

# Video Camera Recorder

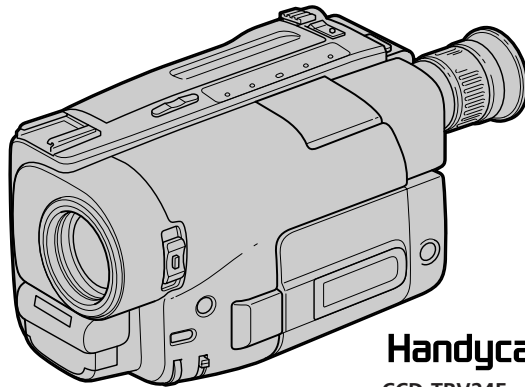
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## Operating Instructions

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

### αΙΟÙ ÙÎÈñ ÔÓ´ÍÒÔÎÛ±Ú±ÈÈ

èÀ Å% ì±ñÍÓÍ´ÍÒÔÎÛ±Ú±ÈÈ %ñìÓ, Ó ±ÔÔ± ±Ú± Ô ÓÒÈÌ, ìÈì±ÚÁÌ, ìÓ Ô Ó-ÀÒÙ, ì±ÒÙÓñ-ÀÀ ÙÍÓ, Ó%ÒÙ, ÓÈÓÒÙ±, ÈÙ, Å, Ó%ññ·Ù%ÛÈ, 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 Ò ÉÓ· ÁÚÁîĒĀî%†ññÏĒ  
,Ē%οÁÓí†ĪĀ ° Handycam Vision™ ÛĒ Ī°  
Sony. è ÓÓÍÓ~ Ç†ĀĒ ,Ē%οÁÓí†ĪĀ °  
Handycam Vision Ç° ĪÓĒÁÚĀ Á†ÓĀ~†ÚĪÁÚ,  
%οÓ Ó,ĒĀ Ç†Ī Ī,ĪÓ,ĀîĒñ ĒĒĀîĒ Ò  
ÓĀ,ÓÓÍÓ%οî Ī†ĀÓÚ,ÓĪ ĒÁÓ· †ĒĀîĒñ Ē  
Ā,ÚĪ†. Ç†† ,Ē%οÁÓí†ĪĀ † Handycam Vision  
ÓÓĪ†Ā† ÛÓÓ,Ā ~ĀĪÓÚ,Ó,†ñ ĪĒ  
ÛÙĪĒĒñĒ, ĪÓ Ē , ÛÓ ĒĀ , Āñ ĀĀ Ó~ĀĪ,  
ĪĀ,ĪÓ ĒÓÓÍ, ÁÓ,†Ú. Ç° ,ÓÍÓ Ā ·Û%οĀÚĀ  
ÓÓÁ%ο†,†Ú ÓĀĪĀĒĪĀ,Ē%οÁÓĀ†ÓĒÓĒ,  
ĪÓÚÓ ĪĒ ĪÓĒÁÚĀ Ī†ÓĪ†Ē%ο†Ú, Òñ ,  
ÓÓÓĪĀ%ο~ĒĀ ,Ó%ο°.

**èèÖÑîèèÖÛÑÖçàÖ**

Ñññ Ò Ā%οÓÚ, †ĀîĒñ ,ÓĀ,Ó †ññ ĒĒĒ  
ÓÓ†ÓÍÓÓÚĒĪĀÚ ĒĀÓÍÓ,ÓÚ%ο† †ĪĀ  
ÓÓ%ο,Ā ,†Ú †ÓÓ† †Ú,ÓĀ%οĀĒÓÚ,Ē%οÓĒ%οñ  
ĒĒĒ ,†,Ē,Ē.

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

Ç ÓÓ Ā%οĀĪĀññ· ÒÚ ††, ÛÓÚ†ĪÓ,ĪĀĪ  
ÓÓ ñ%οÓĪĒĒĒ,Ē%ο†ĒĒĒ· †Ú† ĀĀĪ%οññ ÒĒÛ†ĒĒñ  
ĒĀ%οĀĪĒĒ. è· †ÚĒÛĀÓ, ÓÓĒ†ĪÛĒÓÚ†, Ç†Ā  
ĪĀÓÚĪÓĀ ÛÓÓĪĪÓĪÓ~ĀĪĪÓĀ †,ĀĪÛÓÚ,Ó.

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**Before you begin**  
**Using this manual**

**èÁ Â% ì†~†íÓí †.Ó °**  
**àÒÒÓí,ÁÓ,†ìÈÁ %,,†ìíÓ,,Ó ÛíÓ,Ó%ÒÚ,†**

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 **B** in the illustrations, you can hear the beep sound to confirm your operation.

àìÒÚ ÛíÈÈ, %,,†ìíÓí ÛíÓ,Ó%ÒÚ,Á ÈÁíÓÈÁì ° %,,Ùí ìÈÈÁÓÁ Á-ÈÒíÁìì, ìÓ%,,ÁíÁÈ. èÁ Â% ÛÁì, ì†í Ç° ì†íÁÚÁ ~ÈÚ±Ú, %,,†ìíÓÁ ÛíÓ,Ó%ÒÚ,ÓÈ ÌÒÒíÚ±ÚÈ Ó,±Ú, †ÓÓ± †Ú,Ó Ó,Á ÛÁìÓíÁ Ç±ÁÈíÓ%,,ÁìÈ, ÓÒÒíÓÚ Á, ì† ìÈÈì, Ò†ìÁì, Ç±ÁÈ È%,,ÁÓí±íÁ °. àÓ%,,Áì CCD-TRV24E ÈÒÒÓí,ÁÚÁÚÒí, Èìì,ÓÚ †ÚÈ,ìí °Áìí. Ç ÈíÓí ÒíÚ~±Á ì†ÈíÁìÓ,†ìÈÁ ìÓ%,,ÁìÈ Ûí±Á,†ÁÚÒí ì† ÈÒÚì±í. à.°Á †ÁìÈ-Èí, †.ÓÚÁ ~ÁÚíÓ Ûí±Á±í°, ÛÁìÓÚÁ, ì†ì ì±Ó ÈíÁ "ìÓí,ìÓ CCD-TRV24E". àÓ%,,Ç±.Ú%,,ÁÚÁ-ÈÚ±Ú ÛíÓ,Ó%ÒÚ,Ó, Û-ÈÚ,†ÈÚÁ, ~ÚÓ ìíÓíÈ È ÒÚÓ±íÓ,ìÈ ì† È%,,ÁÓí±íÁ Á ÓÓí±Á±í° Á±,ì±,ìíÈ ~.Úí,†ìÈ. Ó Èì. ìÓÚ±ìÓ,ÈÚÁ, °íì~±ÚÁì, POWER, ÓÓíÓÈÁìÈÁ CAMERA. ÓÓíÈ ì† ÈÒÚì±í Ûí±Á,†ÁÚÒí Áì±í **B**, Ç° ìÓÈÁÚÁ Òí~±Ú, ÁÚìÁ ìÈ Á,ÛíÓ,ÓÈ ÒÈ,ì†ì %,,íí ÒÓ%,,Ú,Á È%,,ÁìÈíí Ç±ÁÈ †.ÓÚ°.

**Types of differences**

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

**íÈÒ° †ÁìÈ-ÈÈ**

CCD-	èÓÚÈ-Á-ÓíÈÈÚ±Ú-ÚÓ±ÚÓ	nÈÚ Ó,ÓÈ Û±ÚÓÚ-†±ÚÓ	ðÈ ÓíÓÚÓ-ì±Úì°È ÁÈÈì	ìÒÚÓÈ-È,†íí Ó-Áìì±
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.

**è ÈíÁ~†ìÈÁ ÓÓ ÒÈÒÚÁì±ì ^,ÁÚíÓ,,Ó ÛÁìÁ,È%,,ÁìÈíí**

èÈÒÚÁì °.ÁÚíÓ,,Ó ÛÁìÁ,È%,,ÁìÈíí ÓÚìÈ-†.ÚÒíí, Á±,ÈÒÈíÓÚÈ ÓÚÓÚ ±í. Níí Ó ÓÓíÓÚ ± Ç±Èì,Á±ÒÈÒÁÈ ÓÓ ÛÁìÁ,ÈÁÓ Û,Ç±ì ìÁÓ-ìÓ%,,ÈíÓ ÈÒÒÓí,ÁÓ,±Ú, ÛÁìÁ,ÈÁÓ, ÓÒíÓ,†ìì°È ì† ÒÈÒÚÁìÁ PAL. ÓÓíÈ Ç° ìÓÚÈÚÁ ÈÒÒÓí,ÁÓ,±Ú, ÛÁìÁ,ÈÁÓ, ÓÒíÓ,†ìì°È ì† ÒÈÒÚÁìÁ SECAM, Ç±ì ÓÓí±%,,Ó-ÈÚÒíí ì†ìÓí%,,Á PAL/SECAM (ÒÒÒíÓí,ìÚ %,,†ììíí,È%,,ÁÓí±íÁ † ÓÒíÓ,†ìì ì† ÒÈÒÚÁìÁ PAL).

**è Á%,,ÓÒÚÁ ÁÈÁìÈÁ Ó.†,ÚÓ ÒíÓí Ò ±,Á**

ìÁìÁ,ÈÁÈÓìì° Á Ó Ó,, †íí°, ìÈìÓÚÈì,ì°, È%,,ÁÓíÁìÚ° È %,,Ú,ÈÁ ì±ÚÁ È±í° ìÓ,,ÚÚ °.Ú, Á±-È-Áì° †,ÚÓ ÒíÈì Ó,±.Óí. ÇÁÓ †,ÓíÓí±íí Á±ÒÈÒ, Û±ìÈì, ì±ÚÁ È±íÓ, ìÓÈÁÚ Ó ÓÚÈ,Ó Á-ÈÚ, ÛÓíÓ,Èíí Á±íÓí± Ó.†,ÚÓ ÓíÓíÓ ±,Á.

# Using this manual

## Precautions on camcorder care

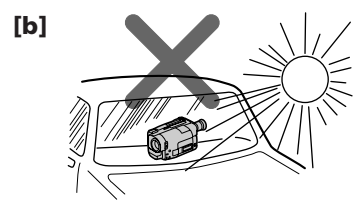
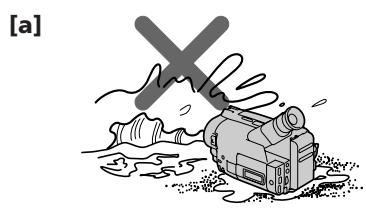
- The LCD screen and/or colour viewfinder are manufactured using high-precision technology. However, there may be some tiny black points and/or bright points (red, blue or green in colour) that constantly appear in the viewfinder or on the LCD screen. These points are normal in the manufacturing process and do not affect the recorded picture in any way. Over 99.99% are operational for effective use.
- Do not let the camcorder get wet. Keep the camcorder away from rain and sea water. It may cause a malfunction and sometimes the malfunction cannot be repaired. **[a]**
- Never leave the camcorder under temperatures above 60 °C (140° F), such as in a car parked in the sun or under direct sunlight. **[b]**

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úíó,ó%òóú,±

## èÁ%òóòúó óéíóóúéòóúíó%úÁ± ,É%òóóí±íÀ óÉ

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^,áúú). ùúÉ úó-íé ñ,íñ,úóñ  
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ò Á%í±Áí±-Áíó %òñ ~úúÁíúÉ,íó,,ó  
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- çÁ%òóóúóí±éúÁ, ~úó°, É%òóóí±í± ±  
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,É%òóóí±í± úóó%±í, ^-áóú%óé%òñÉ  
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,óÁ,,%± íóéáú. °ú éòó ±,íáí±. **[a]**
- çéíó,%± íÀ óóú±,íñéúÁ, É%òóóí±í± ù,  
íÁóúÁ ó úÁíóÄ ±úú óéó, ^-Á 60°ë (140°F),  
í±í ±ò éíÁ, , ±,úóíó-éíÁ,  
óóú±íó,íÁííóí í± óóíí-á éíë óó%  
ò ñí-íë óóíí-á-í-íë íú-±íë. **[b]**

Before you begin  
èÁÁ%òóóí±í±íóí ±-ó°

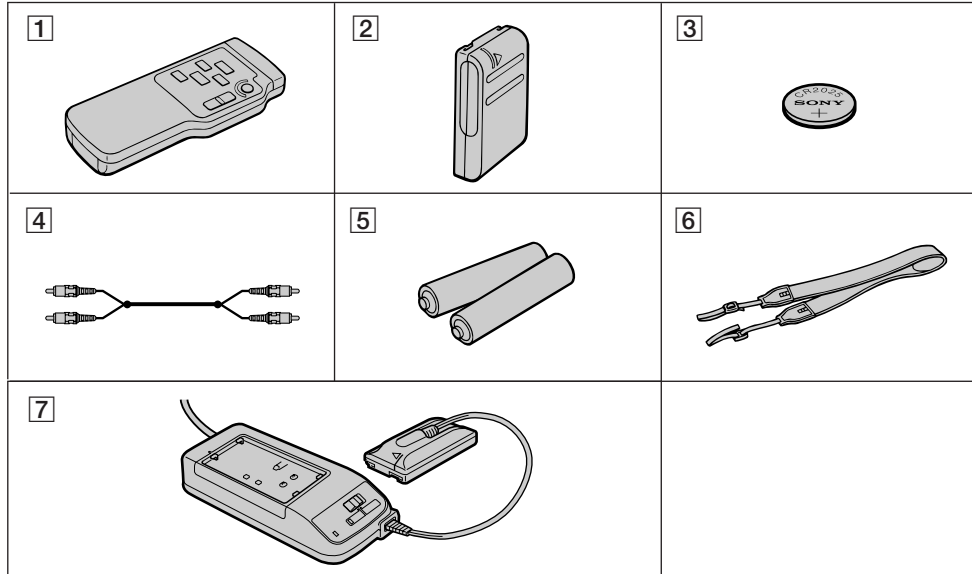


# Checking supplied accessories

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 Ασύρματο τηλεχειριστήριο (1) (σ. 23, 82)
- 2 Πακέτο μπαταρίας NP-33 (1) (σ. 7)
- 3 Μπαταρία CR2025 (1) (σ. 53)  
Επίσης εγκατεστημένη στην κάμερα.
- 4 Καλώδιο σύνδεσης A/V (1) (σ. 50)
- 5 Μπαταρία R6 (σ. 83)
- 6 Αρμυρίδα (1) (σ. 81)
- 7 Αδραυτικό τροφοδοσίας AC-V16/V16A/V17/V17A (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, του βίντεο ταινίας κ.λπ., τα περιεχόμενα της εγγραφής δεν μπορούν να αποζημιωθούν.

