

# Panasonic

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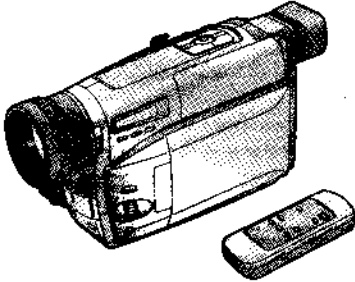
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VHS-C 攝錄影機  
VHS-C Movie Camera

使用說明書  
Operating Instructions  
Инструкция по эксплуатации  
إرشادات التشغيل

## NV-VZ1EN/ENH/ENC



Model No. **NV-VZ1EN/ENH/ENC**



**VHS-C**  
PAL

使用前，請詳細閱讀本說明書。  
Before use, please read these instructions completely.

VQT8409

## 您的安全信息

**警告**

為了減少火災或觸電危險，以及討厭的干擾，請只使用推薦的附件並勿讓該設備淋雨或受潮。勿拆卸外殼（或後板），內部沒有用戶可以維修的部件，請將維修工作委託給專業維修人員。

**攝錄影機**

額定銘牌位於攝錄影機的底側。

**交流轉接器**

- 額定銘牌位於交流轉接器的底側。
- 由於該設備在使用中會變熱，所以，請在通風良好之處進行操作。且勿將該設備置於書櫃或類似之物品的封閉空間內。

■ 仔細閱讀使用說明書，並正確地使用攝錄影機。  
如果未遵守本使用說明書所介紹的操作步驟進行操作，則由此產生的傷害或部件損害將歸屬用戶的責任。

**■ 試拍攝錄影機。**

在您首次拍攝重要的活動之前，應試拍攝錄影機，以確認其拍攝和功能是否正常。

**■ 製造商將不負責賠償拍攝內容的丟失。**

對於因該攝錄影機、其附件或錄影帶發生故障或缺陷而造成的拍攝失敗，製造商將不負責任何賠償。

**■ 請注意遵守版權法。**

對原版錄影帶、雷射碟或其它出版或廣播節目進行私用目的以外的錄影時，可能會違犯版權法。即使對於私用目的，某些節目的錄影也可能是受到禁止的。

## Information for Your Safety

**WARNING**

To reduce the risk of fire or shock hazard and annoying interference, use only the recommended accessories and do not expose this equipment to rain or moisture.

Do not remove the cover (or back); there are no user serviceable parts inside. Refer servicing to qualified personnel.

**Movie Camera**

The rating plate is on the underside of the Movie Camera.

**AC Adaptor**

- The rating plate is on the underside of the AC Adaptor.
- As this equipment gets hot during use, operate it in a well ventilated place; do not install this equipment in a confined space such as a book case or similar unit.

**■ Carefully read the Operating Instructions and use the Movie Camera correctly.**

Injury or material damage resulting from any kind of use that is not in accordance with the operating procedures explained in these Operating Instructions are the sole responsibility of the user.

**■ Try out the Movie Camera.**

Be sure to try out the Movie Camera before recording your first important event and check that it records properly and functions correctly.

**■ The manufacturer is not liable for loss of recorded contents.**

The manufacturer shall in no event be liable for the loss of recordings due to malfunction or defect of this Movie Camera, its accessories or cassettes.

**■ Observe copyright laws.**

Recording of pre-recorded tapes or discs or other published or broadcast material for purposes other than your own private use may infringe copyright laws. Even for the purpose of private use, recording of certain material may be restricted.

## 目錄

如果您想馬上使用攝錄影機，至少須閱讀帶 ▲ 標誌的頁號。

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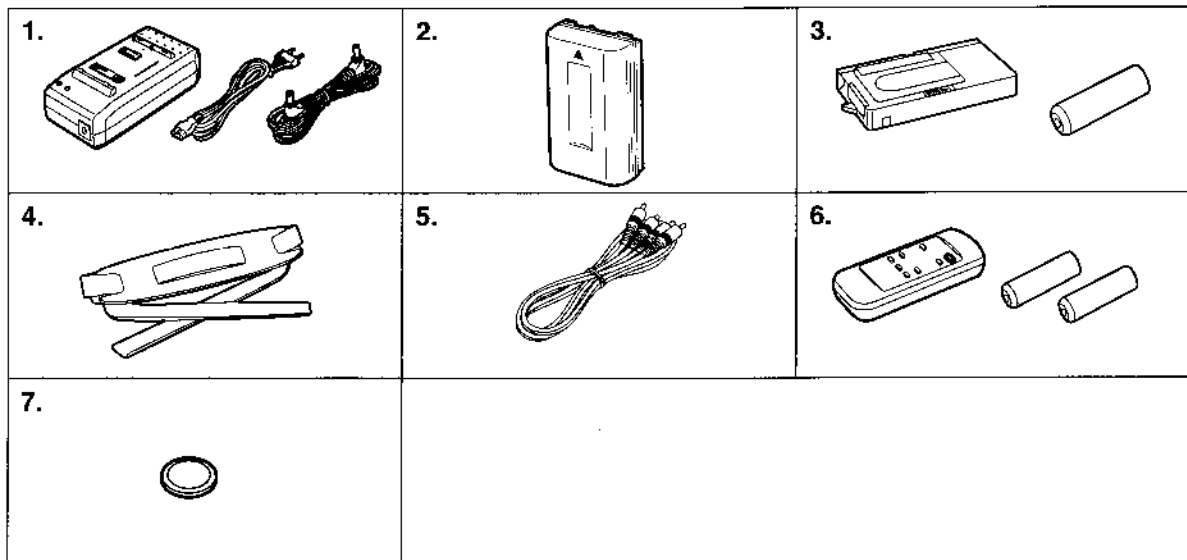
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## 中文

### 準備

本節將解釋開始使用攝錄影機之前的必要準備步驟。

#### 標準附件

- 交流轉接器 (→ 18, 20, 146)**  
給攝錄影機供電或對電池組充電。  
**直流輸入纜線和交流電源纜線 (→ 18, 20)**  
用於將交流轉接器連接至攝錄影機和交流電源插座。
- 電池組 (→ 20, 24, 148)**  
給攝錄影機供電。
- 磁帶轉接器和電池 (→ 74)**
- 肩用背帶 (→ 50)**
- 音頻 / 影像纜線 (→ 72, 144)**  
用於將攝錄影機連接至電視機或錄影機的影像輸入和音頻輸入插孔。
- 遙控器和供遙控器使用的電池 (→ 118, 120)**
- 鈕扣式電池 (→ 52)**  
為攝錄影機內藏的時鐘供電。

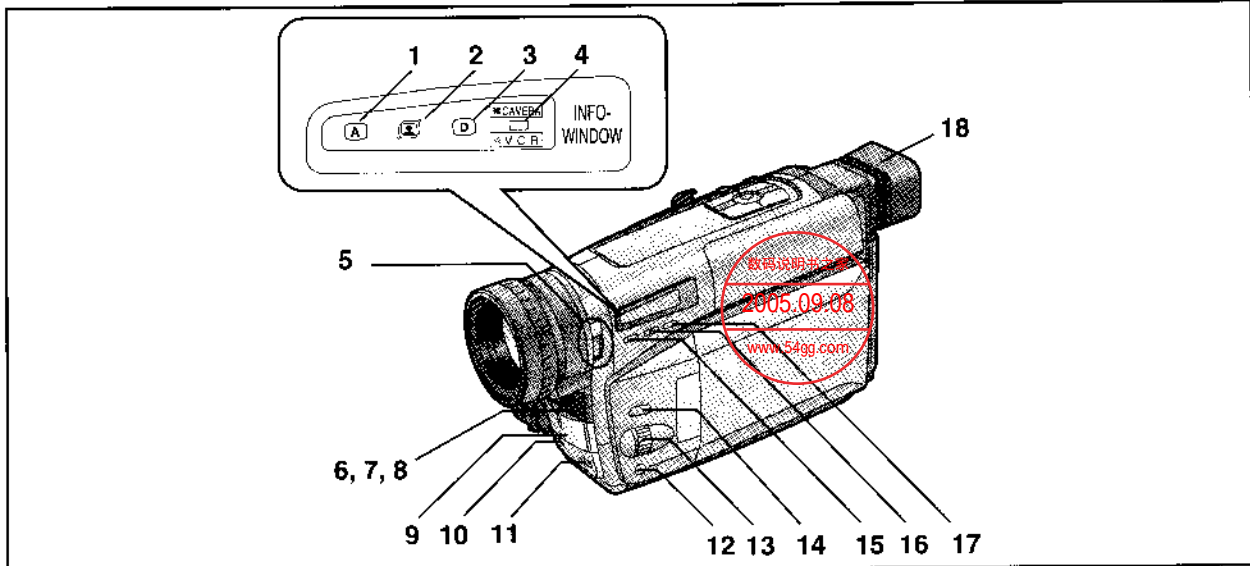
## ENGLISH

### Preparations

This chapter explains the necessary steps before you can start using the Movie Camera.

#### Standard Accessories

- AC Adaptor (→ 18, 20, 146)**  
To supply power to the Movie Camera and to charge the Battery.  
**DC Input Lead and AC Mains Lead (→ 18, 20)**  
To connect the AC Adaptor to the Movie Camera and to the AC mains socket.
- Battery (→ 20, 24, 148)**  
To supply power to the Movie Camera.
- Cassette Adaptor and Battery (→ 74)**
- Shoulder Strap (→ 50)**
- AV Cable (→ 72, 144)**  
To connect the Movie Camera to the Video Input and Audio Input Sockets on a TV or a VCR.
- Remote Controller and Batteries for Remote Control (→ 118, 120)**
- Button-Type Battery (→ 52)**  
To supply power to the Movie Camera's built-in clock.



## 中文

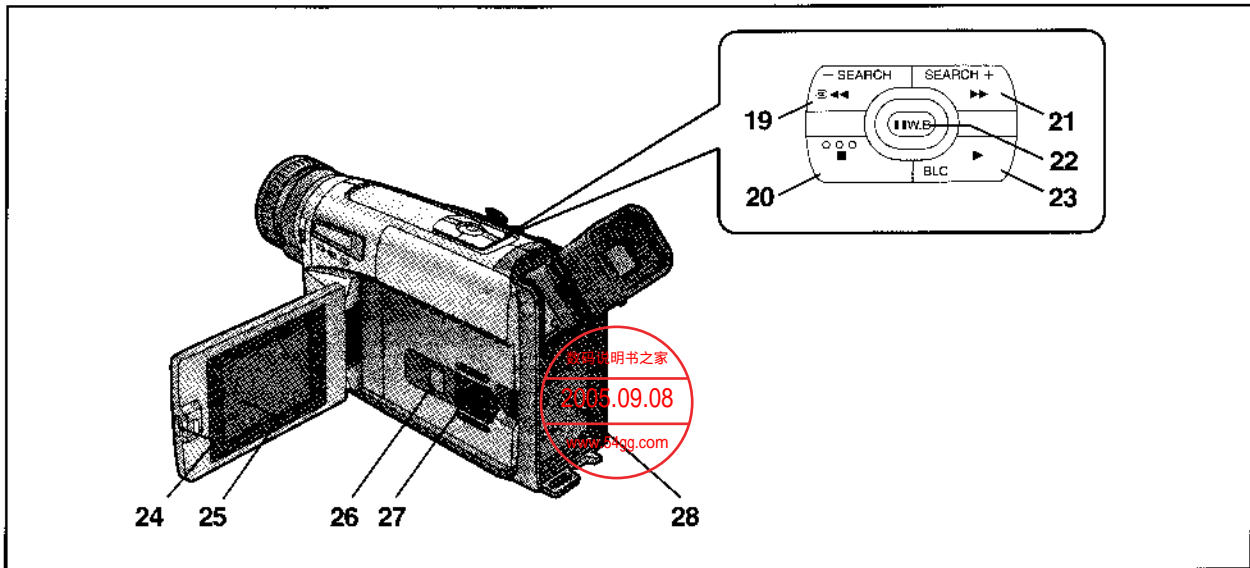
### 控制和組件

- 1 自動狀態指示燈 [A] (→ 58)
- 2 超級畫面穩定指示燈 [IS] (→ 84, 90)
- 3 數位效果指示燈 [D] (→ 84, 92, 94)
- 4 攝錄影機狀態燈 [CAMERA] (→ 58)  
放影機狀態燈 [VCR] (→ 68, 72)  
攝錄影機狀態：燈以紅色點亮。  
放影機狀態：燈以綠色點亮。
- 5 0-Lux 拍攝開關 [0 LUX OFF/ON] (→ 100)
- 6 白色平衡感應器 (→ 152)
- 7 遙控感應器 (→ 118)
- 8 內藏紅外線光束發射器 (→ 100)
- 9 麥克風
- 10 信號燈 (→ 60)
- 11 淡化鈕 [FADE] (→ 82, 94)
- 12 聚焦鈕 [FOCUS] (→ 110)  
項目設定鈕 [SET] (→ 30)  
軌跡調整鈕 (→ 76)
- 13 多功能環 [▲▼/MF/TRACKING] (→ 30, 76, 110)
- 14 菜單鈕 [MENU] (→ 30)
- 15 自動曝光選擇鈕 [PROG. AE] (→ 58, 106, 110, 112)
- 16 數位影像存儲鈕 [STORE] (→ 132)  
數位影像重疊鈕 [OFF/ON] (→ 132, 134, 136)
- 17 數位影像色彩選擇鈕 [COLOUR] (→ 134)
- 18 鏡頭蓋

## ENGLISH

### Controls and Components

- 1 Auto Mode Indication Lamp [A] (→ 58)
- 2 Super Image Stabilizer Indication Lamp [IS] (→ 84, 90)
- 3 Digital Effect Indication Lamp [D] (→ 84, 92, 94)
- 4 Camera Mode Lamp [CAMERA] (→ 58)  
VCR Mode Lamp [VCR] (→ 68, 72)  
Camera Mode: The lamp lights red.  
VCR Mode: The lamp lights green.
- 5 0-Lux Recording Switch [0 LUX OFF/ON] (→ 100)
- 6 White Balance Sensor (→ 152)
- 7 Remote Control Sensor (→ 118)
- 8 Built-in Infra red Beam Emitters (→ 100)
- 9 Microphone
- 10 Tally Lamp (→ 60)
- 11 Fade Button [FADE] (→ 82, 94)
- 12 Focus Button [FOCUS] (→ 110)  
Item Set Button [SET] (→ 30)  
Tracking Button (→ 76)
- 13 Multi-Function Dial [▲▼/MF/TRACKING] (→ 30, 76, 110)
- 14 Menu Button [MENU] (→ 30)
- 15 Auto Exposure Selector Button [PROG. AE] (→ 58, 106, 110, 112)
- 16 Digital Image Store Button [STORE] (→ 132)  
Digital Image Superimpose Button [OFF/ON] (→ 132, 134, 136)
- 17 Colour Selector Button for Digital Image [COLOUR] (→ 134)
- 18 Eyecup



## 中文

- 19 反向尋影鈕 [—SEARCH] (→ 62)  
倒帶 / 倒帶尋影 / 高速倒帶鈕 [◀◀] (→ 68, 76, 78)  
錄影檢查鈕 [Ⓢ] (→ 62)
- 20 停止鈕 [■] (→ 68)
- 21 正向尋影鈕 [SEARCH+] (→ 62)  
快進 / 快進尋影鈕 [▶▶] (→ 78)
- 22 白色平衡鈕 [W.B] (→ 106)  
暫停鈕 [⏸] (→ 78)
- 23 放影鈕 [▶] (→ 68)  
逆光鈕 [BLC] (→ 116)
- 24 液晶顯示監視器打開桿 [▲OPEN] (→ 28)
- 25 液晶顯示監視器 (→ 28, 40, 80)

由於液晶製造技術的限制，在液晶顯示監視器屏幕上可能會有一些細小的亮點或黑點。然而，這並非故障，也不會影響所攝畫面的質量。

- 26 錄影帶室 (→ 42)
- 27 錄影帶室鎖定鈕 [LOCK] (→ 42)
- 28 電池室蓋 (→ 24)

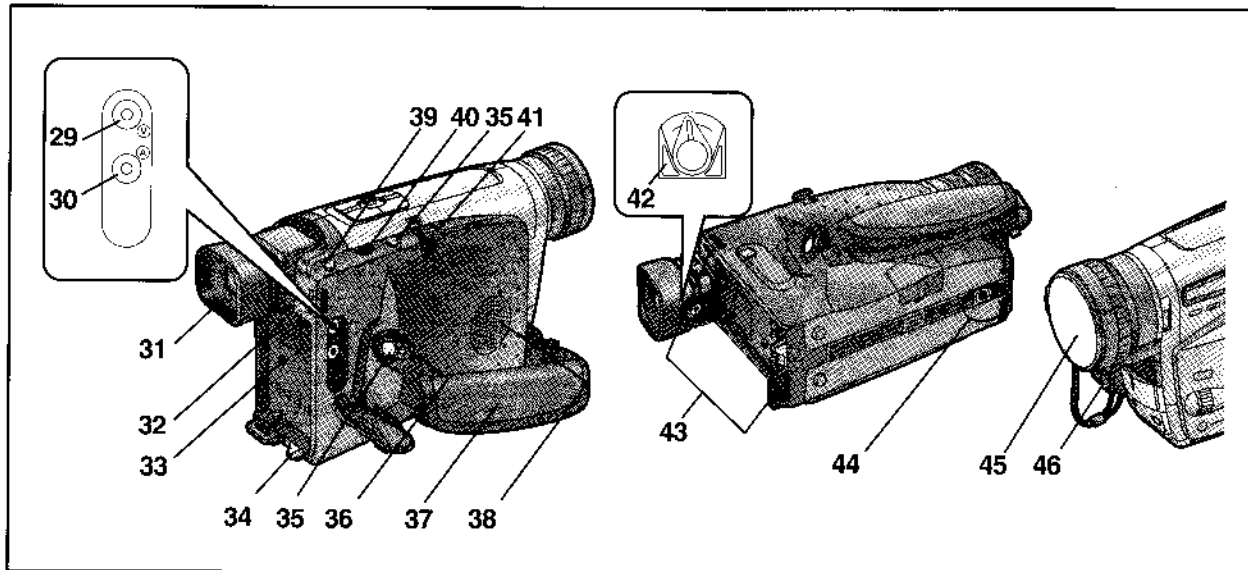
## ENGLISH

- 19 Reverse Search Button [—SEARCH] (→ 62)  
Rewind/Review/High-Speed Rewind Button [◀◀] (→ 68, 76, 78)  
Recording Check Button [Ⓢ] (→ 62)
- 20 Stop Button [■] (→ 68)
- 21 Forward Search Button [SEARCH+] (→ 62)  
Fast Forward/Cue Button [▶▶] (→ 78)
- 22 White Balance Button [W.B] (→ 106)  
Pause Button [⏸] (→ 78)
- 23 Playback Button [▶] (→ 68)  
Backlight Button [BLC] (→ 116)
- 24 LCD Monitor Open Lever [▲OPEN] (→ 28)
- 25 LCD Monitor (→ 28, 40, 80)

Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the LCD Monitor screen. However, this is not a malfunction and does not affect the recorded picture.

- 26 Cassette Compartment Window (→ 42)
- 27 Cassette Compartment Lock Button [LOCK] (→ 42)
- 28 Battery Holder (→ 24)





## 中文

- 29 影像輸出插孔 [V] (→ 72, 144)
- 30 音頻輸出插孔 [A] (→ 72, 144)
- 31 電子尋像器 (→ 48, 80)

由於液晶製造技術的限制，在電子尋像器屏幕上可能會有一些細小的亮點或黑點，或出現顫動現象。然而，這並非故障，也不會影響所攝畫面的質量。

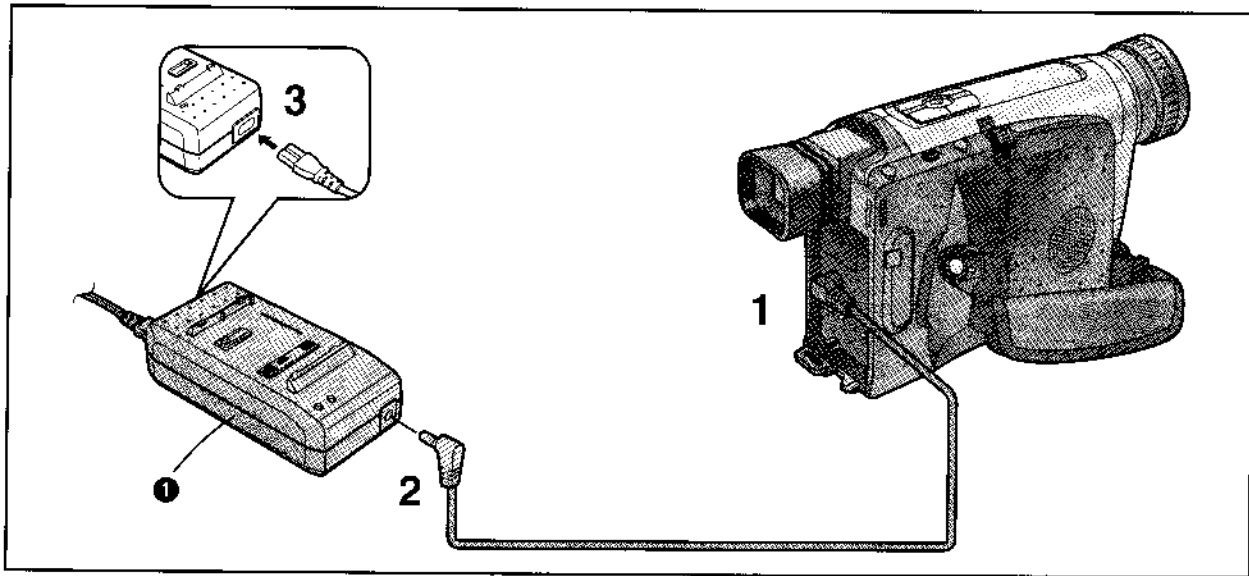
- 32 鈕扣式電池的電池室蓋 [BACKUP BATTERY] (→ 52)
- 33 直流輸入插孔 [DC IN] (→ 18)
- 34 電池排出桿 [◀ BATTERY EJECT] (→ 24)
- 35 拍攝開始 / 停止鈕 (→ 56, 58)  
請根據拍攝角度使用上述兩鈕中的任一鈕。
- 36 關閉 / 打開狀態選擇開關 [CAMERA/OFF/VCR] (→ 24, 58, 68, 80)
- 37 扣抓皮帶 (→ 48)
- 38 揚聲器 (→ 68)
- 39 錄影帶排出鈕 [▲ EJECT] (→ 42)
- 40 日期 / 時間 / 題名鈕 [DATE/TITLE] (→ 56, 130)
- 41 變焦桿 [W/T] (→ 64, 92)  
音量調節桿 [-VOL +] (→ 68)
- 42 目鏡校正控制桿 (→ 48)
- 43 肩用背帶環 (→ 50)
- 44 三角架連接孔
- 45 鏡頭蓋 (→ 48, 106)
- 46 鏡頭蓋夾 (→ 48)

## ENGLISH

- 29 Video Output Socket [V] (→ 72, 144)
- 30 Audio Output Socket [A] (→ 72, 144)
- 31 Finder (→ 48, 80)

Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the Finder screen, and flickering may occur. However, this is not a malfunction and does not affect the recorded picture.

- 32 Cover of the Button-type Battery's Compartment [BACKUP BATTERY] (→ 52)
- 33 DC Input Socket [DC IN] (→ 18)
- 34 Battery Eject Lever [◀ BATTERY EJECT] (→ 24)
- 35 Recording Start/Stop Buttons (→ 56, 58)  
Use either of these buttons depending on the recording angle.
- 36 Off/On Mode Selector Switch [CAMERA/OFF/VCR] (→ 24, 58, 68, 80)
- 37 Grip Belt (→ 48)
- 38 Speaker (→ 68)
- 39 Cassette Eject Buttons [▲ EJECT] (→ 42)
- 40 Date/Time/Title Button [DATE/TITLE] (→ 56, 130)
- 41 Zoom Lever [W/T] (→ 64, 92)  
Volume Adjustment Lever [-VOL+] (→ 68)
- 42 Eyepiece Corrector Lever (→ 48)
- 43 Shoulder Strap Holders (→ 50)
- 44 Tripod Receptacle
- 45 Lens Cap (→ 48, 106)
- 46 Lens Cap Holder (→ 48)



中文

## 三種電源

在家中試拍攝錄影機時，建議您使用交流轉接器 ❶。

### 1. 交流轉接器 (附件)

- 便於在家中使用攝錄影機。
- 給電池充電。(→ 20)

### 2. 電池 (附件)

- 便於在室外和附近無交流電源插座的室內使用攝錄影機。(→ 20)

### 3. 汽車電池充電器 (選購附件)

- 便於在汽車上使用攝錄影機。

### 將交流轉接器用作供電機件時

- 1 將直流輸入纜線連接至攝錄影機上的 [DC IN] 插孔。
- 2 將該纜線的另一頭連接至交流轉接器的 [DC OUT] 插孔。
- 3 將交流電源纜線連接至交流轉接器和交流電源插座。

由於交流轉接器具備自動通用電壓調節功能 (交流 100 - 240V, 50/60Hz)，所以在其它國家使用時亦無需作任何手動電壓調整。

ENGLISH

## The 3 Types of Power Supplies

To try out the Movie Camera at home, we recommend that you use the AC Adaptor ❶.

### 1. AC Adaptor (supplied)

- To use the Movie Camera indoors.
- To charge the Battery. (→ 20)

### 2. Battery (supplied)

- To use the Movie Camera outdoors, and also indoors when there is no AC mains socket nearby. (→ 20)

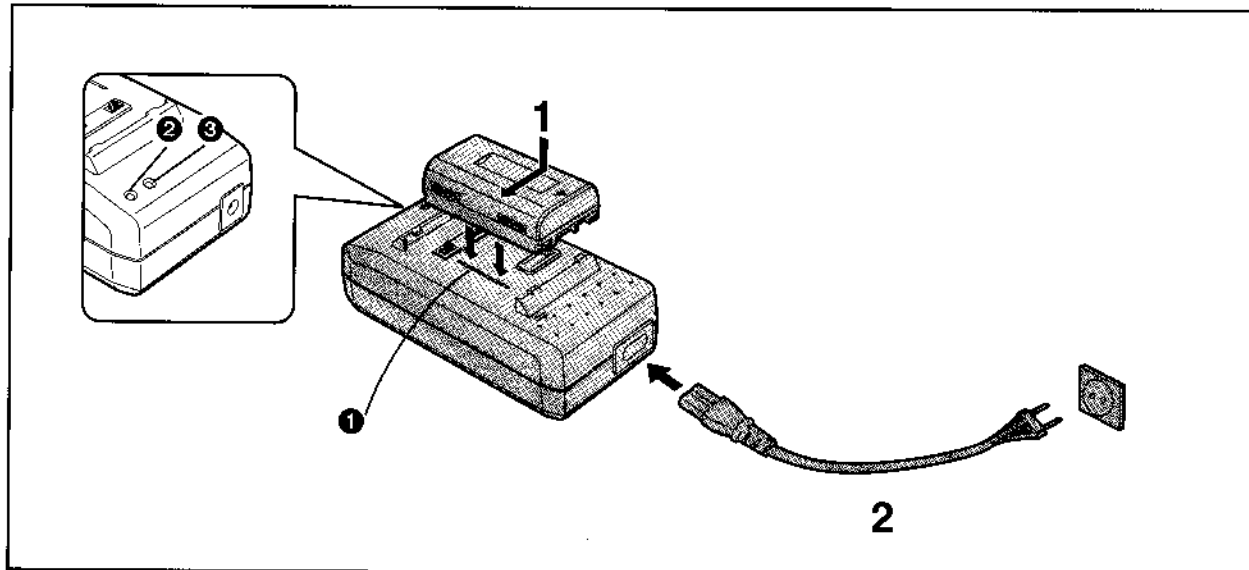
### 3. Car Battery Charger (optional)

- To use the Movie Camera in a car.

### Using the AC Adaptor as Power Supply Unit

- 1 Connect the DC Input Lead to the [DC IN] Socket on the Movie Camera.
- 2 Connect the other end of the cable to the [DC OUT] Socket on the AC Adaptor.
- 3 Connect the AC Mains Lead to the AC Adaptor and to an AC mains socket.

The AC Adaptor features automatic universal voltage adjustment (AC 100-240 V, 50/60 Hz), therefore, there is no need for any manual voltage adjustment for use in other countries.



## 中文

### 電池充電

在使用電池前請先將其充電。

#### 1 裝上電池。

- 將電池對準線 ①，然後將電池朝箭頭所示方向，一邊按一邊滑動。

#### 2 牢固地將交流電源纜線連接至交流轉接器和交流電源插座。

- 電源指示燈 [POWER] ② 亮起，接着充電指示燈 [CHARGE] ③ 也開始閃亮，開始充電。
- 如果即使已安裝了電池，充電指示燈 [CHARGE] ③ 也不閃亮，這時請取下電池，再從頭安裝一次。

#### ■ 充電指示燈 [CHARGE]

閃亮：正在充電

點亮：電池雖未充足電，但已可使攝錄影機進行操作。  
(電池已充電約 30 分鐘。)

熄滅：電池已充足電。

#### ■ 取出電池時

將其朝上述步驟 1 所示的相反方向滑動。

- 電池充電的室內溫度應為：0°C - 30°C。
- 在充電時，請不要將直流輸入纜線與交流轉換器連接。
- 在拍攝或充電中，電池會發熱，這是正常現象。
- 如果您給未經放電的電池充電，充電指示燈 [CHARGE] ③ 將短促地閃亮一下，然後熄滅。這並不意味着出現了故障。

## ENGLISH

### Charging the Battery

Charge the Battery before using it.

#### 1 Attach the Battery.

- Align the Battery with line ① and push it in the direction of the arrow while holding it down.

#### 2 Securely connect the AC Mains Lead to the AC Adaptor and an AC Mains Socket.

- The [POWER] Lamp ② lights and then the [CHARGE] Lamp ③ flashes and charging starts.
- If the [CHARGE] Lamp ③ does not flash even though the Battery is attached, remove the Battery and then re-attach it.

#### ■ Charging Lamp [CHARGE]

Flashing: During charging

Lit: The Battery can already be used to operate the Movie Camera but is not yet fully charged.  
(Approx. 30-minute battery charge)

Off: The Battery is fully charged.

#### ■ Removing the Battery

Slide it in the opposite direction of that indicated in step 1 above.

- Charge the Battery at a room temperature between 10°C and 30°C.
- When charging, do not connect the DC Input Lead to the AC Adaptor.
- During recording or charging, the Battery becomes warm. However, this is normal.
- If you charge the Battery when it is not yet discharged, the [CHARGE] Lamp ③ may flash briefly and then go out. This indicates that the Battery is fully charged. Therefore, this is not an indication of a malfunction.

## ■ 充電時間與手動拍攝方式時的最長連續拍攝時間

電池型號	充電時間	最長連續拍攝時間	
		①	②
CGR-V610 (附件)	80 分鐘	80 分鐘	120 分鐘
CGR-V620	145 分鐘	160 分鐘	240 分鐘
CGR-V816	310 分鐘	320 分鐘	480 分鐘

電池型號	充電 約 30 分鐘	最長連續拍攝時間	
		①	②
CGR-V610 (附件)	30 分鐘	35 分鐘	50 分鐘
CGR-V620			
CGR-V816			

①: 使用液晶顯示監視器時      ②: 使用電子尋像器時  
(上表所示時間為近似值。)

最長連續拍攝時間指在環境溫度 25°C 和相對濕度 60% 的條件，進行連續拍攝的時間。然而，在實際拍攝中，由於使用變焦和其它功能會增加電力的消耗，且溫度較高或較低時，會影響電池產生電力的能力。所以，每個電池的實際錄影時間，可能會比上表所列，要短約 30%–50%。

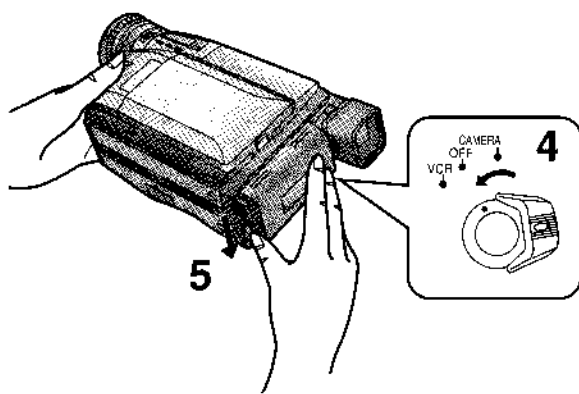
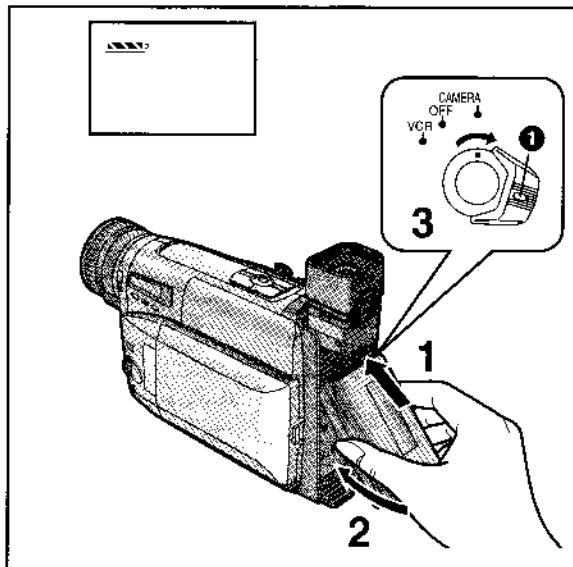
## ■ Charging Time and Maximum Continuous Recording Time in the Manual Recording Mode

Battery Model No.	Charging Time for a Full Charge	Max. Continuous Recording Time	
		①	②
CGR-V610 (Supplied)	80 min.	80 min.	120 min.
CGR-V620	145 min.	160 min.	240 min.
CGR-V816	310 min.	320 min.	480 min.

Battery Model No.	Approx. 30-Minute Charge	Max. Continuous Recording Time	
		①	②
CGR-V610 (Supplied)	30 min.	35 min.	50 min.
CGR-V620			
CGR-V816			

①: Using LCD Monitor      ②: Using Finder  
(The times shown in the above charts are approximations.)

Maximum Continuous Recording Time means the duration of continuous recording performed at an ambient temperature of 25°C and 60% relative humidity. In actual recording, however, the use of the zoom and other functions increases the power consumption, and higher or lower temperatures reduce the Battery's ability to generate electricity. Therefore, the actual recording time per Battery may be approximately 30%–50% shorter than listed above.



## 中文

### 裝上充好電的電池時

- 1 將電池上部（使箭頭指向上方）安裝在電池座上。
- 2 朝攝錄影機方向按電池下部，直至咔嚓一聲到位。
- 3 將 [CAMERA/OFF/VCR] 開關設置在 [CAMERA]（攝錄影機）或 [VCR]（錄影機）。
  - 一邊按住鈕 ①，一邊轉動開關。
  - 可通過電子取景器和液晶顯示監視器來確認電池剩餘操作時間。
  - 若要確保得到更精確的電池剩餘電力指示，請裝上一個已充足電的電池。
  - 有關剩餘電池電量指示的細節，請閱讀“檢查電池剩餘電力”。（→ 26）

#### ■ 取出電池時

- 4 將 [CAMERA/OFF/VCR] 開關設置在 [OFF]。
- 5 牢靠地握住電池，以免其失落，並依箭頭方向滑動 [◀ BATTERY EJECT] 柄，同時拉出電池。

## ENGLISH

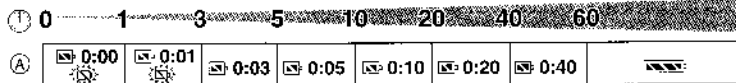
### Attaching the Charged Battery

- 1 Insert the Battery with its top (so that the arrow points upward) into the top Battery Holder.
- 2 Press the bottom of the Battery toward the Movie Camera until it locks with a click.
- 3 Set the [CAMERA/OFF/VCR] Switch to [CAMERA] or [VCR].
  - Turn the switch while pressing the button ①.
  - The Remaining Battery Operation Time can be confirmed both in the Finder and on the LCD Monitor.
  - To ensure more precise indication of the remaining battery power, attach a fully charged Battery.
  - For details about the Remaining Battery Power Indication, read "Checking the Remaining Battery Power". (→ 26)

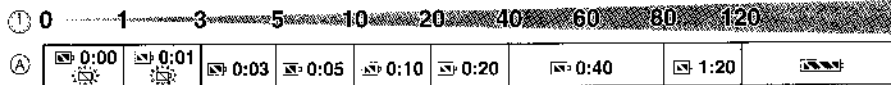
#### ■ Removing the Battery

- 4 Set the [CAMERA/OFF/VCR] Switch to [OFF].
- 5 Hold the Battery firmly to prevent it from dropping and pull it off while sliding the [◀ BATTERY EJECT] Lever in the direction of the arrow.

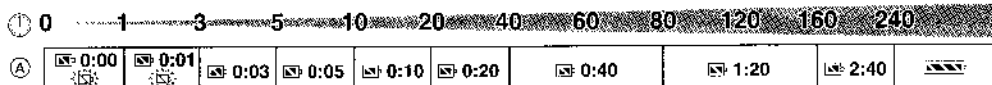
### CGR-V610



### CGR-V620



### CGR-V816



## 中文

### ■ 檢查電池剩餘電力

您可以通過電子尋像器和液晶顯示監視器來確認所裝電池的剩餘電力。同時您還可以知道所裝電池還能維持約多長時間的連續拍攝。所示時間並不是以實際的分鐘數來表示，而是以時間段來表示。上表顯示了對應於實際剩餘操作時間，所示剩餘電池操作時間指示的變化。

①：實際的剩餘電池操作時間

Ⓐ：所指示的剩餘電池操作時間

(當在鏡面狀態下進行拍攝時，將不顯示此項指示。)

(→ 124)

### 剩餘電池操作時間指示

上述指示的時間數據是在環境溫度為25°C，使用充足電的電池進行連續拍攝時得到的。因此，在下列情況下，實際可能的拍攝時間會與上表中所示的時間不同：

#### 當不是連續進行拍攝時

在很多情況下，您會頻繁地開始和停止拍攝，打開和關閉攝錄影機，使用變焦和其他功能，所有這些操作都將消耗電力。所以，電池提供的實際可能拍攝時間會比上表所示的時間約少30-50%。(→ 22)

#### 當環境溫度極低或極高時

電池的特性依環境溫度而發生變化，在極低的溫度下，電池能提供的拍攝時間會變得非常短。另外，低溫拍攝時攝錄影機上的剩餘電池操作時間指示會變得很慢。

(在高溫時，會降得很慢。)

#### 當電池已達到其使用壽命時

當給電池充足電後，普通使用時其操作時間仍然很短，這意味著電池已達到了其使用壽命。(→ 148)

## ENGLISH

### ■ Checking the Remaining Battery Power

You can confirm the remaining charge in the attached Battery in the Finder or on the LCD Monitor. This also shows you approximately how much more continuous recording time you can get from the attached Battery. The indicated time does not change in 1-minute steps.

The above illustrations show how the Remaining Battery Operation Time Indication changes according to the remaining operation time.

①: Actual remaining battery operation time

Ⓐ: Remaining Battery Operation Time Indication  
(This indication does not appear when recording in the Mirror Mode.) (→ 124)

### Remaining Battery Operation Time Indication

This indication shows the remaining duration of continuous recording at an ambient temperature of 25°C when a fully charged Battery was attached. Therefore, in the following cases, the actual available recording time is different from the times shown above:

#### When Recording Is Not Performed Continuously

In most cases, you will frequently start and stop recording, turn the Movie Camera on and off, use the zoom and other functions, all of which consume power. Therefore, the actual available recording time from the Battery is approximately 30-50% shorter than listed. (→ 22)

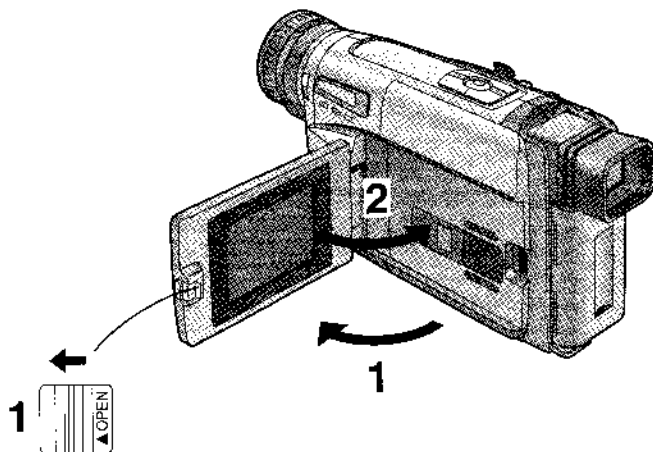
#### When the Ambient Temperature Is Extremely Low or Extremely High

The characteristics of the Battery vary according to the ambient temperature, and at a very low temperature, the possible recording time becomes extremely short. In addition, the Remaining Battery Operation Time Indication on the Movie Camera decreases a little faster than at an ambient temperature of 25°C.

