to the AC adapter.
- 2 Insert the power plug of the AC adapter into the DVDirect's DC IN connector.
- 3 Insert the power plug of the AC power cord into a power outlet.



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.

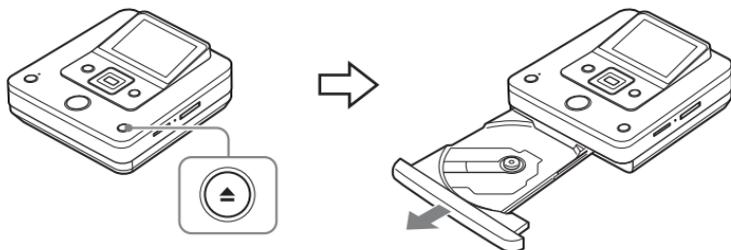
- 4 Press the  (power) button.



After the display window lights and the DVDirect logo appears, the on-condition screen appears.

Inserting a Disc

1 Press the  (eject) button.



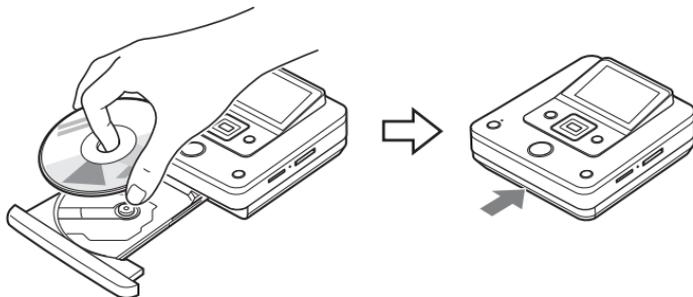
The disc tray ejects.

The disc tray opens halfway. Open it fully by hand.

2 Place the disc in the disc tray with its recording side down, and push the disc tray in the direction of the arrow.

Note

- Do not touch the recording side of the disc.



Push the disc until it clicks into place.

Push the disc tray in until it clicks fully closed.

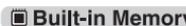
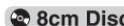
Note

- Metallic parts of the disc tray and an ejected disc may be warm. This is not a malfunction.

Connecting Cables for Recording

For types of connection and settings, see the “Connection and setup for your Handycam®/ video device” section for your “Type of copy mode (A - E)” on pages 10 through 20.

USB cable (For Handycam® only)

 HDD  Built-in Memory  8cm Disc  "Memory Stick"

1 Turn on the camcorder.

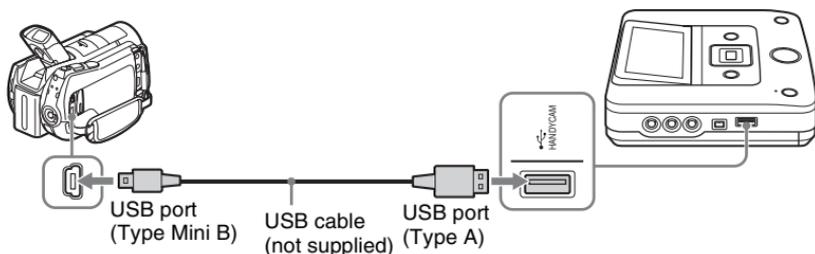
Note

- For the camcorder, make sure that the AC power cord is connected to the AC adapter.

Hint

- Depending on the camcorder type, you may need to change the mode from the REC mode to other modes such as PLAY or EDIT. For details about modes, refer to your camcorder's operating instructions.

2 Connect the camcorder to the DVDirect.



Hint

- If your Handycam® does not have USB port, use a Handycam® Station that supports your Handycam®.

3 The USB SELECT screen appears in the camcorder's LCD screen. Touch an appropriate media button on the LCD screen.

Be sure to select the media that stores images to record. Depending on the camcorder type, button names on the camcorder may differ.

Button names on the [USB SELECT] screen

Handycam [®] 's Storage Media	Button Name
Hard disk drive	[ USB CONNECT] [ COMPUTER] [ HDD], etc.
Built-in memory	[ USB CONNECT], etc.
8cm disc	[ USB CONNECT] [ COMPUTER], etc.
"Memory Stick Duo"	[ USB CONNECT] [ COMPUTER], etc.

Hints

- Some camcorders have a USB MODE screen, instead of the [USB SELECT] screen. Skip step 3, if your camcorder displays the USB MODE screen.
- If your camcorder has a [USB SPEED] setting, specify [AUTO] ([AUTO] is the default setting).

Note

- You need an audio/video cable (AV cable), instead of a USB cable, for connection to copy:
 - "PhotoMOVIE" from an 8cm disc in a Handycam[®].
 - videos from an 8cm disc formatted in VR mode in a Handycam[®].

DV (i.LINK) cable

 DV Tape  DV Device

1 Turn on the camcorder.

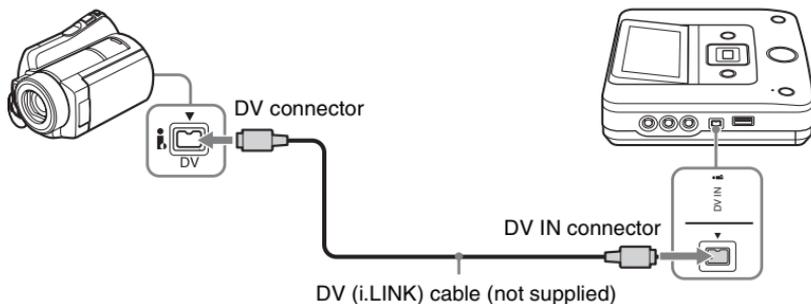
Note

- For the camcorder, make sure that the AC power cord is connected to the AC adapter.

2 Set the camcorder to playback mode.

- Playback operation differs among camcorders. For most camcorders, switch the power/mode button to playback, PLAY/EDIT or VTR mode to play video. For details, refer to the operating instructions of your camcorder.
- When you copy HD (High Definition) videos using High Definition Handycam® (HDV) by connecting with DV (i.LINK) cable, set the [i.LINK CONV] setting on the Handycam® to [ON]. This will down-convert videos recorded in HD (High Definition) to SD (Standard Definition) quality.

3 Connect the camcorder to the DVDirect.



Notes

- A DV (i.LINK) cable is for DV or D8 (Digital8) tapes only. You cannot record videos from MICROMV or HDV camcorders (HDV format) and other digital video devices having an i.LINK connector. You need an audio/video cable (AV cable) for these devices.
- The following models do not support for recording with a DV (i.LINK) cable. Use an audio/video cable.
 - DCR-VX700/VX1000, HDR-FX1/FX7/FX1000

Audio/video cable (AV cable)

HDD Built-in Memory 8cm Disc "Memory Stick" DV Tape
DV Device Video Device

1 Turn on the video device.

Note

- For the camcorder, make sure that the AC power cord is connected to the AC adapter.

2 Operate the video device to start playback of video.

- Playback operation differs among video devices. For most camcorders, switch the power/mode button to playback, PLAY/EDIT or VTR mode to play video or perform recording. Camcorders with multiple media require specifying the media (HDD, "Memory Stick Duo," 8cm disc, or Built-in memory). For details, refer to the operating instructions of your video device.
- The [A/V → DV OUT] setting on Handycam® (DV/D8) must be set to [OFF] ([OFF] is the default setting).

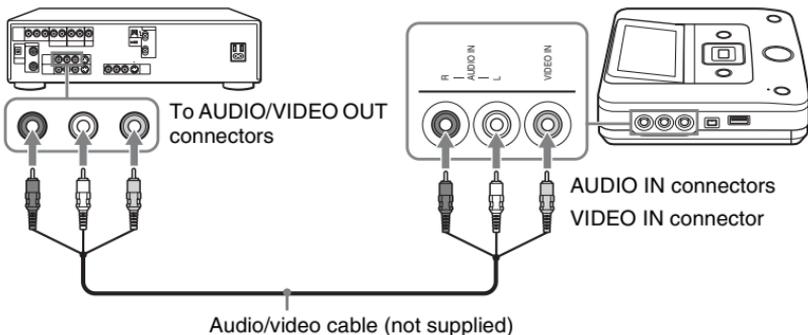
3 Connect the video device to the DVDirect.

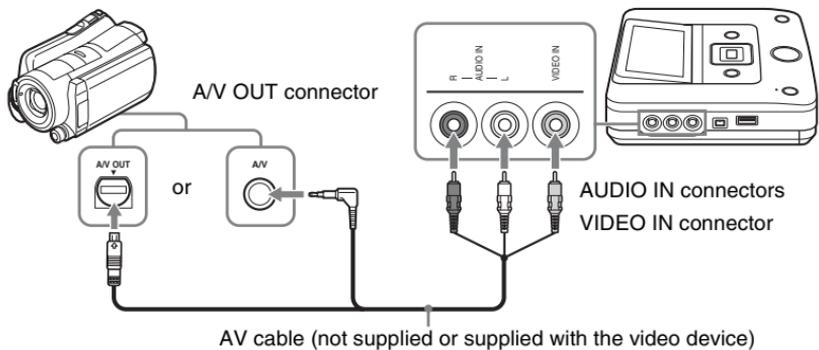
Use an audio/video cable (not supplied) or AV cable (not supplied) when connecting a video device to the DVDirect.