**Getting started**

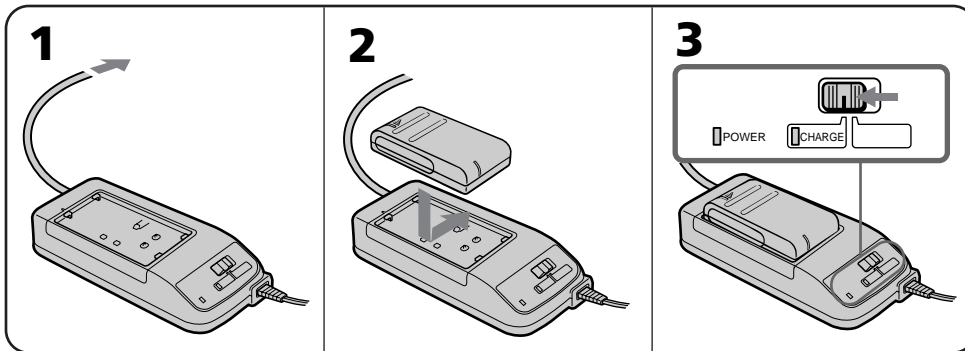
**Charging and installing the battery pack**

Before using your camcorder, you first need to charge and install the battery pack. To charge the battery pack, use the supplied AC power adaptor.

**Charging the battery pack**

Charge the battery pack on a flat place without vibration.

- (1) Connect the AC power adaptor to the mains.
- (2) Align the right side of the battery pack with the line on the AC power adaptor, then slide the battery pack in the direction of the arrow.
- (3) Set the selector to CHARGE. The CHARGE lamp (orange) lights up. Charging begins. When charging is completed, the CHARGE lamp goes out. Unplug the unit from the mains, and then remove the battery pack and install it on the camcorder.



**Charging Time (in minutes)**

Battery pack	Charging time*
NP-33 (supplied)	60
NP-55H	85
NP-C65/67	105
NP-66	95
NP-77H	170
NP-98	215

\* Approximate minutes to charge an empty battery pack using the supplied AC power adaptor (Lower temperatures require a longer charging time.)

**Getting started**  
**Charging and installing the battery pack**

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Getting started

## Charging and installing the battery pack

á† ¢%í† 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.

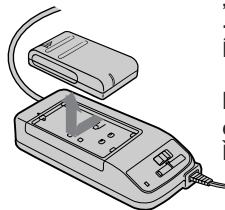
<sup>2)</sup> Approximate recording time when using the LCD screen. When using both the viewfinder and LCD screen, the battery life is shorter.

<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.



### è Óí ÒíÙÈ° ·†Ú† ÂÈíÓ,,Ó ·íÓ† (, ÌÈíÙÙ†)

### CCD-TRV14E

Â†Ú† ÂÈíÈ ·íÓí	ÇÓ, Âíñ Á†ÔÈÈ° <sup>1)</sup>		ÇÓ, Âíñ ÓÓÇÈÁ, 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†ÔÈÈ° <sup>1)</sup>		ÇÓ, Âíñ ÓÓÇÈÁ, 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.ÌÈÁÈÙÁí, ÌÓÁ, Âíñ ÌÁÓ Á°, ÌÓÈ Á†ÔÈÈÈ, ÌÙÙ È ÓÓíÁ~ÂíÈñ. óÈÓ†, í Û,†í ÓíÓ.††, ÓÁí†† Ú Ó È.ÌÈÁÈÙÁí, ÌÓÁ, Âíñ Á†ÔÈÈÈ, ÂÈÈíÁÓÓÓÓÓñíÓ,,Ó ÈÓÓÓí, ÁÓ,†íÈñ ÛÙíííÈÈ ÓÙÓí†/ÓÙÙ†íÓ, ÌÈ, Û †íÙÙÓí†°ÈÈ È, Ìí,~ÂíÈñ/, °íí,~ÂíÈñ ÔÈÙ†íÈñ.

èÂ†í, ÌÈ Ò Óí ÒíÙÈ° ·†Ú† ÂÈíÓ,,Ó ·íÓ† ÌÓÈÁÙ °Ú ÌÓ Ó°Á.

<sup>2)</sup> è È.ÌÈÁÈÙÁí, ÌÓÁ, Âíñ, ÌÈíÙÙ† Ò È ÈÓÓÓí, ÁÓ,†íÈÈ °í †† Úáñ. è È ÈÓÓÓí, ÁÓ,†íÈÈ È, È%ÓÈÓí†ÚÁíñ È °í †† Úáñ Ò Óí ÒíÙÈ° ·†Ú† ÁÈ ·Ù%ÁÙ ÌÓ Ó°Á.

<sup>3)</sup> è È.ÌÈÁÈÙÁí, ÌÓÁ, Âíñ ÌÁÓ Á°, ÌÓ,,Ó ÓÓÓ ÓÈÁ, Â%ÂíÈñ, ÓÓíÁ~ÂíÈÈ. ÓÓíÈ Ç°, °ÓíñÁÙÁ Á†ÔÈÈ, ÈíÈ ÓÓÓ ÓÈÁ, Â%ÂíÈÁ, ÈÓÓÓí ÁÙñ °í †† Ò Úáñ, ÌÓ,,Ó † LCD B.L., ÓÈÓÓíÁí ÌÁí, ÛÒÙ†íÓ, ÌÁíÓ, ÓÓíÓÈÁíÈÁ BRIGHT, Ò Óí ÒíÙÈ° ·†Ú† ÂÈíÓ,,Ó ·íÓ† ·Ù%ÁÙ Ó ÈíÁ ÌÓ †† 10% ÌÓ Ó°Á.

Ñíñ ÒíñÙÈñ ·†Ú† ÂÈíÓ,,Ó ·íÓ† èÁ Â%, Èí ÛÁ ·†Ú† ÂÈíÈ ·íÓí, Ì†Ó †, ÌÁíÈÈ ÓÙ ÁííÈ.



## Charging and installing the battery pack

ατ φ%οίτ È Ùòúτìó,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.

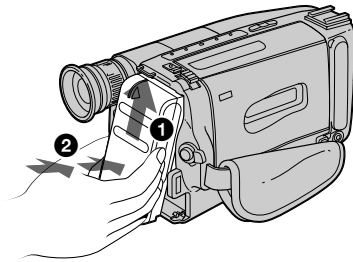
- è ÈíÁ~τìèφ òó Áτ φ%οίÁ ·τúτ Άèìó,,ó ·ìóίτ
- àτìóó~ίτ POWER ·ú%óú ίΑίóúó óÁ, Άίφí ó,ÁúÈú òφ, %οτÈÁ ΆοίÈ ·τúτ Άèì·È ·ìóί óίφíú È óÁúÁ,óÈ ó ó,ó%ο,óúίí,·Áí óóóίÁ Áτ φ%οίÈ ·τúτ Άèìó,,ó ·ìóίτ. úúó φíφíÁúóφí ίó ·ίτí, ί·ί.
  - óóίÈ ίτìóó~ίτ POWER ίÁ Áτ, ó τÁúòφ, úóúτíó,ÈúÁ óÁίÁíúó, óóίóÈÁίÈÁ VTR (DC OUT)ÈóúóóÁ%ÈίÈúÁóÁúÁ,óÈó ó,ó%ο. è ÈíÁ ίó ~Á ÁÁ ίÈíúúú, ίó, óó%οóÁ%ÈίÈúÁóÁúÁ,óÈó ó,ó%Èóóίú, úóúτíó,ÈúÁ óÁίÁíúó, óóίóÈÁίÈÁ CHARGE.
  - Ç· ίÁ ίóÈÁúÁ úó τίφíú, È%οÁóίτíÁ óÈ ó ÈóóóίÁ,ó,τìÈÁίóÁúÁ,ó,óτ%οτúóÁ τóÁ Áí. úóίτ, ó, Άίφí Áτ 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) Çóúτ, úÁ, Ά íìÈÈ ίóίÁ~ ·τúτ Άèìó,ó ·ìóίτ, ·Á ίí, ~τúó, ·τúτ ΆèìóÈ úóúτíó,ó,ίóÈóó,Á ίóóúÈ.
- (2) ÇτÈίÈúÁ ίτ ·τúτ Άèì·È ·ìóί, ί·Á%οÈúÁò, ~úó,· Ç· úóί~τìÈ %ο,τÈ%ο~·Áί·óί, è Èί ΆóÈúÁ ίτ%οÁèìó ·τúτ Άèì·È ·ìóί ί È%οÁóίτíÁ Á.



### Note on the battery pack

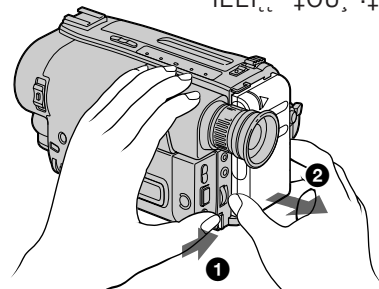
Do not carry the camcorder by grasping the battery pack.

è ÈíÁ~τìÈÁ óúíóòÈúÁί,ίó ·τúτ Άèìó,,ó ·ìóίτ  
çÁ óÁ ÁíóóÈúÁ,È%οÁóίτíÁ úóúúÁίÁτ,τúτ ÁÁ Áτ ·τúτ Άèì·È ·ìóί.

### To remove the battery pack

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

Νίφí òίφíúÈφ ·τúτ Άèìó,,ó ·ìóίτ  
è%ο,Èί, úÁ BATT, τÁτúÁί óóúφíÈúÁ Áτ ίÈÈί, ~τúó, ·τúτ Άèìó,,ó ·ìóίτ.



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

Ç· ίóÈÁúÁ, Ά,ίφíúú, ίτ %οÁίóίóú τ~È, úúίί~ÈÈ, ÈíÁ, Èίóφí %οίφí %οτííóÈ, È%οÁóίτíÁ ·. (óú . 31)

Getting started

èó%ο,óúó,ίτ ίτ~τíú τ·óú·

## Inserting a cassette

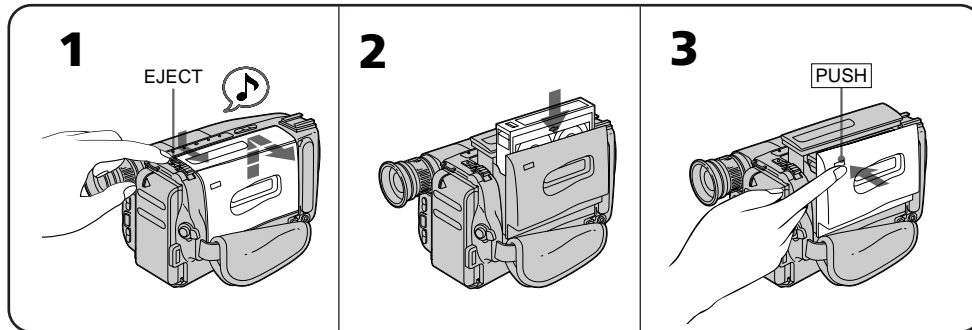
## ÇÒÚ±,Í± Í±ÒÒÂÚ°

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) ÓÍÓ°ÍÓÍ, 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

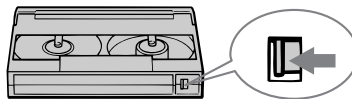
Slide the tab on the cassette to expose the red mark.

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±ÈÍÓ,,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 ÍÈ  
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.



**Basic operations**

**Camera recording**

εὐχρηστικὰ ὁδηγία

ἰσορροπία, ὁ ὁδηγός, ἔλεγχος ἡμερομηνίας

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

When you use the camcorder for the first time, power on it and reset the date and time to your time (p. 55) before you start recording. The date is automatically recorded for 10 seconds after you start recording (**AUTO DATE feature**). This feature works only once a day.

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

- (1) While pressing the small green button on the POWER switch, set it to CAMERA.
- (2) Turn STANDBY up. The "STBY" indicator appears in the viewfinder.
- (3) Press START/STOP. The camcorder starts recording and the "STBY" indicator changes to the "REC" indicator.

