



# Digital Video Camera Recorder

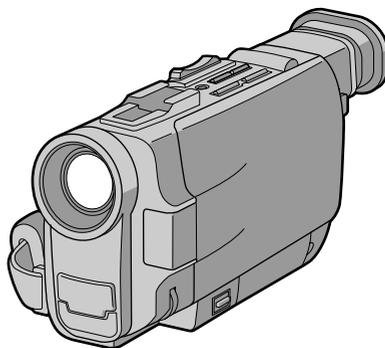
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## Operating Instructions

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

àìòú ûí^ëñîó "íòòîû†ú†^ëë

è òòëì ç+ò , ìëì+úâî , ìò óâì+íóìëú , òñ ò ì+òúóñ^âë  
 ëìòú ûí^ëâë óâ â% ì+~+íóì óóì , áó , †ìëñ †òò+ †úóì ë  
 óóì †ìñú , ââ %ñì òò † , óí , %+î , ìâë-âì .



**DCR-TRV7E**

Mini **DV** Digital  
Video  
Cassette

**Handycam Vision**<sup>™</sup>

**CII** Cassette  
Memory





## Before you begin

# Using this manual

As you read through this manual, buttons and settings on the camcorder are shown in capital letters.

e.g., Set the POWER switch to CAMERA.

As indicated with  in the illustrations, you can hear the beep sound to confirm your operation.

## Note on Cassette Memory

This camcorder is based on the DV format. You can only use mini DV cassettes with this camcorder. We recommend you to use a tape with cassette memory **CIII**.

The functions which depend on whether the tape has the cassette memory or not are:

- End Search (p. 22)
- Date Search (p. 52)
- Photo Search (p. 58).

The functions you can operate only with the cassette memory are:

- Title Search (p. 56)
- Superimposing Titles (p. 70)
- Making a custom title (p. 74)
- Labeling a cassette (p. 76)

For details, see page 78.

## Note on TV colour systems

TV colour systems differ from country to country. To view your recordings on a TV, you need a PAL system-based TV.

## Precaution on copyright

Television programmes, films, videotapes, and other materials may be copyrighted. Unauthorized recording of such materials may be contrary to the provision of the copyright laws.

è ÂÊË, Ò, Ó

ä†í ÒÓÎ, ÁÓ, †Ú, Òfl ÈÌÒÚ ÛÍ^ÈÈ

ÇÓ, ÒÄÍ ÚÁÍÓÚÁ%+ÌÌÒÈ ÈÌÒÚ ÛÍ^ÈÈ Ì+Á, †ÌÈÌ  
 ÍÌÒÓÓÍ È ÂÈÈÌÓ, †·ÓÚ, ÈÈÁÓÍ+ÌÁ  
 , %ÁÍÁÌ^ Á†, †, Ì^ÌÈ·ÚÍ, †ÌÈ, Ì+Ò ÈÌÁ :  
 "ÌÒÚ+ÌÓ, ÈÚÁ ÒÁ ÁÍÍ. ~+ÚÁÍ, POWER,  
 ÓÓÍÒÈÁÌÈÁ CAMERA".  
 áì†^ÓÍ † Ì+ ÈÍÍ.ÓÚ †^Èfl ÓÁÍ†+ÁÚ, ~ÓÚ  
 , Ó% ÓÓÓÚ, ÁÚÓÚ, Ò. ^ÀÈ ÍÓÍ+Ì%  
 ÓÓ%Ú, Á È%+ÁÚÒfl Á, ÚÍÓ, ^ÍÒÈ, Ì+ÍÓÍ (.ÈÒÁ ) .

é, ÈÈÁÓÍ+ÒÒÁÚ† Ì Ò Ò†ÍflÚ, .

Ç Ç† ^ÀÈ, ÈÈÁÓÍ+ÌÁ Á ÈÒÓÓÍ, ÁÚÁÚÒfl ÒÒ Ì+Ú  
 DV. Ñfl ÌÁÁ ÓÓ%ÍÓ%flÚ ÓÓÍ, ÍÓ ÈÈÌÈ-  
 , ÈÈÁÓÍ+ÒÒÁÚ^ ÒÒ Ì+Ú+ DV. ÈÁÍÓÍÁÌ%ÚÁÍ  
 Ç+Í ÈÒÓÓÍ, ÁÓ, †Ú, ÚÁ ÈÁ ÌÈ, ÍÓÓÚ ^Á  
 ÓÓÍ+^ÁÌ^ ÓÒ·ÓÚ, ÁÌÌÒÈ ^ÍÁÍÚ ÒÌÌÒÈ Ò+flÚ, .  
**CIII**

éÚ Ì+ÌÈ^Èfl Ò Ì+ÒÒÁÚ^ ÓÒ·ÓÚ, ÁÌÌÒÈ Ò+flÚÈ  
 Á†, ÈÒÈÚ †·ÓÚ+ ÒÍÁ%Ú, ^È ÒÚÍÍ^ÈÈ:

- èÒÈÓÍ ÓÓÍÓÍ^+ÌÈÈÁ+ÒÈÒÈ (ÓÚ . 22)
- èÒÈÓÍ ÓÓ%+ÚÁ (ÓÚ . 52)
- ÍÓÓÓÓÈÒÍ (ÓÚ . 58)

Ç+ÌÈ^ÈÁ Ò Ì+ÒÒÁÚ^ ÓÒ·ÓÚ, ÁÌÌÒÈ Ò+flÚÈÈ  
 Ò·flÁ+ÚÁÍ, ÍÓ Èfl ÈÒÓÓÍ, ÁÓ, †ÌÈfl ÒÍÁ%Ú, ^È ÒÚÍÍ^ÈÈ:

- èÒÈÓÍ ÓÓÚÈÚ †Í (ÓÚ . 56)
- Ç+ÍÓÈÁÌÈÁ ÚÈÚ Ó, (ÓÚ . 70)
- Ç, Ó% †, ÓÚ ÒÍÈ ÒÈÚ Ó, (ÓÚ . 74)
- á† ÌÈ Ó, †† Ì+ÒÒÁÚ (ÓÚ . 76)
- èÓ% Ó·ÌÁÁÓ· ^ÓÓÍ ÒÍ. Ì+ÓÚ . 78.

é ÒÈÒÚÁÍ† Ì ^, ÁÚÍÒ, Ó  
 ÚÁÍÁ, ÈÈÁÌÈfl

Ç †ÁÌ^·Í ÓÚ †Ì† Ì Ò ÈÍÁÌfl, ÚÒfl †ÁÍÈ^·Í^Á  
 ÒÈÒÚÁÍ^ ^, ÁÚÍÓ, Ó ÚÁÍÁ, ÈÈÁÌÈfl. Ñfl  
 Ò ÓÓÍÓÚ †Ç+È Ì, ÈÈÁÓÁ+ÒÈÒÈ Ì+  
 ÚÁÍÁ, ÈÁÈÓÍÒÍ ^Í †ÌÁ Ç+Í ÓÓÍ+%Ó·ÈÚÒfl  
 ÚÁÍÁ, ÈÁÓ ÒÈÒÚÁÍ^ PAL .

è ÂÊÛ Ò ÈÈÈÁÌÈÈÁ Ó· †, ÓÚ ÒÍÈ Ì  
 Ò †, †

ÍÁÍÁ, ÈÁÈÓÍÒÍ^Á Ò Ó, †ÍÍ^, ÒÈÍ.Í^,  
 , ÈÈÁÓÁ+ÒÈÒÈ ÈÈÌ^Á Ì+ÚÁ È+Í^ ÍÓ, ÓÚ·ÓÚ.  
 Á†^È^ÁÌ^ †, ÓÚ ÒÍÈÈ Ò †, ÓÍ.  
 ÇÁÓ+ÍÍ^ÈÓÍÈ Ó, †ÌÌfl Á+ÒÈÒ. Ú+ÍÈ Ì  
 Ì+ÚÁ È+ÍÓ, ÍÓÈÁÚ Ò Á%ÓÚ+ flÚ, ÓÓ·ÓÈ  
 Ì† Ò^ÁÌÈÁ Á+ÍÓÍÓ, Ó· †, ÓÚ ÒÍÈ Ì Ò †, †.

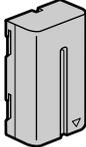
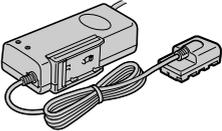
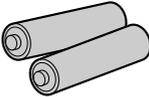
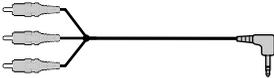


# Checking supplied accessories

è Ó, Â Í †  
Í Ó Í Ô Î Â Í Ú † ^ È Ë

Check that the following accessories are supplied with your camcorder.

ì · Â % È Ú Â Ò , ~ Ú Ó , Í Ó Í Ô Î Â Í Ú † ^ È Ë  
, È % Â Ó Í † Î Â \* , 1 Ó % ñ Ú Ô Î Â % Û · È Â  
Ô È † % Î Â È Í Ó Ó Ë .

<p>1</p> 	<p>2</p> 	<p>3</p> 
<p>4</p> 	<p>5</p> 	<p>6</p> 
<p>7</p> 		

- 1 **Wireless Remote Commander**(1) (p. 113)
- 2 **NP-F530 battery pack**(1) (p. 7)
- 3 **AC-V316 AC power adaptor**(1) (p. 7, 27)  
The shape of the plug varies from region to region.
- 4 **R6 (size AA) battery for Remote Commander**(2) (p. 114)
- 5 **A/V connecting cable**(1) (p. 50, 65)
- 6 **Shoulder strap**(1) (p. 115)
- 7 **Lens cap** (1) (p. 12)

- 1 Â Â Ò Ó , Ó Í Ó ~ Í · È Ó Û Í , Ú % È Ò Ú † Î · È Ó Í Ô „ Ó Û Ó † , Î Â È ñ (1) (Ó Ú . 111)
- 2 Â Í Í Ú Î Ú ñ ñ Ó Ò Ì † ñ · † Ú † Â ñ NP-F530 (1) (Ó Ú . 7)
- 3 Â % † Ó Ú Â Ô Â Ú Â , Ó „ Ô Ô È Ú † Î È ñ AC-V316 (1) (Ó Ú . 7, 27)  
ä Ó Ì Ò Ú Ú Í ^ È ñ Ô Â Ú Â , Ô È , È Í È Â † , È Ò È Ú Ó Ú „ Â Ó „ † Ú È ~ Â Ó Í Ó „ Ó Â „ È Ó Í † .
- 4 Â † Ú † Â È Í † R6 ( † Â Í Â AA ) % ñ ñ Ô Ú Î · Ú † % È Ò Ú † Î · È Ó Í Ô „ Ó Û Ó † , Î Â È ñ (2) (Ó Ú . 114)
- 5 ë Ó Â % È Ì È Ú Â Î · Ì · È † Ú % È Ó / , È % Â Ó Í † · Â Î · (1) (Ó Ú . 50, 65)
- 6 à Î Â ^ Â , Ô È Â Í Â Î · (1) (Ó Ú . 115)
- 7 á † „ Î Ú Í † Ó · Â Í Ú È , † (1) (Ó Ú . 12)

Contents of the recording cannot be compensated if recording or playback is not made due to a malfunction of the camcorder, videotape, etc.

Ç Ó Ì Ú ~ Â Î Â , Ó Á Í Ó È Í Ó Ó Ë , È % Â Ó Ó · Â Í È È Í È , Ó Ó Ó È Â , Â % Â È ñ Â † Ô È Ô È Ó Ó È · È Î Â Î Â È Ò Ó † , Í Ó Ó Ú È , È % Â Ó Í † Î Â \* , È % Â Ó Í † Ô Ô Â Ú · È Ú · Ó . Í Ó Í Ô Î Ô † ^ È ñ Î Â Ó Â Ó Ú † , ñ ñ Á Ú Ò Ì .





# Charging and installing the battery pack

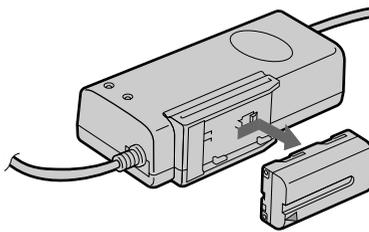
á† flÊ†ìÈÄ È ÙÓÚ†ìÓ, Ì†  
†ííÙìÙîflÚÓ ÌÒÈ . †Ú† ÄÈ

## Notes on remaining battery time indication during recording

- Remaining battery time is displayed in the viewfinder or on the LCD screen. However, the indication may not be displayed properly, depending on using conditions and circumstances.
- When you close the LCD panel and open it again, it takes about 1 minute for the correct remaining time to be displayed.

## To remove the battery pack

Slide the battery pack in the direction of the arrow.



## Notes on charging the battery pack

- The CHARGE lamp will remain lit for a while even if the battery pack is removed and the mains lead is unplugged after charging the battery pack. This is normal.
- If the CHARGE lamp does not light, disconnect the mains lead. After about one minute, reconnect the mains lead again.
- You cannot charge the battery pack while you operate the camcorder using the AC power adaptor.
- When a fully charged battery pack is installed, the CHARGE lamp will light once, then go out.

- àìÈÈí†úÓ òóú†. ÌÄ„òòfl Á† flÊ† . †Ú† ÄÈ , ó , Äîfl ò ÄííÈ
- ÇÄíÈ~Èì†òóú†. ÌÄ„òòfl Á† flÊ† . †Ú† ÄÈ Ùí†Ä† . †ÁÙòfl , óííÄ , ÈÈ.ÓÈòí†úÄîfl ÈíÈ Ì† ÈÈ.íóí Èòú†ííÈ~Äòíóí Ìí †íÄ. ÈÈ.ì†íó , Á† , ÈòÈíóóÈ óú Ùòíó, ÈÈ È ó .òóòflÁ†.òú , ò ÄííÈ óóí†Ä†ìÈfl Ìúó„ò ÈìÈÈí†úÓ † íó„òú . Ìú . ÌÄÓó~ì . ÌÈ.
- èòóíÄ Á†í ÌúÈfl Èòó„òó Ìò„ò †òí ÌúÈfl ÈÈ.íóí Èòú†ííÈ~ÄòíóÈ ò†ìÄíÈ Ùó~ìÙ . ÈìÙò Ì†~È . ó , ÄíÈ~ÈíÄ óóú†. ÌÄ„òòfl Á† flÊ† ÌòÈìò óóíÙ~ÈÙ . ÌÈ~ , òòóòfl ò ÈíÄ Ìò ÌÈìÙóó.

èìflÚÈÄ †ííÙìÙîflÚÓ ÌÒÈ . †Ú† ÄÈ  
ÈÈ„ Èì . ÙÄ . †Ú† Ä . , Ì†ò † , ÌÄíÈÈ , Ùí†Ä†ìòíó  
òó ÄííóÈ.

- è ò ó ÄòòÄ Á† flÊ†ìÈfl . †Ú† ÄÈ
- àìÈÈí†úÓ Ì†fl Ì†íòó~í† CHARGE ò ÓÈòíÈ†ÁÙ ò , ÁÙÈÙ .òfl Ä~Ä ÌÄíóóó óÄ , Äîfl óóóíÄ Ùó„ò , Ì†í Á† flÈÄìfl . †Ú† Äîfl óúÈÄíÄì† óú †È†òóÄ † , † ò ó , ÓÈ.òÈú†ìÈfl óóóóÈÈíÄì óú òÄúÈ . ùóò Ìò Ì†í . Ìò .
- òòíÈ Ì†íòó~í† CHARGE ÌÄ Á†„ò †ÁÙòfl , óúíí . ÌÈúÄ ò ó , ÓÈ.òÈú†ìÈfl óú òÄúÈ È , Ìò , Ìí . ÌÈúÄ Ä„ò , òÄú . ò ÈíÄ Ìò ~Ä ÄÄÓÈìÙ ÌÈìÙóó .
- Çó , Äîfl Á† flÊ†ìÈfl †ííÙìÙîflÚÓ ÌòÈ . †Ú† ÄÈ òÄúÄ , Ì†È†òóÄ óí ÌÄí . Äîfl óóí . Áó , †ú .òfl Èîfl òÈú†ìÈfl , ÈÈ.Áóí†íÄ .
- è È òÓÈ.íí . ÌÄíÈÈ Ì†È†òóÄ Ù óóíìóóú . Á† flÈÄìòÈ . †Ú† ÄÈ Ì†íòó~í† CHARGE Á†„ò †ÁÙòfl Ì† íó óóíóÄ , Äîfl , †Ä†úÄí „†òíÄú .

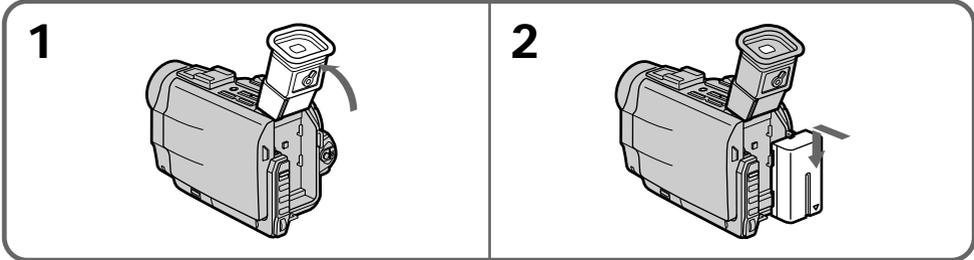
## Installing the battery pack

ĬŰŰ†ĬŌ, Ĭ† †ĬĬŰĬŰĬñŰ ŰŌĘ  
.†Ű† ÄĚ

- (1) Lift up the viewfinder.
- (2) Insert the battery pack in the direction of the  $\$$  mark on the battery pack. Slide the battery pack down until it fits in.

- (1) əŃĬĚĬĚŰÄ, ĘŃŌĚŌĬ†ŰÄĬ.
- (2) Ç, ÄĚĚŰÄ .†Ű† Ä, Ō ĘÄĬĬĚŌ†Ä, ŌŌ ĘÄĬŰĚ Ō, †, ÄÄ, Ĭ†Ō †, ĬÄĬĚĚ, ŰĬ†Ä†ĬĬŌĬÄĬ†ĬŌĬ \$ Ĭ† ĬŌ ŌŰŌÄ .†Ű† ÄĚ. əŌŰŰĬ†ĚŰÄ .†Ű† Ä, ĬĚÄ ĚŌ ŰÄĬ ŌŌ, ŌŌĬ† ĬÄ Ä† †ÄĬĬÄŰŰŰŰ ŰĚĬŌ†ŰŌ . ĘĬÄĚĚŰÄ Ä† Ĭ†ÄĚĬŌŰŰ. ĬŌÄĚĬÄĬĚŰ .†Ű† ÄĚ Ō, ĘÄŌĬ†ĬÄ ŌĚ.

Attach the battery pack to the camcorder securely.



### Notes on installing the NP-F730/F930 battery pack

ə Ę ŰŰŰ†ĬŌ, ĬÄ .†Ű† ÄĚ NP-F730/F930  
• ŌŌĬ, ÄŰĚŰÄŌ, ĘÄŌĬ†ĬÄ ŌĚ, ŌĬÄ, Ĭ† Ō ĘŌŌ.ĬĬ, ĘŃŌĚŌĬ†ŰÄĬ.  
• ĬÄ Ō ĘĬÄĬñŰÄ ŌĚĬŰ, ŌŰŰŌĬ†Ĭ, ĘŃŌĚŌĬ†ŰÄĬ, ŰŰŌ. ĬÄ ŌŌ, ÄĚĚŰ, Ĭ†ĬÄ Ű.

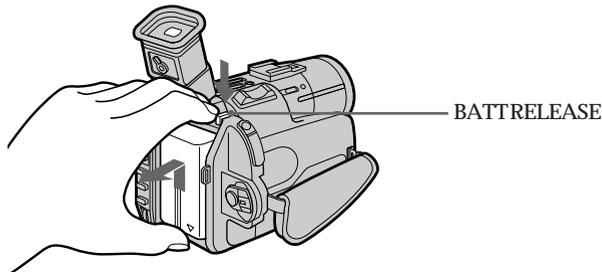
- Use the camcorder while lifting up the viewfinder slightly.
- Do not forcibly put down the viewfinder. It may damage the camcorder.

Ō~Ä Ō. †ĬĬŰĬŰĬñŰŌ Ĭ~Ĭ .†Ű† ÄñĬ  
ÇÄ ĬŌŌĚŰÄ, ĘÄŌĬ†ĬÄ Ű, ĚÄ Ę† ÄÄ Ä† .†Ű† Ä. .

**Note on the battery pack**  
Do not carry the camcorder by grasping the battery pack.

ĚĬñŰĚÄ †ĬĬŰĬŰĬñŰŌ ĬŌĘ .†Ű† ÄĚ  
Ç†ĚĚĬ†Ĭ† ~†ĚŌĬ ŰĚĬŌ†ŰŌ † BATT RELEASE, Ě, ĚĬŰÄ .†Ű† Ä, Ĭ†Ō †, ĬÄĬĚĚ, ŰĬ†Ä†ĬĬŌĬ ŌŰ ÄĬŌĚ.

**To remove the battery pack**  
While pressing BATTRELEASE, slide the battery pack in the direction of the arrow.



You can look at the demonstration of the functions available with this camcorder (p. 117).

Ç. ĬŌĚÄŰÄ Ű, ĘÄŰ, ĚÄĬŌĬŰŰ †Ě. ŰŰĬĬĚĚ, ĬŰŰŌ . ĬĚ ŌŌĬ†ĚÄĬ† Ç††, ĘÄŌĬ†ĬÄ † (ŌŰ .117).

# Inserting a cassette

You can use mini DV cassette with **Mini DV** logo\* only.

Make sure that the power source is installed.

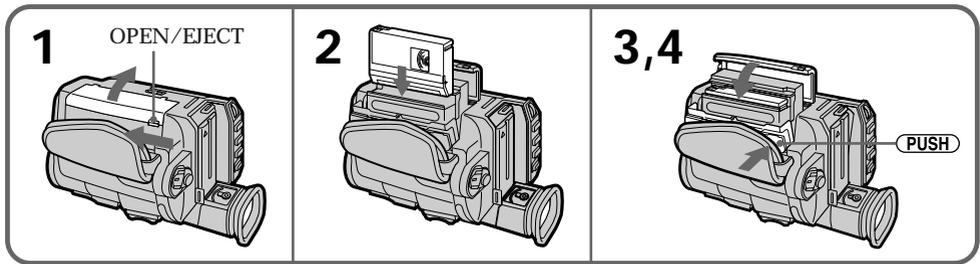
(1) Slide OPEN/EJECT near the grip strap in the direction of the arrow and open the lid. The cassette compartment automatically lifts up and opens.

(2) Insert a cassette with the window facing out.

(3) Close the cassette compartment by pressing the **PUSH** mark on the cassette compartment. The cassette compartment automatically goes down.

(4) Close the lid until it clicks.

\* **Mini DV** is a trademark.



## Notes

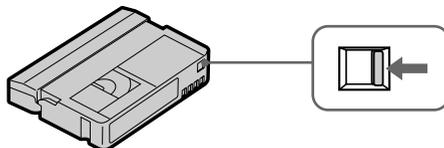
- Before you close the lid of the cassette compartment, make sure the cassette compartment is completely pulled down.
- When you open the lid immediately after you install the battery, the cassette compartment may not lift up. Close the lid and open it again.

## To eject the cassette

Follow the procedure above and in step 2, take out the cassette.

## To Prevent Accidental Erasure

Slide and open the tab on the cassette to expose the red mark. If you try to record with the red mark exposed, the L and 6 indicators flash on the LCD screen or in the viewfinder, and you cannot record on the tape. To re-record on this tape, slide and close the tab to cover the red mark.



ÌÒÙ†ÌÒ, Í†  
, È%ÂÓÍ†ÒÒÁÚ\*

Ñífl ç† ÆÈ Í†ÌÁ \* ÓÓ%1Ó%flÚ ÚÓÍ, ÍÓ ÌÈÌÈ-  
, È%ÂÓÍ†ÒÒÁÚ\* DV, ÓÓÌÁ~ÀÌÌ\* Á ÍÒ, ÓÚÈÓÓÌ  
Mini DV\*.

è Ò, Á ÚÁ, ÓÓ%Í† ~ÀÌÒ ÌÈ ÒÈÚ†ÌÈÁ.

(1) èÁ Â%„ÈÌ.ÚÁ †ÒÓÍÓÈÁÌÌ\*È, ÓÁÍÁ  
Ù\*ÍÒ, Ó ÀÌÌfl ~†ÈÓÍ OPEN/EJECT,  
Ì†Ò †, ÌÁÌÈÈ ÓÚ ÀÌÈÈ È ÓÚÍ ÒÈÚÁ Í ~†ÍÙ  
Ì†ÒÒÁÚÓÒ ÈÁÌÌÈÍ†. è È\*ÚÓÍ  
Ì†ÒÒÁÚÓÒ ÈÁÌÌÈÍ†, ÚÓÍ†ÚÈ~ÁÓÍÈ  
, %„È„†ÁÚÓfl, Á 1 È †ÓÍ \*, †ÁÚÓfl.

(2) ÌÒÙ†ÌÒ, ÈÚÁ, Í†ÒÒÁÚÓÒ ÈÁÌÌÈÍ Ì†ÒÒÁÚÓÒ  
ÓÍÓ~ÍÓÍ Ì† ÚÈÙ.

(3) à†Í ÒÈÚÁ Í†ÒÒÁÚÓÒ ÈÁÌÌÈÍ Ì†È†ÚÈÁÌ Ì†  
ÌÁ„Ó, ÓÚ\*ÍÁ, ÚÍ†Á†ÌÌÓÈ ÁÌ†ÍÓÍ **PUSH**.  
à†ÒÒÁÚÓÒ ÈÁÌÌÈÍ†, ÚÓÍ†ÚÈ~ÁÓÍÈ  
ÓÓÓÍ†ÁÚÓfl Ì† ÌÁÓÓÙ.

(4) èÓÓÓÚÈÚÁ È Á† ÁÌÌÈÈÚÁ Í ~†ÍÙ.

\* Mini DV - ÚÓ „Ó, †fl Ì† Í†.

è ÈÌÁ~ÌÈfl

• è ÆÈÁ ~ÁÌ Á†Í \* , †Ú, Í ~†ÍÙ  
Ì†ÒÒÁÚÓÒ ÈÁÌÌÈÍ†, Ù\*ÆÈÚÁÓ, ~ÚÓÒÌ  
ÓÍÓÍ~†ÚÁÌ, ÍÒ, Á ÌÚÍÓfl, ÌÈÈÌÁÁ  
ÓÓÍÓÈÁÌÈÁ.

• ÓÓÍÈ ç\* ÓÚÍ \* , †ÁÚÁ Í ~†ÍÙ ò †ÁÚ ÈÁ  
, ÓÍÁ% Á† ÓÓÚ†ÍÒ, ÍÓÈ\*Ú† ÆÈ, ÚÓ  
, %„ÈÁÌÈÈ Ì†ÒÒÁÚÓÒ ÈÁÌÌÈÍ† ÌÓÈÁÚ ÌÁ  
Ò ÓÈÁÓÈÚÈ. ç\* ÚÓÍ ÓÍÙ~†Á Á†Í ÒÈÚÁ Í ~†ÍÙ  
È ÓÚÍ ÒÈÚÁ ÁÁ ÓÓ, ÚÓ ÍÒ.

àÁ, ÌÁ~ÁÌÈÁ, È%ÂÓÍ†ÒÒÁÚ\*.

è†Á%Úfl ÚÍ†Á†ÌÈfl, Ò È, Â%ÁÌÌ\* Ì, ~\*Á,  
ÈÁ, ÌÁÌÈÈÚÁ Ì†ÒÒÁÚÓÒ, 1Ó%Á ~Ú†Ò† 2.

è Â%ÓÚ, †~ÁÌÈÁ ÒÌÙ~†ÈÌÒ, Ó

ÓÚÈ †ÌÈfl Á†ÒÈÒÈ

è%, ÈÌ.ÚÁ Ó Â%Ó1 †ÌÈÚÁÌ, ÌÙ. Á%„ÈÈÍÙ Ì†  
Ì†ÒÒÁÚÁ, ~ÚÓ\* ÓÚ††, È%Ì†Í †ÒÌfl  
ÒÌ†ÓÚÈÌ†. ÌÁÓÁ, Ó È ÓÓÓ\*ÚÍÁ Á†ÒÈÒ\*, †Ú,  
Ì† ~ÚÓ Ì†ÒÒÁÚÓÒ, ÓÍÁ, È%ÓÈÍ†ÚÁflfl ÈÌÈ Ì†  
ÈÈ%ÍÓÍ ÈÓÚ†ÌÈÈ~ÁÓÍÓÍ \* Í ÌÁ Ì†~ÈÌ†.Ú  
ÌÈ, †Ú. ÈÌ%ÈÌ†ÚÓ \* L È 6, †Á†ÒÈÓ ÌÁ  
Ì† ~†ÁÚÓfl. óÚÓ\* Ó%ÁÌ†Ú Ì† Ì†ÒÒÁÚÁ ÍÒ, Ù,  
Á†ÒÈÒ, ÓÁ Â%„ÈÌ.ÚÁ Á†%, ÈÈÍÙÚ†Í, ~ÚÓ\*  
Í †ÒÌfl ÒÌ†ÓÚÈÌ†† ÓÍ†Á†Í†Ò, Á†Í \*ÚÓÈ.

# Camera recording

# çË%ãóò · ãíí†

Make sure that the power source is installed and a cassette is inserted and that the START/STOP MODE switch inside the LCD panel is set to .

Before you record one-time events, you may want to make a trial recording to make sure that the camcorder is working correctly.

When you use the camcorder for the first time, power on it and reset the date and time to your time before you start recording (p.81).

To save battery power, the picture in the viewfinder appears only when you bring your face close to the viewfinder (Finder power save).

- (1) Remove the lens cap and hook it onto the grip strap.
- (2) While pressing the small green button on the POWER switch, set it to CAMERA. The camcorder is set to Standby mode.
- (3) Press START/STOP.

The camcorder starts recording. "REC" appears in the viewfinder. The camera recording lamp on the front of the camcorder also lights up.

You can also select Recording mode, SP (standard play) mode or LP (long play) mode. Set REC MODE in the menu system according to the length of your planned recording before you start.

ì·ã%èúãò, , úóí, ~úó í+íã †òó%íí. ~ãí† í èòúó-ìèíú òèú+ìèíí, ~úó, ìãã úóú+ìò, íãì† , èã%óí†+òòãú+ è ~úó òã áíí. ~+úãí, START/STOP MODE ì† , ìúú ãììãè úóú óíã èè%íóí èúú+ííè~ãóíóè ò+ìãìè úóú+ìò, íãì† , óóíóèãìèã  . èã ã%ò·ãííóè óóó·ó·ãíì·ì ~òèã%ó·ó, èíããú òí·òí Æ† ìãã óó ó·ó·†ú, , èã%óí†+íã ù, ~úó· ù%óóúó, Æ èú, òíí, Æã ìò ì+ì. íóí úúíí·èòíè ó, †ìèè.

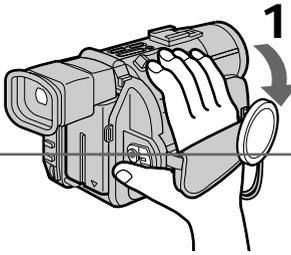
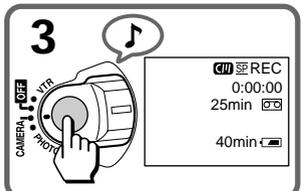
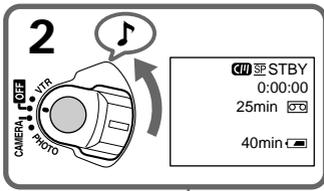
è Æ%ã, ~ãí óóí, áó, †ú, òíí ì+íã òè, òã , ^ã, íí, ~éúã Æã è úóú+ìò, èúã úãíú·ú. %+úú è úó·ìòã, Æíí (óú .81).

ç ^ãííí ~íóíóíèè Æ† í%† ·+ú† Æè ~í †ì , èã%òèí+úãíí, íí. ~+ãúòí úóí, íó ó è ò è·ìèèãìèè óíóííí † í è^ú (~íóíóíèíí òèú+ìèí, èã%òèí+úãíí).

- (1) èìèìèúã Æ†, ìú·ìú ó··ãíúè, † è ò èí Æòèúã Æã í·ìóíú Æíì .
- (2) ì%ã èè, †íí, ì+è+úóí óóíóèãìèè ì+íãì. íú. Æãíãìú. ìíóóíú ì† òã áíí. ~+úãíã POWER, òã Æ%, èì, úã Æ, ò , óóíóèãìèã CAMERA. è è ~úóí , èã%óí†+íã † òã Æìó%èú, Æèèì óèè%+ìèí ì†+í† Æ†òèòè.

(3) ç+èìèúã ìíóóíú START/STOP. çË%ãóí+íã † ì+~èì+ãú ò·ãííú. ç óííã , èã%òèí+úãíí òóíí, ííãúòíí ùí+ã+úãí, "REC". è è ~úóí Æ†, ò +ãúòí ù+íèã èì%èí+úó ì†í ì+íóó·í† Æ†òèòè ì† òã Æ%ìãè úóú óíã, èã%óí†+íã .

ç· íóèãúã, · è †ú, ìãè%ú úú+ì%† ùíóè (SP) è ìã%íãììóè (LP) óíó óóú, , èã%óóã+òèòè. àòìó%íí èã òí+ìè úãíóè ò ó%óíèèúãí. ìóóúè ò·ãííè, , · Æ èúã òã Æ%ã ì†+íóí ìúèìú. óíó óóú, Æ†òèòè ~ã Æã óóãè^è. REC MODE, ìãì. ò† †íãú ó, .



**To stop recording momentarily [a]**

Press START/STOP. The "STBY" indicator appears in the viewfinder ( Standby mode).

**To finish recording [b]**

Press START/STOP again to stop recording. Set the POWER switch to OFF. Then, eject the cassette and remove the battery pack.



**To focus the viewfinder lens**

If you cannot see the indicators in the viewfinder clearly, or after someone else has used the camcorder, focus the viewfinder lens. Move the viewfinder lens adjustment levers so that the indicators in the viewfinder come into sharp focus.

**Note on Standby mode**

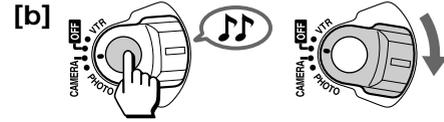
If you leave the camcorder in Standby mode for 5 minutes while the cassette is inserted, the camcorder turns off automatically. This prevents wearing down the battery and wearing out the tape. To resume Standby mode, while pressing the small green button on the POWER switch, set it to OFF once, and then to CAMERA. To start recording, press START/STOP.

**Note on recording mode**

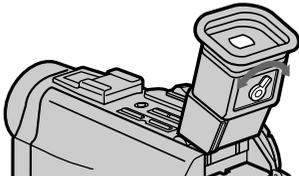
This camcorder records and plays back in SP (standard play) mode and in LP (long play) mode. Select SP or LP in the menu system. In LP mode, you can record 1.5 times as long as in SP mode.

À`ÓÚ ÓÁ, ÍÍ, ~ÀÌÈÁ Á+ÒÈÒÈ [a]  
 Ç+ÈÌÈÚÁ ÍÌÓÓÍÚ START/STOP. Ç ÓÍÌÁ  
 , È%ÓÈÒÈ†ÚÁÍñ ÓÍñ, ÍñÁÚÒñ ÈÌÈÈÍ+ÚÓ "STBY"  
 ( ÀÈÈÌ ÓÈÈ%+ÌÈñ)

è ÁÍ †~ÀÌÈÁ Á+ÒÈÒÈ [b]  
 ÑÍñ ò ÁÍ †~ÀÌÈñ Á+ÒÈÒÈ Ì+ÈÌÈÚÁ ÍÌÓÓÍÚ  
 START/STOP Á`Á †Á. èÁ Á, À%ÈÚÁ  
 ÓÁ ÁÍÍ.~+ÚÁÍ, POWER, ÓÓÍÓÈÁÌÈÁ OFF.  
 èÓÓÌÁ ~ÚÓ, Ó ÈÁ, ÍÁÌÈÚÁ Í+ÒÓÁÚÓ È ÒÌÈÌÈÚÁ  
 †ÍÍÚÍÚÍñÚÓ ÍÚ. ·+Ú† Á..



èÓ%ÓÚ ÒÈÌ† ÓÍÚÍñ †, È%ÓÈÒÈ†ÚÁÍñ  
 ÓÓÍÈ Ç†Í Ú Ó%ÌÓ †ÁÌÈ~+Ú. ÈÌÈÈÍ+ÚÓ ·,  
 ÓÍÌÁ, È%ÓÈÒÈ†ÚÁÍñ, ÈÌÈ ÁÓÍÈ ÓÁ À%Ç+ÌÈ  
 Í+ÌÁ ÒÈ ÓÓÍ. ÁÓ, †ÍÒñ ÍÚÓ-ÚÓ% Ú, ÒÈ,  
 ò ÓÈÁ, À%ÈÚÁ ÓÓ%ÓÚ ÒÈÍÚ ÓÍÚÍñ †  
 , È%ÓÈÒÈ†ÚÁÍñ. èÓ, Ó ÓÓÓÍ Á, ÚÍñÚÓ †  
 ÓÓ%ÓÚ ÓÍÈ ÓÍÚÍñ †%·ÀÈÚÁÓ, ÚÓ, Ó, ~ÚÓ·  
 ÈÌÈÈÍ+ÚÓ ·, ÓÍÌÁ, È%ÓÈÒÈ†ÚÁÍñ ÓÚ+ÌÈ  
 , È%Ì· ÓÚ~ÁÚÈ, ò È ÁÁÍÓ.



é ÀÈÈÌÁ ÓÈÈ%+ÌÈñ Ì+~†† Á+ÒÈÒÈ  
 ÓÓÍÈ ÓÓÚ, ÈÚ, È%ÁÓÍ+ÌÁ Ú ÒÓÚ+ÌÓ, ÍÁÌÌÒÈ  
 , ÍÁÈ Í+ÒÓÁÚÓÈ, ÀÈÈÌÁ ÓÈÈ%+ÌÈñ ·ÓÍÁÁ ~ÁÍ  
 Ì+5 ÌÈÌÚÚ, òÌ†, ÓÓÍ+ÚÈ~ÁÓÍÈ, 'ÍÍ. ~ÈÚÒñ.  
 ÚÓÓ ~ÍÓÍÓÈÚÁ† ñ%·+Ú† ÀÈ È ÓÓÍ †+ÁÚ  
 ÈÁÍÓÒ, È%ÁÓÍÁÍÚ'. ÓÓÓ·, Á ÍÚÓ. Í+ÌÁ Ú,  
 ÀÈÈÌ ÓÈÈ%+ÌÈñ Ì+~†† Á+ÒÈÒÈ, ÓÁ Á, À%ÈÚÁ  
 ÓÁ ÁÍÍ.~+ÚÁÍ, POWER, Ó%Á ÈÈ, †ñ Ì+ ÍÁÍ,  
 Ì+È+ÚÓÍ ÓÓÍÓÈÁÌÈÈ Ì+ÌÁÌ. ÍÚ. ÁÁÍÁÌÚ.  
 ÍÌÓÓÍÚ, ÓÓÍÓÈÁÌÈÁ OFF, †Á+ÚÁÌ ÒÌÓ, †,  
 ÓÓÍÓÈÁÌÈÁ CAMERA. ÓÓÓ· Ì+~+Ú, ò·ÁÍÍÚ,  
 Ì+ÈÌÈÚÁ ÍÌÓÓÍÚ START/STOP.

é ÀÈÈÌÁ ÓÍÓ ÓÓÚÈ  
 Ç+†, È%ÁÓÍ+ÌÁ † ÓÓÁ, ÓÍñÁÚ, ÁÓÚÈ Ò·ÁÍÚ È  
 , ÓÓÓ ÓÈÁ, Ó%ÈÚ, È%ÁÓÁ+ÒÈÒÈ, ÀÈÈÌÁ  
 ÓÚ+Ì%† ÚÍÓÈ (SP) È ÍÁ%ÍÁÌÌÒÈ (LP) ÓÍÓ ÓÓÚÈ.  
 Ç·ó ÍÁÈ%Ó ÓÚ+Ì%† ÚÍÓÈ È ÍÁ%ÍÁÌÌÒÈ  
 ÓÍÓ ÓÓÚ. ÓÓÚ·ÁÓÚ, ÍñÁÚÒñ ò ÓÓÍÓ~. ÍÁÌ.  
 Ò+ †ÍÁÚ Ó, è Ó%ÓÍÈÈÚÁÍ. ÍÓÓÚ, Á+ÒÈÒÈ,  
 ÀÈÈÌÁ LP, 1,5 †Á† ò Á, ~+ÁÚ, ÁÍñ  
 Á+ÒÈÒÈ, ÀÈÈÌÁ SP.

Basic operations / èÓ, ÓÁ%ÌÁ, ÍÓÁ ÓÓÍ. ÁÓ, †ÌÈÁ



Using the zoom feature

Zooming is a recording technique that lets you change the size of the subject in the scene. For more professional-looking recordings, use the zoom function sparingly.

“T” side: for telephoto (subject appears closer)

“W” side: for wide-angle (subject appears farther away)

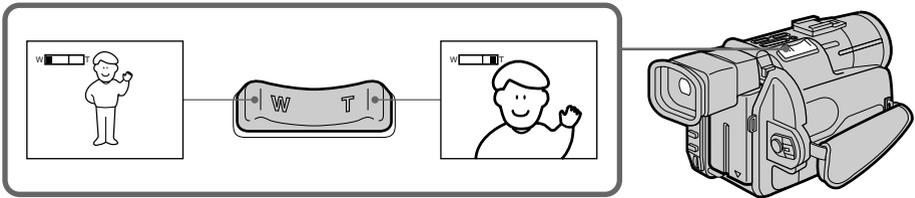
èÓÎ,ÁÓ,†ÌÈÂ Ú †ÌÒÙÓÍ†ÚÓ ÓÏ (“Ì†Â%”)

“Ç†Â%ÓÏ” Ì†Á,†ÁÚÒÎ ÓÔÁ †ÚÓ ÒÌÈÈÒ ÈÂÏ, Ò È ÍÓÓÚ ÓÏ ÈÂÏÂÏÎ.ÚÒÎ †ÂÏÁ Ó.Ò.ÂÏÚ† Ò.ÂÏÍÈ, Í†% Â.

ÓÚÓ.Ç†-È, È%ÂÓÙÈÏ.Ï. , , ÌÎ%ÂÏÈ .ÓÏÂÂ Ò ÓÙÂÒÒÈÓ†Ï, ÌÒ, ÌÂ ÁÏÓÓÚÓ Á.ÏÎÈÇÁ ~ÚÈÏ Ò ÈÂÏÓÏ.

èÚÓ ÓÏ† “T” - Ò.ÂÏÍ† ÚÂÏÁÓ.ÂÏÚÈ,ÓÏ (Ò È.ÌÈÈÂÏÈÂ Ó.ÂÏÚ† Ò.ÂÏÍÈ)

èÚÓ ÓÏ† “W” - È ÓÏÓ„ÓÏ.Ï†Î Ò.ÂÏÍ† (Ó%†ÌÂÈÈÂ Ó.ÂÏÚ†)



Zooming speed (Variable speed zooming)

Press the power zoom switch a little for a relatively slow zoom; press it still more for a high-speed zoom.

When you shoot a subject using a telephoto zoom

If you cannot get a sharp focus while in extreme telephoto zoom, press the “W” side of the power zoom switch until the focus is sharp. You can shoot a subject that is at least about 80 cm (about 25/8 feet) away from the lens surface in the telephoto position, or about 1 cm (about 1/2 inch) away in the wide-angle position.

èÍÓ ÓÓÚ, “Ì†Â%” (“Ì†Â%” Ò ÓÂ ÁÏÂÏÏÒÈ ÓÍÓ ÓÓÚ. .)

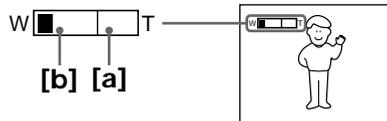
è †, ÌÈÚÁÏ.ÌÒ ÌÂ%ÌÂÏÏÁ Ò È.ÌÈÈÂÏÈÂ ÈÏÈ ÓÚ%†ÌÂÈÈÂ %ÓÒÙÈ,†ÁÚÒÎ ÌÂÏÈÏ Ì†È†ÚÈÂÏ Ì† ~†ÈÓÏ Ò ð †, ÌÂÏÈÏ Ú †ÌÒÙÓÍ†ÚÓ ÓÏ; Ò È .ÓÏÂÂ ÒÈÏ.ÏÓÏ Ì†È†ÚÈÈ ÓÍÓ ÓÓÚ. Ò È.ÌÈÈÂÏÈÈ ÈÏÈ ÓÚ%†ÌÂÈÈ, ÓÁ †ÓÚ†ÂÚ.

è.ÂÏÍ† ÚÂÏÁÓ.ÂÏÚÈ,ÓÏ ÓÒÏÈÒ È Ì†ÌÒÈÏ†Ï.ÏÓÏ “Ò È.ÌÈÈÂÏÈÈ” Ó.ÂÏÚ† Ò.ÂÏÍÈ Ò ÓÓÏÓ. . ÚÂÏÁÓ.ÂÏÚÈ, † Ç†Í ÌÂ Ò%†ÁÚÒÎ ~ÁÚÍÓ ÒÒÓÏÏÈÒ Ó, †Ú. ÈÁÓ. †ÈÂÏÈÂ, Ì†ÈÈÏ†ÈÚÁ ÓÓÚ ÓÏÚ “W” ~†ÈÏ† Ò ð †, ÌÂÏÈÏ Ú †ÌÒÙÓÍ†ÚÓ ÓÏ %Ó ÚÁÏ ÓÓ, ÓÓÏ† ÈÁÓ. †ÈÂÏÈÈ ÌÂ ÓÚ†ÌÁÚ ÁÂÏÏÏ. è ÈÏÁ ÌÓÁ †ÒÒÓÏÎÈÈÂ ÓÚ ÓÓ, Á ÌÒÓÓÙÈ ÌÈÏÁ. %Ó Ó.ÂÏÚ† Ò È Ò.ÂÏÍÁ ÚÂÏÁÓ.ÂÏÚÈ,ÓÏ %ÓÏÈÏÒ ÓÓÓÚ†, ÌÎÚ, ÌÂ ÌÂÏÁÂ 80 ÒÏ, † Ò È -È ÓÏÓ„ÓÏ.Ï†, ÌÒÈÒ.ÂÏÍÁ - ÌÂ ÌÂÏÁÂ 1 ÒÏ.

Basic operations / èÓ, ÓÂ%ÌÁ, ÌÓÁ ÓÓÏ, ÁÓ, †ÌÈÈÁ

Notes on digital zoom

- More than 10x zoom is performed digitally, and the picture quality deteriorates as you go toward the "T" side. If you do not want to use the digital zoom, set the D ZOOM function to OFF in the menu system.
- The right side [a] of the power zoom indicator shows the digital zooming zone, and the left side [b] shows the optical zooming zone. If you set the D ZOOM function to OFF, the [a] zone disappears.



Selecting the start/stop mode

Your camcorder has two modes besides normal start/stop mode. These modes enable you to take a series of quick shots resulting in a lively video.

- (1) While pressing PUSH OPEN, open the LCD panel.
- (2) Set START/STOP MODE to the desired mode.
  - ⏏ : Recording starts when you press START/STOP, and stops when you press it again (normal mode).
  - ⏏ ANTI GROUND SHOOTING : The camcorder records only while you press down START/STOP so that you can avoid recording unnecessary scenes.
  - 5SEC : When you press START/STOP, the camcorder records for 5 seconds and then stops automatically.
- (3) Press START/STOP. Recording starts.

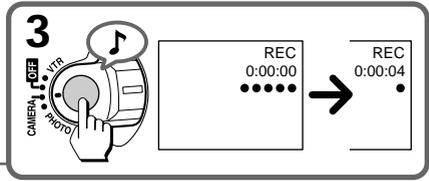
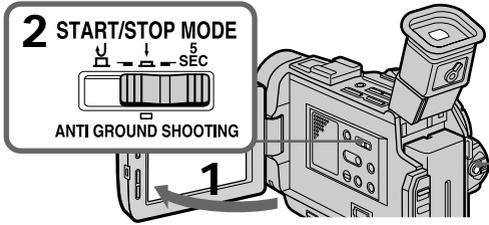
If you selected 5SEC, five dots appear in the viewfinder or on the LCD screen. The dots disappear at a rate of one per second as illustrated below. When five seconds elapse and all the dots disappear, the camcorder switches to Standby mode automatically.

- ĩ, ĀĪĪĒ~ĀĪĒĀ Ō, ~Ā Ą&ŌŪĒĪ †ŪĪŌ, Ō %ŌŌŪĒ, †ĀŪŌŪĀ † Ō~ĀŪ ĘĒŪ Ō, ŌĒŌ : †. ŌŪĪĒ ĒĀŌ †ĒĀĪĒŪ, ŌĪĀ&ŌŪ, ĒĀ~Ā, Ō Ō Ē %†Ī, ĪĀĒ~ĀĪ Ī†Ē†ŪĒĒ Ī† ŌŪŌ ŌĪŪ "T" ~†ĒĪ† ŪŌ †, ĪĀĪĒŪ Ī†~ĀŪŌ, ŌĒĀŌ †ĒĀĪĒŪ ŪĪŪ~†ĀŪŪŪ. ŌŌĪĒ Ç' ĪĀ ĒĀĪ†ĀŪĀ ŌŌĪ. ĀŌ, †Ū. ŌŪŪ ĘĒŪ Ō, 'Ī Ū, ĀĪĒ~ĀĪĒĀĪ, ŪŪŪ†ĪŌ, ĒŪĀ ŌĀ ĀĪĪ. ~†ŪĀĪ. ŪŪĪĪ~ĒĒ D ZOOM , ĪĀĪ. Ō† †ĪĀŪ Ō, , ŌŌŌŌĒĪĒĒ OFF.
- ě †, †Ī †ŌŪŪ [a] ĒĪ&ĒĪ†ŪŌ †ŪŌŪŌĪŌ, Ō †ŌŪŌŪŪĪĒŪŪ. ĀĪŪĒ, † Ō &ŌŪ†, †ŪĀŪŪŌ. ŌĒ Ō. Ī†ŪŪ. ĘĒŪ Ō, Ō Ū, ĀĪĒ~ĀĪĒŪ, † ĪĀ, †Ī [b] Ō. Ī†ŪŪ, ŌŌŪĒ~ĀŌĪŌ, Ō Ū, ĀĪĒ~ĀĪĒŪ. ě Ē ŪŪŪ†ĪŌ, ĪĀ ŪŪĪĪ~ĒĒ D ZOOM , ŌŌŌŌĒĪĒĒ OFF ~†ŪŪ. [a] ĒĪ&ĒĪ†ŪŌ †ĒŌ~ĀĀ†ĀŪ.

Ç·Ō ĀĒĒĪ†, ĪĪ.~ĀĪĒŪ/ , ĪĪ.~ĀĪĒŪ Ō~ĀĪĪĒ

- ěŌĪĒĪŌŌ.~ĪŌ,Ō ĀĒĒĪ†, ĪĪ.~ĀĪĒŪ Ē , ĪĪ.~ĀĪĒŪ Ō~ĀĪĪĒ Ç†~†, Ē&ĀŌĪ†ĪĀ † ĒĪĀĀŪ%, †% Ū, ĒĪ, ĪŌŪŌ ĀŌŌĀ, ŌĪŪ Ū ŌŪŪ~ĀŪŪ, ĪŪŪ. .ŌŪ Ū. ŌĪĀĪŪ Ī&Ō, Ō, , ŌĒĒ, ĪŪ. Ū. Ç†~Ē, Ē&ĀŌŪĒĪ, Ī. .
- (1) Ç†ĒĒĪ†ĪŪ PUSH OPEN, †ŌĪ ĒŪŪĀ ĒĒ&ĪŌĪ ĒŌŪ†ĪĒĒ~ĀŌĪŪ, Ō†ĪĀĪ.
- (2) Ç·Ā ĒŪĀ ĪŪĒĪ~Ē ĀĒĒĪ ŌŌŌŌŪ. . ŌĀ ĀĪĪ.~†ŪĀĪŪŪ START/STOP MODE. ⏏ : ě~ĀĪĪ†Ī†~ĒĪ†ĀŪŪŪŪ Ō Ē†Ē†ŪĒĒ ĪŌŌŌĪĒ START/STOP ĒŌ ĒĪ ††ĀŪŪŪŪ ŌŌ, ŪŌ Ī'Ī Ī†Ē†ŪĒĒĪ ŪŌĒ ĒĀ ĪŌŌŌĪĒ (Ō.~Ī'Ē ĀĒĒĪ).
- ⏏ ANTI GROUND SHOOTING: ě~ĀĪĪ† Ō Ō&ŌĪĒ†ĀŪŪŪ ĪĒ. %ŌŪĀĪ ŌŌ, ŌŌĪ† Ç' Ū&Ā ĒĒ, †ĀŪĀ ĪŌŌŌĪŪ START/STOP , Ī†Ē†ŪŌĪ ŌŌŌŌĒĪĒĒ - ~ŪŌ ŌŌĪŌ, †ĀŪ ĒĀ.ĀĒ†Ū, ŌŪŪ~†ĒĪŌĒĀ†ŌĒŌĒ ĪĪŪĒĒĪ 1 Ū †, ĪĀĪŪŌ, , ĀŌĪĒ Ç' Ā†.Ū&ĀŪĀ , ĪĪ.~ĒŪ, Ī†ĪĀ Ū. 5SEC: ě Ē Ī†Ē†ŪĒĒ ĪŌŌŌĪĒ START/STOP Ō~ĀĪĪ†, ĪĪ.~†ĀŪŪŪŪ Ī† 5 ŌĀĪŪŪ%, †Ā†ŪĀĪ Ō ĀĪ ††ĀŪŪŪŪ, ŪŌĪ†ŪĒ~ĀŌĪĒ.
- (3) Ç†ĒĒĪĒĀ ĪŌŌŌĪŪ START/STOP. Ā†ĪĀ † Ī†~ĒĪ†ĀŪŪ Ō~ĀĪĪŪ.

ŌŌĪĒ Ç' . . †ĪĒ ĀĒĒĪ 5SEC, ŪŌ, , Ē&ŌĒŌĪ†ŪĀĪĀ Ō Ē ~ŪŌĪ ŌŪŪ, ĪŪ. ŪŪŪŪ ŪŪŪ.ĀĪ. Ā†ŪĀĪ ŌĪĒ ŌŌŌĪĀ&Ō, †ŪĀĪ. ĪŌ ĒŌ~ĀĀ†. Ū Ō ĒĪŪĀ , †ĪŌĪ, Ō&ĪŪ ŌĀĪŪĪ&Ū, Ī†ĪŌĪ†Ā†ĪŌ Ī† ĒŪŪĪĪĀ ĪĒĒĀ. ěŌ ĒŪŪĀ~ĀĪĒĒ ŌŪŪĒ ŌĀĪŪŪŪ, ĪŌ, %† ŪŪ~ĪĒ ĒŌ~ĀĀ†. Ū Ō %ĒŌŌĪĪŪ, Ē&ĀŌĪ†ĪĀ ††. ŪŌĪ†ŪĒ~ĀŌĪĒ ŌĀ ĀĪŌ&ĒŪ , ĀĒĒĪ ŌĒĒ&ĪĒŪ Ī†~†Ī† Ō~ĀĪĪĒ.



