

# Video Camera Recorder

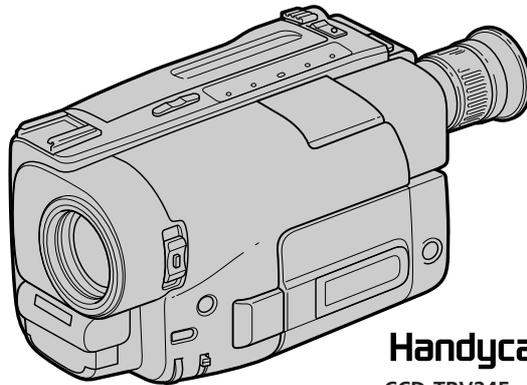
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## Operating Instructions

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

### αΙΟÙ ÙÎËñ ÔÓ ÑÒÔÎÛ±Ú±ËË

εΑ Α%ο Ι±ñÍÓÍ ÑÒÔÎÛ±Ú±ËË %ο±ìÓ, Ó ±ÔÔ± ±Ú± Ô ÓÒËÏ, ìËÏ±ÚÁÏ, ìÓ Ô Ó-ÀÓÙ, ì±ÒÙÓñ-ÀÀ ÙÍÓ, Ó%ÒÙ, ÓËÓÓÙ±, ÈÙ, Α, Ó%ññ·Ù%ÛË·ÓÓ ±, ÓÍ.



Handycam Vision™  
CCD-TRV24E

video8

CCD-TRV14E/TRV24E **8**

© 1997 by Sony Corporation

**English**

# Welcome!

Congratulations on your purchase of this Sony Handycam Vision™ camcorder. With your Handycam Vision, you can capture life's precious moments with superior picture and sound quality. Your Handycam Vision is loaded with advanced features, but at the same time it is very easy to use. You will soon be producing home video that you can enjoy for years to come.

**WARNING**

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

Certain countries may regulate disposal of the battery used to power this product. Please consult with your local authority.

**εὐὐὐίἔἔ**

# ΝΌ. Ó ÔÓÊ†ÎÓ,†Ú, !

èÓÁ%ο †,ññēīÇ†ÒÒ ÊÓ· ÁÚÁîĒĀî%†ññÏË  
,Ē%οÁÓí†ĪĀ ° Handycam Vision™ ÛĒ Ī°  
Sony. è ÓÓÍÓ~ Ç†ĀĒ ,Ē%οÁÓí†ĪĀ °  
Handycam Vision Ç° ĪÓĒÁÚĀ Ā†ÔĀ~†ÚĪÁÚ,  
%οÓ Ó,ĒĀ Ç†Ī Ī,ĪÓ,ĀîĒñ ĒĒĀîĒ Ò  
ÔĀ,ÓÓÍÓ%οî Ī†ĀÔÚ,ÓĪ ĒÁÓ· †ĒĀîĒñ Ē  
Ā,ÚĪ†. Ç†† ,Ē%οÁÓí†ĪĀ † Handycam Vision  
ÓÓĪ†Ā† ÛÓÓ,Ā ~ĀĪÓÚ,Ó,†ñ ĪĒ  
ÛÛĪĒĒñĒ, ĪÓ Ē , ÛÓ ĒĀ , Āñ ĀĀ Ó~ĀĪ,  
ĪĀ,ĪÓ ĒÓÓÍĪ,ÁÓ,†Ú. Ç° ,ÓÍÓ Ā ·Û%οĀÚĀ  
ÔÓÁ%ο†,†Ú ÓĀĪĀĒĪĀ,Ē%οÁÓĀ†ÔĒËË,  
ĪÓÚÓ ĪĒ ĪÓĒÁÚĀ Ī†ÔĪ†Ē%ο†Ú,Ëñ ,  
ÔÓÓĪĀ%ο~ĒĀ ,Ó%ο°.

èêÖÑîèèÖÛÑÖçàÖ

Ñññ Ò Ā%οÓÚ, †~ĀĪĒñ ,ÓĀ,Ó †ññ ĒĒĒ  
ÓÓ†ÓĪÓÓÚĒĒĪĀÚ ĒĀÓÍÓ,ÓÚ%ο† †ĪĀ  
ÔÓ%ο,Ā ,†Ú †ÔÓ† †Ú,ÓĀ%οĀĒËË,Ē%οÓĒ%οñ  
ĒĒĒ ,Ī†,Ē.

ÇÓ ĒĀ.ĀĒ†ĒĒĀ ÓÓ †ĒĀîĒñ ĪĀĪÚ Ē~ĀÓĪĒĪ  
ÛÓÍÓĪ ĪĀ ÓÚĪ ,†Ú, ĪÓ ÓÚÓ. ā†  
Ó·ÓĪÛĒĒ,†ĒĒĀĪ Ó· †~†Ú,Ëñ ÛÓĪ,ĪÓ Ī  
Ī,†ĪĒÛĒĒĒ Ò,†ññÓĪÛ Ó·ÓĪÛÓĒĒ,†~ĀĪÛ  
ÔĀÓÓĪ†Û.

Ç ÓÓ Ā%οĀĪĀññ· ÒÚ ††, ÛÓÛ†ĪÓ,ĪĀĪ  
ÓÓ ñ%οÓĪĒĒĒ,Ē%ο†ĒĒĒ· †Ú† ĀĀĪ%οññ ÒĒÛ†ĪĒñ  
ĒĀ%οĀĪĒĒ. è· †ÚĒÛĀÓ, ÔÓĒ†ĪÛĒËË, Ç†Ā  
ĪĀÓÚĪÓĀ ÛÓÓĪĪÓÓ~ĀĪĪÓĀ †,ĀĪÛÓÚ,Ó.



**Before you begin**

**Using this manual**

The instructions in this manual are for the two models listed below. Before you start reading this manual and operating the unit, check your model number by looking at the bottom of your camcorder. The CCD-TRV24E is the model used for illustration purposes. Otherwise, the model name is indicated in the illustrations. Any differences in operation are clearly indicated in the text, for example, "CCD-TRV24E only".

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  $\text{♩}$  in the illustrations, you can hear the beep sound to confirm your operation.

**Types of differences**

CCD-	Optical zoom	Digital zoom	Wide mode	Steady Shot
TRV14E	15X	-	-	-
TRV24E	15X	180X	●	●

**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.

When you want to use a SECAM system-based TV, you will need a PAL/SECAM transcoder (as this is a PAL system based camcorder).

**Precaution on copyright**

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

**èÁ Â% ì¸¸íÓí ¸.Ó °**

**àÒÒÓí,ÁÓ,¸íÈÁ %¸ìíÓ,,Ó ÙíÓ,Ó%ÒÚ,¸**

àìÒÚ ÙíÈÈ, %¸ìíÓí ÙíÓ,Ó%ÒÚ,Á ÈÁíÓÈÁí ° %¸íí %¸,Ùí ìÈÈÁÓÁ Á-ÈÒíÁìí °, ìÓ%ÁíÁÈ. èÁ Â% ÚÁí, í¸í Ç° ì¸íÁÚÁ ~ÈÚ¸Ú, %¸ìíÓÁ ÙíÓ,Ó%ÒÚ,ÓÈ-íÓÒíÚ¸ÚÈ Ó.¸Ú, ¸ÓÓ¸¸¸Ú,Ó Ó,Á ÚÁíÓíÁ Ç¸ÁÈíÓ%ÁíÈ, ÓÓÒíÓÚ Á, ì¸ íÈÈì, Ò¸íÁí, Ç¸-ÁÈ ,È%¸ÁÓí¸íÁ °. àÓ%¸Áí CCD-TRV24E ÈÒÒÓí,ÁÚÁÚÒíí, Èíí,ÒÚ ¸ÚÈ,ìí °Áííí. Ç ÈíÓí ÒíÚ¸¸Á ì¸ÈíÁíÓ,¸íÈÁ ìÓ%ÁíÈ Ùí¸Á,¸¸ÚÒíí ì¸ ÈÒÚíí¸. á.°Á ¸¸ÁÈ-Èíí, ¸.ÓÚÁ ~ÁÚíÓ Ùí¸Á¸í°, ÚÁíÓÚÁ, í¸í ì¸Ó ÈíÁ "íÓí,íÓ CCD-TRV24E". àÓ,%¸Ç°-Ú%ÁÚÁ-ÈÚ¸Ú ÙíÓ,Ó%ÒÚ,Ó, Ù-ÈÚ,¸ÈÚÁ, ~ÚÓ ìíÓíÈÈ È ÚÓÚ¸íÓ,íÈ ì¸ ,È%¸ÁÓí¸íÁ Á ÓÓí¸¸¸í° Á¸,ì¸,ìíÈÈ .Ùí,¸íÈÈ. Ó Èí. ìÓÚ¸íÓ,ÈÚÁ ,°íí,¸¸Áí, POWER , ÓÓíÓÈÁíÈÁ CAMERA. ÓÓíÈ ì¸ ÈÒÚíí¸ Ùí¸Á,¸¸ÚÒíí Áí¸í ¸, Ç° ìÓÈÁÚÁ Óí-¸Ú, ÁÚííÁ ìÈ Á,ÙíÓ,ÓÈ ÓÈ,ì¸í %¸íí ÓÓ%Ú,Á È%¸ÁíÈíí Ç¸-ÁÈ ¸.ÓÚ°.

**íÈÒ° ¸¸ÁÈÈÈÈ**

CCD-	èÓÚÈ-Á-ÓíÈÈÚ¸ÚÓ-ÚÓ¸ÚÓ	nÈÚ Ó,ÓÈ Ù¸ÚÓÚ-¸ÚÓ	ðÈ ÓíÓÚÓ-í¸Úí°È ÁÈÈí	ìÒÚÓÈ-È,¸íí Ó-Áíí¸
TRV14E	15X	-	-	-
TRV24E	15X	180X	●	●

**è ÈíÁ~¸íÈÁ ÓÓ ÒÈÒÚÁí¸í ^,ÁÚíÓ,,Ó ÚÁíÁ,È%¸ÁíÈíí**

èÈÒÚÁí° ^,ÁÚíÓ,,Ó ÚÁíÁ,È%¸ÁíÈíí ÓÚíÈ-¸,ÚÒíí ,¸¸ÈÒÈíÓÚÈ ÓÚÓÚ ¸í°. Nííí Ó ÓÓíÓÚ ¸ Ç¸-Èí,Á¸ÈÒÈÁÈ ÓÓ ÚÁíÁ,ÈÁÓ Ù,Ç¸í ìÁÓ-ìÓ%ÈíÓ ÈÒÒÓí,ÁÓ,¸Ú, ÚÁíÁ,ÈÁÓ , ÓÓíÓ,¸ìí°È ì¸ ÓÈÒÚÁíÁ PAL. ÓÓíÈ Ç° íÓÚÈÚÁ ÈÒÒÓí,ÁÓ,¸Ú, ÚÁíÁ,ÈÁÓ , ÓÓíÓ,¸ìí°È ì¸ ÓÈÒÚÁíÁ SECAM, Ç¸í ÓÓí¸%Ó-ÈÚÒíí¸¸íÓíÓ%Á PAL/SECAM (ÓÓÒíÓí,íÚ %¸ìííííí ,È%¸ÁÓí¸íÁ ¸ ÓÓíÓ,¸í¸ ì¸ ÒÈÒÚÁíÁ PAL).

**è Á%ÒÓÚÁ ÁÈÁíÈÁÓ-¸,ÚÓ ÒíÓí Ó¸,Á**

íÁíÁ,ÈÁÈÓíí°Á Ó Ó,,¸íí°, íÈìÓÚÈí,ì°, ,È%¸ÁÓíÁíÚ° È %¸ Ú,,ÈÁ ì¸ÚÁ È¸í° ìÓ,,ÚÚ °Ú, Á¸-È-Áí° ¸,ÚÓ ÓíÈí Ó,¸.Óí. ÇÁÓ ¸,ÓíÓí¸íí Á¸ÈÈ, Ú¸íÈí, ì¸ÚÁ È¸íÓ, ìÓÈÁÚ Ó ÓÚÈ,Ó Á-ÈÚ, ÙÓíÓ,Èíí Á¸íÓí¸ Ó,¸,ÚÓ ÓíÓíÓ ¸,Á.

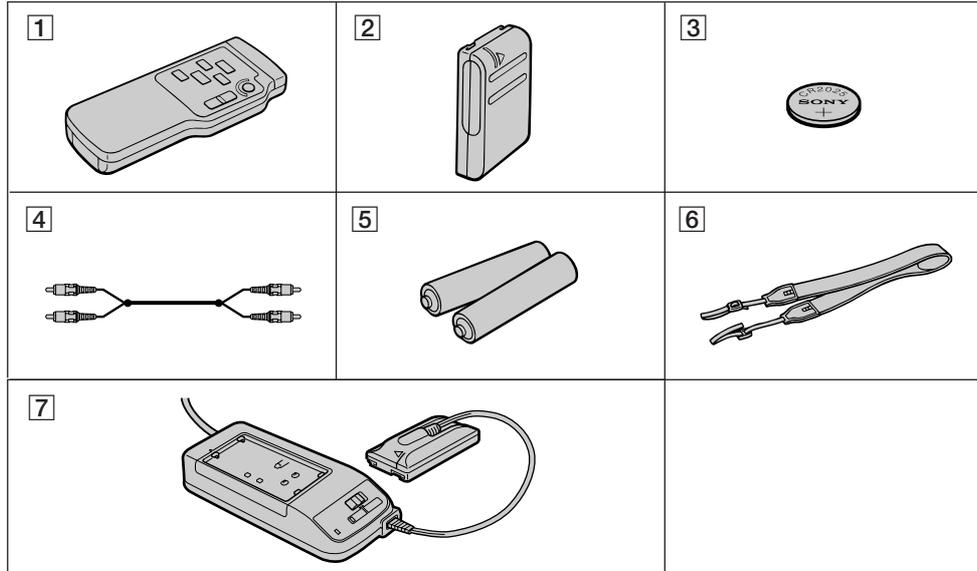


## Checking supplied accessories

Ελέγξτε τα εξαρτήματα που παρέχονται με την κάμερά σας.

Check that the following accessories are supplied with your camcorder.

Ελέγξτε τα εξαρτήματα που παρέχονται με την κάμερά σας. Ελέγξτε τα εξαρτήματα που παρέχονται με την κάμερά σας.



- 1 **Wireless Remote Commander (1)** (p. 23, 82)
- 2 **NP-33 Battery Pack (1)** (p. 7)
- 3 **CR2025 Lithium Battery (1)** (p. 53)  
Already installed in the camcorder.
- 4 **A/V connecting cable (1)** (p. 50)
- 5 **R6 (size AA) battery for Remote Commander (2)** (p. 83)
- 6 **Shoulder strap (1)** (p. 81)
- 7 **AC-V16/V16A/V17/V17A AC power adaptor (1)** (p. 7, 27)

- 1 Αποδοτέλεστος (1) (σ. 23, 82)
- 2 Πακέτο μπαταρίας NP-33 (1) (σ. 7)
- 3 Μπαταρία CR2025 (1) (σ. 53)  
Επιτοποθετημένη στην κάμερα.
- 4 Καλώδιο σύνδεσης A/V (1) (σ. 50)
- 5 Μπαταρία R6 (σ. 83)
- 6 Στρώμα (1) (σ. 81)
- 7 Αποδοτέλεστος (1) (σ. 7, 27)

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

Εάν η εγγραφή δεν πραγματοποιηθεί λόγω βλάβης της κάμερας, της ταινίας ή άλλων εξαρτημάτων, τα περιεχόμενα της εγγραφής δεν μπορούν να αποζημιωθούν.



## Charging and installing the battery pack

á† f%ó† È ÛÒÙ†ÍÓ,†  
·†Ú† ÂÈÍÓ,,Ó ·ÍÓ†

### Battery life (in minutes) CCD-TRV14E

Battery pack	While recording <sup>1)</sup>		While playing back on LCD <sup>3)</sup>
	LCD open <sup>2)</sup>	LCD close	
NP-33 (supplied)	80 (45)	100 (55)	75
NP-55H	95 (50)	120 (65)	90
NP-C65/67	135 (75)	175 (95)	130
NP-66	130 (70)	165 (90)	120
NP-77H	205 (110)	255 (130)	200
NP-98	265 (145)	330 (180)	255

### CCD-TRV24E

Battery pack	While recording <sup>1)</sup>		While playing back on LCD <sup>3)</sup>
	LCD open <sup>2)</sup>	LCD close	
NP-33 (supplied)	70 (40)	95 (50)	75
NP-55H	90 (50)	115 (65)	90
NP-C65/67	125 (70)	160 (90)	130
NP-66	120 (65)	155 (85)	120
NP-77H	195 (110)	240 (130)	200
NP-98	240 (130)	315 (175)	255

<sup>1)</sup> Approximate continuous recording time indoors. Figures in parentheses are approximate recording time when you repeat recording start/stop, zooming and turning the power on/off.

The actual battery life may be shorter.

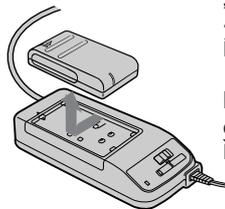
<sup>2)</sup> Approximate recording time when using the LCD screen. When using both the viewfinder and LCD screen, the battery life is shorter.

<sup>3)</sup> Approximate continuous playback time indoors.

If you are recording or playing using the LCD screen with LCD B.L. set to BRIGHT in the menu system, the battery life is approximately 10% shorter.

### To remove the battery pack

Slide the battery pack in the direction of the arrow.



### ë ÓÍ ÒÍÛÈ° ·†Ú† ÂÈÍÓ,,Ó ·ÍÓ† (, ÌÈÍÛÙ†)

### CCD-TRV14E

Â†Ú† ÂÈÍÈ ·ÍÓÍ	ÇÓ, ÂÍñ Á†ÔÈÈÈ <sup>1)</sup>		ÇÓ, ÂÍñ ÓÓÓÇÈ- , Â%ÂÍÈñ † ÚáÑ <sup>3)</sup>
	ÛáÑ ÓÚ °Ù <sup>2)</sup>	ÛáÑ Á†Í °Ú	
NP-33(Ô È†,†ÁÙÒñ)	80 (45)	100 (55)	75
NP-55H	95 (50)	120 (65)	90
NP-C65/67	135 (75)	175 (95)	130
NP-66	130 (70)	165 (90)	120
NP-77H	205 (110)	255 (130)	200
NP-98	265 (145)	330 (180)	255

### CCD-TRV24E

Â†Ú† ÂÈÍÈ ·ÍÓÍ	ÇÓ, ÂÍñ Á†ÔÈÈÈ <sup>1)</sup>		ÇÓ, ÂÍñ ÓÓÓÇÈ- , Â%ÂÍÈñ † ÚáÑ <sup>3)</sup>
	ÛáÑ ÓÚ °Ù <sup>2)</sup>	ÛáÑ Á†Í °Ú	
NP-33(Ô È†,†ÁÙÒñ)	70 (40)	95 (50)	75
NP-55H	90 (50)	115 (65)	90
NP-C65/67	125 (70)	160 (90)	130
NP-66	120 (65)	155 (85)	120
NP-77H	195 (110)	240 (130)	200
NP-98	240 (130)	315 (175)	255

<sup>1)</sup> è È-ÌÈÁÈÛÁÌ ÌÓÁ, ÂÍñ ÌÁÓ Á °, ÌÓÈ Á†ÔÈÈÈ, ÌÛÛ È ÓÓÍÁ-ÂÍÈñ. óÈÓ†, Í Û,†Í ÓÍÓ-††, ÓÁ†† Ú Ó È-ÌÈÁÈÛÁÌ ÌÓÁ, ÂÍñ Á†ÔÈÈÈ, ÂÈÈÌÁÓÓÓÓÓñÍÓ,,Ó ÈÓÓÓÍ,ÁÓ,†ÍÈÈ ÛÛÌÈÈÈ ÓÛÓ†/ÓÛÙ†ÍÓ,ÈÈ, Û †ÍÛÓÓ†ÈÈ È È, ÌÌ-ÂÍÈñ/, °ÍÌ-ÂÍÈñ ÔÈÛ†ÈÈ.

èÂ†Í ÌÈ Ò ÓÍ ÒÍÛÈ° ·†Ú† ÂÈÍÓ,,Ó ·ÍÓ† ÍÓÈÁÛ °Ú ÍÓ ÓÁ.

<sup>2)</sup> è È-ÌÈÁÈÛÁÌ ÌÓÁ, ÂÍñ, ÌÈÍÛÙ† Ó È ÈÓÓÓÍ,ÁÓ,†ÍÈÈ °Í †† ÛáÑ. è È ÈÓÓÓÍ,ÁÓ,†ÍÈÈ È È%ÓÈÓ†ÚÁñ È °†† ÛáÑ Ò ÓÍ ÒÍÛÈ° ·†Ú† ÁÈ-Û%ÁÛ ÍÓ ÓÁ.

<sup>3)</sup> è È-ÌÈÁÈÛÁÌ ÌÓÁ, ÂÍñ ÌÁÓ Á °, ÌÓ,,Ó ÓÓÓ ÓÈÁ,Â%ÂÍÈñ, ÓÓÍÁ-ÂÍÈÈ. ÓÓÍÈ Ç °, °ÓÍñÁÛÁ Á†ÔÈÈÈ, ÈÈÈ ÓÓÓ ÓÈÁ,Â%ÂÍÈÈ, ÈÓÓÓÍ ÁÛñ °†† Ò ÛáÑ, ÍÓ,,%† LCD B.L., ÓÈÓÛÁÌÁ ÌÁÌ ÛÒÙ†ÍÓ,ÌÁÌ, ÓÓÍÓÈÁÌÈÁ BRIGHT, Ò ÓÍ ÒÍÛÈ° ·†Ú† ÂÈÍÓ,,Ó ·ÍÓ†-Û%ÁÛ Ó ÈÌÁ ÌÓ †† 10% ÍÓ ÓÁ.

ÑÍñ ÒìñÛÈñ ·†Ú† ÂÈÍÓ,,Ó ·ÍÓ† èÁ Â%ÈÌ ÛÁ ·†Ú† ÂÈÍÈ ·ÍÓÍ, Ì†Ó †,ÌÁÌÈÈ ÓÛ ÁÌÈÈ.

## Charging and installing the battery pack

## Ατ φ%οίτ Ë ÛÒÚτìÓ,ίτ ·τÚτ ΆÈìÓ,,Ó ·ìÓίτ

### Notes on charging the battery pack

- The POWER 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 POWER lamp does not light, set the selector to VTR (DC OUT) and disconnect the mains lead. After about one minute, reconnect the mains lead and set the selector to CHARGE again.
- You cannot operate the camcorder using the AC power adaptor while charging the battery pack.

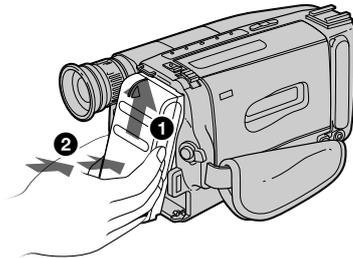
- è ÈìÄ~τìÈφ ÒÓ Äτ φ%οίÄ ·τÚτ ΆÈìÓ,,Ó ·ìÓίτ
- äτìÓÓ~ίτ POWER ·Û%ÁÛ ίÄìÓÚÓ ÓÄ, Äφφ Ò,ÄÛÈÛ Òφ, %οτÈÄ ÄÒìÈ ·τÚτ ΆÈì·È ·ìÓί ÒφφÈ ÒÓÁÛ, ÒÈ Ò Ò, Ò%ο, ÒÛίí, Äì ÒÓÓìÄ Äτ φ%οίÈ ·τÚτ ΆÈìÓ,,Ó ·ìÓίτ. ùÛ φφ, φφÄÛÒφφ ί Ò ·ίτì, ί·ί.
  - ÒÓìÈ τìíÓÓ~ίτ POWER ίÄ Äτ, Ò τÄÛÒφ, ÛÓÚτìÓ, ÈÛÄ ÒÄìÄìÛÓ, ÒÓìÓÈÄìÈÄ VTR (DC OUT) ÈÛÓÓÄ%ÈìÈÛÄÓÁÛÄ, ÒÈ Ò, Ò%ο. è ÈìÄ ίÓ ÄÄ ìÈìÛÛÛ, ίÓ, ÒÓ%ÒÓÄ%ÈìÈÛÄÓÁÛÄ, ÒÈ Ò, Ò%ÈÛφφÛÛ, ÛÓÚτìÓ, ÈÛÄ ÒÄìÄìÛÓ, ÒÓìÓÈÄìÈÄ CHARGE.
  - Ç· ίÄ ìÓÈÄÛÄ ÛÓ τìφÛÛ, È%οÄÓίτìÄ ÒÈ Ò ÈÛÓÓìÄ ÒÓ, τìÈÄìÓÁÛÄ, Òτ%οτÓÛÄ τÓÄ Äì. ÛÓίτ, Ò, Äφφ Äτ φ%οίÈ ·τÚτ ΆÈìÓ,,Ó ·ìÓίτ.

## Installing the battery pack

- (1) Insert the top of the battery pack into the top of the battery mounting surface.
- (2) Push the battery pack. Make sure that you hear clicks twice. Attach the battery pack to the camcorder securely.

## ìÓÚτìÓ,ίτ ·τÚτ ΆÈìÓ,,Ó ·ìÓίτ

- (1) ÇÓÛτ, ÛÄ Ä ìÈÈ ίÓìÄ~ ·τÚτ ΆÈìÓ Ò ·ìÓίτ, Ä ì, ~τÓÛ ·τÚτ ΆÈìÓÈ ÛÓÚτìÓ, ÒìÓÈÛÓ, Ä ìÛÓÛÈ.
- (2) ÇτÈìÈÛÄ ìτ ·τÚτ ΆÈìÈ·È ·ìÓί. ì·Ä%ÈÛÄÒ, ÛÓ. Ç· ÛÓì~τìÈ %ο, τÈ%ο~Äì·Óì. è Èì ÄÓÈÛÄ ìτ%οÄÈìÓ ·τÚτ ΆÈìÈ·È ·ìÓί í È%οÄÓίτìÄ Ä.



### Note on the battery pack

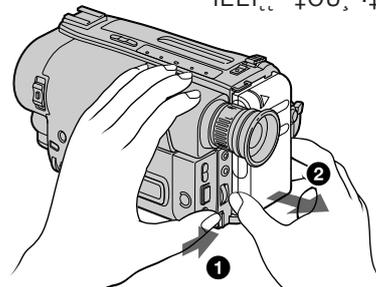
Do not carry the camcorder by grasping the battery pack.

è ÈìÄ~τìÈÄ ÒÛìÓÈÈÛÄì, ίÓ ·τÚτ ΆÈìÓ,,Ó ·ìÓίτ  
çÄ ÒÄ ÄìÓÈÈÛÄ, È%οÄÓίτìÄ ÛÓÛÛÄìÄτì, τÚτ ÄÄ Äτ ·τÚτ ΆÈìÈ·È ·ìÓί.

### To remove the battery pack

Slide BATT, and then pull the lower part of the battery pack.

Νίφ ÒìφÛÈφ ·τÚτ ΆÈìÓ,,Ó ·ìÓίτ  
è%ο, Èì, ÛÄ BATT, τÄτÛÄì ÒÓÛφìÈÛÄ Äτ ìÈÈì, ~τÓÛ, ·τÚτ ΆÈìÓ,,Ó ·ìÓίτ.



You can look at the demonstration of the functions available with this camcorder. (p. 31)

Ç· ìÓÈÄÛÄ Ä, φφφÛÛÛ, ìτ %οÄìÓìÛ ÷È, ÛÛìí·ÈÈ, ÈìÄ, ÈìÒφ φ%οίφ %οτììÓÈ È%οÄÓίτìÄ ·. (ÛÛ . 31)

Getting started

è Ò%ο, ÒÛìÓ, ìτ·τìÛ τ·òÛ·

## Inserting a cassette

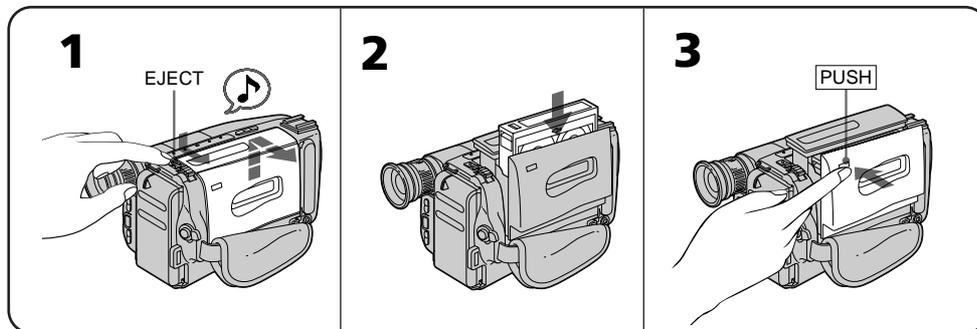
## ÇÒÚ±,Í± Í±ÒÒÂÚ°

Make sure that a power source is installed.

- (1) While pressing the small blue button, slide EJECT in the direction of the arrow. The cassette compartment automatically opens.
- (2) Insert a cassette (not supplied) with the window facing out.
- (3) Press the PUSH mark on the cassette compartment to close it. The cassette compartment automatically closes.

Ì.Â%ÈÚÁÒ, °ÚÓÈÒÚÓ°ÍÈÍÒÈÚ±ÍÈñ  
ÚÒÚ±ÍÒ,ÍÁÍ.

- (1) Ç±ÈÈÍ±ñ Í±ÍÁÍ,ÍÚÚ ÒÈÌ, ÌÍÒÓÍÚ, Ò%ÈÌ ÚÁ EJECT, Í±Ò ±ÍÁÍÈÈ ÒÚ ÁÍÈÈ. ÈÚÒÁÍ Í±ÒÒÂÚ° ±,ÚÓÍ±ÚÈ°ÁÒÍÈ ÒÚÍ°,±ÁÚÒñ.
- (2) ÇÒÚ±,ÚÁÍ±ÒÒÂÚÚ(ÍÁÒ ÈÍ±,±ÁÚÒñ) ÓÍÒ°ÍÒÍ, Ó. ±ÁÍÍ°Í Í± ÚÈÚ.
- (3) Ç±ÈÈÈÚÁ ÍÁÚÍÚ PUSH Í± ÓÚÒÁÍÁ Í±ÒÒÂÚ° %ññ Á,,Ó Á±Í°ÚÈñ. ÈÚÒÁÍ Í±ÒÒÂÚ° ±,ÚÓÍ±ÚÈ°ÁÒÍÈ Á±Í°,±ÁÚÒñ.



