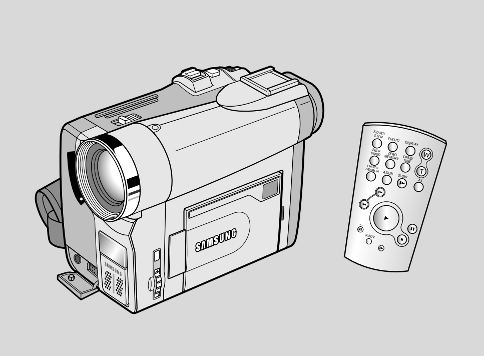
ENGLISH

Digital Video Camcorder

Mini DV Digital Video Cassette VP-D93(i)/D97(i)/D99(i)


SAMSUNG
START/STOP
PHOTO
DISPLAY
SELF TIMER
ZERO MEMORY
DATE/TIME
W
T
PHOTO SEARCH
A.DUB
SLOW
X2
F.ADV

AF	Auto Focus
CCD	Charge Coupled Device
LCD	Liquid Crystal Display

Owner's Instruction Book

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

This product meets the intent of
Directive 89/336 CEE, 73/23 CEE, 93/68 CEE.

SAMSUNG
ELECTRONICS

中 文

数字摄录一体机

Mini DV Digital Video Cassette VP-D93(i)/D97(i)/D99(i)

AF	自动调焦
CCD	电荷耦合器
LCD	液晶显示屏

用户说明书

在操作摄录一体机之前，请仔细阅读本说明书，并将其保存好，以便将来查阅。

本产品符合下列标准89/336CEE，73/23 CEE，93/68 CEE。

AD68-00656K(01)

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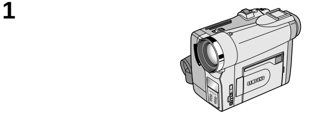
Notes and Safety Instructions

Notes regarding the rotation of the LCD screen

Please rotate the LCD screen carefully as illustrated.
Over rotation may cause damage to the inside of the hinge that connects the LCD screen to the Camcorder.

1. LCD screen closed.
2. Standard recording using the LCD screen.
   - ■ A LCD Monitor is opened applying a finger to LCD open knob.
3. Recording when looking at the LCD screen from the top.
4. Recording when looking at the LCD screen from the front.
5. Recording with the LCD screen closed.

1



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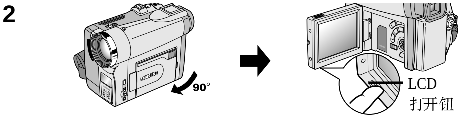

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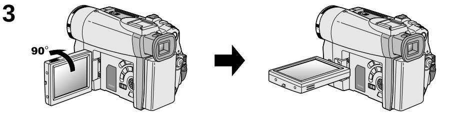

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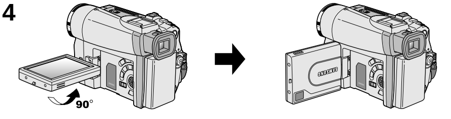

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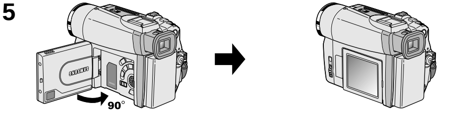


注意事项和安全说明

有关旋转LCD（液晶显示）屏的注意事项

请按说明小心地旋转液晶显示屏。
过度旋转会造成连接液晶显示屏与摄录一体机的铰链的损坏。

1. 液晶显示屏处于关闭状态中。
2. 使用液晶显示屏的标准录制。
   - ■ 用手指按打开钮打开LCD监视器。
3. 从液晶显示屏上方俯视时录制。
4. 从液晶显示屏前方正视时录制。
5. 在液晶显示屏关闭时录制。

Notes and Safety Instructions

Notices regarding COPYRIGHT (VP-D93i/D97i/D99i only)

Television programs, video tapes, DVD titles, films, and other program materials may be copyrighted.
Unauthorized copying of copyrighted material may be against the law.

Notes regarding moisture condensation

1. A sudden rise in atmospheric temperature may cause condensation to form inside the camcorder.

for example:

- When you move the camcorder from a cold location to a warm location (e.g. from outside to inside during winter.)
- When you move the camcorder from a cool location to a hot location (e.g. from inside to outside during the summer.)

2. If the (DEW) protection feature is activated, leave the camcorder for at least two hours in a dry, warm room with the cassette compartment opened and the battery pack removed.

Notes regarding CAMCORDER

1. Do not leave the camcorder exposed to high temperature (above 60°C or 140°F).
   For example, in a parked car in the sun or exposed to direct sunlight.
2. Do not let the camcorder get wet.
   Keep the camcorder away from rain, sea water, and any other form of moisture. If the camcorder gets wet, it may get damaged.
   Faults caused by ingress of fluids may not be possible to repair.

注意事项和安全说明

有关版权的注意事项（仅限于VP-D93i/D97i/D99i）

电视节目、录像带、DVD节目、影片和其它节目资料可能已受版权保护。
未经授权复制受版权保护的资料是违法行为。

有关结露的注意事项

1. 气温的突然升高会导致摄录一体机内部结露。

例如:

- 将摄录一体机从寒冷的地方带入温暖的地方（如，冬季从室外将其携带入室内）。
- 将摄录一体机从凉爽的地方带入炎热的地方（如，夏季从室内将其携带到室外）

2. 如果启动了（DEW，结露）保护功能，则请将摄录一体机放置在干燥、温暖的室内至少两个小时，并打开盒带带仓取出电池。

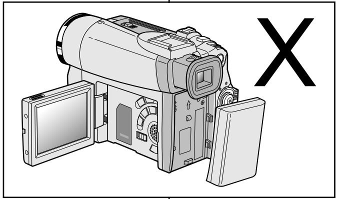
有关摄录一体机的注意事项

1. 请不要把摄录一体机暴露于高温下（60°C 或 140°F以上）。
   例如：在阳光下停放的汽车内或在阳光直射之下。

2. 请不要让摄录一体机受潮。将摄录一体机远离雨水、海水和任何形式的潮气。如果受潮，摄录一体机便会受到损坏。
   有时，由于受潮而产生的故障将无法修复。

Notes and Safety Instructions

Notes regarding the battery pack



- Make sure that the battery pack is fully charged before starting to record.
- To preserve battery power, keep your camcorder turned off when you are not operating it.
- If your camcorder is in CAM mode and it is left in STBY mode without being operated for more than 5 minutes with a tape installed, it will automatically turn itself off to protect against unnecessary battery discharge.
- Make sure that the battery pack is located correctly and firmly in place.
  Dropping the battery pack may damage it.
- A brand new battery pack is not charged.
  Before using the battery pack, you need to charge it completely.
- It is a good idea to use the viewfinder rather than the LCD when making long recordings, because the LCD uses up more battery power.

* When the battery reaches the end of its life, please contact your local dealer.
The batteries have to be dealt with as chemical waste.

Notes regarding the Video Head Cleaning

- To ensure normal recording and a clear picture, clean the video heads regularly.
  If a square block-shape distorts playback, or only a blue screen is displayed, the video heads may be dirty.
  If this happens, clean the video heads with a dry type cleaning cassette.
- Do not use a wet-type cleaning cassette. It may damage the video heads.

注意事项和安全说明

有关电池组的注意事项

- 在开始录制之前，保证电池组充电完全。
- 为了保存电池能量，请在不使用摄录一体机时关闭摄录一体机。
- 如果摄录一体机处于CAM（摄像机）模式并保持在STBY（待机）模式下工作超过5分钟，且装入了录像带，机器就会自动关闭以防止电池不必要的放电。
- 保证电池组安装牢固。
  若电池组从高空摔落便会导致其损坏。
- 全新的电池组并不带电。
  在使用电池组之前，请将电池组充满电。
- 当长时间摄录时，最好使用取景器来代替液晶显示屏，因为液晶显示屏会消耗更多的电量。

* 在电池到达其使用寿命时，请与本地的经销商联系。
必须按化学废品处理方式处理电池。

有关视频磁头清洁的注意事项

- 为了保证正常录制和清晰的画面，请定期清洁视频磁头。
  如果出现马赛克失真或在播放期间只显示蓝屏，则说明可能是视频磁头较脏。
  如果发生这种情况，用干式清洁盒带清洁视频磁头。
- 不要使用湿式清洁盒带，那样有可能会损坏视频磁头。

Notes and Safety Instructions

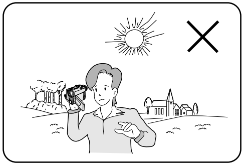
Note regarding the LENS

- Do not film with the camera lens pointing directly at the sun. Direct sunlight can damage the CCD(Charge Coupled Device).

Notes regarding electronic viewfinder

1. Do not position the camcorder such that the viewfinder is pointing towards the sun. Direct sunlight can damage the inside of the viewfinder. Be careful when placing the camcorder under sunlight or near a window exposed to sunlight.
2. Do not pick up the camcorder using the viewfinder.
3. Excessive force when pulling the viewfinder out may damage it.

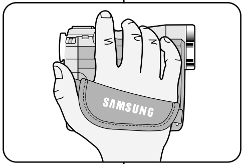
Notes regarding ‘Record’ or ‘Playback’ using the LCD



1. The LCD display has been manufactured using high precision tech-nology. However, there may be tiny dots (red, blue or green in colour) that appear on the LCD display. These dots are normal and do not affect the recorded picture in any way.
2. When you use the LCD display under direct sunlight or outdoors, it maybe difficult to see the picture clearly. If this occurs, we recommend using the viewfinder.
3. Direct sunlight can damage the LCD monitor.

Notes regarding the hand strap

- To ensure a steady picture during filming, check that the hand strap is properly adjusted.
- Do not force your hand into the hand strap as you could damage it.



注意事项和安全说明

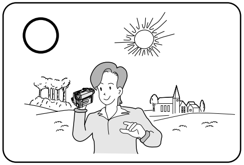
有关镜头的注意事项

- 拍摄时，请不要将摄像机镜头直接朝向太阳。阳光的直射会损坏CCD（Charge Coupled Device，电荷耦合器）。

有关电子取景器注意事项

1. 请不要将摄录一体机放置在取景器朝向太阳的地方。阳光的直射会损坏取景器的内部器件。在阳光下或靠近受阳光照射的窗户使用摄录一体机时请小心。
2. 不要从取景器处握取摄录一体机。
3. 取景器的过度旋转会损坏取景器。

有关使用液晶显示屏“Record”（拍摄）或“Playback”（播放）的注意事项



1. 液晶显示屏是采用尖端科技制造而成的。然而，液晶显示屏上可能会出现小点（红色、蓝色或绿色）。这些小点属于正常现象，不会影响录制的图像。
2. 在阳光直射的条件下或户外使用液晶显示屏时，很难看清图像。如果出现这种情况，我们建议使用取景器。
3. 阳光直射会损坏液晶显示屏的显示器。

有关手带的注意事项

- 为了保证拍摄期间图像的稳定，请检查手带是否已经被适当地调节好。
- 不要强行将手伸入手带内，那样会损坏手带。

Notes and Safety Instructions

Precautions regarding the Lithium battery

1. The lithium battery maintains the clock function and user settings; even if the battery pack or AC adapter is removed.

2. The lithium battery for the camcorder lasts about 6 months under normal operation from time of installation.

3. When the lithium battery becomes weak or dead, the date/time indicator will display “---” when you set the DATE/TIME to ON.
   In this case, replace the lithium battery with a new one
   (type CR2025).

4. There is a danger of explosion if battery is incorrectly replaced.
   Replace only with the same or equivalent type.

Warning: Keep the LITHIUM BATTERY out of reach of children.
Should a battery be swallowed, consult a doctor immediately.

注意事项和安全说明

有关锂电池的注意事项

1. 即使取出了电池组或交流适配器，摄录一体机内的锂电池仍会维持时钟功能和用户设置。

2. 从安装之时起，摄录一体机内的锂电池在正常操作下可使用约6个月。

3. 当锂电池电量不足或耗尽时，当您将日期/时间指示器设置为开时其将显示“---”。
   在这种情况下，请用一个新锂电池（CR 2025型）更换锂电池。

4. 如果电池放置不正确，会引起爆炸的危险。
   仅使用相同型号的电池进行更换。

警告：让小孩远离锂电池。
如果误吞了电池，请立即找医生救治。

Getting to Know Your Camcorder

Features

- Digital data transfer function with IEEE1394
  By incorporating the IEEE 1394 (i.LINK™ : i.LINK is a serial data transfer protocol and inter connectivity system, used to transmit DV data) high speed data transport port, both moving and still images can be transferred to a PC, making it possible to produce or edit various images. (VP-D93/D97/D99 is not able to receive digital data from another DV Device)
- USB interface for digital image data transfer
  You can transfer still images/movies to a PC using the USB interface without an add-on card.
- PHOTO
  The PHOTO function lets you capture an object as a still along with sound, while in Camera mode.
- 800x Digital zoom
  Allows you to magnify an image up to 800 times its original size.
- Colour TFT LCD
  A high-resolution colour TFT LCD gives you clean, sharp images as well as the ability to review your recordings immediately.
- Electronic Image Stabilizer (EIS)
  The EIS compensates for any handshake, reducing unstable images particularly at high magnification.
- Various digital effects
  The DSE (Digital Special Effects) allows you to give your films a special look by adding various special effects.
- Back Light Compensation (BLC)
  The BLC function compensates for the bright background behind a subject you're recording.
- Program AE
  The Program AE enables you to alter the shutter speed and aperture to suit the type of scene/action to be filmed.
- Digital Still Camera function
  Using Memory Stick, you can easily record and playback standard still images.
- MJPEG Recording
  MJPEG recording makes it possible to record video onto a Memory Stick.
- Mega-pixel CCD
  Your camcorder incorporates a 1.33mega-pixel CCD. High-resolution still images can be recorded to a Memory Stick.
- Built-in Flash
  You can take natural-looking flash pictures with appropriate illumination using the built-in Flash.
- Smart Shoe
  Allows the Samsung VL-S1FL Video Light/Flash or ZM-EC1 Gun Zoom Mic (both optional) to be easily attached and powered by the camcorder’s own power source.

摄录一体机的基本常识

特点

- 使用IEEE1394的数字数据传输功能
  通过结合IEEE 1394（i.LINK™：i.LINK是一种串行数据传输协议和互连性系统，用于传送DV数据）高速数据传输端口，可将动态图像和静态图像传输到计算机上，使得制作或编辑各类图像成为可能。
  (VP-D93/D97/D99无法从其它的数字设备中接收数字资料。)
- 用于数字图像数据传输的USB接口
  您可以使用USB接口将静态图像传输到计算机上，而不用外接卡。
- PHOTO（拍照）
  PHOTO（拍照）功能可以允许您在Camera（摄像机）模式拍摄有声的静态物体。
- 800x 数字变焦
  允许您将一个图像放大到原始大小的800倍。
- Colour TFT LCD（彩色TFT液晶显示屏）
  高分辨率的彩色TFT液晶显示屏可以为您提供清晰明亮的图像以及即时查看拍摄效果的能力。
- 电子图像稳定器（EIS）
  EIS可以补偿手抖，尤其是在较高的放大率下，它可以减少不稳定的图像。
- 各种数字效果
  DSE（Digital Special Effects，数字特殊效果）允许您通过添加各种特殊效果来让摄影别具一格。
- BLC（Back Light Compensation，背光补偿）
  BLC（背光补偿）功能可以补偿物体后面的明亮的背景。
- Program AE（程序自动曝光）
  Program AE（程序自动曝光）可以帮助您调节快门速度和光圈，以适应被摄场景/动作类型。
- 数字静止照相机功能
  使用记忆棒,您可以轻易地记录或播放标准的静止图像
- MJPEG录像
  MJPEG录像可以将视频图像记录在记忆棒上。
- 百万像素的CCD
  您的摄像机安装了一个1.33百万像素的CCD。高分辨率的静止图像被存储在记忆棒上。
- 内置闪光灯
  您可以使用内置闪光灯拍摄照片。
- 智能底托
  VL-S1FL 视频灯/闪光灯或枪式缩放话筒可以轻易地安装在它的上面，并由摄象机供电。

Getting to Know Your Camcorder

Accessories Supplied with camcorder

Make sure that the following basic accessories are supplied with your digital video camera.

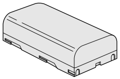
Basic Accessories

1. Lithium Ion Battery pack
2. AC Power Adapter
3. AC Cord
4. Multi-AV Cable (AUDIO/VIDEO/S-VIDEO)
5. Instruction Book
6. Lithium batteries for Remote Control and Clock. (TYPE: CR2025, 2 EA)
7. Remote Control
8. Shoulder strap
9. USB cable
10. Software CD
11. Memory Stick
12. USB Audio Cable

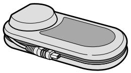
Optional Accessory

13. Scart adapter

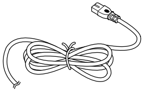
1. 锂离子电池组



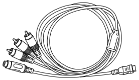
2. 交流电源适配器



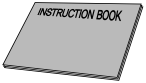
3. 交流电源线



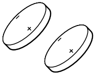
4. 多功能AV线（音频/视频/S-视频线）



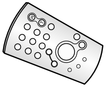
5. 说明书



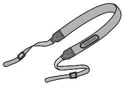
6. 遥控器及时钟用的锂电池（类型：CR2025, 2块）



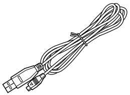
7. 遥控器



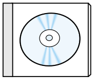
8. 肩带



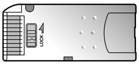
9. USB线



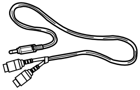
10. 软件CD



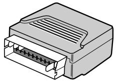
11. 记忆棒



12. USB 音频电缆



13. Scart适配器



摄录一体机的基本常识

随摄录一体机所提供的配件

请确认已随数字视频摄录一体机提供了以下基本配件。

基本配件

1. 锂离子电池组
2. 交流电源适配器
3. 交流电源线
4. 多功能AV线（音频/视频/S-视频线）
5. 说明书
6. 遥控器及时钟用的锂电池（类型：CR2025, 2块）
7. 遥控器
8. 肩带
9. USB线
10. 软件CD
11. 记忆棒
12. USB 音频电缆

可选附件

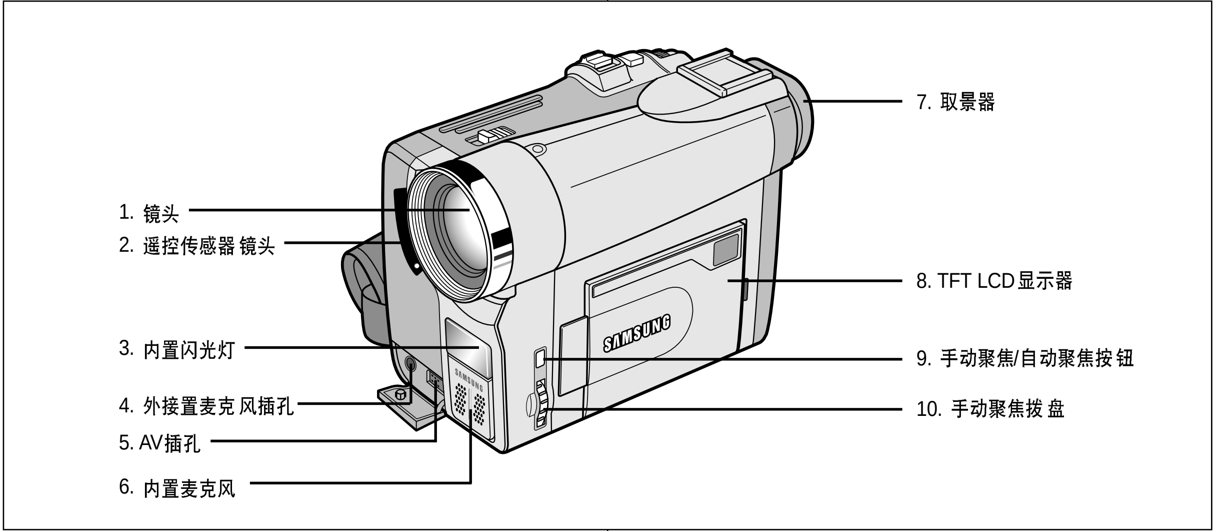
13. Scart适配器

Getting to Know Your Camcorder

Front & Left View

摄录一体机的基本常识

正视图和左视图

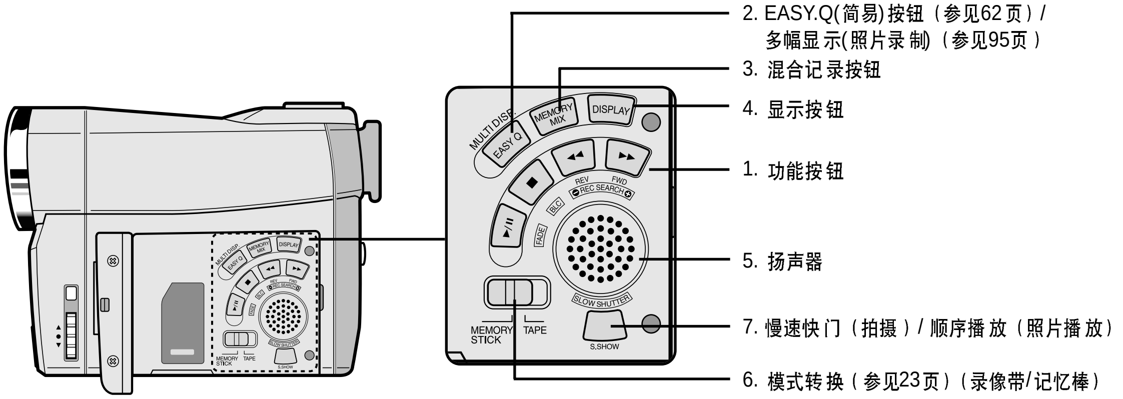

1. 镜头
2. 遥控传感器 镜头
3. 内置闪光灯
4. 外接置麦克 风插孔
5. AV插孔
6. 内置麦克风
7. 取景器
8. TFT LCD显示器
9. 手动聚焦/自动聚焦按 钮
10. 手动聚焦拨 盘
SAMSUNG

1. Lens
2. Remote Sensor
3. Built-in Flash (see page 52)
4. External MIC in
5. Multi-AV Jack (see page 70)
6. Internal MIC
7. View Finder (see page 32)
8. TFT LCD Monitor
   (see page 31)
9. MF/AF button (see page 63)
10. MF Dial

1. 镜头
2. 遥控传感器镜头
3. 内置闪光灯（参见52页）
4. 外接置麦克风插孔
5. AV插孔（参见70页）
6. 内置麦克风
7. 取景器（见第32页）
8. TFT LCD显示器（见第31页）
9. 手动聚焦/自动聚焦按钮
   （见第63页）
10. 手动聚焦拨盘

Getting to Know Your Camcorder

Left Side View


MULTI DISP.
EASY Q
MEMORY MIX
DISPLAY
REV
FWD
REC SEARCH
BLC
FADE
SLOW SHUTTER
MEMORY STICK
TAPE
S.SHOW
2. EASY.Q(简易)按钮（参见62页）/
多幅显示(照片录制)（参见95页）
3. 混合记录按钮
4. 显示按钮
1. 功能按钮
5. 扬声器
7. 慢速快门（拍摄）/ 顺序播放（照片播放）
6. 模式转换（参见23页）（录像带/记忆棒）

1. Function buttons

PLAYER	CAMERA	M.PLAY
▶/II: (PLAY/STILL)	FADE (see page 65)	▶/II : (MJPEG PLAY/STILL)
■ : (STOP)	BLC (see page 64)	-
◀◀ : (REW)	REC SEARCH –	REV (see page 94)
▶▶ : (FF)	REC SEARCH +	FWD (see page 94)

2. EASY.Q button (CAM) / MULTI DISP. (M.PLAY)
3. MEMORY MIX button (see page 50)
4. DISPLAY button (see page 19)
5. Speaker
6. Mode Switch (MEMORY STICK/TAPE)
7. SLOW SHUTTER (CAM) (see page 61) / S.SHOW (M.PLAY) (see page 95)

摄录一体机的基本常识

左视图

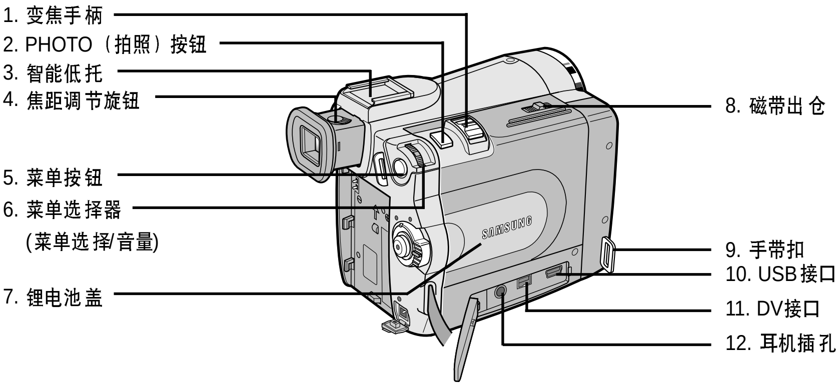
1. 功能按钮

放像机	摄像机	存储器播放
▶/II : (PLAY/STILL) (播放/静止)	FADE (淡入淡出) (参见65页)	▶/II ：(MJPEG 播放/静止)
■ : (STOP) (停止)快倒)	BLC (背光补偿) (参见64页)	–
◀◀ : (REW) (快倒)	REC SEARCH – (拍摄记录搜索 –)	后退(参见94页)
▶▶ : (FF) (快进)	REC SEARCH + (拍摄记录搜索+)	前进(参见94页)

2. EASY.Q(简易)按钮/多幅显示(存储器播放)
3. 混合记录按钮（参见50页）
4. 显示按钮（参见19页）
5. 扬声器
6. 模式转换（录像带/记忆棒）
7. 慢速快门（拍摄）（参见61页）/顺序播放（存储器播放）（参见95页）

Getting to Know Your Camcorder

Right & Top View


1. 变焦手柄
2. PHOTO（拍照）按钮
3. 智能低托
4. 焦距调节旋钮
5. 菜单按钮
6. 菜单选择器
(菜单选择/音量)
7. 锂电池盖
8. 磁带出仓
9. 手带扣
10. USB接口
11. DV接口
12. 耳机插孔
SAMSUNG

1. Zoom lever (see page 45)
2. PHOTO button (see page 68)
3. Smart Shoe (see page 100)
4. FOCUS Adjustment knob (see page 32)
5. MENU button (see page 35)
6. MENU Selector (MENU SELECT/VOLUME) (see page 35)
7. Lithium Battery Cover (see page 21)
8. TAPE EJECT
9. Hook for hand strap
10. USB Jack (see page 78)
11. DV Jack (see page 76)
    DV out (VP-D93/D97/D99)
    DV in/out
    (VP-D93i/D97i/ D99i)
12. EARPHONE Jack

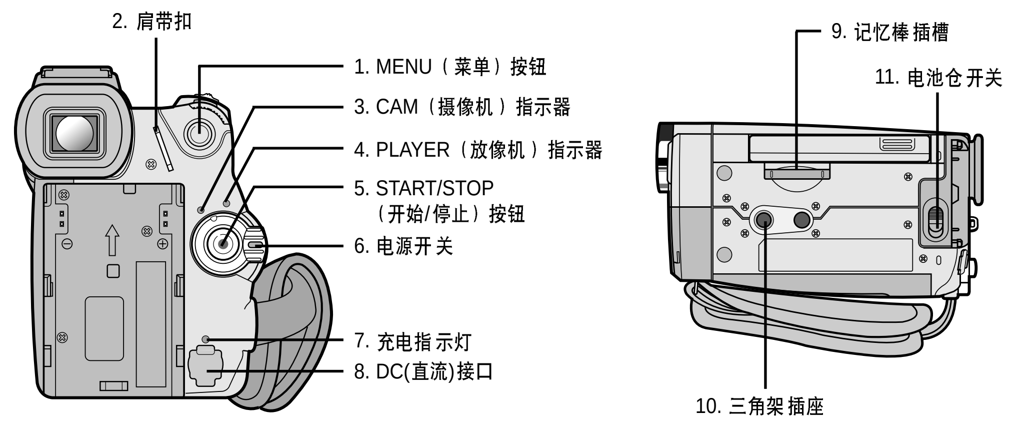
摄录一体机的基本常识

右视图和顶视图

1. 变焦手柄(参见45页)
2. PHOTO（拍照）按钮（见68页）
3. 智能低托（参见100）
4. 焦距调节旋钮(参见32页)
5. 菜单按钮(参见35页)
6. 菜单选择器(菜单选择/音量)(参见35页)
7. 锂电池盖(参见21页)
8. 磁带出仓
9. 手带扣
10. USB接口(参见78页)
11. DV接口(参见76页)
    DV输出(VP-D93/D97/D99)
    DV输入/输出
    (VP-D93i/D97i/D99i)
12. 耳机插孔

Getting to Know Your Camcorder

Rear & Bottom View


2. 肩带扣
1. MENU（菜单）按钮
3. CAM（摄像机）指示器
4. PLAYER（放像机）指示器
5. START/STOP（开始/停止）按钮
6. 电源开关
7. 充电指示灯
8. DC(直流)接口
9. 记忆棒插槽
11. 电池仓开关
10. 三角架插座

1. MENU button
2. Hook for shoulder strap
3. CAM indicator
4. PLAYER indicator
5. START/STOP button
6. Power Switch (see page 28)
7. Charging indicator
8. DC Jack (see page 23)
9. Memory Stick Slot (see page 82)
10. Tripod receptacle
11. Battery Release

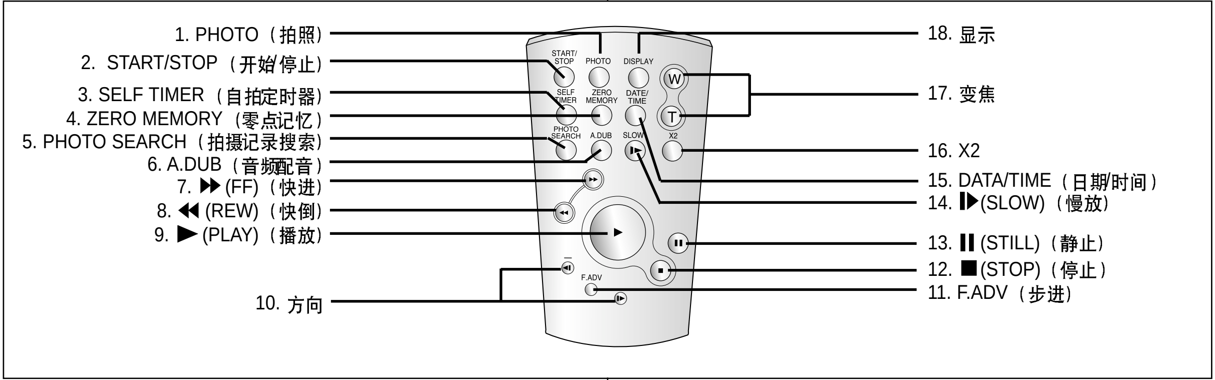
摄录一体机的基本常识

后视图和底视图

1. MENU（菜单）按钮
2. 肩带扣
3. CAM（摄像机）指示器
4. PLAYER（放像机）指示器
5. START/STOP（开始/停止）按钮
6. 功能开关 (参见28页)
7. 充电指示灯
8. DC(直流)接口 (参见23页)
9. 记忆棒插槽 (参见82页)
10. 三角架插座
11. 电池仓开关

Getting to Know Your Camcorder

Remote control


1. PHOTO（拍照）
2. START/STOP（开始/停止）
3. SELF TIMER（自拍定时器）
4. ZERO MEMORY（零点记忆）
5. PHOTO SEARCH（拍摄记录搜索）
6. A.DUB（音频配音）
7. ▶▶ (FF)（快进）
8. ◀◀ (REW)（快倒）
9. ▶ (PLAY)（播放）
10. 方向
18. 显示
17. 变焦
16. X2
15. DATA/TIME（日期/时间）
14. ❚▶(SLOW)（慢放）
13. ❚❚ (STILL)（静止）
12. ■(STOP)（停止）
11. F.ADV（步进）
START/STOP
PHOTO
DISPLAY
W
SELF TIMER
ZERO MEMORY
DATE/TIME
T
PHOTO SEARCH
A.DUB
SLOW
X2
F.ADV

1. PHOTO
2. START/STOP
3. SELF TIMER (see page 20)
4. ZERO MEMORY (see page 74)
5. PHOTO Search (see page 68)
6. A.DUB (see page 66)
7. ▶▶ (FF)
8. ◀◀ (REW)
9. ▶ (PLAY)
10. Direction (◀❚❚ , ❚❚▶) (see page 72)
11. F. ADV (see page 73)
12. ■ (STOP)
13. ❚❚ (STILL)
14. ❚▶ (SLOW) (see page 72)
15. DATE/TIME
16. X2 (see page 73)
17. Zoom
18. Display

摄录一体机的基本常识

遥控器

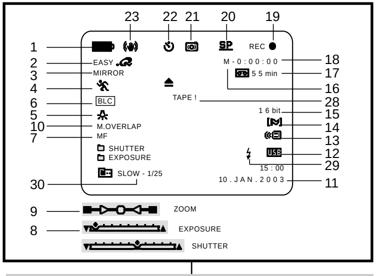
1. PHOTO（拍照）
2. START/STOP（开始/停止）
3. SELF TIMER（自拍定时器）（见20页）
4. ZERO MEMORY（零点记忆）（见74页）
5. PHOTO SEARCH（拍摄记录搜索）（见68页）
6. A.DUB（音频配音）（见66页）
7. ▶▶ (FF)（快进）
8. ◀◀ (REW)（快倒）
9. ▶ (PLAY)（播放）
10. 方向 (◀❚❚ , ❚❚▶) (参见72页)
11. F.ADV（步进）（见73页）
12. ■ (STOP)（停止）
13. ❚❚ (STILL)（静止）
14. ❚▶ (SLOW)（慢放）（见72页）
15. DATA/TIME（日期/时间）
16. X2（见73页）
17. 变焦
18. 显示

Getting to Know Your Camcorder

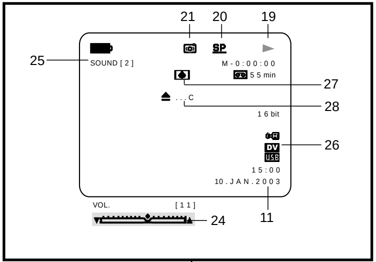
OSD (On Screen Display in CAM and PLAYER modes)

1. Battery level (see page 26)
2. Easy mode (see pages 62)
3. DSE (Digital Special Effects) mode (see page 48)
4. Program AE (see page 42)
5. White Balance mode (see page 44)
6. BLC (Back Light Compensation) (see page 64)
7. Manual focus (see page 63)
8. Shutter speed and EXPOSURE (see page 60)
9. Zoom position (see page 45)
10. Memory Mix (see page 50)
11. DATE/TIME (see page 56)
12. USB (see page 78)
13. WL. REMOTE (see page 38)
14. WIND CUT (see page 55)
15. Audio recording mode (see page 54)
16. Zero memory indicator (see page 74)
17. Remaining Tape (measured in minutes)
18. Tape Counter
19. Operating mode
20. Record speed mode
21. PHOTO mode
22. Self recording and waiting timer (see page 20)
23. EIS (see page 47)
24. Volume control (see page 34)
25. Audio playback channel (see page 67)
26. DV IN(DV data transfer mode) (VP-D93i/D97i/D99i only) (see page 77)
27. DEW (see page 7)
28. Message Line
29. FLASH mode (see page 52)
30. SLOW SHUTTER (see page 61)

OSD in CAM mode


23
22
21
20
19
1
2
EASY
3
MIRROR
4
6
BLC
5
10
M.OVERLAP
7
MF
SHUTTER
EXPOSURE
SLOW - 1/25
30
REC
M - 0 : 0 0 : 0 0
18
5 5 min
17
16
TAPE !
28
1 6 bit
15
14
13
USB
12
29
15 : 00
10 . J A N . 2 0 0 3
11
9
ZOOM
8
EXPOSURE
SHUTTER

OSD in PLAYER mode


21
20
19
25
SOUND [2]
M - 0 : 0 0 : 0 0
5 5 min
27
. . . C
28
1 6 bit
DV
USB
26
1 5 : 0 0
10 . J A N . 2 0 0 3
VOL.
[1 1]
24
11

摄录一体机的基本常识

OSD（摄像机和放像机模式下的屏幕显示）

1 电池电量（见26 页）
2. Easy（简易）模式（见62页）
3. DSE（Digital Special Effects，数字特殊效果）模式（见48页）
4. Program AE（程序自动曝光）（见42 页）
5. White Balance（白平衡）模式（见44 页）
6. BLC（Back Light Compensation，背光补偿）（见64页）
7. 手动聚焦（见63 页）
8. 快门速度和曝光（见60 页）
9. 变焦位置（见45 页）
10. 混合记录（见50 页）
11. 日期/时间（见56 页）
12. USB（见78 页）
13. 遥控（见38 页）
14. 风声消除（见55 页）
15. 声音记录模式（见54 页）
16. 零点记忆指示器（见74 页）
17. 剩余的录像带（以分钟计）
18. 录像带计数器
19. 操作模式
20. 录制速度模式
21. 拍照模式
22. 自拍和等待定时器（见20 页）
23. EIS（电子图像稳定器）（见47 页）
24. 音量控制（见34 页）
25. 音频播放频道（见67 页）
26. DV IN（DV数据传输模式）(仅限于VP-D93i/D97i/D99i)（见77 页）
27. 结露（见7 页）
28. 信息行
29. 闪光灯模式（见52 页）
30. 慢速快门（见61 页）

Getting to Know Your Camcorder

OSD (On Screen Display in M.REC/M.PLAY modes)

A. Folder number-file number (see page 83)
B. Image counter
  - Current still image/Total number of recordable still images.
C. CARD (MEMORY STICK) indicator
D. Image recording and loading indicator
E. Photo Quality (see page 84)
F. ERASE PROTECTION indicator (see page 97)
G. Print Mark (see page 96)
H. SLIDE SHOW (see page 95)
I. MJPEG SCREEN SIZE (see page 86)
J. Image Size (see page 85)
K. Continuous Shot (see page 87)
L. Remaining Memory (MJPEG)

Turning the OSD on/off (On Screen Display)

- Turning OSD on/off

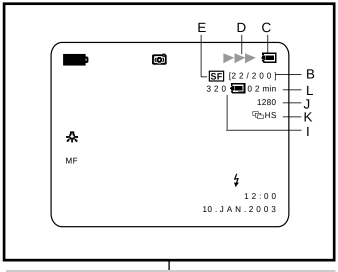
  Press the DISPLAY button on the left side panel.
  - Each press of the button toggles the OSD function on and off.
  - When you turn the OSD off,

    In CAM mode: The STBY, REC, EASY.Q modes are always displayed on the OSD, even when the OSD is turned OFF. A key input will be displayed for 3 seconds then turn off.