Hint

- Connectors may differ between devices. Refer to the operating instructions for your device, and use an appropriate cable.

For audio/video cables:





Memory Card

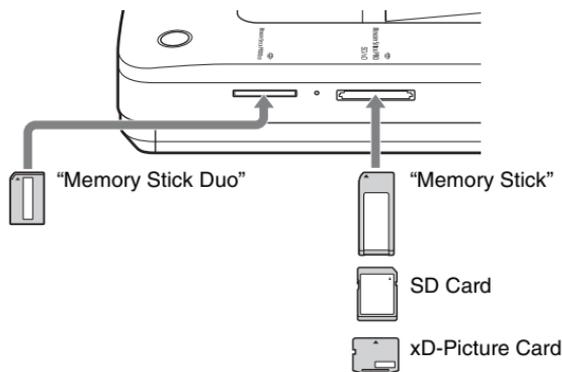
“Memory Stick” Memory Card

When copying videos or photos from a memory card, insert the memory card into its corresponding memory card slot on the DVDirect.

⚡ Note

- The DVDirect supports copying videos from Handycam®’s “Memory Stick Duo” only. You cannot copy videos from other memory cards.

Insert a memory card such as a “Memory Stick” into its corresponding slot.



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

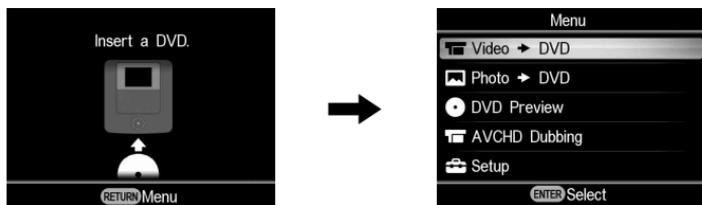
⚡ Notes

- Do not use more than one memory card slot at a time. Insert only one memory card into a memory card slot.
- Do not insert another memory card while recording onto a disc. Doing so may cause a write 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 access LED is lit. Otherwise data in the memory card may be damaged.
- An ejected memory card may be warm. This is not a malfunction.

About operation of DVDirect

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

The [Menu] display appears when the RETURN button is pressed after the power is turned on. You can perform recording procedures manually by selecting options from the menu. The menu items are as follows.



Menu	Function
Video ➔ DVD	Copy a SD (Standard Definition) video to a disc.
Photo ➔ DVD	Copy photos to a disc.
DVD Preview	Playback a created disc.
AVCHD Dubbing	Record HD (High Definition) video to a disc.
Setup	Configure various settings.

Notes on copying multiple types of image

When multiple image types are recorded in a Handycam® or “Memory Stick Duo,” the image is copied as follows in this manual.

(Images are copied in the following order: HD (High Definition) video - SD (Standard Definition) video - photo.)

Types of image recorded in Handycam®/Memory Stick Duo			Type of image to be copied
HD (High Definition) video	SD (Standard Definition) video	Photo	
○	○	○	HD (High Definition) video
○	○		HD (High Definition) video
○		○	HD (High Definition) video
	○	○	SD (Standard Definition) video

To copy SD (Standard Definition) video, use [Video ➔ DVD] in the [Menu] screen. To copy a photo, use [Photo ➔ DVD] in the [Menu] screen.

Copying All Contents

 HDD
  Built-in Memory
  "Memory Stick"
  8cm Disc

This mode allows you to record videos onto a disc from a camcorder connected to the DVDirect or "Memory Stick Duo" inserted into the "Memory Stick Duo" slot with a single touch of the  (record) button. This is one of the simpler copy modes, eliminating the need to select videos. Initially, turn on the DVDirect (page 29), insert a disc (page 30) and connect cables for recording (page 31).

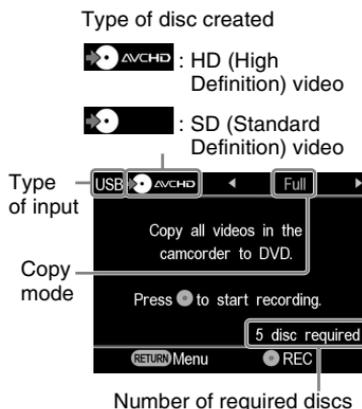
Note

- See "Notes on copying on discs" on page 25 previously.

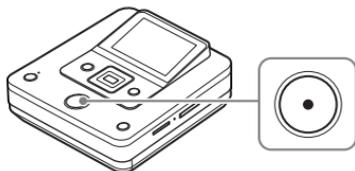
1 Confirm the message in the display window.

When the DVDirect detects signals from a camcorder connected to the USB port or "Memory Stick Duo" inserted into the "Memory Stick Duo" slot, [USB] or [M.S.Duo] appears in the top left of the display window.

The following appears in the display window when a camcorder is connected to the USB port.



2 Make sure that [Full] appears at the top right of the display window, and press the (record) button to start recording.



The DVDirect starts the recording process. The  (record) button lights up during recording. The following appears in the display window.



3 Change to a blank disc when the message [Insert a blank DVD.] appears.

If the contents do not fit onto a single disc, the disc will be ejected automatically when it becomes full. Remove the created disc and insert a blank one. Recording will resume automatically.



Next disc/number of required discs

4 Remove the created disc.

The disc is finalized automatically when recording is complete.

To stop recording

Press the  (stop) button when replacing a disc.

You cannot stop while recording is in progress.

Copying Only New Video

HDD Built-in Memory "Memory Stick"

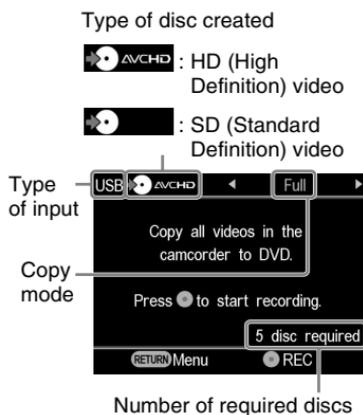
You can copy only newly-recorded contents whose previous contents have already been recorded onto a disc (by selecting [Incremental] or One Touch Disc Burn). As the DVDirect automatically detects newly recorded videos, you do not need to search for them yourself. Initially, turn on the DVDirect (page 29), insert a disc (page 30) and connect cables for recording (pages 31).

Note

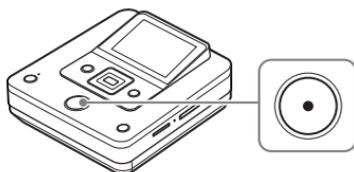
- See "Notes on copying on discs" on page 25 previously.

1 Confirm the message in the display window.

When the DVDirect detects signals from a camcorder connected to the USB port or "Memory Stick Duo" inserted into the "Memory Stick Duo" slot, [USB] or [M.S.Duo] appears in the top left of the display window. The following appears in the display window when a camcorder is connected to the USB port.



2 Press or to select [Incremental], and press the (record) button to start recording.



The DVDirect starts the recording process. The (record) button lights up during recording. The following appears in the display window.



3 Change to a blank disc when the message [Insert a blank DVD.] appears.

If the contents do not fit onto a single disc, the disc will be ejected automatically when it becomes full. Remove the created disc and insert a blank one. Recording will resume automatically.



Next disc/number of required discs

4 Press the **▲** (eject) button to eject the disc when recording is complete.

If you copy HD (High Definition) videos onto a disc, the disc will be finalized and ejected automatically. If you copy SD (Standard Definition) videos onto a disc, a message asking whether to finalize the disc appears. Go to step 5.

5 To finalize the disc, press **▲** or **▼** to select [Yes] and press the **ENTER** button.

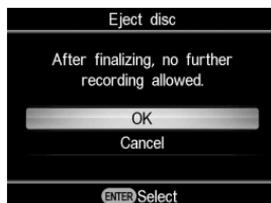
If you select [No], the disc will be ejected without being finalized. You can skip step 6 below.



Hint

- To finalize a disc means to make the disc playable on other DVD devices. For details about finalizing, refer to [Finalize disc] on page 69.

6 Press **▲** or **▼** to select [OK] and press the **ENTER** button.



When finalizing has completed, the disc tray opens.

To stop recording

Press the **⏏** (stop) button when replacing a disc.

You cannot stop while recording is in progress.

Note on copying only new video

Once the DVDirect's recording history is cleared, recording is started from the first video on the media. The recording history stored on the DVDirect is cleared, if:

- the DVDirect or your camcorder has a different "Memory Stick Duo" from the one used in the previous recording, or
- the connected camcorder is different from the one used in the previous recording.

Note on using "Memory Stick Duo"

When copying from a "Memory Stick Duo" that shares between a camcorder and another device (digital still camera, etc.), make sure that the clock on device recording images is set correctly. If the clock setting is not correct, copying only new video may not be performed as desired.

Copying Playlist

📀 HDD 📀 Built-in Memory 📀 "Memory Stick"

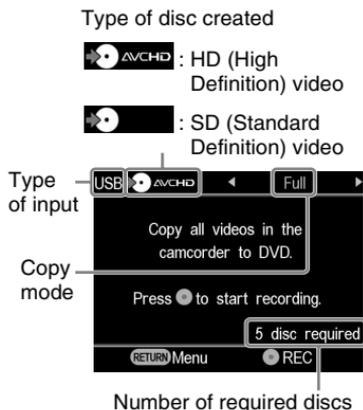
This mode allows you to record videos within a Playlist created on your camcorder. For details on creating a Playlist, refer to your camcorder's operating instructions. Initially, turn on the DVDirect (page 29), insert a disc (page 30) and connect cables for recording (page 31).