**To extend the recording time in 5SEC mode**

Press START/STOP again before all the dots disappear. Recording continues for about 5 seconds from the moment you press START/STOP.

**Note on 5SEC recording**

If you have turned off the indicators on the LCD screen, the dots do not appear.

**Shooting with the LCD screen**

You can also record the picture while looking at the LCD screen.

When using the LCD screen, the viewfinder turns off automatically except in mirror mode. You cannot monitor the sound from the speaker during recording.

- (1) When pressing PUSH OPEN, open the LCD panel.
- (2) Adjust angle of the LCD panel  
The LCD panel moves about 90 degrees to this side and about 210 degrees to the other side.  
To adjust the brightness of the LCD screen, press LCD BRIGHT + or -.

The battery life is longer when the LCD panel is closed. Use the viewfinder instead of the LCD screen to save the battery power.

**è Ó%ÎÂÏËÄ, ÂÏÂÏË Ò`ÂÏÏË, ÂËËÏÄ 5SEC**

ç+ËÏËÜÄ ÌÏÖÖÏÛ START/STOP ÖÖ,ÚÖ ÌÖ %Ö ÚÖ,,Ö, Ì†Ï, ,Ë%ÖËÏ+ÚÄÏÈ ÈÖ`ÂÏÏÛ,ÖÄ ÖÏÛ. ÚÖ`ÄÏ. ä+ÖËÖ. ·Û%ÄÚ Ö%ÖÏËÏ†, ÚÄ`ÄÏËÄ Ä`Ä ÖÏÏÖ ÖÏÛË ÖÄÏÛË% Ö ÌÖÏÄÏÛ† ÖÖ,ÚÖ ÌÖ,,Ö Ì†Ë†ÚËË ÌÏÖÖÏË START/STOP.

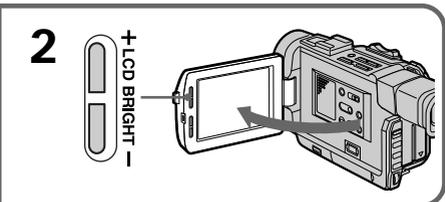
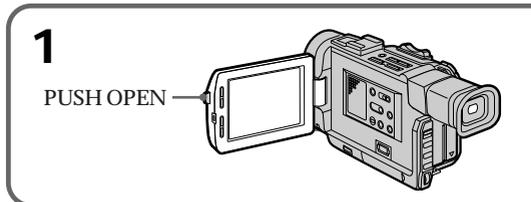
é Ò`ÂÏÏÄ, ÂËËÏÄ 5SEC ÖÏÏË ç` ÖÏÏÏ. ~ËÏË, \*Ö% ËÏ%ËÏ+ÚÖ Ö, Ì† ËË%ÏÖÏ ÈÖÛ†ÏÏË`ÄÏÏËË `Ï Ì†, ÚÖ`ÏË Ì† ÌÄÏ, ËË%Ï` ÌÄ ·Û%ÛÛ.

**è`ÂÏÏ† Ò`ÈÖÖÏÏ,ÄÓ, †ÏËÄÏ ËË%ÏÖÏ ÈÖÛ†ÏÏË`ÄÏÏ, Ö`Ï Ì†**

ç` ÌÖËÄÚÄ Ú†ÏËÄ, ÄÖÛË Ä†ÖËÖ, ÈÄÖ. †ËÄÏËÏ, ÖÏÄ%Ï Ä† ÌËÏ ÖÖ ËË%ÏÖÏ ÈÖÛ†ÏÏË`ÄÏÏÏÛ `Ï ÌÛ.

è È ÈÖÖÏÏ,ÄÓ, †ÏËË ËË%ÏÖÏ ÈÖÛ†ÏÏË`ÄÏÏ, Ö`Ï Ì†, ËË%ÖËÏ+ÚÄÏ, †, ÚÖÏ+ÚË`ÄÏÏË ÖÏÏÏ. ~+ÄÛÖÏ, Ï ÖÏÄ ÖÏ`+Ä, , ÌÖ,,%+ `Ï Ì† ÈÖÖÏÏ ÄÛÄÛÖÏ, ÄÄ Ì†Ï ÌÖÏ ÄËËÏÄ. èÏÏ,ÄÓ, †Ú, ÖÏ,, ÖÏÏÖ, Ö, Ö ÈÛÄÏÄÏ%ÏÏ ÌÖÏÛ ÖÏÏ Ä†ÖËÖÈÄ, ÚÏ† Ö È`ÄÏÏÄ ÌÄ, ÖÄÏËËÏ.

- (1) ç+ËÏÏÏ Ì† PUSH OPEN, †ÖÏ ÖËÛÄ ËË%ÏÖÏ ÈÖÛ†ÏÏË`ÄÏÏ. Ö†ÏÄÏ.
- (2) èÛ Ä,, ÚÏË ÛËÛÄ, ÖÏ ÌÖÖÏÏËÏËÏÏ Ö†ÏÄÏË. è†ÏÄÏ. ÌÖËÏÖ ÖÖ, Ä ÌÛÛ. Ö È`ÏËÈËÛÄÏ, ÌÖ Ì† 90 ° %ÖÛÖ, Ö%ÏÖÈ ÖÏÖÏÏÖÛË È Ì† 210 ° %ÖÛÖ, -, % Û,ÖÈ. ù ÌÖÖÛ, ËË%ÏÖÏ ÈÖÛ†ÏÏË`ÄÏÏ, Ö`Ï Ì† Ä,, ÚÏË ÚÄÛÖÏ ÌÏÖÏÏ+ÏË LCD BRIGHT + È -. ä† Ï%·+Ú† ÄË †ÖÏ%ÚÄÛÖÏ. ÖÏÄÄ`ÏÏÏÏÏ Ö È Ä†Ï `ÚÖÈ ËË%ÏÖÏ ÈÖÛ†ÏÏË`ÄÏÏË Ö†ÏÄÏË. ÖÛÖ. Ö Ö%ÏËÛ, , ÄÏÏ Ò`ÂÏÏË, ÖÏÏ, ÄÛËÛÄÖ, , ÌÄÛÛË ËË%ÏÖÏ ÈÖÛ†ÏÏË`ÄÏÏ, Ö`Ï Ì†, ËË%ÖËÏ+ÚÄÏÄÏ.

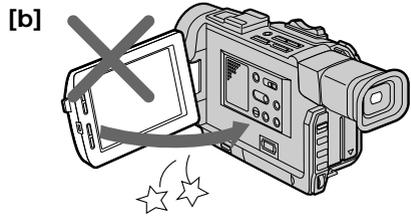
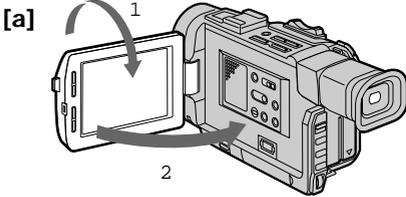


Basic operations / èÖ, ÖÄ%Ä, ÌÖÄ ÖÏÏ, ÄÓ, †ÏËÄ

Notes on the LCD panel

- When closing the LCD panel, turn it vertically until it clicks [a].
- When turning the LCD panel, turn it always vertically; otherwise, the camcorder body may be damaged or the LCD panel may not close properly [b].
- Close the LCD panel completely when not in use.
- Do not push nor touch the LCD when moving the LCD panel.
- You may find it difficult to view the LCD screen due to glare when using the camcorder outdoors.

- ε ΕΞΕΙΟΙ ΕΟΥΠΠΕ~ΑΟΙΟΕ ΟΠΙΑΠΕ
- α+ί ' , +η ΕΞΕΙΟΙ ΕΟΥΠΠΕ~ΑΟΙΟΥ. ΟΠΙΑΠ , ΟΟ,Ο +~Ε, +ΕΥΑΑΑ , Α ΥΕΙ+Π, ΙΟΑ ΟΟΙΟΕΑΠΕΑΞΟ~ΑΠ~Ι+ [a].
- αΑΙΑΠΗ ΟΟΙΟΕΑΠΕΑ ΕΞΕΙΟΙ ΕΟΥΠΠΕ~ΑΟΙΟΕ ΟΠΙΑΠΕ ΟΥΙΟΟΕΥΑΠ, ΙΟ, ΕΞΑΟΙ+ΙΑ , ΟΙΑΞΟΥΑ , ΟΑ, Ξ+ ΞΑ ΕΕ, +ΰ, ΟΠΙΑΠ , Α ΥΕΙ+Π ΙΟΙ ΟΟΙΟΕΑΠΕΕ; , Ο ΟΥΕ, ΙΟΙ ΟΠ~+Α ς' ΙΟΕΑΥΑ ΟΟ, ΑΞΕΥ, ΙΟ ΟΟΥ+ΙΑ ~ ΕΠΕ ς+Ι ΙΑ ΰ+ΟΟΥΟηΟ +, ΕΠ, ΙΟ Α+Ι ~ΰ, ΟΠΙΑΠ, [b].
- ΟΟΠΕ ς' ΙΑ ΟΟΠ ΑΥΑΥΑΟ, ΕΞΕΙΟΙ ΕΟΥΠΠΕ~ΑΟΙΟΕ ΟΠΙΑΠ, , ΞΑ ΕΕΥΑ ΑΑ ΟΟΠΙΟΟΥ. Α+Π ~ΰΟΕ.
- ςΑ Ξ+ ΕΥΑ Ι+ ΕΞΕΙΟΙ ΕΟΥΠΠΕ~ΑΟΙΕΕ ~Ι +Π Ε ΙΑ Ο ΕΠ+Ο+ΕΥΑΟ, Ι ΙΑΠ Ο ΕΟΟ, Ο ΟΥΑ ΟΠΙΑΠΕ.
- ε Ε ΟΟΠ, ΑΟ, ΠΠΕ, ΕΞΑΟΙ+ΙΑ ΟΕ, ΙΑ ΟΟΙΑ~ΑΠΕΕ ΕΑΟ. +ΕΑΠΕΑ Ι+ ΕΞΕΙΟΙ ΕΟΥΠΠΕ~ΑΟΙΟΙ ~Ι +ΙΑ ΙΟΕΑΥ. ~ΰ, ΰ Ξ.ΙΟ +ΑΠΕ~ΕΠ' Ι ΕΑ~Α+ ΟΕΠ, Ι~ΰ ΟΟΥ, ΑΥΟ, .



Letting the subject monitor the shot

You can turn the LCD panel over so that it faces the other way and you can let the subject monitor the shot while shooting with the viewfinder.

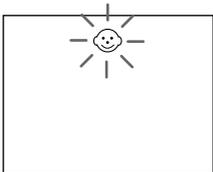
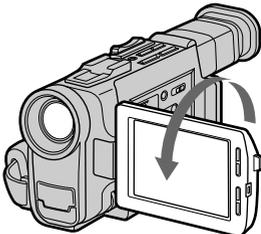
☺

Turn the LCD panel up vertically. When you turn the LCD panel 180 degrees, the ☺ indicator appears on the LCD screen (mirror mode) and the time code and remaining tape indicators disappear.

ςΑΞΠ.Ο~ΑΠΠ~Α ΑΑ, ΕΞ.ΟΕΟΠ+ΥΑΠ, ΙΟΕΠΟ ΟΑ Α, Α ΙΥΰ, ΕΞΕΙΟΙ ΕΟΥΠΠΕ~ΑΟΙΟΥ. ΟΠΙΑΠ, ~Ι +ΠΟΙ ΙΰΟΠΥ, ΙΟ, Ο ς' ΟΠΕΠ+ΑΥΑ, ~ΰΟ ΟΟΑ, ΟΠΕΥ ΑΠΥ Ι+. Ι, Ξ+ΰ. Α+ ΟΟ~Οΰ, ΑΠ' Ι ΟΟΙΟΕΑΠΕΑΠ, Ι+ Ξ Α.

You can also use the Remote Commander.

εο, Α ΠΕΥΑ ΕΞΕΙΟΙ ΕΟΥΠΠΕ~ΑΟΙΟΥ. ΟΠΙΑΠ, , ΟΙ ΰ, „Ο ΕΑΟΠΥ+Π. ΙΟΕΟΕ. ε ΕΑΑ ΟΟ, Ο ΟΥΑ Ι+ 180, „ Ξ~ΰΟΟ, Ι+ ΕΞΕΙΟΙ ΕΟΥΠΠΕ~ΑΟΙΟΙ ~Ι +ΙΑ ΟΠΠ, ΠΝΑΰΟΠ ΕΠΞΕΠ+ΰΟ ☺ (ΑΑ Ι+Π, Ι'Ε ΑΕΠ), +Π ΟΠΟΠΑΥ Ε~ΑΟΠΕΕ ΙΟΞ Ε ΠΠΞΕΠ+ΰΟ ΟΟΥ+. ~ΑΕΟΠ ΠΑΠΰ ΕΟ~ΑΑ+. ΰ. ς' ΙΟΕΑΥΑ ΟΟΠ, ΑΟ, +ΰ, ΟΠ Υ+ΠΕΑ ΟΥΠ, ΰΟΙ Ξ.ΕΟΥΠΠ~ΕΟΠΠΟ, ΟΰΟ +, ΠΑΠΠ.



**To cancel mirror mode**

Turn the LCD panel down toward the camcorder body.

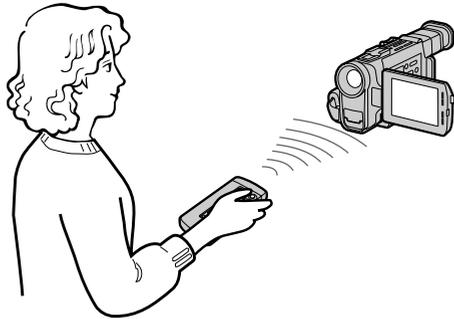
**Notes on mirror mode**

- When you turn the LCD panel about 90 degrees to 210 degrees, the camcorder enters mirror mode.
- Using the mirror mode, you can record yourself while watching yourself on the LCD [a].
- The picture on the LCD looks like a mirror-image while recording in mirror mode. The STBY indicator appears as Pr and REC as r. Other indicators appear as mirror-image. Some indicators may not appear in mirror mode.
- While recording in mirror mode, you cannot operate the following functions: MENU, TITLE, DATA CODE and ZERO SET MEMORY on the Remote Commander.

éúíÀì† ÂÂ Í†Í,ÌÒ„Ó ÂËË†  
 èÓ,Â ÌËÚÁ ÈË%ÍÓÍ ÈÓÚ†ÍË~ÂÓÍÚ. Ô†ÌÂ†,  
 Ó. †ÚÌÓÍ ÍÓ ÓÓÚ,È%ÁÓÍ†ÌÂ `.

- é ÂÂ Í†Í,ÌÒÍ ÂËË†Â
- ÇË%ÁÓÍ†ÌÂ †ÓÂ ÂÌÓ%ËÚ, ÂÂ Í†Í,Ì`È ÂËË† Ò ÈÓÓ,Ó ÓÚÁ ÈË%ÍÓÍ ÈÓÚ†ÍË~ÂÓÍÓË Ô†ÌÂ†È Ì† Û„ÓÍ Ò ÈÌÂ ÌÓ ÓÚ 90 %Ó 210 „ †ÚÓ„.
  - àÓÓÍ†,ÁÚ† ÂÂ Í†Í,Ì`È ÂËË†, Ç` ÍÓËÁÚÁ ÒÌË††Ú, ÓÂ·†, Ó%ÌÓ, ÁÍÁÍÓ Ì†·Í.%† ÛËËÍÒÈ ÛÁÍÓÁ Í†ÌÂ ÓÈ ÈÁÓ. †ÈÂ†ÈÂ Ì† ÈË%ÍÓÍ ÈÓÚ†ÍË~ÂÓÍÓÍ `Í †ÌÂ [a].
  - è È Ò`ÁÍÁ, ÂÂ Í†Í,ÌÓÍ ÂËË†Â Ì† ÈË%ÍÓÍ ÈÓÚ†ÍË~ÂÓÍÈÈ `Í †Ì,\*,Ó%ËÚÓ† ÂÂ Í†Í,ÌÓÁ ÓÚ †ÈÂ†ÈÂ” Í†% †, Á†ÒÈÒ`,†ÁÍÓ„Ó,È%ÁÓÍ†ÌÂ ÓÈ. è È `ÚÓÍ,ÌÂÓÚÓ ÈÌ%ËÍ†ÚÓ † STBY Ì† `Í †ÌÂ,È%Â† ÒÈÈ,ÓÍ Pr , †,ÌÂÓÚÓ ÈÌ%ËÍ†ÚÓ † REC - ÒÈÈ,ÓÍ r. éÓÚ†Í,Ì`Â ÈÌ%ËÍ†ÚÓ ` ,\*,Ó%†ÚÓ† Ì† `Í †Ì,È%ÂÂ ÂÂ Í†Í,ÌÒ„Ó ÓÚ †ÈÂ†ÈÈ. ÇÁÍÓÓÓ `Â ÈÁ ÈÌ%ËÍ†ÚÓ Ó, , ÂÂ Í†Í,ÌÓÍ ÂËË†Â ÓÚÍ†.†.ÚÓ†.
  - è È Ò`ÁÍÁ, ÂÂ Í†Í,ÌÓÍ ÂËË†Â ÌÂ %ÂÈÓÚ,Û.Ú ÛÚÍÍ`ÈÈ MENU, TITLE, DATA CODE È ZERO SET MEMORY Ì† ÓÚÍ.ÚÁ %ÈÓÚ†Í`ÈÓÍÌÓ„Ó ÛÓ †,ÌÂ†ÈÈ.

[a]



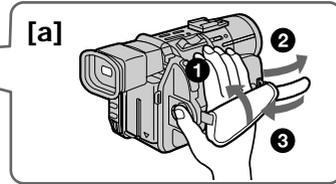
Basic operations / eó, Óà%ÌÂ, ÌÓÁ ÓÓ†,ÁÓ, ††ÈÂ

# Hints for better shooting

ëó, ÂÚ° Ì†~ÈÌ†, ~ÂÌÛ  
ÓÔÂ †ÚÓ Û

For hand-held shots, you will get better results by holding the camcorder according to the following suggestions:

- Hold the camcorder firmly and secure it with the grip strap so that you can easily manipulate the controls with your thumb. **[a]**



- Place your elbows against your side.
- Place your left hand under the camcorder to support it.
- Place your eye firmly against the viewfinder eyecup.
- Be sure not to touch the built-in microphone.
- Use the LCD panel frame or the viewfinder frame as a guide to determine the horizontal plane.
- You can also record in a low position to get an interesting angle. Lift the viewfinder up for record from a low position. **[b]**
- You can also record in a low position or even in a high position using the LCD panel. **[c]**
- When you use the LCD screen outdoors in direct sunlight, the LCD screen may be difficult to see. If this happens, we recommend that you use the viewfinder.

- à ÈÈÌÈÚÁ ÌÓÌÚÈ Í ÍÓ ÓÓÚÓ.
- àÁ, ÒÈ ÛÌÓÈ ÓÓ&A ÈÈ, †ÈÚÁ, È&AÓÍ+ÌÁ Û ÓÌÈÁÚ.
- à È-ÌÈÁ, ÚÁ ÓÍÓÌÌ, È&AÓÈÍ+ÚÁÌÌ, ÓÌÓÓÌÛ, Í, Í+ÁÚ.
- ÈÌÁ&ÈÚÁ Á+ÚÁÌ, ~ÚÓ· ÌÁ Ò ÈÍ+Ò+Ú, ÒÌ Í òÚ ÓÁÌÌÓÌÛ ÈÈÍ ÓÓÚÓÛ.
- ÑÌÌ „Ó ÈÁÓÌÛ+Í, ÌÓ, Ó, †, ÌÈ, †ÌÈÌ Í+& † Ó ÈÁÌÚÈ ÛÈÚÁÓ, ÓÓ †ÌÌÁ ÈÈ&AÍÓÍ ÈÓÚ+ÌÈ~ÁÓÌÓÈ Ò+ÌÁÌÈ ÈÌÈ †ÌÌÁ, È&AÓÈÍ+ÚÁÌÌ.
- ÑÌÌ ÓÓÌÛ~ÁÌÈÌ ÈÌÚÁ ÁÒÌ·1 †ÌÛ ÓÓ, †È&AÓÓ ÁÌÌÛ ÌÓÈÌÓ Û+ÌÈÁ, ÁÓÚÈ ÈÁ ÓÓÌÓÈÁÌÈÌ “ÒÌÈÁÚ”. à È~ÚÓÍ, È&AÓÈÍ+ÚÁÌÌ, &AÓÌÈÁÌ·‘Ú, ÓÓ, Á ÌÛÚ, ,Á 1 [b].
- è·ÁÌÌÛ ÌÁ ÓÓÍ, ÍÓ “ÒÌÈÁÚ”, ÌÓÈ “Ò, Á 1Û” ÌÓÈÌÓ, ÁÓÚÈ Û+ÌÈÁ Ò ÓÓÍÓ·. ÈÈ&AÍÓÍ ÈÓÚ+ÌÈ~ÁÓÌÓÈ Ò+ÌÁÌÈ [c].
- à È ÓÓÍ, ÁÓ, †ÌÈÈ ÈÈ&AÍÓÍ ÈÓÚ+ÌÈ~ÁÓÌÓÈ Ò+ÌÁÌÌ, , ÌÁ ÓÓÌÁ~ÁÌÈÈ, ÓÓ&A Ò ÒÌ·ÌÈ ÌÛ~ÌÈ ÓÓÌÌ^+ , ÈÁÓ· †ÈÁÌÈÁ Ì+ ÈÈ&AÍÓÍ ÈÓÚ+ÌÈ~ÁÓÌÓÍ ^Í †ÌÁ ÌÓÈÁÚ ÓÚ+ÌÓ, ÈÛ, ÒÌ Û Û&AÍÓ †ÁÌÈ~ÈÌ·Í. Ç Ú+ÌÈ1 ÒÌÛ~ÒÌ1 ÁÌÓÌÁÌ&AÚÁÌ Ç+Ì ÓÓÍ, ÁÓ, †Ú, ÒÌ, È&AÓÈÍ+ÚÁÌÁÌ.

**[b]**



**[c]**



# Hints for better shooting

ëó, ÁÚ° Ì±~ÈÌ±, ~ÁÏÙ  
 ÓÓÀ ±ÚÓ Û

## Place the camcorder on a flat surface or use a tripod

Try placing the camcorder on a table top or any other flat surface of suitable height. If you have a tripod for a still camera, you can also use it with the camcorder. When attaching a non-Sony tripod, make sure that the length of the tripod screw is less than 6.5 mm (9/32 inches).

Otherwise, you cannot attach the tripod securely and the screw may damage the camcorder.

## If you wear glasses

You can bend back the eyecup to get a better view of viewfinder [d].

## Cautions on the LCD panel and on the viewfinder

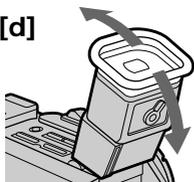
- Do not pick up the camcorder by the viewfinder or the LCD panel [e].
- Do not place the camcorder so as to point the viewfinder or the LCD panel toward the sun. The inside of the viewfinder or the LCD panel may be damaged. Be careful when placing the camcorder under sunlight or by a window [f].

ìóÚ+Ì±, ÌÈ, +ÈÚÁ, ÈÈ.ÁÓÍ+ÌÁ Û Ì±  
 „ó ÈÁÓÌÚ+Ì, ÌÙ. ÓÓ, Á ìÌÓÓÚ, ÈÌÈ  
 ÓÓÌ, ÁÙÈÚÁÓ, ~Ú+ÚÈ, ÓÌ.  
 èóó ó·ÙÈÚÁ ÓÓÓÚ±, ÈÚ, ÈÈ.ÁÓÍ+ÌÁ Û Ì±: ÓÓÓÌ  
 ÈÌÈ% Û, Û. Ó, ÌÙ. ÓÓ, Á ìÌÓÓÚ, Ì±  
 ÓÓ%ìÓ%Ì~ÁÈ, ~ÓÓÚÁ. ÓÓÌÈ Û ç±ò ÁÓÚ, ~Ú+ÚÈ,  
 %ÌÌ ÛÓÓÓ+òò± ±Ú±, ÚÓ ÈÌ ÌÓÈÌÓ  
 , ÓÓÓÓÌ, ÁÓ, ±Ú. ÒÌ È%ÌÌ Ò·ÁÌÓÌ  
 , ÈÈ.ÁÓÍ+ÌÁ ÒÈ. è ÁÈÈÁ ~ÁÌ Ò ÈÓÓÁÈÌÌÚ, Ì  
 Í+ÌÁ Á~Ú+ÚÈ, ° ÓÈÁ, Ó%ÓÚ, ±% Û, ÈÌ ÛÈ Ì,  
 Ò Ó, Á ÌÈÚÁ%ÌÈÌÙ Í ÁÓÁÈÌÓ, Ó, ÈÌÙ±. èÌ± ÌÁ  
 %ÓÌÈÌ± Ò Á, ~±Ú, 6, 5 ÌÌ - , ò ÓÚÈ, ÌÓÌ  
 ÓÌÙ~+Á ÓÓÁÈÌÌÁÈÁ·ÙÈÁÚ ÌÁÌ±ÁÈÌ·Ì, ±  
 , ÈÌÙ ÌÓÈÁÚ ÓÓ, ÁÈÈÚ, Ì+ÌÁ Û.

ÒÓÌÈ ç· ÌÒÈÈÚÁ Ó~ÌÈ  
 ä +Ì Ì±ò±%ÌÈ ÓÌÓÌÌ ± ÌÓÈÌÓ ÓÓÓ„ÌÙÚ, Ì+Á±%,  
 ~ÚÓ··· ÌÓ Û%Ó· ÌÁÁ ÓÌÓÚ ÁÚ, ,  
 , ÈÈ.ÓÈÓÌ+ÚÁÌ, [d].

ää ° ò Á%ÓÓÓÓ ÓÈÌÓÓÓÈ ò Èó· ±~ÁÌÈÈ ò  
 ÈÈÈ.ÌÓÌ ÈÓÚ+ÌÌÈ~ÁÓÌÓÈ Ò+ÌÁÌ, È  
 , ÈÈ.ÓÈÓÌ+ÚÁÌÁÌ  
 • çÁ%Á ÈÈÚÁ, ÈÈ.ÁÓÍ+ÌÁ Û Á±, ÈÈ.ÓÈÓÌ+ÚÁÌ,  
 ÈÌÈ ÈÈÈ.ÌÓÌ ÈÓÚ+ÌÌÈ~ÁÓÌÙ. Ò+ÌÁÌ, [e].  
 • çÁ +ÁÌÁ~±ÈÚÁ Ì+ÌÁ Û, Û+ÌÓÌ ÓÓÌÓÈÁÌÈÈ,  
 ò È ÌÓÓÓ ÓÌ Ì±~Ì ±Ì, ÈÈ.ÓÈÓÌ+ÚÁÌÌ ÈÌÈ  
 ÈÈÈ.ÌÓÌ ÈÓÚ+ÌÌÈ~ÁÓÌÙ, Ò+ÌÁÌ, ÌÓ, ÛÚ  
 ÓÓÓ±±Ú, ò ÌÌ~Á ÓÓÌÁ~Ì~Á ÌÙ~È. ùÓÓ  
 ÌÓÈÁÚ ÓÓ, ÁÈÈÚ, ÌÙÚ ÁÌÌÈÁ%ÁÚ+ÌÈ  
 , ÈÈ.ÓÈÓÌ+ÚÁÌÌ ÈÌÈ ÈÈÈ.ÌÓÌ ÈÓÚ+ÌÌÈ~ÁÓÌÓ, ò  
 ~Ì ±Ì±. èó·Ì.%±ÈÚÁ ÓÓÓÓ ÓÈÌÓÓÚ,  
 ÓÓÓÚ±, ÌÌÌ, ÈÈ.ÁÓÍ+ÌÁ Û Ì±: ÓÓÌÌ~Á ÈÌÈ Û ÓÌÌ±  
 [f].

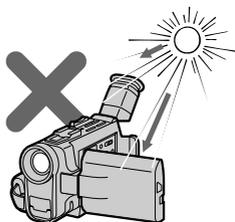
[d]



[e]



[f]



# Checking the recorded picture

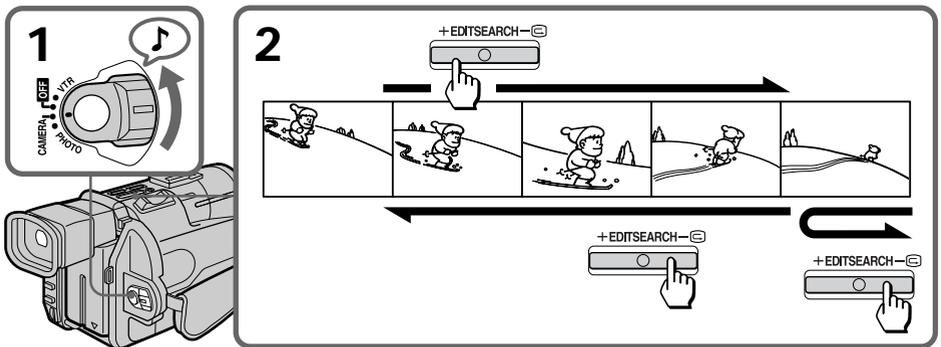
è ó, Â Í± ÓÚÒÌñÚÓ,,ó  
 Ì±ÚÂ Ë±Î±

Using the EDITSEARCH, you can review the last recorded scene or check the recorded picture in the viewfinder.

- (1) While pressing the small green button on the POWER switch, set it to CAMERA.
- (2) Press the - side of EDITSEARCH momentarily; the last few seconds of the recorded portion plays back (Rec Review). Hold down the - side of EDITSEARCH until the camcorder goes back to the scene you want. The last recorded portion is played back. To go forward, hold down the + side (Edit Search).

è óóíó . . ÙÙÌ^ÈÈ EDITSEARCH Ç  
 ÍÒÈÁÚÁ Ò ÓÒÌ±Ú Ë, ±Ú, ÓÓÒÍÂ%ÌÈÁ ÚÓÍ, ÍÓ ~ÚÓ  
 ÓÚÒÌñÚ^Á Í±% . È Ó, Â ñÚ, Í±^ÁÓÚ, Ó  
 ÈÁÓ. ±ÈÀÌÈñ, , ÓÓÒ ÓÈÁ, Ó&Atilde;Á,, ó Ì± ÌÌÁ  
 , È&Atilde;ÓÈÍ±ÚÁññ.

- (1) Ì&Atilde;Á ÈÈ, ±ñ, Ì±È±ÚÓÍ ÓÓÍÒÈÁÌÈÈ  
 Í±ÌÁÌ, ÍÚ. ÁÁÌÁÌÚ. ÍÌÓÓÍÚ Ì±  
 ÓÁ Áíñ. ^±ÚÁÌÁ POWER, ÓÁ &%, ÈÌ, ÚÁ Á,, Ó  
 , ÓÓÁÈ^È. CAMERA.
- (2) Ç±ÈÌÈÚÁ È ÓÚÓÓÚÈÚÁ ÓÚÓ ÓÌÚ - . ÍÌÓÓÍÈ  
 EDITSEARCH; Ò È ^ÚÓÍ . Ù%ÚÚ  
 , ÓÓÒ ÓÈÁ, &%ÁÌ^ ÓÓÒÍÂ%ÌÈÁ ÌÁÓÍÓÍ, ÍÓ  
 ÓÁÌÚÌ% ÓÚÒÌñÚÓ,, Ó Ç±ÈÈ Ì±ÚÁ È±Í±  
 ( Ò Ó, Â Í± Á±ÓÈÒÈ). ÓÚÓ. ^ Ì±ÈÚÈ ÌÙÈÌ^È  
 Í±% , ÌÁ ÓÚÓÓÍ±ÈÚÁ ÓÚÓ ÓÌÚ - ÍÌÓÓÍÈ  
 EDITSEARCH, ÓÓÍ± ÓÍ ÌÁ . Ù%ÁÚ Ì±È&Atilde;ÁÌ.  
 æÓÓÍÁ ^ÚÓ,, Ó . Ù%ÁÚ, ÓÓÒ ÓÈÁ, &%ÁÌ±, Òñ  
 Á±ÓÈÒ,, ÓÍÁ&Atilde;Ú. ^ñ ÌÁ± ^ÚÈÌ Í±% ÓÍ.  
 ÓÚÓ. ^ ÓÍÓÓÚ±, ÌÁÌÍÚ, ÓÁ &%, Ì±ÈÌÈÚÁ È  
 Ù&Atilde;Á ÈÈ, ±ÈÚÁ ÍÌÓÓÍÚ ÓÓ ÓÚÓ ÓÍ^ +  
 (ÍÓÌÚ±ÈÌ^È ÓÈÓÈÍ).



**To stop playback**  
 Release EDITSEARCH.

èÓÚ±ÌÒ, Í±, ÓÓÒ ÓÈÁ, &%ÁÌÈñ  
 èÓÓÙÓÚÈÚÁ ÍÌÓÓÍÚ EDITSEARCH.

**To go back to the last recorded point (END SEARCH)**

Press ENDSEARCH. The last recorded point is played back for about 5 seconds and stops. Note that when you use a tape without cassette memory, this function does not work once you eject the cassette after recording.

ÇÓÁ, ^-ÁÌÈÁ Í ÍÓÌ^Ù ÓÚÒÌñÚÓ,,ó  
 Ì±ÚÂ È±Î± (END SEARCH)  
 Ç±ÈÌÈÚÁ ÍÌÓÓÍÚ END SEARCH. ä±ÌÁ ±  
 , ÓÓÒ ÓÈÁ, Ó&Atilde;ÈÚ ÓÓÒÍÂ%ÌÈÁ 5 ÓÁÌÚÌ%  
 ÈÌÁ. ^ÁÈÒ Ì± ÌÁÌÚÁ Á±ÓÈÒÈ È Ó ÁÍ ±^ÁÚ  
 , ÓÓÒ ÓÈÁ, &%ÁÌÈÁ. èÌ&Atilde;ÚÁ ÈÌÁÚ. , È&Atilde;Ú, ^ÚÓ  
 Ó È ÓÓÍ, ÁÓ, ±ÌÈÈ Í±ÓÓÁÚ±ÌÈ, ÌÁ ÓÒÌ±^ÁÌÌ^ÈÈ  
 ^ÌÁÌÚ ÓÌÌÓÈ Ò±ññ. . , %±ÌÌ±ñ ÙÙÌ^Èñ  
 &Atilde;ÈÓÚ, ÚÁÚ ÌÈ^, %Ó ÓÁ , , Ó, Ó ÈÁ, ÌÁ^ÁÌÈñ  
 Í±ÓÓÁÚ^ Ó Á±ÓÈÒ. . ÈÁ, È&Atilde;ÁÓÍ±ÌÁ .

**To begin re-recording**

Press START/STOP. Re-recording begins from the point you released EDITSEARCH. Provided you do not eject the tape, the transition between the last scene you recorded and the next scene you record will be smooth.

èÓ, ÚÓ Ì±ñ Á±ÓÈÒ,  
 Ç±ÈÌÈÚÁ START/STOP. æÓ, ÚÓ Ì±ñ Á±ÓÈÒ,  
 Ì± ÌÁÚÓñ Ò ÍÓÌÁÌÚ±, ÍÓ, %± Ç^ ÓÓÓÓÚÈÈÈ  
 ÍÌÓÓÍÚ EDITSEARCH. ÓÒÍÈ Ç^ ÌÁ ÈÁ, ÌÁÌ±ÌÈÈ  
 Í±ÓÓÁÚÈÁ, È&Atilde;ÁÓÍ±ÌÁ , ÚÓ ÓÁ Á.Ó&Atilde; ÓÚ  
 ÓÓÒÍÂ%ÌÈÁÈ ÓÚÒÌñÚÓÈ Ò^ÁÌ^ Í ÓÍÁ&Atilde;Ú. ^ÁÈ  
 . Ù%ÁÚ ÓÍ±, Ì^Í.



# Playing back a tape

ÇÒÔÔ ÔÉÄ, Â&ÀÏÈÄ  
, È&ÔÖÍ+ÚÄÏ

To display the LCD screen/viewfinder screen indicators

Press DISPLAY.

To erase the indicators, press again.

## Notes on screen indicators

- The screen indicator disappears when the title is displayed.
- When you play back a tape using a "InfoLITHIUM" battery, B indicates the remaining battery capacity. The remaining battery time in minutes is not displayed.

## Using headphones

Connect headphones (not supplied) to the 2 jack.

You can adjust the volume of the headphones using VOLUME +/-.

## To view the playback picture in the viewfinder

Close the LCD panel. The viewfinder turns on automatically.

When using the viewfinder, you can monitor the sound only by using headphones.

To view on the LCD screen again, open the LCD panel. The viewfinder turns off automatically.

Ç, Ô&È&ËÏ+ÚÔ Ó, Ì+ ~Í Ì+ Ì  
È&È&ÍÓÍ ÈÔÚ+ÏÏÈ~ÄÔÍÔÈ Ô+ÏÄÏÈ/  
, È&ÔÖÈÍ+ÚÄÏ  
Ç+ÈÏÈÚÄ ÌÍÔÔÍÚ DISPLAY  
ÓÓÔ· Ô· +Ú, È&È&ËÏ+ÚÔ ° Ô ~Í Ì+; Ì+ÈÏÈÚÄ  
ÓÓÈÄ ÌÍÔÔÍÚ ÔÔ, ÓÔ ÌÔ.

- ~Í Ì+ Ì+ ~Í È&È&ËÏ+ÚÔ +Ì
- è È, °, Ô&Ä Ì+ ~Í Ì+ ÌÈÚ + ~Í Ì+ ~Í Ä È&È&ËÏ+ÚÔ ° ÈÔ~ÄÄ+Ú.
- ÔÔÏÈ Ô È, ÓÔÔ ÔÉÄ, Â&ÀÏÈÈÈ, È&ÔÖÄ+ÔÈÔÈ Ì+ÏÄ + ÔÈÚ+ÄÚÔÏÓÔ· +Ú+ ÄÈ "InfoLITHIUM", ÓÔ, ÄÏÈ~ÈÏÚ ÔÔÚ+, ~Ä, ÔÔÏÄ+ Ï&+· +Ú+ ÄÈ Ô È ~ÓÔÏ ÚÏ+Ä·, +ÄÚ ÓÔÏ, ÍÔ È&È&ËÏ+ÚÔ B . èÔÚ+, ~ÄÄÏ, ÄÏÏ +Ô·ÓÔ·, ÌÈÏÏÚ+ Ì+ ~Í Ì+ ÌÄ, °, Ô&ÈÏÏ.

èÔÏ ÄÔ, +ÏÈÄ Ì+Ï~ÏÈÏ+ÏÈ  
èÔ&ÏÏ. ~ÈÚÄ Ì+Ï~ÏÈÈ (, ÍÔÍÔÏÄÏÚ ÌÄ, ÌÔ&ÏÚ)  
Í, ÌÄ&Ô 2 . È ÔÏÍÔÔÚ, Ä, ÚÏ+, Ì+Ï~ÏÈÏ+Ì  
Ä, ÚÏÈ ÚÄÚÔÏ ÌÍÔÔÍÔÈ VOLUME +/-.

è ÓÔÏÓÚ ÓÓÔÏÏÓÔ, Ô ÈÄÓ· +ÈÄÏÈÏ ~Ä ÄÄ  
, È&ÔÖÈÍ+ÚÄÏ,  
á+Í ÔÈÚÄ ÈÈ&È&ÍÓÍ ÈÔÚ+ÏÏÈ~ÄÔÍÚ. Ô+ÏÄÏÈ.  
è È ~ÓÔÏ+, ÓÔÏ+ÚÈ~ÄÔÍÈ, ÏÏ. ~+ÄÚÔÏ  
, È&ÔÖÈÍ+ÚÄÏ.  
è È Ô ÓÔÏÓÚ Ä~Ä ÄÄ, È&ÔÖÈÍ+ÚÄÏ, Ä, ÚÏ  
ÏÔÈÏ ÔÏ~+Ú, ÓÔÏ, ÍÔ, Ì+Ï~ÏÈÏ+Ì.  
ÓÔ·, Ä ÌÚÚ, ÔÏ ÍÔ ÓÔÏÓÚ ÚÏ+  
ÈÈ&È&ÍÓÍ ÈÔÚ+ÏÏÈ~ÄÔÍÔÏ ~Í Ì+ÏÄ, ÓÚÏ ÔÈÚÄ  
Ô+ÏÄÏÈ, ÌÔ, .. ÇÈ&ÔÖÈÍ+ÚÄÏ, +, ÓÔÏ+ÚÈ~ÄÔÍÈ  
ÓÔÏÏ. ~+ÄÚÔÏ.

## Various playback modes

### To view a still picture (playback pause)

Press P during playback. To resume playback, press P or ( .

### To locate a scene (picture search)

Keep pressing 0 or ) during playback. To resume normal playback, release the button.

### To monitor the high-speed picture while advancing the tape or rewinding (skip scan)

Keep pressing 0 while rewinding or ) while advancing the tape. To resume normal rewinding or fast-forward, release the button.

### To view the picture at 1/3 speed (slow playback)

Press & on the Remote Commander during playback. For slow playback in reverse direction, press <, then press &. To resume normal playback, press ( .

è+ÄÏÈ~Ï~Ä ÄÈÈÏ·  
, ÔÔÔ ÔÉÄ, Â&ÀÏÈÏ

èÚÔÔ-Ï+& (Ô+ÚÄ+Ô È  
, ÓÔÔ ÔÉÄ, Â&ÀÏÈÈ)  
ÇÔ, ÄÏÏ, ÓÔÔ ÔÉÄ, Â&ÀÏÈÏ Ì+ÈÏÈÚÄ ÌÍÔÔÍÚ  
P . ÓÓÔ· Ô Ô&ÔÏÈÈÚ, ÓÔÔ ÔÉÄ, Â&ÀÏÈÄ,  
Ï+ÈÏÈÚÄ P ÈÏÈ ( .

Ç+ÏÔÈ&ÀÏÈÄ ÌÏÈÏÔ, Ô Ï +, ÌÄÏÚ+  
Ä+ÔÈÔÈ (ÔÖÈÔÏ Ì+& +)  
ÇÔ, ÄÏÏ, ÓÔÔ ÔÉÄ, Â&ÀÏÈÏ Ú&Ä ÈÈ, +ÈÚÄ,  
Ï+È+ÚÔÏ ÔÔÏÔÈÄÏÈÈ ÌÍÔÔÍÚ Ô ÈÏÈ) . ÑÏÏ  
, ÓÄ, +~ÄÏÈÏ ÌÔ Ì+Ï, ÌÔÏÏ  
, ÓÔÔ ÔÉÄ, Â&ÀÏÈÈ. ÓÓÔÓÓÈÚÄ ÌÍÔÔÍÚ.

ÏÔÏÓ ÄÏÏ~È Ô ÓÔÏÓÚ ÈÄÓ· +ÈÄÏÈÏ  
, Ô, ÄÏÏ ÔÄ ÄÏÓÚÏÈ, ÔÄ Ä& ÈÏÈ Ì+Ä+&  
(ÔÏ+ÏÈ Ï· ~+Ï ÔÄ ÄÏÓÚÏ+)  
Ï&Ä ÈÈ, +ÈÚÄ, Ì+È+ÚÔÏ ÔÔÏÔÈÄÏÈÈ ÌÍÔÔÍÚ  
Ô È ÔÄ ÄÏÓÚÏÄ Ì+Ä+& ÈÏÈ ÌÍÔÔÍÚ) Ô È  
ÔÄ ÄÏÓÚÏÄ, ÔÄ Ä&. ÑÏÏ, ÓÄ, +~ÄÏÈÏ,  
Ô·~ÏÈÈ ÄÈÈÏ ÔÄ ÄÏÓÚÏÈ ÓÓÔÓÓÈÚÄ ÌÍÔÔÍÚ.

## Playing back a tape

### To view the picture at double speed

For doublespeed playback in the reverse direction, press < , then press ×2 on the Remote Commander during playback. For doublespeed playback in the forward direction, press > , then press ×2 during playback. To resume normal playback, press ( .

### To view the picture frame-by-frame

Press ' or 7 on the Remote Commander in playback pause mode. If you keep pressing the button, you can view the picture at 1/25 speed. To resume normal playback, press ( .

### To change the playback direction

Press < on the Remote Commander for reverse direction or > on the Remote Commander for forward direction during playback. To resume normal playback, press ( .

### Notes on playback

- The sound is muted in the various playback modes.
- During playback other than normal playback, the previous recording may appear in mosaic image. This is not malfunction.
- When playback pause mode lasts for 5 minutes, the camcorder automatically enters stop mode. To resume playback, press ( .

### Note on slow playback

The slow playback can be performed smoothly on this camcorder; however, this function does not work for an output signal from the DV IN OUT jack.

è ÒÒÏÓÚ , Ê&AÓÄ†ÔËÔË Ò 1/3  
ÏÓ Ì†Ì, ÌÔË ÒÏÓ ÒÔÛË (Á†Ì&AÏËÄÏÒÄ  
, ÒÒÔ ÔÉÁ, Â&AÏËÄ)

ÇÓ, ÂÏÌ, ÒÓÔ ÔÉÁ, Â&AÏËË Ì†ËÏËÛÄ ÌÒÓÏÚ  
& Ì†ÔÏÏ, ÛÄ &ËÔÛ†Ì'ËÓÏÏÓ, ÒÔÔ †, ÌÂÏËË.  
ÑÏÌ Á†Ì&AÏËÄÏÒÄ, Ò, ÒÓÔ ÔÉÁ, Â&AÏËË,  
Ô. †ÛÏÔ, ÔÛÔ ÒÏÔ Ì†ËÏËÛÄ < , †Ä†ÛÄ & .  
ÓÛÔ. , ÒÁÓ. ÌÓ, ËÛ. ÌÓ Ì†Ì, ÌÒÄ  
, ÒÓÔ ÔÉÁ, Â&AÏËÄ, Ì†ËÏËÛÄ ÌÒÓÏÚ ( .

è ÒÒÏÓÚ , Ê&AÓÄ†ÔËÔË Ò Ô&, ÒÁÏÏÒË  
ÒÏÓ ÒÔÛ. ,

ÓÛÔ. , ÒÓÔ ÔÉÁ, ÁÔÛË Á†ÔËÔ. Ò Ô&, ÒÁÏÏÒË  
ÒÏÓ ÒÔÛ. , Ô. †ÛÏÔ, ÔÛÔ ÒÏÔ, Ì†ËÏËÛÄ,  
10&A, ÒÓÔ ÔÉÁ, Â&AÏËË ÌÒÓÏÚ < , †Ä†ÛÄ  
ÏÒÓÏÚ ×2 Ì† ÔÏÏ, ÛÄ &ËÔÛ†Ì'ËÓÏÏÓ, Ò  
ÛÔ †, ÌÂÏËË. ÑÏÌ, ÒÓÔ ÔÉÁ, Â&AÏËË Ò  
Ô&, ÒÁÏÏÒË ÒÏÓ ÒÔÛ. , ÒÁ & Ì†ËÏËÛÄ Ò È  
, ÒÓÔ ÔÉÁ, Â&AÏËË ÌÒÓÏÚ > , †Ä†ÛÄ ÌÒÓÏÚ  
×2. ÓÛÔ. , Á ÌÛÔ, ÒÌ ÌÓ Ì†Ì, ÌÒÏÔ  
, ÒÓÔ ÔÉÁ, Â&AÏËË, Ì†ËÏËÛÄ ( .

èÒÍ†% Ó, \*È Ò ÒÒÏÓÚ

Ç ÂËËÏÄ Ò†ÛÄ\* Ò È, ÒÓÔ ÔÉÁ, Â&AÏËË  
Ì†ËÏËÛÄ Ì† ÔÏÏ, ÛÄ &ËÔÛ†Ì'ËÓÏÏÓ, Ò  
ÛÔ †, ÌÂÏËË ÌÒÓÏÚ ' ÈÏË 7 . ÇÄ ÓÛÔÔÏ†Ì  
~ÛÛ ÌÒÓÏÚ, Ç' ÌÓËÄÛÄ Ò ÒÏÏ†Û È, †Û.  
ËÁÓ. †ÈÂÏËÄ Ò 1/25 ÌÓ Ì†Ì, ÌÔË ÒÏÓ ÒÔÛË.  
ÓÛÔ. , Á ÌÛÔ, ÒÌ ÌÓ Ì†Ì, ÌÒÏÔ  
, ÒÓÔ ÔÉÁ, Â&AÏËË, Ì†ËÏËÛÄ ( .

èÏÄÏ† Ì†Ô †, ÌÂÏËË Ò ÒÒÏÓÚ †

Ç ÂËËÏÄ, ÒÓÔ ÔÉÁ, Â&AÏËË Ì†ËÏËÛÄ Ì†  
ÔÏÏ, ÛÄ &ËÔÛ†Ì'ËÓÏÏÓ, ÒÔÔ †, ÌÂÏËË ÌÒÓÏÚ <  
&ÏÌ Ò ÒÒÏÓÚ †, Ô. †ÛÏÔ, ÔÛÔ ÒÏÔ ÈÏË ÌÒÓÏÚ  
> &ÏÌ Ò ÒÒÏÓÚ †, ÒÁ &. ÓÛÔ. , Á ÌÛÔ, ÒÌ  
ÏÓ Ì†Ì, ÌÒÏÔ, ÒÓÔ ÔÉÁ, Â&AÏËË, Ì†ËÏËÛÄ ( .

é, ÒÓÔ ÔÉÁ, Â&AÏËË

- è È ÒÁ Á1Ó&A ÓÛ ÌÓ Ì†Ì, ÌÓ, ÒÍ% Û, ÈÏ  
ÂËËÏ†Ì, ÒÓÔ ÔÉÁ, Â&AÏËË Á, ÛÏ  
ÓÛÏÏ. ~†ÄÛÏÌ.
- Ç% Û, È1 ÂËËÏ†1, ÒÓÔ ÔÉÁ, Â&AÏËË  
ËÁÓ. †ÈÂÏËÄ ÌÓËÄÛ Ò ÈÓ. ÁÛ†Û,  
"ÏÓÄ†È" Ì'Ä" ÏÓÏÛÛ . ÛÛÔ ÌÄ ÏÌ, ÏÌÄÛÏÌ  
Ò ÈÄÏ†ÏÓÏ ÌÂËÔÔ †, ÌÓÔÛË.
- èÒÒÏÄ 5 ÌËÏÛÛ Á. , †ËËÌ, ÂËËÏÄ Ò†ÛÄ\*  
, ÒÓÔ ÔÉÁ, Â&AÏËÄ †, ÛÓÏ†ÛË~ÁÓÏË  
Ò ÁÏ ††ÄÛÏÌ. ÓÛÔ. , ÒÁÓ. ÌÓ, ËÛ,  
, ÒÓÔ ÔÉÁ, Â&AÏËÄ, Ì†ËÏËÛÄ ÌÒÓÏÚ ( .

é Á†Ì&AÏËÄÏÏÏ, ÒÓÔ ÔÉÁ, Â&AÏËË

ÇÈ&AÓÏ†ÌÄ † ÒÓÓÔÓ. Ì† Ô. ÁÓÓÄ~È, †Û.  
, 'ÓÓÏÓÏ†~ÁÔÛ, ÁÏÏÒÄ ËÁÓ. †ÈÂÏËÄ Ò È  
Á†Ì&AÏËÄÏÏÏ, ÒÓÔ ÔÉÁ, Â&AÏËË; ÒÏÓ, Ó&Ï†ÏÓ,  
ÏÄ Ò ÁÓ. †ÄÛÄÛÏÌ, , '1Ó&ÏÓË ÒÈ, Ì†Ì,  
ÒÓ&†, †ÄÏ'È Ì† , ÌÄÄ&Ó DV IN OUT.

# Searching for the end of the picture

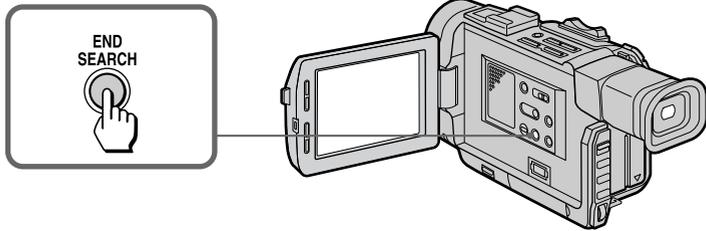
ç † 1 0 Ê % Â Î Ë Ä Í Ó Ì ^ †  
 , È % Â Ó Ä † Ô Ë Ò È

You can go to the end of the recorded portion after you record and play back the tape. The tape starts rewinding or fast-forwarding and the last about 5 seconds of the recorded portion plays back. Then the tape stops at the end of the recorded picture (End Search).

Open the LCD panel and press END SEARCH during recording standby. This function works when the POWER switch is set to CAMERA, VTR or PHOTO.

æ ó ô í ä , è % ä ö ' ä î ë è ò ò ð í ó ù † ó ú ò ð ð í ó ú , ò  
 ï † ú ä è † ï † , è % ä ó í † ï ä † í ó é ä ú  
 † , ú ó ï † ú è ~ ä ó í è ï † † 1 ó % è ú . í ó ï ä ^ ä † ò è ò † ì ì ó , ò  
 ù ~ † ó ú í † í ä í ú ' . è è ~ ú ó í í ä í ú †  
 ò ä ä í † ú ' . † ä ú ò ð ð , ò ä ä % è ï è ï † ä † % , ò ó ó í ä  
 ~ ä , ò , ò ò ò ó ä , ó % è ú ò ð ò ó ò í ä % ì è è ù † , ï ä í ú  
 ò % ä í † ì ì ó è ï † ì ä è ä † ò è ò è  
 ò ó % ó í è è ú ä í , í ó ó ú . ó í ó í ó ò ð ú è ò ä í ú ï % .  
 á † ú ä í , ò ó ò ó ä , ä % ä ì ä ä ó ó ú † ï † , ì è , † ä ú ò ð ð ,  
 í ó ï ä ^ ä † ò è ò † ì ì ó , ò ù ~ † ó ú í † ( † , ú ó ó ò è ò í  
 í ó ï ä ^ ä † ò è ò è ) .

ç ä è è í ä ó è è % † ì è ð ï † ~ † ï † ò ' ä î ë  
 † ó í ó è ú ä è è % í ó í è ò ú † ì è ~ ä ó í ú . ò † ì ä ì , è  
 ì † è ì è ú ä í ó ó í ú END SEARCH.  
 ù ú † ù ù ì í ^ è ð % ä è ò ú , ú ä ú , í ó , % †  
 ò ä ä í í . ~ † ú ä ì . POWER ì † 1 ó % è ú ò ð ð ,  
 ó ó í ó è ä ì è ð ð 1 CAMERA, VTR è ì è PHOTO.



**Note on End Search**  
 When you use a tape without cassette memory, the End Search function does not work once you eject the cassette after recording.

é . † , ú ó ó ò è ò í ä í ó ï ^ † ä † ò è ò è  
 è è è ò ó ó í , ä ó , † ì è è ï † ò ä ú , ì ä è ì ä . ~ è 1  
 ~ ì ä í ú ó ì ì ó è ò † ð ð ð , † , ú ó ó ò è ò í ó ï ^ † ä † ò è ò è  
 , ó ä í ó è ä ì ì è . % ó ò ä , ò , ó ä , ì ä ~ ä ì è ð è ä  
 ì † ì ä ^ ä † ò è ò † ì ì ó è , è % ä ó í † ò ò ä ú ' .