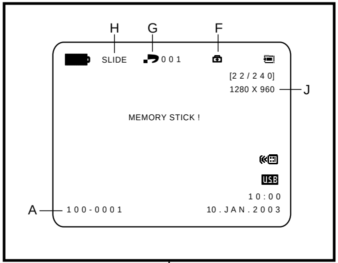
    In PLAYER mode: When you press any Function button, the function is displayed on the OSD for 3 seconds before it turns off.

- Turning the DATE/TIME on/off
  - The DATE/TIME is not affected when the OSD function is switched ON or OFF.
  - To turn the DATE/TIME on or off, access the menu and change the DATE/TIME mode. (see page 56)
  - You may also use the Quick Menu to turn the DATE/TIME ON or OFF. (see page 58) (only in CAM/M.REC mode)

OSD in M.REC mode



OSD in M.PLAY mode



摄录一体机的基本常识

OSD（存储器拍摄和存储器播放模式下的屏幕显示）

A. 文件夹编号－文件号（参见83页）
B. 图像统计
  - 当前静止图像号/保存的所有静止图像数
C. 记忆棒提示
D. 录制及加载图像提示
E. 图像质量（见84页）
F. 防止意外擦除提示（参见97页）
G. 打印标记（参见96页）
H. 顺序播放（见95页）
I. MJPEG屏幕尺寸（见86页）
J. 图片尺寸（见85页）
K. 连续拍摄（见87页）
L. 持续记录（MJPEG）

打开/关闭OSD（On Screen Display，屏幕显示）

- 打开/关闭屏幕显示

  按下左侧面板上的DISPLYA（显示）按钮。
  - 每次按下该按钮，都会在打开和关闭屏幕显示功能之间进行一次切换。
  - 当您关闭屏幕显示，

    CAMERA（摄像机）模式下：屏幕显示总是显示STBY（待机）、REC（录制）、EASY.Q（简易）模式，甚至当屏幕显示关闭时，键输入都会在3秒钟显示后关闭。

    PLAYER（放像机）模式下：在按下任何Function（功能）按钮时，在屏幕显示关闭之前，该功能都会在屏幕显示状态下显示3秒种。

- 打开/关闭DATE/TIME（日期/时间）
  - 在打开或关闭屏幕显示功能时，DATE/TIME（日期/时间）不会受到影响。
  - 若要打开或关闭DATE/TIME（日期/时间），请访问菜单并改变DATE/TIME（日期/时间）模式。（见56页）
  - 您也可以使用Quick Menu（快捷菜单）来打开/关闭DATE/TIME（日期/时间）。（见58页）［仅在CAM（摄像机）/ M.REC（存储器拍摄）模式下］

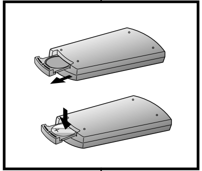
How to use the Remote Control

Battery Installation for the Remote Control

⌘ You need to insert or replace the lithium battery when :
- You purchase the camcorder.
- The remote control doesn't work.

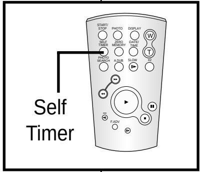
⌘ Ensure that you insert the lithium cell correctly, following the + and - markings.

⌘ Be careful not to reverse the polarity of the battery.



Self Record using the Remote Control

When you use the Self Timer function on the remote control, the recording begins automatically in 10 seconds.



1. Set the camcorder to CAM mode.

2. Press the SELF TIMER button until the appropriate indicator is displayed in the viewfinder.

3. Press the START/STOP button to start the timer.
   - Self Timer starts counting down from 10 with a beep sound.
   - In the last one second of the countdown, the beep sound gets faster, then recording starts automatically.
   - If you want to cancel the Self Timer function before recording, press the SELF TIMER button.

4. Press START/STOP again when you wish to stop recording.

如何使用遥控器

遥控器电池的安装

⌘ 遇到下列情况之一，必须装入或更换锂电池:
- 购买摄录一体机时；
- 遥控器不能正常工作。

⌘ 按照+和－标记，正确装入锂电池。

⌘ 注意不要颠倒电池的极性。

使用遥控器进行Self Record（自拍）

当使用遥控器上的Self Timer（自拍定时器）功能时，摄录一体机将在10秒后自动开始录制。

1. 把摄录一体机设置成CAM（摄像机）模式。

2. 按下SELF TIMER（自拍定时器）按钮，直到取景器中显示相应的指示标识。

3. 按下START/STOP（开始/停止）按钮启动定时器。
   - 蜂鸣音响后，自拍定时器从10开始倒计时计数.
   - 倒计时的最后一秒,蜂鸣音响得很快,然后自动开始记录
   - 如果您想在记录前取消自拍定时器功能,按自拍定时器按钮.

4. 当您希望停止记录时,再次按开始/停止键.

Preparation

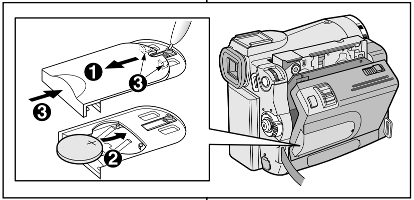
Lithium Battery Installation

⌘ The lithium battery maintains the clock function and preset contents of the memory; even if the battery pack or AC power adapter is removed.

⌘ The lithium battery for the camcorder lasts about 6 months under normal operation from the time of installation.

⌘ When the lithium battery becomes weak or dead, the date/time indicator will display “---” when you set the DATE/TIME to ON.
When this occurs, replace the lithium battery with CR2025 type.

1. While pressing the hole with a pen, open the lithium battery cover from the camcorder.
2. Insert the lithium battery with the ⊕ side facing upwards.
3. Slide the lithium battery cover in the direction of the arrow until it clicks.



Notes

- The lithium battery must be inserted in the correct direction.
- Do not pick up the battery using tweezers or other metal tools - this will cause a short circuit.
- Do not recharge, disassemble, heat or immerse the battery in water, to avoid the risk of explosion.

Warning: Keep the LITHIUM BATTERY out of the reach of the children.
Should any battery be swallowed, consult a doctor immediately.

准备

锂电池的安装

⌘ 即使取下了电池组或AC电源适配器，锂电池仍可维持时钟功能，并预设存储器的内容。

⌘ 在正常操作情况下，自安装时日起，摄录一体机的锂电池的使用寿命可以长达约6个月。

⌘ 当锂电池电量不足或耗尽时，您将DATE/TIME（日期/时间）设置为ON（打开）时，日期/时间将显示“---”。
在这种情况下，请使用CR 2025型号电池更换锂电池。

1. 用笔在孔中按，从摄象机上打开锂电池盖。
2. 将锂电池正极朝上插入。
3. 按照箭头方向滑动锂电池盖，直到发出喀哒声。

注 意

- 锂电池必须按正确方向插入。
- 不要用镊子或其它金属工具拾取锂电池，那样做会引起电池短路。
- 不要放电，分解，加热或在水中浸泡，以避免发生爆炸。

警告：请将锂电池置于儿童无法接触的地方。
如果误吞了锂电池，请立即找医生救治。

Preparation

Adjusting the Hand Strap

It is very important to ensure that the Hand strap has been correctly adjusted before you begin your recording.
The hand strap enables you to :

- Hold the camcorder in a stable, comfortable position.
- Press the Zoom and START/STOP button without having to change the position of your hand.

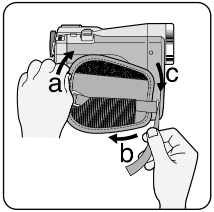
Hand strap

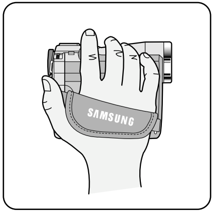
a. Pull open the Hand Strap cover and release the Hand Strap.
b. Adjust its length and stick it back onto the Hand Strap cover.
c. Close the Hand Strap cover again.

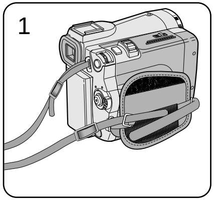
Shoulder Strap

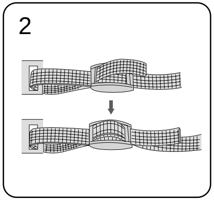
The Shoulder Strap enables you to carry your camcorder around in complete safety.

1. Insert the end of strap into the Shoulder Strap hook on the camcorder.
   Insert the other end of strap into ring inside hand strap.
2. Thread each end into the buckle, adjust the length of the strap and then pull it tight in the buckle.









准备

调整手带

在开始拍摄之前，重要的是要保证手带的正确调节。
手带使您能够：

- 稳定而舒适地握住摄录一体机。
- 不需改变手的位置，便可按下ZOOM（变焦）和START/STOP（开始/停止）按钮。

手带

a. 拉开手带护罩，松开手带。
b. 调节手带的长度，再将其粘回到手带护罩上。
c. 重新盖上手带护罩。

肩带

在出游时，您可以使用肩带方便而安全地携带摄录一体机。

1. 把肩带的末端插到摄录一体机机身上的肩带扣内。
   把肩带的另一端插入手带内的环中。
2. 把各端穿入带扣中，调节带长，然后在带扣中将其拉紧。

Preparation

Connecting a Power Source

There are two types of power source that can be connected to your camcorder.

- The AC Power Adapter and AC cord : used for indoor recording.
- The Battery Pack : used for outdoor recording.

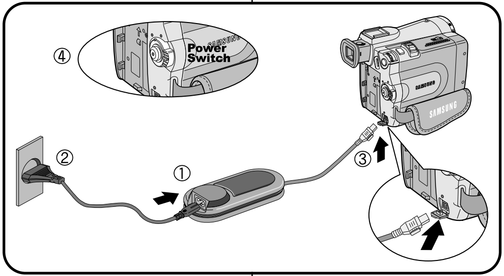
To use the AC Power adapter and DC Cable

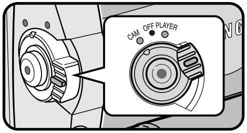
1. Connect the AC Power adapter to the AC cord.
2. Connect the AC cord to a wall socket.

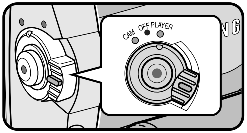
Note

- The plug and wall socket type may differ according to your resident country.

3. Connect the DC cable to the DC jack socket of the camcorder. (When the battery is attached on the set, you should keep outside the projection of the DC cable.)
4. Set the camcorder to each mode by holding down the tab on the power switch and turning it to the CAM or PLAYER mode.

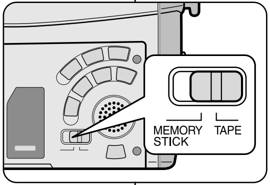






To select the CAMCORDER mode

- If you want to use this unit as a camcorder, set the mode switch to TAPE position.
- If you want to use this unit as a DSC (Digital Still Camera), set the mode switch to MEMORY STICK position.



准备

连接电源

摄录一体机可以使用两种电源:

- 交流电源适配器和交流电源：在室内拍摄时用。
- 电池组：适用于室外拍摄。

使用交流电源适配器和直流电源线

1. 将交流电源适配器与交流线相连。
2. 将交流电源适配器与墙上电源插座相连。

注 意

- 按照居住区域的不同，插头和墙上的电源插座类型也可能会有所不同。

3. 将直流线与摄录一体机的直流插孔相连。
（当电池在机器上时，您不要使用直流线。）
4. 按住功能开关的旋钮，将功能开关推到CAM（摄像机）、PLAYER（放像机），便可以为摄录一体机设置各个模式。

选择摄像机模式

- 若您想使用摄像机功能，请将模式设置为录像带的位置。
- 若您想使用DSC（数码照相机）功能，请将模式设置为记忆棒位置。

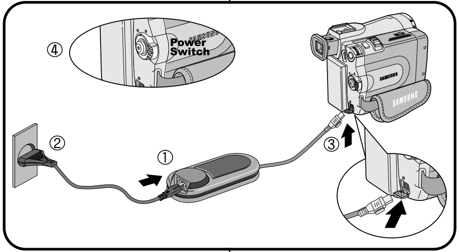
Using the Lithium Ion Battery Pack

⌘ The amount of continuous recording time available depends on :

- The type and capacity of the battery pack you are using.
- How often the Zoom function is used.
  It is recommended that you have several batteries available.

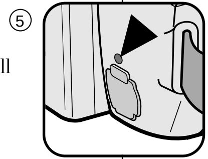
Charging the Lithium Ion Battery Pack

1. Attach the battery pack to the camcorder.
2. Connect the AC Power adapter to an AC cord and connect the AC cord to a wall socket.
3. Connect the DC cable to the DC jack socket on the camcorder.
4. Turn the Camera power switch to off, and the charging indicator will start to flash, showing that the battery is charging.



Blinking time	Charging rate
Once per second	Less than 50%
Twice per second	50% ~ 75%
Three times per second	75% ~ 90%
Blinking stops and stays on	90% ~ 100%
On for a second and off for a second	Error - Reset the battery pack and the DC cable

5. When the battery is fully charged, disconnect the battery pack and the AC Power adapter from the camcorder.
   - ■ Even with the power switched off, the battery pack will still discharge if it is left connected to the camcorder.



Notes

- ■ The battery pack may have some charge in it at the time of purchase.
- ■ To prevent reduction in the life and capacity of the battery pack, always remove it from the camcorder after it is fully charged.

使用锂离子电池组

⌘ 连续拍摄时间的长短取决于:

- 所使用的电池组的型号和容量.
- 使用Zoom（变焦）拍摄功能的频繁程度。
  建议您准备几个备用电池组。

对锂离子电池组充电

1. 将电池组安装到摄录一体机内。
2. 将交流电源适配器与交流电源线相连，并将交流电源线插入到墙上电源插座中。
3. 将直流电源线与摄录一体机的直流插孔相连。
4. 关闭摄录一体机的功能开关，充电指示灯开始闪烁，表明电池正在充电。

闪烁次数	充电率
1秒钟1次	低于50%
1秒钟2次	50% ~ 75%
1秒钟3次	75% ~ 90%
闪烁停止，充电指示灯一直亮着	90 ~ 100%
亮1秒，灭1秒	故障—重装电池组和直流电源线。

5. 在充电完毕时，从摄录一体机上取下交流电源适配器和电池。
   - ■ 如果电池组仍与机身相连，即使功能开关已经断开，电池仍会放电。

注 意

- ■ 在购买电池组时，电池组可能已经充了一些电。
- ■ 为了防止电池组寿命和容量下降，在充满电后，应将电池组从摄录一体机中取出。

Preparation

Using the Lithium Ion Battery Pack

Table of continuous recording time based on model and battery type.

- ⌘ If you close the LCD screen, it switches off and the viewfinder switches on automatically.
- ⌘ The continuous recording times given in the table above are approximations.
  Actual recording time depends on usage.

Time / Battery	Charging time	Continuous recording time	
		LCD ON	Viewfinder ON
SB-L110	Approx. 1hr 40min	Approx. 1hr 20min	Approx. 2hr
SB-L220	Approx. 3hr 30min	Approx. 3hr	Approx. 4hr 10min

Notes

- ■ The battery pack should be recharged in an environment of between 32°F (0°C) and 104°F (40°C).
- ■ The battery pack should never be charged in a room temperature that is below 32°F (0°C).
- ■ The life and capacity of the battery pack will be reduced if it is used in temperatures below 32°F (0°C) or left in temperatures above 104°F (40°C) for a long period, even when it is fully recharged.
- ■ Do not put the battery pack near any heat source (fire or flames, for example).
- ■ Do not disassemble, process, pressure, or heat the Battery Pack.
- ■ Do not allow the + and - terminals of the battery pack to be short-circuited. It may cause leakage, heat generation, induce fire and overheating.
- ■ When using SB-L220 Battery, use of Viewfinder is inconvenient.
  The use of LCD Monitor is preferable.

准备

使用锂离子电池组

基于不同电池型号和类型的连续录制时间表。

- ⌘ 如果合上液晶显示屏，显示屏将自动关闭且取景器会自动开启。
- ⌘ 本表给出的连续录制时间仅为一近似值。

时间 / 电池	充电时间	连续录像时间	
		LCD(液晶显示屏)开启	EVF（取景器）开启
SB-L110	约1小时 40分钟	约1小时 20分钟	约2小时
SB-L220	约3小时 30分钟	约3小时	约4小时 10分钟

注 意

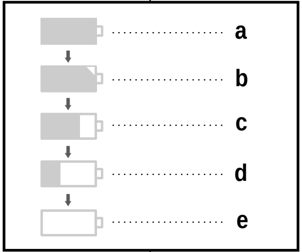
- ■ 电池组应该在室温32°F（0°C）到104°F（40°C）的环境下充电。
- ■ 请勿在室温低于32°F(0°C)的状态下更换电池。
- ■ 如果在温度低于32°F（0°C）或高于104°F（40°C）的条件下长期使用电池组，即使是完全充足电，电池组寿命和容量也会降低。
- ■ 不要将电池组放置在靠近热源处（例如火或火焰）。
- ■ 不要分解、处理、挤压，或者加热锂电池组。
- ■ 不允许电池组的+和-极短路。
  这会引起漏电、发热、起火和过热。
- ■ 使用SB-L220型电池时，不方便使用取景器。
  推荐使用LCD监视器。

Preparation

Battery level display

- The battery level display indicates the amount of power remaining in the battery pack.

a. Fully charged
b. 20~40% used
c. 40~80% used
d. 80~95% used
e. Completely used (flickers)
(The camcorder will turn off soon, change the battery as soon as possible)

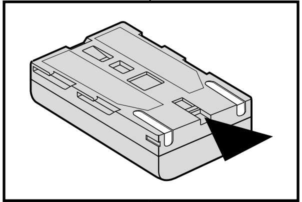


⌘ Please refer to the table on page 25 for approximate continuous recording times.

⌘ The recording time is affected by environmental temperature and conditions.
The recording time becomes very short in a cold environment.
The continuous recording times in the operating instructions are measured using a fully charged battery pack at 77°F(25°C).
As the environmental temperature and conditions may differ when you actually use the camcorder, the remaining battery time may not be the same as the approximate continuous recording times given in these instructions.

Tips for Battery Identification

A charge mark is provided on the battery pack to help you remember whether it has been charged or not.
Two colours are provided (red and grey)-you may choose which one indicates charged and which indicates discharged.



准备

电池电量显示标识

- 电池电量显示标识可指示电池组的剩余电量。

a. 已充满电
b. 已使用20~40%
c. 已使用40~80%
d. 已使用80~95%
e. 电能完全用尽（闪烁）
（摄录一体机即将被关闭，请尽快充电）

⌘ 有关连续录制的时间，请参见第25页中的时间表。

⌘ 录制时间受环境温度和条件的影响。
在低温环境下，拍摄时间将变得十分短。
本使用说明书中的连续拍摄时间是在使用完全充足电的电池，且在77°F（25°C）的条件下测量的。
由于您在使用摄录一体机时，实际的环境温度和条件有可能不同，因此实际的连续拍摄时间也会不同于表中给出的近似时间。

电池识别窍门

电池组上提供了充电标记，它可以协助您辨别电池是否已经充过电。
提供两种颜色（红色和灰色）——您可以选择任意一种颜色来表示其已充电或已放电。

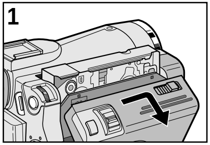
Preparation

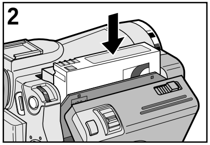
Inserting and Ejecting a Cassette

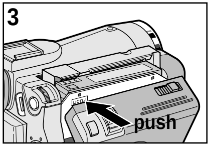
⌘ When inserting a tape or closing a cassette holder, do not apply excessive force.
This may cause a malfunction.

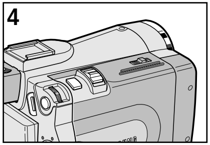
⌘ Do not use any tapes other than Mini DV cassettes.

1. Connect a power source and slide the TAPE EJECT switch and open the cassette door.
   - The cassette holding mechanism rises automatically.
2. Insert a tape into the cassette holder with the tape window facing outward and the protection tab toward the top.
3. Press the area labelled PUSH on the cassette holding mechanism until it clicks into place.
   - The cassette is loaded automatically.
4. Close the cassette door.
   - Close the door completely until you can hear a “click”.









Note

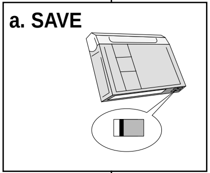
When you have recorded something that you wish to keep, you can protect it so that it will not be accidentally erased.

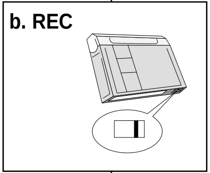
a. Protecting a tape :
Push the safety tab on the cassette so that the hole is uncovered.

b. Removing the tape protection :
If you no longer wish to keep the recording on the cassette, push the write-protect tab back so that it covers the hole.

- How to store a tape

a. Avoid places with magnets or magnetic interference.
b. Avoid humidity and dust prone places.
c. Keep the tape in an upright position and avoid storing it in direct sunlight.
d. Avoid dropping or knocking your tapes.





准备

插入和退出盒带

⌘ 插入录像带或关闭盒带带仓时，不得用力过猛，否则有可能会导致故障。

⌘ 不得使用不是微型数字视频（DV）盒带的录像带。

1. 连接电源并推动TAPE EJECT（录像带退出）开关，打开带仓盖。
   - 带仓自动打开。
2. 将录像带插入带仓，并让录像带观察窗朝外和写保护标签朝上。
3. 推动带仓的PUSH（推）标记，直到带仓咔哒到位。
   - 带仓将自动装上。
4. 关上带仓门。
   - 完全关闭带仓门，直到听到内部“咔哒”一声为止。

注 意

当您已经录好一盒希望保存的录像带时，请将它其设置为保护状态，以防止其中的内容被意外地擦除掉。

a. **保护录像带**:
推动录像带上的安全标签以便小孔不被盖住

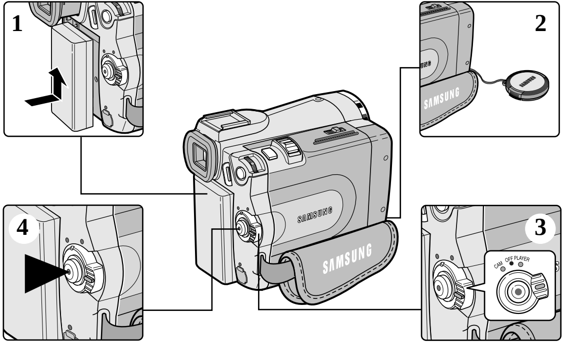
b. **取消录像带的写保护**:
如果不想保存录像带上的内容，请推回写保护标签，盖住小孔。

- **如何保存录像带**

a. 不得将其与磁体一同放置，也不得将其放置在磁场中。
b. 不得将其放在湿度高、尘土多的地方。
c. 请将录像带直立放置，并且让其远离阳光的直射。
d. 不得让盒式录像带从空中跌落或受到敲击。

Basic Recording

Making your First Recording



1. Connect a Power source to the camcorder. (see page 23)
   (A battery pack or a AC power adapter)
   - Insert a cassette.
     (see page 27)

2. Remove the LENS CAP.

3. Set the power switch to the CAM position.
   - Open the LCD monitor.
   - Set the mode switch to the TAPE position.
     Make sure that STBY is displayed.
   - If the protection tab of the cassette is open, STOP and PROTECTION! will be displayed.
   - Make sure the image you want to record appears in the LCD monitor or viewfinder.
   - Make sure the battery level indicates that there is enough remaining power for your expected recording time.

4. To start recording, press the START/STOP button.
   - REC is displayed in the LCD.
     To stop recording, press the START/STOP button again.
   - STBY is displayed in the LCD.

基本拍摄技术

首次拍摄

1. 将摄录一体机与电源相连。
   (见23页)
   (电池组或交流电源适配器)
   - 插入盒带。(见27页)

2. 打开LENS CAP（镜头盖），
   并将其悬挂到手带上。

3. 将功能开关切换到CAM(摄像机)位置。
   - 打开LCD显示器。
   - 将模式开关置于TAPE（录像带）模式。
     确认显示STBY（待机）。
   - 如果盒带的写保护标签处于开启状态的话，STOP和PROTECTION！都将会显示。
   - 请确保您要拍摄的图像已经出现在LCD显示器或取景器上。
   - 确保电池电量指示灯显示有足够的电量用于摄像。

4. 如要开始拍摄，请按下START/STOP（开始/停止）按钮。
   - 液晶显示屏上显示REC（摄像）标识。
     如要停止摄像，再次按下START/STOP（开始/停止）按钮即可。
   - 液晶显示屏上将显示STBY（待机）标识。

Basic Recording

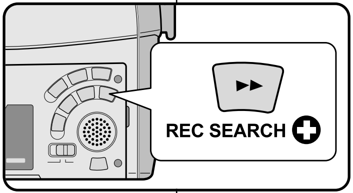
When a cassette is loaded and the camcorder is left in the STBY mode for more than 5 minutes without being used, it will switch off automatically.

To use it again, push the START/STOP button or set the Power switch to OFF and then back to CAM.

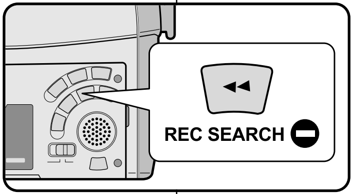
This Auto Power off feature is designed to save battery power.

Record Search (REC SEARCH)

⌘ You can view a recording using the REC SEARCH +, – function in STBY mode. REC SEARCH – enables you to play the recording backwards and REC SEARCH + enables you to play it forwards, for as long as you keep each button pressed down.



⌘ If you press the REC SEARCH – button in STBY mode, your camcorder will play in reverse for 3 seconds and return to the original position automatically.



Note

Mosaic shaped picture distortion may appear on the screen while in Record Search mode.

基本拍摄技术

当装入盒带时，摄录一体机处于STBY（待机）模式5分钟而未使用，机器就会自动断电。

如需再次使用，则请推动START/STOP（开始/停止）按钮或将功能开关切换到OFF（关闭），然后再切换回CAM（摄像机）位置。

这种自动关闭电源功能是为了节省电池电量而设计的。

拍摄记录搜索（REC SEARCH）

⌘ 您可以在STBY（待机）模式时，使用REC SEAERCH +、- 功能来查看记录。只要您按下相应的键，机器便会按您所需的方向播放拍摄记录，其中REC SEARCH - 可以向后播放，而REC SEARCH +则可以向前播放。

⌘ 如果在STBY（待机）模式下按REC SEARCH -（向后搜索拍摄记录）按钮，摄录一体机将向后播放3秒钟，再自动回到原来的位置。

注 意

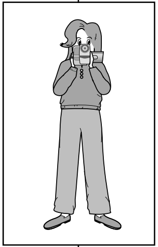
在REC SEAERCH（拍摄记录搜索）模式下，屏幕上会出现马赛克失真。

Hints for Stable Image Recording

- While recording, it is very important to hold the camcorder correctly.
- Fix the LENS cap firmly by clipping it to the hand strap.
  (refer to the figure)

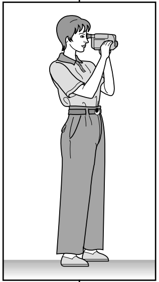
Recording with the LCD monitor

1. Hold the camcorder firmly using the hand strap.
2. Place your right elbow against your side.
3. Place your left hand under or beside the LCD to support and adjust it. Do not touch the built-in microphone.
4. Choose a comfortable, stable position for the shots that you are taking.
   You can lean against a wall or on a table for greater stability.
   Do not forget to breathe gently.
5. Use the LCD frame as a guide to determine the horizontal plane.
6. Whenever possible, use a tripod.



Recording with the Viewfinder

1. Hold the camcorder firmly using the hand strap.
2. Place your right elbow against your side.
3. Place your left hand under the camcorder to support it.
   Be sure not to touch the built-in microphone.
4. Choose a comfortable, stable position for the shots that you are taking. You can lean against a wall or on a table for greater stability.
   Do not forget to breathe gently.
5. To view an object through the viewfinder, pull it out until you hear the ‘click’ sound.
   Excessive force may cause damage to the viewfinder.
6. Place your eye firmly against the viewfinder eyecup.
7. Use the viewfinder frame as a guide to determine the horizontal plane.
8. Whenever possible, use a tripod.



拍摄稳定图像须知

- 拍摄时，正确握持摄录一体机非常重要。
- 将镜头盖锁在手带上牢固地固定住。（参见图）

使用LCD显示器拍摄

1. 使用手带紧紧地握住摄录一体机。
2. 将右肘贴紧身体。
3. 将左手放在液晶显示屏下方或侧面，支撑并调整液晶显示屏。
   不得触及内置话筒。
4. 选择一个舒适稳定的姿势进行拍摄。您可以靠在墙壁或桌面上，以提高更大的稳定性。
   在拍摄时，请保持均匀而柔和的呼吸。
5. 将液晶显示屏框用作确定水平面的基准。
6. 尽可能地使用三角架。

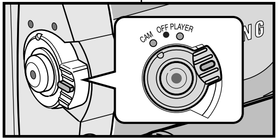
使用取景器拍摄

1. 使用手带紧紧地握住摄录一体机。
2. 将右肘贴紧身体。
3. 将左手放在摄录一体机下方支撑机器。
   不得触及内置话筒。
4. 选择一个舒适稳定的姿势进行拍摄。
   您可以靠在墙壁或桌面上，以提高稳定性。
   在拍摄时，请保持均匀柔和的呼吸。
5. 若要通过取景器观察物体，请将取景器拔出直到听到“咔哒”声为止。用力过度将会损坏取景器。
6. 将眼睛紧贴取景器的眼罩。
7. 将取景器的框用作确定水平面的基准。
8. 尽可能地使用三角架。

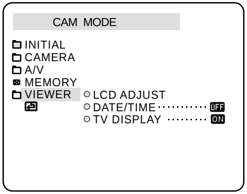
Basic Recording

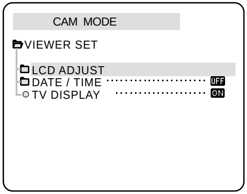
Adjusting the LCD

- ⌘ Your camcorder is equipped with a 2.5 inch colour Liquid Crystal Display(LCD) screen, which enables you to view what you are recording or playing back directly.
- ⌘ Depending on the conditions under which you are using the camcorder (indoors or outdoors for example), you can adjust ;
  - ■ BRIGHT SELECT
  - ■ BRIGHT ADJUST
  - ■ COLOUR ADJUST

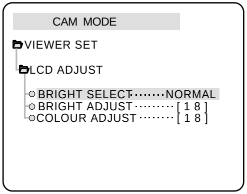

CAM
OFF
PLAYER

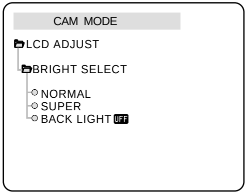
1. Set the POWER switch to CAM position.
   - ■ In the PLAYER mode, you may only setup the LCD while the tape is playing.
2. Open the LCD screen, and the LCD switches on.
3. Press the MENU button.
4. Move the MENU SELECTOR so that VIEWER is highlighted and then push the MENU SELECTOR.
5. Move the MENU SELECTOR so that LCD ADJUST is highlighted.
6. Push the MENU SELECTOR to enter the sub-menu.
7. Move the MENU SELECTOR so that it highlights the menu item you want to adjust (BRIGHT SELECT, BRIGHT ADJUST, COLOUR ADJUST).


CAM MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
LCD ADJUST
DATE/TIME ··········· OFF
TV DISPLAY ········· ON


CAM MODE
VIEWER SET
LCD ADJUST
DATE / TIME ························ OFF
TV DISPLAY ····················· ON

* 仅限于VP-D99(i)


CAM MODE
VIEWER SET
LCD ADJUST
BRIGHT SELECT········NORMAL
BRIGHT ADJUST·········[1 8]
COLOUR ADJUST ········[1 8]


CAM MODE
LCD ADJUST
BRIGHT SELECT
NORMAL
SUPER
BACK LIGHT OFF

基本拍摄技术

调整液晶显示屏

- ⌘ 摄录一体机装备有一个2.5英寸的彩色液晶显示屏，它能够帮助您直接观看正在拍摄的图像或重放的图像。
- ⌘ 根据您使用摄录一体机时的条件（例如，室内或室外），您可以进行以下调整：
  - ■ BRIGHT SELECT（亮度选择）
  - ■ BRIGHT ADJUST（亮度调整）
  - ■ COLOUR ADJUST（颜色调整）

1. 将POWER（功能）开关切换到CAM（摄像机）位置。
   - ■ 在PLAYER（放像机）模式下，只有在播放录像带时，才能设置液晶显示屏。
2. 打开液晶显示屏，并将开关拨至LCD（液晶显示屏）处。
3. 按MENU（菜单）按钮。
4. 移动MENU SELECTOR（菜单选择器），以便选中VIEWER（取景器），然后按下MENU SELECTOR（菜单选择器）按钮。
5. 移动MENU SELECTOR（菜单选择器）以便选中LCD ADJUST（调节液晶显示屏）。
6. 按下MENU SELECTOR（菜单选择器），进入子菜单。
7. 移动MENU SELECTOR（菜单选择器），选中希望调节的菜单项［BRIGHT SELECT（亮度选择）、BRIGHT ADJUST（亮度调整）、COLOUR ADJUST（颜色调整）］。

Basic Recording

8. Push the MENU SELECTOR button again.
    - You may select NORMAL, SUPER or BACK LIGHT OFF (VP-D99(i) only) in the BRIGHT SELECT feature and push the MENU SELECTOR to save the setting.
        - When you use the LCD BACK LIGHT OFF mode in a dark location or indoors, viewing the image may be difficult. (VP-D99(i) only).
    - Use the MENU SELECTOR to adjust the value of BRIGHT ADJUST and COLOUR ADJUST.
    - You can set values for BRIGHT ADJUST between 00 ~ 35 and COLOUR ADJUST between 00 ~ 35.
9. Press the MENU button to finish the setting.

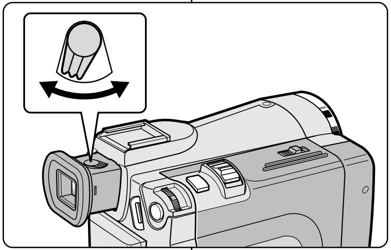
Using the VIEWFINDER

⌘ The VIEWFINDER will not work when the LCD is open.

⌘ In order to bring it into focus, pull the viewfinder forward until you here a click.

Adjusting the Focus

Use the focus adjustment knob of the VIEWFINDER to focus the picture. (refer to figure)



基本拍摄技术

8. 再次按下MENU SELECTOR（菜单选择器）按钮。
    - 可在BRIGHT SELECT（亮度选择）功能中选择NORMAL（标准）、SUPER（超亮）或BACK LIGHT OFF（背景灯）(仅限于VP-D99(i))并按MENU SELECTOR（菜单选择器）按钮以保存设置。
        - 当您在屋内或黑暗的位置使用LCD BACK LIGHT OFF (LCD背景灯）模式，观察景像会很困难（仅限于VP-D99(i)）。
    - 使用MENU SELECTOR（菜单选择器）调节BRIGHT ADJUST（亮度调整）和COLOUR ADJUST（颜色调整）值。
    - 可将BRIGHT ADJUST（亮度调整）值设置在00 ~ 35之间，COLOUR ADJUST（颜色调整）值设置在 00 ~ 35之间。

9. 按下MENU（菜单）按钮以完成设置。

使用VIEWFINDER（取景器）

⌘ 只要液晶显示屏处于开启状态，取景器就不能工作。

⌘ 为了使用取景器，向前拉出取景器直到听到喀哒声。

调节焦距

使用取景器的焦距调节旋钮对图像进行聚焦。（请参见图示）

Basic Recording

Playing back a tape you have recorded on the LCD

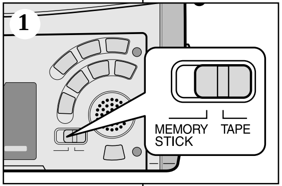
⌘ You can monitor the playback picture on the LCD monitor.

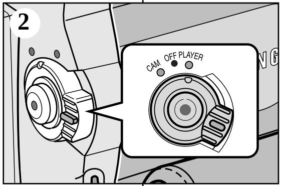
⌘ Make sure that the battery pack is in place.

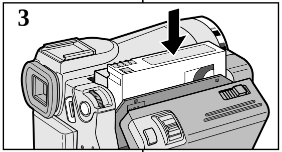
1. Set the mode switch to TAPE.
2. Hold down the power switch tab and turn it to the PLAYER position.
   - A confirmation sound beeps.
3. Insert the tape you wish to view. (see page 27)
4. Open the LCD screen.
   Adjust the angle of the LCD screen and set the brightness or colour if necessary.
5. Press the ◀◀ (REW) button to rewind the tape to the starting point.
   - To stop rewinding, press the ■(STOP) button.
   - The camcorder stops automatically after rewinding is complete.
6. Press the ▶/II (PLAY/STILL) button to start playback.
   - You can view the picture you recorded on the LCD.
   - To stop the PLAY operation, press the ■(STOP) button.

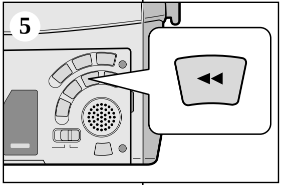
Notes

- You can also view the picture on a TV screen, after connecting the camcorder to a TV or VCR. (see page 70)
- Various functions are available in playback mode. (see page 72)









基本拍摄技术

在液晶显示屏上播放拍摄的录像带

⌘ 您可以从LCD显示器上观看播放的图像。

⌘ 请确保已将电池组安装到位。

1. 将模式开关置于TAPE（录像带）模式。
2. 按下功能开关上的突起，将功能开关切换到PLAYER（放像机）位置。
   - 蜂鸣提示音。
3. 插入要观看的录像带。(见27页)
4. 打开液晶显示屏。
   调节液晶显示屏的角度并根据需要设置亮度或颜色。
5. 按下◀◀（REW）（快倒）按钮，将录像带倒回到起始点。
   - 如需停止快倒，按下■(STOP)(停止)按钮即可。
   - 在倒带时，若盒带到达其终端位置，则摄录一体机将自动停止。
6. 按下▶/II（PLAY/STILL）(播放/静止）按钮，开始播放。
   - 您可以在液晶显示屏上观看到已摄制的图像。
   - 如要停止PLAY（播放）操作，按下■（STOP）(停止）按钮即可。

注 意

- 在将摄录一体机与电视机或录像机相连后，您也还可在电视机屏幕上观看图像。(见70页)
- 在播放模式下，您可使用的各种功能。(见72页)

Basic Recording

Adjusting the LCD during PLAY

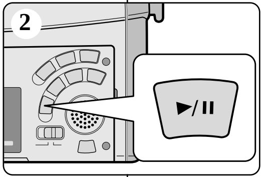
⌘ You can adjust the LCD during playback.
⌘ The adjustment method is the same procedure as used in CAM mode. (see page 31)

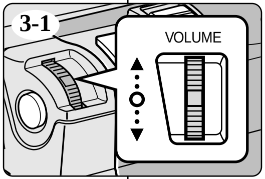
Controlling Sound from the Speaker

The Speaker works in PLAYER mode only.