🔔 Note

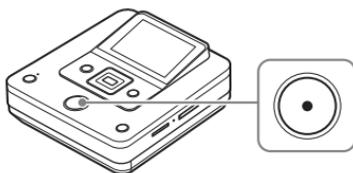
- See "Notes on copying on discs" on page 25 previously.

1 Confirm the message in the display window.

When the DVDirect detects signals from a camcorder connected to the USB port or "Memory Stick Duo" inserted into the "Memory Stick Duo" slot, [USB] or [M.S.Duo] appears in the top left of the display window. The following appears in the display window when a camcorder is connected to the USB port.



2 Press ← or → to select [Playlist], and press the [REC] (record) button to start recording.



The DVDirect starts the recording process. The [REC] (record) button lights up during recording. The following appears in the display window.



3 Change to a blank disc when the message [Insert a blank DVD.] appears.

If the contents do not fit onto a single disc, the disc will be ejected automatically when it becomes full. Remove the created disc and insert a blank one. Recording will resume automatically.



Next disc/number of required discs

4 Press the **▲** (eject) button to eject the disc when recording is complete.

If you copy HD (High Definition) videos onto a disc, the disc will be finalized and ejected automatically. If you copy SD (Standard Definition) videos onto a disc, a message asking whether to finalize the disc appears. Go to step 5.

5 To finalize the disc, press **▲** or **▼** to select [Yes] and press the **ENTER** button.

If you select [No], the disc will be ejected without being finalized. You can skip step 6 below.



Hint

- To finalize a disc means to make the disc playable on other DVD devices. For details about finalizing, refer to [Finalize disc] on page 69.

6 Press **▲** or **▼** to select [OK] and press the **ENTER** button.



When finalizing has completed, the disc tray opens.

To stop recording

Press the **⏻** (stop) button when replacing a disc.

You cannot stop while recording is in progress.

Copying Visual Index Lists

📀 HDD 📀 Built-in Memory 📀 "Memory Stick"

You can record videos selected by viewing thumbnails.

Initially, turn on the DVDirect (page 29), insert a disc (page 30) and connect cables for recording (page 31).

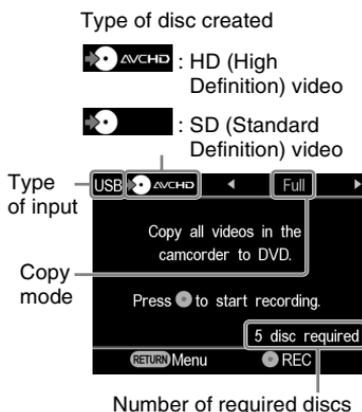
🔔 Note

- See "Notes on copying on discs" on page 25 previously.

1 Confirm the message in the display window.

When the DVDirect detects signals from a camcorder connected to the USB port or "Memory Stick Duo" inserted into the "Memory Stick Duo" slot, [USB] or [M.S.Duo] appears in the top left of the display window.

The following appears in the display window when a camcorder is connected to the USB port.



2 Press ← or → to select [Select Videos].

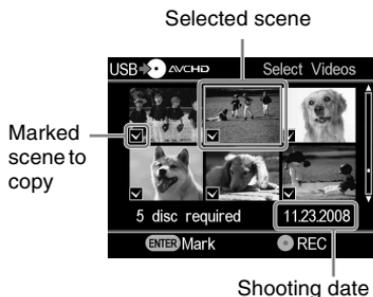


3 Press ↑ or ↓ to select [Thumbnail] or [Shooting Date], and press the ENTER button.

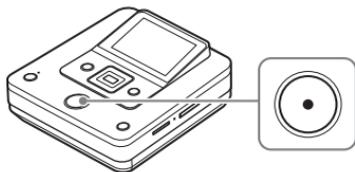


4 Press ←/↑/↓/→ to select the thumbnail or shooting date you wish to copy, and press the ENTER button to mark.

Pressing the ENTER button toggles the selection between marked and unmarked.



5 Press the  (record) button to start recording.

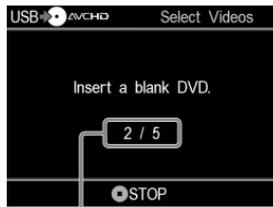


The DVDDirect starts the recording process. The  (record) button lights up during recording. The following appears in the display window.



6 Change to a blank disc when the message [Insert a blank DVD.] appears.

If the contents do not fit onto a single disc, the disc will be ejected automatically when it becomes full. Remove the created disc and insert a blank one. Recording will resume automatically.



Next disc/number of required discs

7 Press the  (eject) button to eject the disc when recording is complete.

If you copy HD (High Definition) videos onto a disc, the disc will be finalized and ejected automatically. If you copy SD (Standard Definition) videos onto a disc, a message asking whether to finalize the disc appears. Go to step 8.

8 To finalize the disc, press  or  to select [Yes] and press the ENTER button.

If you select [No], the disc will be ejected without being finalized. You can skip step 9 below.



 **Hint**

- To finalize a disc means to make the disc playable on other DVD devices. For details about finalizing, refer to [Finalize disc] on page 69.

-
- 9** Press **↑** or **↓** to select [OK] and press the ENTER button.



When finalizing has completed, the disc tray opens.

To stop recording

Press the **⏏** (stop) button when replacing a disc.

You cannot stop while recording is in progress.

Copying and Consolidating Contents (from an 8cm disc)

8cm Disc

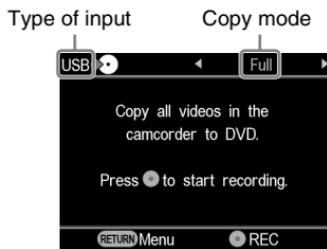
When you have more than one 8cm disc to copy, you can consolidate and record their contents onto a single, standard 12cm disc. Initially, turn on the DVDirect (page 29), insert a disc (page 30) and connect a USB cable for recording (page 31).

Note

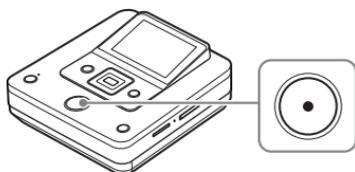
- See “Notes on copying on discs” on page 25 previously.

1 Confirm the message in the display window.

When the DVDirect detects a signal from a camcorder connected to the USB port, [USB] appears in the top left of the display window.



2 Press ← or → to select [Consolidation] and press the (record) button to start recording.



The DVDirect starts the recording process. The (record) button lights up during recording. The following appears in the display window.



3 Complete recording from one 8cm disc.

If you are copying from another 8cm disc, replace the 8cm disc in the camcorder with the new 8cm disc, and press the (record) button to continue recording.

4 Press the ▲ (eject) button to eject the disc when recording from all 8cm discs is complete.

A message asking whether to finalize the disc appears.

5 To finalize the disc, press **↑** or **↓** to select **[Yes]** and press the **ENTER** button.

If you select **[No]**, the disc will be ejected without being finalized. You can skip step 6 below.



💡 Hint

- To finalize a disc means to make the disc playable on other DVD devices. For details about finalizing, refer to **[Finalize disc]** on page 69.

6 Press **↑** or **↓** to select **[OK]** and press the **ENTER** button.



When finalizing has completed, the disc tray opens.

🔔 Note

- You cannot stop while recording is in progress.

Copying Manually

HDD Built-in Memory 8cm Disc "Memory Stick"

This mode allows you to record video on the DVDirect while controlling playback manually on the connected camcorder. Initially, turn on the DVDirect (page 29), insert a disc (page 30) and connect an audio/video cable (AV cable) for recording (page 34).

Hint

- If all the preparations are complete for copying, the DVDirect detects a signal from a camcorder connecting to the VIDEO IN connector, and the display window in step 4 appears automatically. You can skip steps 1 to 3.

1 Press the RETURN button.

The [Menu] display appears.

2 Make sure that [Video → DVD] is selected, and press the ENTER button.



3 Press ↑ or ↓ to select [VIDEO IN] and press the ENTER button.



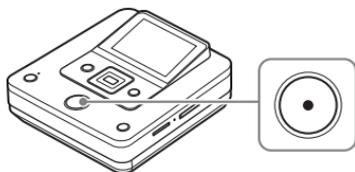
The video from the connected camcorder appears.

Hint

- When the prompt message [Format disc for DV / VIDEO recording?] appears after inserting a blank disc, select [OK]. Formatting a disc may take several seconds to complete. You cannot record HD (High Definition) videos onto the formatted disc under this message.



4 Operate your camcorder to start video playback, and press the (record) button of the DVDirect.



The message [Recording] appears in the display window, and the (record) button lights up during recording. The following appears in the display window.



To pause recording

Press the  (record) button during recording. To resume recording, press the  (record) button again.

5 Press the (stop) button to stop recording.

6 To record an additional video, repeat steps 4 and 5.

7 Press the (eject) button to eject the disc when recording is complete.

A message asking whether to finalize the disc appears.

8 To finalize the disc, press or to select [Yes] and press the ENTER button.

If you select [No], the disc will be ejected without being finalized. You can skip step 9.