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

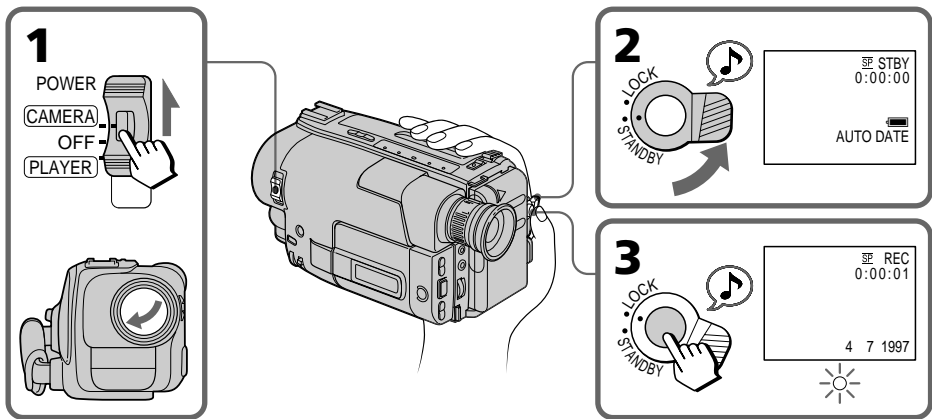
ἰσορροπία, ὁδηγία, ἔλεγχος ἡμερομηνίας, ἰσορροπία, ὁδηγία, ἔλεγχος ἡμερομηνίας, ἰσορροπία, ὁδηγία, ἔλεγχος ἡμερομηνίας

ἰσορροπία, ὁδηγία, ἔλεγχος ἡμερομηνίας, ἰσορροπία, ὁδηγία, ἔλεγχος ἡμερομηνίας, ἰσορροπία, ὁδηγία, ἔλεγχος ἡμερομηνίας, ἰσορροπία, ὁδηγία, ἔλεγχος ἡμερομηνίας

- (1) ἰσορροπία, ὁδηγία, ἔλεγχος ἡμερομηνίας, ἰσορροπία, ὁδηγία, ἔλεγχος ἡμερομηνίας
- (2) ἰσορροπία, ὁδηγία, ἔλεγχος ἡμερομηνίας, ἰσορροπία, ὁδηγία, ἔλεγχος ἡμερομηνίας
- (3) ἰσορροπία, ὁδηγία, ἔλεγχος ἡμερομηνίας, ἰσορροπία, ὁδηγία, ἔλεγχος ἡμερομηνίας

ἰσορροπία, ὁδηγία, ἔλεγχος ἡμερομηνίας, ἰσορροπία, ὁδηγία, ἔλεγχος ἡμερομηνίας, ἰσορροπία, ὁδηγία, ἔλεγχος ἡμερομηνίας

Basic operations ἰσορροπία, ὁδηγία, ἔλεγχος ἡμερομηνίας



## Camera recording

á±ÔÈÒ ò ÓÓÍÓ  
É%ÁÓÍ±Á

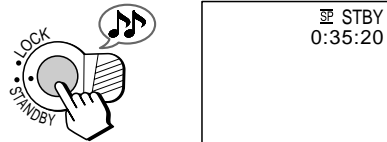
### To stop recording momentarily [a]

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.

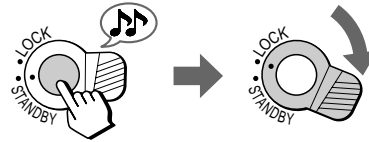
#### Note on recording

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  
±ÈÍ%ÈÍ±ÚÓ "STBY" ( ÁÈÈÍ, ÓÓÚ, ÍÓÓÚÈ ).

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

[b]



è ÈÍÁ~±ÌÈÁ Í ÁÈÈÍÚ, ÓÓÚ, ÍÓÓÚÈ  
ÓÓÍÈ Ç ÓÓÚ±, ÍñÁÚÁ, É%ÁÓÍ±Á Ú ì± 5  
ÍÈÍÚÚ ÈÍÈ. ÓÍÁÁ ÓÓ, ÓÚ±, ÍÁÌÒÈ Í±ÓÓÁÚÓÈ,  
ÁÈÈÍÁ, ÓÓÚ, ÍÓÓÚÈ, ÚÓ, É%ÁÓÍ±Á ±  
ìÍ ~ÈÚÓñ ±, ÚÓÍ±ÚÈ~ÁÓÍÈ. ùÚÓ  
Ó Á%ÓÚ, ±±ÁÚ ±Á ñ%ÓÍ: ±Ú± ÁÈÈÈÁÍÓÒ  
ÍÁÍÚ°. Ñíñ, ÓÁÓ·ÍÓ, ÍÁÍÈñ ÁÈÈÍ±  
„ÓÓÚ, ÍÓÓÚÈÓ%ÈÍ ±ÁÓÓ, Á ÍÈÚÁ STANDBY  
, ÍÈÁ È ÒÍÓ, ± ÓÓ, Á ÍÈÚÁ Á, Ó, Á. Ñíñ  
±~±± Á±ÔÈÒÈ ì±ÈÍÈÚÁ START/STOP.

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

è ÈÍÁ~±ÌÈÁ Í Ó ÁÓÓÚ Á±ÔÈÒÈ  
ÓÓÍÈ Ç Ó ÓÈÁ, Ó%ÈÚÁ Á±ÔÈÒ, Ó Ó±ÍÓ, Ó ì±~±±  
ÍÁÍÚ°, %±ÈÚÁ, ÓÁÍÓÈÍÓÓÚ, ÍÁÍÚÁ  
ÓÁ ÁÍÁÓÚÈÚ Óñ ÓÍÓÍÓ 15 ÒÁÍÚÍ%Ó ì±~±±  
Á±ÔÈÒÈ. ùÚÓÓ Á%ÓÍ: ±ñÁÚ, É%ÁÓÍ±Á ÚÓÚ  
Ó ÓÓÚÓ± ì±~±Í, ì± Ó ÈÁÚÓ, Ó: ÁÍÍÈ, ÍÓ, %±  
Ç: Ú%ÁÚÁ, ÓÓÓ ÓÈÁ, Ó%ÈÚ, ÍÁÍÚÚ.

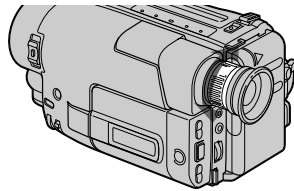
## Camera recording

á±ÖÈÒ ò ÖÓÍÓ<sup>~</sup>  
 ,È%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 ÙÓÍÙÒÈ Ó,ÍÈ Ó·ÁÍÚÈ,±  
 ,È%ÖÈÓÍ±ÁÍñ  
 ÖÓÍÈ ,È%ÖÈÓÍ±ÁÍñ ,ÓÓ·Á ÍÁ  
 ÖÓÍÙÓÈ Ó,±, ÈÈ, ÁÓÍÈ Ç° ÈÖÓÍ, ÁÚÁÚÁ  
 ,È%ÁÓÍ±Á Ù ÖÓÍÁ ÚÓ,Ó, Í±Í ÁÁ ÈÖÓÍ, ÁÓ,±  
 ÍÚÓ-ÚÓ% Ù,ÓÈ,ÚÓÓÍÙÓÈ ÙÈÚÁÓ·ÁÍÚÈ,  
 ,È%ÖÈÓÍ±ÁÍñ. èÓ,Á ÍÈÚÁ Á,ÛÈ Ó,ÓÍÁ  
 ÍÓÍ,´Ó Ó·ÁÍÚÈ,± ,È%ÖÈÓÍ±ÁÍñ Ù±Í,´ÚÓ·  
 ÈÍ%ÈÍ±ÚÓ ° ,È%ÖÈÓÍ±ÁÍñ ·ÍÈ ~ÁÚÍÓ  
 ÖÓÍÙÓÈ Ó,±.




### 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  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~±ÍÈñ Í Ò·ÁÚ·ÈÍÙ ÍÁÍÙ°  
 • è·ÁÚ·ÈÍ ÍÁÍÙ° ÙÍ±Á°,±ÁÚ , Áíñ Á±ÖÈÒÈ ÈÍÈ, Áíñ,ÓÖÖ ÈÁ,Á%ÁÍÈñ. àÖÓÍ,ÁÚÈÚÁ Á,Ó, Í±·ÁÓÚ,Á ÚÍÓ,Ó%ÓÚ,±. èÛ·ÁÓÚ,ÚÁÚ ÖÓÓÚ±,±ÈÁ ÓÓ , ÁÍÁÍÈ Í± ÍÁÓÍÓÍ,ÍÓ ÒÁÍÍÙ% ÓÚ Ù±ÍÚÈ·ÁÓÍÓ,Ó , ÁÍÁÍÈ. Ñíñ ÙÓÓ±ÍÓ,ÍÈ ÖÓÍ±Á±ÍÈÈ Ó·ÁÚ·ÈÍ± Í ÍÚÍÁ,ÓÈ ÖÓÍÁÚÍÁ Í±ÈÍÈÚÁ ÍÍÓÍÙ COUNTER RESET Íà ÖáèÍÈ ÙKÑ.
- ÖÓÍÈ ÍÁÍÙ± Á±ÖÈÓ±±, ÓÓ·ÁÚ±ÍÈÈ ÁÈÈÍÓ, SP È LP, Ó·ÁÚ·ÈÍ ÍÁÍÙ° ·Ú%ÁÚ ÖÓÍ±Á°,±Ú, ÍÁÖ ±,ÈÍ ÍÁÓÁ , Áíñ Á±ÖÈÒÈ. ÖÓÍÈ Ç° Í±ÍÁ Á,±ÁÚÁÓ, Ó ÓÈÁ,ÁÒÚÈ ÍÓÍÙ±È ÍÁÍÙ° Ò ÈÖÓÍ,ÁÓ,±ÈÁÍ Ò·ÁÚ·ÈÍ± , ÁÍÁÍÈ ÓÓ,Í±ÍÓÍ ÙÍÓ,Ó%ÓÚ,Ú, °ÖÓÍñÈÚÁÁ±ÖÈÓ, ,Ó%ÍÓÍ È ÚÓÍ ÈÁ ÁÈÈÍÁ (SP ÈÍÈ LP).

è ÈÍÁ~±ÍÈÁ Í ÁÚÍÁ ÍÓÍÙ Á,ÛÍÓ,ÓÍÙ ÒÈ,,Í±ÍÙ  
 ä±Í ÙÍ±Á±ÍÓ Ò ÖÓÍÓ<sup>~</sup>  Í± ÈÖÓÍÍ±, ÁÚÍÁ ÍÈ ÒÈ,,Í±Í Á,Û·ÈÚ, ÍÓ,,%± Ç° Í±ÈÍ±ÁÚÁ Á±ÖÈÓ , È %± ÁÚÍÁ ÍÈ ÒÈ,,Í±Í Á,Û·±Ú, ÍÓ,,%± Ç° Á±Í±È,±ÁÚÁ Á±ÖÈÓ, ÓÓ%Ú,Á È%±ñ ÚÁÍ Ó±ÍÍ ±·ÓÚÙ. çÁÓÍÓÍ,ÍÓ ÁÚÍÁ ÍÈ ÒÈ,,Í±ÍÓ, Ù±ÍÈÁ Á,Û·ÈÚ , Í±·ÁÓÚ,ÁÓ Á%ÚÓ ÁÈ%ÁÍÈñÍ±ÍÓ,Ó·ÍÈ·Ó ÍÁÍÓ Í±Í,ÍÓ,Ó ÖÓÓÚÓñÍÈñ ,È%ÁÓÍ±Á °. ä±ÍÁÚ,ÚÁ,´ÚÓ ÁÚÍÁ ÍÈ Á,ÛÍÓ,ÓÈ ÒÈ,,Í±Í ÍÁ Á±ÖÈÓ°,±ÁÚÓñ Í± ÍÁÍÙÚ. ÈçÍÈ B° ÍÁ ÍÓÚÈÚÁ ÒÍ°±Ú, ÁÚÍÁ ÍÈ ÒÈ,,Í±Í, ÙÓÓ±ÍÓ,ÈÚÁ BEEP , ÖÈÓÚÁÍÁ ÍÁÍ , ÖÓÍÓÈÁÍÈÁ OFF.

## Camera recording

á±ÖËÒ, Ò ÓÓÍÓ~  
,È%ÁÓÍ±Ì°

### 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.

è ÈÌÄ~±ÌÈÄ Í ÙÙÍÍÈÈ AUTO DATE

ó±Ö° ÙÓÙ±ÍÓ,ÌÀÌ° Ì± Á±,Ó%Á Ì±, ÁÌÌ  
ãÓÌ%ÓÌ± %ÒÌÌ èÓÁ%ÈÌÌÌÓ,Ó ãÓ ÓÌÁ,ÓÙ,± È  
Ì±, ÁÌÌ è± ÈÈ± %ÒÌÌ % Ù,,ÈÌ Á, ÓÓÁÈÓÌÈ  
ÓÙ ±Ì, ÓÈÓÙÁÌÁ ÌÁÌ.

Ç° ÌÓÈÁÙÁ ÓÁ ÁÙÓÙ±ÍÓ,ÈÙ, ~±Ö° ÌÙÌÍÈÌ

AUTO DATE ±ÓÙ±ÁÙ Ó%ÈÌ ±Á, %ÁÌ.

é%Ì±ÍÓ, %Ò±Ù±ÍÓÈÁÙ ÓÓÌ,ÈÙ, ÓÌ.ÓÌÁÁ Ó%ÌÓ,Ó

±Á±, %ÁÌ, ÁÓÌÈ:

- Ç° ÓÁ ÁÙÓÙ±ÍÓ,ÈÙÁ%±ÙÙÈ, ÁÌÌ.

- Ç° ÙÓÌÌÁÙÁ ÌÁÌÙÙ È,ÓÙ±,ÈÙÁ Ì±ÓÓÁÙÙ

ÓÌÓ±.

- Ç° ÓÓÙ±ÍÓ,ÈÙÁ Á±ÖÈÖ, Ò Á%ÁÌ± 10

ÓÁÌÙ%.