- When you use the LCD screen for playback, you can hear recorded sound from the built-in Speaker.
  - Follow the instructions below to decrease or mute speaker volume in the PLAYER mode.
  - Take the following steps to lower the volume or mute the sound while playing a tape on the camcorder.

1. Set the power switch to PLAYER mode.
2. Press ▶/II (PLAY/STILL) to play the tape.
3. When you hear sounds once the tape is in play, use the MENU SELECTOR to adjust the volume.
   - A volume level display will appear on the LCD. Levels may be adjusted from anywhere between 00 to 19. You will not hear any sound when the volume is set on 00.
   - If you close the LCD while playing, you will not hear sound from the speaker.





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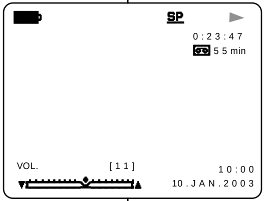


Notes

- When the cable is connected to the Multi AV jack, you cannot hear sound from the speaker and cannot adjust the volume.
- If a cable is connected to the Multi AV jack, you can hear sound from the speaker when AV IN/OUT MODE on MENU is set to AV IN or S-VIDEO IN. (VP-D93i/D97i/D99i only)
- You can hear sound from speaker by removing the connected cable from the Multi AV jack.
- The speaker turns off when you use earphones.

基本拍摄技术

在PLAY（播放）期间调节液晶显示屏

⌘ 您可在播放过程中调整液晶显示屏。
⌘ 调整方法与CAM（摄像机）模式下的操作相同（见31页）

控制扬声器的声音

扬声器仅在PLAYER（放像机）模式下工作。

- 当您在播放中使用液晶显示屏时，还可以用内置Speaker（扬声器）听取录制的声音。
  - 按照以下说明在PLAYER（放像机）模式下降低扬声器音量或使其处于静音状态。
  - 在播放摄像机中的录像带时，请采取以下步骤降低音量或使其处于静音状态。

1. 将功能开关切换到PLAYER（放像机）模式。
2. 按下 ▶/II (PLAY/STILL)（播放/静止）以播放录像带。
3. 在听到播放录像带的声音时，请使用MENU SELECTOR（菜单选择器）调节音量。
   - 液晶显示屏上将会出现音量显示器。您可以在00到19之间调节音量。在音量被置于00时，您将不会听到任何声音。
   - 如果在播放时关闭了液晶显示屏，就不会再听到扬声器的声音。

注 意

- 当电线接到A/V插孔时，您将听不到来自扬声器的声音，并且不能调节音量
- 但是，当MENU（菜单）上的AV IN/OUT MODE（音频视频输入/输出模式）被设置成AV IN（音视频输入）或S-VIDEO IN（S-视频输入）时，即使电线已经连入A/V插孔，您也不可能听到声音。（仅限于VP-D93i/D97i/D99i）
- 您可以将连接线从A/V插孔拔出以听取扬声器的声音。
- 当您使用耳机时话筒关闭。

Advanced Recording

Use of various Functions

- Setting menu items

MENU	SUB MENU	Available mode			
		CAMERA	PLAYER	Memory REC.	Memory PLAY
INITIAL	CLOCK SET	✔	✔	✔	✔
	WL.REMOTE	✔	✔	✔	✔
	BEEP SOUND	✔	✔	✔	✔
	SHUTTER SOUND		✔	✔	
	DEMONSTRATION	✔			
CAMERA	PROGRAM AE	✔			
	WHT. BALANCE	✔		✔	
	D. ZOOM	✔			
	EIS	✔			
	DSE SELECT	✔			
	MEMORY MIX	✔			
	FLASH SELECT	✔		✔	
A/V	REC MODE	✔	✔		
	PHOTO SEARCH		✔		
	PHOTO COPY		✔		
	AUDIO MODE	✔	✔		
	AUDIO SELECT		✔		
	WIND CUT	✔	✔		
	AV IN/OUT (VP-D93i/D97i/D99i only)		✔		
MEMORY	PHOTO QUALITY		✔	✔	
	IMAGE SIZE		✔	✔	
	MJPEG SIZE		✔	✔	
	CONTINUOUS SHOT			✔	
	PRINT MARK				✔
	PROTECT				✔
	FILE NO.		✔	✔	✔
	DELETE				✔
	FORMAT				✔
VIEWER	LCD ADJUST	✔	✔	✔	✔
	DATE/TIME	✔	✔	✔	✔
	TV DISPLAY	✔	✔	✔	✔

- Set the camcorder to CAM or PLAYER mode and M.REC or M.PLAY mode

1. Press the MENU button.
   The MENU OSD is displayed. The cursor (HIGHLIGHT) indicates the feature you are currently adjusting.
2. Use the MENU SELECTOR and push the MENU SELECTOR on the right side panel to select and activate the item.
3. You can exit the menu mode by pressing the MENU button.

高级拍摄技巧

使用各种功能

- 设置菜单项

菜单	子菜单	可选模式			
		CAMERA（摄像机）	PLAYER（放像机）	Memory REC.（存储器录制）	Memory PLAY（存储器播放）
INITIAL（初始）	CLOCK SET（时钟设置）	✔	✔	✔	✔
	WL.REMOTE（遥控）	✔	✔	✔	✔
	BEEP SOUND（蜂鸣音）	✔	✔	✔	✔
	SHUTTER SOUND（快门声）		✔	✔	
	DEMONSTRATION（演示）	✔			
CAMERA（摄像机）	PROGRAM AE（程序自动曝光）	✔			
	WHT.BALANCE（白平衡）	✔		✔	
	D.ZOOM（数字变焦）	✔			
	EIS（电子图像稳定器）	✔			
	DSE SELECT（数字特殊效果选择）	✔			
	MEMORY MIX（混合记录）	✔			
	FLASH SELECT（选择闪光灯）	✔		✔	
A/V（音频/视频）	REC MODE（拍摄模式）	✔	✔		
	PHOTO SEARCH（拍照记录搜索）		✔		
	PHOTO COPY（照片拷贝）		✔		
	AUDIO MODE（音频模式）	✔	✔		
	AUDIO SELECT（音频选择）		✔		
	WIND CUT（风声消除）	✔	✔		
	AV IN/OUT（仅限于VP-D93i/D97i/D99i）		✔		
MEMORY（存储器）	PHOTO QUALITY（照片质量）		✔	✔	
	IMAGE SIZE(图片尺寸)		✔	✔	
	MJPEG SIZE（MJPEG尺寸）		✔	✔	
	CONTINUOUS SHOT（连续拍摄）			✔	
	PRINT MARK（打印标志）				✔
	PROTECT（保护）				✔
	FILE NO.（文件编码）		✔	✔	✔
	DELETE（删除）				✔
	FORMAT（格式化）				✔
VIEWER（取景器）	LCD ADJUST（LCD调整）	✔	✔	✔	✔
	DATE/TIME（日期/时间）	✔	✔	✔	✔
	TV DISPLAY（TV显示）	✔	✔	✔	✔

- 将摄录一体机设置为摄像机、放像机、存储器拍摄或存储器播放模式

1. 按MENU（菜单）按钮。之后，将显示MENU OSD（菜单屏幕显示）。
   光标（ 高亮显示 ）将为您指示当前正在调节的功能。
2. 使用MENU SELECTOR（菜单选择器）并按下左侧面板的MENU SELECTOR（菜单选择器）按钮，以选择和激活该选项。
3. 您可通过按MENU（菜单）按钮，退出菜单模式。

Advanced Recording

● Availability of functions in each mode

Requested Mode / Operating Mode	Digital functions				Digital special effects
	EIS	D.ZOOM	PHOTO (TAPE)	SLOW SHUTTER	
EIS		O	O	△	O
D.ZOOM	O		O	*△	O
PHOTO	×	×		×	×
SLOW SHUTTER	×	×	O		×
Digital Special Effects	O	O	O	×	

O : The requested function will work in this operating mode.
X : You can not change the requested mode.
△ : The operating function will be released and the requested one will work.
* : The operating function will be released and the requested one will work.
(the data during the operating mode will be backed up)

Notes

- ■ When a menu item on the LCD is marked with an $\boxed{X}$, that item cannot be activated.
- ■ When you select an item that cannot be changed, an error message will be displayed.

高级拍摄技巧

● 各个模式下的功能实用性

要求的模式 / 操作模式	数字功能				数字特殊效果
	EIS	D.ZOOM	PHOTO (TAPE)	SLOW SHUTTER	
EIS (电子图像稳定器)		O	O	△	O
D.ZOOM(数字变焦)	O		O	*△	O
PHOTO(拍照)	×	×		×	×
SLOW SHUTTER (低速快门)	×	×	O		×
数字特殊效果	O	O	O	×	

O ：要求的模式将在操作模式下运行。
X ：您不能改变要求的模式。
△ ：操作模式将退出，并运行要求模式。
* ：操作模式将被释放，并运行要求模式。
（仅次于运行模式下的数据将被备份）

注 意

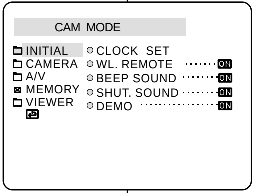
- ■ 如果在液晶显示屏上的某个菜单项标有 $\boxed{X}$，则该项不能被激活。
- ■ 如果您选择一个不能更改的项，则会显示错误信息。

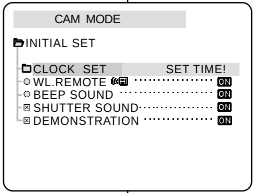
Advanced Recording

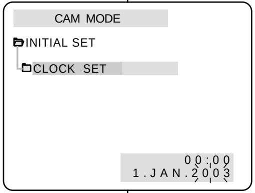
● CLOCK SET

- ⌘ CLOCK setup works in CAM, PLAYER, M.REC and M.PLAY modes.
- ⌘ The DATE/TIME is automatically recorded onto a tape.
  Before recording, please set the DATE/TIME.

1. Press the MENU button.
   - ■ The menu list will appear.
2. Move the MENU SELECTOR to highlight INITIAL and push the MENU SELECTOR.
3. Use the MENU SELECTOR to select CLOCK SET from the submenu.
4. Push the MENU SELECTOR to enter SETTING mode.
   - ■ A blinking item indicates the item to be changed.
     The year will blink first.
5. Using the MENU SELECTOR, change the year setting.
6. Push the MENU SELECTOR.
   - ■ The month will blink.
7. Using the MENU SELECTOR, change the month setting.
8. Push the MENU SELECTOR.
   - ■ The day will blink.
9. You can set the day, hour and minute following the same procedure for setting the year and month.
10. Push the MENU SELECTOR after setting the minutes.
    - ■ The word COMPLETE! will appear, and a few seconds later, the menu screen will automatically return to the sub menu.
11. To exit, push the MENU button.


CAM MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
CLOCK SET
WL. REMOTE ON
BEEP SOUND ON
SHUT. SOUND ON
DEMO ON


CAM MODE
INITIAL SET
CLOCK SET
SET TIME!
WL.REMOTE ON
BEEP SOUND ON
SHUTTER SOUND ON
DEMONSTRATION ON


CAM MODE
INITIAL SET
CLOCK SET
00:00
1.JAN.2003

高级拍摄技巧

● CLOCK SET（时钟设置）

- ⌘ 可以在CAM（摄像机）、PLAYER（放像机）、M.REC（存储器拍摄）和M.PLAY（存储器播放）模式下使用CLOCK（时钟）设置功能。
- ⌘ DATE/TIME（日期/时间）会自动录制到录像带上。
  在录制之前，请设置DATE/TIME（日期/时间）。

1. 按MENU（菜单）按钮。
   - ■ 会出现菜单列表。
2. 移动MENU SELECTOR（菜单选择器）选中INITIAL（初始）并按下MENU SELECTOR（菜单选择器）按钮。
3. 使用MENU SELECTOR（菜单选择器）从子菜单中选择CLOCK SET（时钟设置）。
4. 按MENU SELECTOR（菜单选择器）按钮进入SETTING（设置）模式。
   - ■ 闪烁的项即为可以更改的项。首先从年份开始闪烁。
5. 使用MENU SELECTOR（菜单选择器），改变年份设置。
6. 按MENU SELECTOR（菜单选择器）按钮。
   - ■ 月份开始闪烁。
7. 使用MENU SELECTOR（菜单选择器），改变月份设置。
8. 按MENU SELECTOR（菜单选择器）按钮。
   - ■ 日期开始闪烁。
9. 可按照设置年份和月份相同的步骤设置日期、小时和分钟。
10. 请在设置完分钟后按MENU SELECTOR（菜单选择器）按钮。
    - ■ 之后，会出现“COMPLETE！”（完成！）的字样，几秒种后，菜单屏幕将自动返回到子菜单。
11. 若要退出，请按MENU（菜单）按钮。

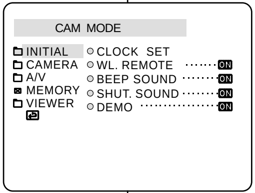
Advanced Recording

● WL. REMOTE

⌘ The WL.REMOTE function works in CAM, PLAYER, M.REC, M.PLAY modes.

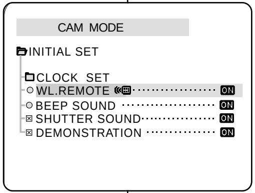
⌘ The WL.REMOTE option allows you to enable or disable the remote control for use with the camcorder.

1. Press the MENU button.
   - ■ The menu list will appear.
2. Move the MENU SELECTOR to highlight INITIAL and push the MENU SELECTOR.
3. Use the MENU SELECTOR to select WL.REMOTE from the submenu.
4. Push the MENU SELECTOR to enable or disable the remote control.
   The setting switches between ON/OFF each time you push the MENU SELECTOR.
5. To exit, press the MENU button.
   - ■ If you set the remote to OFF in the menu and try to use it, the remote icon will blink for 3 seconds and disappear on the LCD.



CAM MODE

INITIAL ○ CLOCK SET
CAMERA ○ WL. REMOTE ·······ON
A/V ○ BEEP SOUND ·······ON
MEMORY ○ SHUT. SOUND ·······ON
VIEWER ○ DEMO ················ON



CAM MODE

INITIAL SET

CLOCK SET
○ WL.REMOTE ··················ON
○ BEEP SOUND ···················ON
☒ SHUTTER SOUND················ON
☒ DEMONSTRATION ··············ON

高级拍摄技巧

● WL. REMOTE（遥控）

⌘ 可以在CAM（摄像机）、PLAYER（放像机）、M.REC（存储器拍摄）、M.PLAY（存储器播放）模式下使用WL. REMOTE（遥控）功能。

⌘ WL. REMOTE（遥控）选项可以帮助您使用或禁用遥控器操作摄录一体机。

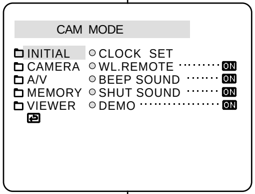
1. 按MENU（菜单）按钮。
   - ■ 之后会出现菜单列表。
2. 移动MENU SELECTOR（菜单选择器）选中INITIAL（初始），并按下MENU SELECTOR（菜单选择器）按钮。
3. 使用MENU SELECTOR（菜单选择器）从子菜单选择WL.REMOTE（遥控）。
4. 按MENU SELECTOR（菜单选择器）按钮以使用或禁止遥控器。
   每次按MENU SELECTOR（菜单选择器）按钮时，设置都会在ON/OFF（开/关）之间进行切换。
5. 若要退出，按下MENU（菜单）按钮即可。
   - ■ 如果您在菜单中将遥控器设置为OFF（关闭）并试图使用遥控器，那么遥控器图标会持续闪烁3秒钟，然后在液晶显示屏上消失。

Advanced Recording

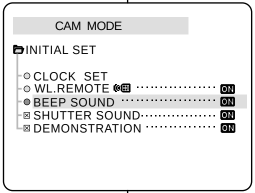
● BEEP SOUND

- ⌘ The BEEP SOUND function works in CAM, PLAYER, M.REC, M.PLAY modes.
- ⌘ Use the MENU to setup the BEEP SOUND function.
  Select whether or not you want to hear a beep sound whenever you change a setup value.

1. Press the MENU button.
   - ■ The menu list will appear.
2. Move the MENU SELECTOR to highlight INITIAL and push the MENU SELECTOR.


CAM MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
○ CLOCK SET
○ WL.REMOTE ON
○ BEEP SOUND ON
○ SHUT SOUND ON
○ DEMO ON

3. Use the MENU SELECTOR to select BEEP SOUND from the submenu.
4. Push the MENU SELECTOR to enable or disable the BEEP SOUND.
   The setting switches between ON/OFF each time you push the MENU SELECTOR.
   - ■ You will hear a Beep Sound when you select the ON setup.
   - ■ When you press the START/STOP button to start recording, the BEEP SOUND is automatically set to OFF so you can't hear it any longer.


CAM MODE
INITIAL SET
○ CLOCK SET
○ WL.REMOTE ON
● BEEP SOUND ON
⊠ SHUTTER SOUND ON
⊠ DEMONSTRATION ON

5. To exit, press the MENU button.

高级拍摄技巧

● BEEP SOUND（蜂鸣音）

- ⌘ 可以在CAM（摄像机）、PLAYER（放像机）、M.REC（存储器拍摄）、M.PLAY（存储器播放）模式下使用BEEP SOUND（蜂鸣音）功能。
- ⌘ 使用MENU（菜单）来设置BEEP SOUND（蜂鸣音）功能。
  您可以选择在改变设置值时是否发出蜂鸣音。

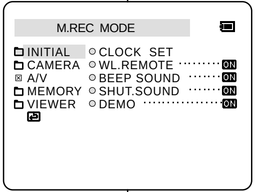
1. 按下MENU（菜单）按钮。
   - ■ 会出现菜单列表。
2. 移动MENU SELECTOR（菜单选择器）选中INITIAL（初始），并按MENU SELECTOR（菜单选择器）。
3. 使用MENU SELECTOR（菜单选择器）从子菜单选择BEEP SOUND（蜂鸣音）。
4. 按MENU SELECTOR（菜单选择器）按钮以使用或禁止BEEP SOUND（蜂鸣音）功能。
   每次按下MENU SELECTOR（菜单选择器）时，设置都会在ON/OFF（开/关）间进行一次切换。
   - ■ 当您设置为ON（开）时，便可以听到蜂鸣音。
   - ■ 在您按下START/STOP（开始/停止）按钮开始拍摄时，蜂鸣音将自动设置为OFF（关闭），您将不再听到蜂鸣音。
5. 若要退出，按下MENU（菜单）按钮即可。

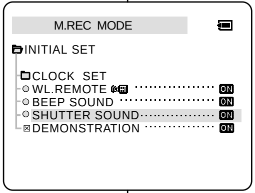
Advanced Recording

● SHUTTER SOUND

- ⌘ You can hear SHUTTER SOUND only when the PHOTO function is working.
- ⌘ Determines whether or not you wish to hear a SHUTTER SOUND when using the DSC feature.

1. Set the mode switch to MEMORY STICK.
2. Set the power switch to CAM mode.
3. Press the MENU button.
   - ■ The menu list will appear.
4. Move the MENU SELECTOR to highlight INITIAL and push the MENU SELECTOR.
5. Use the MENU SELECTOR to select SHUTTER SOUND from the submenu.
6. Push MENU SELECTOR to switch between ON and OFF.
7. To exit, press the MENU button.


M.REC MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
CLOCK SET
WL.REMOTE ON
BEEP SOUND ON
SHUT.SOUND ON
DEMO ON


M.REC MODE
INITIAL SET
CLOCK SET
WL.REMOTE ON
BEEP SOUND ON
SHUTTER SOUND ON
DEMONSTRATION ON

高级拍摄技巧

● SHUTTER SOUND（快门音）

- ⌘ 只有在PHOTO（拍照）功能工作时，才能听到SHUTTER SOUND（快门音）。
- ⌘ 使用DSC功能时可决定是否需要SHUTTER SOUND（快门音）。

1. 将本机设置为MEMORY STICK（记忆棒）模式。
2. 将功能开关切换到CAM（摄像机）模式。
3. 按下MENU（菜单）按钮。
   - ■ 会出现菜单列表。
4. 移动MENU SELECTOR（菜单选择器）选中INITIAL（初始），并按下MENU SELECTOR（菜单选择器）。
5. 使用MENU SELECTOR（菜单选择器）在子菜单中选择SHUTTER SOUND（快门音）。
6. 按MENU SELECTOR（菜单选择器）以便在ON（开）和OFF（关）之间切换。
7. 若要退出，按下MENU（菜单）按钮即可。

Advanced Recording

● DEMONSTRATION

⌘ Demonstration automatically shows you the major functions that are included with your camcorder so that you may use them more easily.

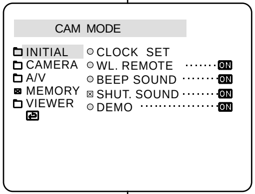
⌘ The DEMONSTRATION function may only be used in the CAM mode without a tape inserted in the camcorder.

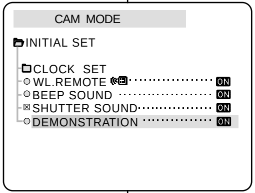
⌘ The demonstration operates repeatedly until the DEMONSTRATION mode switched OFF.

1. Set the camcorder to CAM mode.
2. Press the MENU button.
   - ■ The menu list will appear.
3. Move the MENU SELECTOR to highlight INITIAL.
4. Select DEMONSTRATION from the submenu and push the MENU SELECTOR.
5. To activate the DEMONSTRATION, set DEMONSTRATION ON.
   - ■ Press the menu button to quit the menu.
   - ■ The demonstration will begin.
6. To end the DEMONSTRATION, set the DEMONSTRATION to OFF.

Notes

- ■ The DEMONSTRATION function only works without a TAPE installed.
- ■ The DEMONSTRATION mode is automatically activated when the camcorder is left idle for more than 10 minutes after switching to the CAM mode (no tape is inserted in the camcorder).
- ■ If you press other buttons (FADE, BLC, PHOTO, EASY) during the DEMONSTRATION mode, the DEMONSTRATION stops temporarily and resumes 10 minutes later if you do not operate any other functions.




CAM MODE
INITIAL SET
CLOCK SET
○ WL.REMOTE ················ ON
○ BEEP SOUND ················ ON
☒ SHUTTER SOUND ················ ON
○ DEMONSTRATION ················ ON

高级拍摄技巧

● DEMONSTRATION（演示状态）

⌘ 演示功能将自动向您展示摄录一体机所具有的主要功能，以便您能够简易地使用这些功能。

⌘ DEMONSTRATION（演示状态）功能只能在CAM（摄像机）模式下使用，而且在演示状态下，请不要在摄录一体机内插入录像带。

⌘ 演示功能将反复操作直到您将DEMONSTRATION（演示状态）模式切换到OFF（关闭）。

1. 将摄录一体机设置为CAM（摄像机）模式。
2. 按下MENU（菜单）按钮。
   - ■ 之后，会出现菜单列表。
3. 移动MENU SELECTOR（菜单选择器）选中INITIAL（初始）。
4. 从子菜单中选择DEMONSTRATION（演示状态）并按MENU SELECTOR（菜单选择器）。
5. 若要激活DEMONSTRATION（演示状态）功能，请将DEMONSTRATION（演示状态）设置为ON（开）。
   - ■ 按下MENU（菜单）按钮以退出菜单。
   - ■ 演示开始。
6. 若要关闭DEMONSTRATION（演示状态），将DEMONSTRATION（演示状态）设置为OFF（关）即可。

注 意

- ■ 只有在没有装入录像带的情况下，DEMONSTRATION（演示状态）功能才能工作。
- ■ 在摄录一体机切换到CAM（摄像机）模式（摄录一体机内没有装入录像带）后闲置超过10分钟，DEMONSTRATION（演示状态）模式将会自动启动。
- ■ 在DEMONSTRATION（演示状态）模式期间，如果您按下其它键［FADE（淡入淡出）、BLC（背光补偿）、PHOTO（拍照）、EASY（简易）］，DEMONSTRATION（演示状态）都会暂停，但是，如果您在10分钟内不使用其他功能的话，DEMONSTRATION（演示状态）功能将会被重新激活。

Advanced Recording

● PROGRAM AE

⌘ The PROGRAM AE(automatic exposure) function works in CAM mode only.

⌘ The PROGRAM AE mode allows you to adjust shutter speeds and apertures to suit different recording conditions.

⌘ They give you creative control over the depth of field.

■ AUTO mode

- Automatically balances the exposure between the subject and the background.
- To be used in normal conditions.
- The shutter speed automatically varies from 1/50 to 1/250 per second, depending on the scene.

■ SPORTS mode (🏃)

- For recording people or objects moving quickly.

■ PORTRAIT mode (👤)

- For focusing on the background of the subject, when the background is out of focus.
- The PORTRAIT mode is most effective when used outdoors.
- The shutter speed automatically varies from 1/50 to 1/1000 per second.

■ SPOTLIGHT mode (🔦)

- For recording correctly when there is only light on the subject and not the rest of the picture.

■ SAND/SNOW mode (⛱)

- For recording when people or objects are darker than the background because of reflected light from sand or snow.

■ High S. SPEED (High Shutter Speed) mode (🏌)

- For recording fast-moving subjects such as players in golf or tennis games.

高级拍摄技巧

● PROGRAM AE（程序自动曝光）

⌘ 只有在CAM（摄像机）模式下，才能使用PROGRAM AE（程序自动曝光）功能。

⌘ PROGRAM AE（程序自动曝光）模式允许您按照不同的拍摄条件调整快门速度和光圈。

⌘ 这样，您就能对景深进行有创意的控制。

■ AUTO（自动）模式

- 使被拍摄物体与背景之间自动平衡。
- 可以在正常条件下使用。
- 根据被拍摄的场景，快门速度可在每秒1/50至1/250之间自动改变。

■ SPORTS（运动）模式 (🏃)

- 拍摄快速移动的人或物体。

■ PORTRAIT（肖像）模式 (👤)

- 在背景没有被聚焦时，聚焦于被摄物体的背景。
- 在室外拍摄时使用PORTRAIT（肖像）模式最为有效。
- 快门速度可在每秒1/50至1/1000范围内自动改变。

■ SPOTLIGHT（聚光灯）模式 (🔦)

- 在被摄物体受光不均匀时使用本功能，这样可以获得清晰的图像。

■ SAND/SNOW（沙滩/雪地）模式 (⛱)

- 在由于存在沙地或积雪反射的光而使被摄的人或物体比背景暗的情况下，可以使用该模式拍摄。

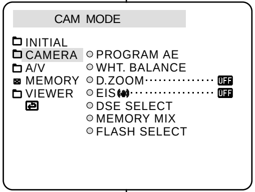
■ High S.SPEED（High Shutter Speed，高速快门）模式 (🏌)

- 用于拍摄快速移动的物体，例如高尔夫或网球运动员的比赛姿态。

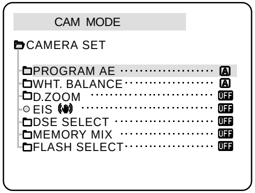
Advanced Recording

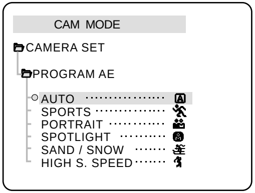
Setting the PROGRAM AE

1. Press the MENU button.
   - The menu list will appear.
2. Move the MENU SELECTOR to highlight CAMERA and push the MENU SELECTOR.
3. Select PROGRAM AE from the submenu.


CAM MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
PROGRAM AE
WHT. BALANCE
D.ZOOM OFF
EIS OFF
DSE SELECT
MEMORY MIX
FLASH SELECT

4. Push the MENU SELECTOR to enter the sub-menu.
5. Using the MENU SELECTOR, select the PROGRAM AE mode.
   - Push the MENU SELECTOR to confirm the PROGRAM AE mode.


CAM MODE
CAMERA SET
PROGRAM AE A
WHT. BALANCE A
D.ZOOM OFF
EIS OFF
DSE SELECT OFF
MEMORY MIX OFF
FLASH SELECT OFF


CAM MODE
CAMERA SET
PROGRAM AE
AUTO A
SPORTS
PORTRAIT
SPOTLIGHT
SAND / SNOW
HIGH S. SPEED

6. To exit, press the MENU button.

Notes

- The P.AE function will not operate in EASY mode.
- When recording with a PROGRAM AE mode, the Flash function and Video Light Auto function (optional) do not work.

高级拍摄技巧

设置程序自动曝光

1. 按下MENU（菜单）按钮。
   - 之后，会出现菜单列表。
2. 移动MENU SELECTOR（菜单选择器）选中CAMERA（摄像机），并按下MENU SELECTOR（菜单选择器）。
3. 从子菜单选择PROGRAM AE（程序自动曝光）。
4. 按ENTER（确认）按钮进入子菜单。
5. 使用MENU SELECTOR（菜单选择器），选择PROGRAM AE（程序自动曝光）模式。
   - 按MENU SELECTOR（菜单选择器），确认PROGRAM AE（程序自动曝光）模式。
6. 若要退出，按下MENU（菜单）按钮即可。

注 意

- 在EASY（简易）模式下PROGRAM AE（程序自动曝光）无法操作。
- 在通过程序自动曝光模式录制时，闪光功能和视频灯自动功能不工作（选配）。

Advanced Recording

● WHT. BALANCE (WHITE BALANCE)

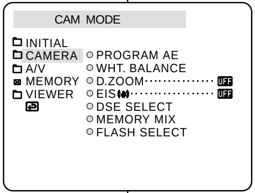
⌘ The WHITE BALANCE function works in CAM or M.REC mode only.

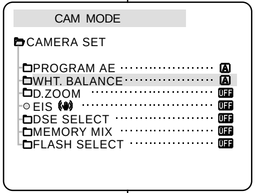
⌘ The WHITE BALANCE is a recording function that preserves the unique image colour of the object in any recording condition.

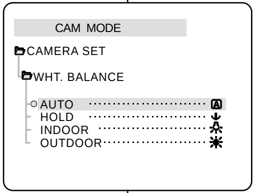
⌘ You may select the appropriate WHITE BALANCE mode to obtain good quality image colour.

- ■ AUTO (🄰) : This mode is generally used to control the WHITE BALANCE automatically.
- ■ HOLD (⚓) :This fixes the current WHITE BALANCE value.
- ■ INDOOR (💡) : This controls the WHITE BALANCE according to the indoor ambience.
  - Under halogen or studio/video lighting
  - Subject is of one dominant colour
  - Close ups
- ■ OUTDOOR (☀) : This controls the WHITE BALANCE according to the outdoor ambient light.
  - In daylight, especially for close ups and where the subject is of one dominant colour.

1. Set the camcorder to CAM mode.
2. Press the MENU button.
   - ■ The menu list will appear.
3. Move the MENU SELECTOR to highlight CAMERA and push the MENU SELECTOR.
4. Select WHT.BALANCE from the submenu.
5. Push the MENU SELECTOR to enter the sub-menu.
6. Using the MENU SELECTOR, select the WHITE BALANCE mode.
   - ■ Push the MENU SELECTOR to confirm the WHITE BALANCE mode.
7. To exit, press the MENU button.


CAM MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
PROGRAM AE
WHT. BALANCE
D.ZOOM OFF
EIS OFF
DSE SELECT
MEMORY MIX
FLASH SELECT


CAM MODE
CAMERA SET
PROGRAM AE A
WHT. BALANCE A
D.ZOOM OFF
EIS OFF
DSE SELECT OFF
MEMORY MIX OFF
FLASH SELECT OFF


CAM MODE
CAMERA SET
WHT. BALANCE
AUTO A
HOLD
INDOOR
OUTDOOR

Notes

- ■ The WHT.BALANCE function will not operate in EASY mode.
- ■ Turn the digital zoom off (if necessary) to set a more accurate white balance.
- ■ Reset the white balance if lighting conditions change.
- ■ During normal outdoor recording, setting to AUTO may provide better results.

高级拍摄技巧

● WHT.BALANCE（WHITE BALANCE，白平衡）

⌘ 只有在CAM（摄像机）模式或M.REC（存储器拍摄）模式下才能使用白平衡功能。

⌘ 白平衡功能是一种可以在任何条件下保持被摄物体独特色彩的拍摄功能。

⌘ 您可选择合适的白平衡模式来获取具有优良质量的图像色彩。

- ■ AUTO（自动）（🄰）：该模式一般在自动控制白平衡时使用。
- ■ HOLD（保持）（⚓）：该模式可以固定当前的白平衡值。
- ■ INDOOR（室内）（💡）：该模式可以按照室内的环境控制白平衡。
  - 在卤素或摄影棚/视频照明灯下
  - 物体有明显的颜色
  - 密集
- ■ OUTDOOR（室外）（☀）：该模式可以按照室外的环境控制白平衡。
  - 在白天，特别是在封闭环境中颜色鲜艳的物体。

1. 将摄录一体机设置为CAM（摄像机）模式。
2. 按下MENU（菜单）按钮。
   - ■ 之后，会出现菜单列表。
3. 移动MENU SELECTOR（菜单选择器）选中CAMERA（摄像机），并按MENU SELECTOR（菜单选择器）。
4. 从子菜单选择WHT.BALANCE（白平衡）。
5. 按MENU SELECTOR（菜单选择器）按钮进入子菜单。
6. 使用MENU SELECTOR（菜单选择器），并选择WHITE BALANCE（白平衡）模式。
   - ■ 按MENU SELECTOR（菜单选择器）以确认WHITE BALANCE（白平衡）模式。
7. 若要退出，按下MENU（菜单）按钮即可。

注 意

- ■ 在EASY（简易）模式下，不能使用白平衡功能。
- ■ 关闭数字变焦（如有必要）以设置更精确的白平衡。
- ■ 如果已设置了白平衡且更改了照明条件，则请重新设置白平衡。
- ■ 在室外正常拍摄期间，将其设置为AUTO（自动）模式，将能获得更好的效果。

Advanced Recording

Zooming In and Out with DIGITAL ZOOM

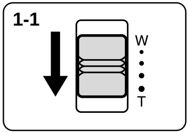
- Digital Zoom works in CAM mode only.

Zooming In and Out

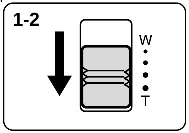
- Zooming is a recording technique that lets you change the size of the subject in a scene.
  For more professional looking recordings, do not use the zoom function too often.
- You can zoom using variable zoom speeds.
- Use these features for different shots. Please note that over-use of the zoom feature can lead to unprofessional looking results and a reduction of battery usage time.

1. Move the zoom lever slightly for a gradual zoom, move it further for a high-speed zoom.
   Your zooming is monitored on the OSD.

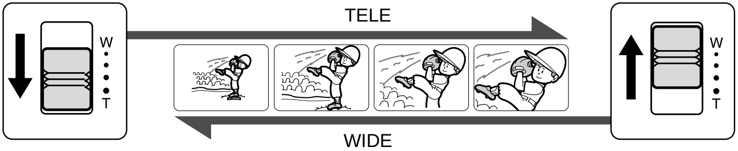
1-1



1-2



2. T(Telephoto) side:
   Subject appears closer.
3. W(Wide angle) side:
   Subject appears farther away.



Note

You can record a subject that is a minimum of 1 m (about 3.2 feet) away from the lens surface in the TELE position, or about 10 mm (about 0.5 inch) away in the WIDE position.

高级拍摄技巧

采用DIGITAL ZOOM（数字变焦）推近和拉远

- 只有在CAM（摄像机）模式下才能使用变焦功能。

Zooming In and Out（推近和拉远）

- 变焦是一种拍摄技术，它可帮助您改变场景中被摄物体的大小。为了得到更接近专业水平的拍摄效果，请不要过多地使用变焦功能。
- 您可使用可变变焦速度进行变焦。
- 可以对各种不同的拍摄使用这些功能。请注意，过多地使用变焦会使拍摄效果看起来不专业，并且还会减短电池的寿命。

1. 如需逐步变焦，请稍稍移动变焦手柄即可；如需快速变焦，则请将变焦手柄移动得更大一些。
   您可在OSD（屏幕显示）中监视变焦情况。
2. T（Telephoto，远距摄像）侧：让被摄体看起来近一些。
3. W（Wide angle，广角）侧：让被摄体看起来远一些。

注 意

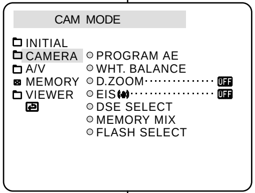
您可在TELE（远距摄像）位置处，拍摄距镜头表面的最近距离为1米（约3.2英尺）的物体；或在WIDE（广角）位置处拍摄约10毫米（约0.5英寸）远的物体。

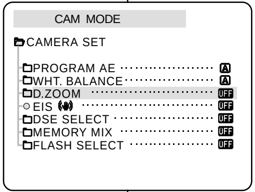
Advanced Recording

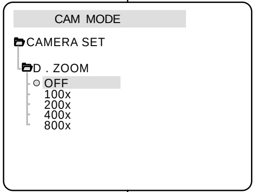
Digital Zoom

- Zooming more than 12x is achieved digitally.
- The picture quality may deteriorate depending on how much you zoom in on the subject.
- We recommend that you use the EIS feature with DIGITAL ZOOM for picture stability. (see page 47)

1. Set the camcorder to CAM mode.
2. Press the MENU button.
   - ■ The menu list will appear.
3. Move the MENU SELECTOR to CAMERA and push the MENU SELECTOR.
4. Select D.ZOOM from the submenu.
5. Push the MENU SELECTOR to setup the 100x, 200x, 400x, 800x digital zoom function or to turn the feature OFF.
6. To exit, press the MENU button.