Hints

- To finalize a disc means to make the disc playable on other DVD devices. For details about finalizing, refer to [Finalize disc] on page 69.
- When using a DVD+RW disc, finalizing is unnecessary. You can skip steps 8 and 9.

9 Press or to select [OK] and press the ENTER button.



When finalizing has completed, the disc tray opens.

Notes

- Start recording immediately after inserting a disc. The recording process may take a few seconds to start after pressing the  (record) button if the disc was inserted more than 10 minutes prior to starting.
- When you press the  (stop) button, you may hear the noise of the disc turning momentarily.

One Touch Disc Burn

HDD "Memory Stick"

This mode allows you to record video from a camcorder onto a disc by simply pressing DISC BURN on the camcorder. You can record additional video onto a disc that has been previously recorded on, as with copying only new videos (page 40).

Notes

- For One Touch Disc Burn from a "Memory Stick Duo," only camcorders that use "Memory Stick Duo" as storage media are supported. (Usable Handycam® (as of April 2009): HDR-CX7, HDR-TG1, HDR-CX12)
- The DUBBING button of Hybrid Plus Handycam® does not work in the same manner as the DISC BURN button. Pressing the DUBBING button does not start recording with the DVDirect.

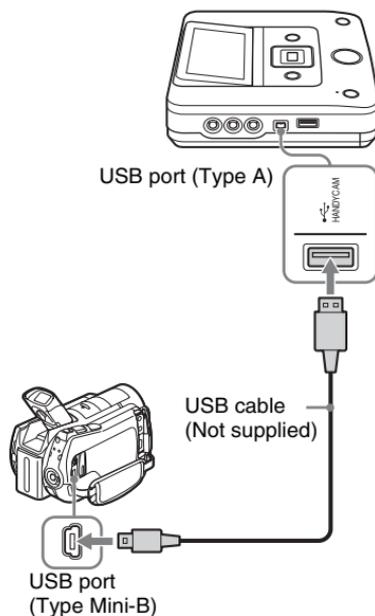
1 Turn on the DVDirect (page 29) and insert a disc (page 30).

2 Turn on the camcorder.

Note

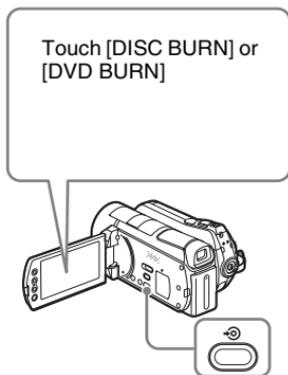
- Make sure that the AC power cord is connected to the AC adapter.

3 Connect the camcorder to the DVDirect.



The USB SELECT screen appears on the camcorder's LCD screen.

-
- 4** Touch **DISC BURN** on the camcorder's LCD screen, or press the **DISC BURN** (⏻) button on the camcorder.



The DVDirect starts the recording process.

If the camcorder's media has both HD (High Definition) and SD (Standard Definition) videos:

HD (High Definition) videos are recorded onto the disc (page 25).

Notes

- Depending on the camcorder, the display that appears on the camcorder's LCD screen or button names on the camcorder may differ. (e.g. DVD BURN)
- In this One Touch Disc Burn mode, you can record videos from the camcorder's HDD only (or "Memory Stick Duo," if the camcorder has a "Memory Stick Duo" only as its storage). This mode does not allow recording from other media.

-
- 5** Change to a blank disc when the message **[Insert a blank DVD.]** appears.

If the contents of the camcorder do not fit onto a single disc, the disc will be ejected automatically when it becomes full. Remove the created disc and insert a blank one. Recording will resume automatically.



Next disc/number of required discs

-
- 6** Press the **▲** (eject) button to eject the disc when recording is complete.

If you copy HD (High Definition) videos onto a disc, the disc will be finalized and ejected automatically. If you copy SD (Standard Definition) videos onto a disc, a message asking whether to finalize the disc appears. Go straight to step 7.

-
- 7** To finalize the disc, press **▲** or **▼** to select **[Yes]** and press the **ENTER** button.

If you select **[No]**, the disc will be ejected without being finalized. You can skip step 8 below.



Hint

- To finalize a disc means to make the disc playable on other DVD devices. For details about finalizing, refer to [Finalize disc] on page 69.

8 Press or to select [OK] and press the ENTER button.



When finalizing has completed, the disc tray opens.

To stop recording

Press the  (stop) button when replacing a disc.

You cannot stop while recording is in progress.

Copying All Contents

 DV Tape  DV Device

This mode allows you to record the entire video tape content onto a disc. The DVDirect automatically controls playback on the connected video device.

Initially, turn on the DVDirect (page 29), insert a disc (page 30) and connect a DV (i.LINK) cable for recording (page 33).

Hint

- If all the preparations are complete for copying, the DVDirect detects a signal from a camcorder connecting to the DV IN connector, and the display window in step 4 appears automatically. You can skip steps 1 to 3.

1 Press the RETURN button.

The [Menu] display appears.

2 Make sure that [Video → DVD] is selected, and press the ENTER button.

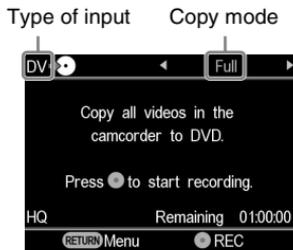


3 Press ↑ or ↓ to select [DV IN] and press the ENTER button.

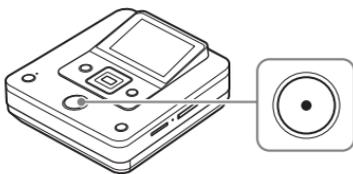


4 Confirm the message in the display window.

When the DVDirect detects a signal from a camcorder connected to the DV IN connector, [DV] appears in the top left of the display window.



5 Make sure that [Full] appears at the top right of the display window, and press the (record) button to start recording.



The DVDirect starts recording at the same time the video device starts playback. If the video tape is not at its beginning, it will automatically rewind and the DVDirect will start recording. During recording, the message [Recording] appears in the display window, and the  (record) button lights up. The following appears in the display window.



To pause recording

Press the  (record) button during recording. To resume recording, press the  (record) button again.

To stop recording

Press the  (stop) button, and then press the RETURN button. The DVDirect stops recording and returns to the display window in step 4.

6 Remove the created disc.

The disc is finalized automatically when recording is complete.

Hint

- Recording automatically stops after a blank portion over 2 minutes, or when the end of the DV tape is reached.

Copying Manually

DV Tape **DV Device** **Video Device**

This mode allows you to record video on the DVDDirect while controlling playback manually on the connected video device. Initially, turn on the DVDDirect (page 29), insert a disc (page 30) and connect cables for recording (pages 33 and 34).

Hint

- If all the preparations are complete for copying, the DVDDirect detects a signal from a video device connecting to the VIDEO IN or DV IN connector, and the display window in step 4 appears automatically. You can skip steps 1 to 3.

1 Press the RETURN button.

The [Menu] display appears.

2 Make sure that [Video → DVD] is selected, and press the ENTER button.



3 Press ↑ or ↓ to select the input connected to the video device and press the ENTER button.

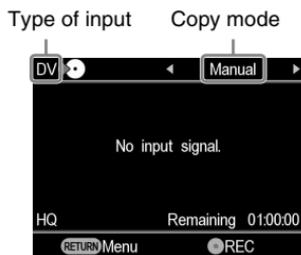
When connecting to the video device with the DV (i.LINK) cable, select [DV IN]. When connecting to the video device with the A/V cable, select [VIDEO IN].



4 Make sure that the video device is correctly connected to the DVDDirect.

For connection with DV (i.LINK) cable:

[DV] appears in the top left of the display window, and the copy mode appears at the top right of the display window. Press ← or → to select [Manual].



For connection with A/V cables:

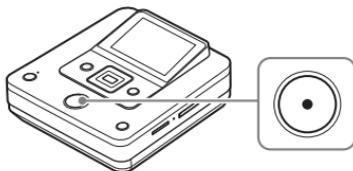
[VIDEO] appears in the top left of the display window. Go to step 5.

Hint

- When the prompt message [Format disc for DV/VIDEO recording?] appears after inserting a blank disc, select [OK]. Formatting a disc may take several seconds to complete. You cannot record HD (High Definition) videos onto a formatted disc under this message.



5 Operate the video device to start playback, and press the (record) button of the DVDirect to start recording.



During recording, the message [Recording] appears in the display window, and the  (record) button lights up. The following appears in the display window.



To pause recording

Press the  (record) button during recording. To resume recording, press the  (record) button again.

Hint

- The DVDirect starts and stops recording automatically as it detects video input signals from a connected video device. For example:
 - When you press the  (record) button before the connected video device starts playing, the DVDirect pauses. When the video device starts playing back, the DVDirect automatically starts recording video.
 - If you stop playback on the video device during recording, video signal is interrupted and the DVDirect pauses recording. If you resume playback on the video device, the DVDirect resumes recording.

When the DVDirect waits a video signal to resume recording, the message [Waiting for input signal.] appears in the DVDirect's display window. If no video signal is detected for 2 minutes, the DVDirect stops recording. (As video devices always output video signals from their operation screen or TV screen other than playback, some video devices may not operate as above.)