(At a higher temperature, it tends to decrease more slowly.)

#### When the Service Life of the Battery Has Reached Its End

When the operation time even after full charging is too short for normal use, the service life of the Battery has reached its end. (→ 148)



## 中文

### 液晶顯示監視器的使用

改善後的液晶顯示背光透射能力使畫面額外明亮。另外，液晶顯示表面的特殊膜層可擴散外來光線，使反光降至最低，所以畫面色彩生動、清晰易看。

#### ■ 打開液晶顯示監視器時

**1** 向左滑動 [▲ OPEN] 柄，同時如箭頭所示，將液晶顯示監視器打開約 90°。

#### ■ 關閉液晶顯示監視器時

**2** 將液晶顯示監視器返回攝錄影機本體，直至其卡嗒一聲到位。

- 液晶顯示監視器上顯示的畫面看起來在垂直方向上受到一些拉伸，然而，實際錄製的圖像並不受此影響。
- 在關閉液晶顯示監視器之前，請恢復其垂直位置，且須在關閉液晶顯示監視器之前，確認錄影室已牢靠地關閉。
- 打開液晶顯示監視器時，將自動關閉電子尋像器。然而，當您將液晶顯示監視器面向前方時，電子尋像器將再次打開。
- 在液晶顯示監視器的生產中採用了精度極高的技術。結果獲得了 99.99% 的有效像點，而只有 0.01% 的像點失效或總亮。然而，這並非故障，也不會影響所攝畫面的質量。
- 在攝錄影機溫度特別低的情況下，將其打開時，液晶顯示監視器上的畫面會比平常暗。然而，待其到達正常溫度時，將獲得正常的亮度。
- 清除手印時，請用軟布進行擦拭。
- 勿將液晶顯示監視器暴露在直射陽光之下。當陽光照射在液晶顯示監視器上時，將可能很難看清畫面。
- 勿在液晶顯示監視器的表面施加任何壓力，或讓其遭受嚴重的撞擊。
- 搬運攝錄影機之前，請將液晶顯示監視器牢靠地關好。

## ENGLISH

### Using the LCD Monitor

Improved LCD backlight transmission makes the picture extra bright. In addition, special coating of the LCD's surface diffuses the light from outside to minimize light reflection, so the picture has vivid colours and is easy to see.

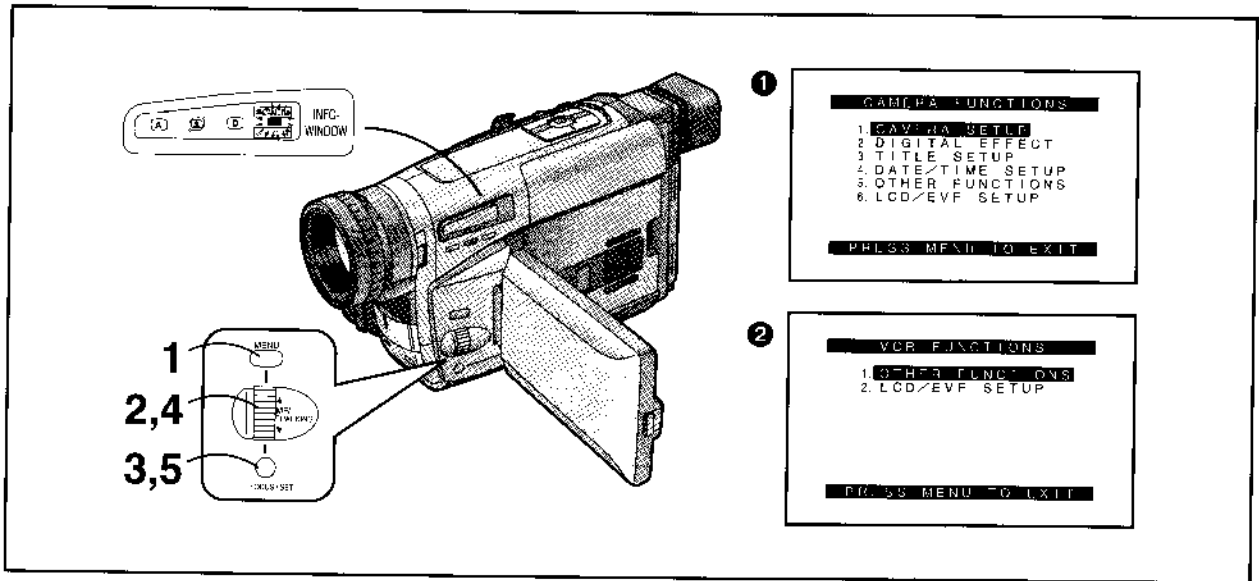
#### ■ Opening the LCD Monitor

**1** Slide the [▲ OPEN] Lever to the left and simultaneously open the LCD Monitor in the direction of the arrow approximately 90°.

#### ■ Closing the LCD Monitor

**2** Turn the LCD Monitor back toward the Movie Camera body until it locks with a click.

- The picture seen on the LCD Monitor looks slightly stretched vertically, however, the actually recorded picture remains unaffected by this.
- Return the LCD Monitor to its vertical position before closing it. Also, make sure that the Cassette Compartment is securely closed before closing the LCD Monitor.
- Opening the LCD Monitor automatically turns the Finder off. However, when you turn the LCD Monitor so that it faces forward, the Finder turns on again.
- Extremely high precision technology is employed in producing the LCD Monitor. The result is more than 99.99% effective pixels with a mere 0.01% of the pixels inactive or always lit. However, this is not a malfunction and does not affect the recorded picture.
- When the Movie Camera is very cold when turning it on, the picture on the LCD Monitor is darker than normally. However, as it reaches normal temperature, it regains its normal brightness.
- To remove fingerprints, wipe the LCD Monitor with a soft cloth.
- Do not expose the LCD Monitor to direct sunlight. When sunlight falls onto the LCD Monitor, it may be difficult to view the picture.
- Do not apply any pressure to the surface of the LCD Monitor or subject it to strong shocks.
- Before transporting the Movie Camera, securely close the LCD Monitor.



## 中文

### 使用菜單屏幕

該攝錄機可在菜單上顯示各種功能的設定情況，以便能簡單地選擇需要的功能和設定值。

#### 1 按 [MENU] (菜單) 鈕。

當您在 [CAMERA] 燈以紅色點亮中按該鈕時，會顯示攝錄機狀態菜單 ①。

當您在 [VCR] 燈以綠色點亮中按該鈕時，會顯示放影機狀態菜單 ②。

#### 2 轉動 [▲▼] 環，選擇您希望進入的菜單。

轉動 [▲▼] 環，可改變高亮項目。

#### 3 按 [SET] 鈕，顯示所選擇的子菜單。

#### 4 轉動 [▲▼] 環，選擇希望設定的項目。

#### 5 按 [SET] 鈕，將選擇的項目設定為需要的狀態。

#### 退出菜單時

再次按 [MENU] 鈕。

- [DATE/TIME SETUP] (日期/時間設定) 子菜單 (→ 54) 和 [LCD/EVF SETUP] (液晶顯示監視器/電子尋像器設定) 子菜單 (→ 40) 的設定方法與其它子菜單的設定方法稍有不同。
- 您可以在播放錄影帶時顯示菜單，但是不能在拍攝時顯示菜單。同樣，當菜單顯示時，您可以開始播放錄影帶，但是如果此時您開始拍攝，所顯示的菜單將消失。
- 當您關閉攝錄機時，您在菜單上選擇的設定將得到保存。然而，在電源關閉前，若從攝錄機拔掉供電裝置 (電池或交流轉接器) 時，選擇的設定將無法得到保存。

## ENGLISH

### Using the Menus

This Movie Camera displays the settings of various functions in menus to make it easy to select the desired functions and settings.

#### 1 Press the [MENU] Button.

When you press this button while the [CAMERA] Lamp is lit in red, the Camera Mode Menu ① appears.

When you press this button while the [VCR] Lamp is lit in green, the VCR Mode Menu ② appears.

#### 2 Turn the [▲▼] Dial to select the desired sub-menu.

Turning the [▲▼] Dial changes the highlighted item.

#### 3 Press the [SET] Button to display the selected sub-menu.

#### 4 Turn the [▲▼] Dial to select the item to be set.

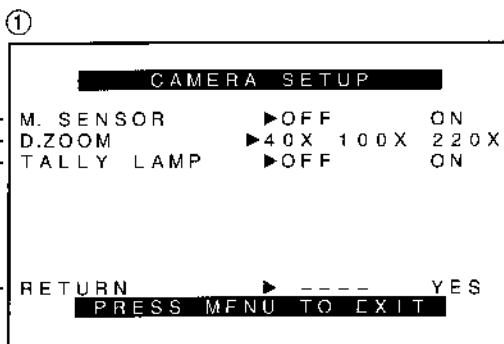
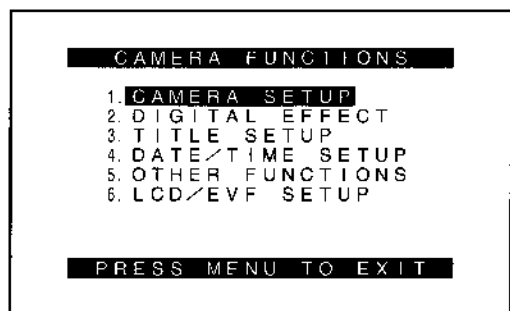
#### 5 Press the [SET] Button to set the selected item to the desired mode.

#### Exiting the Menu

Press the [MENU] Button again.

- The method for making settings on the [DATE/TIME SETUP] Sub-Menu (→ 54) and [LCD/EVF SETUP] Sub-Menu (→ 40) differs slightly from that of other Sub-Menus.
- You can display the menu during playback, but not during recording. Also, it is possible to start playback while the menu is displayed, but if you start recording, the displayed menu disappears.
- The settings that you have selected on the menus are maintained when you turn the Movie Camera off. However, if you disconnect the power supply unit (Battery or AC Adaptor) from the Movie Camera before turning it off, the selected settings may not be maintained.





## 中文

### 菜單功能

菜單圖示僅為解釋功能所用，實際菜單可能會有所不同。

#### 攝錄影機狀態主菜單 [CAMERA FUNCTIONS] (攝錄影機功能)

1. CAMERA SETUP (攝錄影機設定)
2. DIGITAL EFFECT (數位效果)
3. TITLE SETUP (題名設定)
4. DATE/TIME SETUP (日期 / 時間設定)
5. OTHER FUNCTIONS (其它功能)
6. LCD/EVF SETUP  
(液晶顯示監視器 / 電子尋像器設定)

#### 語言選擇菜單

如果您在保持 [MENU] (菜單) 鈕持續按下的同時，將 [CAMERA/OFF/VCR] (攝錄影機 / 關 / 錄影機) 開關設置在 [CAMERA] (攝錄影機) 狀態或 [VCR] (錄影機) 狀態，將出現 [MENU LANGUAGE SELECT] (菜單語言選擇) 菜單。按 [SET] (設定) 鈕選擇希望的語言之後，再按 [MENU] (菜單) 鈕，即可設定語言。這時，[CAMERA FUNCTIONS] (攝錄影機功能) 主菜單或 [VCR FUNCTIONS] (錄影機功能) 主菜單將以所選擇的語言顯示。

- 即使您選擇了漢語，子菜單也將以英語顯示。

#### [CAMERA SETUP] 子菜單 ①

- ① 移動感應器控制拍攝 [M.SENSOR] (→ 96)
- ② 數位變焦 [D.ZOOM] (→ 92)
- ③ 錄影燈 [TALLY LAMP] (→ 60)
- ④ 返回主菜單 [RETURN] (返回)

如果您將 [RETURN] (返回) 設置在 [YES]，菜單將返回主菜單。

## ENGLISH

### Menu Functions

The illustrations of the menus are for explanation purposes only and the actual menus may be somewhat different.

#### Camera Mode Main-Menu [CAMERA FUNCTIONS]

1. CAMERA SETUP
2. DIGITAL EFFECT
3. TITLE SETUP
4. DATE/TIME SETUP
5. OTHER FUNCTIONS
6. LCD/EVF SETUP

#### Language Selection Menu

If you set the [CAMERA/OFF/VCR] Switch either to [CAMERA] or [VCR] while keeping the [MENU] Button pressed, the [MENU LANGUAGE SELECT] Menu appears. Press the [SET] Button to select the desired language, and then press the [MENU] Button to set it. The [CAMERA FUNCTIONS] or [VCR FUNCTIONS] Main-Menu now appears in the selected language.

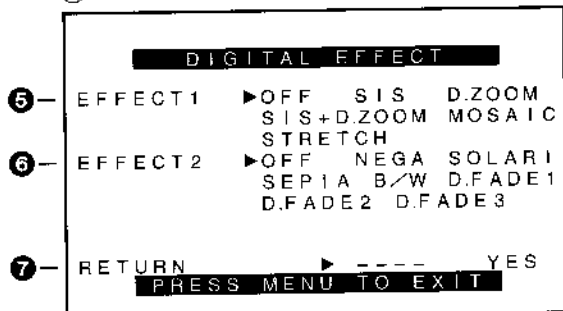
- Even if you select Chinese, the sub-menus are displayed in English.

#### [CAMERA SETUP] Sub-Menu ①

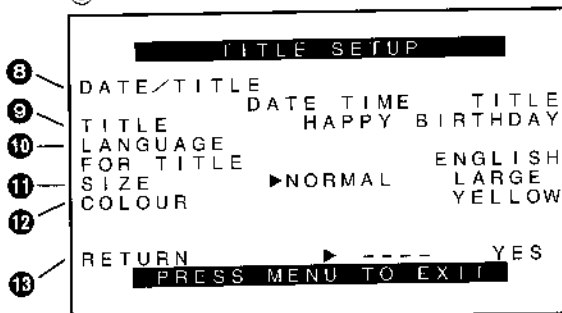
- ① Motion-Sensor-Controlled Recording [M.SENSOR] (→ 96)
- ② Digital Zoom [D.ZOOM] (→ 92)
- ③ Recording Lamp [TALLY LAMP] (→ 60)
- ④ Returning to the Main-Menu [RETURN]

If you set [RETURN] to [YES], the menu changes back to the Main-Menu.

②



③

**中文****攝錄影機狀態主菜單****[CAMERA FUNCTIONS] (攝錄影機功能) (續)****[DIGITAL EFFECT] 子菜單 ②**

- ⑤ 數位效果 1 [EFFECT1](→ 84, 86)
- ⑥ 數位效果 2 [EFFECT2](→ 84, 88)
- ⑦ 回到主菜單 [RETURN]

**[TITLE SETUP] 子菜單 ③**

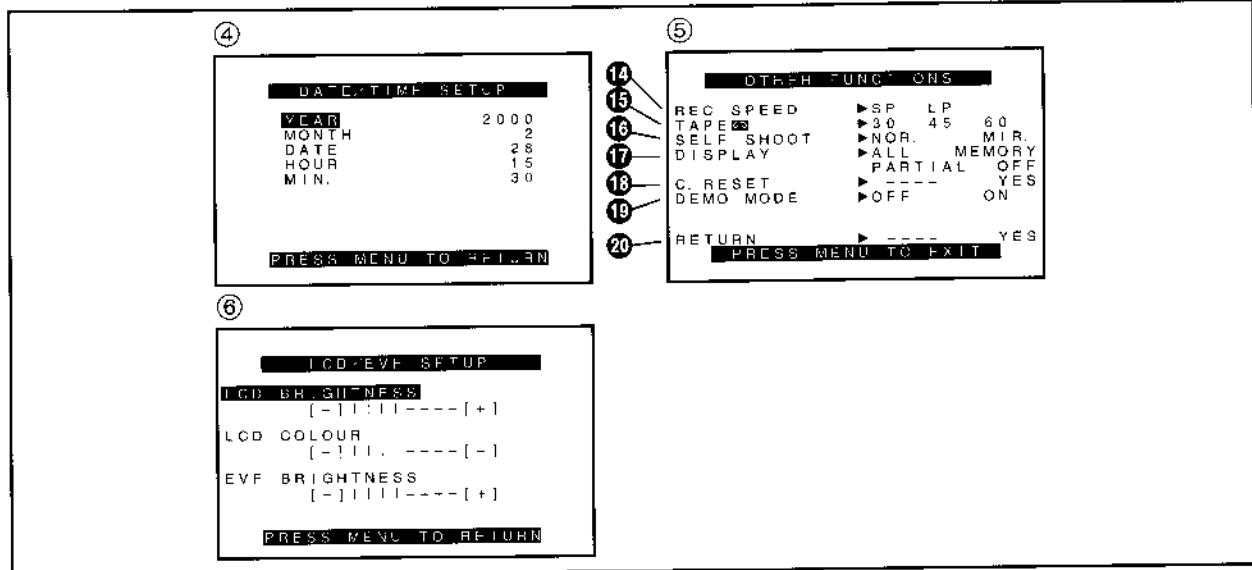
- ⑧ 日期 / 時間 / 題名指示 [DATE/TITLE (日期 / 題名)](→ 56)
- ⑨ 題名 [TITLE](→ 128)
- ⑩ 題名所用語言 [LANGUAGE FOR TITLE](→ 126)
- ⑪ 題名的尺寸 [SIZE](→ 130)
- ⑫ 日期 / 時間 / 題名指示的顏色 [COLOUR](→ 128)
- ⑬ 回到主菜單 [RETURN]

**ENGLISH****Camera Mode Main-Menu****[CAMERA FUNCTIONS] (Continued)****[DIGITAL EFFECT] Sub-Menu ②**

- ⑤ Digital Effects 1 [EFFECT1] (→ 84, 86)
- ⑥ Digital Effects 2 [EFFECT2] (→ 84, 88)
- ⑦ Returning to the Main-Menu [RETURN]

**[TITLE SETUP] Sub-Menu ③**

- ⑧ Date/Time/Title Indication [DATE/TITLE] (→ 56)
- ⑨ Title [TITLE] (→ 128)
- ⑩ Language of the Title [LANGUAGE FOR TITLE] (→ 126)
- ⑪ Size of the Title [SIZE] (→ 130)
- ⑫ Colour of the Date/Time/Title Indication [COLOUR] (→ 128)
- ⑬ Returning to the Main-Menu [RETURN]



## 中文

### 攝錄影機狀態主菜單 [CAMERA FUNCTIONS] (攝錄影機功能) (續)

[DATE/TIME SETUP] 子菜單 ④ (→ 54)

[OTHER FUNCTIONS] 子菜單 ⑤

⑭ 錄影速度狀態 [REC SPEED](→ 44)

⑮ 錄影帶長度 [TAPE] (→ 44)

⑯ 自拍 [SELF SHOOT](→ 122)

⑰ 計數器顯示狀態 [DISPLAY](→ 138)

⑱ 計數器復原 [C.RESET](→ 138)

⑲ 示範狀態 [DEMO MODE](→ 164)

⑳ 返回主菜單 [RETURN]

[LCD/EVF SETUP] 子菜單 ⑥ (→ 40)

## ENGLISH

### Camera Mode Main-Menu [CAMERA FUNCTIONS] (Continued)

[DATE/TIME SETUP] Sub-Menu ④ (→ 54)

[OTHER FUNCTIONS] Sub-Menu ⑤

⑭ Recording Speed Mode [REC SPEED] (→ 44)

⑮ Tape length [TAPE] (→ 44)

⑯ Self-Recording [SELF SHOOT] (→ 122)

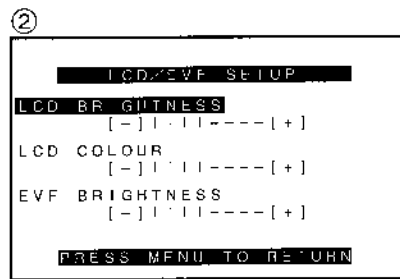
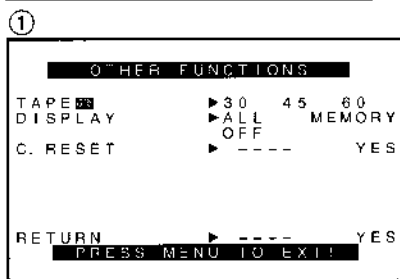
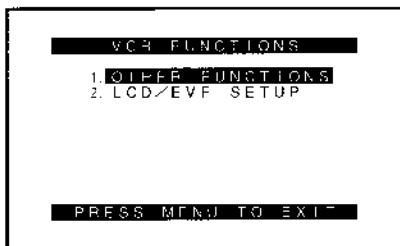
⑰ Counter Display Mode [DISPLAY] (→ 138)

⑱ Counter Reset [C.RESET] (→ 138)

⑲ Demonstration Mode [DEMO MODE] (→ 164)

⑳ Returning to the Main-Menu [RETURN]

[LCD/EVF SETUP] Sub-Menu ⑥ (→ 40)



## 中文

放影機狀態主菜單 [VCR FUNCTIONS]  
(錄影機功能)

1. OTHER FUNCTIONS (其它功能)
2. LCD/EVF SETUP  
(液晶顯示監視器 / 電子尋像器設定)

[OTHER FUNCTIONS] 子菜單 ①

[OTHER FUNCTIONS] 子菜單中的所有項目與 [CAMERA FUNCTIONS] 主菜單上 [OTHER FUNCTIONS] 子菜單中的對應項目相同。

[LCD/EVF SETUP] 子菜單 ② (→ 40)

## ENGLISH

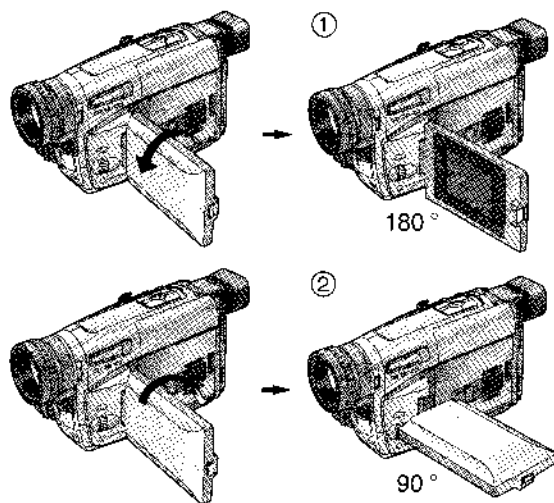
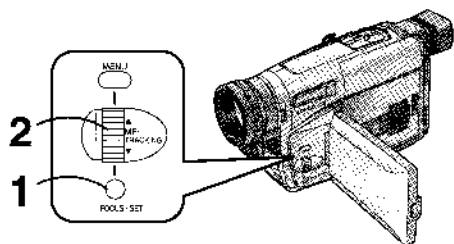
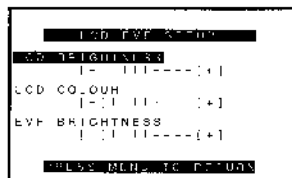
VCR Mode Main-Menu [VCR FUNCTIONS]

1. OTHER FUNCTIONS
2. LCD/EVF SETUP

[OTHER FUNCTIONS] Sub-Menu ①

All items on the [OTHER FUNCTIONS] Sub-Menu are the same as those on the [OTHER FUNCTIONS] Sub-Menu of the [CAMERA FUNCTIONS] Main-Menu.

[LCD/EVF SETUP] Sub-Menu ② (→ 40)



## 中文

### 調節液晶顯示監視器/電子尋像器的亮度和色彩電平

如果您在 [VCR FUNCTIONS] (錄影機功能) 主菜單或 [CAMERA FUNCTIONS] (攝錄影機功能) 主菜單中選擇 [LCD/EVF SETUP] (液晶顯示監視器/電子尋像器設定) 子菜單，將顯示下列項目。

#### 液晶顯示監視器亮度 [LCD BRIGHTNESS]

可調節液晶顯示屏幕上畫面之亮度。

#### 液晶顯示監視器色彩電平 [LCD COLOUR]

可調節液晶顯示屏上畫面之色彩濃度。

#### 電子尋像器亮度 [EVF BRIGHTNESS]

可調節電子尋像器中畫面之亮度。

- 1 按 [SET] 鈕，選擇您希望調節的項目。
- 2 轉動 [▲▼] 環，增加或減少條棒指示的垂直條棒。  
條的顯示被分成8個等級。被顯示的垂直棒越多，圖像的亮度或色彩度越強。

#### 退出菜單時

按 [MENU] 鈕兩次。

- 以上這些調節對實際拍攝的圖像沒有任何影響。

#### ■ 調節液晶顯示監視器的角度

液晶顯示監視器從其標準的垂直位置，最多能向上旋轉 180°

- ①，向下旋轉 90° ②。如果超出此範圍用力旋轉液晶顯示監視器，可能會嚴重損壞本攝錄影機。

## ENGLISH

### Adjusting the Brightness and Colour Level of the LCD Monitor/Finder

If you select the [LCD/EVF SETUP] Sub-Menu of the [VCR FUNCTIONS] or the [CAMERA FUNCTIONS] Main-Menu, the following items are displayed.

#### LCD Brightness [LCD BRIGHTNESS]

To adjust the brightness of the picture on the LCD screen.

#### LCD Colour Level [LCD COLOUR]

To adjust the colour saturation of the picture on the LCD screen.

#### Finder Brightness [EVF BRIGHTNESS]

To adjust the brightness of the picture in the Finder.

- 1 Press the [SET] Button to select the item that you want to adjust.
- 2 Turn the [▲▼] Dial to increase or decrease the vertical bars of the Bar Indication.  
The Bar Indication is divided into 8 steps. The more vertical bars are shown, the stronger is the brightness or colour saturation.

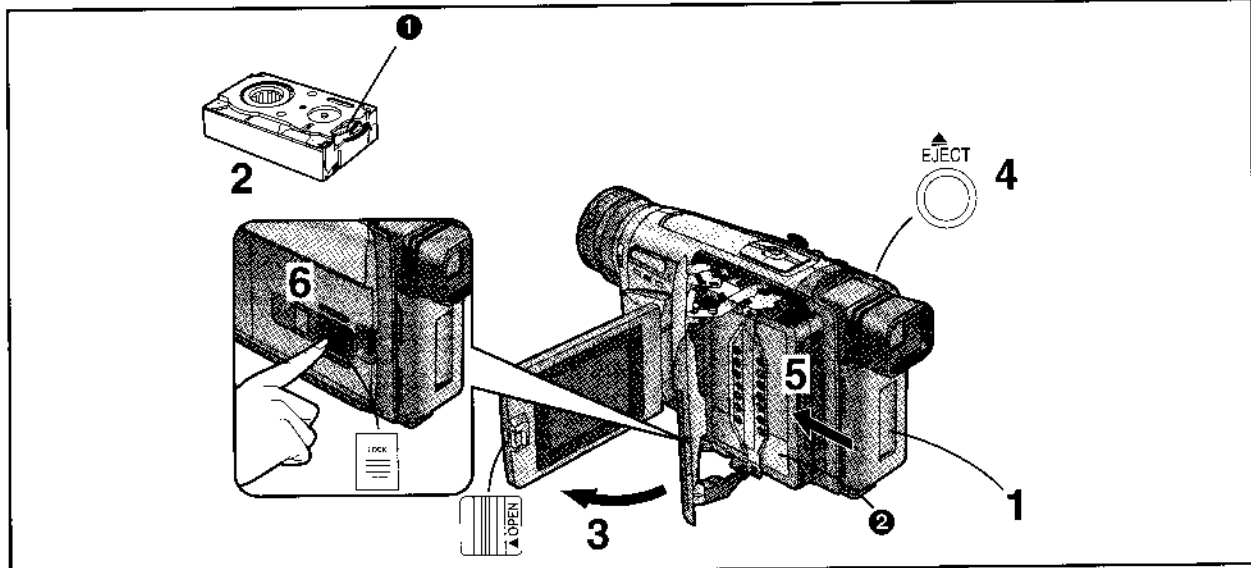
#### Exiting the Menu

Press the [MENU] Button twice.

- These adjustments have no influence on the actual picture recorded.

#### ■ Adjusting the Angle of the LCD Monitor

The LCD Monitor rotates upward a maximum of 180° ① and downward a maximum of 90° ② from its normal vertical position. Trying to forcefully rotate it beyond this range could seriously damage the Movie Camera.



## 中文

### 插入錄影帶時

- 1 連接交流轉接器或裝上充好電的電池。(→ 18, 24)
- 2 撥動牙輪 ❶，捲緊錄影帶。
- 3 向左滑動 [▲OPEN] 柄，同時如箭頭所示，將液晶顯示監視器打開約 90°。  
 • 須使液晶顯示監視器保持垂直位置，這樣，當錄影帶室蓋打開時，便不會碰撞液晶顯示監視器。
- 4 按 [▲ EJECT] (排出) 鈕。
- 5 插入錄影帶，使錄影帶的窗口 ❷ 向外，將其插到底。
- 6 關上磁帶盒蓋，然後按 [LOCK] 鈕。

- 如果安裝了電池或連接了交流轉接器，不用打開攝錄影機即可插入或取出錄影帶。
- 拍攝時不能取出錄影帶。
- 請不要反復插入和取出錄影帶。這可能會導致磁帶變鬆或損壞。
- 如果插入錄影帶的防林保險片已被除去，[閃爍] 指示燈閃爍。

### 取出錄影帶時

按 [▲ EJECT] (排出) 鈕，然後拿出錄影帶。  
 按 [LOCK] 鈕，關閉磁帶盒蓋。

## ENGLISH

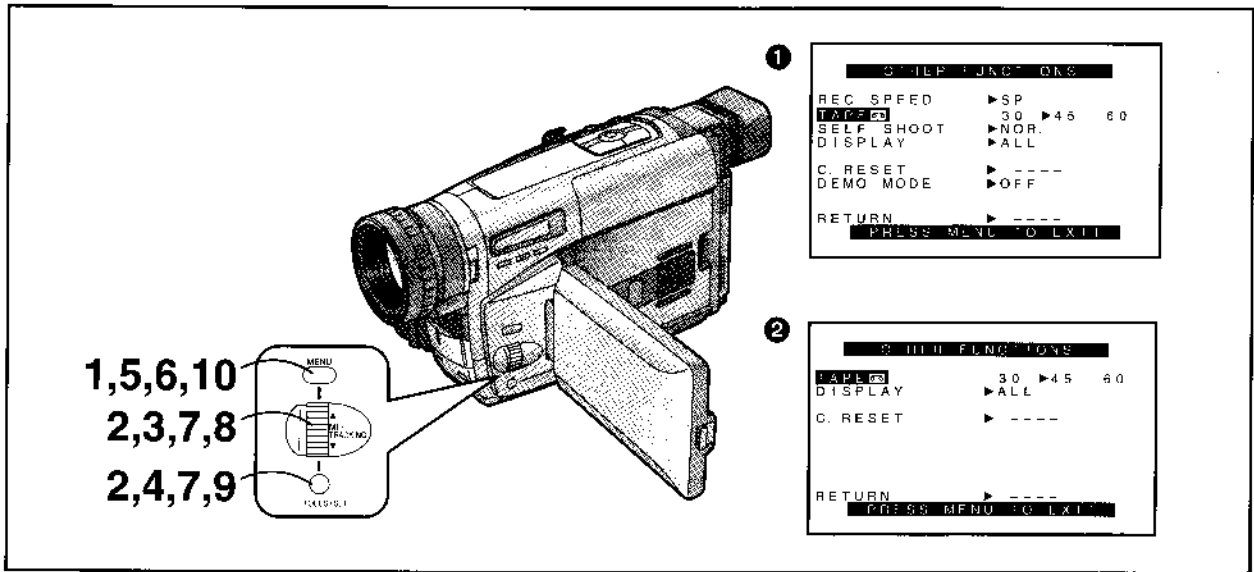
### Inserting the Cassette

- 1 Connect the AC Adaptor or attach a charged Battery. (→ 18, 24)
- 2 Turn the cog wheel ❶ to tighten the tape.
- 3 Slide the [▲OPEN] Lever to the left and simultaneously open the LCD Monitor in the direction of the arrow approximately 90°.  
 • Be sure to keep the LCD Monitor in its vertical position, so that the Cassette Compartment Cover, when it opens, does not hit the LCD Monitor.
- 4 Push the [▲ EJECT] Button.
- 5 Insert the cassette with the cassette window ❷ facing outward and push it all the way in.
- 6 Close the Cassette Compartment by pressing the [LOCK] Button.

- If the AC Adaptor or Battery is used to supply power, it is possible to insert or eject the cassette without turning on the Movie Camera.
- It is not possible to take out the cassette during recording.
- Do not insert and take out the cassette repeatedly. This could cause the tape to become loose or damaged.
- If a cassette with broken out erasure prevention tab is inserted, the [閃爍] Indication flashes.

### Ejecting the Cassette

Push the [▲ EJECT] Button and pull out the cassette.  
 Close the Cassette Compartment by pressing the [LOCK] Button.



1,5,6,10  
2,3,7,8  
2,4,7,9

## 中文

### 選擇錄影速度時

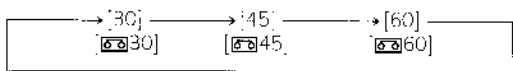
您可在 [OTHER FUNCTIONS] (其它功能) 子菜單的 [REC SPEED] (拍攝速度) 項上選擇相應的設定，來決定所需的拍攝速度 (SP 狀態或 LP 狀態)。

- 1 按 [MENU] (菜單) 鈕。
  - 將顯示 [CAMERA FUNCTIONS] 主菜單。
- 2 轉動 [▲▼] 環，選擇 [OTHER FUNCTIONS] (其它功能)，然後按 [SET] 鈕。
- 3 轉動 [▲▼] 環，選擇 [REC SPEED] (拍攝速度)。
- 4 按 [SET] (設定) 鈕，選擇需要的錄影速度 (SP 或 LP)。
- [SP] 意思為標準播放。[LP] 意思為長時間播放。
- 5 按 [MENU] (菜單) 鈕退出菜單。

### 設定正確的磁帶長度時

為了確保拍攝和放映中顯示的磁帶剩餘時間保持正確，需要設定磁帶長度，使其與插入的錄影帶一致。

- 6 按 [MENU] (菜單) 鈕。
  - 將顯示主菜單。
- 7 轉動 [▲▼] 環，選擇 [OTHER FUNCTIONS] (其它功能)，然後按 [SET] 鈕。
- 8 轉動 [▲▼] 環，選擇 [TAPE] (錄影帶)。
- 9 按 [SET] 鈕，選擇正確的磁帶長度。
  - 被選中的磁帶長度將以標識 [▶] 加以表示。
  - 磁帶長度指示將依下列順序改變：



- 10 按 [MENU] (菜單) 鈕退出菜單。

- ①: 攝錄影機狀態
- ②: 放映機狀態

## ENGLISH

### Selecting the Recording Speed

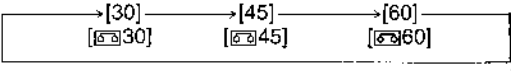
You can select the desired recording speed (SP Mode or LP Mode) by selecting the corresponding setting for [REC SPEED] on the [OTHER FUNCTIONS] Sub-Menu.

- 1 Press the [MENU] Button.
  - The [CAMERA FUNCTIONS] Main-Menu appears.
- 2 Turn the [▲▼] Dial to select [OTHER FUNCTIONS] and then press the [SET] Button.
- 3 Turn the [▲▼] Dial to select [REC SPEED].
- 4 Press the [SET] Button to select the desired recording speed (SP or LP).
  - [SP] means Standard Play. [LP] means Long Play.
- 5 Press the [MENU] Button to exit the menu.

### Selecting the Correct Tape Length

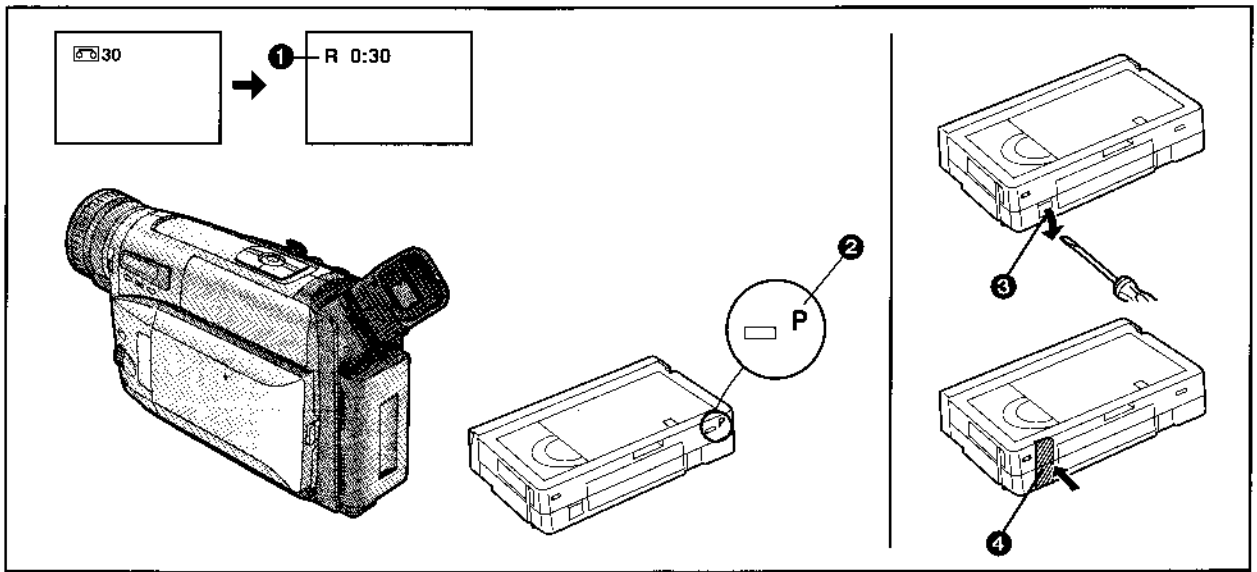
To ensure that the Remaining Tape Time Indication displayed during recording and playback is correct, you need to set the tape length that matches that of the inserted cassette.

- 6 Press the [MENU] Button.
  - The Main-Menu appears.
- 7 Turn the [▲▼] Dial to select [OTHER FUNCTIONS] and then press the [SET] Button.
- 8 Turn the [▲▼] Dial to select [TAPE].
- 9 Press the [SET] Button to select the correct tape length.
  - The selected tape length is marked with the [▶] Mark.
  - The Tape Length Indications change in the following order:



- 10 Press the [MENU] Button to exit the menu.