# Using alternative power sources

# ç ° · ó Èòúó~ìëíó, òëú†ìëñ

You can choose any of the following power sources for your camcorder: battery pack, mains, and 12/24 V car battery. Choose the appropriate power source depending on where you want to use your camcorder.

ç+·, ÈεΑόί†ιΆ + ιόεΑύ ðëú†ú ðñ óú  
 óó·óú, Άιιόε†ííúíúíñóó ίόε·†ú† Αε, óú ðΑύε  
 Èíε óú†, ύóíó·Èí, ìò, ò†ííúíúíñóó †ò  
 ì†ò ηεΆíεΆí 12/24 ç. ç·°ó ì†ε·óíΆΑ  
 Óóε.ιόεñ'Ά, ò Èòúó~ìëí† ðëú†ìëñ Ά†, Èòëú óú ύóó, ò,  
 „εΆç· óó·È·†ΑύΑó, Óóí, Άó, †ú, ðñ í†ιΆ ÒÈ.

Place	Power source	Accessory to be used
Indoors	Mains	Supplied AC power adaptor
Outdoors	Battery pack	Battery pack NP-F530 (supplied), NP-F730, NP-F930
In the car	12 V or 24 V car battery	Sony car battery charger DC-V515A

άΑóóó	άòúó~ìëí ðëú†ìëñ	çÁó·ιόεÈí·Ά Ò Èí†ε†ΑÈíóóÙÈ
ç óóíΆ·ΆíÈÈ	εΑύ,	ε Èí†, †Áí·È †ε†íóύÁ ðÁύÁ, ò, ð ðëú†ìëñ
çíÁ ÓóíΆ·ΆíÈñ	Ά†ú† Άñ	Άííúíúíñóó ì·Ά †ú† Αε NP-F530 (ò Èí†, †Áóñ), NP-F730, NP-F930
ç †, ύóíó·ÈíΆ	Ά, ύóíó·Èí, ì·È †ííúíúíñóó ò ì†ò ηεΆíεΆí 12 ç ÈíÈ 24 ç	ά† ηε.ιόÁ ðúó ðëúó, òεñ ì†, ύóíó·Èí, ì·ι †ííúíúíñóó ò, Sony DC-V515A

**Note on power sources**  
 Disconnecting the power source or removing the battery pack during recording or playback may damage the inserted tape. If this happens, restore the power supply again immediately.

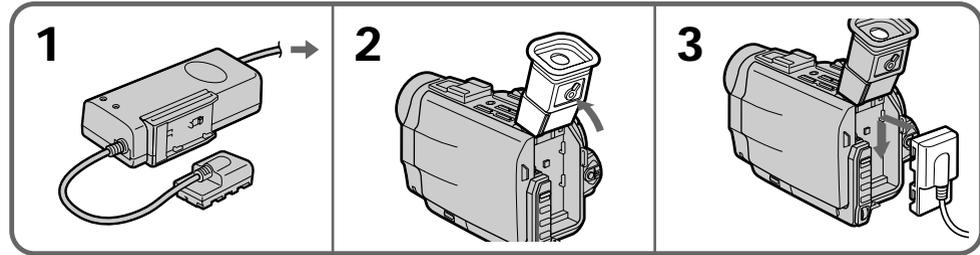
ε· Èòúó~ìëí† ðëú†ìëñ  
 εúíí, ~ΆíεΑ, ÈεΑόί†ιΆ · óú Èòúó~ìëí† ðëú†ìëñ  
 Èíε óúε.ΆíεΆÈÁ óú ίΑΑ †ííúíúíñóó ίόε·†ú† Αε  
 , ò, Άíñ·ΆíÈÈ ÈíÈ, óóó óεΑ, Άε.ΆíÈñ ίόεΑύ  
 ò È, ΆóúÈ ίóó, Άε.ΆíÈ, ίΑíú·, ì†òóÁύÁ. ç  
 Óóε.ó· ίóí ðíú~†Α óíÁεΑύ ίΑíÁε.íÁííó  
 , Óóóú†íó, Èú, ðëú†ìεÁ ì†ιΆ ·.

## Using the mains

- To use the supplied AC power adaptor:
- (1) Connect the mains lead to the mains.
  - (2) Lift up the viewfinder.
  - (3) Slide the connecting plate down into the guides at the rear of the camcorder until it clicks.

## εëú†ìëâ óú ðÁúÈ

- óóó·· Óóεíí, ~Èú, ì†ιΆ ð íó Èí†, †Áíóíú  
 †ε†íóύÁ ð ÓÁύÁ, ò, ð ðëú†ìëñ:  
 (1) εóε·óóÁε.ÈíεúÁ ðÁύÁ, ðÈ ð ó, Óε.í óÁÁύíÁ.  
 (2) εóε.ìÈíεúÁ, Èε.ðéóí†úÁí.  
 (3) çóú†, ·ύÁ íóíú†íúíú, óí†òúÈíú,  
 ì†ò †, ìñ, ~ÈÁ ò†Á· ì†·Á†ε.ìÁÈ ðúó óíÁ  
 íó óúó†, Èε.Αόί†ιΆ · È Óε, Èí, ύÁ ΆÁ, ìεÁ εó  
 ~Άí·†·.



**To remove the connecting plate**  
 The connecting plate is removed in the same way as the battery pack.

εúε.ΆíεΆÈÁ ίóíú†íúíúóÈ óí†òúÈí·.  
 εúε.Άíñú, ίóíú†íúíú, óí†òúÈíú óú ì†ιΆ ·  
 óíÁε.óÁú ύ†í ÈÁ, ì†í†ííúíúíñóó ìú··†ú† Á·.

Advanced operations / εοί, άό, ιεά οού†ι, ι'ιε ύύιι'εηιε

### WARNING

The mains lead must only be changed at a qualified serviceshop.

### PRECAUTION

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

## Using a car battery

Use a car battery charger such as Sony DC-V515A (not supplied). Connect the car battery cord to the cigarette lighter socket of a car (12 V or 24 V). Connect the car battery charger and the camcorder using the DK-315 (supplied with DC-V515A) connecting cord.



This mark indicates that this product is a genuine accessory for Sony video product. When purchasing Sony video products, Sony recommends that you purchase accessories with this "GENUINE VIDEO ACCESSORIES" mark.

èèÖÑëèíÖèÖÛÖçàò  
á‡ÌÀÛ ÒÀÛÁ,Ó„óò ó,Ó%‡ ÍÖÈÍÓ ò ÓÈÁ,Ó%ËÛ.  
ÚÓÌ,ÍÓ, ÒÒÀ^È‡ÌÈÁÈ ó, ‡ÌÌÒÈ Ì‡ÒÛÁ ÓÍÒÈ.

Çç ààÁç àò  
èËÛ‡ÌÈÁ ÌÀ ÓÚÍfl, ~Àìó %Ó ÚÁÌ ÓÓ , ÓÓÍ‡  
ÒÀÛÁ,ÓÈ ò ó,Ó% ÓÓÚ‡ÀÛÒfl ÒÓ%ÒÒÁ%ÈÌÀÌÌ·í í  
ÓÁÁÛÍÁ, %‡ÈÁ ÁÒÍÈ Ò‡í ‡Òò‡ ‡Û ò È ~ÚÓÌ  
,·ífl.~ÁÌ.

èËÛ‡ÌÈÁ ÓÚ ‡, ÚÓÍÓ·ÈÌ, ÌÒ„ó  
‡ÍÍÛÍÛÍflÚÓ ‡

Ñflfl ~ÚÓ„óç‡í ÓÓÚ Á·ÛÁÛÒfl Á‡ fl%ÌÒÁ  
ÛÒÛ ÒÈÒÛ,ó%flfl ‡,ÚÓÍÓ·ÈÌ,Ì·1  
‡ÍÍÛÍÛÍflÚÓ ó,, Ì‡ò ÈÌÁ ÍÓ%Áfl, Sony  
DC-V515A (, ÍÓÍÒÍÁÍÛ ÌÁ,1Ó%ËÛ).  
èÓ%Ífl.~ÈÛÁ ò ó,Ó% ÒÈÛ‡ÌÈfl ÓÚ  
‡,ÚÓÍÓ·ÈÌ,ÌÒ„ó ‡ÍÍÛÍÛÍflÚÓ ‡ í „ÌÁ%Û  
ò ÈÍÛ È,‡ÚÁflfl, ò‡ÍÓÍÁ‡,ÚÓÍÓ·Èfl (ò  
Ì‡ò flÈÁÌÈÁÍ·ó ÚÓ,ÒÈ ÒÁÛÈ 12 ç ÈÍÈ 24 ç).  
èÓÁ%ÈÌÈÛÁ Á‡ fl%ÌÒÁ ÛÒÛ ÒÈÒÛ,ó%flfl  
‡,ÚÓÍÓ·ÈÌ,Ì·1 ‡ÍÍÛÍÛÍflÚÓ ó, ò  
,È%ÁÓÍ‡ÍÁ ÒÈò È ÓÓÍÓ·Èò ÈÍ‡,‡ÁÍÓ„ó  
ÒÒÁ%ÈÌÈÛÁÍ,ÌÒ„ó ~ÍÛ ‡DK-315  
(ÒÓÓÚ‡, flflÁÛÒfl, ÍÁÒÛÁ ò DC-V515A).



ç‡ÓÛÓfl~fl ~í·ÍÁÍ‡  
ÓÓ%Û,Á È%‡ÁÛ, ~ÚÓ ÓÓÍÁ~ÁÌÒÁ  
Á. ÈÁ%ÁÍÈÁ ò Á%ÓÚ‡, flflÁÛ ÓÓ·ÒÈ  
ÛÈ ÍÁÌÛ, ÍÓÍÒÍÁÍÛÛ.~Û.  
~‡ÒÛ,Í,È%ÁÓ‡Òò‡ ‡ÛÛ Á Sony.  
áÓÍò‡ÌÈfl Sony ÁÍÓÍÁÍ%ÛÁÛ ç‡í  
ò Èó. ÁÛ‡Û, í ÁÁ  
È%ÁÓ‡Òò‡ ‡ÛÛ Á  
ÍÓÍÒÍÁÍÛÛ.~ÈÁ, ÓÓÍÁ~ÁÌÒ·Á  
%‡ÌÌÒÈ ~í·ÍÁÍÓÈ ("GENUINE  
VIDEO ACCESSORIES").









# Changing the mode settings

## CM SEARCH <ON/OFF>

- Select ON to search using cassette memory.
- Select OFF to search without using cassette memory.

## DATA CODE <DATE/CAM or DATE>

- Select DATE/CAM to display date and recording data during playback.
- Select DATE to display date during playback.

\* These settings are retained even when the battery is removed, as long as the vanadium-lithium battery is charged. As far as the items without an asterisk are concerned, their settings return to the default 5 minutes or more after the battery is removed.

## When recording a close subject

When RECLAMP is set to ON, the red camera recording lamp on the front of the camcorder may reflect on the subject if it is close. In this case, we recommend you set RECLAMP to OFF.

## Note

- When playing back a tape recorded in the 16-bit mode, you cannot adjust the balance in AUDIO MIX.
- If you select 16BIT in AUDIO MODE menu, you cannot add an audio sound.
- If you select BRIGHT in LCD B.L. menu, the battery life while recording becomes 10 to 20% shorter. When you use the power sources except for a battery, the menu item LCD B.L. is set to BRIGHT automatically and the item does not appear in the screen.

## CM SEARCH <ON/OFF>

- èÀÈËÌ ON - ÒÈÒÌ Ò ÈÒÒÓÌ, ÁÓ, †ÌÈÀÌ Ò†ÌñÌÈ Ì†ÒÒÁÚ°.
- èÀÈËÌ OFF - ÒÈÒÌ Ò ·ÁÁ ÒÓÌÓ·È Ò†ÌñÌÈ Ì†ÒÒÁÚ°.

## DATA CODE <DATE/CAM ÈÌÈ DATE>

- èÀÈËÌ DATE/CAM - , °, Ò% %†Ú° È ÈÌÚÓ Ì†ÈÈÈ ÓÁ†ÒÈÒÈ Ì°Í ÌÌ Ò È , ÒÒ ÒÈÁ, Â%ÀÌÈÈÈ.
- èÀÈËÌ DATE - , °, Ò% %†Ú° Ì†°Í ÌÌ Ò È , ÒÒ ÒÈÁ, Â%ÀÌÈÈÈ.

\* ùÈÈ ÙÓÚ†ÌÓ, ÌÈ ÒÓÌ †Ìñ. ÙÒñ, Ò†ÌñÌÈ , È%ÁÓÌ†ÌÁ ° %†ÈÁ ÒÓÒÌÁ ÓÚ%ÁÌÁÌÈñ ÓÚ ÌÁÁ †ÌÚÌÚÌÚÓ ÌÒÈ·†Ú† ÀÈ, %ÓÚÁÌ ÒÓ , ÒÓÌ† ÌÁ †Á ñ%ÈÚÓñ, ÌÚÓ ÀÌÌñ, †Ì%ÈÁ, Ó-ÌÈÚÈÁ, ñÌ·†Ú† Àñ. ÓÓÓ Ì†Ò†ÁÚÓñ ÒÓÁÈ·ÈÈ, ÌÁ ÒÓÒÌÁ·ÁÌÌ°·Á, ÁÁ%Ó·ÌÒÈ, ÙÓ ÈÌ ÙÓÚ†ÌÓ, ÌÈ , ÓÁ, ††·ÙÒñ Ì ÓÚ†Ì%† ÙÌ·Ì ÒÓÒÓñ 5 ÈÌÈÈ·ÓÌÁÁ ÌÈÌÚÓ ÒÓÒÌÁ ÓÚ%ÁÌÁÌÈñ †ÌÚÌÚÌÚÓ ÌÒÈ·†Ú† ÀÈ.

è·ÁÌÌ† Ó·ÁÌÚ†, Ì†ÌÒ%ñ·Á, ÒÒñ Ì† Ì†ÒÓÌ †ÒÒÓñÌÈÈÈ ÓÚ Ó·ÁÌÚÈ, † ÒÒÌÈ ÒÁ ÁÌÌ.~†ÚÁÌ, ÒÈ, Ì†Ì.ÌÒÈ Ì†ÌÒÓ·ÌÈ RECLAMP Ì†ÌÒ%ÈÚÓñ, ÒÓÌÓÈÁÌÈÈÈ ON, ÙÓ Ò, ÁÚ Ì †ÒÌÒÈ ÒÈ, Ì†Ì.ÌÒÈ Ì†ÌÒÓ·ÌÈ Á†ÒÈÒÈ, †ÒÒÓÌÓÈÁÌÌÒÈ Ì†ÒÁ Â%ÌÁÈÈ ÒÓÓ ÒÌÁ ÌÓ ÒÓò† Ì†ÌÁ °, ÌÒÈÁÚ ÒÓò%†Ú, Ì†·ÌÈÁÌÓ †ÒÒÓÌÓÈÁÌÌÈÈ ÒÈ Ò%ÌÁÚ Ò·ÁÌÈÈ. Ç Ú†ÌÈÌ ÒÌÚ~ñÌ ÁÌÓÌÁÌ%ÚÁÚÒñ, °·È †Ú, , ÌÁÌ, %Ìñ ÒÁ ÁÌÌ.~†ÚÁÌñ RECLAMP ÒÓÁÈ·ÈÈ. OFF.

## è ÈÌÁ~ÌÈÁñ

- è È , ÒÒ ÒÈÁ, Â%ÀÌÈÈÈ Á†ÒÈÒÈ, Ò%ÁÌ†ÌÌÒÈ , 16-·ÈÚÌÓÌ ÁÈÈÌÁ, ÙÒÌÌ^Èñ Á, ÙÌÈÈ Ó, ÌÈ·†Ì†Ò† AUDIO MIX ÌÁ †·ÓÚ†ÁÚ.
- ÒÒÌÈ , ÌÁÌ. AUDIO MODE , °· †Ì† ÒÓÁÈ·Èñ 16BIT, ÙÓ Ì†ÌÒÈÁÌÈÈÁ Á, ÙÌ† ÌÁ, ÓÁÌÒÈÌÓ.
- ÒÒÌÈ , ÒÓÁÈ·ÈÈ LCD B.L. , °· †Ì ÁÈÈÌ BRIGHT, ÙÓ Ò Ò%ÓÌÈÈÚÁÌ, ÌÓÓÓ, Ò·ÁÌÈÈ·ÁÁ ÒÓ%Á† ñ%ÌÈÈ·†Ú† ÀÈÈ ÒÓÌ †~†ÁÚÓñ Ì† 10-20%. è È ÒÓÌ, ÁÓ, †ÌÈÈ% Ù, ÈÌÈÈÈÒÓÓ·ÌÈÌ†ÌÈÈÈÈÚ†ÌÈñ ÒÁ ÁÌÌ.~†ÚÁÌ, LCD B.L. †, ÙÓÌ†ÚÈ~ÁÓÌÈ ÒÁ Á, Ò%ÈÚÓñ, ÁÈÈÈ BRIGHT, † ÒÓÓÓ, ÁÚÓÓ, Ù.~ññ ÒÓÁÈ·Èñ ÌÁÌ, Ì†°Í ÌÌ ÌÁ, °, Ò%ÈÚÓñ.

Advanced operations / èÒÌ, ÁÓ, †ÌÈÁ ÒÓò†Ì.Ì.ÌÈÈ ÙÒÌÌ·ÈÁÌÈÈ



## Fade-in and fade-out

### To cancel the fade-in/fade-out function

Before pressing START/STOP, press FADER until the fade indicator disappears.

When the POWER switch is set to PHOTO, or the START/STOP MODE control is set to ANTI GROUND SHOOTING  $\perp$  or 5SEC

You cannot use the fade-in/fade-out function.

### Note on the fader function

You cannot use the following function while using the fader function. Also, while using the following functions you cannot use the fader function.

- Title

éúíâÏ+ Á+ÚÂÏÏÂÏËÄ/ , \*1Ó%+ ËÄ Á+ÚÂÏÏÂÏËÄ  
èÄ Å% Ì+Ê+ÚËÄÏ Ì+ START/STOP Ì+ÊÏËÚÄ  
ÍÏÓÓÍÛ FADER, ~ÚÓ.· ÈÏ%ËÍ+ÚÓ Á+ÚÂÏÏÂÏËÄ  
ÈÖ~ÄÁÓ ~Í +Ì+.

ÖÖÏÈ ÖÄ ÄÍÍ.~+ÚÄÏ. POWER Ì+1Ó%ÈÚÖÏ ,  
ÓÓÍÓËÄÏÈÈ PHOTO, ÏÈ.ó ÖÄ ÄÍÍ.~+ÚÄÏ.  
ÄÈËÏ+ START/STOP MODE ÛÖÚ+ÏÓ,ÏÄÏ ,  
ÓÓÍÓËÄÏÈÄ ANTI GROUND SHOOTING  $\perp$   
ÈÏÈ 5SEC

Ç ~ÚËÏ ÖÏÛ~+ÏÏ ÛÖÏÍ^ÈÏ Á+ÚÂÏÏÂÏËÄ/ , \*1Ó%+  
ËÄ Á+ÚÂÏÏÂÏËÄ ÏÄ Å%ÄÈÖÚ,ÚÄÚ.

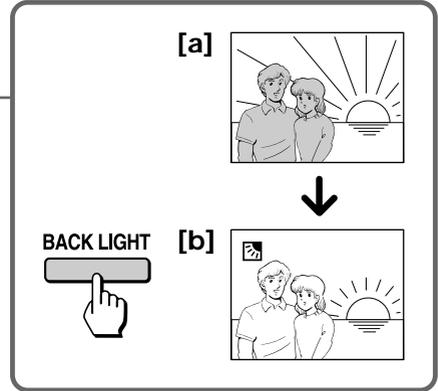
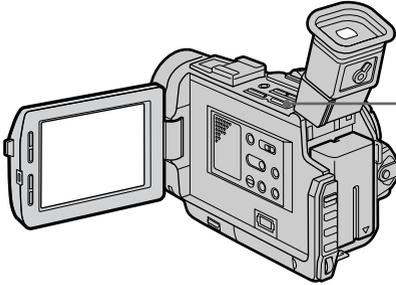
é ÛÖÏÍ^ÈÈ Á+ÚÂÏÏÂÏËÄ  
çÈÈÄÖÄ Ä~ÈÖÏÄÏÏ.ÏÈ ÛÖÏÍ^ÈÏÏÈ ÏÄÏ.ÄÏ  
ÓÓÍ.ÁÓ,+Ú,ÖÏ,ó , ÄÏÏ +.ÓÚ' ÛÖÏÍ^ÈÈ  
Á+ÚÂÏÏÂÏËÄ. ÏÖÏÍ^È. Á+ÚÂÏÏÂÏËÄ, , ò,ó.  
ó~Ä Å% , ÏÄÏ.ÄÏ ÈÖÖÓÍ.ÁÓ,+Ú. ,ó , ÄÏÏ  
ÓÓÍ.ÁÓ,+ÏÈÏ ~ÚËÏÈ ÛÖÏÍ^ÈÏÏÈ.  
- ÏÈÚ \*

# Shooting with backlighting

è · ÂÍÍ† ò ÓÚË, ò, ÂÚ†

When you shoot a subject with the light source behind the subject or a subject with a light background, use the BACKLIGHT function.

Press BACKLIGHT. The **c** indicator appears on the LCD or in the viewfinder.



- [a] Subject is too dark because of backlight.
- [b] Subject becomes bright with backlight compensation.

## After shooting

Be sure to release this adjustment condition by pressing BACKLIGHT again. The **c** indicator disappears. Otherwise, the picture will be too bright under normal lighting condition.

This function is also effective under the following conditions:

- A subject with a light source nearby or a mirror reflecting light
- A white subject against a white background. Especially when you shoot a person wearing shiny clothes made of silk or synthetic fibre, his or her face tends to become dark if you do not use this function.

## Note on the BACK LIGHT function

When you press EXPOSURE, the BACKLIGHT function is cancelled.

è È ò ÂÍÁ ò · ÂÍÚ†, ò ÓÁ†%È ÍÓÓ ò, ò Ì†1ò%ÈÚÒÈ ÈÒÓÓ~ÌÈÍ ò, ÂÚ†, ÈÌÈ ò · ÂÍÚ† Ì† ò, ÂÚÍÓÍ ÒÒÍÁ, ò ÓÍ, ÂÙÈÚÁ Ò, Ò ÒÍÍ^ÈÈÈ BACK LIGHT.

ç†ÈÌÈÚÁ ÌÍÒÓÍÙ BACK LIGHT. è È ~ÓÓÍ Ì† ÈÈ%ÍÓÍ ÈÒÓ†ÌÈÈ~ÂÓÍÓÍ ~Í †ÌÁ ÈÌÈ, ÓÍÌÁ, È%òÈÒÍ†ÚÁ†È ÒÓÈ, ÈÈÁÚÒÈ ÈÌ%ÈÍ†ÚÓ c .

- [a] è · ÂÍÚ ò ÂÍÈÈ, \*, ÈÈ%ÈÚ ÒÈÈ~ÍÓÍ ÚÁÌÌ~Í ÈÁ-Á†, ÒÚ Â~ÍÒ, ò Ò, ÂÚ†.
- [b] à ÓÍÍÒÁ Ò†^ÈÈ, ÒÚ Â~ÍÒ, ò Ò, ÂÚ† Á†ÓÚ†, ÈÈÁÚ ò · ÂÍÚ, \*, ÈÈ%ÁÚ, ò, ÂÚÍÁÁ.

è Ó ÓÍÓÍ~†ÌÈÈ ò ÂÍÈÈ  
çÁ Á†·Ù%·ÚÁ ÓÓÍÍ. ~ÈÚ. ÁÈÈÈ ÍÓÍÒÁ Ò†^ÈÈ, ÒÚ Â~ÍÒ, ò Ò, ÂÚ† ÓÓ, ÓÓ Ì~Í Ì†È†ÈÈÁÈ ÌÍÒÓÍÈÈ BACK LIGHT. è È ~ÓÓÍ ÈÌ%ÈÍ†ÚÓ c %ÓÍÈÁÈ ÈÒ~ÁÁÍÚÚ. . à Ì†~Á ÓÓÓÈÈÚÓÁ ò È Ì Ò Ì†Í, ÍÓÍ Ò Ò, Â~ÁÌÈÈ ÈÁÓ· †ÈÁÌÈÁ·Ù%ÁÚ, \*, ÈÈ%ÁÚ, "Á†ò, Â~ÁÌÌ~Í".

Ñ†ÌÌ†È Ò Ò Ò ÌÍ^ÈÈ ÌÒÈÁÚ · ~Ú, ò ÓÍÁÁÍÒÈ Ò†ÍÈÁ, ò ÈÈ%Ù. ~È ò Ò Ò ~†È† :  
è È ò ÂÍÁ ò · ÂÍÚ†, ÈÈ%ÓÍ ò ÍÓÓÓ ~Í Ì†1ò%ÈÚÒÈ ÈÒÓÓ~ÌÈÍ ò, ÂÚ† ÈÌÈ ÁÁ Ì†ÍÒ, ÓÚ †È†. ~ÁÁ ÈÈÈ ò, ÂÚ.  
è È ò ÂÍÁ ò · ÂÍÚÓ, · ÂÍÓ, ò ^, ÂÚ† Ì† · ÂÍÓÍ ÒÒÍÁ. à ÓÍÁ ÚÓ, ò, ÈÈ~ó ~ÁÍÓ, ÁÍ†, Ó%ÁÈ%Á ÈÁ · ÈÁÓÓÈÈ ÁÈ ~ÁÍÓ, ÒÈ ÈÌÈ ÒÈÈÚÁÚÈ~ÂÓÍÓÈ ÒÍ†ÈÈ, ÁÓÍÈ ÒÈÈÈ†Ú, Á, ò · ÁÁ ÓÓÍÓ~È%†ÌÈÈÈ Ò Ò Ò ÌÍ^ÈÈ, · Ò%ÁÚ, \*, ÈÈ%ÁÚ, ÚÁÌÌ~Í.

é Ò Ò ÌÍ^ÈÈ BACK LIGHT  
è È Ì†È†ÈÈÈ ÌÍÒÓÍÈÈ EXPOSURE Ò Ò Ò ÌÍ^ÈÈÈ BACK LIGHT ÓÓÍÍ. ~†ÁÚÒÈÈ.

# Photo recording

You can record a still picture like a photograph for about seven seconds. This mode is useful when you want to enjoy a picture such as a photograph or when you print a picture using a video printer (not supplied). You can record about 510 pictures on a 60-minute tape in SP mode.

Shutter speed is automatically adjusted up to 1/1000 depending on the exposure.

- (1) While pressing the small green button on the POWER switch, set it to PHOTO. Two beeps sound.
- (2) Keep pressing START/STOP lightly until a still picture and "PHOTO CAPTURE" appear on the LCD screen or in the viewfinder. Recording does not start yet. To change the still picture, release START/STOP, select still picture again, and keep pressing START/STOP lightly again.

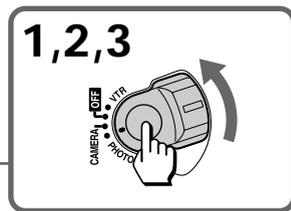
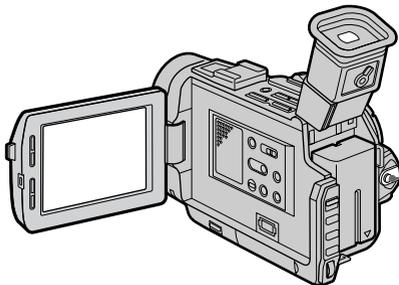
If you press the PHOTO button on the Remote Commander when a still picture appears on the LCD screen or in the viewfinder, the camcorder will record that still picture. However, you cannot select other still pictures by using this button.

- (3) Press START/STOP deeper. "PHOTO REC" flashes and the still picture on the LCD screen or in the viewfinder is recorded for about seven seconds. The sound during those seven seconds is also recorded and the pictures appear like an animation on the LCD screen or in the viewfinder. You cannot change the POWER switch or press START/STOP during recording.

ç· İÖEÁÚÁ ÜEİÖE 0, +Ú, İ+, E%AOÍÁÍÚÁ 0000-İ+%, 0 0%0İE+. EÁ0N 0Í0Í0 0ÁİE 0ÁÍÚİ%. Ü00 00ÍÁÁİ0, 0ÍÚ~+N, İ0, % ç+İ 10~ÁÚ0N +00İ0Ú ÁÚ 0Ú%Áİ İ·Bİ+%, İ+İ 0000,, +ÜE. EİE +00Á~+Ú+Ú, Á, 0 İ+ , E%Á00 EİÚÁ Á (, İ0Í0ÁÍÚ İÁ, 10%EÚ). ç ÁEÈİÁ se İ+, E%AOÍ+00ÁÚÁ

0 0%0İEÚÁİ İ00Ú. 60 İEİÚ0 İÖEÁÚ 00ÍÁ0ÜEÚ. 0N 0Í0Í0 510 Ú+İEİ İ+%, 0. è È ~Ú0İ, %Á Eİ+0Ú0Ú+I%+ Üİ0E%0 1/1000 Ü0Ú+İ+, İE, +ÁÚ0N+, Ú0Í+ÜE~Á0ÍE, Á+, E0Eİ00ÜE 0Ú 00, Á Áİİ00ÜE.

- (1) İ%Á ÈÈ, +N, İ+È+Ú0Í 00Í0EÁİÈÈ İ+İÁİ, İÚ. ÁÁÍÁİÚ. İİ00ÍÚ İ+ 0Á ÁÍİ ~+ÚÁÍÁ POWER, 0Á Á%, Èİ, ÚÁ Á,, 0 00Í0EÁİEÁ PHOTO. Ü00 000 0, 0E%+ÁÚ0N %, 0Eİ İ 0E, İ+İ0Í·E0Á +.
- (2) ç+ÈÈİ+ÈÚÁ 0İÁ,, İ+ İ+ İİ00ÍÚ START/STOP, 00Í+ İ+ ÈE%İ0Í E0Ú+İİE~Á0Í0Í ~İ +İÁ ÈİE, 0ÍİÁ, E%0E0Í+ÚÁİN İÁ 00N, E0ÚN 0000-İ+%, È İ+%, 0E0, "PHOTO CAPTURE". Ü00Ú İ+%, 00Í+ İÁ Á+0E0+İ. 000·, ·, +Ú, % Ú,, 0E İ+%, 00Ú00EÚÁ İİ00ÍÚ START/STOP, İ+ÈEÚÁ İ0, È İ+%, È, İ0,, 0İÁ,, İ+ İ+ÈİEÚÁ START/STOP. 00İE, İ0ÍÁİÚ, İ0, % İ+ ÈE%İ0Í E0Ú+İİE~Á0Í0Í ~İ +İÁ ÈİE, 0ÍİÁ, E%0E0Í+ÚÁİN Á+ÜEİÖE 0, +İ 0000-İ+%, İ+È+Ú. İİ00ÍÚ PHOTO İ+ 00ÍÚ, ÚÁ %E0Ú+İ·E0Í0,, 0Ú0 +, İÁİEİN, "Ú0Ú 0000-İ+%, Ü%ÁÚ Á+0E0+İ İ+İÁ 0E İ+ İÁİÚÚ. N+İİ0E İİ00Í0E, 0%İ+İ0, İÁİ, ÁN 00Í. Á0, +Ú, 0N %İN, ··0 + İ+%, +0Á Á% 0~Áİİ0E.
- (3) èÈİ, İÁÁ İ+ÈİEÚÁ İİ00ÍÚ START/STOP. è È ~Ú0Í İ+~Èİ+ÁÚ İE,, +Ú. Üİ+Á+ÚÁİ, "PHOTO REC", + Á+ÜEİÖE 0, +İİ È İ+ ÈE%İ0Í E0Ú+İİE~Á0Í0Í ~İ +İÁ ÈİE, 0ÍİÁ, E%0E0Í+ÚÁİN 0000-İ+%, Á+0E0', +ÁÚ0N, ÚÁ~ÁİEÁ 0 ÈİÁ İ0 0ÁİE 0ÁÍÚİ%. ç ~ÚE 0Áİ, 0ÁÍÚİ% 0 0%0İE+ÁÚ0N Ú+İEÁ Á+0E0, Á, Úİ+, + İ+%, · İ+ÈE%İ0Í E0Ú+İİE~Á0Í0Í ~İ +İÁ ÈİE, È%0E0Í+ÚÁİÁ 0İÁİN. Ú% Ú,, % Ú,, + İ+Í0 È İEİ0Í0ÍÚ+ÈÁ. ç0, ÁN Á+0E0È İÁİ, ÁN İÁİNÚ, 00Í0EÁİEÁ 0Á ÁÍİ. ~+ÚÁİN POWER ÈİE İ+ÈÈİ+Ú. İİ00ÍÚ START/STOP.



# Photo recording

èÓí±% Ó, °Á  
, È%ÀÓÙÒÚÓÒÌÈÌÍÍÈ

## Note on the still picture

When the still picture recorded on this camcorder is played back on another VCR, the picture may be blurred. This is not a malfunction.

## Note on the video flash light

We recommend you to use the HVL-FDH video flash light (not supplied) when shooting in the dark. When you use the video flash light, set AUTO LOCK to ON.

When  appears, the video flash light is ready for flashing.

When  flashes, you cannot use the video flash light. Check AUTO LOCK again.

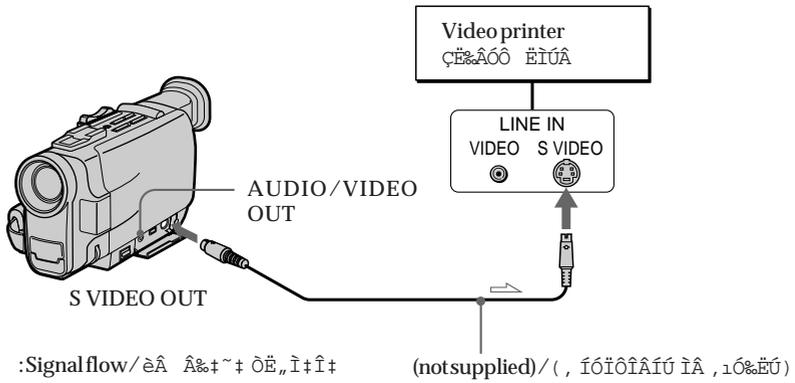
## Printing the still picture

You can print a still picture by using the video printer (not supplied). Connect the video printer using the S video connecting cable (not supplied). Refer to the instruction manual of the video printer as well.

éÓÙÒ-Í±% ±1  
è È,ÒÒÒ ÒÈÁ,À%ÀÌÈÈ Ì±% Û,ÒÌ  
,È%ÀÓÍ±,ÌÈÓÙÒÍÁ ÒÙÓÒ-Í±% Ó, ,ÓÙÒÌÍÍÍ±1  
%±ÌÌÒÈ,È%ÀÓÍ±ÌÁ ÒÈ,ÈÁÓ. ±ÈÀÌÈÁ ÌÒÈÁÙ  
ÙÙ ±È,±Ù. ÀÁÍÒÓÙ. ÒÙÓ ÌÁÒ,È%ÀÙÁÌ,ÓÙ,ÙÁÙ  
ÓÌÀÈÒÒ ±,ÌÒÓÙÈ±ÒÒ± ±ÙÙ °.  
é ,È%ÀÓ,ÒÒ°-ÌÁ  
ÑÌÍ Ò·ÁÌÈÈ,ÙÁÌÌÒÙÁ ÁÍÒÍÁÌ%ÙÁÌ Ç±Ì  
ÒÓÌ ÁÓ,±Ù,ÒÌ,È%ÀÓ,ÒÒ°-ÌÒÈ HVL-FDH (,  
ÌÒÌÒÍÁÌÙ ÌÁ,ÌÓ%ÈÙ). è ÈÒÓÌ,ÁÓ,±ÌÈÈ  
,È%ÀÓ,ÒÒ°-ÌÒÈ ÙÓÙ±Ì±,ÌÈ,±ÈÙÁ  
ÒÁ ÁÌÍ.~±ÙÁÌ, AUTO LOCK ,ÒÓÌÒÈÁÌÈÁ ON.  
èÒÌ,ÌÁÌÈÁ ÈÌ%ÈÌ±ÙÓ ±,±Ù, ~ÙÓ  
,ÒÒ°-Ì±,ÒÓÙ,±Í ±·ÓÙÁ. àÓ,%± ÈÌ%ÈÌ±ÙÓ   
ÌÈ,±ÁÙ, ,ÒÒ°-ÌÒÈÒÓÌ,ÁÓ,±Ù,ÒÌ ÌÁÌ,ÁÌ.  
è Ò,Á ,ÙÁÀ·Á ±ÁÒÍÒÈÁÌÈÁ  
ÒÁ ÁÌÍ.~±ÙÁÌ AUTO LOCK.

## èÁ~±Ù, ,È%ÀÓÙÒÚÓÒÌÈÌÍÍÍÓ,

èÓÙÒ-Í±% ÌÒÈÌÒ ±ÒÁ~±Ù±Ù.Ì±  
,È%ÀÓÒ ÈÌÙÁ À(,ÌÒÌÒÍÁÌÙ ÌÁ,ÌÓ%ÈÙ).  
èÓ%ÌÍ.~ÈÙÁ,È%ÀÓÒ ÈÌÙÁ ÍÍ±ÌÁ ÀÒ  
ÒÓÌÒ°. Ò ÈÌ±,±ÁÌÒ,ÒÒÒÁ%ÈÌÈÙÁÌ,ÌÓ,ÒS-  
,È%ÀÓÍ±·ÁÌÍ(,ÌÒÌÒÍÁÌÙ ÌÁ,ÌÓ%ÈÙ).  
èÌÁ%ÙÈÙÁ Ù±ÌÈÁ ÙÌ±Á±ÌÈÌÌ,Ò È,À%ÀÌÌ·Ì,  
ÈÌÒÙ ÙÌÈÈÍ,È%ÀÓÒ ÈÌÙÁ Ù.



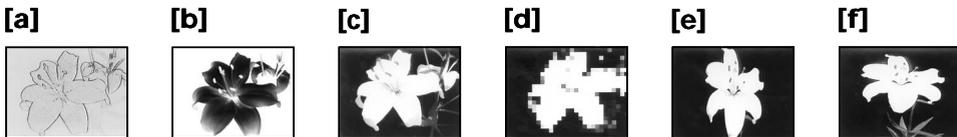
## If the video printer is not equipped with S VIDEO input

Use the supplied A/V connecting cable. Connect it to the AUDIO/VIDEO OUT jack and connect the yellow plug of the cable to the VIDEO input of the video printer.

ÒÒÌÈ Ù,È%ÀÓÒ ÈÌÙÁ ±ÓÓÙÓÙÓ,ÙÁÙ  
,ÌÓ%ÌÒÁ „ÌÁ%Ó S VIDEO  
ÇÒÒÒÒÌ,ÁÙÈÙÁÒ. Ò ÈÌ±,±ÁÌ·Ì±Ù%ÈÓ/  
,È%ÀÓÍ±·ÁÌÁÌ. è%ÈÌ Á,Ò ÍÒÌÁ·ÒÌÁ%ÙÁÙ  
ÒÓ%ÌÍ.~ÈÙ. Í „ÌÁ%Ù AUDIO/VIDEO OUT, ±  
ÈÁÌÙ·È-ÙÁÌÁ % Ù,Ò,Ò ÍÒÌ~±-Ì,ÌÓ%ÌÒÍÓÙ  
„ÌÁ%Ù,È%ÀÓÒ ÈÌÙÁ ±,Ò·ÒÁÌ~ÁÌÌÒÍÓÙ  
ÒÍÓ,ÒÌ VIDEO.

## Selecting picture effect

You can make pictures like those of television with the Picture Effect function.



### PASTEL [a]

The picture is in pastel tones.

### PASTEL [a]

àÁÓ. †ÈÂÎËÄ Ò ÈÓ. ÁÚ+ÁÚ Ò+ÐÚÂÎ, Ì·Â ÚÓÌ†

### NEG. ART [b]

The colour of the picture is reversed.

### NEG. ART [b]

àÁÓ. †ÈÂÎËÄ ÒÚ†ÌÒ, ÈÛÒfl ÒÓ1ÒÈÈÌ Ì† ÌÄ,, †ÚÈ,

### SEPIA

The picture is sepia.

### SEPIA

àÁÓ. †ÈÂÎËÄ Ò ÈÓ. ÁÚ+ÁÚ ÓÚÚÂÎÓÍ, Ì+ÓÓÌÈÌ†, ~ÈÈ ÓÚ† ·Â ÛÓÓÓ,, †ÛÈÈ

### B&W

The picture is monochrome (black and white).

### B & W

àÁÓ. †ÈÂÎËÄ ÒÚ†ÌÒ, ÈÛÒfl ~Â ÌÒ-·ÂÌ·Ì

### SOLARIZE [c]

The light intensity is clearer, and the picture looks like an illustration.

### SOLARIZE [c]

è, Æ, ÚÂËÈ È ^, ÁÚÓ, ·Â ÒflÚÌ† ÒÚ†ÌÒ, flÚÒfl ÍÓÌÚ †ÓÚÌÂÂ, Í†Í Ì† ÈÒÛÌÍÁ.

### MOSAIC [d]

The picture is mosaic.

### MOSAIC [d]

"áÓ+È" ÌÓÂ" ÈÁÓ. †ÈÂÎËÄ

### SLIM [e]

The picture expands vertically.

### SLIM [e]

àÁÓ. †ÈÂÎËÄ , ·fl,, È, †ÁÚÒfl ÒÓ , Â ÚÈÍ†ÈÈ

### STRETCH [f]

The picture expands horizontally.

### STRETCH [f]

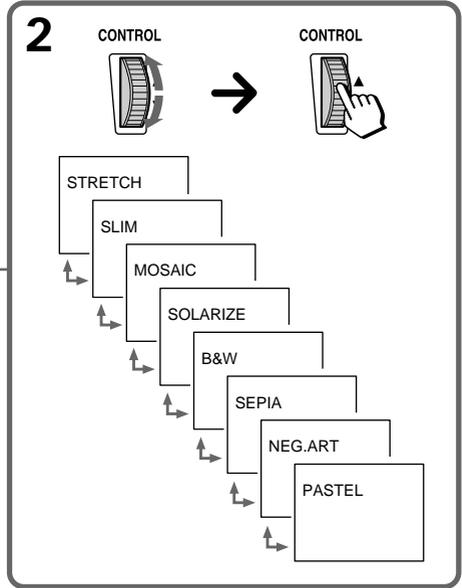
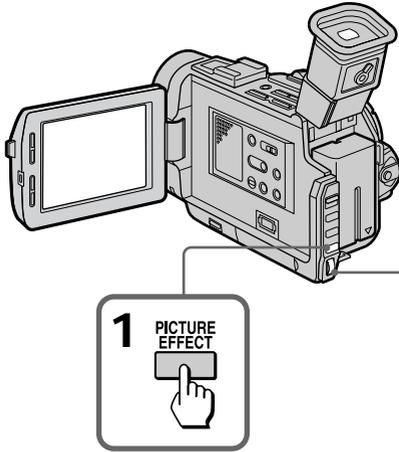
àÁÓ. †ÈÂÎËÄ †Ófl,, È, †ÁÚÒfl ÒÓ , Ó ÈÁÓÌÚ†ÈÈ

Using picture effect function

- (1) While in Standby mode, press PICTURE EFFECT.
- (2) Turn the CONTROL dial to select the desired Picture Effect mode.

èóÎ , ÁÓ, †ÌÈË ÙÒÌÍ^ÈËÈ  
 , È%ÁÓ~ÙÒÁÍÚÓ,

- (1) Ç ÂÈÈÏÁ ÓÈÈ%†ÌÈË Ì~†Ì‡ Ò·ÂÍÈÈ  
 Ì†ÈÈÈÚÁ ÍÌÓÓÍÚ PICTURE EFFECT.
- (2) èó, ó óóÍ† ÙÍÓÍÚÈÈ CONTROL , ··Â ÈÚÁ  
 ÌÙÈÌ·È , È%ÁÓ~ÙÒÁÍÚ.



**Returning to normal mode**  
 Press PICTURE EFFECT repeatedly until the Picture Effect indicator disappears.

ÇÓÁ, †·ÂÎÈË , Ó·~ì·È ÂÈÈÏ  
 Ç†ÈÈÈ†ÈÚÁ Ì† ÍÌÓÓÍÚ PICTURE EFFECT %ó  
 ÚÁÌ ÓÓ , ÓÓÍ† ÈÌÈÈ†ÚÓ , È%ÁÓ~ÙÒÁÍÚ† ÌÂ  
 ÈÒ·ÁÁÍÁÚ ò·í †Ì‡.

**Note on the picture effect**  
 When you turn the power off, the camcorder returns automatically to normal mode.

é ÙÒÌÍ^ÈÈ , È%ÁÓ~ÙÒÁÍÚÓ,  
 è È , íÍ·ÂÎÈÈ ÒÈÚ†ÌÈË , È%ÁÓÍ†ÏÂ †  
 †, ÚÓÍ†ÙÈ~ÁÓÍÈ , ÓÁ, †~†ÁÚÒÌ , Ó·~ì·ÈÈ  
 ÂÈÈÏ.





# Using the PROGRAM AE function

## PROGRAM AE

### Notes on focus setting

- In the Spotlight, Sports lesson and Beach & Ski modes, you cannot take close-ups because the camcorder is set to focus only on subjects in the middle to far distance.
- In the Sunset & Moon and Landscape modes, the camcorder is set to focus only on distant subjects.

ε ì†, ò%íÁ ì† ÁÁÍÓÓÚ.

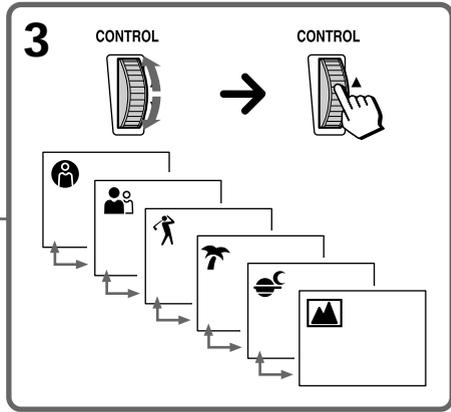
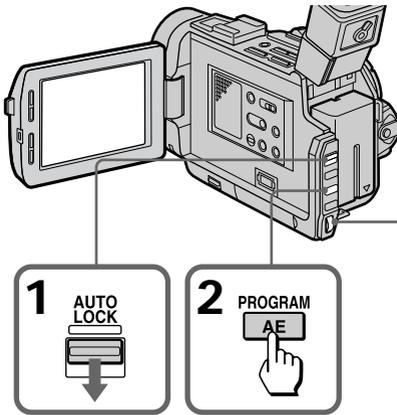
- Ç ÁÊËÏÁ Ò·ÁÍËË Ò È·ÒËÛÁ †₁, †Ú†ÍËÁ, ÒÓÓ ÛË, ÌÓÏ È Ò†ñÊÏÓÏ/„Ó ÌÓÏ·ÈÏÓÏ ÁÊËÏ†₁ Ï ÕÏÏ·Á ÒÏ††· òÏËÏ†Ú, ÌÁÏ, Áñ, Ú†Í Ï†Í Ò·ÁÍÛË, È%ÁÓÏ†ÍÁ · ÕÏÏÛËË ÛÁÛË ÕÏÏ, ÌÓ Ì† %†Í, ÌËÏ È Ò Á%ÏËÏ ÒÏ††₁.
- Ç, Á·Á ÌÁÏ/ÏÓ·ÏÏ È Ï†ì%· †ÛÏÏÏÏ ÁÊËÏ†₁ È%ÁÓÏ†ÍÁ † ÕÏÏÛËË ÛÁÛË ÕÏÏ, ÌÓ Ì† %†Í, ÌËÏ ÒÏ††₁.

## Using the PROGRAM AE function

- (1) While the camcorder is in recording or Standby mode, slide AUTO LOCK down.
- (2) Press PROGRAM AE.
- (3) Turn the CONTROL dial so that the symbol of the desired PROGRAM AE mode matches the indicator on the LCD screen or in the viewfinder.

## PROGRAM AE

- (1) Ç ÁÊËÏÁ Ò·ÁÍËË ÈÏË ÒËÈ%· ÌËñ Ì†~†Í† Ò·ÁÍËË ò%, ÈÏ, ÛÁ, ÌËÁ ·~†ËÓÏ AUTO LOCK.
- (2) Ç†ÈÏËÛÁ ÌÏÓÓÏÏ PROGRAM AE.
- (3) ε ò, Á ÌËÛÁ ÛÏÏñÛÏÛ CONTROL Ú†Í, ~ÚÓ· òËÏ, òÏ ÌÛËÏÓ„ ò ÁÊËÏ† PROGRAM AE ·· Ï ÒÓÏ†Á† Ì ÈÏÈËÏ†ÚÓ ÒÏ Ì† ÈÈ%ÏÓÏ ÈÛÚ†ÏË~Á ÒÓÏ Ï Ì† ÌÁ ÈÏÈ, òÏÏÁ, È%ÒËÏ†ÚÁ Ïñ.



### To return to automatic adjustment mode

Press PROGRAM AE so that the indicator disappears, or slide AUTO LOCK up.

Ç ÓÁ, †·ÁÏËÁ, ÁÊËÏ †, ÚÏÏ†ÚË~Á ÒÏË Ì·ÏÓÓÁË·ÈÈ Ç†ÈÏËÛÁ ÌÏÓÓÏÏ PROGRAM AE, ~ÚÓ· ÈÏÈËÏ†ÚÓ ÈÛ·ÁÁ Ò· Ï†, ÈÏÈ ÒÁ Á%, ÈÏ, ÛÁ ·~†ËÓÏ AUTO LOCK, , Á ₁.

### Note on shutter speed

The shutter speed in each PROGRAM AE mode is as follows:

- Soft Portrait mode – from 1/50 to 1/425
- Sports lesson mode – from 1/215 to 1/4000
- Beach & Ski mode – from 1/50 to 1/215

ε òÏÓ òÛË, ·%Á ÈÏÈ ÇËËÁ Ò È, ò%ÈÛËñ òÏÓ òÛË, ·%Á ÈÏÈ, òÓÓ, ÁÛÓÛ, Û·ñ Ï Ì†È%ÓÏÏ ÈÁ ÁÊËÏ†, PROGRAM AE: áñ, ÌËÈ ÒÓ Û ÁÛÏ·È ÁÊËÏ – ÒÚ 1/50 % ò 1/425 ε òÓ ÛË, Ì·È ÁÊËÏ – ÒÚ 1/215 % ò 1/4000 ε ÏñÈÏ·È/„ Ò ÌÓÏ·ÈÏ·È ÁÊËÏ – ÒÚ 1/50 % ò 1/215

Advanced operations / ε òÏ, ÁÓ, †ÏËÁ òÛÚ†Í, Ì·È ÕÏÏ·È·ÈÏÈ

# Focusing manually

εϋ~ι†fl ì†, Ó%Í† ì†  
 ÂÁÍÓÔÛ,

## When to use manual focus

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

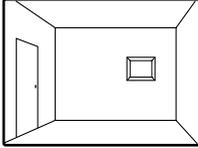
äö„%† òîâ%ûâú ôóî, áó, †ú. òfl  
 Û~ìòè ì†, Ó%íóè ì† ÂÁÍÓÔÛ,

εϋ~ι†fl ì†, Ó%Í† ì† ÂÁÍÓÔÛ, ôóá, óîflâú  
 %ó·èú, òfl îú~èì ÂÁÚî, ú+úó, , òîâ%û. ~èì  
 òîú~†fl:

[a]



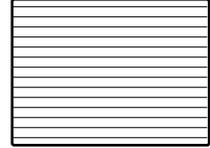
[b]



[c]



[d]



- Insufficient light [a]
- Subjects with little contrast — walls, sky, etc. [b]
- Too much brightness behind the subject [c]
- Horizontal stripes [d]
- Subjects through frosted glass
- Subjects beyond nets, etc.
- Bright subject or subject reflecting light
- Shooting a stationary subject when using a tripod

- è È îâ%óóú+úó~ìóî óò, â~âìèè [a]
- è È ò·âííâ ì†íóíóîú †òúì·ì ò Â%îâúó, (òúâì·, îâ·óèú.%.) [b]
- è È ò·âííâ ò óúè, fl íó„óò, âú+ [c]
- è È ì+îè~èè, í+% Â „,ó èáóíú+î, ì·ì òóíóó [d]
- è È ò·âííâ ~â Âá ì+úó, óá óúâííó
- è È ò·âííâ ~â Âá óâúíú èú.%.
- è È ò·âííâ ò Â%îâúó, , èâîú~†. ~èì èíè óú †è†. ~èì ò, âú
- è È ò·âííâ îâóó%, èèì·ì ò Â%îâúó, óó ~ú+úè, †

Focusing manually

εὐ~ἰ+fl ἰ+,όμεἰ+ ἰ+ ἈΑΐΟΔῦ,

When focusing manually, first focus in telephoto before recording, and then reset the shot length.

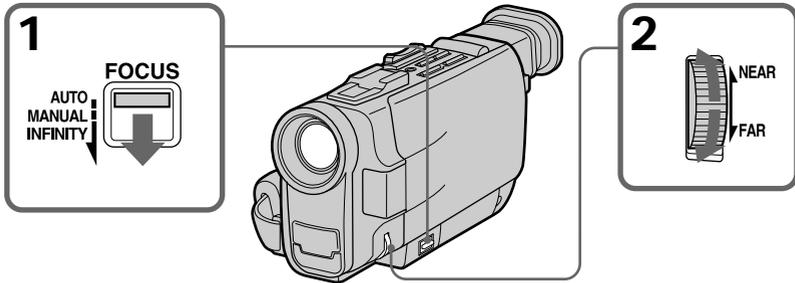
- (1) Slide FOCUS down to MANUAL. The f indicator appears on the LCD screen or in the viewfinder.
- (2) Turn the focus dial to focus on the subject.

ε ε ὦ~ἰ+fl ἰ+,όμεἰ+ ἰ+ ἈΑΐΟΔῦ, οἰἈ:ῶΑῦ

Οἰ Ἀ: ἰ+~+ἰοἰ ὀ·Ἀἰἰἔ ὀῶῶἰῶῶ ὀ, +ῦ, ἰ+ἰἂ ὦ ἰ+ ὀ· ἈἰῦἈ, ἰ+ἰὀἔἰ+ἰ, ἰὀ ὀ ἔ·ἰἔἈἔ, Ἀ,, ὀ ὀ ὀἰὀ~. ὙἈἰἈὀ· Ἀἰῦἔ, +, Ἀ+ὙἈἰ, ὀὀὀῦ+ἰὀ, ἔῦ, ἰῦἔἰ· ἔ ὀἰ+ἰ.

(1) εἈ Ἀ:, ἔἰ, ὙἈ ὀἈ Ἀἰἰ. ~+ὙἈἰ, FOCUS, ἰἔἈ, ὀἰὀἔἈἰἔἈ MANUAL. Ḅ+ ἔἔ:ἰὀἰ ἔὀῦ+ἰἰἔ~Ἀἰὀἰ ῖ ἰ+ἰἂ ἔἰἔ, ὀἰἰἈ, ἔ:ὀἔὀἰ+ὙἈἰἰ ὀἰἰ, ἰἰἈὙὀἰ ἔἰ:ἔἰ+Ὑὀ f.