6 Press the (stop) button to stop recording.

7 To record an additional video, repeat steps 5 and 6.

8 Press the **▲** (eject) button to eject the disc when recording is complete.

9 To finalize the disc, press **↑** or **↓** to select [Yes] and press the **ENTER** button.

If you select [No] and press **▶**, the disc will be ejected without being finalized. You can skip step 10 below.



💡 Hint

- To finalize a disc means to make the disc playable on other DVD devices. For details about finalizing, refer to [Finalize disc] on page 69.

10 Press **↑** or **↓** to select [OK] and press the **ENTER** button.



When finalizing has completed, the disc tray opens.

🔔 Notes

- Start recording immediately after inserting a disc. The recording process may take a few seconds to start after pressing the **⏻** (record) button if the disc was inserted more than 10 minutes prior to starting.
- When you press the **⏹** (stop) button, you may hear the noise of the disc turning momentarily.

Copying All Contents

 HDD
  Built-in Memory
  "Memory Stick"
  8cm Disc
  Memory Card

This mode allows you to record photos onto a disc from a camcorder connected to the DVDirect, or a memory card inserted into any of memory card slots, with a single touch of the  (record) button. This is one of the simpler copy modes, eliminating the need to select photos stored on your camcorder or memory card. Initially, turn on the DVDirect (page 29), insert a disc (page 30) and connect cables for recording (page 31), or insert the memory card (page 36).

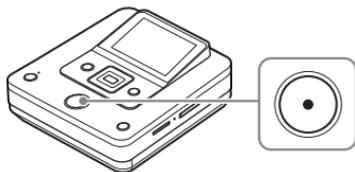
1 Confirm the message in the display window.

When the DVDirect detects a signal from a camcorder connected to the USB port or a memory card inserted into any of the memory card slots, [USB] or the type of memory card appears in the top left of the display window.

The following appears in the display window when a camcorder is connected to the USB port.



2 Make sure that [Full] appears at the top right of the display window, and press the (record) button to start recording.



The DVDirect starts the recording process. The  (record) button lights up during recording. The following appears in the display window.

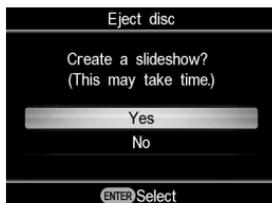


3 Press the (eject) button to eject the disc when recording is complete.

A message asking whether to finalize the disc appears. Go to step 4. If [Slideshow Creation] is set to [ON], the disc is finalized automatically when creation of the slideshow is complete, and the disc tray opens. You can skip steps 4 to 6.

4 To finalize the disc, press or to select [Yes] and press the ENTER button.

If you select [No], the disc will be ejected without being finalized. You can skip steps 5 and 6.

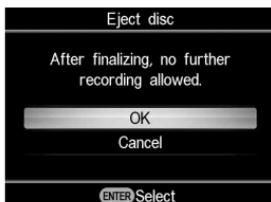


When finalizing has completed, the disc tray opens.

Hint

- To finalize a disc means to make the disc playable on other DVD devices. For details about finalizing, refer to [Finalize disc] on page 69.

5 Press **↑** or **↓** to select [OK] and press the ENTER button.



6 To create the slideshow, press **↑** or **↓** to select [Yes] and press the ENTER button.

If you select [No], the slideshow will not be created.

Hints

- When creating the slideshow, both photos (JPEG files) and slideshow with SD (Standard Definition) picture quality are copied onto the disc.
- It takes some time to complete finalizing for the slideshow disc. The amount of time it takes to complete the slideshow disc depends on the number and size of the photos (for example, it may take 20 minutes or more to record 50 files (6-megapixel photos) onto a disc).

Copying Visual Index Lists

HDD Built-in Memory "Memory Stick" 8cm Disc Memory Card

This mode allows you to select and record photos from a camcorder or a digital still camera's memory card onto a disc. You can select them by viewing thumbnails or by the shooting date.

Initially, turn on the DVDirect (page 29), insert a disc (page 30) and connect cables for recording (page 31) or insert the memory card (page 36).



1 Confirm the message in the display window.

When the DVDirect detects a signal from a camcorder connected to the USB port or a memory card inserted into any of the memory card slots, [USB] or the type of memory card appears in the top left of the display window.

The following appears in the display window when a camcorder is connected to the USB port.

Type of memory card Copy mode



2 Press ← or → to select [Select Photos].

3 Press ↑ or ↓ to select [Thumbnail] or [Shooting Date] and press the ENTER button.



4 Press ←/↑/↓/→ to select the viewing thumbnail or shooting date you want to copy and press the ENTER button to mark.

Pressing the ENTER button toggles the selection between marked and unmarked.

Current photo/Number of recorded photos Marked photo to copy

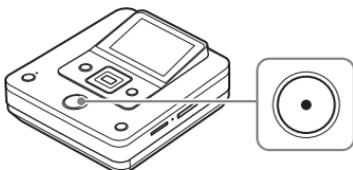


Shooting date

Hint

- If you press the  (stop) button when thumbnails are displayed, the photo selected will be displayed in full. The photo can be rotated 90 degrees right with each press of . The photo can be rotated 90 degrees left with each press of .

5 Press the (record) button to start recording.



The DVDDirect starts the recording process. The  (record) button lights up during recording. The following appears in the display window.



6 Press the (eject) button to eject the disc when recording is complete.

A message asking whether to finalize the disc appears. Go to step 7. If [Slideshow Creation] is set to [ON], the disc is finalized automatically when creation of the slideshow is complete, and the disc tray opens. You can skip step 7 to 9.

7 To finalize the disc, press or to select [Yes] and press the ENTER button.

If you select [No], the disc will be ejected without being finalized. You can skip steps 8 and 9.



Hint

- To finalize a disc means to make the disc playable on other DVD devices. For details about finalizing, refer to [Finalize disc] on page 69.

8 Press or to select [OK] and press the ENTER button.



9 To create the slideshow, press or to select [Yes] and press the ENTER button.

If you select [No], the slideshow will not be created.



When finalizing has completed, the disc tray opens.

Hints

- When creating the slideshow, both photos (JPEG files) and slideshow with SD (Standard Definition) picture quality are copied onto the disc.
- It takes some time to complete finalizing for the slideshow disc. The amount of time it takes to complete the slideshow disc depends on the number and size of the photos (for example, it may take 20 minutes or more to record 50 files (6-megapixel photos) onto a disc).

Previewing Videos

You can play back only discs created with the DVDDirect.

Notes

- You cannot play back discs created with a video device other than the DVDDirect. The DVDDirect does not support playback of commercial DVDs or contents on a memory card inserted to the DVDDirect.
- When you preview a video, there is no sound.
- You cannot output videos to an external device, such as a TV.
- You cannot play back HD (High Definition) disc.

1 Turn on the DVDDirect and insert a disc created with the DVDDirect.

Hint

- If you insert a finalized disc after turning on the DVDDirect, playback will start automatically (or the DVD Menu will appear). You can skip steps 2 and 3.

2 Press the RETURN button.

The [Menu] display appears.

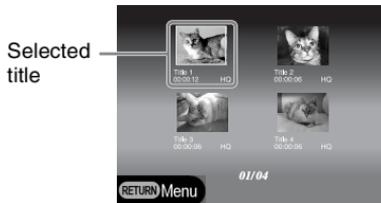
3 Press \uparrow or \downarrow to select [DVD Preview], and press the ENTER button.



Playback starts automatically when an unfinalized disc is inserted.

When playing back a finalized disc, go to step 4.

4 Press $\uparrow/\downarrow/\leftarrow/\rightarrow$ to select the title you want to preview, and press the ENTER button.



The DVDDirect starts playback.

Operations during playback

Button	Operation
	Stop playback
\leftarrow/\rightarrow	Display the previous or the next title
RETURN	Return to the DVD Menu or [Menu] display

Previewing Photos

You can play back only discs created with the DVDDirect.

Notes

- You cannot play back discs created with a video device other than the DVDDirect. The DVDDirect does not support playback of commercial DVDs or contents on a memory card inserted to the DVDDirect.
- When you preview a video, there is no sound.
- You cannot output videos to an external device, such as a TV.

1 Turn on the DVDDirect and insert a disc created with the DVDDirect.

Hint

- If you insert a finalized disc after turning on the DVDDirect, playback will start automatically (or, photos or the DVD Menu will appear). You can skip steps 2 and 3.

2 Press the RETURN button.

The [Menu] display appears.

3 Press \uparrow or \downarrow to select [DVD Preview], and press the ENTER button.



Photos appear when a disc without creating slideshow or an unfinalized disc is inserted. When a slideshow disc is inserted, the prompt message [Photo preview options] appears. Go to step 4.

4 Press \uparrow or \downarrow to select [Photo Slideshow], and press the ENTER button.



The DVD Menu appears. When you select a title and press the ENTER button, photos within the title are automatically played in rotation. To display the selected photos, select [Original Photos].

Operations during playback

Photo display (Original Photos)

Button	Function
\uparrow/\downarrow	Display the next or the previous photo
\odot / RETURN	Return to the [Menu] display

Photo Slideshow

Button	Function
\leftarrow/\rightarrow	Display the previous or the next title
\odot / RETURN	Return to the DVD Menu

Using the Setup Menu

You can change the various settings for creating discs in the Setup Menu screen.

1 Turn on the DVDirect and press the RETURN button.

The [Menu] display appears.