CAM MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
PROGRAM AE
WHT. BALANCE
D.ZOOM
OFF
EIS
OFF
DSE SELECT
MEMORY MIX
FLASH SELECT


CAM MODE
CAMERA SET
PROGRAM AE
A
WHT. BALANCE
A
D.ZOOM
OFF
EIS
OFF
DSE SELECT
OFF
MEMORY MIX
OFF
FLASH SELECT
OFF


CAM MODE
CAMERA SET
D . ZOOM
OFF
100x
200x
400x
800x

高级拍摄技巧

Digital Zoom（数字变焦）

- 超过12X（12倍）的变焦是以数字方式执行的。
- 图像的质量会依据推近物体的程度的加大而下降。
- 我们建议您在使用数字变焦功能的同时，使用EIS (电子图像稳定器) 功能来保证图像稳定性。（见47页）

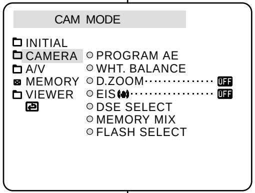
1. 将摄录一体机设置为CAM（摄像机）模式。
2. 按下MENU（菜单）按钮。
   - ■ 会出现菜单列表。
3. 拨动MENU SELECTOR（菜单选择器）直到选中CAMERA（摄像机），并按下MENU SELECTOR（菜单选择器）。
4. 从子菜单选择D.ZOOM（数字变焦）。
5. MENU SELECTOR（菜单选择器）以设置100X、200X、400X、800X数字变焦功能或将该功能设置为OFF（关闭）。
6. 若要退出，按下MENU（菜单）按钮即可。

Advanced Recording

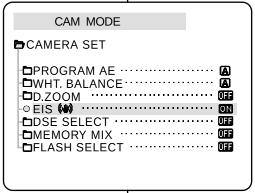
● EIS (Electronic Image Stabilizer)

- ⌘ The EIS function works in CAM mode only.
- ⌘ EIS (Electronic Image Stabilizer) is a function that compensates for any shaking or hand movement while holding the camcorder (within reasonable limits).
- ⌘ It provides more stable pictures when:
  - ■ Recording with the zoom
  - ■ Recording a small object close-up
  - ■ Recording and walking at the same time
  - ■ Recording through the window of a vehicle

1. Set the camcorder to CAM mode.
2. Press the MENU button.
   - ■ The menu list will appear.
3. Move the MENU SELECTOR highlight to CAMERA and push the MENU SELECTOR.
   - ■ The sub menu list will appear.
4. Move the MENU SELECTOR to activate the EIS function, push the MENU SELECTOR.
   - ■ The EIS menu is changed to ON.
   - ■ If you do not want to use the EIS function, set the EIS menu to OFF.
5. To exit, press the MENU button.



D.ZOOM ·············· OFF
EIS ················ OFF



PROGRAM AE ·················· A
WHT. BALANCE ················ A
D.ZOOM ······················ OFF
EIS ························· ON
DSE SELECT ·················· OFF
MEMORY MIX ·················· OFF
FLASH SELECT ················ OFF

Notes

- ■ It is recommended that you deactivate the shake compensation function when using a tripod.
- ■ If you use the EIS function, the picture quality may deteriorate.
- ■ While setting the EIS to ON, the WIDE, STROBE(DSE function) mode do not work.

高级拍摄技巧

● EIS (电子图像稳定器)

- ⌘ 只有在CAM（摄像机）模式下，才能使用电子图像稳定器（EIS）功能。
- ⌘ 电子图像稳定器（EIS）是一种可以用来补偿握住摄录一体机时的手抖或移动的功能（在合理限度内）。
- ⌘ 在下列情况下，它能提供更为稳定的图像：
  - ■ 使用变焦拍摄
  - ■ 对近距离的小物体进行特写拍摄
  - ■ 一边走一边拍摄
  - ■ 透过车窗拍摄

1. 将摄录一体机设置为CAM（摄像机）模式。
2. 按下MENU（菜单）按钮。
   - ■ 会出现菜单列表。
3. 移动MENU SELECTOR（菜单选择器）选中CAMERA（摄像机），并按MENU SELECTOR（菜单选择器）。
   - ■ 会出现子菜单列表。
4. 移动MENU SELECTOR（菜单选择器）以激活EIS功能，并按MENU SELECTOR（菜单选择器）。
   - ■ EIS (电子图像稳定器) 菜单将更换到ON（开）。
   - ■ 如果您不想使用EIS功能，则请将EIS菜单设置为OFF（关）。
5. 若要退出，按下MENU（菜单）按钮即可。

注 意

- ■ 建议您在使用三角架时，停用抖动补偿功能。
- ■ 如果您在此时使用EIS功能，图像的质量将更差。
- ■ 将EIS设置为开时，WIDE（宽）与STROBE（选通脉冲）（DSE功能）模式将不起作用。

Advanced Recording

● DSE(Digital Special Effects) SELECT

⌘ The DSE function works in CAM mode only.
⌘ The digital effects enable you to give a creative look to your recording by adding various special effects.
⌘ Select the appropriate digital effect for the type of picture that you wish to record and the effect you wish to create.
⌘ There are 8 DSE modes.

a. ART mode
This mode gives the images a coarse effect.

b. MOSAIC mode
This mode gives the images a mosaic effect.

c. SEPIA mode
This mode gives the images a reddish-brown pigment.

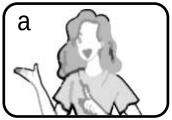
d. NEGA mode
This mode reverses the colours of the images, creating a negative image.

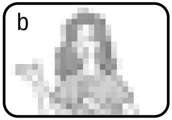
e. MIRROR mode
This mode cuts the picture in half, using a mirror effect.

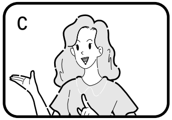
f. BLK & WHT mode
This mode changes the images to black and white.

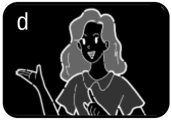
g. WIDE [16:9] mode
Produce images in the WIDE [16:9] format for Playback on wide screen TVs.

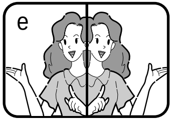
h. STROBE mode
This effect converts on-screen action to a series of still images, giving an effect similar to slow-motion.

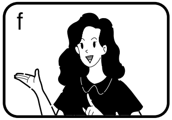


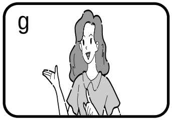


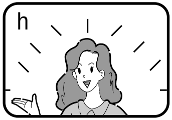












高级拍摄技巧

● DSE（Digital Special Effects，数字特殊效果）选择

⌘ 只有在CAM（摄像机）模式下才能使用数字特殊效果功能。
⌘ 数字特殊效果可为您拍摄的图像增添各种特殊效果，并使拍摄的图像更具创意。
⌘ 对您需要拍摄的图像选择所需的合适的数字特殊效果类型和希望创建的效果。
⌘ 有8DSE模式。

a. ART（艺术）模式
该模式将赋予图像一种粗糙的效果。

b. MOSAIC（马赛克）模式
该模式将赋予图像马赛克效果。

c. SEPIA（仿古）模式
该模式将会为图像赋上一层红褐色。

d. NEGA（负片）模式
该模式将会反转所拍摄图像的色彩，创建一个负片图像。

e. MIRROR（镜像）模式
该模式将会图像对半剪切，以产生镜像效果。

f. BLK & WHT（黑白）模式
该模式将会把图像转变为黑白图像。

g. WIDE [16:9]（宽银幕）模式
制作的图片以WIDE [16:9]（宽银幕）模式在宽银幕电视系统上播放。

h. STROBE（脉动）模式
该模式可以激活屏幕上的一系列静止的图片，产生类似慢动作的效果。

Advanced Recording

Selecting an effect

1. Set the camcorder to CAM mode.

2. Press the MENU button.
   - The menu list will appear.

3. Move the MENU SELECTOR to highlight CAMERA and push the MENU SELECTOR.

4. Select DSE SELECT from the submenu.

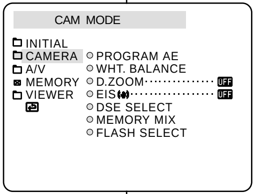
5. Push the MENU SELECTOR to enter the sub-menu.

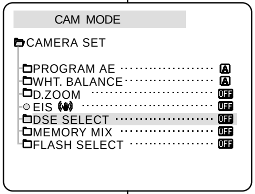
6. Using MENU SELECTOR, select the DSE mode.
   - Push the MENU SELECTOR to confirm the DSE mode.

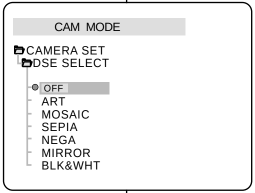
7. To exit, press the MENU button.

Note

- The DSE function will not operate in EASY mode.
- While setting the WIDE or STROBE to ON, the EIS function does not work.


CAM MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
PROGRAM AE
WHT. BALANCE
D.ZOOM
OFF
EIS
OFF
DSE SELECT
MEMORY MIX
FLASH SELECT


CAM MODE
CAMERA SET
PROGRAM AE
A
WHT. BALANCE
A
D.ZOOM
OFF
EIS
OFF
DSE SELECT
OFF
MEMORY MIX
OFF
FLASH SELECT
OFF


CAM MODE
CAMERA SET
DSE SELECT
OFF
ART
MOSAIC
SEPIA
NEGA
MIRROR
BLK&WHT

高级拍摄技巧

选择效果

1. 将摄录一体机设置为CAM（摄像机）模式。

2. 按下MENU（菜单）按钮。
   - 会出现菜单列表。

3. 移动MENU SELECTOR（菜单选择器）选中CAMERA（摄像机），并按MENU SELECTOR（菜单选择器）。

4. 从子菜单中选择DSE SELECT（数字特殊效果选择）。

5. 按MENU SELECTOR（菜单选择器）以进入子菜单。

6. 使用MENU SELECTOR（菜单选择器），选择DSE模式。
   - 按MENU SELECTOR（菜单选择器）以确认DSE模式。

7. 若要退出，按下MENU（菜单）按钮。

注 意

- 在EASY（简易）模式下，不能使用DSE功能。
- 将WIDE（宽）或STROBE（选通脉冲）设置为开时，EIS功能将不起作用。

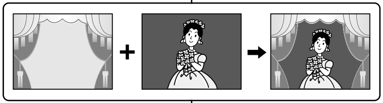
Advanced Recording

● MEMORY MIX

- The MEMORY MIX function works in CAM mode only.
- You can superimpose a still image you have recorded on the Memory Stick on top of the moving image you are recording.
- You can record the superimposed images on a tape.
- Select from 4 types of Memory Mix effects:

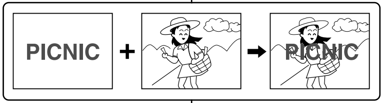
■ M. CHROMA (Memory chroma key)

- You can swap a blue area of a still image such as a picture frame with a moving image.



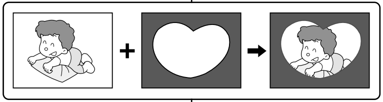
■ M.LUMI (Memory luminance key)

- You can swap a brighter area of a still image such as a handwritten illustration or title with a moving image.
  Make your own title or illustration by drawing or writing on a white piece of paper. Adjust the mix level in the light area of the still image.



■ C. LUMI (Camera luminance key)

- Superimpose the currently recording image on top of a still image, which becomes its background.
  Shoot the subject against a brighter background.
  The brighter area of the moving image will be a swapped with a still image.



■ M.OVER LAP (Memory overlap)

- You can make a moving image fade in on top of a still image recorded on the Memory Stick as the overlap function.

高级拍摄技巧

● MEMORY MIX（混合记录）

- 混合记录功能仅可在CAM（摄像机）模式下工作。
- 在记忆棒上您记录的动态图像的上部，可以添加一张已拍摄的静止图片。
- 您可以在盒带上记录层次分明的图像.
- 从4种混合记录的效果中进行选择。

■ M.CHROMA（色彩记忆键）

- 您可以对动态图像中的一帧静态图片内的兰色区域进行切换。

■ M.LUMI（亮度记忆键）

- 您可以对移动图像中的一幅静止的手绘插图或题目中的亮度区域进行转换。
  以便在一张白纸上画插图或写题目。
  调整静止图片上亮度区域中的像素水平。

■ C.LUMI（摄像机亮度键）

- 在一张静止图片上插入一张当前拍摄的图片，作为背景。
  应对物体进行逆光拍摄。
  可以使用一张静止的图片对移动图像中的较亮的部分进行切换。

■ M.OVER LAP（重合记忆）

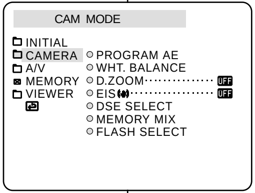
- 当使用重合功能时，您可以在一张记录在记忆棒上的静止图片的上部淡入一段动态图像。

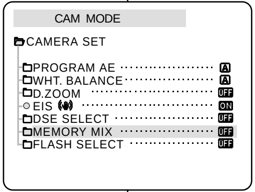
Advanced Recording

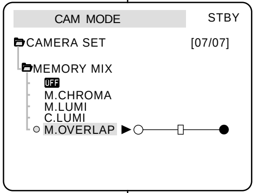
Recording Superimposed images on a tape

- ⌘ Insert a tape for recording into your camcorder.
- ⌘ Insert a Memory Stick is recorded still images into your camcorder.

1. Set the camcorder to CAM mode.
2. Press the MENU button.
   - ■ The menu list will appear.
3. Move the MENU SELECTOR to highlight CAMERA and push the MENU SELECTOR.
4. Select MEMORY MIX from the submenu and push the MENU SELECTOR.
5. Move the MENU SELECTOR to select the desired MEMORY MIX mode and push the MENU SELECTOR.
   - ■ Your currently recording image is combined with the last recorded image.
6. Press the ▶▶ (FWD)/ ◀◀(REV) buttons to select the still image you want to superimpose.
7. Move the MENU SELECTOR to adjust the mix level
   - ■ Push the MENU SELECTOR to confirm the MEMORY MIX mode.
8. To exit, press the MENU button.
   - ■ Your selected MEMORY MIX mode is flashed in the display.
9. Press the MEMORY MIX button.
   - ■ The still image is superimposed on the moving image.
   - ■ Each time you press the MEMORY MIX button, your selection is activated (display lights continuously) or de activated (display flashes)
10. Press the START/STOP button to start recording.
    - ■ The superimposed images are recorded onto the tape.


CAM MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
PROGRAM AE
WHT. BALANCE
D.ZOOM OFF
EIS OFF
DSE SELECT
MEMORY MIX
FLASH SELECT


CAM MODE
CAMERA SET
PROGRAM AE A
WHT. BALANCE A
D.ZOOM OFF
EIS ON
DSE SELECT OFF
MEMORY MIX OFF
FLASH SELECT OFF


CAM MODE
STBY
CAMERA SET
[07/07]
MEMORY MIX
OFF
M.CHROMA
M.LUMI
C.LUMI
M.OVERLAP

Note

- ■ If you turn the position of the power switch, select your still image for MEMORY MIX again.

高级拍摄技巧

在录像带上拍摄有层次的图像

- ⌘ 在您的录像机中插入录像带。
- ⌘ 在您的录像机中插入拍摄静止图片的记忆棒。

1. 将摄像机设置在CAM（摄像机）模式。
2. 按MENU（菜单）按钮。
   - ■ 将显示此菜单列表。
3. 移动菜单选择开关选择CAMERA（摄像机）并按菜单选择开关。
4. 从子菜单中选择MEMORY MIX（混合记录），并按菜单选择开关。
5. 移动菜单选择开关选择MEMORY MIX（混合记录）模式并按菜单选择开关。
   - ■ 您当前拍摄的照片与最后拍摄的照片组合起来。
6. 按 ▶▶ （前进）/ ◀◀ （后退）键选择您想要进行重合的静止图像。
7. 移动菜单选择开关调整像素水平。
   - ■ 按菜单选择开关确认MEMORY MIX（混合记录）模式。
8. 要退出，按菜单按钮。
   - ■ 您选择的MEMORY MIX（混合记录）模式在显示屏闪烁。
9. 按MEMORY MIX（混合记录）按钮。
   - ■ 静止图像被重合到移动图像上。
   - ■ 您每次按MEMORY MIX（混合记录）按钮，您的选择会被激活（持续亮）或被取消（闪烁显示）。
10. 按开始/停止按钮开始录像。
    - ■ 重合的图像被记录在录像带上。

注 意

- ■ 如果您转动功能开关的位置，需再次选择MEMORY MIX（混合记录）的静止图像。

Using the Built - in Flash

⌘ You can take natural looking flash pictures with appropriate illumination using the built-in flash or attaching the VL-S1FL video Light/ Flash (optional) to the camcorder's Smart shoe (see page 100), whether they are night scenes, in doors or in other dark places.

- OFF : The flash does not fire.
- ϟⒶ (Auto) : The flash comes on depending on the brightness of the subject.
- ϟ (Flash on) : The flash comes on regardless of the brightness of the subject.
- ϟ◁▷ (Red-eye reduction auto: built-in flash only) : The flash pre-fires automatically before the main firing to reduce the red-eye phenomenon.

● FLASH SELECT

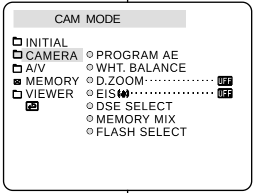
⌘ The FLASH SELECT function works in CAM and M.REC mode.

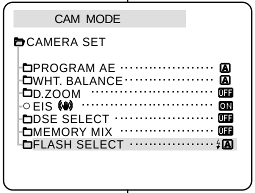
1. Set the camcorder to CAM mode.
2. Press the MENU button.
   - The menu list will appear
3. Move the MENU SELECTOR to highlight CAMERA and push the MENU SELECTOR.
4. Select FLASH SELECT from the submenu and push the MENU SELECTOR.
5. Using the MENU SELECTOR, Select the FLASH SELECT mode.
   - Push the MENU SELECTOR to confirm the FLASH SELECT mode.
6. To exit, press the MENU button.

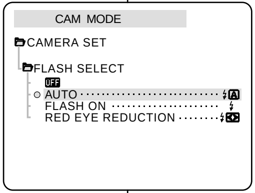
Warning!
- Do not fire the flash with the flash bulb covered with your hand.
- Do not fire the flash close to people's eyes.

Notes

- While using the following functions, you cannot use the FLASH function:
  - PROGRAM AE, SHUTTER SPEED, EXPOSURE, STROBE (DSE function), SLOW SHUTTER, CONTINUOUS SHOT, MEMORY MIX
  - When you are recording movies onto a tape.
- If the flash is forced to fire (Flash on) in a bright location, the effect of flash photography may sometimes not be obtained.
- When ϟ◁▷ (Red-eye reduction auto) is set, the flash fires twice-once to perform red-eye reduction and the second flash main firing for taking the photograph.
  It takes about 1.5 second between the flash firing for red-eye reduction and the main firing.


CAM MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
PROGRAM AE
WHT. BALANCE
D.ZOOM ······ OFF
EIS ······ OFF
DSE SELECT
MEMORY MIX
FLASH SELECT


CAM MODE
CAMERA SET
PROGRAM AE ······ Ⓐ
WHT. BALANCE ······ Ⓐ
D.ZOOM ······ OFF
EIS ······ ON
DSE SELECT ······ OFF
MEMORY MIX ······ OFF
FLASH SELECT ······ ϟⒶ


CAM MODE
CAMERA SET
FLASH SELECT
OFF
AUTO ······ ϟⒶ
FLASH ON ······ ϟ
RED EYE REDUCTION ······ ϟ◁▷

使用内置闪光灯

⌘ 无论是在夜景，室内或其它光线暗的地方，使用内置闪光灯或安装到智能底托（参见100页）上的VL31视频灯/闪光灯（选装），进行适当的照明，可以拍摄出清晰自然的照片来。

- 关：闪光灯不会亮。
- ϟⒶ（自动）：闪光灯是否工作取决于被摄物体的亮度。
- ϟ（闪光灯打开）：无论物体的光线如何，闪光灯都闪烁。
- ϟ◁▷（防红眼：仅限于内置闪光灯）：为了减少被摄人的红眼现象，闪光灯在大闪之前先小闪一下。

● 闪光选择

⌘ FLASH SELECT（闪光选择）功能在CAM（摄像机）和M.REC（存储器拍摄）模式下工作。

1. 将摄像机设置为CAM（摄像机）模式。
2. 按菜单按钮。
   - 显示菜单列表。
3. 拨动菜单选择开关选择CAMERA（摄像），并按菜单选择开关。
4. 从子菜单中选择FLASH SELECT（闪光选择）并按菜单选择开关。
5. 使用菜单选择开关，选择FLASH SELECT（闪光选择）模式。
   - 推菜单选择开关，确认FLASH SELECT（闪光选择）模式。
6. 要退出，按菜单按钮。

警告！
- **不要用手挡住闪光灯。**
- **闪光灯不能在人的眼睛周围闪光。**

注 意

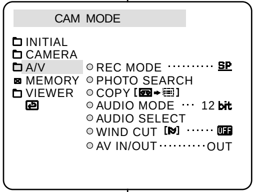
- 使用下列功能时您不能使用闪光灯：
  - 程序自动曝光，快门速度，曝光，脉动（数字特殊效果功能），慢速快门，持续拍摄，混合记录
  - 当您在录像带上拍摄图像时。
- 如果您在明亮的地方强行使用闪光灯（Flash on）拍摄出来的效果可能会不尽人意。
- 如果设定了ϟ◁▷（防红眼），在拍摄照片时闪光灯在小闪和大闪之间有大约1.5秒的曝光。

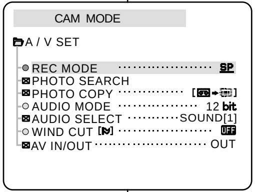
Advanced Recording

● REC MODE

- ⌘ The REC MODE function works in both CAM and PLAYER (VP-D93i/D97i/D99i only) modes.
- ⌘ This camcorder records and plays back in SP (standard play) mode and in LP (long play) mode.
  - ■ SP (standard play): This mode permits 60 minutes of recording time with a DVM60 tape.
  - ■ LP (long play): This mode permits 90 minutes of recording time with a DVM60 tape.
  - ■ See AV IN/OUT select on page 75.

1. Set the camcorder to CAM or PLAYER mode.
2. Press the MENU button.
   - ■ The menu list will appear.
3. Move the MENU SELECTOR to highlight A/V and push the MENU SELECTOR.
4. Select REC MODE from the submenu and push the MENU SELECTOR.
   - ■ The REC MODE toggles between SP and LP with each press.
5. To exit, press the MENU button.


CAM MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
REC MODE ·········· SP
PHOTO SEARCH
COPY
AUDIO MODE ··· 12 bit
AUDIO SELECT
WIND CUT ······ OFF
AV IN/OUT ·········· OUT


CAM MODE
A / V SET
REC MODE ···················· SP
PHOTO SEARCH
PHOTO COPY ··············
AUDIO MODE ················· 12 bit
AUDIO SELECT ··········SOUND[1]
WIND CUT ···················· OFF
AV IN/OUT ························ OUT

Notes

- ■ We recommend that you use this camcorder to play back the tapes that you recorded on this camcorder.
  Playing back a tape recorded in other equipment may produce mosaic shaped distortion.
- ■ When you record a tape in SP and LP modes, or LP mode only, the playback picture may be distorted or the time code may not be written properly between scenes.
- ■ Record using SP mode for best picture and sound quality.

高级拍摄技巧

● REC MODE（录像模式）

- ⌘ 可以在CAM（摄像机）和PLAYER（放像机）(仅限于VP-93i/D97i/D99i）模式下使用REC MODE（录像模式)。
- ⌘ 在SP（standard play，标准播放）模式和LP（long play，长时播放）模式下的摄录一体机的拍摄和播放。
  - ■ SP（标准播放)：该模式可以支持型号为DVM60的录像带长达60分钟的拍摄。
  - ■ LP（长时播放)：该模式可以支持型号为DVM60的录像带长达90分钟的拍摄。
  - ■ 关于AV输入/输出参见75页。

1. 将摄录一体机设置为CAM（摄像机）或PLAYER（放像机）模式。
2. 按下MENU（菜单）按钮。
   - ■ 会出现菜单列表。
3. 移动MENU SELECTOR（菜单选择器)，选中A/V，并按MENU SELECTOR（菜单选择器)。
4. 从子菜单选择REC MODE（录像模式)，并按MENU SELECTOR（菜单选择器)。
   - ■ 每按下一次，REC MODE（录像模式）都会在SP（标准播放）和LP（长时播放）之间切换一次。
5. 若要退出，按下MENU（菜单）按钮即可。

注 意

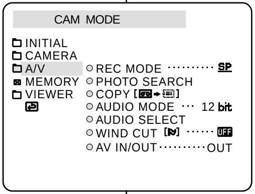
- ■ 我们建议您使用本摄录一体机播放使用同类摄录一体机录制的录像带。
  播放使用其它设备录制的录像带有可能会产生马赛克状的失真。
- ■ 如果以SP（标准播放）和LP（长时播放）模式，或只在LP（长时播放）模式下录制录像带，播放图像可能会被扭曲或时间代码不能正确地写入各个场景之间。
- ■ 为了获得最佳的图像和音质，请使用SP（标准播放）模式。

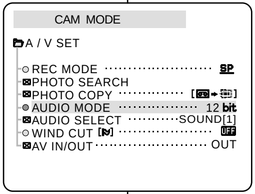
Advanced Recording

● AUDIO MODE

- ⌘ The AUDIO MODE function works in CAM and PLAYER (VP-D93i/D97i/D99i only) modes.
- ⌘ This camcorder records sound in two ways. (12bit, 16bit)
  - ■ 12bit : You can record two 12bit stereo sound tracks.
    The original stereo sound can be recorded onto the MAIN (SOUND1) track.
    Additional stereo sound can be dubbed onto the SUB (SOUND2) track.
  - ■ 16bit : You can record one high quality stereo sound using the 16bit recording mode.
    Audio dubbing is not possible when using this mode.

1. Set the camcorder to CAM mode.
2. Press the MENU button.
   - ■ The menu list will appear.
3. Move the MENU SELECTOR to highlight A/V and push the MENU SELECTOR.
4. Select the AUDIO MODE from the menu and push the MENU SELECTOR.
   - ■ The AUDIO MODE toggles between 12bit-16bit with each push.
5. To exit, press the MENU button.


CAM MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
○ REC MODE ·········· SP
○ PHOTO SEARCH
○ COPY [→]
○ AUDIO MODE ··· 12 bit
○ AUDIO SELECT
○ WIND CUT ······ OFF
○ AV IN/OUT ·········· OUT


CAM MODE
A / V SET
○ REC MODE ······················ SP
⊠ PHOTO SEARCH
⊠ PHOTO COPY ·············· [→]
● AUDIO MODE ················· 12 bit
⊠ AUDIO SELECT ··········· SOUND[1]
○ WIND CUT ···················· OFF
⊠ AV IN/OUT ························ OUT

高级拍摄技巧

● AUDIO MODE（声音记录模式）

- ⌘ 可以在CAM（摄像机）和PLAYER（放像机）（仅限于VP-D93i/D97i/D99 i）模式下使用AUDIO MODE（音频模式）功能。
- ⌘ 本摄录一体机可以使用两种音频模式录音。(12位、16位)
  - ■ 12位：您可以录制两个12位立体声音轨。
    原始立体声可录制在MAIN（主）(SOUND 1）音轨上。
    附加的立体声可录制在SUB（副）(SOUND 2）音轨上。
  - ■ 16位：您可以使用16位录制模式录制高品质的立体声。
    使用这种模式时，不能使用音频配音。

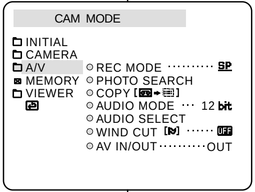
1. 将摄录一体机设置为CAM（摄像机）模式。
2. 按下MENU（菜单）按钮。
   - ■ 会出现菜单列表。
3. 移动MENU SELECTOR（菜单选择器），选中A/V，并按MENU SELECTOR（菜单选择器）。
4. 从菜单选择AUDIO MODE（音频模式）并按MENU SELECTOR（菜单选择器）。
   - ■ 每按下一次，AUDIO MODE（音频模式）都会在12位-16位之间切换一次。
5. 若要退出，按下MENU（菜单）按钮即可。

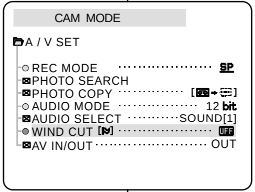
Advanced Recording

● WIND CUT

- ⌘ The WIND CUT function works in CAM and PLAYER (VP-D93i/D97i/D99i only) modes.
- ⌘ The WIND CUT function minimizes wind noise or other noise while recording.
  - When the wind cut is on, it is possible other low sounds will be eliminated along with the sound of the wind.

1. Set the camcorder to CAM mode.
2. Press the MENU button.
   - ■ The menu list will appear.
3. Move the MENU SELECTOR to highlight A/V and push the MENU SELECTOR.
4. Select WIND CUT from submenu.
5. This feature toggles ON/OFF each time you push the MENU SELECTOR.
   - ■ **[🄽]** is shown in the display when you turn the WIND CUT on.
6. To exit, press the MENU button.


CAM MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
REC MODE ········· SP
PHOTO SEARCH
COPY
AUDIO MODE ··· 12 bit
AUDIO SELECT
WIND CUT ······ OFF
AV IN/OUT ·········OUT


CAM MODE
A / V SET
REC MODE ···················· SP
PHOTO SEARCH
PHOTO COPY ·············
AUDIO MODE ················ 12 bit
AUDIO SELECT ··········SOUND[1]
WIND CUT ······················ OFF
AV IN/OUT ························ OUT

Notes

- ■ Make sure WIND CUT is set to off when you want the microphone to be as sensitive as possible.
- ■ Use the WIND CUT when recording in windy places such as the beach or near buildings.

高级拍摄技巧

● WIND CUT（风声消除）

- ⌘ 可以在CAM（摄像机）和PLAYER（放像机）（仅限于VP-D93i/D97i/D99i）模式下使用WIND CUT（风声消除）功能。
- ⌘ WIND CUT（风声消除）功能可以把录制时的风声或其它噪音最小化。
  - 当WIND CUT（风声消除）功能开启时，一些较小的声音也会连同风声被一道消除了。

1. 将摄录一体机设置为CAM（摄像机）模式。
2. 按下MENU（菜单）按钮。
   - ■ 会出现菜单列表。
3. 拨动MENU SELECTOR（菜单选择器），选中A/V，并按MENU SELECTOR（菜单选择器）。
4. 在子菜单中选择WIND CUT（风声消除）。
5. 每按下一次MENU SELECTOR（菜单选择器），该功能都会在ON/OFF（开/关）之间切换一次。
   - ■ 当您打开WIND CUT（风声消除）时，将被显示。
6. 若要退出，按下MENU（菜单）按钮即可。

注 意

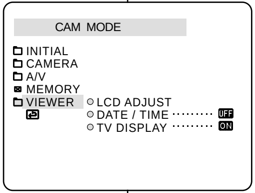
- ■ 若要使话筒尽可能地灵敏，请确保已将WIND CUT（风声消除）设置为关闭。
- ■ 在多风的地方如海滨或建筑物附近拍摄时，请使用WIND CUT（风声消除）。

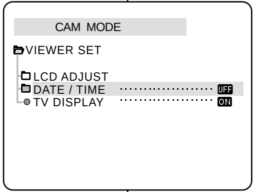
Advanced Recording

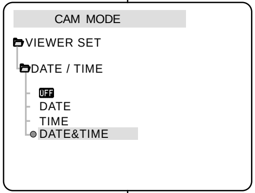
● DATE/TIME

- ⌘ The DATE/TIME function works in CAM, PLAYER, M.REC and M.PLAY modes.
- ⌘ The date and time are automatically recorded on a special data area of the tape.

1. Press the MENU button.
   - ■ The menu list will appear.
2. Move the MENU SELECTOR to highlight VIEWER and push the MENU SELECTOR.
3. Move the MENU SELECTOR to highlight DATE/TIME.
4. Push the MENU SELECTOR to select the sub-menu.
5. Using the MENU SELECTOR, select the DATE/TIME mode.
   - ■ You can choose to display - the OFF, DATE, TIME, DATE/TIME
     - OFF
     - DATE only
     - TIME only
     - DATE & TIME
   - ■ To return to the previous menu, highlight the DATE/TIME in the middle of the menu and push the MENU SELECTOR.
6. To exit, press the MENU button.







Notes

- ■ The DATE/TIME is not affected by the OSD ON/OFF (DISPLAY) button.
- ■ The DATE/TIME will read “- - -” in the following conditions.
  - During playback of a blank section of a tape.
  - If the tape was recorded before setting the DATE/TIME in the Camera’s memory.
  - When the lithium battery becomes weak or dead.
- ■ Before you can use the DATE/TIME function, you must set the Clock. See CLOCK SET on page 37.

高级拍摄技巧

● DATE/TIME（日期/时间）

- ⌘ 可以在CAM（摄像机）、PLAYER（放像机）、M.REC（存储器拍摄）和M.PLAY（存储器播放）模式下使用DATE/TIME（日期/时间）功能。
- ⌘ DATE/TIME（日期/时间）可以在录像带的特殊数据区域内进行自动录制。

1. 按下MENU（菜单）按钮。
   - ■ 会出现菜单列表。
2. 移动MENU SELECTOR（菜单选择器）选中VIEWER（取景器），并按MENU SELECTOR（菜单选择器）。
3. 移动MENU SELECTOR（菜单选择器），选中DATE/TIME（日期/时间）。
4. 按MENU SELECTOR（菜单选择器）以选择子菜单。
5. 使用MENU SELECTOR（菜单选择器），选择DATE/TIME（日期/时间）模式。
   - ■ 您可以选择以下显示—OFF（关闭）、DATE（日期）、TIME（时间）、DATE/TIME（日期/时间）模式。
     - OFF
     - 仅DATE
     - 仅TIME
     - DATE 和TIME
   - ■ 若要返回上一级菜单，请在菜单中选中DATE/TIME（日期/时间），并按MENU SELECTOR（菜单选择器）。
6. 若要退出，按下MENU（菜单）按钮即可。

注 意

- ■ DATE/TIME（日期/时间）不受屏幕显示的开/关（DISPLAY，显示）按钮的影响。
- ■ 在下列情形下，DATE/TIME（日期/时间）会只显示“- - -”。
  - 在播放录像带的空白段时。
  - 如果在摄像机内存中设置DATE/TIME（日期/时间）之前，录像带已录制完毕。
  - 在锂电池电量不足或没电时。
- ■ 在使用DATE/TIME（日期/时间）功能之前，必须先设置时钟。参见第37页的CLOCK SET（时钟设置）。

Advanced Recording

● TV DISPLAY

⌘ The TV DISPLAY function works in CAM, PLAYER, M.REC and M.PLAY modes.

⌘ You can select the output path of the OSD (On Screen Display).

- ■ OFF: The OSD appears in the LCD screen only.
- ■ ON: The OSD appears in the LCD screen, View Finder and TV.
- ■ Use the DISPLAY button located at the left side of the camcorder to turn ON/OFF all of the OSD displayed on the LCD/View Finder/TV.

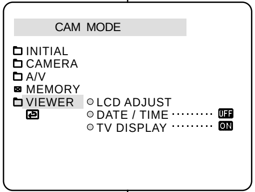
1. Set the camcorder to CAM, PLAYER, M.REC and M.PLAY mode.

2. Press the MENU button.
   - ■ The menu list will appear.

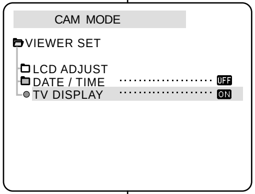
3. Move the MENU SELECTOR to highlight VIEWER and push the MENU SELECTOR.

4. Select the TV DISPLAY mode in list, push the MENU SELECTOR.
   - ■ The DISPLAY mode switches between ON/OFF with each push.

5. To exit, press the MENU button.



DATE / TIME ········· OFF
TV DISPLAY ········· ON



DATE / TIME ······················ OFF
TV DISPLAY ······················ ON

高级拍摄技巧

● TV DISPLAY（电视显示）

⌘ 可以在CAM（摄像机）、PLAYER（放像机）、M.REC（存储器拍摄）和M.PLAY（存储器播放）模式下使用TV DISPLAY（电视显示）功能。

⌘ 您可以选择OSD（屏幕显示）的输出路径。

- ■ OFF（关闭）：屏幕显示仅出现在液晶显示屏上。
- ■ ON（打开）：屏幕显示将在液晶显示屏、EVF和电视上出现。
- ■ 使用摄像机左侧的DISPLAY（显示）按钮可关闭在液晶显示屏/EVF/电视上显示的OSD。

1. 将摄录一体机设置为CAM（摄像机）、PLAYER（放像机）、M.REC（存储器拍摄）和M.PLAY（存储器播放）模式。

2. 按下MENU（菜单）按钮。
   - ■ 会出现菜单列表。

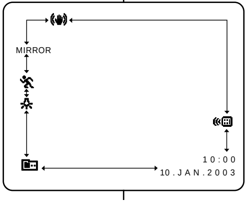
3. 移动MENU SELECTOR（菜单选择器）选中VIEWER（取景器），并按MENU SELECTOR（菜单选择器）。

4. 从列表中选择TV DISPLAY（电视显示）模式，并按MENU SELECTOR（菜单选择器）。
   - ■ 每按下一次，DISPLAY（显示）模式就会在ON/OFF（开/关）之间切换一次。

5. 若要退出，按下MENU（菜单）按钮即可。

Using Quick Menu(Navigation Menu)

- Quick menu is available only in CAM and M.REC mode.
- Quick menu is used to adjust camera functions by simply using the MENU SELECTOR button.
  This feature is useful for when you want to make simple adjustments without having to access menus and submenus.



(CAM mode)

■ DATE/TIME (see page 56)

- Each time you select DATE/TIME and push the MENU SELECTOR, it will be displayed in order of DATE - TIME - DATE/TIME - OFF.

■ WL.REMOTE() (see page 38)

- Each time you select WL.REMOTE and push the MENU SELECTOR, the WL.REMOTE is switched to either enabled () or disabled (OFF).

■ EIS () (see page 47)

- Each time you select EIS and push the MENU SELECTOR, the EIS icon is displayed or set to OFF.

■ DSE (Digital Special Effect) (see page 48)

- Each time you select DSE and push the MENU SELECTOR, the DSE preset values are applied or set to OFF.
  DSE values will not switch between On and Off if they have not been preset in the menu.

■ PROGRAM AE (see page 42)

- Each time you select PROGRAM AE and push the MENU SELECTOR, you can choose between the preset PROGRAM AE values and AUTO. You can’t choose between Auto and PROGRAM AE values if the values have not been preset in the regular menu.