- ①: Camera Mode
- ②: VCR Mode



## 中文

### 確認磁帶剩餘時間時

拍攝和放映中，會自動顯示磁帶剩餘時間指示 ①，所以，您可隨時了解錄影帶上還剩餘多少時間。然而，為了確保磁帶剩餘時間指示的正確性，須在攝錄影機上正確地設定所用錄影帶的磁帶長度。（→ 44）

- 開始拍攝和放映時，磁帶長度指示會消失。且在計算磁帶剩餘時間中，[R] 指示 ① 將在長度指示位置上閃爍。幾秒鐘後，將出現磁帶剩餘時間指示。（[R] 意思為剩餘。）
- 當剩餘的磁帶時間少於2分鐘時，[R] 指示和磁帶剩餘時間指示將開始閃爍。

當您使用帶有 [P] 標記 ② 的錄影帶，或其它特殊類型的錄影帶時，磁帶剩餘時間指示可能不精確。

### ■ 防止意外抹消拍攝內容時

- 在以前拍攝的錄影帶上進行攝影時，將抹消現有的場景和聲音。
- 為了防止重要的拍攝內容被意外抹消，請用螺絲刀弄掉磁帶上的保險片 ③（某些磁帶具備滑動保險片）。
- 為了用這樣的磁帶再次進行錄影，請用雙層膠帶紙 ④，牢靠地蓋住保險片所在小孔。

## ENGLISH

### Confirming the Remaining Tape Time

During recording and playback, the Remaining Tape Time Indication ① is automatically displayed, so you always know how much time you have left on the cassette. However, to ensure correct display of the remaining tape time, the tape length of the cassette being used must be set correctly on the Movie Camera. (→ 44)

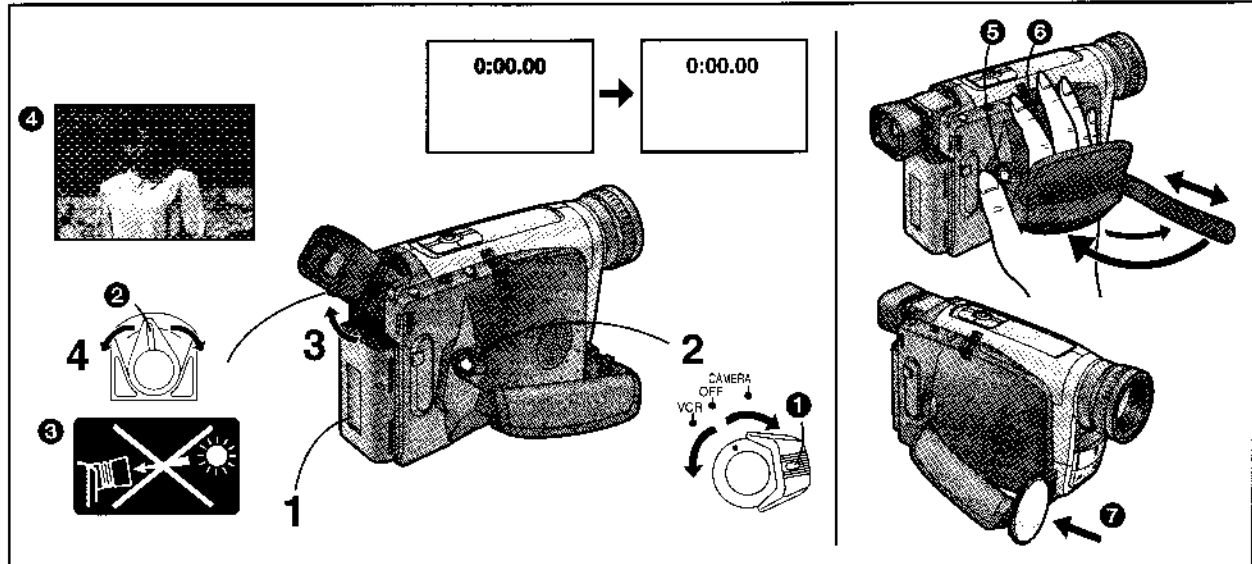
- When recording or playback starts, the Tape Length Indication disappears, and in its place the [R] Indication ① flashes while the remaining tape time is being calculated. A few seconds later, the Remaining Tape Time Indication appears. ([R] means Remaining.)
- When the remaining tape time is less than 2 minutes, the [R] Indication and the Remaining Tape Time Indication start to flash.

When you use a cassette bearing the [P] mark ② or other special types of cassettes, the Remaining Tape Time Indication may not be very precise.

### ■ Preventing Accidental Erasure of Recordings

- Recording on a previously recorded cassette erases the existing scenes and sound.
- To protect important recordings against accidental erasure, use a screwdriver to break out the tab ③ on the cassette (some cassettes have sliding-type tabs).
- To be able to record again on a protected cassette, firmly cover the hole where the tab was with two layers of adhesive tape ④.





## 中文

### 電子尋像器調整

使用電子尋像器之前，請將其調節至您的視力，以便電子尋像器中的指示清晰易辨。

- 1** 連接交流轉接器或裝上充好電的電池。
- 2** 將 [CAMERA/OFF/VCR] 開關設置在 [CAMERA] (攝錄影機) 或 [VCR] (放影機)。  
一邊按按鈕 ①，一邊轉動開關。
- 3** 如有必要，可將電子尋像器向上傾斜，調節它的角度。  
● 電子尋像器最多可向上傾斜達 90°。
- 4** 轉動目鏡校正柄 ② 進行調節。

絕對勿將攝錄影機的電子尋像器或鏡頭直接瞄準太陽，否則可能會損壞本機的內部零件。 ③

如果陽光或其它強烈光線進入電子尋像器，電子尋像器的屏幕上將會出現閃動的雜訊。 ④ 如果您避開光線，這種現象將在幾分鐘內消失，而且，這不會影響所拍攝的圖像。

在電子尋像器中顯示反差強烈的物體或顯示菜單後，電子尋像器的畫面上仍將暫時殘留上述圖像的影子。然而，這並不是故障，也不會影響所拍攝的圖像。

### 扣抓皮帶調整

調整扣抓皮帶的長度，使得大拇指正好按到錄影開始 / 停止鈕 ⑤，食指或中指正好按到 [W/T] 變焦柄 ⑥。

### 鏡頭蓋處理

從鏡頭圈上取下鏡頭蓋，並將其裝在扣抓皮帶的鏡頭蓋夾上 ⑦。

## ENGLISH

### Adjusting the Finder

Before using the Finder, adjust it to your eyesight so that the indications in the Finder are clear and easy to read.

- 1** Connect the AC Adaptor or attach a charged Battery.
- 2** Set the [CAMERA/OFF/VCR] Switch to [CAMERA] or [VCR].  
Turn the switch while pressing the button ①.
- 3** If necessary, adjust the angle of the Finder by tilting it upward.  
● The Finder can be tilted upward up to 90°.
- 4** Adjust by turning the Eyepiece Corrector Lever ②.

Never aim the Movie Camera with its Finder or Lens directly at the sun; this could damage internal parts of the unit. ③

If sunlight or other strong light enters the Finder, sparkling noise occurs on the Finder screen. ④ If you block off the light, this phenomenon disappears after a few minutes and does not affect the recorded picture.

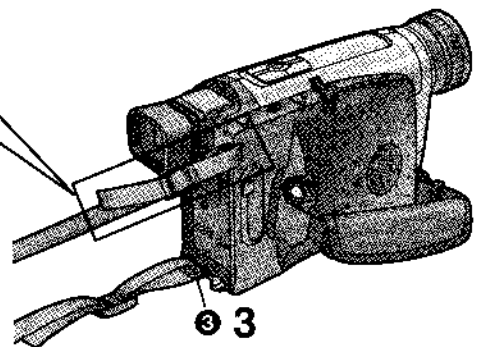
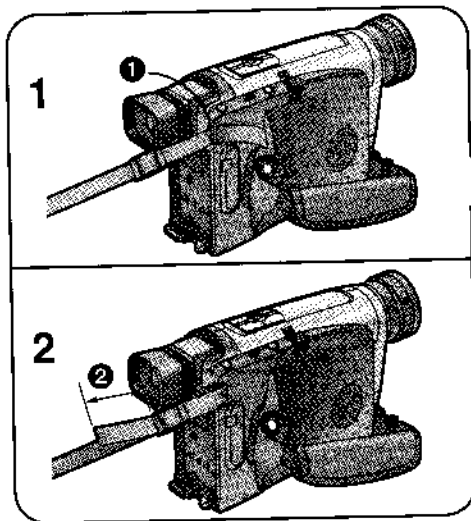
If a subject with strong contrast or a menu is displayed in the Finder, a ghost image may remain temporarily. However, this is not a malfunction and does not affect the recorded picture.

### Adjusting the Grip Belt

Adjust the length of the Grip Belt so that you can easily press the Recording Start/Stop Button ⑤ with your thumb and push the [W/T] Zoom Lever ⑥ with your index or middle finger.

### Handling the Lens Cap

Remove the Lens Cap from the Lens Hood and attach it to the Lens Cap Holder on the Grip Belt ⑦.



**中文**

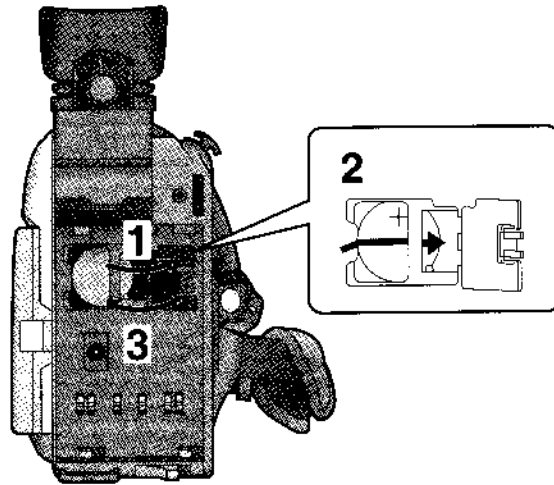
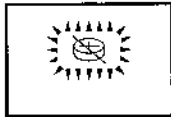
**安裝肩用背帶時**

- 1** 將肩用背帶一端穿過肩用背帶環 ①。
- 2** 牢固地裝緊肩用背帶的一端 (② 大於 2cm)。
- 3** 進行上述步驟，將肩用背帶的另一端安裝在攝錄影機的另一個肩用背帶環 ③ 上。

**ENGLISH**

**Attaching the Shoulder Strap**

- 1** Pull one end of the Shoulder Strap through the Shoulder Strap Holder ①.
- 2** Fasten this end of the Shoulder Strap securely (② more than 2 cm).
- 3** Perform the above steps to attach the other end of the Shoulder Strap to the other Shoulder Strap Holder ③ on the Movie Camera.



## 中文

### 插入鈕扣式電池

在設定日期和時間之前，請先裝入鈕扣式電池（附帶品）。

- 1 打開 [BACKUP BATTERY] (後備電池) 蓋。
- 2 使鈕扣電池的 (+) 極面朝外，將其插入電池室。
- 3 關閉 [BACKUP BATTERY] (後備電池) 蓋。

- 在裝入或取出鈕扣式電池之前，請務必將 [CAMERA/OFF/VCR] (攝錄影機 / 關 / 錄影機) 開關設置在 [OFF] (關)。
- 當鈕扣式電池的電量耗盡時，將出現閃爍的 [🔋] 指示。此時，請更換一個新的 CR2025 式電池。  
(電池的使用壽命約為 3 年。)
- 為了更方便地取下鈕扣式電池，您可以使用帶有尖端的物品。
- 在您取出鈕扣式電池時，請注意不要將其跌落。
- 勿讓孩子觸摸鈕扣式電池。
- 插入電池時，須確保其極性正確。
- 即使關閉攝錄影機，內藏的時鐘也將繼續工作，它由鈕扣式電池供電。

#### 注意事項

如果電池更換不當，則可能有發生爆炸的危險。  
只能更換設備製造廠家所推薦的相同和同等電池。  
請遵照製造廠家的說明，丟棄用過的電池。

## ENGLISH

### Inserting the Button-type Battery

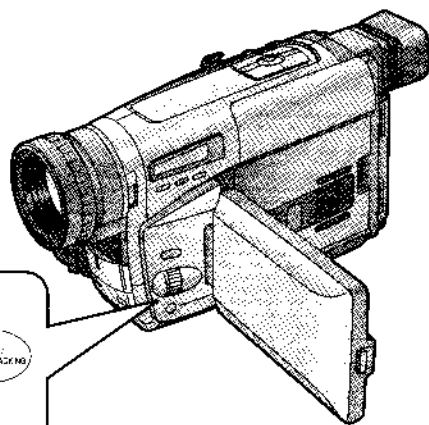
Before setting the date and time, insert the button-type battery (supplied).

- 1 Open the [BACKUP BATTERY] Cover.
- 2 Insert the button-type battery so that its (+) side is visible.
- 3 Close the [BACKUP BATTERY] Cover.

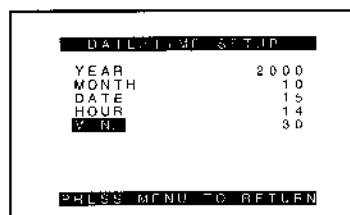
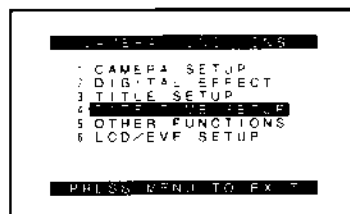
- Before inserting or removing the button-type battery, be sure to set the [CAMERA/OFF/VCR] Switch to [OFF].
- When the button-type battery is exhausted, the [🔋] Indication flashes. In this case, replace it with a new CR2025 battery.  
(The life of the battery is about 3 years.)
- To make it easier to remove the button-type battery, use a pointed object.
- When you remove the button-type battery, be careful not to drop it.
- **Keep the button-type battery out of the reach of children.**
- Make sure you insert the battery with its poles correctly aligned.
- The internal clock works even when the Movie Camera is turned off, and it consumes power from the button-type battery.

#### CAUTION

Danger of explosion if battery is incorrectly replaced.  
Replace only with the same or equivalent type recommended by the equipment manufacturer.  
Discard used batteries according to manufacturer's instructions.



10  
1,3,5,7,9  
2,4,6,8



## 中文

### 設定日期和時間

如果您在 [CAMERA FUNCTIONS] (攝錄影機功能) 主菜單中選擇 [DATE/TIME SETUP] (日期/時間設定) 子菜單, 將出現上面所示的菜單。

日期和時間的初始設定為 2000 年 1 月 1 日 0 時 00 分。

例如: 將時鐘設定為 2000 年 10 月 15 日 14:30 時。

- 1 轉動 [▲▼] 環, 設定至 [2000]。  
年數將以下列順序改變:  
...1990...1991...2000...2089...1990...
- 2 按 [SET] 鈕, 選擇 [MONTH](月)。
- 3 轉動 [▲▼] 環, 設定至 [10]。
- 4 按 [SET] 鈕, 選擇 [DATE](日)。
- 5 轉動 [▲▼] 環, 設定至 [15]。
- 6 按 [SET] 鈕, 選擇 [HOUR](小時)。
- 7 轉動 [▲▼] 環, 設定至 [14]。
- 8 按 [SET] 鈕, 選擇 [MIN.](分鐘)。
- 9 轉動 [▲▼] 環, 設定至 [30]。
- 10 按 [MENU](菜單) 鈕, 結束日期和時間設定。  
每從 [00] 秒開始進行時鐘操作。  
再按一次該按鈕, 使菜單消失。

- 當未將鈕扣式電池裝入攝錄影機或者鈕扣式電池的電量耗盡時, 如果您選擇 [DATE/TIME SETUP] (日期/時間設定) 子菜單, 主菜單將消失, 並代之以閃爍的指示 [⊞]。請裝入一個新的鈕扣式電池 (→ 52), 然後重新設定日期和時間。
- 由於攝錄影機內藏的時鐘會有少量誤差, 請在拍攝之前對所指示的時間加以檢查和確認。
- 本時鐘系統採用 24 小時制。

## ENGLISH

### Setting the Date and Time

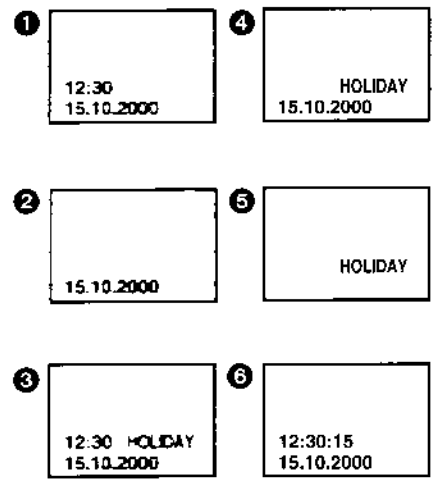
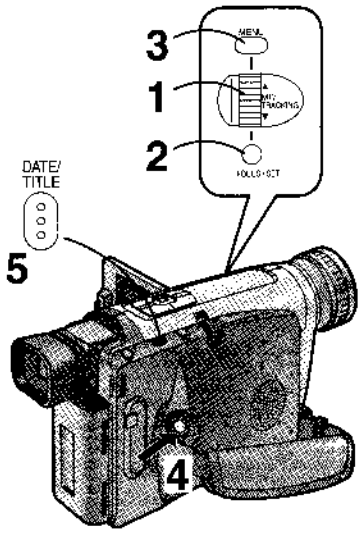
If you select the [DATE/TIME SETUP] Sub-Menu of the [CAMERA FUNCTIONS] Main-Menu, the menu shown above appears.

The initial setting of date and time is 0:00, 1st January, 2000.

For example: To set the clock to 15th October 2000, 14:30.

- 1 Turn the [▲▼] Dial to set to [2000].  
The years change in the following order:  
...1990...1991...2000...2089...1990...
- 2 Press the [SET] Button to select [MONTH].
- 3 Turn the [▲▼] Dial to set to [10].
- 4 Press the [SET] Button to select [DATE].
- 5 Turn the [▲▼] Dial to set to [15].
- 6 Press the [SET] Button to select [HOUR].
- 7 Turn the [▲▼] Dial to set to [14].
- 8 Press the [SET] Button to select [MIN.].
- 9 Turn the [▲▼] Dial to set to [30].
- 10 Press the [MENU] Button to finish the date and time setting.  
The operation of the clock starts from [00] seconds.  
Pressing the button one more time makes the menu disappear.

- If you select the [DATE/TIME SETUP] Sub-Menu when the button-type battery is not inserted into the Movie Camera or is exhausted, the Main-Menu disappears and the [⊞] Indication flashes instead. Insert a new button-type battery (→ 52) and then set the date and time again.
- As the Movie Camera's built-in clock is subject to slight imprecision, be sure to check the indicated time before recording.
- The clock employs the 24-hour system.



**中文**

在畫面中添加時間和 / 或日期進行拍攝時  
在顯示出 [TITLE SETUP] 子菜單後... (→ 30)

- 1 轉動 [▲▼] 環，選擇 [DATE/TITLE](日期/題名)。
- 2 按 [SET](設定) 鈕，選擇需要的指示。
  - 指示將依 ① ~ ⑥ 的順序進行改變。
  - ① [DATE TIME](日期時間) → ② [DATE](日期) →
  - ③ [DATE TIME TITLE](日期時間題名) →
  - ④ [DATE TITLE](日期題名) →
  - ⑤ [TITLE](題名) →
  - ⑥ [DATE TIME+SECONDS](日期時間+秒鐘) →
  - 如果攝錄影機中未裝有給內藏時鐘供電的鈕扣式電池，或其電量耗盡時，將僅顯示標題。(→ 52)

- 3 按 [MENU](菜單) 鈕，退出菜單。
  - 將出現被選擇的日期/時間/題名指示。

- 4 按錄影開始 / 停止鈕，開始拍攝。

■ 刪除日期 / 時間 / 題名指示時

- 5 在拍攝或攝錄影機處於拍攝暫停狀態中，按 [DATE/TITLE] 鈕，使日期 / 時間 / 題名指示消失。
  - 關閉攝錄影機，然後重新打開，將不再顯示以前選擇的日期 / 時間 / 題名指示。使其再次出現時，請按 [DATE/TITLE] 鈕 1 次。
  - 在取出電池或拔下交流轉接器之前，請務必先將攝錄影機關閉。在攝錄影機打開時斷開電源供應，將會抹去儲存在記憶中的日期 / 時間 / 標題指示 (→ 126)。

**ENGLISH**

Recording with the Time and/or Date  
Superimposed in the Picture  
After displaying the [TITLE SETUP] Sub-Menu... (→ 30)

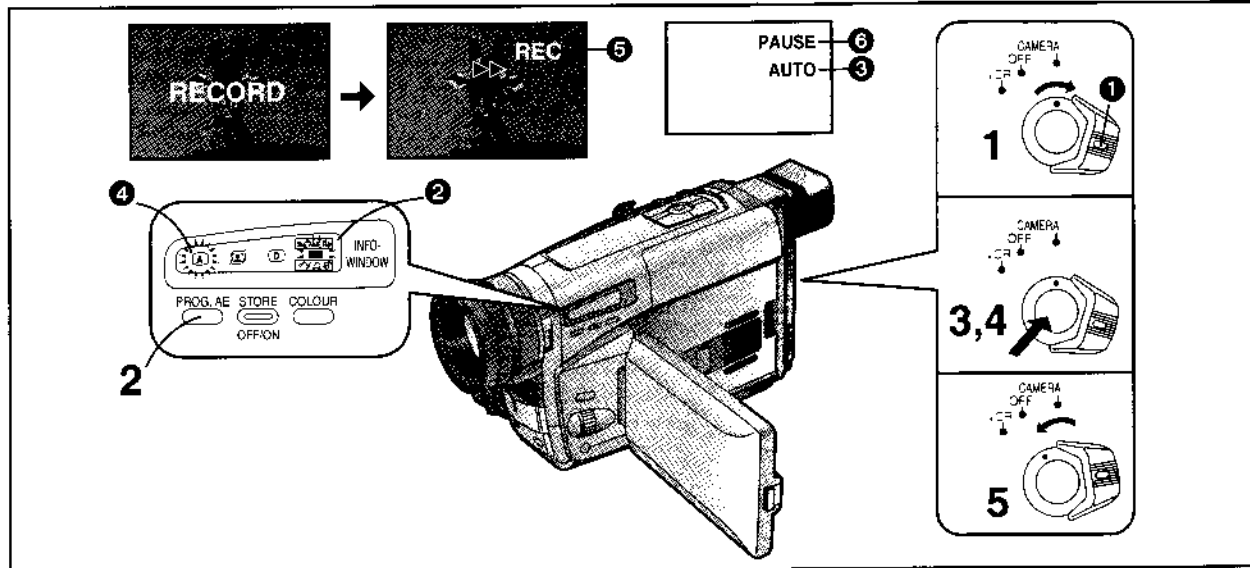
- 1 Turn the [▲▼] Dial to select [DATE/TITLE].
- 2 Press the [SET] Button to select the desired indication.
  - The indications change in the order ① to ⑥.
  - ① Date and Time → ② Date →
  - ③ Date, Time and Title → ④ Date and Title →
  - ⑤ Title → ⑥ Date and Time with seconds →
  - If the button-type battery for the built-in clock is not inserted into the Movie Camera or is exhausted, only the title is displayed. (→ 52)

- 3 Press the [MENU] Button to exit the menu.
  - The selected Date Time Title Indication appears.

- 4 Press the Recording Start/Stop Button to start recording.

■ Deleting the Date/Time/Title Indication

- 5 During recording or when the Movie Camera is in the Recording Pause Mode, press the [DATE/TITLE] Button to make the Date/Time/Title Indication disappear.
  - After turning the Movie Camera off and then on again, the previously selected Date/Time/Title Indication is no longer displayed. To make it appear again, press the [DATE/TITLE] Button once.
  - Be sure to turn the Movie Camera off before removing the Battery of disconnecting the AC Adaptor. Disconnecting the power supply while the Movie Camera is on erases the Date/Time/Title Indication (→ 126) stored in memory.



中文

## 基本操作

### 用全自動狀態進行拍攝時

全自動狀態會自動調整白色平衡和聚焦。然而，如您的喜歡，也可手動調整其一或兩個鈕 (→ 106, 110)。

在弱光環境下拍攝時，建議您使用 IR/影像直流燈 (選購品) 等，將場景照亮。

- 1 將 [CAMERA/OFF/VCR] 開關設置在 [CAMERA]。
  - 一邊按住鈕 ①，一邊轉動開關。
  - [CAMERA] 指示燈 ② 亮起。
- 2 確認已顯示出 [AUTO](自動) 指示 ③。
  - [A] 指示燈 ④ 亮起。
  - 出廠時的最初設定為 [AUTO](自動)。
  - 如果顯示的是 [MNL]，[]，[]，[]，[] 或 [] 指示，請連續按動 [PROG. AE](自動曝光選擇) 鈕，直至 [AUTO](自動) 指示出現。
- 3 按開始 / 停止鈕，開始拍攝。
  - 拍攝開始，並且將顯示 [▶▶] 和 [REC] 指示 ⑤。攝錄影機前部的拍攝指示燈 (→ 60) 將在拍攝過程中保持點亮。([REC] 意思是拍攝。)
- 4 暫停拍攝時：  
再次按開始 / 停止鈕。
  - 會出現 [PAUSE](暫停) 指示。 ⑥
- 5 結束拍攝時：  
將 [CAMERA/OFF/VCR] 開關設置在 [OFF]。

ENGLISH

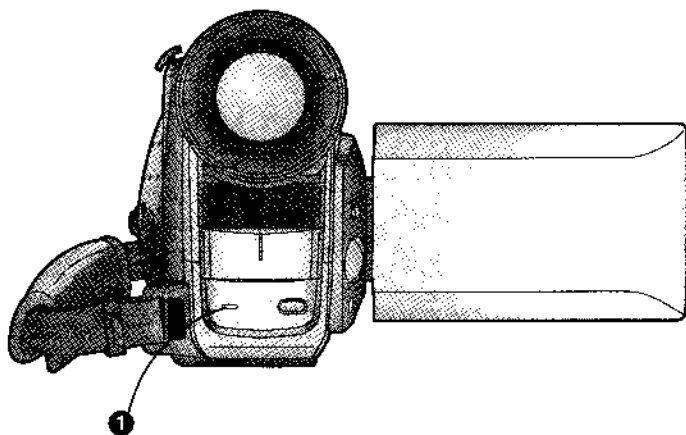
## Basic Operations

### Recording in the Full Auto Mode

The Full Auto Mode adjusts the white balance and focus automatically. However, if you want, you can also adjust either one or both of them manually (→ 106, 110).

When recording in a dimly lit location, we recommend that you use the IR/Video DC Light (optional), etc. to brighten up the scene.

- 1 Set the [CAMERA/OFF/VCR] Switch to [CAMERA].
  - Turn the switch while pressing the button ①.
  - The [CAMERA] Lamp ② lights.
- 2 Confirm that the [AUTO] Indication ③ is displayed.
  - The [A] Lamp ④ lights.
  - The initial setting is [AUTO].
  - If the [MNL], [], [], [], [] or [] Indication is displayed, press the [PROG. AE] Button repeatedly until the [AUTO] Indication appears.
- 3 Press the Recording Start/Stop Button to start recording.
  - Recording starts and the [▶▶] Indication and the [REC] Indication ⑤ appears. The Tally Lamp (→ 60) on the front of the Movie Camera remains lit during recording. ([REC] means Recording.)
- 4 To pause recording:  
Press the Start/Stop Button again.
  - The [PAUSE] Indication appears. ⑥
- 5 To finish recording:  
Set the [CAMERA/OFF/VCR] Switch to [OFF].



## 中文

### 信號燈 ①

如果您不想讓信號燈在拍攝中亮起時，請將 [CAMERA SETUP] 子菜單上的 [TALLY LAMP] (信號燈) 設定為 [OFF]。

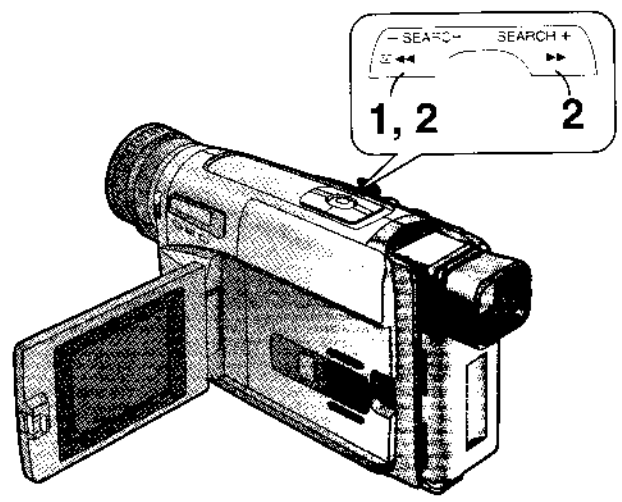
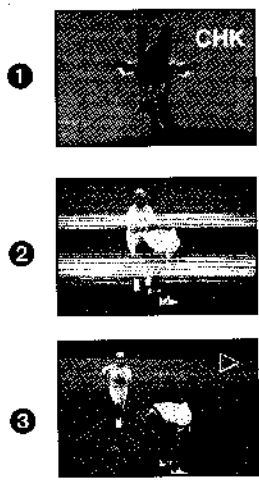
- 在拍攝中，即使您按下 [PROG. AE] (自動曝光選擇) 鈕，也不能改變拍攝狀態 ([MNL], [ ] , [ ] , [ ] , [ ] , [ ] )。(→ 112)
- 如果您讓攝錄影機處於拍攝暫停狀態超過6分鐘時，本機將自動關閉，以保護磁帶，並節省電池能源。從此狀態恢復拍攝時，請將 [CAMERA/OFF/VCR] (攝錄影機 / 關 / 錄影機) 開關設置在 [OFF] (關)，然後重新將其設置在 [CAMERA] (攝錄影機) 狀態。

## ENGLISH

### Tally Lamp ①

If you don't want the Tally Lamp to light during recording, set [TALLY LAMP] on the [CAMERA SETUP] Sub-Menu to [OFF].

- During recording, it is not possible to change the recording mode ([MNL], [ ], [ ], [ ], [ ]), even if you press the [PROG. AE] Button. (→ 112)
- If you leave the Movie Camera in the Recording Pause Mode for more than 6 minutes, it automatically switches off to protect the tape and to conserve battery power. To resume recording from this condition, set the [CAMERA/OFF/VCR] Switch to [OFF] and then to [CAMERA] again.



**中文**

**檢查錄過場景的結尾時 (拍攝檢查功能)**

該功能可自動播放上次錄製的最後2秒鐘的場景，讓您檢查是否正是上次已經錄過的場景。之後，會自動地圓滑地接錄新的場景，而不會有任何畫面失真。對於特別重要的場景，請不時地用該功能來進行確認。

- 1** 在拍攝暫停狀態下短暫地按下 [G] 鈕。
  - 會出現 [CHK] 指示 ❶，並播放上次已錄的最後約 2 秒鐘的場景。
  - 之後，攝錄影機將恢復拍攝暫停狀態，準備拍攝下一個場景。
  - ([CHK] 意思為檢查。)

**尋影上次拍攝結尾之前的磁帶位置時 (攝錄影機尋影功能)**

該功能可以簡單地在以前錄過的場景或錄影帶上，尋影到您想開始拍攝新場景之處。另外，該功能還能確保場景與場景之間的圓滑接錄，而毫無畫面失真。

- 2** 在拍攝暫停狀態下持續按住 [-SEARCH] 鈕 (或 [SEARCH+] 鈕)。
- ❷** : 反向尋影
- ❸** : 正向尋影

**ENGLISH**

**Checking the End of a Recorded Scene (Recording Check Function)**

By automatically playing back the final 2 seconds (approximate) of the last recorded scene, this function lets you check if a just finished scene has been recorded correctly. When you then start recording the next scene, it is automatically joined with a smooth transition free from picture distortion. For especially important scenes, use this function from time to time for confirmation.

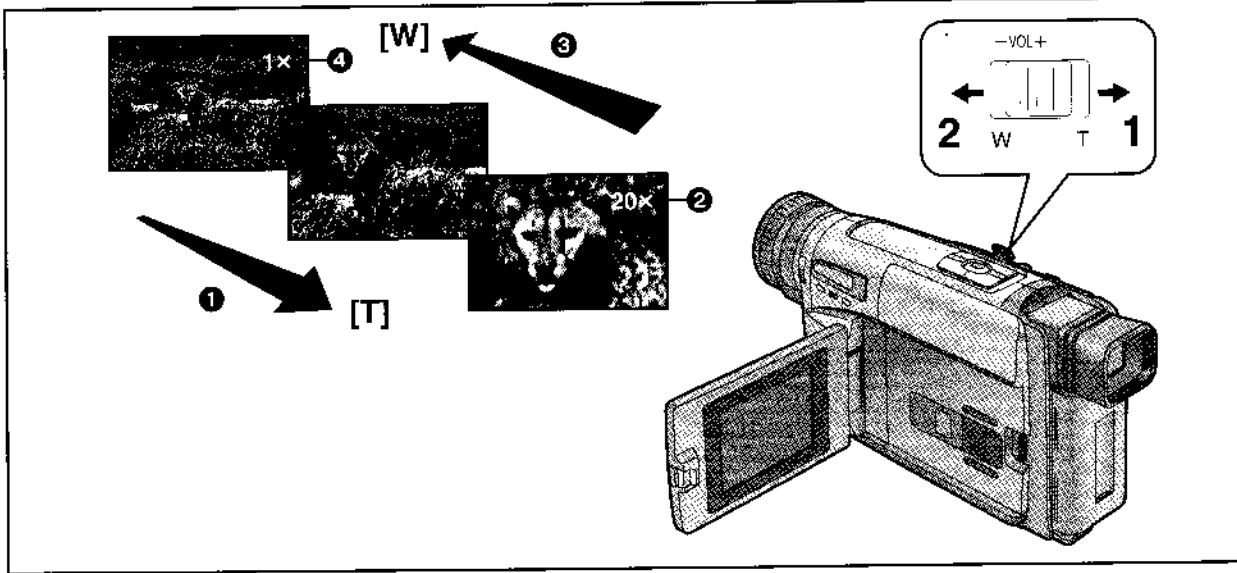
- 1** Press the [G] Button briefly in the Recording Pause Mode.
  - The [CHK] Indication ❶ appears and the final approximately 2 seconds of the last recorded scene are played back.
  - After that, the Movie Camera returns to the Recording Pause Mode and is ready for recording the next scene.
  - ([CHK] means Check.)

**Searching for a Tape Position Before the End of the Last Recording (Camera Search Function)**

This function makes it easy to search for a point in a previously recorded scene or cassette from which you want to start recording a new scene. In addition, it ensures smooth scene-to-scene transitions free from picture distortion.

- 2** Keep the [-SEARCH] Button (or the [SEARCH+] Button) pressed in the Recording Pause Mode.
  - ❷** : Reverse Search
  - ❸** : Forward Search





## 中文

### 拉近 / 拉遠變焦

#### ■ 拉近 ①

拉近變焦可讓您拍攝遠距離目標物的大特寫。

- 1 將 [W/T] 變焦柄推向 [T]。
  - 會出現變焦倍數指示 ②。

#### ■ 拉遠 ③

拉遠變焦可讓您拍攝廣角景觀。

- 2 將 [W/T] 變焦柄推向 [W]。
  - 會出現變焦倍數指示 ④。

- 可以在廣角 (變焦倍數指示 [1×]) 和望遠 (變焦倍數指示 [20×]) 之間進行變焦。
- 越將 [W/T] 變焦柄推向 [W] 或 [T] 之處，其變焦速度也就越快。
- 在最大望遠設定 (當您已經拉近) 時，只能在鏡頭和目標物之間的距離大於 1.8m 時才能進行精確聚焦。

避免在拍攝中過於頻繁地使用變焦，否則將使影像看起來像手抖所拍。

## ENGLISH

### Zooming In/Out

#### ■ Zooming in ①

Zooming in lets you record close-ups of distant subjects.

- 1 Push the [W/T] Zoom Lever toward [T].
  - The Zoom Magnification Indication ② appears.

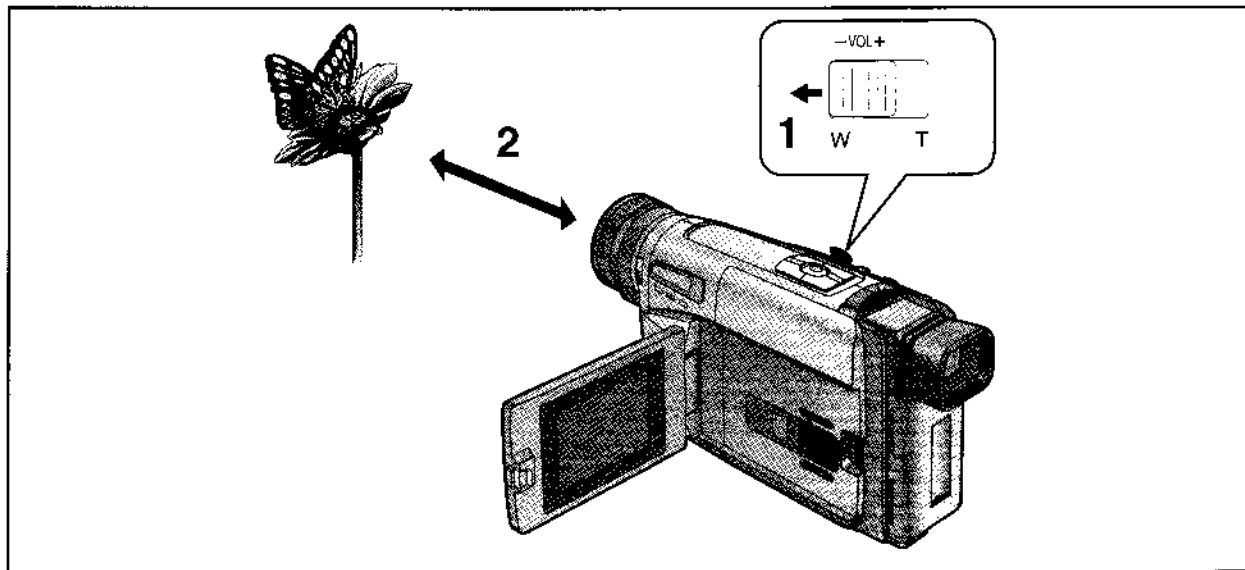
#### ■ Zooming out ③

Zooming out lets you record wider views.

- 2 Push the [W/T] Zoom Lever toward [W].
  - The Zoom Magnification Indication ④ appears.

- Zooming is possible between wide-angle (Zoom Magnification Indication [1×]) and telephoto (Zoom Magnification Indication [20×]).
- The farther you push the [W/T] Zoom Lever toward [W] or [T], the faster the zooming speed becomes.
- In the maximum telephoto setting (when you have zoomed in), precise focusing is only possible for subjects that are more than 1.8 m from the lens.

Avoid too much zooming during recording as it gives videos a unprofessional look.



## 中文

### 使用微距大特寫功能時

該功能可讓您拍攝昆蟲之類的極小目標物。

- 1** 將 [W/T] 變焦柄持續推向 [W]，使變焦達到最大的廣角設定值（變焦倍數指示 [1×]）。
- 2** 將攝錄影機靠近目標物，直至其達到畫面中的需要大小。

- 在鏡頭處於最大廣角設定值時，攝錄影機可自動從無窮遠至鏡頭和目標物僅 5mm 的最小距離，進行目標物聚焦。
- 進行微距大特寫攝錄時，為了防止畫面不穩定，請使用三角架（選購附件）。
- 如果您在 0 Lux 夜景功能拍攝中，使用微距大特寫功能，且距離目標物特別近時，來自攝錄影機內藏紅外線光束發射器的紅外線光束可能不會到達目標物。

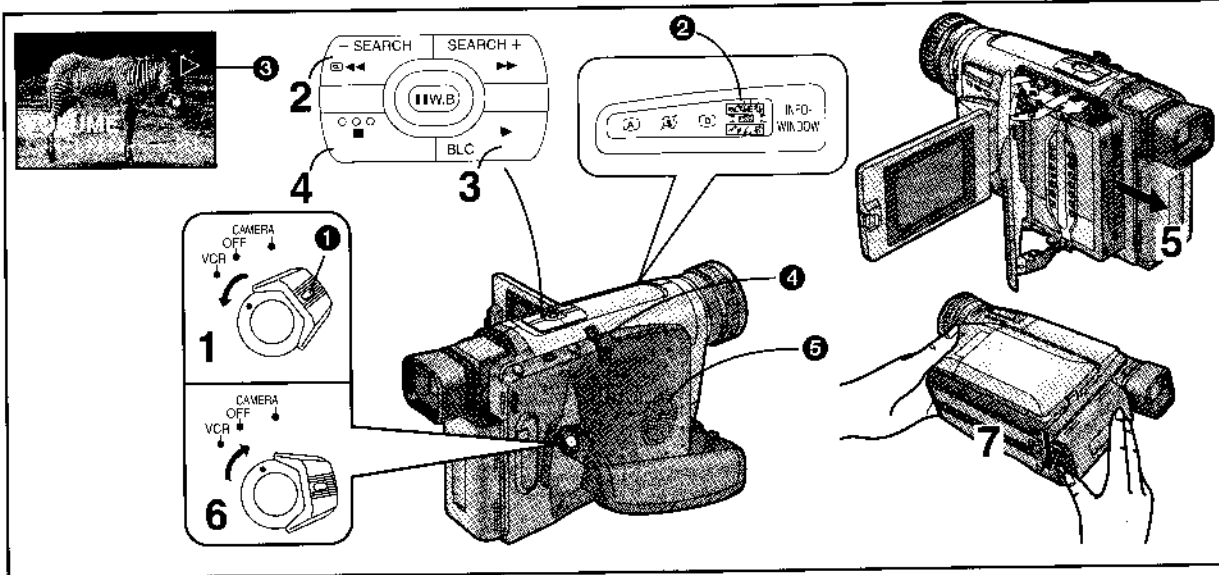
## ENGLISH

### Using the Macro Close-up Function

This function lets you record very small subjects such as insects.