### To eject the cassette

While pressing the small blue button, slide EJECT in the direction of the arrow.

### To prevent accidental erasure

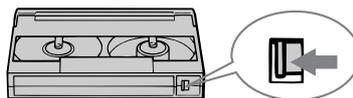
Slide the tab on the cassette to expose the red mark.

If you insert the cassette with the red mark exposed and close the cassette compartment, the beeps sound for a while. If you try to record with the red mark exposed, the and indicators flash, and you cannot record.

To re-record on this tape, slide the tab back out covering the red mark.

ÑÍñ °Ú±ÍÈÈ,±ÍÈñ Í±ÒÒÂÚ°  
Ç±ÈÈÍ±ñ Í±ÍÁÍ,ÍÚÚ ÒÈÌ, ÌÍÒÓÍÚ,  
Ò%ÈÌ,ÚÁ EJECT, Í±Ò ±ÍÁÍÈÈ ÒÚ ÁÍÈÈ.

ÑÍñ Ò Á%ÓÚ, ±ÁÍÈñ ÒÍÚ±ÈÍÒ,,Ó  
ÒÚÈ ±ÍÈñ  
ÈÁ Á%ÈÌ ÚÁ ÍÁÒÁÒÚÓÍÍ± Í±ÒÒÂÚÁ, °ÚÓ°  
ÒÒñ,ÈÍ±Ò, Í ±ÒÍ±ñ ÍÁÚÍ±.  
ÒÒÍÈ Ç°,ÒÚ±,ÈÚÁÍ±ÒÒÂÚÚ Ò È  
°,ÒÚ±,ÍÁÍÍÒÈ Í ±ÒÍÒÈ ÍÁÚÍÁ È Á±Í ÓÁÚÁ  
ÓÚÒÁÍ Í±ÒÒÂÚ°, ÚÓ Á±Á,ÚÈÚ ÁÚÍÁ Í°È  
ÒÈ,,Í±Í. ÒÒÍÈ Ç° ÓÓ°Ú±ÁÚÁÒ, Á±ÒÈÒ°,±Ú,  
Ò È°,ÒÚ±,ÍÁÍÍÒÈ Í ±ÒÍÒÈ ÍÁÚÍÁ, .Ú%ÓÚ  
ÍÈ,,±Ú, ÈÍ%ÈÍ±ÚÓ ° È È Ç° ÍÁ  
ÒÍÒÈÁÚÁÒ ÈÁ.ÁÒÚÈÁ±ÒÈÒ.  
ÑÍñ ÓÁ ÁÁ±ÒÈÒÈ Ì± %±ÍÍÚ, ÍÁÍÚÚ  
ÓÁ Á%ÈÌ,ÚÁ ÍÁÒÁÒÚÓÍÍ±Á±%, °ÚÓ°  
Á±Í°Ú, Í ±ÒÍÚ, ÍÁÚÍÚ.





## Camera recording

á±ÔÈÒ ò ÓÓÍÓ  
É%ÁÓÍ±Á

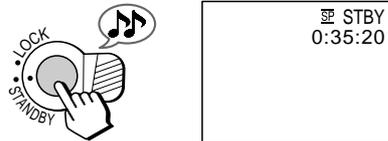
### To stop recording momentarily [a]

Press START/STOP again. The "REC" indicator in the viewfinder changes to the "STBY" indicator (Standby mode).

### To finish recording [b]

Press START/STOP. Turn STANDBY down, and set the POWER switch to OFF. Then, eject the cassette and remove the battery pack.

[a]



#### Note on standby mode

If you leave the camcorder for 5 minutes or more with a cassette inserted in Standby mode, the camcorder goes off automatically. This prevents wearing down the battery and wearing out the tape. To resume Standby mode, turn STANDBY down once and turn it up again. To start recording, press START/STOP.

#### Notes on the recording mode

- This camcorder records and plays back in SP (standard play) mode and in LP (long play) mode. The playback quality in LP mode, however, will not be as good as that in SP mode.
- When a tape recorded on this camcorder in LP mode is played back on other types of 8 mm camcorders or VCRs, the playback quality may not be as good as that on this camcorder.

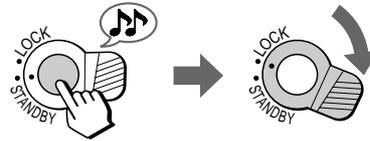
#### Note on recording

When you record from the beginning of the tape, run the tape for about 15 seconds before actual recording. This prevents the camcorder from missing any start-up scenes when you play back the tape.

Ñíñ, ÁÍÀÌÒÈ ÓÓÚ±ÍÓ, ÍÈ Á±ÔÈÒÈ [a]  
ç±ÈÍÈÚÁ ÓÓÍÓ, START/STOP. Ç  
É%ÓÈÓÍ±ÁÍÁÈÍ%ÈÍ±ÚÓ "REC"ÈÁÍÁÈÚÓñ  
Í±ÈÍ%ÈÍ±ÚÓ "STBY" ( ÁÈÈÍ, ÓÓÓ, ÍÓÓÈÈ ).

Ñíñ ÓÍÓÍ~±ÌÈñ Á±ÔÈÒÈ [b]  
ç±ÈÍÈÚÁ START/STOP. èÓ, Á ÍÈÚÁ STANDBY  
ÍÈÁ È ÚÓÚ±ÍÓ, ÈÚÁ, ÍÍ, ~±ÚÁÍ, POWER  
ÓÓÍÓÈÁÍÈÁ OFF. á±ÚÁÍ, ÚÓÍÍÈÚÁ Í±ÓÓÁÚÚ  
È Ú%±ÍÈÚÁ ~±Ú± ÁÈÍÈ È ÍÓÍ.

[b]



è ÈÍÁ~±ÌÈÁ Í ÁÈÈÍÚ „ÓÓÓ, ÍÓÓÈÈ  
ÓÓÍÈ Ç ÓÓÚ±, ÍñÁÚÁ, É%ÁÓÍ±Á Ú Í± 5  
ÍÈÍÚÚ ÈÍÈ. ÓÍÁÁ ÓÓ, ÓÚ±, ÍÁÌÒÈ Í±ÓÓÁÚÓÈ,  
ÁÈÈÍÁ, „ÓÓÓ, ÍÓÓÈÈ, ÚÓ, É%ÁÓÍ±Á ±  
ÍÍ ~ÈÚÓñ ±, ÚÓÍ±ÚÈ~ÁÓÍÈ. ùÚÓ  
Ó Á%ÓÓÚ, ±±ÁÚ ±Á ñ%ÓÍÚ±Ú± ÁÈÈÈÁÍÓÓ  
ÍÁÍÚ°. Ñíñ „ÓÁÓ·ÍÓ, ÍÁÍÈñ ÁÈÈÍ±  
„ÓÓÓ, ÍÓÓÈÈÓ%ÈÍ ±ÁÓÓ, Á ÍÈÚÁ STANDBY  
ÍÈÁ È ÓÍÓ, ± ÓÓ, Á ÍÈÚÁ Á, „Ó, Á Í. Ñíñ  
Í±~±± Á±ÔÈÒÈ Í±ÈÍÈÚÁ START/STOP.

- è ÈÍÁ~±ÌÈñ Í ÁÈÈÍ±Í Á±ÔÈÒÈ
- Ñíñ, É%ÁÓÍ±Á ± Á±ÔÈÒ, ±ÁÚ È  
ÓÓÓ ÓÈÁ, Ó%ÈÚ, ÁÈÈÍÁ SP (ÓÚ±±ÚÍÓ, Ó  
ÓÓÓ ÓÈÁ, Á%ÁÍÈñ) ÈÍÈ, ÁÈÈÍÁ LP  
(Ú%ÍÈÁÍÒ, Ó, ÓÓÓ ÓÈÁ, %ÁÍÈñ). è%ÓÍÓ,  
Í±~ÁÓÚ, Ó, ÓÓÓ ÓÈÁ, Á%ÁÍÈñ, ÁÈÈÍÁ LP  
·Ú%ÁÚ ÍÁ Ú±ÍÈÍ ÍÓ ÓÈÍ, Í±Í, ÁÈÈÍÁ SP.
- ÓÓÍÈ ÍÁÍÚ± ·Í± Á±ÔÈÒ±±, ÁÈÈÍÁ LP Í±  
%±ÍÍÓÈ, É%ÁÓÍ±Á ÁÈ, ÓÓÓ ÓÈÁ, Ó%ÈÚÓñ Í±  
% Ú, ÈÍ, ÚÈÓ±Í 8-ÍÍ, É%ÁÓÍ±Á ÈÍÈ Í± äÇá,  
Í±~ÁÓÚ, Ó, ÓÓÓ ÓÈÁ, Á%ÁÍÈñ ÍÓÈÁÚ ·Ú, ÍÁ  
Ú±ÍÈÍ ÍÓ ÓÈÍ, Í±Í Ó È, ÓÓÓ ÓÈÁ, Á%ÁÍÈÈ  
Í± %±ÍÍÓÈ, É%ÁÓÍ±Á Á.

è ÈÍÁ~±ÌÈÁ Í Ó ÓÁÓÓÚ Á±ÔÈÒÈ  
ÓÓÍÈ Ç Ó ÓÈÁ, Ó%ÈÚÁ Á±ÔÈÒ, Ó Ó±ÍÓ, Ó Í±~±±  
ÍÁÍÚ°, %±ÈÚÁ, ÓÁÍÓÈÍÓÓÚ, ÍÁÍÚÁ  
ÓÁ ÁÍÁÓÚÈÚ Óñ ÓÍÓÍÓ 15 ÓÁÍÚÍ%ÓÓ Í±~±±  
Á±ÔÈÒÈ. ùÚÓÓ Á%ÓÍ, ±ñÁÚ, É%ÁÓÍ±Á ÚÓÚ  
Ó ÓÓÚÓÍ± Í±~±Í, ÍÓ, Ó ÈÁÚÓ, Ó·ÁÍÈÈ, ÍÓ, %±  
Ç·Ú%ÁÚÁ, ÓÓÓ ÓÈÁ, Ó%ÈÚ, ÍÁÍÚÚ.

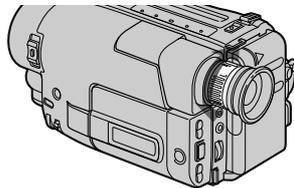
## Camera recording

á±ÔËÒ ò ÔÓÍÓ~  
 ,Ë%ÁÓÍ±Á °

### To focus the viewfinder lens

If the viewfinder is not in focus at all or when you use the camcorder after someone else has used it, focus the viewfinder lens. Turn the viewfinder lens adjustment ring so that the indicators in the viewfinder come into sharp focus.

Ñíñ ÙÓÍÙÒË Ó,ÍË Ó·ÁÍÚË,±  
 ,Ë%ÔËÓÍ±ÁÍñ  
 ÔÓÍË ,Ë%ÔËÓÍ±ÁÍñ ,ÓÓ·Á ÍÁ  
 ÒÙÓÍÙÒË Ó,±,ËË,ÁÓÍË Ç° ÈÒÓÍ,ÁÚÁÚÁ  
 ,Ë%ÁÓÍ±Á Ù ÓÓÓÍÁ ÚÓ,Ó, Í±Í ÁÁ ÈÒÓÍ,ÁÓ,±Í  
 ÍÚÓ-ÚÓ% Ù,ÓË,ÚÓÓÍÙÓË ÙËÚÁÓ·ÁÍÚË,  
 ,Ë%ÔËÓÍ±ÁÍñ.èÓ,Á ÍËÚÁ Á,ÛË Ó,ÓÍÓÁ  
 ÍÓÍ,´Ó Ó·ÁÍÚË,± ,Ë%ÔËÓÍ±ÁÍñ Ù±Í,´ÚÓ·  
 ÈÍ%ËÍ±ÚÓ ° ,Ë%ÔËÓÍ±ÁÍÁ ·ÍË ~ÁÚÍÓ  
 ÒÙÓÍÙÒË Ó,±Í°



### Notes on the tape counter

- The tape counter indicates the recording or playback time. Use it as a guide. There will be a time lag of several seconds from the actual time. To set the counter to zero, press COUNTER RESET inside the LCD panel.
- If the tape is recorded in SP and LP modes mixed, the tape counter shows incorrect recording time. When you intend to edit the tape using the tape counter as a guide, record in same (SP or LP) mode.

### Note on beep sound

As indicated with  $\text{♩}$  in the illustrations, a beep sounds when you turn the power on or when you start recording and two beeps sound when you stop recording, confirming the operation. Several beeps also sound as a warning of any unusual condition of the camcorder. Note that the beep sound is not recorded on the tape. If you do not want to hear the beep sound, set BEEP to OFF in the menu system.

è ÈÍÁ~±ÍËñ Í Ò·ÁÚ·ÈÍÙ ÍÁÍÙ°  
 • è·ÁÚ·ÈÍ ÍÁÍÙ° ÙÍ±Á°,±ÁÚ , Áñ Á±ÔËÒË  
 ÈÍË, Áñ,ÓÓÒ ÈÁ,Á%ÁÍËñ. àÓÓÍ,ÁÚËÚÁ  
 Á,Ó, Í±·ÁÓÚ,Á ÚÍÓ,Ó%ÓÚ,±. èÛ·ÁÓÚ,ÚÁÚ  
 ÓÚÓÚ±,±ÈÁ ÓÓ , ÁÍÁÍË Í± ÍÁÓÍÓÍ,ÍÓ  
 ÒÁÍÍÙ% ÓÚ Ù±ÍÚË·ÁÓÍÓ,Ó , ÁÍÁÍË. Ñíñ  
 ÙÓÚ±ÍÓ,ÍË ÓÓÍ±Á±ÍË Ò·ÁÚ·ÈÍ± Í ÍÚÍÁ,ÓË  
 ÓÚÍÁÚÍÁ Í±ÈÍËÚÁ ÍÍÓÓÍÙ COUNTER  
 RESET Íá ÓáÍËË ÙËÑ.  
 • ÔÓÍË ÍÁÍÙ± Á±ÔËÓ±±, ÓÓ·ÁÚ±ÍË ÈÈËÍÓ,  
 SP È LP, Ó·ÁÚ·ÈÍ ÍÁÍÙ° ·Ú%ÁÚ ÓÓÍ±Á°,±Ú,  
 ÍÁÓ ±,ÈÍ ÍÓÁ , Áñ Á±ÔËÒË. ÔÓÍË Ç°  
 Í±ÍÁ Á,±ÁÚÁÓ, Ó ÓËÁ,ÁÓÚË ÍÓÍÙ±Ë ÍÁÍÙ° Ò  
 ÈÒÓÍ,ÁÓ,±ÍËÁÍ Ò·ÁÚ·ÈÍ± , ÁÍÁÍË  
 ÓÓ,±±ÍÓÍ ÙÍÓ,Ó%ÓÚ,Ú, °ÓÓÍñËÚÁÁ±ÔËÓ,  
 , Ó%ÍÓÍ È ÚÓÍ ÈÁ ÁÈËÍÁ (SP ÈÍË LP).

è ÈÍÁ~±ÍËÁ Í ÁÚÍÁ ÍÓÍÙ Á,ÚÍÓ,ÓÍÙ  
 ÒË,,±ÍÙ  
 ä±Í ÙÍ±Á±ÍÓ Ò ÓÓÍÓ~  $\text{♩}$  Í± ÈÒÙÍ±Í,  
 ÁÚÍÁ Í·È ÒË,,±Í Á,Ú·ËÚ, ÍÓ,%± Ç°  
 Í±ÈÍ±ÁÚÁ Á±ÔËÓ , È %± ÁÚÍÁ Í·È ÒË,,±Í±  
 Á,Ú·±Ú, ÍÓ,%± Ç° Á±Í±Ë,±ÁÚÁ Á±ÔËÓ,  
 ÓÓ%Ú,Á È%±ñ ÚÁÍ Ó±Í·Í ±·ÓÚÙ. çÁÓÍÓÍ,ÍÓ  
 ÁÚÍÁ Í·È ÒË,,±ÍÍÓ, Ù±ÍËÁ Á,Ú·ËÚ ,  
 Í±·ÁÓÚ,ÁÓ Á%ÚÓ ÁÈ%ÁÍËñÍ±ÍÓ,Ó·È·Ó  
 ÍÁÍÓ Í±Í,ÍÓ,Ó ÓÓÓÚÓñÍËñ ,Ë%ÁÓÍ±Á °.  
 ä±ÍÁÚ,ÚÁ,´ÚÓ ÁÚÍÁ Í·È Á,ÚÍÓ,ÓË ÒË,,±Í  
 ÍÁ Á±ÔËÓ°,±ÁÚÓñ Í± ÍÁÍÙÚ. ÈçÍË B° ÍÁ  
 ÍÓÚËÚÁ ÒÍ·±Ú, ÁÚÍÁ Í·È ÒË,,±Í,  
 ÙÓÚ±ÍÓ,ËÚÁ BEEP , ÒËÓÚÁÍÁ ÍÁÍ ,  
 ÓÓÍÓËÁÍËÁ OFF.

## Camera recording

### Note on the AUTO DATE feature

The clock is set at the factory to Sydney time for Australia and New Zealand models, to Tokyo time for the models sold in Japan and to Hong Kong time for other models. You can reset the clock in the menu system.

The AUTO DATE feature shows the date automatically once a day. However, the date may automatically appear more than once a day when:

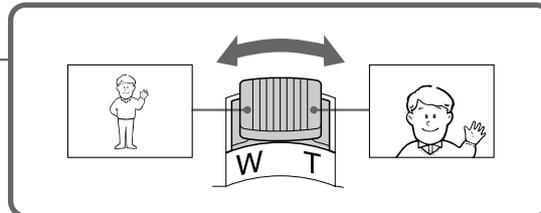
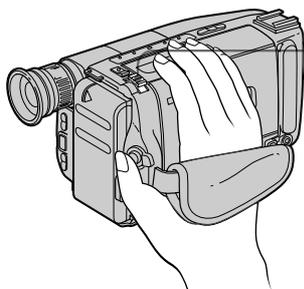
- you reset the date and time.
- you eject and insert the cassette again.
- you stop recording within 10 seconds.

### 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 sparingly.

T side: for telephoto (subject appears closer)

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



## Camera recording

### è ÈÌÄ~±ìÈÄ Í ÙÙìí´ÈÈ AUTO DATE

ó±ò° Ùòù±ìò,ìàì° ì± Á±,ó%ã ì±, Áíñ  
 äòì%òì± %òíñ èóã%èìììò,ó äó óíá,òù,± È  
 ì±, Áíñ è± ÈÈ± %òíñ %ò Ù,,Èì Á, óóÀÈòìÈì  
 ÒÙ ±ì, ÒÈòùÁìÄ ÌÄì.  
 Ç° ÌÓÈÁÙÄ ÓÄ ÁÙòù±ìò,ÈÙ, ~±ò° ìÙìí´Èñ  
 AUTO DATE ±.òù±ÁÙ Ó%èì ±Á, %òÄì.  
 é%òì±ìò, %ò±ù±ìóÈÁÙ Óòñ,ÈÙ, Òñ.òíÄÄ Ó%òìò,,ó  
 ±Á±, %òÄì, ÁòìÈ:  
 -Ç° ÓÄ ÁÙòù±ìò,ÈÙÁ%±ùÙ È, Áíñ.  
 -Ç° ; ÙóíììÁÙÄ ÌÄìùÙ È ,òù±,ÈÙÄ Ì±òòÁùÙ  
 Óìò ±.  
 -Ç° Óòù±ìò,ÈÙÄ Á±òÈò, ,ò Ä%òÄì±ì 10  
 ÓÄìù%ò.

### àòòóì´Áó,±ìÈÄ ÙÙìí´ÈÈ ì±ÁÁ%ò± ,È%òÄÓì±ìÄ °

ç±ÁÁ%ò,È%òÄÓì±ìÄ ° ñ,íñÁÙòñ ÙÄìÈ~ÄòìÈì  
 Ó ÈÄìóìÁ±òÈòÈ,ìóúó °È óóÁ,òíñÁÙ Ç±ì  
 ÈÄìÄìñÙ, ±ÁìÄ Ó·Äìù±, ì±%ò Ä. ÇÄ  
 Áìóùòòù Á·íñÈÙÄ ~úÈì Ó ÈÄìóì, ÁòìÈ  
 ÌÓÙÈÙÄ, ~úó° Ç± È Á±òÈòÈ , ,íñ%òÄìÈ  
 ·óíÄÄ Ó ÒùÄòòÈòì±ì,ìò.  
 èúó òì± "T": %òíñ ÙÄìÁùóúó (ó· Áìù  
 Ó È·ìÈÈ±Áùòñ)  
 èúó òì± "W": %òíñ È óíó,,ó Ù,,ì± Ò ÁìíÈ  
 (ó· Áìù Ù%ò±íñÁùòñ)

## Camera recording

αΰΟΈò, ò òòío~  
 ,Έ%οΆοίΰιΆ °

### Zooming speed (Variable speed zooming)

Turn the power zoom lever fully for a high-speed zoom. Turn it lightly for a relatively slow zoom.

### When you shoot a subject using a telephoto zoom

If you cannot get a sharp focus while in extreme telephoto zoom, move the power zoom lever to the "W" side until the focus is sharp. You can shoot a subject that is at least 80 cm (about 2.6 feet) away from the lens surface in the telephoto position, or 1 cm (about 1/2 inches) in the wide-angle position.

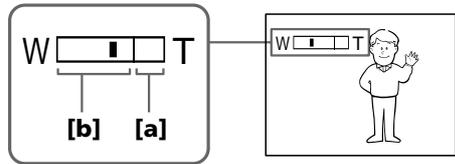
### Notes on digital zoom (CCD-TRV24E only)

- More than 15x 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 D ZOOM 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 D ZOOM to OFF, the right [a] zone disappears.

είó òòú, ìΰΆ%οΰ, Έ%οΆοίΰιΆ °  
 (ìΰΆ%ο ò ΰΑίοΈ òío òòú.)  
 èòίíoòú, òò,Ά ίΈúΆ °ΰ, ò Έ,ò%οìò,ò  
 ú ΰìòúòίΰúò ΰ%οίí,òú ò,òίΰΆ%οΰ  
 ,Έ%οΆοίΰιΆ °. èò,Ά ίΈúΆ Ά,ò òίΆ,,ίΰ %οίí  
 ίΆ%οìΆìò,,ò ìΰΆ%οΰ úΆίΰίΰιΆ °.

äó,,%οΰ Ç ° òìΈίΰΆúΆ ò· Άίú, Έòòòί,Άúíí  
 ìΰΆ%ο, ΆΈΈίΆ úΆίΰúòúò  
 òòίΈ Ç° ίΆ ίóΈúΆ òòίú~Έú, ~ΆúίòΈ  
 úòίúòΈ ò,ίΈ ,ò, Άίí ί ΰΈìΆ,,ò ìΰΆ%οΰ ,  
 ΆΈΈίΆ úΆίΰúòúò,úò òΆ ΆίΆ~ΰΈúΆ °ΰ,  
 ò Έ,ò%οìò,òú ΰìòúòίΰúò ΰ,òúò òíú~ΰ%οò  
 úΆί,òò, òòίΰίΆ òòίú~ΈúΆ~ΆúίòΈ  
 úòίúòΈ ò,ίΈ.  
 Ç° ίóΈúΆ ò òΈΆ,ΆòúΈ ò Άííò ò Ά%οìΆúΰ,  
 ίóúò °Έ òò ίΆì, ~ΆΈ ίΆ Ά ìΰò%οΈúòíí ìΰ  
 ΰòúòòííΈΈ 80 òίòúòò,Ά ììòòúΈ ò· ΆίúΈ,ΰ  
 , òòίòΈΆìΈΈ úΆίΰúòúò ΈίΈ 1 òί,  
 òòίòΈΆìΈΈ °Έ òíoò,ò ú,,ίΰ.

è Έίΰ~ΰìΈíí ί ~Έú ò,òίú  
 ú ΰìòúòίΰúò ú (úòί,ío CCD-TRV24E)  
 • ΆοίΆΆ, ~Άί 15-ί ΰúíΰí ú ΰìòúòίΰ~Έíí  
 °,òòίííΆúòíí ~Έú ò,~ί òòòòò,òí, Έ  
 ìΰ~Άòú,òΈÁò. ΰΈΆìΈííúíú%ο~ΰΆúòíòò  
 ίΆ Ά òΆ ΆίΆ~ΆìΈíí, òúò òíú "í". òòίΈ Ç°  
 ίΆ ίóúΈúΆ Έòòòί,Άò,ΰú ~Έú ò,ú  
 ú ΰìòúòίΰ~Έ, úòúΰìò,ΈúΆ D ZOOM,  
 òΈòúΆίΆ ίΆì, , òòίòΈΆìΈΆ OFF.  
 • è ΰ,ΰíòúò òίΰ [a]Έί%οΈίΰúò ΰò Έ,ò%οìòΈ  
 ú ΰìòúòίΰ~ΈΈ òòίΰΆ,ΰΆú Άòíú ~Έú ò,òΈ  
 ú ΰìòúòίΰ~ΈΈ, ΰ ίΆ,ΰíí òúò òίΰ [b]  
 òòίΰΆ,ΰΆú ΆòíúòòúΈ~ΆòίòΈ  
 ú ΰìòúòίΰ~ΈΈ. òòίΈ Ç° úòúΰìò,ΈúΆ D  
 ZOOM, òòίòΈΆìΈΆ OFF, ò ΰ,ΰíí Άòίΰ [a]  
 Έò~ΆÁíÁú.



Basic operations  
 εòίò,ίΰ Ά òòÁ ΰ~ΈΈ

## Camera recording

á±ÔÈÒ ò ÓÓÍÓ<sup>~</sup>  
È%ÁÓÍ±ÌÁ °

### 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. You cannot monitor the sound from the speaker during recording.

**(1)** While pressing PUSH OPEN, open the LCD panel.

**(2)** Adjust the 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 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.

### ë·ÁÍÍ± ò ÓÓÍÓ<sup>~</sup> ° í ±Ì± ÜäÑ

Ç° Ú±ÍÈÁ ÍÓÈÁÚÁ ÓÓÛ·ÁÓÛ, Á±ÔÈÒ, ÉÁÓ· ±ÈÁÍÈñ, Ó ÓÓÍ±Ü È,±ñ Á, Ó Ì± Í ±ÌÁ ÜäÑ.

è È ÈÓÓÍ·ÁÓ, ±ÌÈÈ °í ±Ì± ÜäÑ È%ÓÈÓÍ±ÜÁÍ, °Í· ÈÜÓñ ±,ÜÓÍ±ÜÈ·ÁÓÍÈ.

Ç° ÌÁ ÍÓÈÁÚÁ Ó ÓÓÍÛ·È, ±Ü, Á, ÜÍ ÓÛ °ÓÍÓ, Ó Ó ÈÜÁÍñ, Ó, Áññ Á±ÔÈÒÈ.

**(1)** Ç±ÈÈÍ±ñ PUSH OPEN, ÓÛÍ ÓÈÜÁ Ó±ÌÁÍ, ÜäÑ.

**(2)** éÜ Á, ÜÍÈ ÜÈÜÁ Ü, ÓÍ Ó±ÌÁÍÈ ÜäÑ.

è ±ÌÁÍ, ÜäÑ ÓÁ ÁÍÁ·±ÁÛÓñ

Ó È·ÍÈÁÈÜÁÍ, ÍÓ Ì± 90°, ±%ÜÓÓ, °%ÍÜ

ÓÛÓ ÍÜÈ Ì± 210°, ±%ÜÓÓ, % Ü, Ü

ÓÛÓÛ.

Ñññ ÜÓ, Ó, °ÜÓ· ÓÛ Á, ÜÍÈ Ó, ±Ü, ñ ÍÓÓÛ,

°í ±Ì± ÜäÑ, Ì±ÈÈÜÁ ÍÍÓÍÛ BRIGHT +

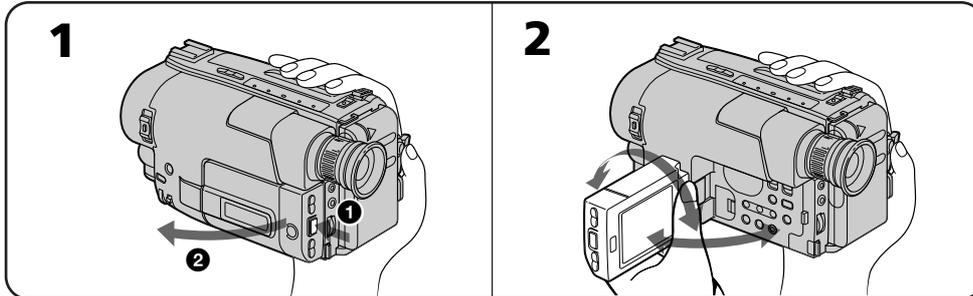
ÈÈÈ -.

è ÓÍ ÓÍÛÈ· ±Ü± ÁÈ ·Ü%ÁÛ %ÍÈÌÁÁ, ÁÓÍÈ

ÜäÑ Ó±ÌÁÍ, Á±Í °Ü±. áÓÓÍ·ÁÛÈÜÁ

È%ÓÈÓÍ±ÜÁÍ, ÌÁÓÛÓ °í ±Ì± ÜäÑ %ññ

°ÍÓÍÓÍÈÈ ÍÓ·ÍÓÓÛÈ ·±Ü± ÁÈ.



#### 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.

è ÈÍÁ·±ÌÈñ Í Ó±ÌÁÍÈ ÜäÑ

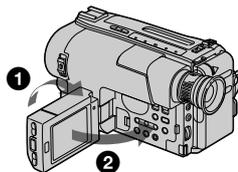
• è È Á±Í °, ±ÌÈÈ Ó±ÌÁÍÈ ÜäÑ ÓÓ, Ó ±È, ±ÈÜÁ ÁÁ, Á ÜÈÍ±Í, ÍÓ, ÓÓÍ± òì± ÌÁ Á±·ÁÍÍÁÛÓñ [a].