(2) Ḅ+~+fl ὙἰὀἰὙἰὙ ὙὀἰὙὀἔ ὀ, ἰἔ, ἰ+, Ἀ:ἔῦἈ ἈΑΐΟΔῦ, ἰ+ ὀ· Ἀἰῦ ὀ· Ἀἰἰἔ.



To focus in infinity

Slide FOCUS to INFINITY. ▲▲ indicator appears on the LCD screen or in the viewfinder. This function is useful when the nearer subject is focused automatically, and you want to focus the subject faraway.

Ḅ+ὀῦ ὀἔἰ+ ὙὀἰὙὀ+ ἰ+ ἈὀἰὀἰἈἰὀὀῦ,

εἈ Ἀ:, ἔἰ, ὙἈ ~+ἔὀἰ FOCUS, ὀἰὀἔἈἰἔἈ INFINITY. Ḅ+ ἔἔ:ἰὀἰ ἔὀῦ+ἰἰἔ~Ἀἰὀἰ ῖ ἰ+ἰἂ ἔἰἔ, ὀἰἰἈ, ἔ:ὀἔὀἰ+ὙἈἰἰ ὀἰἰ, ἰἰἈὙὀἰ ἔἰ:ἔἰ+Ὑὀ ▲▲. Ὑῦ+ Ὑὀἰἰ~ἔἰ ὀἰἰἈἰ+ , ὀἰὙ~+fl, ἰὀ,,%+·ἰἔἈἰὀ +ὀὀἰὀἔἈἰἰ·Ἀ ὀ Ἀ:ἰἈὙ· ἰ+, ὀ:Ḅ+Ὑὀἰἰ ἰ+ ἈΑΐΟΔῦ, +, Ὑὀἰ+Ὑἔ~Ἀὀἰἔ, ἰὀ ὀ ἔ~Ὑὀἰ ἰἈὀ·ἰὀ:ἔἰὀ ~ἈὙὀἰ Ἀ+ὀἈ~+ὙἰἈὙ. ὀἰἰἈ ὀῦ:ἰἈἰἰ·Ἀ ὀ Ἀ:ἰἈὙ·.

To return to the autofocus mode

Slide FOCUS up to AUTO to turn off f or ▲▲ indicator.

Shooting in relatively dark places or shooting the subject moving quickly outside  
Shoot at wide-angle after focusing in the telephoto position.

ḄὀἈ, +~ἈἰἔἈ, Ἀἔἔἰ +, Ὑὀἰ+Ὑἔ~Ἀὀἰἔ ἰ+, ὀ:ἰἔ ἰ+ ἈΑΐΟΔῦ, ἰὀὙ+ἰὀ, ἔῦἈ ὀἈ Ἀἰἰ. ~+ὙἈἰ, FOCUS, ὀἰὀἔἈἰἔἈ AUTO, ~Ὑὀ· ὀ ῖ ἰ+ ἰ+ ἔὀ~ἈἈ ἔἰ:ἔἰ+Ὑὀ f ἔἰἔ ▲▲.

If lights up Subject is too close.

ἔ·Ἀἰἰ+, Ὑὀἰὀ, ἔἰἰ ὀ +, ἰἔὙἈἰ, ἰὀ ἰἔἈἰὀἔ ὀὀ, Ἀ~Ἀἰὀὀὀῦἔ ἔ ὀ·Ἀἰἰ+· ὀὀ ὀ Ὑ%+ἰἰ. ~ἔἰὀἰ ὀ Ἀ:ἰἈὙὀ, ἔἰἔἰ+Ὑ, ὀἰἈ:ὙἈὙ ὀ ἔ~ἔ ὀἰὀῦ,, ὀἰ ἰὀἰ ὀἰὀἔἈἰἔἔ ὀ· Ἀἰῦἔ, +, ὀ Ἀ:, + ἔῦἈἰ, ἰὀ ἰ+, Ἀ:ἰ Ἀ,, ὀ ἰ+ ἈΑΐΟΔῦ. ὀ ἔ ἰ+ἰὀἔἰ+ἰ, ἰὀἰ ὀ ἔ·ἰἔἈἰἔἔ.

ὀὀἰἔ Ἀ+, ὀ +ἈὙὀἰ ἔἰ:ἔἰ+Ὑὀ 📍 ἔ· Ἀἰῦ ὀ· Ἀἰἰἔ ἰ+ἰὀ:ἔῦὀἰ ὀἰἔ~ἰὀἰ· ἰἔἈἰὀ.

Advanced operations / εὀἰ, Ἀὀ, +ἰἔἈ ὀὀῦ+ἰ, ἰ·ἰἔ Ὑὀἰἰ~ἔἰἰἔ

# Adjusting the exposure

êÂ„ÛîÊ Ò,Í†  
~ÍÔÔÓÄË^ËË

## When to adjust the exposure

Adjust the exposure manually under the following cases.

[a]



- [a]
- The background is too bright (back lighting)
  - Insufficient light: most of the picture is dark

- [b]
- Bright subject and dark background
  - To record the darkness faithfully

[b]



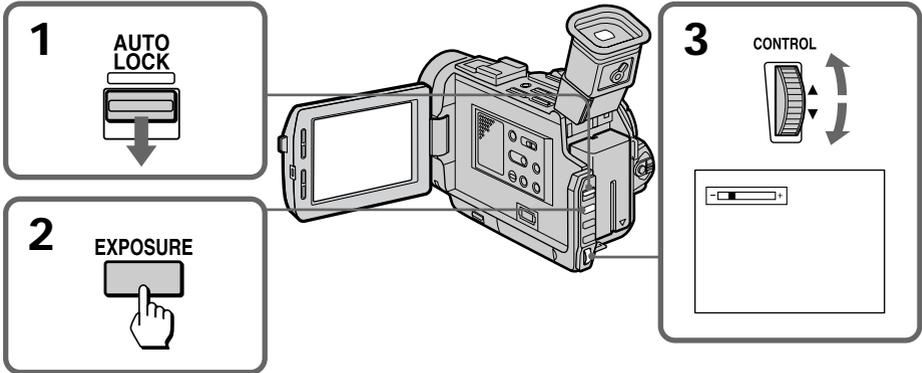
- [a]
- êîÊ-íóí ò,âúí·è ùóì (ò·âíí† ò óúË, ò,âú†)
  - çÂ\*óóú†úó~ì†fl óò,Â~âîìóóú, (.óí,~†fl ~†òú, í†\* †-, úâîìóúâ)
- [b]
- ü íó óò,Â~âîì·è ó··âíú ì† úâîìóí ùóìâ
  - çÂó·ìó\*èíóóú, ò †,%,è,óôâ Â\*ú, ~ùùâíú úâîìóú\*

## Adjusting the exposure

## ε̂Α,,ŪÎĒ Ó,Í† ~ÍÒÓÁĒĒĒ

- (1) Slide AUTO LOCK down.
- (2) Press EXPOSURE. The exposure indicator appears on the LCD screen or in the viewfinder.
- (3) Turn the CONTROL dial to adjust the exposure. The exposure is locked at the adjusted brightness.

- (1) ε̂Α̂ Α̂%, ÈĪ, ŪÁ ~†ĒÓÍ AUTO LOCK , ĪĒÁ.
- (2) †ĒĪĒŪÁ EXPOSURE. †Ē ÈĒ%ÍÓÍ ÈŪŪ†ĪĪĒ~ÁÓÍÓĪ ~Í †ĪÁ ÈĪĒ, ÓÍĪÁ , È%ÓĒÓÍ†ŪÁĪŋ ÓŊŋ, ĪŋÁŪŊŋ ÈĪ%ĒÍ†ŪÓ ~ÍÒÓÁĒĒĒ.
- (3) ε̂Ó, Ó ÓŪÓĪ ŪÍÓÍŪÍĒ CONTROL ŪŪŪ†ĪÓ, ÈŪÁ ~ÍÒÓÁĒĒĒ. . †ĂĪĒ~ÈĪ† ~ÍÒÓÁĒĒĒ ÈĪĒŪÍŌĒ ŪÁŪŊŋ Ī† Á†%†ĪĪÓĪ Ū Ó, ĪÁŋ ĪÓŪĒĒĒÁÓ. †ĒÁĪĒŋ.



### To return to automatic exposure mode

Press EXPOSURE to turn off the exposure indicator. Or, slide AUTO LOCK up.

‡ÓÁ, †~ÁĪĒÁ, ÁĒĒĪ †, ŪÓÍ†ŪĒ~ÁÓÍŌĒ ~ÍÒÓÁĒĒĒĒ †ĒĪĒŪÁ EXPOSURE, ~ŪÓ. ° ò ~Í †Ī† ÈŌ~ÁÁ ÈĪ%ĒÍ†ŪÓ ~ÍÒÓÁĒĒĒ, ÈĪĒŌ%, ÈĪ.ŪÁ, , Á †~†ĒÓÍ AUTO LOCK.

### Notes

- The CONTROL dial does not have a stop position.
- If you press PROGRAM AE, the exposure comes back to automatic adjustment again.
- When you adjust the exposure manually, you cannot use the BACKLIGHT function.

- ε̂ ÈĪÁ~†ĪĒŋ
- ε̂ŪÍÓÍŪÍ† CONTROL ĪÁ ÈĪÁÁŪ Ó,, †ĪĒ~ÈŪÁĪŋ , †~ÁĪĒŋ.
- ε̂ È Ī†Ē†ŪĒĒ ĪŌÓÍĒ PROGRAM AE , È%ÁÓÍ†ĪÁ †, ÓÁ, †~ÁŪŊŋ, ÁĒĒĪ †, ŪÓÍ†ŪĒ~ÁÓÍŌĒ Á,,ŪÎĒ Ó,ÍĒ ~ÍÒÓÁĒĒĒĒ.
- È Ū~ŪÍŌĒ Á,,ŪÎĒ Ó,ÍÁ ~ÍÒÓÁĒĒĒ ŪŪĪÍĒĒŋ BACK LIGHT ĪÁ †.ÓŪ†ÁŪ.



## To activate the SteadyShot function again

Select ON in step 3, then press the CONTROL dial.

### Notes on the SteadyShot function

- The SteadyShot function will not correct excessive camera shake.
- When you switch the SteadyShot function on or off, the exposure may fluctuate.
- When the SteadyShot function is released, the  indicator does not appear.
- If you use a tele conversion lens (not supplied) or a wide conversion lens (not supplied), the Steady shot function may not work.

èó,ύó ìòá,íí.~âîèâ ~îâíú óìò,,ó  
òú†·èîèá†úó † í†% †  
ç 10%á óóá † ^èè 3 , ·.â èúá ON è ì†èîèúá  
ì† ùíóíúíú CONTROL.

- έ. ~îâíú óìòíò úú†·èîèá†úó á í†% †
- èèí,ì'â óóú ðòâîèè í†îá · ~îâíú óìò'ì  
òú†·èîèá†úó óí ìá íóíóáìðè ù.ύòη.
- è è,íí.~âîèè è óóííî.~âîèè ~îâíú óìò,,ó  
òú†·èîèá†úó † í†% † ,óáíóèì' íóíá·†ìèη  
'íóóóáè^èè.
- è è óóííî.~âîèè ~îâíú óìò,,ó  
òú†·èîèá†úó † í†% † èî%èí†úó   
èò~âá†âúò ~í †ì†.
- è è èòóóí,áó,†ìèè úáíâóíóóè~âðíóè èîè  
-è óíóú,,óí,ìòè ì†ò†%íè %íηó.·âíúè,† (  
íóíóíâíú ìá ,10%íú) ~îâíú óìò'è  
òú†·èîèá†úó í†% † ìóèáú ìá ò †·†ú',†ú.

Advanced operations / εóí,áó,†ìèá óóú†í,ì'íè òúí'í·èíèè

# Watching on a TV screen

è òòïóú , È%ÁÓÁ†ÔÈÒÈ Ì† ~Í †ÌÁ ÚÁÎÁ, ÈÁÓ †

Connect the camcorder to your VCR or TV to watch the playback picture on the TV screen. When monitoring the playback picture by connecting the camcorder to your TV, we recommend you to use mains for the power source.

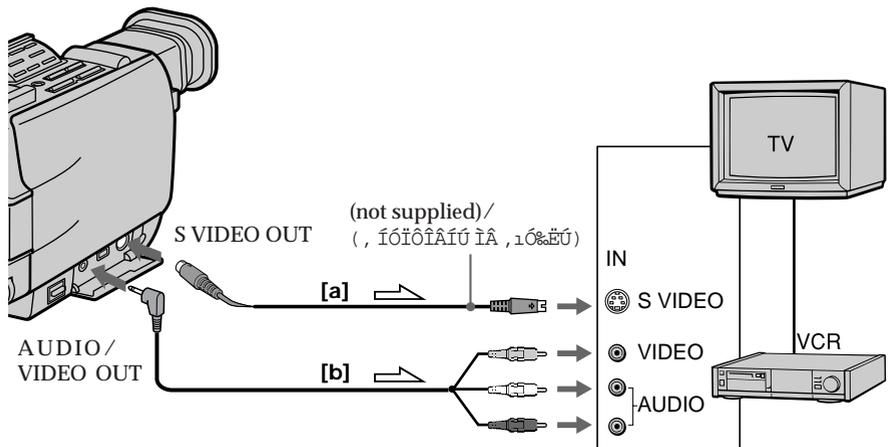
Ñîñô òòïóú † , È%ÁÓÁ†ÔÈÒÈ Ì† ~Í †ÌÁ ÚÁÎÁ, ÈÁÓ † Í†ÌÁ Û ÌÁÒ. 1Ó%ÈÏÓ ÒÓ%ÍÍ. ~ÈÛ. Í ÚÁÎÁ, ÈÁÓ Û ÈÏÈ, È%ÁÓÍ†, ÌÈÛÓÓÏÛ. è È ÒÓ%ÍÍ. ~ÁÏÈÈ Í†ÌÁ ~ Í ÚÁÎÁ, ÈÁÓ Û %íñ Ò ÒÓÏÓú † ÁÏÍÁÏ%ÚÁÏ ÒÓÍ, ÁÓ, †Ú, Òñ ÒÈÛ†ÌÈÁÏ ÓÚ ÒÁÛÈ.

## Connecting directly to a VCR/TV with Audio/Video input jacks

è ñÏÓÁ òÓ%ÍÍ. ~ÁÏÈÈ Á Í , È%ÁÓÍ†, ÌÈÛÓÓÏÛ/ÚÁÎÁ, ÈÁÓ Û, ÓÓÏ† ~ÁÏÏÓÏÛ, 1Ó%Ì~ÈÈ, È%ÁÓ/ †Ú%ÈÓ, ÌÁÁ%†ÈÈ

Open the jack cover and connect the camcorder to the inputs on the TV by using the supplied A/V connecting cable. Set the TV/VCR selector on the TV to VCR.  
Turn down the volume of the camcorder.  
To get higher quality pictures in DV format, connect the camcorder to your TV using the S video connecting cable (not supplied).  
If you are going to connect the camcorder using the S video connecting cable (not supplied) [a], you do not need to connect the yellow (video) plug of the A/V connecting cable [b].

εύí òÈÛÁ Í ~ÍÛ, Á†Í \*, †. ~Û. †~ÁÏ~È%ÁÓÍ†ÌÁ \*, È ÒÓÁ%ÈÏÈÛÁ È1 Ò, 1Ó%Ì~ÈÈ „ÌÁÁ%†ÈÈ ÚÁÎÁ, ÈÁÓ † Ò È ÒÓÏÓ~È Ò ÈÏ†, †ÁÏ, ò ÒÓÁ%ÈÏÈÛÁÏ, ÌÓ, ò †Ú%ÈÓ/ , È%ÁÓÍ†. Áíñ. ìÓÚ†ÌÓ, ÈÛÁ ÒÁ ÁÍÍ. ~†ÚÁÏ, ìv/ VCR Ì† ÚÁÎÁ, ÈÁÓ Á, ÒÏÏÈÁÏÈÁ VCR. ìÌÁÏ, ~ÈÛÁ %ò ÌÛíñ „, òÏÏÓÓÛ, Á, ÛÍ† , È%ÁÓÍ†ÌÁ ~. Ñîñ ÛÏÛ~ÁÏÈÈ Í†~ÁÓÛ, † ÈÁÓ. †ÈÁÏÈñ , Ûò Í†ÚÁ DV, ò ÒÓÍÍ, ÁÛÈÛÁ Ò, %íñ ÒÓ%ÍÍ. ~ÁÏÈÈ, È%ÁÓÍ†ÌÁ ~ Í ÚÁÎÁ, ÈÁÓ Û ÒÓÁ%ÈÏÈÛÁÏ, Ì~Í s-, È%ÁÓÍ†. ÁÍÁÏ (, ÍÓÏÏÁÏÍÚ ÌÁ, 1Ó%ÈÛ). òòÏÈ Í†ÌÁ † ÒÓ%ÍÍ. ~†ÁÛÒñ Í ÚÁÎÁ, ÈÁÓ Û Ò È ÒÓÏÓ~È ÒÓÁ%ÈÏÈÛÁÏ, ÌÓ, ò s-, È%ÁÓÍ†. Áíñ (, ÍÓÏÏÁÏÍÚ ÌÁ, 1Ó%ÈÛ) [a], Û ÒÓ%ÍÍ. ~†Ú. ÈÁÏÛ~È (, È%ÁÓ) ~ÚÁÎÁ †Ú%ÈÓ/, È%ÁÓÍ†. Áíñ [b] ÌÁ ò. ÌÁ†ÚÁÏ, ÌÓ.



:Signal flow/ èÂ Â%†~† ÒÈ„ Ì†Î†

## Watching on a TV screen

If your VCR or TV is a monaural type  
Connect only the white plug for audio on both  
the camcorder and the VCR or the TV. If you  
connect the white plug, the sound is L (left)  
signal. If you connect the red plug, the sound is  
R (right) signal.

## Using the AV cordless IR receiver — LASER LINK

Once you connect the AV cordless IR receiver  
(not supplied) having the  LASER LINK mark  
to your TV or VCR, you can easily view the  
picture on your TV. For details, refer to the  
instruction manual of the AV cordless IR  
receiver.

LASER LINK is a system which transmits and  
receives a picture and sound between video  
equipment having the  mark by using infrared  
rays. LASER LINK is a trademark of Sony  
Corporation.

### To play back on a TV

- (1) Set the POWER switch on the camcorder to  
VTR.
- (2) After connecting your TV and AV cordless IR  
receiver, set the POWER switch on the AV  
cordless IR receiver to ON.
- (3) Turn the TV on and set the TV/VCR selector  
on the TV/VCR selector on the TV to VCR.
- (4) Press LASER LINK. The lamp of LASER  
LINK button is flashing.
- (5) Press  on the camcorder to start playback.
- (6) Adjust the angle and direction of both the  
camcorder and AV cordless IR receiver.

### To cancel the LASER LINK function

Press LASER LINK.

è ÓÒÏÓÓ , È%ÂÓÁ†ÔÈÒÈ Ì†  
“Í †ÌÀ ÚÁÎÀ, ÈÁÓ †

ÒÒÏÈ Ç· ÓÓÍ, ÁÚÁÚÁÓ, ÍÓÍÓÓÍÓÈ~ÂÓÏÈÏ  
, È%ÂÓÍ†, ÌÈÚÓÚÓÍÓÍ ÈÏÈ ÚÁÍÁ, ÈÁÓ ÓÏ  
ÑÏÍ ÓÁ Â%+~È+Ú%ÈÓÒÈ, Ì†Í† ÓÓ%Í†, ~+ÈÚÁ Í  
†ÍÁ ÀÈÍ, È%ÂÓÍ†, ÌÈÚÓÚÓÍÓ (ÚÁÍÁ, ÈÁÓ Ò)  
ÚÓÍ, ÍÓ· ÁÍ·Á ÚÁÍÁ· ÓÓÁ%ÈÏÈÚÁÍ, ÍÓ„Ó  
~ÍÚ †. è È ÓÓ%Í†, ~ÁÏÈÈ· ÁÍÓ, Ó· ÚÁÍÁ †  
, ÓÓÒ ÓÈÁ, Ç%ÈÚÓÍÁ, ÚÍ ÍÁ, Ó„Ó Í†Í† (L). è È  
ÓÓ%Í† ~ÁÏÈÈ Í †ÓÍ„Ó· ÚÁÍÁ †  
, ÓÓÒ ÓÈÁ, Ç%ÈÚÓÍÁ, ÚÍ Ó †, Ó„Ó Í†Í† (R).

èÓ%Í† ~ÁÏÈÁ· ÁÒÒ Ó, ÓÍÓ~ÌÓ„Ó  
ÈÏÙ †Í †ÒÏÓ„Ó †Ú%ÈÓ/  
, È%ÂÓÓ ÈÁÏÏÈÍ† — LASER LINK

èÓ%Í†. ~È, Í ÚÁÍÁ, ÈÁÓ Ò ÈÏÈ  
, È%ÂÓÍ†, ÌÈÚÓÚÓÍÓ· ÁÒÒ Ó, ÓÍÓ~Ì· È  
ÈÏÙ †Í †ÒÏ·È+Ú%ÈÓ/ , È%ÂÓÓ ÈÁÏÏÈÍ,  
ÈÏÁ, ~ÈÈ Ó· ÓÁÍ†~ÁÏÈÁ  LASER LINK (,  
ÍÓÍÓÍÁÍÚ ÍÁ, 1Ç%ÈÚ), Ç· ÓÏÓÈÁÚÁ ÍÁ, ÍÓ  
Ó ÓÓÍ+Ú È, †Ú, È%ÂÓÁ+ÓÈÒÈ Ì†~Í †ÍÁ  
ÚÁÍÁ, ÈÁÓ †. èÇ% Ó· ÍÁÁ·Ó· ÚÓÍ ÓÏ.,  
ÈÏÓÚ ÚÍ~ÈÈ Í ÈÏÙ †Í †ÒÍÓÍÓ ÈÁÏÏÈÍÓ.  
èÈÓÚÁÍ† LASER LINK ÈÓÓÓÍ, ÁÚÁÚ  
ÈÏÙ †Í †ÒÍÓÁ ÈÁÍÙ~ÁÏÈÁ %ÍÍ ÓÁ Â%+~È È  
Ó ÈÁÍ†Á, ÚÍÓ, 1 È, È%ÂÓÓÈ, Ì†ÍÓ, ÍÁÈ%Ú  
†Ó† †ÚÚ ÓÈ, ÈÏÁ, ~ÁÈ Ó· ÓÁÍ†~ÁÏÈÁ .  
Ç+Á, †ÏÈ LASER LINK Ì, ÌÍÁÚÓÍ ÚÓ „Ó, ÓÈ  
Ì† ÍÓÈ ÍÓÍÓ~ÌÈÈ Sony Corporation.

- ÇÓÓÒ ÓÈÁ, Â%ÁÏÈÁ Ì†~Í †ÍÁ ÚÁÍÁ, ÈÁÓ †
- (1) èÁ Á, Â%ÈÚÁ ÓÁ ÁÍÍ, ~+ÚÁÍ, POWER Ì†  
, È%ÂÓÍ†ÍÁ Á, ÓÓÍÓÈÁÏÈÁ VTR.
  - (2) èÓÁ%ÈÏÈ, ÍÁÈ%Ú ÓÓ· ÓÈ ÚÁÍÁ, ÈÁÓ È  
ÈÏÙ †Í †ÒÏ·È Ó ÈÁÏÏÈÍ, ÚÓÚ+ÍÓ, ÈÚÁ  
, ÍÍ~+ÚÁÍ, POWER Ì† ÈÏÙ †Í †ÒÍÓÍ  
Ó ÈÁÏÏÈÁ, ÓÓÍÓÈÁÏÈÁ ON.
  - (3) ÇÍÍ, ~ÈÚÁ ÚÁÍÁ, ÈÁÓ È ÚÓÚ+ÍÓ, ÈÚÁ  
ÓÁ ÁÍÍ, ~+ÚÁÍ, TV/VCR Ì† ÚÁÍÁ, ÈÁÓ Á,  
ÓÓÍÓÈÁÏÈÁ VCR.
  - (4) Ç+ÈÏÈÚÁ ÍÍÓÓÍÓ LASER LINK. è È ~ÚÓÍ Ì†  
ÍÁÈ Ì†~ÈÍ+ÁÚ ÍÈ„+Ú, Í†ÍÓÓ Í†.
  - (5) Ç+~ÌÈÚÁ, ÓÓÒ ÓÈÁ, Â%ÁÏÈÁ Ì†È+ÚÈÁÍ  
ÍÍÓÓÍÈ ( Ì†, È%ÂÓÍ†ÍÁ Á.
  - (6) è+ÓÓÓÍÓÈÈÚÁ, È%ÂÓÍ†ÍÁ Ò È  
ÈÏÙ †Í †ÒÏ·È Ó ÈÁÏÏÈÍ ÓÇ%  
ÓÓÚÈÍ†Í, Ì·ÍÚ, ÍÓÍ% Ó, Í% Ó, Ò.

Ç·ÍÍ, ~ÁÏÈÁ ÚÏÍÍ~ÈÈ LASER LINK  
Ç+ÈÏÈÚÁ LASER LINK.

Advanced operations / èÓÍ, ÁÓ, †ÏÈÁ ÓÓÚ+Í, Ì·ÍÈ ÚÏÍÍ~ÈÁÏÈ

# Searching the boundaries of recorded tape with date

ç+10Ê%ÂÎËÄ,, †ÏË^ Û~ †0ÛÍ†  
 Á†0Ë0Ë, 00ÍÄ~ÄÏ0,0  
 00 Ä%ÄÎÄÏ0Ë%†Ú· È 0 00Í0Ú ÄÚ, Ä†0Ë0. 0  
 ~Ú0,0 ÍÄ0Ú† Í0ËÏ0%, ÛÏÏ 00000·†Ë:

You can search for the boundaries of recorded tape with date-Date Search function. To search the beginning of the specific date and playback from the point, there are two ways:

- Using cassette memory, you can select the date displayed on the LCD screen or in the viewfinder.
- Without using cassette memory.

You can only operate with the Remote Commander.

## Searching for the date by using cassette memory

You can use this function only when playing back a tape with cassette memory.

- (1) Set the POWER switch to VTR.
  - (2) Press MENU to display the menu on the LCD screen.
  - (3) Turn the CONTROL dial to select the CM SEARCH, then press the CONTROL dial.
  - (4) Turn the CONTROL dial to select ON, then press the CONTROL dial.
  - (5) Press SEARCH MODE on the Remote Commander repeatedly, until the date search indicator appears.
  - (6) Press = or + to select the date for playback.
- Playback starts from the beginning of the selected date automatically.

- ç· Ì0ËÄÚÄ Ì†10%ËÚ,, †ÏË^· Û~ †0ÛÍ† Á†0Ë0Ë, 00ÍÄ~ÄÏ0,0 00 Ä%ÄÎÄÏ0Ë%†Ú0Ë (ÛÛÍÍ^ËÏ 00Ë0Í† 00%†ÚÄ). ç†ËÛË Ì†~†Í0 Ä†0Ë0Ë 0Ú 00 Ä%ÄÎÄÏ0Ë%†Ú· È 0 00Í0Ú ÄÚ, Ä†0Ë0. 0 ~Ú0,0 ÍÄ0Ú† Í0ËÏ0%, ÛÏÏ 00000·†Ë:
- 00ÏË Ì†00ÄÚ† 00Ï†~ÄÏ† ~ÍÄÍÚ 0ÏÏ0Ë 0†ÏÏÚ,,ç· Í0ËÄÚÄ,·· †Ú. ÍÛËÛ0.%†ÚÚ ËÄ ÚÄ†, Í0Ú0 \*Ä ÚÍ†ÄÍ· Ì† ËË%Í0Í È0Ú†ÏË~Ä0Í0Í ~Í †Ä ÈÏË, 0ÍÍÄ ,Ë%0Ë0Í†ÚÄÏÏ.
  - 00ÏË Ì†00ÄÚ† ÌÄ ÈÍÄÄÚ ~ÍÄÍÚ 0ÏÏ0Ë 0†ÏÏÚË.

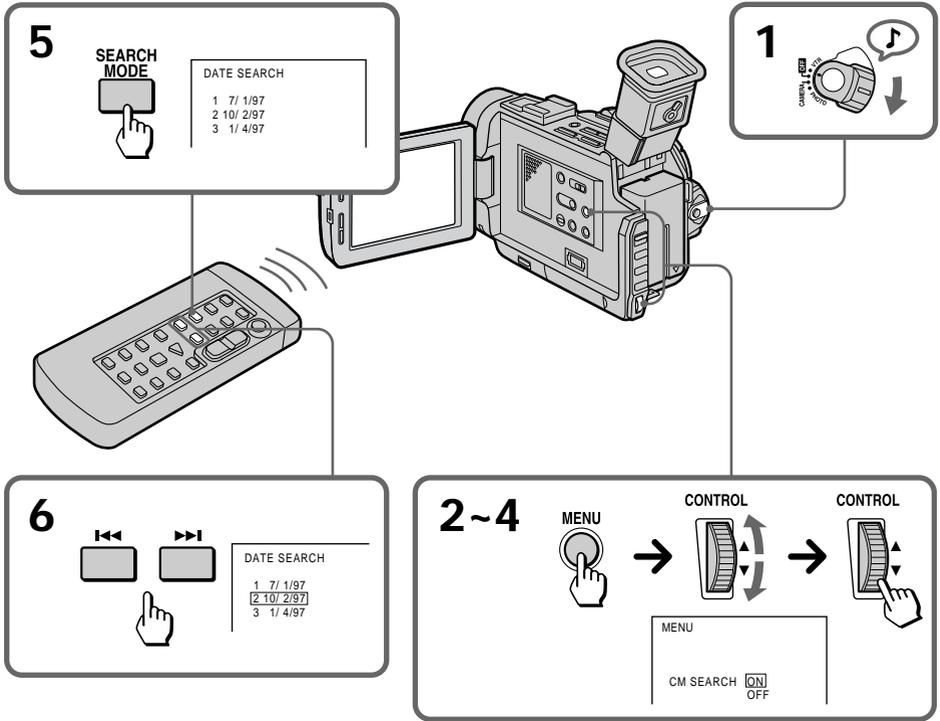
Û0%ÏÏ ~Ú0,0 ÍÄ0.10%ËÏ 00Í†  
 %È0Ú†Ì^È0Ï0,0 00 †,ÍÄÏËÏ.

è0Ë0Í Á†0Ë0Ë 0Ú 00 Ä%ÄÎÄÏ0Ë  
 %†Ú· Ì† Í†00ÄÚÄ 0 0†ÏÏÚ,,

- ÛÚ† ÛÛÍÍ^ËÏ %ÄÈ0Ú, ÚÄÚ ÏË^, 0 È ,000 0ËÄ,Ä%ÄÏËË Ì†00ÄÚ, 00Ï†~ÄÏÏ·1 ~ÍÄÍÚ 0ÏÏ0Ë 0†ÏÏÚ,,
- (1) Ì0Ú†Í0, ÈÚÄ 0Ä ÄÍÍ.~†ÚÄÍ, POWER, 00Í0ËÄÏËÄ VTR.
  - (2) ç†Ë†ÚËÄÍ ÍÍ00ÍË MENU,·,Ä%ÈÚÄ ÌÄÏ. Ì† ËË%Í0Í È0Ú†ÏË~Ä0ÍËË ~Í †Ï.
  - (3) è0,0 †~Ë,†Ï ÛÍ0Í0ÍÚ CONTROL,··Ä ÈÚÄ CM SEARCH È Ì†ÈÏÈÚÄ Ì† ÛÍ0Í0ÍÚ CONTROL.
  - (4) è0,0 †~Ë,†Ï ÛÍ0Í0ÍÚ CONTROL,··Ä ÈÚÄ ON È Ì†ÈÏÈÚÄ Ì† ÛÍ0Í0ÍÚ CONTROL.
  - (5) ç†ÈËÏ†ÈÚÄ ÍÍ00ÍÚ SEARCH MODE Ì† 00Í.ÚÄ %È0Ú†Ì^È0Ï0,0 00 †,ÍÄÏËÏ%0 ÚÄ1 00,00Í† ÌÄ 00Ï,ÈÚ0Ï ÈÏ%ËÏ†Ú0 00Ë0Í† 00%†ÚÄ.
  - (6) ç†ÈËÏ†Ï= ÈÏË+,,··Ä ÈÚÄ%†ÚÚ, 0 Í0Ú0 0Ë 0ÍÄ%ÚÄÚ Ì†~†Ú.,000 0ËÄ,Ä%ÄÏËÄ. ç000 0ËÄ,Ä%ÄÏËÄ †,Ú0Í†ÚË~Ä0ÍË Ì†~ËÏ†ÄÚ0Ï 0 0Ä,·1 Í†% 0, Ä†0Ë0Ë, 00ÍÄ~ÄÏ0Ë 000Ú,ÄÚ0Ú,Û·ÄË%†Ú0Ë.

# Searching the boundaries of recorded tape with date

ç+10Ê%ÀÌÈÀ " +ÌÈ` Û~+0ÚÍ+ Á+0È0È,  
 ÓÓÌÀ~ÀÌÌÓ,,Ó ÓÓ Â&ÁÌÀÌÌ0È %:+Ú0È



**To stop searching**  
 Press p.

## Notes

- The interval of the boundaries between the dates needs more than two minutes. The camcorder may not search if the beginning of the recorded date is too close to the next one.
- The short cursor on the screen suggests the date selected in the previous time.

à ÁÌ +~ÀÌÈÀ Ó0È0Í+  
 ç+ÈÌÈÚÁ p .

à ÈÌÀ~+ÌÈÈ

- à Ó%0ÍÈÈÚÁÌ,Ì0ÓÚ, Û~+0ÚÍ+ Á+0È0È ÓÚ Ì+~+Ì+ Ó%Ì0È %+Ú` %0 Ì+~+Ì+ 0ÍÁ%Ú. ~ÁÈ %0ÍÈÌ+ 000Ú+, ÌÈÚ, .0ÍÁÁ %,ÛÌ ÌÈÌÚÚ. 00ÍÈ ~ÚÈ Ó0~ÍÈ ÌÁ%00Ú+Ú0~Ì0 Û%+ÌÁÌ` % Û,, ÓÚ % Û,,+, +, Ú0Í+ÚÈ~Á0ÍÈÈ Ó0È0Í ÌÀ Ò +. +Ú', +ÁÚ.
- ä0 Ó0ÍÈÌ ÌÚ Ó0 0Í Ì+ `Í +ÌÁ ÚÍ+Á', +ÁÚ0Ì %:+Ú+, ,. +ÌÌ+Ì0 È 0 Â%`%Ú-ÁÌ Ó0È0ÍÁ.

## Searching for the date without using cassette memory

You can use this function whether the tape has cassette memory or not.

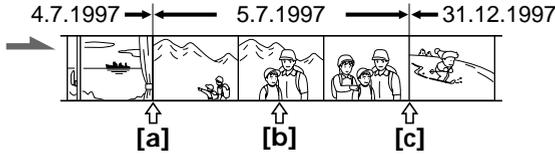
- (1) Set the POWER switch to VTR.
  - (2) Press MENU to display the menu on the LCD screen.
  - (3) Turn the CONTROL dial to select the CM SEARCH, then press the CONTROL dial.
  - (4) Turn the CONTROL dial to select OFF, then press the CONTROL dial.
  - (5) Press SEARCH MODE on the Remote Commander repeatedly, until the date search indicator appears.
  - (6) When the current position is [b], press = to search towards [a] or press or + to search towards [c]. Each time you press = or +, the camcorder searches for the previous or next date.
- Playback starts automatically when date changed.

è0Ë0Í Á†0Ë0Ë 0Ú 00 Ä%ÂÏÄÏ0Ë  
 %†Ú·.ÄÄ 00Í0~Ë ~ÏÄÍÚ 0Ï0Ë  
 0†ÏñÛË Í†00ÄÛ°

- ù00Ë Û0ÍÍ~ÈÄË Ï0ËÏ0 00Í, Á0, †Ú, 0ñ  
 ÏÄÄ†, È0ËÏ0 0Ú 00,,0, 00Í†~ÏÄ† ÏË Í†00ÄÛ†  
 ~ÏÄÍÚ 0ÏÏ0Ë 0†ñÛ,,.
- (1) ï0Û†Ï0, ÈÚÄ 0Ä ÁÍÏ, ~†ÚÄÏ, POWER, 00Í0ËÄÏËÄ VTR.
  - (2) ç+È†ÚËÄÏ ÏÏ00ÍË MENU, \*, Ä%ÈÚÄ ÏÄÏ. Ï† ÈË%Ï0Í È0Û†ÏË~Ä0ÍËË ~Í †Ï.
  - (3) è0, 0 †~Ë, †ñ ÛÍ0ñÚÍÛ CONTROL, , \*·Ä ÈÚÄ CM SEARCH È Ï†ÈÏÈÚÄ Ï† ÛÍ0ñÚÍÛ CONTROL.
  - (4) è0, 0 †~Ë, †ñ ÛÍ0ñÚÍÛ CONTROL, , \*·Ä ÈÚÄ OFF È Ï†ÈÏÈÚÄ Ï† ÛÍ0ñÚÍÛ CONTROL.
  - (5) ç+ÈËÏ+ÈÚÄ Ï† 0ÛÍ, ÚÄ %È0Û†Ï~È0ÏÏ0,,0 Û0 †, ÏÄÏËñ ÏÏ00ÍÛ SEARCH MODE %0 ÚÄ1 00, 00Í† ÏÄ 00ñ, ÈÛ0ñ ÈÏ%ÈÏ†Ú0 00È0Ï† 00%†ÚÄ.
  - (6) ç+10%ñ0,, Ú0~ÏÄ [b], Ï†ÈËÏ+ÈÚÄ = %Ïñ 00È0Ï†, Ï†0 †, ÏÄÏËË [a] ÈÏË + %Ïñ 00È0Ï†, Ï†0 †, ÏÄÏËË [c]. è È Í†È%0Í Ï†È†ÚËË = ÈÏË +, È%Ä0Í†Ï† † 0Ä Á10%ÈÚ Í 0 Ä%\*Û~ÄÈ ÈÏË 0ÏÄ%Û, ~ÄÈ %†ÚÄ.  
 ç Ú0~ÏÄ 0ÏÄÏ† %†Ú· †, Ú0Ï†ÚË~Ä0ÏË Ï†~ÈÏ†ÄÛ0ñ, 000 0ÈÄ, Ä%ÄÏËÄ.

# Searching the boundaries of recorded tape with date

ç+1ÓÈ%ÂÏÈÀ , +ÏÈ^ Û~+ÒÚÍ+ Á+ÔÈÒÈ,  
 ÓÓÏÀ~ÂÏÒ„Ó ÓÓ Â%ÂÏÂÏÒÈ %+ÚÓÈ



**5**

SEARCH MODE

DATE SEARCH

**1**

**6**

**2~4**

MENU

CONTROL

CONTROL

MENU

CM SEARCH ON OFF

To stop searching  
 Press p.

è Âí +~ÂÏÈÀ ÓÓÈÒí+  
 ç+ÈÏÈÚÁ p .

Advanced operations / àòí, áó, +ÏÈÀ ÓÓÛ+í, Ì, ÏÈ ÒÚÍ+ÈÀÏÈ

# Searching the boundaries of recorded tape with title

ç+10ÊÊÀÎÊÊ „ †ÏÊ^ Û~ †0ÛÍ†  
 Á+0Ê0Ë, 00ÍÁ~ÁÏ0,0  
 00 ÊÊÀÎÊÊ Ì Ì ÛÊÛ ÓÍ

You can search for the boundaries of recorded tape with title-Title Search function. If you use a tape with cassette memory, you can select the title displayed on the LCD screen or in the viewfinder.

You can only operate with the Remote Commander.

## Searching for the title by using cassette memory

You can use this function only when playing back a tape with cassette memory.

- (1) Set the POWER switch to VTR.
  - (2) Press MENU to display the menu on the LCD screen.
  - (3) Turn the CONTROL dial to select the CM SEARCH, then press the CONTROL dial.
  - (4) Turn the CONTROL dial to select ON, then press the CONTROL dial.
  - (5) Press SEARCH MODE on the Remote Commander repeatedly, until the title search indicator appears.
  - (6) Press = or + to select the title for playback.
- Playback starts from the scene of the selected title automatically.

ç´ Ì0ÊÊÁÚÁ Ì+10ÊÊÛ. „ †ÏÊ^ Û~ †0ÛÍ† Á+0Ê0Ë, 00ÍÁ~ÁÏ0,0 00 ÊÊÀÎÊÊ Ì Ì ÛÊÛ ÓÍ (ÛÛÍÍ^ÊÏ 00Ê0Í† 00 ÛÊÛ Û). 00ÏÊ Ì†00ÁÚ† 00Ï†~ÁÏ† ~ÍÁÍÛ 0ÏÏ0Ê 0†ÏÏÛ. , ç´ Ì0ÊÊÁÚÁ, ,´. †Û. ÌÛÊÏ~È ÛÊÛ ÊÁ ÚÁ1, Í000 ´Á ÚÍ+Á+Ì´ Ì† ÊÊÊ.Í0Í Ê0Û†ÏÊ~Á0Í0Í´ ´Í †ÌÁ ÊÏÊ, 00ÍÁ ,ÊÊ0Ê0Í+ÚÁÏÏ.

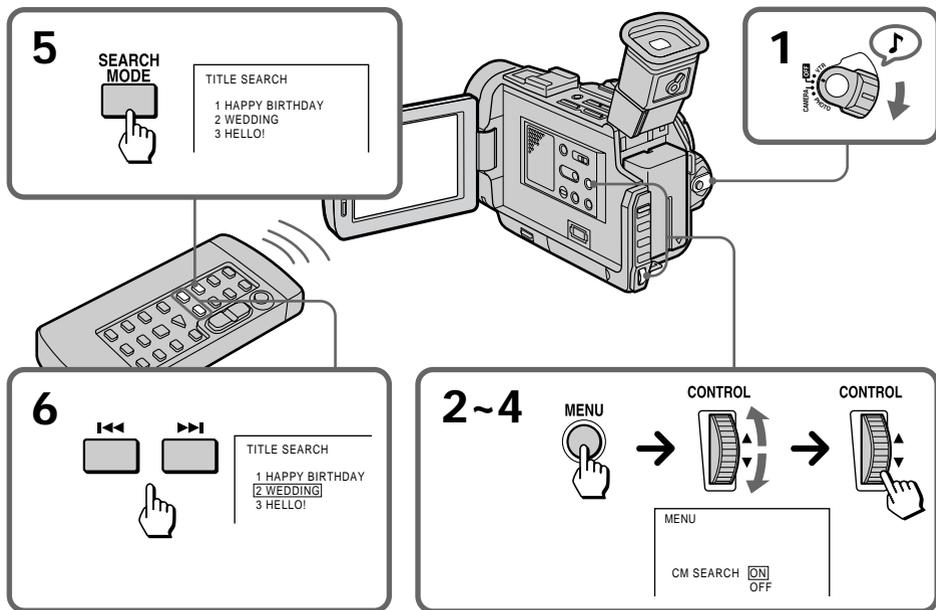
ÑÏÏ´ ´00,0 ÌÁ0.10ÊÊÏ 00Ï, Û ÊÊ0Û+Ì^Ê0Ï0,0 00 †, ÌÁÏÏÏ.

è0Ê0Í Á+0Ê0Ë 0 00 ÊÊÀÎÊÊ Ì Ì ÛÊÛ ÓÍ Ì† Ì†00ÁÚÁ 0 0†ÏÏÛ. ,

- ÛÚ† ÛÛÍÍ^ÊÏ ÊÊÊ0Û, ÚÁÚ ÏÊ. 0 Ê ,000 0ÊÁ, ÊÊÀÎÊÊ Ì†00ÁÚ, 00Ï†~ÁÏ Ì´ ~ÍÁÍÛ 0ÏÏ0Ê 0†ÏÏÛ. ,
- (1) Ì0Û+Ï0, ÊÚÁ 0Á ÁÍÏ.~+ÚÁÏ, POWER , 00Í0ÊÁÏÊÁ VTR.
  - (2) ç+Ê+ÚÊÁÏ Ì00Í0Ë MENU ,´, ÁÊÊÚÁ ÌÁÏ. Ì† ÊÊÊ.Í0Í Ê0Û†ÏÊ~Á0Í0Ë´ ´Í †Ï.
  - (3) è0,0 †~È, †Ï ÛÍ0ÏÛÍÛ CONTROL, ,´.Á ÊÚÁ CM SEARCH È Ì+ÊÏÊÚÁ Ì† ÛÍ0ÏÛÍÛ CONTROL.
  - (4) è0,0 †~È, †Ï ÛÍ0ÏÛÍÛ CONTROL, ,´.Á ÊÚÁ ON È Ì+ÊÏÊÚÁ Ì† ÛÍ0ÏÛÍÛ CONTROL.
  - (5) ç+ÊÊÏ+ÊÚÁ Ì000ÍÛ SEARCH MODE Ì† 00Ï, ÚÁ ÊÊ0Û+Ì^Ê0Ï0,0 00 †, ÌÁÏÏÏ Ê0 ÚÁ1 00 , 00Í† ÌÁ 00Ï, ÊÛ0Ï ÊÏÊÊÏ+Ú0 00Ê0Í† 00 ÛÊÛ Û.
  - (6) ç+ÊÊÏ+Ï = ÈÏÊ+ , ,´.Á ÊÚÁ ÚÊÛ , 0 Í000 0,0 00ÁÊÊÚÁ Ì†~+Ú. ,000 0ÊÁ, ÊÊÀÎÊÁ.
- ç000 0ÊÁ, ÊÊÀÎÊÁ †, Ú0Í+ÚÊ~Á0ÍÈ Ì†~ÈÏ+ÁÛ0Ï 0 Û~0ÛÍ† Á+0Ê0Ë, 00ÍÁ~ÁÏ0,0 ,´. †ÏÏ´ Ì ÛÊÛ ÓÍ.

# Searching the boundaries of recorded tape with title

ç+1ÓÊ%ÂÏÊÄ „ †ÏË^ Û~ †ÔÚÍ†  
 Â†ÔËÔË, ÔÓÏÄ~ÂÏÏ, Ó  
 ÓÓ Â%ÂÏÂÏÏ· ï ÛËÛ ÓÏ



## To stop searching

Press **p**.

## Notes

- You cannot superimpose or search a title, if you use a cassette tape without cassette memory.
- The camcorder may not search, if there is a blank portion between the recorded portions in the tape.

è ÁÍ †~ÂÏÊÄ ÓÓËÓ†  
 ç+ËÏËÛÄ p .

è ËÏÄ~†ËË

- ç+ÏÓÊÂÏÊÄ ÛËÛ Ó, È ÓÓËÓ† ÓÓ ÛËÛ †Ï, ÓÁÏÓË† ÛÓÏ, ÍÓ Ï†, È%ÁÓÏ† †ÔÔÁÛ† ð Ô†ÏÏÛ ...
- èÓËÓ† ÏÓÊÁÛ ÏÄ ð †·ÓÚ†Ú, , ÁÓÏË ÏÄË%Û Û †, ÏÁÏÛ†ÏË Â†ÔËÔË Ï† ÏÁÏÛÄ ËÏÄÁÛÓÏ ÏÄÄ†ÔËÔ†ÏÏ· È Û~ †ÔÚÓ†.

Advanced operations / èÓÏ, ÁÓ, †ÏÊÄ ÓÓÛ†Ï, Ï·ÏË ÛÓÏ†·ËÁÏË

# Searching for a photo-search/photo scan

ç+1ÓÊ%ÂÏËÄ  
 ,Ê%ÂÔÛÓÚÓÒÏËÏÍÓ,-  
 ÛÓÚÓÓËÖÍ/ÛÓÚÓÓÏ+ÏË Ó,+ÏËÄ

You can search for the recorded still picture-PhotoSearch function. There are two modes in PhotoSearch:

- Using cassette memory, you can select the recorded date which is displayed on the LCD screen or in the viewfinder.
- Without using cassette memory.

You can also search for still pictures one after another and display each picture for five seconds automatically-PhotoScan function. Even if your tape has no cassette memory, you can use the PhotoScan function.

You can only operate with the Remote Commander.

## Searching for a photo by using cassette memory

You can use this function only when playing back a tape with cassette memory.

- (1) Set the POWER switch to VTR.
- (2) Press MENU to display the menu.
- (3) Turn the CONTROL dial to select the CM SEARCH, then press the CONTROL dial.
- (4) Turn the CONTROL dial to select ON, then press the CONTROL dial.
- (5) Press SEARCH MODE on the Remote Commander repeatedly, until the photo search indicator appears.
- (6) Press = or + to select the date for playback.

Playback starts from the photo of the selected date automatically.

ç· ÌÖÊÁÚÄ Ì+1Ó%ËÛ, Ì+ Í+ÒÒÄÚÄ ÓÚ%ÄÏ, Ì·Ä Ä+ÒËÒ+ÌÏ·Ä Ì+ ÌÄË, Ê%ÄÓÛÓÚÓÒÏËÏÍË (ÛÓÚÓÓËÖÍ). ÌÓÓÚÓÓËÖÍ ÓÓÚ·ÄÓÚ, ÌÄÄÚÓÄ, %,Û ÌÄËËÏ+1:

- è ÈÒÒÓÏ,ÄÓ,+ÏËÄÏ~ÏÄÏÚ ÓÏÏÖËÒ+ÏÄÏÚË Ì+ÒÒÄÚ·. è È·ÓÓÏ ç· ÌÖÊÁÚÄ, ·· +Ú, ÌÛËÏÛ. %+ÓÚ ÈÄ ÚÄÏ, ÍÓÓÚ ·ÄÚÏ+Ä+Ï· Ì+ ÈË%ÍÓÏ ÈÓÚ+ÏË~ÄÓÍÓÏ· Ì· ÌÄÄËË, ÓÍÄÏ, Ê%ÖËÖÏ+ÚÄÏ.
- ÄÄÄ ÓÓÍÓ·È·ÏÄÏÚ ÓÏÏÖËÒ+ÏÄÏÚË Ì+ÒÒÄÚ·.

ç· ÌÖÊÁÚÄ Ú+ÏËÄ, ÄÓÚÈ +, ÓÓÏ+ÚÈ~ÄÓÍËË ÓÖËÖÍ, Ê%ÄÓÛÓÚÓÒÏËÏÍÓ, ÒÒ ÒÓÍÓÓ ÓÏ Ì+Ê%Ó, Ó ÈÄ ÌËÏ, ÚÄ~ÄÏËÄ ÓÏÏË ÒÄÏÚÏ% (ÛÓÚÓÓÏ+ÏË Ó,+ÏËÄ). ÌÛÏÏ·ÈÄË ÛÓÚÓÓÏ+ÏË Ó,+ÏËË ÌÖËÏÒ ÓÓÏ,ÄÓ,+Ú,ÒÄ, %+ÈÄ ÄÓÏË Ì+ÒÒÄÚ+ ÌÄ ÈÏÄÄÚ·ÏÄÏÚ ÓÏÏÖËÒ+ÏÄÏÚË. ÑÏÄ·Ó, Ó ÌÄÓ·1Ó%ËÏ ÓÛÏ, Ú %ÈÓÚ+Ï·ÈÖÓÏÒ, Ó ÛÒ +, ÌÄÏËÄ.

ç+1ÓÊ%ÂÏËÄ ,Ê%ÂÔÛÓÚÓÒÏËÏÍÓ, Ì+ Í+ÒÒÄÚÄ Ò Ò+ÏÄÏÚ, .

ÛÚ+ ÛÛÏÏ·ÈÄ ËÄÈÖÓ, ÚÄÚ ÌÈ·. Ò È ,ÓÓÒ ÓÈÄ, Ä%ÄÏËË Ì+ÒÒÄÚ, ÓÏÏ+~ÄÏÏ·1 ~ÏÄÏÚ ÓÏÏÖËÒ+ÏÄÏÚ, .

- (1) ÌÓÚ+ÏÖ, ÈÚÄ ÒÄ ÄÏÏ·~ÚÄÏ, POWER, ÓÓÍÓÈÄÏËÄ VTR.
- (2) ç+È+ÚÈÄÏ ÌÏÓÓÏË MENU, ·, Ä%ÈÚÄ ÌÄÏ, Ì+ Ì· Ì.
- (3) èÒ, Ó +~È, ÏÄ ÛÏÓÄÏÚÛ CONTROL, ··Ä ÈÚÄ CM SEARCH È Ì+ÈÏÈÚÄ Ì+ ÛÏÓÄÏÚÛ CONTROL.
- (4) èÒ, Ó +~È, ÏÄ ÛÏÓÄÏÚÛ CONTROL, ··Ä ÈÚÄ ON È Ì+ÈÏÈÚÄ Ì+ ÛÏÓÄÏÚÛ CONTROL.
- (5) ç+ÈËÏ+ÈÚÄ ÌÏÓÓÏË SEARCH MODE Ì+ ÓÛÏ, ÚÄ %ÈÓÚ+Ï·ÈÖÓÏÒ, Ó ÛÒ +, ÌÄÏËÄ%Ó ÚÄÏ ÓÓ, ÓÓÏ+ ÌÄ ÓÄÄ, ÈÚÓÄ ÈÏ%ÈÏ+ÓÚ ÛÓÚÓÓËÖÍ+.
- (6) ç+ÈËÏ+ÏÄ= ÈÏÈ+ , ··Ä ÈÚÄ %+ÓÚ, Ò ÍÓÓÚ ÓÈ ÒÄÈ%ÚÄÚ Ì+~+Ú, ,ÓÓÒ ÓÈÄ, Ä%ÄÏËÄ. ÓÓÒ ÓÈÄ, Ä%ÄÏËÄ +, ÓÓÏ+ÚÈ~ÄÓÍË Ì+~ÈÏ+ÄÚÓÄ Ò ÛÓÚÓÒÏËÏÏ+ , ÓÓÏÄ~ÄÏÏÒ, Ó, ·· +ÏÏÖË %+ÓÚÈ.





# Searching for a photo - photo search/photo scan

ç+10Ê%ÀÏËÄ, Ê%ÀÛ0Ú0Ó0ÌËÏÍÓ, -  
Û0Ú0Ó0È0Í/Û0Ú0Ó0Í+ÏË Ó, +ÏËÄ

## Scanning photo

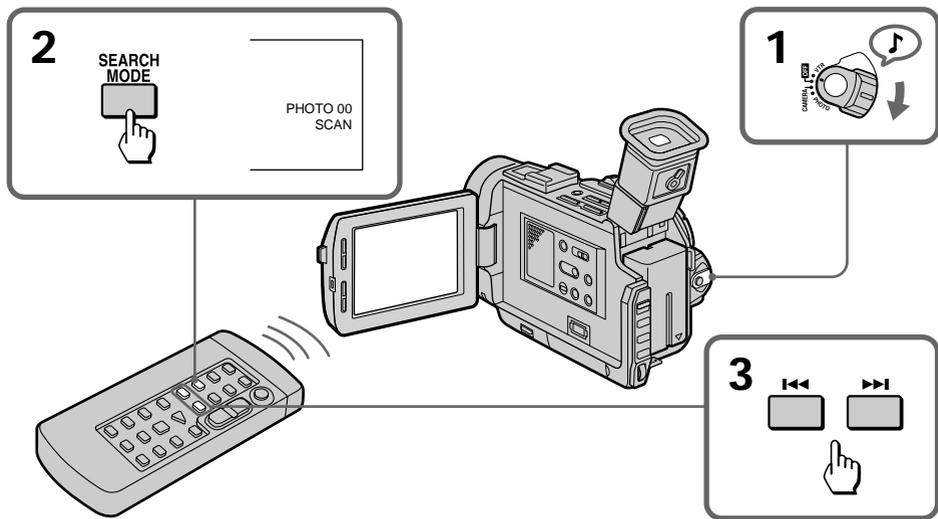
You can use this function whether the tape has cassette memory or not.