使用快捷菜单（导航菜单）

- 只能在CAM（摄像机）和M.REC（存储器拍摄）模式下使用快捷菜单。
- 仅仅使用MENU SELECTOR（菜单选择器），即可使用快捷菜单调节摄像机功能。
  在您要做简单的调节而不必访问菜单和子菜单时，该功能非常有用。

■ DATE/TIME（日期/时间）（见56页）

- 在您每次选择DATE/TIME（日期/时间）并按MENU SELECTOR（菜单选择器），机器都会按DATE-TIME-DATE/TIME-OFF（日期-时间-日期/时间-关闭）的顺序进行显示。

■ WL.REMOTE（遥控）()（见38页）

- 在您每次选择WL.REMOTE并按MENU SELECTOR（菜单选择器），WL.REMOTE都会在启用（）或禁用（OFF）之间切换一次。

■ EIS (电子图像稳定器) ()（见47页）

- 在您每次选择EIS并按MENU SELECTOR（菜单选择器），系统都会显示EIS图标或将其设置为OFF（关闭）。

■ DSE (数字特殊效果)（见48页）

- 在您每次选择DSE并按MENU SELECTOR（菜单选择器），系统都会应用DSE的预设值或将其设置为OFF（关闭）。
  除非为DSE预设了值，否则不能在On（打开）和Off（关闭）之间切换值。

■ PROGRAM AE（程序自动曝光）（见42页）

- 每次您选择PROGRAM AE（程序自动曝光）并按MENU SELECTOR（菜单选择器），系统都会在预设的PROGRAM AE（程序自动曝光）和AUTO（自动）之间切换一次。
  除非已在常规菜单中为PROGRAM AE（程序自动曝光）预设了值，否则不能在PROGRAM AE（程序自动曝光）和AUTO（自动）之间切换值。

Advanced Recording

- WHT. BALANCE (see page 44)
  - Each time you select WHT. BALANCE and push the MENU SELECTOR, you can choose between preset WHT.BALANCE values and AUTO.
    As in PROGRAM AE, you can't choose between Auto and WHT.BALANCE values it they have not been preset.

- SHUTTER SPEED & EXPOSURE
  - You can set values for SHUTTER SPEED and EXPOSURE by selecting (▣) icon and pushing the MENU SELECTOR.
    For more information, see the next chapter.

Setting the Quick menu

1. Set the camcorder to CAM mode.

2. Move the MENU SELECTOR to select a function you want and then push
   the MENU SELECTOR to change the values.

Note

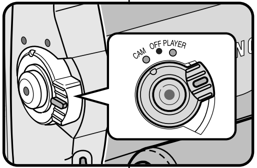
- Quick menu function will not operate in EASY mode.

高级拍摄技巧

- WHT.BALANCE（白平衡）（见44页）
  - 在您每次选择WHT.BALANCE（白平衡）并按MENU SELECTOR（菜单选择器），系统都会在预设的WHT.BALANCE（白平衡）值以及AUTO之间切换一次。
    与PROGRAM AE（程序自动曝光）相类似的是，除非预设了WHT.BALANCE（白平衡）值以及AUTO值，否则不能在两者之间切换值。

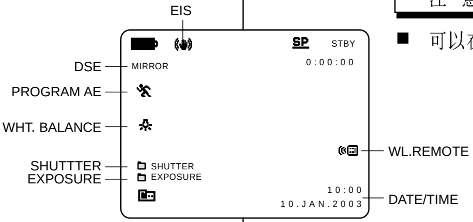
- SHUTTER SPEED & EXPOSURE（快门速度和曝光）
  - 通过选择（▣）图标和按MENU SELECTOR（菜单选择器），您可以为快门速度和曝光设置数值。有关详细信息，请参见下一章。

设置快捷菜单


CAM
OFF
PLAYER

1. 将CAM（摄像机）设置为摄像模式。

2. 移动MENU SELECTOR（菜单选择器）选择所需功能并按MENU SELECTOR（菜单选择器）以改变数值。


EIS
SP
STBY
0:00:00
DSE
MIRROR
PROGRAM AE
WHT. BALANCE
WL.REMOTE
SHUTTTER
EXPOSURE
SHUTTER
EXPOSURE
10:00
10.JAN.2003
DATE/TIME

注 意

- 可以在EASY（简易）模式下使用快捷菜单功能。

Advanced Recording

SHUTTER SPEED & EXPOSURE

- You can set SHUTTER SPEED and EXPOSURE in CAM/M.REC mode.
- SHUTTER SPEED and EXPOSURE values can only be set in the Quick Menu.
- SHUTTER SPEED and EXPOSURE are automatically switched and/or deactivated.

1. Set the power switch to CAM mode.
2. Move the MENU SELECTOR until you see icon(▣) on, and then push the MENU SELECTOR.
   - You see a screen on which you can select SHUTTER SPEED and EXPOSURE.
   - Move the MENU SELECTOR to select the item you want and then push the MENU SELECTOR.
   - SHUTTER SPEED can be set to 1/50, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000 or 1/10000.
   - Only SHUTTER SPEED up to 1/250 are available when using a M.REC mode.
   - EXPOSURE can be set between 00 and 29.
3. To exit from the setting screen, select the icon(▣) and push the MENU SELECTOR.

Recommended Shutter speeds when recording

- Outdoor sports such as golf or tennis : 1/2000 or 1/4000.
- Moving cars or trains or other rapidly moving vehicles such as roller coasters : 1/1000, 1/500 or 1/250
- Indoor sports such as basketball : 1/120

Notes

- If you want to use the selected shutter speed and exposure value, you should begin the recording with shutter speed and exposure adjustment screens displayed on the LCD.
- If you manually change the shutter speed and exposure value when Auto-exposure option is selected, the manual changes will be applied first.
- Image may not seem as smooth when a high shutter speed is set.
- The camcorder returns to auto shutter setting and auto exposure setting when you change to the EASY, SLOW SHUTTER modes.
- When recording with a SHUTTER SPEED of 1/1000 or higher, make sure the sun is not shining into the lens.
- When recording with a SHUTTER SPEED or EXPOSURE, the Flash function does not work.

高级拍摄技巧

快门速度和曝光调整

- 只能在CAM(摄像机)、M.REC（存储器拍摄）模式设置SHUTTER SPEED(快门速度)和EXPOSURE (曝光) 功能。
- 只能在Quick(快捷) 菜单设置快门速度和曝光值。
- 快门速度和曝光自动切换和/或失效。

1. 将功能开关置于CAM（摄像机）模式。
2. 转动MENU SELECTOR(菜单选择器)直到见到 ▣ 图标出现，然后按MENU SELECTOR(菜单选择器)。
   - 您会见到一个屏幕，在上面可选择快门速度和曝光。
   - 转动MENU SELECTOR(菜单选择器) 以选择需要的选项，然后按MENU SELECTOR(菜单选择器)。
   - 可设置快门速度到1/50，/120，1/250，/500，/1000，/2000，/4000或1/10000。
   - 当使用M.REC（存储器拍摄）模式时，快门速度仅可使用1/250。
   - 曝光可位于00 和29之间。
3. 若要从设置屏幕退出，选择图标（▣）并按MENU SELECTOR (菜单选择器)。

录像时推荐的快门速度

- 室外运动如高尔夫或网球：1/2000或1/4000。
- 移动中的小车、火车或其它快速运行的车辆如过山车：1/1000，1/500或1/250
- 室内运动如篮球：1/120

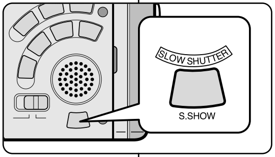
注 意

- 如果您想使用选择的快门速度和曝光值，应该通过显示在液晶显示屏上的快门速度和曝光调节屏幕开始拍摄。
- 如果在选择了自动曝光选项时，手动改变了快门速度和曝光值，则手动改变值优先生效。
- 在设置了较高的快门速度时，图像可能看上去不平滑。
- 在您切换到EASY，SLOW SHUTTER(简易、慢速快门)模式时，摄录一体机返回到自动快门设置和自动曝光设置。
- 在采用1/1000或更高的快门速度录像时，应保证阳光没有照射到镜头上。
- 在使用快门速度或曝光进行录像时，闪光灯功能不工作。

SLOW SHUTTER (Low Shutter Speed)

- ⌘ The SLOW SHUTTER function works in CAM mode only.
- ⌘ The shutter speed can be controlled, allowing you to record slow moving objects.

1. Set the power switch to CAM mode.
2. Press the SLOW SHUTTER button.
3. Each time you press the SLOW SHUTTER button, SHUTTER SPEED is changed to 1/25, 1/12, 1/6, off.
4. To exit, press the SLOW SHUTTER button.



Notes

- ■ When using "SLOW SHUTTER" the image takes on a slow motion like effect.
- ■ The SLOW SHUTTER function will not operate in EASY mode.
- ■ While using the SLOW SHUTTER function, you cannot use the following functions:
  - PROGRAM AE, EIS, Digital Zoom, SHUTTER SPEED, EXPOSURE, DSE, MEMORY MIX, Flash
- ■ When using “SLOW SHUTTER” function, the focus is adjusted slowly and sometimes the white dots will appear on the screen, this is not a fault.

慢速快门（较低的快门速度）

- ⌘ 慢速快门功能只在摄像机模式起作用。
- ⌘ 快门速度可以控制，允许您拍摄慢速运动的物体。

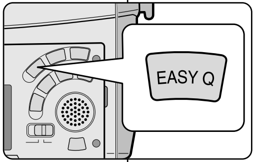
1. 将功能开关设置为CAM(摄像机)模式。
2. 按SLOW SHUTTER(慢速快门)按钮。
3. 每次按SLOW SHUTTER(慢速快门)按钮，快门速度依次变为1/25、1/12、1/6、off(关闭)。
4. 若要退出，按SLOW SHUTTER(慢速快门)按钮。

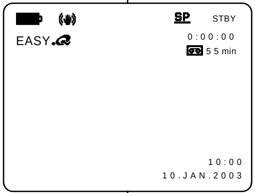
注 意

- ■ 在使用“SLOW SHUTTER ” (慢速快门)功能时，图像呈现慢动作效果。
- ■ 在EASY(简易)模式，慢快门功能不工作。
- ■ 在使用慢速快门时，您无法使用下列功能：
  - 程序自动曝光，电子图像稳定器，数字变焦，快门速度，曝光，数字特殊效果，混合记忆，闪光灯
- ■ 当使用“慢速快门”功能时，聚焦被缓慢的进行调整，而且有时屏幕上会出现白色的瑕疵，但这不属于故障。

EASY Mode (for Beginners)

⌘ The EASY mode allows a beginner to easily make good guality video recordings.
- The EASY mode only operates in CAM mode.





1. Set the power switch to CAM mode.
2. By pressing the EASY button, all functions on the camera will be set to off and the recording settings will be set to the following basic modes:
   - Battery level, recording mode, counter, DATE/TIME, and EIS (✋) will be displayed.
   - The word “EASY.Q” will appear on the LCD at the same time.
     However, the DATE/TIME will only be seen if it has been previously set. (see page 56)
3. Press START/STOP to start recording.
   - Recording will begin using the basic automatic settings.
4. Pressing the EASY button again turns the EASY mode off.
   - The camera will return to the settings that were set prior to activating EASY mode.

Notes

- In EASY mode, certain functions are not available, such as MENU, BLC, MF/AF.
  - If you want to use these functions, you must first switch the EASY mode off.
- The EASY mode settings are deleted when the battery pack is removed from the camcorder and therefore must be reset when a battery pack has been replaced.

EASY（简易）模式（适用于初学者）

⌘ EASY（简易）模式可以帮助初学者简易地拍摄好图像。
- 只有在CAM（摄像机）模式下，才能使用EASY（简易）模式。

1. 将功能开关切换到CAM（摄像机）模式。
2. 通过按下EASY（简易）按钮，摄像机上的所有功能都将被设置为关闭，且拍摄设置也将会被设置成以下基本模式：
   - 屏幕上将会显示电池电量、录制模式、计数器、DATE/TIME（日期/时间）和EIS（✋）。
   - “EASY.Q”（简易）字样将会同时出现在液晶显示屏上。
     然而，只有在预先设置了DATE/TIME（日期/时间）的情况下，才会见到DATE/TIME（日期/时间）。（见56页）
3. 按START/STOP（开始/停止）开始拍摄。
   - 拍摄会采用基本的自动设置开始。
4. 在STBY（待机）模式下再次按下EASY（简易）按钮时，将会关闭简易模式。
   - 在您正在拍摄的过程中，EASY（简易）功能不会被关闭。
   - 摄像机将会返回到激活EASY（简易）模式前的设置。

注　意

- 在EASY（简易）模式下，某些功能不可用，如MENU（菜单）、BLC（背光补偿）、MF/AF（手动聚焦/自动聚焦）。
  - 如果您想使用这些功能，必须首先将EASY（简易）模式关闭。
- 如果没有安装摄录一体机的电池组，那么EASY（简易）模式设置就会被取消，因此在更换电池时，必须对其进行重新设置。

MF/AF (Manual Focus/Auto Focus)

⌘ The MF/AF function works in CAM, M.REC mode only.

⌘ In most situations, it is better to use the automatic focus feature, as it enables you to concentrate on the creative side of your recording.

⌘ Manual focusing may be necessary under certain conditions that make automatic focusing difficult and/or unreliable.

Auto Focusing

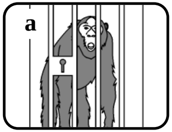
⌘ If you are inexperienced in the use of camcorders, we recommend that you make use of Auto Focus.

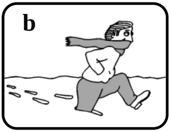
Manual Focusing

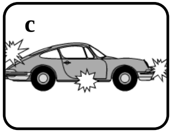
⌘ In the following cases you may obtain better results by adjusting the focus manually.

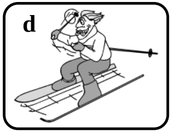
a. A picture containing several objects, some close to the camcorder, others further away.
b. A person enveloped in fog or surrounded by snow.
c. Very shiny or glossy surfaces like a car.
d. People or objects moving constantly or quickly like an athlete or a crowd.

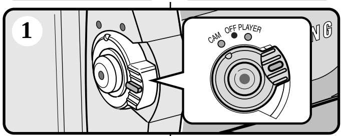
1. Set the power switch to CAM mode.
2. Frame the picture with the zoom control.
   ■ If you use the zoom after manual focusing, the picture may go out of focus.
3. Press the MF/AF button to switch to manual focus.
   ■ M. FOCUS(MF) appears in the display.
4. Turn the MF dial up or down until the object is in focus.
   ■ Zoom out a little if focusing is difficult.
5. To return to AF(Auto Focus: A), press the MF/AF button again.

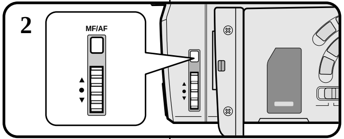


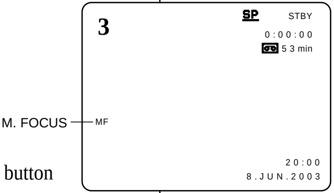












手动聚焦/自动聚焦（MF / AF）

⌘ 手动聚焦/自动聚焦（MF/ AF）功能仅在CAM（摄像机）、M.REC(存储器拍摄)模式工作。

⌘ 在大部分情况下，最好使用自动聚焦功能，因为它可使您将精力集中在拍摄的创意上。

⌘ 在某些条件下，自动聚焦很难和/或不可靠，可能必须使用手动聚焦。

自动聚焦

⌘ 如果您对摄录一体机的使用不太熟悉，建议您采用自动聚焦方式。

手动聚焦

⌘ 在下列情况下，采用手动调整焦距会获得更好的结果。

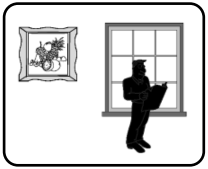
a. 画面中有若干被摄体，一些被摄体靠近摄录一体机，另一些被摄体则远离摄录一体机。
b. 人被雾气笼罩或四面皆雪。
c. 光亮耀眼夺目的表面，例如小汽车。
d. 不断移动或快速移动的人或被摄体，如运动员或人群。

1. 将功能开关置于摄像机模式。
2. 使用变焦控制对准画面。
   ■ 如果在手动聚焦后使用了变焦，则画面可能没有聚焦。
3. 按手动聚焦/自动聚焦（MF/ AF）按钮，切换到手动聚焦。
   ■ 手动聚焦（MF）出现在显示器上。
4. 向上或向下转动手动聚焦拨盘，直到聚焦完成。
   ■ 如果很难聚焦，则稍稍推远一点。
5. 若要返回到AF（自动聚焦 A），再次按手动聚焦/自动聚焦（MF/AF）按钮。

Advanced Recording

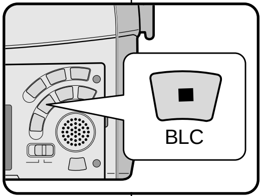
BLC (Back Light Compensation)

- ⌘ BLC works in CAM/M.REC mode.
- ⌘ Back lighting exists when the subject is darker than the background:
  - ■ The subject is in front of a window.
  - ■ The person to be recorded is wearing white or shiny clothes and is placed against a bright background; the person’s face is too dark to distinguish his/her features.
  - ■ The subject is outdoors and the background is overcast.
  - ■ The light sources are too bright.
  - ■ The subject is against a snowy background.



*** BLC off**

1. Set the power switch to CAM mode.
2. Press the BLC button.
   - ■ Normal - BLC - Normal
   - ■ BLC enhances the subject.

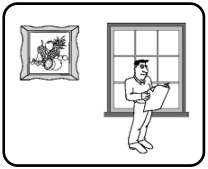


Note

- ■ The BLC function will not operate in EASY mode.

高级拍摄技巧

BLC（Back Light Compensation，背光补偿）



*** BLC on**

- ⌘ 可以在CAM（摄像机）或M.REC（存储器拍摄）模式下使用背光补偿（BLC）。
- ⌘ 当被摄物体比背景暗时，则会存在背光:
  - ■ 被摄物体位于窗前。
  - ■ 被摄人物身着白色或闪亮的服装，身后是明亮的背景，人物的面孔过暗以致无法辩认其特征。
  - ■ 被摄体处于室外，背景是阴暗的天空。
  - ■ 光线太亮。
  - ■ 被摄体背景白雪皑皑。

1. 将功能开关切换到CAM（摄像机）模式。
2. 按下BLC（背光补偿）按钮。
   - ■ Normal - BLC - Normal（正常-背光补偿-正常）
   - ■ 背光补偿仅有助于被摄物体的曝光的增强。

注意

- ■ 在EASY（简易）模式下，不能使用背光补偿。

Fade In and Out

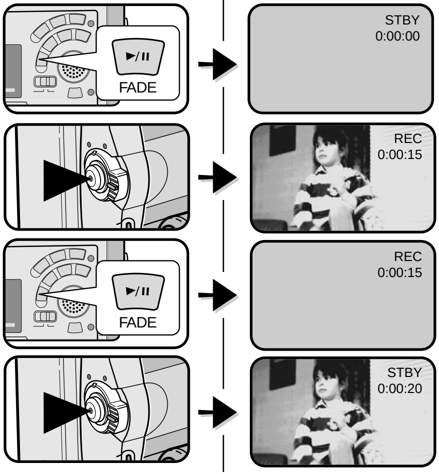
- ⌘ The FADE function works in CAM mode only.
- ⌘ You can give your recordings a professional look by using special effects such as fading in at the beginning of a sequence or fading out at the end of a sequence.

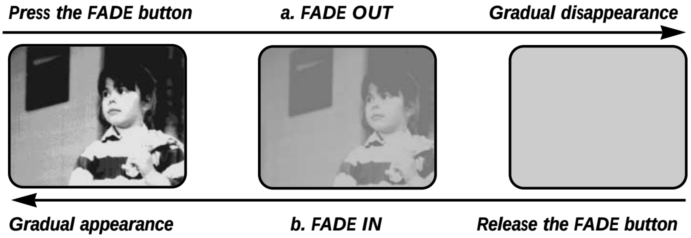
To Start Recording

1. Before recording, hold down the FADE button.
   The picture and sound gradually disappear (fade out).
2. Press the START/STOP button and at the same time release the FADE button.
   Recording starts and the picture and sound gradually appear (fade in).

To Stop Recording (use FADE IN / FADE OUT)

3. When you wish to stop recording, hold down the FADE button. The picture and sound gradually disappear (fade out).
4. When the picture has disappeared, press the START/STOP button to stop recording.


FADE
STBY
0:00:00
REC
0:00:15
FADE
REC
0:00:15
STBY
0:00:20


Press the FADE button
a. FADE OUT
Gradual disappearance
Gradual appearance
b. FADE IN
Release the FADE button

a. FADE OUT
(Approx. 4 seconds)

b. FADE IN
(Approx. 4 seconds)

Fade In and Out（淡入和淡出）

- ⌘ 只有在CAM（摄像机）模式下，才能使用FADE（淡化）功能。
- ⌘ 为了让拍摄的节目达到专业水准，可以使用一些特殊效果，例如在一个片断的开始用淡入的手法，而在结束时采用淡出的手法。

开始拍摄

1. 开始拍摄前，请按下FADE（淡化）按钮。图像和声音将逐渐消失（淡出）。
2. 按下START/STOP（开始/停止）按钮，同时松开FADE（淡化）按钮。
   摄像开始，并且图像和声音逐渐显现（淡入）。

停止拍摄（使用淡入和淡出）

3. 当您需要停止拍摄时，请按下FADE（淡化）按钮。
   图像和声音逐渐消失（淡出）。
4. 图像消失后，请按下START/STOP（开始/停止）按钮，停止拍摄。

a. FADE OUT（淡出）
（约4秒钟）

b. FADE IN（淡入）
（约4秒钟）

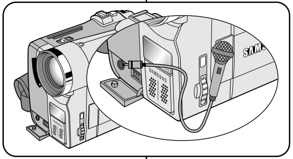
Advanced Recording

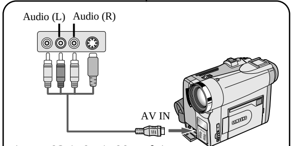
Audio dubbing

- The AUDIO DUBBING function only works in PLAYER Mode.
- You can add sound to the original sound on a pre-recorded tape, recorded in SP mode with 12bit sound.
- Use the internal and external microphones or other audio equipment.
- The original sound will not be erased.

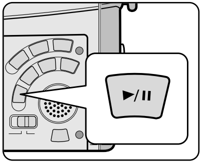
Dubbing sound

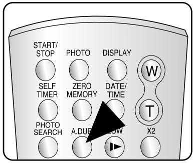
1. Set the camcorder to PLAYER mode.
   - If you want to use an external microphone, connect the microphone to the external MIC input jack on the camcorder.
   - When you wish to dub using the External A/V input, connect the Multi-AV cable to the camcorder by inserting the Multi-AV cable into the Multi-AV Jack at the front side of the camcorder. (VP-D93i/D97i/D99i only)
     - Press the MENU button, move the MENU SELECTOR to highlight A/V and push the MENU SELECTOR.
     - Move the MENU SELECTOR to highlight AV IN/OUT and push the MENU SELECTOR to select AV IN/OUT.
     - Move the MENU SELECTOR to highlight AV IN (or S-VIDEO IN) and push the MENU SELECTOR to select AV IN (or S-VIDEO IN).
2. Press the ▶/❚❚ (PLAY/STILL) button and find the timeframe of the scene to be dubbed.
3. Press the ▶/❚❚ (PLAY/STILL) button to pause the scene.
4. Press the A.DUB button on the Remote Control.
   - A.DUB will be displayed on the LCD.
   - The camcorder is in a ready-to-dub state for dubbing.
5. Press the ▶/❚❚(PLAY/STILL) button to start dubbing.
   - Press the ■ (STOP) button to stop the dubbing.





(VP-D93i/D97i/D99i only)





Notes

- You can not use the audio dubbing function while playing a write protected video tape.
- When you wish to dub using the External A/V input, you must connect the Multi-AV cable to the audio system from which you wish to record. (VP-D93i/D97i/D99i only)
- When adding sound using the built-in microphone, make sure not to connect any cables to the camcorder.
- You can not dub sound on a pre-recorded tape in LP mode or 16 bit mode.

高级拍摄技巧

配音

- 配音（AUDIO DUBBING）功能仅在PLAYER(放像机)模式工作。
- 您可在预先录制的磁带上添加配音，在标准播放模式下录制12位音频模式的声音。
- 使用内置话筒和外接话筒或其它音频设备。
- 不会抹除原有的声音。

配音

1. 将摄录一体机置于PLAYER(放像机)模式。
   - 如果您想使用外接话筒，将话筒连接到摄录一体机的外接话筒输入插口上。
   - 如果您想使用外接A/V输入配音，连接Multi-AV电缆到摄录一体机上，将Multi-AV电缆插头插入到摄录一体机前面的Multi-AV插口上（仅限于VP-D93i/D97i/D99i）。
     - 按下MENU(菜单)按钮，移动MENU SELECTOR(菜单选择器)，使A/V高亮显示并按MENU SELECTOR(菜单选择器)。
     - 移动MENU SELECTOR(菜单选择器)，使AV IN/ OUT(输入/输出)高亮显示，并按MENU SELECTOR (菜单选择器)以选择AV IN/OUT(输入/输出)。
     - 移动MENU SELECTOR(菜单选择器)，使AV IN(输入)（或S-VIDEO输入）高亮显示，并按MENU SELECTOR(菜单选择器)以选择AV IN(输入)（或S-VIDEO输入）
2. 按下 ▶/❚❚（播放/静止）按钮并找到待配音的场景的时间范围。
3. 按下 ▶/❚❚（播放/静止）按钮以暂停场景。
4. 按下遥控器上的A.DUB(配音)按钮。
   - 液晶显示屏上会显示A.DUB(配音)。
   - 摄录一体机处于配音准备就绪状态。
5. 按下▶/❚❚（播放/静止）按钮开始配音。
   - 按 ■（STOP）(停止)按钮，停止配音。

注 意

- 在播放有写保护的录像带时，不能使用配音功能。
- 如果您想使用外接A/V输入配音时，必须连接Multi-AV电缆到音频系统上，从系统上录制。(仅限于VP-D93i/D97i/D99i)
- 在使用内置话筒配音时，保证不连接任何电缆到摄录一体机上。
- 在LP（长时播放）模式或16位音频模式下、不能在预先录制的磁带上配音。

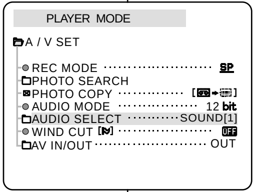
Advanced Recording

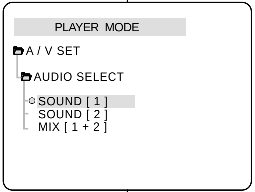
Dubbed audio Playback

1. Insert the dubbed tape and press MENU button.
2. Move the MENU SELECTOR to highlight A/V.
3. Push the MENU SELECTOR to enter the sub-menu.
4. Use the MENU SELECTOR to select AUDIO SELECT from the submenu.
5. Push the MENU SELECTOR to enter the sub-menu.
6. Using the MENU SELECTOR, select the AUDIO playback channel.
   - Push the MENU SELECTOR to confirm the audio playback channel.
     - SOUND1 : play the original sound.
     - SOUND2 : play the dubbed sound.
     - MIX(1+2) : play back SOUND1 and 2 equally mixed.
7. To exit, press the MENU button.
8. Press the ▶/II (PLAY/STILL) button to playback the dubbed tape.

Note

- When you playback added sound (SOUND2 or MIX mode), you may experience loss of sound quality.


PLAYER MODE
A / V SET
REC MODE ······················ SP
PHOTO SEARCH
PHOTO COPY ············· [▭→▭]
AUDIO MODE ················ 12 bit
AUDIO SELECT ·········SOUND[1]
WIND CUT [✕] ···················· OFF
AV IN/OUT ······················· OUT


PLAYER MODE
A / V SET
AUDIO SELECT
SOUND [1]
SOUND [2]
MIX [1 + 2]

高级拍摄技巧

播放音频配音

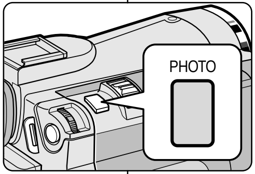
1. 插入已配音的录像带并按下MENU（菜单）按钮。
2. 移动MENU SELECTOR（菜单选择器）选中A/V。
3. 按下MENU SELECTOR（菜单选择器）按钮进入子菜单。
4. 使用MENU SELECTOR（菜单选择器）在子菜单中选择AUDIO SELECT（音频选择）。
5. 按MENU SELECTOR（菜单选择器）按钮以进入子菜单。
6. 使用MENU SELECTOR（菜单选择器），选择音频播放声道。
   - 按MENU SELECTOR（菜单选择器）按钮确认音频播放声道。
     - SOUND1（声道1）：播放原声。
     - SOUND2（声道2）：重放配音。
     - MIX（1+2）［混声（1+2）］：播放均等混合的声道1和2。
7. 若要退出，按下MENU（菜单）按钮即可。
8. 按▶/II（PLAY/STILL）（播放/静止）按钮播放配音录像带。

注 意

- 在您播放添加的声音（SOUND2或MIX模式），会感到音质下降。

PHOTO Image Recording

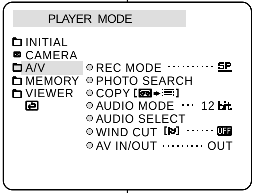
1. Press the PHOTO button lightly (about halfway down) and hold it.
   - ■ The still picture appears on the LCD monitor.
   - ■ If you do not wish to record, release the button.
2. Press the PHOTO button fully down.
   - ■ The still picture is recorded for about 6~7 seconds.
3. After the PHOTO has been recorded, the camcorder returns to STBY mode.

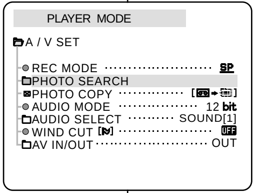


Searching for a PHOTO picture

⌘ The PHOTO SEARCH works in PLAYER mode only.

1. Press the MENU button. (or press the PHOTO SEARCH button on the remote control.)
   - ■ The MENU list will appear.
2. Move the MENU SELECTOR to highlight A/V.
3. Push the MENU SELECTOR to enter the sub-menu.
4. Select PHOTO SEARCH from the sub-menu and push the MENU SELECTOR.
5. Search the PHOTO using the ▶▶ (FF) and ◀◀ (REW) buttons.
   - ■ The PHOTO search process appears on the LCD while you are searching.
   - ■ After completing the search, the camcorder displays the still image.
6. To exit, press the ■ (STOP) button.


PLAYER MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
REC MODE ·········· SP
PHOTO SEARCH
COPY
AUDIO MODE ··· 12 bit
AUDIO SELECT
WIND CUT ······ OFF
AV IN/OUT ········· OUT


PLAYER MODE
A / V SET
REC MODE ························ SP
PHOTO SEARCH
PHOTO COPY ··············
AUDIO MODE ················· 12 bit
AUDIO SELECT ·········· SOUND[1]
WIND CUT ······················ OFF
AV IN/OUT ························ OUT

拍摄照片

1. 轻轻地按下PHOTO（拍照）按钮（大约按下一半儿）并且保持该状态。
   - ■ 液晶显示屏上将会出现静止的图像。
   - ■ 如果您不想拍摄，松开按钮即可。
2. 完全按下PHOTO（拍照）按钮。
   - ■ 静止图像会被拍摄约6-7秒钟。
3. 在拍摄完照片后，摄录一体机将返回到STBY（待机）模式。

照片搜索

⌘ 只有在PLAYER（放像机）模式下，才能使用PHOTO SEARCH（拍照记录搜索）功能。

1. 按下MENU（菜单）。（或在遥控器上按下PHOTO SEARCH按钮。）
   - ■ 会出现菜单列表。
2. 移动MENU SELECTOR（菜单选择器）选中A/V。
3. 按下MENU SELECTOR（菜单选择器）按钮进入子菜单。
4. 从子菜单选择PHOTO SEARCH（拍照记录搜索）并按MENU SELECTOR（菜单选择器）。
5. 在搜索照片时，请使用 ▶▶ （FF）（快进）和 ◀◀ （REW）（快倒）按钮。
   - ■ 在您搜索时，液晶显示屏上会出现照片搜索过程。
   - ■ 在完成搜索后，摄录一体机会显示静止图像。
6. 若要退出，请按 ■ （停止）按钮。

Advanced Recording

Various Recording Techniques

⌘ In some situations different recording techniques may be required for more dramatic results.

Note

Please rotate the LCD screen carefully as excessive rotation may cause damage to the inside of the hinge that connects the LCD screen to the Camcorder.

1. General recording.

2. Downward recording.

   Making a recording with a top view of the LCD screen.

3. Upward recording.

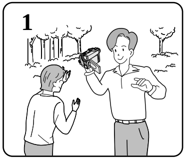
   Making a recording viewing the LCD screen from below.

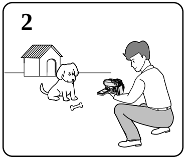
4. Self recording.

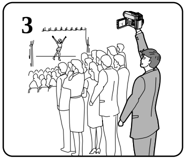
   Making a recording viewing the LCD screen from the front.

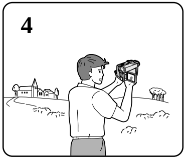
5. Recording with the Viewfinder.

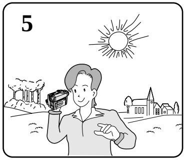
   - In circumstances where it is difficult to use the LCD monitor, the viewfinder can be used as a convenient alternative.











高级拍摄技巧

各种拍摄技巧

⌘ 在某些情况下，采用各种不同的拍摄技巧会得到更显著的效果。

注 意

请小心地旋转液晶显示屏，因为过度旋转可能损坏连接液晶显示屏与摄录一体机的内部铰链。

1. 一般拍摄。

2. 俯视拍摄。

   从上向下俯视液晶显示屏进行摄像。

3. 仰视拍摄。

   从下向上仰视液晶显示屏进行摄像。

4. 自拍。

   从前方观察液晶显示屏进行摄像。

5. 利用取景器摄像。

   - 在难以使用液晶显示屏的情况下，可使用取景器作为便利的代用方案。

Playback

Tape Playback

⌘ The playback function works in PLAYER mode only.

Playback on the LCD

⌘ It is practical to view a tape using the LCD when in a car or outdoors.

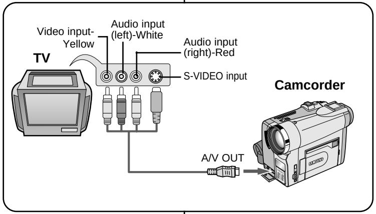
Playback on a TV monitor

⌘ To play back a tape, the television must have a compatible colour system.

⌘ We recommend that you use the AC Power Adapter as the power source for the camcorder.

Connecting to a TV which has Audio/Video input jacks

1. Connect the camcorder and TV with the Multi-AV cable.
   - ■ The yellow plug : Video
   - ■ The white plug : Audio(L)
   - ■ The red plug : Audio(R) - STEREO only
     - If you connect to a monaural TV or VCR, connect the yellow plug (Video) to the video input of the TV or VCR and the white plug (Audio L) to the audio input of the TV or VCR.
   - ⌘ You may use the SCART adapter (optional).
2. Set the power switch on the camcorder to PLAYER mode.
3. Turn on the TV and set the TV/VIDEO selector on the TV to VIDEO.
   - ■ Refer to the TV or VCR user’s manual.
4. Play the tape back.



Notes

- ■ You may use the S-VIDEO plug to obtain better quality pictures if you have an S-VIDEO connector on your TV.
- ■ If you use a S-VIDEO plug, you will need to connect an audio cable.
- ■ If you connect the cable to the Multi-AV Jack, you will not hear sound from the speakers.

播放

录像带的播放

⌘ 只有在PLAYER（放像机）模式下才能使用播放功能。

在液晶显示屏上播放

⌘ 在汽车内或户外利用液晶显示屏观看录像带是切实可行的。

在电视机上播放

⌘ 要想播放录像带，电视机必须具有兼容的彩色制式。

⌘ 我们建议您把交流电源适配器用作摄录一体机的电源。

将摄录一体机与带A/V输入插孔的电视机相连

1. 使用多功能AV线将摄录一体机与电视相连。
   - ■ 黄色插头：Video（视频）
   - ■ 白色插头：Audio（L）［音频（左）］
   - ■ 红色插头：Audio（R）［音频（右）］
     - 如果要连接到单声道电视或录像机上，请将黄色插头（Video）连接到电视或录像机的视频输入端，并将白色插头（Audio L）连接到电视或录像机的音频输入上。
   - ⌘ 您可以使用SCART适配器（选装）。
2. 将摄录一体机上的功能开关置于PLAYER（播放）模式。
3. 打开电视并将电视上的TV/VIDEO（电视/视频）选择开关置于VIDEO（视频）。
   - ■ 参见电视或录像机用户手册。
4. 播放录像带。

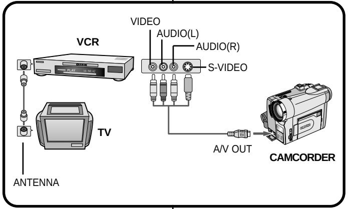
注 意

- ■ 如果您的电视机带有S-VIDEO插头，则可以使用S-VIDEO线，以获得质量更佳的图像。
- ■ 即使使用S-VIDEO线，也需要使用使用音频电缆。
- ■ 如果将线插入到多功能AV插孔，您将会听到扬声器里的声音。

Playback

Connecting to a TV which has no Audio and Video input jacks

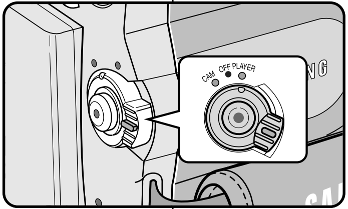
⌘ You can connect your camcorder to a TV through a VCR.



1. Connect the camcorder and VCR with the Multi-AV cable.
   - ■ The yellow plug : Video
   - ■ The white plug : Audio(L) - Mono
   - ■ The red plug : Audio(R)
2. Connect a TV to the VCR.
3. Set the power switch on the camcorder to PLAYER mode.
4. Turn on both the TV and VCR.
   - ■ Set the input selector on the VCR to LINE.
   - ■ Select the channel reserved for your VCR on the TV set.
5. Play the tape back.

Playback

⌘ You can play the recorded tape in PLAYER mode.



1. Connect a power source and set the power switch to PLAYER mode.
2. Insert the tape you wish to play back.
3. Using the ▶▶ (FF) and ◀◀ (REW) buttons, find the first position you wish to play back.
4. Press the ▶/II (PLAY/STILL) button.
   - ■ The images you recorded will appear on the TV after a few seconds.
   - ■ If a tape reaches its end while being played back, the tape will rewind automatically.

Note

- ■ The playback mode (SP/LP) is selected automatically.