• è È ÓÓ, Ó ±È, ±ÌÈÈ Ó±ÌÁÍÈ ÜäÑ ÓÓ, Ó ±È, ±ÈÜÁ ÁÁ, ÓÁ, %±, Á ÜÈÍ±Í, ÍÓ, ÈÍÈ Ó ÓÛÈ, ÍÓÍ ÓÍÛ·±Á ÍÓ ÓÛÓ, È%ÁÓÍ±ÌÁ °

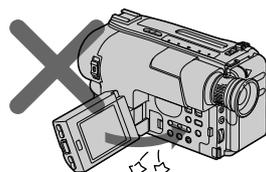
ÍÓÈÁÛ ·Ü, ÓÓ, ÁÈ%ÁÍ, ÈÈÈ Ó±ÌÁÍ, ÜäÑ ÌÁ ÓÍÓÈÁÛ Á±Í °Ü, Óñ Ó ±ÈÍ, ÍÓ [b].

• è ÓÍÍÓÓÛ, Á±Í ÓÈÜÁ Ó±ÌÁÍ, ÜäÑ, ÍÓ, %± Ó±ÌÁÈÈÓÓÍ·ÁÛÁÛÓñ.

[a]



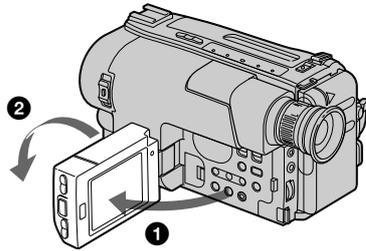
[b]



## 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 vertically first until it clicks, then turn it over. The  indicator appears (**Mirror mode**) and the date and tape counter indicators disappear.



### To cancel mirror mode

Turn the LCD panel back toward the viewfinder.

### Notes on mirror mode

- When you turn the LCD panel about 135 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 as a mirror-image while recording in mirror mode **[b]**. The STBY indicator appears as  and REC as . Some indicators may not appear in mirror mode.
- The date appears in reverse when the AUTO DATE feature is turned on. When recorded it will be normal.
- While recording in mirror mode, you cannot operate the following buttons: TITLE, DATE and TIME.
- The counter is displayed upside down in the display window.

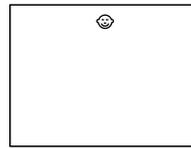
**[a]**



Ç° İÖÊÄÜÄ ÖÄ Ä,Ä İÜÜ, Ö±İÄİ, ÜäÑ, Ü±İ, ÜÖ Öİ±.Ü%ÄÜÖ. ±Äİ±, %Ü,Ü ÖÜÖ ÖİÜ È Ç° İÖÊÄÜÄ %±Ü, ÖÁİÖÊİÖÖÜ, òİÊİ±ÄİÖİÜ ÄİÖ,ÄİÜ İ±.İ %±Ü, Ö ÄİİÜ, ÖİÊİ±fl Ö ÖÖİÖ~ ,.È%ÖÊÖİ±ÜÄİfl.

èÖÄ, ± ÖÖ, Ö ± È, ±ÈÜÄ Ö±İÄİ, ÜäÑ, Ä ÜÊİ±İ Ö, ÖÖİ± Öİ± İÄ Ä±ÄİİÄÜÖfl, ± Ä±ÜÄİÖÄ Ä,Ä İÈÜÄÄÄ. àİ%Êİ±ÜÖ  ÖÖfl,ÈÜÖfl İ± İ±İÄ (ÄÄ İ±İ İÈ ÄÊÊİ) , È Èİ%Êİ±ÜÖ ° %±Ü È ÖÄÜÈİ± İÄİÜ° ±Ü± ÄÊÊÖÄÄİÜÜ.

èÖÄ, ± ÖÖ, Ö ± È, ±ÈÜÄ Ö±İÄİ, ÜäÑ, Ä ÜÊİ±İ Ö, ÖÖİ± Öİ± İÄ Ä±ÄİİÄÜÖfl, ± Ä±ÜÄİÖÄ Ä,Ä İÈÜÄÄÄ. àİ%Êİ±ÜÖ  ÖÖfl,ÈÜÖfl İ± İ±İÄ (ÄÄ İ±İ İÈ ÄÊÊİ) , È Èİ%Êİ±ÜÖ ° %±Ü È ÖÄÜÈİ± İÄİÜ° ±Ü± ÄÊÊÖÄÄİÜÜ.



Ñİfl ÖÜİÄİ° ÄÄ İ±İ İÖ, Ö ÄÊÊİ± èÖ,Ä İÈÜÄ Ö±İÄİ, ÜäÑ İ±Ä±% , İ±Ö ±,İÄİÈÈ, È%ÖÊÖİ±ÜÄİfl.

- è ÈÄÄ±Èfl İ ÄÄ İ±İ İÖİÜ ÄÊÊİÜ
- ÖÖİÈ Ç° ÖÖ Ä İÄÜÄ Ö±İÄİ, ÜäÑ Ö ÈÈÄÈÜÄİ İÖ%Ö%È±Ö±ÄÖİ±ÖÜ 135 „ ±%ÜÖÖ,%Ö210, ±%ÜÖÖ,ÜÖ,È%ÄÖİ±İÄ ±, ÖÈ%ÄÜ, ÄÄ İ±İ İÈ ÄÊÊİ.
- àÖÖÖİ,ÄÜfl ÄÄ İ±İ İÈ ÄÊÊİ, Ç° İÖÊÄÜÄ Ä±ÖÈÖ, ±Ü, ÖÄ-fl İ± İÄİÜÜ, Ö ÖÖİ±Ü È,fl Ö,ÖÄ ÈÄÖ. ±ÈÄİÈÄ İ± ÜäÑ [a].
- äÄÖ. ±ÈÄİÈÄ İ± ÜäÑ „ İfl%ÈÜ, İ±İ ÄÄ İ±İ,İÖÄ ÖÜÖ. ±ÈÄİÈÄ, Ö, Äİfl Ä±ÖÈÈ , ÄÄ İ±İ,İÖİ ÄÊÊİÄ [b]. àİ%Êİ±ÜÖ STBY ÖÖfl,İflÄÜÖfl, È%Ä  È REC „ È%Ä . çÄİÖÜÖ Ä Èİ%Êİ±ÜÖ ° İÖ,ÜÜ İÄ ÖÖfl,İflÜ, Öfl, ÄÄ İ±İ,İÖİ ÄÊÊİÄ.
- N±Ü± ÖÖfl,İflÄÜÖfl, Ö. ±ÜİÖİ ÖÖ fl%İÄ, ÄÖİÈ, İİ. Äİ± ÜÜİÈÈfl AUTO DATE. èÖÖİÄ Ä±ÖÈÈÖ Öİ±.Ü%ÄÜİÖ İ±İ İÖÈ.
- ÇÖ, Äİfl Ä±ÖÈÈÈ, ÄÄ İ±İ,İÖİ ÄÊÊİÄ Ç° İÄ İÖÊÄÜÄ ÜÖ ±,İflÜ, ÖİÄ%Ü ° ÈİÈ İİÖÖİ±İÈ: TITLE, DATE È TIME.
- èÄÜÈÈ ÖÜÖ. ±È±ÄÜÖfl, ÖÄ Ä,Ä İÜÜÖİ, È%Ä, ÖİÖ İÄ %ÈÖÖİÄfl.

**[b]**

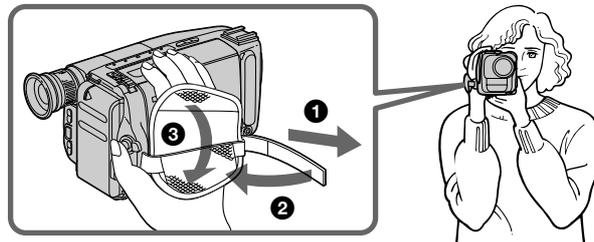


## Hints for better shooting

ΕΠΙΧΕΙΡΗΣΙΑΣ  
ΟΡΓΑΝΙΣΜΟΣ

For hand-held shots, you'll 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.



- Place your right elbow against your side.
- Place your left hand under the camcorder to support it.
- Place your eye firmly against the viewfinder eyecup.
- Use the viewfinder frame as a guide to determine the horizontal plane.
- You can record in a low position to get an interesting recording angle. Lift the viewfinder up for recording from a low position [a].
- You can also record in a low position or even in a high position using the LCD panel [b].

Νίφλ ίπ%ο ό, ό έ ύ%οά έέ,πíέέ, έ%οάόίπíã °  
, úíπí, ç° όόίύ~έύά ίύ~έά άάύί,úπú°  
άόίέ·ú%οάύά%οά έπú, έ%οάόίπíã ú,  
όόόύ,άύόύ,έέ όό όίá%οú ~έίέ úíáπíέπíέ:  
• Ñã έέύά,έ%οάόίπíã úí άόίόέάπí άόέύά  
άά ό όόίό~ άίάίίό,ό άπí,πúπú úπí,  
~úό.° ç° ίό,,ίέ ίά,,ίό ίπíέόúίέ ό.πú,  
ά,,úίπíúό πíέ ό όόίό~, .όί,~ό,ό  
όπí, ^π.

- έπúόόόίόέέύά çπ° ό π,έ ίόίόύ, ό-όίú όú  
όά-πí.  
• έπúόόόίόέέύά çπ° ίά,ú. úíú όό%οο  
,έ%οάόίπíã όέ%οπíάάόό%οοά έίέ.  
• çπ°άέίό ό έόίόίέύά çπ° ,,ίπá ί όίúπí ú  
,έ%οόέόίπúάπí.  
• άόόόί,άύέύά, έάέ ίú, πííú, ίπ~άού,ά  
úίό.ό%οού,π%οπíόό ά%οάίάίέπí  
,,ό έάόίπí,ίό,ό όίπíπ.  
• ç° ίόέάύά άπúέό°,πú έά ίέάίό,ό  
όόίόέάίέπí%οπí όόίú~άίέπí έίúά άόίό,ό ú,,πú  
άπúέόέ. εό%οίέίέύά,έ%οόέόίπúάί,,ά í %οπí  
άπúέόέέά ίέάίό,ό όόίόέάίέπí [a].  
• ç° úπíέά ίόέάύά όίέπíπú, έά ίέάίό,ό  
όόίόέάίέπí έίέ %οπíέά έά,°όόίό,ό  
όόίόέάίέπí ό έόόόί,άό,πíέάί όπíάίέ úãñ  
[b].

[a]



[b]



## Hints for better shooting

εὐχρηστικὰ ὑποδείξεις γιὰ καλύτερη λήψη

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

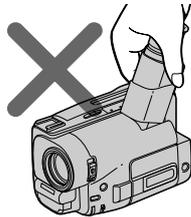
Ποῦ ἀποβληθεὶς τὸ κάμερα, ἐπιλέξτε ἕνα ἰσοπέδιο ἢ ἄλλο ἰσοπέδιο ἀποβληθεὶς τὸ κάμερα. Ἐὰν ἔχετε τρίποδο γιὰ σταθερὴ κάμερα, μπορεῖτε νὰ τὴν χρησιμοποιήσετε καὶ μὲν τὸ κάμερα. Ὄταν ἀποβληθεὶς τὸ κάμερα, ἐπιλέξτε ἕνα ἰσοπέδιο ἢ ἄλλο ἰσοπέδιο ἀποβληθεὶς τὸ κάμερα. Ὄταν ἀποβληθεὶς τὸ κάμερα, ἐπιλέξτε ἕνα ἰσοπέδιο ἢ ἄλλο ἰσοπέδιο ἀποβληθεὶς τὸ κάμερα. Ὄταν ἀποβληθεὶς τὸ κάμερα, ἐπιλέξτε ἕνα ἰσοπέδιο ἢ ἄλλο ἰσοπέδιο ἀποβληθεὶς τὸ κάμερα.

### Cautions on the viewfinder and the LCD

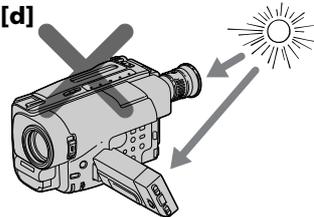
- Do not pick up the camcorder by the viewfinder or by the LCD panel [c].
- Do not place the camcorder so as to point the viewfinder or the LCD screen toward the sun. The inside of the viewfinder or the LCD panel may be damaged. Be careful when placing the camcorder under sunlight or by a window [d].

Μὴ ἀρπάζετε τὸ κάμερα ἀπὸ τὸν ὀπίσθιο ὀφθαλμολόγιο ἢ ἀπὸ τὸ πλῆκτρο. Μὴ ἀρπάζετε τὸ κάμερα ἀπὸ τὸ πλῆκτρο ἢ ἀπὸ τὸ πλῆκτρο. Μὴ ἀρπάζετε τὸ κάμερα ἀπὸ τὸν ὀπίσθιο ὀφθαλμολόγιο ἢ ἀπὸ τὸ πλῆκτρο. Μὴ ἀρπάζετε τὸ κάμερα ἀπὸ τὸν ὀπίσθιο ὀφθαλμολόγιο ἢ ἀπὸ τὸ πλῆκτρο. Μὴ ἀρπάζετε τὸ κάμερα ἀπὸ τὸν ὀπίσθιο ὀφθαλμολόγιο ἢ ἀπὸ τὸ πλῆκτρο.

[c]



[d]



### Note on the LCD screen

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.

Ὄταν χρησιμοποιήσετε τὸ πλῆκτρο ἀποβληθεὶς τὸ κάμερα ἐντὸς τοῦ ἡλίου, ἡ εὐκρίεια τοῦ πλῆκτρος δύσκολα εἶναι ἀποβληθεὶς τὸ κάμερα. Ἐὰν συμβῇ αὕτως, ἐπισημαστέον νὰ χρησιμοποιήσετε τὸν ὀπίσθιο ὀφθαλμολόγιο.

# Checking the recorded picture

è Ó,Â Í± Á±ÔËÒ±ìíÓ,,Ó  
ËÁÓ. ±ÊÁÏËí

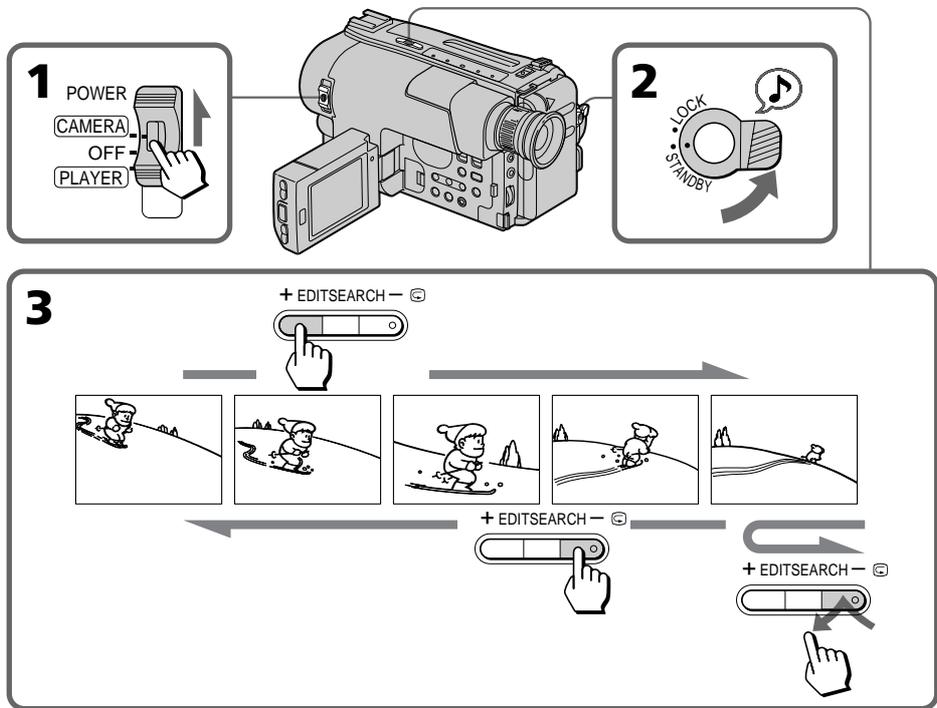
Using EDITSEARCH, you can review the last recorded scene or check the recorded picture in the viewfinder. You can also review the picture on the LCD screen.

- (1) While pressing the small green button on the POWER switch, set it to CAMERA.
- (2) Turn STANDBY up.
- (3) Press the - (⊖) side of EDITSEARCH momentarily; the last few seconds of the recorded portion plays back (**Rec Review**). You can also monitor the sound from the speaker or by using an earphone (not supplied). 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 (**EditSearch**).

àÒÒÓÍ,ÁÚíí EDITSEARCH, Ç° ÌÓËÁÚÁ  
ÒÁ ÁÓÍÓÚ ÁÚ, ÒÓÒÍÁ%òì, Á±ÔËÒ±ìíÚ,  
Ò°ÁìÚËÏËÓ Ó,Â ËÚ, Á±ÔËÒ±ìíÒÁ  
ËÁÓ. ±ÊÁÏËÁ, ,È%òÓËÓí±ÚÁÏÁ. Ç° Ú±ÍËÁ  
ÌÓËÁÚÁÒÁ ÁÓÍÓÚ ÁÚ,ËÁÓ. ±ÊÁÏËÁí±  
“í ±íÁ ÙäÑ.

- (1) Ç±ÊËÏ±íí í±íÁì,íÚ, ÁÁíÁìÚ, ÌÍÓÓíÚ Ì±  
“íí, ±ÚÁÏÁ POWER, ÙÒÚ±íÓ,ËÚÁ Á,,Ó,  
ÒÓÍÓËÁÏËÁ CAMERA.
- (2) èÓ,Â ÌËÚÁ STANDBY „,Á í.
- (3) ÇÁì±%Óí,,Ó Ì±ÊÏËÚÁ ÒÓÓ ÓíÚ - ( ⊖) ÌÍÓÓíË  
EDITSEARCH; ÒÓÒÍÁ%òìËÁ ÌÁÓÍÓí,ÍÓ  
ÒÁìÚí%Á±ÔËÒ±ìíÓË±ÒÚË.Ù%òÚÚ  
,ÒÓÒ ÓËÁ,Â%Áì° (ÒÁ ÁÓÍÓÚÁ±ÔËÒË).  
Ç° Ú±ÍËÁ ÌÓËÁÚÁ Ó ÓÓíÚ-È,±Ú, Á,Úí ÓÚ  
„ ÓííÓ,Ó,Ó ËÚÁííí ËÏË “Á ÁÁ Ì±Ú±ÏËË  
(ÌÁ Ó ËÏ±,±,ÚÓíí).

NÁ ËËÚÁÓÚÓ ÓíÚ -ÌÍÓÓíËEDITSEARCH  
%òÓÚÁì,ÓÓ,ÒÓí±,È%òÁÓí±íÁ ±íÁ  
,Á ÌÁÚÓíí í ËÁì±ÁÏËË Ó°ÁÏÁ. èÓÒÍÁ%òìííí  
Á±ÔËÒ±ìíí±í±±Ú.Ù%òÁÚ,ÒÓÒ ÓËÁ,Â%òÁì±.  
NíííÓ Ó%ò,ËËÁÏËíí,ÒÁ Á%ò%òÁ ËËÚÁ  
ÓÚÓ ÓíÚ + (íÓíÚ±Ëì°È ÓÓËÓí).



## Checking the recorded picture

è Ó,Á Í± Á±ÔËÒ±ìÓ,,Ó  
ËÁÓ. ±ËÄÏËñ

### To stop playback

Release EDITSEARCH.

### To go back to the last recorded point after edit search

Press END SEARCH. The last recorded point is played back for about 5 seconds if the tape was recorded in SP mode, or 10 seconds if the tape was recorded in LP mode, and stops.

Note that this function does not work once you eject the cassette after you recorded in the tape.

### To begin re-recording

Press START/STOP. Re-recording begins from the last recorded point or 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.

Ñîñ ÓÒÙ±ìÓ,ÍË ,ÓÒÒ ÓËÁ,Á%ÒÄÏËñ  
ç±ËÏËÛÄ EDITSEARCH.

Ñîñ ,ÓÁ, ±Ú± Í ÓÒÒÏÄ%ÒÄÏËÛÄ  
Á±ÔËÒ±ìÓÍÓÛÄ ÓÒÒÏÄ  
ÍÓÛ±ËÏÓ,,Ó ÓÒËÓÍ±  
ç±ËÏËÛÄ END SEARCH. èÓÒÏÄ%ÒÄÏËÛÄ  
Á±ÔËÒ±ìÓÍÓÛÄ ÓÒÒÏÄ ÓËÁ,Ó%ËÛÄ Òñ  
Ó Ë.ÏËÁËÛÄÍ,ÍÓ, ÛÄ~ÄÏËË 5 ÓÄÏÛì%, ÄÒÏË  
ÍÄÏÛ± .Í± Á±ÔËÒ±ì± , ÄËËÏÄ SP, ËÏË ,  
ÛÄ~ÄÏËÄ 10 ÓÄÏÛì%, ÄÒÏË ÍÄÏÛ± .Í±  
Á±ÔËÒ±ì± , ÄËËÏÄ LP, ± Á±ÚÄÏ ÍÄÏÛ±  
ÓÒÙ±ìÓ,ËÛÓñ. è. ±ÚËÛÄ,ÏË±ÏËÄ,~ÚÓ  
%±ì±ñ ÛÛÏÏËñ ÍÄ ±.ÓÚ±ÄÛ, ÄÒÏË Ç°  
,ÚÓÏÏËÛÄ Í±ÒÒÄÛÛ ÓÒÒÏÄ Á±ÔËÒË ÍÄÏÛ°.

Ñîñ Ï±~Ï± ÓÄ ÄÄ±ÔËÒË  
ç±ËÏËÛÄ START/STOP. èÄ ÄÄ±ÔËÒ,  
Ï±ËÏ±ÄÛÓñ ÓÚÓÒÏÄ%ÒÄÏËÛÄ Á±ÔËÒ±ìÓË ÛÓ~ÏË  
ËÏË ÓÚÓÓ~ÏË ,,%ÄÇ° ÓÚÓÚÓËÏË  
EDITSEARCH. è Ä%ÒÚÓÏÓÛ ÄÏÓ, ~ÚÓ. Ç° ÍÄ  
,ÚÓÏÏËÛÏË Ï±ÒÒÄÛÛ, Ë ÓÄ ÄÏÓ%ÍÄË%ÒÚ  
ÓÒÒÏÄ%ÒÄÏËÛÄ Ò~ÄÏËË,ÍÓÚÓ Û Ç° Á±ÔËÒ±ìË,Ë  
ÓÏÄ%ÒÚ.~ÄË Ò~ÄÏËË, ÍÓÚÓ Û Ç°  
Á±ÔËÒ°,±ÄÛÄ, .Ú%ÒÄÛ ÓÏ±,ÏÏ.

Basic operations

èÓÒÏÄ%ÒÄÏËÛÄ

## Playing back a tape

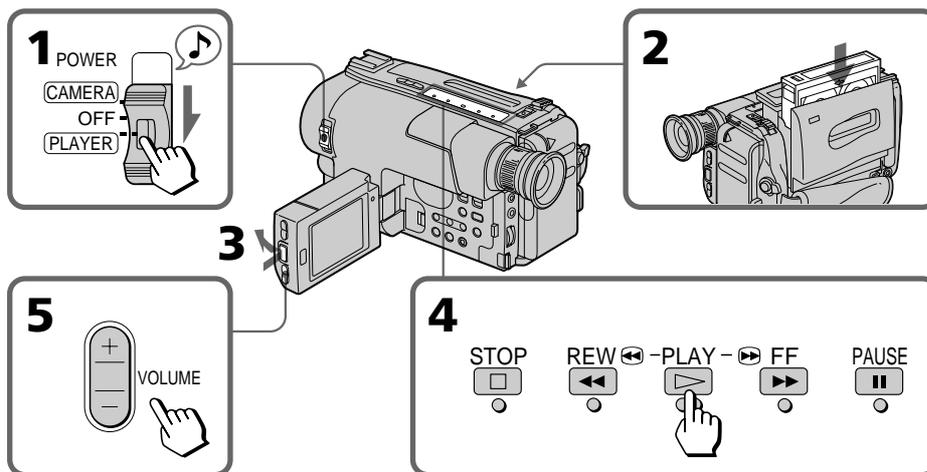
## Ç° ÎÖÉÁÚÁ Ô ÓÓÏ±Ú È,±Ú, ÏÓÓ ÓÉÁ,Ó%ÖÏÓÁ ÉÁÓ. ±ÉÂÏÉÂ Ì± ¹ ±ÏÁ ÛäÑ.

You can monitor the playback picture on the LCD screen.

- (1) While pressing the small green button on the POWER switch, set it to PLAYER.
  - (2) Insert the recorded tape with the window facing out.
  - (3) While pressing PUSH OPEN, open the LCD panel. Adjust the angle of the LCD panel or the brightness of the LCD screen if necessary.
  - (4) Press  $\triangleright$  to start playback.
  - (5) Adjust the volume using VOLUME +/-.
- You can also monitor on the TV screen after connecting the camcorder to the VCR or TV.

Ç° ÎÖÉÁÚÁ Ô ÓÓÏ±Ú È,±Ú,  
ÏÓÓ ÓÉÁ,Ó%ÖÏÓÁ ÉÁÓ. ±ÉÂÏÉÂ Ì± ¹ ±ÏÁ  
ÛäÑ.

- (1) Ç±ÉÏÏ±ñ Ì±ÏÁÏ, ÌÚ, ÁÁÏÁÏÚ, ÌÏÓÓÏÚ Ì±  
, ÌÏ ±ÚÁÏÁ POWER, ÓÁ Á%ÖÏ, ÚÁ Á,, Ó,  
ÓÓÏÓÉÂÏÉÂ PLAYER.
  - (2) ÇÓÚ±,, ÚÁ Á±ÓÉÓ±ÏÏÚ, Ì±ÒÒÁÚÚ ÓÏÓ-ÏÏÏ,  
Ó. ±~ÁÏÏÏ Ì± ÛÉÚ.
  - (3) Ç±ÉÏÏ±ñ PUSH OPEN, ÓÚÏ ÓÉÚÁ Ó±ÏÁÏ,  
ÛäÑ. éÚ Á,, ÚÏÉ ÚÉÚÁ Ú,, ÓÏ Ó±ÏÁÏÉ ÛäÑ È  
ñ ÏÓÓÚ. ¹ ±Ï± ÚäÑ, ÁÓÏÉ ¹ÓÓ Ú Á-ÚÁÚÓñ.
  - (4) Ç±ÉÏÏ±ñ  $\triangleright$  %ñ Ì±~±Ï±  
, ÓÓÓ ÓÉÁ,Á%ÁÏÉñ.
  - (5) éÚ Á,, ÚÏÉ ÚÉÚÁ, ÓÏÏÓÓÚ, Ò  
ÈÒÓÓÏ. ÁÓ, ±ÏÉÁÏ VOLUME +/-.
- Ç° Ú±ÏÉÁ ÎÖÉÁÚÁ Ô ÓÓÏ±Ú È,±Ú,  
ÉÁÓ. ±ÉÂÏÉÂ Ì± ¹ ±ÏÁ ÚÁÏÁ, ÉÁÓ ± ÓÓÓÏÁ  
ÓÓ%ÓÓÁ%ÏÏÁÏÉñ, È%ÁÓÏ±ÏÁ ° Ì äÇà/  
ÚÁÏÁ, ÉÁÓ Ú.



- To stop playback, press  $\square$ .  
To rewind the tape, press  $\lll$ .  
To fast-forward the tape, press  $\ggg$ .

- ÑÏñ ÓÓÓ±ÏÏ, ÏÉ, ÓÓÓ ÓÉÁ,Á%ÁÏÉñ Ì±ÉÏÉÚÁ  
 $\square$ .  
ÑÏñ ÚÓÏÓ ÁÏÏÓÈ ÓÁ ÁÏÓÚÉ ÌÁÏÚ° Ì±Á±%  
Ï±ÉÏÉÚÁ  $\lll$ .  
ÑÏñ ÚÓÏÓ ÁÏÏÓÈ ÓÁ ÁÏÓÚÉ ÌÁÏÚ° , ÓÁ Á%  
Ï±ÉÏÉÚÁ  $\ggg$ .

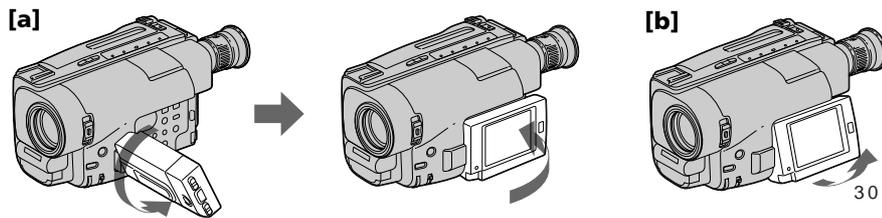
## Playing back a tape

## Αποκωδικοποίηση ταινίας

### When watching on the LCD screen

You can turn the LCD panel over and move back to the camcorder with the LCD screen facing out [a]. You can adjust the angle of the LCD panel up to 30 degrees [b].

Μπορείτε να περιστρέψετε το LCD οθόνη και να μεταβείτε πίσω στο camcorder με το LCD οθόνη να είναι προς τα έξω [α]. Μπορείτε να ρυθμίσετε το γωνία της LCD οθόνης έως 30°, [β].



### Using the Remote Commander

You can control playback using the supplied Remote Commander. Before using the Remote Commander, insert the R6 (size AA) batteries.

Μπορείτε να ελεγχώ την αναπαραγωγή χρησιμοποιώντας τον παρεχόμενο τηλεχειριστήριο. Πριν χρησιμοποιήσετε το τηλεχειριστήριο, εισάγετε τις μπαταρίες R6 (τύπου AA).

### To erase the screen indicators

Press DISPLAY to erase the screen indicators on the LCD screen. To display the indicators, press again. The indicators don't appear on the TV.

Πιέστε το κουμπί DISPLAY για να σβήσετε τους δείκτες στην LCD οθόνη. Για να εμφανίσετε τους δείκτες, πιέστε ξανά. Οι δείκτες δεν εμφανίζονται στην τηλεόραση.

### Using an earphone

Connect an earphone (not supplied) to the  $\odot$  jack. You can adjust the volume of the earphone using VOLUME.