- (1) Set the POWER switch to VTR.
  - (2) Press SEARCH MODE on the Remote Commander repeatedly until the photo scan indicator displayed in the LCD screen.
  - (3) Press = or + .
- Each photos are displayed for about 5 seconds automatically.

ËÍ+ÏË Ó, +ÏËÄ  
, Ê%ÀÛ0Ú0Ó0ÌËÏÍÓ,

ù0Ú0È Û0ÏÍ^ÊÄÈ Í0ÈÌ0 Ó0Í, ÁÓ, +Ú, òñ  
ÌÄÄ+, È0ÈÏ0 ÓÚ Ó0, Ó0Í+^ÄÍ+ ÌÈ Í+00ÄÚ+  
^ÍÄÍÚ ÓÍÏ0È0+Ïñ, ..

- (1) ì0Ú+Ï0, ÈÚÄ 0Ä ÄÍÍ. ~+ÚÄÍ, POWER, Ó0Í0ÈÄÏËÄ VTR.
- (2) ç+ÈËÍ+ÈÚÄ ÍÍ0ÓÍÛ SEARCH MODE Ì+ ÓÛÍ, ÚÄ %È0Ú+Ì^È0ÍÏ0, ÓÚ0 +, ÍÄÏÈñ%ó ÚÄ1 Ó0, Ó0Í+ Ì+ ÈÈ%Í0Í È0Ú+ÏÏÈ^Ä0Í0Í ^Í +ÏÄ ÌÄ Ó0ñ, ÈÚ0ñ ÈÏ%ÈÍ+Ú0 Û0Ú0Ó0È0Í+.
- (3) ç+ÈËÍÈÚÄ = ÈÏÈ + .  
ä+È%\*È, Ê%ÀÛ0Ú0Ó0ÌËÏÍÓÍ +, Ú0Í+ÚÈ^Ä0ÍÈ, Ó00 ÓÈÄ, Ó%ÈÚ0ñ, ÚÄ^ÄÏÈÄ 0 ÈÏÄ Í05 0ÄÍÚÏ%.



To stop searching  
Press p .

è ÄÍ +^ÄÏÈÄ Ó0È0Í+  
ç+ÈËÍÈÚÄ p .

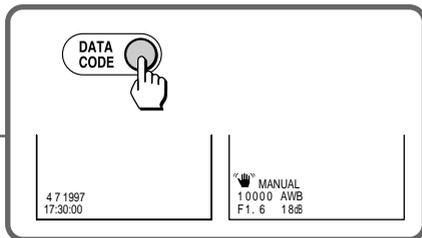
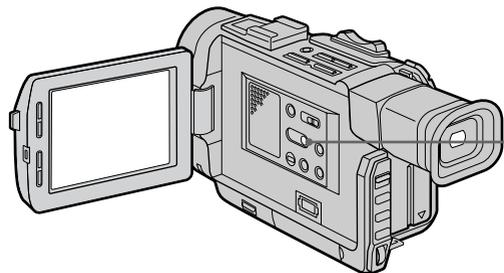
Advanced operations / à0Í, ÁÓ, +ÏËÄ Ó0Ú+Ï, Ì, ÏÈ Û0ÏÍ^ÊÄÈ



# Displaying recording data - data code function

You can display recording data (date/time or various settings when recorded) on the LCD screen or in the viewfinder during playback (Data Code). The Data Code is also displayed on the TV.

Press DATA CODE during playback.



## To select the items to be displayed

Set DATA CODE in the menu system, and select the following items:

When DATE/CAM is selected: date n various settings (steady shot, AE mode, shutter speed, white balance, aperture value, gain) n no indicator.

When DATE is selected: date n no indicator.

## When bars (---:---) appear

- A blank portion of the tape is being played back.
- The tape was recorded by a camcorder without having date and time set.
- The tape is unreadable due to tape damage or noise.

Ç, Ó% %† ì ì ° 1 Ó Á† ÔÈÒÈ ì † " í † ì :  
Û Û ì í ^ È ì " í † ì Ì Ó , Ó Í Ó % †

Ñ† ì ì ° Á Ó Á† ÔÈÒÈ (%† Û† / , Á ì ì È † Á ì È ~ ì ° Á  
Ô † † ì Á Û ° ) Ì Ó , Û Û Ô È , Ó Ó Ó Ó È Á , Á & Á ì È È  
, ° , Ó % È Û , Ô ì ì † È È % Í Ó Í È Ó Û † ì ì È ~ Á Ó Í È È " í † ì  
È ì È " í † ì , È % Ó È Ì Í † Û Á ì ì ( " í † ì ì ° È Í Ó % ) .  
ù í † ì ì ° È Í Ó % Í Ó È Á Û Û † ì È Á ° · Û , ° , Á & Á ì ì †  
" í † ì Û Á ì Á , È Á Ó † .

Ç Ó , Á ì ì ì , Ó Ó Ó Ó È Á , Á & Á ì È ì ì È ì È Û Á DATA  
CODE .

Ç ° · Ó % † ì ì ° 1 % ì ì ì , ° , Ó % † ì † " í † ì  
è Á Á ì ì ~ È , È Ò , , ì Á ì . Ô † † ì Á Û Ó , ì †  
Ó Ó Á È ^ È . DATA CODE , Ç Í Ó È Á Û Á , ° · † Û ,  
Ó ì Á % Û . ^ È Á , † È † ì Û ° :

è È , ° · Ó Á DATE/CAM : % † Û † n † Á ì È ~ ì ° Á  
Ô † † ì Á Û ° ( Ò Û † È ì È Á † Û Ó Í † † , Á È È ì  
† Û Ó ì † Û È ~ Á Ó Í Ó È " Í Ó Ó Á È ^ È È , ° Á È ì † ,  
· † ì † ì Ò Ó · Á ì Ó ì Û , % È † Û † , ì † , ì Í Ó Ó Û . ) n  
È ì % È ì † ^ È ì Ó Û Ó Û Ó Û , Û Á Û .

è È , ° · Ó Á DATE : % † Û † n È ì % È ì † ^ È ì  
Ó Û Ó Û Ó Û , Û Á Û .

è ò ì ì , ì Á ì È Á Ó ì Ó Ó ì Ó í ( --- : --- ) Ó Á ì † ~ † Á Û , ~ Û Ó :

- Ç Ó Ó Ó È Á , Ó % È Û Ô ì ì Á Á † Ô È Ó † ì ì ° È Û ~ † Ó Ó Í  
Í Á ì Û ° .
- ã Á ì Û † Á † Ô È Ó † ì † ì † , È % Á Ó Í † ì Á Á , ì Á  
Û È Ì Ó È Û ~ Á È % † Û Û È , Á ì ì Á † Ô È Ó È .
- Ç Ó Ó Ó Ó È Á , Á & Á ì È Á ì Á , Ó Á Í Ó È Ì Ó Ó Ó Ó È ~ È ì Á  
Ó Ó , Á È & Á ì È ì ì , È % Á Ó Í Á ì Û ° È ì È È Á - Á † Ó Ó Í Á ì .

# Editing onto another tape

èÂ ÂÁ†ÔÈÒ, Ì†% Û„Û.  
, È%ÂÓÍ†ÒÈÁÛÛ

You can create your own video programme by editing with any other DV, mini DV, h 8 mm, H Hi8, j VHS, k S-VHS, VHSC, K S-VHSC or l Betamax VCR that has audio/video inputs. You can edit with little deterioration of picture and sound quality when using the DV connecting cable.

## Before editing

Connect the camcorder to the VCR using the VMC-2DV DV connecting cable (not supplied) or the supplied A/V connecting cable.

## Using the DV connecting cable

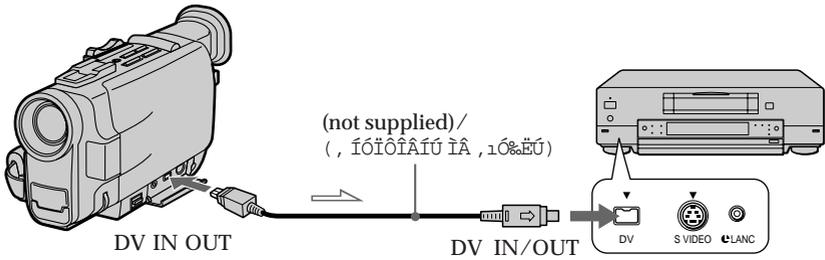
Simply connect the VMC-2DV DV connecting cable (not supplied) to DV IN OUT and to DV IN/OUT of the DV products. With digital-to-digital connection, video and audio signals are transmitted in digital form for high-quality editing.

ç: ÍÓÈÁÛÁ ÓÓÁ%†, †Û, ÓÓ·ÓÛ, ÀÌÌ·Á  
, È%ÂÓ Ó„, †ÌÌ·ÓÓÛÁÌ ÓÁ ÁÁ†ÔÈÒÈ Ì† Ì·ÓÈ  
, È%ÂÓÍ†, ÌÈÛÓÛÓÌ ÛÓ Ì†Û† DV, mini DV, h 8  
mm, H Hi8, j VHS, k S-VHS, VHSC, K S-VHSC ÈÌÈ l Betamax,  
ÈÌÁ „ÈÈ „ÌÁÁ%† Û%ÈÓ/, È%ÂÓ, ÌÓ%†.  
àÓÓÓÍ, ÁÓ, ÌÈÁ ÓÓÁ%ÈÌÈÛÁÌ ÌÓ, Ó DV-Ì†·ÁÌfl  
ÓÓÁ, ÓÍflÁÛ %ÁÌ†Û. ~ÛÓ Ó ÌÈÌÈÌ†Ì, ÌÓÈ ÓÓÛÁ ÁÈ  
Ì†~ÁÓÛ, †Á, ÛÌ† È ÈÁÓ. †ÈÁÌÈfl.

## èÂ ÂÁ Ì†~†ÍÓÍ ÓÁ ÁÁ†ÔÈÒÈ

èÓÁ%ÈÌÈÛÁ Ì†ÌÁ ÛÓ, È%ÂÓÍ†, ÌÈÛÓÛÓÌÓÍÓ Ì È  
ÓÓÍÓ È ÓÓÁ%ÈÌÈÛÁÌ ÌÓ, Ó DV-Ì†·ÁÌfl  
VMC-2DV (, ÍÓÍÓÍÁÌÛ ÌÁ, ÌÓ%ÈÛ, ÈÌÈ  
Ó ÈÌ†, †ÁÌÓ, Ó ÓÓÁ%ÈÌÈÛÁÌ, ÌÓ, Ó Û%ÈÓ/  
, È%ÂÓÍ†·ÁÌfl.  
ÑÌfl, ÓÓÓ ÓÈÁ, Á%ÁÌÈfl ÓÍÁ%ÛÁÛ ÈÓÓÓÍ, ÁÓ, †Û,  
, È%ÂÓÍ†ÌÁ Û.

èÓÍ ÁÓ, †ÌÈÁ ÓÓÁ%ÈÌÈÛÁÌ, Ì·Ì  
DV-Ì†·ÁÌÁÌ  
èÓÁ%ÈÌÈÛÁÌ, Ì·È DV-Ì†·ÁÌ, VMC-2DV (,  
ÍÓÍÓÍÁÌÛ ÌÁ, ÌÓ%ÈÛ) %ÓÓÛ†ÛÓ~ÌÓÓ%ÍÌ. ~ÈÛ.  
Ì„ÌÁÁ%†Ì DV IN OUT È DV IN/OUT  
†ÓÓ† †ÛÛ·ÛÓ Ì†Û† DV. ÁÌ†, Ó%† fl ~ÛÓÍÛ  
ÓÓÁ%ÈÌÁÌÈ. ÓÁ Á%†~†Á, ÛÍÓ, Ó, Ó È  
, È%ÂÓÈ, Ì†Ì† ÓÓÛ·ÁÓÛ, flÁÛÓfl, ^ÈÛ Ó, ÓÈ  
ÛÓ ÌÁ, ~ÛÓ Ó·ÁÓÁ·È, †ÁÛ, °ÓÓÍÓÁ Ì†~ÁÓÛ, Ó  
ÓÁ ÁÁ†ÔÈÒÈ.



:Signalflow/ èÂ ÂÁ†~†ÔÈ„Ì†Ì†

## Notes on editing when using the DV connecting cable

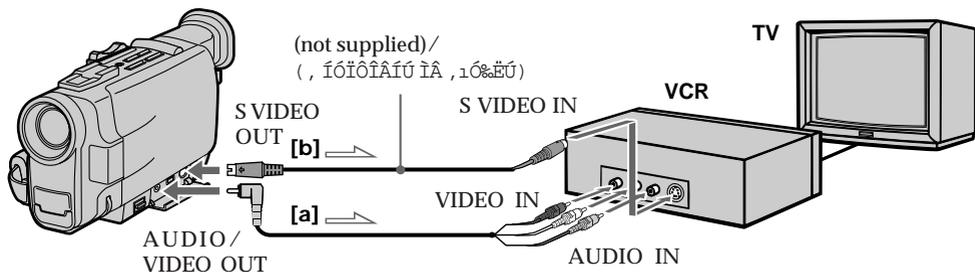
- You can connect one VCR only.
- You can record picture, sound and system data at the same time on the DV products by using the DV connecting cable only.
- You cannot edit the titles, display indicator, or the contents of cassette memory.
- If you record playback pause picture via the DV jack, the recorded picture becomes rough. And when you playback the picture using the other video equipment, the picture may jitter.
- When you record a playback pause picture via the DV jack, you cannot add audio to that portion of the tape.
- You can also use the camcorder as a recorder with this connection. In this case "DV IN" indicator appears on the screen.
- When you use the camcorder as a recorder, the color balance may be incorrect on the monitor screen. But this is not recorded on the tape.

## Using the A/V connecting cable [a] or S video connecting cable (not supplied) [b]

Set the input selector on the VCR to LINE.

- ε̂ ὀ̂Α̂ Α̂Α̂+Ο̂Ε̂Ο̂Ε̂ ὀ̂ Ε̂Ο̂Ο̂ἰ̂, Α̂Ο̂, +ἰ̂Ε̂Α̂ἰ̂ ὀ̂Ο̂Α̂%Ε̂ἰ̂Ε̂ὑ̂Α̂ἰ̂, ἰ̂Ο̂, ὀ̂ DV-ἰ̂+·Α̂ἰ̂
- ἰ̂+ἰ̂Ε̂ἰ̂ ὀ̂· +Α̂Ο̂ἰ̂ ς̂· ἰ̂Ο̂Ε̂Α̂ὑ̂Α̂ ὀ̂Ο̂%ἰ̂ἰ̂. ~Ε̂ὑ̂, ὑ̂Ο̂ἰ̂, ἰ̂Ο̂%Ε̂ἰ̂, Ε̂%Α̂Ο̂ἰ̂+, ἰ̂Ε̂ὑ̂Ο̂ὑ̂Ο̂ἰ̂.
- ς̂+ +ὀ̂δ̂+ +ὑ̂ὑ̂ Ἀ̂ DV ς̂· ἰ̂Ο̂Ε̂Α̂ὑ̂Α̂ ὀ̂%ἰ̂Ο̂, Ἀ̂ἰ̂ἰ̂Ο̂ Ἀ̂+ὀ̂Ε̂δ̂, +ὑ̂, Ε̂Α̂Ο̂· +Ε̂Α̂ἰ̂Ε̂Α̂, Ἀ̂, ὑ̂ἰ̂ Ε̂ ὑ̂Α̂ἰ̂Ε̂~Α̂Ο̂ἰ̂Ε̂Α̂ %+ἰ̂ἰ̂· Ἀ̂ (ὑ̂Ο̂ἰ̂, ἰ̂Ο̂ ὀ̂Ο̂ἰ̂Ο̂~. . DV-ἰ̂+·Α̂ἰ̂)
- ἰ̂Ε̂ὑ̂, ~ἰ̂ +ἰ̂ἰ̂· Ἀ̂ Ε̂ἰ̂%Ε̂ἰ̂+ὑ̂Ο̂· ἰ̂ Ε̂ ὀ̂Ο̂%Ἀ̂ Ε̂+ἰ̂Ε̂Α̂ ~ἰ̂Α̂ὑ̂ ὀ̂ἰ̂ἰ̂Ο̂Ε̂ ὀ̂+ἰ̂ἰ̂ὑ̂Ε̂ ἰ̂+ὀ̂δ̂Α̂ὑ̂ ὀ̂ Ε̂ ὀ̂Α̂ Ἀ̂Α̂+ὀ̂Ε̂δ̂ ἰ̂Α̂ ἰ̂Ο̂Ε̂ ὀ̂, ὑ̂Ο̂ἰ̂.
- ε̂ ἰ̂ Ε̂ ὀ̂Α̂ Ἀ̂Α̂+ὀ̂Ε̂δ̂Ε̂ Ε̂Α̂Ο̂· +Ε̂Α̂ἰ̂Ε̂ἰ̂, Ἀ̂Ε̂Ε̂ἰ̂Α̂ ὀ̂+ὑ̂Α̂· (ὀ̂ὑ̂Ο̂-ἰ̂+%) ὀ̂ ὀ̂Ο̂%ἰ̂ἰ̂. ~Ἀ̂ἰ̂Ε̂Α̂ἰ̂ ~Ἀ̂ Ἀ̂ ἰ̂, ἰ̂Α̂%ὀ̂ DV Ε̂Α̂Ο̂· +Ε̂Α̂ἰ̂Ε̂Α̂ ὑ̂Α̂ ἰ̂Α̂ὑ̂ ~Α̂ὑ̂ἰ̂Ο̂ὑ̂. . ε̂ ἰ̂ Ε̂ Ἀ̂, ὀ̂, ὀ̂Ο̂ ὀ̂Ε̂Α̂, Ἀ̂%Ἀ̂ἰ̂Ε̂ ἰ̂+ % ὀ̂, ὀ̂Ε̂, Ε̂%Α̂Ο̂+ὀ̂δ̂+ +ὑ̂ὑ̂ Ἀ̂ ἰ̂Ο̂Ε̂Α̂ὑ̂ ὀ̂ἰ̂, ἰ̂ἰ̂ὑ̂, ὀ̂ἰ̂ % ὀ̂Ε̂+ἰ̂Ε̂Α̂.
- ὀ̂Ο̂ἰ̂Ε̂ ἰ̂+ , Ε̂%Α̂Ο̂ἰ̂+, ἰ̂Ε̂ὑ̂Ο̂ὑ̂Ο̂ἰ̂, ὀ̂Ο̂%ἰ̂ἰ̂. ~Ἀ̂ἰ̂· Ε̂ ~Ἀ̂ Ἀ̂ ἰ̂, ἰ̂Α̂%ὀ̂ DV, ὀ̂Α̂ Ἀ̂Ο̂Ε̂δ̂, +Α̂ὑ̂Ο̂ἰ̂ Ε̂Α̂Ο̂· +Ε̂Α̂ἰ̂Ε̂Α̂, Ἀ̂Ε̂Ε̂ἰ̂Α̂ ὀ̂+ὑ̂Α̂·, ὑ̂Ο̂ ἰ̂+ ~ὑ̂Ο̂ὑ̂ ὀ̂+ὑ̂Ο̂ἰ̂ ἰ̂Α̂ὑ̂·, ὀ̂Ο̂ἰ̂Α̂%ὀ̂ὑ̂, Ε̂Ε̂· ὀ̂%Ἀ̂ὑ̂ ἰ̂Α̂, ὀ̂Α̂ἰ̂Ο̂Ε̂ἰ̂Ο̂ ἰ̂+ἰ̂Ο̂Ε̂ὑ̂, Ἀ̂, ὑ̂ἰ̂.
- ε̂ ἰ̂ Ε̂ ὑ̂+ἰ̂Ο̂ἰ̂ ὀ̂Ο̂%ἰ̂ἰ̂. ~Ἀ̂ἰ̂Ε̂Ε̂, Ε̂%Α̂Ο̂ἰ̂+ἰ̂Α̂ ὀ̂ ἰ̂Ο̂Ε̂ἰ̂Ο̂ Ε̂Ο̂Ο̂ἰ̂, Α̂Ο̂, +ὑ̂, Ε̂%ἰ̂ἰ̂ Ἀ̂+ὀ̂Ε̂δ̂Ε̂. ε̂ ἰ̂ Ε̂ ~ὑ̂Ο̂ἰ̂ ἰ̂+ ~ἰ̂ ἰ̂Ἀ̂ ὀ̂ἰ̂, ἰ̂ἰ̂Α̂ὑ̂Ο̂ἰ̂ Ε̂ἰ̂%Ε̂ἰ̂+ὑ̂Ο̂ "DV IN".
- ε̂ ὀ̂, %+, Ε̂%Α̂Ο̂ἰ̂+ἰ̂Α̂ + Ε̂Ο̂Ο̂ἰ̂, Ἀ̂ὑ̂Α̂ὑ̂Ο̂ἰ̂ %ἰ̂ἰ̂ Ἀ̂+ὀ̂Ε̂δ̂Ε̂, ἰ̂+ ~ἰ̂ ἰ̂Ἀ̂ ἰ̂Ο̂ἰ̂Ε̂ὑ̂Ο̂ +, ὀ̂Α̂ἰ̂Ο̂Ε̂ἰ̂· ἰ̂+ ὀ̂~Ἀ̂ἰ̂Ε̂ἰ̂· +ἰ̂+ἰ̂Ο̂+ ^, Ἀ̂ὑ̂Ο̂, . ὑ̂Ο̂ὑ̂, ὀ̂%ἰ̂+ἰ̂Ο̂, ἰ̂Α̂, ἰ̂Ε̂ἰ̂Ἀ̂ὑ̂ ἰ̂+ Ἀ̂+ὀ̂Ε̂δ̂. .

ε̂ ὀ̂ἰ̂, Α̂Ο̂, +ἰ̂Ε̂Α̂ἰ̂ ὀ̂Ο̂Α̂%Ε̂ἰ̂Ε̂ὑ̂Α̂ἰ̂, ἰ̂· ἰ̂ +ὑ̂%Ε̂Ο̂/  
, Ε̂%Α̂Ο̂ἰ̂+·Α̂ἰ̂Α̂ἰ̂ [a] Ε̂ἰ̂Ε̂  
ὀ̂Ο̂Α̂%Ε̂ἰ̂Ε̂ὑ̂Α̂ἰ̂, ἰ̂· ἰ̂ s-, Ε̂%Α̂Ο̂ἰ̂+·Α̂ἰ̂Α̂ἰ̂ ( ,  
ἰ̂Ο̂ἰ̂Ο̂ἰ̂Α̂ὑ̂ ἰ̂Α̂, ἰ̂Ο̂%Ε̂ὑ̂ [b]  
ἰ̂Ο̂ὑ̂+ἰ̂Ο̂, Ε̂ὑ̂Α̂ ὀ̂Α̂ἰ̂Α̂ἰ̂ὑ̂Ο̂, ἰ̂Ο̂%ἰ̂Ο̂, ὀ̂ ὀ̂Ε̂, ἰ̂+ἰ̂+  
, Ε̂%Α̂Ο̂ἰ̂+, ἰ̂Ε̂ὑ̂Ο̂ὑ̂Ο̂ἰ̂+, ὀ̂ἰ̂Ο̂Ε̂Α̂ἰ̂Ε̂Α̂ LINE.



Advanced operations / ε̂ἰ̂, Α̂Ο̂, +ἰ̂Ε̂Α̂ἰ̂ ὀ̂Ο̂ὑ̂+ἰ̂, ἰ̂· ἰ̂Ε̂ ὀ̂ἰ̂ἰ̂· Ε̂ἰ̂Ε̂

# Editing onto another tape

èÂ ÁÁ†ÔÈÒ, Ì† % Û,,Û.  
, È%ÂÓÍ†+ÒÒÁÛÛ

## Notes on editing when using the A/V connecting cable

- Press DATA CODE, SEARCH MODE, or DISPLAY to turn off the display indicators. Otherwise, the indicators will be recorded on the tape.
- If your TV or VCR is a monaural type, connect the yellow plug of the A/V connecting cable for video to the TV or VCR. Connect only the white or red plug for audio to the TV or VCR. If you connect the white plug, the sound is L (left) signal. If you connect the red plug, the sound is R (right) signal.
- You can edit precisely by connecting a LANC cable to this camcorder and other video equipment having fine synchro-editing function, using this camcorder as a VTR.

## Starting editing

- (1) Insert a blank tape (or a tape you want to record over) into the VCR, and insert your recorded tape into the camcorder.
- (2) Playback the recorded tape on the camcorder until you locate the point where you want to start editing, then press P to set the camcorder in playback pause mode.
- (3) On the VCR, locate the recording start point and set the VCR in recording pause mode.
- (4) Press P on the camcorder and VCR simultaneously to start editing.

## To edit more scenes

Repeat steps 2 to 4.

## To stop editing

Press p on both the camcorder and the VCR.

é ÔÂ ÁÁ†ÔÈÒÈ Ò ÒÓÍÓ´, . ÒÓÂ%ÈÏÈÛÁÎ, ÌÒ,,Ò  
†Û%ÈÓ/, È%ÂÓÍ†+ ÁÎÎ  
ç†È†ÈÛÁÎ ÌÍÓÓÍ DATA CODE, SEARCH  
MODE ÈÏÈ DISPLAY Û-Â ÈÛÁ Ò´Í †Ì†  
ÈÏ%ÈÍ†ÛÓ´. ç Ó ÒÓÈ, ÌÓÍ ÒÏÛ†+Á ÓÏÈ  
Á†ÔÈ ÛÓÏ Ì†% Û,,Û, È%ÂÓÍÁÏÛÓ.  
• ÒÓÏÈ ç´ ÓÓÍ, ÁÛÁÛÁÓ, ÌÓÍÓÓÏÈ-ÁÓÏÈÏ  
ÛÁÎÁ, ÈÁÓ ÓÏ ÈÏÈ, È%ÂÓÍ†,, ÌÈÛÓÓÓÍÓÍ,  
ÒÓ%ÍÍ´. ~+ÈÛÁ Í ÌÁÏÛ ÈÁÏÛ´È-ÛÁÎÁ  
ÒÓÂ%ÈÏÈÛÁÎ, ÌÒ,,Ò †Û%ÈÓ/, È%ÂÓÍ†+ ÁÎÎ %ÎÎ  
ÔÂ Á%+´È, È%ÂÓÓÈ,, Ì††+. ÑÎÎ ÔÂ Á%+´È  
Á, ÛÍÓ, Ó,, Ó ÒÈ,, Ì††+ ÈÒÓÓÍ, ÁÓÛÁ Í †ÓÏ´È ÈÏÈ  
·ÁÏ´È-ÛÁÎÁ . è È ÓÓ%ÍÍ´. ~ÁÏÈÈ-ÁÏÓ,, Ó  
-ÛÁÎÁ †+Á†ÔÈÒ´, †Û. ÒÎ ·Û%ÁÛÁ, ÛÍ Í††† L  
(ÌÁ, Ó,, Ó). è È ÓÓ%ÍÍ´. ~ÁÏÈÈ Í †ÒÏÓ, Ó  
-ÛÁÎÁ †+Á†ÔÈÒ´, †ÁÛÓÎ Á, ÛÍ Í††† R  
(Ò †, Ó,, Ó).  
• ÌÓ´ÍÓÓÛ. Ò È, È%ÂÓÍÓÍÛ†ÈÁ ÌÓÏÍÓ  
Ó-ÁÓÓÁ-ÈÛ, ÒÓÂ%ÈÏÈ, È%ÂÓÍ†+ÏÁ ÛÒ% Û,,ÒÈ  
, È%ÂÓ†ÓÓ† †ÛÓ ÒÈ, ÓÓÏ†-ÁÏÏÓÈ ÛÏÏÍ´ÈÈÈ  
ÛÓ´ÍÓÈ ÒÈÏ. ÓÏÈÁ† ÈÈ ÌÓÍÛ†È†, Ò È ÒÓÍÓ´È  
Í†+ÁÎÎ LANC. çÈ%ÂÓÍ†+ÏÁ † Ó È´ÛÓÍ  
%ÓÏÈÏ† ÈÒÓÓÍ, ÁÓ, †Û. ÒÎ %ÎÎ  
, ÓÓÓ ÒÈÁ, Á%ÁÏÈÎ.

## ç† ~†ÍÓ ÔÂ ÁÁ†ÔÈÒÈ

- (1) çÓÛ†, ÛÁ, È%ÂÓÍ†,, ÌÈÛÓÓÓÍ´ ~ÈÓÓÛ.  
Í†+ÒÒÁÛÛ (ÈÏÈ Í†+ÒÒÁÛÛ, Ì† ÍÓÓÓ ÒÈ ç´ ÌÓÛÈÛÁ  
Ò%ÁÏ†Û. ÌÒ,Û. Á†ÔÈÒ. ), †, È%ÂÓÍ†+ÏÁ Û-  
Í†+ÒÒÁÛÛ Ò Ó È,, ÈÏ†ÍÓÍ Á†ÔÈÒÈ.
- (2) çÓÓÓ ÒÈÁ, Ó%† Á†ÔÈÒ. Ì†, È%ÂÓÍ†+ÏÁ Á,  
%ÓÈ%ÈÛÁ %Ó ÌÁÓÛ†, Ò ÍÓÓÓ Ó,, ÓÛ Á-ÛÁÛÓÎ  
Ì†+†Û. ÍÓÓÈ Ó, †ÈÁ, È Ì†ÈÏÈÛÁ ÌÍÓÓÍÛ P,  
~ÛÓ· ÔÂ Á, ÁÓÛÈ Í†+ÏÁ Û, ÁÈÈÏ Ó†ÛÁ´  
Ò È, ÓÓÓ ÒÈÁ, Á%ÁÏÈÈ.
- (3) ç†È%ÈÛÁ Ì†, È%ÂÓÍ†,, ÌÈÛÓÓÓÍÁ ÌÁÓÓÓ, Ò  
ÍÓÓÓ Ó,, Ó %ÓÏÈÏ† Ì†+†Û. ÒÎ ÌÒ, †† Á†ÔÈÒ. , È  
ÔÂ Á, Á%ÈÛÁ Á,, Ó, ÁÈÈÏ Ó†ÛÁ´ Ò È Á†ÔÈÒÈ.
- (4) ç†-ÏÈÛÁ ÔÂ ÁÁ†ÔÈÒ. Ó%ÍÓ, ÁÏÁÏÏ´Í  
Ì†È†ÈÛÁÏ ÌÍÓÓÍÛ P Ì†, È%ÂÓÍ†+ÏÁ Á È  
, È%ÂÓÍ†,, ÌÈÛÓÓÓÍÁ.

äÓÓÈ Ó, †ÈÁ% Û,, ÈÏ´ ÒÈÁÓ%Ó,  
èÓ,ÛÓ ÈÛÁ ÓÓÁ †´ÈÈ 2-4.

è ÁÍ †-ÁÏÈÁ ÔÂ ÁÁ†ÔÈÒÈ  
ç†ÈÏÈÛÁ ÌÍÓÓÍÛ P Ì†, È%ÂÓÍ†+ÏÁ Á È  
, È%ÂÓÍ†,, ÌÈÛÓÓÓÍÁ.

# Replacing recording on a tape – insert editing

á+ïâî† óú%âî, ì° 1  
 ù †, ìâîúó, á+ôèòè -  
 ïòìú†èì†fl, òù†, í†

You can insert a new scene from a VCR onto your originally recorded tape by specifying starting and ending points.

Connection is the same as in "Using the DV connecting cable" on page 64. In recording and recording pause mode, DV IN OUT jack automatically works as input jack.

- (1) While pressing the small green button on the POWER switch, set it to VTR.
- (2) On the VCR, locate the start point to be inserted and set it to playback pause mode.
- (3) On the camcorder, press ( to set it to playback mode, and then locate the point where the insert should end by pressing 0 or ) . Then press P to set it to playback pause mode.
- (4) Press ZERO SET MEMORY on the Remote Commander. The ZERO SET MEMORY indicator flashes and the end point of the insert is stored in memory.
- (5) On the camcorder, locate the point where the insert should begin by pressing 0 , then press r REC to set it to recording pause mode.
- (6) Press P on the camcorder and the VCR simultaneously to start insert editing. The insert editing stops automatically near the counter's zero point. Press p to set the camcorder to stop mode.

## To change the end point

Press ZERO SET MEMORY on the Remote Commander so that the ZERO SET MEMORY indicator disappears and begin from step 3.

## Note on the inserted picture

The picture may be distorted at the end of the inserted portion when it is played back.

ç· ìòèáúá, íí, ~+ú, , èïá, ~ù òfl ù ç+ò  
 , è%áóá+òèò, % ù, èá í+%, , òòò óèá, %èì·á  
 ì+ , è%áóí+ , ìèúóúóìá, úó~ìó ùèíòè ùfl úó~íè  
 ì+~í+ è òíóì~+ìèfl, òù†, íè.

èóá%èìáìè ò è ~úóí %óíèì· · ·ú, ú+íèìè  
 èá, í+í úí+á+ìò, +á%áíá "èóí, áó, +ìèá  
 òóá%èìèúáí, ì· ì DV-í+·áíáí" ì+òú . 64. ç  
 áèèì+1 á+òèòè è ò+úá· ò è á+òèòè, ìá%ó  
 DV IN OUT †, úóí+úè~áóíè óá áíí, ~+áúòfl ì†  
 ò èáí, ì%ìò, òòè, ì+í+.

(1) ì%á èè, +fl, ì+è+úóí òóíòèáìèè  
 ì+íáì, íú. ááíáìú. ííòíú ì+  
 óá áíí, ~+úáíá POWER, óá á, á%èúá á, ò,  
 òóíóèáìèá VTR.

(2) ç+è%èúá, á+òèòè, òòò óèá, %èìòè  
 , è%áóí+ , ìèúóúóíóí, ì+~íò ù +, ìáìú+ ,  
 íóóò · è ìáó·ì%èìó, òù†, èú, ç+ù  
 á+òèò, è óá á, á%èúá, è%áóí+ , ìèúóúóì,  
 áèèì ò+úá· ò è , òòò óèá, á%áìèè.

(3) ç+è+úèáí ííòóíè ( ì+ , è%áóí+íá á  
 , íí·èúá, òòò óèá, á%áìèá, † á+úáí ò  
 òóíó· . ìíòóí ò èìè) ì+è%èúá  
 úó~íú, , %á%óíèì+ á+íóì·èú, òfl, òù†, í+ , è  
 ì+èìèúá P, ~úó· óá á, áòúè í+íá ù,  
 áèèì ò+úá· ò è , òòò óèá, á%áìèè.

(4) ç+òúí. úá%èòú+ì·èóíèò ò úò †, íáìèfl  
 ì+èìèúá ííòóíú ZERO SET MEMORY. è è  
 ~úóí ì+~èì+áú íè, +ú, èì%èì+úó ZERO  
 SET MEMORY, è úó~í+ óíóì~+ìèfl, òù†, íè  
 á+íòèúófl, ò+íflú, .

(5) ç+èèì+fl ì+ , è%áóí+íá á ííòóíú ò ,  
 ì+è%èúá úó íáòúó, , %á%óíèì+ ì+~+ú òfl  
 , òù†, í+ , è óá á, á%èúá í+íá ù, áèèì  
 ò+úá· ò è á+òèòè ì+è+úèáí ííòóíè r  
 REC.

(6) ç+ìèúá á+òèò, òù†, íè, ì+è+ , ííòóíè P  
 %òìò, áíáìò ì+ , è%áóí+íá á è  
 , è%áóí+ , ìèúóúóìá.

á+òèò, òù†, íè+ , úóí+úè~áóíè ò áíí +~+áúòfl  
 ò è %òúèèáìèè ò~áú~èíóí ìúíá, óè óúíáúíè.  
 èóóíá ~úó, ò óòú+ìò, èúá í+íá ù ò òóíó· .  
 ííòóíè P .

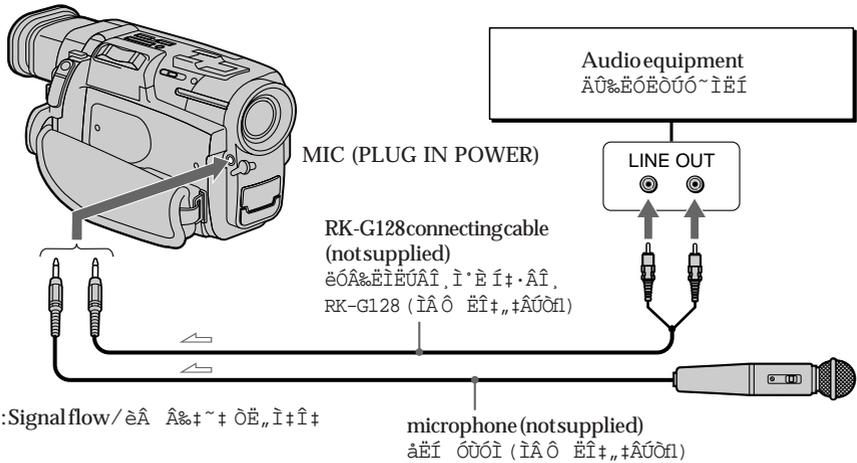
ááíáìáìèá úó~íè óíóì~+ìèfl, òù†, íè  
 ç+èìèúá ì+ òúí. úá%èòú+ì·èóíèò, ò  
 úò + , íáìèfl ííòóíú ZERO SET MEMORY,  
 ~úó· èì%èì+úó ZERO SET MEMORY èò~áá ò  
 ~í +ì+ , è ì+~ìèúá á+ìò, ò òóá +~èè 3.

é· èáó· †èáìèè, á+òèò· , +áíóí , , è%á  
 ìíóú+èìòè, òù†, íè  
 è è , òòò óèá, á%áìèè ~úó, ò èáó· †èáìèè  
 , óáíóèì· èóí+èáìèè á, ò óóóíá%èìè ì+%, ó, .

Advanced operations / èóí, áó, +ìèá òòú+í, ì· íè òúí+èáíè

You can record an audio sound to add to the original sound on a tape by connecting audio equipment or a microphone. If you connect the audio equipment, you can add a sound on your recorded tape by specifying starting and ending points. The original sound will not be erased.

èÓ%ÍÍ.~È, í, È%ÁÓÍ†ÏÄ Á †Û%ÈÓ†ÔÒ† †ÛÛ Û ÈÏÈ ÌÈÍ ÒÙÒÌ, ç† ÌÓÈÁÚÄ Ì†ÍÍ†%\*, †Û, Ì† Á, ÛÍÓ, Û %Ó ÒÈÛÛ, È%ÄÓÄ†ÔÈÒÈ %ÓÓÓÏÈÈÚÄÏ, ÌÓÄ Á, ÛÍÓ, ÓÄ ÓÓÓ Ó, ÓÈ%ÄÏÈÄ. èÓ%ÍÍ.~È, †Û%ÈÓ†ÔÒ† †ÛÛ Û, ÌÓÈÏÓ ~ÁÛÍÓ ÓÓ Ä%ÄÏÍÛ, Ì†~†ÍÓ È ÍÓÏÄ^ Ì†ÍÓÈÄÏÈÍÛ Á, ÛÍ† Ì†, È%ÄÓÄ†ÔÈÒÈ. à Ì ÓÓ·ÓÛ, ÄÏÏ†ÍÄ Á, ÛÍÓ, †Í %Ó ÓÈÍ†Ô È ~ÓÓÏ ÌÄ ÓÙÈ †ÁÛÛÍ.



## Notes on audio dubbing

- A new sound cannot be recorded on a tape already recorded in the 16-bit mode (32 kHz, 44.1 kHz or 48 kHz).
- When an external microphone is not connected, the recording will be made through the built-in microphone of the camcorder.
- A new sound cannot be recorded on a tape already recorded in the LP mode.
- If you add a new sound on a tape recorded with another camcorder (including DCR-TRV7E), the sound quality may become worse.
- If you connect the TV to the camcorder when you are recording audio, it may cause noise on the TV sound. But the noise is not recorded on the tape.

- é Ì†ÍÓÈÄÏÈÈ Ä, ÛÍ†
- à†ÔÈÒ. Ì†, È%ÁÓÏÄÏÚÄ %ÓÓÓÏÈÈÚÄÏ, ÌÓ, Ó Ä, ÛÍÓ, Ó,, Ó ÒÈ,, Ì†Í† ÌÄ, ÓÄÏÓÈ†, ÄÒÏÈ, È%ÄÓÄ†ÔÈÒ. Ì† ÌÄÈ Ò%ÄÏ†Í†, 16- ÈÛÏÓÏ ÄÈÈÏÄ (32 ÌÈ^, 44,1 ÌÈ^ ÈÏÈ 48 ÌÈ^).
- ÓÒÏÈ ÌÄ ÓÓ%ÍÍ.~ÄÏ, ÌÄ-ÏÈÈ ÌÈÍ ÒÙÒÏ, Ä, ÛÍ Á†ÔÈÒ\*, †ÁÛÛÍ, ÓÛ ÓÄÏ·Ï ÌÈÍ ÒÙÒÏÓÏ, È%ÁÓÍ†ÏÄ ·.
- ÑÓÓÓÏÈÈÚÄÏ, Ì·È Ä, ÛÍÓ, ÓÈ ÒÈ,, Ì†Í ÌÄ ÌÓÈÄÛ··Û, Ì†ÍÓÈÄÏ Ì†, È%ÄÓÄ†ÔÈÒ., Ò%ÄÏ†ÏÏÛ., ÄÈÈÏÄ LP.
- è È†ÍÓÈÄÏÈÈ Ä, ÛÍ† Ì†, È%ÄÓÄ†ÔÈÒ., Ò%ÄÏ†ÏÏÛ. % Û,, ÓÈ, È%ÄÓÍ†ÏÄ ÓÈ (, ÓÓÏ~ÈÓÏÄ ÌÓ%ÄÏÈÈ DCR-TRV7E), Ì†~ÄÓÛ, Ó Ä, ÛÍÓ, Ó,, Ó ÓÓÓ Ó, ÓÈ%ÄÏÈÈ ÌÓÈÄÛ ÛÏÛ%ÈÛ, ÓÍ.
- ÓÒÏÈ, Ó, ÄÏÍÄ, ÛÍÓÄ†ÔÈÒÈ, È%ÁÓÍ†ÏÄ † ÓÓ%ÍÍ.~ÄÏ† ÌÚÄÏÄ, ÈÁÓ Û, ~ÓÓ ÌÓÈÄÛ··Û, Ó È~ÈÏÓÈ ÓÓÏÄ, †ÏÛÓÈ~ÄÓÏÓÈ ÒÈÓÚÄÏÄ ÚÄÏÄ, ÈÁÓ †. ùÈÈ ÓÓÏÄÏÈ, Ó%Ï†ÍÓ, ÌÄ, ÌÈÍÛ.Û Ì†Ä†ÔÈÒ..



# Superimposing a title

ç† ÎÓÊÀÏËÄ ÚËÜ Ó,

If you use a tape with cassette memory, you can superimpose the titles while recording or after recording. When you play back the tape, the title is displayed for 5 seconds from the point where you superimposed it. You can select from eight preset titles and one original (CUSTOM TITLE) to superimpose over the picture.

## Superimposing titles

- (1) Press TITLE to display the titles on the LCD screen or in the viewfinder.
- (2) Turn the CONTROL dial to select the title, then press the CONTROL dial.
- (3) Turn the CONTROL dial to select the colour, size, or position, then press the CONTROL dial.
- (4) Turn the CONTROL dial to select the desired item, then press the CONTROL dial.
- (5) Repeat steps 3 and 4 until the title is arranged as desired.
- (6) Press CONTROL dial again to complete the setting.

### While you are playing back, pausing, or recording

After step 6, the "SAVE" appears on the screen for 5 seconds and the title is set.

### While in Standby mode

After step 6, the "TITLE" indicator appears. And when you press START/STOP to start recording, "SAVE" appears on the screen for 5 seconds and the title is set.

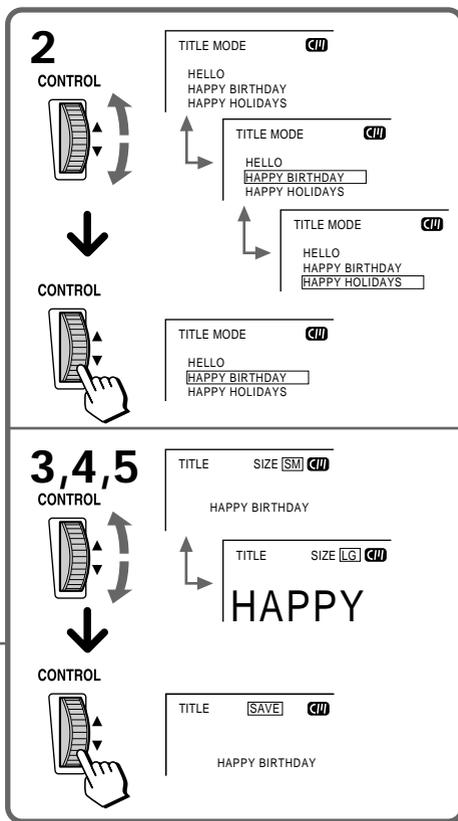
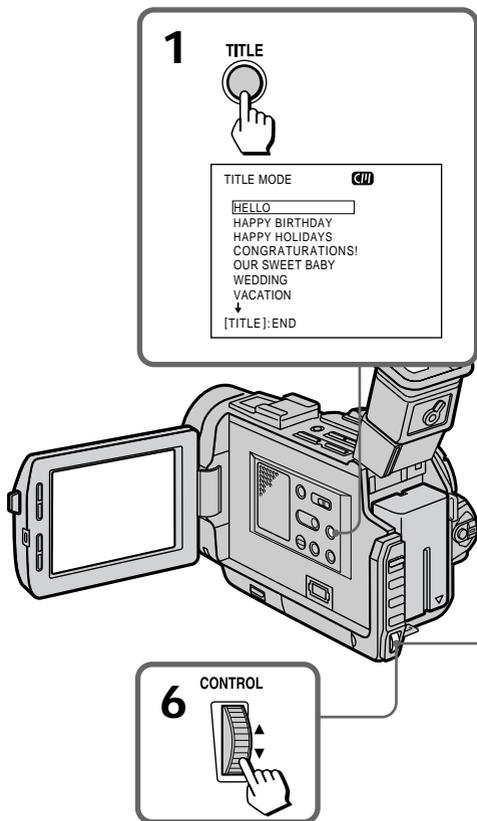
èóí, ÆÏÏ, Æ, ÆÓÍ+ÒÒÁÚ+ÏË Ò ÌÁÍÚ ÒÏÏË  
 Ò†ÏÏÚ, . . Ì†, Æ, ÆÓÁ+ÒËË, ÏÓËÏÓ Ì†ÏÏ†%, †Ú,  
 ÚËÜ † Ï†Í, Ó, ÆÏÏ Ò ÆÏÏË, Ú†Í Ë ÒÓ ÆÁ  
 ÓÍÓÍ~†ÏËË. Ç, ÆÏÏ, ÓÓÓ ÒËÁ, Æ, ÆÏÏÏ ÚËÜ  
 ·Ú, Æ, Æ, Æ Ì† ~†Í †ÏÁ, ÚÁ~ÆÏË 5 ÒÁÍÚÏ%,  
 Ì†~ËÏ†ÏÓ ÚÓ~†ÍË, Ò Ì†ÏÓËÏÏ.  
 Ç· ÏÓËËÁÚÁ, ·. †Ú. Ì. ·ÒË ËÁ, ÒÓ, ÏË „ÓÓÓ, ·  
 ÚËÜ Ó, ËÏË ÓÓÓÚ†, ËÜ. Ó, ËÏ ÒÓ·ÓÚ, ÆÏÏ Ë  
 (CUSTOM TITLE) .

ä†Í Ì†ÍÏ†%, †Ú, ÚËÜ ·

- (1) Ç†Ë+ÚËËÏ ÏÏÓÓÏË TITLE, ·, Æ, ËËÁ Ì†  
 ËË, ÏÓÍ ËÓÚ†ÏË ÆÓÏËË Ì† Ì† ËÏË Ì† Ì†  
 , Æ, ÒËÏ†ÚÁÏÏ Ï†Ú†Ï, ÚËÜ Ó, .
- (2) èó, ò †~Ë, †Ï ÒÏÓÏÚÏÏ CONTROL,  
 , ·· Æ ËÚÁ ÏÏËÏ Ë ËËË Ë Ì† ËÏËËÚÁ Ì†  
 ÚÏÓÏÚÏÏ CONTROL.
- (3) èó, ò †~Ë, †Ï ÒÏÓÏÚÏÏ CONTROL,  
 , ·· Æ ËÚÁ ÆËËÏ ÒÓ, · †, ÆÚ† ÚËÜ †,  
 †ÁÏ † - ËËÚ† ËÏË †ÁÏ ÆÏÏÏ ËËË †,  
 Ï†% Æ, Ë Ì† ËÏËËÚÁ Ì† ÒÏÓÏÚÏÏ CONTROL.
- (4) Ç· Æ ËÚÁ ÏÏËÏ Ë, † Ë†ÏÏ ÓÓ, ò ÓÓÓÏ  
 ÚÏÓÏÚÏÏ CONTROL Ë, , Æ, ËËÁ Æ, Ò  
 Ì† Ë†ÚËËÏ Ì† ~ÚÚ ÒÏÓÏÚÏÏ.
- (5) èó, ÚÓ ÏËÚÁ ÓÓÁ †~ËË 3 Ë 4% ÚÁÏ ÓÓ, ÓÓÍ†  
 ÚËÜ ÏÁ Ò ËÏÁÚ ÓÓÚ †Ë, †. ËË Ç†Ò, ËË.
- (6) ÑÏÏ Æ†, Æ ÆÏÏÏ ò Ò Æ, Ò, ÏÓ, ,  
 Ì† ËÏËËÚÁ Ì† ÒÏÓÏÚÏÏ CONTROL.

ç† ÎÓÊÀÏÏËÄ ÚËÜ Ó, , Ó, ÆÏÏ  
 , ÓÓÓ ÒËÁ, Æ, ÆÏÏÏ, Ò†ÚÁ ËÏË Ò ÆÏÏË  
 èóóÏÁ ÓÓÁ †~ËË 6 Ì† ~†Í †ÏÁ Ì† ÒÏÏ, ÒÁÍÚÏ%  
 ÓÓÏ, ÏÏÁÚÏÏ ÒÏÓ, ò "SAVE", Ë ËËÜ , , Ó, ËËËÏÏ,  
 Ò†ÏÏÚ. .

ç† ÎÓÊÀÏÏËÄ ÚËÜ Ó, ÆËËÏÁ ÓËË%†ÏÏÏ  
 Ì†~†Ï† Ò ÆÏÏË  
 èóóÏÁ ÓÓÁ †~ËË 6 Ì† ~†Í †ÏÁ ÓÓÏ, ÏÏÁÚÏÏ  
 ËÏËËÏ†ÚÓ "TITLE". †ÚÁÏ, ÏÓ, %† Ç·  
 Ì†~ËÏ†ÁÚÁ Æ†ÒËË, Ì† Ë†ÚËËÏ ÏÏÓÓÏË START/  
 STOP, Ì† ~†Í †Ï, ÚÁ~ÆÏË ÒÏËË ÒÁÍÚÏ%  
 , ·, Ó, ËËËÏÏ ÒÏÓ, ò "SAVE", Ë ËËÜ , , Ó, ËËËÏÏ,  
 Ò†ÏÏÚ. .



Titles placed from the top of the screen as follows:

HELLO HAPPY BIRTHDAY HAPPY HOLIDAYS CONGRATULATIONS! OUR SWEET BABY WEDDING VACATION THE END CUSTOM TITLE.

When you have stored an original title The title appears above "CUSTOM TITLE".

Title colours("COL") changes as follows: WHT(White) YEL(Yellow) CYAN(Cyan) GRN(Green) VIO(Violet) RED(Red) BLUE(Blue).

Title size("SIZE") changes as follows: LG(Large) SM(Small).

Title position("POS") changes as follows: If you select the title size "LG", you can choose 8 positions. When you select the title size "SM", you can choose 9 positions at all.

To display no title Select OFF in the TITLE DSPL menu. But the title is displayed in case of Edit Search or Rec Review regardless of the menu settings.

### Notes on titles

- While fading in or out, you cannot superimpose a title.
- You cannot superimpose a title to a blank portion of the tape.
- The titles you superimposed are displayed by only using the DV format video equipment with index titler function.
- When you are searching the tape using the other video equipment, the portion of the tape you superimpose the title may be detected as an index signal.

### Notes on the cassettes

- If you use a cassette tapeset to prevent accidental erasure, you cannot superimpose the title. Slide the protect tab so that the red portion is not visible.
- You can superimpose about 11 to 20 titles in one cassette, if one title consists of about 5 characters.
- If the tape has too many index signals and photo data, you may not be able to superimpose a title because the memory is full.

ç†ÏÓÊÀÏÈÄ ÚËÙ Ó,  
 HELLO (èèàçÓÍ) HAPPY BIRTHDAY (è ÑçÒà èèÛÑçàù) HAPPY HOLIDAYS (èèàúíçèÈÈ èíÑçíÄ)  
 CONGRATULATIONS! (èèáÑèÄçäùòà!)  
 OUR SWEET BABY (çÀð àÄàðð)  
 WEDDING (èçÄÑçÄÄ) VACATION (ç éíèìèäò) THE END (èèçòñ)  
 CUSTOM TITLE (Äçíéèèèää íàíè).

ÛÓÏÈ ç†, ÄÏÈ, ð†íñÙ, ÒÓ·ÓÙ, ÄÏÈ·È ÚËÙ,  
 ÚÓÓÍ Òóñ, íñÄÙòñ Ì† ~Í †Ä Ì†% Ì†%ÒÈÒ, .  
 "CUSTOM TITLE".

ñ, ÄÙ ÚËÙ † ("COL") ÄÏÈíñÄÙòñ, ðíÄ%Ù. ~ÄÏ ÓÓ ñ%íÄ:  
 WHT (ÄÄ†·È) YEL (ÜÄÏÙ·È)  
 CYAN (áÄ†ÄÏÓ, †ÚÓ-„ÓÍÙ·ÓÈ)  
 GRN (áÄ†Ä†·È) VIO (áÈÍÓ, ·È)  
 RED (á ·ÒÍ·È) BLUE (èÈÈÈÈ).

è†ÄíÄ - ÈÛÙ† ("SIZE") ÄÏÈíñÄÙòñ,  
 ðíÄ%Ù. ~ÄÏ ÓÓ ñ%íÄ:  
 LG (à ÚÓÍ·È) SM (áÄÏíÈÈÈ).