### 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)

àÒÓÓÌ ÁÓ,±ÌÈÄ ÙÙÍÍÈÈ Ì±ÁÁ%±  
,È%ÁÓÍ±Ì°

ç±ÁÁ% ,È%ÁÓÍ±Ì° ÌÌÌÁÙÒÌ ÙÁÌÈ~ÁÓÌÈÌ

Ó ÈÁÌÓÌÁ±ÖÈÈ,ÍÓÓ° È ÓÓÁ,ÓÌÌÁÙ Ç±Ì

ÈÁÌÁÌÌÙ, ±ÁÌÁ Ó·ÁÌÙ±, Ì±% Á. ÇÁ

ÁÌÓÙÓÓÙ Á·ÌÌÈÙÁ ~ÙÈÌ Ó ÈÁÌÓÌ, ÁÓÌÈ

ÌÓÙÈÙÁ, ~ÓÓ° Ç±È Á±ÖÈÈÈ, ÌÌÌÁÌÈ

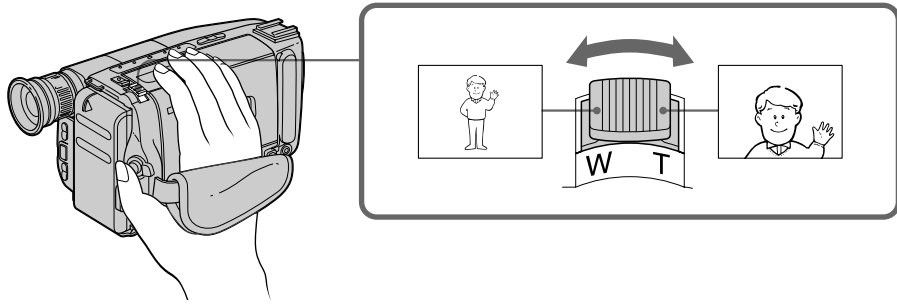
·ÓÌÁÁ Ó ÓÙÁÒÈÈÓÌ±ÌÓ.

èÙÓ ÓÌ± "T": %ÒÌÌ ÙÁÌÁÙÓÓÙÓ (Ó·ÁÌÙ

Ó È·ÈÈ±ÁÙÓÌ)

èÙÓ ÓÌ± "W": %ÒÌÌ È ÓÍÓ,Ó Ù,,Ì± Ò ÁÌÌÈ

(Ó·ÁÌÙ Ù%Ò±ÌÌÁÙÓÌ)







## Camera recording

á±ÔËÒ ò ÓÓÍÓ<sup>~</sup>  
 ,È%ÔÁÓÍ±ÏÄ°

### 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·ÁÍÏ± ò ÓÓÍÓ<sup>~</sup> ,Í ±Ï± ÜäÑ

Ç° Ú±ÍËÄ ÍÓËÁÚÄ ÓÓÛ·ÁÓÛ,ÍñÚ, Á±ÔËÒ,  
 ÉÁÓ· ±ËÄÍËñ, Ó ÓÓÍ±Ú È,±ñ Ä,Ó Ï± Í±ÏÄ<sup>°</sup>  
 ÜäÑ.

è È ËÓÓÓÍ·ÁÓ,±ÏËË ,Í ±Ï± ÜäÑ  
 ,È%ÔËÒÍ±ÚÁÍ, ,ÍÍ·ÈÚÓñ ±,ÚÓÍ±ÚË·ÁÓÍË.

Ç° ÌÄ ÍÓËÁÚÄ Ó ÓÓÍÛ·È,±Ú, Ä,ÚÍ ÓÚ  
 ,ÓÍÍÓ,Ó Ó ÈÚÁÍñ,Ó, ÁÍñ Á±ÔËÒË.

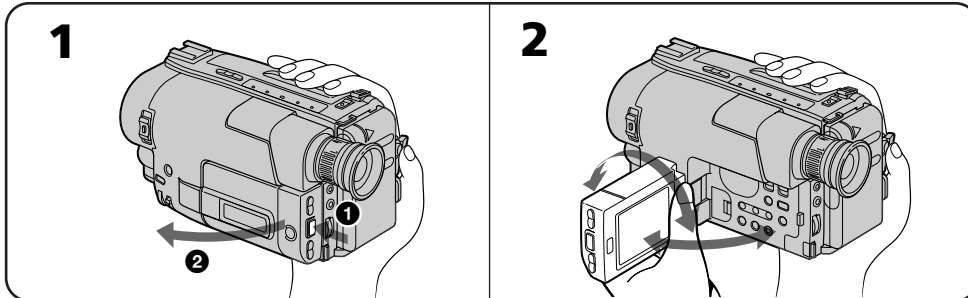
**(1)** Ç±ËËÍ±ñ PUSH OPEN, ÓÚÍ ÓËÚÄ Ó±ÏÄÍ,  
 ÜäÑ.

**(2)** éÚ Ä,ÚÍË ÛËÚÄ Ú,ÓÍ Ó±ÏÄÍË ÜäÑ.

è±ÏÄÍ, ÜäÑ ÓÄ ÁÍÄ·±ÁÚÓñ  
 Ó È·ËÉÁÛÄÍ,ÍÓ Ï±90°, ±%ÚÓÓ, ,Ó%ÏÚ  
 ÓÚÓ ÓÍÛË Ï±210°, ±%ÚÓÓ, %Ú,Ú,  
 ÓÚÓÓÚ.

ÑÍñ ÚÓ,Ó, ~ÚÓ·ÓÚ Ä,ÚÍË Ó,±Ú, ñ ÍÓÓÚ,  
 ,Í ±Ï± ÜäÑ, Ï±ËËÛÄ ÍÍÓÓÍÛ BRIGHT +  
 ÈËË -.

è ÓÍ ÓÍÛË·° ·±Ú± ÄË ·Ú%ÔÁÚ %ÔËÏÄÄ, ÄÒÍË  
 ÜäÑ Ó±ÏÄÍ, Á±Í·Ú±. äÓÓÓÍ,ÁÚËÚÄ  
 ,È%ÔËÒÍ±ÚÁÍ, ,ÍÄÓÚÓ ,Í ±Ï± ÜäÑ %Íñ  
 ,ÍÓÍÓÍËË ÍÓ·ÍÓÓÛË ·±Ú± ÄË.



#### 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.

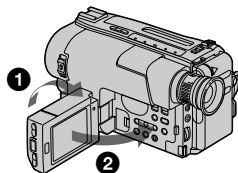
è ÈÏÄ·±ÏËñ Í Ó±ÏÄÍË ÜäÑ

• è È Á±Í ,±ÏËË Ó±ÏÄÍË ÜäÑ  
 ÓÓ,Ó ±·È,±ËÚÄ ÄÄ, Ä ÚËËÍ±,ÍÓ, ÓÓÍ± òÏ± ÌÄ  
 Á±·ÁÍÍÄÚÓñ [a].

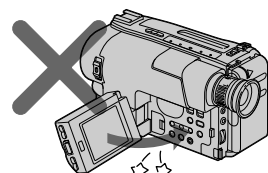
• è È ÓÓ,Ó ±·È,±ÏËË Ó±ÏÄÍË ÜäÑ  
 ÓÓ,Ó ±·È,±ËÚÄ ÄÄ, ÓÄ,%,±, Ä ÚËËÍ±,ÍÓ, ÈËË  
 Ó ÓÚË,ÍÓÍ ÓÍÛ·±Ä ÍÓ ÓÚÓ ,È%ÔÁÓÍ±ÏÄ°  
 ÍÓËÁÚ·Ú, ÓÓ, ÄË%ÄÍ, ÈËË Ó±ÏÄÍ, ÜäÑ  
 ÌÄ ÓÍÓËÁÚ Á±Í·Ú,Óñ Ó ±·È,ÍÓ [b].

• èÓÍÍÓÓÚ, Á±Í ÓËÚÄ Ó±ÏÄÍ, ÜäÑ, ÍÓ,%,±  
 Ó±ÏÄËËÓÓÍ,ÁÚÄÚÓñ.

**[a]**




**[b]**

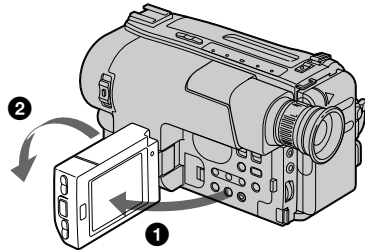




## Letting the subject monitor the shot

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.



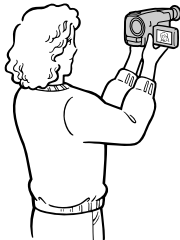
### To cancel mirror mode

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.

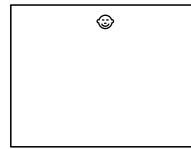
**[a]**





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.

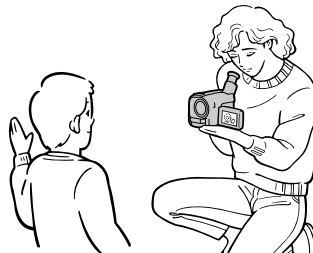
èÖÄ, ± ÖÖ, Ö ± È, ±ÈÜÄ Ö±İÄİ, ÜÄÑ, Ä ÜÊİ±İ Ö, ÖÖİ± Öİ± İÄ Ä±ÄİİÄÜÖfl, ± Ä±ÜÄİÖÄ Ä,Ä İÈÜÄÄÄ. àİ%Êİ±ÜÖ ÖÖfl,ÈÜÖfl İ± İ±İÄ (ÄÄ İ±İ İÈ ÄÊÊİ) , È Èİ%Êİ±ÜÖ ° %±Ü È ÖÄÜÈİ± İÄİÜ° ±Ü± ÄÊÊÖÄÄİÜÜ.



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

- è ÈÄÄ±ÈÈ İ ÄÄ İ±İ İÖİÜ ÄÊÊİÜ
- ÖÖİÈ Ç° ÖÖ Ä İÄÜÄ Ö±İÄİ, ÜÄÑ Ö È.ÈÄÈÜÄİ 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].
- àÄÖ. ±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 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±È: TITLE, DATE È TIME.
- èÄÜÈÈ ÖÜÖ. ±È±ÄÜÖfl, ÖÄ Ä,Ä İÜÜÖİ, È%Ä, ÖİÖ-İÄ %ÈÖÖİÄfl.

**[b]**



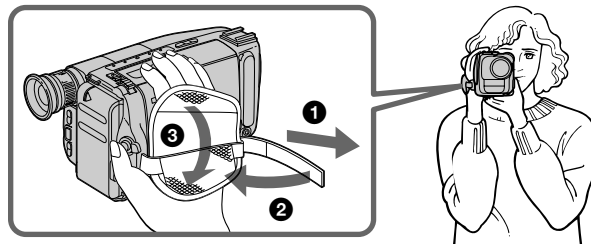
## Hints for better shooting

ΕΠΙΧΕΙΡΗΣΙΑΣ

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.

Νίφλ ίπ%ο ό, ό έ ύ%οά έέ,πíέέ, έ%οάόίπíã °, úíπ, ç° όόίύ-έúã íú~έã ááúí,úπú°, áóíέ-ú%οάúã%οά έπú, έ%οάόίπíã ú, όόόú,άúóú,έέ όό όíã%οú ~έíέ úíáπíέπíέ: • Ñã έέúã,έ%οάόίπíã úí άόíόέãπí άόέúã áã ό όόίό~ άíãííό,ό άπí,πúπ úπí, ~úό. ç° íό,,íέ íã,,íό íπíέόúíέ ό.πú, á,,úíπúό πíέ ό όόίό~, .όí,~ό,ό όπí, ^π.



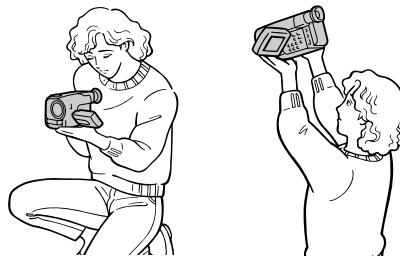
- Place your right elbow against your side.
- Place your left hand under the camcorder to support it.
- Place your eye firmly against the viewfinder eyecup.
- Use the viewfinder frame as a guide to determine the horizontal plane.
- You can record in a low position to get an interesting recording angle. 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].

• έπúόόίόέέúã çπ° ό π,^έ ίόίόú, ό-όίú όú όã-πí. • έπúόόίόέέúã çπ° íã,ú. úíú όό%οο, έ%οάόίπíã όέ%οπíááόό%οοά έíέ. • çπ°άέíό ό έόίόíέúã çπ° ,,íá í όίúπí ú, έ%οόέόíπúãπí. • áόόόí,άúέúã, έãέ íú, πííú, íπ~άóú,ά úíό.ό%οóú,π%οπíόό ά%οάíãíέπí ,,ό έáóíúπí,íό,ό όίπíπ. • ç° ίόέáúã άπóέό°,πú, έá íέáíό,ό όόίόέáíέπí%οπí όόίú~άíέπí έíúã άόíό,ό ú,,íπ άπóέόέ. εό%οοíέíέúã,έ%οόέόíπúáí,,ά í%οπí άπóέόέέáíέáíό,ό όόίόέáíέπí [a]. • ç° úπíέá ίόέáúã όíέíπú, έá íέáíό,ό όόίόέáíέπí έíέ %οπíέá έá,^όόίό,ό όόίόέáíέπí ό έόόόί,άό,πíέáí όπíáíέ úãñ [b].