Συνδέστε ακουστικό (δεν είναι παρεχόμενο) στο  $\odot$  σημείο. Μπορείτε να ρυθμίσετε τον όγκο του ακουστικού χρησιμοποιώντας το κουμπί 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 an earphone. To view on the LCD screen again, open the LCD panel. The viewfinder turns off automatically.

Κλείστε το LCD οθόνη. Ο τηλεσκοπίος ενεργοποιείται αυτόματα. Όταν χρησιμοποιείτε τον τηλεσκοπίο, μπορείτε να παρακολουθήσετε μόνο τον ήχο χρησιμοποιώντας ακουστικό. Για να δείτε ξανά στην LCD οθόνη, ανοίξτε το LCD οθόνη. Ο τηλεσκοπίος σβήνει αυτόματα.

## Playing back a tape

## ÇÓÒÒ ÓËÁ,Â%ÒÀÏËÁ ÎÀÏÛ°

### Various playback modes

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

Press **II** during playback. To resume playback, press **II** or **▷**.

#### To locate a scene (Picture Search)

Keep pressing **◀◀** or **▶▶** during playback. To resume normal playback, release the button.

#### To monitor the high-speed picture while advancing the tape or rewind (Skip Scan)

Keep pressing **◀◀** while rewinding or **▶▶** while advancing the tape.

To resume normal playback, press **▷**.

### Notes on playback

- Streaks appear and the sound is muted in the various playback modes.
- When playback pause mode lasts for 5 minutes or more, the camcorder automatically enters stop mode.

è±ÁÏË~ì°Á ÂËËÏ°

,ÓÒÒ ÓËÁ,Â%ÒÀÏË

Ñíñ Ò ÓÓÏÓÛ ± ÌÀÒÓ%Ò,ËËÏÓ,Ó ËÁ· ±ËÀÏËñ

(Ò±ÚÁ±,ÓÒÒ ÓËÁ,Â%ÒÀÏËñ)

ç±ËÏËÚÁ ÌÏÓÓÏÛ **II** , Ó , ÁÏñ

,ÓÒÒ ÓËÁ,Â%ÒÀÏËñ. Ñíñ ,ÓÁÓ·ÌÓ,ÏÀÏËñ

,ÓÒÒ ÓËÁ,Â%ÒÀÏËñ Ì±ËÏËÚÁ ÌÏÓÓÏÛ **II** ËÏË ▷.

Ñíñ ÓÚ°ÒÏ±ÏËñ ËÁÏ±ÁÏÓ,,Ó

Ú ±,ÏÀÏÛ± (ÓÒËÓÏ ËÁÓ· ±ËÀÏËñ)

ÑÁ Ë±Ú, Ì±Ë±ÚÓË ÌÏÓÓÏÛ **◀◀** ËÏË **▶▶** , Ó

, ÁÏñ ,ÓÒÒ ÓËÁ,Â%ÒÀÏËñ. Ñíñ ,ÓÁÓ·ÌÓ,ÏÀÏËñ

ÏÓ Ì±Ï,Ï,Ó,ÓÒÒ ÓËÁ,Â%ÒÀÏËñ ÓÚÓÚÓÚËÚ,

ÌÏÓÓÏÛ.

Ñíñ ÌÓÏÛ ÓÏñ ËÁÓ· ±ËÀÏËñ Ì± , °ÒÓÏÓË

ÓÏÓ ÓÓÚË, Ó , ÁÏñ ÛÓÏÓ ÀÏÏË ÒÁ ÁÏÓÚÏË

,ÓÁ Â%Ò ËÏË Ì±Á±%Ò (ÓÒËÓÏ ÌÁÚÓ%ÒÏ

Ó Ó,ÓÏ±)

ÑÁ Ë±Ú, Ì±Ë±ÚÓË ÌÏÓÓÏÛ **◀◀** , Ó , ÁÏñ

ÓÁ ÁÏÓÚÏË ÌÁÏÛ° Ì±Á±%Ò ËÏË ÌÏÓÓÏÛ **▶▶** , Ó

, ÁÏñ ÓÁ ÁÏÓÚÏË ÌÁÏÛ°, ÓÁ Â%Ò. Ñíñ

,ÓÁÓ·ÌÓ,ÏÀÏËñ ÏÓ Ì±Ï,Ï,Ó,

,ÓÒÒ ÓËÁ,Â%ÒÀÏËñ Ì±Ë±Ú, ÌÏÓÓÏÛ ▷.

è ËÏÁ~±ÏËñ Ì , ÓÒÒ ÓËÁ,Â%ÒÀÏËË

• Ç ±ÁÏË~ì° ÁËËÏ±, ÓÒÒ ÓËÁ,Â%ÒÀÏËñ Ì±

Ï±Á ÌÓ,ÚÚ ÓÓñ,ËÚ,Òñ ÓÓÏÓ° Ë Á,ÚÏ

·Ú%ÒÁÚ Ó Ë,ÏÚ·ÁÏ.

• ÓÒÏË ÁËËÏÓ±ÚÁ°, ÓÒÒ ÓËÁ,Â%ÒÀÏËñ

Ó Ó%ÒÏË±ÁÚÒñ ÑÏËÏÛ ËÏË·ÓÏÁ,

,Ë%ÒÁÓÏ±Á ± ±,ÚÓÏ±ÚË·ÁÓÏË,ÓË%ÒÁÚ,

ÁËËÏ ÓÓÚ±ÏÓ,ÏË.

## Searching for the end of the picture

## èÓËÒÍ ÍÓÌˆ† ËÁÓ· †ËÂÏËfl

You can go to the end of the recorded portion after you record and play back the tape to make the transition between the last scene you recorded and the next scene smooth. The tape starts rewinding or fast-forwarding. Then, the last 5 seconds play back if the tape was recorded in SP mode, or the last 10 seconds play back if the tape was recorded in LP mode. Then the tape stops at the end of the recorded picture **(End Search)**.

Note that End Search function does not work once you eject the cassette after you recorded in the tape.

**(1)** While pressing PUSH OPEN, open the LCD panel.

**(2)** Press END SEARCH.

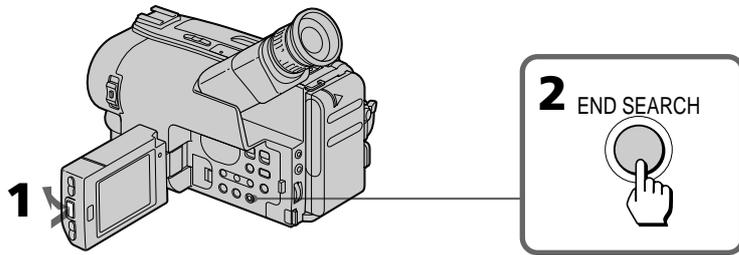
This function works when the POWER switch is set to either CAMERA or PLAYER.

ç° ÍÓËÁÚÂ ÔÂ ÂËÚË ÍÍÓÌˆÚ Á†ÔËÒ†ÏÏÓË  
ˆ†ÓÚËÒÓÓÍÁ†ÔËÒËË,ÓÓÓ ÓËÁ,Á%ÂÏËfl  
ÍÁÏÚ° %òfl Ó·ÁÓÔÂˆÂÏËfl ÓÍ†,ÍÓ,,Ó ÔÂ ÂÍÓ%†  
ÍÁË%Ú ÓÓÓÍÁ%ÍÁË ÓˆÂÏÓË, ÍÓÚÓ Ú, ç°  
Á†ÔËÒ†ÏË, Ë ÓÍÁ%Ú, ˆÂË ÓˆÂÏÓË. ãÁÏÚ†  
†ˆË†ÁÚ ÚÓÍÓ ÂÏÓ ÔÂ ÂÍ†Ú°, †Ú, Òfl ††Á†%  
ËË, ÔÂ Á%ò. á†ÚÁÏ ÓÓÓÍÁ%ÍÁË 5 ÓÁÏÚÍ%  
·Ú%ÚÚ, ÓÓÓ ÓËÁ,Á%ÂÏˆ, ÂÓÏËÍÁÏÚ†  
Á†ÔËÒ†Ï†, ÁËËÍÁ SP, ËËË ÓÓÓÍÁ%ÍÁË 10  
ÓÁÏÚÍ%·Ú%ÚÚ, ÓÓÓ ÓËÁ,Á%ÂÏˆ, ÂÓÏËÍÁÏÚ†  
Á†ÔËÒ†Ï†, ÁËËÍÁ LP. á†ÚÁÏ ÍÁÏÚ†  
ÓÓÚ††, ËË, †ÁÚÒfl, ÍÓÌˆÁ Á†ÔËÒ†ÏÓ,,Ó  
ËÁÓ· †ËÂÏËfl (ÓÓËÓÍ ÍÓÌˆ†).  
é· †ÚËÚÁ, ÍË†ÍÁË, ˆÓ ÚÚÍˆËfl ÓÓËÓÍ†  
ÍÓÌˆ† ÍÁ †·ÓÚ†ÁÚ, ÂÓÏË ç°, ˆÓÓÍÍÚÏË  
††ÓÓÁÚÚ ÓÓÓÍÁ, ÓÓÏÍÁÏËfl ç†ˆÂ Á†ÔËÒË ††  
ÍÁÏÚÁ.

**(1)** ç†ËËË†fl PUSH OPEN, ÓÚÍ ÓËÚÁ Ô†ÍÁÏ,  
ÚáN.

**(2)** ç†ËËËÚÁ END SEARCH.

N†Ï†fl ÚÚÍˆËfl †·ÓÚ†ÁÚ, ÍÓ,,%†  
, ˆÍˆ†ÚÁÏ, POWER ÚÓÚ†ÍÓ,ÍÁÏ, Í,Ú,  
ËÁ ÓÓÁËˆËË, ðAMERA ËË PLAYER.



**Advanced operations**

**Using alternative power sources**

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

Place	Power source	Accessory to be used
Indoors	Mains	Supplied AC power adaptor
Outdoor	Battery pack	Battery pack (Ni-Cd type)
In the car	12 V or 24 V car battery	Sony DC pack DCP-77

**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.



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.

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## Using alternative power sources

àÒÒÓÍ,ÁÓ,±ìÈÄ ±Ï,ÚÂ ì±ÚË,ì, ËÒÚÓ~ÌÈÍÓ, ÒËÚ±ÌÈÏ

### Using the mains

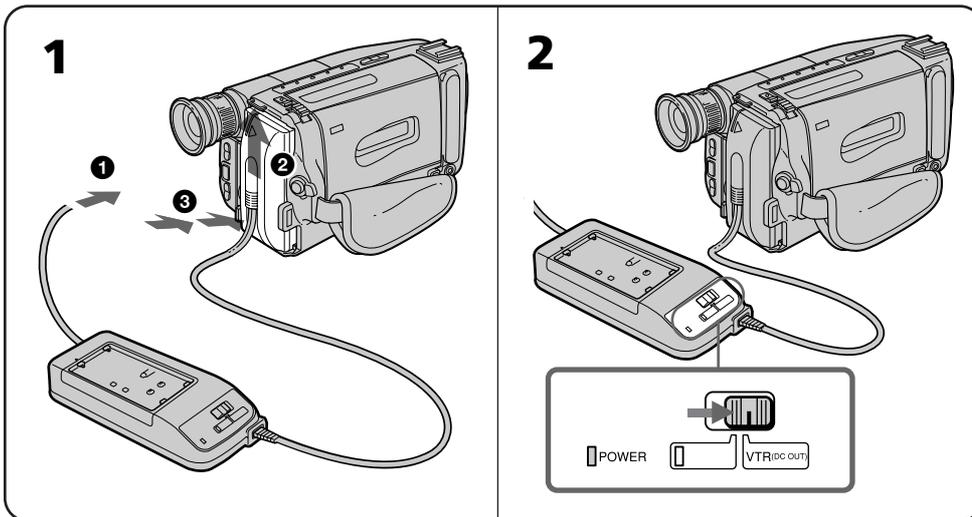
To use the supplied AC power adaptor:

- (1) Connect the mains to a wall outlet. Insert the top of the connecting plate of the AC power adaptor into the top of the battery mounting surface. Push the connecting plate so that it attaches firmly. Make sure that you hear clicks twice.
- (2) Set the selector to VTR (DC OUT).

### àÒÒÓÍ,ÁÓ,±ìÈÄ ~ÌÁÍÚ È~ÄÓÍÓÈ ÒÂÚË

ÑíÏ ÈÒÒÓÍ,ÁÓ,±ìÈÏ Ò Èì±,±ÁÍÓ,,Ò ÓÁÚÁ,Ó,,Ò ±%±ÔÚÁ ±ÒÁ ÁÍ.ÚÓÍ±:

- (1) èÒ%ÒÓÁ%ÈÌËÚÁÒÁÚÁ,ÒÈÒ Ó,Ó%ÒÁÚÁ,ÒÈ ÓÁÁÚÁ. ÇÒÚ±, ÚÁ, Á ìÈÈ ÍÒÍÁ ÓÓÁ%ÈÌËÚÁÌ ìÓÈÒì±ÒÚÈì ÓÁÚÁ,Ó,,Ò ±%±ÔÚÁ ± ÓÁ Áì. ÚÓÍ±, Á ì, ~±Ú, ~±Ú± ÁÈÌÓËÚÓÚ±ìÓ,Ó~ÌÓÈÓÓ,Á ìÌÓÓË. Ç±ÈÌËÚÁ ì± ÓÓÁ%ÈÌËÚÁÌ ìÚ, Òì±ÒÚÈÌÚ, Ú±ì, ~ÚÓ. Òì± Ò ÈÒÓÁ%ÈÌË±Ò, ì±%ÁÈÌÓ. ì.Á%ÈÚÁÒ,, ~ÚÓ. Ç ÚÓÍ~±ÌÈ ~Áì~Óì %,,±È%.
- (2) ìÓÚ±ìÓ,ÈÚÁ ÒÁìÁÍÚÓ, ÒÓÍÓÈÁìÈÄ VTR (DC OUT).



### WARNING

The mains lead must only be changed at qualified service shop.

### PRECAUTIONS

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.

èèÒÑìèèÖÜÑÒçàÖ èÁÚÁ,ÒÈ Ò Ó,Ó%ÒÍÁ%ÚÁÚ Á±ÌÁÌÚ, ÚÓÍ,ÍÓ, ì±ÚÁ ÒÍÓÈ ì,±ÌËÚÈ È Ó,±ìÓ,,Ò Ó.ÒìÚÈÈ,±ÌÈÏ.

èèÒÑèèìÖèÖÜÒçàÖ Ñ±ìì È ±ÒÒ± ±Ú ìÁ ÓÚìì ~±ÁÚÒÏ ÓÚ ÈÒÚÓ~ÌÈ± ÒÈÚ±ÌÈÏ ÓÁ Áì. ÚÓÍ±, ÒÓÍ± Òì ÓÒ%ÒÓÁ%ÈÌÁì ~ÌÁÍÚ È~ÄÓÍÓÈÒÁÚÈ,%±ÈÄ ÁÒÍÈ Ò±ì ±ÒÒ± ±Ú ÓÚìì,~Áì.

Advanced operations

ìÒÚ,Á -ÁìÓÚ,Ó,±ìì~Á ÓÓÁ ±ÈÈ



## Changing the mode settings

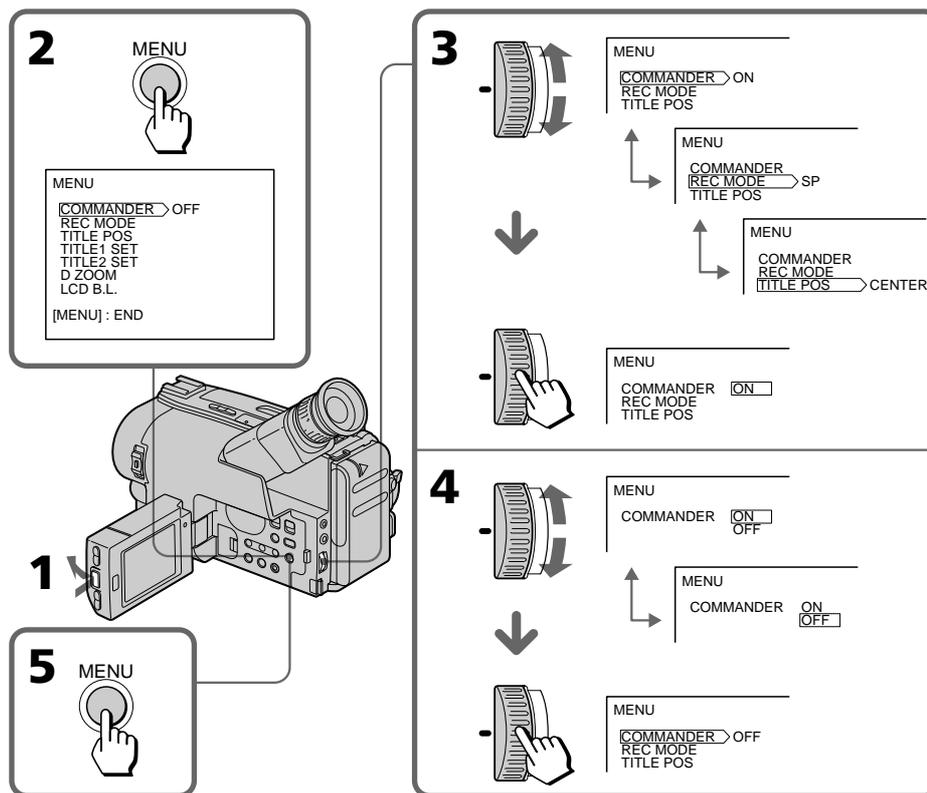
## Αλλάζοντας τις ρυθμίσεις λειτουργίας

You can change the mode settings to further enjoy the features and functions of the camcorder.

- (1) While pressing PUSH OPEN, open the LCD panel.
- (2) Press MENU to display the menu.
- (3) Turn the control dial to select the desired item, and press the dial.
- (4) Turn the control dial to select the desired mode, and press the dial.
- (5) Press MENU to erase the menu display.

Μπορείτε να αλλάξετε τις ρυθμίσεις λειτουργίας για να απολαύσετε περισσότερο τα χαρακτηριστικά και τις λειτουργίες της βινταγιέρας.

- (1) Καθώς πατάτε το PUSH OPEN, ανοίξτε το πάνελ της οθόνης.
- (2) Πατήστε το MENU για να εμφανιστεί το μενού.
- (3) Περάστε τον χειριστή για να επιλέξετε το επιθυμητό αντικείμενο, και πατήστε τον χειριστή.
- (4) Περάστε τον χειριστή για να επιλέξετε τον επιθυμητό τρόπο, και πατήστε τον χειριστή.
- (5) Πατήστε το MENU για να σβήσει το μενού.





## Changing the mode settings

## ÀÁÏÀÏÀÏÈÄ ÅÊËÏ, ÛÒÙ±ìó,óí

### REC LAMP\* <ON/OFF>

- Select OFF when you do not want the camera recording/battery lamp at the front of the unit to light up.
- Normally select ON.

### AUTO DATE\* <ON/OFF>

- Select ON to record the date for 10 seconds after recording has started.
- Select OFF to not record the date.

### CLOCK SET\*

Reset the date or time.

### DEMO MODE\* <ON/OFF>

- Select ON to make the demonstration appear.
- Select OFF to make the demonstration not appear.

\* These settings are retained even when the battery is removed, as long as the lithium battery is in place.

### Notes on DEMO MODE

- DEMO MODE is set to STBY at the factory and the demonstration starts about 10 minutes after you set the POWER switch to CAMERA without inserting a cassette. Note that you cannot select STBY of DEMO MODE in the menu system.
- You cannot select DEMO MODE when a cassette is inserted in the camcorder.
- If you insert a cassette during the demonstration, the demonstration stops. You can start recording as usual. DEMO MODE automatically returns to STBY.

### To look at the demonstration at once

Eject the cassette, if inserted. Select ON of DEMO MODE. Erase the menu display. The demonstration will begin. When you turn off the camcorder once, DEMO MODE automatically returns to STBY.

ãÄëéóä Ñäü áÄèàèä REC LAMP\* <ON/OFF>

- Ç·À ÈÚÄ OFF, ÅÒÏÈ Ç° ÌÄ ÌÓÙÈÚÄ, ~ÚÓ° , Ó·Ä·È, ±ì±ò, Ì±ìÓÓ·Ì± Ä±ÒÈÒÈ/·±Ú± ÄÈ , È%·ÄÓÏ±Ä ° ÓÒÄ Å%·ÌÄÈÓÙÓ Óì° ±Ò±±±±
- é·~ìó , °È ±ÄÚÒfl ON.

ÄÇíéääÄíäóÖëääÜ ÑÄíÄ AUTO DATE\* <ON/OFF>

- Ç·À ÈÚÄ ON %·fl Ä±ÒÈÒÈ %±Ú° , ÚÄ·ÄÌÈÄ 10 ÓÄÌÚì% ÓÓÓÌÄ Ì±±± Ä±ÒÈÒÈ.
- Ç·À ÈÚÄ OFF, ~ÚÓ° ÌÄ Ä±ÒÈÒ° , ±Ú , %±ÚÚ.

ìëíÄçéçäÄ óÄëéç CLOCK SET\* ÌÓÙ±ìó,ÈÚÄ Ä±ìó,Ó %±ÚÚ ÈÌÈ , Äfl.

ÑÖäéçëíÈÄñäéççöä êÖÜää DEMO MODE\* <ON/OFF>

- Ç·À ÈÚÄ ON, ~ÚÓ° ÓÓfl, flfl±ò, %·ÄÌÓÌÓÙ ±Èfl.
- Ç·À ÈÚÄ OFF, ~ÚÓ° ÌÄ ÓÓfl, flfl±ò, %·ÄÌÓÌÓÙ ±Èfl.

\* ùÙÈ ÛÒÙ±ìó,ìÈ ÓÓì ±fl, ÛÒfl%±ÈÄ ÓÓÓÌÄ ÓìflÚÈfl, ±Ú± ÄÈìó,Ó ·ìó±, ÅÒÏÈ ÌÈÚÈÄ, ±fl ±Ú± ÄÈ±·Ù%·ÄÚ ÓÓÙ±, ±Ú, Ófl ±ìÄÓÙÄ.

è ÈÌÄ·±ìÈfl ÓÚÌÓÒÈÚÄÌ ÌÓ %·ÄÌÓÌÓÙ ±ÈÈÓììó, Ó ÄÈÈ± DEMO MODE

- Ç±Ä±,Ó%·Ä·ÈÄ,ÓÙÓ,ÈÚÄÌÄ DEMO MODE ÛÓÙ±ìó,ÌÄì, ÓÓÌÓÈÄÌÈÄ STBY, È %·ÄÌÓÌÓÙ ±Èfl ±ìÄÚÒfl Ó ÈÌÄ ÌÓ·Ä ÄÄ 10 ÌÈÌÚÚ ÓÓÓÌÄ ÛÓÙ±ìó,ìÈ , Ìì·±ÚÄflfl POWER , ÓÓÌÓÈÄÌÈÄ CAMERA ·ÄÄ ÛÓÙ±ìó,ìÈ Ì±ÒÓÄÚ°
- é· ±ÚÈÚÄ , ÌÈ±ìÈÄ, ~ÚÓ Ç° ÌÄ ÌÓÈÄÚÄ , ° ±Ú ÛÓÙ±ìó,ìÚ STBY %·ÄÌÓÌÓÙ ±ÈÈÓììó, Ó ÄÈÈ± DEMO MODE , ÓÈÈÓÙÄÌÄ ÌÄì.
- Ç° ÌÄ ÌÓÈÄÚÄ , ° ±Ú, %·ÄÌÓÌÓÙ ±ÈÈÓììÈ ÄÈÈÌ DEMO MODE, ÅÒÏÈ , È%·ÄÓÏ±Ä Û , Ò±,ÌÄì± Ì±ÒÓÄÚ±.
- ÓÓÏÈ Ç° , ÓÙ±,ÈÌÈ Ì±ÒÓÄÚÚ, Ó, Äfl %·ÄÌÓÌÓÙ ±ÈÈ,ÙÓ%·ÄÌÓÌÓÙ ±Èfl,Ù%·ÄÚ ÓÓÙ±ìó,ÌÄì±. Ç° ÌÓÈÄÚÄ Ì±±Ú, Ä±ÒÈÒ, Ì±í Ó·~ìó. ÑÄÌÓÌÓÙ ±ÈÈÓììÈ ÄÈÈÌ DEMO MODE ±,ÚÓì±ÙÈ·ÄÓÏÈ, Ä ÌÄÚÒfl , STBY.

Ñflfl ÌÄÌÄ%·ÄÌìó,Ó Ó ÓÓìÓÙ ± %·ÄÌÓÌÓÙ ±ÈÈ

- Ç·Ì,ÚÄ Ì±ÒÓÄÚÚ, ÅÒÏÈ òì±, ÒÙ±,ÌÄì±. Ç·À ÈÚÄ ON %·ÄÌÓÌÓÙ ±ÈÈÓììó,Ó ÄÈÈ± DEMO MODE. Ì%±ìÈÚÄ Èì%Èì±ÈÈ ÌÄì, Ç±ìÄÚÒfl%·ÄÌÓÌÓÙ ±Èfl.
- ÓÓÏÈ Ç° , Ìì·ÈÚÄ, È%·ÄÓÏ±Ä Û, ÄÈÈÌ DEMO MODE ±,ÚÓì±ÙÈ·ÄÓÏÈ, Ä ÌÄÚÒfl , ÓÓÌÓÈÄÌÈÄ STBY.

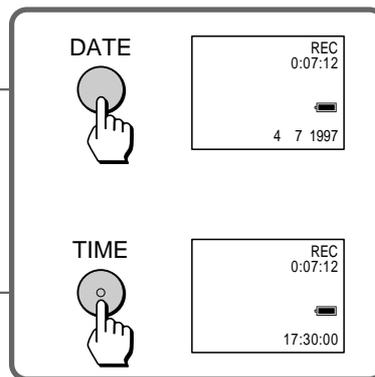
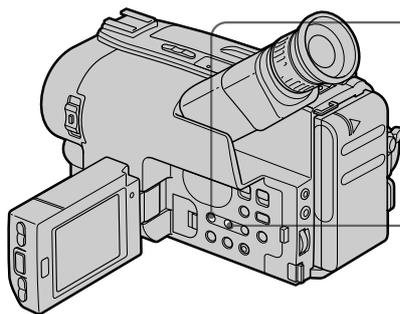
## Recording with the date or time

## Á±ÔÈÒ Ò%±ÚÓÈÈÏÈ , ÁÌÁÌÁÌ

Before you start recording or during recording, press DATE or TIME inside the LCD panel. You can record the date or time displayed on the LCD screen or in the viewfinder with the picture. You cannot record the date and time at the same time. Except for the date or time indicator, no indicator is recorded.

The clock is set at the factory to Sydney time for Australia and New Zealand models, to Tokyo time for the models sold in Japan and to Hong Kong time for other models. You can reset the clock in the menu system.

èepe% ÚÁÌ, í±í ì±±Ú Á±ÔÈÒ ÈÏÈ Ó , ÁÌÁÌ Á±ÔÈÒÈ ì±ÈÏÈÚÁ ÌÍÓÓÍÚ DATE ÈÏÈ TIME ÓÓ% Ó±íÁÌ, ÚáÑ. Ç° ÍÓÈÁÚÁ Á±ÔÈÒ±Ú, %±ÚÚ ÈÏÈ , ÁÌÁÌ, ÓÚÓ. ±È±ÁÌ°Á ì± í±íÁ ÚáÑ ÈÏÈ , È%ÓÈÒí±ÚÁÌÁ, ÌÁÓÚÁ Ó ÈÁÓ. ±ÈÁÌÈÁÌ. Ç° ÌÁ ÍÓÈÁÚÁ Á±ÔÈÒ°±Ú, %±ÚÚ È, ÁÌÁÌ Ó%ÍÓ, ÁÌÁÌÍÓ. á ÓÍÁ ÈÏÈÈÏ±ÚÓ ± %±Ú° ÈÏÈ , ÁÌÁÌÈ, ÌÈí±ÍÓÈ %Ú, ÓÈÈÏ%ÈÏ±ÚÓ Á±ÔÈÒ°±Ú, ÓÍÁ·Ú%ÁÚ. ó±Ó° ÚÓÚ±ÍÓ, ÍÁÌ° ì± Á±, Ó%Á ì± , ÁÌÁÌ èÈ%ÍÁÌ%ÍÁÌ%±Ú, ÓÚ ±ÈÈÓÍÓÈ È ÍÓ, ÓÁÁÌ±%ÓÍÓÈ ÍÓ%ÁÌÁÈ, ì± , ÁÌÁÌ ÍÓÍÈÓ %ÍÁÌ ÍÓ%ÁÌÁÈ, Ó Ó%±, ±ÁÌ°í, ùÓÓÍÈÈ È ì± , ÁÌÁÌ ÈÓÍÍÓÌ, ± %ÍÁÌ ÓÓÚ±Ì°í ÍÓ%ÁÌÁÈ. Ç° ÍÓÈÁÚÁ, °ÓÍÍÈÚ, ÓÓ, ÚÓ ÍÚ, ÚÓÚ±ÍÓ, ÍÚ ±±ÓÓ, , ÓÈÓÚÁÌÁ ÍÁÌ.



### To stop recording with the date or time

Press DATE or TIME again. The date or time indicator disappears. The recording continues.

#### Note

You cannot superimpose a title during recording the date or time.

ÑÍÁ ÓÓÚ±ÍÓ, ÍÈ Á±ÔÈÒÈÒ Ò %±ÚÓÈÈÈÈ , ÁÌÁÌÁÌÁÌ Ç±ÈÏÈÚÁ DATE ÈÏÈ TIME òÍÓ, ±. àì%ÈÏ±ÚÓ %±Ú° ÈÏÈ , ÁÌÁÌÈ ÈÓ°ÁÁÌÁÚ. á±ÔÈÒ, ÓÓ%ÓÍÈÈÚÓÍ.

è ÈÌÁ°±ÌÈÁ Ç° ÌÁ ÍÓÈÁÚÁ Ì±ÍÓÈÈÚ ì±%ÓÈÒ, Ó , ÁÌÁÌ Á±ÔÈÒÈÈ %±Ú° ÈÏÈ , ÁÌÁÌÈ.