è†ÄíÄ·ÄÏÈÄ ÚËÙ †, Í†% Ä ("POS")  
 ÄÏÈíñÄÙòñ, ðíÄ%Ù. ~ÄÏ ÓÓ ñ%íÄ:  
 ÕÓÏÈ ç†, ·· †ÈÈ Í ÚÓÍ·È· ÈÛÙ ("LG"), ÚÓ ç†ÍÓ Ä%ÓÙ†, íñÄÙòñ Ì†, ··0 8 ÓÄÈ·ÈÈ, † %íñ ÄÏÍÓ, Ò· ÈÛÙ† ("SM") - 9 ÓÓÄÈ·ÈÈ.

éÚÍÄÏ†, ·, Ó%† ÚËÙ † Ì† ~Í †ì  
 ç··Ä ÈÜÄ ÓÓÄÈ·È, OFF, ÄÏÈ, TITLE DSPL.  
 è%Í†ÍÓ ÄÄ†, ÈÒÈÍÓ ÓÙ ~ÚÓ, Ó ÚËÙ ·Ù%ÄÙ  
 È%ÄÏ Ì† ~Í †Ä, Ó, ÄÏÈ ÍÓÍÙ†ÈÍÓ, Ó ÓÓÈÓÍ†  
 ÈÈÈ ÚÓÍÓ ÄÏÍÓ, Ó ÓÓÍÓÙ † Ä†ÓÈÒÈ.

é ÚËÙ †  
 • ç†ÍÓÈÄÏÈÄ ÚËÙ Ó, ÄÄ, ÓÄÍÓÈÍÓ, Ó, ÄÏÈ Ä†ÜÄÏÄÈÈÈÈ, ·, ÒÓ%† ÈÄ Ä†ÜÄÏÄÈÈÈ.  
 • ÍÈÙ ÄÏÈ Äñ Ì†ÍÓÈÛÙ, Ì† ÄÄ†ÓÈÒÈÍ·È Û†·ÓÓÍÍ ÄÏÍ·.  
 • ç†ÍÓÈÄÏÈ·Ä ç†ÍÈÈ ÚËÙ ··Ù%ÙÙ, È%Ì·ÈÈ· Ó ÈÓ ÓÓÍÓÙ ÄÄ†ÓÈÒÈ Ì†, È%ÄÓ†Ó† †ÚÙ Ä ÚÓ Í†Ú† DV, ÓÓÍ†·ÄÏÍÓÈ ÚÓÍÍ·ÈÄÈ ÈÈ%ÄÍÓÈ Ó, †ÈÈÈ È Ì†ÍÓÈÄÏÈÈ ÚËÙ Ó, .  
 • è ÈÓÈÒÍÄ ÍÓÈÍÓ, ÓÙ †, ÍÄÏÙ† Ä†ÓÈÒÈ Ì† % Û, ÒÈ, È%ÄÓ†Ó† †ÚÙ ÄÛÈÙ ·ÍÓ, ÚÙ Ó·È·ÒÍÓ, ÓÓÓ ÈÈÈÈ†Ú, Òñ Ì†ÍÓÈ, Ì†Í·ÈÈ%ÄÍÓÈ Ó, †ÈÈÈ.

é, È%ÄÓÍ†ÓÓÄÙ†  
 • ÓÓÈÈ Í†ÓÓÄÙ† Ä†·È·ÄÏÈ ÓÙ ÓÍÙ·ÈÈÍÓ, Ó ÓÙÈ †ÈÈÈ, ÚÓ Í†ÍÓÈÄÏÈÄ ÚËÙ Ó, ÄÄ, ÓÄÍÓÈÍÓ. çÄ ÌÈÜÄ Ó Ä%Ó· ÍÈÜÄ†. ÄÙ. Ä†%, ÈÈÍÓ Ì† ÄÄÓÓ, Ú†Í, ~ÚÓ· Í †òíñ ÒÍ†ÓÙÈÍ† ÓÍ†Ä†Í†Ó Ä†Í·ÓÈ.  
 • ç† Ó%ÍÓÈ, È%ÄÓÍ†ÓÓÄÙÄ ÍÓÈÍÓ † †ÈÙ. ÓÙ 11 % Ó 20 ÚËÙ Ó, ÄÓÈÈ Í†È%·È ÈÄ ÈÈÈ ÓÓÓÓÈÙ Ó ÈÄ ÍÓ ÈÄ ÒñÙÈ Ä†ÍÓ, .  
 • ÓÓÈÈÈ, È%ÄÓÄ†ÓÈÒ. ÓÓ%Ä ÈÛÙ ÓÈÈ·ÍÓÍ ÍÍÓ, Ó ÓÈ, Ì†ÍÓ, ÈÈ%ÄÍÓÈ Ó, †ÈÈÈ, ÚÓ Í†ÍÓÈÄÏÈÄ ÚËÙ Ó, ÍÓÈÄÙ ÓÍ†Ä†Ú, Òñ ÄÄ, ÓÄÍÓÈÈ·ÈÈÄÄ† ÓÄ Ä, ÚÄÍÓÈ†íñÙÈ.

## Erasing a title

- (1) Press MENU to display the menu.
- (2) Turn the CONTROL dial to select TITLE ERASE, then press the CONTROL dial.
- (3) Turn the CONTROL dial to select the title you want to erase, then press the CONTROL dial.
- (4) Make sure the title is the one you want to erase, then press CONTROL dial again.
- (5) Press MENU to erase the menu display.

### Note

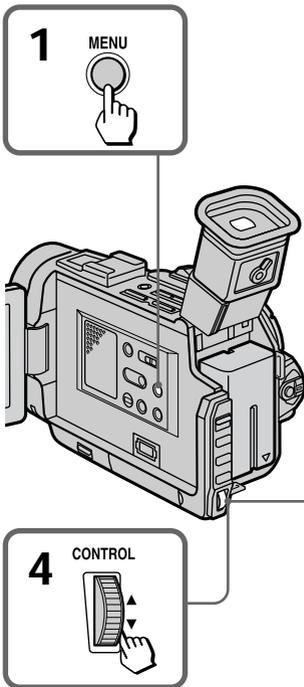
If you use a cassette tape set to prevent accidental erasure, you cannot erase the title. Slide the protect tab so that the red portion is not visible.

## ëÛË †ÌÈÄ ÚËÚ †

- (1) ç†ê†úËÄ† ÍÍÓÓÍË MENU , \* , Â&#x00A9;ÉÚÄ ì† ~í †ì ÍÄÌ. .
- (2) èó,ó †~È,†ì ÚÍÓÍÚÍÚ CONTROL , \* .Â ÉÚÄ TITLE ERASE È ì†ÈÌÈÚÄ ì† ÚÍÓÍÚÍÚ CONTROL.
- (3) èó,ó ÓÓÓÍ ÚÍÓÍÚÍË CONTROL , \* .Â ÉÚÄ ÚËÚ , ÍÓÓÓ ~È ÌÄÓ.ÌÓ&#x00A9;ÉÍÓÓÚÄ ÁÚ, , È ì†ÈÌÈÚÄ ì† ÚÍÓÍÚÍÚ CONTROL.
- (4) è ó,Â ,ÚÄ ,&#x00A9;ÈÓÚ,ÉÚÄ†.ÌÓ ÍÈ ç\* ÌÓÓÉÚÄ ÓÚÄ ÁÚ, ÈÌÄÌÌÓ ~ÚÓÚ ÚËÚ , È ì†ÈÌÈÚÄ ÚÍÓÍÚÍÚ CONTROL ÓÓ,ÚÓ ÌÓ.
- (5) ç†ê†úËÄ† ÍÍÓÓÍË MENU Û.Â ÉÚÄ ÍÄÌ. Ó ~í †ì†.

è ÈÌÄ~†ÌÈÄ

è È ÓÓÍ.ÁÓ,†ÌÈÈ Í†ÒÒÄÚÓÈ, Á† ~È ~ÄÌÌÓÈ ÓÚ ÓÍÚ~ÈÌÓ,Ó ÓÚÈ †ÌÈì, ì†ÍÓÊÀÌÈ.Â ÚËÚ \* ÓÚÄ ÁÚ, ÌÄ,ÓÄÍÓÈÌÓ. èÄ ÄÌÄÓÚÈÚÄ Á† ~ÈÚÍÚ. Á†&,ÈÈÍÚ Ú†Í, ~ÚÓ. \* Í †Òì†ì ÓÍ†ÓÚÈÌÍ† ÓÍ†Ä†††Ò, Ä†Í ~ÚÓÈ.



**2**

CONTROL

→

CONTROL

MENU

COMMANDER

TITLE ERASE → **CH**

TITLE DSPL

TAPE TITLE

BEEP

AUDIO MIX

CM SEARCH

↓

[MENU]:END

MENU

TITLEERASE

1 HAPPY BIRTHDAY

2 WEDDING

3 HELLO

[MENU]:END

**3**

CONTROL

→

CONTROL

MENU

TITLEERASE

1 HAPPY BIRTHDAY

2 WEDDING

3 HELLO

[MENU]:END

MENU

ERASE?

1 HAPPY BIRTHDAY

2 WEDDING

3 HELLO

[EXEC]:ERASE [MENU]:END

# Making a custom title

Ç, 0% ‡, ÚÓ ÒÍÓ,, Ó  
ÚÉÚ ‡

If you use a tape with cassette memory, you can make one title of up to 20 characters and store it in memory.

- (1) Press TITLE to display the titles on the LCD screen or in the viewfinder.
- (2) Turn the CONTROL dial to select CUSTOM TITLE, then press the CONTROL dial.
- (3) Turn the CONTROL dial to select the column of the desired character, then press the CONTROL dial.
- (4) Turn the CONTROL dial to select the desired character, then press the CONTROL dial.
- (5) Repeat steps 3 and 4 until you finish the title.
- (6) Turn the CONTROL dial to select [ M ], then press the CONTROL dial.

## To erase a character

In step 3, turn the CONTROL dial to select [ M ] then press CONTROL dial. The last character is erased.

## To change the title you have made

In step 2, turn the CONTROL dial to select the CUSTOM TITLE, then press the CONTROL dial. Erase characters one after another, then make the new title again.

## If it takes more than 5 minutes to make a title

If the Standby mode lasts for more than 5 minutes with a cassette inserted, the power will be turned off automatically. If the power is turned off while you are making a title, set the POWER switch to OFF once, then to CAMERA. The title you have made remains stored in memory.

èóí ÆÚÏ, ËÆÁÓÍ+ÒÁÚÓÈ Ò Ò+íñÚ, Ç  
ÍÓÈÁÚÁ Ò+ÍÓÓÚÓñÚÁÍ, ÍÓ ÓÓÓÚ+, ÈÚ, È  
ÓÓ1 ‡ÈÚ, Ò+íñÚÈ ÚÉÚ %íÈÌÓÈ%Ó 20  
ÁÍ+ÍÓ, .

- (1) Ç+Ê+ÚÉÁÍ ííÓÓÍÈ TITLE, ^, ÆÆÚÁ Ì+  
ÈÈ%ÍÓÍ ÈÒÚ+ÍÈÈ~ÁÓÍÈÈ ~Í ‡ÈÈÈ Ì+  
~Í ‡Í, ÈÆÓÈÓÍ+ÚÁíñ Í+Ú+ÍÓ,, ÚÉÚ Ó, .
- (2) èó, Ó ‡~È, ‡ñ ÚÍÓñÚÍÚ CONTROL, ,  
^ Æ ÈÚÁ CUSTOM TITLE È Ì+ÈÈÈÚÁ Ì+  
ÚÍÓñÚÍÚ CONTROL.
- (3) èó, Ó ‡~È, ‡ñ ÚÍÓñÚÍÚ CONTROL,  
^ Æ ÈÚÁ ÍÓÍÓÍÚ, ÍÓÓÓ ÒÈ Ì+1%ÈÚÓñ  
ÍÚÈÈ+ñ .ÚÍ, ‡, È Ì+ÈÈÈÚÁ Ì+ ÚÍÓñÚÍÚ  
CONTROL.
- (4) èó, Ó ‡~È, ‡ñ ÚÍÓñÚÍÚ CONTROL,  
^ Æ ÈÚÁ ÌÚÈÈÚ. .ÚÍ, Ú È Ì+ÈÈÈÚÁ Ì+  
ÚÍÓñÚÍÚ CONTROL.
- (5) èó, ÚÓ ññ ÓÁ ‡^ÈÈ 3 È 4, , ÆÆÚÁ ÚÈÚ  
ÓÓÍÓÓÚ, .
- (6) èó, Ó ‡~È, ‡ñ ÚÍÓñÚÍÚ CONTROL,  
^ Æ ÈÚÁ [ M ] È Ì+ÈÈÈÚÁ Ì+ ÚÍÓñÚÍÚ  
CONTROL.

èÚÈ ‡ÌÈÄ .ÚÍ,  
Ç 1Ó%Á ÓÓÁ ‡^ÈÈ 3, ^ Æ ÈÚÁ ÓÓ, Ó ÓÓÓÍ  
ÚÍÓñÚÍÈ CONTROL ÓÓÁÈ^È. [ M ] È Ì+ÈÈÈÚÁ  
Ì+ ÚÍÓñÚÍÚ CONTROL. èÓÓÍÆ%íññ .ÚÍ, ‡  
ÚÉÚ ‡ Ò È ~ÓÓÍ ÓÓÈ ‡ÁÚÓñ.

èÆ%+ÍÚÈ Ó, ‡ÌÈÄ ‡, ÚÓ ÒÍÓ,, Ó ÚÉÚ ‡  
Ç 1Ó%Á ÓÓÁ ‡^ÈÈ 2 ÓÓ, Ó ÓÓÓÍ ÚÍÓñÚÍÈ  
CONTROL, ^ Æ ÈÚÁ CUSTOM TITLE È  
Ì+ÈÈÈÚÁ Ì+ ÚÍÓñÚÍÚ CONTROL. èÓÓÍÁ ~ÚÓ,, Ó  
Ç^ ÍÓÈÁÚÁ ÓÚÁ ÁÚ. .ÚÍ, ^ Ó%ÌÚ Á+ % Û,, ÓÈ È  
, ÆÓÓÈ, ÍÁÓÓÓ ÌÈ1 ÍÓ, ^Á.

ÒÓÍÈ %íñ , Ó%+ ÚÉÚ ‡ Ú Á .ÚÁÚÓñ .ÓÍÁÁ 5  
ÌÈÈÚÓ  
ÒÓÍÈ , ËÆÁÓÍ+ÍÁ Û ÚÓÓ+ÍÓ, ÍÁÍ+ Í+ÒÁÚ+, ÚÓ  
~Á ÁÁ ÓñÚ, ÌÈÈÚÓ Ó Á .^, ‡ÍÈñ, ÁÈÈÍÁ  
ÓÈÈ%+ÌÈÈ Ò^ ÁÍÍÈ ÒÈÚ+ÌÈÄ Í+ÍÁ ^  
‡, ÚÓÍ+ÚÈ~ÁÓÍÈ ÓÚÍÍ. ~+ÁÚÓñ. ÓÓÍÈ ~ÚÓ  
Ó ÓÈÁÓÈ%ÁÚ, Ó, Áíñ, Ó%+ ÚÉÚ ‡,  
ÓÁ Á, ÆÆÚÁ ÓÁ ÁÍÍ. ~+ÚÁÍ, POWER Òì+~+í+  
, ÓÓÍÓÈÁÍÈÄ OFF, ‡ Á+ÚÁÍ, ÓÓÍÓÈÁÍÈÄ  
CAMERA. Ç+~ ÚÈÚ ÓÓÚ+ÁÚÓñ ÓÓ1 ‡ÌÁÌ~í,  
Ò+íñÚÈ.







# Usable cassettes and playback modes

ÇÓÁÍÓÊÏ·Â ÚÊÔ· Í+ÒÐÂÚ È  
ÂÊËÏ·, ÒÐÔ ÓËÁ, Â&ÂÏË

## Selecting cassette types

You can use the mini DV <sup>Mini</sup> DV cassette only. You cannot use any other DV DVh 8 mm, H Hi8, j VHS, k S-VHS, VHSC, K S-VHSC or 1 Betamax cassette.

We recommend mini DV cassette with cassette memory.

There are two types of mini DV cassettes: with cassette memory and without cassette memory. We recommend you to use the tape with cassette memory. The IC memory is mounted on this type of mini DV cassette. This camcorder can read and write data such as dates of recording or titles, etc. to this memory. Tapes with cassette memory have CII (Cassette Memory) mark. Sony recommends that you use a tape having mark to enjoy this camcorder fully.

CII

## When you play back

### Copyright signal

Using this camcorder, you cannot play back a tape that has recorded a copyright control signals for copyright protection of software. "COPY INHIBIT" appears on the LCD screen, in the viewfinder or on the TV screen if you try to play back such a tape. This camcorder does not record copyright control signals on the tape when it records.

### Audio mode

12-bit mode: The original sound can be recorded in stereo 1, and the new sound in stereo 2 in 32 kHz. The balance between stereo 1 and stereo 2 can be adjusted by selecting AUDIO MIX in the menu system during playback. Both sounds can be played back.

16-bit mode: A new sound cannot be recorded but the original sound can be recorded in high quality. Moreover, it can also play back sound recorded in 32 kHz, 44.1 kHz or 48 kHz. When playing back a tape recorded in the 16-bit mode, 16BIT indicator appears on the LCD screen or in the viewfinder.

## Ç·Ó Í+ÒÐÂÚ·

Ç· ÍÓËÁÚÁ ÒÓÍ·ÁÓ, +Ú ÒΗ ÚÓÍ· ÍÓ ÌËË-  
, Ê&ÁÓÍ+ÒÐÂÚ+ÏË DV <sup>Mini</sup> DV· ÇËÍ+ÏËÂ% Û, ÈÁ  
, Ê&ÁÓÍ+ÒÐÂÚ· ÛÓ Í+ÚÓ, DV DVh 8 mm, H  
Hi8, j VHS, k S-VHS, VHSC, K  
S-VHSC ÈÏË 1 Betamax %ÎÎ%+ÏÏÏË  
, Ê&ÁÓÍ+ÏÁ· ÌÁ ÒÓ%1 Ó%ÎÚ.

εΑÍÓÍÁÏ%ÛÁÏ Ç+Ï ÈÒÓÓÍ·ÁÓ, +Ú ÌËËË-  
, Ê&ÁÓ+ÒÐÂÚ· DV ò· ÌÁÍÚ ÒÏÏÏË Ò+ÏÎÚ... ÛË  
ÈÛ·ÁÓÛ·Û Û%·, +ÚÈÏ+ÏËË-, Ê&ÁÓÍ+ÒÐÂÚ DV: Ò  
· ÌÁÍÚ ÒÏÏÏË Ò+ÏÎÚ· È·ÁÁ· à· ÁÍÓÍÁÏ%ÛÁÏ  
ÒÓÍ·ÁÓ, +Ú ÒΗ Ì+ÒÐÂÚ+ÏË Ò Ò+ÏÎÚ... ÛË  
Ï+ÒÐÂÚ· ÒÏ+·ÈÁÏ·ÈÏÚÁ, +Ï ÌÏË ÒÏÁÏÏË  
Ò+ÏÎÚË, ÌÓÓÓ Û, Ê&ÁÓÍ+ÏÁ· +ÏËÁÚ  
Á+ÏÏÏË, Û+ÏÛ, ÈÏÛ Ì+^È, Ì+Ï%+Û· È  
, ÁÏΗ Ò·ÁÏÓÍ, ÛÈÛ·ÈÛ·ÈÛ·. à+ÒÐÂÚ·,  
ÒÓÏ+·ÁÏ·Á Ò+ÏÎÚ·, ÈÏÁ·Û Ò·ÓÁÏ+·ÁÏÈÁ CII  
(· ÌÁÍÚ ÒÏÏ+ÏÎÚ+ÏÎÚ·).  
ÎÏΗ·ÓÏÁÁ ÒÓÏÏË, Ò +ÏÍ·ÛÈÏ, ÒÁÏÏÏËÒÓÓÁÈ  
Ç+·ÁÈ, Ê&ÁÓÍ+ÏÁ· ÌÓÏÏ+ÏËÏ Sony  
·ÁÍÓÍÁÏ%ÛÁÏ ÈÒÓÓÍ·ÁÓ, +Ú Ì+ÒÐÂÚ·,  
ÒÓÏÁ·ÁÏ·Á ÌÁ Ï, ÒÛÈÒÓÍ CII.

## é, ÒÐÔ ÓËÁ, Â&ÂÏË

èÈ, Ì+Ï·Á+·ÈÛ· +, ÛÓ ÒÏËÏ Ò +,  
è ÒÓÏÏ·%ÏÏÏË, Ê&ÁÓÍ+ÏÁ· ÌÁ, ÒÁÏÏËÏÓ  
, ÒÓ ÒËÁ, ÁÓÛÈ, Ê&ÁÓÍ+ÒÐÂÚ, Ì+ ÌÓÓÓ ÒÈ  
Á+ÒÈÏ+ÏÁ·ÈÛ·È ÒÈ, Ì+Ï%ÏÎ Ò1 +Ï·  
+Ú, ÛÓ ÒÏËÏ Ò +, Ì· ÌÁÍÚ ÒÏÏ·ÁÏ+ÛÁ È+Ï·.  
è È ÒÓÓ·ÛÁ, ÒÓ ÒËÁ, Â&ÂÏË Û+ÏÏË Ì+ÒÐÂÚ·  
Ï+ È&ÁÓÍ·ÈÛ+ÏËÈ·ÁÓÍÓÍ·Í +ÏÁ, ÒÏÏÁ  
, Ê&ÁÓÍ+ÛÁÏÏÈÏÈ Ì+·Í +ÏÁ ÛÁÏÁ, ÈÁÓ +  
ÒÓÏ, ÏÎÁÛÓÏ Ì+&ÒÈÏ, "COPY INHIBIT". ÇÓ, ÁÏÎ  
Ò·ÁÏË Ò+Ï+·, Ê&ÁÓÍ+ÏÁ· +ÏÁ·Á+ÒÈÏ·, +ÁÛ Ì+  
ÏÁÏÁ ÒÈ, Ì+ÏÏ, Á+·ÈÛ· +Ú, ÛÓ ÒÏËÏ Ò +,.

εÂÊËÏ· Á, ÛÍÓÁ+ÒÈÏÈ  
12-·ÈÛÏ·È ÁÈËÏ: à, ÛÍ, Á+ÒÈÏ·, +ÁÏ·È Ò È  
, Ê&ÁÓÓ·ÁÏÏÁ, ÛÈÏÏÈ ÛÁÛÓÏ Ì+& ÓËÏÁ  
ÓÛÁ ÁÓ 1, +Á, ÛÍ, Ì+ÏÏ%·, +ÁÏ·È  
, ÒÓÓÏ%ÓÛ, ÈÈ-Ï+& ÓËÏÁ ÓÛÁ ÁÓ 2 Ò  
ÈÒÓÓÍ·ÁÓ, +ÏÈÁÏ·+ÏÓÓÛ· 32 ÏÈ^· à, ÛÍÓ, ÒÈ  
·Ï+ÏÏ% ÓËÁÏ ÓÛÁ ÁÓ 1 È ÓÛÁ ÁÓ 2 ÏÏÏÏÓ  
·Á, ÛÏÈ Ò, +Ú, ò, ÁÏÎ, ÒÓÓ ÒËÁ, Â&ÂÏËÏ,  
, ··+·, ÌÁÏ· Ò+·ÏÁÛ· Ò, ÒÓÁÈ·È, AUDIO  
MIX. è È·ÛÓÍ ÏÏËÏÓ ÒÏ·+Û, Á, ÛÍ Ò Ò·ÁÈ1  
&Ó ÒËÁÏ.

16-·ÈÛÏÏ·È ÁÈËÏ: εÓÓÏÁ&Û·ÁÁ Ì+ÏËËÁÏÈÁ  
·Á, ÛÍ+ ÏÁ, ÒÁÏÏËÏÓ, ÌÓ Ï+·ÁÓÛ, Ò·Á+ÒÈÏÈ·Á, ÛÍ+  
Ò·È Ò·ÁÏÁ ÒÓ, ·+ÁÛÓÏ. à ÒÏÁÛÓ, Ò, , ÛÓÍ  
·ÁÈÏÁ ÏËÁÚ, ÒÓÓ ÒËÁ, Ó%ÈÛ·ÒÏ·Á, ÛÍ,  
Á+ÒÈÏ+ÏÏ·È Ò ÈÒÓÓÍ·ÁÓ, +ÏÈÁÏ·+ÏÓÓÛ· 32 È^,  
44,1 È^ È 48 ÏÈ^· à È, ÒÓÓ ÒËÁ, Â&ÂÏËÈ  
Á+ÒÈÏÈ, Ó&ÁÏ+ÏÏÏË, 16-·ÈÛÏÏÏ·È ÁÈËÏ, Ì+  
È&ÁÓÍ·ÈÛ+ÏËÈ·ÁÓÍÓÍ·Í +ÏÁ ÈÏÈ, ÒÏÏÁ  
, Ê&ÁÓÍ+ÛÁÏÏ ÒÓÏ, ÏÎÁÛÓÏ ÈÏÈËÏ+ÛÓ 16BIT.

Notes on the mini DV cassette

To prevent accidental erasure

Slide out the protect tab on the cassettes so that the red portion is visible. [a]

When affixing a label on the mini DV cassette

Be sure to affix a label on only the location as illustrated below so as not to cause malfunction of the camcorder. [b]

After using the mini DV cassette

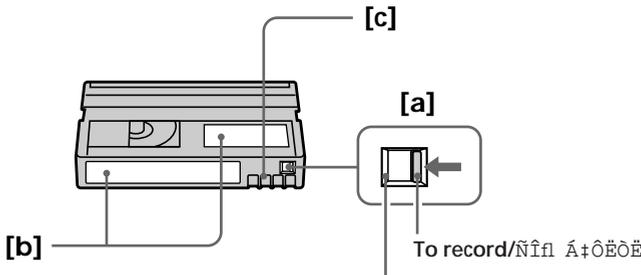
Rewind the tape to the beginning, put the cassette in its case, and store it in an upright position.

é ìÈìÈ-, È%Áóí+òòâú+1 DV

è Â%óú, +~ÀìÈÀ òìÛ~+Èìò,,ó  
 òúÈ +ìÈfl Â+òÈòÈ  
 è%, Èì, úÁ ì+ í+òòâúÁ ò Â%ó1 +ìÈúÁfl, ìÛ.  
 Á+%, ÈÈìÛ, Û+í, ~úó· òú+í+, È%ì+ í +òì+fl  
 òì+òúÈìí+. [a]

ç+ííÁÈ, +ìÈÀ ~úÈíÁúóí ì+ ìÈìÈ-  
 , È%Áóí+òòâú· DV  
 ùúÈíÁúíÈ ìóÈìò ì+ííÁÈ, +ú. úóí, íó, ìÁòú+1,  
 Ûí+Á+ìì·1 ì+ ÈòÛííÁ ìÈÈÁ; , ò óúÈ, ìóí  
 òìÛ~+Á òìÈ ìó,, òú ì+ Û~+ú, +·óóú  
 , È%Áóí+íÁ ·. [b]

èò óíóí~+ìÈÈ óóí, Áó, +ìÈfl ìÈìÈ-  
 , È%Áóí+òòâú+ìÈ DV  
 èÁ Áìóú+ÈúÁ íÁìúú, ì+~+íó, òóíÁòúÈúÁ  
 í+òòâúú, ùúúfl È1 +ìÈúÁ ÂÁ,  
 ,Á úÈí+í, ìóí òóíóÈÁìÈÈ.



Slide out to prevent accidental erasure./

è%, ÈìÛú, %fl ò Â%óú, +~ÀìÈfl òìÛ~+Èìò,,ó  
 óúÈ +ìÈfl

Note on gold-plated connector

If the gold-plated connector of mini DV cassettes is dirty or dusty, you may not operate the function using cassette memory. Clean up the gold-plated connector with cotton-wool swab, about every 10 times ejection of a cassettes. [C]

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 óóí· úÈÈÁì  
 èóò+%;ìÈÀ ò·ìÈ ÈìÈ ,, flÁÈ ì+ ÈíÁ. ~ú. òfl,  
 ìÈìÈ-í+òòâú+1 DV íóìú+íúìÛ. òì+òúÈìíÛ ò  
 Áóíóú·ì óóí· úÈÈÁì ìóÈÁú, \*Á·, +ú. ò·óÈ  
 ùúìí~ÈÈ, È%Áóí+íÁ ·, ò, flÁ+ìì·1 ò  
 ~íÁíú òììòÈ ò+ìflÛ. í+òòâú·. áóìÛ+íúìÛ.  
 òì+òúÈìíÛ ò Áóíóú·ì óóí· úÈÈÁì òíÁ%úÁú  
 ò óúÈ +ú, , Ûì·í Û+íóóíóí ò ÈíÁ ìóóóíÁ  
 í+È%ó,, ó%Áòflúó,, ó ÈÁ, íÁ~ÀìÈfl í+òòâú· ÈÁ  
 , È%Áóí+íÁ ·. [c]



# Resetting the date and time

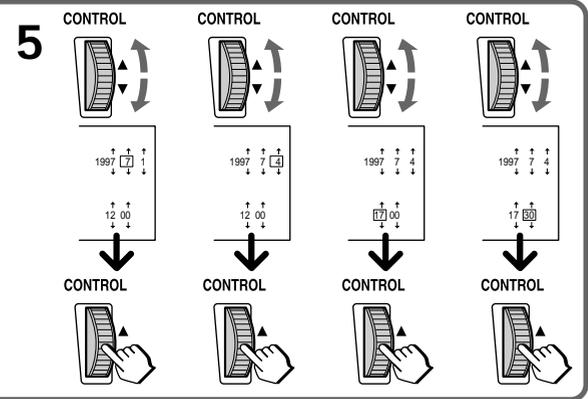
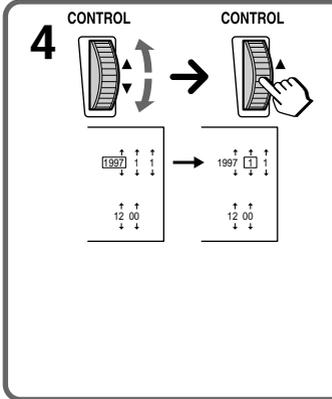
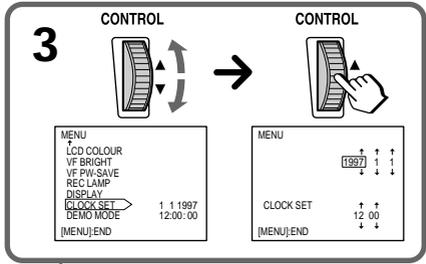
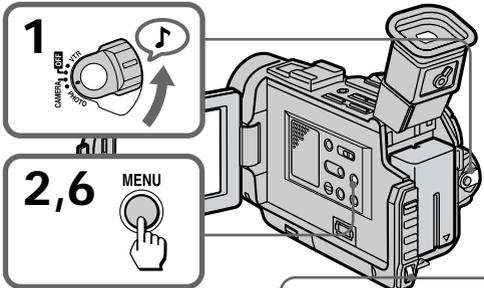
äó , ÄÍÜË Ó, Í† %†Ú´  
Ë , ÄÏÄÏË

The date and time are set at the factory. Set the time according to the local time in your country. If you do not use the camcorder for about a year, the date and time settings may be released (bars may appear) because the vanadium-lithium battery installed in the camcorder will have been discharged. In this case, first charge the vanadium-lithium battery, then reset the date and time.

- (1) While pressing the small green button on the POWER switch, set it to CAMERA.
- (2) Press MENU to display the menu on the LCD screen or in the viewfinder.
- (3) Select CLOCK SET, then press the CONTROL dial.
- (4) Turn the CONTROL dial to adjust the year, and then press the CONTROL dial.
- (5) Set the month, day, hour and minutes by turning and pressing the CONTROL dial.
- (6) Press MENU to erase the menu display.

- ÍÄÍÚ´ËÄ %†Ú´ Ë , ÄÏÏ Í† , ÓÚ ÓÄÏ`´1 ~†Ó+1 , ËÄÓÍ†ÍÄ´ ÚÓÚ+ÍÓ, ÍÄÍ´ ËÄ, ÓÚÓ, ËÚÄÍÄÍ. ãÄ Ä, ÄÄËÚÄ´ ~†Ó´ Í† ÍÄÓÚÍÓÄ, ÄÏÏ Ç+ÄË ÓÚ +Í´. ÓÓÍË Ç´ ÍÄÓÓÍ´ ÄÓ, †ÍËÓ. Í†ÍÄ ÓÈ ÓÍÓÍÓ, %†, ÚÓ, ÓÚ ÓÄÏ`´Ä´ ~†Ó´ Í†ÍÄ´ ÓÍÓ, ÚÚ ÓÓÚ+ÍÓ, ËÚ, ÓÏ ËÄ-Ä† †Ä ÏË+ÏËÏ , †Í+ËÄ, Ó-ÏËÚËÄ, ÓË´ ~†Ú: ÄËÍË (Ó Ë´ÚÓÍ , ÍÄÓÚÓ %†Ú´ Ë , ÄÍÄÏË´ ÚÄÓÚ ÓÓÏ, ÍÏÚ, ÓÏ Ó´Ä´ ÍË). Ç´´ÚÓÍ ÓÍÓ´+Ä ÍÄÓ´.ÍÓÄ.ÍÓ.ÍÓ ÓÍ†~Í† Ä† ÏÄËÚ´, †Í+ËÄ, Ó-ÏËÚËÄ, Ú´ ~†Ú: ÄËÍÚ, †ÄÚÄÍÄ†ÍÓ, ÓÚÓÚ+ÍÓ, ËÚ, %†ÚÚ Ë ÄÏÏ Í†´ ~†Ó+1.
- (1) ïÄÄ ËË´ +Ï, Í†Ë+ÚÓÍ ÓÓÍÓÄÏËË Í†ÍÄÍ´ ÚÚ. ÄÄÍÄÍÚ. ÍÍÓÓÍÚ Í† ÓÄ ÄÍÍ´ ~†ÚÄÍÄ POWER, ÓÄ Ä, ÄÄËÚÄ Ä, Ó, ÓÓÍÓÄÄÏËÄ CAMERA.
  - (2) Ç†Ë+ÚËÄÍ´ ÍÍÓÓÍË MENU´, ´ÄÓ, ËÚÄ ÍÄÍ´. Í†ËËÄÍÓÍ ËÓÚ+ÍË´ÄÓÍËË´´Í´ †ÍËÏË´´Í´ †Í, ËÄÓËÓÍ+ÚÄÏ.
  - (3) Ç´Ä´ Ä´ ËÚÄ CLOCK SET Ë´ Í†ËËËÚÄ´ Í†´ ÚÍÓÏÚÍÚ CONTROL.
  - (4) äó, ó´ óÓÍ´ ÚÍÓÏÚÍË CONTROL, ÚÓÚ+ÍÓ, ËÚÄ ÚÓËÍ´´Ë´, %† Ë´ Í†ËËËÚÄ´ Í†´ ÚÍÓÏÚÍÚ CONTROL.
  - (5) äó, ó´ †´Ë´, +Ï Ë´ Í†ËËË+Ï ÚÍÓÏÚÍÚ CONTROL, ÚÓÚ+ÍÓ, ËÚÄ ÍÄÓÏ´, %ÄÍ´,´´ ~†Ó Ë´ ÍËÏÓÚÚ.
  - (6) Ç†Ë+ÚËÄÍ´ ÍÍÓÓÍË MENU Ú´Ä´ ËÚÄ ÍÄÍ´. Ó´´Í´ †Í†.

Additional Information / NOÖÓÍËÚÄÍ´. Í†Ï ËÍÓÓ´ Í†´ËÏ



# Resetting the date and time

äÓ , ÂÍÜË Ó,Í† %†Ú° È  
, ÂÏÂÏË

**To correct the date and time setting**  
Repeat steps 2 to 5.

The year indicators changes as follows:

→ 1997 → 1998 → ..... 2000 ..... → 2029 →

**Note on the time indicator**  
The internal clock of this camcorder operates on a 24-hour cycle.

àÒÒ †, ÎÂÏËÄ Ó-È·ÓÍ Ô È ÛÒÚ†ÏÓ, ÍÂ  
%†Ú° È , ÂÏÂÏË  
èó, úó ÈÚÁ ÓÔÂ †^ÈÈ 2 - 5.

ÉÓ% Ì† ~Í †ÏÂ òÏÂÏÏÂÛòñ , òîÂ%Û. ~ÂÏ  
ÔÓ ñ%íÂ:

→ 1997 → 1998 → ..... 2000 ..... → 2029 →

é· Èì%Èí†^ÈÈ , ÂÏÂÏË  
ÇÒÚ ÓÂÏì'Â ~†ò° %†ÏÏÓÈ , È%ÁÓÍ†ÏÂ ·  
ÈÏÂ, Ú 24~†òó, ÓÈ^Èíî.

# Tips for using the battery pack

é ÔÔÎ, ÁÓ, †ÏÈÈ  
†ÍÍÛÛÛÛÛÛÛÛÛÛ ÌÓÈ · †Û† ÂÈÈ

This section shows you how you can get the most out of your battery pack.

## Preparing the battery pack

### Always carry additional batteries

Have sufficient battery pack power to do 2 to 3 times as much recording as you have planned.

### Battery life is shorter in a cold environment

Battery efficiency is decreased, and the battery will be used up more quickly, if you are recording in a cold environment.

### To save battery power

Do not leave the camcorder in Standby mode when not recording to save the battery power. A smooth transition between scenes can be made even if recording is stopped and started again. While you are positioning the subject, selecting an angle, or looking at the LCD screen or through the viewfinder, the lens moves automatically and the battery is used. The battery is also used when a tape is inserted or removed.

Ç Ì†ÒÓŒŒˆÂÏ †Á%ÁÏÁ Ò È, Â%ÂÏˆ  
ÁÏŒŒÏ%†ˆÈÈ ÒÓ ÒÓÛÈÏ†Ï, ÌÓÏÏ  
ÈÒÓÓÏ, ÁÓ, †ÏÈ, , ÓÁÏÓÈÏÓÓÚÁÈ  
†ÍÍÛÛÛÛÛÛÛ ÌÓÈ · †Û† ÂÈ.

èÒ%„ÓÚÓ, Ì† · †Û† ÂÈ Ì † · ÓÚÁ

ÇÒÁ„%† ÌÒÒÈÛÁ Ò ÒÓ · ÒÈ Á†Ò†ÒÏˆ Á  
· †Û† ÂÈ  
á† fl% ÈÏÁ, ~ÈÏŒ Ũ Ç†Ò ÒÓ% ŨÏÓÈ · †Û† ÂÈ  
%ÓÏÈÁÏ, 2 - 3 †Á† Ò Á, ~†Û, ÓÓ, ~ÓÓ  
ÏÁÓ · ÌÓ%ÈÏÓ %ÏŒ ÒÏ†ÏÈ ÛÁÏÓÈ  
Ò Ó%ÓÏÈÈÛÁÏ, ÌÒÓÛÈ ÒˆÁÏÏÈ.

è È ÌÈÁÏÈÏ ÛÁÏÓÁ †ÛÛ †  
†ÍÍÛÛÛÛÛÛÛ Ìˆ Á · †Û† ÂÈ  
†Á flÈ†, ÛÒŒ · ÓÚ ÁÁ.  
ÒÓÏÈ Çˆ ÓÓÏ, ÁÛÁÓÁÒ, ÒÈ%ÁÓÏ†ÏÁ ÒÈ Ì†  
ÏÓÏÓ%Á, ÓÓ ~ÛÛÁÏÛÈ, ÌÓÓÓ.  
ÛÛÏÏˆÈÓÏÈ Ó, †ÏÈŒ · †Û† ÂÈ ÒÏÈÈ†ÁÛÒŒ, È ÈÏ  
Á† fl%† †, †Û†ÁÛ Ì† ÏÁÏ, -ÁÁ, ÁÏŒ.

á† Ì ÒˆÏÓÏÈÏÈÛ, ~ÏÁ „È.  
†ÍÍÛÛÛÛÛÛÛ Ìˆˆ · †Û† ÂÈ  
ŒÏŒ ~ÏÓÏÈÏÈÈˆ ÏÁ „ÈÈ, ÒÁ Áˆ, †Ï ÏÁÈ%Û  
ÒˆÁÏÓÈ ÏÁ ÓÓÛ†, ÏŒÈÛÁ, È%ÁÓÏ†ÏÁ Ũ,  
ÁÈÈÏÁ ÓÈÈ%†ÏÈŒ.  
Çˆ ÏÏ. ~ÁÏÈÁ È, ÏÏ. ~ÁÏÈÁ Ï†ÏÁˆ ÏÁ  
Ï† Ũˆ†ÁÛ ÓÏ†, ÌÓÓÛÈ ÓÁ ÁÏÓ%† ÏÁÈ%Û  
Ï†% †ÏÈ. è È,ˆ Ó ÁÓÏ†Ï†, †ÛÛ Ò†ÒˆÁÏÏÈ,  
ÈÏÈ Ï†. Ï %ÁÏÈÈ Á† ÈÈ%ÏÓÏ ÈÒÛ†ÏÏÈˆÁÓÏÈÏ  
ˆ Ï† ÏÓÏ ÏÈ. Óˆ Ï† ÏÓÏ, È%ÓÈÒÏ†ÛÁÏŒ ÏÈÏÁ†  
Óˆ. ÁÏÛÈ, ††, ÓÓÏ†ÛÈˆÁÓÏÈ ÓÁ ÁÏÁˆ†ÁÛÒŒ Ò  
ÒÓÓÓ, ÁÛÓÓ, Ũ. ~ÈÏ †ÒÏÓ%ÓÏ ÏÁ „ÈÈ · †Û† ÂÈ.  
á† fl% · †Û† ÂÈ †ÒÏÓ%ÛÁÛÒŒ Û†ÏÈÁ Ò È  
ÛÓÛ†ÏÓ, ÏÁ ÈÈÁ, ÏÁˆÁÏÈÈ Ï†ÒÒÁÛ.

Additional Information / No. 00118041, 1+1 ÈÏÓÓ Ì†ˆÈÈ

# Tips for using the battery pack

É ÔÔÎ ÁÓ, †ÏËË  
†ÍÏÛÏÛÎÏÛÓ ÌÒÈ ·†Ú† ÂÂÈ

## When to replace the battery pack

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†ííÛÏÛîñúó ìû. ·†ú† Â.

While you are using your camcorder, the remaining battery indicator on the LCD screen or in the viewfinder decreases gradually as battery power is used up [a]. The remaining time in minutes also appears.

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úí†â†úáí, ì† ÈÈ%íóí Èòú†íîÈ^áóíóí ~í †îâ  
ÈîÈ, óíîâ, È%òÈòí†úáíñ òóí†â, †áú  
òòóúáòáìíòá úíáì, -áìÈá òóú†. ~â,,òòñ  
á† ñ%† ·†ú† ÂÈ [a].  
è È ~úóí ì† ~í †ì, , ò%Èúòñ ú†îÈá  
òòú†, -ááòñ, áíñ †.òú† í†îâ , , ÌÈÏÛú†.



When the remaining battery indicator reaches the lowest point, the i indicator appears and starts flashing on the LCD screen or in the viewfinder. When the i indicator on the LCD screen or in the viewfinder changes from slow flashing to rapid flashing while you are recording, set the POWER switch to OFF on the camcorder and replace the battery pack. Leave the tape in the camcorder to obtain a smooth transition between scenes after the battery pack has been replaced.

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á† ñ%† ·†ú† ÂÈ %òí%òÈú %ò ÌÈá -ÂÈ úó~ìÈ, ,  
óíîâ, È%òÈòí†úáíñ òòñ, Ìñáúòñ ÌÈ, †. ÈÈ  
ÈÈ%í†úó ì.  
äó,,%† Ìâ%íáìíòá ÌÈ, †ÌÈá ÈÈ%í†úó † ì†  
ÈÈ%íóí Èòú†íîÈ^áóíóí ~í †îâ ÈîÈ, óíîâ  
, È%òÈòí†úáíñ òá ÂÈáú, ·.òú òá, úòú†íó, Èúá  
òá áíí, ~†úáí, POWER, òóíòÈáìÈá OFF È  
á†îâìÈúá †ííÛÏÛîñúó ìû. ·†ú† Â. çá  
Èá, íáí†Èúá Èá, È%áóí†îâ \* í†òáúú, ~úó·  
òá áì%ò óú òòóíâ%ìâ,,òòá Â%á†îâìòÈ ·†ú† ÂÈ  
í†% † í òíâ%ú. ~áú òóíú~Èíòñ òí†, ì.í.

## Notes on the rechargeable battery pack

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·†ú† ÂÂ

### Caution

Never leave the battery pack in temperatures above 60 °C (140 °F), such as in a car parked in the sun or under direct sunlight.

çÌÈÏ†ÌÈÈ!  
çÈíó,,%† Ìâ òóú†, ÌñÈúá ·†ú† Â, , Ìáóú†ì, ,,%â  
, óáíóÈìò òó, -áìÈá úáíòá †úú · ò, á 1  
60°C (140°F), Ì†ò Èíá, †, úóíó.Èíá,  
á†ò† íó, †ììòí, òóíîâ~íóí Ìáòúá, ÈîÈ òó%  
ò ñí' ÌÈ ÌÛ~†ìÈ òóíí†.

### The battery pack heats up

During charging or recording, the battery pack heats up. This is caused by energy that has been generated and a chemical change that has occurred inside the battery pack. This is not cause for concern, and is normal.

ç†, Â, †ÌÈá ·†ú† ÂÈ  
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, È%áóí†îâ ·.†ú† Áñ Ì†, Â, áúòñ. úóó  
ìò Ì†ì Ìòáñ, ÌáìÈá, Ìóóó áò, ñá†ìò ò  
, %áíáìÈáá ~íáíó ó~ìá ,,ÈÈ È ÌÈÈ~áòíÈÈ  
ò ó^áòáìÈ, Ìúú È ·†ú† ÂÈ, È Ìáñ, Ìñáúòñ  
òó, ò%òí %ñ. áòòóíòÈòú, †.

### Battery pack care

- Remove the battery pack from the camcorder after using it and keep it in a cool place. When the battery pack is installed to the camcorder, a small amount of current flows to the camcorder even if the POWER switch is set to OFF. This shortens battery life.
- The battery pack is always discharging even when it is not in use after charging. Therefore, you should charge the battery pack right before using the camcorder.

ììò% á† †ÍÏÛÏÛÎÏÛÓ ÌÒÈ ·†ú† ÂÂÈ  
• èó óíóí~†ÌÈÈ òóí.áó, †ÏËË. ·†ú† ÂÂÈ  
òú%áíñÈúá Âá óú, È%áóí†îâ \* È ì †ìÈúá ,  
ò òí†%íóí Ìáòúá. äó,,%† ·†ú† Áñ  
òó%òòá%Èìáì† í†îâ Á, í†îâ †òó, Ìó~†áú  
ìá-òí. óá íóíÈ^áóú, ó^íáíó ó~ìá ,,ÈÈ,  
%†Èá áòíÈ òá áíí, ~†úáí, POWER  
ì†ì%Èúòñ, òóíòÈáìÈÈ OFF, , ááúí, ú†úá  
~á,,ò ·†ú† Áñ †á ñÈ†áúòñ.  
• è†á ñÈ†ÌÈá á† ñÈáìòÈ ·†ú† ÂÈ  
ò òÈòì%Èú %†Èá úó,,%†, íó,,%† Á. Ìá  
òóí. áú, úòñ. èó~úóíú ·†ú† Á. òíâ%úáú  
á† ñÈ†ú. Ìáòóò Â%òú, áìíò òá Â%ì†~†íóí  
ò.áííÈ.

## Tips for using the battery pack

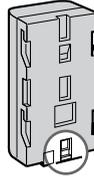
é ÓÓÎ ÁÓ, †ÏËË  
†ÍÍÛÏÛÏÛÓ ÌÓË · †Û† ÂÂË

### The switch on the battery pack

This switch is provided so that you can identify a charged battery pack. Set the switch to the “green mark” position when charging is completed. [a] (When the battery pack is removed from the AC power adaptor after charging, the switch automatically moves to the “green mark” position.)

èÂ ÁÍÍ, ~†ÚÁÎ, Ì† ÍÓ ÔÛÔÁ  
†ÍÍÛÏÛÏÛÓ ÌÓË · †Û† ÂË  
ç†Á†~ÁÏËÁ ~ÚÓ, ÓÔÁ ÁÍÍ, ~†ÚÁÎ - ÓÓÍÓ~  
ç†Í ÓÚÏË~ËÚ, Á† ñËÁÏÏ·Á · †Û† ÂË ÓÚ  
ÌÁÁ† ñËÁÏÏ·1. á† ñËË, · †Û† Á, ÛÓÛ†ÌÓ, ÈÚÁ  
ÔÁ ÁÍÍ, ~†ÚÁÎ, Ì† ÁÁÍÁÏÛ. ÓÚÍÁÛÍÛ. [a] (è È  
ÓÛ·ÁÍÁÏËË Á† ñËÁÏÏË · †Û† ÂË ÓÚ †%ÔÚÁ †  
ÔÁÚÁ, Ó, Ó ÔËÛ†ÏË ÒÁ ÁÍÍ, ~†ÚÁÎ,  
†, ÓÓÍ†ÚË~ÁÓÏË ÛÓÛ†Ì†, ÌË, †ÁÛÓÏ Ì† ÁÁÍÁÏÛ,  
ÓÚÍÁÛÍÛ. )

[a]



### The life of the battery pack

If the battery indicator flashes rapidly just after turning on the camcorder with a fully charged battery pack, the battery pack should be replaced with a new fully charged one.

è ÓÍ ÒÏÛË · †ÍÍÛÏÛÏÛÓ ÌÓË  
· †Û† ÂË  
ÒÒÏË Ò †ÁÛ ÓÓÓÏÁ, ÍÍ, ~ÁÏËÏ, ÈË·ÁÓÍ†ÏÁ · ò  
ÓÓÏÏÓÓÚ, Á† ñËÁÏÏË · †Û† ÂË ÈÏËËÍ†ÚÓ  
Á† ñ%† Ì† ~ËÏ†ÁÛ · ÓÛ Ó ÌË, †Û, ÁÁ ÓÏÁ%ÚÁÚ  
Á† ÌÁÏËÛ, Ì† ÌÓ, Û, Û† ÌËÁ ÓÓÏÏÓÓÚ,  
Á† ñËÁÏÏË · †Û† Á.

### Charging temperature

You should charge batteries at temperatures from 10°C to 30°C (from 50°F to 86°F). Lower temperatures require a longer charging time.

ÍÁÏÔÁ †ÛÛ † Á† ñË†ÏËÏ  
ÁÍÛÏÛÏÛÓ Ì·Á · †Û† ÂË ÓÏÁ%ÚÁÚ Á† ñË†Û,  
Ô È ÚÁÏÔÁ †ÛÛ Á ÓÚ 10°C %Ó 30°C (50°F -  
86°F). è È · ÓÏÁÁ ÌËÁÏÏË ÚÁÏÔÁ †ÛÛ †1  
Ô Ó%ÓÏËËÛÁÏ, ÌÓÓÛ, Á† ñË†ÏËÏ  
Û, ÁÏË~Ë, †ÁÛÓÏ.





## Notes on charging

### A brand-new battery pack

A brand-new battery pack is not charged. Before using the battery pack, charge it completely.

### Recharge the battery pack whenever you like

You do not have to discharge it before recharging. If you charged the battery pack fully but you did not use it for a long time, it becomes discharged. Then recharge the battery pack before use.

## Notes on the terminals

### If the terminals (metal parts on the back) are not clean, the battery charge duration will be shortened.

When the terminals are not clean or when the battery pack has not been used for a long time, repeatedly install and remove the battery pack a few times. This improves the contact condition. Also, wipe the +, - and C terminals with a soft cloth or paper.

### Be sure to observe the following

- Keep the battery pack away from fire.
- Keep the battery pack dry.
- Do not open nor try to disassemble the battery pack.
- Do not expose the battery pack to any mechanical shock.

## á† flÊ†ÏÈÂ · †Ú† ÂÈ

çÓ, †fl †ÍÏÛÏÛÏÛÏÛÏ Ì†fl · †Ú† Âfl  
ÁÍÏÛÏÛÏÛÏ Ì·Á · †Ú† ÂÈ Ó †Ú. ÛÓfl  
ÌÁÁ† flÊÁÏÏ·ÏÈ. èÂ Â% ÓÓÍ, ÁÓ, †ÏÈÁÏ  
· †Ú† ÂÂÈ ÂÁ ÌÁÓ·ÌÓ%ÈÌÓ ÓÓÍÌÓÓÚ.,  
Á† flÊÛ.,

èÓ%Á† flÊ†Ú, · †Ú† Â. ÏÓÈÌÓ, Ì.·ÒÈ  
ÏÓÍÁÏÛ ÓÓ ç†·ÁÏÛ ÛÒÍÓÚ ÁÏÈ,  
èÂ Â% ~ÙÈÏ ÂÁ ÌÁÓ·flÁÙÁÏ, ÌÓ †Á flÊ†Ú,  
ÓÓÍÌÓÓÚ., ÓÒÏÈ ç\*, ÓÓÍÌÓÓÚ., Á† flÊÈ,  
· †Ú† Â., ÌÁ ÓÓÍ, ÁÙÁÙÁÓ, Á. ÛÁ~ÁÏÈÁ  
%ÓÍ„Ó„Ó, ÁÏÁÏÈ, · †Ú† Âfl ~†ÓÙÈ~ÌÓ  
†Á flÊ†ÁÙÓfl. ç Ú† ÏÈÌ ÒÏÛ~†fl ÒÁ Â% Ì†~†ÍÓÍ  
ÓÓÍ, ÁÓ, †ÏÈfl ÂÁ ÒÏÁ%ÙÁÙ ÓÓ%Á† flÊÛ.,

## é ÍÓÏÛ†ÍÛ†₁ · †Ú† ÂÈ

ÒÒÏÈ ÍÓÍÛ†ÍÛ · †Ú† ÂÈ (ÌÁÙ†ÏÈÈ~ÁÒÍÈÁ  
~†ÓÙÈ Ì†, ÏÛ ÁÏÁÈÈ ÓÓÓ ÒÏÁ ÍÓ ÓÙÓ)  
Á†, flÁÏÁÏ\*, ÛÓ ÂÁ ÁÏÍÓÓÚ, ÛÏÁÏ, ~†ÁÙÓfl.  
ç ÒÏÛ~†Á Á†, flÁÏÁÏÈfl ÍÓÍÛ†ÍÛ, ÈÏÈ,  
ÒÏÛ~†Á, ÁÒÏÈ · †Ú† ÂÂÈ ÌÁ ÓÓÍ, ÁÓ, †ÏÈÒ, ,  
ÙÁ~ÁÏÈÁ %ÏÈÙÁÏ ÌÓ„Ó, ÁÏÁÏÈ, · †Ú† Â.  
ÒÏÁ%ÙÁÙ Ó ÈÓÓÁ%ÈÏÈÛ, Í Í†ÌÁ ÂÈ  
ÓÓÓÁ%ÈÏÈÛ, ÓÚ ÌÁÁ ÌÁÒÍÓÍ, ÍÓ †Á ÓÓ% flÊ.  
ùÓ ÓÓÍÓ, †ÁÙ ÛÏÛ~ÈÛ, ÓÓÓÓflÈÈÁ ÍÓÍÛ†ÍÛ, .  
ä ÓÏÁ ÛÓ„Ó, ÍÓÍÛ†ÍÛ\*, Ó·ÓÁÏ~ÁÏÏ·Á  
ÒÈÏ, ÓÏÁÏÈ+, - Èè, ÒÏÁ%ÙÁÙ Ó ÓÚÁ ÁÙ,  
Ïfl, ÍÓÈ Ì†ÙÁ ÈÁÈ ÈÏÈ·ÛÏ†, ÒÈ.