[a]



[b]





## Checking the recorded picture

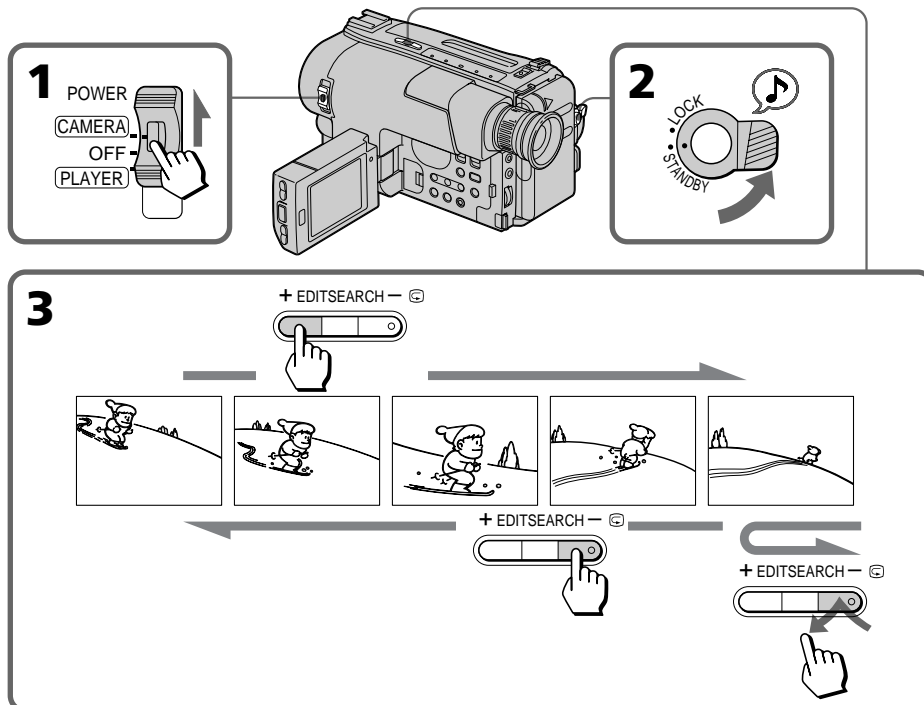
è Ó,Â Í± Á±ÔËÒ±ìíÓ,,Ó  
ËÁÓ. ±ÊÁÏËí

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°ÁÍÚËÏËÓ Ó,Á ËÚ, Á±ÔËÒ±ìíÒÁ  
ËÁÓ. ±ÊÁÏËÁ, ,Ë%òÓËÓÍ±ÚÁÏÁ. Ç° Ú±ÍËÁ  
ÌÓËÁÚÁÒÁ ÁÓÍÓÚ ÁÚ,ËÁÓ. ±ÊÁÏËÁÍ±  
“í ±íÁ ÛäÑ.

- (1) Ç±ÊËÏ±íí Í±ÍÁì,íÚ, ÁÁÍÁÍÚ, ÌÍÓÓÍÚ Ì±  
“íí, ±ÚÁÍÁ POWER, ÛÓÚ±ÍÓ,ËÚÁ Á,,Ó,  
ÒÓÍÓËÁÏËÁ CAMERA.
- (2) èÓ,Á ÌËÚÁ STANDBY „Á í.
- (3) ÇÁì±%Óí,,Ó Ì±ÊÏËÚÁ ÓÚÓ ÓÍÚ - ( ⊖) ÌÍÓÓÍË  
EDITSEARCH; ÓÓÒÍÁ%òìËÁ ÌÁÓÍÓÍ,ÍÓ  
ÒÁÍÚí%Á±ÔËÒ±ìíÓË±ÓÚË.Û%òÚÚ  
,ÒÓÒ ÓËÁ,Á%Áì° (ÒÁ ÁÓÍÓÚÁ±ÔËÒË).  
Ç° Ú±ÍËÁ ÌÓËÁÚÁ Ó ÓÓÍÚË,±Ú, Á,ÚÍ ÓÚ  
„ ÓííÓ,Ó,Ó ËÚÁííí ËÏË “Á ÁÁ Ì±Ú°ÏËË  
(ÌÁ Ó ËÏ±,±,ÛÓíí).  
NÁ ËËÚÁÓÚÓ ÓÍÚ -ÌÍÓÓÍË EDITSEARCH  
%òÓÚÁì,ÓÓ, ÓÓÍ±,Ë%òÁÓÍ±ÍÁ ±íÁ  
,Á ÌÁÚÓíí Ì ËÁÏ±ÁÏËË Ó°ÁÏÁ. èÓÒÍÁ%òìííí  
Á±ÔËÒ±ìííí±í±±ÓÚ. Û%òÁÚ,ÒÓÒ ÓËÁ,Á%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±ËÏËÚÄ EDITSEARCH.

Ñîñ ,ÓÁ, ±Ú± Í ÓÒÒÏÄ%ÒÄÏËñ  
Á±ÔËÒ±ìÓÍÓÚ ÍÄÓÚÚ ÓÒÒÏÄ  
ÍÒÍÚ±ËÏÓ,,Ó ÓÒËÒÍ±  
ç±ËÏËÚÄ END SEARCH. èÓÒÏÄ%ÒÄÏËñ  
Á±ÔËÒ±ìÓÍÓÚÓÚÚ%ÒÄÏËñ ÓËÁ,Ó%ËÚ Òñ  
Ò Ë.ÍËÄËÚÄÍ,ÍÓ, ÚÄ~ÄÏËË 5 ÓÄÏÚì%, ÄÒÏË  
ÍÄÏÚ± .Í± Á±ÔËÒ±ì± , ÄËËÏÄ SP, ËÏË ,  
ÚÄ~ÄÏËÄ 10 ÓÄÏÚì%, ÄÒÏË ÍÄÏÚ± .Í±  
Á±ÔËÒ±ì± , ÄËËÏÄ LP, ± Á±ÚÄÏ ÍÄÏÚ±  
ÓÒÙ±ìÓ,ËÚÓñ. è. ±ÚËÚÄ,ÍË±ÍËÄ,~ÚÓ  
%±ì±ñ ÚÚÏÏËñ ÍÄ ±.ÓÚ±ÄÚ, ÄÒÏË Ç°  
,ÚÓÏÏËÚÄ Í±ÒÒÄÚÚ ÓÒÒÏÄ Á±ÔËÒË ÍÄÏÚ°.

Ñîñ Ì±~Í± ÓÄ ÄÄ±ÔËÒË  
ç±ËÏËÚÄ START/STOP. èÄ ÄÄ±ÔËÒ,  
Í±ËÏÄÚÓñÓÚÓÒÒÏÄ%ÒÄÏËñ Á±ÔËÒ±ìÓËÚÓ-ÍË  
ËÏËÓÚÓÚ-ÍË,,%ÄÇ° ÓÚÓÚÓÚËÏË  
EDITSEARCH. è Ä%ÒÚÒÏÓÚ ÄÏÓ,~ÚÓ. Ç° ÍÄ  
,ÚÓÏÏËÚË Ì±ÒÒÄÚÚ, È ÓÄ ÄÏÓ%ÍÄË%ÒÚ  
ÓÒÒÏÄ%ÒÄÏËñ Ò~ÄÏËË,ÍÓÚÓ Ú Ç° Á±ÔËÒ±ìË,È  
ÓÏÄ%Ú.~ÄË Ò~ÄÏËË,ÍÓÚÓ Ú Ç°  
Á±ÔËÒ°±ÄÚÄ, .Ú%ÒÄÚ ÓÍ±,Í°Í.

Basic operations

èÓÒÏÄ%ÒÄÏËñ

## Playing back a tape

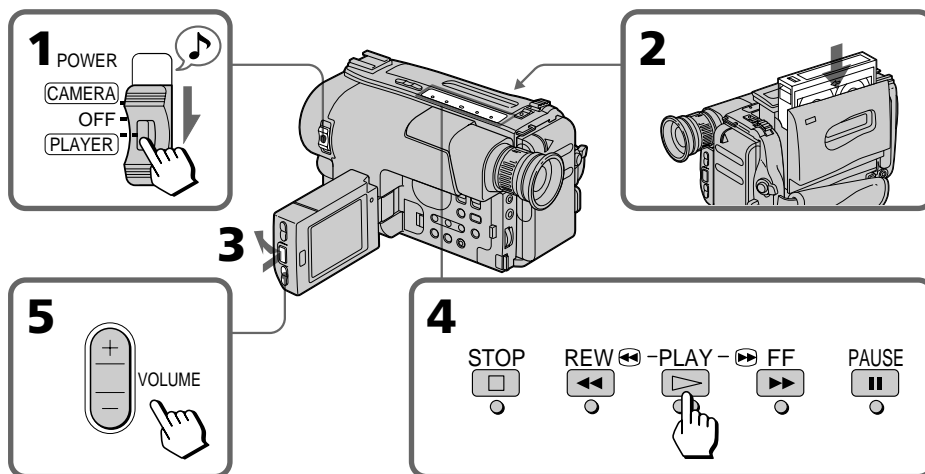
## Ç° ÎÖÉÁÚÁ Ô ÓÓÏ±Ú È,±Ú, ÏÓÓ ÓÉÁ,Ó%ÖÏÓÁ ÉÁÓ. ±ÊÄÏÈÄ Ì± ±ÏÄ ÛäÑ.

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. ±ÊÄÏÈÄ Ì± ±ÏÄ  
ÛäÑ.

- (1) Ç±ÊËÏ±ñ Ì±ÏÄÏ,ÏÚ, ÁÄÏÄÏÚ, ÏÏÓÓÏÚ Ì±  
,ÏÏ ±ÚÄÏÄ POWER, ÓÄ Á%ÖÏ,ÛÄ Á,,Ó,  
ÓÓÏÖÄÏÈÄ PLAYER.
  - (2) ÇÓÚ±,,ÚÄ Á±ÓÈÓ±ÏÏÚ, Ì±ÒÒÄÚÚ ÓÏÓ-ÏÓÏ,  
Ó. ±ÄÏÏÏ Ì± ÛÈÚ.
  - (3) Ç±ÊËÏ±ñ PUSH OPEN, ÓÚÏ ÓÈÚÄ Ó±ÏÄÏ,  
ÛäÑ. éÚ Á,,ÛÏÈ ÛÈÚÄ Û,,ÓÏ Ó±ÏÄÏÈ ÛäÑ È  
ñ ÏÓÓÚ. ±±± ÛäÑ, ÁÓÏÈ ±ÓÓ Ú Á-ÚÄÚÓñ.
  - (4) Ç±ÊËÏÈÚÄ  $\triangleright$  %ñ Ì±±±  
,ÓÓÓ ÓÉÁ,Á%ÄÏÈñ.
  - (5) éÚ Á,,ÛÏÈ ÛÈÚÄ, ÓÏÏÓÓÚ,Ò  
ÈÒÓÓÏ,ÁÓ,±ÏÈÄÏ VOLUME +/-.
- Ç° Ú±ÏÈÄ ÎÖÉÁÚÁ Ô ÓÓÏ±Ú È,±Ú,  
ÉÁÓ. ±ÊÄÏÈÄ Ì± ±ÏÄ ÚÄÏÄ,ÉÁÓ ± ÓÓÓÏÄ  
ÓÓ%ÓÓÁ%ÏÄÏÈñ,È%ÄÓÏ±ÏÄ ° ÌäÇä/  
ÚÄÏÄ,ÉÁÓ Û.



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

- ÑÏñ ÓÓÓ±ÏÓ,ÏÈ ,ÓÓÓ ÓÉÁ,Á%ÄÏÈñ Ì±ÊÏÈÚÄ  
 $\square$ .  
ÑÏñ ÛÓÏÓ ÄÏÏÈÈ ÓÄ ÄÏÓÚÏÈ ÏÄÏÚ° Ì±Ä±%  
Ï±ÊÏÈÚÄ  $\lll$ .  
ÑÏñ ÛÓÏÓ ÄÏÏÈÈ ÓÄ ÄÏÓÚÏÈ ÏÄÏÚ° ,ÓÄ Á%  
Ï±ÊÏÈÚÄ  $\ggg$ .

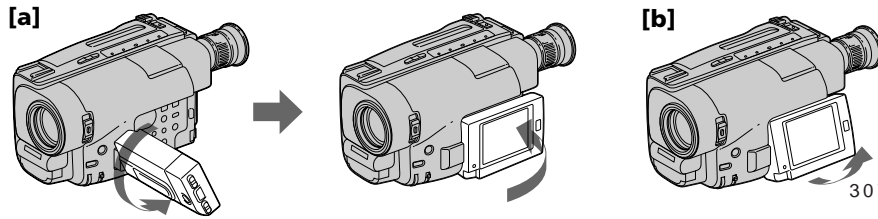
## Playing back a tape

## Παίζοντας ταινία

### 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 στρέψετε το LCD οθόνη προς τα πίσω και να μεταβείτε στην κάμερα με το LCD οθόνη προς τα έξω [α]. Μπορείτε να ρυθμίσετε την 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 ελεγχετε 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.

Πατήστε το κουμπί DISPLAY για να σβήσετε τους δείκτες στην LCD οθόνη. Για να εμφανιστούν οι δείκτες, πατήστε ξανά το κουμπί. 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) στην οπή  $\odot$ . Μπορείτε να ρυθμίσετε τον ήχο 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 απενεργοποιείται αυτόματα.

## Playing back a tape

## ÇÓÒÒ ÓËÁ,Â%ÀÏËÁ ÎÀÏÚ°

### 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%ÀÏËñ

Ñíñ Ò ÓÓÏÓÚ ± ÌÀÒÓ%,ËËÏÓ,,Ó ËÁ· ±ËËËñ

(Ò±ÚÁ±,ÓÒÒ ÓËÁ,Â%ÀÏËñ)

ç±ËËËÚÁ ÌÍÓÓÏÚ **II** , Ó , ÁÏñ

,ÓÒÒ ÓËÁ,Â%ÀÏËñ. Ñíñ ,ÓÁÓ·ÌÓ,ÏÁÏËñ

,ÓÒÒ ÓËÁ,Â%ÀÏËñ Ì±ËËËÚÁ ÌÍÓÓÏÚ **II** ËÏË ▷.

Ñíñ ÓÚ°ÒÏ±ÏËñ ËÁÏ±ÁÏÓ,,Ó

Ú ±,ÏÁÏÚ± (ÓÒËÓÏ ËÁÓ· ±ËËËñ)

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

, ÁÏñ ,ÓÒÒ ÓËÁ,Â%ÀÏËñ. Ñíñ ,ÓÁÓ·ÌÓ,ÏÁÏËñ

ÏÓ Ì±Ï,Ï,Ó,ÓÒÒ ÓËÁ,Â%ÀÏËñÓÚÓÚÓÚËÚ,

ÌÍÓÓÏÚ.