## Fade-in and fade-out

Ç, Â%oÂiËÂ È , ;, Â%oÂiËÂ  
ÉÁÓ. †ÉÂiËfi

You can fade in or out to give your recording a professional appearance. When fading in, the picture gradually fades in from black while the sound increases. When fading out, the picture gradually fades to black while the sound decreases.

### When fading in [a]

- (1) While the camcorder is in Standby mode, press FADER. The FADER indicator starts flashing.
- (2) Press START/STOP to start recording. The FADER indicator stops flashing.

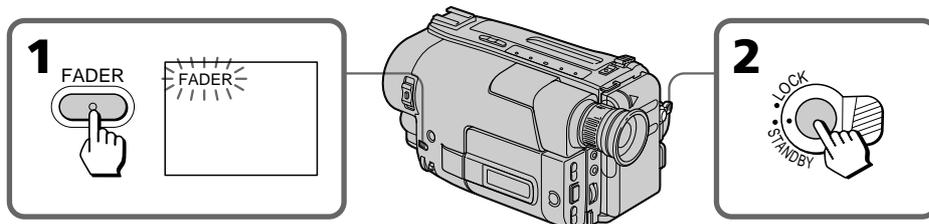
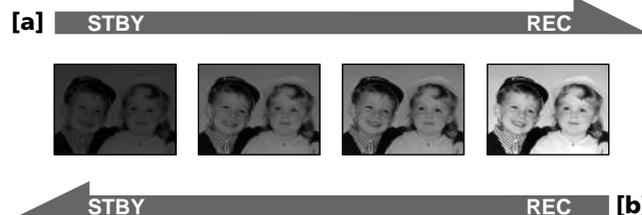
### When fading out [b]

- (1) During recording, press FADER. The FADER indicator starts flashing.
- (2) Press START/STOP to stop recording. The FADER indicator stops flashing, and then recording stops.

Ç° İÖÉÂÚÂ „Ó%oÉÚ, ÈiË ; , Ó%oÉÚ,  
ÉÁÓ. †ÉÂiËÂ, ÚÓÓ È%o†ÓÚÇ†-ÁÉÁ†ÓÈÒÈ  
Ó ÓÚÂÓÓÈÓi†i, i'È , È%o.  
è È „, Â%oÂiËÈÈ ÉÁÓ. †ÉÂiËÂ ÓÓÓÚÂÓÂiìÓ  
ÓÓfi, i†iÁÚÓfi ÈÁ ~Á İÓ, Ó ~í †i†, † Á, Úi  
ÚÓÈiË, †ÁÚÓfi.  
è È „, Â%oÂiËÈÈ ÉÁÓ. †ÉÂiËÂ ÓÓÓÚÂÓÂiìÓ  
ÈÒ-ÁÁ†ÁÚ È ÓÂ ÂiÓ%oÉÚ, ~Âi'È ~í †i, † Á, Úi  
Á†ÚÈ†ÁÚ.

- è È „, Â%oÂiËÈÈ ÉÁÓ. †ÉÂiËfi [a]
- (1) Ç ÚÓ , Âfi, İÓ, %o†, È%oÂÓi†iÂ †  
i†iÓ%oÉÚÓfi, ÁÈÈiÂ „ÓÚÓ, İÓÓÚÈ, i†ÈiËÚÂ  
İİÓÓiÚ FADER. ài%oÈi†ÚÓ FADER  
i†iÁÚ İÈ, †Ú.
  - (2) Ç†ÈiËÚÂ İİÓÓiÚ START/STOP %oifi  
i†i†i†Á†ÓÈÈÈ. ài%oÈi†ÚÓ FADER  
Ó Âi †ÚÈÚiÈ, †Ú.

- è È , ;, Â%oÂiËÈÈ ÉÁÓ. †ÉÂiËfi [b]
- (1) Ç†ÈiËÚÂ , Ó , Âfi Á†ÓÈÈÈ İİÓÓiÚ FADER.  
ài%oÈi†ÚÓ FADER i†iÁÚ İÈ, †Ú.
  - (2) Ç†ÈiËÚÂ İİÓÓiÚ START/STOP %oifi  
ÓÓÚ†iÓ, İÉÁ†ÓÈÈÈ. ài%oÈi†ÚÓ FADER  
Ó Âi †ÚÈÚiÈ, †Ú, ÓÓÓiÂ ~Á, Ó i†iÁÚÓfi  
Á†ÓÈÈ.





## Enjoying picture effect

àÒÒÓÎ ÁÓ,†ÏËÄ ~ÙÙÂÍÚÓ,  
ËÁÓ. †ËÂÏËñ

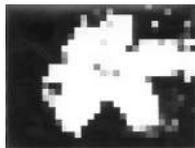
### Selecting picture effect

ë ÒÓÍÓ~, ùÙÏÍ~ËË ~ÙÙÂÍÚ†

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

Ç° ÌÓËÂÚÁ ÒÓÁ%†,†Ú, ËÁÓ. †ËÂÏËñ Ì† Ì†  
ÚÂÏÁ,Ë%ÂÏËË.

[a]



[b]



[c]



#### MOSAIC [a]

The picture is mosaic.

áéáÄàäÄ [a]

àÁÓ. †ËÂÏËÄ Ò Á%ÒÚ†,†ÚÙÒñ, Ë%Á  
ÏÓÁ†ËËË.

#### SOLARIZE [b]

The light intensity is more clear, and the picture looks like a painting.

ëéäüêääÄñàü [b]

ìÒËÏË,†ÁÚÒññ ÌÓÓÙ Ò,ÁÚ†ËËËÁÓ. †ËÂÏËÄ  
,,,†ñ%ËËË ÒÓ%Ò-ÌÓ ÌÙ%ÒËÄÓÙ,ÂÏÏËË Ì† ÚËÏÁ.

#### B&W

The picture is monochrome (black and white).

óÖêçé-ÄÖãéÖ àáéÄêÄÜÖçàÖ

àÁÓ. †ËÂÏËÄ ÒÚ†ÌÓ,ËÚÒñ

ÏÓÌÓ, Ò††ÚËË~ÄÒÏËË (~Ä ÌÓ--Â††).

#### SEPIA

The picture is sepia.

ë Òè à ü

àÁÓ. †ËÂÏËÄ Ò ÁÓ. †ÁÚÁÚÒñ, ^ÁÚÒÁÖËË.

#### NEG. ART [c]

The colour of the picture is reversed.

çÖËÄÏàÇçéÖ àèäìèèìÇé [c]

àÁÓ. †ËÂÏËÄ Ò Á%ÒÚ†,†ÚÙÒñ, ÌÁ,,†ÚËË,ÌÓ†  
^,ÁÚÁ.

## Enjoying picture effect

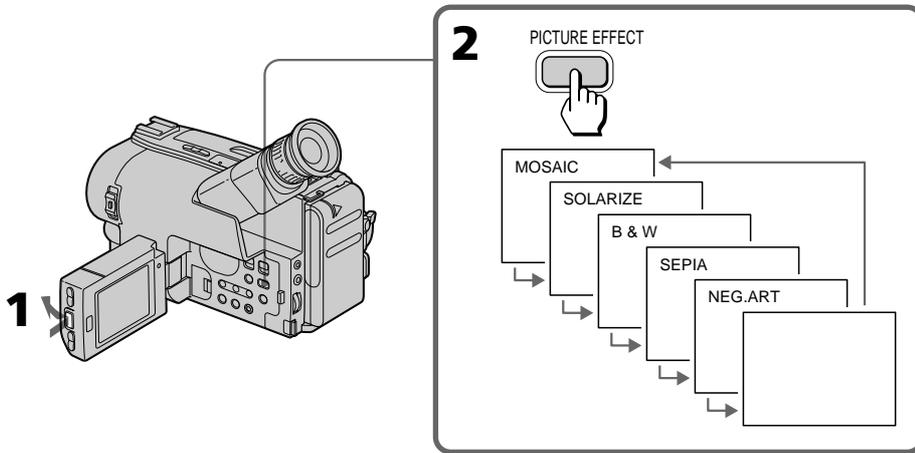
àòòóí.áó,†ìĒÂ ~ùúáíúó,  
ĒÁÓ. †ĒĀĪĒfl

### Using picture effect function

- (1) While pressing PUSH OPEN, open the LCD panel.
- (2) While the camcorder is in Standby mode, press PICTURE EFFECT to select the desired Picture Effect mode.

ä†í òóí.áó,†ú,òfl ùùíí~ĒĀĒ  
~ùúáíúó, ĒÁÓ. †ĒĀĪĒfl

- (1) ÑĀ Ē† ì†Ē†úóĒĒ ìíóóíú PUSH OPEN, óúí óĒúĀ ò†ĀĪ, ùāÑ.
- (2) Ç úó, Āfl, ĩ†í,Ē%áóí†Ā† † ì†íó%Ēúófl, ĀĒĒĪĀ „óúó,íóóúĒ, ì†ĒĒĒĒĒ ìíóóíú PICTURE EFFECT %ófl, °.ó † ĒĀĪ†Āíó,ó ĀĒĒĪ† ~ùúáíúó, ĒÁÓ. †ĒĀĪĒfl.



### Returning to normal mode

Press PICTURE EFFECT until the Picture Effect indicator disappears.

### Note on the picture effect

When you turn the power off, the camcorder returns automatically to normal mode.

çóá, †ú í ìó ì†í,íóíú ĀĒĒĪŮ  
ç†ĒĒĒĒĒĒ ìíóóíú PICTURE EFFECT %ó úĀĪ  
óó, óóí†Ē%ĒĪ†úó ~ùúáíúó,  
ĒÁÓ. †ĒĀĪĒfl ĪĀĒŮ-ĀĀĪĀŮ.

Ē ĒĪĀ~†ĪĒĀ óúíóóĒĒĒĒ,íó ~ùúáíúó,  
ĒÁÓ. †ĒĀĪĒfl  
òòĪĒ ç°, ĪĪ ~ĒĒĒĒĒ ĒĒĒĒĒĒĒ, Ē%áóí†Ā† †  
†,úóí†úĒĒĒĒĒ, Ā ĪĀŮòfl í ìó ì†í,íóíú  
ĀĒĒĪŮ.

Advanced operations ìòò.Ā -ĀĪóú,ó,†ĪĪ~Ā óóĀ†ĒĒĒ



## Using the wide mode function

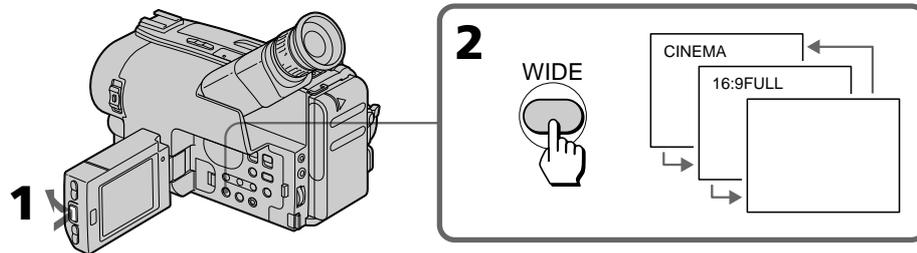
àÒÒÓÎ,ÁÓ,±ÌËÂ ÙÙÌÍ^ËË  
-Ë ÓÍÓÚÓ Ì±ÚÌÓ,,Ó ÆËËÌ±

## Using the wide mode function

- (1) While pressing PUSH OPEN, open the LCD panel.
- (2) While the camcorder is in Standby mode, press WIDE repeatedly so that the desired mode indicator appears.

àÒÒÓÎ,ÁÓ,±ÌËÂ ÙÙÌÍ^ËË  
-Ë ÓÍÓÚÓ Ì±ÚÌÓ,,Ó ÆËËÌ±

- (1) ÑÄ Ë± Ì±Ë±ÚÓË ÌÍÓÓÍÙ PUSH OPEN, ÓÚÍ ÓËÚÄ Ó±ÌÄÌ, ÙÄÑ.
- (2) Ç ÓÚÓ, ÄÌñ, Ì±Ì, Ë%ÄÓÍ±Ä ± Ì±ÍÓ%ËÙÒñ, ÆËËÌÄ,,ÓÚÓ,ÍÓÓÚË, Ì±ËËÌ±ËÚÄ ÓÓ,ÚÓ ÌÓ ÌÍÓÓÍÙ WIDE, ÙÄÌ, ~ÚÓ~ ÓÓñ,ËÍÓñ ËÌ%ËÌ±ÚÓ ËÄÌ±ÄÍÓ,,Ó ÆËËÌ±.



### To cancel wide mode

Press WIDE repeatedly until the wide mode indicator disappears.

### To watch the tape recorded in wide mode

To watch the tape recorded in CINEMA mode, set the screen mode of the wide-screen TV to zoom mode. To watch the tape recorded in 16:9FULL mode, set it to full mode. For details, refer to the instruction manual of your TV. Note that the picture recorded in 16:9FULL mode looks compressed on a normal TV.

### Notes on wide mode

- You cannot cancel the wide mode during recording.
- If wide mode is set to 16:9FULL, the SteadyShot function does not work and the indicator flashes.
- When you record in 16:9FULL mode, the date or time indicator will be widened on the wide-screen TV.
- If you dub a tape, the tape is copied in the same mode as the original recording.
- The wide mode is cancelled automatically 5 minutes after you remove the power source.

ÑÌñ ÓÚÍÄÌ° -Ë ÓÍÓÚÓ Ì±ÚÌÓ,,Ó ÆËËÌ±  
ç±ËËÌ±ËÚÄ ÓÓ,ÚÓ ÌÓ ÌÍÓÓÍÙ WIDE, ÓÓÍ± ËÌ%ËÌ±ÚÓ -Ë ÓÍÓÚÓ Ì±ÚÌÓ,,Ó ÆËËÌ± ÄË Ó°ÄÄÍÄÙ.

ÑÌñ Ó ÓÓÍÓÚ ± Ä±ÓËË ÌÄÍÙ°, -Ë ÓÍÓÚÓ Ì±ÚÌÓ ÆËËÌÄ  
ÑÌñ Ó ÓÓÍÓÚ ±Ä±ÓËË, ÆËËÌÄ CINEMA ÙÓÚ±ÍÓ,ËÚÄ ~Ì ÌÌ°Ë ÆËËÌ  
-Ë ÓÍÓ~Ì Ì±ÌÓ,Ó ÙÄÌÄ,ËÄÓ ±, ÆËËÌ Ì±Ó~Ú±-Ë Ó~ÌËñ. ÑÌñ Ó ÓÓÍÓÚ ±Ä±ÓËË ÌÄÍÙ°, ÆËËÌÄ 16:9FULL ÙÓÚ±ÍÓ,ËÚÄ ÙÄÌÄ,ËÄÓ, ÓÓÌÍÓÚÓ Ì±ÚÌ°Ë ÆËËÌ. ÓÚÓ Ì±Ó±ÄÙÓñÓÓ% Ó~ÍÓÓÚÄË.Ó. ±ËËÚÄÓ,Í ÙÍÓ Ó%ÓÚ,ÚÓÓ ÌÓÓÍÙ±Ú±ËËç±Ä,Ó ÙÄÌÄ,ËÄÓ ±. èÓÌËËÚÄ, ~ÚÓ ËÄÓ. ±ËÄÌËÄ, Ä±ÓËË±ÌÍÓÄ, ÆËËÌÄ 16:9FULL, Ì± ÌÓ Ì±Ì,ÍÓÌ ÙÄÌÄ,ËÄÓ Ä ~Ú%ÄÙ ÓË±Ú°Ì.

- è ËÌÄ~ÌËñ ÓÚÍÓÒËÚÄÌ,ÍÓ -Ë ÓÍÓÚÓ Ì±ÚÌÓ,,Ó ÆËËÌ±
- ÇÓ, ÄÌñ Ä±ÓËË Ç° ÄÄ ÍÓËÄÚÄ ÓÚÍÄÌËËÚ, -Ë ÓÍÓÚÓ Ì±ÚÌ°Ë ÆËËÌ.
  - ÓÓÍË -Ë ÓÍÓÚÓ Ì±ÚÌ°Ë ÆËËÌ ÙÓÓÚ±ÍÓ,ÄÌ ÓÓÍÓËÄÌËÄ 16:9FULL, ÙÙÌÍ^ËË ÒÚ±.ËÌËÄ±ËË ËÄÓ. ±ËÄÌËñ SteadyShot ÄÄ ~Ú%ÄÙ ±ÓÚ±Ú,±ËÌ%ËÌ±ÚÓ ~Ú%ÄÙ ÌË±Ú.
  - è Ë, ÓÓÌÍÄÌËË Ä±ÓËË, ÆËËÌÄ 16:9FULL ËÌ%ËÌ±Ëñ %Ó±Ú° ËÌË, ÄÄÌËË ~Ú%ÄÙ ±ÓË ÄÌÍËË Ì± -Ë ÓÍÓ~Ì Ì±ÌÍÓ ÙÄÌÄ,ËÄÓÄ.
  - Ç ÓÍÙ±Ä, °ÓÓÌÄÌËñ %Ó~ÌË Ó~ÌËñ ÄÄÍÙ± ~Ú%ÄÙ ÌÓÓË Ó,±Ú,Óñ, ÙÓÍËÄ ÆËËÌÄ, ~ÚÓË ÓËË Ì±Ì Ä±ÓËË.
  - ÓÄ ÄÄSíËÌÙÓÓÓÍÄÓÓÚÓÓÄ%ËÌÄÌËñ ËÓÚÓ~ÌËÌ± ÒËË±Ëñ -Ë ÓÍÓ~Ì Ì±Ì°Ë ÆËËÌ ~Ú%ÄÙ Ì±ÌËË Ó,±Ì ±,ÚÓÍ±ËËÄÓÍË.





## Using the PROGRAM AE function

## ÀÒÓÓÍ ÁÓ, †ÏËÄ ÙÛÏËË PROGRAM AE

You can select from three PROGRAM AE (Auto Exposure) modes to suit your shooting situation. When you use PROGRAM AE, you can capture high-speed action or night views.

### Selecting the best mode

Select the best mode by using the following examples.

Ç° ÌÖËÄÚÄ , ° †Ú, Ó%ÈÌ ËÄ Ú ÄÌ ÆËËÏ, PROGRAM AE (†, ÚÓÍ†ÚË ÄÓÍÖË Ò ÄÏËË) , ÒÓÓÚ, ÄÚÓÚ, ËËÓÇ† ÄËÖËÚ† ÄËË. ÒÓËÇ° ÈÖÓÓÍ, ÄÚÄÚÄ PROGRAM AE, Ç° ÌÖËÄÚÄ Ä†ÖÄ†ÚÍÄÚ, °ÒÓÍÓÓÍ ÓÓÚÍÖÄ%ÄËÖÚ, ËÄ ÈËË ÌÓ†Ä , È%°.

### Ç° Ó Ì†ËËÛ~Ä, Ó ÄËËË†

Ç° Ä ÈÚÄ Ì†ËËÛ~ËË ÄËËË, ÈÖÓÓÍ, ÄÚÏ ÓÍÄ%Ú, ËÄ Ó ÈËÄ °.



### Sports mode

- Outdoor sports scenes such as football, tennis, golf or skiing
- A landscape in a moving car

### ÈÄËËË ÒÓÓ Ú†

- èÓÓ ÚË, ÌÄ ÒÄÌ , ÌÄ ÒÓÍÄÄÏËÏ, Ì†Ö ÈËÄ , ÚÚÚ.ÓÍ, ÚÄÏËË, „ÓÍ, Ú ÈËË Ì ° È È
- ä†Ì%~†ÚÚ ËÄ % , ÈËÛ~Ä, ÒÒÏ †, ÚÓÓ.ËÏÏ

### High-speed shutter mode

- A golf swing or a tennis match in fine weather with the ball captured clearly
- Playing back certain scenes with high-speed movements in clear, sharp picture

### ÈÄËËË , °ÒÓÍÓÓÍ ÓÓÚÍÖ, Ó Ä†Ú.Ó†

- ÇÁÍ†ËË , Ó , ÄÏÏ È , ° , „ÓÍ.Ú ÈËË ÚÄÏËË ÌÓ ÓÚ. ÓÓ, Ó%Ú Ò ÄÚÍËË Ä†ÖÄ†ÚÍÄËÄË ÌÏ~†
- ÇÓÓÓ ÓËÄ, Ä%ÄËËÄÓÓ Ä%ÄËËËË ÌÓ ÄËË ÌÓ ÒÓÍÓÓÍ ÓÓÚÍËË % , ÈËËËËËË Ò ÄÚÍËË, ÄÄËËË ÈÄÓ. †ÈÄËËËË

### Twilight mode

- Recording night views, neon signs or fireworks

### ÈÄËËË ÒÚËÄ ÄÍ

- ä†ÖËË, ÌÓ†Ä , È%Ó, ÌÄÓÍÓ, ÌÄ ÄËËË ÈËË ÚÄËÄ , Ä ÍÓ,



## Shooting with backlighting

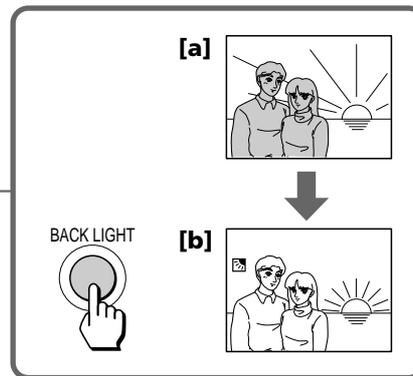
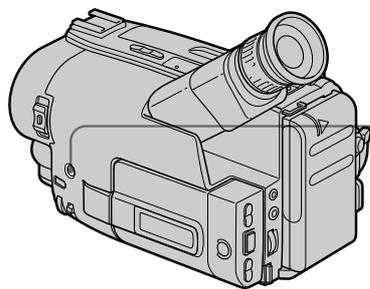
## Επιχειρήματα με φωτισμό από πίσω

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

Όταν φωτογραφίζετε θέμα με την πηγή φωτός πίσω από το θέμα ή θέμα με φωτεινό φόντο, χρησιμοποιήστε τη λειτουργία BACK LIGHT.

Press BACK LIGHT. The  indicator appears in the viewfinder or on the LCD screen.

Πατήστε το BACK LIGHT. Το  εμφανίζεται στο οπίσθιο οπτικό πεδίο ή στην οθόνη LCD.



**[a]** Subject is too dark because of backlight.

**[b]** Subject becomes bright with backlight compensation.

**[a]** Το θέμα είναι πολύ σκοτεινό λόγω φωτισμού από πίσω.

**[b]** Το θέμα γίνεται φωτεινό με την αποζημίωση φωτισμού από πίσω.

### After shooting

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

Μετά τη λήψη

βεβαιωθείτε ότι απελευθερώσατε αυτήν την κατάσταση ρύθμισης πατώντας ξανά το BACK LIGHT. Το  δεν εμφανίζεται πλέον. Διαφορετικά, η εικόνα θα είναι πολύ φωτεινή υπό κανονικές συνθήκες φωτισμού.

### This function is also effective under following conditions:

- On snow e.g. at the ski resort
- At the beach under strong sunshine
- 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 fiber, his or her face tends to become dark if you do not use this function.

Επίσης, αυτή η λειτουργία είναι αποτελεσματική υπό τις ακόλουθες συνθήκες:

- σε χιόνι, π.χ. στα σκι
- στην παραλία με έντονο ηλιακό φως
- θέμα με πηγή φωτός κοντά ή με καθρέφτη που αντανακλά το φως
- θέμα με λευκό φόντο. Ειδικά όταν φωτογραφίζετε άτομο που φοράει λαμπερά ρούχα από μεταξοστόχο ή συνθετικό υλικό, το πρόσωπό του μπορεί να σκουραίνει αν δεν χρησιμοποιήσετε αυτή τη λειτουργία.

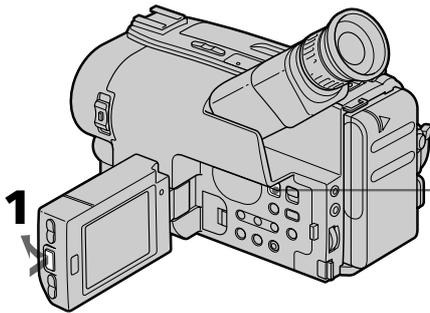
## Releasing the STEADY SHOT function

### – CCD-TRV24E only

When you shoot, the  indicator appears. This indicates that the SteadyShot function is working and the camcorder compensates for camera-shake.

You can release the SteadyShot function when you do not need to use the SteadyShot function. Do not use the SteadyShot function when shooting a stationary object with a tripod.

- (1) While pressing PUSH OPEN, open the LCD panel.
- (2) Set STEADY SHOT to OFF. The  indicator goes off.



### To activate the SteadyShot function again

Set STEADY SHOT to ON.

### Notes on the SteadyShot

- The SteadyShot will not correct excessive camera-shake.
- When you switch the SteadyShot function on or off, the exposure may fluctuate.
- When you record in 16:9FULL mode, the SteadyShot function does not work and the  indicator flashes.

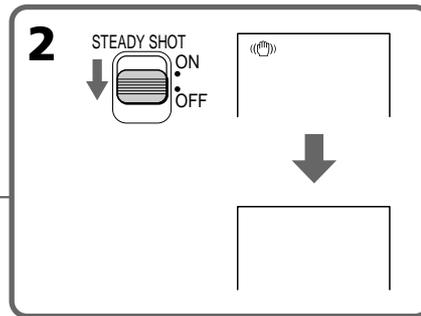
## ÇÍÛ~ÂÏËÂ ÙÛÏ^ËË STÉADY SHOT

### — ÍÓÏ,ÍÓ CCD-TRV24E

è È , ÓÓÏÏÂÏËË Ò ÂÏÏË ÓÓÏ,ËÛÒÏ ËÏ%ÈÏ±ÚÓ “  ”. ÙÚÓÓÂÏ±±ÁÚ,~ÚÓ,ÏÏ~ÂÏ± ÙÛÏÏ^ËË SteadyShot È ±ÓÓ± ±Ú ÍÓÏÓÂÏËË ÚÁÚÓÓ% ±,È,±ÏËÁ,Ë%ÁÓÏ±ÏÁ °.

Ç° ÏÓËÁÚÁ ÓÚÏÂÏËË, ÙÛÏÏ^ËË SteadyShot, ÁÓÏË ÏÁÚ ÏÛË%° ÈÓÓÓÏ,ÁÓ,±Ú, ÙÛÏÏ^ËË ÍÓÏÓÂÏËË±ËË ÓÓ% ±,È,±ÏËÏ,Ë%ÁÓÏ±ÏÁ °. ÇÁ ÓÏÁ%ÚÁÚ ÈÓÓÓÏ,ÁÓ,±Ú, ÙÛÏÏ^ËË SteadyShot Ò È Ò ÂÏÏÁ ÏÁÓÓ%,,ÈËÏÏ Ò·ÂÏÚÓ, Ò ÓÓÏÓ°, Ù ÂÏÓ,,È.

- (1) Ç±Ë±,ÍÓÓÓÏÛ PUSH OPEN, ÓÚÏ ÓËÚÁ Ó±ÏÁÏ, ÙáÑ.
- (2) ÏÓÛ±ÏÓ,ËÚÁ STEADY SHOT , ÓÓÏÓËÂÏËÁ OFF. àÏ%ÈÏ±ÚÓ “  ” ÈÒ~ÁÁÏÁÚ.



ÑÏÏ ÚÓ,,Ó, ~ÚÓ.° Á±%ÁËÈÓÚ,Ó,±Ú, ÙÛÏÏ^ËË SteadyShot çÏÓ,±. ÏÓÛ±ÏÓ,ËÚÁ STEADY SHOT , ÓÓÏÓËÂÏËÁ ON.

è ÈÏÁ~±ÏËÏ ÓÚÏÓÈËÚÁÏ,ÍÓ ÙÛÏÏ^ËË SteadyShot

- ÏÛÏÏ^ËË SteadyShot ÏÁ Ï,ÏÏÁÚÏ ÏÛÛÁÏË,ÏÈÈ %ÏÏ Ï~ÁÁÏÁ ÏÓ,,Ó ÓÓ% ±,È,±ÏËÏ,Ë%ÁÓÏ±ÏÁ °.
- è È ,ÏÏ~ÂÏËË ÈÏË ,ÏÏ~ÂÏËË ÙÛÏÏ^ËË SteadyShot,ÓÁÏÓËÏÓ ÓÓ% ±,È,±ÏËÁ Ï±% ±.
- è È , ÓÓÏÏÂÏËË Á±ÓÈÓÈ, ÁËËÏÁ 16:9FULL ÙÛÏÏ^ËË SteadyShot ÏÁ ±.ÓÚ±ÁÚ, ±ÈÏ%ÈÏ±ÚÓ “  ”. Ù%ÁÚÏË,±Ú,.

## Superimposing a title

## ç†İÓÊÂÏËÄ Ì†%ÔËÒË

You can select from eight preset titles and two titles you made to superimpose it on the picture during recording. Each time you press TITLE, the preset titles appear one by one.

### To superimpose from the beginning

- (1) Set the POWER switch to CAMERA.
- (2) Turn STANDBY up.
- (3) While pressing PUSH OPEN, open the LCD panel.
- (4) Press TITLE repeatedly until the desired title appears. The title flashes.
- (5) Press START/STOP to start recording.
- (6) Press TITLE when you want to turn off the title.

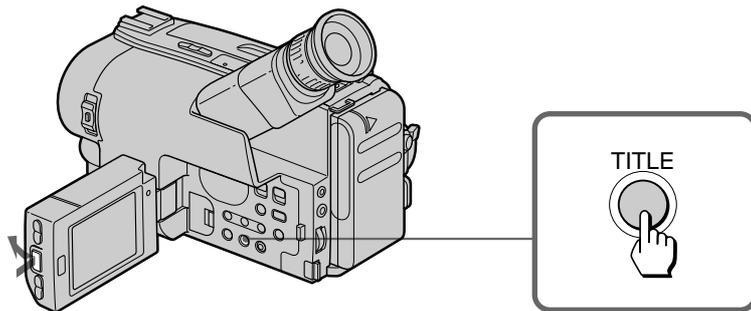
### To superimpose on the way of recording

- (1) Press TITLE repeatedly until the desired title appears. The title flashes.
- (2) When the title stops flashing, press TITLE. The title disappears.
- (3) Press START/STOP to start recording.
- (4) Press TITLE when you want superimpose the title.
- (5) Press TITLE when you want to turn off the title.