播放

连接到不带音频和视频输入插口的电视上

⌘ 可通过录像机将摄录一体机与没有音频和视频输入插口的电视相连。

1. 使用多功能音频/视频电缆将摄录一体机与录像机相连。
   - ■ 黄色插头：Video（视频）
   - ■ 白色插头：Audio（L）［音频（左）］
   - ■ 红色插头：Audio（R）［音频（右）］
2. 将电视连接至录像机。
3. 将摄录一体机上的功能开关置于PLAYER（播放）模式。
4. 打开电视和录像机。
   - ■ 将录像机上的输入选择开关置于LINE（行）。
   - ■ 在电视机上为录像机选择预留的频道。
5. 播放录像带。

播放

⌘ 可在PLAYER（播放）模式播放录制好的录像带。

1. 连接电源，并将功能开关置于PLAYER（播放）模式。
2. 插入要播放的录像带。
3. 使用▶▶（FF）（快进）和◀◀（REW）（快倒）按钮，找到要播放的第一个位置。
4. 按下▶/II (PLAY/STILL)（播放/静止）按钮。
   - ■ 几秒后，您录制的图像会出现在电视上。
   - ■ 如果录像带播放到头时，录像带会自动快倒。

注 意

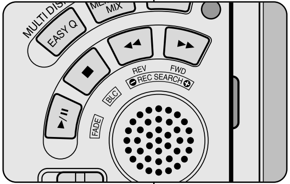
- ■ 播放模式（SP/LP）（标准播放/长时播放）将会被自动选择。

Various Functions while in PLAYER mode

- The PLAY/STILL, STOP, FF, REW buttons are located on the camcorder and the Remote Control.
- The F.ADV(Frame advance), X2, SLOW buttons are located on the Remote Control only.
- To prevent tape and head-drum wear, your camcorder will automatically stop if it is left in STILL or SLOW modes for more than 3 minutes.

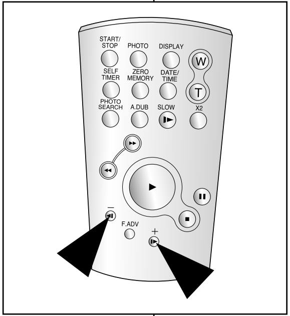
Playback pause

- Press the ▶/II (PLAY/STILL) button during Playback.
- To resume playback, press the ▶/II (PLAY/STILL) button.



Picture search (Forward/Reverse)

- Press the ▶▶ (FF) or ◀◀ (REW) buttons once during Playback or Still mode.
  To resume normal playback, press the ▶/II (PLAY/STILL) button.
- Keep pressing ▶▶ (FF) or ◀◀ (REW) buttons during Playback or Still mode.
  To resume normal playback, release the button.



Slow playback (Forward/Reverse)

- Forward Slow Playback
  - Press the SLOW button on the remote control during Playback.
  - To resume normal playback, press the ▶/II (PLAY/STILL) button.
- Reverse Slow Playback
  - Press the ◀II (–) button during Forward Slow Play back.
  - To resume forward slow playback, press the II▶ (+) button.
  - To resume normal playback, press the ▶/II (PLAY/STILL) button.

PLAYER（放像机）模式下的各种功能

- 摄录一体机和遥控器上有PLAY/STILL（播放/静止）、STOP（停止）、FF（快进）、REW（快倒）等按钮。
- 以下按钮只出现在遥控器上：F.ADV（帧步进）、X2（倍放）、SLOW（慢放）按钮。
- 为了防止录像带和磁鼓磨损，一旦摄录一体机在静止或慢放模式下超过3分钟，就会自动停止。

播放暂停

- 在播放期间，请按下▶/II（PLAY/STILL）（播放/静止）按钮暂停。
- 如需继续播放，请再次按下▶/II (PLAY/STILL)（播放/静止）按钮。

图像搜索（快进/快倒）

- 在播放模式和静止模式期间，按下▶▶（FF）（快进）或◀◀（REW）（快倒）按钮以进行搜索。如需恢复正常播放，按下▶/II (PLAY/STILL)（播放/静止）按钮即可。
- 在播放模式和静止模式期间，持续按住▶▶（FF）（快进）或◀◀（REW）（快倒）按钮以进行搜索。如需恢复正常播放，松开按钮即可。

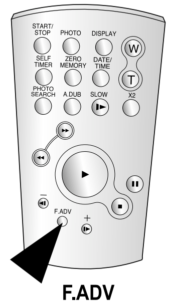
慢放（向前/向后）

- 向前慢放
  - 在播放期间按下遥控器上SLOW（慢放）按钮。
  - 如需恢复正常重放，按下▶/II (PLAY/STILL)（播放/静止）按钮即可。
- 向后慢放
  - 在向前慢放期间按下◀II（－）按钮。
  - 如需恢复向前慢放，按下II▶（＋）按钮。
  - 如需恢复正常重放，按下▶/II (PLAY/STILL)（播放/静止）按钮即可。

Playback

Frame advance (To play back frame by frame)

- ● Press the F.ADV button on the Remote Control while in Still mode.
  The F.ADV function works in still mode only.
- ● To resume normal playback, press the ▶/II (PLAY/STILL) button.
  - ⌘ Forward frame advance
    - ■ Press the F.ADV button on the remote control in Still mode.
  - ⌘ Reverse frame advance
    - ■ Press ◀II (–) the button on the remote control to change the direction in F.ADV mode.
    - ■ Press the F.ADV button on the remote control.



X2 Playback (Forward/Reverse)

- ⌘ Forward X2 Playback
  - ■ Press the X2 button on the Remote Control during Playback.
  - ■ To resume normal playback, press the ▶/II (PLAY/STILL) button.
- ⌘ Reverse X2 Playback
  - ■ Press ◀II(–) the button during during Forward X2 Playback
  - ■ To resume normal playback, press the ▶/II (PLAY/STILL) button.

Reverse playback

- ⌘ To playback in reverse at normal speed, press the ◀II (–) button during normal forward playback.
- ⌘ Press the ▶/II (PLAY/STILL) or II▶ (+) button to return to normal forward playback.

Notes

- ■ Mosaic shaped distortion may appear on the screen while in some of the various playback modes.
  - - Mosaic shaped distortion or noise may be experienced when you play back tapes recorded in LP which contain various playback functions.
- ■ Sound will only be heard during normal SP or LP playback.

播放

帧步进（逐帧播放）

- ● 在Still（静止）模式下，按下遥控器上的F.ADV（帧步进）按钮。
  只有在静止模式下才能使用F.ADV（帧步进）功能。
- ● 如需恢复正常播放，按下 ▶/II （PLAY/STILL）（播放/静止）按钮即可。
  - ⌘ 向前执行帧步进
    - ■ 在静止模式下，按下遥控器上的F.ADV（帧步进）按钮。
  - ⌘ 反向执行帧步进
    - ■ 在F.ADV（帧步进）模式下，按下遥控器上的 ◀II（－）按钮以改变帧步进的方向。
    - ■ 按下遥控器上的F.ADV（帧步进）按钮。

X2 播放（快进/快倒）

- ⌘ 快进 X2 播放
  - ■ 在播放过程中按下遥控器上的X2按钮。
  - ■ 如欲恢复正常播放，按下 ▶/II （PLAY/STILL）（播放/静止）按钮即可。
- ⌘ 快倒 X2 播放
  - ■ 在快倒X2播放过程中按下◀II （－）按钮。
  - ■ 如欲恢复正常播放，按下 ▶/II (PLAY/STILL）（播放/静止）按钮即可按钮。

快倒播放

- ⌘ 要在正常速度下进行快倒播放，在正常放像过程中按 ◀II（－）按钮。
- ⌘ 按 ▶/II (PLAY/STILL)（播放/静止）或 II▶ （＋）按钮，恢复正常播放。

注 意

- ■ 在某些播放模式下，屏幕上可能出现马赛克状的失真。
  - - 在您包含各种播放功能的LP（长时播放）模式下播放拍摄好的录像带时，可能会遇到马赛克状的失真或噪音。
- ■ 只有在正常的SP（标准播放）或LP（长时播放）播放期间，才能听到声音。

Playback

ZERO MEMORY

- ⌘ The MEMORY function works in both CAM and PLAYER modes.
- ⌘ You can mark a point on a tape that you want to return to following playback.

1. Press the ZERO MEMORY button on the remote control during playback or before recording at the point you wish to return to.
   - ■ The time code is changed to a tape counter that is set to zero and stored in a memory with the count M 0:00:00 (Zero memory indicator).
   - ■ If you want to cancel the zero memory function, press the ZERO MEMORY button again.

2. Finding the zero position.
   - ■ When you have finished playback, fast forward or rewind the tape.
     - The tape stops automatically when it reaches the zero position.
   - ■ When you have finished recording, press the power switch on the PLAYER and press the ◀◀ (REW) button.
     - The tape stops automatically when it reaches the zero position.

3. The tape counter with the M (Zero memory indicator) disappears from the display and the tape counter changes to the time code.

Notes

- ■ In the following situations, ZERO MEMORY mode may be cancelled automatically:
  - At the end of the section marked with the ZERO MEMORY function.
  - When the tape is ejected.
  - When you remove the battery pack or power supply.
- ■ The zero memory may not function correctly where there is a break between recordings on the tape.

播放

ZERO MEMORY（零点记忆）

- ⌘ 只有在CAM（摄像机）和PLAYER（放像机）模式下，才能使用MEMORY（记忆）功能。
- ⌘ 您可以在录像带上标记一个要返回的以播放的点。

1. 在播放或拍摄期间，请在要返回的点处按下遥控器上ZERO MEMORY（零点记忆）按钮。
   - ■ 时间代码更改为录像带计数器，而该录像带计数器将置于零点记忆 M 0:00:00（零点记忆指示器）
   - ■ 如果您想取消零点记忆功能，再次按下ZERO MEMORY（零点记忆）按钮即可。

2. 找到零点位置。
   - ■ 在录像带播放完毕时，快进或快倒录像带。
     - 在录像带播放到尽头时，录像带将会自动停止。
   - ■ 在完成拍摄时，请按下功能开关切换到PLAYER（放像机），并按下 ◀◀（REW）（快倒）按钮。
     - 在录像带播放到尽头时，录像带将会自动停止。

3. 带有 M（零点记忆指示器）的录像带计数器从显示器上消失，录像带计数器会转变成时间代码。

注 意

- ■ 在以下情况下，零点记忆模式可能会自动取消。
  - 在标有零点记忆功能的片段结尾。
  - 退出录像带时。
  - 在取出电池组或断开电源时。
- ■ 在录像带上录像有中断的地方，零点记忆可能不会正常工作。

Recording in PLAYER mode

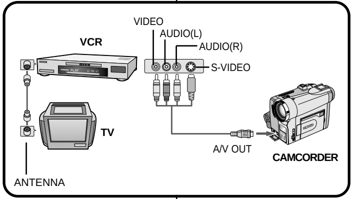
Recording in PLAYER mode (VP-D93i/D97i/D99i only)

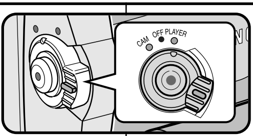
- You can use this camcorder as a recorder.
- You can record a tape from VCR or TV.

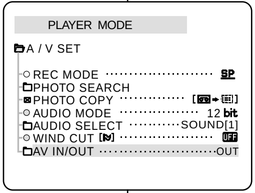
1. Connect the camcorder and VCR or TV with the Multi-AV cable.
2. Set the power switch of the camcorder to PLAYER mode.
3. Turn on the VCR or TV.
4. Insert the blank tape with protection tab closed into the camcorder.
    - If you want to record from a connected VCR, insert a recorded VHS tape into the VCR.
5. Push the MENU button, move the MENU SELECTOR to highlight A/V and push the MENU SELECTOR.
6. Move the MENU SELECTOR to highlight AV IN/OUT and push the MENU SELECTOR to select AV IN/OUT.
7. Move the MENU SELECTOR to highlight AV IN or S-VIDEO IN and push the MENU SELECTOR.
    - “AV IN” and picture appear on the LCD monitor.
    - OUT : Releases the INPUT mode
    - AV IN : When signals are received from the Audio/Video input jacks
    - S-VIDEO IN : When signals are received from the the S-video (S-Jack plug) and Audio inputs
8. Press the START/STOP button to set the camcorder to REC PAUSE mode.
    - “PAUSE” on the LCD monitor.
9. Select the TV program or playback the VHS tape.
10. Press START/STOP button to start recording.
    - If you want to pause recording for a while, press the START/STOP button again.
11. To stop recording, press the ■ (STOP) button.

Notes

- When you record the images being played back on analog VCR, if they are not being played back in normal speed, (for example, more than double speed or slow playback), only gray image appears on the camcorder.
- If you want to see the camcorder picture with a TV, set AV IN/OUT menu to OUT.



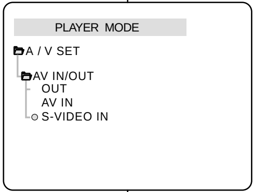




```
PLAYER  MODE

A / V SET

 ○ REC MODE ························ SP
 PHOTO SEARCH
 PHOTO COPY ················ [ → ]
 ○ AUDIO MODE ················ 12 bit
 AUDIO SELECT ··········SOUND[1]
 ○ WIND CUT [ ] ··················· OFF
 AV IN/OUT ··························OUT
```



```
PLAYER  MODE

A / V SET

 AV IN/OUT
   OUT
   AV IN
 ○ S-VIDEO IN
```

在放像机模式中录制

在PLAYER（放像机）模式录制（仅限于VP-D93i/D97i/D99i）

- 可以把本摄录一体机用作录像机。
- 可从录像机或电视录制录像带。

1. 使用多功能AV线连接摄录一体机和录像机或电视。
2. 将摄录一体机的功能开关置于PLYAER（播放）模式。
3. 打开录像机或电视。
4. 将空白的录像带插入到摄录一体机中，此时，录像带的写保护标签应处于闭合状态。
    - 如果要从连接的录像机录制，则将已录制的VHS录像带插入到录像机中。
5. 按下MENU（菜单）按钮，移动MENU SELECTOR（菜单选择器）选中A/V，并按MENU SELECTOR（菜单选择器）。
6. 移动MENU SELECTOR（菜单选择器）选中AV IN/OUT，并按MENU SELECTOR（菜单选择器）以选中AV IN /OUT。
7. 移动MENU SELECTOR（菜单选择器）选择AV IN/OUT或S-VIDEO IN并按MENU SELECTOR（菜单选择器）。
    - “AV IN”（音频视频输入）并且画面在LCD监视器上显示。
    - 输出：取消输入模式。
    - AV IN（音频视频输入）：视频（黄色插头）和音频信号输入时使用。
    - S-VIDEO IN（S-视频输入）：当S-video（S-视频）信号（S插头）和音频信号输入时使用。
8. START/STOP（开始/停止）按钮，将摄录一体机设置为REC PAUSE（录制暂停）模式。
    - “PAUSE”（暂停）将出现在液晶显示屏上。
9. 选择电视节目或播放VHS录像带。
10. 按下START/STOP（开始/停止）按钮，开始录制。
    - 如果想暂停录制一小会儿，则请再次按下START/STOP（开始/停止）按钮。
11. 若要停止录制，按下■（STOP）（停止）按钮。

注 意

- 当您录制在模拟录像机上播放的图像时，如果它们不以正常的速度播放的话，（例如，大于两倍的速度或长时播放），那么摄录一体机上只能显示灰度图。
- 如果您想使用电视查看摄录一体机的图像，请将AV IN/OUT 菜单设置为OUT。

IEEE 1394 Data Transfer

Transferring IEEE1394 (i.LINK)-DV standard data connections

Connecting to a DV device

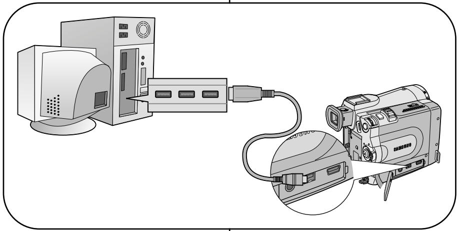
⌘ Connecting with other DV standard products.
- ■ A standard DV connection is quite simple.
  If a product has a DV port, you can transfer data by connecting to the DV port using the correct cable.
- !!! Please be careful since there are two types of DV ports, (4pin, 6pin).
  This camcorder has a 4pin terminal.

⌘ With a digital connection, video and audio signals are transmitted in digital format, allowing high quality images to be transferred.

Connecting to a PC

⌘ If you want to transmit data to a PC, you must install a IEEE 1394 add-on card onto the PC. (Not supplied)
- ■ Turn off the power of both the camcorder and the PC before connecting.
- ■ Optional software necessary.

⌘ The frame rate recorded for video capturing is dependent on the capacity of the PC.



● System requirements

- ■ CPU : faster Intel® Pentium III™ 450Mhz compatible.
- ■ Operating system : Windows® 98SE, ME, 2000, XP, Mac OS (9.1~10.2)
- ■ Main memory : more than 64 MB RAM
- ■ IEEE1394 add-on card or built in IEEE1394 card

Notes

- ■ When you transmit data from the camcorder to another DV device, some functions may not work. If this occurs, please reconnect the DV cable or turn the power OFF and ON again.
- ■ Operation may not work correctly, depending on the software you are using, and the specifications of your PC and its settings.
  - See your PC instruction manual for details.
- ■ When you transmit data from the camcorder to PC, PC function button is available in PLAYER mode only.
- ■ Do not use the camcorder and IEEE1394 together as this will cause IEEE1394 to shut off.
- ■ Do not disconnect the DV cable while data is being transferred to the PC.

IEEE 1394 数据传输

传送 IEEE 1394 (i.LINK) – DV标准数据连接

与DV设备连接

⌘ 与其它数字视频（DV）标准产品连接。
- ■ 标准DV连接非常简单。
  如果产品有一个数字视频（DV）端口，则可用一条合适的电缆与其它设备的数字视频（DV）端口连接，这样就可进行数据传输。
- !!! 务必注意有两种数字视频（DV）端口（4针型、6针型）。本摄录一体机有一个4针端子。

⌘ 利用数字连接装置，视频信号与音频信号以数字形式传输，可实现高质量的图像传输。

与PC机连接

⌘ 如果您需向PC机传输数据，您必须在PC机上安装IEEE 1394插卡（未提供）。
- ■ 在连接前，断开摄录一体机和PC的电源。
- ■ 需要选配软件。

⌘ 视频捕捉的录制帧速率取决于PC机的性能。

● 系统要求

- ■ CPU：快速Intel® Pentium III™ 450Mhz以上兼容
- ■ 操作系统：Windows® 98SE, ME, 2000, XP, Mac OS (9.1~10.2)
- ■ 主存储器：大于64 MB RAM
- ■ IEEE1394插卡或内置IEEE 1394卡。

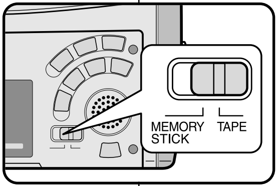
注 意

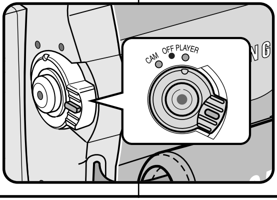
- ■ 在您从摄录一体机向另一台数字视频设备传送数据时，一些功能可能不工作。此时，请重新连接数字视频电缆或关闭电源，再重新打开。
- ■ 取决于正在使用的软件和您的PC规格和设置，操作可能不正常工作。
  - 有关详情，参见PC说明书。
- ■ 在从摄录一体机传送数据到PC上时，PC功能按钮只在放像机模式起作用。
- ■ 不要同时使用摄录一体机和IEEE1394，因为这会使IEEE1394关闭。
- ■ 当数据正在传送给PC时，不要断开数字视频电缆。

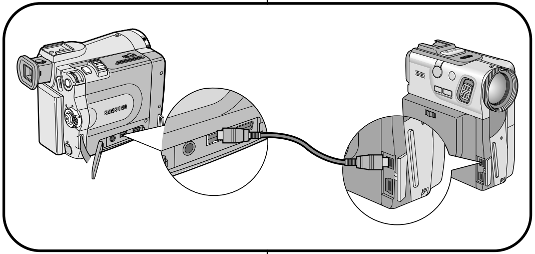
IEEE 1394 Data Transfer

Recording with a DV connection cable (VP-D93i/D97i/D99i only)

1. Set the mode switch to TAPE.
2. Set the power switch to PLAYER mode.
3. Connect the DV cable (not supplied) from the DV IN/OUT port of the camcorder to the DV IN/OUT port of the other DV device.
   - Make sure that DV appears on the screen.
4. Press the START/STOP button to begin REC PAUSE mode.
   - PAUSE is displayed on the OSD.
5. Start playback on the other DV device while you monitor the picture.
6. Press the START/STOP button to start recording.
   - If you want to pause recording momentarily, press the START/STOP button again.
7. To stop recording, press the ■ (STOP) button.







Notes

- When using this camcorder as a recorder, the pictures that appear on a monitor may seem uneven, however recorded pictures will not be affected.
- Operation is not guaranteed for all the recommended computer environments mentioned above.

IEEE 1394 数据传输

用DV连接电缆进行录制（仅限于VP-D93i/D97i/D99i）

1. 将模式开关置于TAPE(磁带)模式。
2. 将功能开关置于PLAYER(放像机)模式。
3. 将DV电缆（未提供）从摄录一体机的DV IN/OUT(输入/输出)端口连接到另一台DV设备的DV IN/OUT(输入/输出)端口。
   - 保证DV出现在屏幕上。
4. 按下START/STOP(开始/停止)按钮开始REC PAUSE(录制暂停)模式。
   - 暂停（PAUSE）显示在OSD上。
5. 在您监视图像的同时，启动另一台DV设备进行重放。
6. 按下START/STOP(开始/停止) 按钮开始录制。
   - 如果您想立即暂停录制，再次按下START/STOP(开始/停止)按钮。
7. 如需停止录制，按 ■（STOP）(停止)钮。

注 意

- 在将本摄录一体机用作录像机时，监视器上的图像可能不稳定，但是录制的图像不受影响。
- 对于所有上述推荐的计算机环境，对操作不予保证。

USB interface

Transferring a Digital Image through a USB Connection

- You can easily transfer still images/movies from a camera, tape to a PC without additional add-on cards via a USB connection.
- You can transfer an image to a PC via a USB connection.
- If you transfer data to a PC, you need to install the software (Driver, Editing software) supplied with the camcorder.

System Requirements

- CPU : Intel® Pentium II™ 400MHz processor compatible or better
- Operating system : Windows® 98SE/ME/2000/XP
- RAM : 64 MB or more
- CD-ROM: 4x CD-ROM drive
- VIDEO : 65,000-colour or better video display card
- Available USB port
- Hard Disc : 4GB (8GB recommended)

Notes

- Intel® Pentium II™ is a trademark of the Intel Corporation.
- Windows® is a registered trademark of the Microsoft® Corporation.
- All other brands and names are property of their respective owners.
- Operations are not guaranteed for all of the recommended computer environments mentioned above.

USB接口

通过USB连接传送数字图像

- 通过USB连接，可非常方便地从摄像机、录像带向PC传送静止图像/电影，而不需要附加的插卡。
- 您可通过USB连接传送图像到PC上。
- 如果要将数据传输到PC上，需要安装随摄录一体机提供的软件（驱动程序、编辑软件）。

系统要求

- CPU：Intel® Pentium II™ 400MHz 可兼容处理器或更好的CPU
- 操作系统：Windows® 98SE/ME/2000/XP
- RAM：64MB 或更大
- CD-ROM：4x CD-ROM 驱动器
- 视频：65,000色或更好的视频显卡
- 可使用USB端口
- 硬盘：4GB（推荐8GB）

注意

- Intel® Pentium II™ 为Intel公司的商标。
- Windows® 为Microsoft® 公司的注册商标。
- 其它品牌和名称为各自所有者所有。
- 对于所有上述推荐的计算机环境，对操作不予保证。

USB interface

Installing DVC Media 6.0 Program

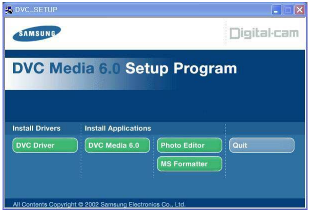
⌘ Do not connect the camcorder to PC before installing the program.

⌘ If another camera or scanner is connected, please disconnect it in advance.

Program installation

1. Insert the software CD into CD-ROM drive.
   - Installation selection screen appears in the monitor.
2. If the installation selection screen does not appear after inserting the CD click "Run" on the Windows "Start" menu and execute SETUP.EXE file to begin installation.
   - When CD-ROM drive is set to "D:drive", type "D:\setup.exe" and press Enter.
3. Click one of the icons listed below to install the selected software. (The program automatically check and install the driver which the PC is needed)
   - ■ DVC Driver: USB PC CAMERA Driver (Capture driver, Twain driver)
   - ■ DVC Media 6.0: PC Application program
   - ■ Photo Edition: Editing Software
   - ■ MS Formatter: Using when you format Memory Stick on your PC

1.



Using the "PC camera" function

⌘ You can use this camcorder as a PC CAMERA.
It is possible to use your camcorder with Web sites that require video & chat functions.

⌘ When you connect to a Web site that can provide video and chat functions, you can use your camcorder for such functions.

⌘ Using the camcorder with PC installed Net-meeting program, you can conduct video conference.

⌘ The screen size of PC CAMERA is 160 × 120 Pixel. (320 × 240)

1. Set the mode switch to Tape or Memory Stick, set the power switch to CAM.
2. Connect one end of the USB cable to the USB jack on the camcorder and the other end to the USB connector on your computer.

Notes

- ■ DVC Media 6.0 User's Manual is included on the accompanying CD in Adobe's Portable Document Format (PDF). The user's manual can be viewed using Acrobat Reader software, which is also included on the CD. (The Acrobat Reader is a freeware product of adobe systems, Inc.)

USB接口

安装DVC Media 6.0程序

⌘ 在安装程序之前，不要将摄录一体机连接到PC上。

⌘ 如果连接了摄像机或扫描仪，则请事先断开摄像机或扫描仪。

程序安装

1. 将软件CD插入到CD-ROM驱动器中。
   - 显示器显示安装选择屏幕。
2. 如果在插入CD后，没有出现安装选择屏幕，则单击Windows"开始"菜单上的"运行"然后运行SETUP.EXE文件，开始安装。
   - 当CD-ROM驱动器被设置为"D:drive"，键入"D:\setup.exe"并按回车。
3. 单击下面所列图标之一，安装选择的软件。（程序自动检查并安装PC需要的驱动程序）
   - ■ DVC驱动程序：USB PC CAMERA 驱动程序（捕捉驱动程序、Twain驱动程序）
   - ■ DVC Media 6.0：PC应用程序
   - ■ Photo Edition（照片编辑）：编辑软件
   - ■ MS格式化程序：在您格式化PC上的存储棒时使用。

使用"PC摄像机"功能

⌘ 您可以将本摄录一体机用作PC摄像机。

⌘ 在您连接到可提供视频聊天功能的网站时，您可使用本摄录一体机进行视频聊天。

⌘ 使用摄录一体机及安装网络会议程序PC，可召开视频会议。

⌘ PC摄像机屏幕大小为160 × 120像素。(320 × 240)

1. 将模式开关设置成"磁带"或"记忆棒"，将功能开关设置到CAM（摄像机）。
2. 连接USB电缆一端到摄录一体机的USB插口上，另一端到计算机的USB连接器上。

注 意

- ■ 随机提供的光盘中包含有用Adobe公司的PDF格式制成的DVC Media 6.0用户手册。
  可使用Acrobat Reader 软件查看光盘中的用户手册。
  (Acrobat Reader为adobe公司免费提供的软件产品。)

USB interface

Connecting to a PC

1. Connect a USB cable to the USB port on the PC.
2. Connect the other end of the USB cable into the proper terminal on the camcorder. (USB jack)
3. Connect the audio cable to the Line input jack of the PC.
   If the PC has no Line input jack, connect the audio cable to the MIC input jack. There is a possibility you'll here some audio noise if you use the MIC jack.

Notes

- If you disconnect the USB cable from the PC or the camcorder while transferring, the data transmission will stop and the data may be corrupted.
- If you connect the USB cable to a PC via a USB HUB or simultaneously connect the USB cable along with other USB devices, the camcorder may not work properly.
  - If this occurs, remove all USB devices from the PC and reconnect the camcorder.
- DV(IEEE1394) connection is encouraged with PC for transmission of more vivid image quality at the time of moving picture transmission.

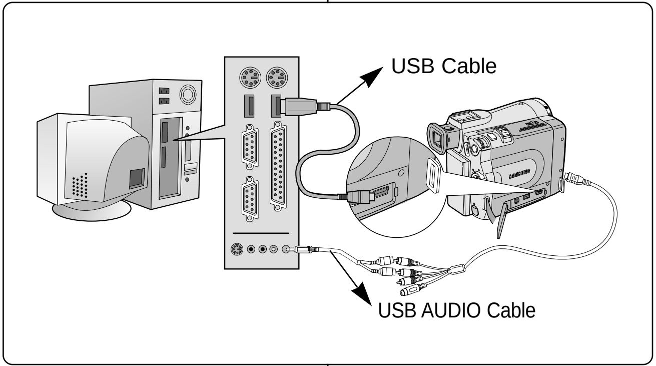
USB接口

连接到PC上

1. 连接USB电缆到PC的USB端口上。
2. 连接USB电缆的另一端到摄录一体机相应的端子上（USB插口）。
3. 连接音频电缆到PC的线路输入插口上。如果PC没有线路输入插口，则连接音频电缆到话筒输入插口上。如果使用话筒插口，则可能听到音频噪声。

注 意

- 如果传送期间，将USB电缆与PC或摄录一体机断开，数据传送会停止且数据可能受到破坏。
- 如果将USB电缆通过USB HUB连接到PC上或同时与其它USB设备一道连接USB电缆，则摄录一体机工作可能不正常。
  - 在这种情况下，将USB设备从PC上断开并重新连接摄录一体机。
- 传输活动图片时，建议将DV（IEEE1394）与计算机相连以获得更逼真的图像质量。



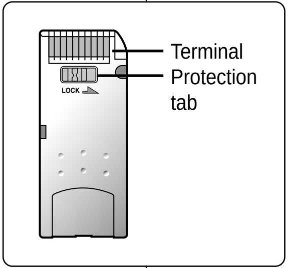
Digital Still Camera mode

MEMORY STICK

- ⌘ The Memory Stick stores and manages still images or moving images recorded by the camera.

Memory Stick Functions

- ⌘ Recording still images and MJPEG movie
- ⌘ Viewing still images and MJPEG movie
  - ■ Single
  - ■ Slide show
  - ■ Multi display
- ⌘ Protecting images against accidental erasure
- ⌘ Deleting images recorded on a Memory Stick
- ⌘ Print marking still images
- ⌘ Formatting a Memory Stick



Notes

- ■ You can use most of the camera’s functions when recording to the Memory Stick.
- ■ “▶▶▶ ▤” appears on the screen while recording to the Memory Stick.
- ■ While recording or loading an image, do not eject or insert the Memory Stick.
  - Inserting or ejecting a Memory Stick while recording or loading an image can cause data corruption.
- ■ If you want to save all images on the Memory Stick, set the write protect tab on the Memory Stick to LOCK.

MEMORY STICK ™

- ● “Memory Stick” and MEMORY STICK ™ are trademarks of Sony Corporation.
- ● All other product names mentioned herein may be the trademarks or registered trademarks of their respective companies. Furthermore, “™”and “®” are not mentioned in each case in this manual.
- ● “Memory Stick PRO” can not be used with this unit.

数码照相机模式

记忆棒

- ⌘ 记忆棒存储和管理摄像机录制的静止图像或移动图像。

记忆棒的功能

- ⌘ 录制静止图像和MJPEG电影。
- ⌘ 观看静止图像和MJPEG电影
  - ■ 单幅图像
  - ■ 顺序播放
  - ■ 多幅显示
- ⌘ 防止图像被意外擦除
- ⌘ 删除录制在记忆棒上的图像
- ⌘ 打印标记的静止图像
- ⌘ 格式化记忆棒

注 意

- ■ 在录制到记忆棒上时，可使用大多数摄像机的功能。
- ■ 录制到记忆棒上时“▶▶▶ ▤”出现在屏幕上。
- ■ 在录制或加载图像时，不要取出或装入记忆棒。
  - 在录制或加载图像时取出或装入记忆棒会造成数据破坏。
- ■ 如果您想保存图像到记忆棒上，将记忆棒上写保护标签设置到“锁定”。

MEMORY STICK ™

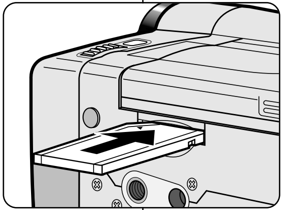
- ● “Memory stick”（记忆棒）和 MEMORY STICK ™ 为索尼公司的商标。
- ● 此处提到的其他产品名称可能为其各自公司的商标或注册商标。此外，在本手册不是每种情况下都提到“ ™ ”和“ ® ”。
- ● 本装置不使用“记忆棒PRO”。

Digital Still Camera mode

Inserting and ejecting the Memory Stick

- **Inserting the Memory Stick**

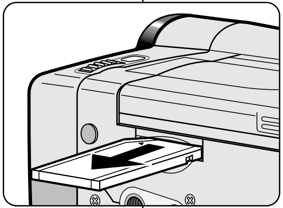
1. Turn the Power switch to OFF.
2. Insert the Memory Stick into the Memory Stick slot located beneath the camcorder, in the direction of the arrow.



- **Ejecting the Memory Stick**

1. Turn the Power switch to OFF.
2. Push the Memory Stick, it will move out of the camcorder automatically.
3. Pull out the Memory Stick.

⌘ Do not attempt to pull the Memory Stick out without first pushing it in.



Notes

- ■ If you set the camcorder to M.PLAY mode, the last recorded image appears.
  - If there are no recorded images on the Memory Stick, “NO STORED IMAGE!” will display on the screen.
- ■ Do not turn the power off while recording, loading, erasing or formatting.
- ■ Please turn the power off before you insert or eject the Memory Stick. You could lose data on the Memory Stick.

- ■ Do not allow metal substances to come in contact with the terminals of the Memory Stick.
- ■ Do not bend, drop or apply strong shock to Memory Stick.
- ■ After pulling the Memory Stick out from the camcorder, please keep the Memory Stick in a soft case to prevent static shock.
- ■ The stored contents may be changed or lost as a result of misuse, static electricity, electric noise or repair.
  Save important images separately.
- ■ Samsung is not responsible for data loss due to misuse.
- ■ If the USB cable is connected to the camcorder, the ▶▶ (FWD), ◀◀ (REV), ■ , S.SHOW, MULTI-DISPLAY buttons are not available in M.PLAY mode.

数码照相机模式

插入和取出记忆棒

- **插入记忆棒**

1. 将功能开关置于OFF(关闭)。
2. 按箭头方向，将记忆棒插入到摄录一体机下面的记忆棒槽中。

- **取出记忆棒**

1. 将功能开关置于OFF(关闭)。
2. 按下记忆棒，记忆棒会自动从摄录一体机中弹出。
3. 取出记忆棒。

⌘ 未下按记忆棒，则不要试图取出记忆棒。

注意

- ■ 如果您将摄录一体机置于M.PLAY(照片播放)模式，会出现最后录制的图像。
  - 如果在记忆棒上没有录制图像，“NO STORED IMAGE!”(没有存储图像！)会显示在屏幕上。
- ■ 在录制、加载、擦除或格式化时，不要关闭电源。
- ■ 在装入或取出记忆棒之前，请将电源关闭。
  您可能会丢失记忆棒上的数据。

- ■ 不要将金属物质与记忆棒的端子接触。
- ■ 不要弯曲、掉落或重击记忆棒。
- ■ 在从摄录一体机取出记忆棒后，请将记忆棒保存在软包中以防止静电触击。
- ■ 由于错误使用、静电、电噪声或修理，存储的内容可能被改变或丢失。
  单独保存重要的图像。
- ■ 三星对于错误使用而造成的数据丢失不负责。
- ■ 如果将USB电缆连接到摄录一体机上，▶▶（快进）、◀◀（倒带）、■、(顺序播放)、(多幅显示）按钮在M.PLAY(照片播放)模式不能使用。

Digital Still Camera mode

Structure of folders and files on the Memory Stick

- The still images that you recorded are saved in JPEG file format on the Memory Stick.
- The moving images that you recorded are saved in MJPEG file format on the Memory Stick.
- Each file has a file number and all files are assigned to a folder.
  - A file number from DCAM0001 to DCAM9999 is sequentially assigned to each recorded image.
  - Each folder is numbered from 100SSDVC to 999SSDVC and recorded on the Memory Stick.

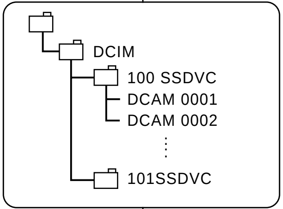
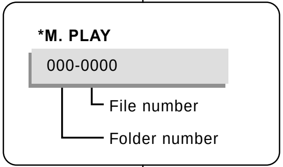


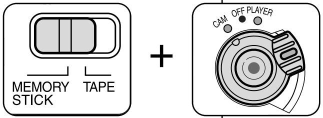
Image Format

- Still image
  - Images are compressed in JPEG (Joint Photographic Experts Group) format.
  - The number of pixels are 1280 × 960, 640 × 480 in each mode.
- Moving Image
  - Images are compressed in MJPEG (Motion Joint Photographic Experts Group) format.
  - The number of pixels are 320 × 240, 160 × 120 in each mode.

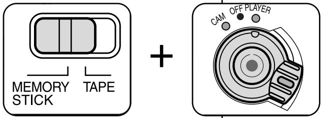


Selecting the CAMCORDER mode

- You can use this camcorder as a Digital Still Camera (DSC).
- You have to set the mode switch to MEMORY STICK position to use this camcorder as a Digital Still Camera.
  - M.REC mode (Memory RECORD mode)
    1. Set the mode switch to MEMORY STICK.
    2. Set the power switch to CAM.
  - M.PLAY mode (Memory PLAYBACK mode)
    1. Set the mode switch to MEMORY STICK.
    2. Set the power switch to PLAYER.