2 Press \uparrow or \downarrow to select [Setup], and press the ENTER button.



3 Press \uparrow or \downarrow to select a menu item to confirm or change, and press the ENTER button.



\rightarrow indicates the default settings.

Rec Quality (REC mode)

Select the recording quality for recording in SD (Standard Definition) quality.

These options are available when you use the DV IN connector or VIDEO IN connector to connect your video device.

\rightarrow HQ

Highest image quality

HSP

High image quality

SP

Standard image quality

LP

Lower image than Standard image quality

SLP

Low image quality. You can record more videos on a disc.

Hint

- Disc recording capacity depends on the REC mode (page 80).

Auto Stop Timer

Select the preset time used to stop recording automatically when recording in SD (Standard Definition) quality.

Auto Stop Timer is available when you use the VIDEO IN connector to connect your video device.

\rightarrow OFF

Recording does not stop automatically.

30 minutes - 8 hours

Recording automatically stops when the preset time has passed after recording starts. Select 30 min, 60 min, 90 min, 2h, 3h, 4h, 6h or 8h.

Note

- The Auto Stop Timer setting is canceled when:
 - the recording is completed,
 - the  (stop) button is pressed during recording, or
 - the power is turned off.

Auto Chapter

Specify the time interval at which chapters are created automatically on an SD (Standard Definition) disc.

Auto Chapter is available when you use the DV IN connector or VIDEO IN connector to connect your video device.

OFF

No chapters are inserted.

→ 5 minutes

Inserts chapters at approximately 5-minute intervals.

10 minutes

Inserts chapters at approximately 10-minute intervals.

15 minutes

Inserts chapters at approximately 15-minute intervals.

DVD Menu

Select a background image to apply to the DVD Menu screen for discs created with the DVDDirect.

→ A, B, C, D

Select from four images. The background image is set to [A] by default.

JPEG

Select your favorite photo (JPEG file) for a background image. Insert the memory card with the selected photo (JPEG file) into the DVDDirect's memory card slot before creating a disc.

🔔 Notes

- Save only a single photo (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.
- Some photos (JPEG files) may not be applied to the DVD Menu.

Slideshow Music

Select whether to record background music onto a slideshow disc.

OFF

No background music is recorded.

→ ON

Background music is recorded.

MP3

Sets your favorite music (MP3 file) for background music. Insert the memory card with the selected music (MP3 file) into the DVDDirect's memory card slot before creating a disc.

🔔 Notes

- Save only a single music (MP3 file) in the top directory of a 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 disc to others, ensure that any background music is not copyrighted.
- Some MP3 files may not be applied to the background music.

Slideshow Creation

Select whether to create a slideshow automatically after recording photos onto a disc.

→ OFF

A slideshow is not created automatically. When you press the ▲ (eject) button after recording, a message asking whether to create a slideshow always appears in the display window.

ON

A slideshow is created and the disc is finalized automatically after recording. The disc can be played back on a DVD player immediately.

Finalize disc

If you eject a disc without finalizing, you can finalize it later.

Hints

- To finalize a disc means to make the disc playable on other DVD devices. If you do not finalize the disc with the DVDDirect, the disc cannot be played on other DVD devices.
- You cannot add videos or photos to a finalized disc.
- When using a DVD+RW disc and connecting the camcorder to the DVDDirect's VIDEO IN connector or DV IN connector for recording video, finalizing is unnecessary. You can always add videos on the DVD+RW with the DVDDirect, and the disc will be playable on other DVD devices.

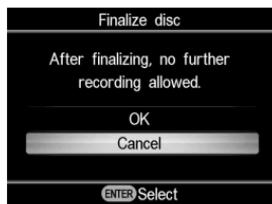
- ① **Insert a disc to finalize, press \uparrow or \downarrow to select [Finalize disc], and press the ENTER button.**



- ② **Press \uparrow or \downarrow to select [Yes] and press the ENTER button.**



- ③ **Press \uparrow or \downarrow to select [OK] and press the ENTER button.**



The DVDDirect starts finalizing the disc.

If you insert a disc containing photos, the message [Create a slideshow?] appears. To create a slideshow, press \uparrow or \downarrow to select [Yes] and press the ENTER button.

When the message [Complete] appears, finalizing has completed.

Note

- It takes a few minutes to finalize a disc. (Depending on the contents of a disc, time to complete finalizing a disc may vary. If you create a slideshow, it takes longer to finalize the disc.)

Erase disc

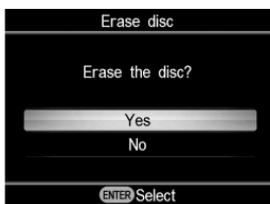
You can erase all content recorded on a DVD+RW or DVD-RW disc. The erased disc is reusable as a blank disc.

Note

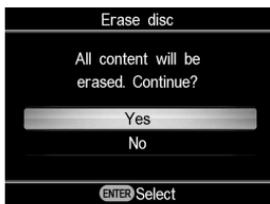
- Be aware that this operation erases all data.
- ① **Insert a disc to erase, press \uparrow or \downarrow to select [Erase disc], and press the ENTER button.**



- ② Press **↑** or **↓** to select [Yes] and press the **ENTER** button.



- ③ Press **↑** or **↓** to select [Yes] and press the **ENTER** button.



The DVDDirect starts erasing the disc.
When the message [Complete] appears,
erasing has completed.

System Info

You can check the system software version of the DVDDirect.
Select [System Info] to view the version of system software.

💡 Hint

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

Auto Shut Off

The unit is automatically turned off when no button operation is made for more than 2 hours.

OFF

The unit is not automatically turned off.

ON

The unit is automatically turned off.

Demo

The DVDDirect automatically plays a demo when it is not operated for a set period of time.

OFF

Disables the demo.

→ ON

Enables the demo.

Color System

Set the appropriate color system for the connected video device.

NTSC

Select this when you connect a video device of NTSC color system.

PAL

Select this when you connect a video device of PAL color system.

🔗 Notes

- Do not change the setting of the color system unless it is necessary to do so. The appropriate color system is preset, or the setting may not be changeable depending on the country or region of use.

- You cannot record to a disc if the DVDDirect's color system is different from the color system of the connected camcorder.
- A disc will not be playable, if the DVDDirect's color system setting used for recording is different from the playback device.

Language

Select the language for the display window.

Troubleshooting

If you experience any of the following difficulties while using the DVDirect, use this troubleshooting guide to help remedy the problem before requesting repairs. Refer also to the operating instructions of your Handycam® or video devices.

General

To create an SD (Standard Definition) video disc by down-converting an HD (High Definition) video

- Connect a Handycam® to the DVDirect using an audio/video cable or AV cable (page 34). You cannot use a USB cable for connection.

To change the input

- The DVDirect automatically detects input signals from connected devices and selects the input jack. Turn on connected devices and set up to record videos.
- To change the input manually, select the input connector from [Menu].
- When recording an HD (High Definition) video, select [USB] or [Memory card] of [AVCHD Dubbing] in [Menu]. When recording an SD (Standard Definition) video, select [VIDEO IN], [DV IN], [USB], or [Memory card] of [Video ➔ DVD] in [Menu].

Power

The DVDirect does not turn on.

- Make sure that the AC power cord is connected securely (page 29).
- Unplug the power cable and disconnect the video device from the DVDirect. Remove the memory card. Then, reconnect the video device to the DVDirect (or insert the memory card again) and turn it on.

Connection and operation

The Handycam® is connected with a USB cable, but the DVDirect does not work.

- Make sure that your Handycam® is supported by the DVDirect.
- Make sure that the Handycam® is configured for USB connection correctly and the USB cable is connected properly to the Handycam® (page 31).
- Disconnect the USB cable from the DVDirect. Turn both the Handycam® and the DVDirect off, then on again.
- If you select the connector from [Menu], select [USB] of [AVCHD dubbing] in [Menu] when recording an HD (High Definition) video. When recording an SD (Standard Definition) video, select [USB] of [Video ➔ DVD] in [Menu].
- If you follow the prompt message in the display window, the DVDirect is automatically operated by the image quality (HD (High Definition) video or SD (Standard Definition) video) stored in the Handycam. Follow the message shown in the display window.

The Handycam® is connected with a DV (i.LINK) cable, but the DVDirect does not work.

- Make sure that the Handycam® is set to the PLAY/EDIT mode. If it is in the CAMERA mode, you cannot copy videos with the DVDirect (page 33).
- Disconnect the DV (i.LINK) cable from the DVDirect. Turn both the Handycam® and the DVDirect off, then on again.

A video device is connected to VIDEO IN of the DVDirect, but playback displays no video on the DVDirect's display window.

- Make sure that the audio/video cable is connected properly to A/V OUT of the video device.
- The DVDDirect is not detecting input signals from the connected video device. Turn on the video device, and configure or operate it to start playback.
- Make sure that a correct input type is selected. Select [VIDEO IN] of [Video ▶ DVD] in [Menu].

The number of discs required does not appear on the screen when recording.

- If many videos are recorded, display may take some time.

A disc inserted in the DVDDirect can be heard spinning momentarily.

- The DVDDirect checks the disc and performs a read operation. This is not a malfunction.

Playback

Other video devices do not play back a created SD (Standard Definition) disc.