Ç° İÓÊÄÚÄ , °. †Ú, Ó%ÌÚ ÈÄ , ÓÒ, ÏË  
 Ô Ä%„† ÈÚÄÏ, İÓ ÚÒÚ†İÓ, İÄÏ† İ†%ÔËÒÄË È  
 %„Ä Ì†%ÔËÒË, ÓÓÄ%†İ† Ä Ç†İË, İÓÚÓ ° Ä  
 İÓËİÓ Ì†İ†%„†Ú, Ì† ÈÄÓ. †ÈÄÏËÄ , Ó  
 , Ä†İÄ†ÔËÒË. ÇÓ†İËÈ †Ä Ó È†È†ÚËÈ  
 İİÓÓİË TITLE Ô Ä%„† ÈÚÄÏ, İÓ  
 ÚÒÚ†İÓ, İÄÏ† Ä Ì†Ä, †İË† ÖÓ†, İ†, ÚÒ† Ó%ÌÓ  
 Ä†% Ú, È†.

- Ñ†† Ì†İÓÊÄÏË† ÖÚ Ì††††  
 (1) İÓÚ†İÓ, ÈÚÄ , ° İ†, †Ú†İ, POWER ,  
 ÓÓİÓÊÄÏËÄ CAMERA.  
 (2) èÓ, Ä ÌËÚÄ STANDBY „Ä İ.  
 (3) Ç†ÈËİ†† PUSH OPEN, ÓÚİÓËÚÄ Ô†İÄÏ,  
 Ú äÑ.  
 (4) ÇÄÓ%„†İÓ† †ÚİÓ Ì†ÈËİ†ÈÚÄ TITLE, ÓÓİ† İÄ  
 ÓÓ†, ÈÚÓ† ÈÄÏ†Ä††† Ì†%ÔËÒ, Ç†%ÔËÒ,  
 ·Ú%ÄÚ ÏË, †Ú,  
 (5) Ç†ÈËİÚÄ START/STOP %„†† Ì††† Ä†ÔËÒË.  
 (6) Ç†ÈËİÚÄ TITLE, İÓ, %„† Ç° Ä†İÓÚËÚÄ  
 , ° İ†, ÈÚ, Ì†%ÔËÒ, .

- Ñ†† Ì†İÓÊÄÏË† , Ô Ó°ÄÒÓÄ Ä†ÔËÒË  
 (1) ÇÄÓ%„†İÓ† †ÚİÓ Ì†ÈËİ†ÈÚÄ TITLE, ÓÓİ† İÄ  
 ÓÓ†, ÈÚÓ† ÈÄÏ†Ä††† Ì†%ÔËÒ, Ç†%ÔËÒ,  
 ·Ú%ÄÚ ÏË, †Ú,  
 (2) äÓ, %„††%ÔËÒ, ÔÄ ÄÒÚ†İÄÚÏË, †Ú,  
 Ì†ÈËİÚÄ TITLE. Ç†%ÔËÒ, ÈÓ°ÄİÄÚ.  
 (3) Ç†ÈËİÚÄ START/STOP %„†† Ì††† Ä†ÔËÒË.  
 (4) Ç†ÈËİÚÄ TITLE, İÓ, %„† Ç° ÓÓËÄÏ†ÄÚÄ  
 Ì†İÓËËÚ, Ì†%ÔËÒ,  
 (5) Ç†ÈËİÚÄ TITLE, İÓ, %„† Ç° Ä†İÓÚËÚÄ  
 , ° İ†, ÈÚ, Ì†%ÔËÒ, .





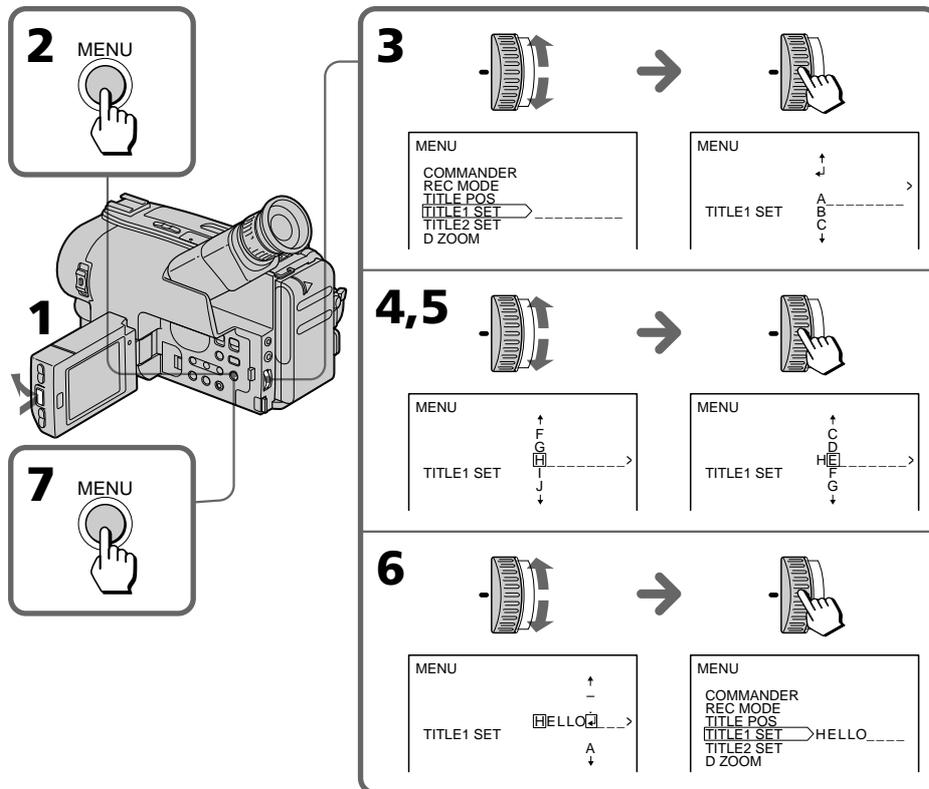
# Making your own titles

ÖÓ·ÖÚ,ÄÏ° Ì±%ÖËÖÄÈ

You can make two titles of up to 22 characters each, and store them in memory. We recommend to eject the cassette before you begin so that the power is not turned off on the way.

- (1) While pressing PUSH OPEN, open the LCD panel.
- (2) While the camcorder is in Standby mode, press MENU to display the menu.
- (3) Turn the control dial to select TITLE1 SET or TITLE2 SET, then press the dial.
- (4) Turn the control dial to select the desired character, then press the dial.
- (5) Repeat step 4 until you finish the title.
- (6) Turn the dial to select ↵, then press the dial. The title is stored in memory.
- (7) Press MENU to erase the menu display.

- Ç° ÍÓÉÁÚÄ ÖÓÁ%±Ú, %Ä Ì±%ÖËÖÈ, 22 Äì±± Ì±É%±ñ È Ä±ÄÖÚÈ È, Ö±ñÚ.
- â° ÁÍÓÄÏ%ÜÄÏ, °ÚÓÏÏÚÚ Ì±ÖÖÄÚÚ ÖÄ Ä% ÜÄÏ, Ì±Í ÖÓÁ%±,±Ú, Ì±%ÖËÖÈ, °ÚÓ° ÖËÚ±ÉÄ ÌÄ, °Ï° ±ÍÓÖ, Ö Ö°ÄÖÖÄ ±·ÖÚ°.
- (1) Ç±É±, ÏÍÓÖÍÚ PUSH OPEN, ÖÚÍ ÖËÜÄ Ö±ÄÏ, ÜÄñ.
  - (2) Ç ÚÓ, Äñ, ÍÓ, %±, È%ÄÓÍ±Ä ± Ì±Ó%ÉÜÖñ, ÄËËÄ, ÖÚÓ,ÍÖÖÜÈ, Ì±ËËÜÄ ÏÍÓÖÍÚ MENU %ññ ÖÚÓ° ±ËÄËñ ÌÄÏ.
  - (3) èÓ,Ä ÌËÜÄ %ÈÖÍ ÜÖ ±ÄÏËñ %ññ, °Ö ± TITLE1 SET ÈËÈ TITLE2 SET, Ä±ÜÄÏ Ì±ËËÜÄ %ÈÖÍ.
  - (4) èÓ,Ä ÌËÜÄ %ÈÖÍ ÜÖ ±ÄÏËñ %ññ, °Ö ± ÄÄÏ±ÄÍÓ, Ö ÄÏ±±, Ä±ÜÄÏ Ì±ËËÜÄ %ÈÖÍ.
  - (5) èÓ,ÚÓ ñËÜÄ ÖÚÏÚ 4%ÖÚÄÏ ÖÖ, ÖÖÏ± Ç° ÌÄ Ä±Ä ËËÜÄ Ì±%ÖËÖ.
  - (6) èÓ,Ä ÌËÜÄ %ÈÖÍ %ññ, °Ö ± ↵, Ä±ÜÄÏ Ì±ËËÜÄ %ÈÖÍ. Ç±%ÖËÖ, ·Ü%ÄÚ Ä±ÄÖÄÏ±, Ö±ñÚ.
  - (7) Ç±ËËÜÄ ÏÍÓÖÍÚ MENU, °ÚÓ° Ü%±ËËË, Èì%ÈÏ±È ÌÄÏ.



## Making your own titles

### To erase the title you have made

Press MENU, select the title you want to erase, and press the dial. Select  $\leftarrow$  at the leftmost character, then press the dial.

Do not select the blank to erase a character. Otherwise, the blank is stored as a title in memory.

### To change the title you have made

In step 3, select TITLE1 SET or TITLE2 SET, depending on which title you want to change, then press the dial. Select the desired characters again.

### If you enter 22 characters in step 5

The title is stored immediately (and you can skip step 6).

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

If the Standby mode lasts for more than 5 minutes with a cassette inserted, the power is 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.

### Advancing the characters rapidly

Keep pressing the dial.

### Making a blank

Select a blank. It is counted as a character.

ëÓÁ%±ìËÄ Ç±-Ëì ÒÓ·ÒÚ,Àìì°  
ì±%ÒËÖÄË

ëÓÁ%±ìËÄ Ç±-Ëì ÒÓ·ÒÚ,Àìì°  
ì±%ÒËÖÄË  
Ñíñ Û%±ìËÄì ÒÓÁ%±ììÒË Ç±ìË ì±%ÒËÖË  
Ç±ËìËÛÄ ÌìÒìÛ MENU, °·Ä ËÛÄ ì±%ÒËÖË,  
ìÓÚÓ Û, ÌÓÚËÛÄ Û%±ìËÛ, È ì±ËìËÛÄ %ËÖì.  
Ç°·Ä ËÛÄ  $\leftarrow$  %ìñ Ò±ìÓ,Ó ÌÄ,Ó,Ó Àìì±, Á±ÚÄì  
ì±ËìËÛÄ %ËÖì.  
ÇÄ,·È ±ËÛÄ ÒÚÒÚÒÄ ÌÄÒÚÓ %ìñ Û%±ìËÄìñ  
Àìì±, Ç ÒÓËË,ìÒìÒìÛ±Ä ÒÚÒÚÒÄ ÌÄÒÚÓ  
·Û%ÄÛ Ä±ìÄÒÄìÓ, Ò±ìñÛ, ì±ì ì±%ÒËÖË,

Ñíñ ÈÄìÄìÄìñ ÒÓÁ%±ììÒË Ç±ìË ì±%ÒËÖË  
Ç ÒÚìÛÄ 3, °·Ä ËÛÄ TITLE1 SET ÈìË TITLE2  
SET, Á±,ÈÒËìÒÓËË ÒÚ ÛÓ,Ó, ì±ìÛ, ì±%ÒËÖË,  
Ç° ÌÓÚËÛÄ ÈÄìÄìËÛ, Á±ÚÄì ì±ËìËÛÄ %ËÖì.  
Ç°·Ä ËÛÄ ÈÄì±Äì·Ä ·Úì,° ÒìÓ,±.

ÒÒìË Ç° „ÄìË 22 Àìì±, ÒÚìÛÄ 5  
Ç±%ÒËÖË ·Û%ÄÛ Ä±ìÄÒÄì±, Ò±ìñÛ, ÛÓÛ±ò ÈÄ  
(ÈÇ°ìÒËÄÛÄ Ò ÒÓÚÒÚËÛ, ÒÚìÛ6).

ÒÒìË Ò È,ÒÚ±,ìÄìÒË ì±òÒÄÛÄ ÒÓÁ%±ìËÄ  
ì±%ÒËÖË Ä±ìËì±ÄÛ ·ÓìÄÄ 5 ìËìÛÛ  
ÒÒìË ÄËËì,ÓÚÓ,ìÒÓËÖÓ ÒÓ%ÒìË±ÄÛÒñ  
·ÓìÄÄ 5 ìËìÛÛ Ò È,ÒÚ±,ìÄìÒË ì±òÒÄÛÄ,  
ÒËÛ±ìËÄ ±,ÛÓì±ÛË·ÄÒìË,° Ìì,·ÈÛÒñ.  
ÒÒìË ÒËÛ±ìËÄ,° Ìì,·ÈÛÒñ,Ó, Äìñ  
ÒÓÁ%±ìËÄìñ±%ÒËÖËÛÓÛ±ìÓ,ËÛÄ  
ÒÄ Äìì,·±ÚÄì, POWER Òì±±ì±,  
ÒÓìÒËÄìËÄ OFF, Á±ÚÄì, ÒÓìÒËÄìËÄ  
CAMERA. ëÓÁ%±ììñ Ç±ìË ì±%ÒËÖË, ·Û%ÄÛ  
ÒÓì ±ìì±, Ò±ìñÛË.

Ä°òÚ ÒÄ Ò Ò%Ë,ÈÈÄìËÄ ÄìììÓ,  
ÑÄ ÈËÛÄ %ËÖì ì±Ë±Û°ì.

ëÓÁ%±ìËÄìÒÚÒÚÓ,ÒìÄÒÚ±  
Ç°·Ä ËÛÄ ÒÚÒÚÒÄ ÌÄÒÚÓ.èìÓ  
±òÒìÛÛ È,±ÄÛÒñ ì±ì Äìì.

Advanced operations

ìÒÓ,Ä-ÀìÓÚ,Ò,±ìì·Ä ÒÓÄ±ÈË

## Watching on a TV screen

## ΕΠΙΒΛΕΨΗ ΣΤΟ ΟΘΥΝΟ ΤΗΛΕΟΡΑΣΗΣ

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.

While playing back on a TV screen, close the LCD panel. Otherwise, picture distortion may occur.

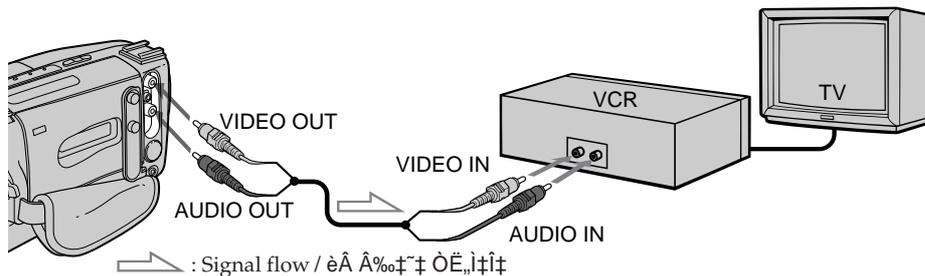
### If your TV is already connected to a VCR

Open the jack cover and connect the camcorder to the LINE IN inputs on the VCR by using the supplied A/V connecting cable. Set the input selector on the VCR to LINE. Set the TV/VCR selector on the TV to VCR.

Επιβλέψτε την εικόνα αναπαραγωγής στην οθόνη της τηλεόρασης. Συνδέστε την κάμερα με τον VCR ή την τηλεόραση. Όταν παρακολουθείτε την εικόνα αναπαραγωγής συνδέοντας την κάμερα με την τηλεόραση, σας συμβουλεύουμε να χρησιμοποιήσετε το ρεύμα του δικτύου ως πηγή τροφοδοσίας.

Ενώ παρακολουθείτε την εικόνα αναπαραγωγής στην οθόνη της τηλεόρασης, κλείστε το LCD. Διαφορετικά, μπορεί να συμβεί παραμόρφωση της εικόνας.

Αν η τηλεόραση είναι ήδη συνδεδεμένη με τον VCR, ανοίξτε το κάλυμμα των ακουστικών και συνδέστε την κάμερα με τις εισόδους LINE IN του VCR χρησιμοποιώντας το παρεχόμενο καλώδιο A/V. Ρυθμίστε τον επιλεκτήρα εισόδων του VCR στο LINE. Ρυθμίστε τον επιλεκτήρα TV/VCR της τηλεόρασης στο VCR.





## Editing onto another tape

## ÀÒÌÙ±Ê Ì± %Ò Û,,Û<sub>ç</sub> ÌÀÌÙÙ

You can create your own video programme by editing with any other **8** 8 mm, **Hi8** Hi8, **VHS** VHS, **S-VHS** S-VHS, **VHS-C** VHSC, **S-VHS-C** S-VHSC, or **β** Betamax VCR that has video/audio inputs.

Turn down the volume of the camcorder while editing. Otherwise, picture distortion may occur.

After connecting the camcorder to the VCR,

- (1) Set the POWER switch to PLAYER.
- (2) Insert a blank tape (or a tape you want to record over) into the VCR and insert your recorded tape into the camcorder.
- (3) Play back the recorded tape on the camcorder until you locate the point where you want to start editing, then press **II** to put the camcorder in playback pause mode.
- (4) On the VCR, locate the recording start point and put the VCR in recording pause mode.
- (5) Press **II** on the camcorder and VCR simultaneously to start editing.

Ç° ÌÓÈÁÚÁ ÒÓÁ%±Ù, Ç±Ù ÒÓ·ÒÙ,ÀÌÙÙ, È%ÒÁÒÒ Ò,, ±ÌÙÙ ÒÙÚÁÌ ÌÒÌÙ±Ê± Ò ÒÒÌÓ°  
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±Ù%ÈÒ.

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, ÁÌÌ ÌÒÌÙ±Ê±, Ç Ò ÒÙÈ,ÌÒÌ ÒÌÙ±Á ÌÓ,,ÙÙ  
ÒÒÌ,ÈÙ,ÒÌ ÈÒÌ±ÈÁÌÈÌ.

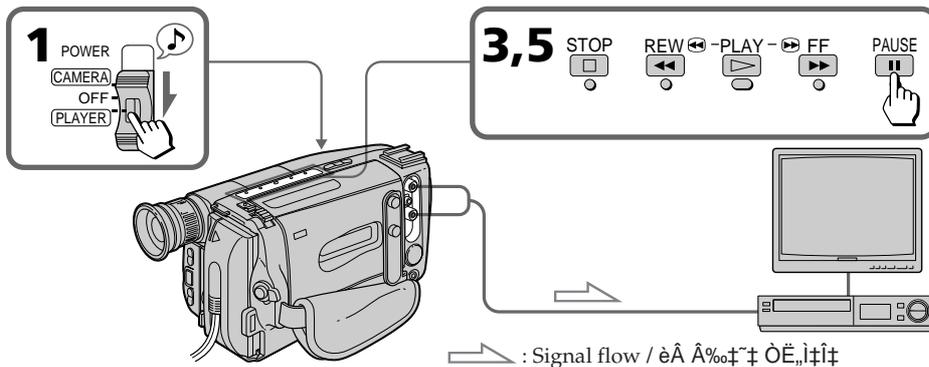
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PLAYER.

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ÌÓÚÓ Û Ç° ÌÓÚÈÚÁ ÒÁ ÁÁ±ÒÈÒ±Ù), äÇà  
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È%ÒÁÓÌ±ÌÁ Û.

(3) ÇÒÒÒ ÒÈÁ,Ò%ÈÚÁ Á±ÒÈÒ±ÌÙ ÌÀÌÙÙ,  
È%ÒÁÓÌ±ÌÁ Á %Ò ÚÁ ÒÓ, ÒÒÌ± Ç° ÌÁ  
Ò-Ì± ÚÈÈÚÁ ÚÓÌÙ, ÌÓÚÓ ÒÈ Ç° ÌÓÚÈÚÁ  
Ì±±Ù, ÌÒÌÙ±Ê, ± Á±ÚÁÌ Ì±ÈÌÈÚÁ ÌÌ %ÌÌ  
, Á%ÒÁÌÈÌ, È%ÒÁÓÌ±ÌÁ °, ÁÈÈÌ Ò±ÚÁ°  
ÒÒÒ ÒÈÁÁ%ÁÌÈÌ.

(4) Ç±È%ÈÚÁ Ì± äÇà ÚÓÌÙ Ì±±Ì± Á±ÒÈÒÈ È  
, Á%ÒÈÚÁ äÇà, ÁÈÈÌ Ò±ÚÁ° Á±ÒÈÒÈ.

(5) è%ÒÌÓ, ÁÌÁÌÌÓ Ì±ÈÌÈÚÁ ÌÌ Ì±  
È%ÒÁÓÌ±ÌÁ Á È Ì± äÇà %ÌÌ Ì±±Ì±  
ÌÒÌÙ±Ê±.



### To edit more scenes

Repeat steps 3 to 5.

### To stop editing

Press **□** on both the camcorder and VCR.

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èÓ,ÚÓ ÌÈÚÁ ÒÙÌÙ° Ò3ÒÓ5.

ÑÌÌ ÒÒÙ±ÌÓ,± ÌÒÌÙ±Ê±  
Ç±ÈÌÈÚÁ **□** È Ì± È%ÒÁÓÌ±ÌÁ Á, È Ì± äÇà.

**Additional Information**

**Changing the lithium battery in the camcorder**

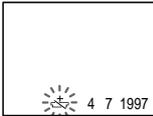
**ΝΟΟΟΙΙΕΥΑΙ, ΙΤΗ ΕΙΥΟ ΙΤ-ΕΗ**

**ΑΤΙΑΙΤ ΙΕΥΕΑ, ΟΕ ΤΥΤ ΑΕΙΕ , Ε%ΑΟΙΤΙΑ Α**

Your camcorder is supplied with a lithium battery installed. When the battery becomes weak or dead, the  indicator flashes in the viewfinder or on the LCD screen for about 5 seconds when you set the POWER switch to CAMERA. In this case, **replace the battery with a Sony CR2025 or Duracell DL-2025 lithium battery. Use of any other battery may present a risk of fire or explosion.** Discard used batteries according to the manufacturer's instructions.

The lithium battery for the camcorder lasts for about one year under normal operation. (The lithium battery that comes installed at the factory may not last one year.)

Ç±±, Ε%ΑΟΙΤΙΑ ± òì±. ΕΑΙ± ÙÓÙ±ÍÓ, ΙΑΙΙÓΕ ΙΕΥΕΑ, ΟΕ. ΤΥΤ ΑΕΙΟΕ. ΟΟΙΕ. ΤΥΤ ΑΕΙΤ ΟΥΤΙΑΥ ΟΙΤ. ΟΕ ΕΙΕ ΟΟΙΟΟΥ, ΤΑ ΗΕΑΙΙΟΕ ΕΙ%ΕΙΤΥΟ. Σ. Υ%ΑΥΙΕ, ΤΥ, Ε%ΟΕΟΙΤΥΑΙΑ ΕΙΕ ΙΤ. ΤΙΑ ΥΑΝ Ò Ε. ΙΕΑΕΥΑΙ ΙΟ ΥΑ. ΑΙΕΑ 5 ΟΑΙΥΙ%, ΙΟ, %±Ç. ÙÓÙ±ÍÓ, ΕΥΑ. ΤΥΤΙΑΙ, POWER, ΟΟΙΟΕΑΙΕΑ CAMERA. Ç ÙΤΙΟΙ ΟΙΥ. ΤΑ ΑΤΙΑΙΕΥΑ. ΤΥΤ ΑΕΙΥ ΙΤ ΙΕΥΕΑ, Ù. ΤΥΤ ΑΕΙΥ Sony CR2025 ΕΙΕ Duracell DL-2025. àÓÓÍ, ΑΟ, ΤΙΕΑ % Ù, ΟΕ. ΤΥΤ ΑΕΙΕ ΙΟΕΑΥ Ò Ε. ΑΟΥΕ Ι. ΕΟΙΥ, ΟΟΟΙΤΙΑΙΕΗ ΕΙΕ. Α. Τ. ΑΕΙ, Ε%Ε ΥΕΥΑ ΕΟΟÍ, ΑΟ, ΤΙ. Α. ΤΥΤ ΑΕΙΕ, ΟΟΟΥ, ΑΥΟΥ, ΕΕ Ο ΕΙΟΥ ÙΤ-ΕΗΙΕ Α. Ο%± ΕΑ, ΟΥΟ, ΕΥΑΙΗ. àΕΥΕΑ, ΤΗ. ΤΥΤ ΑΕΙΤ %±Η, Ε%ΑΟΙΤΙΑ. Τ. ΟΥΤΑΥ Ò Ε. ΙΕΑΕΥΑΙ ΙΟ, ΥΑ. ΑΙΕΑ 1, %± Ò Ε ΙΟ ΙΤ, Ι. ÙΟΙΟ, ΕΗ. ΤΙΟΟΙΥΤΥΤ-ΕΕ. (àΕΥΕΑ, ΟΕ. ΤΥΤ ΑΕΙΕ, ΙΟΥΟ ΤΗ. Τ. ÙÓÙ±ÍÓ, ΙΑΙΤ ΙΤ Α. Ο%Α, ΙΟΕΑΥ ΙΑ Ι, ΤΥΕΥ, ΙΤ 1, %±.)

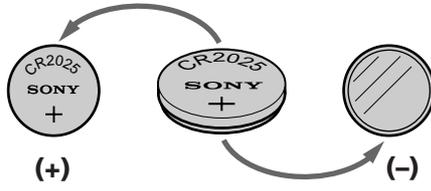


**Notes on lithium battery**

- **Keep the lithium battery out of the reach of children. Should the battery be swallowed, immediately consult a doctor.**
- Wipe the battery with a dry cloth to assure a good contact.
- Do not hold the battery with metallic tweezers, otherwise a short-circuit may occur.
- The lithium battery has positive (+) side and negative (-) side as illustrated. **Be sure to insert the lithium battery with the positive side facing out.**

è ΕΙΑ. ΤΙΕΗ ΟΥΙΟΟΕΥΑΙ, ΙΟ ΙΕΥΕΑ, ΟΕ. ΤΥΤ ΑΕΙΕ

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- Ç. Α. ΕΥΑ. ΤΥΤ ΑΕΙΥ Ò ΟΟΙΟ. ΙΑΥΤΙΕ ΑΟΙΟ, Ò ΟΕΙ. ΑΥ. ΕΙ. ΤΑ ΙΟΕΑΥ Ò ΟΕΑΟΕΥΕΙΟ ΟΥΙΟΑΑΤΙ ΤΙΕΑ.
- àΕΥΕΑ, ΤΗ. ΤΥΤ ΑΕΙΤ ΕΙΑΑΥ ΟΟΙΟΕΕΥΑΙ, Ι. Ε. ΟΟΙ. Ò (+) Ε ΟΥ Ε. ΤΥΑΙ Ι. Ε. ΟΟΙ. Ò (-). èΟΙΙΕΥΑ, ΤΥΟ ΤΥΟ ΙΕΥΕΑ, Ù. ΤΥΤ ΑΕΙΥ ΟΙΑ%±ΥΑΥ ΤΟΟΟΙ. ΤΥ, ΟΟΙΟΕΕΥΑΙ, Ι. Τ. ΟΟΙ. ΟΟΙ ΙΤ ΥΕΥ.



**WARNING**

The battery may explode if mistreated. Do not recharge, disassemble, or dispose of in fire.

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Additional Information ΝΟΟΟΙΙΕΥΑΙ, ΙΤΗ ΕΙΥΟ ΙΤ-ΕΗ







## Tips for using the battery pack

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 cold environment

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

#### To save battery power

Turn the STANDBY switch on the camcorder down when not recording to save battery power. A smooth transition between scenes can be made even if recording is stopped and started again. While positioning the subject, selecting an angle, or looking through the viewfinder lens or on the LCD screen, the lens moves automatically and the battery is used. The battery is also used when a cassette is inserted or removed.

## Additional information

When the battery pack is fully charged, the battery level indicator shows 100%. The battery level indicator shows the remaining battery level. When the battery level indicator shows 0%, the battery pack is empty and the camcorder will stop recording.

### Additional information

The battery pack is used for recording and playback. The battery pack is also used for the LCD screen, the viewfinder lens, and the lens. The battery pack is also used for the cassette. The battery pack is also used for the microphone. The battery pack is also used for the speaker. The battery pack is also used for the remote control. The battery pack is also used for the timer. The battery pack is also used for the still release. The battery pack is also used for the still release. The battery pack is also used for the still release.

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## Tips for using the battery pack

### When to replace the battery

While you are using your camcorder, the remaining battery indicator decreases gradually as battery power is used up.



When the remaining battery indicator reaches the lowest point, the  indicator appears and starts flashing.

When the  indicator 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 smooth transition between scenes before and after the battery pack has been replaced.

#### Note on the remaining battery indicator

The remaining battery indicator of the camcorder may indicate a different remaining capacity from that of the battery pack with its own indicator (not supplied). The indicator on the battery pack is more accurate.

### Notes on the rechargeable battery pack

#### 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.

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When the remaining battery indicator reaches the lowest point, the  indicator appears and starts flashing.

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When the remaining battery indicator reaches the lowest point, the  indicator appears and starts flashing.

## Tips for using the battery pack

### The battery 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.

### 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 right before using the camcorder.

### How to use the switch on the battery pack

When the switch is supplied with the battery pack ([a] on page 60), you can use it to find whether the battery pack is charged or not. Set the switch to the "no mark" position when charging is completed. Set the switch to the "red mark" position when the battery is used up (or in whichever direction you want to remind yourself).

### 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.

### 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.

## Additional information

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## Tips for using the battery pack

### Notes on charging

#### A brand-new battery

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

#### After long storage

Recharge the battery pack after a long period of storage. If the battery pack is charged fully but not used for a long time (about one year), it becomes discharged. Charge it again, but in this case the battery life will be shorter than normal. After several charging and discharging cycles, the battery life will recover its original capacity.

### 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 - terminals with a soft cloth or paper.

#### Be Sure to Observe the Following

- To prevent an accident caused by a short circuit, do not allow metal objects such as a necklace to touch the battery terminals.