- 1** Keep the [W/T] Zoom Lever pushed toward [W] to zoom to the maximum wide-angle setting (Zoom Magnification Indication [1×]).
- 2** Approach the subject with the Movie Camera until it reaches the desired size in the picture.

- With the lens in the maximum wide-angle setting, the Movie Camera can automatically focus on subjects from infinity to a minimum distance of only 5 mm between lens and subject.
- To prevent unstable pictures, use a tripod (optional) for macro close-up recording.
- If you use the Macro close-up Function and approach extremely close to the subject when recording in the 0 Lux Night View Function, the infra-red beam from the Movie Camera's built-in Infra-red Beam Emitters may not reach the subject.



## 中文

### 放影

#### 在攝錄影機上觀看放影時

您可觀看已拍攝場景的播放。

**1** 將 [CAMERA/OFF/VCR] 開關設置在 [VCR] (錄影機)。

- 一揆按住鈕 **1**，一邊轉動開關。
- [VCR] 指示燈 **2** 亮起。

**2** 按 [◀◀] 鈕。

- 錄影帶開始倒帶。當磁帶到頭時，會自動停止倒帶。

**3** 按 [▶] (放影) 鈕。

- 開始放影，且會出現 [▷] 指示 **3**。當錄影帶到達結尾時，將自動倒帶至頭。

#### ■ 停止放影時

**4** 按 [■] 鈕。

- 播放停止，且攝錄影機轉換至停止狀態。

**5** 取出錄影帶。(→ 42)

**6** 將 [CAMERA/OFF/VCR] 開關設置在 [OFF]。

**7** 拔掉交流轉接器或取出電池。

#### ■ 調節音量大小

將 [-VOL+] 柄 **4** 推向 [I]，可增大音量，推向 [-]，可減小音量。調節時將顯示 [VOL.MF] (音量) 指示，同時，垂直條的個數將依照您的調節增加或減少。當您鬆開 [-VOL+] 柄時，此顯示將自動消失。

您還可以通過遙控器來調節音量。按 [I] 鈕可增大音量，按 [W] 鈕可減小音量。這種調節功能只限在放影時使用。

- 在放影時，請不要覆蓋揚聲器 **5**。
- 因為揚聲器中裝有磁鐵，請不要將錄影帶靠近揚聲器。否則，磁場可能會對錄影帶中已拍攝的畫面有不良影響。

## ENGLISH

### Playback

#### Watching Playback on the Movie Camera

You can watch playback of the recorded scenes.

**1** Set the [CAMERA/OFF/VCR] Switch to [VCR].

- Turn the switch while pressing the button **1**.
- The [VCR] Lamp **2** lights.

**2** Press the [◀◀] Button.

- The tape starts to rewind. When the tape reaches the beginning, the rewinding automatically stops.

**3** Press the [▶] Button.

- Playback starts and the [▷] indication **3** appears. When the tape reaches the end, it automatically rewinds to the beginning.

#### ■ Stopping Playback

**4** Press the [■] Button.

- Playback stops and the Movie Camera changes over to the Stop Mode.

**5** Take out the cassette. (→ 42)

**6** Set the [CAMERA/OFF/VCR] Switch to [OFF].

**7** Disconnect the AC Adaptor or remove the Battery.

#### ■ Adjusting the Sound Volume

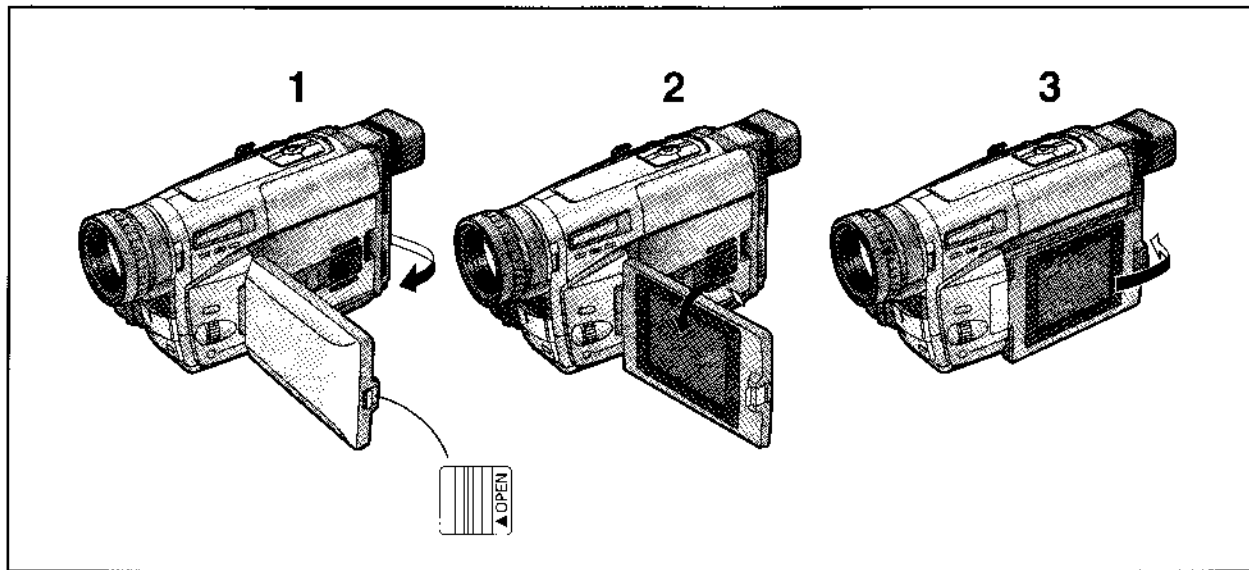
Push the [-VOL+] Lever **4** toward [+] to increase the volume or push it toward [-] to decrease the volume.

The [VOLUME] Indication appears and the number of bars increases or decreases. When you release the Lever, this indication disappears.

You can also adjust the volume with the Remote Controller. Increase the volume by pressing the [T] Button, or decrease by pressing the [W] Button.

This adjustment is only possible during playback.

- Do not cover the Speaker **5** during playback.
- Because the speaker contains a magnet, do not bring a cassette near the speaker. It could adversely influence the recorded content.



## 中文

### 怎樣將攝錄影機放在桌子上觀看液晶顯示監視器的放影

- 1** 向左滑動[▲ OPEN]柄，同時如箭頭所示，將液晶顯示監視器打開約90°。
- 2** 轉動液晶顯示監視器，使其面朝上(約180°)。
- 3** 關閉液晶顯示監視器。
- 4** 將攝錄影機置於平坦、穩固的表面進行放影。

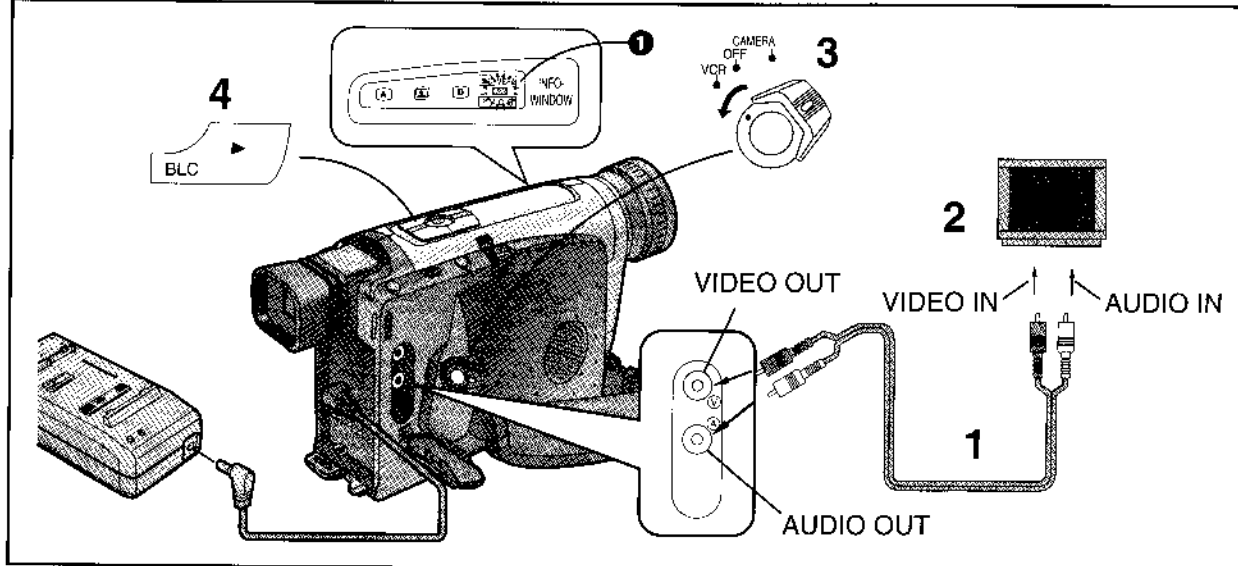
- 如果您使用遙控器來操作攝錄影機時，請在離攝錄影機1米左右的範圍內進行使用。
- 在鏡面狀態下拍攝時(→ 124)，日期、時間和/或題名指示無法插入畫面之中。所以，在播放的畫面中也不會含有這些指示。

## ENGLISH

### Watching Playback on the LCD Monitor with the Movie Camera Placed on a Table

- 1** Slide the [▲ OPEN] Lever to the left and simultaneously open the LCD Monitor in the direction of the arrow approximately 90°.
- 2** Turn the LCD Monitor so that it faces forward approximately 180°.
- 3** Close the LCD Monitor.
- 4** Place the Movie Camera on a flat, stable surface for playback.

- If you use the Remote Controller to operate the Movie Camera, use it within approximately 1 metre from the Movie Camera.
- When recording in the Mirror Mode (→ 124), the Date, Time and/or Title Indications cannot be inserted in the picture. Therefore, they are also not included in the playback picture.



## 中文

### 在電視機上觀看放影時

將攝錄影機連接至電視機時，便可在電視屏幕上觀看拍攝場景的放影。

連接之前，為安全起見，請關閉攝錄影機和電視機的電源。

- 1 用音頻 / 影像纜線（附件），將攝錄影機連接至電視機。

攝錄影機		電視機（音頻 / 影像輸入插孔）
VIDEO OUT	→	VIDEO IN（影像）
AUDIO OUT	→	AUDIO IN（音頻）

- 2 選擇與影像 / 音頻輸入插孔所用連接相應的電視機頻道。

（參看電視機的使用說明書。）

- 3 將 [CAMERA/OFF/VCR] 開關設置在 [VCR]。

- [VCR] 指示燈 ① 亮起。

- 4 開始攝錄影機的放影。（→ 68）

## ENGLISH

### Watching Playback on a TV

By connecting the Movie Camera to a TV, you can watch playback of the recorded scenes on the TV screen.

Before connecting, turn off both the Movie Camera and the TV for safety's sake.

- 1 Use the AV Cable (supplied) to connect the Movie Camera with the TV.

Movie Camera		TV (AV Input Sockets)
VIDEO OUT	→	VIDEO IN
AUDIO OUT	→	AUDIO IN

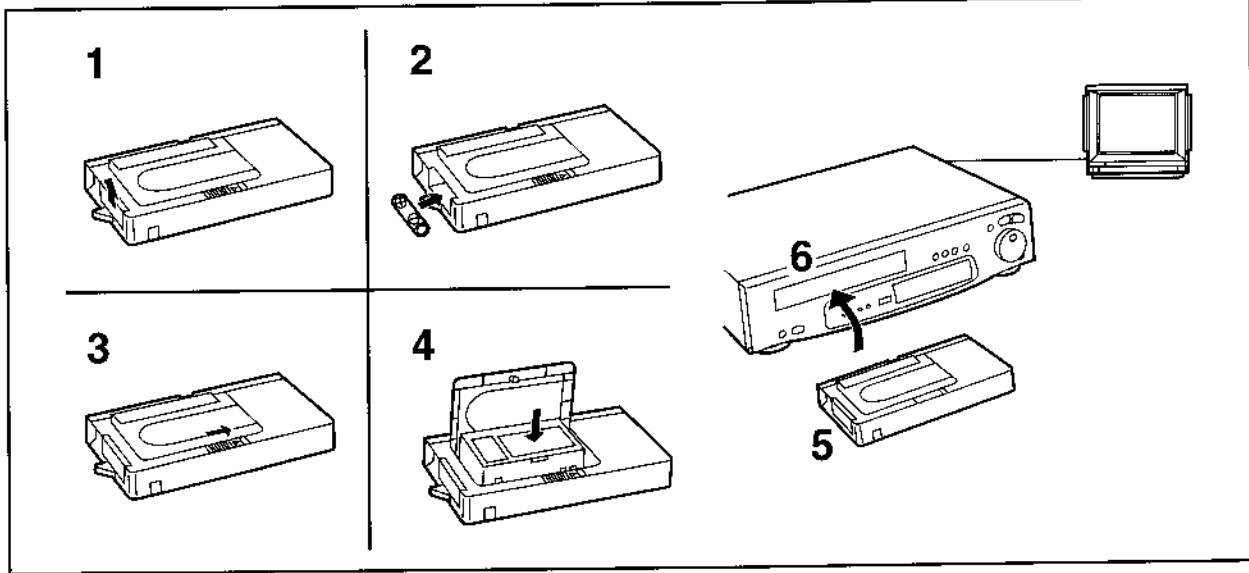
- 2 Select the channel on the TV which corresponds to the video/audio input sockets used for connecting.

(Refer to the operating instructions of your TV.)

- 3 Set the [CAMERA/OFF/VCR] Switch to [VCR].

- The [VCR] Lamp ① lights.

- 4 Start playback on the Movie Camera. (→ 68)



## 中文

### 在錄影機上放影時 (使用附帶的磁帶轉接器)

使用附帶的磁帶轉接器時，便可在您的錄影機上，用與全尺寸錄影帶相同的方法，播放小型錄影帶。

- 1 向上按電池盒蓋，並將其取下。
- 2 插入附帶的電池，然後重新裝上電池盒蓋。
- 3 依箭頭方向，滑動開啟桿。
- 4 插入已錄好的錄影帶，關閉頂蓋。
- 5 將磁帶轉接器插到錄影機內。
- 6 開始錄影機的放影操作。

使用之後，請從磁帶轉接器中取出錄影帶。

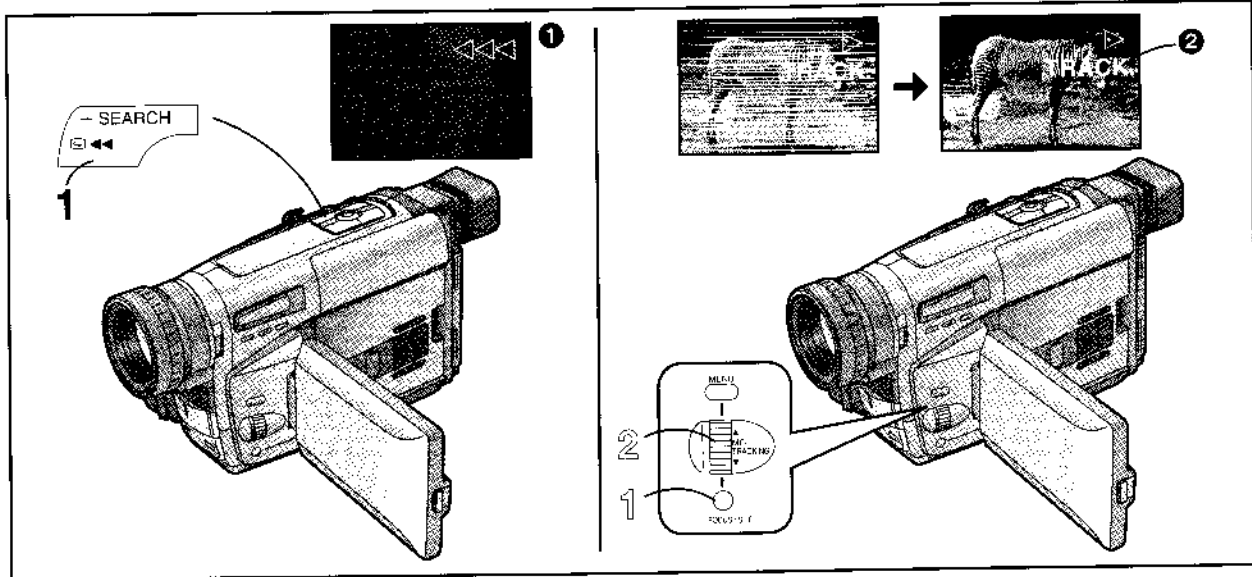
## ENGLISH

### Playing Back on a VCR (Using the Supplied Cassette Adaptor)

By using the supplied Cassette Adaptor, you can play back compact cassettes in your VCR in the same way as full-size cassettes.

- 1 Push the Battery Compartment Cover upward and remove it.
- 2 Insert the supplied battery and then re-attach the Battery Compartment Cover.
- 3 Slide the Open Lever in the direction of the arrow.
- 4 Insert the recorded cassette and close the Top Cover.
- 5 Insert the Cassette Adaptor into the VCR.
- 6 Start playback on the VCR.

After use, take out the cassette from the Cassett Adaptor.



## 中文

### 高速倒帶

1 在停止狀態下持續按 [◀◀] 鈕 1 秒鐘以上。

- 將出現 [◀◀] 指示 ①。
- 在進行高速倒帶時，倒帶帶的聲音會比較大。
- 當磁帶倒至接近開頭部分時，攝錄影機將自動從高速倒帶狀態切換至倒帶狀態，倒帶倒至盡頭時，將切換至停止狀態。
- 如果您在高速倒帶中按 [■] 鈕，在幾秒鐘之後磁帶才會停止，這是為了防止磁帶受到損壞。
- 當使用遙控器時，持續按 [◀◀] 鈕 3 秒鐘以上。
- 在高速倒帶中，磁帶計數器將顯示 [0:00.00]。

### 消除畫面的失真

#### (手動磁跡調節)

本攝錄影機將自動對磁跡進行調節。但是，對於某些錄影帶，磁跡調節可能會不十分精確。在這種情況下，請手動調節磁跡。

1 在進行播放時輕按一下 [FOCUS/SET] (聚焦 / 設定) 鈕。

- 將出現 [TRACK.] 指示 ②。

2 轉動 [TRACKING] (磁跡) 環，調節磁跡。

- 連續 5 秒鐘未轉動 [TRACKING] (磁跡) 環時，磁跡調節功能將自動取消。
- 有可能無法完全消除雜波條紋。
- 在顯示菜單時，不能進行磁跡調節。
- 如果您在進行磁跡調節後取出錄影帶，所做的調節設定將被取消。

#### 回到自動磁跡調節狀態

在播放時持續按下 [FOCUS/SET] (聚焦 / 設定) 鈕 2 秒鐘以上。

## ENGLISH

### High-Speed Rewinding

1 Press the [◀◀] Button for more than 1 second in the Stop Mode.

- The [◀◀] Indication ① appears.
- During High-Speed Rewinding, the tape winding sound is louder.
- When rewinding the tape to the beginning, the Movie Camera automatically changes over from the High-Speed Rewinding Mode to the Rewinding Mode near the end of the tape, and it switches over to the Stop Mode at the end of the tape.
- If you press the [■] Button during High-Speed Rewinding, it takes several seconds before the tape is stopped, in order to protect the tape from damage.
- When using the Remote Controller, press the [◀◀] Button for more than 3 seconds.
- During High-Speed Rewinding, the Tape Counter shows [0:00.00].

### Eliminating Picture Distortions (Manual Tracking Adjustment)

This Movie Camera adjusts the tracking automatically. With certain cassettes, however, the tracking adjustment may not be precise. In this case, adjust the tracking manually.

1 Press the [FOCUS/SET] Button briefly during playback.

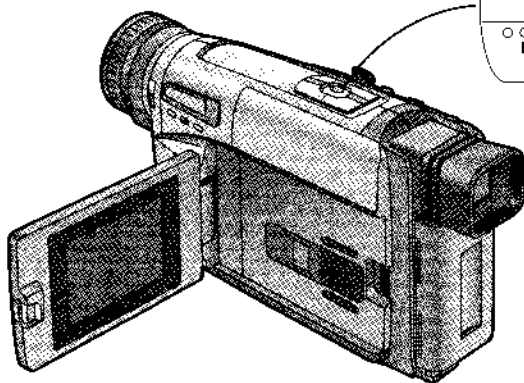
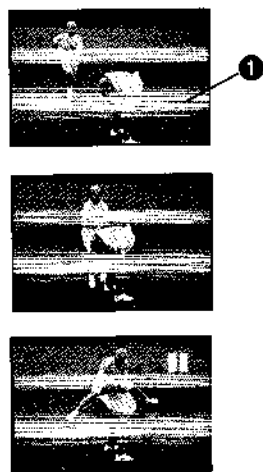
- The [TRACK.] Indication ② appears.

2 Turn the [TRACKING] Dial to adjust the tracking.

- The Tracking Adjustment Function is automatically cancelled when the [TRACKING] Dial is not turned for 5 seconds.
- It may not be possible to remove the noise bars completely.
- It is not possible to adjust the tracking when a menu is displayed.
- If you eject the cassette after adjusting the tracking, the adjusted setting is cancelled.

#### Returning to the Auto Tracking Mode

Press [FOCUS/SET] Button for more than 2 seconds during playback.



## 中文

### 快進尋影放影時

**1** 在正常放影狀態下，持續按住 [▶▶] 鈕。

恢復標準放影時  
鬆開 [▶▶] 鈕。

### 倒帶尋影放影時

**2** 在正常放影狀態下，持續按住 [◀◀] 鈕。

恢復標準放影時  
鬆開 [◀◀] 鈕。

### 尋影鎖定功能

進行較長的快進尋影或倒帶尋影時，只能短暫地按快進尋影 [▶▶] 鈕或倒帶尋影 [◀◀] 鈕。由於這樣做會鎖定尋影功能，所以不必要長時間地按鈕。

- 恢復普通放影時，請按放影 [▶] 鈕。

### 靜止放影時

**3** 在正常放影狀態下，按下 [H.W.B.] 鈕。

恢復標準放影時  
再次按 [H.W.B.] 鈕。

- 在快進尋影、倒帶尋影以及靜止尋影狀態下，畫面中會出現水平雜波帶 ①，或者畫面變為黑白、失真。
- 在 SP 模式和 LP 模式下，水平雜波條紋的形式是不同的。
- 在快進尋影或倒帶尋影中在液晶顯示監視器上，將不會出現指示。
- 如果攝錄影機處於靜止狀態超過 6 分鐘時，它將自動切換為停止狀態。而且，如果攝錄影機是由電池供電時，再過 6 分鐘後，它將完全關閉。

## ENGLISH

### Cue Playback

**1** Keep the [▶▶] Button pressed during normal playback.

Resuming Normal Playback  
Release the [▶▶] Button.

### Review Playback

**2** Keep the [◀◀] Button pressed during normal playback.

Resuming Normal Playback  
Release the [◀◀] Button.

### Search Lock Function

For longer Cue or Review Playback, press the Cue Button [▶▶] or the Review Button [◀◀] only briefly. As this locks the search function, you do not need to keep the button pressed for a long time.

- To resume normal playback, press the Play Button [▶].

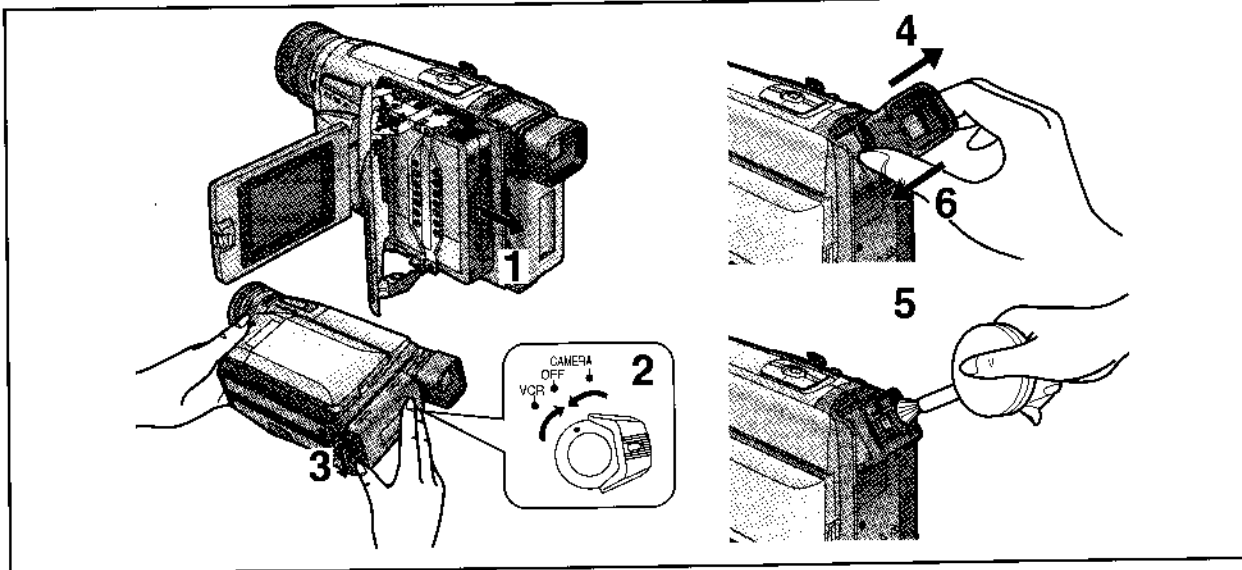
### Still Playback

**3** Press the [H.W.B.] Button during normal playback.

Resuming Normal Playback  
Press the [H.W.B.] Button again.

- In the Cue, Review and Still Playback Modes, horizontal noise bars ① appear in the picture, or the picture may become black and white or distorted.
- The horizontal noise bars have a different pattern in the SP mode and LP mode.
- During Cue or Review Playback, no indications are displayed on the LCD Monitor.
- If you leave the Movie Camera in the Still Playback Mode for about 6 minutes, it automatically switches over to the Stop Mode. And, if the Movie Camera is being powered by the Battery, it switches off completely after a further 6 minutes.





## 中文

### 使用以後

- 1 取出錄影帶。(→ 42)
- 2 將 [CAMERA/OFF/VCR] 開關設置在 [OFF]。
- 3 拔掉交流轉接器或取出電池。

### 電子尋像器清潔

若電子尋像器中已經進入了灰塵時...

- 4 按電子尋像器兩邊的鈕，依箭頭所示，將其取下。
- 5 用吹氣刷（非附件）清除灰塵。
  - 如果您用棉籤或類似之物，來清潔電子尋像器內部時，須特別小心，以免割傷電子尋像器的內部屏幕。
- 6 重新安裝電子尋像器時，將其向前推入電子尋像器套筒，直至咔嗒一聲將其鎖定。

### 液晶顯示監視器清潔

請用軟布或吹氣刷清潔液晶顯示監視器。

### 攝錄影機機殼清潔

請用軟布擦拭。

### 鏡頭清潔

請用軟布或吹氣刷清潔鏡頭。

## ENGLISH

### After Use

- 1 Take out the cassette. (→ 42)
- 2 Set the [CAMERA/OFF/VCR] Switch to [OFF].
- 3 Disconnect the AC Adaptor or remove the Battery.

### Cleaning the Finder

If dust has entered the Finder...

- 4 Push the Buttons on both sides of the Finder and remove it in the direction of the arrow.
- 5 Remove dust with a blower brush (not supplied).
  - If you use a cotton swab or similar to clean the inside of the Finder, use it very carefully to prevent scratching the screen inside the Finder.
- 6 To re-attach the Finder, push it forward onto the Finder Tube until it locks with a click.

### Cleaning the LCD Monitor

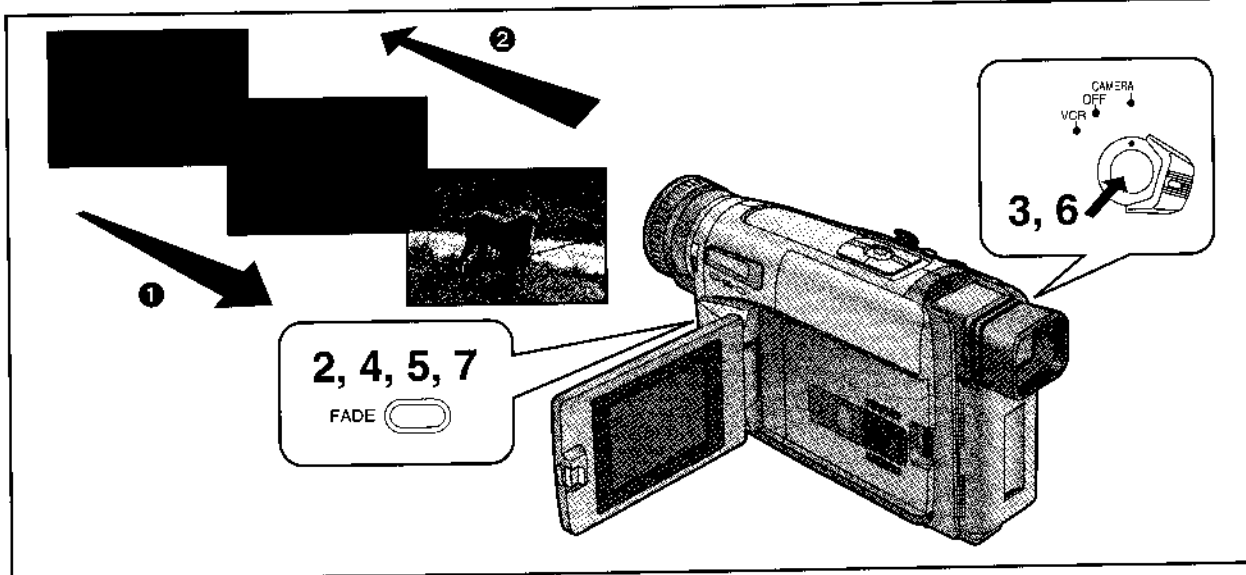
Clean the LCD Monitor with a soft cloth or a blower brush.

### Cleaning the Movie Camera Body

Wipe it with a soft cloth.

### Cleaning the Lens

Clean the lens with a soft cloth or a blower brush.



中文

### 先進操作

#### 淡入 / 淡出

##### ■ 淡入 ①

淡入可讓您在拍攝的開頭，使畫面（和聲音）逐漸出現。

- 1 使攝錄影機處於拍攝暫停狀態，將其對準您打算拍攝的場景。
- 2 持續按住 [FADE] 鈕。
- 3 當電子尋像器中的畫面完全消失後，按開始 / 停止鈕，開始拍攝。
- 4 約 3-4 秒鐘，然後鬆開 [FADE] 鈕。

##### ■ 淡出 ②

淡出可讓您在拍攝結尾，使畫面（和聲音）逐漸消失。淡出一個場景，淡入下一個，便可進行場景與場景之間的圓滑過渡。

- 5 拍攝中，在您打算淡出之處，持續按住 [FADE] 鈕。
- 6 當畫面完全消失後，按拍攝開始 / 停止鈕，停止拍攝。
- 7 鬆開 [FADE] 鈕。

ENGLISH

### Advanced Operations

#### Fading In/Out

##### ■ Fading In ①

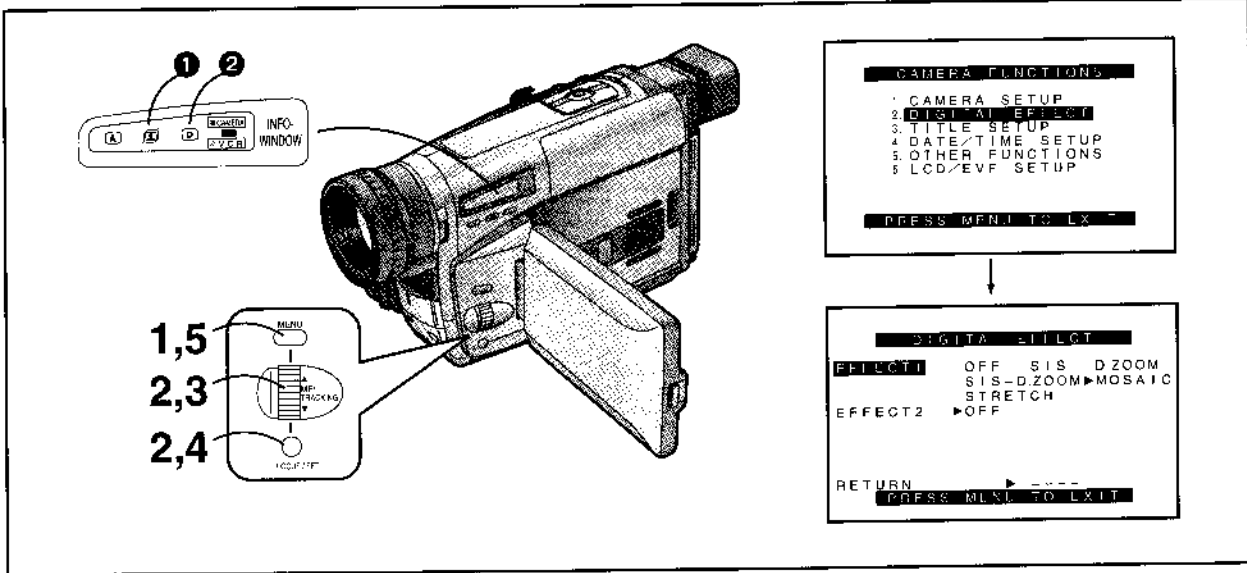
Fading in lets you make the picture (and sound) appear gradually at the beginning of a recording.

- 1 With the Movie Camera in the Recording Pause Mode, aim it at the scene that you want to record.
- 2 Press the [FADE] Button and keep it pressed.
- 3 When the picture has completely disappeared, press the Recording Start/Stop Button to start recording.
- 4 Approximately 3-4 seconds later, release the [FADE] Button.

##### ■ Fading Out ②

Fading out lets you make the picture (and sound) disappear gradually at the end of a recording. By fading out a scene and fading in the following one, you can produce smooth scene-to-scene transitions.

- 5 During recording, press the [FADE] Button at the point where you want to fade out, and keep it pressed.
- 6 After the picture has completely disappeared, press the Recording Start/Stop Button to stop recording.
- 7 Release the [FADE] Button.



## 中文

### 使用特殊效果 (數位效果)

除超級畫面穩定和數位變焦之外，該攝錄機還可為您提供多種不同的數位效果狀態，使其能夠以創造性手段，簡單地為您的場景增光添彩。

#### 選擇希望的數位效果

- 1 按 [MENU] (菜單) 鈕。  
將顯示 [CAMERA FUNCTIONS] 主菜單。
- 2 轉動 [▲▼] 環，選擇 [DIGITAL EFFECT] (數位效果)，然後按 [SET] 鈕。  
將顯示 [DIGITAL EFFECT] (數位效果) 子菜單。
- 3 轉動 [▲▼] 環，選擇 [EFFECT1] (效果 1) 或 [EFFECT2] (效果 2)。
- 4 按 [SET] 鈕，選擇需要的數位效果。  
● 當您選擇超級畫面穩定狀態時，[D] 燈 ① 將點亮。當您選擇其它任何數位效果時，[D] 燈 ② 將點亮。
- 5 按 [MENU] 鈕，退出菜單。

- 如果您將 [CAMERA/OFF/VCR] 開關設置在 [OFF]，然後再次將其設置在 [CAMERA]，您所選擇的數位效果的指示將閃爍幾秒鐘，向您報告當前所選擇的設定。
- 如果您將 [DIGITAL EFFECT] (數位效果) 子菜單上的 [EFFECT2] (效果 2) 項設置在 [B/W] (黑白狀態) 或 [SEPIA] (棕色狀態)，將無法改變所選擇的白色平衡狀態。(→ 106)

#### 取消數位效果時

將 [DIGITAL EFFECT] (數位效果) 子菜單上的 [EFFECT1] (效果 1) 或 [EFFECT2] (效果 2) 設置在 [OFF]。

## ENGLISH

### Using Special Effects (Digital Effects)

In addition to the Super Image Stabilizer and Digital Zoom, this Movie Camera offers you various digital effect modes to make it easy to enhance your scenes in many creative ways.

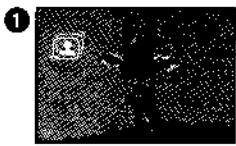
#### Selecting a Desired Digital Effect

- 1 Press the [MENU] Button.  
The [CAMERA FUNCTIONS] Main-Menu appears.
- 2 Turn the [▲▼] Dial to select [DIGITAL EFFECT] and then press the [SET] Button.  
The [DIGITAL EFFECT] Sub-Menu appears.
- 3 Turn the [▲▼] Dial to select [EFFECT1] or [EFFECT2].
- 4 Press the [SET] Button to select the desired digital effect.  
● When you select the Super Image Stabilizer Mode, the [D] Lamp ① lights. When you select any other digital effect, the [D] Lamp ② lights.
- 5 Press the [MENU] Button to exit the menu.

- If you set the [CAMERA/OFF/VCR] Switch to [OFF] and then set it to [CAMERA] again, the indication of the selected digital effect flashes for a few seconds to inform you of the selected setting.
- If you have set [EFFECT2] on the [DIGITAL EFFECT] Sub-Menu to [B/W] or [SEPIA], changing the selected white balance mode is not possible. (→ 106)



#### Cancelling the Digital Effect

Set [EFFECT1] or [EFFECT2] on the [DIGITAL EFFECT] Sub-Menu to [OFF].





## 中文

### 數位效果 1 [EFFECT1]

- 1 超級畫面穩定狀態 [  ] (→ 90)**  
當您進行遠距離攝影或在行走的汽車內拍攝時，該效果可防止畫面晃動。
- 2 數位變焦狀態 [D.ZOOM] (→ 92)**  
該功能可將目標物放大得遠遠超過光學變焦範圍之外。
- 3 超級畫面穩定和數位變焦狀態 [  ] /D.ZOOM]**  
該結合狀態可以進行特遠距離攝影，並可防止畫面晃動。
- 4 馬賽克狀態 [MOSAIC]**  
畫面將變得如同馬賽克一般。
- 5 加寬狀態 [STRETCH]**  
畫面被水平加寬，而其高度仍保持不變。

## ENGLISH

### Digital Effects 1 [EFFECT1]

- 1 Super Image Stabilizer Mode [  ] (→ 90)**  
This prevents shaky pictures when recording in the tele range or from a moving vehicle.
- 2 Digital Zoom Mode [D.ZOOM] (→ 92)**  
It enlarges the subject beyond the optical zooming range.
- 3 Super Image Stabilizer and Digital Zoom Mode [  ] /D.ZOOM]**  
This combination mode allows recording in the extreme tele range and prevents shaky pictures.
- 4 Mosaic Mode [MOSAIC]**  
The picture becomes mosaic-like.
- 5 Stretch Mode [STRETCH]**  
The picture is stretched horizontally while its height remains unchanged.



## 中文

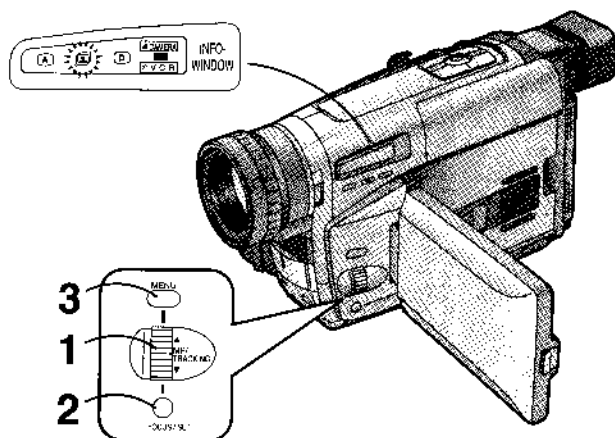
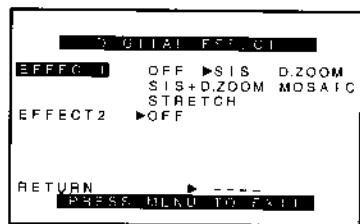
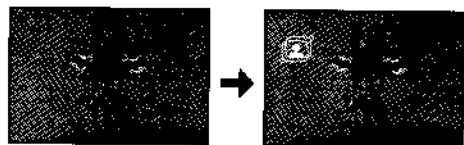
### 數位效果 2 [EFFECT2]

- ① **負片狀態 [NEGA]**  
圖像色彩顛倒，如同照片的底片一樣。
- ② **曝光過久狀態 [SOLARI]**  
以繪畫一般的效果拍攝圖像。
- ③ **棕色狀態 [SEPIA]**  
用棕色調拍攝場景，類似舊照片的色彩。  
● 使用棕色狀態時，不能手動調節白色平衡或取消手動調節的白色平衡設定值。
- ④ **黑白狀態 [B/W]**  
將以黑白兩色拍攝圖像。  
● 使用黑白狀態時，不能手動調節白色平衡或取消手動調節的白色平衡設定值。
- ⑤ **數位淡化狀態 1 [D.FADE1] (→ 94)**  
淡入時，畫面從中心出現，向邊緣擴展。淡出時正相反，從邊緣開始。
- ⑥ **數位淡化狀態 2 [D.FADE2] (→ 94)**  
畫面以點狀似冰融雪落般從白屏淡入，淡出。
- ⑦ **數位淡化狀態 3 [D.FADE3] (→ 94)**  
畫面以刮變效果從黑屏上淡入或淡出。

## ENGLISH

### Digital Effects 2 [EFFECT2]

- ① **Negative Mode [NEGA]**  
The picture has reversed colours similar to photographic negatives.
- ② **Solarisation Mode [SOLARI]**  
The picture has an effect similar to a painting.
- ③ **Sepia Mode [SEPIA]**  
Scenes have a brown tint similar to the colour of old photographs.  
● When the Sepia Mode is used, it is not possible to manually adjust the white balance or to cancel the manually adjusted white balance setting.
- ④ **Black & White Mode [B/W]**  
The picture is in black and white.  
● When the Black & White Mode is used, it is not possible to manually adjust the white balance or to cancel the manually adjusted white balance setting.
- ⑤ **Digital Fade 1 Mode [D.FADE1] (→ 94)**  
The picture fades in starting at the centre and extending toward the edges and fades out in reverse direction.
- ⑥ **Digital Fade 2 Mode [D.FADE2] (→ 94)**  
The picture fades in from a white screen and fades out to white in small dots similar to snow melting or falling.
- ⑦ **Digital Fade 3 Mode [D.FADE3] (→ 94)**  
The picture fades in with a wipe effect from a black screen and fades out to black.