Ñíñ ÏÓÏÚ ÓÏñ ËÁÓ· ±ËËËñ Ì± , °ÒÓÏÓË

ÓÏÓ ÓÓÚË, Ó , ÁÏñ ÚÓÏÓ ÁÏÏË ÓÁ ÁÏÓÚÏË

,ÓÁ Â%ËÏË Ì±Á±% (ÓÒËÓÏ ÏÁÚÓ%ÓÏ

Ó Ó,ÓÏ±)

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

ÓÁ ÁÏÓÚÏË ÏÁÏÚ° Ì±Á±% ËÏË ÌÍÓÓÏÚ **▶▶** , Ó

, ÁÏñ ÓÁ ÁÏÓÚÏË ÏÁÏÚ°, ÓÁ Â%. Ñíñ

,ÓÁÓ·ÌÓ,ÏÁÏËñ ÏÓ Ì±Ï,Ï,Ó

,ÓÒÒ ÓËÁ,Â%ÀÏËñ Ì±Ë±Ú, ÌÍÓÓÏÚ ▷.

è ËÏÁ~±ÏËñ Ï , ÓÒÒ ÓËÁ,Â%ÀÏËË

• Ç ±ÁÏË~ì° ÁËËË±, ÓÒÒ ÓËÁ,Â%ÀÏËñ Ì±

Ï±Á ÏÓ,ÚÚ ÓÓñ,ËÚ,Òñ ÓÓÏÓ° Ë Á,ÚÏ

·Ú%ÁÚ Ó Ë,ÏÚ·ÁÏ.

• ÓÓÏË ÁËËËÓ±ÚÁ°, ÓÒÒ ÓËÁ,Â%ÀÏËñ

Ó Ó%ÓÏË±ÁÚÒñ ÑÏËÏÚ ËÏË·ÓÏÁÁ,

,Ë%ÁÓÏ±Á ± ±,ÚÓÏ±ÚË·ÁÓÏË,ÓË%ÁÚ,

ÁËËË 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%òÍÁ 5 ÓÁÏÚÍ%  
·Ú%ÚÚ, ÓÓÓ ÓËÁ,Á%ÂÏˆ, ÁÓÏËÍÁÏÚ†  
Á†ÔËÒ†Ï†, ÁËËÍÁ SP, ËËË ÓÓÓÍÁ%òÍÁ 10  
ÓÁÏÚÍ%·Ú%ÚÚ, ÓÓÓ ÓËÁ,Á%ÂÏˆ, ÁÓÏËÍÁÏÚ†  
Á†ÔËÒ†Ï†, ÁËËÍÁ LP. á†ÚÁÏ ÍÁÏÚ†  
ÓÓÚ††, ËË, †ÁÚÒfl, ÍÓÌˆÁ Á†ÔËÒ†ÏÓ,,Ó  
ËÁÓ· †ËÂÏËfl (ÓÓËÓÍ ÍÓÌˆ†).  
é· †ÚËÚÁ, ÍË†ÍÁ, ˆÓ ÚÚÍˆËfl ÓÓËÓÍ†  
ÍÓÌˆ† ÍÁ †·ÓÚ†ÁÚ, ÁÓÏË ç°, ˆÓÍÍÍÚÏË  
††ÓÓÁÚÚ ÓÓÓÍÁ, ÓÓÍÍÍÁÏËfl ç†ˆÂ Á†ÔËÒË ††  
ÍÁÏÚÁ.

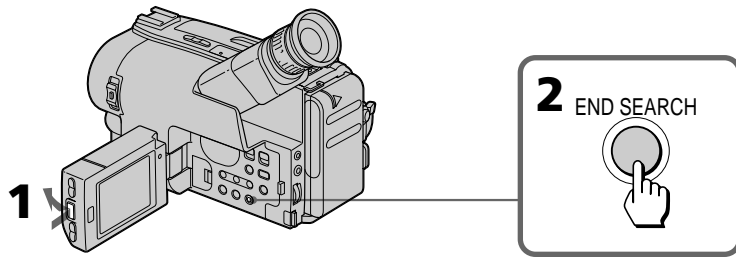
**(1)** ç†ËËË†fl PUSH OPEN, ÓÚÍ ÓËÚÁ Ô†ÍÁÏ,  
ÚãN.

**(2)** ç†ËËËÚÁ END SEARCH.

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

Basic operations

éÓÍÓÍÁ ÓÓÁ †ˆË



**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.

**Using alternative power sources**

**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

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.

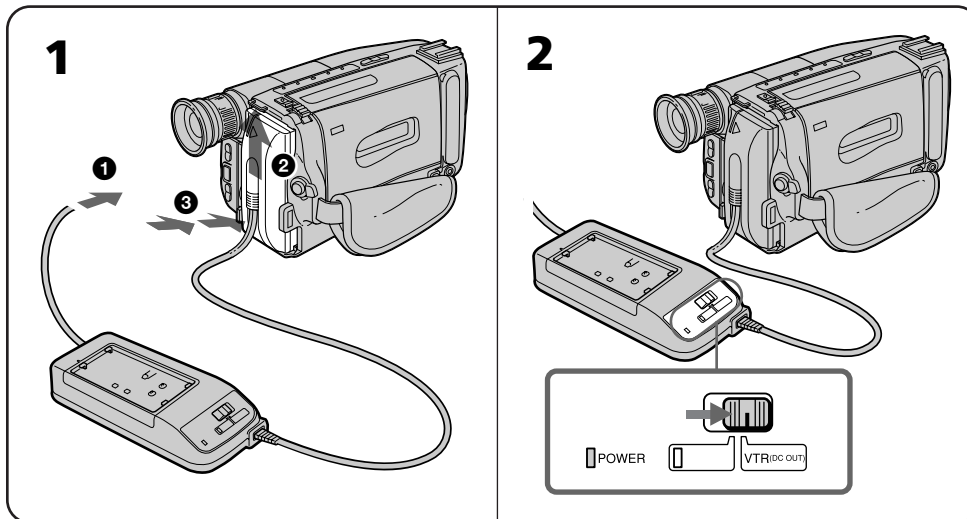
## Using alternative power sources

αὐτὸθεῖο, ἀφ' ἑαυτοῦ ἢ ἀπὸ ἄλλου πηγῆς πηγῆς.

### 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).



#### 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.

### αὐτὸθεῖο, ἀφ' ἑαυτοῦ ἢ ἀπὸ ἄλλου πηγῆς πηγῆς

Νῆπι εὐὐθεῖο, ἀφ' ἑαυτοῦ ἢ ἀπὸ ἄλλου πηγῆς πηγῆς.

- (1) εὐὐθεῖο ἀφ' ἑαυτοῦ ἢ ἀπὸ ἄλλου πηγῆς πηγῆς. Ὁ ἄνω μέρος τοῦ ἐπιπέδου τοῦ βιομηχανοῦ τοῦ ἀδελφοῦ πηγῆς πηγῆς εἰσέρχεται ἐν τῷ ἄνω μέρει τοῦ ἐπιπέδου τοῦ βιομηχανοῦ τοῦ ἀδελφοῦ πηγῆς πηγῆς. Πιέστε τὸ ἐπιπέδον τοῦ βιομηχανοῦ τοῦ ἀδελφοῦ πηγῆς πηγῆς ὥστε νὰ ἀκοῦτε δύο κλικ. Βεβαιώστε ὅτι τὸ ἐπιπέδον τοῦ βιομηχανοῦ τοῦ ἀδελφοῦ πηγῆς πηγῆς ἀκοῦτε δύο κλικ.
- (2) ἰσοθεῖο, εὐὐθεῖο ἀφ' ἑαυτοῦ ἢ ἀπὸ ἄλλου πηγῆς πηγῆς VTR (DC OUT).

Advanced operations

ἰσοθεῖο, ἀφ' ἑαυτοῦ ἢ ἀπὸ ἄλλου πηγῆς πηγῆς

εὐὐθεῖο ἀφ' ἑαυτοῦ ἢ ἀπὸ ἄλλου πηγῆς πηγῆς. Ὁ ἄνω μέρος τοῦ ἐπιπέδου τοῦ βιομηχανοῦ τοῦ ἀδελφοῦ πηγῆς πηγῆς εἰσέρχεται ἐν τῷ ἄνω μέρει τοῦ ἐπιπέδου τοῦ βιομηχανοῦ τοῦ ἀδελφοῦ πηγῆς πηγῆς. Πιέστε τὸ ἐπιπέδον τοῦ βιομηχανοῦ τοῦ ἀδελφοῦ πηγῆς πηγῆς ὥστε νὰ ἀκοῦτε δύο κλικ.

εὐὐθεῖο ἀφ' ἑαυτοῦ ἢ ἀπὸ ἄλλου πηγῆς πηγῆς. Νῆπι εὐὐθεῖο ἀφ' ἑαυτοῦ ἢ ἀπὸ ἄλλου πηγῆς πηγῆς. Ὁ ἄνω μέρος τοῦ ἐπιπέδου τοῦ βιομηχανοῦ τοῦ ἀδελφοῦ πηγῆς πηγῆς εἰσέρχεται ἐν τῷ ἄνω μέρει τοῦ ἐπιπέδου τοῦ βιομηχανοῦ τοῦ ἀδελφοῦ πηγῆς πηγῆς. Πιέστε τὸ ἐπιπέδον τοῦ βιομηχανοῦ τοῦ ἀδελφοῦ πηγῆς πηγῆς ὥστε νὰ ἀκοῦτε δύο κλικ.

## Using alternative power sources

## àÒÒÓÍ, ÁÓ, †ÌÈÄ †Í, ÚÂ Ì†ÚË, Ì† ÈÓÚÓ ÌÈÍÓ, ÒÈÚ†ÌÈ†

### Notes on the POWER lamp

- The POWER lamp will remain lit for a while even if the unit is unplugged after use. 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.

### To remove the adaptor

The adaptor is removed in the same way as the battery pack.

## Using a car battery

Use Sony DCP-77 DC pack (not supplied). Connect the cord of the DC pack to the cigarette lighter socket of the car (12 V or 24 V). Connect the DC pack to the battery mounting surface of the camcorder.

### To remove the DC pack

The DC pack is removed in the same way as the battery pack.

### è ÈÍÄ~†ÌÈ† Ì†ÌÓÓ~ÌÄ POWER

- à†ÌÓÓ~ÌÄ POWER ·Ú%ÁÚ ÓÓÚ†, †Ú, Ò† „Ó† ÆÈ Ì†ÌÓÄ-ÚÓ, Ä††, %†ÈÄ ÄÓÍÈ †ÓÓ† †Ú ·Ú%ÁÚÓÓÓÄ%ÈÌÄÍÓÓÍÄÈÓÓÍ, ÁÓ, †ÌÈ†. ùÚÓ †, Ì†ÄÚÓ† ÌÓ Ì†Ì, Ì†.
- ÒÓÈÈ Ì†ÌÓÓ~ÌÄ POWER ÌÄ Ä†, Ó †ÄÚÒ†, ÚÓÚ†ÍÓ, ÈÚÄ ÓÄÌÄÍÚÓ, ÓÓÍÓÈÄÍÈÄ VTR (DC OUT) ÈÓÚÓÓÄ%ÈÈÈÚÄÓÄÚÄ, ÓÈÓ Ó, Ó% è È·ÈÄÈÚÄÍ ÌÓ Ä ÄÄ Ó% ÌÚ ÌÈÍÚÚÚ ÒÍÓ, † ÓÓ%ÓÓÄ%ÈÈÈÚÄÚÄ, ÓÈÓ Ó, Ó%.

### Ñ†† Ò††ÚÈ†† †%†ÓÚÄ †

Ä%†ÓÚÄ ÒÈÈ†ÄÚÒ† Ì†ÌÈÈ ÈÄ Ó. †ÄÓÍ, Ì†È †Ú† ÄÈÌ°È ·ÍÓÍ.

## àÒÒÓÍ, ÁÓ, †ÌÈÄ †, ÚÓÍÓ·ÈÌ, ÌÓ, Ó †ÍÍÚÍÚÍ†ÚÓ †

àÒÒÓÍ, ÁÚÈÚÄ ·ÍÓÍ ÓÓÓÚ. ÚÓÍ† DCP-77 Sony (ÌÄ Ó È†, †ÄÚÒ†). èÓ%ÓÓÄ%ÈÈÈÚÄ ÌÚ ·ÍÓÍ ÓÓÓÚ. ÚÓÍ†, ÌÄÄ%ÚÓÈ, † ÄÚÍÓ, Ó Ó ÈÍÚ È, †ÚÄ†† †, ÚÓÍÓ·È†† (12 Ç ÈÈÈ 24 Ç). èÓ%ÓÓÄ%ÈÈÈÚÄ·ÍÓÍÓÓÓÚ. ÚÓÍ†ÍÍ ÚÓÚ†ÍÓ, ÓÍÓÈÓÓ, Ä ÌÓÓÚÈ·†Ú† ÄÈ, È%ÄÓÍ†ÌÄ °.

Ñ†† Ò††ÚÈ†† ·ÍÓÍ† ÓÓÓÚ. ÚÓÍ† ÄÍÓÍ ÓÓÓÚ. ÚÓÍ† ÒÈÈ†ÄÚÒ† Ì†ÌÈÈ ÈÄ ÓÓÓÓÓ·ÓÍ, Ì†È È ·†Ú† ÄÈÌ°È ·ÍÓÍ.