: M.REC mode



: M.PLAY mode

数码照相机模式

记忆棒上文件夹和文件的结构

- 录制的静止图像会以JPEG文件格式保存在记忆棒上。
- 录制的移动图像会以MJPEG文件格式保存在记忆棒上。
- 每个文件都有一个文件号且全部文件都被分配到一个文件夹。
  - 每个录制的图像被按顺序分配从DCAM0001到DCAM9999文件号。
  - 每个文件夹的编号从100SSDVC到999SSDVC且被记录在记忆棒上。

图像格式

- 静止图像
  - 图像按JPEG（联合图象专家组）格式压缩。
  - 每个模式下，像素数为1280 × 960，640 × 480。
- 运动图像
  - 图像按MJPEG（运动结合图像专家组）格式压缩。
  - 每个模式下，像素数为320 × 240，160 × 120。

选择摄录一体机模式

- 您可将本摄录一体机用作数字静止摄像机（DSC）。
- 若要将本摄录一体机用作数字静止摄像机，必须将模式开关设置到记忆棒位置。
  - M.REC（存储器拍摄）模式
    1. 将功能开关设置为MEMORY STICK（记忆棒）。
    2. 将模式开关设置为CAM（摄像机）。
  - M.PLAY（存储器播放）模式
    1. 将功能开关设置为MEMORY STICK（记忆棒）。
    2. 将功能开关设置为PLAYER（放像机）。

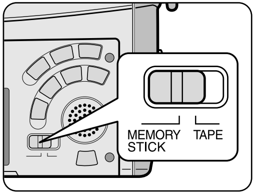
Digital Still Camera mode

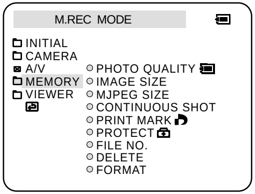
Selecting the image quality

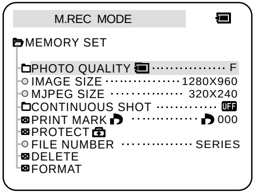
⌘ You can select the quality of a still image to be recorded.

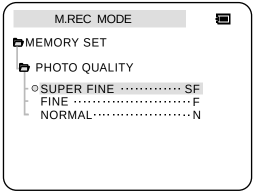
Select the photo quality

1. Set the mode switch to MEMORY STICK.
2. Set the power switch to the CAM mode.
3. Press the MENU button.
   - ■ The menu list will appear.
4. Move the MENU SELECTOR to highlight MEMORY.
5. Push the MENU SELECTOR to enter the sub-menu.
6. Move the MENU SELECTOR to highlight PHOTO QUALITY in the submenu.
7. Push the MENU SELECTOR.
8. Using the MENU SELECTOR, select the image quality.
   - ■ Push the MENU SELECTOR to confirm the image quality.
   - ■ If you exit the sub-menu without pushing the MENU SELECTOR, the quality mode is not changed.
9. To exit, press the MENU button.


MEMORY STICK
TAPE


M.REC MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
PHOTO QUALITY
IMAGE SIZE
MJPEG SIZE
CONTINUOUS SHOT
PRINT MARK
PROTECT
FILE NO.
DELETE
FORMAT


M.REC MODE
MEMORY SET
PHOTO QUALITY ··· F
IMAGE SIZE ··· 1280X960
MJPEG SIZE ··· 320X240
CONTINUOUS SHOT ··· OFF
PRINT MARK ··· 000
PROTECT
FILE NUMBER ··· SERIES
DELETE
FORMAT


M.REC MODE
MEMORY SET
PHOTO QUALITY
SUPER FINE ··· SF
FINE ··· F
NORMAL ··· N

● Number of images on the Memory Stick

QUALITY	Still Image Size	8MB	16MB
SUPER FINE	1280 × 960 640 × 480	Approx.12 Approx.49	Approx.24 Approx.99
FINE	1280 × 960 640 × 480	Approx.24 Approx.99	Approx.49 Approx.199
NORMAL	1280 × 960 640 × 480	Approx.49 Approx.199	Approx.99 Approx.399

- The actual number that you can record varies depending on the image size.

数码照相机模式

选择图像质量

⌘您可以选择录制的静止图像的质量。

选择照片质量

1. 设置模式开关到MEMORY STICK（记忆棒）。
2. 将功能开关置于CAM（摄像机）模式。
3. 按MENU（菜单）按钮。
   - ■ 会出现菜单列表。
4. 转动MENU SELECTOR(菜单选择器)使MEMORY（存储）突出显示。
5. 推动MENU SELECTOR(菜单选择器)以进入子菜单。
6. 转动MENU SELECTOR(菜单选择器)，使子菜单中的PHOTO QUALITY（照片质量）突出显示。
7. 推动MENU SELECTOR(菜单选择器)。
8. 使用MENU SELECTOR(菜单选择器)，选择图像质量。
   - ■ 推动MENU SELECTOR(菜单选择器)确认图像质量。
   - ■ 如果退出子菜单而没有推动MENU SELECTOR(菜单选择器)，质量模式不会改变。
9. 若要退出，按MENU（菜单）按钮。

● 记忆棒上图像的数量

质量	静止图像大小	8MB	16MB
超精细	1280 × 960 640 × 480	约12 约49	约24 约99
精细	1280 × 960 640 × 480	约24 约99	约49 约199
普通	1280 × 960 640 ×480	约49 约199	约99 约399

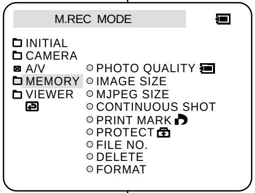
- 可录制的实际数量取决于图像大小。

Digital Still Camera mode

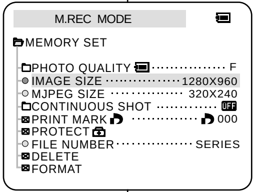
Selecting the recording image size

⌘ Select the image size of still image to be recorded.

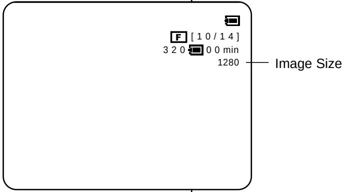
1. Set the mode switch to MEMORY STICK.
2. Set the power switch to the CAM mode.
3. Press the MENU button.
   - ■ The menu list will appear


M.REC MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
PHOTO QUALITY
IMAGE SIZE
MJPEG SIZE
CONTINUOUS SHOT
PRINT MARK
PROTECT
FILE NO.
DELETE
FORMAT

4. Use the MENU SELECTOR to highlight MEMORY and push the MENU SELECTOR.
5. Select IMAGE SIZE from the submenu and push the MENU SELECTOR.
   - ■ The IMAGE SIZE toggles between 1280 × 960 and 640 × 480 with each push.


M.REC MODE
MEMORY SET
PHOTO QUALITY ················ F
IMAGE SIZE ················ 1280X960
MJPEG SIZE ··············· 320X240
CONTINUOUS SHOT ············· OFF
PRINT MARK ·············· 000
PROTECT
FILE NUMBER ················ SERIES
DELETE
FORMAT

6. To exit the menu, press the MENU button.


F [1 0 / 1 4]
3 2 0 0 0 min
1280
Image Size

Note

- ■ Still images that are recorded at an image size of 1280 × 960 on your camcorder, may not playback properly on other digital devices as the device may not support recordings made with this image size.

数码照相机模式

选择录制图像大小

⌘ 选择待录制静止图像的图像大小。

1. 设置模式开关到MEMORY STICK（记忆棒）。
2. 设置功能开关到CAM（摄像机）模式。
3. 按MENU（菜单）按钮。
   - ■ 菜单列表会出现。
4. 转动MENU SELECTOR(菜单选择器)使MEMORY（存储器）高亮显示并按MENU SELECTOR(菜单选择器)。
5. 由子菜单选择IMAGE SIZE（图像尺寸）并转动MENU SELECTOR(菜单选择器)。
   - ■ 每转一次，IMAGE SIZE（图像尺寸）在1280×960和640×480之间切换。
6. 若要退出菜单，按MENU（菜单）按钮。

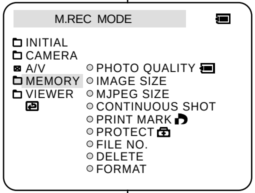
注意

- ■ 若在本摄录一体机上以1280×960图像尺寸录制静止图像时，有时不能在不支持1280×960图像尺寸的其它数字设备上正常播放图像。

Digital Still Camera mode

Selecting the moving picture size

1. Set the mode switch to MEMORY STICK position.
2. Set the power switch to CAM mode.
3. Press the MENU button.
4. Move the MENU SELECTOR to highlight MEMORY.
5. Push the MENU SELECTOR to enter the sub-menu.
6. Move the MENU SELECTOR to highlight MJPEG SIZE.
7. Push the MENU SELECTOR button.
   - ■ The MJPEG SIZE toggles between 320 × 240 - 160 × 120 with each push.


M.REC MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
PHOTO QUALITY
IMAGE SIZE
MJPEG SIZE
CONTINUOUS SHOT
PRINT MARK
PROTECT
FILE NO.
DELETE
FORMAT

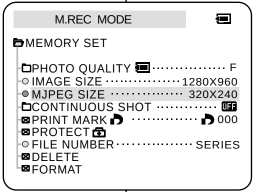

M.REC MODE
MEMORY SET

PHOTO QUALITY ················ F
IMAGE SIZE ················ 1280X960
MJPEG SIZE ················ 320X240
CONTINUOUS SHOT ············· OFF
PRINT MARK ············· 000
PROTECT
FILE NUMBER ················ SERIES
DELETE
FORMAT

● Maximum recording time of moving picture

MJPEG SIZE	Maximum recording time
320 × 240	15 seconds
160 × 120	60 seconds

数码照相机模式

选择运动图像大小

1. 设置模式开关到MEMORY STICK（记忆棒）位置。
2. 设置功能开关到CAM（摄像机）模式。
3. 按MENU（菜单）按钮。
4. 转动MENU SELECTOR(菜单选择器)使MEMORY（存储器）高亮显示。
5. 按MENU SELECTOR(菜单选择器)进入子菜单。
6. 转动MENU SELECTOR(菜单选择器)使MJPEG SIZE（尺寸）高亮显示。
7. 转动MENU SELECTOR(菜单选择器)按钮。
   - ■ 每转一次，MJPEG大小在320×240—160×120之间切换。

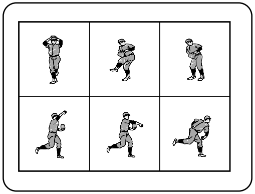
● 运动图像最大录制时间

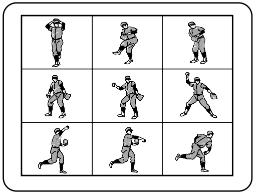
MJPEG大小	最大录制时间
320×240	15 秒
160×120	60 秒

Digital Still Camera mode

Recording images continuously

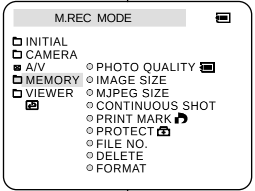
- ⌘ You can record still images continuously.
- ⌘ Select one of the three modes described below before recording.
  - ■ NORMAL( ) : Your camcorder records up to 2 still images in 1280 × 960 size or 6 still images in 640 × 480 size at about 0.7sec intervals.
  - ■ HIGH SPEED (HS) : Your camcorder records up to 9 still images in 640 × 480 size at about 0.07sec intervals.
    - Recording image size is 640 × 480 only
  - ■ MULTI SCENE (6, 9): Your camcorder records 6 or 9 still images at about 0.4sec intervals and displays the images on a single page divided into six or nine boxes. Still images are recorded in 640 × 480 size.

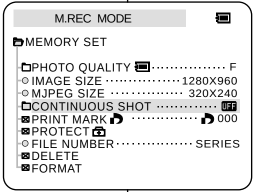




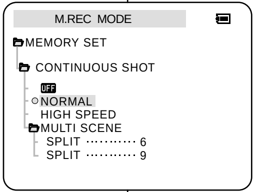
Select the CONTINUOUS SHOT

1. Set the mode switch to MEMORY STICK.
2. Set the power switch to the CAM mode.
3. Press the MENU button and move the MENU SELECTOR to highlight MEMORY.
4. Move the MENU SELECTOR to highlight CONTINUOUS SHOT in the submenu.
5. Push the MENU SELECTOR.
6. Using the MENU SELECTOR, select the continuous shot.
   - ■ Push the MENU SELECTOR to confirm the continuous shot.
   - ■ If you exit the sub-menu without pushing the MENU SELECTOR, the continuous shot mode is not changed.
7. To exit, press the MENU button.





```
M.REC MODE
MEMORY SET
PHOTO QUALITY ················ F
IMAGE SIZE ················1280X960
MJPEG SIZE ··············· 320X240
CONTINUOUS SHOT ············· OFF
PRINT MARK ··············· 000
PROTECT
FILE NUMBER················· SERIES
DELETE
FORMAT
```



Notes

- ■ When selecting NORMAL
  - Recording continues up to the maximum number of still images whilst pressing PHOTO button fully down. Release PHOTO button to STOP recording.
- ■ During recording images continuously, the flash does not work.
- ■ The number of images you can record continuously varies depending on the image size and the capacity of the Memory stick.

数码照相机模式

连续录制图像

- ⌘ 您可连续录制静止图像。
- ⌘ 在录制之前，选择下述三种模式中的一个模式。
  - ■ NORMAL（正常）（ ）：本摄录一体机以约0.7秒的间隔1280×960大小录制多达2个静止图像或以640 ×480大小录制6个静止图像。
  - ■ HIGH SPEED（高速）（ HS ）：本摄录一体机以约0.07秒的间隔640×480大小录制多达9个静止图像。
    - 录制图像尺寸仅为640 ×480。
  - ■ MULTI SCENE（多画面）（ 6, 9）：本摄录一体机以约0.4秒的间隔录制6或9个静止图像，并在一页上分成六个或九个框显示图像。录制的静止图像尺寸为640×480。

选择连续拍摄

1. 设置模式开关到MEMORY STICK（记忆棒）。
2. 设置功能开关到CAM（摄像机）模式。
3. 按MENU（菜单）按钮，并转动MENU SELECTOR(菜单选择器)使MEMORY（存储器）高亮显示。
4. 转动MENU SELECTOR(菜单选择器)，使子菜单中的CONTINUOUS SHOT（连续拍摄）高亮显示。
5. 转动MENU SELECTOR(菜单选择器)。
6. 使用MENU SELECTOR(菜单选择器)，选择连续拍摄。
   - ■ 转动MENU SELECTOR(菜单选择器)确认连续拍摄。
   - ■ 如果退出子菜单没有转动MENU SELECTOR(菜单选择器)，则连续拍摄模式不改变。
7. 若要退出，按MENU（菜单）按钮。

注 意

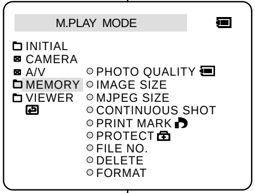
- ■ 在选择NORMAL（正常）时
  - 在下按PHOTO（照片）期间，可连续拍摄直至最大的可拍摄图像数量。松开PHOTO（照片）按钮停止录制。
- ■ 在连续录制图像期间，闪光灯不工作。
- ■ 连续录制图像数依图像大小和记忆棒容量不同而不同。

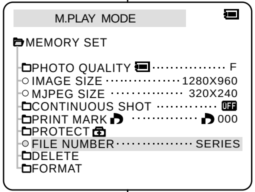
Digital Still Camera mode

Setting the File Number

- ⌘ The images you take are automatically assigned file numbers from 0001 to 9999.
- ⌘ Set the image file numbers so that they reset each time a Memory Stick is formatted, or so that they count up continuously.
  - ■ SERIES
    - Numbering is continuous between the Memory Sticks, so that the first file number assigned on a new Memory Stick is 1 more than the last file number assigned on the previous Memory Stick.
    - When the file number are set to SERIES, each image taken is assigned a different number, avoiding duplication of numbers. This is convenient when you want to manage your images on a PC.
    - We recommend keeping the file numbers set to SERIES.
  - ■ RESET
    When the Memory Stick is formatted, the file number resets to its default value (100-0001).
    If the Memory Stick already contains files, the next available number is assigned.

1. Set the mode switch to MEMORY STICK position.
2. Set the power switch to CAM or PLAYER mode.
3. Press the MENU button and move the MENU SELECTOR to highlight MEMORY.
4. Push the MENU SELECTOR to enter submenu.
5. Select FILE NUMBER from the sub-menu and push the MENU SELECTOR.
   - ■ The FILE NUMBER toggles between SERIES and RESET with each push.
6. To exit, press the MENU button.




M.PLAY MODE
MEMORY SET
PHOTO QUALITY ················ F
IMAGE SIZE ················ 1280X960
MJPEG SIZE ················ 320X240
CONTINUOUS SHOT ············ OFF
PRINT MARK ·············· 000
PROTECT
FILE NUMBER ················ SERIES
DELETE
FORMAT

数码照相机模式

设置文件号

- ⌘ 您拍摄的图像被自动分配从0001—9999的文件号。
- ⌘ 设置图像文件号，以便每次格式化记忆棒时文件号得到重设，或以便文件号连续计数。
  - ■ SERIES（系列）
    - 记忆棒之间的编号是连续的，以便新记忆棒上分配的文件号必须前一个记忆棒上分配的最后文件号大1。
    - 在文件号被设置成SERIES（系列）时，拍摄的每个图像被分配不同的号，以避免数的重复。这在您想在PC上管理图像很方便。
    - 我们推荐保持文件号设置到SERIES（系列）。
  - ■ RESET（重设）
    在记忆棒被格式化时，文件号被重设到默认值（100-0001)。如果记忆棒上已经有文件了，则按顺序继续排列号码。

1. 设置模式开关到MEMORY STICK（记忆棒）位置。
2. 设置功能开关到CAM（摄像机）或PLAYER（放像机）模式。
3. 按MENU（菜单）按钮，并转动MENU SELECTOR(菜单选择器)，使MEMORY（存储）突出显示。
4. 转动MENU SELECTOR(菜单选择器)，进入子菜单。
5. 从子菜单中选择FILE NUMBER（文件号），并转动MENU SELECTOR(菜单选择器)。
   - ■ 每转一次，文件号在SERIES（系列）和RESET（重设）之间切换。
6. 若要退出, 按MENU（菜单）按钮。

Digital Still Camera mode

Recording Still images to a Memory Stick in M.REC Mode.

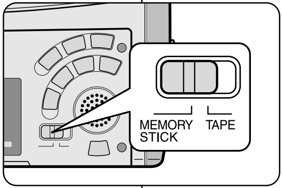
⌘ Audio cannot be recorded with still images onto the Memory Stick.

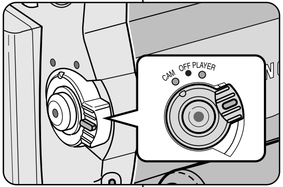
Recording images to a Memory Stick

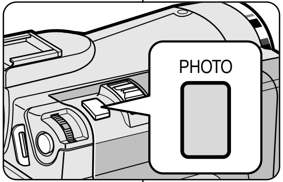
1. Set the mode switch to MEMORY STICK.
2. Set the power switch to CAM.
3. Press the PHOTO button lightly (about halfway down) and hold it.
   - During autofocus photo mark (📷) flashes in the display as the camcorder adjusts the focus and is continuously displayed when the camcorder is ready to take the still image.
   - If you do not wish to record, release the pressure from the button.
4. Press the PHOTO button fully down.
   - The still image is recorded to the Memory Stick.
   - While the camcorder is recording the still image, “ ▶▶▶ ” appears on the screen.

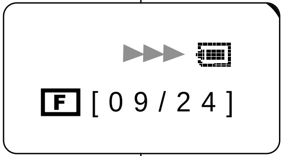
Notes

- The remote controller’s PHOTO button has no halfway setting.
  Press the button fully and the camcorder immediately takes the image.
- Do not turn the power off, eject a Memory Stick or remove the battery pack during recording.
  The Memory Stick or its data may be damaged.
- If focusing is difficult with the autofocus mode when using the PHOTO function, focus manually.









数码照相机模式

在M.REC（存储器拍摄）模式将静止图像录制到Memory Stick（记忆棒）上

⌘ 记忆棒上可以录制静止图像但不能录制声音。

录制图像到记忆棒上

1. 设置模式开关到MEMORY STICK（记忆棒）。
2. 设置功能开关到CAM（摄像机）。
3. 轻轻按下PHOTO(照片)按钮（约按一半）并保持。
   - 在自动聚焦期间，随着摄录一体机调节焦距，显示器上拍照标记（ 📷 ）闪烁，在摄录一体机准备拍摄静止图像时，拍照标记连续显示。
   - 如果不想录制，松开按钮。
4. 完全按下PHOTO(照片)按钮。
   - 静止图像会被录制到记忆棒上。
   - 在摄录一体机录制静止图像时，“ ▶▶▶ ”出现在屏幕上。

注意

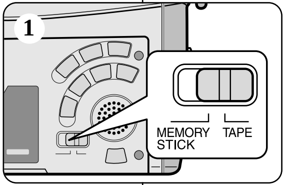
- 遥控器的PHOTO(照片)按钮没有一半设置。
  完全按下按钮，摄录一体机立即拍摄图像。
- 在录制期间，不要关闭电源，取出记忆棒或取出电池组。否则会破坏记忆棒或其数据。
- 如果使用PHOTO(照片)功能很难在自动聚焦模式下进行聚焦，则使用手动聚焦。

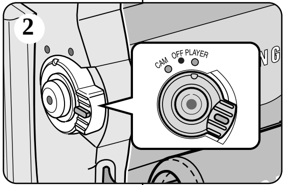
Digital Still Camera mode

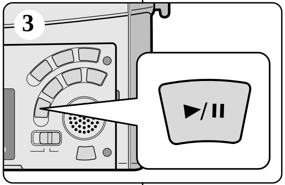
Recording an image from a cassette as a still image.

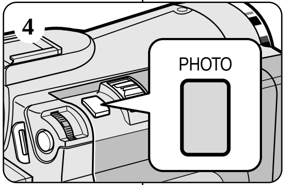
- You can record a still image from a cassette onto a Memory Stick.
- If you want to recorded multiple still images from a cassette to a Memory Stick, use the COPY function. (see page 91)
- The still images date/time will reflect the date and time the copies are made.
- The image size of a still image recorded from cassette onto a Memory Stick will be 640 × 480.

1. Set the mode switch to TAPE.
2. Set the power switch to PLAYER mode.
3. Play back the cassette.
4. Press the PHOTO button lightly (about halfway down), when the image you want to record appears.
   - The camcorder is set to playback pause (STILL) mode.
   - If you do not wish to record, release the PHOTO button, select the image again.
5. Press the PHOTO button fully down.
   - The still image is recorded to the Memory Stick.
   - While the camcorder is recording the still image, “▶▶▶” appears on the screen.









数码照相机模式

从录像带录制作为静止图像的图像

- 您可从录像带录制静止图像到记忆棒上。
- 如果您想从录像带录制多个静止图像到记忆棒上，使用COPY（复制）功能。（见第91页）
- 静止图像日期/时间反映了复制进行的日期和时间。
- 由录像带录制到记忆棒上的静止图像大小为640×480。

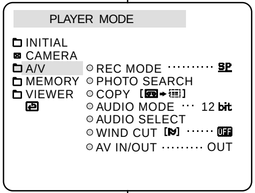
1. 设置模式开关到TAPE（磁带）。
2. 将功能开关置于PLAYER（放像机）模式。
3. 重放录像带。
4. 在出现您想录制的图像时，轻轻按下PHOTO（照片）按钮（约按一半）并保持住。
   - 摄录一体机被置于重放暂停（静止）模式。
   - 如果不想录制，松开PHOTO（照片）按钮并再次选择图像。
5. 完全按下PHOTO（照片）按钮。
   - 静止图像被录制到记忆棒上。
   - 在摄录一体机录制静止图像时，“▶▶▶”出现在屏幕上。

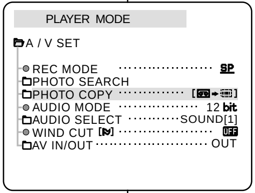
Digital Still Camera mode

Copying still images from a cassette to Memory Stick

⌘ You can copy still images recorded with PHOTO function on a cassette onto a Memory Stick.
- The still images date/time will reflect the date and time the copies are made.
- The image size of a still image copied from tape to Memory Stick will be 640 × 480.
- Before operation
  - Insert a recorded tape into your camcorder and rewind the tape.
  - Insert a Memory Stick into your camcorder.

1. Set the mode switch to TAPE.
2. Set the power switch to the PLAYER mode.
3. Press the MENU button.
4. Move the MENU SELECTOR to highlight A/V and push the MENU SELECTOR.
   - The submenu will appear.
5. Move the MENU SELECTOR to highlight PHOTO COPY and push the MENU SELECTOR.
   - All still images that recorded on a cassette will be copied to a Memory Stick.
6. The camcorder automatically performs the photo search to find still images and copying starts.
7. Press ■ (STOP) button to stop copying.
   - Copying stops when the cassette is finished or Memory Stick is full.


PLAYER MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
REC MODE ·········· SP
PHOTO SEARCH
COPY
AUDIO MODE ··· 12 bit
AUDIO SELECT
WIND CUT ······ OFF
AV IN/OUT ········· OUT


PLAYER MODE
A / V SET
REC MODE ···················· SP
PHOTO SEARCH
PHOTO COPY ···········
AUDIO MODE ················ 12 bit
AUDIO SELECT ··········SOUND[1]
WIND CUT ···················· OFF
AV IN/OUT ························ OUT

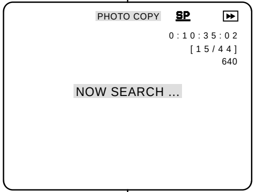


PHOTO COPY SP
0:10:35:02
[15/44]
640
NOW SEARCH ...

数码照相机模式

从录像带上复制静止图像到记忆棒上

⌘ 您可通过PHOTO（照片）功能将录像带上的静止图像复制到记忆棒上。
- 静止图像日期/时间反映了进行复制的日期和时间。
- 由录像带复制到记忆棒上的静止图像尺寸为640×480。
- 在操作前:
  - 将录制的磁带插入到摄录一体机中并倒带。
  - 插入记忆棒到摄录一体机中。

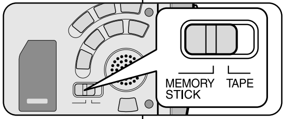
1. 设置模式开关到TAPE（磁带）。
2. 将功能开关置于PLAYER（放像机）模式。
3. 按MENU（菜单）按钮。
4. 转动MENU SELECTOR(菜单选择器)使A/V高亮显示并推动MENU SELECTOR(菜单选择器)。
   - 会出现子菜单。
5. 转动MENU SELECTOR(菜单选择器)以高亮显示PHOTO COPY（照片复制）并推动MENU SELECTOR(菜单选择器)。
   - 录制在录像带上的全部静止图像会被复制到记忆棒上。
6. 摄录一体机会自动查找照片，以找到静止图像并开始复制。
7. 按下 ■（停止）按钮以停止复制。
   - 在录像带到了尽头或记忆棒已满时，则复制停止。

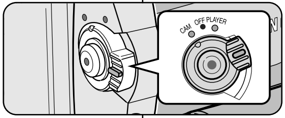
Digital Still Camera mode

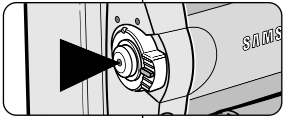
MJPEG RECORDING

⌘ Audio cannot be recorded onto the Memory Stick.

Saving the pictures captured by a camera as a moving picture file onto MEMORY STICK



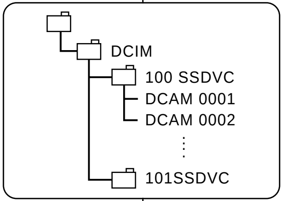




1. Insert the MEMORY STICK into your camcorder.
2. Set the mode switch to MEMORY STICK position.
3. Set the power switch to CAM mode.
4. Press the START/STOP button.
    - When MJPEG SIZE in the menu setting is set to 320 × 240, the maximum recording time is 15 seconds. however, when MJPEG SIZE in the menu settings is set to 160 × 120, the maximum recording time is 60 seconds.
    - You can record a camera still image onto the memory stick by pressing the Photo button instead of the START/STOP button.
5. Press the START/STOP button to stop the recording.
    - The camcorder starts to write the moving picture to the Memory Stick when recording is finished.
    - While the camcorder is writing the moving picture, “ ▶▶▶ ” appears on the screen.

Notes

- The moving picture images that you recorded are saved in *.avi file format on the Memory Stick.
- You can record the moving picture images as 320 × 240 pixel or 160 × 120 pixel.
- The file that you recorded are saved in a following folder.



数码照相机模式

MJPEG录制

⌘ 声音不能录制到记忆棒上。

将摄像机摄制的图像作为运动文件保存到记忆棒上

1. 将记忆棒插入到摄录一体机上。
2. 设置模式开关到MEMORY STICK（记忆棒）位置。
3. 设置功能开关到CAM（摄像机）模式。
4. 按START/STOP（启动/停止）按钮。
    - 在菜单设置中的MJPEG SIZE（尺寸）被设置成320 × 240时，最长录制时间为15秒。
      然而，在菜单设置中的MJPEG SIZE（尺寸）被设置成160 × 120时，最长录制时间为60秒。
    - 您可通过按拍照按钮，而不按START/STOP（启动/停止）按钮，录制摄像机静止图像到记忆棒上。
5. 按START/STOP（启动/停止）按钮停止录制。
    - 在录制完成时，摄录一体机开始写运动图像到记忆棒上。
    - 在摄录一体机正在写运动图像时，出现在屏幕上。

注 意

- 您录制的运动图像以*.avi 文件格式保存在记忆棒上。
- 您可以将运动图像录制成320 × 240像素或160 × 120像素。
- 您录制的文件保存在以下文件夹中。

Digital Still Camera mode

- The moving picture images on a Memory Stick are smaller size and lower definition than one on Tape.
- There could be any broken or mosaic pictures while playing the MJPEG moving picture images, but it is not malfunction.
- You can transfer MJPEG file to PC through DVC Media 6.0 using USB port on your PC.
  And then, play MJPEG file with a moving picture player program like a Microsoft Windows Media Player.
  (DVC Media 6.0 is included in the CD that is supplied).
- The following functions are not allowed in M.REC Mode.
  - EIS (Electronic Image Stabilizer), Digital Zoom, Fade, Program AE, Digital Effect, Slow Shutter
- While you record in Memory Stick, do not turn the power off, eject a Memory Stick or remove the battery pack.
  The Memory Stick or its data maybe damaged.
- Moving images recorded on the Memory Stick may not play on other manufacturer's camcorders.
- The MJPEG file recorded by another camcorder might not be allowed to play by this camcorder.

数码照相机模式

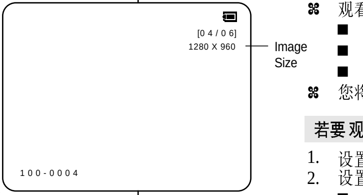
- 记忆棒上运动图像比录像带上的图像尺寸要小且分辨率低。
- 在播放MJPEG运动图像时，可能会出现破损或马赛克图像，但不是故障。
- 使用PC上的USB端口，可通过DVC Media 6.0传送MJPEG文件到PC上。然后，用运动图像播放器程序播放MJPEG文件，如Microsoft Windows的媒体播放器一样。
  （DVC Media 6.0包含在随机提供的CD中）。
- 在M.REC（照片录制）模式中不允许使用以下功能。
  - EIS（电子图像稳定器）、Digital Zoom（数字变焦）、Fade（淡化）、Program AE（程序自动曝光）、Digital Effect（数字效果）、Slow Shutter（慢速快门）。
- 在记忆棒中录制时，不要关闭电源、取出记忆棒或取出电池组。否则会破坏记忆棒或其数据。
- 录制在记忆棒上的运动图像可能无法在其它厂家的摄录一体机上播放。
- 另一台摄录一体机录制的MJPEG文件可能无法在本摄录一体机上播放。

Viewing Still images/Moving pictures

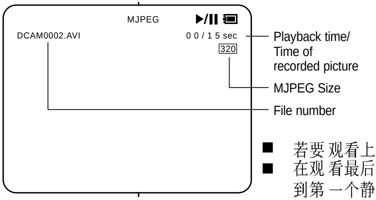
- ⌘ You can playback and view still images/moving pictures recorded on the Memory Stick.
- ⌘ There are 3 ways to view recorded images.
  - ■ Single images/Moving pictures
  - ■ Slide show : To view all images automatically and in consecutive order.
  - ■ Multi display : To view 6 images at once.
- ⌘ You cannot hear the sound.

To view a Single image

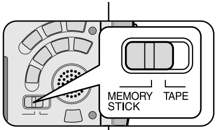
1. Set the mode switch to MEMORY STICK.
2. Set the power switch to PLAYER mode.
   - ■ The last still image/moving picture recorded apears in the display.
     - If there are no recorded still images/moving pictures on the Memory Stick, NO STORED IMAGE! and ▣ will display on the screen.
3. Using the ▶▶ (FWD) and ◀◀ (REV) buttons, search for the desired still images/moving pictures.
   - ■ To view the next still image/moving picture: press the ▶▶ (FWD) button.
   - ■ To view the previous still image/moving picture: press the ◀◀ (REV) button.
   - ■ Pressing ▶▶ (FWD) when you are on the last still image/ moving picture will take you to the first still image and pressing ◀◀ (REV) when you are on the first still image/moving picture will take you to the last still image/moving picture.
   - ■ Keep pressing ▶▶ (FWD) or ◀◀ (REV) to search for an still image/moving picture quickly.
   - ■ Moving picture: Pressing ▶/II (PLAY/STILL) plays back the moving picture and will show first scene as a still image when playback ends.
     - Pressing ▶/II (PLAY/STILL) during playback will stop the moving picture and the scene is shown as a still image. Pressing ▶/II (PLAY/STILL) again will restart the playback.

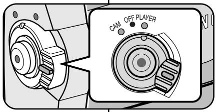


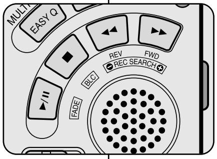
still image



moving picture







Notes

- ■ There could be some broken or mosaic pictures displayed while playing the MJPEG moving pictures. This is not a fault.
- ■ It is possible that moving pictures that you recorded in the Memory Stick might not playback in other brands of camcorder.
- ■ The MJPEG file recorded by another camcorder might not playback in this camcorder.
- ■ Memory Stick with large file sizes may take additional time to replay.
- ■ You can transfer MJPEG file to PC through DVC Media 6.0 using USB port on your PC. And then, play MJPEG file with a moving picture player program like a Microsoft Windows Media Player. (DVC Media 6.0 is included in the CD supplied)

观看静止图像/运动图像

- ⌘ 您可重放并观看录制在记忆棒上的静止图像运动图像。
- ⌘ 观看录制的图像有3种方式。
  - ■ 单幅图像/运动图像。
  - ■ 放映幻灯片：自动连续地观看全部图像。
  - ■ 多幅显示：一次观看6个图像。
- ⌘ 您将听不到声音。

若要观看单幅图像

1. 设置模式开关到MEMORY STICK（记忆棒）。
2. 设置功能开关到PLAYER（放像机）模式。
   - ■ 显示器上出现最后录制的图像。
     - 如果记忆棒上没有录制的静止图像/运动图像，NO STORED IMAGE!（没有录制图像）和“ ▣ ”会显示在屏幕上。
3. 使用 ▶▶（快进）和 ◀◀（倒带）按钮，搜索所需的静止图像/运动图像。
   - ■ 若要观看下一静止图像/运动图像，按 ▶▶（快进）钮。
   - ■ 若要观看上一静止图像/运动图像，按 ◀◀（倒带）钮。
   - ■ 在观看最后的静止图像/运动图像时按 ▶▶（快进）钮会转到第一个静止图像/运动图像，在观看第一个图像时按 ◀◀（倒带）钮，会转到最后的图像。
   - ■ 按住 ▶▶（快进）或 ◀◀（倒带）钮快速查找静止图像/运动图像。
   - ■ 运动图像：按 ▶/II（播放/静止）重放运动图像，并将显示重放结束时，作为静止图像的第一个场景。
     - 在重放期间，按 ▶/II 会停止运动图像，场景显示为静止图像。再次按 ▶/II 会重新开始重放。

注 意

- ■ 在播放MJPEG运动图像时，可能会出现破损或马赛克图像，但不是故障。
- ■ 录制在记忆棒上的运动图像可能无法在另一品牌的摄录一体机上播放。
- ■ 另一台摄录一体机录制的MJPEG文件可能无法在本摄录一体机上播放。
- ■ 当您观看存储在记忆棒上的大容量的文件时，化的时间会比较长。
- ■ 使用PC上的USB端口，可通过DVC Media 6.0传送MJPEG文件到PC上。然后，用运动图像播放器程序播放MJPEG文件，如Microsoft Windows的媒体播放器一样。（DVC Media 6.0包含随机提供的CD中）。

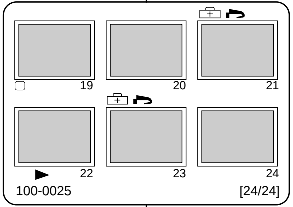
Digital Still Camera mode

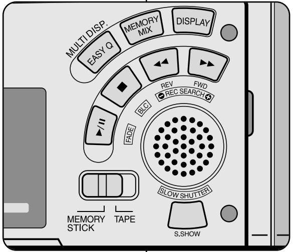
To view a slide show

1. Set the mode switch to MEMORY STICK.
2. Set the power switch to PLAYER mode.
   - ■ The last recorded still image/moving picture appears
3. Press the S.SHOW button.
   - ■ All images will be played back consecutively for 3~4 seconds each.
4. To stop the slide show, press the S.SHOW button again.

To view the Multi Display

1. Set the mode switch to MEMORY STICK.
2. Set the power switch to PLAYER mode.
   - ■ The last recorded still image/moving picture appears.
3. To view six stored still image/moving picture on single screen, press the MULTI DISP. button.
   - ■ A selection mark (▶) appears under the still image/moving picture.
   - ■ Moving pictures will be displayed with the first scene as a still image, indicated by a picture mark (▭).
   - ■ Move the MENU SELECTOR to select a still image/moving picture.
   - ■ To display the previous six images, press the ◀◀ (REV).
   - ■ To display the next six images, press the ▶▶ (FWD).
4. To return to single playback mode, press the MULTI DISP. button again.
   - ■ The still image/moving picture you have marked fills the whole display.