## 中文

### 怎樣使用超級數位畫面穩定功能

在攝錄影機容易發生晃動，如您拉近遙遠的目標物或在行走進行攝影中等狀況下強行拍攝時，可利用該功能來穩定圖像。

- 當攝錄影機晃動非常嚴重時，有可能無法穩定畫面。

在顯示出 [DIGITAL EFFECT] 子菜單後... (→ 84)

- 1 轉動 [▲▼] 環，選擇 [EFFECT1] (效果 1)。
- 2 按 [SET] 鈕，選擇 [SIS] 或 [SIS+D.ZOOM]。
  - [ ] 和 / 或 [ ] 燈亮起。
- 3 按 [MENU] 鈕，退出菜單。
  - [ ] 和 / 或 [D.ZOOM] 指示會出現。
  - 當您使用該功能時，本機將自動根據場景的亮度，在 1/125 秒和 1/50 秒之間調節快門速度。

#### 取消超級數位畫面穩定功能時

將 [DIGITAL EFFECT] (數位效果) 子菜單上的 [EFFECT1] (效果 1) 項設置在 [OFF]。

- 取消超級畫面靜止功能會使快門速度重新設置在 1/50 秒。然而，在選擇了運動狀態和素描特寫狀態後，取消超級畫面穩定功能時，將不會使快門速度重新設置在 1/50 秒。

#### ■ 下列拍攝情況下，畫面穩定效果可能會不夠好：

- 具有水平和垂直條紋的目標物
- 平淡的目標物
- 昏暗的目標物 (在此情況下，[ ] 指示將閃爍。請增加光亮。)
- 在大量熒光燈下的目標物
- 快速移動的目標物
- 背景平淡的目標物

#### ■ 當使用超級畫面穩定功能時，畫面會如下改變：

- 畫質將稍微低劣。
- 在熒光燈下，畫面亮度可能會起伏不定，色彩也可能不自然。

## ENGLISH

### Using the Super Image Stabilizer Function

In recording situations where shaking of the Movie Camera is likely to happen, for example when you have zoomed in on a distant subject or when you record while walking, you can use this function to stabilize the image.

- In case of very strong camera shake, it may not be possible to stabilize the picture.

After displaying the [DIGITAL EFFECT] Sub-Menu... (→ 84)

- 1 Turn the [▲▼] Dial to select [EFFECT1].
- 2 Press the [SET] Button to select [SIS] or [SIS+D.ZOOM].
  - The [ ] and/or [ ] Lamp lights.
- 3 Press the [MENU] Button to exit the menu.
  - The [ ] and/or [D.ZOOM] Indication appear.
  - When you use this function, the shutter speed is automatically adjusted between 1/125 s and 1/50 s according to the brightness of the scene.

#### Cancelling the Super Image Stabilizer Function

Set [EFFECT1] on the [DIGITAL EFFECT] Sub-Menu to [OFF].

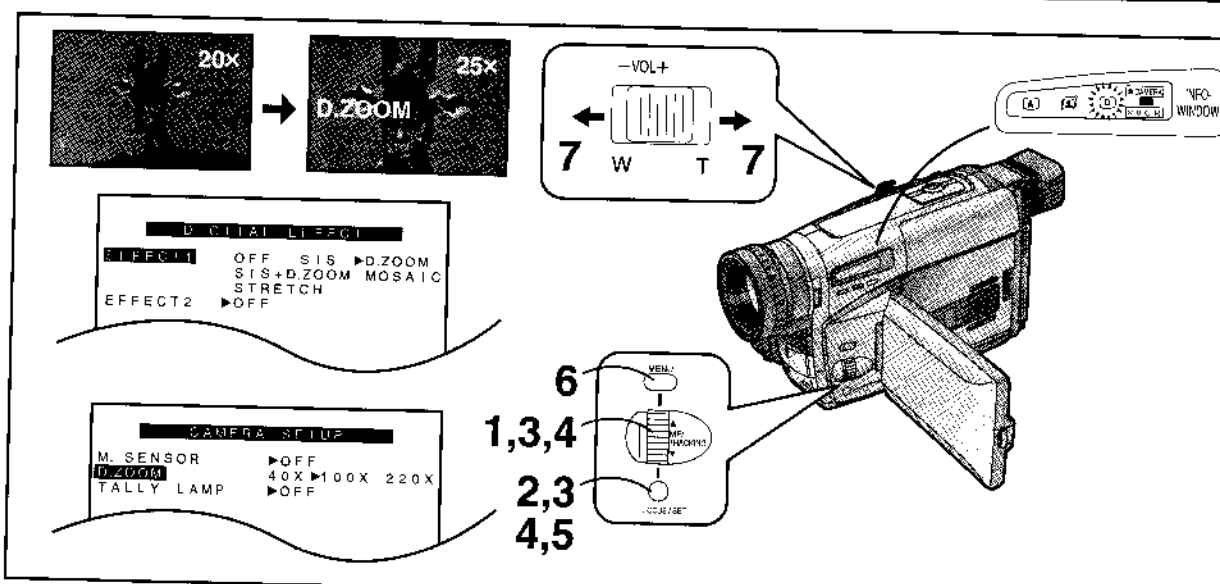
- Cancelling the Super Image Stabilizer Function also resets the shutter speed to 1/50 s. However, after selecting the Sports Mode or the Portrait Mode, cancelling the Super Image Stabilizer Function does not reset the shutter speed to 1/50 s.

#### ■ In the Following Recording Conditions, the Picture Stabilizing Effect May Not Be Sufficient:

- Subjects with horizontal or vertical stripes
- Flat subjects
- Dark subjects (In this case, the [ ] Indication flashes. Increase the amount of light.)
- Subjects under many fluorescent lamps
- Fast-moving subjects
- Subjects with a flat background

#### ■ When Using the Super Image Stabilizer Function, the Picture Changes as Follows:

- The picture quality deteriorates slightly.
- Under fluorescent lamps, the picture brightness may fluctuate and the colours may be unnatural.



## 中文

### 使用數位變焦功能

當您錄製距離很遠的目標物，且想將其放大得超過普通（光學）變焦功能時，該功能非常便利。

在顯示出 [DIGITAL EFFECT] 子菜單後... (→ 84)

- 1 轉動 [▲▼] 環，選擇 [EFFECT1](效果 1)。
- 2 按 [SET] 鈕，選擇 [D.ZOOM] 或 [SIS+D.ZOOM]。
  - [D] 和 / 或 [L] 燈亮起。
- 3 轉動 [▲▼] 環，選擇 [RETURN](返回)，然後按 [SET](設定) 鈕，選擇 [YES](是)。
  - 將顯示 [CAMERA FUNCTIONS] 主菜單。
- 4 在 [CAMERA SETUP](攝錄影機設定)子菜單中選擇 [D.ZOOM](數位變焦)。(→ 30)
- 5 按 [SET](設定) 鈕，選擇需要的數位變焦範圍 (高達 40×，高達 100× 或高達 220×)。
- 6 按 [MENU] 鈕，退出菜單。
  - [D.ZOOM] 和 / 或 [L] 指示會出現。
- 7 根據需要朝 [T] 或 [W] 方向，按 [W/T] 變焦桿，進行拉近或拉遠。
  - 在數位變焦功能啟動時，您可在 1 倍 (廣角) 和 20 倍之間進行光學變焦，以及在 21 倍和 220 倍之間進行數位變焦。光學和數位變焦之間的切換是自動的。
  - 使用數位變焦功能時，畫質將所有降低。
  - 在數位變焦範圍 (21× -220×) 之內，不能手動調節白色平衡或取消手動調節的白色平衡設定值。

### 取消數位變焦功能時

將 [DIGITAL EFFECT](數位效果)子菜單上的 [EFFECT1](效果1)項設置在 [OFF]。

## ENGLISH

### Using the Digital Zoom Function

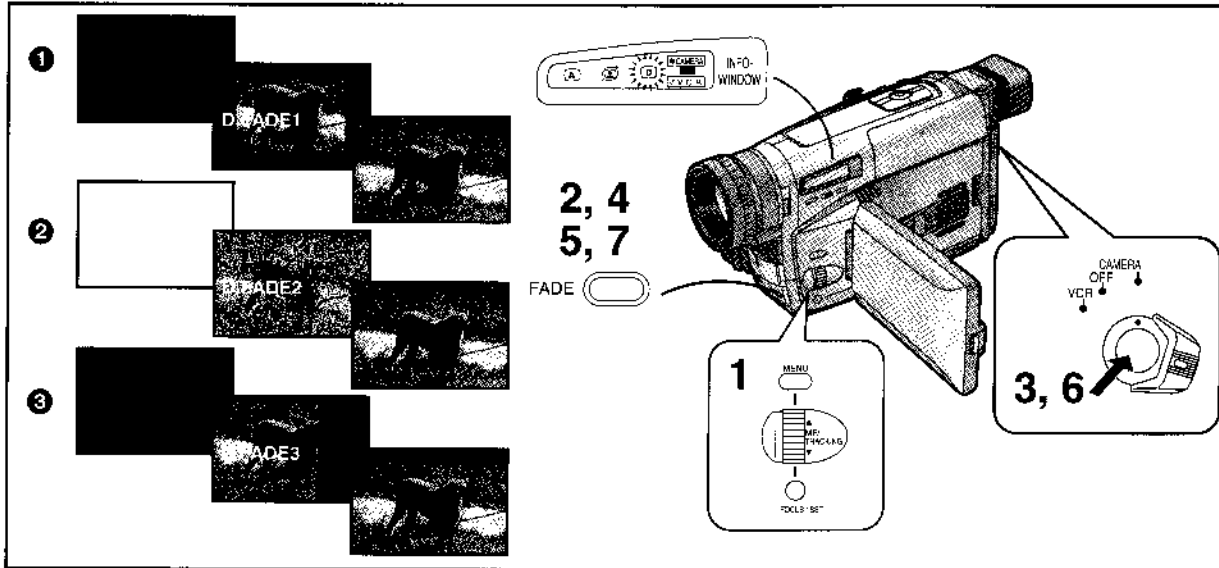
This function is convenient, when you record a very distant subject and want to enlarge it even further than is possible with the normal (optical) zoom function.

After displaying the [DIGITAL EFFECT] Sub-Menu... (→ 84)

- 1 Turn the [▲▼] Dial to select [EFFECT1].
- 2 Press the [SET] Button to select [D.ZOOM] or [SIS+D.ZOOM].
  - The [D] and/or [L] Lamp lights.
- 3 Turn the [▲▼] Dial to select [RETURN] and then press the [SET] Button to select [YES].
  - The [CAMERA FUNCTIONS] Main-Menu appears.
- 4 Select [D.ZOOM] on the [CAMERA SETUP] Sub-Menu. (→ 30)
- 5 Press the [SET] Button to select the desired digital zoom range (up to 40×, up to 100× or up to 220×).
- 6 Press the [MENU] Button to exit the menu.
  - The [D.ZOOM] and/or [L] Indication appear.
- 7 Push the [W/T] Zoom Lever toward [T] or [W] to zoom in or out as desired.
  - With the Digital Zoom Function activated, you can optically zoom between 1× (wide-angle) and 20× and digitally between 21× and 220×. The changeover between optical and digital zooming is automatic.
  - When using the Digital Zoom Function, the picture quality is somewhat reduced.
  - Within the digital zoom range (21× -220×), it is not possible to adjust the white balance manually or to cancel the manually adjusted white balance setting.

### Cancelling the Digital Zoom Function

Set [EFFECT1] on the [DIGITAL EFFECT] Sub-Menu to [OFF].



## 中文

### 數位淡化功能

有 3 種數位淡化狀態可供選擇。

- ① 數位淡化 1 [D.FADE1]
- ② 數位淡化 2 [D.FADE2]
- ③ 數位淡化 3 [D.FADE3]

**1** [DIGITAL EFFECT](數位效果)子菜單中的 [EFFECT2] (效果 2) 項設定為 [D.FADE1](數位淡化 1)、[D.FADE2](數位淡化 2) 或 [D.FADE3](數位淡化 3)。  
 • [LAMP] 燈將亮起。

#### ■ 淡入

- 2** 在攝錄影機處於拍攝暫停狀態時，持續按下 [FADE] (淡化) 鈕。  
 • 畫面將以選擇的數位淡化效果逐漸消失。
- 3** 當畫面完全消失後，按錄影開始 / 停止鈕，開始拍攝。
- 4** 約 3—4 秒鐘，然後鬆開 [FADE] 鈕。

#### ■ 淡出

- 5** 拍攝中，在想要淡出之處，持續按住 [FADE] 鈕。
- 6** 當畫面完全消失後，按錄影開始 / 停止鈕，停止拍攝。  
 • 攝錄影機現處於拍攝暫停狀態。
- 7** 鬆開 [FADE](淡化) 鈕。

#### 取消所選擇的數位淡化功能

將 [DIGITAL EFFECT](數位效果)子菜單中的 [EFFECT2](效果2)設定為 [OFF](關)。

## ENGLISH

### Digital Fade

There are 3 Digital Fade Modes available.

- ① Digital Fade 1 [D.FADE1]
- ② Digital Fade 2 [D.FADE2]
- ③ Digital Fade 3 [D.FADE3]

**1** Set [EFFECT2] on the [DIGITAL EFFECT] Sub-Menu to [D.FADE1], [D.FADE2] or [D.FADE3].  
 • The [LAMP] lights.

#### ■ Fading In

- 2** With the Movie Camera in the Recording Pause Mode, keep the [FADE] Button pressed.  
 • The picture disappears gradually with the selected digital fade effect.
- 3** When the picture has completely disappeared, press the Recording Start/Stop Button to start recording.
- 4** Approximately 3—4 seconds later, release the [FADE] Button.

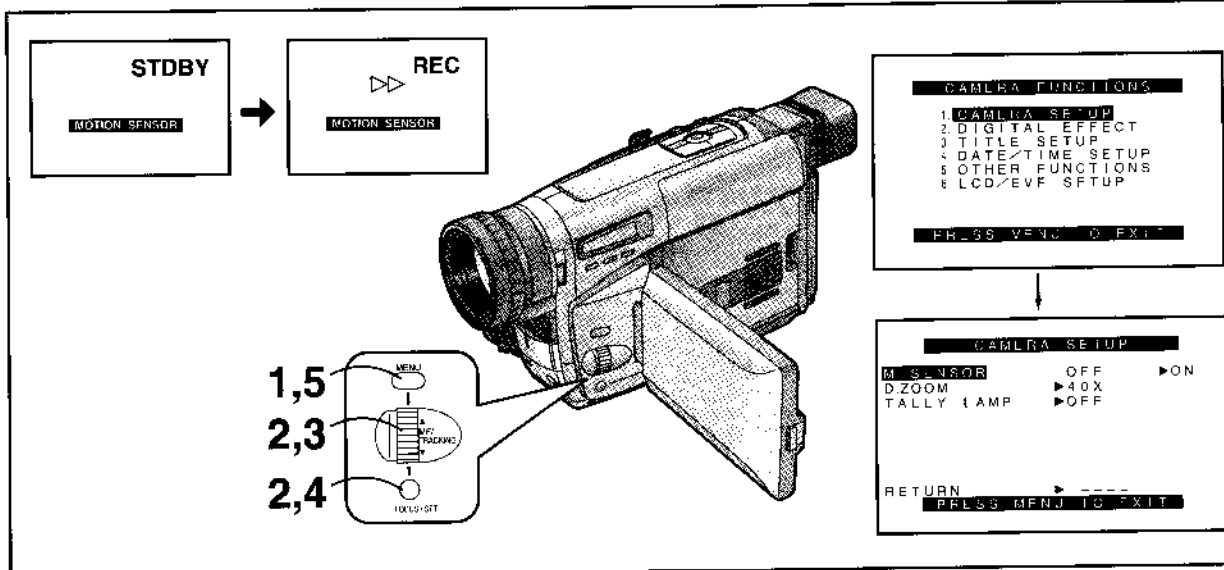
#### ■ Fading Out

- 5** During recording, press the [FADE] Button at the point where you want to fade out, and keep it pressed.
- 6** After the picture has completely disappeared, press the Recording Start/Stop Button to stop recording.  
 • The Movie Camera is now in the Recording Pause Mode.
- 7** Release the [FADE] Button.

#### Cancelling the Selected Digital Fade Function

Set [EFFECT2] on the [DIGITAL EFFECT] Sub-Menu to [OFF].





## 中文

### 移動感應器控制拍攝

在該狀態下，當內藏移動感應器探測到畫面有某些移動時，會自動開始拍攝。

- 1 按 [MENU] 鈕。
  - 將顯示 [CAMERA FUNCTIONS] 主菜單。
- 2 轉動 [▲▼] 環，選擇 [CAMERA SETUP] (攝錄影機設定)，然後按 [SET] 鈕。
  - 將顯示 [CAMERA SETUP] (攝錄影機設定) 子菜單。
- 3 轉動 [▲▼] 環，選擇 [M.SENSOR]。
- 4 按 [SET] 鈕選擇 [ON]。
- 5 按 [MENU] 鈕，退出菜單。
  - 會出現移動感應器功能待命 [STDBY] 指示。

- 在攝錄影機的移動感應器探測到畫面中的移動後約 1 秒鐘，會自動開始拍攝。待畫面中的移動停止約 10 秒鐘後，將自動停止拍攝，且攝錄影機會處於移動感應器待命狀態。
- 當攝錄影機處於移動感應器待命狀態下超過 6 分鐘時，電子尋像器或液晶顯示監視器將關閉，同時 [A] 燈會熄滅，以節省電力消耗。  
當移動感應器再次探測到畫面中的變化時，將在約 4 秒鐘之後重新開始自動拍攝，同時電子尋像器或液晶顯示監視器打開，[A] 燈點亮。

#### 在待命狀態下取消移動感應器功能時

將子菜單 [CAMERA SETUP] 上的 [M.SENSOR] 項設定為 [OFF]。

#### 在拍攝中取消移動感應器功能時

按住開始 / 停止鈕 2 秒鐘。

## ENGLISH

### Motion-Sensor-Controlled Recording

In this mode, recording automatically starts when the built-in Motion Sensor detects some movement in the picture.

- 1 Press the [MENU] Button.
  - The [CAMERA FUNCTIONS] Main-Menu appears.
- 2 Turn the [▲▼] Dial to select [CAMERA SETUP] and then press the [SET] Button.
  - The [CAMERA SETUP] Sub-Menu appears.
- 3 Turn the [▲▼] Dial to select [M.SENSOR].
- 4 Press the [SET] Button to select [ON].
- 5 Press the [MENU] Button to exit the menu.
  - The Motion Sensor Function Stand-by [STDBY] Indication appears.

- Approximately 1 second after the Movie Camera's Motion Sensor has detected movement in the picture, recording automatically starts. Approximately 10 seconds after movement in the picture has stopped, recording automatically stops and the Movie Camera is in the Motion Sensor Stand-by Mode.
- When the Movie Camera remains in the Motion Sensor Stand-by Mode for more than 6 minutes, the Finder or LCD Monitor turns off, and the [A] Lamp goes out to conserve power.  
When the Motion Sensor again detects movement in the picture, recording automatically restarts after approximately 4 seconds, and the Finder or LCD Monitor turns on, and the [A] Lamp lights.

**Cancelling the Motion Sensor Function During Stand-by**  
Set [M.SENSOR] on the [CAMERA SETUP] Sub-Menu to [OFF].

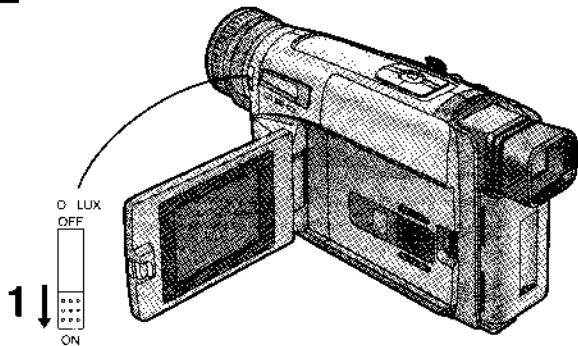
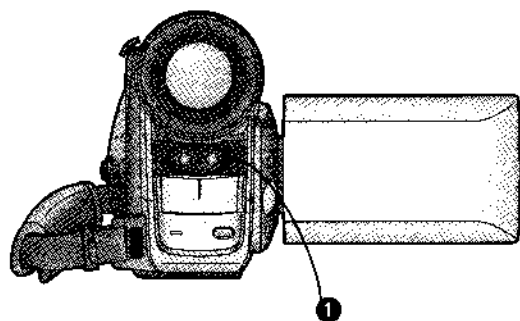
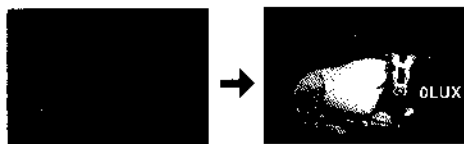
**Cancelling the Motion Sensor Function During Recording**  
Press the Recording Start/Stop Button for 2 seconds.

### ■ 在下列拍攝狀況下，移動感應器可能無法正常工作：

- 目標物後面為白色牆面或其它單色背景時。
  - 帶水平、垂直或斜線條紋的目標物時。
  - 環境亮度發生突然變化時。
  - 攝錄影機的曝光稍微撞擊或振動時。
  - 目標物移動得太慢或太快時。
  - 目標物的移動距離很短。
  - 在暗光之處拍攝時。( [MOTION SENSOR] 指示閃爍。)
  - 目標物非常小時。
  - 目標物的移動靠近畫面邊緣時。
  - 背景中有水平或垂直條紋時。
- 為了防止因攝錄影機移動而引起的意外拍攝，應該將攝錄影機安裝在三角架或者將其擱置於非常穩定的位置。
- 當 [CAMERA SETUP] (攝錄影機設定) 子菜單中的 [M.SENSOR] (移動感應器) 項被設定在 [ON] (開) 時，雖然您可以在 [DIGITAL EFFECT] (數位效果) 子菜單中選擇數位效果，但是移動感應器功能具有優先權，所選擇的數位效果將被自動取消。
- 當 [CAMERA SETUP] (攝錄影機設定) 子菜單中的 [M.SENSOR] (移動感應器) 項被設定在 [ON] (開) 時，將無法用按拍攝開始/停止鈕的方法手動開始拍攝，也不能啟動拍攝檢查或攝錄影機尋影功能。
- 當您用交直流電源適配器為攝錄影機供電時，若未探測到畫面移動時，即使拍攝中錄影帶已經到達結尾，移動感應器功能待命狀態仍將繼續下去。所以，建議您每週檢查一次錄影帶。當用電池為攝錄影機供電時，直至電池放電為止，將一致保持移動感應器功能待命狀態，到那時，[CAMERA] 燈會閃爍幾秒鐘。
- 為確保移動感應器能夠正常地工作，畫面的目標物應足夠大。因此，當您將鏡頭變焦到最大廣角位置時，鏡頭於目標物之間的距離最好在2米以內。對於遠距離的目標物，須將其相應的拉近。
- 開始拍攝之前，攝錄影機需要一定的時間進行設定。所以，移動的開頭部分將拍攝不到。
- 如果發生了停電時，移動感應器功能將被取消。

### ■ In the Following Recording Situations, the Motion Sensor May Not Work Correctly:

- A white wall or another single-colour background behind subject.
  - A subject with horizontal, vertical or oblique stripes.
  - Sudden changes in the surrounding brightness.
  - Exposure of the Movie Camera to slight shocks or vibrations.
  - Extremely slow or fast movement of the subject.
  - Very little movement of the subject.
  - Recording in a dimly lit place. (The [MOTION SENSOR] Indication flashes.)
  - A very small subject.
  - Movement of the subject near the edge of the picture.
  - A background with horizontal or vertical stripes.
- To prevent accidental recording start caused by Movie Camera movement, the Movie Camera should be mounted on a tripod or be otherwise secured in a very stable position.
- Although you can select a Digital Effect on the [DIGITAL EFFECT] Sub-Menu when [M.SENSOR] on the [CAMERA SETUP] Sub-Menu is set to [ON], the Motion Sensor Function has priority and the selected digital effect is automatically cancelled.
- When [M.SENSOR] on the [CAMERA SETUP] Sub-Menu is set to [ON], it is not possible to manually start recording by pressing the Recording Start/Stop Button or to activate the Recording Check or Camera Search Function.
- When you use the AC Adaptor to power the Movie Camera, the Motion Sensor Function Stand-by Mode will continue when no movement is detected in the picture, even when the tape has reached the end during recording. Therefore, we recommend that you check the tape within a week. When you use the Battery to power the Movie Camera, it remains in the Motion Sensor Function Stand-by Mode until the Battery is discharged, at which time the [CAMERA] Lamp flashes for a few seconds.
- To ensure correct functioning of the Motion Sensor Function, the moving subject should be quite large in the picture. Therefore, when you have zoomed the lens to the maximum wide-angle position, the distance between lens and subject should preferably be within about 2 metres. For subjects at larger distances, be sure to zoom in accordingly.
- The Movie Camera requires time to set up before recording starts. Therefore, the beginning of movement is not recorded.
- If there is a power interruption, the Motion Sensor Function will be cancelled.



## 中文

### 在無任何照明的暗處進行拍攝時 (0 Lux 夜景功能)

當您打算在夜晚無任何照明之處進行攝影，如觀察夜間活動的動物等時，該功能非常便利。在此狀態下，攝錄影機將發射紅外線，以便拍攝無法用肉眼看見的目標物。

**1** 將 [0 LUX OFF/ON] 開關設置在 [ON]，使 [0LUX] 指示出現。

- 為藏紅外線光束發射器 **1** 會亮起。拍攝時，小心勿讓您的手指擋住了發射器。
- 勿光線明亮之處使用 0 Lux 夜景功能，也絕對勿將攝錄影機對準太陽，否則可能會造成不可挽回的損壞。
- 用 0 Lux 夜景功能所拍攝之場景的放映畫面，總是黑白的。
- 如果您在拍攝中改變了 [0 LUX OFF/ON] 開關的設定時，也可能會錄下切換雜訊。
- 用 0 Lux 夜景功能拍攝時，將無法手動調節白色平衡或取消手動調節的白色平衡設定值。
- 當 0 Lux 夜景功能啟動時，不能使用任何程序 AF 狀態。
- 使用 0 Lux 夜景功能時，目標物應該位於距攝錄影機 3 米之內。
- 當自動聚焦不精確時，請手動調節聚焦。
- 如果您在用 0 Lux 夜景功能拍攝中，不想使信號燈時，請將 [CAMERA SETUP] 子菜單上的 [TALLY LAMP] (信號燈) 設定為 [OFF]。
- 在 0 Lux 夜景功能狀態下，由於此時光圈完全開啟，被錄製的白色或其它顏色的目標物可能會顯得蒼白，模糊或缺乏對比度。

#### 取消 0 Lux 夜景功能時

將 [0 LUX OFF/ON] 開關設定在 [OFF]，以使 [0LUX] 指示消失。

## ENGLISH

### Recording in Dark Places Without Any Illumination (0 Lux Night View Function)

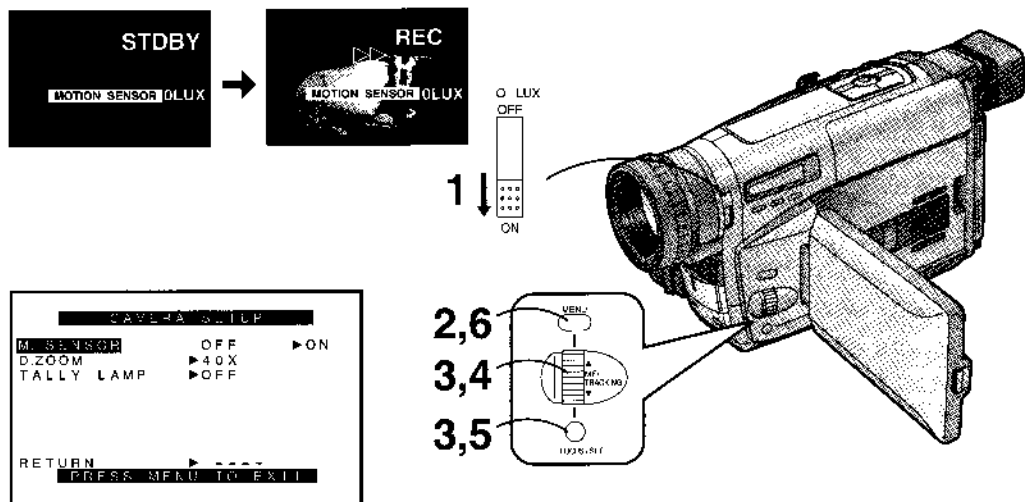
This function is convenient when you want to record at night places without any illumination, for example for observing the behaviour of nocturnal animals, etc. In this mode, the Movie Camera emits infrared rays which makes it possible to record subjects that are invisible to the naked eye.

**1** Set the [0 LUX OFF/ON] Switch to [ON] to make the [0LUX] Indication appear.

- The built-in Infra-red Beam Emitters **1** light. Be careful not to cover them with your hand when recording.
- Do not use the 0 Lux Night View Function in brightly lit places and never aim the Movie Camera against the sun, as this could cause irreparable damage.
- The playback picture of scenes recorded with the 0 Lux Night View Function will be in black and white.
- If you change the setting of the [0 LUX OFF/ON] Switch during recording, a switching noise is also recorded.
- When recording with the 0 Lux Night View Function, it is not possible to adjust the white balance manually or to cancel the manually adjusted white balance setting.
- It is not possible to use any of the Programme AE Modes when the 0 Lux Night View Mode is activated.
- When using the 0 Lux Night View Function, the subject should be within 3 metres from the Movie Camera.
- When the automatic focusing is not precise, adjust the focus manually.
- If you do not want the Tally Lamp to light during recording using the 0 Lux Night View Function, set [TALLY LAMP] on the [CAMERA SETUP] Sub-Menu to [OFF].
- As the iris is fully opened in the 0 Lux Night View Mode, subjects in white or other light colours may be recorded whitish, blurred and with weak contrast.

#### Cancelling the 0 Lux Night View Function

Set the [0 LUX OFF/ON] Switch to [OFF] to make the [0LUX] Indication disappear.



## 中文

### 在無任何照明的暗處將 0 Lux 夜景功能和移動感應器控制拍攝功能結合使用時

如果您將 0 Lux 夜景功能和移動感應器控制拍攝功能結合使用時，一旦攝錄影機內藏移動感應器探測到畫面中有某些移動時，便會自動開始拍攝。這種功能結合非常便於在夜間進行簡易和行動不定的動物觀察。

- 1 將 [0 LUX OFF/ON] 開關設定在 [ON]，使 [0LUX] 指示出現。
- 2 按 [MENU](菜單) 鈕。
  - 將顯示 [CAMERA FUNCTIONS] 主菜單。
- 3 轉動 [▲▼] 環，選擇 [CAMERA SETUP](攝錄影機設定)，然後按 [SET] 鈕。
  - 將顯示 [CAMERA SETUP](攝錄影機設定) 子菜單。
- 4 轉動 [▲▼] 環，選擇 [M.SENSOR]。
- 5 按 [SET](設定) 鈕，選擇 [ON]。
- 6 按 [MENU] 鈕，退出菜單。
  - 移動感應器功能待命 [STDBY] 指示會出現。

在待命狀態下取消 0 Lux 夜景功能和移動感應器控制拍攝功能時將 [CAMERA SETUP] 子菜單上的 [M.SENSOR] 設定為 [OFF]，然後將 [0 LUX OFF/ON] 開關設定在 [OFF]。

在拍攝中取消 0 Lux 夜景功能和移動感應器控制拍攝功能時按住拍攝開始/停止鈕 2 秒鐘以上，然後將 [0 LUX OFF/ON] 開關設定在 [OFF]。

如果您將移動感應器功能與 0 Lux 夜景功能結合使用時，[MOTION SENSOR] 指示會閃爍，某些情況下，可能無法進行拍攝。

## ENGLISH

### Using the 0 Lux Night View Function together with the Motion-Sensor-Controlled Recording Function in Dark Places without Any Illumination

If you use the 0 Lux Night View Function together with the Motion-Sensor-Controlled Recording Function, recording starts automatically when the Movie Camera's built-in Motion Sensor detects some movement in the picture. This combination is convenient for easy, unattended animal observations at night.

- 1 Set the [0 LUX OFF/ON] Switch to [ON] to make the [0LUX] Indication appear.
- 2 Press the [MENU] Button.
  - The [CAMERA FUNCTIONS] Main-Menu appears.
- 3 Turn the [▲▼] Dial to select [CAMERA SETUP] and then press the [SET] Button.
  - The [CAMERA SETUP] Sub-Menu appears.
- 4 Turn the [▲▼] Dial to select [M.SENSOR].
- 5 Press the [SET] Button to select [ON].
- 6 Press the [MENU] Button to exit the menu.
  - The Motion Sensor Function Stand-by [STDBY] Indication appears.

**Cancelling the 0 Lux Night View Function and Motion-Sensor-Controlled Recording Function during Stand-by**  
Set [M.SENSOR] on the [CAMERA SETUP] Sub-Menu to [OFF] and then set the [0 LUX OFF/ON] Switch to [OFF].

**Cancelling the 0 Lux Night View Function and Motion-Sensor-Controlled Recording Function during Recording**  
Press the Recording Start/Stop Button for more than 2 seconds and then set the [0 LUX OFF/ON] Switch to [OFF].

If you use the Motion Sensor Function together with the 0 Lux Night View Function, the [MOTION SENSOR] Indication flashes, and recording may not be possible in some cases.

## 更適合用手動狀態的目標物和拍攝條件







下列目標物和拍攝條件不適合於用全自動狀態進行拍攝。在此情況下，用手動進行白色平衡和/或聚焦調節，將會獲得更美麗的畫面。也請閱讀括號內標明的手動調節有關的頁號。

### 1. 白色平衡

可手動調節白色平衡，請參看“用手動白色平衡調節進行拍攝時”。(→ 106)

### 2. 聚焦

可手動調節聚焦，請參看“用手動聚焦調節進行拍攝時”。(→ 110)

- 如果您選擇手動狀態進行拍攝，[MNL] 指示將顯示。
- 在拍攝中，即使您按下 [PROG. AE] (自動曝光選擇) 鈕，也不能改變拍攝狀態 ([AUTO] (自動)，，，，，，)。(→ 112)

### ■ 不適合於用全自動狀態拍攝的目標物和拍攝條件(括號內為有問題的調節)

- 有黑色表面的目標物 (白色平衡，聚焦)
- 在拍攝中，將攝錄影機從室外移動到室內時 (白色平衡)
- 照明條件差別太大的目標物 (白色平衡)
- 由水銀蒸氣燈或鈉燈照明的目標物 (白色平衡)
- 有光澤或光線反射太強的目標物 (聚焦)
- 反差太小的目標物 (聚焦)
- 一部分靠近攝錄影機而另一部分離得太遠的目標物 (聚焦)
- 無垂直輪廓的目標物 (聚焦)
- 快速移動的目標物 (聚焦)
- 在移動物體後面的目標物 (聚焦)
- 位於布滿髒污、灰塵或水滴的玻璃後面的目標物 (聚焦)

## Subjects and Recording Conditions for Which the Manual Mode Is More Suitable






The following subjects and recording situations are not suitable for recording in the Full Auto Mode. In these cases, adjusting the white balance and/or focus manually will provide more beautiful pictures. Also read the pages related to the manual adjustment indicated in parentheses.

### 1. White Balance

To adjust the white balance manually, see “Recording with Manual White Balance Adjustment”. (→ 106)

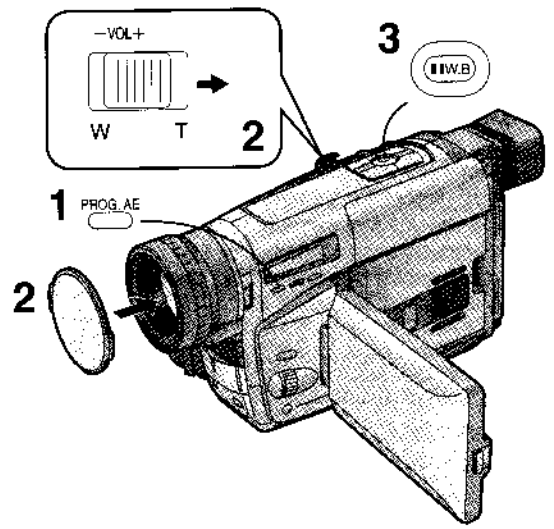
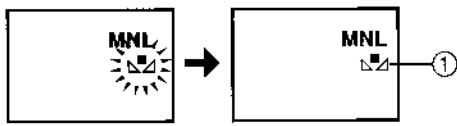
### 2. Focus

To adjust the focus manually, see “Recording with Manual Focus Adjustment”. (→ 110)

- If you select the Manual Mode, the [MNL] Indication appears.
- During recording, it is not possible to change the recording mode ([AUTO], [], [], [], [], []), even if you press the [PROG. AE] Button. (→ 112)

### ■ Subjects and Recording Conditions Not Suitable for Recording in the Full Auto Mode (problematic adjustments in parentheses)

- Subjects with dark surfaces (White Balance, Focus)
- When moving the Movie Camera from outdoors to indoors while recording (White Balance)
- Subjects lit by different light sources (White Balance)
- Subjects lit by mercury-vapour or sodium lamps (White Balance)
- Subjects with shiny surfaces or a lot of light reflection (Focus)
- Subjects with weak contrast (Focus)
- Subjects with part of it near and part of it far away from the Movie Camera (Focus)
- Subjects without vertical contours (Focus)
- Subjects with fast movement (Focus)
- Subjects behind moving objects (Focus)
- Subjects behind glass covered by dirt, dust or water drops (Focus)



## 中文

### 用手動白色平衡調節進行拍攝時

使用該攝錄影機時，也可手動調節白色平衡。

該狀態可用於如前所述 (→ 104)，不適合於全自動狀態的特殊目標物和拍攝條件，以及超出範圍 ① (→ 108) 之光源。當您想如專家一樣，對每個新場景，用手動進行白色平衡調節時，也可使用該功能。

- 1 連續按動 [PROG. AE] (自動曝光選擇) 鈕，直至顯示出除 [AUTO] (自動) 指示以外的指示為止。
- 2 裝上白色鏡頭蓋，並拉近，直至整個屏幕變為白色。
- 3 將攝錄影機對準您打算拍攝的目標物，然後持續按住 [W.B.] 鈕，直至 [ ] 指示 ① 在電子尋像器中停止閃爍，並保持亮起為止。
  - 使用棕色狀態或黑白狀態或 0 Lux 夜景狀態時，不能手動調節白色平衡。而且，如果已經手動調節了白色平衡時，即使按 [W.B.] (白色平衡) 鈕，也無法將其取消。

在下述情況下，[ ] 指示將閃爍：

- 在手動調節白色平衡過程中。(如果環境很暗，無法調節白色平衡時，[ ] 指示將持續閃爍。)
- 當上一次設置的白色平衡設定被保持時。
- 當您試圖在數位變焦範圍內 (21×–220×) 調節白色平衡時。在此情況下，請先在光學變焦範圍內 (1×–20×) 調節白色平衡，然後再回到數位變焦狀態。

#### 取消手動白色平衡狀態時

按一次 [W.B.] (白色平衡) 鈕。或者，連續按動 [PROG. AE] (自動曝光選擇) 鈕，直至顯示出 [AUTO] (自動) 指示。

## ENGLISH

### Recording with Manual White Balance Adjustment

With this Movie Camera, you can also adjust the white balance manually.