## Changing the mode settings

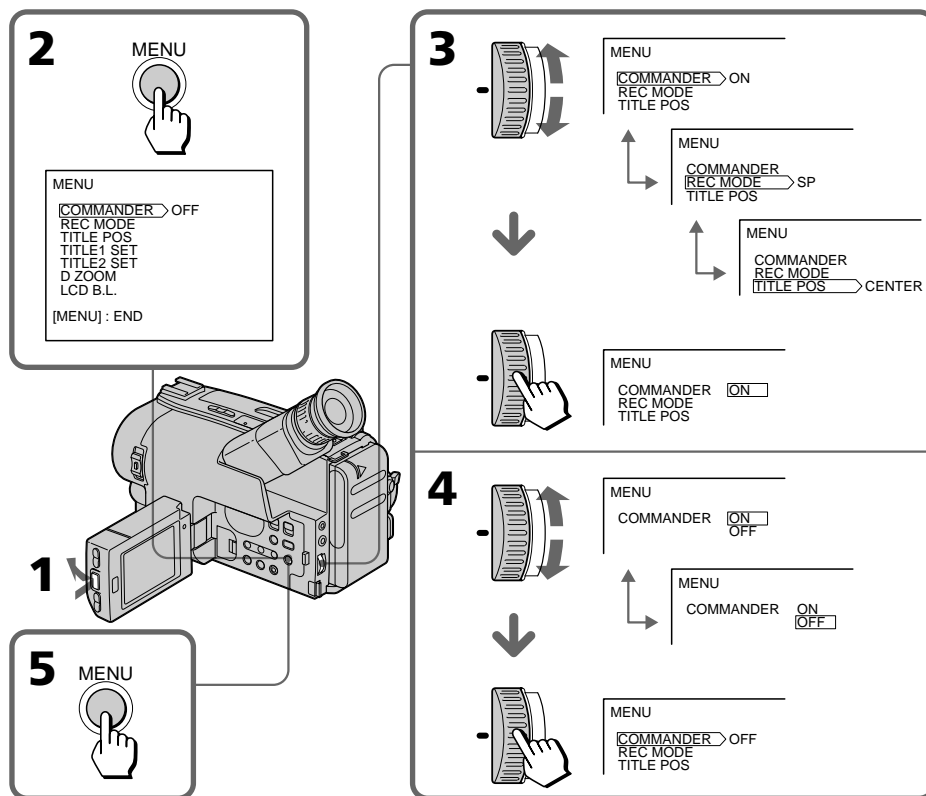
## Αλλάζοντας τις ρυθμίσεις λειτουργίας

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, ανοίγετε το πάνελ LCD.
- (2) Πατάτε το MENU για να εμφανιστεί το μενού.
- (3) Περιστρέφεται ο δials ελέγχου για να επιλεγεί το επιθυμητό αντικείμενο, και πατάτε το dial.
- (4) Περιστρέφεται ο δials ελέγχου για να επιλεγεί ο επιθυμητός τρόπος λειτουργίας, και πατάτε το dial.
- (5) Πατάτε το MENU για να σβήσει το μενού.



## Changing the mode setting

ÀÁÏÀÏÀÏÈÄ ÄËËÏÏÏ ÛÒÙ±ÌÓ,ÓÍ

### Selecting the mode setting of each item

#### Items for both CAMERA and PLAYER modes

##### COMMANDER <ON/OFF>

- Select ON when using the supplied Remote Commander for the camcorder.
- Select OFF when not using the Remote Commander.

##### BEEP\* <ON/OFF>

- Select ON so that beeps sound when you start/stop recording, etc.
- Select OFF when you do not want to hear the beep sound.

##### LCD B.L. \* <BRT NORMAL/BRIGHT>

- If you select BRT NORMAL, the battery life becomes about 10% longer than it is when you select BRIGHT.
- Select BRIGHT to make the LCD screen brighter when shooting/playing back outdoors.

#### Items for CAMERA mode only

##### REC MODE\* <SP/LP>

- Select SP to record a tape in SP (standard play) mode.
- Select LP to record a tape in LP (long play) mode.

##### TITLE POS\* <CENTER/BOTTOM>

- Select CENTER to center the title in the picture.
- Select BOTTOM to position the title at the bottom of the picture.

##### TITLE1 SET\*/TITLE2 SET\*

Store your own titles.

##### D ZOOM\* <ON/OFF> (CCD-TRV24E only)

- Select ON to activate digital zooming.
- Select OFF to not use the digital zoom. The camcorder goes back to 15x zoom.

### Ç°·Ó ÛÒÙ±ÌÓ,ÍË ÄËËÏ± ÓÓ Ì±È%ÓÍÛ ÒÛÌÍÛÛ

#### èÛÌÍÛ° %Ífl ÄËËÏÓ, CAMERA È PLAYER

èìäúí ìèèÄÇãÖçàü COMMANDER <ON/OFF>

- ìÒÙ±ÌÓ,ÈÚÄ, ÒÓÍÓËÄÏÈÄ ON, ÄÏÈ Ç° ÒÓÍÛÁÛÁÛÁÓ, Ò Èì±,±ÄÏ'íí,È%ÁÓÍ±Ä Ä ÒÛÌ,ÚÓÍ%ÈÒÛ±ÈÓÍÏÓ,Ó ÛÓ ±ÌÄÏÈfl.
- ìÒÙ±ÌÓ,ÈÚÄ, ÒÓÍÓËÄÏÈÄ OFF, ÄÏÈ Ç° ÌÄ ÈÒÓÓÍ,ÁÛÁÛÁÛÁÛ,Ú%ÈÒÛ±ÈÓÍÏÓ,Ó ÛÓ ±ÌÄÏÈfl.

#### áìääÖèçöâ èàÉçÄâ BEEP\* <ON/OFF>

- ìÒÙ±ÌÓ,ÈÚÄ, ÒÓÍÓËÄÏÈÄ ON, ~ÚÓ.° ÁÛÏÄ Ì°Ä Ä,ÚÍÓ,°Ä ÒÈ,,ì±Í° Ä,Û±ÍÈ, ÍÓ,,%± Ç° Ì±Èì±ÁÛÁ/Ä±ì±È,±ÁÛÁ Ä±ÖÈÒ, È ÛÓ.
- ìÒÙ±ÌÓ,ÈÚÄ, ÒÓÍÓËÄÏÈÄ OFF, ÍÓ,,%± Ç° ÌÄ ÌÓÙÈÚÄ Òì±±Ú, ÁÛÏÄ Ì°È Ä,ÚÍÓ,ÓÈ ÒÈ,,ì±Í.

#### ÛäÑ LCD B.L.\* <BRT NORMAL/BRIGHT>

- ÓÓÍÈ Ç° ,°Ä ÄÛÄ BRT NORMAL, Ó ÓÍ ÒÍÛÈ.° ±Û± ÄËÈÈ ÒÙ±ÌÁÛ Ì± 10% %ÓÍ,~Ä, ~ÄÏ, ÒÍÛ±Ä, ÍÓ,,%± Ç° ,°Ä ÄÛÄ BRIGHT.
- Ç°·Ä ÈÚÄ BRIGHT, ~ÚÓ.° Ò%Äì±Ú, 1 ± ÛäÑ fl ~Ä, ÒÍÛ±Ä Ò ÄÏÈÈ/ ,ÓÓÓ ÓÈÄ,Ä%ÄÏÈfl,ÌÄ ÓÓÍÄ~ÄÏÈfl.

#### èÛÌÍÛ° ÛÓÍ,ÍÓ %Ífl ÄËËÏ± CAMERA

èÒÛää áÄèääè REC MODE\* <SP/LP>

- Ç°·Ä ÈÚÄ SP %Ífl Ä±ÖÈÒÈ ÌÄÌÛ°, ÄËËÏÄ SPÒÛ±%± ÛÍÓÁÓÓÓ ÓÈÄ,Ä%ÄÏÈÄ).
- Ç°·Ä ÈÚÄ LP %Ífl Ä±ÖÈÒÈ ÌÄÌÛ°, ÄËËÏÄ LP(Ò %ÓÍÈËÛÄÏ,ÌÓÄ,ÓÓÓ ÓÈÄ,Ä%ÄÏÈÄ).

#### çÄÑèàèú TITLE POS\* <CENTER/BOTTOM>

- Ç°·Ä ÈÚÄ CENTER %Ífl ±ÄÄÏÈfl Ì±%ÖÈÒÈ ÓÓÓ Ä%ÈÏÈÄÓ. ±ÈÄÏÈfl.
- Ç°·Ä ÈÚÄ BOTTOM %Ífl ±ÄÄÏÈfl Ì±%ÖÈÒÈ,ÌÈÁÛÈÄÓ. ±ÈÄÏÈfl.

#### ìèìÄçéÇäÄ çÄÑèàèà 1 TITLE1 SET\*/

ìèìÄçéÇäÄ çÄÑèàèà 2 TITLE2 SET\*

á±ÄÓÈÚÄ, Ò±ÍflÛ, Ç±È ÒÓ·ÒÛ,Äì°Ä Ì±%ÖÈÒÈ

#### ìèìÄçéÇäÄ çÄÑèàèà D ZOOM\* <ON/OFF>

(ÚÓÍ ÍÓ ÍÓ%ÄÏ, CCD-TRV24E)

- Ç°·Ä ÈÚÄ ON %Ífl ,ÍÌ~ÄÏÈfl ^ÈÛ Ó,ÓÈ Û ±ÍÒÛÓÍ±ÈÈ.
- Ç°·Ä ÈÚÄ OFF %Ífl ,ÍÌ~ÄÏÈfl ^ÈÛ Ó,ÓÈ Û ±ÍÒÛÓÍ±ÈÈ. ÇÈ%ÁÓÍ±Ä ±,Ä ÌÄÛÒfl Ì 15- Í ±ÍÛÍÈÛ ±ÍÒÛÓÍ±ÈÈ.

## 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 Ñü áÄèèè REC LAMP\* <ON/OFF>

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

ÄÇíéääÄíáóÖëääÜ ÑÄíÄ AUTO DATE\* <ON/OFF>

- Ç·À ÈÚÄ ON %·fl Ä±ÒÈÓÈ %±Ú° , ÚÄ·ÄÌÈÄ 10 ÓÄÍÚì% ÓÓÓÍÄ Ì±±± Ä±ÒÈÓÈ.
- Ç·À ÈÚÄ OFF, ~ÚÓ° ÌÄ Ä±ÒÈÓ°, ±Ú, %±ÚÚ.

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

ÑÖáéçëíÈÄñáéççöä êÖÜää DEMO MODE\* <ON/OFF>

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

\* ùÚÈ ÛÒÙ±ìó,ìÈ ÓÓì ±fl, ÛÒfl%±ÈÄ ÓÓÓÍÄ ÓflflÈfl, ±Ú± ÅÈìó,Ó ·ìó±, ÅÒÏÈ ÌÈÚÈÄ, ±fl ±Ú± ÅÈ±·Ú%·ÄÚ ÓÓÓ±, ±Ú, Ófl Ì±ÌÄÓÚÄ.

è ÈÌÄ·±ìÈfl ÓÚÌÓÒÈÚÄÌ ÌÓ %·ÄÍÓÍÓÙ ±ÈÈÓììó, Ó ÅÊË± DEMO MODE

- Ç±Ä±,Ó%·Ä·ÈÄ,ÓÚÓ,ÈÚÄÌÄ DEMO MODE ÛÓÙ±ìó,ÌÄì, ÓÓÍÓÈÄÌÈÄ STBY, È %·ÄÍÓÍÓÙ ±Èfl Ì±ÌÄÚÒfl Ó ÈÌÄ ÌÓ·Ä ÄÄ 10 ÌÈÌÚÚ ÓÓÓÍÄ ÛÓÙ±ìó,ìÈ , Ìì·±ÚÄflfl POWER , ÓÓÍÓÈÄÌÈÄ CAMERA ·ÄÄ ÛÓÙ±ìó,ìÈ Ì±ÒÓÄÚ°
- é· ±ÚÈÚÄ , ÌÈ±ìÈÄ, ~ÚÓ Ç° ÌÄ ÌÓÈÈÚÄ , ° ±Ú ÛÓÙ±ìó,ìÚ STBY %·ÄÍÓÍÓÙ ±ÈÈÓììó, Ó ÅÊË± DEMO MODE , ÓÈÈÓÚÄÌÄ ÌÄì.
- Ç° ÌÄ ÌÓÈÈÚÄ , ° ±Ú, %·ÄÍÓÍÓÙ ±ÈÈÓììÈ ÅÊË± DEMO MODE, ÅÒÏÈ , È%·ÄÓÏ±Ä Û , Ò±±,ÌÄì± Ì±ÒÓÄÚ±.
- ÓÓÏÈ Ç° , ÓÚ±,ÈÌÈ Ì±ÒÓÄÚÚ, Ó, Äflfl %·ÄÍÓÍÓÙ ±ÈÈ,ÚÓ%·ÄÍÓÍÓÙ ±Èfl,Ú%·ÄÚ ÓÓÓÙ±ìó,ÌÄì±. Ç° ÌÓÈÈÚÄ Ì±±Ú, Ä±ÒÈÓ, Ì±í Ó·~ìó. ÑÄÍÓÍÓÙ ±ÈÈÓììÈ ÅÊË± DEMO MODE ±,ÚÓí±ÚÈ·ÄÓÏÈ , Ä ÌÄÚÒfl , STBY.

Ñflfl ÌÄÌÄ%·Äììó,Ó Ó ÓÓìÓÙ ± %·ÄÍÓÍÓÙ ±ÈÈ

- Ì·ÚÄ Ì±ÒÓÄÚÚ, ÅÒÏÈ òì±, ÒÚ±,ÌÄì±. Ç·À ÈÚÄ ON %·ÄÍÓÍÓÙ ±ÈÈÓììó, Ó ÅÊË± DEMO MODE. Ì%±ìÈÚÄ Èì%Èì±ÈÈ ÌÄì, Ç±ÌÄÚÒfl%·ÄÍÓÍÓÙ ±Èfl.
- ÓÓÏÈ Ç° , Ìì·ÈÚÄ , È%·ÄÓÏ±Ä Û, ÅÊË± DEMO MODE ±,ÚÓí±ÚÈ·ÄÓÏÈ , Ä ÌÄÚÒfl , ÓÓÍÓÈÄÌÈÄ STBY.