**When carrying the battery pack, attach to the terminal cover. [b]**

- Keep the battery pack away from fire.
- Keep the battery pack dry.
- Do not open or try to disassemble the battery pack.
- Do not expose the battery pack to any mechanical shock.

[a]



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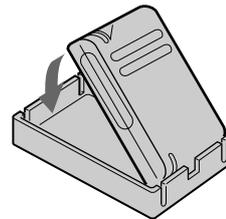
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[b]















# Using your camcorder abroad

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, È%ÁÓÏ±ÏÁ ° Á± Û-ÄÈÓÏ

Each country or area has its own electricity 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 or a SECAM system-based TV with a PAL-SECAM transcoder. Check the following list.

### PAL system

Australia, Austria, Belgium, China, Denmark, Finland, Germany, Great Britain, Holland, Hong Kong, Italy, Kuwait, Malaysia, New Zealand, Norway, Portugal, Singapore, 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, Czech Republic, France, Guyana, Hungary, Iran, Iraq, Monaco, Poland, Russia, Slovak Republic, Ukraine, etc.

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ÒÈÒÚÄÏÛ ^, ÄÛÏÓ,, ÓÚÄÏÄ, È%ÄÏÈñ. èÄ Ä%  
ÈÒÒÓÏ, ÁÓ, ðÈÄÏ Ç±-ÄÈ , È%ÁÓÏ±ÏÁ ° Á±  
Û-ÄÈÓÏ Ò Ó, Ä, ÚÄ ÓÏÄ%Ú, ÈÄ ÒÛÏÛ:

## àÒÚÓ-ÏÈÏÈ ÒÈÛ±ÏÈñ

Ç° ÏÒÈÄÚÄ ÈÒÒÓÏ, ÁÓ, ±Ú, Ç±Û  
, È%ÁÓÏ±ÏÁ Û, Ï, -ÓÈ ÒÚ ±ÏÄ ÈÏÈ Ò-ì±ÒÚÈ Ò  
Ò ÈÏ±, ±ÄÏ Ï ÒÄÚÄ, Ï ±%±ÒÚÄ ÓÏ ÒÄ ÄÏ.  
ÚÓÏ±, Ò Ä%ÄÏ± ÒÚ 110 Ç% Ò 240 Ç ÒÄ ÄÏ.  
ÚÓÏ±, 50/60 È°.

## è±ÄÏÈ-Èñ, ÒÈÒÚÄÏ±, ^, ÄÛÏÓ,, Ó ÚÄÏÄ, È%ÄÏÈñ

Ñ±Ï±ñ, È%ÁÓÏ±ÏÁ ± ÒÒÏ, ±± ì± ÒÈÒÚÄÏÄ  
PAL. ÒÓÏÈÇ° ÏÓÛÈÚÄ Ò ÒÒÏÓÚ ÄÛ,  
, ÒÒÒ ÒÈÄ, Ò%ÈÏÒÄÈÄÓ. ±ÄÏÈÄÏ±  
ÚÄÏÄ, ÈÄÓ Ä, Òì %ÓÏÈÄÏ . Û, ÒÒÏÓ, ±ì ì±  
ÒÈÒÚÄÏÄ PAL ÈÏÈ ÈÄ ì± ÒÈÒÚÄÏÄ SECAM Ò  
Û ±ÏÏÓ%Ä ÓÏ PAL-SECAM: è Ó, Ä, ÚÄ  
ÓÏÄ%Ú, ÈÈÒÈÒÓÏ.

### èÈÒÚÄÏ± PAL

Ä, ÒÚ ±ÏÈñ, Ä, ÒÚ Èñ, ÄÄÏ, Èñ,  
ÇÄÏÈÏÓ. ÈÛ±ÏÈñ, ÈÄ ì±ÏÈñ, ÈÓÏ±%Èñ,  
ÈÓÏÏÓ,, Ñ±ÏÈñ, àÒÒ±ÏÈñ, àÚ±ÏÈñ, àÈÛ±È,  
àÛ, ÄÈÛ, à±Ï±ÈÄÈñ, çÓ, ±ñ áÄÏ±%Èñ,  
çÓ, Ä, Èñ, èÓ ÚÚ, ±ÏÈñ, èÈÏ, ±ÒÚ, ì±ÈÏ±%,  
ÏÈÏñ%Èñ, ò, Ä-Èñ, ò, ÄÈ-± Èñ, È %.

### èÈÒÚÄÏ± PAL-M

Ä ±ÄÈÏÈñ

### èÈÒÚÄÏ± PAL-N

Ä, ÄÏÛÈÏ±, è± ±,, ±È, ì Ú,, ±È

### èÈÒÚÄÏ± NTSC

Ä±, ±ÏÒÈÄ ÒÒÚ Ó, ±, ÄÓÏÈ, Èñ, ÇÄÏÄÒÚ-Ï±,  
à±±%±, äÓÏÛÏÈñ, äÓ Äñ, áÄÏÓÈÏ±, èÄ Ú,  
èÛ ÈÏ±Ï, èòÄ, ì±È, ±Ï, ÏÈÏÈÒÓÈÏ,  
ñÄÏÛ ±Ï, Ì±ñ ÄÏÄ ÈÏ±, óÈÏÈ, ùÏ, ±%Ó,  
ÛÏ±ÈÏ±, ÛÒÓÏÈñ È %.

### èÈÒÚÄÏ± SECAM

ÄÓÏ, ± Èñ, ÇÄÏ, Èñ, È±È±±, à ±Ï, à ±Ï,  
àÓÏ±ÏÓ, èÓÏ, ±, èÓÒÓÈñ, èÏÓ, ±Ï±ñ  
èÄÒÓÛ-ÏÈÏ±, ÏÏ ±ÈÏ±, Ï ±ÏÈñ, óÄ-ÓÏ±ñ  
èÄÒÓÛ-ÏÈÏ±È%.

Additional information ÑÒÒÓÏÈÛÄÏ, Ì±ñ ÈÏÛÓ Ï±-Èñ

**English****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. → Attach the battery pack firmly by pushing the lower part of the battery pack until it clicks twice. (p. 9)</li> <li>• The battery is dead. → Use a charged battery pack. (p. 7)</li> <li>• The AC power adaptor is not connected to mains. → Connect the AC power adaptor to mains. (p. 27)</li> </ul>
The power goes off.	<ul style="list-style-type: none"> <li>• While being operated in CAMERA mode, the camcorder has been in the Standby mode for more than 5 minutes. → Turn STANDBY down once and turn it up again. (p. 12)</li> <li>• The battery is dead. → Use a charged battery pack. (p. 7)</li> </ul>
The battery pack is quickly discharged.	<ul style="list-style-type: none"> <li>• The ambient temperature is too low. (p. 57)</li> <li>• The battery pack has not been charged fully. → Charge the battery pack again. (p. 7)</li> <li>• The battery pack is completely dead, and cannot be recharged. → Use another battery pack. (p. 59)</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. → Eject the cassette. (p. 10)</li> <li>• The tape has run out. → Rewind the tape or use a new one. (p. 22)</li> <li>• The POWER switch is set to PLAYER. → Set it to CAMERA. (p. 11)</li> <li>• The tab on the cassette is out (red). → Use a new cassette or slide the tab. (p. 10)</li> </ul>
The cassette cannot be removed from the holder.	<ul style="list-style-type: none"> <li>• The battery is dead. → Use a charged battery pack or the AC power adaptor. (p. 7, 27)</li> </ul>
No function except for cassette ejection works.	<ul style="list-style-type: none"> <li>• Moisture condensation has occurred. → Remove the cassette and leave the camcorder for at least 1 hour. (p. 61)</li> </ul>
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. → Set it to PLAYER. (p. 22)</li> <li>• The tape has run out. → Rewind the tape or use a new one. (p. 22)</li> </ul>
The date or time indicator is flashing.	<ul style="list-style-type: none"> <li>• The lithium battery is weak or dead. → Replace the lithium battery with a new one. (p. 54)</li> <li>• You pressed DATE and TIME together for more than 2 seconds. The camcorder is not malfunctioning. → You may start recording. Flashing will stop soon.</li> </ul>

## Trouble check

Symptom	Cause and/or Corrective Actions
The End Search function does not activate.	<ul style="list-style-type: none"> <li>The cassette was ejected after you recorded on it. → The End Search function will not activate until you make a new recording after reinserting the cassette.</li> </ul>
The date or time indicator disappears.	<ul style="list-style-type: none"> <li>Reset the date and time. (p. 55)</li> </ul>
The SteadyShot function does not activate.	<ul style="list-style-type: none"> <li>STEADY SHOT is set to OFF. → Set STEADY SHOT to ON. (p. 45)</li> <li>The SteadyShot function does not work when the wide mode is set to 16:9FULL. (p. 39)</li> </ul>
The autofocusing function does not work.	<ul style="list-style-type: none"> <li>FOCUS is set to MANUAL. → Set it to AUTO. (p. 41)</li> <li>Shooting conditions are not suitable for autofocus. → Set FOCUS to MANUAL to focus manually. (p. 41)</li> </ul>
Recording stops in a few seconds.	<ul style="list-style-type: none"> <li>START/STOP MODE switch is set to <math>\frac{1}{2}</math> or 5SEC. → Set it to <math>\frac{1}{2}</math>. (p. 33)</li> </ul>
The title display position shifts.	<ul style="list-style-type: none"> <li>There are unwanted blanks before or after the title. → Delete them then select <math>\downarrow</math>.</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>\frac{1}{2}</math>. → Set it to <math>\frac{1}{2}</math>. (p. 33)</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. → Adjust the viewfinder lens. (p. 13)</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. → Change locations.</li> </ul>
The picture is "noisy".	<ul style="list-style-type: none"> <li>The video heads may be dirty. → Clean the heads using the Sony V8-25CLH cleaning cassette. (p. 62)</li> </ul>
The picture does not appear in the viewfinder.	<ul style="list-style-type: none"> <li>The LCD panel is open. → Close the LCD panel. (p. 16)</li> </ul>
The picture does not appear on the LCD screen.	<ul style="list-style-type: none"> <li>Incorporated fluorescent tube is worn out. → Please contact your nearest Sony dealer.</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>
An unknown picture is displayed in the viewfinder or on the LCD screen.	<ul style="list-style-type: none"> <li>If 10 minutes elapsed after you set the POWER switch to CAMERA without inserting a cassette, the camcorder automatically starts the demonstration. → Insert the cassette, and the demonstration stops. You can make the demonstration not appear in the menu system. (p. 29)</li> </ul>

Continued to the next page

## Trouble check

### Others

Symptom	Cause and/or Corrective Actions
The supplied Remote Commander does not work .	<ul style="list-style-type: none"><li>• COMMANDER is set to OFF. → Set it to ON in the menu system. (p. 29)</li><li>• Something is blocking the infrared rays. → Remove the obstacle.</li><li>• The battery is not inserted with the correct polarity. → Insert the battery with the correct polarity. (p. 83)</li><li>• The batteries are dead. → Insert new ones. (p. 83)</li></ul>
There is dust in the viewfinder.	<ul style="list-style-type: none"><li>• Detach the eyecup and clean the viewfinder lens. (p. 63)</li></ul>

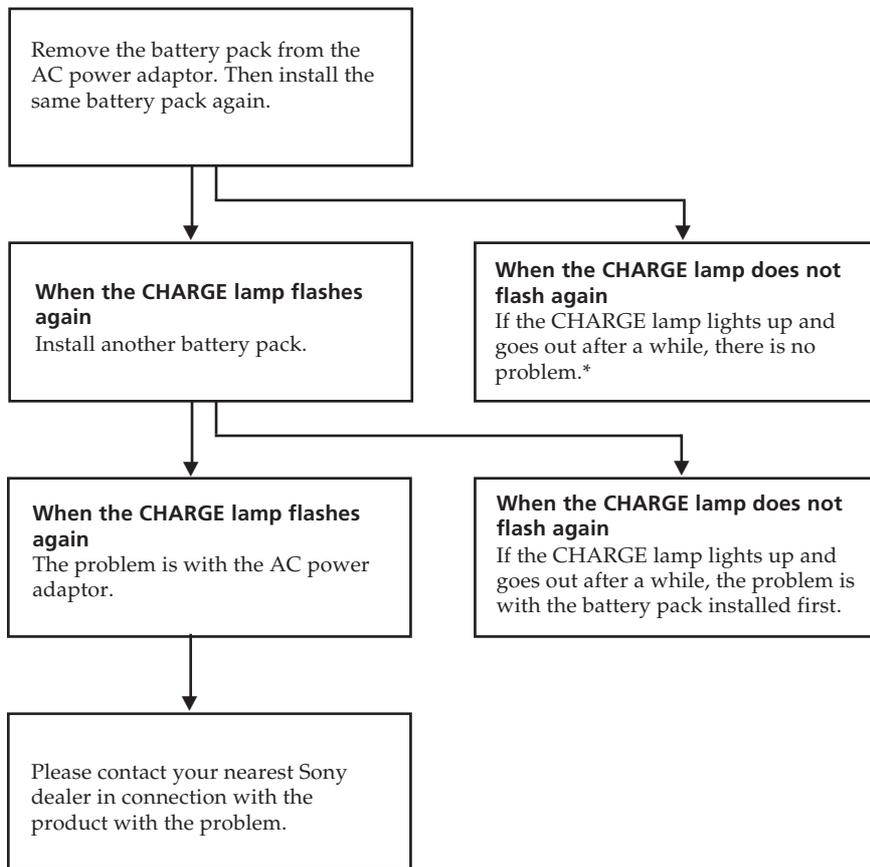
## Trouble check

### AC power adaptor

Symptom	Cause and/or Corrective Actions
The POWER lamp does not light.	• Set the selector to VTR (DC OUT) and disconnect the mains lead. After about one minute, try again. (p. 9)
The CHARGE lamp flashes.	• See the following chart.

#### 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 the same battery pack.



# è Ó,À Í± ÎÄÈÒÒ ±,ÌÓÓÚÄÈ

è ÈÄÌ±Í	è ÈÈÌ± È/ÈÌÈ %ÄÈÒÚ,Èfl ÒÓ ÙÓÚ ±ÌÄÌÈ
çÄ ±.ÓÚ±ÄÙ ÙÙÌÍÈfl ÓÓÈÓÌ±ÍÓ±	<ul style="list-style-type: none"> <li>• èÓÓÌÄ Ä±ÖÈÒÈ Ì± ÎÄÌÚÙ Í±ÒÒÄÙ± ·Í±, °ÚÓÍÌÚÙ±. → ìÙÌÍÈfl ÓÓÈÒÌ±ÍÓÌ± ÎÄ ·Ù%ÄÙ ±.ÓÚ±Ù, %Ó ÚÄÌ ÓÓ, ÓÓÌ±Ç· ÎÄ Ó%ÄÌ±ÄÙÄÌÓ, Ù, Ä±ÖÈÒ, ÓÓÓÌÄ ÓÓ, ÙÓ ÌÓÈ ÙÓÚ±ÍÓ, ÎÈ Í±ÒÒÄÙ°.</li> </ul>
àÒ·ÄÄ±ÄÙÈÌ%ÈÌ±ÚÓ %±Ù° ÈÌÈ , ÄÌÄÌÈ.	<ul style="list-style-type: none"> <li>• èÌÓ,±ÙÓÚ±ÍÓ,ÈÙÄ%±ÙÈÈ, Äfl. (ÓÚ . 55)</li> </ul>
çÄ ±.ÓÚ±ÄÙ ÙÙÌÍÈfl ÓÚ±.ÈÌÈÄ±ÈÈÈÁÓ. ±ÈÄÌÈfl SteadyShot.	<ul style="list-style-type: none"> <li>• Ç·ÍÌ, ±ÙÄÌ, STEADY SHOT ÙÓÚ±ÍÓ, ÎÄÌ, ÓÓÍÓÈÄÌÈÄ OFF. → ìÓÚ±ÍÓ, ÈÙÄ, °ÍÌ, ±ÙÄÌ, STEADY SHOT, ÓÓÍÓÈÄÌÈÄ ON. (ÓÚ . 45)</li> <li>• ìÙÌÍÈfl SteadyShot ÎÄ ±.ÓÚ±ÄÙ, ÒÌÙ·±Ä, ÄÒÌÈÈ ÓÍÓ·Í ±ÌÈÈ ÄÈÈÌ ÙÓÚ±ÍÓ, ÎÄÌ, ÓÓÍÓÈÄÌÈÄ 16:9FULL. (ÓÚ . 39)</li> </ul>
çÄ ±.ÓÚ±ÄÙ ÙÙÌÍÈfl ±.ÓÚ±ÙÈÈ·ÄÓÍÓÈ ÙÓÍÙÒÈ Ó, ÎÈ.	<ul style="list-style-type: none"> <li>• èÄ ÄÌÌ, ±ÙÄÌ, FOCUS ÙÓÚ±ÍÓ, ÎÄÌ, ÓÓÍÓÈÄÌÈÄ MANUAL. → ìÓÚ±ÍÓ, ÈÙÄ Ä, Ó, ÓÓÍÓÈÄÌÈÄ AUTO. (ÓÚ . 41)</li> <li>• ìÓÍÓ, Èfl Ò·ÄÌÈÈ fl, Îfl ÙÓfl ÎÄÓÓ%Ó%flÈÈÈ %fl ±.ÓÚ±ÙÈÈ·ÄÓÍÓÈ ÙÓÍÙÒÈ Ó, ÎÈ. → ìÓÚ±ÍÓ, ÈÙÄ ÒÄ ÄÌÌ, ±ÙÄÌ, FOCUS, ÓÓÍÓÈÄÌÈÄ MANUAL %fl ÙÓÍÙÒÈ Ó, ÎÈ, Ù·Ì. (ÓÚ . 41)</li> </ul>
ä±ÖÈÒ. ÓÓÚ±Ì±, ÎÈ, ±ÄÙÓfl ·Ä ÄÄ ÎÄÓÍÓÌ, ÍÓ ÓÄÌÙÌ%.	<ul style="list-style-type: none"> <li>• èÄ ÄÌÌ, ±ÙÄÌ, START/STOP MODE ÙÓÚ±ÍÓ, ÎÄÌ, ÓÓÍÓÈÄÌÈÄ <u>⏏</u> ÈÌÈÈ 5SEC. → ìÓÚ±ÍÓ, ÈÙÄ Ä, Ó, ÓÓÍÓÈÄÌÈÄ <u>⏏</u>. (ÓÚ . 33)</li> </ul>
è%ÈÌÙÓÚÓÓÓÍÓÈÄÌÈÄ ÈÌÈÈÈ ÙÄÌÓÈ±%ÓÈÒÈ.	<ul style="list-style-type: none"> <li>• èÄ Ä% Ì±%ÒÈÒ, ÈÌÈÈ ÓÓÓÌÄ ÎÄÄ ÈÌÄ ÙÓfl ÒÙÓÚ·Ä ÎÄÒÚ±. → ì%±ÌÈÙÄ ÈÌ, ± Ä±ÙÄÌ, °·Ä ÈÙÄ <u>⏏</u>.</li> </ul>
çÄ ±.ÓÚ±ÄÙ ÙÙÌÍÈfl, Ä%ÄÌÈfl/ , Ä%ÄÌÈfl ÈÁÓ. ±ÈÄÌÈfl.	<ul style="list-style-type: none"> <li>• èÄ ÄÌÌ, ±ÙÄÌ, START/STOP MODE ÙÓÚ±ÍÓ, ÎÄÌ, ÓÓÍÓÈÄÌÈÄ 5SEC ÈÌÈÈ ÓÓÍÓÈÄÌÈÄ <u>⏏</u>. → ìÓÚ±ÍÓ, ÈÙÄ Ä, Ó, ÓÓÍÓÈÄÌÈÄ <u>⏏</u>. (ÓÚ . 33)</li> </ul>
<b>àÄÓ. ±ÈÄÌÈÄ</b>	
è ÈÄÌ±Í	è ÈÈÌ± È/ÈÌÈ %ÄÈÒÚ,Èfl ÒÓ ÙÓÚ ±ÌÄÌÈ
àÄÓ. ±ÈÄÌÈÄ Ì± ·Í ±ÌÄ , È%ÓÈÒÌ±ÙÄÌfl ÎÄ ·ÄÙÌÓÄ.	<ul style="list-style-type: none"> <li>• çÄ ÓÚ Ä, ÙÌÈÈ Ó, ±Ì Ó·ÄÌÙÈÈ, È%ÓÈÒÌ±ÙÄÌfl. → èÙ Ä, ÙÌÈÈ ÙÈÙÄÓ·ÄÌÙÈÈ, È%ÓÈÒÌ±ÙÄÌfl. (ÓÚ . 13)</li> </ul>
èÓfl, ÎflÄÙÓfl, Ä ÙÈÌ±Ì, Ì±fl ÓÓÍÓÓ±, ÄÒÌÈÈ Ù±ÌÈÄ Ó·ÄÌÙ°, Ì±Í Ò, ÄÙ ÈÌÈÈ ÒÌ±fl Ò, ÄÈ ÒÌÈÈ±, ÙÓfl Ì± ÙÄÌÌÓÌ ÙÓÌÄ.	<ul style="list-style-type: none"> <li>• èÌÈÈ·ÍÓÌ·ÓÌ, ·ÓÈÈ ÌÓÌÙ ±ÒÙ ÎÄÈ%Ù Ó·ÄÌÙÓÌ È ÙÓÌÓÌ. ÇÈ%ÄÓÌ±ÌÄ ± ±.Ó ±ÄÙÌÓ Ì±Í, ÌÓ. → àÄÌÄÌÈÙÄ ÓÓÄÈÈ, Ò·ÄÌÈÈ.</li> </ul>
àÄÓ. ±ÈÄÌÈÄ "Ä±·ÙÌÄÌÓ".	<ul style="list-style-type: none"> <li>• ÇÓÄÌÓÈÌÓ Ä±, flÄÌÄÌ°, È%ÄÓ, ÓÌÓ, ÎÈÈ. → èÈÈÒÈÈÙÄ, °ÓÌÓ, ÎÈÈ, ÈÒÓÓÌ, ÄÙfl %flfl "ÙÓ, Ó ÓÈÈÒÈÈÙÄÌ, ÌÙ, Ì±ÒÒÄÙÙV8-25CLH. (ÓÚ . 62)</li> </ul>
àÄÓ. ±ÈÄÌÈÄ ÎÄ ÓÓfl, ÎflÄÙÓfl , È%ÓÈÒÌ±ÙÄÌÄ.	<ul style="list-style-type: none"> <li>• èÙÌ °Ù± Ò±ÌÄÌ, ÙÄÌ. → ä±Í ÓÈÙÄ Ò±ÌÄÌ, ÙÄÌ. (ÓÚ . 16)</li> </ul>
àÄÓ. ±ÈÄÌÈÄ ÎÄ ÓÓfl, ÎflÄÙÓfl Ì± ·Í ±ÌÄ ÙÄÌ.	<ul style="list-style-type: none"> <li>• ÇÓÙ ÓÄÌÌ±fl ÎÈÌÄÒ·ÄÌÙÌ±fl Ì±ÍÒ±, °·Í± ÈÄ ÓÙ Ófl. → è, flÈÈÈÙÄÓ, ÓÓÈ±ÌÈÈÒÙ±, Ò Ç±ÈÌ·ÌÈÈ±ÈÈÈÈÈ ÓÌ Sony.</li> </ul>
ÇÄ ÙÈÌ±Ì, Ì±fl ÓÓÍÓÒ± ÓÓfl, ÎflÄÙÓfl ÒÈÈ Ó·ÄÌÄÌ Ó·ÄÌ, fl ÈÈÌ Ó·ÄÌÙÓ,.	<ul style="list-style-type: none"> <li>• ÇÈ%ÄÓÌ±ÌÄ ± ÎÄ fl, ÎflÄÙÓfl ÎÄÈÒÒ ±, ÌÓÈÈ.</li> </ul>
è Ó%ÓÍÓÈÄÌÈÄ Ì± ÓÌÄ%Ù, ·ÄÈ ÒÙ ±ÌÈ·Ä	

Additional information No001EUA1, 1fl ÈÌÙÓ·Í±Èfl

è Ó,À Í± ÌÄÈÒÔ ±,ÌÒÓÚÄÈ

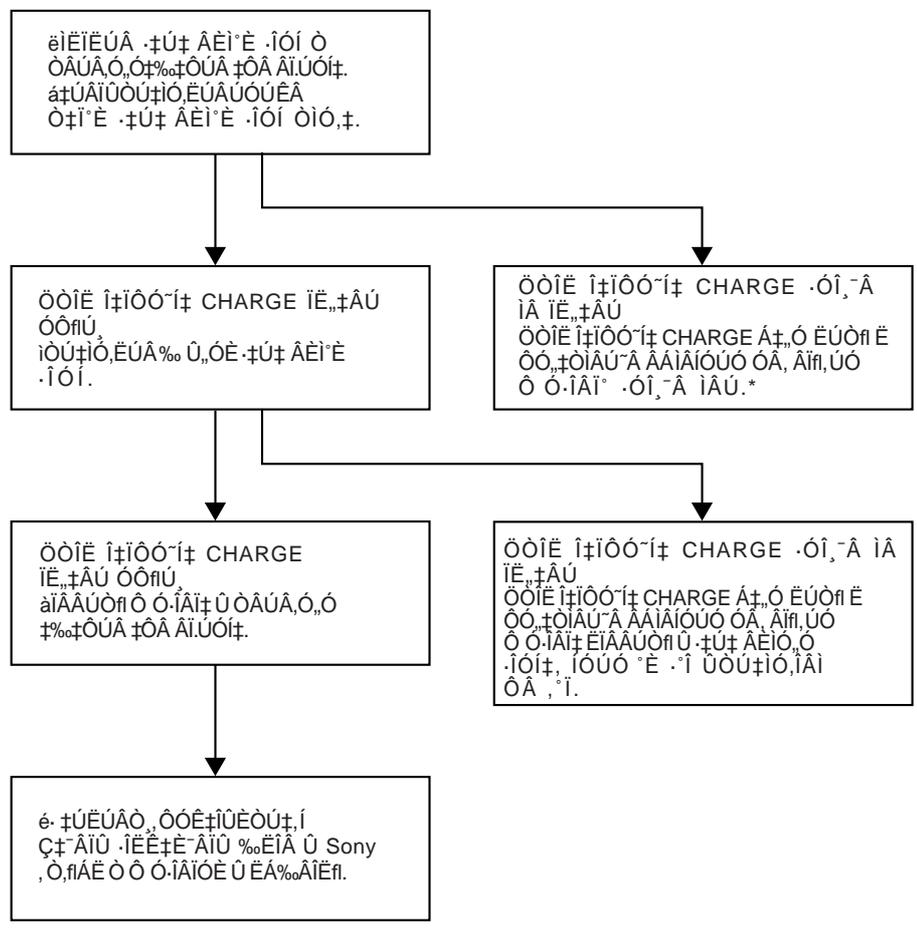
è ÈÄÌ±Í	è È~ÈÌ± È/ÈÌÈ %ÄÈÓÚ,Èñ ÓÓ ÛÓÚ ±ÌÄÌÈ
Ç,È%ÓÈÒÍ±ÚÄÌÄ ÈÌÈ Ì± Í ±ÌÄ ÛÄÑÓÓÓ ÓÈÄ,Ó%ÈÚÓñ ÌÄÈÄ,ÄÓÚÌÓÄÈÄÓ. ±ÈÄÌÈÄ.	<ul style="list-style-type: none"> <li>• ÒÓÌÈ Ó ÓÍÓ 10 ÌÈÌÚÚ ÓÓÓÌÄ ÚÓ,Ó, Í±Í Ç° ÛÓÚ±ÌÓ,ÈÌÈ ÓÄ ÄÌÌ ±ÚÄÌ, POWER, ÓÓÌÓÈÄÌÈÄ CAMERA, ÌÄ ÒÓÚ±È, Ó È ÛÓÍ Í±ÓÓÄÚÚ, È%ÄÓÍ±ÌÄ ±±,ÚÓÍ±ÚÈ~ÄÒÌÈ Ì±ÌÄÚ %ÄÌÓÌÓÚ ±ÈÈ.</li> <li>→ ÇÓÚ±, ÚÄÌ±ÓÓÄÚÈÈ%ÄÌÓÌÓÚ ±Èñ ÓÓÚ±ÌÓ,ÈÚÒñ. Ç° ÌÓÈÄÚÄ Ò%ÄÌ±Ú, Ú±Í, ÛÓ%ÄÌÓÌÓÚ ±Èñ ÌÄ.Ú%ÄÚ ÓÓÍ±Ä°, ±Ú, Óñ, ÒÈÓÚÄÌÄ ÌÄÌ. (ÓÚ .29)</li> </ul>
è Ó~ÄÄ	è È~ÈÌ± È/ÈÌÈ %ÄÈÓÚ,Èñ ÓÓ ÛÓÚ ±ÌÄÌÈ
è ÈÄÌ±Í	è È~ÈÌ± È/ÈÌÈ %ÄÈÓÚ,Èñ ÓÓ ÛÓÚ ±ÌÄÌÈ
è ÈÌ±,±ÄÌÈ ÒÚÌ,Ú %ÈÓÚ±ÌÈÓÌÓ,ÓÚÓ ±ÌÄÌÈñ ÌÄ ±ÓÚ±ÄÚ.	<ul style="list-style-type: none"> <li>• COMMANDER ÛÓÚ±ÌÓ,ÌÄÌ, ÓÓÌÓÈÄÌÈÄ OFF. → ÌÓÚ±ÌÓ,ÈÚÄ Ä,Ó, ÓÓÌÓÈÄÌÈÄ ON, ÒÈÓÚÄÌÄ ÌÄÌ. (ÓÚ 29)</li> <li>• óÚÓ-ÚÓ Ó Ä, ±È%±ÄÚ ÓÚÚ, ÈÌÙ ±Í ±ÒÌÌÙ~±Ì. → ÌÓÚ ±ÈÈÚÄÄ Ä, ±%Ú.</li> <li>• Ä±Ú± ÄÈÌÈ, ÓÚ±,ÌÄÌ° ò ÌÄÓ ±,ÈÌ,ÌÓÈ ÓÓÌñ ÌÓÓÚ, . . . → ÇÓÚ±, ÚÄ ±Ú± ÄÈÌÈ, ÓÓ.Ì.%±ñ Ó ±,ÈÌ,ÌÚ, ÓÓÌñ ÌÓÓÚ. (ÓÚ .83)</li> <li>• á±ñ%±Ú± ÄÄÌÈÄ ±ÒÌÓ%Ó,±Ì. → ÇÓÚ±, ÚÄ ÌÓ, Ä. (ÓÚ . 83)</li> </ul>
á±Ó ÌÈÌÒñ, È%ÓÈÒÍ±ÚÄÌ,.	• ÈÚÓÓÄ%ÈÌÈÚÄÓÌÓÌñ ÈÓÈÓÚÈÚÄÓ.ÄÌÚÈ,È%ÓÈÒÍ±ÚÄÌñ. (ÓÚ .63)

è Ó,À Í† ÌÄÈÒÒ †,ÌÓÓÚÄÈ

èÄÚÄ,ÓÈ †%‡ÓÚÄ ÒÄ ÄìÄìÒ,Ó ÚÓÍ†

è ÈÄì†ì	è ÈÈì† È/ÈÈÈ %ÄÈÓÚ,Èñ ÓÓ ÚÓÚ †ÌÄÈ
à†ÌÓÓ†ì POWER ÌÄ „Ó ÈÚ.	• ìÓÚ†ìÓ,ÈÚÄ ÒÄÌÄÌÚÓ , ÒÓÌÓÈÄÌÈÄ VTR (DC OUT) È ÓÚÓÓÄ%ÈÈÈÚÄÓÁÚÄ,ÓÈÒ Ó,Ó%ÓÄ ÄÄÓ%ìÚÈÈÌÚÚÓÌÓ,† ÓÓ%ÒÓÄ%ÈÈÈÚÄÓÁÚÄ,ÓÈÒ Ó,Ó%Ò(ÒÚ 9)
àÈ,,†ÄÚ Ì†ÌÓÓ†ì CHARGE.	• èìÓÚ ÈÚÄ ÒÌÄ%Ú ù Ú†.ÌÈˆÚ.