Use this mode for special subjects and recording conditions, such as listed (→ 104), for which the Full Auto Mode is not suitable, and for light sources outside the range ① (→ 108). Use it also when you want to manually adjust the white balance for each new scene as professionals do.

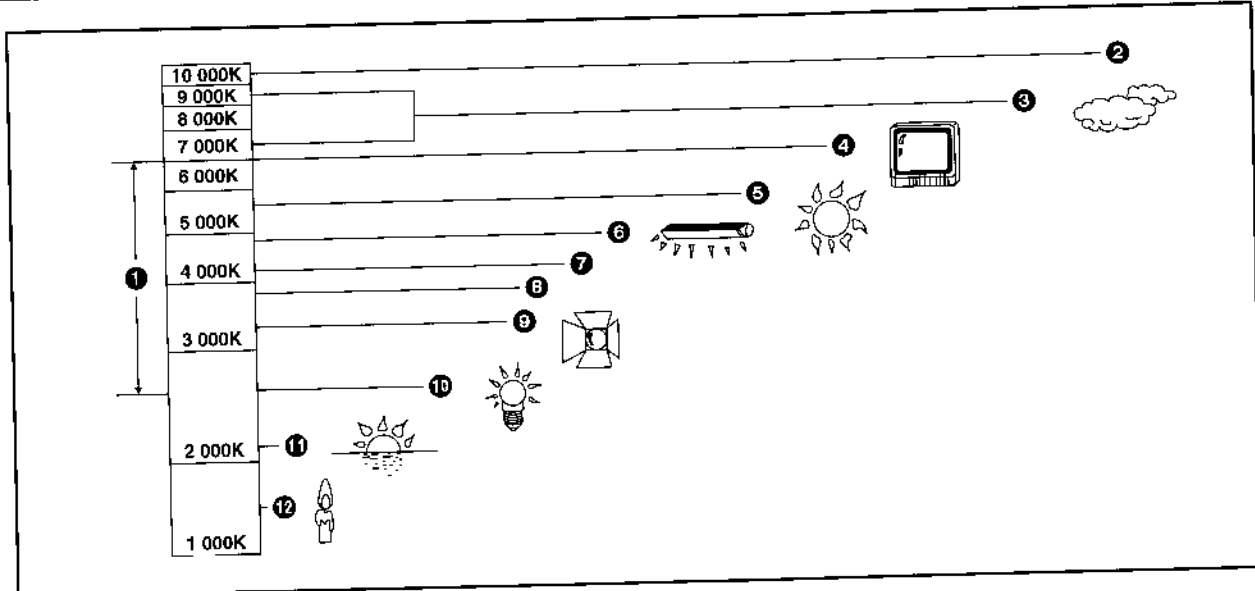
- 1 Press the [PROG. AE] Button repeatedly until an indication other than [AUTO] appears.
- 2 Attach the White Lens Cap and zoom in until the entire screen is white.
- 3 Aim the Movie Camera at the subject that you want to record and then keep the [W.B.] Button pressed until the [ ] Indication ① stops flashing and remains lit.
  - When the Sepia Mode, Black & White Mode or 0 Lux Night View Mode is used, it is not possible to manually adjust the white balance. Also, if the white balance was manually adjusted, it cannot be cancelled, even if you press the [W.B.] Button.

In the following cases, the [ ] Indication flashes:

- During manual adjustment of the white balance. (If the surroundings are dark and the white balance cannot be adjusted, the [ ] Indication keeps flashing.)
- When the previously set white balance setting is maintained.
- When you are trying to adjust the white balance in the digital zoom range (21×–220×). In this case, first adjust the white balance in the optical zoom range (1×–20×) and then zoom back to within the Digital Zoom Mode.

#### Cancelling the Manual White Balance Mode

Press the [W.B.] Button once. Or, press the [PROG. AE] Button repeatedly until the [AUTO] Indication appears.



## 中文

### 色溫 and 白色平衡調節

每種光源都有其獨特的色溫，其值由開氏溫標(K)測量。開氏值越高，光越帶藍色；開氏值越底，光越泛紅色；開氏值與光源的色調有關，而與其亮度沒有直接關係。

上圖所示範圍①，表示用本攝錄影機可提供精確的白色平衡調節的光源。所以，當使用全自動狀態時，便可在攝製的畫面中可獲得自然色彩。對於此範圍之外的光源，請手動調節白色平衡。(→ 106) 而且，還可能需要增加光源。

- ① 本攝錄影機的自動白色平衡調節的控制範圍
- ② 藍天
- ③ 陰天(小雨)
- ④ 電視屏幕
- ⑤ 陽光
- ⑥ 白色熒光燈
- ⑦ 日出後或日落前的兩小時
- ⑧ 日出後或日落前的一小時
- ⑨ 鹵素燈
- ⑩ 白熾燈
- ⑪ 日出或日落
- ⑫ 燭光

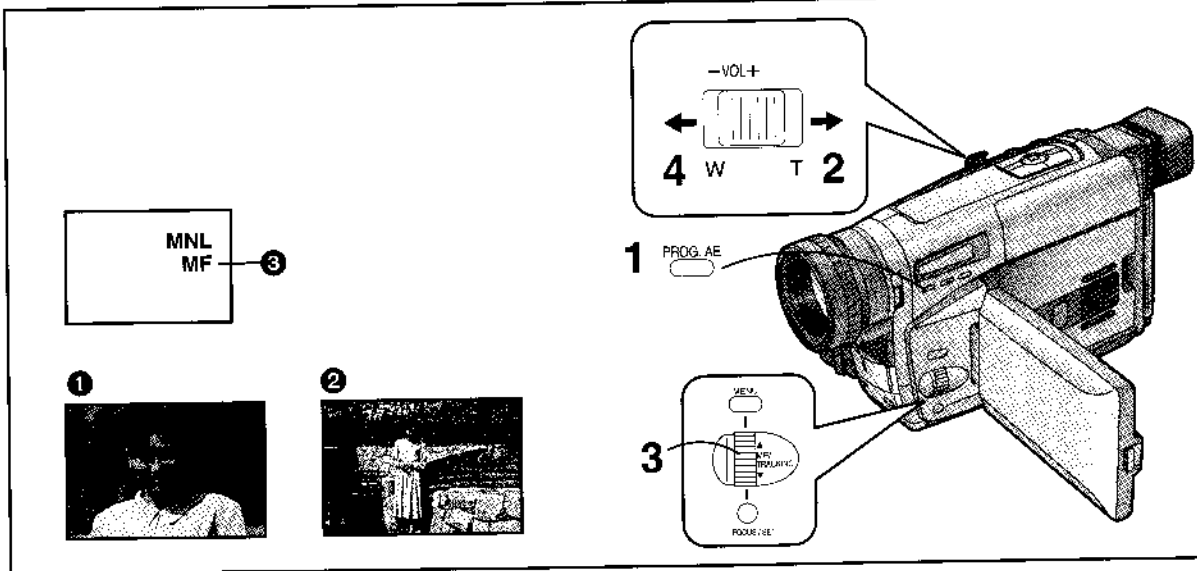
## ENGLISH

### Colour Temperature and White Balance Adjustment

Every light source has its own colour temperature measured in Kelvin (K). The higher the Kelvin value, the more bluish the light; the lower the value, the more reddish the light. The Kelvin value is related to the tint of the light, but not directly to its brightness.

The range ① indicated in the illustration above shows the light sources for which this Movie Camera can provide precise white balance adjustment and, therefore, natural colours in the recorded pictures, when using the Full Auto Mode. For light sources outside this range, adjust the white balance manually. (→ 106) Also, additional lighting may be necessary.

- ① Control range of this Movie Camera's Auto White Balance Adjustment Mode
- ② Blue sky
- ③ Cloudy sky (Rain)
- ④ TV screen
- ⑤ Sunlight
- ⑥ White fluorescent lamp
- ⑦ 2 hours after sunrise or before sunset
- ⑧ 1 hour after sunrise or before sunset
- ⑨ Halogen light bulb
- ⑩ Incandescent light bulb
- ⑪ Sunrise or sunset
- ⑫ Candlelight



## 中文

### 用手動聚焦調節進行拍攝時

使用該攝錄影機時，也可手動調整聚焦。  
該狀態可用於 (→ 104) 所列不適合於全自動狀態的特殊目標物和拍攝條件。

- 1 連續按動 [PROG. AE] (自動曝光選擇) 鈕，直至顯示出除 [AUTO] (自動) 指示以外的指示為止。
- 2 將 [W/T] 變焦柄持續推向 [T]，拉近目標物 ①。
  - 調節聚焦之前，先拉近目標物，確保即便您以後拉遠 ② 時，目標物也能保持精確的聚焦。
- 3 轉動 [MF] 環，調節聚焦。
  - 拉會啟動手動聚焦調節功能，且會出現 [MF] 指示 ③。 ([MF] 意思為手動聚焦。)
  - 在進行上述步驟 1 和 2 之後按 [FOCUS] (聚焦) 鈕，也同樣能夠啟動手動調節聚焦功能，而且，在您轉動 [MF] 環之前就會出現 [MF] 指示。
- 4 將 [W/T] 變焦柄持續推向 [W]，根據需要進行拉遠。
  - 在顯示菜單時，不能調節聚焦。

#### 取消手動聚焦狀態時

按一次 [FOCUS] (變焦) 鈕，使 [MF] 指示消失。或者，連續按動 [PROG. AE] (自動曝光選擇) 鈕，直至顯示出 [AUTO] (自動) 指示。

## ENGLISH

### Recording with Manual Focus Adjustment

With this Movie Camera, you can also adjust the focus manually.  
Use this mode for special subjects and recording conditions, such as listed (→ 104), for which the Full Auto Mode is not suitable.

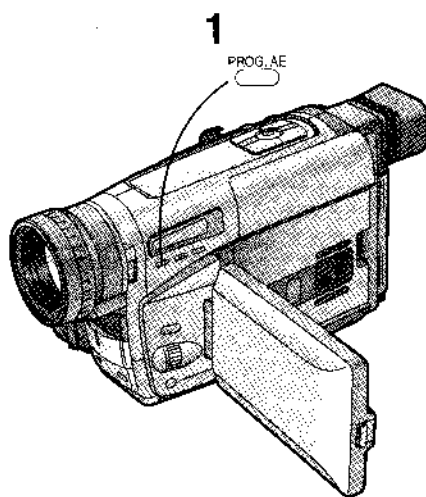
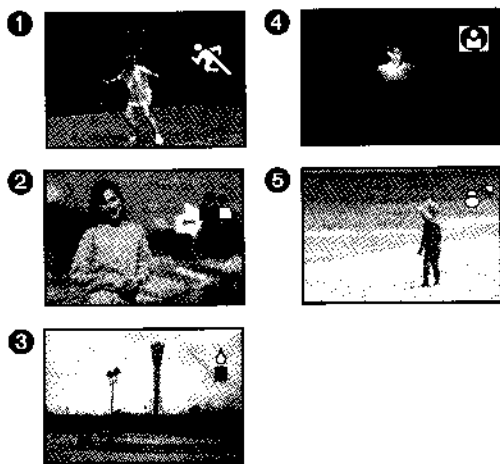
- 1 Press the [PROG. AE] Button repeatedly until an indication other than [AUTO] appears.
- 2 Keep the [W/T] Zoom Lever pushed toward [T] to zoom in on the subject ①.
  - Zooming in on the subject before adjusting the focus ensures that the subject remains precisely focused even when you later zoom out ②.
- 3 Turn the [MF] Dial to adjust the focus.
  - This activates the Manual Focus Adjustment Function and the [MF] Indication ③ appears. ([MF] means Manual Focus.)
  - Pressing the [FOCUS] Button after performing steps 1 and 2 above also activates the Manual Focus Adjustment Function, and the [MF] Indication appears even before you turn the [MF] Dial.
- 4 Push the [W/T] Zoom Lever toward [W] to zoom out as desired.

• It is not possible to adjust the focus when a menu is displayed.

#### Cancelling the Manual Focus Mode

Press the [FOCUS] Button once to make the [MF] Indication disappear. Or, press the [PROG. AE] Button repeatedly until the [AUTO] Indication appears.










## 中文

### 在各種情況下拍攝 (自動曝光選擇)

本攝錄影機可讓您選擇 5 種最適合特殊拍攝狀況的自動曝光程序。


**1** 連續按動 [PROG. AE] (自動曝光選擇) 鈕，直至顯示出所需的狀態指示 ([, [, [, [, 或 [])。

**1** 運動狀態 []

可拍攝運動場景之類快速移動的目標物。

**2** 素描特寫狀態 []

可使目標物明顯地突出於背景。

**3** 弱光狀態 []






可將較暗的場景拍得更亮。

**4** 聚光燈狀態 []

可拍攝聚光燈下的目標物 (晚會、劇場等)。

**5** 碎浪和雪地狀態 []

可拍攝亮背景中的目標物 (雪地、海灘等)。

● 在拍攝中，即使您按下 [PROG. AE] (自動曝光選擇) 鈕，也不能改變拍攝狀態 ([AUTO] (自動)，[MNL] (手動)，[, [, [, [, [])。

● 0 Lux 夜景狀態啟動時，將無法使用任何程序 AE 狀態。




#### 取消所選擇的程序自動曝光功能

連續按動 [PROG. AE] (自動曝光選擇) 鈕，直至不顯示任何上述指示。

## ENGLISH

### Recording in Special Situations (Programme AE)

This Movie Camera gives you a choice of 5 different automatic exposure programmes optimized for typical recording situations.

**1** Press the [PROG. AE] Button repeatedly until the indication of the desired mode ([, [, [, [, or []) appears.

**1** Sports Mode []

To record scenes with fast-moving subjects such as sports scenes.

**2** Portrait Mode []

To make subjects stand out sharply from the background.

**3** Low Light Mode []






To record dark scenes more brightly.

**4** Spotlight Mode []

To record subjects under spotlights (party, theatre, etc.).

**5** Surf & Snow Mode []

To record subjects in brightly lit surroundings (ski slopes, beach, etc.).


● During recording, it is not possible to change the recording mode ([AUTO], [MNL], [, [, [, [, []), even if you press the [PROG. AE] Button.

● It is not possible to use any of the Programme AE Modes when the 0 Lux Night View Mode is activated.

#### Cancelling the Selected Programme AE Function

Press the [PROG. AE] Button repeatedly until none of the above indications are displayed.

**運動狀態**

- 當播放以運動狀態拍攝的場景時，您可以欣賞細節豐富，邊緣清晰的慢動作和靜止放影。
- 請避免在熒光燈，水銀蒸氣燈或鈉燈下拍攝，否則放影時可能會產生色彩和亮度的抖晃。
- 如果所攝目標物被強光照射或反射太強，放影時可能會出現白色垂直亮條。
- 當場景光照不足時，[  ] 指示將閃爍。
- 如果使用此狀態進行室內拍攝，放影時影像可能會出現閃動。

**素描特寫狀態**

- 如果使用此狀態進行室內拍攝，放影時影像可能會出現閃動。

**弱光狀態**

- 在極暗的場景下拍攝時，可能無法將目標物拍得足夠亮。
- 如果在拍攝時使用此狀態，在播放畫面時可能會出現噪聲。


**聚光燈狀態**

- 使用本狀態進行拍攝時，被攝畫面可能會變得很黑。
- 如果目標物極亮，被攝畫面可能會泛白。

**碎浪和雪地狀態**

- 如果目標物極亮，被攝畫面可能會泛白。

**Sports Mode**

- When playing back on a VCR scenes that you have recorded in the Sports Mode, you can enjoy slow motion and still playback of very sharp images with fine details.
- Avoid recording under fluorescent, mercury-vapour or sodium lamps as the colour and the brightness of the playback picture may fluctuate.
- When recording subjects lit by strong lights or with much light reflection, the playback picture may contain vertical streaks of light.
- When the scene is not sufficiently lit, the [  ] Indication flashes.
- When using this mode for recording indoors, the playback picture may flicker.

**Portrait Mode**

- When using this mode for recording indoors, the playback picture may flicker.

**Low Light Mode**

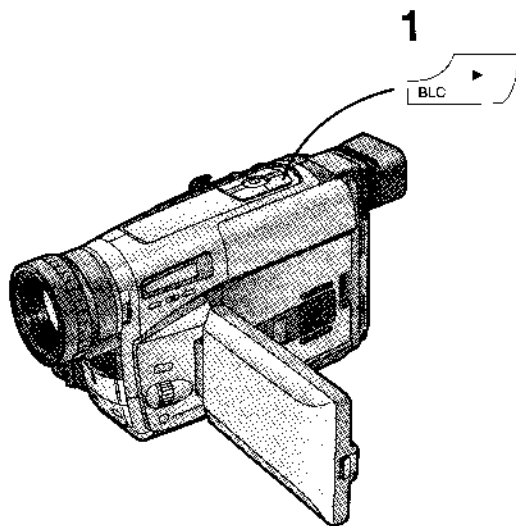
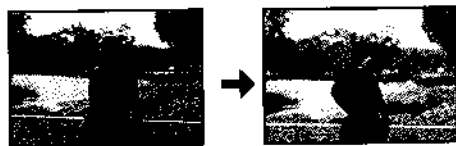
- It may not be possible to sufficiently brighten up extremely dark scenes.
- The use of this mode for recording may cause noise in the playback picture.

**Spotlight Mode**

- When using this mode, the recorded picture may be extremely dark.
- If a subject is extremely bright, the recorded picture may be whitish.

**Surf & Snow Mode**

- If a subject is extremely bright, the recorded picture may be whitish.



## 中文

### 逆光場景的拍攝 (逆光狀態)

作為一般的規則，目標物應該由來自前面的陽光或強烈人工燈光照明。然而，若無法避免拍攝逆光目標物時，逆光狀態可讓您稍微增加目標物的亮度，以免臉部太暗等。

- 1 當您拍攝逆光場景時，請在按開始 / 停止鈕開始拍攝之前，持續按住 [BLC] 鈕，直到您再次按該鈕而停止拍攝為止。

#### ■ 使用逆光拍攝功能時

- 天空可能變得發白。
- 攝影中，當陽光以其一角度照射目標物時，畫面上可能會留下星狀反光。
- 當拍攝處於非常亮的背景之前的目標物時，畫面可能仍舊較暗。
- 在某些情況下，目標物看起來很清晰，但背景卻曝光過度（幾乎全部是白色）。這是正常現象，並不是出現了故障。

## ENGLISH

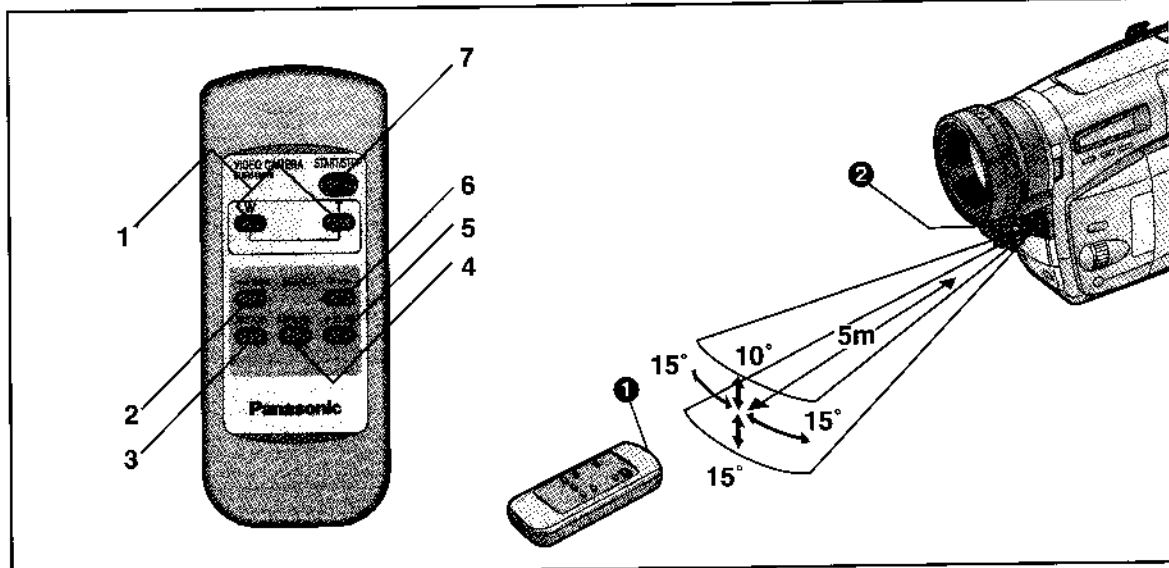
### Recording Backlit Scenes (Backlight Mode)

As a general rule, subjects should be lit from the front by sunlight or strong artificial light. However, if recording a backlit subject cannot be avoided, the Backlight Mode lets you brighten up the subject a little to prevent very dark faces, etc.

- 1 When recording a backlit scene, keep the [BLC] Button pressed from before you press the Recording Start/Stop Button to start recording until after you press it again to stop recording.

#### ■ When Using the Backlight Recording Function

- The sky may appear whitish.
- When recording with the sun striking the subject at an angle, star-shaped light reflections may be recorded in the picture.
- When recording a subject in front of a very bright background, the subject may still appear dark in the picture.
- In some cases, the subject may look clear, but the background may be overexposed (almost completely white). However, this is normal and not a malfunction.



## 中文

### 遙控器使用

該遙控器可讓您參入攝影之中，並從攝錄影機的前面控制拍攝操作。而且，還便於在電視機上放影或進行拷貝時，控制放影功能。

#### ■ 遙控器上的按鈕

與攝錄影機上標誌相同的按鈕，一般具有相同的功能。

- 1 [W/T] 變焦鈕 (→ 64, 68, 92)
- 2 倒帶 [◀◀] 鈕 (→ 62, 76, 78)
- 3 停止 [■] 鈕 (→ 68)
- 4 暫停 [⏸] 鈕 (→ 78)
- 5 放影 [▶] 鈕 (→ 68)
- 6 快進 [▶▶] 鈕 (→ 62, 78)
- 7 開始 / 停止 [START/STOP] 鈕 (→ 58)

#### ■ 正確操作遙控器的條件

- 插入電池時電池的極性 (⊕ 和 ⊖) 應與遙控器上的指示相一致，且電池的電力未耗盡。
- 離攝錄影機的距離不能超過 5 米。
- 勿讓遙控器上的發射窗 ① 或攝錄影機上的遙控傳感窗 ② 暴露在直射陽光下或被布等物品蓋住。
- 當用遙控器操作變焦該功能時，將無法改變變焦速度。而且，按遙控器上的變焦鈕與攝錄影機上的機械變焦功能的實際動作之間，存在着稍微的延遲。
- 在 1 米的範圍之內，從側面 (液晶顯示監視器側) 也可使用遙控器。

## ENGLISH

### Using the Remote Controller

The Remote Controller lets you take part in the action and control the recording operation from in front of the Movie Camera. It is also convenient for controlling the playback functions for playback via a TV or for dubbing.

#### ■ Buttons on the Remote Controller

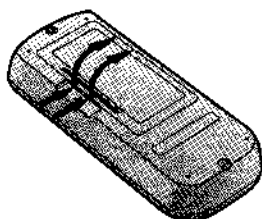
The buttons with the same mark as on the Movie Camera generally have the same function.

- 1 Zoom Buttons [W/T] (→ 64, 68, 92)
- 2 Rewind Button [◀◀] (→ 62, 76, 78)
- 3 Stop Button [■] (→ 68)
- 4 Pause Button [⏸] (→ 78)
- 5 Playback Button [▶] (→ 68)
- 6 Fast-forward Button [▶▶] (→ 62, 78)
- 7 Recording Start/Stop Button [START/STOP] (→ 58)

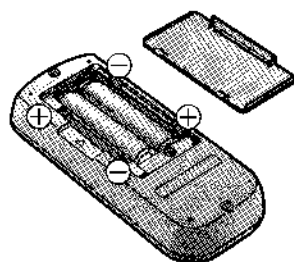
#### ■ Conditions for Correct Operation of the Remote Controller

- The batteries must be inserted with the polarity (⊕ and ⊖) correctly aligned and they must not be exhausted.
- The distance to the Movie Camera must not be more than 5 metres.
- The Transmitter Window ① on the Remote Controller or the Remote Control Sensor ② on the Movie Camera must not be exposed to direct sunlight and not be covered with clothes, etc.
- When operating the Zoom Function with the Remote Controller, it is not possible to vary the zooming speed. Also there is a slight delay between pressing the Zoom Buttons on the Remote Controller and the mechanical zoom adjustment on the Movie Camera.
- Within a distance of about 1 metre, it is also possible to use the Remote Controller from the side (LCD Monitor side).

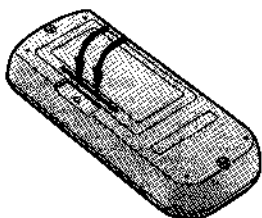
1



2



3



## 中文

### 將電池插入遙控器

- 1 取下電池蓋。
- 2 插入電池，使電池極性（ $\oplus$  和  $\ominus$ ）與指示相一致。
- 3 裝上電池蓋。

### ■ 電池的更換

電池的壽命大約為一年。

當電池耗盡時，請購買兩節新的“AAA”、“UM-4”或“R03”型號的電池，並依照上述方法進行更換。

- 請不要將用過的電池與新的電池混用。
- 請不要將不同種類的電池混用。例如：鹼性電池和錳電池。
- 請不要使用充電電池（鎳 鎘電池）。
- 請不要將電池短路。
- 當您長時間不用遙控器時，請將電池取出，並將其存放在陰涼乾燥的地方。

### 注意事項

電池若更換不當，則會有爆炸危險。請只使用該設備廠家推薦的同類或同型號電池。並按照廠家的指導扔掉用過的電池。

## ENGLISH

### Inserting the Batteries into the Remote Controller

- 1 Remove off the Battery Cover.
- 2 Insert the batteries with the polarity ( $\oplus$  and  $\ominus$ ) correctly aligned.
- 3 Replace the Battery Cover.

### ■ Replacing the Batteries

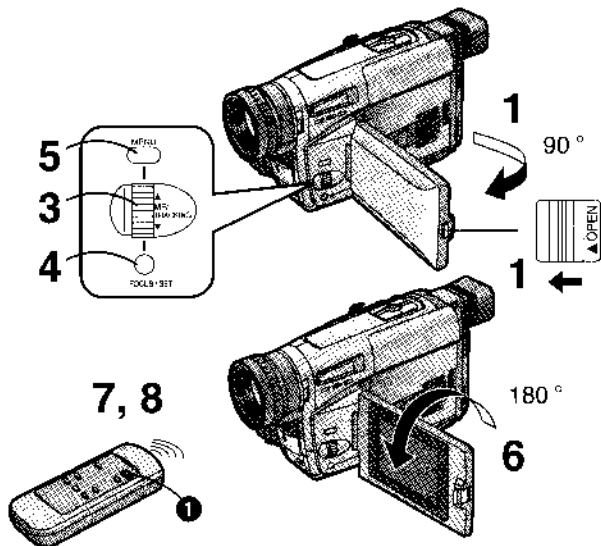
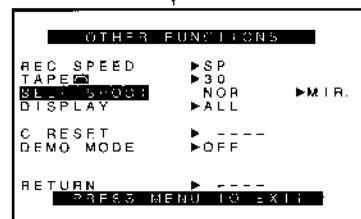
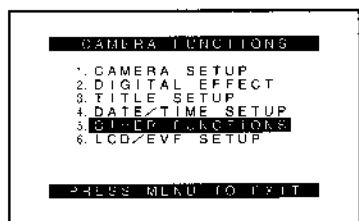
The life of the battery is about 1 year.

When the batteries are exhausted, purchase two new “AAA” “UM-4” or “R03” type batteries and insert them in the same way as explained above.

- Do not mix old batteries with new batteries.
- Do not mix different battery types, i.e. Alkaline and Manganese.
- Do not use rechargeable (Ni-Cd) batteries.
- Do not short-circuit the batteries.
- When you do not use the remote controller for a long time, take out the batteries and store them in a cool, dry place.

### CAUTION

Danger of explosion if batteries are incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.



## 中文

### 使液晶顯示監視器朝前方進行自我攝影時

旋轉液晶顯示監視器，使其朝前，以便您能夠瞄準攝錄影機，並觀看電子尋像器上的畫面，同時，攝錄影機前面的人，可在拍攝中檢查液晶顯示監視器上的畫面。如果您將攝錄影機安裝在三腳架上，並使用遙控器時，便也可加入正在拍攝的活動中，並從液晶顯示監視器的前面檢查畫面。

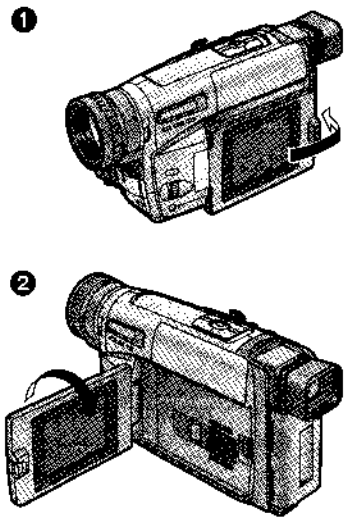
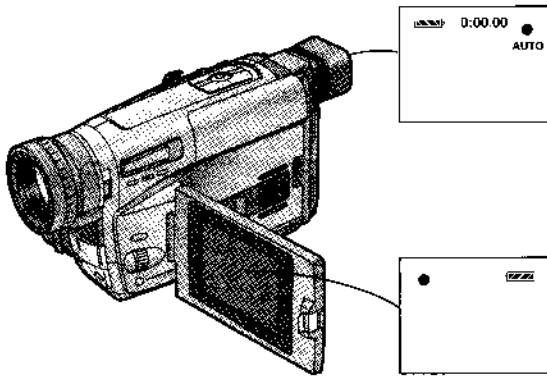
- 1 向左滑動 [▲ OPEN] 柄，同時如箭頭所示，將液晶顯示監視器打開約 90°。
- 2 顯示出 [OTHER FUNCTIONS] 子菜單。(→ 30)
- 3 轉動 [▲▼] 環，選擇 [SELF SHOOT](自拍)。
- 4 按 [SET] 鈕，選擇需要的狀態 ([NOR.] 或 [MIR.] )。
  - [NOR.] 意味着普通狀態。
  - [MIR.] 意味着鏡面狀態。(→ 124)
- 5 按 [MENU](菜單) 鈕，退出菜單。
- 6 轉動液晶顯示監視器，直至其面向約 180° 為止。
- 7 按開始 / 停止鈕 ①。
- 停止拍攝時
- 8 按開始 / 停止鈕 ①。

## ENGLISH

### Recording Yourself with the LCD Monitor Facing Forward

Turning the LCD Monitor so that it faces forward, allows you aim the Movie Camera and view the picture in the Finder, while the persons in front of the camera can check the picture on the LCD Monitor during recording. If you mount the Movie Camera on a tripod and use the Remote Controller, you can also take part in the action that you are recording and check the picture from the front on the LCD Monitor.

- 1 Slide the [▲ OPEN] Lever to the left and simultaneously open the LCD Monitor in the direction of the arrow approximately 90°.
- 2 Display the [OTHER FUNCTIONS] Sub-menu. (→ 30)
- 3 Turn the [▲▼] Dial to select [SELF SHOOT].
- 4 Press the [SET] Button to select the desired mode ([NOR.] or [MIR.]).
  - [NOR.] means normal Mode.
  - [MIR.] means mirror Mode. (→ 124)
- 5 Press the [MENU] Button to exit the menu.
- 6 Turn the LCD Monitor until it faces forward approximately 180°.
- 7 Press the Recording Start/Stop Button ①.
- Stopping Recording
- 8 Press the Recording Start/Stop Button ①.



## 中文

### ■ 鏡面狀態

當您將液晶顯示監視器朝前，進行自我攝影時，其所顯示的正在拍攝的畫面可能很難讓人適應。

這是因為我們已習慣於照鏡子，所以觀看鏡面圖像時的感覺比較自然。該攝影機具備鏡面狀態功能，可以如鏡面圖像一樣地顯示畫面。

然而，即使您已經選擇了鏡面狀態，也將以普通方法錄製畫面。

在鏡面狀態下，只有下述指示才能被顯示在液晶顯示監視器和電子尋像器中：

- [●] : 拍攝狀態指示
- [■●] : 拍攝暫停狀態指示
- [▨] : 剩餘電池指示
- [!] : 一般報警 / 警告指示

(除這 4 個指示以外，電子尋像器中也會出現計時器指示和程序 AE 狀態指示。)

當您打算確認其它指示時，請使液晶顯示監視器回到上圖所示的位置 ① 或 ②。

尤其當出現 [!] 指示時，須使液晶顯示監視器回到位置 ① 或 ②，以便能夠確認實際的報警 / 警告指示。

- 如果您轉動液晶顯示監視器，使其面朝前時，電子尋像器也會自動打開。然而，在下列情況下，電子尋像器會關閉：
  - 從攝影機狀態轉換至攝錄影機狀態。
  - 關閉液晶顯示監視器，使屏幕面朝外（如上圖 ① 所示）。
- 在鏡面狀態下進行拍攝時，將無法顯示和錄製日期、時間和 / 或標題指示。

## ENGLISH

### ■ Mirror Mode

When recording yourself with the LCD Monitor facing forward the picture shown on it the way it is being recorded may be difficult to get used to.

This is because we usually look at ourselves in the mirror, so we see a mirror-image and this feels more natural. This Movie Camera features the Mirror Mode which displays the picture as a mirror-image.

However, even if you have selected in the mirror Mode, the picture is recorded in the normal way.

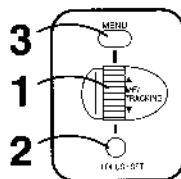
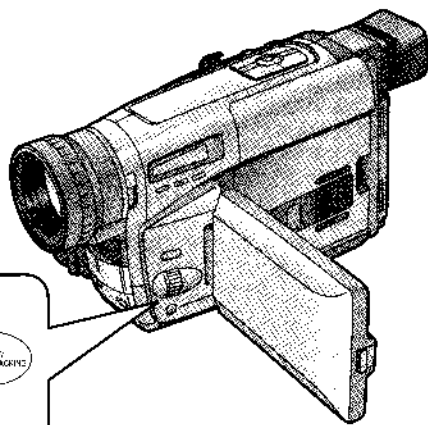
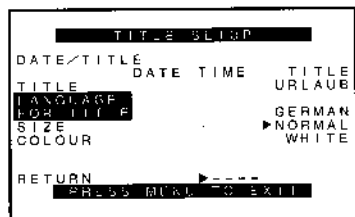
In the Mirror Mode, only the following indications can be displayed on the LCD Monitor and in the Finder:

- [●] : Recording Mode Indication
- [■●] : Recording Pause Mode Indication
- [▨] : Remaining Battery Indication
- [!] : General Warning/Alarm Indication

(In addition to these four indications, the Counter Indication and the Programme AE Mode Indications can also appear in the Finder.)

When you want to confirm other indications, return the LCD Monitor to position ① or ② shown in the illustration above. Especially when the [!] Indication is displayed, be sure to return the LCD Monitor to position ① or ② so that you can confirm the actual Warning/Alarm Indication.

- If you turn the LCD Monitor so that it faces forward, the Finder also automatically turns on. However, in the following cases, the Finder turns off:
  - Changing from the VCR to the Camera Mode.
  - Closing the LCD Monitor with the screen facing outward (as shown above ①).
- It is not possible to display and record the Date, Time and Title Indication in the Mirror Mode.



## 中文

### 將編排好的題名插入畫面中進行拍攝時

您可將 10 個預編排的題名之一插入拍攝的特別事件中，如婚禮或生日慶祝會等。這些題名可以使用 8 種語言。

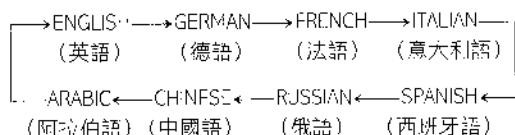
#### 選擇需要的語言

在顯示出 [TITLE SETUP](題名設定) 子菜單後... (→ 30)

**1** 轉動 [▲▼] 環，選擇 [LANGUAGE FOR TITLE](題名語言)。

**2** 按 [SET](設定) 鈕，選擇需要的語言。

- 語言將依下列順序進行改變：



**3** 按 [MENU](菜單) 鈕，退出菜單。

在您改變題名語言，日期/時間/題名指示 (→ 56) 或者改變題名 (→ 128)，題名尺寸 (→ 130) 或其顏色 (→ 128) 後，退出 [TITLE SETUP] 子菜單時日期/時間/題名指示仍將顯示。

## ENGLISH

### Recording with Pre-programmed Title Inserted in the Picture

You can insert one of 10 pre-programmed titles in recordings of special occasions such as weddings and birthday parties. These titles are available in 8 languages.

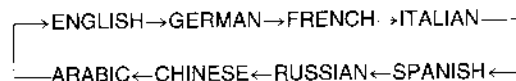
#### Selecting the Desired Language

After displaying the [TITLE SETUP] Sub Menu... (→ 30)

**1** Turn the [▲▼] Dial to select [LANGUAGE FOR TITLE].

**2** Press the [SET] Button to select the desired language.

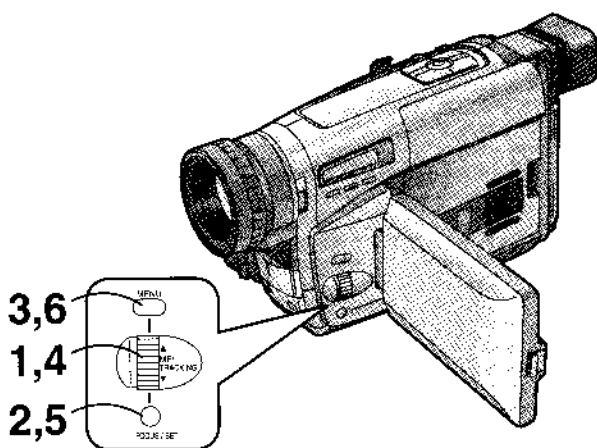
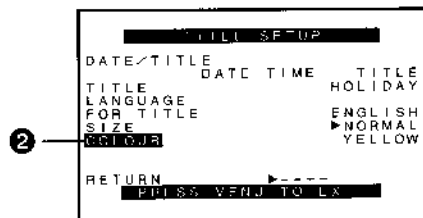
- The languages change in the following order:



**3** Press the [MENU] Button to exit the menu.

The Date/Time/Title Indication remains displayed when you exit the [TITLE SETUP] Sub-Menu after having change the language of the title, the type of Date/Time/Title Indication (→ 56), the title itself (→ 128), the size of the title (→ 130) or the colour of the title (→ 128).





## 中文

### 選擇希望的預設標題

在顯示出 [TITLE SETUP](題名設定) 子菜單後 ... (→ 30)

**1** 轉動 [▲▼] 環，選擇 [TITLE](題名) ①。

**2** 按 [SET](設定) 鈕，選擇需要的題名。

- 題名將依下列順序進行改變。  
(在其它可使用的語言中，題名也是以同樣的順序排列。)

[假日] → [生日快樂] → [婚礼] → [快樂家庭] →  
[聚会] → [結束] → [祝福] → [聖誕節] → [紀念日] →  
[新年快樂] → [假日] →

**3** 按 [MENU](菜單) 鈕，退出菜單。

### 選擇希望的預設標題的顏色

您可從 8 種題名顏色中選擇任一種。

在顯示出 [TITLE SETUP](題名設定) 子菜單後 ... (→ 30)

**4** 轉動 [▲▼] 環，選擇 [COLOUR](色彩) ②。

**5** 按 [SET](設定) 鈕，選擇需要的色彩。

- 題名色彩將依下列順序進行改變：

→ WHITE → YELLOW → MAGENTA → RED  
(白色) (黃色) (深紅色) (紅色)  
← BLACK ← BLUE ← GREEN ← CYAN  
(黑色) (藍色) (綠色) (藍綠色)

**6** 按 [MENU](菜單) 鈕，退出菜單。

## ENGLISH

### Selecting the Desired Pre-programmed Title After displaying the [TITLE SETUP] Sub-Menu... (→ 30)

**1** Turn the [▲▼] Dial to select [TITLE] ①.

**2** Press the [SET] Button to select the desired title.

- The titles change in the order shown below.  
(In the other available languages, they are arranged in the same order.)