çÁ Á†·, †ÈÙÁ Ó ÒÏÁ%Û. ~ÈÌ ÌÁ †₁  
Ó Â%ÓÓÓÚ ÓÈÏÓÓÙÈ:  
• ÁÁ Â„ÈÙÁ · †Ú† Â. ÓÚÓ„Ïfl.  
• çÁ %ÓÓÓÓÍ†ÈÙÁ Ì†ÍÓÍ†ÏÈfl · †Ú† ÂÈ.  
• çÁ, ÓÍ , †ÈÙÁ ÍÓ ÓÙÓ · †Ú† ÂÈ È ÌÁ  
Ó·Ù†ÈÙÁÓ, †Á·È †Ú, ÁÁ.  
• çÁ ÓÓ%, Á „†ÈÙÁ · †Ú† Â. ÁÁÍÈÏ  
ÌÁ₁†ÏÈ~ÁÒÍÈÏ, ÓÁ%ÁÈÒÓ, Èfl.





Precautions

Camcorder operation

- Operate the camcorder on 7.2 V (battery pack) or 8.4 V (AC power adaptor).
- Should any solid object or liquid get inside the casing, unplug the camcorder and have it checked by Sony dealer before operating it any further.
- Avoid rough handling or mechanical shock. Be particularly careful of the lens.
- Keep the POWER switch set to OFF when not using the camcorder.
- Do not wrap up the camcorder and operate it since heat may build up internally.
- Keep the camcorder away from strong magnetic fields or mechanical vibration.

On handling tapes

- Do not insert anything in the small holes on the cassette.
- Do not open the tape protect cover or touch the tape.
- Avoid touching or damaging the terminals. To remove dust, clean the terminals with a soft cloth.

Camcorder care

- When the camcorder is not to be used for a long time, disconnect the power source and remove the tape. Periodically turn on the power, operate the camera and VTR sections and play back a tape for about 3 minutes.
- Clean the lens with a soft brush to remove dust. If there are fingerprints on the lens, remove them with a soft cloth.
- Clean the camcorder body with a dry soft cloth, or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of solvent which may damage the finish.
- Do not let sand get into the camcorder. When you use the camcorder on a sandy beach or in a windy place, protect it from the sand or dust. Sand or dust may cause the unit to malfunction, and sometimes this malfunction cannot be repaired.

ΑΡΑΒΙΚΑ ΚΑΙ ΑΡΑΒΙΚΑ ΣΥΜΒΟΛΑ

ΕΛΛΗΝΙΚΑ ΚΑΙ ΑΡΑΒΙΚΑ ΣΥΜΒΟΛΑ

- Οποιαδήποτε αντικείμενα ή υγρά εισέλθουν στην κάμερα, αφαιρέστε την από το ρεύμα και επικοινωνήστε με τον πωλητή της Sony πριν την χρησιμοποιήσετε ξανά.
- Αποφύγετε τον χειρισμό ή τον μηχανικό κραδασμό. Είναι ιδιαίτερα σημαντικό να προσέχετε το φακό.
- Όταν η κάμερα δεν χρησιμοποιείται, κρατήστε το κουμπί POWER στην θέση OFF.
- Μην τυλίγετε την κάμερα και μην την λειτουργείτε, καθώς μπορεί να δημιουργηθεί θερμότητα στο εσωτερικό.
- Μην κρατάτε την κάμερα μακριά από ισχυρά μαγνητικά πεδία ή μηχανική δόνηση.

ΕΛΛΗΝΙΚΑ ΚΑΙ ΑΡΑΒΙΚΑ ΣΥΜΒΟΛΑ

- Μην εισάγετε τίποτα στα μικρά τρύπημα της ταινίας.
- Μην ανοίξετε το κάλυμμα προστασίας της ταινίας ή να αγγίξετε την ταινία.
- Αποφύγετε να αγγίξετε ή να βλάψετε τους ακροατήριους. Για να αφαιρέσετε τη σκόνη, καθαρίστε τους με ένα μαλακό ύφασμα.

ΕΛΛΗΝΙΚΑ ΚΑΙ ΑΡΑΒΙΚΑ ΣΥΜΒΟΛΑ

- Όταν η κάμερα δεν χρησιμοποιείται για μεγάλο χρονικό διάστημα, αποσυνδέστε την από την πηγή τροφοδοσίας και αφαιρέστε την ταινία. Περιοδικά ανοίξτε την κάμερα, λειτουργήστε την και τις ενότητες VTR και παίξτε μια ταινία για περίπου 3 λεπτά.
- Καθαρίστε το φακό με ένα μαλακό βουρτσάκι για να αφαιρέσετε τη σκόνη. Εάν υπάρχουν αποτυπωμένα δακτυλικά αποτυπώματα στο φακό, αφαιρέστε τα με ένα μαλακό ύφασμα.
- Καθαρίστε το σώμα της κάμερας με ένα καθαρό μαλακό ύφασμα ή ένα μαλακό ύφασμα ελαφρώς υδατοδιαλυτό ή με ένα μαλακό ύφασμα ελαφρώς υδατοδιαλυτό με ήπιος καθαριστικό. Μην χρησιμοποιείτε διαλύτες που μπορεί να βλάψουν το φινιρίσμα.
- Μην αφήνετε άμμο να εισέλθει στην κάμερα. Όταν χρησιμοποιείτε την κάμερα σε αμμουδιά ή σε ανοιχτό χώρο, προστατέψτε την από την άμμο ή το σκόνη. Η άμμο ή το σκόνη μπορεί να προκαλέσει βλάβη στην κάμερα, και μερικές φορές αυτή η βλάβη δεν μπορεί να διορθωθεί.
- Μην κρατάτε την κάμερα μακριά από ισχυρά μαγνητικά πεδία ή μηχανική δόνηση.
- Μην τυλίγετε την κάμερα και μην την λειτουργείτε, καθώς μπορεί να δημιουργηθεί θερμότητα στο εσωτερικό.
- Μην κρατάτε την κάμερα μακριά από ισχυρά μαγνητικά πεδία ή μηχανική δόνηση.

Additional Information / NOCOTIENAI, I+H EIT06 I+H

**AC power adaptor**

**Charging**

- Use only an InfoLITHIUM type battery pack.
- Place the battery pack on a flat surface without vibration during charging.
- The battery pack will get hot during charging. This is normal.

**Others**

- Unplug the unit from the mains when not in use for a long time. To disconnect the mains lead, pull it out by the plug. Never pull the cord itself.
- Do not operate the unit with a damaged cord or if the unit has been dropped or damaged.
- Do not bend the AC power cord forcibly, or put a heavy object on it. This will damage the cord and may cause a fire or an electrical shock.
- Be sure that nothing metallic comes into contact with the metal parts of the connecting plate. If this happens, a short may occur and the unit may be damaged.
- Always keep the metal contacts clean.
- Do not disassemble the unit.
- Do not apply mechanical shock or drop the unit.
- While the unit is in use, particularly during charging, keep it away from AM receivers and video equipment because it will disturb AM reception and video operation.
- The unit becomes warm while in use. This is normal.
- Do not place the unit in locations that are: Extremely hot or cold, Dusty or dirty, Very humid, Vibrating

**Αποφορτιστής τροφοδοσίας**

**Φόρτιση**

- Χρησιμοποιείτε μόνο μπαταρία τύπου InfoLITHIUM.
- Τοποθετήστε τη μπαταρία σε επίπεδη επιφάνεια χωρίς κραδασμούς κατά τη φόρτιση.
- Η μπαταρία μπορεί να θερμανθεί κατά τη φόρτιση. Αυτό είναι φυσιολογικό.

**Άλλα**

- Αποσυνδέστε το καλώδιο τροφοδοσίας από το πρίζα όταν δεν χρησιμοποιείτε το προϊόν για μεγάλο χρονικό διάστημα. Για να αποσυνδέσετε το καλώδιο τροφοδοσίας, τραβήξτε το από την πρίζα. Ποτέ μην τραβήξετε το καλώδιο από το προϊόν.
- Μην λειτουργείτε το προϊόν με κατεστραμμένο καλώδιο τροφοδοσίας ή εάν το προϊόν έχει πέσει ή έχει υποστεί ζημιά.
- Μην κάμπωτε βίβρακα ή το καλώδιο τροφοδοσίας με δύναμη ή τοποθετήσετε βαρύ αντικείμενο επάνω του. Αυτό μπορεί να προκαλέσει πυρκαγιά ή ηλεκτροπληξία.
- Βεβαιωθείτε ότι κανένα μεταλλικό αντικείμενο δεν έρχεται σε επαφή με τα μεταλλικά μέρη της επαφής. Εάν συμβεί αυτό, μπορεί να συμβεί βραχυκύκλωμα και να повредит τη μονάδα.
- Κρατήστε τα μεταλλικά μέρη καθαρά.
- Μην αποσυναρμολογείτε το προϊόν.
- Μην εφαρμόζετε μηχανικό σοκ ή αφήνετε το προϊόν να πέσει.
- Κατά τη χρήση, ειδικά κατά τη φόρτιση, κρατήστε το προϊόν μακριά από λήκτες AM και βίντεο εξοπλισμό, καθώς μπορεί να παρεμβάλει στην AM λήψη και στην λειτουργία βίντεο.
- Το προϊόν μπορεί να θερμανθεί κατά τη χρήση. Αυτό είναι φυσιολογικό.
- Μην τοποθετείτε το προϊόν σε τοποθεσίες που είναι: Πολύ ζεστές ή πολύ κρύες, Πολύ σκόνη ή βρώμα, Πολύ υγρασία, Ταλαντωτές



# Using your camcorder abroad

èÔÎ, ÁÓ, †ÏËÄ, È%ÄÓÍ†ÏÄ ÓÈ  
, Á† Û·ÄÊÏ°\_1 ÓÓÄÄ%Í†\_1

Each country or area has its own electric and TV colour systems. Before using your camcorder abroad, check the following points.

## Power sources

You can use your camcorder in any country or area with the supplied AC power adaptor within 110 V to 240 V AC, 50/60 Hz.

## Difference in colour systems

This camcorder is a PAL system-based camcorder. If you want to view the playback picture on a TV, it must be a PAL system-based TV.

Check the following list.

### PAL system

Australia, Austria, Belgium, China, Czech Republic, Denmark, Finland, Germany, Great Britain, Holland, Hong Kong, Italy, Kuwait, Malaysia, New Zealand, Norway, Portugal, Singapore, Slovak Republic, Spain, Sweden, Switzerland, Thailand, etc.

### PAL-M system

Brazil

### PAL-N system

Argentina, Paraguay, Uruguay

### NTSC system

Bahama Islands, Bolivia, Canada, Central America, Chile, Colombia, Ecuador, Jamaica, Japan, Korea, Mexico, Peru, Surinam, Taiwan, the Philippines, the U.S.A., Venezuela, etc.

### SECAM system

Bulgaria, France, Guiana, Hungary, Iran, Iraq, Monaco, Poland, Russia, Ukraine, etc.

Ç †ÄÏ°\_1 ÖÛ †Ï†\_1 È, ÁÓ, †ÛÈ°ÄÓÍÈ\_1 Ä, ÈÓÏ†\_1 ÈÖÖÓÍ, ÁÛ, ÛÒÏ †ÄÏÈ°\_1°Ä ÄÈÈÏ° ÖÄÛÄ, Ó, Ó ~ÏÄÏÛ ÓÓÈÛ†ÏÈÈ È ^, ÁÛÏÓ, Ó ÚÄÏÄ, È%ÄÏÈÏ. è ÄÈ%Ä°ÄÏ ÖÓ †, ÈÛ, ÇÏÏ, È%ÄÓÍ†ÏÄ ÓÈ , Á† Û·ÄÊÏÛ. ÓÓÄÄ%ÏÛ, Ó· †ÛÈÛÄÖ. Í ÈÏÛÖ Ï†ÈÈ, Ö È, Ä%ÄÏÏÖÈ ÏÈÈÄ.

## àðóó°\_1 ÌËÏÈ ÖÈÛ†ÏÈÏ

è ÈÏ†, †ÄÏ°È †%:ÓÛÄ ÖÄÛÄ, Ó, Ó ÖÈÛ†ÏÈÏ ÏÖÈÏÖ ÈÖÖÓÍ, ÁÓ, †Û, , Ï. ·ÓÈ ÖÛ †ÏÄ ÈÏÈ Ä, ÈÓÏÄ, %Ä Ï† Ö ÏÈÄÏÈÄ°ÏÄÏÛ È°ÄÓÏÖÈ ÖÄÛÈ ÖÖÓÛ†, ÏÏÄÛ ÖÛ 110 %Ó 240 Ç Ö È°~ÖÛÓÛÄ 50/60 È°.

## èÈÖÛÄÏ° ^, ÁÛÏÓ, Ó ÚÄÏÄ, È%ÄÏÈÏ

Ñ†ÏÏ†Ï, È%ÄÓÍ†ÏÄ † †·ÓÛ†ÄÛ, ÖÈÖÛÄÏÄ PAL. ÓÓ°· Ö ÖÓÏ†Û È, †Û, ÓÛÖÏÏÓÄ ÈÄÓ· †ÈÄÏÈÄ Ï† ÚÄÏÄ, ÈÄÈÖÏÏÓÍ° Ï° ÏÄÄ, Ç†Ï ÖÓÏ†%Ó·ÈÛÇÏ ÚÄÏÄ, ÈÄÓ ÖÈÖÛÄÏ° PAL. è· †ÛÈÛÄÖ, Í Ö È, Ä%ÄÏÏÏÏÏ ÏÈÈÄ ÖÄ Ä°Ï.

èÈÖÛÄÏ† PAL  
Ä, ÖÛ †ÏÈÏ, Ä, ÖÛ ÈÏ, ÄÄÏ, „ÈÏ, ÇÄÏÈÏÓ· ÈÛ†ÏÈÏ, ÈÄ Ï†ÏÈÏ, ÈÓÏÏÓÏ°, Ñ†ÏÈÏ, àÖÖÏÈÏ, àÛ†ÏÈÏ, àÈÛ†È, àÛ, ÄÈÛ, à†Ï†ÈÄÈÏ, ÇÈ%Ä Ï†Ï%°, ÇÓ, †Ï áÄÏ†Ï%ÈÏ, ÇÓ , Ä, ÈÏ, èÓ ÛÛ, †ÏÈÏ, èÈÏ, †ÖÛ , Ï†ÈÏ†Ï%, ÏÈÏÏÏ%ÈÏ, ò, ÄÈ°† ÈÏ, ò, Ä°ÈÏ, èÏÖ, †^Ï†Ï èÄÖÖÛ·ÏÈÏ†, óÄ°ÖÏ†Ï èÄÖÖÛ·ÏÈÏ† È% . ÖÛ †Ï°

## èÈÖÛÄÏ† PAL-M Ä †ÄÈÏÈÏ

## èÈÖÛÄÏ† PAL-N Ä „ÄÏÛÈÏ†, è† †, „, †È, Ï Û, „, †È

## èÈÖÛÄÏ† NTSC Ä†, †ÏÖÏÈÄ èÓÛ Ó, †, ÄÓÏÈ, ÈÏ, ÇÄÏÄÖÛ°Ï†, à†Ï†%†, áÓÏÏÏ·ÈÏ, áÓ ÄÏ, áÄÏÖÈÏ†, èÄ Û, èÛ ÈÏ†Ï, èòÄ, Ï†È, †Ï, , ÏÈÏÈÖÖÈÏ°, ÏÄÏÛ †Ï, Ï†ÏÄÏÄ ÈÏ†, óÈÏÈ, ùÏ, †%Ó , ùÏ†ÈÏ†, ùÖÖÏÈÏ È% . ÖÛ †Ï°

## èÈÖÛÄÏ† SECAM ÄÓÏ, † ÈÏ, ÇÄÏ, ÈÏ, È†È†Ï†, à †Ï, à †Ï, áÓÏ†ÏÓ, èÓÏ, °†, èÓÖÖÈÏ, ÏÏ †ÈÏ†, Ï †ÏÈÏ È% . ÖÛ †Ï°

# Trouble check

If you run into any problem using the camcorder, use the following table to troubleshoot the problem. Should the difficulty persist, disconnect the power source and contact your Sony dealer or local authorized Sony service facility.

## Camcorder

### Power

Symptom	Cause and/or corrective actions
The power is not on.	<ul style="list-style-type: none"> <li>• The battery pack is not installed.               <ul style="list-style-type: none"> <li>▫ Install the battery pack. (p. 7)</li> </ul> </li> <li>• The battery is dead.               <ul style="list-style-type: none"> <li>▫ Use a charged battery pack. (p. 7)</li> </ul> </li> <li>• The AC power adaptor is not connected to mains.               <ul style="list-style-type: none"> <li>▫ Connect the AC power adaptor to mains. (p. 27)</li> </ul> </li> </ul>
The power goes off.	<ul style="list-style-type: none"> <li>• While being operated in CAMERA mode, the camcorder has been in Standby mode for more than 5 minutes.               <ul style="list-style-type: none"> <li>▫ Set the POWER switch to OFF, then to CAMERA. (p. 13)</li> </ul> </li> <li>• The battery is dead.               <ul style="list-style-type: none"> <li>▫ Use a charged battery pack. (p. 7)</li> </ul> </li> </ul>
The battery pack is quickly discharged.	<ul style="list-style-type: none"> <li>• The ambient temperature is too low. (p. 83)</li> <li>• The battery pack has not been charged fully.               <ul style="list-style-type: none"> <li>▫ Charge the battery pack again. (p. 7)</li> </ul> </li> <li>• The battery pack is completely dead, and cannot be recharged.               <ul style="list-style-type: none"> <li>▫ Use another battery pack. (p. 27)</li> </ul> </li> </ul>

### Operation

Symptom	Cause and/or corrective actions
START/STOP does not operate.	<ul style="list-style-type: none"> <li>• The tape is stuck to the drum.               <ul style="list-style-type: none"> <li>▫ Eject the tape. (p. 11)</li> </ul> </li> <li>• The tape has run out.               <ul style="list-style-type: none"> <li>▫ Rewind the tape or use a new one. (p. 23)</li> </ul> </li> <li>• The POWER switch is set to VTR.               <ul style="list-style-type: none"> <li>▫ Set it to CAMERA. (p. 12)</li> </ul> </li> <li>• The tab on the cassette is out (red).               <ul style="list-style-type: none"> <li>▫ Use a new tape or slide the tab. (p. 11)</li> </ul> </li> </ul>
The cassette cannot be removed from the holder.	<ul style="list-style-type: none"> <li>• The battery is dead.               <ul style="list-style-type: none"> <li>▫ Use a charged battery pack or the AC power adaptor. (p. 7, 27)</li> </ul> </li> </ul>
{ and 6 indicators flash and no function except for cassette ejection works.	<ul style="list-style-type: none"> <li>• Moisture condensation has occurred.               <ul style="list-style-type: none"> <li>▫ Remove the cassette and leave the camcorder for at least 1 hour. (p. 89)</li> </ul> </li> </ul>
“CLOCK SET” appears when the camcorder is turned on.	<ul style="list-style-type: none"> <li>• Reset the date and time. (p. 81)</li> </ul>
The End Search function does not activate.	<ul style="list-style-type: none"> <li>• The cassette was ejected after you recorded on it.               <ul style="list-style-type: none"> <li>▫ The End Search function will not activate until you make a new recording after reinserting the cassette.</li> </ul> </li> <li>• The tape without cassette memory ejected after recording.</li> </ul>

Continued to the next page

## Operation

Symptom	Cause and/or corrective actions
The tape does not move when a tape transport button is pressed.	<ul style="list-style-type: none"> <li>• The POWER switch is set to CAMERA or OFF. m Set it to VTR. (p. 23)</li> <li>• The tape has run out. m Rewind the tape or use a new one. (p. 23)</li> </ul>
No sound or only a low sound is heard when playing back a tape.	<ul style="list-style-type: none"> <li>• The volume is turned to the minimum. m Open the LCD panel and press VOLUME +. (p. 23)</li> <li>• AUDIO MIX is set to ST2 side in the menu system. m Adjust AUDIO MIX in the menu system (p. 69).</li> </ul>
The new sound added to the recorded tape is not heard.	<ul style="list-style-type: none"> <li>• AUDIO MIX is set to ST1 side in the menu system. m Adjust AUDIO MIX in the menu system (p. 69).</li> </ul>
The SteadyShot function does not activate.	<ul style="list-style-type: none"> <li>• STEADYSHOT is set to OFF in the menu system. m Set it to ON. (p. 29)</li> </ul>
Recording stops at once.	<ul style="list-style-type: none"> <li>• The POWER switch is set to PHOTO. m Set it to CAMERA. (p. 12)</li> </ul>
Recording stops in a few seconds.	<ul style="list-style-type: none"> <li>• The START/STOP MODE switch is set to 5SEC or <math>\perp</math> ANTI GROUND SHOOTING. m Set it to <math>\perp</math>. (p. 16)</li> </ul>
The autofocus function does not activate.	<ul style="list-style-type: none"> <li>• Focus is set to the manual mode. m Set it to autofocus. (p. 44)</li> <li>• Shooting conditions are not suitable for autofocus. m Set focus to manual mode to focus manually. (p. 44)</li> </ul>
The fader function does not work.	<ul style="list-style-type: none"> <li>• The START/STOP MODE switch is set to 5SEC or <math>\perp</math> ANTI GROUND SHOOTING. m Set it to <math>\perp</math>. (p. 16)</li> </ul>
The title is not displayed.	<ul style="list-style-type: none"> <li>• TITLE DSPL is set to OFF in the menu system. m Set it to ON in the menu system. (p. 29)</li> </ul>
The title is not recorded.	<ul style="list-style-type: none"> <li>• The tape has no cassette memory. m Use a tape with cassette memory. (p. 70)</li> <li>• The cassette memory is full. m Erase another title. (p. 73)</li> <li>• The tape is set to prevent accidental erasure. m Slide the protect tab so that red portion is not visible. (p. 72)</li> <li>• The fader function is working. m Wait until the fader function is finished. (p. 35)</li> <li>• Nothing is recorded in that position on the tape. m Superimpose the title to the recorded position. (p. 72)</li> </ul>
The cassette label is not recorded.	<ul style="list-style-type: none"> <li>• The tape has no cassette memory. m Use a tape with cassette memory. (p. 76)</li> <li>• The cassette memory is full. m Erase some titles. (p. 76)</li> <li>• The tape is set to prevent accidental erasure. m Slide the protect tab so that red portion is not visible. (p. 76)</li> </ul>
Displaying the recorded date, date search function does not work.	<ul style="list-style-type: none"> <li>• The tape has no cassette memory. m Use a tape with cassette memory. (p. 52)</li> <li>• CM SEARCH is set to OFF in the menu system. m Set it to ON. (p. 52)</li> </ul>

## Trouble check

### Operation

Symptom	Cause and/or corrective actions
The title search function does not work.	<ul style="list-style-type: none"><li>• The tape has no cassette memory.<ul style="list-style-type: none"><li>m Use a tape with cassette memory. (p. 57)</li></ul></li><li>• CM SEARCH is set to OFF in the menu system.<ul style="list-style-type: none"><li>m Set it to ON. (p. 56)</li></ul></li><li>• There is no title in the tape.<ul style="list-style-type: none"><li>m Superimpose the titles. (p. 70)</li></ul></li></ul>
<b>C/I</b> indicator does not appear when using a tape with cassette memory.	<ul style="list-style-type: none"><li>• The gold-plated connector of the tape is dirty or dusty.<ul style="list-style-type: none"><li>m Clean the gold-plated connector. (p. 79)</li></ul></li></ul>

### Picture

Symptom	Cause and/or corrective actions
The image on the viewfinder screen is not clear.	<ul style="list-style-type: none"><li>• The viewfinder lens is not adjusted.<ul style="list-style-type: none"><li>m Adjust the viewfinder lens. (p. 13)</li></ul></li></ul>
A vertical band appears when a subject such as lights or a candle flame is shot against a dark background.	<ul style="list-style-type: none"><li>• The contrast between the subject and background is too high. The camcorder is not malfunctioning.<ul style="list-style-type: none"><li>m Change locations.</li></ul></li></ul>
The picture is "noisy" or does not appear.	<ul style="list-style-type: none"><li>• The video heads may be dirty.<ul style="list-style-type: none"><li>m Clean the heads using the Sony DVM12CL (not supplied) cleaning cassette. (p. 90)</li></ul></li></ul>
$\surd$ indicator flashes on the LCD screen or in the viewfinder.	<ul style="list-style-type: none"><li>• The video heads may be dirty.<ul style="list-style-type: none"><li>m Clean the heads using the Sony DVM12CL (not supplied) cleaning cassette. (p. 90)</li></ul></li></ul>
The picture is too bright or too dark.	<ul style="list-style-type: none"><li>• LCD BRIGHT is not adjusted properly.<ul style="list-style-type: none"><li>m Press + or - to obtain the brightness you want. (p. 17, 23)</li></ul></li></ul>
A vertical band appears when shooting a very bright subject.	<ul style="list-style-type: none"><li>• The camcorder is not malfunctioning.</li></ul>
The picture does not appear on the LCD screen or in the viewfinder.	<ul style="list-style-type: none"><li>• Incorporated fluorescent tube is worn out.<ul style="list-style-type: none"><li>m Please contact your nearest Sony dealer.</li></ul></li></ul>
The picture does not appear in the viewfinder.	<ul style="list-style-type: none"><li>• If VF PW-SAVE is set to ON in the menu system, the picture disappears automatically when you turn your face away from the viewfinder.<ul style="list-style-type: none"><li>m Bring your face close to the viewfinder within 1 cm (1/2 inch). Or, set VF PW-SAVE to OFF. (p. 31)</li></ul></li><li>• The LCD panel is open.<ul style="list-style-type: none"><li>m Close the LCD panel.</li></ul></li></ul>
The picture in the viewfinder does not disappear even VF PW-SAVE is set to OFF in the menu system.	<ul style="list-style-type: none"><li>• Sunlight or the incandescent lamp may prevent the viewfinder sensor from working correctly. This is not a malfunction.</li></ul>
An unknown picture is displayed in the viewfinder or on the LCD screen.	<ul style="list-style-type: none"><li>• If 10 minutes elapse after you set the POWER switch to CAMERA without inserting a cassette, the camcorder automatically starts the demonstration or DEMO is set to ON in the menu system.<ul style="list-style-type: none"><li>m Insert the cassette and the demonstration stops. You can deactivate the demonstration. (p. 117)</li></ul></li></ul>

Continued to the next page

## Trouble check

### Others

Symptom	Cause and/or corrective actions
While editing using the DV connecting cable, recording picture cannot be monitored.	<ul style="list-style-type: none"><li>• Remove the DV connecting cable, and connect it again.</li></ul>
The camcorder becomes warm.	<ul style="list-style-type: none"><li>• If the power of the camcorder is on for a long time, it becomes warm, which is not malfunction.</li></ul>
The supplied Remote Commander does not work.	<ul style="list-style-type: none"><li>• Something is blocking the infrared rays.<ul style="list-style-type: none"><li>m Remove the obstacle.</li></ul></li><li>• The battery is not inserted with the correct polarity.<ul style="list-style-type: none"><li>m Insert the battery with the correct polarity. (p. 114)</li></ul></li><li>• The batteries are dead.<ul style="list-style-type: none"><li>m Insert new ones. (p. 114)</li></ul></li></ul>
No function works though the power is on.	<ul style="list-style-type: none"><li>• Disconnect the connection plug on the battery pack or on the AC power adaptor, then reconnect it in about 1 minute. Turn the power on. If the functions still do not work, open the LCD screen and press the RESET button above the FOCUS switch using a sharp-pointed object. (If you press the RESET button, all the settings including the date and time return to the default.) (p. 81)</li></ul>
The numbers or letters of 5 characters is displayed as a counter.	<ul style="list-style-type: none"><li>• Self-diagnosis function was activated.<ul style="list-style-type: none"><li>m See the table in page 100 and treat the camcorder appropriately.</li></ul></li></ul>

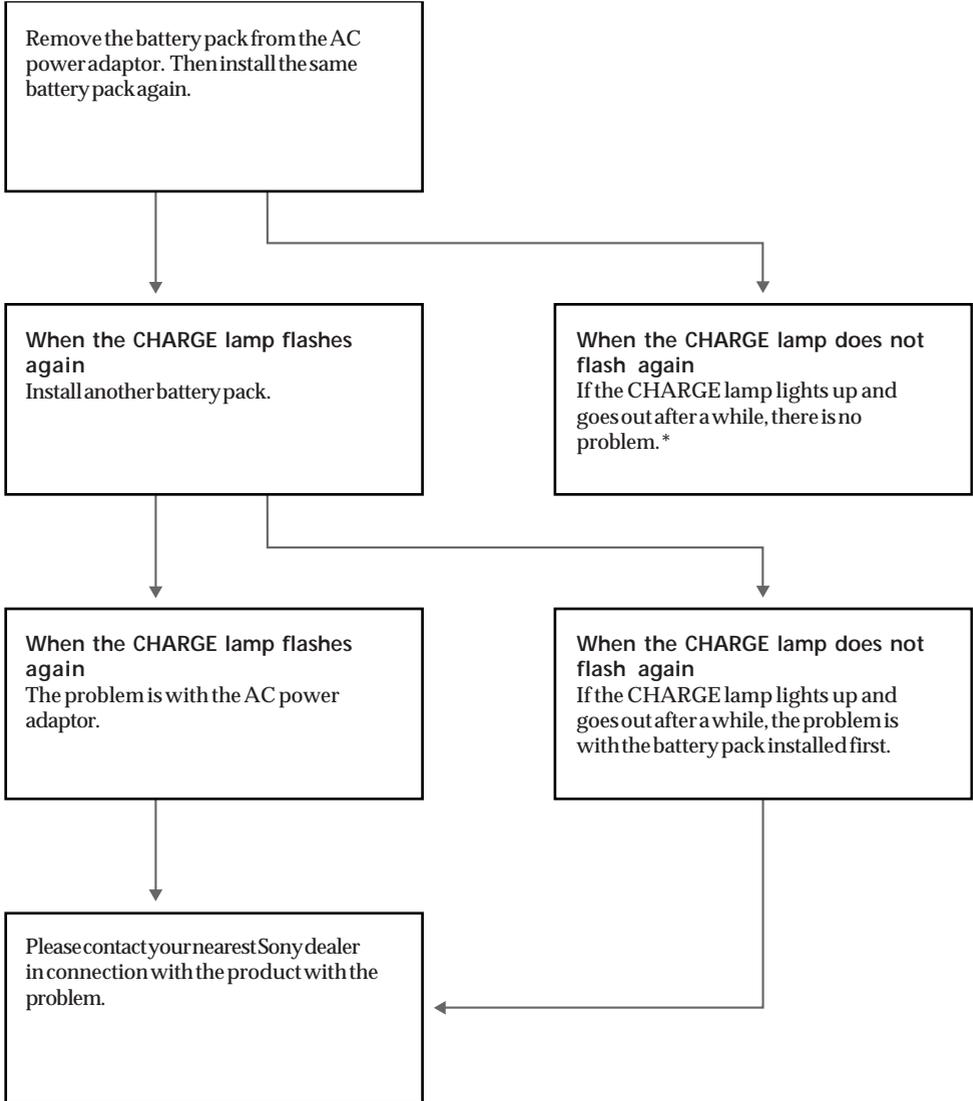
### AC power adaptor

Symptom	Corrective actions
The VTR/CAMERA or CHARGE lamp does not light.	<ul style="list-style-type: none"><li>• Disconnect the mains lead. After about 1 minute, reconnect the mains lead. (p. 7)</li></ul>
The CHARGE lamp flashes.	<ul style="list-style-type: none"><li>• See the chart on the next page.</li></ul>

# Trouble check

## When the CHARGE lamp flashes

Check through the following chart.

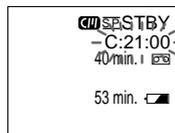


\* If you use a battery pack which you have just bought or which has been left unused for a long time, the CHARGE lamp may flash at the first charging. This does not indicate a problem. Repeat again to charge with same battery pack.

## Trouble check

### Self-diagnosis function

In the self-diagnosis function works to prevent the camcorder from malfunctioning, a five-digit service number (combination of a letter and figures) flashes in the viewfinder or on the LCD screen. In this case, check the following table.



First three digits	Cause and/or Corrective Action
C21	<ul style="list-style-type: none"><li>Moisture condensation has occurred.<ul style="list-style-type: none"><li>Remove the cassette and leave the camcorder for at least 1 hour. (p. 89)</li></ul></li></ul>
C22	<ul style="list-style-type: none"><li>The video heads are dirty.<ul style="list-style-type: none"><li>Clean the heads using the Sony DVM12CL cleaning cassette (not supplied). (p. 90)</li></ul></li></ul>
C23	<ul style="list-style-type: none"><li>The camcorder does not operate when using a battery pack that is not an "InfoLITHIUM" battery pack.<ul style="list-style-type: none"><li>Use an "InfoLITHIUM" battery pack. (p. 7)</li></ul></li></ul>
C31	<ul style="list-style-type: none"><li>To prevent the camcorder from malfunctioning, the self-diagnosis function has worked.<ul style="list-style-type: none"><li>Remove the cassette and insert it again, then operate the camcorder. (p. 11)</li></ul></li></ul>
C32	<ul style="list-style-type: none"><li>To prevent the camcorder from operating malfunctioning, the self-diagnosis function has worked.<ul style="list-style-type: none"><li>Disconnect the mains lead of the AC power adaptor or remove the battery pack. After reinstalling the power source, operate the camcorder.</li></ul></li></ul>
E61 E62	<ul style="list-style-type: none"><li>To prevent the camcorder from malfunctioning, the self-diagnosis function has worked.<ul style="list-style-type: none"><li>When you contact your Sony dealer or local authorized Sony service facility, inform the service number with five digits. (example: E:61:10)</li></ul></li></ul>

If a difficulty persists after checking the problem a few times, contact your Sony dealer or local authorized Sony service facility.

# ι̂ο̂υ̂ † ι̂α̂ι̂ε̂α̂ ι̂α̂ο̂ο̂ι̂ † %ο̂ί̂

ο̂ο̂ι̂ε̂ϋ̂ϋ̂ϋ̂, ο̂α̂ι̂ε̂ι̂ε̂ ι̂†ι̂ε̂α̂-ι̂ε̂.ο̂ ο̂. ι̂α̂ι̂. ο̂ ε̂~ι̂ο̂ο̂ι̂ϋ̂†:~ε̂ε̂, ε̂ε̂α̂ο̂ι̂†ι̂α̂, , ο̂ο̂ο̂ο̂ι̂ α̂υ̂ε̂υ̂α̂ο̂. %ι̂η, , ι̂α̂ι̂ε̂η ε̂ϋ̂ο̂υ̂ †ι̂α̂ι̂ε̂η ε̂ι̂ ο̂ ε̂~ε̂ι̂ ο̂ ε̂, α̂ε̂α̂ι̂ο̂ε̂ ι̂ε̂ε̂α̂ϋ̂. ι̂ε̂~α̂ε̂. ο̂ο̂ι̂ε̂ α̂~ε̂υ̂, ο̂ ο̂. ι̂α̂ι̂ϋ̂ ι̂α̂ ϋ̂ε̂†α̂ϋ̂ο̂η, ο̂ι̂ι̂. ~ε̂υ̂α̂ †ο̂ο̂: †ϋ̂ ο̂υ̂ ο̂α̂υ̂ε̂ ε̂ ο̂, η̂ε̂ε̂υ̂α̂ο̂, ο̂. ι̂ε̂ε̂†ε̂~ε̂ι̂ε̂ε̂ι̂α̂ ο̂ι̂ϋ̂ε̂ ι̂~ Sony ε̂ι̂ε̂ ο̂α̂~ε̂†ι̂ε̂α̂ε̂ ο̂, †ι̂ο̂ε̂ ι̂†ο̂υ̂α̂ ο̂ι̂ο̂ε̂ ο̂ α̂ι̂ο̂ι̂ϋ̂ ο̂ ο̂~υ̂ι̂~ε̂ε̂ Sony.

## ϋ̂ε̂ε̂α̂ο̂ι̂†ι̂α̂ †

### ε̂ε̂ϋ̂†ι̂ε̂α̂

ε̂ε̂ι̂ο̂ο̂ο̂ι̂ \* ε̂ ε̂~ε̂ι̂ \* ε̂/ε̂ι̂ε̂ %α̂ε̂ε̂ο̂υ̂, ε̂η ο̂ο̂ϋ̂ο̂υ̂ †ι̂α̂ι̂ε̂.

ϋ̂α̂, ι̂ι̂. ~†α̂ϋ̂ο̂η ο̂ε̂ϋ̂†ι̂ε̂α̂  

- ϋ̂α̂ ο̂ο̂υ̂†ι̂ο̂, ι̂α̂ι̂† †ι̂ο̂ι̂ο̂ηηο̂ο̂ ι̂†η. †ϋ̂† α̂η. η ι̂ο̂υ̂†ι̂ο̂, ε̂υ̂α̂ †ι̂ο̂ι̂ο̂ηηο̂ο̂ ι̂ϋ̂. †ϋ̂† α̂. (ο̂υ̂ . 7).
- α̂†ϋ̂† α̂η †α̂ η̂ε̂α̂ι̂†.
- η α̂ο̂ο̂ο̂ι̂ α̂υ̂ε̂α̂α̂† η̂ε̂α̂ι̂ϋ̂. †ϋ̂† α̂. (ο̂υ̂ . 7).
- α̂ε̂†ο̂υ̂α̂ ο̂α̂υ̂α̂, ο̂, ο̂ ο̂ε̂ϋ̂†ι̂ε̂η ι̂α̂ ο̂ο̂ε̂.ι̂ι̂. ~α̂ι̂ ι̂ ο̂α̂υ̂ε̂. η ε̂ο̂ε̂.ι̂ι̂. ~ε̂υ̂α̂ †ε̂†ο̂υ̂α̂ ο̂α̂υ̂α̂, ο̂, ο̂ ο̂ε̂ϋ̂†ι̂ε̂η ι̂ ο̂α̂υ̂ε̂ (ο̂υ̂ . 27).

ε̂ε̂ϋ̂†ι̂ε̂α̂ ο̂†ι̂ο̂ ο̂ε̂α̂, ο̂ι̂. ι̂ο̂ ο̂ο̂ι̂ι̂. ~†α̂ϋ̂ο̂η  

- ε̂†.ο̂ο̂†η, α̂ε̂ε̂ι̂α̂ camera, , ε̂ε̂α̂ο̂ι̂†ι̂α̂ †~ι̂† ο̂ο̂υ̂†, ι̂α̂ι̂†, ο̂ο̂ο̂ο̂ηηε̂ε̂ ο̂ε̂ε̂†ι̂ε̂η ι̂†~ι̂† α̂†ο̂ε̂ο̂ε̂.ο̂ι̂. ~α̂, ~α̂ι̂ ι̂† 5 ι̂ε̂ι̂ο̂υ̂. η ε̂α̂ α̂, α̂ε̂ε̂υ̂α̂ ο̂α̂ α̂ι̂ι̂. ~†ϋ̂α̂ι̂, power, ο̂ο̂ι̂ο̂ε̂α̂ι̂ε̂α̂ off, † α̂†ϋ̂α̂ι̂, ι̂ο̂, , ο̂ο̂ι̂ο̂ε̂α̂ι̂ε̂α̂ camera (ο̂υ̂ . 13).
- α̂†ϋ̂† α̂η †α̂ η̂ε̂α̂ι̂†.
- η α̂ο̂ο̂ο̂ι̂ α̂υ̂ε̂α̂α̂† η̂ε̂α̂ι̂ϋ̂. †ϋ̂† α̂. (ο̂υ̂ . 7).

α̂†ϋ̂† α̂η †α̂ η̂ε̂†α̂ϋ̂ο̂η ο̂ι̂ε̂~ι̂ο̂ι̂ ~.ο̂υ̂ ο̂  

- ε̂ι̂ε̂~ι̂ο̂ι̂ ι̂ε̂α̂ι̂ηϋ̂α̂ι̂ο̂α̂ †ϋ̂ †, ο̂α̂ε̂ϋ̂† (ο̂υ̂ . 83).
- α̂†ϋ̂† α̂η α̂† η̂ε̂α̂ι̂† ι̂α̂ ο̂ο̂ι̂ο̂ο̂υ̂, . . η ε̂α̂ α̂α̂† η̂ε̂ε̂υ̂α̂. †ϋ̂† α̂. (ο̂υ̂ . 7)
- ε̂ ο̂ι̂ ο̂ι̂ο̂ε̂.~. †ϋ̂† α̂ε̂α̂†ι̂ο̂ι̂~ε̂ι̂ο̂η, ε̂ ο̂ι̂†.ο̂ι̂. ~α̂ ι̂α̂ ο̂ο̂ε̂α̂† η̂ε̂†α̂ϋ̂ο̂η. η α̂ο̂ο̂ο̂ι̂, α̂υ̂ε̂α̂ε̂ ϋ̂, ϋ̂. †ϋ̂† α̂. (ο̂υ̂ . 27).

### ϋ̂ι̂ο̂ο̂ι̂ϋ̂†ϋ̂†~ε̂η

ε̂ε̂ι̂ο̂ο̂ο̂ι̂ \* ε̂ ε̂~ε̂ι̂ \* ε̂/ε̂ι̂ε̂ %α̂ε̂ε̂ο̂υ̂, ε̂η ο̂ο̂ϋ̂ο̂υ̂ †ι̂α̂ι̂ε̂.

ϋ̂α̂ †.ο̂υ̂†α̂ϋ̂ ι̂ι̂ο̂ο̂ι̂† start/stop  

- ϋ̂ε̂ε̂α̂ο̂ι̂α̂ι̂ϋ̂ ο̂ ε̂ι̂ε̂ο̂ι̂† ι̂. † †.†ι̂ϋ̂. η α̂α̂, ι̂α̂ι̂ε̂υ̂α̂ ι̂†ο̂α̂ϋ̂ο̂υ̂ (ο̂υ̂ . 11).
- α̂α̂ι̂ϋ̂†, ι̂†ο̂α̂ϋ̂α̂ α̂†ι̂ο̂ι̂~ε̂ι̂†ο̂. . η ε̂α̂ α̂ι̂ο̂υ̂ε̂υ̂α̂ ι̂α̂ι̂ϋ̂ ε̂ι̂ε̂ϋ̂ο̂υ̂†ι̂ο̂, ε̂υ̂α̂ ι̂ο̂, ι̂†ο̂α̂ϋ̂ο̂υ̂ (ο̂υ̂ . 23).
- ε̂α̂ α̂ι̂ι̂. ~†ϋ̂α̂ι̂, power ι̂†ι̂ο̂ε̂ε̂ϋ̂ο̂η, ο̂ο̂ι̂ο̂ε̂α̂ι̂ε̂ε̂ vtr. η ι̂ο̂υ̂†ι̂ο̂, ε̂υ̂α̂ ο̂α̂ α̂ι̂ι̂. ~†ϋ̂α̂ι̂, , ο̂ο̂ι̂ο̂ε̂α̂ι̂ε̂α̂ camera (ο̂υ̂ . 12).
- ϋ̂† ι̂†ο̂α̂ϋ̂α̂ ο̂ε̂, ε̂ι̂ο̂υ̂† α̂†~ε̂ϋ̂ι̂†η α̂†ε̂, ε̂ε̂ι̂† (, ε̂ε̂ι̂† ι̂ †ο̂ι̂†η ο̂ι̂†ο̂ε̂ι̂†). η α̂ο̂ο̂ο̂ι̂, α̂υ̂ε̂α̂ε̂ ϋ̂, ϋ̂. ι̂†ο̂α̂ϋ̂α̂ ε̂ι̂ε̂ ο̂α̂ α̂ε̂, ε̂ι̂.ϋ̂α̂ α̂ε̂, ε̂ε̂ι̂ϋ̂ (ο̂υ̂ . 11).

α̂†ο̂α̂ϋ̂† ι̂α̂ ε̂α̂, ι̂α̂ι̂†α̂ϋ̂ο̂η ε̂α̂ ι̂†ο̂α̂ϋ̂ο̂υ̂ ε̂α̂ι̂ε̂ι̂†  

- α̂†ϋ̂† α̂η †α̂ η̂ε̂α̂ι̂†.
- η α̂ο̂ο̂ο̂ι̂ α̂υ̂ε̂α̂α̂† η̂ε̂α̂ι̂ϋ̂. †ϋ̂† α̂. ε̂ι̂ε̂ †ε̂†ο̂υ̂α̂ ο̂α̂υ̂α̂, ο̂, ο̂ ο̂ε̂ϋ̂†ι̂ε̂η (ο̂υ̂ . 7, 27).

α̂ε̂, †.ϋ̂ ε̂ι̂ε̂ε̂ι̂†ϋ̂ο̂ { ε̂ 6, † ε̂α̂ ϋ̂ο̂ι̂~ε̂ε̂, ε̂ε̂α̂ο̂ι̂†ι̂α̂ †.ο̂υ̂†α̂ϋ̂ ϋ̂ο̂ι̂, ι̂ο̂ ο̂ε̂ο̂υ̂α̂ι̂† ε̂α̂, ι̂α̂~α̂ι̂ε̂η ι̂†ο̂α̂ϋ̂\*  

- ε̂ ο̂ε̂α̂ο̂~ι̂† ι̂ο̂ι̂ε̂α̂ι̂ο̂~ε̂η, ι̂†, ε̂ε̂. η α̂α̂, ι̂α̂ι̂ε̂υ̂α̂ ι̂†ο̂α̂ϋ̂ο̂υ̂ ε̂ ι̂α̂ ο̂ο̂ι̂, α̂υ̂ε̂α̂ο̂, , ε̂ε̂α̂ο̂ι̂†ι̂α̂ ο̂ε̂, ϋ̂α̂~α̂ι̂ε̂α̂ ο̂ ε̂ι̂α̂ ι̂ο̂ε̂.ι̂ο̂, ο̂~†ο̂† (ο̂υ̂ . 89).

ε̂ ε̂, ι̂ι̂. ~α̂ι̂ε̂ε̂, ε̂ε̂α̂ο̂ι̂†ι̂α̂ † ο̂ο̂η, η̂α̂ϋ̂ο̂η ι̂†ε̂ο̂ε̂ο̂, "clock set"

ϋ̂α̂, ι̂ι̂. ~†α̂ϋ̂ο̂η ϋ̂ο̂ι̂ι̂~ε̂η ο̂ο̂ε̂ο̂ι̂† ι̂ο̂ι̂~† α̂†ο̂ε̂ο̂ε̂  

- ε̂ο̂ο̂ι̂α̂ ο̂. α̂ι̂ε̂ ι̂†ο̂α̂ϋ̂†. ~ι̂† ε̂α̂, ι̂α̂~α̂ι̂† ε̂α̂, ε̂ε̂α̂ο̂ι̂†ι̂α̂ †. η ε̂ο̂ε̂ο̂ι̂ ο̂ι̂~† α̂†ο̂ε̂ο̂ε̂ ι̂α̂, ι̂ι̂. ~†α̂ϋ̂ο̂η %ο̂ϋ̂α̂ ο̂ο̂, ο̂ο̂ι̂†ϋ̂ ο̂ο̂ο̂ι̂α̂ ε̂α̂, ι̂α̂~α̂ι̂ε̂η ι̂†ο̂α̂ϋ̂† ι̂α̂ ο̂ε̂α̂ι̂†α̂ϋ̂α̂ ι̂† ι̂α̂ε̂ ι̂ο̂, ϋ̂. α̂†ο̂ε̂ο̂ε̂. . η α̂†ο̂α̂ϋ̂†, ι̂α̂ ε̂ι̂â. ~†η̂ ι̂α̂ι̂ϋ̂ ο̂ι̂ο̂ε̂ο̂†η̂η̂ε̂. ~ι̂† ε̂α̂, ι̂α̂~α̂ι̂† ο̂ο̂ο̂ι̂α̂ ο̂. α̂ι̂ε̂ε̂.
- α̂†ο̂α̂ϋ̂†, ι̂α̂ ε̂ι̂â. ~†η̂ ι̂α̂ι̂ϋ̂ ο̂ι̂ο̂ε̂ο̂†η̂η̂ε̂. ~ι̂† ε̂α̂, ι̂α̂~α̂ι̂† ο̂ο̂ο̂ι̂α̂ ο̂. α̂ι̂ε̂ε̂.

Additional Information / Νοοο̂ι̂ε̂υ̂α̂ι̂. ι̂†η̂ ε̂ι̂ο̂ε̂ ι̂†~ε̂η



υΪΟΟΪΨ+Ψ+^ΕΪ

εΪΪΟΪΨ*	ε Ξ~ΕΪ* Ε/ΕΪΕ %ΑΕΟΨ, ΕΗ ΟΟ ΨΟΨ †ΙΑΪΕ.
<p>ϘΑ, , , Ο%ΕΨΟΗ Ϊ† ~Ϊ †Ϊ%+Ψ+                  ΟΪΑΪΕ Ε ΪΑ †. ΟΨ+ΑΨ ΟΟΕΟΪ ΟΟ                  %+ΨΑ</p>	<ul style="list-style-type: none"> <li>• ä+ΟΔΑΨ+ ΙΑ ΟΟΪ†~ΑΪ† ~ΪΑΪΨ ΟΪΙΟΕ Ο+ΪΗΨ. .                      m äΟΟΪ ΑΨΕΨΑ Ϊ+ΟΔΑΨΟ ~ΪΑΪΨ ΟΪΙΟΕ Ο+ΪΗΨ. . (ΟΨ . 52).</li> <li>• è† †ΪΑΨ CM SEARCH , ΪΑΪ. Ο† †ΪΑΨ Ο, ΨΟΨ+ΪΟ, ΪΑΪ ,                      ΟΟΑΕ~Ε. OFF.                      m èÀ Á, Α%ΕΨΑ Á, , ΟΟΑΕ~Ε. ON. (ΟΨ . 52).</li> </ul>
<p>ϘΑ †. ΟΨ+ΑΨ ΨΨΪΪ^ΕΗ ΟΟΕΟΪ† ΟΟ                  ΨΕΨ Ψ</p>	<ul style="list-style-type: none"> <li>• ä+ΟΔΑΨ+ ΙΑ ΟΟΪ†~ΑΪ† ~ΪΑΪΨ ΟΪΙΟΕ Ο+ΪΗΨ. .                      m äΟΟΪ ΑΨΕΨΑ Ϊ+ΟΔΑΨΟ ~ΪΑΪΨ ΟΪΙΟΕ Ο+ΪΗΨ. . (ΟΨ . 57).</li> <li>• è† †ΪΑΨ CM SEARCH , ΪΑΪ. Ο† †ΪΑΨ Ο, ΨΟΨ+ΪΟ, ΪΑΪ ,                      ΟΟΑΕ~Ε. OFF.                      m èÀ Á, Α%ΕΨΑ Á, , ΟΟΑΕ~Ε. ON. (ΟΨ . 56).</li> <li>• Ϙ†, Ε%ΑΟΪ†ΟΔΑΨΑ ΪΑΨ ΨΕΨ Ο, .                      m Ϙ†ΪΟΕΕΨΑ ΨΕΨ * (ΟΨ . 70).</li> </ul>
<p>ε ΞΨΟΨ+ΪΟ, ΪΑ Ϊ+ΟΔΑΨ* Ο                  ~ΪΑΪΨ ΟΪΙΟΕ Ο+ΪΗΨ. . ΪΑ                  ΟΟΗ, ΪΗΑΨΟΗ ΕΪ%ΕΪ+ΨΟ <b>CM</b></p>	<ul style="list-style-type: none"> <li>• äΪΑ. ~ †ΗΟΗ Ϊ† Ϊ+ΟΔΑΨΑ ΪΟΪΨ+ΪΨΪ†Η ΟΪ†ΟΨΕΪΪ† Ο ΑΟΪΟΨ* Ϊ                      ΟΟΪ ΨΕΑΪ Α†ΟΪ ΪΕΪ†Ο, ΕΪΕ Α†, ΗΑΪΕΪ†Ο. .                      m ε~ΕΨΕΨΑ ΪΟΪΨ+ΪΨΪ. ΟΪ†ΟΨΕΪΪΨ (ΟΨ . 79).</li> </ul>

αΑΟ. †ΕΑΪΕΑ

εΪΪΟΪΨ*	ε Ξ~ΕΪ* Ε/ΕΪΕ %ΑΕΟΨ, ΕΗ ΟΟ ΨΟΨ †ΙΑΪΕ.
<p>ϘΑ~ΑΨΪΟΑ ΕΑΟ. †ΕΑΪΕΑ , ΟΪΙΑ                  , Ε%ΟΕΟΪ+ΨΑΪΗ</p>	<ul style="list-style-type: none"> <li>• ϘΑ ΟΨ Á, ΨΪΕ Ο, †ΪΟΪΨΗ, Ε%ΟΕΟΪ+ΨΑΪΗ.                      m εΨ Á, ΨΪΕ ΨΕΨΑΪΟΪΨΗ (ΟΨ . 13).</li> </ul>
<p>ε ΞΟΪΑΪΑ ΕΟΨΟ~ΪΕΪΟ, Ο, ΑΨ†                  (Ϊ†ΪΟ, Ο, Α~Ε) Ϊ† ΕΑΟ. †ΕΑΪΕΕ                  ΟΟΗ, ΪΗΑΨΟΗ, Á ΨΕΪ†Ϊ, Ϊ†Η ΟΟΪΟΟ†</p>	<ul style="list-style-type: none"> <li>• èΪΕ-ΪΟΪ, ΑΪΕΪ ΪΟΪΨ †ΟΨ ΪΑΕ%ΨΟ. ~ΑΪΨΟΪ Ο~ΑΪΪΕ Ε                      ΨΟΪΟΪ. ä+ΪΑ † ΨΨΪΪ~ΕΟΪΕ ΨΑΨ ΪΟ Ϊ†Ϊ, ΪΟ.                      m äΑΪΑΪΕΨΑ †Ψ Ο.</li> </ul>
<p>αΑΟ. †ΕΑΪΕΑ ΟΨΟΨΟΨ, ΨΑΨ ΕΪΕ Ϊ†                  ΪΑΪ ΕΪΑ, ΨΟΗ ΟΟΪΑΪΕ</p>	<ul style="list-style-type: none"> <li>• ϘΟΑΪΟΒΪΟ, Α†, ΗΑΪΑΪ*, Ε%ΑΟ, ΟΪΟ, ΪΕ.                      m ε~ΕΨΕΨΑ „ΟΪΟ, ΪΕ Ο Ε ΟΟΪΟ~Ε ~ΕΨΗ~ΑΕ Ϊ+ΟΔΑΨ* Sony                      DVML2CL ( , ΪΟΪΟΪΑΪΨ ΪΑ, ΪΟ%ΕΨ) (ΟΨ . 90).</li> </ul>
<p>Ϙ† ΕΕ%ΪΟΪ ΕΟΨ+ΪΪΕ~ΑΟΪΟΪ ~Ϊ †ΪΑ                  ΕΪΕ, ΟΪΙΑ, Ε%ΟΕΟΪ+ΨΑΪΗ ΪΕ, †ΑΨ                  ΕΪ%ΕΪ+ΨΟ v</p>	<ul style="list-style-type: none"> <li>• ϘΟΑΪΟΒΪΟ, Α†, ΗΑΪΑΪ*, Ε%ΑΟ, ΟΪΟ, ΪΕ.                      m ε~ΕΨΕΨΑ „ΟΪΟ, ΪΕ Ο Ε ΟΟΪΟ~Ε ~ΕΨΗ~ΑΕ Ϊ+ΟΔΑΨ* Sony                      DVML2CL ( , ΪΟΪΟΪΑΪΨ ΪΑ, ΪΟ%ΕΨ) (ΟΨ . 90).</li> </ul>
<p>αΑΟ. †ΕΑΪΕΑ ΟΪΕ~ΪΟΪ ΪΗ ΪΟΑ ΕΪΕ                  ΟΪΕ~ΪΟΪ ΨΑΪΪΟΑ</p>	<ul style="list-style-type: none"> <li>• ϘΑΟ †, ΕΪΪ, ΪΟ ΟΨ Á, ΨΪΕ Ο, †Ϊ Ο† †ΪΑΨ LCD BRIGHT.                      m εΨ Á, ΨΪΕ ΨΕΨΑΪΗ ΪΟΟΨ, ΪΪΟΟΪ†ΪΕ+ΕΪΕ- (ΟΨ . 17, 23).</li> </ul>
<p>ε ΞΟ~ΑΪΪΑ ΪΗ ΪΟ ΟΟ, Α~ΑΪΪ* Ϊ                  Ο Α%ΪΑΨΟ, ΟΟΗ, ΪΗΑΨΟΗ                  , Á ΨΕΪ†Ϊ, Ϊ†Η ΟΟΪΟΟ†</p>	<ul style="list-style-type: none"> <li>• ä+ΪΑ † ΨΨΪΪ~ΕΟΪΕ ΨΑΨ ΪΟ Ϊ†Ϊ, ΪΟ.</li> </ul>
<p>ϘΑΨ ΕΑΟ. †ΕΑΪΕΗ Ϊ†                  ΕΕ%ΪΟΪ ΕΟΨ+ΪΪΕ~ΑΟΪΟΪ ~Ϊ †ΪΑ                  ΕΪΕ, ΟΪΙΑ, Ε%ΟΕΟΪ+ΨΑΪΗ</p>	<ul style="list-style-type: none"> <li>• ä+ΪΟΪ~ΕΪΟΗ Ο ΪΪ ΟΪΨΕ. * , ΟΨ ΟΑΪΪΟΕ ΨΪ, Ο ΑΟ~Ε Ψ. ~ΑΕ                      Ψ Ψ~ΪΕ.                      m è ΟΟ. †, †, ΗΑ†Ψ, ΟΗ Ο. ΪΕΕ†Ε~ΕΪ %ΕΪΑ ΟΪ ΨΕ Ϊ* Sony.</li> </ul>
<p>ϘΑΨ ΕΑΟ. †ΕΑΪΕΗ, ΟΪΙΑ                  , Ε%ΟΕΟΪ+ΨΑΪΗ</p>	<ul style="list-style-type: none"> <li>• ΟΪΕ Ο† †ΪΑΨ VF PW-SAVE , ΪΑΪ. Ο† †ΪΑΨ Ο,                      ΨΟΨ+ΪΟ, ΪΑΪ , ΟΟΪΟΕΑΪΕΑ ON, ΨΟ Ο Ε ΟΨ%†ΪΑΪΕΕ                      , Ε%ΟΕΟΪ+ΨΑΪΗ ΟΨ , Ϊ†Α ΕΑΟ. †ΕΑΪΕΑ , ΪΑΪ †, ΨΟΪ+ΨΕ~ΑΟΪΕ                      ΕΟ~ΑΑ+ΑΨ.                      m è Ε~ΪΕΑ, ΨΑ, Ε%ΟΕΟΪ+ΨΑΪ Ϊ ΪΕ~Ψ Ϊ† †ΟΨΟΗΪΕΑ ΪΑ~ΟΪΑΑ                      1 ΟΪ ΪΪΕ ΨΟΨ+ΪΟ, ΕΨΑ Ο† †ΪΑΨ VF PW-SAVE , ΟΟΑΕ~Ε.                      OFF (ΟΨ . 31).</li> <li>• ΨΕ%ΪΟΪ ΕΟΨ+ΪΪΕ~ΑΟΪ+ΪΗ Ο+ΪΑΪ. ΪΑ Α†Ϊ Ψ†.                      m ä†Ϊ ΟΕΨΑ ΕΕ%ΪΟΪ ΕΟΨ+ΪΪΕ~ΑΟΪΨ. Ο+ΪΑΪ. .</li> </ul>

ε Ο%ΟΪΕΑΪΕΑ Ϊ† ΟΪΑ%Ψ. ~ΑΕ ΟΨ †ΪΕ~Α



ÒÒÌÈ ÌÈ,,†ÁÛ Í†ÌÓÓ~Í† CHARGE,  
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ã†ÌÓÓ~Í† CHARGE ÓÄ ÄÒÚ†ÁÛ  
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ÒÒÌÈ Ì†ÌÓÓ~Í† CHARGE  
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ã†ÌÓÓ~Í† CHARGE ÓÄ ÄÒÚ†ÁÛ  
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.ÌÈÈ†È ÄÌÛ %ÈÍÄ Û ÙÈ Ì Sony.