- The disc may not be finalized. Use the DVDDirect and finalize the disc first (page 69).
- Some video devices may not work properly with certain created disc types.
- Your video device may not support the disc type (e.g., DVD+R, DVD+RW, DVD+R DL). Check if your video device supports the disc type.
- You need a CPRM-enabled player to play back CPRM-compatible DVD-RW and DVD-R discs.

Other video devices do not playback the created HD (High Definition) disc.

- A generic DVD player cannot playback HD (High Definition) discs. You need an AVCHD-compatible player (e.g., Blu-ray

Disc player/recorder) to playback HD discs (page 82).

Other video devices do not playback the created photo disc.

- You need a video device capable of playing JPEG files.

When playing a slideshow disc, picture noise appears.

- The picture quality of the photos played back in a slideshow is equivalent to that of video discs. Using a DVD player capable of playing JPEG files, higher quality photos can be played.

Messages

Unusable disc inserted. Insert a compatible disc.

- An incompatible disc is inserted. Insert a compatible disc (page 76).
- DVD-RW or DVD+RW discs recorded on other video devices are not supported. Erase videos or photos recorded on a disc with [Erase disc] of [Setup] in [Menu]. The erased disc is reusable as a blank disc (page 69).

No input signal.

- Connector may not be selected correctly. Select input connection to a video device with [Video ▶ DVD] in [Menu].
- The DVDDirect cannot detect input signals from connected devices. Turn on the connected video device. Operate the video device to start video playback.
- Check that the DVDDirect is correctly connected to the output on the video device.
- Disconnect all cables. Turn the DVDDirect and video device off, then on again. Reconnect the video device to the DVDDirect.

Insert DVD created by this unit.

- A disc created by another device has been inserted. A disc created by another video device will not play back.

Cannot record to this disc in the selected operation.

- Usable discs differ depending on recording method (page 76). (For example, a video stored on a Handycam connected with a USB cable cannot be recorded to DVD+R DL disc.)

Setup camcorder for USB connection.

- Setup for USB connection on the Handycam may not be correct. Connection to the DVDirect is similar to connecting to a computer.

Unknown USB device found. Connect supported camcorder.

- An unsupported USB device is connected to the USB port of the DVDirect.

Set USB SPEED setting on the camcorder to “AUTO.”

- USB SPEED setting on a Handycam may be set to something other than “AUTO.” Set USB SPEED setting on the Handycam to “Auto.”

No valid video or photo found in the camcorder.

- The camcorder or memory card does not contain any videos or photos.

No valid video found in the camcorder.

- The camcorder or memory card has no video to record.

- When storing only HD (High Definition) video in a Handycam, [Video ➔ DVD] in [Menu] may be selected. When recording an HD (High Definition) video, select [AVCHD dubbing] in [Menu].

No valid photo found in the camcorder.

- The camcorder or memory card does not contain any photos.

The disc is full.

- Even if the disc is not full, you cannot record to the disc when the number of video titles or photos reaches a maximum number for recording. (Videos: Up to 49 titles can be copied to a disc. Photos: Up to 2000 photos can be copied to a disc. In some cases, you cannot record up to a maximum number.)

Camcorder error. Check the camcorder.

- Check that the camcorder is correctly connected to the DVDirect with USB cable. Check that the camcorder is turned on.
- An incompatible “Memory Stick Duo” is inserted in the “Memory Stick” slot of the Handycam. For example, a “Memory Stick Duo” containing video recorded by a video device other than a Handycam, or a “Memory Stick Duo” containing video recorded by a computer cannot be played.
- If a demo video is included in the camcorder, the camcorder may not operate normally. Delete a demo video from the camcorder.

Memory card error. Check the memory card.

- An incompatible “Memory Stick Duo” or memory card is inserted. For example, a memory card containing video recorded by a video device other than a Handycam is incompatible.

System error.

- When this message appears repeatedly, the DVDirect may be damaged.

Supported Discs and Memory Cards

Discs

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

Disc type	Logo	Usable discs	Supported versions
DVD+R		✓	Up to 16× media
DVD+R DL (Double layer)		✓*	Up to 8× media
DVD+RW		✓	Up to 8× media
DVD+RW High speed		✓	Up to 8× media
DVD-R		✓	Up to 16× media
DVD-R DL (Double layer)			
DVD-RW		✓	Up to 6× media

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

Note

- Blu-ray disc, DVD-R DL (Double layer), CD-R, CD-RW and 8cm discs are not supported.

Notes on using discs

- When adding videos to a previously-recorded disc (unfinalized disc), connect a camcorder to the DVDirect using the same connector as the previous recording. For example, you cannot add recordings to the disc using the VIDEO IN connector after recording to the disc using the USB port.
- You cannot add recordings to a disc created on a PC or other DVD device.
- When copying HD (High Definition) videos, always use a new disc. You cannot add HD (High Definition) videos to the same disc to which you have previously recorded HD (High Definition) videos.

- 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.

“Memory Stick”

The DVDirect supports the following types of “Memory Stick.” 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
Memory Stick PRO-HG Duo	○*1*3*4

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

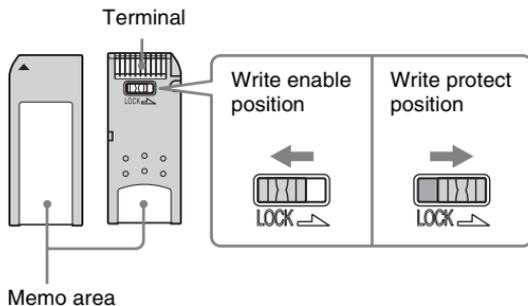
*2 Sony Memory Stick PRO Duo operation is supported up to 8 Gbytes.

*3 Sony Memory Stick PRO-HG Duo operation is supported up to 16 Gbytes.

*4 8-bit parallel data transfer is not supported.

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 properly.
- Not all memory card operations are supported with card adapters.
- Slide the write protect switch with a thin implement.
- Use your camcorder or digital still camera to format the “Memory Stick.” A “Memory Stick” formatted on a computer may not work properly.
- 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 recording or when the Memory card access LED is on.
- Data may be corrupted if:
 - the “Memory Stick” is removed or the DVDirect is turned off while reading data, or
 - the “Memory Stick” is used in locations subject to static electricity or electrical noise.

SD Card/xD-Picture Card

The DVDirect has slots for the following memory cards. However, not all memory card operations are supported.

- SD Memory Card*¹
- SDHC Memory Card*²
- xD-Picture Card

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

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

Notes on using memory cards

- Do not use a commercial card adapter. The DVDirect may not work properly.
- Do not use a metallic card adapter as malfunction may result.
- The DVDirect does not read copyright protected data.

Recording Time and Video Lengths

Time required for recording

When recording video, the length of time required for recording depends on the REC mode setting (FH, HQ, SP, or LP) used to shoot the video and the number of scenes the video contains. Typically, more time is required to record videos onto a disc if the video was recorded with a higher image quality (bit rate) setting. The chart below provides a general estimate of time required to record.

Recording HD (High Definition) video (Time required to copy a 1-hour video)

Mode	Camcorder connected via a USB cable	"Memory Stick Duo" slot on DVDirect
FH	approx. 40 minutes*	approx. 80 minutes*
HQ	approx. 25 minutes*	approx. 50 minutes*
SP	approx. 20 minutes	approx. 35 minutes
LP	approx. 15 minutes	approx. 30 minutes

* Two discs are required.

Recording SD (Standard Definition) video (Time required to copy a 1-hour video)

Mode	Camcorder connected via a USB cable (Media other than 8cm disc)	"Memory Stick Duo" slot on DVDirect
HQ	approx. 35 minutes	approx. 35 minutes
SP	approx. 25 minutes	approx. 25 minutes
LP	approx. 15 minutes	approx. 15 minutes

Hint

- When a camcorder is connected to the DV IN or VIDEO IN connector on the DVDirect, the length of time required for recording is the same as the playback time of the video.

Disc space (recordable time) available for recording videos

The chart below provides a general estimate of disc space (recordable time) available for recording videos onto a disc.

HD (High Definition) discs (AVCHD format)

The recordable video length depends on the REC mode setting on the Handycam®.

REC mode setting used to shoot the video	DVD-R/-RW/+R/+RW
FH	approx. 30 minutes
HQ	approx. 55 minutes
SP	approx. 1 hour 10 minutes
LP	approx. 1 hour 35 minutes

SD (Standard Definition) discs (USB connection or “Memory Stick Duo” slot)

The recordable video length depends on the REC mode setting on the Handycam®.

REC mode setting used to shoot the video	DVD-R/-RW/+R/+RW
HQ	approx. 1 hour
SP	approx. 1 hour 30 minutes
LP	approx. 3 hours

SD (Standard Definition) discs (DV IN or VIDEO IN connector)

The recordable video length depends on the [Rec Quality] (REC mode) setting on the DVDDirect (page 67).

REC mode (Rec Quality) setting on the DVDDirect	DVD-R/-RW/+R/+RW
HQ	approx. 1 hour
HSP	approx. 1 hour 30 minutes
SP	approx. 2 hours
LP	approx. 3 hours
SLP	approx. 6 hours

Hint

- When using DVD+R DL, it takes 1.8 times longer than the above time.