[HOLIDAY] → [HAPPY BIRTHDAY] →  
[WEDDING] → [FAMILY] → [PARTY] →  
[THE END] → [CONGRATULATIONS] →  
[MERRY CHRISTMAS] → [HAPPY MEMORIES] →  
[HAPPY NEW YEAR] → [HOLIDAY] →

**3** Press the [MENU] Button to exit the menu.

### Selecting the Desired Colour of the Pre-programmed Title

You can select the colour of the title from among 8 colours.

After displaying the [TITLE SETUP] Sub-Menu... (→ 30)

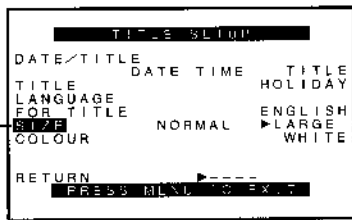
**4** Turn the [▲▼] Dial to select [COLOUR] ②.

**5** Press the [SET] Button to select the desired colour.

- The colours for the title change in the following order.

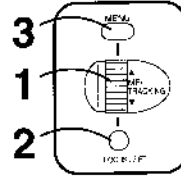
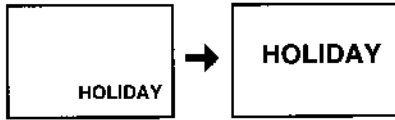
→ WHITE → YELLOW → MAGENTA → RED  
← BLACK ← BLUE ← GREEN ← CYAN

**6** Press the [MENU] Button to exit the menu.



1

2



3

1

2

## 中文

### 選擇希望的預設標題的尺寸

您可從 2 種題名指示中選擇任一種尺寸。

在顯示出 [TITLE SETUP](題名設定) 子菜單後... (→ 30)

- 1 轉動 [▲▼] 環，選擇 [SIZE](尺寸) ①。
- 2 按 [SET](設定) 鈕，選擇需要的尺寸 ([NORMAL] 或 [LARGE])。
  - 當您將題名尺寸從 [NORMAL](普通) 改為 [LARGE](大) 時，題名指示將如上 ② 所示，進行改變。
- 3 按 [MENU](菜單) 鈕，退出菜單。

- 在顯示大尺寸的標題時，即使下列各狀態已經啟動，其對應的指示也將不顯示：  
超級畫面穩定狀態指示、數位變焦狀態指示、數位效果狀態指示、手動白色平衡狀態指示、手動聚焦狀態指示、數位影像的色彩指示、0 Lux 夜景狀態指示。
- 如果您在 [TITLE SETUP](題名設定) 子菜單上的 [SIZE](題名尺寸) 中選擇了 [LARGE](大)，在您開始和停止拍攝時總是短暫顯示的大字 [RECORD](拍攝) 和 [PAUSE](暫停) 指示將不顯示。

### 在畫面中插入預設標題進行拍攝

在拍攝中，按 [DATE/TITLE](日期 / 題名) 鈕，使題名出現。

### 刪除題名時

按 [DATE/TITLE](日期 / 題名) 鈕，使題名消失。

## ENGLISH

### Selecting the Size of the Pre-programmed Title

You can choose either of 2 sizes for the title.

After displaying the [TITLE SETUP] Sub-Menu... (→ 30)

- 1 Turn the [▲▼] Dial to select [SIZE] ①.
- 2 Press the [SET] Button to select the desired size ([NORMAL] or [LARGE]).
  - When you change the title size from [NORMAL] to [LARGE], the Title Indication changes as shown above ②.
- 3 Press the [MENU] Button to exit the menu.

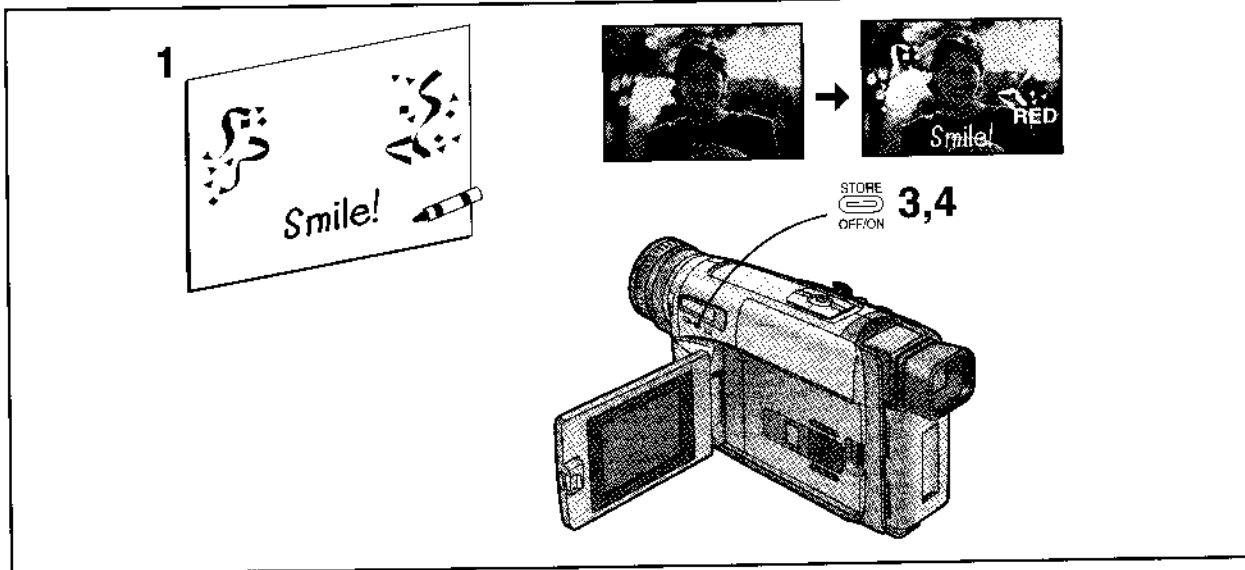
- When a large-size title is displayed, the following indications do not appear even if the corresponding modes are activated:  
Super Image Stabilizer Mode Indication, Digital Zoom Mode Indication, Digital Effects Mode Indications, Manual White Balance Mode Indication, Manual Focus Mode Indication, Colour Indication for Digital Image, 0 Lux Night View Mode Indication.
- If you set [SIZE] on the [TITLE SETUP] Sub-Menu to [LARGE], the large [RECORD] and [PAUSE] Indications, which usually appear briefly when you start or stop recording, do not appear.

### Recording with Pre-programmed Title Inserted In the Picture

During recording, press the [DATE/TITLE] Button to make the title appear.

### Deleting the Title

Press the [DATE/TITLE] Button to make the title disappear.



## 中文

### 創作自己的題名並將其插入拍攝中 (數位重疊功能)

該功能可讓您將手書題名、標誌牌和印刷題名的圖像(或對比強烈的某些類似目標物),儲存在攝錄影機的數位圖像記憶中。然後,您可將該圖像的黑色部分改為所需的色彩,將其重疊在拍攝中。

#### 將您獨自的標題存入數位影像記憶中

- 1** 準備好對比強烈的題名(例如用粗黑色標誌筆在書寫的文字等)。
- 2** 使攝錄影機處於錄影暫停狀態,將其對準題名。
  - 如果全自動狀態不能提供鮮明的圖像,請用手動調節進行變焦。(→ 110)
  - 當您打算捕捉小標題時,請使用微距放大功能。(→ 66)
  - 瞄準攝錄影機時,使標題位於屏幕中心,以免標題的邊緣被剪掉。
- 3** 按住 [STORE](儲存) 鈕 2 秒鐘以上。
  - 題名即被儲存在數位圖像記憶中,並持續顯示。
- 4** 輕按 [OFF/ON](關/開) 鈕,使標題消失。
  - 重複輕按 [OFF/ON](關/開) 鈕,將使標題交替出現和消失。

在您存入新的標題,取出電池,斷開交流轉接器,或電池電量不足時,存儲在數位影像記憶中的標題可能會自動取消。

## ENGLISH

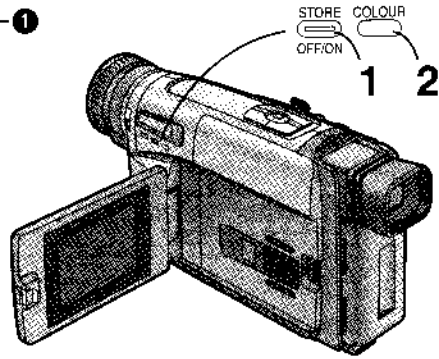
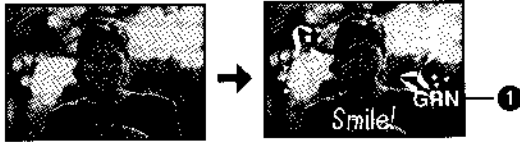
### Creating Your Own Titles and Inserting Them During Recording (Digital Superimposer Function)

This function lets you store the image of a handwritten title, signboard, printed title, (or some similar object with strong contrast) in the Movie Camera's digital image memory. You can then change the dark parts of this image to a desired colour and superimpose it during recording.

#### Storing Your Own Title in the Digital Image Memory

- 1** Prepare a title that has strong contrast (e.g. write with a thick black marker).
- 2** With the Movie Camera in the Recording Pause Mode, aim it at the title.
  - If the Full Auto Mode does not provide a sharp picture, adjust the focus manually. (→ 110)
  - When you want to capture a small title, use the Macro Close-up Function. (→ 66)
  - Aim the Movie Camera so that the title is in the centre of the screen to ensure that the title does not get clipped at the edges.
- 3** Press the [STORE] Button for more than 2 seconds.
  - The title is now stored in the digital image memory and it remains displayed.
- 4** Press the [OFF/ON] Button briefly to make the title disappear.
  - Pressing the [OFF/ON] Button briefly repeatedly makes the title appear and disappear.

The title stored in the digital image memory may be automatically cancelled when you store a new title, remove the Battery, disconnect the AC Adaptor, or when the Battery becomes discharged.



**中文**

為您獨自的標題選擇希望的顏色

- 1 輕按 [OFF/ON](關/開) 鈕，使標題出現。
- 2 重複按 [COLOUR](色彩) 鈕，直至顯示出需要的色彩 ❶。

• 題名用色彩將依下列順序進行改變：

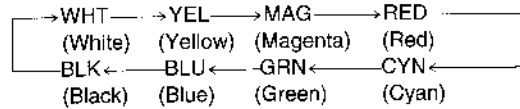


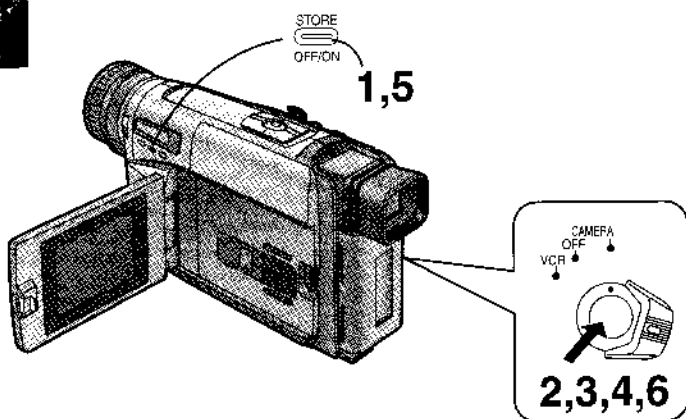
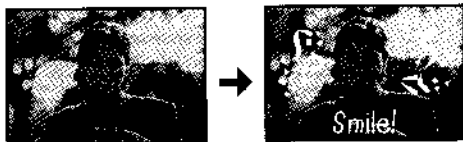
**ENGLISH**

Selecting the Desired Colour of Your Own Title

- 1 Press the [OFF/ON] Button briefly to make the title appear.
- 2 Press the [COLOUR] Button repeatedly until the desired colour ❶ is displayed.

• The colours of the title change in the following order:





## 中文

### 在拍攝的開始部分插入您獨自的標題

- 1** 輕按 [OFF/ON](關 / 開) 鈕，使標題出現。
  - 確認所示的色彩與想要的場景相配。如有必要，可以改變色彩 (→ 134)。
- 2** 按錄影開始 / 停止鈕，開始拍攝。
  - 若想在場景的持續拍攝中使題名消失，請按 [OFF/ON] 鈕。
- 3** 按錄影開始 / 停止鈕，停止拍攝。

### 在拍攝過程中插入您獨自的標題

- 4** 按錄影開始 / 停止鈕，開始拍攝。
- 5** 在您打算插入題名之處，按 [OFF/ON] 鈕，使題名出現。
  - 若想在場景的持續拍攝中使題名消失，請按 [OFF/ON] 鈕。
- 6** 按錄影開始 / 停止鈕，停止拍攝。

- 如果在顯示您保存在數位影像存儲器中的題名的同時使用數位淡化 1、數位淡化 2 或數位淡化 3 功能，您可以使題名與畫面同時淡化。
- 若題名存儲在數位圖像記憶中時，不能使用底片狀態。
- 關閉攝影機然後再打開時，與畫面一起顯示過的題名將不再出現。若使其重新出現，請按 [OFF/ON] 鈕。

## ENGLISH

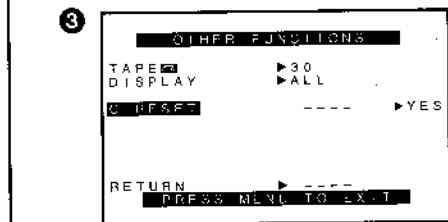
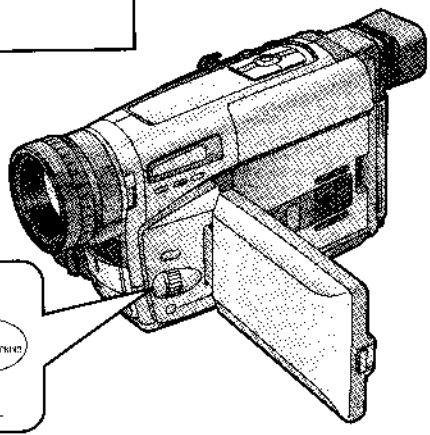
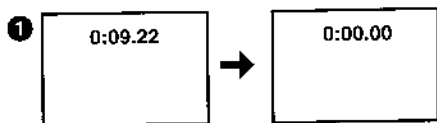
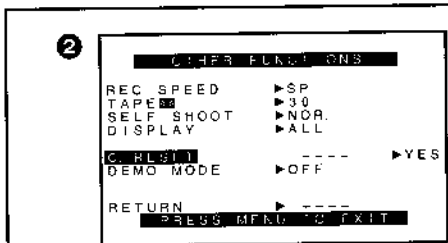
### Inserting Your Own Title at the Beginning of a Recording

- 1** Press the [OFF/ON] Button briefly to make the title appear.
  - Confirm that the colour indicated is suitable for the intended scene. If necessary, change the colour (→ 134).
- 2** Press the Recording Start/Stop Button to start recording.
  - To make the title disappear while recording of the scene continues, press the [OFF/ON] Button briefly.
- 3** Press the Recording Start/Stop Button to stop recording.

### Inserting Your Own Title During Recording

- 4** Press the Recording Start/Stop Button to start recording.
- 5** At the point where you want to insert the title, press the [OFF/ON] Button briefly to make the title appear.
  - To make the title disappear while recording of the scene continues, press the [OFF/ON] Button briefly.
- 6** Press the Recording Start/Stop Button to stop recording.

- By displaying the title which you stored in the digital image memory and using the Digital Fade 1, Digital Fade 2 or Digital Fade 3 Function, you can fade the title together with the picture.
- It is not possible to apply the Negative Effect when storing a title in the digital image memory.
- After turning the Movie Camera off and then on again, the title that had been displayed in the picture is no longer displayed. To make it appear again, press the [OFF/ON] Button briefly.



**中文**

**使用磁帶計時指示時**

磁帶計時器便於下列兩個目的：檢查用過的磁帶時間（下述）和使用記憶停止功能（→ 142）。

**檢查用過的磁帶時間時**

在拍攝和播放時，磁帶計數器將顯示已經過的磁帶時間。您可以隨時將指示復位（使計數器回到 [0:00.00] ①）。這樣，在開始拍攝或播放時將計數器復位後，您就可以檢查從復位點開始已經過的磁帶時間。

在顯示 [OTHER FUNCTIONS][其它功能] 子菜單後... (→ 30)

- 1 轉動 [▲▼] 環，選擇 [DISPLAY](顯示)。
- 2 按 [SET](設定) 鈕，選擇 [ALL](全部)。
- 3 轉動 [▲▼] 環，選擇 [C.RESET](計數器復位)。
- 4 按 [SET](設定) 鈕，選擇 [YES](是)。
- 5 按 [MENU](菜單) 鈕，退出菜單。

- 開始拍攝或放映時，將以小時、分鐘和秒鐘來表示用過的磁帶時間。在播放沒有錄影的部分時，該指示不會改變。
- 當您倒帶超過磁帶計時位置 [0:00.00] 時，磁帶計時指示的前面會出現負號 [-]。
- 當您取出錄影帶，取出電池或使用高速倒帶功能時，磁帶計數器指示將自動復位至 [0:00.00]。

- ②：攝錄影機狀態
- ③：放映機狀態

**ENGLISH**

**Using the Tape Counter Indication**

The Tape Counter Indication is convenient for the following 2 purposes: to check the Elapsed Tape Time (described below), and to use the Memory Stop Function (→ 142).

**Checking the Elapsed Tape Time**

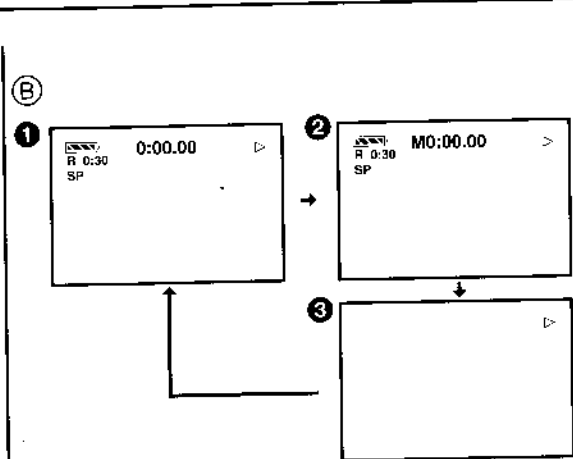
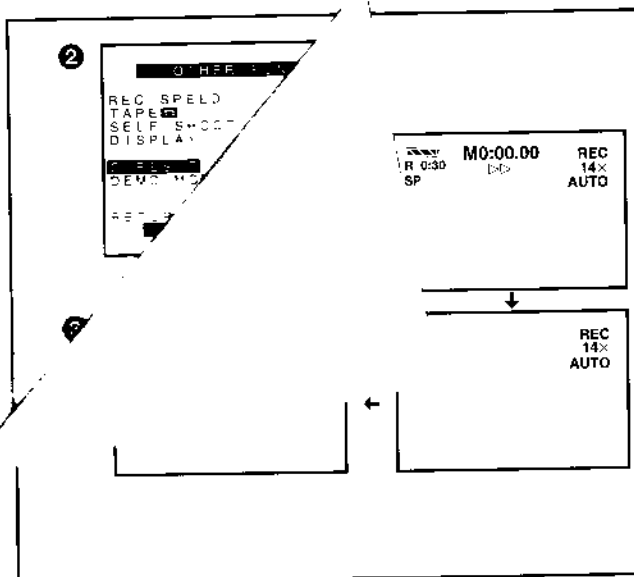
The Tape Counter Indication shows the elapsed tape time both during recording or playback. You can freely reset this indication (return the counter to [0:00.00] ①). Therefore, by resetting the counter to zero when you start recording or playback, you can check the tape time that has elapsed from that point.

After displaying the [OTHER FUNCTIONS] Sub-Menu... (→ 30)

- 1 Turn the [▲▼] Dial to select [DISPLAY].
- 2 Press the [SET] Button to select [ALL].
- 3 Turn the [▲▼] Dial to select [C.RESET].
- 4 Press the [SET] Button to select [YES].
- 5 Press the [MENU] Button to exit the menu.

- When recording or playback starts, the elapsed tape time is indicated in hours, minutes and seconds. During playback of parts of the tape on which no recording has been made, this indication does not change.
- If you rewind the tape further than the tape counter position [0:00.00], the minus sign [-] appears in front of the Tape Counter Indication.
- The Tape Counter Indication is automatically reset to [0:00.00] when you take out the cassette, remove the Battery or use the High-Speed Rewinding Function.

- ②: Camera Mode
- ③: VCR Mode



## 中文

### ■ 磁帶計時器指示的改變

通過改變 [VCR FUNCTIONS] 主菜單或 [CAMERA FUNCTIONS] 主菜單上 [OTHER FUNCTIONS] 子菜單中的 [DISPLAY] (顯示) 項的設置, 可以依上圖 ①-④ 所示改變計數器顯示狀態。

#### 攝錄影機狀態 (A)

- ① ALL: 已過磁帶時間指示 (初始設定)
- ② MEMORY: 記憶停止指示和已過磁帶時間指示 (→ 142)
- ③ PARTIAL: 無計數器指示  
僅會顯示幾個指示, 以便能夠清楚地看見畫面的所有部分。然而, 當您打開攝錄影機時, 所有的指示起初會出現幾秒鐘, 以告訴您所選擇的設定內容。  
• 這時, 如果您將攝錄影機切換至放影機狀態, 然後再切換回攝錄影機狀態, 磁帶計數器指示將被自動選擇為 [ALL]。
- ④ OFF: 無計時器指示  
在此狀態下, 僅會出現操作狀態指示和警告 / 報警指示。然而, 當打開攝錄影機時, 所有的指示會出現幾秒鐘, 以告訴您選擇了什麼設定。

#### 放影機狀態 (B)

- ① ALL: 已過磁帶時間指示 (初始設定)
- ② MEMORY: 記憶停止指示和已過磁帶時間指示 (→ 142)
- ③ OFF: 無計時器指示  
在此狀態下, 僅會出現操作狀態指示和警告 / 報警指示。

## ENGLISH

### ■ Changing the Tape Counter Indication

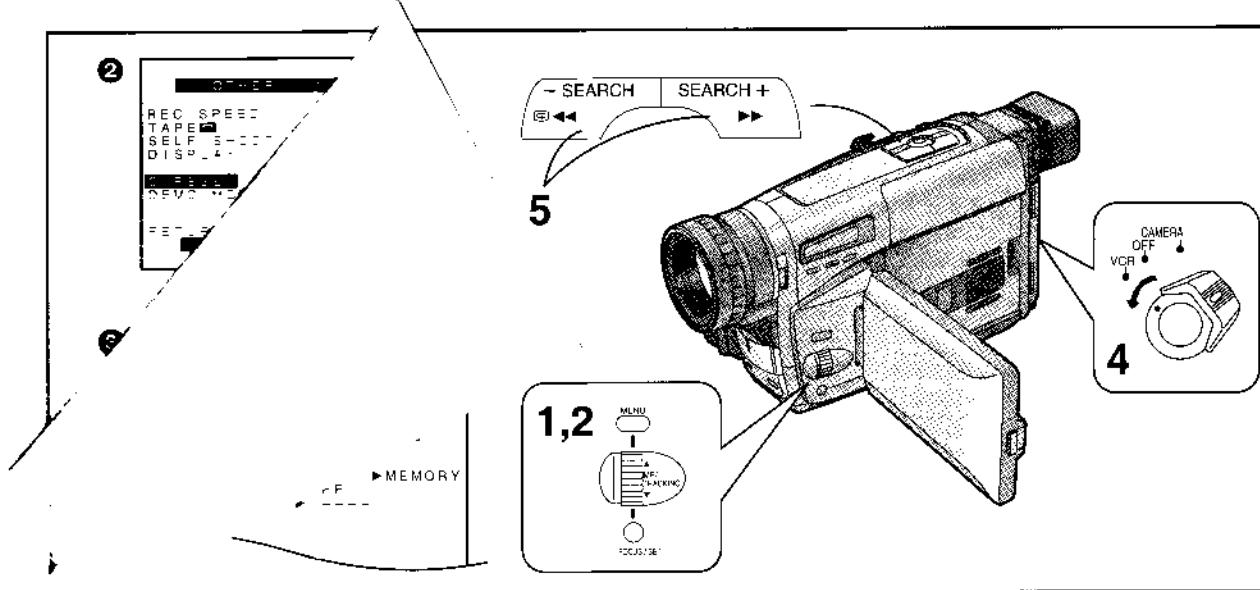
By changing the setting for [DISPLAY] on the [OTHER FUNCTIONS] Sub-Menu of the [VCR FUNCTIONS] or the [CAMERA FUNCTIONS] Main-Menu, the Counter Display Mode can be changed in the order shown in the above illustrations ①-④.

#### Camera Mode (A)

- ① ALL: Elapsed Tape Time Indication (initial setting)
- ② MEMORY: Memory Stop Indication and Elapsed Tape Time Indication (→ 142)
- ③ PARTIAL: No Counter Indication  
Only a few indications are displayed so that all parts of the picture can be seen clearly. However, when you turn on the Movie Camera, all indications initially appear for a few seconds to inform you of the selected settings.  
• In this condition, if you switch the Movie Camera over to the VCR Mode and then back to the Camera Mode, [ALL] is automatically selected for the Tape Counter Indication.
- ④ OFF: No Counter Indication  
In this mode, only the Operation Mode Indications and Warning/Alarm Indications can appear. However, when turning on the Movie Camera, all indications appear for a few seconds to inform you of the selected settings.

#### VCR Mode (B)

- ① ALL: Elapsed Tape Time Indication (initial setting)
- ② MEMORY: Memory Stop Indication and Elapsed Tape Time Indication (→ 142)
- ③ OFF: No Counter Indication  
In this mode, only the Operation Mode Indications and Warning/Alarm Indications can appear.



## 使用記憶停止功能時

影片播放時，在拍攝或放映中臨時給錄影帶位置作上標記，使您以後容易再簡單地尋找到該位置，以進行放映。

- 1 在您以後打算播放的磁帶位置，使磁帶計數器復原至零。(→ 138)
- 2 將 [CAMERA FUNCTIONS] 主菜單 ① 或 [VCR FUNCTIONS] 主菜單 ② 上 [OTHER FUNCTIONS] 子菜單中的 [DISPLAY](顯示)項設置在 [MEMORY](記憶)。
- 3 開始放映或錄影。
- 4 在放映或拍攝結束後：  
將 [CAMERA/OFF/VCR] 開關設置在 [VCR]。
- 5 按 [▶▶] 或 [◀◀] 鈕。  
在您將計數器復原至零的大致位置，錄影帶會自動停止。

- 在高速倒帶中，磁帶計數器將顯示 [0:00:00]。但是，此時將不啟動記憶停止功能。

## ENGLISH

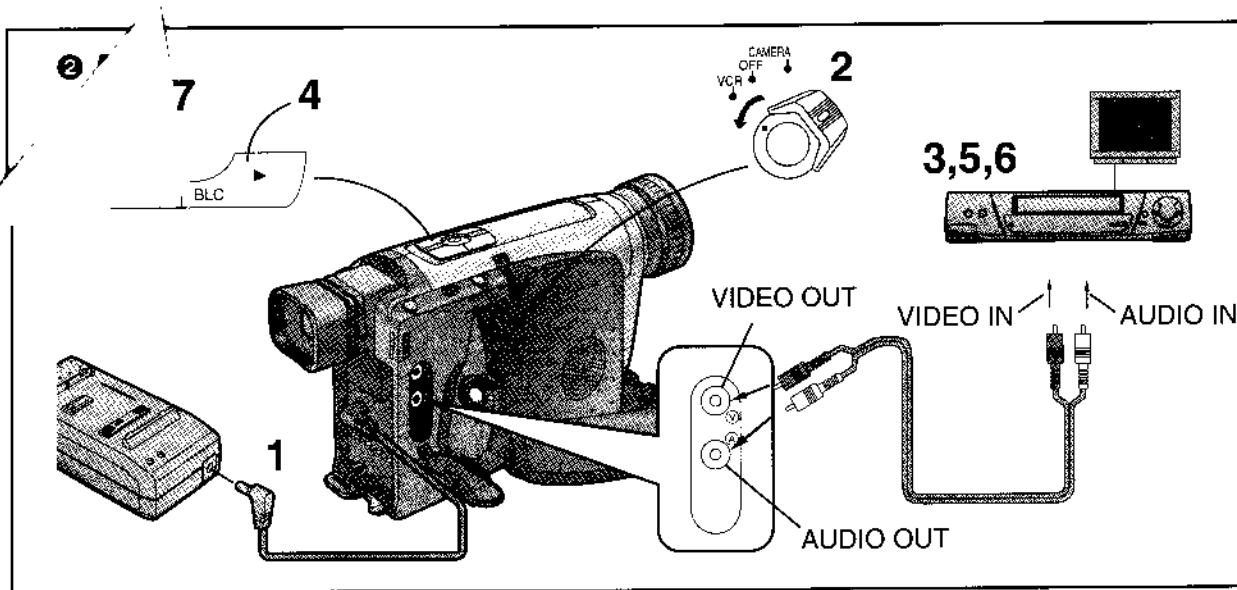
### Using the Memory Stop Function

This function is convenient for temporarily marking a tape position during recording or playback so that you can easily find it again later for playback.

- 1 Reset the Tape Counter to zero at the tape position from which you want to play back later. (→ 138)
- 2 Set [DISPLAY] on the [OTHER FUNCTIONS] Sub-Menu of the [CAMERA FUNCTIONS] ① or the [VCR FUNCTIONS] Main-Menu ② to [MEMORY].
- 3 Start playback or recording.
- 4 After playback or recording is finished:  
Set the [CAMERA/OFF/VCR] Switch to [VCR].
- 5 Press the [▶▶] or [◀◀] Button.  
The tape automatically stops approximately at the position at which you reset the counter to zero.

- During High-Speed Rewinding, the Tape Counter shows [0:00:00]. However, this does not activate the Memory Stop Function.





## 中文

### 拷貝 (複製)

連接音頻/影像纜線 (附件) 時, 可以用該攝錄影機, 將已錄的錄影帶複製在 VCR 上。

- 1 連接交流轉接器。
- 2 將已拍攝錄影帶裝入攝錄影機, 使其處於 VCR 狀態。
- 3 將未錄錄影帶插入 VCR (錄影機), 使其處於錄影暫停狀態。
- 4 開始攝錄影機的放影。
- 5 開始 VCR 的錄影。
- 6 在到達原來拍攝的結尾時:  
停止 VCR 的錄影。
- 7 停止攝錄影機的放影。

- 由於拷貝錄影帶的畫面質量略有降低, 所以建議您選擇標準速度 (SP 狀態) 進行拷貝。  
(SP 意思為標準放影。)
- 如果您的 VCR 具備編輯開關, 請將其啟動。這樣, 便可確保拷貝錄影帶的最佳畫面質量。

## ENGLISH

### Dubbing (Copying)

By connecting the AV Cable (supplied), you can copy the cassette recorded with this Movie Camera onto a VCR.

- 1 Connect the AC Adaptor.
- 2 Insert the recorded cassette into the Movie Camera and put it in the VCR Mode.
- 3 Insert an unrecorded cassette into the VCR and put it in the Recording Pause Mode.
- 4 Start playback on the Movie Camera.
- 5 Start recording on the VCR.
- 6 After reaching the end of the original recording:  
Stop recording on the VCR.
- 7 Stop playback on the Movie Camera.

- As the picture quality on the dubbed cassette is slightly reduced, we recommend that you select the standard speed (SP Mode) on the VCR for dubbing.  
(SP means Standard Play.)
- If your VCR is equipped with an Edit Switch, turn it on to ensure optimum picture quality of the dubbed cassette.

## 注意事項

### 攝錄影機的注意事項

如果發生操作異常(例如:本機冒煙或發出異味),請立即停止使用本機,並與專業維修人員洽詢。

#### ■ 為了防止火災、觸電和功能失常,請遵守下列各點:

- 勿拆卸攝錄影機或進行任何改裝。
- 勿使其濺水及觸及沙子。
- 請注意不要讓水(尤其是海水)或灰塵進入攝錄影機內。如果不慎讓海水濺到攝錄影機上,請將一塊軟布用清水浸濕並充分擰乾後,用其仔細擦拭攝錄影機機體。然後,再用一塊乾燥的軟布將機體整體徹底擦拭。
- 勿塞入任何異物。
- 使用中,勿用布蓋住。
- 勿使其受到強烈的振動或機械衝擊。
- 勿在有油煙或灰塵過多之處使用。
- 當雷電接近時,請停止使用攝錄影機。(如果正在使用交流轉接器,請將其從交流電源插座上拔下。)
- 勿在磁性設備附近使用。
- 勿靠近收音機或電視機使用。
- 使用中,勿使磁帶盒鬆動下。
- 切勿將鏡頭或電子尋像器直接對準太陽。否則;鏡頭會聚集光線而發熱,從而損壞內部精密零件,並為攝錄影機造成無法挽回的損失。
- 勿將其置於夏天封閉的汽車內。內部高溫之高可能會超過您的想像,從而可能會損害攝錄影機。
- 勿用水清洗。水可能會滲入攝錄影機,並引起觸電或火災。
- 勿使用清潔劑、揮發劑、稀釋劑或其他化學藥品進行清潔。這些物質不僅會改變攝錄影機機殼的色彩或損壞表面,而且,如果附近有明火或加熱器時,還可能增加火災危險。
- 絕對勿將攝錄影機置於高溫之下。

#### ■ 攝錄影機的存放注意事項

存放之前,請取出錄影帶和電池。

避免存放於下列場所:

- 高溫或高濕之處  
推薦溫度: 15°C - 25°C  
推薦濕度: 40% - 60%
- 暴露在直射陽光之處
- 直接與橡膠或塑料物品長期接觸之處
- 兒童可觸摸之處

#### 交流轉接器的注意事項

##### ■ 請遵守下列各點:

- 只能用於指定的攝錄影機和電池。
- 勿用濕手進行處理。  
拔掉交流電源線時,請握住插頭外拉,而不要拉扯電源線。
- 請勿過分彎折或改造電源線。
- 不能過於靠近收音機、電視機等進行操作。

## Precautions

### Precautions for the Movie Camera

In the event of abnormal operation (e.g. if the unit emits smoke or an unusual smell), immediately stop operating the unit and consult qualified service personnel.

#### ■ To prevent fire, electric shock and malfunction, observe the following points:

- Do not disassemble the Movie Camera or make any alterations to it.
- Protect against spray water and sand.
- Take care that water splashes (especially seawater) or dust do not enter the Movie Camera. If seawater has accidentally splashed onto the Movie Camera, moisten a soft cloth with tap water, wring it out well and carefully wipe the camera body with it. Then thoroughly wipe it with a soft, dry cloth.
- Do not insert any foreign objects.
- Do not cover with a cloth during use.
- Do not subject to strong vibrations or mechanical shocks.
- Do not use in places with oily smoke and a lot of dust.
- If a thunderstorm approaches, stop using the Movie Camera. (If you are using the AC Adaptor, disconnect it from the AC mains socket taking care not to touch any metal parts.)
- Do not use near magnetized equipment.
- Do not use near a radio or TV.
- Do not use with the cassette compartment facing down.
- Do not aim the Lens or Finder directly at the sun; the lens collects light and the resulting heat could deform internal precision parts and cause irreparable damage to the Movie Camera.
- Do not leave in a closed car on a summer day. The inside temperature becomes higher than you imagine and this could damage the Movie Camera.
- Do not wash with water. Water might leak into the Movie Camera and cause an electric shock or fire.
- Do not use a cleaning fluid, benzine, thinner or other chemicals for cleaning. They might not only change the colour and damage the surface of the camera body, but might also increase the risk of fire if there is an open flame heater nearby.
- Never leave the Movie Camera in places with high temperature.

#### ■ Precautions for Storing the Movie Camera

Be sure to take out the cassette and remove the Battery before storing.

Avoid the following places:

- Places with high temperature and high relative humidity  
Recommended temperature: 15°C - 25°C  
Recommended relative humidity: 40% - 60%
- Places exposed to direct sunlight
- In direct contact with rubber or plastic products for a long time
- In reach of children

#### Precautions for the AC Adaptor

##### ■ Observe the following points:

- Use only for the specified Movie Camera and Battery.
- Do not handle with wet hands.  
To unplug the AC Mains Lead, be sure to pull it out by the plug, not by the cable.
- Do not forcefully bend the cables or alter them.
- Do not operate very close to a radio, TV etc.

## 電池注意事項

電池之所以能產生電能，是以化學反應為基礎的。如果對電池處理不當，則可能引起漏電、溫度過高，甚至發生火災或爆炸。

### ■ 請遵守下列各點：

- 給電池充電時，只能使用專用的交流轉接器或汽車電池充電器，且只能將該電池用於本攝錄影機。
- 攝錄影機使用結束後，請取出電池。  
如果將電池留在攝錄影機內，即使將 [CAMERA/OFF/VCR] 開關設至 [OFF]，也仍將消耗少量電力，且會減少電池的電量。如果將電池放在攝錄影機內時間過長，可能使其過度放電，則可能導致無法充電。
- 勿讓鑰匙、項鍊之類的金屬物體與電池端子相碰。  
否則會發生短路，並發熱，從而引起電池爆炸。當儲存或將電池放在背包中攜帶時，應特別小心。
- 勿使電池變形或改造電池。
- 即使正確地充電後，用於平常使用的操作時間也太短時，說明電池已經到達其使用壽命。
- 若電池過熱，保護功能會啟動，將使電池暫時停止操作。
- 勿將電池投入火中。  
否則可能會引起爆炸。

### ■ 電池的儲存注意事項

避免置於下列場所，否則將縮短電池的使用壽命：

- 置於特別高溫或高濕之處  
溫度：15°C–25°C  
相對濕度：40%–60%
- 置於油煙和灰塵過多之處  
電池端子將生鏽。
- 如果長時間儲存電池時，請進行放影或其它操作，使電池的剩餘電量完全用光。然後將其從攝錄影機中取出，並存放起來。建議您約每年重新啟用一次電池，將其充電，然後在重新存放之前，將其用盡。

## 錄影帶的注意事項

當您結束使用攝錄影機時，請將錄影帶倒轉到頭，並其從攝錄影機中取出錄影帶。如果長時間存放錄影帶時，至少每年應將其快進然後倒帶一次，以便錄影帶接觸到新鮮空氣。

為了防止錄影帶盒變形和畫面和音質的降低，請遵守下列各點。

- 勿讓錄影帶遭受強烈振動或機械衝擊。
- 勿置於磁性設備附近。
- 避免溫度將可能昇得人高之處。

## Precautions for the Battery

The Battery's ability to generate electric energy is based on chemical reaction. If the Battery is incorrectly handled, it could cause leakage, excessive rise in temperature, fire or explosion.

### ■ Observe the Following Points:

- Use only the specified AC Adaptor or Car Battery Charger to charge the Battery, and use the Battery only for this Movie Camera.
- When you have finished using the Movie Camera, be sure to remove the Battery.  
If you leave the Battery attached to the Movie Camera, a small amount of electricity is consumed even if the [CAMERA/OFF/VCR] Switch is set to [OFF], and this reduces the Battery's charge. Leaving the Battery attached to the Movie Camera for a very long time could discharge it excessively and this could make charging impossible.
- Do not allow metal objects such as keys and necklaces to touch the battery terminals.  
Short-circuiting may occur and generate heat, and this could cause the Battery to explode. Be especially careful when storing or carrying the Battery in a bag.
- Do not deform or alter the Battery.
- When the operation time even after proper charging is too short for normal use, the service life of the Battery has reached its end.
- If the Battery becomes too warm, a protection function is activated and it puts the Battery temporarily out of operation.
- Do not throw the Battery into a fire.  
This could cause it to explode.

### ■ Precautions for Storing the Battery

Avoid the following places, as they could shorten the service life of the Battery:

- Places with extremely high temperature and high relative humidity  
Recommended temperature: 15°C–25°C  
Recommended relative humidity: 40%–60%
- Places with oily smoke and a lot of dust  
The terminals of the Battery might rust.
- Before you store the Battery for a long time, perform playback or other operations to completely use up the remaining charge in the Battery. Then remove it from the Movie Camera and store it. We recommend that you reactivate the Battery about once a year by charging it and then completely using up the charge before storing it again.