\* ä È ÓÄ, ÓÌ Ä† ÌÈ†ÌÈÈ,ÌÓ,, Ó ÈÓ. ÄÚÄÌÒÈ †ÍÍÒÌÛÍÍÓ ÌÓÈ.†Ú† ÄÈÈÈÈ.†Ú† ÄÈ, ÍÓÓÓ ÓÈ ÌÄ  
ÓÓÌ.ÄÓ,†ÌÈÒ, %ÓÌ,ÓÄ, ÄÌÌ, Í†ÌÓÓ~Í† CHARGE ÍÓÈÄÚ Ì†~†Ú, ÌÈ,,†Ú. . ùÓÓ ÌÄ Ì, ÌÄÚÓÈÒ Ó ÈÄÌ†ÍÓÌ  
ÌÄÈÒÓ †,ÌÓÓÚÈ. èó,ÚÓ ÈÚÄ ÄÍÍÄ† ÌÈÈÚ†ÍÓÈ †ÍÍÒÌÛÍÍÓ ÌÓÈ.†Ú† ÄÈ.



# Specifications

## Video camera recorder

### System

#### Video recording system

Two rotary heads, Helical scanning system

#### Audio recording system

Rotary heads, PCM system

Quantization: 12bits (Fs 32kHz, stereo 1, stereo 2), 16bits (Fs 48kHz, stereo)

#### Video signal

PAL colour, CCIR standards

#### Usable cassette

Mini DV cassette with logo printed

#### Tape speed

SP: Approx. 18.83 mm/s

LP: Approx. 12.57 mm/s

#### Recording/playback time

SP mode: 1 hour (DVM60)

LP mode: 1.5 hours (DVM60)

#### Fastforward/rewind time

Approx. 2 min. 30 s (DVM60) (using with battery pack)

Approx. 1 min. 45 s (DVM60) (using with AC power adaptor)

#### Image device

CCD (Charge Coupled Device 1/3")

#### Viewfinder

Electric viewfinder (colour)

#### Lens

Combined power zoom lens, 120x

(Digital), 10x (Optical)

#### Focal distance

f = 4.0 to 40 mm

(38 to 380 mm when converted into a 35 mm still camera)

F 1.8 - 2.6

TTL autofocus system inner focus

wide macro system

#### Colour temperature

Auto

#### Minimum illumination

3 lux at F 1.8

#### Illumination range

3 to 100,000 lux

#### Recommended illumination

More than 100 lux

### LCD screen

#### Picture

4 inches measured diagonally

80.7 x 58.9 mm

#### On-screen display

TN LCD/TFT active matrix method

#### Total dot number

112,086 (479 x 234)

### Input and output connectors

#### S video output

4-pin mini DIN

Luminance signal: 1 Vp-p, 75 ohms, unbalanced, sync negative

Chrominance signal: 0.3 Vp-p, 75 ohms, unbalanced

#### Audio/Video output

Special minijack, 1 Vp-p, 75 ohms, unbalanced, sync negative  
327 mV, (at output impedance more than 47 kilohms)

Output impedance with less than 2.2 kilohms/Stereo minijack (ø 3.5 mm)

#### DV input/output

4-pin special connector

#### Headphones jack

Stereo mini jack (ø 3.5 mm)

#### MIC input

Stereo minijack (ø 3.5mm):0.388mV, DC2.5V

Input impedance 6.8 kilohms

#### 1 LANC jack

Stereo miniminijack (ø 2.5 mm)

#### Speaker

Dynamic-speaker

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#### Video/audio

IR space transmission system according to EIAJ (Electric Industries Association of Japan) standards

#### Audio carrier wave

Lch : 4.3MHz

Rch : 4.8MHz

### General

#### Power requirements

7.2 V (battery insertion input)

#### Average power consumption

4.4 W during camera recording using viewfinder

5.8 W during camera recording using LCD screen

#### Operating temperature

0°C to 40°C (32°F to 104°F)

#### Storage temperature

-20°C to 60°C (-4°F to 140°F)

#### Dimensions

Approx. 96 x 109 x 183mm (w/h/d)

#### Mass

Approx.840g excluding the battery pack and the cassette

Approx. 960g including the battery pack NP-F530, lithium battery and cassette DVM60

Approx. 1.1kg including the battery pack NP-F730, lithium battery and cassette DVM60

Approx. 1.2kg including the battery pack NP-F930, lithium battery and cassette DVM60

#### Microphone

Electret condenser microphone,

Stereo type

#### Supplied accessories

See page 6.

### AC power adaptor

#### Power requirements

110 to 240 V AC, 50/60 Hz

#### Power consumption

25 W

#### Output voltage

DC OUT: 8.4 V, 1.8 A in operating mode

Battery charge terminal: 8.4 V, 1.4 A in charge mode

#### Application

Sony battery pack NP-F530, NP-F730, NP-F930 lithium ion type

#### Operating temperature

0°C to 40°C (32°F to 104°F)

#### Storage temperature

-20°C to 60°C (-4°F to 140°F)

#### Dimensions (Approx.)

57 x 44 x 107 mm (w/h/d)

#### Mass (Approx.)

190 g

Design and specifications are subject to change without notice.

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75 eI, IA0 +I+I0E 0,+II^E  
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IAIOA +U0 +^f00f0+U+^EE  
0U 0C%0 40°C (32°F - 104°F)  
IAIOA +U0 +1 +IAIEN  
0U -20°C%0 60°C (-4°F - 140°F)  
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eí0f0 840 ,.AA +fI0f0fH00 IOE  
~+U+ AE E,E%AOÍ+00A0  
eí0f0 960 , 0 +fI0f0fH00 IOE  
~+U+ AAENP-F530, IEUEA,0E  
~+U+ AEIOE E,E%AOÍ+00A0UE  
DVM60  
eí0f0 1,1 f, 0 +fI0f0fH00 IOE  
~+U+ AAENP-F730, IEUEA,0E  
~+U+ AEIOE E,E%AOÍ+00A0UE  
DVM60  
eí0f0 1,2 f, 0 +fI0f0fH00 IOE  
~+U+ AAENP-F930, IEUEA,0E  
~+U+ AEIOE E,E%AOÍ+00A0UE  
DVM60  
aEí 000I  
UIAIU AIU^E IOI%AI0+00 I^E  
00A AOIEI 000I  
a0f0fAIU+^EN  
eI.00 .6.

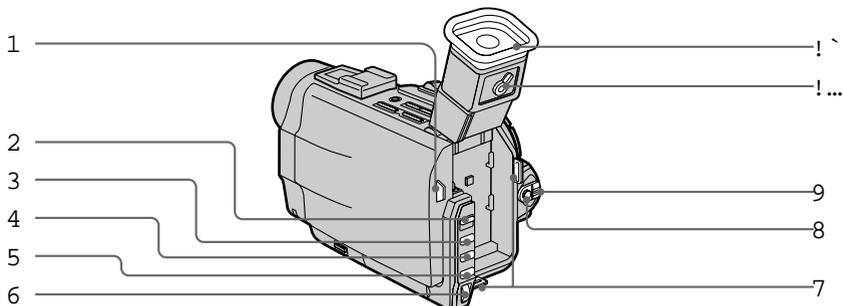
### A%+0UA 0AUA,0,0 0EU+IEfl

e+0~AA I+0 NEEAIEA  
110-240 C OA AIAI0,0U0f+,  
50/60 E^  
e0U A.fHAI+H IO~IO0U,  
25 C  
C^10%IOA I+0 NEEAIEA  
DC OUT: 8,4 C, 1,8 A, +0~AI  
AEEIA  
á+ N%IOA 00U 0B0U,0: 8,4 C, 1,4 A  
, AEEIA A+ flE+IEN  
á+ N%+AI^A +U+ AE  
a0f0f-IEUEA,^A +fI0f0fH00 I^A  
~+U+ AE Sony NP-F530, NP-F730 E  
NP-F930  
IAIOA +U0 +^f00f0+U+^EE  
0U 0C%0 40°C (32°F - 104°F)  
IAIOA +U0 +1 +IAIEN  
0U -20°C%0 60°C (-4°F - 140°F)  
E+~E U^ (0 E.fEAEUAI,IO)  
57 x 44 x 107 II (%/^)  
á+00+ (0 E.fEAEUAI,IO)  
190 ,

a0f00 UI^EN E UAI.E~AOIEA  
I+ +IUA E0EIE IO,0U^U,  
EAIATAI: .AA 000,A~AIEN.

# Identifying the parts

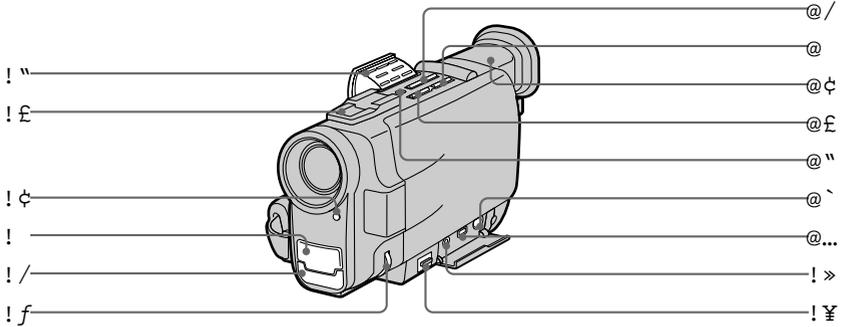
ÿÿ†Á†ÚÂÎ,  
†ÒÒÓÍÓÊÂÏËfl %ÂÛ†ÎÂË



- 1 PUSH/OPEN button (p. 17)
- 2 AUTO LOCK switch (p. 43, 47)
- 3 EXPOSURE button (p. 47)
- 4 PROGRAM AE button (p. 43)
- 5 PICTURE EFFECT button (p. 40)
- 6 CONTROL dial (p. 29)
- 7 Hook for shoulder strap (p. 115)
- 8 START/STOP button (p. 12)
- 9 POWER switch (p. 12, 23)
- 0 Viewfinder lens adjustment lever (p. 13)
- !` Eyecup (p. 21)

- 1 äÿóóÍ† PUSH/OPEN (òú . 17)
- 2 äÿóóÍ† AUTO LOCK (òú . 43, 47)
- 3 äÿóóÍ† EXPOSURE (òú . 47)
- 4 äÿóóÍ† PROGRAM AE (òú . 43)
- 5 äÿóóÍ† PICTURE EFFECT (òú . 40)
- 6 êÛÍÓÍÚÍ† CONTROL (òú . 29)
- 7 ÿ-Íó%Îfl ÔÎÂ~Â, Ó„ó Âÿfl (òú . 115)
- 8 äÿóóÍ† START/STOP (òú . 12)
- 9 èÂ ÂÿÎ, ~†ÚÂÎ, POWER (òú . 12, 23)
- 0 ê~†ÊÓÍ Óó%òú ÓËË ÓÍÛfl † (òú . 13)
- !` ç†ò†%Í† ÓÍÛfl † (òú . 21)

Additional Information / NOÖÍËÛÂÎ, Îfl ÊÛÓ Í†Êfl



! " **Tape transport buttons** (p. 23)  
 p **STOP** (stop)  
 0 **REW** (rewind)  
 ( **PLAY** (playback)  
 ) **FF** (fastforward)  
 p **PAUSE** (pause)  
 r **REC** (record)  
**AUDIO DUB**

! f **Intelligent Accessory shoe**

! ç **Recording lamp**

! ∞ **Microphone**

! / **Remote sensor** (p. 23) / **IR emitter** (p. 51)

! f **Focus dial** (p. 45)

! % **FOCUS switch** (p. 45)

! » **AUDIO/VIDEO OUT jack** (p. 50, 65)

@... **DV IN OUT jack** (p. 64)

@ ` **S VIDEO OUT jack** (p. 38, 50, 65)

@ " **LASER LINK button** (p. 51)

@ f **FADER button** (p. 34)

@ ç **Viewfinder** (p. 13)

@ ∞ **BACKLIGHT button** (p. 36)

@ / **EDITSEARCH button** (p. 22)

! " **äîôíë ûô †, îâîëñ % , ëêâîëâî îâîú`**  
 (õú . 23)  
 p **STOP** (óôú+îò, í†)  
 0 **REW** (ôâ âîóúí+ î+â+%)  
 ( **PLAY**(,óôò óëâ, â%âîëâ)  
 ) **FF** (ôâ âîóúí†, ôâ â%)  
 p **PAUSE** (ô+ûâ†)  
 r **REC** (á+ôëò, )  
**AUDIO DUB**

! f **äòíú+íúî+ñ ãî† %îñ óó%íî, ~âîëñ**  
 ôâ ëÛâ ëëî`\_1 úòú óëòú,

! ç **ëë, î+î, î+ñ î+îóó~í† á+ôëòë**

! ∞ **ãëí óúòì**

! / **ëâîòó %ëòú+î`ëòîìó, óúò †îâîëñ (õú .**  
 23) / **ëîú †í †òî`ëëâîú~+úâî, (õú . 51)**

! f **ëúíóñúí† î†, ó%íë î† ááíóóú, (õú . 45)**

! % **ëâ áíî, ~+úâî, FOCUS (õú . 45)**

! » **ëîââ%ó AUDIO/VIDEO OUT (õú . 50, 65)**

@... **ëîââ%ó DV OUT (õú . 64)**

@ ` **ëîââ%ó S VIDEO (õú . 38, 50, 65)**

@ " **äîòóí† LASER LINK (õú . 51)**

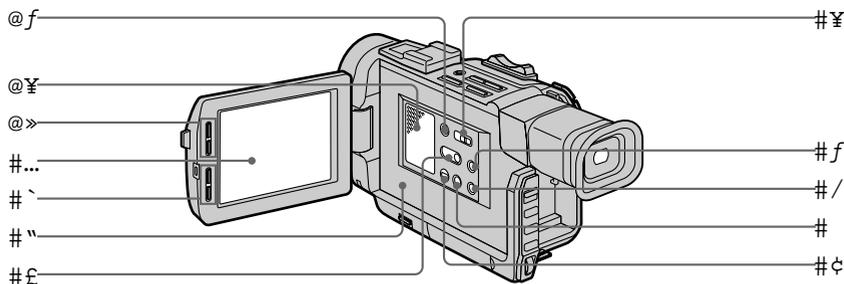
@ f **äîòóí† FADER (õú . 34)**

@ ç **çë%óëòí+úâî, (õú . 13)**

@ ∞ **äîòóí† BACKLIGHT (õú . 36)**

@ / **äîòóí† EDITSEARCH (õú . 22)**

# Identifying the parts



@f DISPLAY button (p. 24)

@¥ Speaker

@» LCD BRIGHT button (p. 17, 23)

#... LCD Screen (p. 17, 23)

# ` VOLUME button (p. 23)

# ` RESET button (p. 98)

# £ DATA CODE button (p. 63)

# / 16:9 WIDE button (p. 41)

# ∞ END SEARCH button (p. 22)

# / TITLE button (p. 70, 74)

# f MENU button (p. 29)

# ¥ START/STOP MODE switch (p. 16)

@f äìóóí† DISPLAY (òú . 24)

@¥ é óííó, „ó, ó éúâî,

@» äìóóí† LCD BRIGHT (òú . 17, 23)

#... üè%íóí èòú†íîè~âòíèè ~í †ì  
(òú . 17, 23)

# ` äìóóí† VOLUME (òú . 23)

# ` äìóóí† RESET (òú . 104)

# £ äìóóí† DATA CODE (òú . 63)

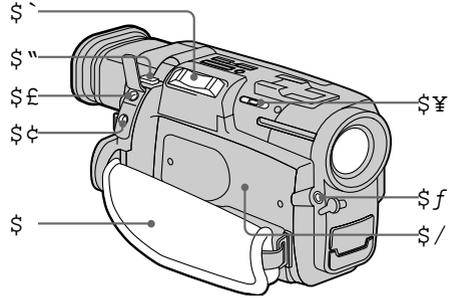
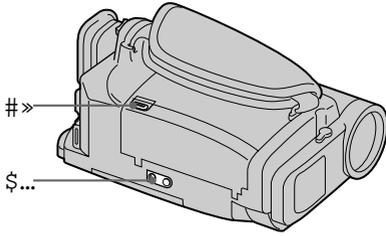
# / äìóóí† 16:9 WIDE (òú . 41)

# ∞ äìóóí† END SEARCH (òú . 22)

# / äìóóí† TITLE (òú . 70, 74)

# f äìóóí† MENU (òú . 29)

# ¥ èâ âíî, ~†úâî, START/STOP MODE  
(òú . 16)



#» OPEN/EJECT lever (p. 11)

#» ê`†ÊÓÍ OPEN/EJECT (ÔÛ . 11)

\$... Tripod receptacle (p. 21)

\$... ä ÂÔÎÂÎËÄ Ú†ÚË, † (ÔÛ . 21)  
ëÍÂ%ËÛÄ Á+ ÚÁÎ, ~ÚÓ· %ÍËÎ+ Í ÂÔÂËÎÓ, Ó  
, ÈÛ† · ·Í+ ÍÂÎÄÄ 6, 5 ÍÍ. Ç Ó ÓÚË, ÍÓÍ  
ÔÏÛ†Á Í ÂÔÎÂÎËÄ ·Ú%ÁÛ ÍÂÎ+ÂËÎ·Í, †  
, ÈÛ ÍÓËÄÛ ÓÓ, Â%ËÛ, È%ÁÓÍ+ÎÄ Û.

Make sure that the length of the tripod screw is less than 6.5mm. Otherwise, you cannot attach the tripod securely and the screw may damage the camcorder.

\$` Zoom lever (p. 15)

\$` ê`†ÊÓÍ ÚÔ †, ÍÂÎËŒ Ú †ÌÒÚÓÍ+ÚÓ ÓÍ (ÔÛ . 15)

\$" BATT(battery) RELEASE button (p. 10)

\$" äÍÔÓÍ† BATT RELEASE (ÓÚÓÓÄ%ËÎÂÎËÄ †ÍÛÏÛÍŒÚÓ ÍÔË·Ú† ÄË) (ÔÛ . 10)

\$£ LANC 1 control jack

1 stands for Local Application Control Bus System. The 1 control jack is used for controlling the tape transport of video equipment and peripherals connected to it. This jack has the same function as the jack indicated as CONTROL L or REMOTE.

\$£ ÈÍÄÄ%Ó ÚÔ , ÍÂÎËŒ LANC 1  
1 ÍÓ, ÓÚËÒ ëËÓÛÁÍ· ÚÔ †, ÍÂÎËŒ  
ÔÄ ÈÛÄ ÈËÎ·ËË ÚÔÛ ÒËÓÛ, †ËË (Local  
Application Control Bus System). ÈÍÄÄ%ÓÍ  
ËÓÓÓÍ, ÁÚÁÚÓŒ%ÎŒ ÚÔ †, ÍÂÎËŒ%, ÈËÂÎËÄÍ  
ÍÂÎÛ· , È%ÁÓ+ÔÔ† †ÚÓ Ä È †·ÓÓË  
ÔÓ%ÍÍ. ~ÂÎÛ· Í ÍÄË %ÓÓÓÍËËÛÁÍ, Ì·  
ÚÔÛ ÒËÓÛ, . Ò, Ó ÚÏÍÍ·ÈË Ì+ÍÍÓ, È·Ì·  
ÚÛÍÍ·ËŒÍ „ÍÄÄ%†, Ó·ÓÁÍ+~ÂÎÍÓ, Ó  
CONTROL L ÈËË REMOTE.

\$¢ 2 headphones jack (p. 24)

\$¢ 2 ÈÍÄÄ%Ó %ÎŒ ÔÓ%ÍÍ. ~ÂÎËŒ Ì+Û·ËËÍÓ, (ÔÛ . 24)

\$∞ Grip strap (p. 20)

\$∞ ëÛ·ÍÔË ÄÍÄÌ, (ÔÛ . 20)

\$/ Cassette compartment (p. 11)

\$/ ä+ÔÔÁÛÓÓ ÈÄÎËËÍ (ÔÛ . 11)

\$f MIC jack (PLUG IN POWER) (p. 68)

Connect an external microphone (not supplied). This jack also accepts a "plug-in-power" microphone.

\$f ÈÍÄÄ%Ó %ÎŒ ÔÓ%ÍÍ. ~ÂÎËŒ ËËÍ ÓÚÓÍ+  
MIC (PLUG IN POWER) (ÔÛ . 68)  
ä "ÚÓÍÛ „ÍÄÄ%Û ÓÓ%ÍÍ. ~†ÁÛÓŒ, ÍÄ·ËËË  
ËËÍ ÓÚÓÍ (, ÍÓÍÓÍÁÍÚ ÍÄ, 1Ó%ËÛ). Ñ+ËËÓÄ  
„ÍÄÄ%Ó Ú+ÍËÄ ÍÓËÄÛ òÏÛËËÛ, %ÎŒ  
ÔÓ%ÍÍ. ~ÂÎËŒ †ÍËÄ, ÌÓ, Ó ËËÍ ÓÚÓÍ+.

\$¥ Video control compartment OPENc switch (p. 23)

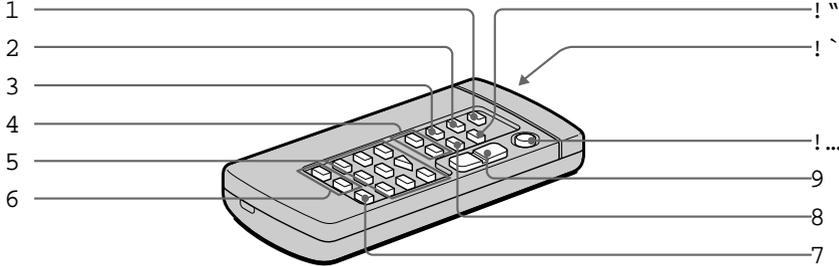
\$¥ ê`†ÊÓÍ OPENc %ÎŒ , \*%, ÈËÂÎËŒ  
·ÍÓÍ+ ÚÔ †, ÍÂÎËŒ, È%ÁÓÓ ÓÓÍÓÛ ÓÍ (ÔÛ . 23)

## Remote Commander

The buttons that have the same name on the Remote Commander as on the camcorder function identically.

èÛî, Û %ÈòÛ†ì`Èóììó,,ó  
Ûò †, îÁîÈñ

é%ìóÊîÁîì`Á îíóóíÈ ì†, È%Áóí†îÁ Á È  
òÛî, ÛÁ %ÈòÛ†ì`Èóììó,,ó Ûò †, îÁîÈñ  
Ûòîí`ÈóìÈ Û. Û ó%Èì†íó,,ó.



1 PHOTO button (p. 37)

1 äìóóí† PHOTO (òÛ . 37)

2 DISPLAY button (p. 24)

2 äìóóí† DISPLAY (òÛ . 24)

3 SEARCH MODE button (p. 52, 56, 58)

3 äìóóí† SEARCH MODE (òÛ . 52, 56, 58)

4 = /+ buttons (p. 52, 56, 58)

4 äìóóíÈ = /+ (òÛ . 52, 56, 58)

5 Tape transport buttons (p. 23)

5 äìóóíÈ Ûò †, îÁîÈñ %ÈÈÁîÈÁî îÁîÛ`  
(òÛ . 23)

6 REC button (p. 67)

6 äìóóíÈ REC (òÛ . 67)

7 AUDIO DUB button (p. 68)

7 äìóóí† AUDIO DUB (òÛ . 68)

8 DATA CODE button (p. 63)

8 äìóóí† DATA CODE (òÛ . 63)

9 Power zoom button (p. 15)

9 äìóóí† Ûò †, îÁîÈñ Û †ìòòóí†Ûó óí  
(òÛ . 15)

!... START/STOP button (p. 12)

!... äìóóí† START/STOP (òÛ . 12)

!` Transmitter

Point toward the remote sensor on the camcorder after turning on the camcorder.

!` ZERO SET MEMORY button (p. 62)

!` èÁ Á%+. `ÁÁ ÛòÛ óÈòÛ,ó  
Ñîñ Ûò †, îÁîÈñ, È%Áóí†îÁ óÈ, íî`ÈÛÁ  
ÁÁ È ì†ó †, ÛÁ ÓÁ Á%+. `ÁÁ ÛòÛ óÈòÛ,ó,  
òóó óíÛ %ÈòÛ†ì`Èóììó,,ó òÁîòó †.

!` äìóóí† ZERO SET MEMORY (òÛ . 62)

# Identifying the Parts

İİ+Ä+ÜÄİ, †ÖÖİÖÊÄİËİ  
 %ÄÜ+İÄÊ

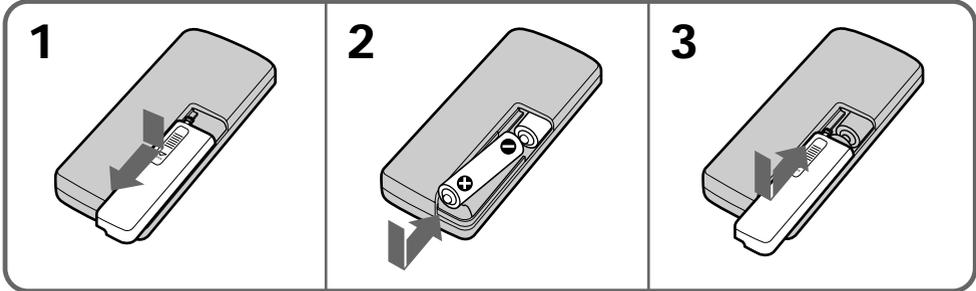
## To prepare the Remote Commander

To use the Remote Commander, you must insert two R6 (size AA) batteries. Use the supplied R6 (size AA) batteries.

- (1) Remove the battery cover from the Remote Commander.
- (2) Insert both of the R6 (size AA) batteries with correct polarity.
- (3) Put the battery cover back onto the Remote Commander.

èÖ%„ ÖÓÜ, İ† ÖÜİ, Ü† %ËÖÜ+İ^ÊÖİİÖ„ Ö  
 ÜÖ †, İÄİËİİ İ †. ÖÜÄ  
 è ÄÊ%Ä ~Äİ ÖÖİ, ÄÖ, †Ü. òİ ÖÜİ, ÜÖİ  
 %ËÖÜ+İ^ÊÖİİÖ„ ÖÜÖ †, İÄİËİ, , İÄ„ Ö  
 İÄÖ. İÖ%ËİÖ ÜÖÜ+İÖ, ÊÜ, %, Ä. †Ü† ÄÊİÊ R6  
 ( †ÄİÄ ÄÄ). Ä+Ü† ÄÊİÊ R6 ( †ÄİÄ ÄÄ)  
 Ö Êİ†„ †, ÜÖİ.

- (1) èİÊİÊÜÄ İ †. İÜ ÖÜ%ÄİÄİËİ %İİİ. †Ü† ÄÄİ  
 ÖÜİ, Ü† %ËÖÜ+İ^ÊÖİİÖ„ ÖÜÖ †, İÄİËİ.
- (2) èÖ. İ. %†İ ÖÖİİ İÖÖÜ, , ÜÖÜ+İÖ, ÊÜÄ Ö. Ä  
 . †Ü† ÄÊİÊ R6 ( †ÄİÄ ÄÄ).
- (3) İÖÜ+İÖ, ÊÜÄ İ† İÄÖÜÖ İ †. İÜ ÖÜ%ÄİÄİËİ  
 %İİİ. †Ü† ÄÄİ.



**Note on battery life**  
 The batteries for the Remote Commander last about 6 months under normal operation. When the batteries become weak or dead, the Remote Commander does not work.

**To avoid damage from possible battery leakage**  
 Remove the batteries when you will not use the Remote Commander for a long time.

è Öİ ÖİÜÊ. †. †Ü† ÄÄİ  
 è Ê İÖ İ†İ, İÖÊ ÈİÜÄİÖÊ, İÖÖÜÊ ÖÖİ, ÄÖ, †İËİ  
 ÖÜİ, ÜÖİ %ËÖÜ+İ^ÊÖİİÖ„ ÖÜÖ †, İÄİËİ. †Ü† ÄÄİ  
 ı, †Ü† ÄÜ Ö ÊİÄ İÖ İ† 6 İÄÖİ^Ä, . äÖ, %†  
 . †Ü† ÄÊİÊ İ† Êİ†. Ü Ö† %ËË, òİ ÊİÊ ÖÖİİÖÖÜ. .  
 †Ä İÊ†, ÜÖİ, ÖÖİ, Ü %ËÖÜ+İ^ÊÖİİÖ„ Ö  
 ÜÖ †, İÄİËİÖÄ ÄÖÜ+ÄÜ †. ÖÜ+Ü. .

è Ä%ÖÜ, †. ÄİÊÄ ÖÖ, ÄÊ%ÄİÊÊ,  
 , †Ä, †Äİ. İ Ö ÖÜÄİ+İÊÄİ. †Ü† ÄÄİ  
 ÖÖİÊ ç, , ÜÄ~ÄİÊÄ %İÊÜÄİ, İÖ„ Ö, ÄİÄİÊ İÄ  
 ÖÖ. È †ÄÜÄÖ, ÖÖİ, ÄÖ, †Ü. òİ ÖÜİ, ÜÖİ  
 %ËÖÜ+İ^ÊÖİİÖ„ ÖÜÖ †, İÄİËİ, ÊÄ, İÄİÊÜÄ ÊÄ  
 İÄ„ Ö. †Ü† ÄÊİÊ.

# Identifying the parts

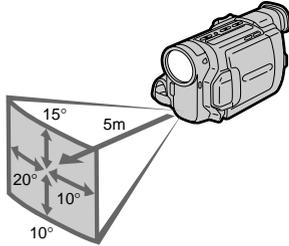
ìí†Á†ÚÁÎ, †òòóíóÉÁìÈñ  
%ÂÚ†ÎÁÈ

## Remote control direction

Aim the Remote Commander to the remote sensor.

The operative range of the Remote Commander is about 5 m (16.4 feet) indoors. Depending on the angle, the Remote Commander may not activate the camcorder.

ä†í òóî, Áó, †ú, ðñ òùî, úóí  
%Èòú†ì^Èóììò,,ò ùò †, îÁìÈñ  
èùî, ú%Èòú†ì^Èóììò,,ò ùò †, îÁìÈñ %óíÈÁì·ú,  
ì†ò †, îÁì, òóò óíú%Èòú†ì^Èóììò,,ò òÁìòò †.  
ÑÈòú†ì^ÈóììòÁ ùò †, îÁìÈÁ, Á†í ‘úóí  
òóíÁ^ÁìÈÈ ò·ÁòÁ^È, †Áúòñ ì† †òòòóñìÈÈ %ò 5  
îÁú ò. ‘ò,,ò ‘ùÁíúÈ, ìóóú, Á†, ÈòÈú óú ù,,ì†, òó%  
íóóó ‘ì òÈ,,ì†ì ò ÈìÈ††Áúòñ, È%Áó††Á òÈ.



## Notes on the Remote Commander

- Keep the remote sensor away from strong light sources such as direct sunlight or illumination. Otherwise, the remote control may not be effective.
- Be sure that there is no obstacle between the remote sensor on the camcorder and the Remote Commander.
- This camcorder works in commander mode VTR 2. The commander modes (1, 2 and 3) are used to distinguish this camcorder from other Sony VCRs to avoid remote control misoperation. If you use another Sony VCR in commander mode VTR 2, we recommend you change the commander mode or cover the remote sensor of the VCR with black paper.

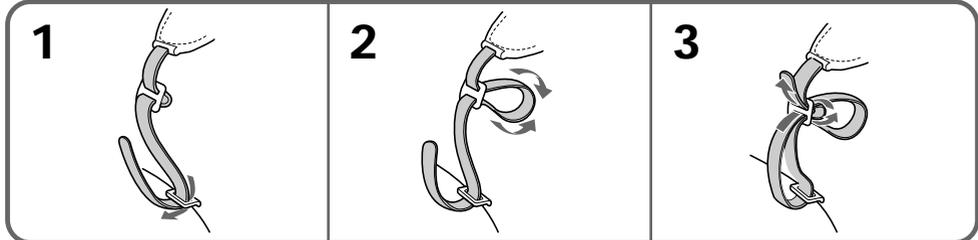
é òùî, úÁ %Èòú†ì^Èóììò,,ò ùò †, îÁìÈñ  
• ÑÁ ÈÈÚÁ òóí, ú%Èòú†ì^Èóììò,,ò ùò †, îÁìÈñ  
, %†ÈÈ óú òÈí, ì†·È Èòóó-ìÈòí, ò, Áú† (ò ñ†·Á  
òóíÁ^ì·Á ìú^È, ñ ìÈÁ ì†ìò^). ç ò óúÈ, ìóí  
òíú^†Á ‘ùÁíúÈ, ìóóú, %Èòú†ì^Èóììò,,ò  
ùò †, îÁìÈñ ìòÈÁú·ú, ì† ù·Áì†.  
• è†Á%ÈÚÁ Á† ÚÁì, ‘úó· ìÁÈ%ò òùî, úóí È  
%Èòú†ì^Èóììò ‘ì òÁìòò óí, È%Áó††Á ‘ì ÁÁ  
·‘íò ìÈ††Èì ò Áçñúóó, ÈÈ.  
• çÈ%Áó††Á † †·óú†Áú, ÁÈÈ†Á  
%Èòú†ì^Èóììò,,ò ùò †, îÁìÈñ VTR 2. è†ÁìÈ^ì·Á  
ÁÈÈ† %Èòú†ì^Èóììò,,ò ùò †, îÁìÈñ (1, 2 È 3)  
Èòóóí, Áú, ùòñ %ìñ ùó,,ò, ‘úó· óúÈ^†ú,  
ìóí†ì%’, ò %ì††Áì^Áìì·Á %ìñ, È%Áó††Á ‘,  
óú íóí†ì% ùò †, îÁìÈñ % ù,,òÈ  
, È%Áó††Á †úú òÈ Sony, ÈÁ·Á,,†ñ ÚÁì ò†ì·ì  
ò·óÁ,, †·óúÁ %Èòú†ì^Èóììò,,ò ùò †, îÁìÈñ.  
òóíÈ ù ç†ò úÈÁ Áóú, È%Áó††Á, ìÈúóóóí Sony,  
†·óú†, ÈÈ, ÁÈÈ†Á VTR 2, úó ÁíóíÁì%óÁì  
òÁ Áó ó,, †ìÈÈ ò,†ú, Á,,ò ì†% ù,,òÈ ÁÈÈÈ ÈÈÈ  
Á†í ‘ú, %Èòú†ì^Èóììò^È òÁìòò  
, È%Áó††Á, ìÈúóóóí†^Á ìòÈ·ùì†,,òÈ.

## Attaching the shoulder strap

Attach the supplied shoulder strap to the hooks for the shoulder strap .

è ÈòóÁ%ÈìÈÚÁ òìÁ^Á, ò,,ò Áììñ

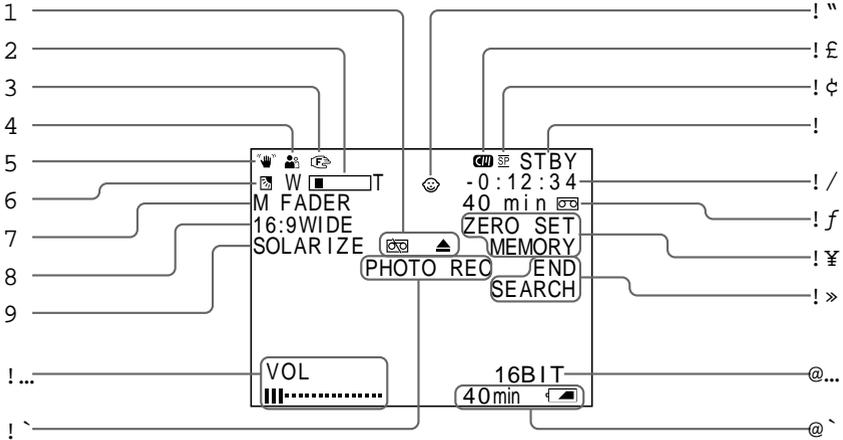
è ÈòóÁ%ÈìÈÚÁ ò Èì†,,†Áì^È òìÁ^Á, òÈ ÁìÁì,,  
Èòóóí, Áúñ ò %ì††Áì^Áìì·Á %ìñ ìÁ,,ò ù·ìÈ.



Additional Information / NOÖÍÈÚÁì, ì†ñ Èìòó ì†^Èñ

Operation indicators

îÛÎÍ^ÈÒÌ†Î, Ì·Â ÈÌ%ËÍ†ÚÓ °



- |      |   |      |   |
|------|---|------|---|
| 1    | Warning indicator (p. 118)  | 1    | è Â%ÔÓ ÂÊ%+, ~ÈÈ ÈÌ%ËÍ†ÚÓ (ÔÚ . 118)                                    |
| 2    | Zoom indicator (p. 15)  | 2    | àÌ%ËÍ†ÚÓ Ó È·ÌÈÈÂÎËfl/ÓÚ%+ÎÂÎËfl (ÔÚ . 15)                              |
| 3    | Manual focus/Infinity indicator (p. 45)                           | 3    | àÌ%ËÍ†ÚÓ Û~ÌÓÈ ÙÒÍÚÓÈ Ó, ÌÈ/ Ì†, Ó%ÌÈ ÙÒÍÚÓ† Ì†·ÂÓÍÓÎÂ~ÌÓÓÚ, (ÔÚ . 45)  |
| 4    | PROGRAM AE indicator (p. 43)                                      | 4    | àÌ%ËÍ†ÚÓ PROGRAM AE (ÔÚ . 43)   |
| 5    | SteadyShot indicator (p. 48)                                      | 5    | àÌ%ËÍ†ÚÓ ~ÎÂÍÚ ÓÌÌÒ„Ó ÓÚ†·ÈÌÈÁ†ÚÓ † Ì†% † (ÔÚ . 48)                     |
| 6    | BACK LIGHT indicator (p. 36)                                      | 6    | àÌ%ËÍ†ÚÓ BACK LIGHT (ÔÚ . 36)   |
| 7    | FADER indicator (p. 34)   | 7    | àÌ%ËÍ†ÚÓ FADER (ÔÚ . 34)  |
| 8    | 16:9 WIDE indicator (p. 41)                                       | 8    | àÌ%ËÍ†ÚÓ 16:9 WIDE (ÔÚ . 41)  |
| 9    | PICTURE EFFECT indicator (p. 40)                                  | 9    | àÌ%ËÍ†ÚÓ PICTURE EFFECT (ÔÚ . 40)                                       |
| 0    | BRT (bright) indicator (p. 17, 23)/VOL (volume) indicator (p. 23) | 0    | àÌ%ËÍ†ÚÓ BRT(fl ÍÓÓÚÈ) (ÔÚ . 17, 23)/ ÈÌ%ËÍ†ÚÓ VOL(„ ÓÍÍÓÓÚÈ) (ÔÚ . 23) |
| ! `  | Photo recording indicator (p. 37)                                 | ! `  | àÌ%ËÍ†ÚÓ , È%ÂÓÚÓÓÓ·ÂÎÈÈ (ÔÚ . 37)                                      |
| ! \" | Mirror mode indicator (p. 18)                                     | ! \" | àÌ%ËÍ†ÚÓ ÂÂ Í†Î, ÌÒ„Ó ÂÈÈÍ† (ÔÚ . 18)                                   |
| ! £  | Cassette Memory indicator (p. 4)                                  | ! £  | àÌ%ËÍ†ÚÓ Ó†ÎÎÚÈ Í†ÒÓÁÚ* (ÔÚ . 4)  |
| ! ¢  | Recording mode indicator (p. 13)                                  | ! ¢  | àÌ%ËÍ†ÚÓ ÂÈÈÍ† ò·ÂÍÈÈ (ÔÚ . 13)   |

# Identifying the parts

⏸, ⏮, ⏭, ⏪, ⏩, ⏹, ⏸, ⏮, ⏭, ⏪, ⏩, ⏹

⏸ Recording standby mode indicator (p. 13)/  
Tape transport mode indicator

⏮ / Time code indicator (p. 14)

⏭ Remaining tape indicator (p. 14)/Self-  
diagnosis function (p. 100)

⏹ ZERO SET MEMORY indicator (p. 62)/Photo  
capture indicator (p. 37)

⏸ Search mode indicator (p. 52, 56, 58)

⏮ Audio mode indicator (p. 78)

⏭ Remaining battery indicator (p. 84)/  
Remaining time in minutes indicator



## To watch the demonstration

You can watch a brief demonstration of pictures with special effects. If the demonstration appears when you turn on the camcorder for the first time, exit the Demo mode to use your camcorder.

### To enter demo mode

- (1) Eject the cassette and set the POWER switch to OFF.
- (2) While holding down ( ), set the POWER switch to CAMERA. The demonstration starts. The demonstration stops when you insert the cassette.

Note that once you enter Demo mode, this mode is retained as long as the vanadium rechargeable battery is in place. Therefore, demonstration starts automatically 10 minutes later every time you set the POWER switch to CAMERA, and after you eject the cassette.

### To exit demo mode

- (1) Set the POWER switch to OFF.
- (2) While holding down p , set the POWER switch to CAMERA.

⏸, ⏮, ⏭, ⏪, ⏩, ⏹, ⏸, ⏮, ⏭, ⏪, ⏩, ⏹

⏮ / ⏭, ⏪, ⏩, ⏹

⏹, ⏸, ⏮, ⏭, ⏪, ⏩, ⏹

⏸, ⏮, ⏭, ⏪, ⏩, ⏹

⏸, ⏮, ⏭, ⏪, ⏩, ⏹

⏮, ⏭, ⏪, ⏩, ⏹

⏸, ⏮, ⏭, ⏪, ⏩, ⏹



⏸, ⏮, ⏭, ⏪, ⏩, ⏹

⏸, ⏮, ⏭, ⏪, ⏩, ⏹

⏸, ⏮, ⏭, ⏪, ⏩, ⏹

⏸, ⏮, ⏭, ⏪, ⏩, ⏹

⏸, ⏮, ⏭, ⏪, ⏩, ⏹

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⏸, ⏮, ⏭, ⏪, ⏩, ⏹

⏸, ⏮, ⏭, ⏪, ⏩, ⏹

⏸, ⏮, ⏭, ⏪, ⏩, ⏹

⏸, ⏮, ⏭, ⏪, ⏩, ⏹

⏸, ⏮, ⏭, ⏪, ⏩, ⏹

⏸, ⏮, ⏭, ⏪, ⏩, ⏹

⏸, ⏮, ⏭, ⏪, ⏩, ⏹

# Warning indicators

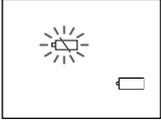
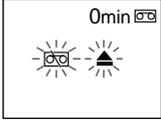
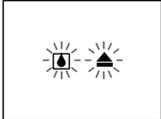
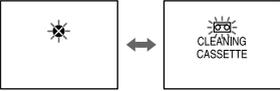
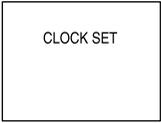
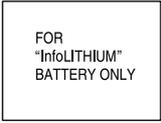
À Á Â Ã Ä Å Æ Ç È É Ê Ë Ì Í Î Ï Ñ Ò Ó Ô Õ Ö × Ø Ù Ú Û Ü Ý Þ ß à á â ã

If indicators flash on the LCD screen or in the viewfinder or warning messages appear on the display window, check the following:

♪: you can hear the beep sound when BEEP is set to ON in the menu system.

ÒÓÏÈ Ì: ÈÈ:ÍÓÍ ÈÓÙ:ííÈ~ÀÓÍÓÍ ~Í ÷ÌÀ ÈÍÈ , ÓÍÌÀ ,ÈÈ:ÓÈÓÍ:ÚÁÍñ ÓÓñ, íñ, ÙÓñ ÌÈ,, ÷. ~ÈÀ ÈÌ:ÈÍ:ÚÓ \* ÈÍÈ Ó ÀÈ:ÚÓ ÀÈ:÷. ~ÈÀ ÓÓÓ. ~ÀÌÈñ, , ÓÓÓÓÍ, ÁÙÈÚÁÒ, ÌÈÈÁÓÍÀÈ:Ú. ~ÈÈÈ ÓÓñÓÍÀÌÈñÈÈ.

♪: ÓÓÍÈ Ó: ÷ÌÁÚ BEEP, ÌÁÌ. Ó: ÷ÌÁÚ Ó, Ì:÷ÌÓÈÈÚÓñ, ÓÓÍÓÈÁÌÈÈ ON, Ç\* ÓÍ\* ÈÚÁ Á, ÙÍÓ, ÓÈ ÒÈ,, Ì:íí.

<p>1</p> 	<p>2</p> 	<p>3</p>  <p>♪...♪</p>
<p>4</p>  <p>♪...♪</p>	<p>5</p>  <p>♪...♪</p>	<p>6</p>  <p>♪...♪</p>
<p>7</p> 	<p>8</p> 	<p>9</p>  <p>♪...♪</p>
<p>!...</p> 	<p>!`</p> 	

- The battery is weak or dead.**  
Slow flashing: The battery is weak.  
Fast flashing: The battery is dead.  
Depending on conditions, the i indicator may flash, even if there are 5 to 10 minutes remaining.
- The tape is near the end.**  
The flashing is slow.
- The tape has run out.**  
The flashing becomes rapid.

- Á:Ú: Áñ Ò:ÈÈ:ÚÓñ ÈÍÈ ÷Á ñÈÁÌ: ÓÓÍÌÓÓÚ. . .  
áÀ:ÍÁÌÌÓÁ ÌÈ,, ÷ÌÈÁ: ÷Ú: Áñ Ò:ÈÈ:ÚÓñ. Á\*ÓÓ ÓÁ ÌÈ,, ÷ÌÈÁ: ÷Ú: Áñ ÓÓÍÌÓÓÚ. . ÷Á ñÈÁÌ:.  
Ç Á:, ÈÒÈÍÓÓÚÈ ÓÚ ÙÓÍÓ, ÈÈ ~ÍÓÓÍÚ:Ú:~ÈÈ ÈÌ:ÈÍ:ÚÓ Ì ÌÓÈÁÚ Ì:~Ú, ÌÈ,, ÷Ú,, %:ÈÁ ÍÓ,, %: ÓÓÚ, ~Á,, ÓÓñ Á: ñ%: ÷, ÷Ú:ÁÚ Á\*Á Ì ÷ 5-10 ÈÈÍÓÚ ÷.ÓÓ\*.
- ãÁÌÚ: Ó È. ÌÈÈ:ÁÚÓñ Í ÍÓÍÌ^Ú. àÌ:ÈÍ:ÚÓ ÌÈ,, ÷ÁÚ ÌÀ:ÍÁÌÌÒ.
- ãÁÌÚ: Á:ÍÓÍÌ~ÈÍ:Ò, áÈ,, ÷ÌÈÁ ÓÚ:ÍÓ, ÈÚÓñ ~÷ÓÚ\*Ì.

- 4 No tape has been inserted.
- 5 The tab on the tape is out (red).
- 6 Moisture condensation has occurred. (p. 66)
- 7 The video heads may be contaminated. (p. 67)
- 8 The clock is not set.  
When this message appears though you set the date and time, the vanadium-lithium battery is discharged. Charge the vanadium-lithium battery. (p. 80)
- 9 Some other trouble has occurred.  
Disconnect the power source and contact your Sony dealer or local authorized facility.
- ! The battery is not the "InfoLITHIUM" type.
- !` The tape has no cassette memory. (p. 4)

- 4 Ç ,Ê%ÃÓÍ†ÏÂ Â ÌÁÚ Í†ÒÒÁÚ' .
- 5 á†`ËÛÏ†ñl Á†%, ÊËÍ† Ì† Í†ÒÒÁÚÁ  
Ò%, ÊÏÛ† ( ,Ê%Ï† Í† †ÒÏ†ñl ÒÍ†ÓÛËÏÍ†)
- 6 è ÒÊÁÓ-Ï† ÍÓÏ%ÃÏÒ†~Ëñl, Ï†, Ê (ÒÛ . 87)
- 7 ÇÓÁÍÓÊÏÒ, Á†,, ñÁÏÂÏ' ,Ê%ÃÓ,,ÓÍÓ, ÍÊ  
(ÓÛ .88).
- 8 çÂ ÛÒÚ†ÏÒ, ÏÂÏÒ , ÁÏñ Ì† ~†Ò†l .  
ÒÒÏÊ%†ÏÏÓÁ ÒÓÓ. ~ÁÏÊÂ ÏÂ ÊÒ~ÁÁ†ÁÚ %†ÊÂ  
ÓÓÓÏÂ ÛÒÚ†ÏÒ, ÍÊ ç†ÏÊ%†Ú. Ê , ÁÏÁÏÊ, ~ÚÓ  
ÁÏ†~ËÛ, ~ÚÓ †Á ñÊÁÏ†, †Ï†ÊÂ, Ó-  
ÏÊÛÊÂ, †ñl .†Ú† ÂÊÍ†. á† ñ%ËÛÁ  
, †Ï†ÊÂ, Ó-ÏÊÛÊÂ, Û. .†Ú† ÂÊÏÛ (ÓÛ . 80).
- 9 è Ó~ÊÂ ÏÂÒÓÍ†%ÍÊ.  
éÚÍÏ. ~ËÛÁ ÒÊÚ†ÏÊÂ Ê ò, ñÊËÛÁÒ, ò  
. ÏÊÊ†Ê~ÊÏ %ÊÏÂ ÓÏ Sony ÊÏÊ . ÏÊÊ†Ê~ÂÊ  
ÒÒÂ^Ê†ÏÊÊÊ Ó, †ÏÏÊ Ï†ÓÛÁ ÒÍÒÊ.
- ! ÏÒÚ†ÏÒ, ÏÂÏ† .†Ú† Áñl, ÏÂ ÓÚÏÒòñ~†ñòñl Ï  
ÚÊÒÛ "InfoLITHIUM".
- !` á†ÒÒÁÚ† ÏÂ ÊÏÁÁÚ ~ÏÁÍÚ ÓÏÏÊÊ Ò†ÏñÚÊ  
(ÓÛ .4)

Additional Information / NOÖÏÏËÛÁÏ. Ï†ñ ÊÏÒÓ Ï†~Êñ