äÓ,,%‡ ÌÈ,,†ÄÚ Ì†ÌÓÓ†ì CHARGE  
è Ó,À ÈÚ, ÓÓ ÒÌÄ%Ú ù ÄÈ Ú†.ÌÈˆÄ.



\* ÒÒÌÈ Çˆ ÈÒÓÓÌ,ÁÚÁÚÄ †Ú† ÄÈìÈÈ .ÌÓÌ, ÌÓÚÓ È Çˆ ÚÓÌ,ÌÓ ˆÚÓ ÌÙÒÈÈÈ, ÈÈÈ ÌÓÚÓ ÈÈ .ì ÓÓÚ†,ÌÄì Ì†%ÈÈÈÚÄÌ,ÌÓÄ, Äñ,ÚÓ Ì†ÌÓÓ†ì CHARGE ÌÓÈÄÚ ÌÈ,,†Ú, Ò È ÓÄ, ÓÈ Á† ñ%ÓÌÄ. ùÚÓ ÌÄ Ùì†Äˆ,†ÄÚ Ì† Ò Ó.ÌÄìÚ. èÓ,ÚÓ ÈÚÄ Ò Ó.Ä%Ú Ù Á† ñ%ÈÈÈ Ò ÚÄÌ ÈÄ Ò†ì†. †Ú† ÄÈì†ì .ÌÓÌÓÌ.

Additional information NO001EUA1,†ñ ÈÌÚÓ Ì†ÈÈ

## English

# Specifications

### Video camera recorder System

#### Video recording system

Two rotary heads, Helical scanning, FM system

#### Audio recording system

Rotary heads, FM system

#### Video signal

PAL colour, CCIR standards

#### Usable cassette

8 mm video format cassette (standard 8 mm)

#### Recording/Playback time

SP mode: 1 hour and 30 minutes (P5-90)

LP mode: 3 hours (P5-90)

#### Fastforward/rewind time

Approx. 5 min. (P5-90)

#### Image device

CCD (Charge Coupled Device)

#### Viewfinder

Electronic viewfinder

Black and white

#### Lens

CCD-TRV14E: 15× (optical)

CCD-TRV24E: 15× (optical), 180× (digital)

Combined power zoom lens, F1.4 – 2.4

Filter diameter 37 mm (1 1/2 inches)

#### Focal distance

$f = 4.1 - 61.5 \text{ mm } (3/16 - 2 1/2 \text{ inches})$

When converted to a 35 mm still camera

CCD-TRV14E: 39 – 585 mm (1 19/16 – 23 1/8 inches)

CCD-TRV24E: 47 – 705 mm (1 7/8 – 27 7/8 inches)

#### Colour temperature

Auto

#### Minimum illumination

CCD-TRV14E: 0.4 lx at F 1.4

CCD-TRV24E: 0.7 lx at F 1.4

#### Illumination range

CCD-TRV14E: 0.4 to 100,000 lx

CCD-TRV24E: 0.7 to 100,000 lx

#### Recommended illumination

More than 100 lx

### LCD screen

#### Picture

2.5 inches measured diagonally

CCD-TRV14E: 50.2 × 37.1 mm (2 × 1 1/2 inches)

CCD-TRV24E: 50.3 × 37.4 mm (2 × 1 1/2 inches)

#### On-screen display

TN LCD/TFT active matrix method

#### Total dot number

61,380 (279 × 220)

### Input and Output

#### connectors

##### Video output

Phono jack, 1 Vp-p, 75 ohm, unbalanced

##### Audio output

Monaural, Phono jack, 327 mV, (at load impedance 47 kilohm), impedance less than 2.2 kilohm

##### RFU DC OUT

Special minijack, DC 5 V

##### Earphone jack

Mini-jack

##### LANC control jack

Stereo mini-minijack (ø 2.5 mm)

##### MIC jack

Minijack, 0.388 mV, low impedance with 2.5 to 3 V DC output, impedance 6.8 kilohm (ø 3.5 mm)

##### Speaker

Dynamic-speaker

### General

#### Power requirements

7.5 V (AC power adaptor)

#### Average power consumption

During camera recording using the LCD

CCD-TRV14E: 4.2 W

CCD-TRV24E: 4.5 W

During camera recording using the viewfinder

CCD-TRV14E: 3.3 W

CCD-TRV24E: 3.5 W

#### 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. 112 × 102 × 201 mm (4 1/2 × 4 1/8 × 8 inches) (w/h/d)

#### Mass

Approx. 890 g (1 lb 15 oz)

Excluding the battery pack, lithium battery, cassette and shoulder strap

Approx. 1.1 kg (2 lb 6 oz)

Including the battery pack NP-33, lithium battery CR2025, cassette P5-90 and shoulder strap

#### Microphone

Electret condenser microphone, monaural type

#### Supplied accessories

See page 6.

### AC power adaptor

#### Power requirements

110 – 240 V AC, 50/60Hz

#### Power consumption

AC-V16/V17: 20 W

AC-V16A/V17A: 22 W

#### Output voltage

DC OUT in operation mode 7.5 V, 1.8 A

Battery charge terminal

10 V, 1.1 A in charge mode

#### Application

Sony battery packs NP-33 (supplied), NP-55H, NP-C65, NP-66, NP-67, NP-77H, NP-98

#### 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.)

166 × 43 × 75 mm (6 5/8 × 1 11/16 × 3 inches) (w/h/d)

including projecting parts and controls

#### Mass (Approx.)

AC-V16: 420 g (15 oz)

AC-V16A: 450 g (16 oz)

AC-V17: 440 g (16 oz)

AC-V17A: 460 g (16 oz)

Design and specifications are subject to change without notice.

εΥΟΟΙΕΕ

ΙΑΙΕ~ΑΟΙΕΑ ι ιΐΐΑ ΕΟΥΕΙΕ

ÇÉ%ÔÁÍ±İ ±  
 εΕΟΥΑΐ±  
 εΕΟΥΑΐ±,É%ÔÁ±ÔÈÈ  
 N,Ä ±,ÉÁÔñ „ÓÍÔ,İÉ,  
 İ±İİÔİÔ-ÔÛ Ô-İ±ñ ±Ä,Ä Úİ±,  
 ÔÈΟΥΑΐ± óá  
 εΕΟΥΑΐ±±U%ÈÔÁ±ÔÈÈ  
 Ç ±,ÉÁÔñ „ÓÍÔ,İÉ, ÔÈΟΥΑΐ±  
 ó á  
 ÇÉ%ÔÁÔÈÈ,İ±  
 ñ,ÄÚÔ,ÔÈÈ,İ±PAL, ÔÛ±%± Ú  
 ÔÔ äääè  
 äÔÔÔİ,ÄÚÄİ^Ä İ±ÔÔÄÚ^  
 ä±ÔÔÄÚ^ 8-İİ,É%ÔÁÔÛÔ İ±Ú±  
 (ÔÛ±%± U8İİ)  
 Ç ÄİñÄ±ÔÈÈ/  
 „ÔÔ ÔÈÄ,Ä%ÄİÈñ  
 εÄÈÈİ SP: 1^±Ô È 30 İÈİÚÛ (è5-90)  
 εÄÈÈİ LP: 3^±Ô± (è5-90)  
 Ç Äİñ ÔÄ ÄİÔÛİÈ,ÔÄ Ä%Ä  
 İ±Ä±%  
 è È.İÉÄ. 5 İÈİ. (è5-90)  
 İÔ İÈ Ô,±ÚÄİ, ÉÁÔ. ±ÈÄİÈñ  
 CCDİÈ-Ô ÔÄ±ñ%Ô,ÔÈ  
 Ô,ñÄ )  
 ÇÉ%ÔÈÈİ±ÚÄİ,  
 ÚİÄİÛ Ôİİ^È,É%ÔÈÈİ±ÚÄİ,  
 óÄ İÔ-Äİ^È  
 è. Äİ ÚÈ,  
 CCD-TRV14E: 15x (ÔÔÛÈ^ÄÔİÈÈ)  
 CCD-TRV24E: 15x (ÔÔÛÈ^ÄÔİÈÈ),  
 180x (ÈÛ Ô.ÔÈ)  
 äÔİ:ÈİÈ Ô,İ±İİ^È Ô. Äİ ÚÈ, Ô  
 Ô È,Ô%İ^İ Ú ±İÔÛÔİ±ÚÔ Ôİ,  
 F1,4 - 2,4  
 NÈ±İÄÛ ÚÈİ,Ú ± 37 İİ  
 İÔİÛÔİÔÄ ±ÔÔÛÔñİÈÄ  
 f = 4,1 - 61,5 İİ  
 è È Ô ÄÔ. ±ÄÔ,İÈÈ È%ñ 35-İİ  
 ÚÔÛÔİÔ±İ±  
 CCD-TRV14E: 39 - 585 İİ  
 CCD-TRV24E: 47 - 705 İİ  
 ñ,ÄÚÔ,±ñ ÚÄİÔÄ ±ÚÛ ±  
 ÄÚÔ  
 äÈİÈİ±İ,İÔÄ ÔÔ,Ä^ÄİÈÄ  
 CCD-TRV14E: 0,4 İİ Ô È F1,4  
 CCD-TRV24E: 0,7 İİ Ô È F1,4  
 NÈ±Ô±ÄÔİ ÔÔ,Ä ÄİİÔÛÈÈ  
 CCD-TRV14E: ÔÛ 0,4%Ô 100000  
 İ İ  
 CCD-TRV24E: ÔÛ 0,7%Ô 100000  
 İ İ  
 εÄİÔİÄİ%ÔÛÄİ±ñ ÔÔ,Ä^ÄİİÔÔÛ,  
 ÄÔİÄÄ 100 İİ

ú ĩ ì ÜäÑ  
 äÄÔ. ±ÈÄİÈÄ  
 2,5%Èİ ÔÔ %È±,Ôİ±İÈ  
 CCD-TRV14E: 50,2 x 37,1 İİ  
 (2,5%Èİ±)  
 èèD-TRV24E: 50,3 x 37,4 İİ  
 äİÚÔ İ±ÈÈÔİİ^È İ±İ  
 ÄİÚÈ,İÔ-İ±Ú È-İ±ñ ÚÄİİÔİÔ,Èñ  
 TN Üäñ/TFT (ÚÔİİÔÔİÄİÔ-İ^È  
 Ú±ÄÈÔÛ)  
 è.^ÄÄ ^ÈÔİÔ İÄİÄİÚÔ,  
 ÉÁÔ. ±ÈÄİÈÈñ:  
 61380 (279 x 220)  
 ÇİÔ%İ^Ä È ,İÔ%İ^Ä  
 ±Ä^Äİ^  
 ÇÉ%Ä,İÔ%  
 İÔİÔ,İÄÄ%Ô,1Ç ÔÔ%ÔÈİÔÈ  
 ±İÔİÈÛÛ%Ä 75 èİ,  
 İÄÔÈİÄÛ È-İÔÄ  
 ÄÛ%ÈÔ,İÔ%  
 äÔİÔÛÔİÈ^ÄÔİÈÈ,İÔİÔ,İÄÄ%Ô,  
 327 İÇ (Ô È ÔÔİİÔİ  
 ÔÔÔ ÔÛÈ.İÄİÈÈ±,ÚÄİÈ47  
 İÈİÔÔİ),ÔÔİİÔÄ ÔÔÔ ÔÛÈ,İÄİÈÄ  
 İÄİÄÄ, Äİ 2,2 İÈİÔÔİ  
 RFU DC OUT  
 èÔÄ^È±İ,İÔÄ İÈİÈ,İÄÄ%Ô, 5 Ç  
 ÔÔÛÛÛÔ±  
 ÈİÄÄ%Ô İ±Ú-İÈİÔ,  
 äÈİÈ,İÄÄ%Ô  
 ÈİÄÄ%Ô ÚÔ ±İÄİÈñ LANC  
 èÜÄ ÄÔÛÔİÈ^ÄÔİÔÄİÈÈ-,İÄÄ%Ô  
 (Ø 2,5 İİ)  
 ÈİÄÄ%ÔMIC  
 äÈİÈ-,İÄÄ%Ô,0,388 İÇ,İÈÄİÔÄ  
 ÔÔİİÔÄÔÔÔ ÔÛÈ,İÄİÈÄÔ  
 ,İÔ%ÔİÔÛ 2,5%Ô 3Ç ÔÔÔÛ.  
 ÚÔİ±,ÔÔİİÔÄ ÔÔÔ ÔÛÈ,İÄİÈÄ6,8  
 İÈİÔÔİ (Ø 3,5 İİ)  
 È ÔİİÔ„Ô ÈÛÄİ,  
 NÈİ±İÈ^ÄÔİÈÈ  
 „ ÔİİÔ„Ô ÈÛÄİ,  
 è.^ÄÄ  
 İ Ä.Ô,İÈÈñ İ ÔÈÛÛİÈÈ,  
 7,5Ç(ÔÄÛÄ,ÔÈ±%±ÔÛÄ ÔÄ Äİ.  
 ÚÔİ±)  
 è Ä%ñññ ÔÔÛ Ä-İñÄİ±ñ  
 İÔ^İÔÛÛ  
 ,È%ÔÁÍ±İÄ ÔÈÔ  
 ÈÔÔÔİ,ÄÔ,İÈÄİ ÜäÑ  
 CCD-TRV14E: 4,2 ÇÛ  
 CCD-TRV24E: 4,5 ÇÛ  
 ÇÔ, Äİñ, ÔÔİİÄİÈñ Ä±ÔÈÈÈ  
 ,È%ÔÁÍ±İÄ ÔÈÔ  
 ÈÔÔÔİ,ÄÔ,İÈÄİ,È%ÔÈÈİ±ÚÄİñ  
 CCD-TRV14E: 3,3 ÇÛ  
 CCD-TRV24E: 3,5 ÇÛ  
 è±.Ô^ñ ÚÄİÔÄ ±ÚÛ ±  
 èÛ 0^è %Ô 40^è  
 (ÔÛ32^F%Ô104^F)

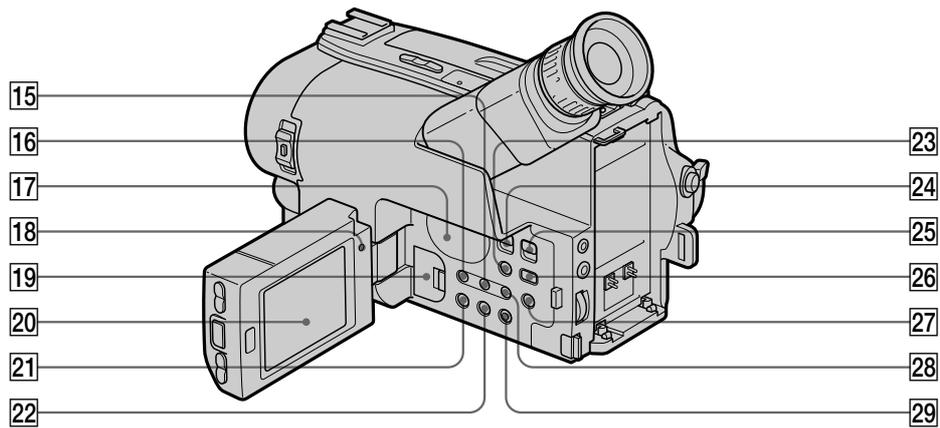
İÄİÔÄ ±ÚÛ ± İ±İÄİÈñ  
 èÛ -20^è %Ô +60^è  
 (ÔÛ-4^F%Ô+140^F)  
 è±ÄİÄ^ (Ô È.İÉÄ.)  
 è È.İÉÄ. 112 İ 102 İ 201 İİ  
 (-,/,)  
 ä±ÔÔ±  
 è È.İÉÄ. 890 „  
 ÇÄ,İİ^ñ ±Ú± ÄÈİÔ„Ô.İÔİ±,  
 İÈÛÈÄ,ÔÈ.±Ú± ÄÈİÈ,İ±ÔÔÄÛ^ È  
 ÔİÄ^Ä,Ô„Ô Äİİñ  
 è È.İÉÄ. 1,1 İ,  
 Çİİ^ñ ±Ú± ÄÈİÈÈ.İÔİ NP-  
 33,İÈÛÈÄ,Û.±ÚÄ ÄÈİÛ  
 CR2025,İ±ÔÔÄÛÛ è5-90 ÈÈ  
 ÔİÄ^Ä,ÔÈ ÄİÄİ,  
 äÈİ ÔÛÔİ  
 ÚİÄİÛ È^ÄÔİÈÈ İÔİ%ÄİÔÔ İ^ÈÈ  
 İÈİ ÔÛÔİ İÔİÔÛÔİÈ^ÄÔİÔ„Ô  
 ÜÈÔ±  
 è Èİ±,±Äİ^Ä Ô Èİ±%İÄÈİÔÛÈÈ  
 èİ.ÔÛ 6.  
 èÄÛÄ,ÔÈÈ%Ô±ÔÛÄ,  
 ÔÄ ÄİÄİİÔ„Ô ÚÔİ±  
 İ Ä.Ô,İÈÈñ İ ÈÛÛÔ^İÈÛ  
 ÔÈÛ±İÈñ  
 110-240 Ç ÔÄ Äİ. ÚÔİ±, 50/60 È^  
 èÔÛ Ä-İñÄİ±ñ İÔ^İÔÛÛ,  
 AC-V16/V17: 20 ÇÛ  
 AC-V16A/V17A: 22 ÇÛ  
 Ç^İÔ%İÔÄ İ±Ô ñÈÄİÈÄ  
 DC OUT , ±.Ô^Äİ ÄÈÈİÄ  
 7,5 Ç, 1,8 Ä  
 Ç^İÔ%ñññ Ä±ñññÈ.±Ú± ÄÈ  
 10 Ç, 1,1 Ä, ÄÈÈİÄ Ä±ñññÈÈ  
 è ÈİÄİÈİ^Ä. ±Ú± ÄÈİÈ^Ä  
 .İÔİÈÈ  
 Ä±Ú± ÄÈİÈÈ.İÔİ Sony NP-33  
 (Ô Èİ±,±ÄÛÔñ), NP-55H, NP-C65,  
 NP-66, NP-67, NP-77H, NP-98  
 è±.Ô^ñ ÚÄİÔÄ ±ÚÛ ±  
 èÛ 0^è %Ô 40^è  
 (ÔÛ32^F%Ô104^F)  
 İÄİÔÄ ±ÚÛ ± İ±İÄİÈñ  
 èÛ -20^è %Ô +60^è  
 (èÛ-4^F%Ô+140^F)  
 è±ÄİÄ^ (Ô È.İÉÄ.)  
 166 x 43 x 75 İİ (-,/,),  
 ,İİ^ñ „ÔÛÛÔ±.ÈÄ^±ÔÛÈÈ È  
 Ä,ÛññÛÔ^  
 ä±ÔÔ± (Ô È.İÉÄ.)  
 AC-V16: 420 „  
 AC-V16A: 450 „  
 AC-V17: 440 „  
 AC-V17A: 460 „  
 äÔİÔÛ ÛİÈÈÈ È ÚÄİÈÈ^ÄÔİÈÄ  
 İ±İÛÄ ÈÛÛÈÈÈ İÔ„ÛÛ.Û  
 ÈÄİÄİÄİ^ .ÄÄ Û,Ä%ÔİİÄİÈÈ.

Additional information NOÖİİÈÛÄİ,İñ ÈÛÛÔ İ^ÈÈñ



## Identifying the parts

εὐχρηστικότητα



- 15 TIME button (p. 32)
- 16 DATE button (p. 32)
- 17 Speaker
- 18 Recording lamp
- 19 Lithium battery compartment (p. 54)
- 20 LCD screen (p. 16, 17, 22, 85)
- 21 WIDE button (p. 39) (CCD-TRV24E only)
- 22 TITLE button (p. 46)
- 23 DISPLAY button (p. 23)
- 24 STEADY SHOT switch (p. 45) (CCD-TRV24E only)
- 25 START/STOP MODE switch (p.11, 33)
- 26 PICTURE EFFECT button (p. 37)
- 27 MENU button (p. 29)
- 28 COUNTER RESET button (p. 13)
- 29 END SEARCH button (p. 25)

- 15 αὐτοματὸν ὄριο χρόνου (σ. 32)
- 16 αὐτοματὸν ὄριο ἡμερομηνίας (σ. 32)
- 17 Ἐξωτερικὸ ἠχοπύριον
- 18 Ἰνδικοδείκτης εἰσαγωγῆς ταινίας
- 19 Ἐπιπέδιο μπαταρίας λιθίου (σ. 54)
- 20 Ὁθροὶς (σ. 16, 17, 22, 85)
- 21 αὐτοματὸν ὄριο πλάτους (σ. 39) (μόνο τοῦ μοντέλου CCD-TRV24E)
- 22 αὐτοματὸν ὄριο τίτλου (σ. 46)
- 23 αὐτοματὸν ὄριο ἐπιλογῆς (σ. 23)
- 24 Ἐπιπέδιο ἐπιλογῆς ἁπλοῦς ὄρασης, STEADY SHOT (σ. 45) (μόνο τοῦ μοντέλου CCD-TRV24E)
- 25 Ἐπιπέδιο ἐπιλογῆς λειτουργίας ἀναμονῆς/ἀναμονῆς (σ. 11, 33)
- 26 αὐτοματὸν ὄριο ἐπιλογῆς εἰκαστικῶν (σ. 37)
- 27 αὐτοματὸν ὄριο μενῦ (σ. 29)
- 28 αὐτοματὸν ὄριο ἀναμονῆς ἀριθμοῦ (σ. 13)
- 29 αὐτοματὸν ὄριο ἀναμονῆς ἀναζήτησης (σ. 25)

Additional information







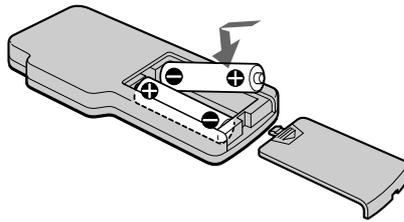
## Identifying the parts

εὐὸὸἄἰτ,τἰἔἄ %ἰἄῦτἰἄἔ

### To prepare the Remote Commander

Insert two R6 (size AA) batteries by matching the + and - on the batteries to the diagram inside the battery compartment.

Νἰτἰ ὀὀ%, ὀῦὀ,ἰἔ ὀῦἰ, ὕτ  
%ἰἔὀῦτἰἔὀἰἰ, ὀ ὕὀ τ,ἰἄἰἔτἰ  
çὀῦτ, ὕἄ %ἰ, ἄ τῦτ ἄἔἰἔ R6 ( τἄἰἄ τ ἄἄ),  
ὀὀὀὀ,ἄῦὀὀ,ἔἔὀὀἰτ ἰὀὀὀἔ+ἔ-τ  
τῦτ ἄἔἰτἰ ὀἰἄἰἄ, ἰῦὀ ἔ τῦτ ἄἔἰὀ, ὀ  
ὀὀὀἄἰτ.



### 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.

### Remote control direction

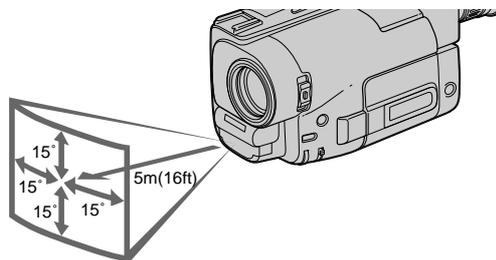
Aim the Remote Commander to the remote sensor within the range as shown below.

ἔ ἔἰἄ τἰἔἄ ὀῦἰὀὀἔῦἄἰ, ἰὀ ὀ ὀἰτ ὀἰὀἔ.  
τῦτ ἄἄἰ

ἄτῦτ ἄἄἰ%ἰτ ὀῦἰ, ὕτ%ἰἔὀῦτἰἔὀἰὀ, ὀ  
ὕὀ τ,ἰἄἰἔτἰ, τῦτῦτ ὀ ἔἰἄ ἰὀ τ 6 ἰἄὀτἰἄ,  
ὀ ἔ ἰὀ ἰτἰ ἰὀἔ ἰὀὀἰὀὀὀὀὀὀὀ. ὀὀἰἔ ἄτ ἰ%ἰ  
τῦτ ἄἄἰ ὀῦἰἄὀ ὀἰτ. ἰἔἰἔ ἔἄ τὀἰὀ%ἰἄὀὀἰ  
ὀὀ, ὀἄἰ, ὀῦἰ, ὕ %ἰἔὀῦτἰἔὀἰὀ, ὀ ὕὀ τ,ἰἄἰἔτἰ  
ὀἄ ἄὀὀἰἄὀὀἰἄὀἰἄ ὀ, τῦτ.

çὀ ἔἄ ἄἔτἰἔἄ ὀὀ, ἄἔ%ἰἄἰἔτἰ, ὀἰἄ%ὀὀ, ἔἄ  
ὀἄἰὀἔἰὀἔ ὕὀἄἰἔ ὀὀ%ἰἄ ἔἔἰὀ, ὀ τῦτ ἄἄἰ  
ἰ%ἰἔὀἰἄ τῦτ ἄἔἰἔ, ἄὀἰἔ ç ἰἄ ὕ%ἰἄὀἄ  
ἔὀὀὀἰ ἄὀ, τῦτ, ὀῦἰ, ὕ %ἰἔὀῦτἰἔὀἰὀ, ὀ  
ὕὀ τ,ἰἄἰἔτἰ %ἰἔὀἰἄἰ, ἰὀἄ, ἄἰτ.

çτὀ τ,ἰἄἰἔἄ ὀῦἰ, ὕτ %ἰἔὀῦτἰἔὀἰὀ, ὀ  
ὕὀ τ,ἰἄἰἔτἰ  
çτὀ τ, ὕἄ ὀῦἰ, ὕ %ἰἔὀῦτἰἔὀἰὀ, ὀ  
ὕὀ τ,ἰἄἰἔτἰ ἰτ %ἰἔὀῦτἰἔὀἰὀἄ %ἰτῦἔἰ,  
ὀ ἄ%ἰἄἰτἰ%ἰἔτὀἄὀἰτ, ὀὀἰἄτἰὀ, ὀἰἔἔἄ.







## Identifying the parts

## εὐρίσκοντας τὰ μέρη

16 5SEC recording indicator (p. 33)

17 END SEARCH indicator (p. 25)

18 Warning indicators (p. 87)

19 Remaining battery indicator (p. 58)



20 AUTO DATE indicator (p. 11)

21 Date or Time (p. 32)

16 αὐτοεπιβεβαιωτικό 5SEC (ὄψ. 33)

17 αὐτοεπιβεβαιωτικό END SEARCH (ὄψ. 25)

18 ἐπιεικτικὰ ἠχῶν ἔλεγχος (ὄψ. 87)

19 αὐτοεπιβεβαιωτικό ὀπίσθετο, ἄνοιξιμο ἠχῶν ἔλεγχος (ὄψ. 58)

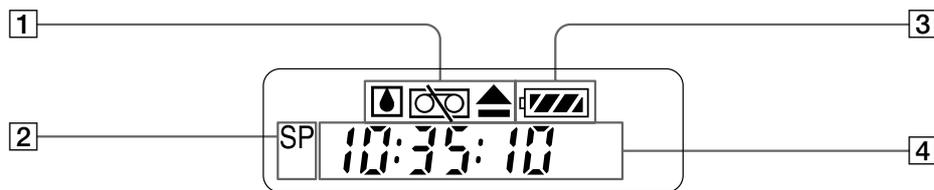


20 αὐτοεπιβεβαιωτικό AUTO DATE (ὄψ. 11)

21 Ἡμερομηνία ἔλεγχος (ὄψ. 32)

## In the display window

## Ὡς ὁρίζεται τὸ πλῆθος



1 Warning indicators (p. 87)

2 Recording mode indicator (SP/LP) (p. 11)

3 Remaining battery indicator (p. 58)



4 Date or time (p. 32)

Tape counter (p. 13)

1 ἐπιεικτικὰ ἠχῶν ἔλεγχος (ὄψ. 87)

2 αὐτοεπιβεβαιωτικό ἔλεγχος ἠχῶν (SP/LP) (ὄψ. 11)

3 αὐτοεπιβεβαιωτικό ὀπίσθετο, ἄνοιξιμο ἠχῶν ἔλεγχος (ὄψ. 58)



4 Ἡμερομηνία ἔλεγχος (ὄψ. 32)

ἔλεγχος ἠχῶν (ὄψ. 13)