数码照相机模式

若要观看幻灯片

1. 设置模式开关到MEMORY STICK（记忆棒）。
2. 设置功能开关到PLAYER（放像机）模式。
   - ■ 显示器上出现最后录制的静止图像/运动图像。
3. 按S.SHOW（顺序播放）按钮。
   - ■ 全部图像会连续重放3~4秒。
4. 若要停止顺序播放，再次按下S.SHOW（顺序播放）按钮。

若要观看多幅显示

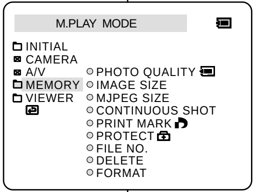
1. 设置模式开关到MEMORY STICK（记忆棒）。
2. 设置功能开关到PLAYER（放像机）模式。
   - ■ 显示器上出现最后录制的静止图像/运动图像。
3. 若要在一个屏幕上观看六个存储的静止图像/运动图像，则按MULTI DISP（多幅显示）按钮。
   - ■ 选择标记(▶) 出现在静止图像/运动图像下面。
   - ■ 运动图像通过作为静止图像的第一个场景显示，由图像标记（▭）指示。
   - ■ 转动MENU SELECTOR(菜单选择器)，选择静止图像/运动图像。
   - ■ 若要显示前六个图像，则按 ◀◀（倒带)。
   - ■ 若要显示下面六个图像，则按 ▶▶（快进)。
4. 再次按MULTI DISP（多幅显示）按钮，返回到单幅重放模式。
   - ■ 您标记的静止图像/运动图像充满整个显示屏。

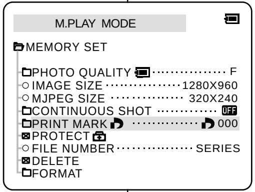
Digital Still Camera mode

Marking still images for printing

- ⌘ This camcorder supports the DPOF (Digital Print Order Format) print format.
- ⌘ You can automatically print still images recorded on a Memory Stick with a printer supporting DPOF.
- ⌘ There are 2 ways to make a PRINT MARK.
  - ■ THIS FILE: You can set a print mark on the photo image displayed on the LCD.
  - ■ ALL FILES: To print 1 copy each of all of the stored still images.

1. Set the mode switch to MEMORY STICK.
2. Set the power switch to PLAYER.
   - ■ The last recorded image appears.
3. Using the ▶▶ (FWD) and ◀◀ (REV) buttons, search for the still image that you want to mark.
4. Press the MENU button.
5. Move the MENU SELECTOR to highlight MEMORY and push the MENU SELECTOR.
   - ■ The MEMORY SET submenu will appear.
6. Move the MENU SELECTOR to highlight PRINT MARK, push the MENU SELECTOR.
7. Use the MENU SELECTOR to select either THIS FILE or ALL FILES and push the MENU SELECTOR.
8. Use the MENU SELECTOR to select the quantity and push the MENU SELECTOR.




M.PLAY MODE

MEMORY SET

PHOTO QUALITY ··············· F
IMAGE SIZE ··············· 1280X960
MJPEG SIZE ··············· 320X240
CONTINUOUS SHOT ··············· OFF
PRINT MARK ··············· 000
PROTECT
FILE NUMBER ··············· SERIES
DELETE
FORMAT

Notes

- ■ When you setup the PRINT MARK option to ALL FILES, 999 files from the current file are set to 1 or 0.
- ■ The ALL FILES option may require extended operation time depending on the number of stored still images.
- ■ You cannot write print marks on moving pictures.

数码照相机模式

在静止图像上做打印标记

- ⌘ 本摄录一体机支持DPOF (数字打印顺序格式) 打印格式。
- ⌘ 您可通过支持DPOF的打印机自动打印录制在记忆棒上的静止图像。
- ⌘ 有两种制作打印标记的方式。
  - ■ THIS FILE（本文件）：您可给在显示液晶显示屏上的照片图像设置打印标记。
  - ■ ALL FILES（全部文件）：对于存储的静止图像，每个图像打印一份。

1. 设置模式开关到MEMORY STICK（记忆棒）。
2. 设置功能开关到PLAYER（放像机）模式。
   - ■ 会出现最后录制的图像。
3. 使用 ▶▶ （快进）和 ◀◀ （倒带）钮，查找需要做标记的静止图像。
4. 按MENU（菜单）按钮。
5. 转动MENU SELECTOR(菜单选择器)以使MEMORY（存储器）高亮显示并推动MENU SELECTOR(菜单选择器)。
   - ■ 会出现MEMORY SET（存储器设置）子菜单。
6. 转动MENU SELECTOR(菜单选择器)以使PRINT MARK(打印标记) 高亮显示，推动MENU SELECTOR(菜单选择器)。
7. 使用MENU SELECTOR(菜单选择器)以选择THIS FILE 或 ALL FILES（本文件或全部文件）并推动MENU SELECTOR(菜单选择器)。
8. 使用MENU SELECTOR(菜单选择器)选择数量并推动MENU SELECTOR(菜单选择器)。

注 意

- ■ 在您设置了PRINT MARK（打印标记）选项到ALL FILES（全部文件）时，当前文件中的999个文件被设置成1或0。
- ■ 根据存储的静止图像的数量，全部文件选项可能需要更长的操作时间。
- ■ 在运动图像上不能写打印标记。

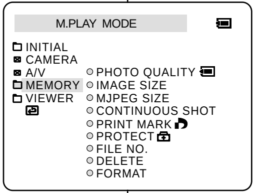
Digital Still Camera mode

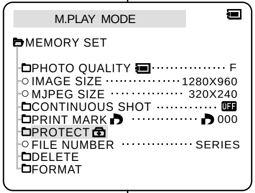
Protection from accidental erasure

⌘ You can protect important still images/moving pictures from accidental erasure.

- If you execute FORMAT, all still images/moving pictures including protected images will be erased.

1. Set the mode switch to MEMORY STICK.
2. Set the power switch to PLAYER.
   - The last recorded still image/moving picture appears.
   - If there are no recorded still images/moving pictures on the Memory Stick, NO STORED IMAGE! and ▤ will display on the screen.
3. Using the ▶▶ (FWD) and ◀◀ (REV) buttons, search for the still image/moving picture that you want to protect.
4. Press the MENU button.
5. Move the MENU SELECTOR to highlight MEMORY and push the MENU SELECTOR.
   - The submenu of MEMORY SET will appear.
6. Move the MENU SELECTOR to highlight PROTECT and push the MENU SELECTOR.
7. Push the MENU SELECTOR to set PROTECT to ON or OFF.
   - THIS FILE : protects the currently selected file from erasure.
8. Using the ▶▶ (FWD) and ◀◀ (REV) buttons, search for the still image/moving picture that you wish to protect.
9. To exit the menu, press the MENU button.


M.PLAY MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
PHOTO QUALITY
IMAGE SIZE
MJPEG SIZE
CONTINUOUS SHOT
PRINT MARK
PROTECT
FILE NO.
DELETE
FORMAT


M.PLAY MODE
MEMORY SET
PHOTO QUALITY ··············· F
IMAGE SIZE ··············· 1280X960
MJPEG SIZE ············ 320X240
CONTINUOUS SHOT ············ OFF
PRINT MARK ·············· 000
PROTECT
FILE NUMBER ··············· SERIES
DELETE
FORMAT

Note

- If the write protect tab on the Memory Stick is set to LOCK, you cannot carry out image protection.

数码照相机模式

防止意外擦除

⌘ 您可保护重要的静止图像/运动图像不被意外擦除。

- 如果您执行FORMAT（格式化），包括保护图像的全部静止图像/运动图像将被擦除。

1. 设置模式开关到MEMORY STICK（记忆棒）。
2. 设置功能开关到PLAYER（放像机）模式。
   - 会出现最后录制的静止图像/运动图像。
   - 如果记忆棒上没有录制的静止图像/运动图像，NO STORED IMAGE!（没有存储图像！）和 ▤ 会显示在屏幕上。
3. 使用 ▶▶（快进）和 ◀◀（倒带）钮，查找需要保护的静止图像/运动图像。
4. 按MENU（菜单）按钮。
5. 转动MENU SELECTOR(菜单选择器)以使MEMORY（存储器）突出显示并推动MENU SELECTOR(菜单选择器)。
   - 会出现MEMORY SET（存储器设置）子菜单。
6. 转动MENU SELECTOR(菜单选择器)以使PROTECT（保护）高亮显示，推动MENU SELECTOR(菜单选择器)。
7. 推动MENU SELECTOR(菜单选择器)，设置PROTECT（保护）为ON（开）或OFF（关）。.
   - THIS FILE（本文件）：保护当前选择的文件不被擦除。
8. 使用 ▶▶（快进）和 ◀◀（倒带）钮，查找需要保护的静止图像/运动图像。
9. 若要退出菜单，再按MENU（菜单）按钮。

注 意

- 若记忆棒上的写保护标签被设置成“LOCK（锁定）”，则无法执行图像保护。

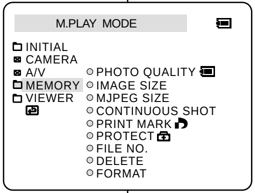
Deleting Still images/Moving pictures

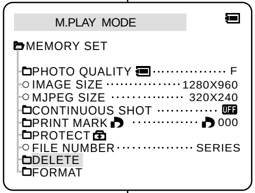
- ⌘ You can erase the still images/moving pictures recorded on the Memory Stick.
- ⌘ If you want to delete protected still images/moving pictures, you must first deactivate the image protection.
- ⌘ An image which has been deleted cannot be recovered.

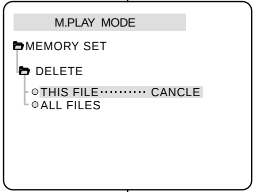
1. Set the mode switch to MEMORY STICK.
2. Set the power switch to PLAYER.
3. Using the ▶▶ (FWD) and ◀◀ (REV) buttons, search for the still image/moving picture that you want to delete.
4. Press the MENU button.
5. Move the MENU SELECTOR to highlight MEMORY and push the MENU SELECTOR.
   - ■ The MEMORY SET submenu will appear.
6. Move the MENU SELECTOR to highlight DELETE and push the MENU SELECTOR.
   - ■ Using the MENU SELECTOR, select either THIS FILE or ALL FILES and push the MENU SELECTOR.
   - ■ THIS FILE: deletes only the file currently selected.
   - ■ ALL FILES : deletes all files stored in the Memory Stick.
7. A box will appear to verify whether you wish to delete the still image/moving picture.
   - ■ Using the MENU SELECTOR, select the item.
   - ■ EXECUTE : deletes the selected still images/ moving pictures.
   - ■ CANCEL : does not delete the selected still images/moving pictures and returns to the previous menu.

Note

- ■ If you try to delete a protected image, “PROTECT!” appears on the screen.


M.PLAY MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
PHOTO QUALITY
IMAGE SIZE
MJPEG SIZE
CONTINUOUS SHOT
PRINT MARK
PROTECT
FILE NO.
DELETE
FORMAT


M.PLAY MODE
MEMORY SET
PHOTO QUALITY ················ F
IMAGE SIZE ················ 1280X960
MJPEG SIZE ················ 320X240
CONTINUOUS SHOT ············· OFF
PRINT MARK ·············· 000
PROTECT
FILE NUMBER ················ SERIES
DELETE
FORMAT


M.PLAY MODE
MEMORY SET
DELETE
THIS FILE ·········· CANCLE
ALL FILES

删除静止图像/运动图像

- ⌘ 您可擦除录制在记忆棒上的静止图像/运动图像。
- ⌘ 如果您想删除保护的静止图像/运动图像，首先去掉图像保护。
- ⌘ 删除的图像不能恢复。

1. 设置模式开关到MEMORY STICK（记忆棒）。
2. 设置功能开关到PLAYER（放像机）模式。
3. 使用 ▶▶（快进）和 ◀◀（倒带）钮，查找需要删除的静止图像/运动图像。
4. 按MENU（菜单）按钮。
5. 转动MENU SELECTOR(菜单选择器)以使MEMORY（存储器）高亮显示并推动MENU SELECTOR (菜单选择器)。
   - ■ 会出现MEMORY SET（存储器设置）子菜单。
6. 转动MENU SELECTOR(菜单选择器)以使DELETE（删除）高亮显示，推动MENU SELECTOR (菜单选择器)。
   - ■ 使用MENU SELECTOR(菜单选择器)，选择THIS FILE（本文件）或ALL FILES（全部文件）并推动MENU SELECTOR(菜单选择器)。
   - ■ THIS FILE（本文件）：只删除当前选择的文件。
   - ■ ALL FILES（全部文件）：删除存储在记忆棒上的全部文件。
7. 会出现一个框以验证是否想删除静止图像/运动图像。
   - ■ 使用MENU SELECTOR(菜单选择器)选择选项。
   - ■ EXECUTE（执行）：删除选择的静止图像/运动图像。
   - ■ CANCEL（取消）：不删除选择的静止图像/运动图像并返回到上一菜单。

注 意

- ■ 如果您想删除保护的图像，“PROTECT!（保护！）”会出现在屏幕上。

Digital Still Camera mode

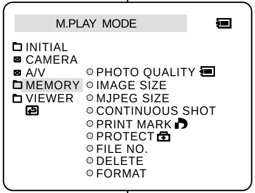
Formatting the Memory Stick

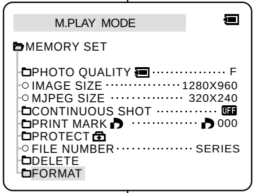
- ⌘ You can use the MEMORY FORMAT functions to completely delete all still images/moving pictures and options on the Memory Stick, including protected still images/moving pictures.
- ⌘ The format function restores the Memory Stick to its initial state.
- ⌘ The Memory Stick supplied with this camcorder has been formatted already.

Attention

- ⌘ If you execute the MEMORY FORMAT function, all still images/moving pictures will be erased completely and erased still images/moving pictures cannot be recovered.

1. Set the mode switch to MEMORY STICK.
2. Set the power switch to PLAYER mode.
3. Press the MENU button.
4. Move the MENU SELECTOR to highlight MEMORY and push the MENU SELECTOR.
   - ■ The sub menu will appear.
5. Select FORMAT from the list and push the MENU SELECTOR.
6. “ALL FILES ARE DELETED! FORMAT REALLY?” appears on the screen.
7. Using the MENU SELECTOR, select the item.
   - ■ NO : To return to previous menu
   - ■ YES : To start formatting.
8. Push the MENU SELECTOR.
9. To exit the menu, push the MENU button.


M.PLAY MODE
INITIAL
CAMERA
A/V
MEMORY
VIEWER
PHOTO QUALITY
IMAGE SIZE
MJPEG SIZE
CONTINUOUS SHOT
PRINT MARK
PROTECT
FILE NO.
DELETE
FORMAT


M.PLAY MODE
MEMORY SET
PHOTO QUALITY ················ F
IMAGE SIZE ················ 1280X960
MJPEG SIZE ················ 320X240
CONTINUOUS SHOT ············ OFF
PRINT MARK ·············· 000
PROTECT
FILE NUMBER ················ SERIES
DELETE
FORMAT

Notes

- ■ If you want to format the Memory Stick on your PC, use only the “Memory Stick formatter” supplied with the software CD.

数码照相机模式

格式化记忆棒

- ⌘ 您可使用MEMORY FORMAT（存储器格式化）功能来完全删除记忆棒上的全部静止图像/运动图像和选项，包括受保护的静止图像/运动图像。
- ⌘ 格式化功能将记忆棒恢复到初始状态。
- ⌘ 随本摄录一体机提供的记忆棒已经格式化。

注意

- ⌘ 如果您执行MEMORY FORMAT（存储器格式化）功能，所有静止图像/运动图像会被完全擦除且擦除的静止图像/运动图像不能恢复。

1. 设置模式开关到MEMORY STICK（记忆棒）。
2. 设置功能开关到PLAYER（放像机）模式。
3. 按MENU（菜单）按钮。
4. 转动MENU SELECTOR(菜单选择器)以使MEMORY（存储器）高亮显示并推动MENU SELECTOR(菜单选择器)。
   - ■ 会出现子菜单。
5. 从列表选择FORMAT（格式化）并推动MENU SELECTOR(菜单选择器)。
6. “ALL FILES ARE DELETED! FORMAT REALLY?“(全部文件被删除！真的格式化吗？)会出现在屏幕上。
7. 使用MENU SELECTOR(菜单选择器)，选择条目。
   - ■ NO(否)：返回上一菜单。
   - ■ YES(是)：开始格式化。
8. 推动MENU SELECTOR(菜单选择器)。
9. 若要退出菜单，按MENU（菜单）按钮。

注 意

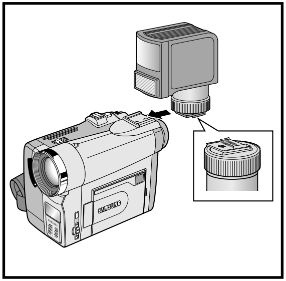
- ■ 如果您想格式化PC上的记忆棒，则仅使用随软件CD一道提供的“Memory Stick formatter”（记忆棒格式化程序）。

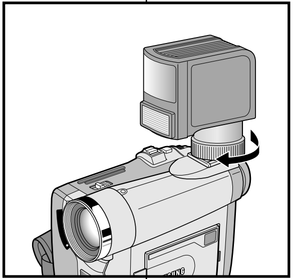
Smart Shoe

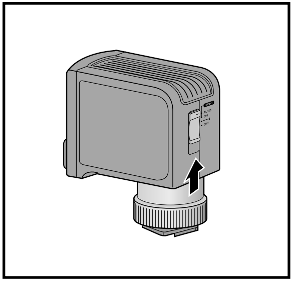
Using the Smart Shoe

- You can use to attach an optional accessory to the camcorder's Smart Shoe.
- The accessory is powered by the camcorder's power supply.
- Turn the camcorder's power off before attaching/removing the accessory to the Smart Shoe.
- Types of optional accessories for Smart Shoe.
  - VL-S1FL Video Light/Flash
  - ZM-EC1 Gun Zoom Mic

  ex) Using the VL-S1FL Video Light/Flash(optional)







1. Slide the VL-S1FL(Video Light/Flash) onto the Smart Shoe and tighten with shoe lock.
   - Slide the VL-S1FL onto the camcorder until it clicks securely into place.
   - Make sure that the accessory does not come disconnected when turning the shoe lock.

2. Set the camcorder to CAM or M.REC mode.

3. Move the Video Light's power switch to AUTO or ON.

智能底托

使用智能底托

- 可将选配的附件连接到智能底托上。
- 附件由摄录一体机电源供电。
- 在从智能底托上连接/拆除附件之前，要切断摄录一体机的电源。
- 智能底托选配的附件类型：
  - VL-S1FL 视频灯/闪光灯
  - ZM-EC1 枪式缩放话筒

  例如：使用VL-S1FL 视频灯/闪光灯(选配)

1. 将VL-S1FL(视频灯/闪光灯)装到智能底托上并用底托锁扣拧紧。
   - 将VL-S1FL装到摄录一体机上，直到锁紧。
   - 保证在转动底托锁扣时，附件不断开。

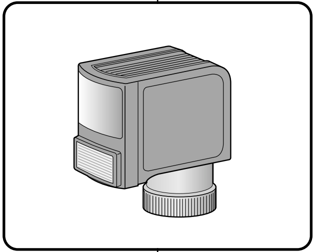
2. 将摄录一体机置于摄像或存储器拍摄模式。

3. 转动视频灯的电源开关到自动或打开。

Smart Shoe

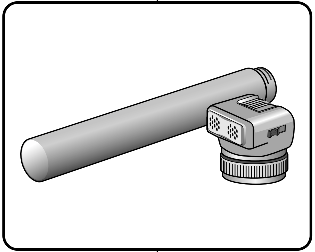
VL-S1FL Video Light/Flash

Attach the Video Light/Flash to a camcorder when recording in dark places.
When recording a PHOTO, you can take natural-looking flash pictures with appropriate illumination using the Flash.



ZM-EC1 Gun Zoom Mic

This is a highly sensitive microphone that can be switched between functioning as a directional microphone (Gun mode) or variable microphone (Zoom mode).



智能底托

VL-S1FL 视频灯/闪光灯

在较暗的地方录制时，将视频灯/闪光灯连接到摄录一体机上。
在拍摄照片时，可使用闪光灯提供的适当照度拍摄较自然的照片。

ZM-EC1 枪式缩放话筒

这是一个高度精密的话筒，可用做定向型话筒（枪式）或可变的话筒（缩放式）。

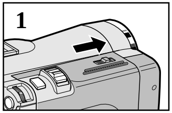
Maintenance

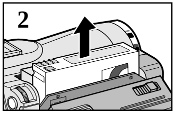
After finishing a recording

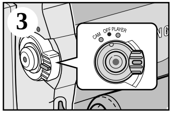
⌘ At the end of a recording you must remove the power source.

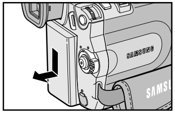
⌘ When recording with a Lithium Ion Battery Pack, leaving the pack on the camcorder can reduce the life span of the battery.
Hence, it should be removed from the camcorder.

1. Slide the TAPE EJECT switch in the direction of the arrow.
   - ■ Opening the cassette door ejects the tape automatically.
   - ■ Please wait while the tape is completely ejected.
2. After removing the tape, close the door and store the camcorder in a dust free environment.
   - ■ Dust and other foreign materials can cause block-shaped noise or jerky images.
3. Set the power switch to the OFF mode.
4. Disconnect the power source or remove the Lithium Ion Battery Pack.
   - ■ Hold down the BATTERY RELEASE button and slide the battery pack in the direction of the arrow.









维护

完成拍摄后

⌘ 结束录制后，必须断开电源。

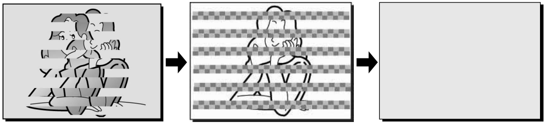
⌘ 在使用锂离子电池组拍摄时，将电池组留在摄录一体机上会缩短电池的使用寿命。因此必须将电池组从摄录一体机中取出。

1. 将TAPE EJECT（录像带退出）开关沿箭头所示方向滑动。
   - ■ 打开带仓门，自动退出盒带。
   - ■ 请等到盒带全部安全退出为止。
2. 取出盒带后，关闭带仓门，并将摄录一体机保存在无尘环境中。
   - ■ 灰尘和其它异物会造成方形噪波或抖动的图像。
3. 将功能开关置于OFF（关闭）模式。
4. 断开电源，或取出锂离子电池组。
   - ■ 按住BATTERY RELEASE（电池仓开关）按钮并按箭头所示的方向滑动电池组。

Cleaning and Maintaining the Camcorder

Cleaning the Video Heads

To ensure normal recording and clear pictures, clean the video heads when the playback pictures display square block-shaped noise or distortion, or a blue screen appears.



1. Set the power switch to PLAYER mode.
2. Insert the cleaning tape.
3. Press the ▶/II (PLAY/STILL) button.
4. Press the ■ (STOP) button after 10 seconds.

Notes

- Check the quality of the picture using a videocassette.
  If the picture quality has not improved, repeat the operation.
  If the problem continues, contact your local authorized service center.
- Clean the video heads with a dry type cassette cleaner.

清洁与维护摄录一体机

清洁视频磁头

为保证正常拍摄和图像的清晰，请在播放过程中发现图像出现方形噪波或失真或出现蓝屏时，清洁视频磁头。

1. 将功能开关设置为PLAYER（放像机）模式。
2. 插入清洁带。
3. 按下▶/II （PLAY/STILL）（播放/静止）按钮。
4. 10秒钟后按下■ （STOP）（停止）按钮。

注 意

- 用录像带检查清洁后的图像质量。
  如果图像质量仍然不好，则请重复清洁视频磁头的操作。
  如果还存在问题，则请与当地的客服中心联系。
- 请使用干式清洁带清洁视频磁头。

Using Your Camcorder Abroad

⌘ Each country or region has its own electric and colour systems.
⌘ Before using your camcorder abroad, check the following items.

Power sources

- You can use your camcorder in any country or area with the supplied AC Power Adapter within 100V to 240V, 50/60 Hz.
- Use a commercially available AC plug Adapter, if necessary, depending on the design of the local wall outlet.

Colour system

- You can view your recording in the viewfinder.
  However, to view it on a television or copy it to a videocassette recorder, the television or VCR must be PAL-compatible and have the appropriate audio/video jacks.
  Otherwise, you may need to use a transcoder.

● PAL-compatible Countries/Regions
Australia, Austria, Belgium, Bulgaria, China, CIS, Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, Great Britain, Holland, Hong Kong, Hungary, India, Iran, Iraq, Kuwait, Libya, Malaysia, Mauritius, Norway, Romania, Saudi Arabia, Singapore, Slovak Republic, Spain, Sweden, Switzerland, Syria, Thailand, Tunisia, etc.

● NTSC-compatible Countries/Regions
Bahamas, Canada, Central America, Japan, Korea, Mexico, Philippines, Taiwan, United States of America, etc.

Note

You can make recordings with your camcorder and view pictures on the LCD from anywhere in the world.

在国外使用摄录一体机

⌘ 每个国家或地区都有自己的电子和彩色制式。
⌘ 在国外使用摄录一体机之前，应检查以下项目。

电源

- 只要您所到的国家或地区的电源处在100V到240V、50/60Hz电源范围内，您就可以通过随机提供的交流电源适配器来使用摄录一体机。
- 如有必要，根据当地墙上插座的设计，使用市场上销售的交流插头适配器。

彩色制式

- 您可以从取景器中观看录制的图像。
  不过，要想在电视机上观看录制的图像或将其复制到盒带式录像机上，电视机或盒带式录像机必须与PAL制式兼容，并配备有相应的音频/视频插孔。否则，您需要配备一台彩色变码器。

● 与PAL制式兼容的国家/地区
澳大利亚、奥地利、比利时、保加利亚、中国、独联体各国、捷克共和国、丹麦、埃及、芬兰、法国、德国、希腊、英国、荷兰、香港、匈牙利、印度、伊朗、伊拉克、科威特、利比亚、马来西亚、毛里求斯、挪威、罗马尼亚、沙特阿拉伯、新加坡、斯洛伐克共和国、西班牙、瑞典、瑞士、叙利亚、泰国、突尼斯等。

● 与NTSC制式兼容的国家/地区
巴哈马、加拿大、中美洲、日本、墨西哥、菲律宾、韩国、台湾、美国等。

注 意

您可以用摄录一体机在世界上任何地点摄像，并可通过液晶显示屏观看播放的图像。

Troubleshooting

Troubleshooting

⌘ Before contacting a Samsung authorized service centre, perform the following simple checks.
They may save you the time and expense of an unnecessary call.

Self Diagnosis Display

Display	Blinking	Informs that...	Action
▭	slow	the battery pack is almost discharged.	Change to a charged one.
TAPE END!	slow	When the remaining time on the tape is about 2 minutes.	Prepare a new one.
TAPE END!	no	the tape reached its end.	Change to a new one.
TAPE!	slow	there is no tape in camcorder.	Insert a tape.
PROTECTION!	slow	the tape is record protected.	If you want to record, release the protection.
▲····D L C R	slow	the camcorder has some mechanical fault.	1. Eject the tape. 2. Set to OFF. 3. Detach the battery. 4. Reattach the battery. * If unresolved contact your local service representative.
◙	slow	moisture condensation has formed in the camcorder.	see below.

Moisture Condensation

⌘ If the camcorder is brought directly from a cold place to a warm place, moisture may condense inside the camcorder,
on the surface of the tape, or on the lens. In this condition, the tape may stick to the head drum and be damaged or the unit may not operate correctly.
To prevent possible damage under these circumstances, the camcorder is fitted with a moisture sensor.

⌘ If there is moisture inside the camcorder, ◙ (DEW) is displayed.
If this happens, none of the functions except cassette ejection will work.
Open the cassette compartment and remove the battery.
Leave the camcorder for at least two hours in a dry warm room.

故障排除

故障排除

⌘ 在与三星授权的客服中心联系之前，应完成以下简单的检查。
这样就会为您节省时间和不必要的电话开支。

自诊断显示

显 示	闪 烁	信 息……	排除故障措施
▭	慢	电池组所充电量几乎完全耗尽。	换上已经充满电的电池组。
TAPE END!	慢	录像带剩余时间约为2分钟时。	准备一盒新录像带。
TAPE END!	无	录像带已用尽。	换装一盒新录像带。
TAPE!	慢	摄录一体机中无录像带。	插入录像带。
PROTECTION!	慢	录像带受到写保护。	如果想进行录制，请取消写保护。
▲ ....D L C R	慢 慢	摄录一体机发生机械故障。	1. 退出盒带。 2. 设置为OFF（关）。 3. 取出电池。 4. 重新装入电池。 * 如果故障没有解决，则应与当地客服中心联系。
◙		摄录一体机内发生结露现象。	见下文。

结露

⌘ 如果将摄录一体机从寒冷场所直接带入温暖场所，湿气有可能在摄录一体机内部、录像带表面或镜头上形成冷凝水。在这种情况下，录像带有可能粘附在磁头磁鼓上而受损，或者使摄录一体机不能正常操作。
为防止在这些情况下导致可能的损坏，摄录一体机装备有湿度传感器。

⌘ 如果摄录一体机内部有湿气，则显示 ◙ “DEW”（结露）。
如果发生这种情况，那么不能使用除了盒带退出外的其它功能。
打开带仓，取出电池。
将摄录一体机放置于干燥温暖的室内2小时或2小时以上。

Troubleshooting

Self Diagnosis Display in M.REC/M.PLAY mode

Display	Blinking	Informs that...	Action
MEMORY STICK!	slow	There is no Memory stick in the camcorder.	Insert a Memory Stick.
MEMORY FULL!	slow	There is not enough memory to record.	Change to a new Memory Stick. Erase recorded image.
NO STORED IMAGE!	slow	There are no images recorded on the Memory Stick.	Record new images.
WRITE PROTECT!	slow	The Memory Stick is record protected.	Release the write protect tab on the Memory Stick.
PROTECT!	slow	When you try to delete to protected image.	Cancel the protect of image.
READ ERROR!	slow	The camera can not playback.	Format a Memory Stick or insert Memory Stick recorded on this camcorder.
WRITE ERROR!	slow	The camera can not record.	Format a Memory Stick or change to a new Memory Stick.
NOT FORMATTED!	slow	The Memory Stick needs to format.	Format a Memory Stick.
NOW DELETE...	slow	When progressing FILE DELETE.	Wait until Delete has finished.
NOW FORMAT...	slow	When progressing MEMORY FORMAT.	Wait until formatting has finished.
NOW COPY...	slow	When progressing FILE COPY.	Wait until copying has finished.

故障排除

在M.REC/M.PLAY（存储器拍摄/存储器播放）模式自诊断显示

显示	闪烁	信息……	排除故障措施
MEMORY STICK ! (内存条)	慢	摄录一体机中没有记忆棒。	插入记忆棒。
MEMORY FULL ! (存储器已满！)	慢	没有足够的内存来录制。	更换新的记忆棒或擦除录制的图像。
NO STORED IMAGE! (没有存储图像)	慢	记忆棒中没有录制的图像。	录制新的图像。
WRITE PROTECT ! (写保护)	慢	记忆棒受到保护防止录制。	去除记忆棒上的写保护标签。
PROTECT ! (保护)	慢	在您试图删除保护的图像时。	取消图像保护。
READ ERROR ! (读错误)	慢	摄像机不能重放。	格式化记忆棒或插入在本摄录一体机上录制的记忆棒。
WRITE ERROR ! (写错误)	慢	摄像机不能录制。	格式化记忆棒或更换一个新的记忆棒。
NOT FORMATTED ! (不能格式化！)	慢	记忆棒需要格式化。	格式化记忆棒。
NOW DELETE... (现在删除)	慢	在进行文件删除时。	等待直到删除结束。
NOW FORMAT... (现在格式化)	慢	在进行内存格式化时。	等待直到格式化结束。
NOW COPY... (现在复制)	慢	在进行文件复制时。	等待直到复制结束。

Troubleshooting

⌘ If these instructions do not solve your problem, contact your nearest Samsung authorized service centre.

Symptom	Explanation/Solution
You cannot switch the camcorder on.	Check the battery pack or the AC Power Adapter.
START/STOP button does not operate while recording.	Check the POWER switch is set to CAM. You have reached the end of the cassette. Check the record protection tab on the cassette.
The camcorder goes off automatically.	You have left the camcorder set to STBY for more than 5 minutes without using it. The battery pack is fully exhausted.
The battery pack is quickly exhausted.	The atmospheric temperature is too low. The battery pack has not been charged fully. The battery pack is completely dead, and cannot be recharged, Use another battery pack.
When you see a blue screen during playback.	The video heads may be dirty. Clean the head with a cleaning tape.
A vertical strip appears on the screen when recording a dark background.	The contrast between the subject and the background is too great for the camcorder to operate normally. Make the background bright to reduce the contrast or use the BLC function while you are recording brighter.
The image in the viewfinder is blurred.	The Viewfinder lens has not been adjusted. Adjust the viewfinder control lever until the indicators displayed on the viewfinder come into sharp focus.
Auto focus does not work.	Check the M.FOCUS menu. Auto focus does not work in the Manual Focus mode.
Play, FF or REW button does not work.	Check the POWER switch. Set the power switch to PLAYER. You have reached the beginning or end of the cassette.
When you see a broken block image during the RECORD SEARCH.	This is normal operation and it is not a failure or defect.

故障排除

⌘ 如果这些说明未能帮助您排除故障，则请与经过授权的三星客服中心联系。

故障现象	原因/排除方法
无法开启摄录一体机	请检查电池组或交流电源适配器。
拍摄时无法操纵START/STOP（开始/停止）按钮。	请检查功能开关，将其设定到CAM（摄像机）位置；录像带已到达终点；请检查录像带上的录制保护标签。
摄录一体机自动关机。	摄录一体机置于待机状态，闲置未使用的时间超过5分钟。 电池组电能完全用尽。
电池组电能很快用尽	环境温度过低。 电池组充电不足。 电池组已报废，无法为其充电。请使用另一电池组。
播放时看到蓝屏	视频磁头脏污。 用清洁带清洁磁头。
在录制屏幕的黑色背景上出现垂直条纹	被摄体与背景之间的对比度过大，使摄录一体机不能正常操作。提高背景亮度，减小反差；或在拍摄较亮的背景时使用BLC（背光补偿）功能。
取景器中的图像模糊不清	取景器透镜未经调整。 调整取景器控制手柄，直到显示在取景器上的指示标识清晰为止。
自动聚焦功能失灵	检查手动聚焦菜单。 在手动聚焦模式下，自动聚焦功能不起作用。
播放、快进和快倒等按钮均失灵	检查POWER（功能）开关，将功能开关设置为PLAYER（放像机）。
在RECORD SEARCH（拍摄记录搜索）过程中看到断续方块形图像	这属于正常现象，并非故障或缺陷。

Specifications

Model name: VP-D93(i)/D97(i)/D99(i)

System	
Video signal	PAL
Video recording system	2 rotary heads, Helical scanning system
Audio recording system	Rotary heads, PCM system
Usable cassette	Digital video tape (6.35mm width): Mini DV cassette
Tape speed	SP: approx. 18.83mm/s LP: approx. 12.57mm/s
Tape recording time	SP: 60 minutes (when using DVM 60), LP: 90 minutes (when using DVM 60)
FF/REW time	Approx. 150 sec. (using DVM60 tape)
Image device	CCD (Charge Coupled Device)
Lens	F2.0 12x(Optical), 800x(Digital) Electronic zoom lens
Filter diameter	Ø30
LCD monitor/Viewfinder	
Size/dot number	2.5inchs 123k(VP-D93(i)/D97(i) only), 211k(VP-D99(i) only)
LCD monitor Method	TFT LCD
Viewfinder	0.24" B/W LCD(VP-D93(i)/D97(i) only), Colour LCD(VP-D99(i) only)
Connectors	
Video output	1Vp-p (75Ω terminated)
S-video output	Y: 1Vp-p, 75Ω, C: 0. 286Vp-p, 75Ω
Audio output	-7.5dBs (600Ω terminated)
DV input/output	VP-DXXi: 4pin special in/out connector, VP-DXX: out only
USB output	Mini-B type connector
External mic	Ø3.5 stereo
Earphone	Ø3.5 stereo

General	
Power source	DC 8.4V, Lithium Ion Battery Pack 7.4V
Power source type	Lithium Ion Battery Pack, Power supply (100V~240V) 50/60Hz
Power consumption (Recording)	5.9W(LCD), 4.7W(VIEWFINDER)
Operating temperature	0˚~40˚C (32˚F~104˚F)
Storage temperature	-20˚C ~ 60˚C (-4˚F ~ 140˚F)
External dimension	Length 126.5mm, Height 93.5mm, Width 75mm
Weight	512g (Except for Lithium Ion Battery Pack and tape)
Built-in MIC	Omni-directional stereo condenser microphone
Remote control	Indoors: greater than 15m (straight line), Outdoors: about 5m (straight line)

- These technical specifications and design may be changed without notice.

技术规格

型号: VP-D93(i)/D97(i)/D99(i)

制式	
视频信号	PAL
视频录制系统	2个旋转头，螺旋扫描系统
音频录制系统	旋转头，PCM 系统
可使用的录像带	数字视频磁带（宽6.35mm）：微型数字视频（DV）录像带
磁带速度	标准播放：约18.83mm/秒 长时播放：约12.57mm/秒
磁带录制时间	标准播放：60分钟（使用DVM60时）， 长时播放：90分钟（使用DVM60时）
快进和倒带时间	约150秒（使用DVM60型磁带时）
图像设备	CCD（电荷耦合器件）
镜头	F2.0 12x（光学放大倍数）800x（数字放大倍数）电子变焦镜头
滤光器直径	Ø30
液晶显示屏/取景器	
大小/点数	2.5英寸/123k（仅限于VP-D93(i)/D97(i) only), 211k（仅限于VP-D99(i)）
液晶显示屏方式	TFT液晶显示屏
取景器	仅限于VP-D93(i)/D97(i)：0.24” 黑白液晶显示屏, 仅限于VP-D99(i)：彩色液晶显示屏
连接器	
视频输出	1Vp-p (75Ω 端接)
S－视频输出	Y：1Vp-p，75 Ω：0.286Vp-p, 75 Ω
音频输出	-7.5dBs (600Ω 端接)
数字视频（DV）输入/输出	VP-DXXi：4针专用输入连接器, VP-DXX：只输出
USB输出	小型B型连接器
外接话筒	Ø3.5立体声
耳机	Ø3.5立体声

概述	
电源	DC8.4V，锂离子电池组 7.4V
电源种类	锂离子电池组，电源（100V－240V）50/60Hz
功耗（拍摄）	5.9W（液晶显示屏），4.7W (VIEWFINDER)
操作温度	0℃～40℃（32°F ～104°F）
储存温度	-20℃～60℃ (-4°F ～140°F）
外形尺寸	长126.5mm，高93.5mm，宽75mm
重量	512g（锂离子电池组和盒带除外）
内置话筒	全向性立体声电容话筒
遥控	室内：大于15米（直线距离），室外：大于5米（直线距离）

- 本产品的技术规格和设计可能修改，恕不另行通知。

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