## Precautions for the Cassette

When you have finished using the Movie Camera, rewind the tape to the beginning and take the cassette out of the Movie Camera. If you store the cassette for a long time, fast-forward it and then rewind it at least once a year to expose the tape to fresh air.

Observe the following points to prevent deformation of the cassette case and deterioration of the picture and sound quality.

- Do not subject the cassette to strong vibration or mechanical shocks.
- Do not place it near magnetized equipment.
- Avoid places where the temperature can become very high.

## 凝結濕氣的原因和處理方法

當攝錄影機內部和錄影帶上已經凝結了濕氣時，不僅無法進行拍攝，而且，錄影帶還可能與磁頭保持接觸，從而導致攝錄影機損壞。

### ■ 凝結濕氣的主要原因

- 將攝錄影機突然從冷環境移到熱環境時。
- 將攝錄影機從有空調的汽車和房屋內，拿到室外時。
- 當在冷房間中打開加熱器時。
- 當攝錄影機擺在空調機的冷風之下時。
- 當攝錄影機處於有蒸氣、非常熱或很潮濕的地方時。

### ■ 濕氣的症狀

當打開攝錄影機電源，濕氣指示 [U10/☒] 會出現於電子尋像器中。（幾秒鐘後，攝錄影機將自動關閉電源。）

### ■ 處理方法如下：

1. 取出錄影帶。
2. 讓磁帶室打開，並等待幾小時。
3. 等幾個小時後，再打開攝錄影機並確認濕氣指示是否還顯示。  
為了確保安全，請再等 1 小時左右。

### ■ 為了防止凝結濕氣

將攝錄影機從非常冷的環境帶到熱地方時，應該將攝錄影機放入密封的塑料袋或類似物品內，保存 1 ~ 2 個小時後再加以使用。

### ■ 當鏡頭上出現霧氣時

請打開攝錄影機，等待 1 小時左右，直到攝錄影機已經達到與環境相同的溫度為止。

## 影像磁頭髒污和處理方法

如果影像磁頭被灰塵弄髒時，畫質會降低。

### ■ 影像磁頭髒污的症狀

- 打開攝錄影機時，在頭幾秒鐘內，[U11/☒] 指示會出現在尋像器中。
- 當在攝錄影機上放影，並在連接的電視機上觀看畫面時，畫面上出現白色雜波條紋。然而，如果磁頭特別髒時，則可能完全看不見畫面。

### ■ 處理方法如下：

請用影像磁頭清潔錄影帶，來清潔磁頭。

要小心地依說明書進行操作。否則，清潔過多可能會磨損磁頭。若清潔後，播放的畫面仍不清晰，這說明影像磁頭已經磨損。請諮詢專業維修人員。

## Causes of Condensation and Remedy

When condensation has formed inside the Movie Camera and on the tape, recording becomes impossible. In addition, the tape might remain in contact with the heads and this could seriously damage the Movie Camera.

### ■ Main Causes of Condensation

- When the Movie Camera is brought from a cold to a warm place.
- When the Movie Camera is taken outdoors from inside an air-conditioned car or house.
- When the heating is turned on in a cold room.
- When the Movie Camera is exposed to the cold breeze from an air-conditioner.
- When the Movie Camera is in a very hot or humid place or in a place with steam.

### ■ Symptoms of Condensation

When turning on the Movie Camera, the Condensation Indication [U10/☒] appears.  
(A few seconds later, the Movie Camera automatically turns itself off.)

### ■ Remedy as Follows:

1. Take out the cassette.
2. Keep the Cassette Compartment open and wait a few hours.
3. A few hours later, turn on the Movie Camera and confirm that the Condensation Indication is not displayed any more. For added safety, wait about 1 more hour.

### ■ To Prevent Condensation from Forming

When bringing the Movie Camera from a very cold to a warm place, keep it in a tightly closed plastic bag or something similar for 1 to 2 hours before using it again.

### ■ When the Lens Is Fogged up

Turn the Movie Camera on and wait for about 1 hour until it has reached about the same temperature as its surrounding.

## Video Head Clogging and Remedy

If the video heads become dirty and clogged with dust, the picture quality deteriorates.

### ■ Symptoms of Dirty Video Heads

- When turning on the Movie Camera, the [U11/☒] Indication appears for the first few seconds.
- When playing back a cassette on the Movie Camera and watching the picture on a connected TV, white noise bars appear in the picture. However, if the heads are extremely dirty, the playback picture cannot be seen at all.

### ■ Remedy as Follows:

Use a video head cleaning cassette to clean the heads. Carefully follow the instructions for its use as too much cleaning wears down the heads. If the playback picture is not clear after cleaning, it means that the video heads are worn out. Consult qualified service personnel.

## 白色平衡 (色調) 調節的工作原理

影像拍攝是在各種不同的光源下進行：從作為主要自然光源的陽光，至範圍廣泛的人工光源，如熒光燈等。由於這些都各有不同的色溫，因此會給目標物的色彩帶來微妙的色調差異。

人眼可以輕易地適應各種光源，甚至在不同的光線下，也能識別具有同樣色彩的目標物。

然而，攝錄影機的眼睛（鏡頭）還無法適應光線變化和照明影響。所以，根據光源不同，拍攝的畫面可能會偏藍或泛紅。

為了使光線影響減至最低，需要進行所謂的白色平衡調節。

### ■ 自動白色平衡

該攝錄影機可提供自動白色平衡調節和手動白色平衡調節。

當攝錄影機處於全自動狀態時，攝錄影機的內部系統會自動決定光源的溫度，並對目標物的色調進行相應的補償。白色是決定色調的基本色彩。由於此調節是以白色為基礎而進行的，所以被稱為白色平衡調節。幾種光源的最佳設定被儲存在攝錄影機的記憶中。內部微電腦會將來自攝錄影機前部的白色平衡傳感器接收的光線色溫，與記憶中儲存的色彩進行比較，選擇用於最接近之色調的設定值。

請勿用手遮住白色平衡傳感器（→ 12）。

### ■ 手動白色平衡

儘管該攝錄影機在記憶中儲存了幾個光源的最佳設定值，可正確地判斷白色，但是卻無法應付所有的光源。所以，在無法用自動白色平衡調節進行正確調節的光源類型（→ 104, 108）下拍攝時，請使用手動白色平衡調節。（→ 106）

## How the White Balance (Tint) Adjustment Works

Video recording takes place under various light sources, from sunlight as the main natural light source to a wide range of artificial light sources such as fluorescent lamps. As each of these light sources has a different colour temperature, each of them gives the colours of the subject a slightly different tint. Human eyes can easily adjust to different kinds of lighting and recognize an object as having the same colour, even under different light sources.

The eye of the Movie Camera (lens), however, cannot adapt to the change in lighting and is influenced by the lighting.

Therefore, depending on the light source, the picture would be recorded with a bluish or reddish tint. To minimize the influence of the lighting on the colours of the subject, an adjustment called White Balance Adjustment is necessary.

### ■ Auto White Balance

This Movie Camera offers both Auto White Balance Adjustment and Manual White Balance Adjustment. When the Movie Camera is in the Full Auto Mode, the internal system of the Movie Camera automatically determines the temperature of the light and compensates the tint of the subject accordingly. White is the basic colour by which the tint is determined. Because this adjustment is performed based on the white colour, it is called White Balance Adjustment. The optimum settings for several light sources are stored in the memory of the Movie Camera. The internal microcomputer compares the colour temperature of the light received by the White Balance Sensor positioned on the front of the Movie Camera with the colour stored in memory, and selects the setting for the most similar tint.

Be careful not to cover the White Balance Sensor (→ 12) with your hand, etc.

### ■ Manual White Balance

Although this Movie Camera stores the optimum settings for several light sources in memory to correctly judge the white colour, it cannot cope with all light sources. Therefore, to record under those types of lighting (→ 104, 108) which cannot be correctly adjusted with Auto White Balance Adjustment, use Manual White Balance Adjustment. (→ 106)

## 聚焦調節的工作原理

如果您用放大鏡觀看目標物，使其靠近或離開您的眼睛時，將會找到目標物清晰可見的一點。聚好焦或已聚焦意味着可以最清晰和鮮明地看見目標物。鏡頭與光線能聚集在一點之間的距離，稱為焦距或聚焦長度，它取決於鏡頭的尺寸和形狀。

人眼也有鏡頭，當我們觀看距離不同的目標物時，這些鏡頭的形狀會自動改變，使我們總能看清這些目標物。

### ■ 自動聚焦調節

目標物的圖像通過鏡頭進入攝錄影機，然後被轉換為電子信號（影像信號）錄製在錄影帶上。以此信號為基礎，自動聚焦系統將自動前後移動聚焦鏡頭來調節焦距。

將聚焦調節電子尋像器中央部分的目標物。

## How the Focus Adjustment Works

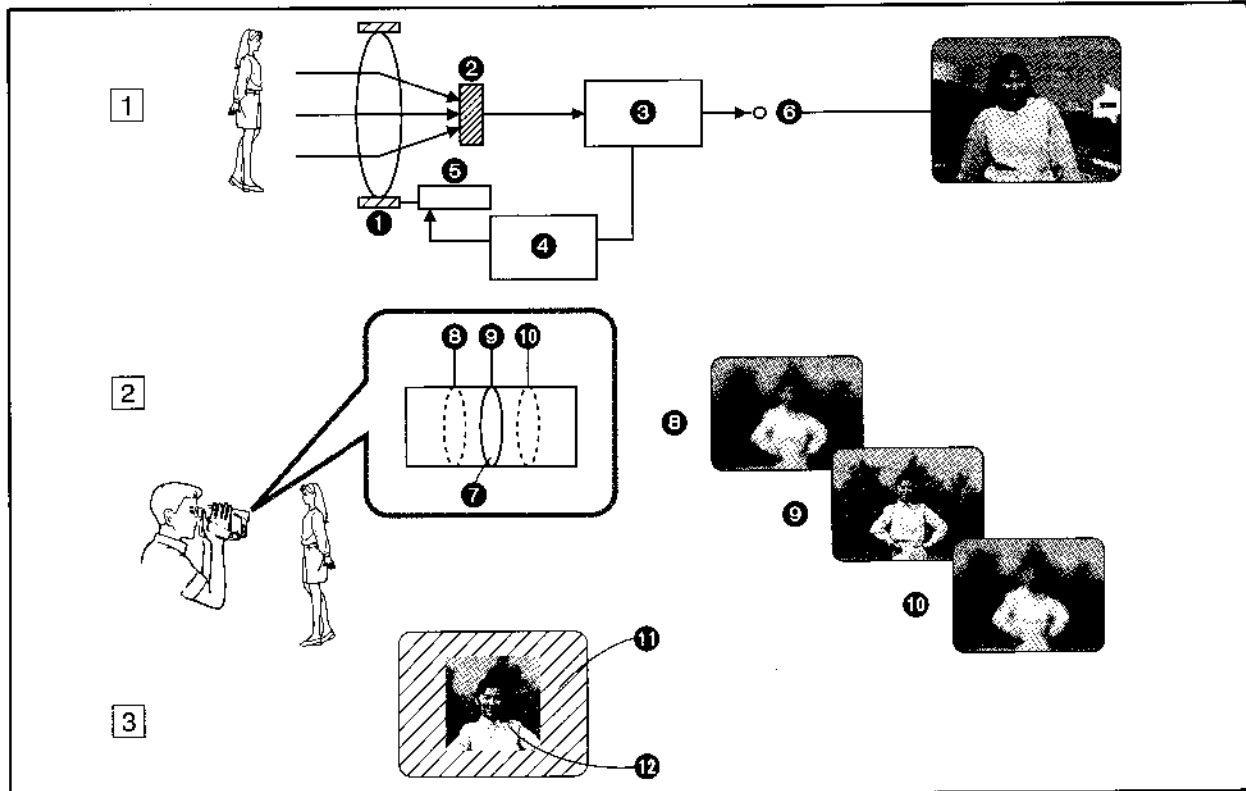
If you look at an object through a magnifying glass and move closer or further away from your eye, you will reach a point where the object becomes clearly visible. Being focused or in focus means that the subject can be seen with optimum clarity and sharpness. The distance between the lens and the point where the rays of light come together is called Focal Distance or Focal Length and depends on the size and shape of the lens.

Human eyes have lenses too, and when we look at objects at different distances, the shape of these lenses changes automatically so that we can always see the objects clearly.

### ■ Auto Focus Adjustment

The image of the subject enters the Movie Camera through the lens and is converted into an electrical signal (video signal) for recording onto tape. Based on this signal, the Auto Focus System automatically adjusts the focal distance by moving the focusing lens forward or backwards.

The focus is adjusted on the subject in the centre of the Finder.



## 中文

### ■ 自動聚焦功能的功能示意圖

- |                   |             |
|-------------------|-------------|
| ① 聚焦鏡頭            | ② CCD 圖像傳感器 |
| ③ 信號處理器           | ④ 微電腦       |
| ⑤ 聚焦鏡頭馬達          | ⑥ 用於拍攝的影像信號 |
| ⑦ 聚焦鏡頭            | ⑪ 電子尋像器屏幕   |
| ⑫ 自動聚焦功能調節聚焦的圖像區域 |             |

當您將攝錄影機對準想拍攝的目標物時，微電腦將（依 CCD 圖像傳感器收到的畫面信號中的垂直輪廓信息為基礎）判斷畫面中央的目標物是否已經聚焦。如果未得到最佳聚焦，它將從以前的聚焦設定值 ⑧ 或 ⑩ 開始，一點一點地快速地移動聚焦鏡頭，直至目標物的垂直輪廓變得最清晰 ⑨ 為止。

- 由於該攝錄影機是以目標物的垂直輪廓為基礎來調節聚焦，所以當目標物的垂直輪廓微弱時，將無法得到精確的聚焦（→ 104）。
- 攝錄影機的自動聚焦系統不像一般的人眼，它無法從遠處開始拉近目標物時，立即改變聚焦。

## ENGLISH

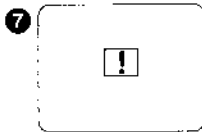
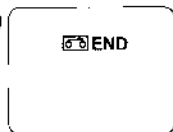
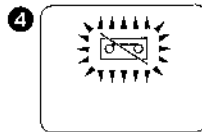
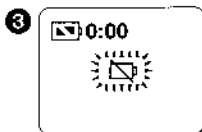
### ■ Functional Diagram of the Auto Focus Function

- |   |                                |
|---|--------------------------------|
| ① Focusing Lens   | ② CCD Image Sensor             |
| ③ Signal Processing   | ④ Microprocessor               |
| ⑤ Focusing Lens Motor   | ⑥ Picture Signal for Recording |
| ⑦ Focusing Lens   | ⑪ Finder Screen                |
| ⑫ Image area on which the Auto Focus Function adjusts the focus |                                |

When you aim the Movie Camera at the subject that you want to record, the microprocessor determines (based on the information about the vertical contours in the picture signal received by the CCD Image Sensor) whether the subject in the middle of the picture is properly focused. If not optimally focused, it quickly moves the focusing lens in tiny steps from the previous focus setting ⑧ or ⑩ until the vertical contours of the subject become sharpest ⑨.

- As this Movie Camera automatically adjusts the focus based on the information on the subject's vertical contours, precise focusing is not possible for subjects with weak vertical contours (→ 104).
- Unlike the human eye, the Movie Camera's Auto Focus System cannot change the focus from a distant to a close subject instantaneously.

1



## 中文

### 尋像器指示

#### ■ 警告 / 報警指示

##### ❶ 凝結瀟氣 (→ 150)

##### ❷ 影像磁頭髒污 (→ 150)

##### ❸ 剩餘電池電力

當電池電力耗盡時，攝錄影機將自動關機。請換上一個充足電池。

##### ❹ 錄影帶

未插入錄影帶。或插入錄影帶上的保險片被去掉。請插入保險片完好的錄影帶。

##### ❺ 鈕扣式電池 (→ 52)

鈕扣式電池已耗盡。更換一個新的鈕扣式電池。

##### ❻ 錄影帶盡頭

當錄影帶走到盡頭時，會出現該指示。請插入新的錄影帶。

##### ❼ 一般警告 / 注意指示

如果您在液晶顯示監視器朝向前方時，使用鏡面狀態 (→ 124) 進行拍攝，將出現此指示，以取代實際的警告 / 報警指示。

## ENGLISH

### Indications

#### ■ Warning/Alarm Indications

##### ❶ Condensation (→ 150)

##### ❷ Video Head Clogging (→ 150)

##### ❸ Remaining Battery Power

When the remaining battery power is used up, the Movie Camera automatically switches off. Replace the Battery with a fully charged one.

##### ❹ Cassette

No cassette is inserted. Or the tab of the inserted cassette is broken out. Insert a cassette with an intact tab.

##### ❺ Button-type Battery (→ 52)

The button-type Battery is exhausted. Replace it with a new one.

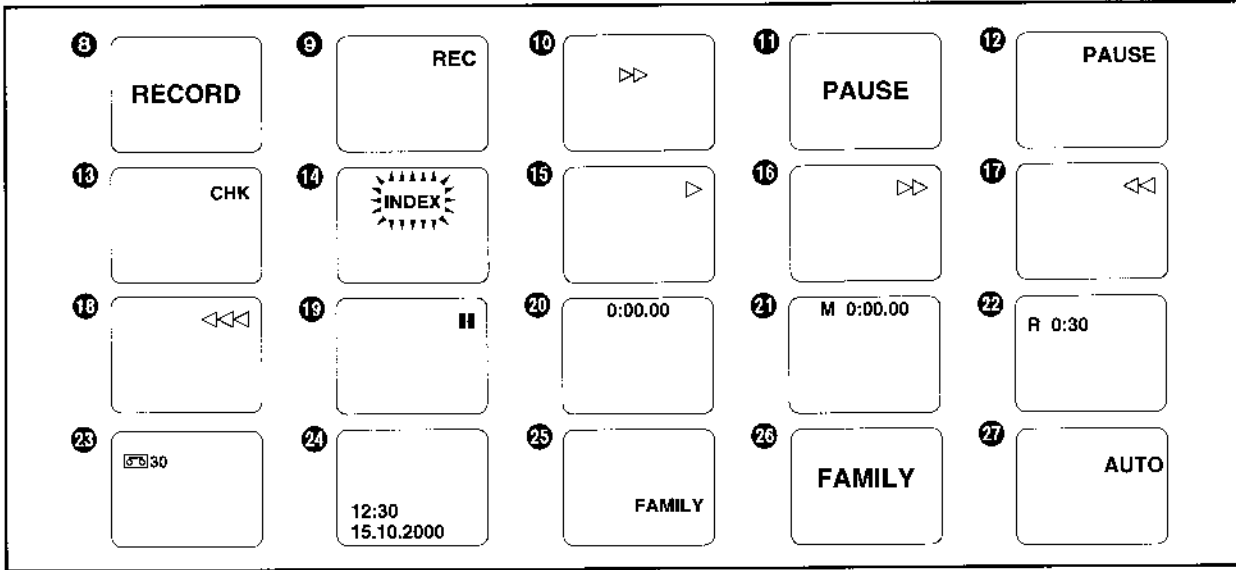
##### ❻ End of the Tape

When the tape has reached its end, this indication appears. Insert a new cassette.

##### ❼ General Warning/Alarm Indication

If you record with the LCD Monitor facing forward using the Mirror Mode (→ 124), this indication appears instead of the actual Warning/Alarm Indication.





## 中文

### ■ 拍攝和放影指示

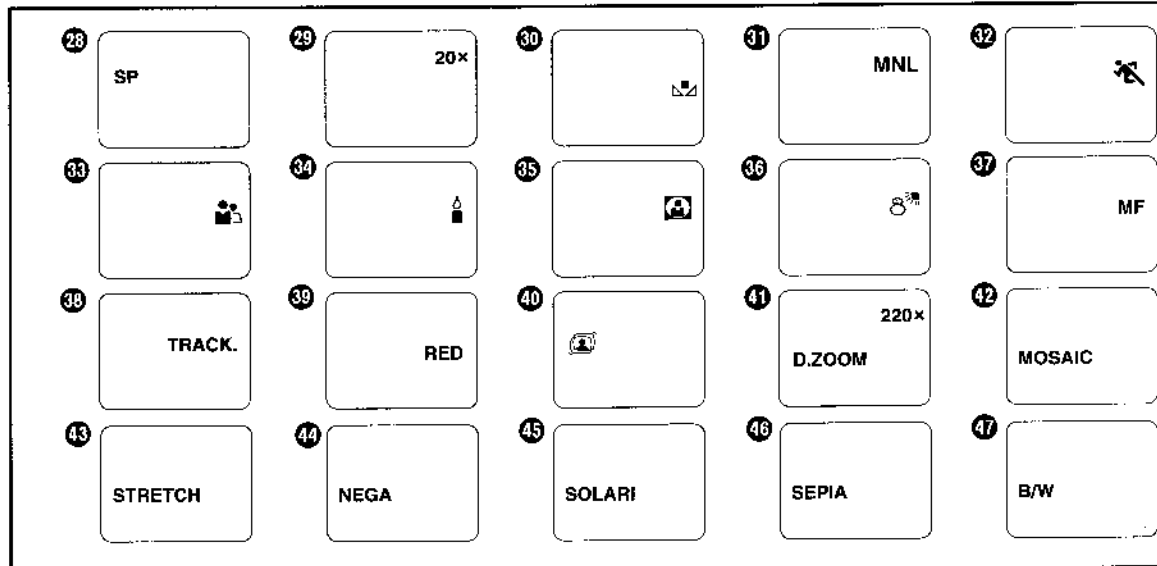
- 8 拍攝狀態 (大的指示) (→ 58)
- 9 拍攝狀態 (小的指示) (→ 58)
- 10 錄影帶運行狀態 (→ 58)
- 11 拍攝暫停狀態 (大的指示) (→ 58)
- 12 拍攝暫停狀態 (小的指示) (→ 58)
- 13 拍攝檢查狀態 (→ 62)
- 14 索引信號拍攝狀態  
下列情況下，本機會自動拍攝索引信號 (在拍攝中，[INDEX] 指示會短暫閃爍)：  
  - 在連接交流轉接器或裝上電池後開始拍攝時。
  - 插入錄影帶後開始拍攝時。
  - 從放映機轉變為攝錄影機狀態，然後開始拍攝時。
 由於拍攝了索引信號，在具備 VHS 索引尋影或放頭掃描功能的 VCR (錄影機) 上放影，便可利用這些功能。  
(請參看 VCR 的使用說明書。)

- 15 放影狀態 (→ 68)  
攝錄影機尋影狀態 (→ 62)
- 16 快進 / 快進尋影狀態 (→ 78)
- 17 倒帶 / 倒帶尋影狀態 (→ 78)  
攝錄影機尋影狀態 (→ 62)
- 18 高速倒帶狀態 (→ 76)
- 19 靜止放影狀態 (→ 78)
- 20 磁帶計時器用過的磁帶時間 (→ 138)  
當錄影帶倒轉超過位置 [0:00.00] 時，用過磁帶時間指示的前面會出現負號 [-]。
- 21 啟動了記憶停止功能的磁帶計時器 (→ 142)
- 22 磁帶剩餘時間 (→ 46)
- 23 磁帶長度 (→ 44)
- 24 日期和時間 (→ 56)
- 25 題名 (小的指示) (→ 130)
- 26 題名 (大的指示) (→ 130)
- 27 全自動狀態 (→ 58)

## ENGLISH

### ■ Recording and Playback Indications

- 8 Recording Mode (large indication) (→ 58)
- 9 Recording Mode (small indication) (→ 58)
- 10 Tape Movement during Recording (→ 58)
- 11 Recording Pause Mode (large indication) (→ 58)
- 12 Recording Pause Mode (small indication) (→ 58)
- 13 Recording Check Mode (→ 62)
- 14 Index Signal Recording Mode  
An index signal is automatically recorded (and the [INDEX] Indication flashes briefly while it is being recorded) when you:  
  - Start recording after connecting the AC Adaptor or attaching the Battery.
  - Start recording after inserting a cassette.
  - Start recording after changing from the VCR to the Camera Mode.
 The recording of index signals makes it possible to use the VHS Index Search or Intro Scan Function during playback on a VCR equipped with these functions.  
(Refer to the operating instructions of your VCR.)
- 15 Playback Mode (→ 68)  
Camera Search Mode (→ 62)
- 16 Fast Forward/Cue Mode (→ 78)
- 17 Rewind/Review Mode (→ 78)  
Camera Search Mode (→ 62)
- 18 High-Speed Rewind Mode (→ 76)
- 19 Still Playback Mode (→ 78)
- 20 Elapsed Tape Time (→ 138)  
When the tape is rewound further than the position [0:00.00], the minus sign [-] appears in front of the Elapsed Tape Time Indication.
- 21 Elapsed Tape Time with activated Memory Stop Function (→ 142)
- 22 Remaining Tape Time (→ 46)
- 23 Tape Length (→ 44)
- 24 Date and Time (→ 56)
- 25 Title (small indication) (→ 130)
- 26 Title (large indication) (→ 130)
- 27 Full Auto Mode (→ 58)

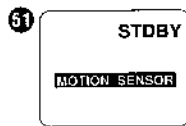
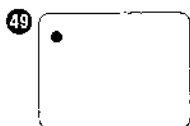


## 中文

- 28 錄影速度狀態 (→ 44)
- 29 變焦倍率 (→ 64)
- 30 手動白色平衡狀態 (→ 106)
- 31 手動拍攝狀態 (→ 106, 110)
- 32 運動狀態 (→ 112)
- 33 素描特寫狀態 (→ 112)
- 34 弱光狀態 (→ 112)
- 35 聚光燈狀態 (→ 112)
- 36 碎浪和雪地狀態 (→ 112)
- 37 手動聚焦狀態 (→ 110)
- 38 磁跡調節狀態 (→ 76)
- 39 數位圖像用色彩指示 (→ 134)
- 40 超級畫面穩定狀態 (→ 90)
- 41 數位變焦狀態 (→ 92)
- 42 馬賽克狀態 (→ 86)
- 43 拉長狀態 (→ 86)
- 44 底片狀態 (→ 88)
- 45 曝光過久狀態 (→ 88)
- 46 棕色狀態 (→ 88)
- 47 黑白畫狀態 (→ 88)

## ENGLISH

- 28 Recording Speed Mode (→ 44)
- 29 Zoom Magnification (→ 64)
- 30 Manual White Balance Mode (→ 106)
- 31 Manual Recording Mode (→ 106, 110)
- 32 Sports Mode (→ 112)
- 33 Portrait Mode (→ 112)
- 34 Low Light Mode (→ 112)
- 35 Spotlight Mode (→ 112)
- 36 Surf & Snow Mode (→ 112)
- 37 Manual Focus Mode (→ 110)
- 38 Tracking Adjustment Mode (→ 76)
- 39 Colour Indication for Digital Image (→ 134)
- 40 Super Image Stabilizer Mode (→ 90)
- 41 Digital Zoom Mode (→ 92)
- 42 Mosaic Mode (→ 86)
- 43 Stretch Mode (→ 86)
- 44 Nega Mode (→ 88)
- 45 Solarisation Mode (→ 88)
- 46 Sepia Mode (→ 88)
- 47 Black-and-White Mode (→ 88)



## 中文

48 數位淡化狀態 (→ 94)

49 拍攝狀態 (→ 124)

50 拍攝暫停狀態 (→ 124)

● 只有在鏡面狀態下拍攝時，才會出現上述 49 - 50 的指示。  
(→ 124)

51 移動感應器控制拍攝功能待命狀態 (→ 96)

52 0 Lux 夜景狀態 (→ 100)

53 示範狀態

### 示範狀態

在未插入錄影帶的時候打開攝錄影機，將其置於攝錄影機狀態，並在 10 分鐘內不進行任何操作時，它將自動切換至示範狀態，向您示範攝錄影機的豐富功能。

- 將 [CAMERA FUNCTIONS] (攝錄影機功能) 主菜單的 [OTHER FUNCTIONS] (其它功能) 子菜單中的 [DEMO MODE] (示範狀態) 項設定為 [ON] (開)，然後退出菜單，也能開始示範狀態。
- 按某一鈕或顯示菜單將暫時停止示範狀態。但是，如果您將攝錄影機保持在此狀態約 10 分鐘以上而不使用任何功能時，示範狀態將恢復。
- 如果您不希望啟動示範狀態，請將菜單上的 [DEMO MODE] (示範狀態) 項設定為 [OFF] (關)。
- 如果您在按住 [▶] 鈕的同時將 [CAMERA/OFF/VCR] (攝錄影機 / 關 / 錄影機) 開關設置於 [CAMERA] (攝錄影機)，菜單中的 [DEMO MODE] (示範狀態) 項將被自動設定為 [ON] (開)，並立即開始示範狀態。
- 如果您在按住 [■] 鈕的同時將 [CAMERA/OFF/VCR] (攝錄影機 / 關 / 錄影機) 開關設置於 [CAMERA] (攝錄影機)，[DEMO MODE] (示範狀態) 項將被自動設定為 [OFF] (關)。

## ENGLISH

48 Digital Fade Mode (→ 94)

49 Recording Mode (→ 124)

50 Recording Pause Mode (→ 124)

● The above indications 49 to 50 are only displayed when recording in the Mirror Mode. (→ 124)

51 Motion-Sensor-Controlled Recording Function Stand-by Mode (→ 96)







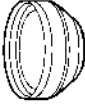






52 0 Lux Night View Mode (→ 100)

53 Demonstration Mode

### Demonstration Mode

When the Movie Camera is turned on and in the Camera Mode without any cassette inserted, and you leave it for 10 minutes without activating any function, it automatically switches over to the Demonstration Mode which demonstrates its many functions.

- You can also start the Demonstration Mode by setting [DEMO MODE] on the [OTHER FUNCTIONS] Sub-Menu of the [CAMERA FUNCTIONS] Main-Menu to [ON] and then exiting the menu.
- Pressing a button or displaying a menu temporarily suspends the Demonstration Mode. However, if you leave the Movie Camera in this condition without activating any function for more than approximately 10 minutes, the Demonstration Mode resumes.
- If you do not want the Demonstration Mode to be activated, set [DEMO MODE] on the menu to [OFF].
- If you set the [CAMERA/OFF/VCR] Switch to [CAMERA] while pressing the [▶] Button, [DEMO MODE] on the menu is automatically set to [ON] and the Demonstration Mode starts immediately.
- If you set the [CAMERA/OFF/VCR] Switch to [CAMERA] while pressing the [■] Button, [DEMO MODE] is automatically set to [OFF].

1. VW-AS7E 	2. CGR-V610 	3. CGR-V620 	4. CGR-V816 	5. VW-KBC7E 	6. VW-LF43WE 
7. VW-LT4314WE 	8. VW-LW4307WE 	9. VZ-CT55E 	10. VW-TCA7E 	11. VW-VT1E/B 	12. VZ-LDR10E 
13. VW-SK11E 					

## 中文

### 選購附件

1. 交流轉接器
2. 鋰離子電池組
3. 鋰離子電池組
4. 鋰離子電池組
5. 汽車電池纜線
6. 濾光鏡組件
7. 望遠轉換鏡頭
8. 廣角轉換鏡頭
9. 標準三角架
10. 錄影帶轉接器
11. 影像字幕編寫器
12. 紅外線 / 視頻直流攝影燈 (鹵素遠紅外線燈)  
(需座轉接器用以固定在攝錄影機上。)
13. 座轉接器 (用於安裝紅外線 / 視頻直流攝影燈)

有些附件在某些國家購買不到。

## ENGLISH

### Optional Accessories

1. AC Adaptor
2. Battery Pack (Lithium-Ion)
3. Battery Pack (Lithium-Ion)
4. Battery Pack (Lithium-Ion)
5. Car Battery Charger
6. Filter Kit
7. Tele Conversion Lens
8. Wide Conversion Lens
9. Tripod
10. Cassette Adaptor
11. Video Titler
12. IR/Video DC Light (Halogen & Infra-red)  
(It requires the Shoe Adaptor for attaching to the Movie Camera.)
13. Shoe Adaptor (for attaching the IR/Video DC Light)

Some accessories are not available in some countries.

## 規格

## VHS-C 攝錄影機

## 您的安全信息

電源：	直流 7.2V (電池) 直流 7.9V (交流轉接器)
耗電量： (電池操作時)	4.7W (使用電子尋像器時) 6.3W (使用液晶顯示監視器時)

錄影帶規格：	VHS-C 錄影帶
拍攝 / 放影時間：	LP 狀態下；2 小時 (使用 EC60 磁帶時)

影像	
電視制式：	CCIR；625 線，50 幀 PAI 彩色信號
輸出電平：	影像輸出 (PHONO)； 1.0Vp p，75 歐姆端接

音頻	
輸出電平 / 阻抗：	音頻輸出 (PHONO)； -6dBV (47 千歐負載) / 低於 1 千歐
音頻磁軌：	1 軌跡 (標準 · 單聲)
圖像感應器：	1/5 英寸 CCD 圖像感應器
鏡頭：	20:1 廣角動力變焦鏡頭 (光學兼容) F1.6 聚焦長度；2.9 - 58mm 數位人工智能自動聚焦 / 自動光圈 濾光鏡直徑；43mm

監視器：	2.5 英寸彩色液晶顯示監視器
電子尋像器：	0.24 英寸電子尋像器
標準亮度：	1,100lux
操作溫度：	0°C - 40°C
操作濕度：	10% - 80%
重量：	約 850 克 (電池除外)
尺寸：	約 88 (寬) × 118 (高) × 23 (深) mm

交流轉接器	您的安全信息
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電源：	AC100-240V，50/60Hz
耗電量：	27W
直流輸出：	DC7.9V，8.5W (攝錄影機操作時) DC8.4V，1.4A (電池充電時)

重量：	約 235 克 (交流電源線除外)
尺寸：	約 72 (寬) × 49 (高) × 143 (深) mm

重量和尺寸為近似值。  
規格若有變更，恕不另行通知。

## Specifications

## VHS-C Movie Camera

## Information for your safety

Power Source:	DC 7.2 V (Battery) DC 7.9 V (AC Adaptor)
Power Consumption: (Battery Operation)	4.7 W (When using Finder) 6.3 W (When using LCD Monitor)

Tape Format:	VHS-C Cassette
Recording/Playback Time:	LP; 2 hours with EC60
VIDEO	
Television System:	CCIR; 625 lines, 50 fields PAL colour signal
Output Level:	VIDEO OUT (PHONO); 1.0 Vp-p, 75 ohm terminated

AUDIO	
Output Level/ Impedance:	AUDIO OUT (PHONO); -6 dBV (47 kohm loaded)/ less than 1 kohm
Audio Track:	1 track (Normal - Monaural)
Image Sensor:	1/5-inch CCD Image Sensor
Lens:	20:1 Power Zoom Lens (Optical capability) F1.6 Focal Length; 2.9-58 mm Digital AI Auto Focus/Auto Iris Filter Diameter; 43 mm

Monitor:	2.5-inch Colour LCD Monitor
Finder:	0.24-inch Electronic Finder
Standard Illumination:	1,400 lx
Operating Temperature:	0°C - 40°C
Operating Humidity:	10% - 80%
Weight:	Approx. 850 g (without Battery)
Dimensions:	Approx. 88 (W) × 118 (H) × 231 (D) mm

## AC Adaptor

## Information for your safety

Power Source:	AC 100-240 V, 50/60 Hz
Power Consumption:	27 W
DC Output:	DC 7.9 V, 8.5 W (Movie Camera Operation) DC 8.4 V, 1.4 A (Battery Charging)

Weight:	Approx. 235 g (without AC Mains Lead)
Dimensions:	Approx. 72 (W) × 49 (H) × 143 (D) mm

Weight and dimensions shown are approximate.  
Specifications are subject to change without notice.

## 要求服務之前

### (故障和解決辦法)

#### 電源

- P1:** 攝錄影機電源不能打開。
- S1: 是否已正確連接了電池或交流轉接器?請確認連接狀況。(→ 18, 24)
- P2:** 攝錄影機自動關閉。
- S2: 如果您讓攝錄影機處於拍攝暫停狀態超過6分鐘時,本機會自動切斷電源,以保護錄影帶和節省電池電力。如果您讓攝錄影機處於拍攝暫停狀態超過6分鐘時,本機將自動關閉,以保護磁帶,並節省電池能源。從此狀態恢復拍攝時,請將 [CAMERA/OFF/VCR](攝錄影機/開/錄影機) 開關設置在 [OFF](關),然後重新將其設置在 [CAMERA](攝錄影機) 狀態。(→ 60)
- P3:** 攝錄影機很快關閉電源。
- S3-1: 電池是否已耗盡?當剩餘電池操作時間指示顯示為“0:00”或 [ ] 指示閃爍時,說明電池已耗盡。請給電池充電或裝入充足電的電池。(→ 20, 24)
- S3-2: 是否已形成了冷凝?如果將攝錄影機從冷地方帶到暖地方時,內部可能會發生冷凝。在此情況下,攝錄影機會自動關閉,且除了取出磁帶以外,將無法進行其他操作。請等待,直至冷凝指示消失為止(約2-3小時)。(→ 150)

#### 錄影帶

- P1:** 剩餘磁帶時間指示不正確。
- S1: 是否正確選擇了所插入錄影帶的長度?請選擇正確的錄影帶長度。(→ 44)
- P2:** 攝錄影機和錄影帶在機場要進行X光安全檢查,這對錄影帶有影響嗎?
- S2: 這對攝錄影機和錄影帶沒有不良影響。
- P3:** 在播放一盤已存放一段時間的錄影帶時,影像出現扭曲。
- S3: 這盤錄影帶被存放在了不恰當的地方(有灰塵,潮濕,高溫等處),或者靠近強磁物體或設備。很不幸,沒有補救的方法。請務必正確存放錄影帶。(→ 148)

#### 拍攝

- P1:** 電子尋像器中無圖像。
- S1: 液晶顯示監視器處在打開的狀態(除非是在液晶顯示監視器朝向前方進行拍攝時)。  
請確認並完全合上液晶顯示監視器。(→ 28)
- P2:** 電子尋像器中的圖像不清晰。
- S2: 未正確地調節圖像質量。  
請調節圖像質量。(→ 40)
- P3:** 當按拍攝開始/停止鈕時,不能開始拍攝。
- S3: 所插錄影帶的保險片已被拔去。請插入帶有保險片的錄影帶。或者,在保險片所在的孔上貼上兩層膠帶紙。(→ 46)
- P4:** 日期/時間/題名指示不顯示。
- S4-1: 這是因為對 [DATE/TITLE](日期/題名) 鈕和/或 [MENU](菜單) 鈕進行了誤操作。按 [MENU](菜單) 鈕並設定希望的日期/題名指示,然後按 [DATE/TITLE](日期/題名) 鈕使日期/時間/題名指示顯示。(→ 56)
- S4-2: 鈕扣式電池已耗盡。更換一個新的鈕扣式電池。(→ 52)

#### 放影

- P1:** 按放影 [▶] 鈕時,未出現播放的圖像。
- S1: [CAMERA/OFF/VCR]開關是否被設置在 [VCR](錄影機)?當其被設置在 [CAMERA](攝錄影機) 時,將無法操作放影功能。(→ 68)
- P2:** 播放圖像出現扭曲或有雜波條紋。
- S2-1: 錄影帶中的磁帶鬆了。  
將其旋緊。(→ 42)
- S2-2: 磁頭髒污。請用選購的磁頭清潔帶清潔磁頭。(→ 150)
- S2-3: 沒有正確調整磁跡。正確調整磁跡。(→ 76)
- P3:** 播放圖像無彩色。
- S3: 沒有正確調節電視機的色彩。調節電視機的色彩控制。

#### 遙控器

- P1:** 遙控器不工作。
- S1-1: 遙控器中的電池已經耗盡。請更換新的“AAA”,“UM-2”型或“R03”型電池。(→ 120)
- S1-2: 遙控器和/或攝錄影機被暴露在強光下。在使用遙控器時,請避免強光照射到遙控器和/或攝錄影機。

#### 示範狀態

- P1:** 攝錄影機總是處於示範狀態。
- S1: 示範狀態是用來解釋本攝錄影機的豐富功能的。希望關閉此狀態時,請將 [CAMERA/OFF/VCR](攝錄影機/開/錄影機) 開關設置於 [OFF](關),然後在按住 [ ] 鈕的同時重新將 [CAMERA/OFF/VCR](攝錄影機/開/錄影機) 開關設置於 [CAMERA](攝錄影機)。或者,將 [OTHER FUNCTIONS](其它功能) 子菜單中的 [DEMO MODE](示範狀態) 項設定為 [OFF](關)。(→ 164)