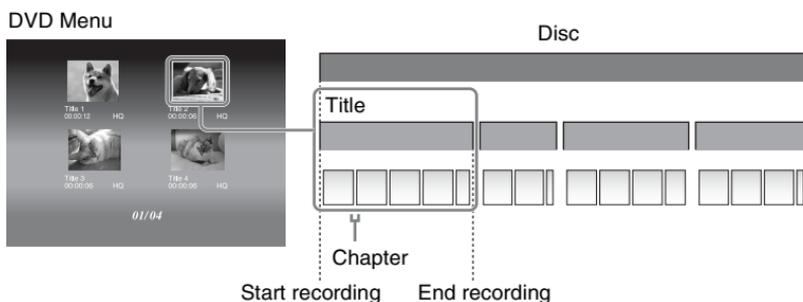
About Created Discs

The DVDDirect creates a DVD Menu on an SD (Standard Definition) disc and a slideshow disc. The DVD Menu is displayed each time a disc is inserted into a player and can be used to select videos from dates or thumbnails.

According to the type of disc being created and the device connection used for recording, disc configuration varies, and there may be some restrictions. See the following.

About SD (Standard Definition) discs

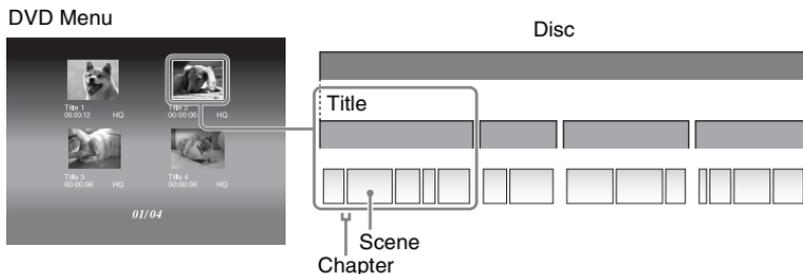
Configuration of SD (Standard Definition) discs (DV IN or VIDEO IN connector)



The DVD Menu displays thumbnails of the titles created between the points where you start and stop recording on the DVDirect.

For each title, chapters are automatically created according to the [Auto Chapter] setting configured in the Setup Menu (page 68).

Configuration of SD (Standard Definition) discs (USB port or “Memory Stick Duo” slot)



- The DVD Menu displays thumbnails of the titles created at points in the video where the shooting date changes.

For each title, chapters (breakpoints of a video on the disc) are automatically created by scene between the point where you start and stop shooting on the camcorder.

- If you copy videos recorded in a variety of REC modes (HQ, SP, etc. setting on the camcorder), different aspect ratios (16:9 or 4:3 setting on the camcorder), or add videos to the disc, titles (even of the same shooting date) may be separated.

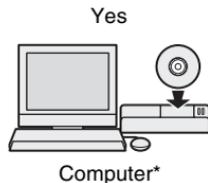
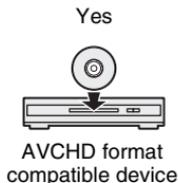
About HD (High Definition) discs

Notes on HD (High Definition) disc compatibility

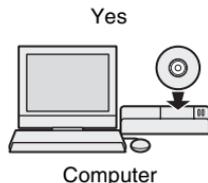
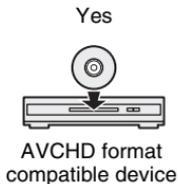
- An HD (High Definition) disc cannot be played on an AVCHD incompatible DVD player or recorder.
- Do not insert an HD (High Definition) disc in an AVCHD incompatible DVD player or recorder. The DVD player or recorder may fail to eject the disc and may erase its contents.
- An HD (High Definition) disc can be played on an AVCHD compatible Blu-ray Disc player/recorder, Playstation 3[®] or other compatible device.

Type of created disc and compatible devices

HD (High Definition) disc (containing High Definition videos)



SD (Standard Definition) disc (containing Standard Definition videos)



* Install the AVCHD compatible application on your computer beforehand. 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 the created disc.)

Configuration of HD (High Definition) discs

- The DVD Menu cannot be created.
- Chapters (breakpoints of a video on the disc) are automatically created by scene between the point where you start and stop shooting on the camcorder.
- An HD (High Definition) video disc cannot be previewed on the DVDirect's display window.

About Photo discs

About created photo DVDs

- Photos are copied to the disc as JPEG files. File names are assigned to photos (JPEG files) in the order they are copied to the disc.
- You can select to create a slideshow when finalizing a disc (page 60, 62), you can create a slideshow in addition to storing photos.
- You can view the photo disc created with the DVDirect in the display window or view it using the DVD drive of a computer. And you can also view photos using a DVD player capable of playing JPEG files. A slideshow disc can be played on commercial DVD players.

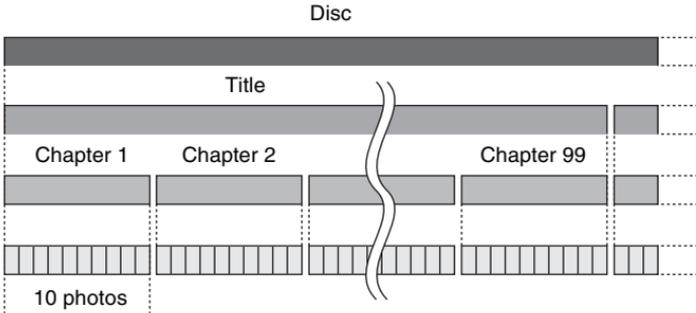
Hint

- The picture quality of the photos played back in a slideshow is equivalent to that of SD (Standard Definition) video. Using the DVD drive of a computer or DVD player capable of playing JPEG files, you can view photos in higher quality.

Notes

- Up to 2000 photos can be copied to a disc.
- You cannot copy both videos and photos together onto the same disc.

Configuration of Slideshow discs



- Slideshow discs consist of titles and chapters as SD (Standard Definition) discs.
- A chapter is created for every 10 photos.
- Up to 99 chapters per title can be created.

Note

- Some players may not be able to display the DVD Menu.

Hints

- You can use factory-set images or your favorite photo as a background image for the DVD Menu screen (page 68).
- You can set background music while playing a slideshow disc (page 68).

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.

Cleaning

Use a soft, dry cloth to clean the external surfaces of the DVDirect. Do not use an abrasive, disposable cloth such as paper towels, as they may damage the surface finish.

Transportation

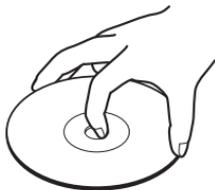
Please repack the DVDirect in its original carton when shipping, and remove any disc beforehand.

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 DVDDirect is accessing it, as data may be rendered unreadable.

Handling an HDMI cable

- Position the HDMI cable correctly when connecting it to the HDMI connector.
- Be sure to insert the HDMI cable until it hits the positive stop.
- When carrying the DVDDirect, or if it is to be shipped, remove the HDMI cable beforehand.

Specifications

Recording/Copying

Creatable discs

- Standard Definition (SD) disc*¹
- High Definition (HD) disc (AVCHD format)
- Photo disc (JPEG files*², Data DVD)
- Slideshow disc (JPEG files*², DVD-VIDEO format)

*¹ Up to 49 titles can be recorded.

*² Up to 2000 photos can be recorded.

A maximum number may not be recorded to the disc in some cases.

Recordable discs*¹

DVD+R, DVD+RW, DVD-R, DVD-RW, DVD+R DL*²

*¹ Use 12cm disc only

*² Use the DV IN or VIDEO IN connector only.

Supported input devices (Video recording)

- Handycam® (HDD/*Memory Stick Duo*/8cm disc/Built-in memory)
- Handycam® (DV/D8)
- DV digital video camera/video device with DV jack
- Video devices with video/audio outputs

Supported input devices (Photo recording)

- Handycam® (HDD/*Memory Stick Duo*/8cm disc/Built-in memory)
- “Memory Stick Duo,” “Memory Stick PRO Duo,” “Memory Stick PRO-HG Duo,” “Memory Stick,” “Memory Stick PRO,” SD Memory Card, SDHC Memory Card, xD-Picture Card

Supported photo format*

JPEG, DCF2.0 compliant

* The following JPEG file is supported.

Number of pixels: up to 8192x8192

File size: up to 7.2 MB

Playback

Playable discs

Discs created with VRD-MC6* (Other commercial or recorded discs are not supported.)

* HD (High Definition) discs cannot be played back.

Output

DVDirect's built-in LCD display

Input/Output Interface

DV IN*¹

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

VIDEO IN

1 Vp-p/75 ohms

AUDIO IN

2 Vrms (Impedance more than 47 kilohms)

USB port*²

Type A

*¹ For DV input from DV digital video camera only.

*² For Handycam® (HDD/*Memory Stick Duo*/DVD/Built-in memory) connection only.

Memory Card Slot

“Memory Stick Duo”

“Memory Stick”**

SD Memory Card*

xD-Picture Card*

* Multi card slot

General

Power

DC 12V (supplied from the DC IN jack)

Consumption

30W

AC adapter*

Type: AC-NB12A

Input: AC 100 V - 240 V

Output: DC 12 V/2.5A

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

Size*

Approx. 144 × 52 × 156 mm (W×H×D)

* Including maximal projections.

Weight

Approx. 660 g

Operating temperature

5 °C to 35 °C

Design and specifications are subject to change without notice.

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