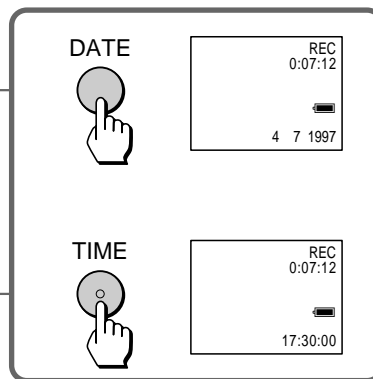
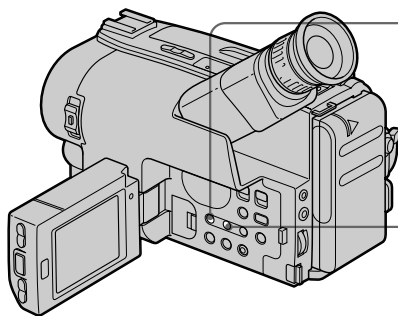
## Recording with the date or time

## 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, ÌÈÏ±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 ±ÏÈÈÓÍÓÈ È ÍÓ, ÓÁÁÌ±%ÓÍÓÈ ÍÓ%ÁÌÁÈ, ì± , ÁÌÁÌ ÍÓÍÈÓ %ÍÁÌ ÍÓ%ÁÌÁÈ, Ó Ó%±, ±ÁÌ°í, ùÓÓÍÈÈ È ì± , ÁÌÁÌ ÈÓÍÍÓÌ, ± %ÍÁÌ ÓÓÚ±Ì, Ì°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±ÔÈÒÈ Ò %±ÚÓÈÈ ÏÈÈ , ÁÌÁÌÁÌ Ç±ÈÏÈÚÁ DATE ÈÏÈ TIME òÍÓ, ±. àì%ÈÏ±ÚÓ %±Ú° ÈÏÈ , ÁÌÁÌÈ ÈÓ°ÁÁÍÁÚ. á±ÔÈÒ, ÓÓ%ÓÍÈÈÚÓÌ.

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




## Selecting the START/STOP mode


## START/STOP

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

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

**(2)** Set START/STOP MODE to the desired mode.

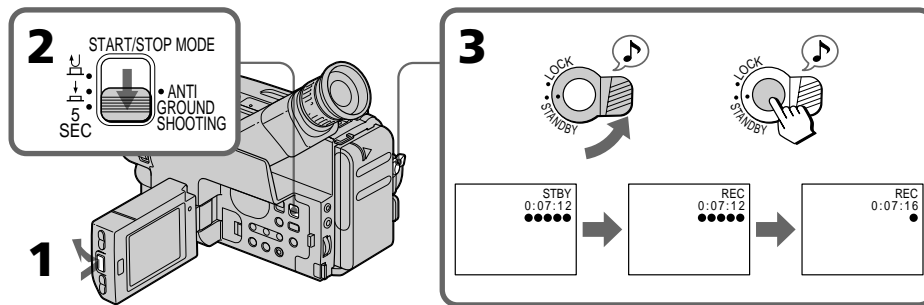
 : Recording starts when you press START/STOP, and stops when you press it again (normal mode).

 (ANTI GROUND SHOOTING): The camcorder records only while you press down START/STOP so that you can avoid recording unnecessary scenes.

**5SEC** : When you press START/STOP, the camcorder records for 5 seconds and then stops automatically.

**(3)** Turn STANDBY up and press START/STOP. Recording starts.

If you selected **5SEC**, five dots appear in the viewfinder. The dots disappear at a rate of one per second as illustrated below.



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

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


### Note on 5SEC recording


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

ä öïã ö°~ïö,ó ÆËË† òúò†/òóú†íö,íë , ìë%òóí†íã ÆËË† ùòñ %ò,† %ò ù,ëì ÆËË†. ùúë ÆËË† òóã,óíñ ù ç†ì , °óóíëú, óã ë ò ÆËË† ìë òóã%ò†ú, òëë,íãì°ë ,ë%òóò,ëãú.

**(1)** ç†ëë††ñ PUSH OPEN, óúí òëúã ò†íãì, ùãñ.

**(2)** ìòú†íö,ëúã START/STOP MODE ì† Ëãì†ãì°ë ÆËË†.

 : á†òëò ì†ë†úúòñ, íó,%ò† ç° ì†ëë†úúã ìíòíú START/STOP ë òóú†ì†,íë,†úúòñ, íó,%ò† ç° ì†ëë†úúã Æã òíó,† (ó°~í°ë ÆËË†).

 (ANTI GROUND SHOOTING): çë%òóí†íã †ò óëã,ó%ëú†òëò, úóí,íó, íó,%ò† ç° %ò ÆËË† START/STOP, ì†ë†úúí òóóúòñíëë, ~úó òóã,óíñ Æã ç†ì ëã. Æë†ú, á†òëòë ìãìúëì° , ò°ãì.

**5SEC**: è ë ì†ë†úúëë START/STOP ,ë%òóí†íã †ò óëã,ó%ëú†òëò, ùã ÆËË† 5 òãìúí%ò, † á†úúã òóú†ì†,íë,†úúòñ †,úóí†úë~àòíë.

**(3)** èó,ã ìëúã STANDBY „ã ì ë ì†ëëúã START/STOP.

òòíë ç° , °. †íë òóãë°ë, 5SEC, ,ë%òóëò†úúã òóñ,ñúòñ òñú, úó°ãì. ùúë úó°íë. ù%úúëò°ã†ú, òóó%ìòëã†òãìúí%òú, ì†í òóí†úúíó ì† ëóúíã.

ñíñ ò ó%ìãìëñ , ÆËË† á†òëòë , ÆËË† á†òëòë 5SEC

ëìó,† ì†ëëúúã START/STOP òã Æ%ò ùãì, ì†í òãúó°íëëò°ãìúú. á†òëò ò ó%òíëëúòñ Æã òíóíó 5 òãìúí%ò òú ìóíãìú† ì†ëë†ëñ START/STOP.

è ëìã~†ìëã ì á†òëòë , ÆËË† 5SEC òòíë ç° , íí~ëúã ëì%ë†úúó ° ì† °í ìã ùãñ, úó°íë òóñ,ññú,òñ ìã .ù%òú.

## 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.

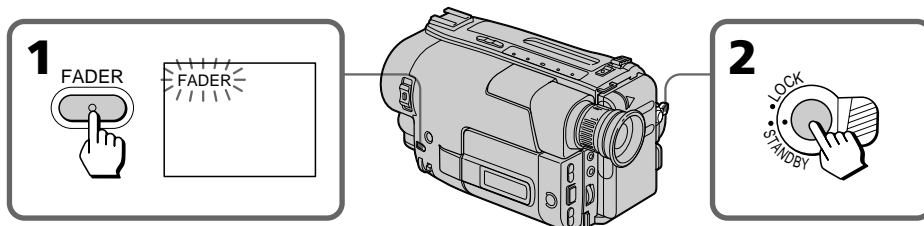
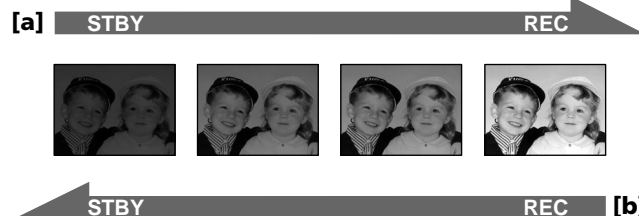
### When fading out [b]

- (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†-ÁÉÂ†ÓÈÒÈ  
Ó ÓÚÂÓÓÈÓi†i, i'È , È%o.  
è È „, Â%oÂiËÈÈ ÉÁÓ. †ÉÂiËÂ ÓÓÓÚÂÓÀiÓ  
ÓÓfi, i†iÁÚÓfi ÈÁ ~Á İÓ, Ó ~í †i†, † Á, Úi  
ÚÓÈiË, †ÁÚÓfi.  
è È „, Â%oÂiËÈÈ ÉÁÓ. †ÉÂiËÂ ÓÓÓÚÂÓÀiÓ  
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%oÁÓi†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, İÉÂ†ÓÈÈÈ. ài%oÈi†ÚÓ FADER  
Ó Âi †ÚÈÚiÈ, †Ú, ÓÓÓiÂ ~Á, Ó i†iÁÚÓfi  
Á†ÓÈÈ.



**Fade-in and fade-out**

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

Before pressing START/STOP, press FADER to turn off the FADER indicator.

**When the date/time or title is displayed**

The date/time or title does not fade in or fade out.

**When the START/STOP MODE switch is set to **↓** or 5SEC**

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

Ç,Â%ÂîÈÄ È ,°,Â%ÂîÈÄ  
ÉÁÓ. ‡ÉÄîÈfl

Ñîfl ÓÚÎÄì° ÙÙÍí^ÈÈ „Ä%ÂîÈfl/  
°,Â%ÂîÈfl ÉÁÓ. ‡ÉÄîÈfl  
èÄ Ä% ÚÄî, Í†í ì‡É‡Ú, îíÓÓÍÚ START/STOP,  
ì‡ÉîÈÚÄ îíÓÓÍÚ FADER, ~ÚÓ° ,°Íí~ÈÚ,  
Èì%Èí‡ÚÓ FADER.

Ç ÒÍÛ~‡Ä ÓÚÓ. ‡ÉÄîÈfl ì‡ %ÈÒÒÎÄÄ  
%‡Ú°, ÄîÄîÈ  
Ñ‡Ú‡, Äîfl ÈîÈ ì‡%ÒÈÒ, ìÄ,,Ó%flÚÒfl È ìÄ  
°,Ó%flÚÒfl ì‡ ÉÁÓ. ‡ÉÄîÈÈ.

ÖÒîÈ ÒÄ Äîí~‡ÚÄî, START/STOP MODE  
ÙÒÙ‡ìÓ,ÌÄì , ÒÓíÒÈÄîÈÄ **↓** ÈîÈ 5SEC  
Ç ìÄ ÍÓÈÄÚÄ ÈÒÒÓÍ,ÁÓ,‡Ú ÙÙÍí^È,  
„Ä%ÂîÈfl/,°,Â%ÂîÈfl ÉÁÓ. ‡ÉÄîÈfl.

Advanced operations  
ìÒÒ,Ä -ÄìÒÚ,Ó,†ìì^Ä ÓÒÄ ‡ÈÈ

## Enjoying picture effect

àÒÒÓÎ ÁÓ,†ÏËÄ ~ÙÙÂÍÚÓ,  
ËÁÓ. †ËÂÏË†

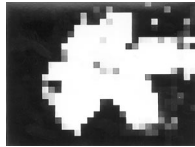
### Selecting picture effect

ë ÒÓÍÓ~, ùÙÏÍ~ËË ~ÙÙÂÍÚ†

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

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

[a]



[b]



[c]



#### MOSAIC [a]

The picture is mosaic.

âéáÀàäÄ [a]

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

#### SOLARIZE [b]

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

ëëãüêääÄñàü [b]

ìÒËÏË,†ÁÚÒ†† ÌÓÓÙ Ò,ÁÚ†ËËËÁÓ. †ËÂÏËÄ  
,,,††%ËËË ÒÓ%Ò-ÌÓ ÌÙ%ÒËÁÓÙ,ÂÏÏËË Ì† ÚËÏÁ.

#### B&W

The picture is monochrome (black and white).

óÖêçé-ÄÖãéÖ àáéÀêÄÜÖçàÖ

àÁÓ. †ËÂÏËÄ ÒÚ†ÌÓ,ËÚÒ††

ÏÓÌÓ, Ò††ÚËË~ÁÒÏËË (~Á ÌÓ--Â††).

#### SEPIA

The picture is sepia.

ë Òè à ü

àÁÓ. †ËÂÏËÄ Ò ÁÓ. †ÁÚÁÚÒ†, ^ÁÚÒÁÒËË.

#### NEG. ART [c]

The colour of the picture is reversed.

çÖËÄÏàÇçéÖ àèàìèèìÇé [c]

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

## Enjoying picture effect

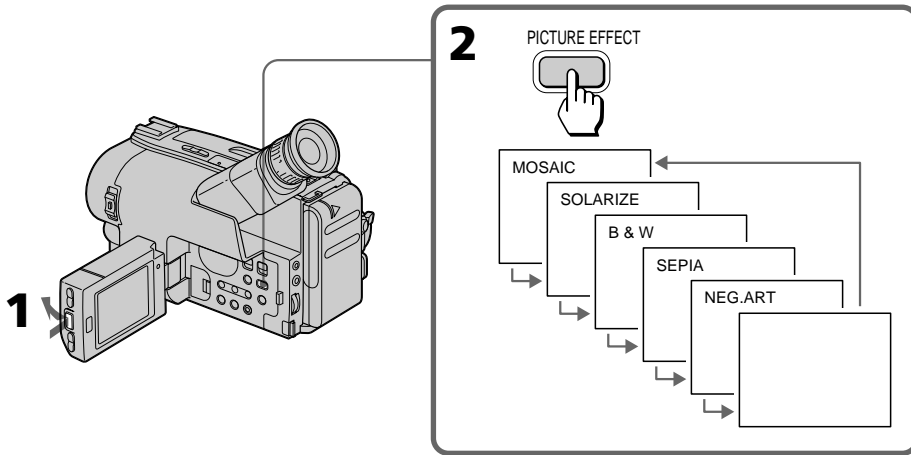
àòòóí.áó,†ìĒâ ~ùúáíúó,  
Ēáó. †ĒâìĒfl

### 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. †ĒâìĒfl

- (1) ÑĀ Ē† ì†Ē†úóĒĒ ìíóóíú PUSH OPEN, óúí óĒúĀ ò†íĀí, ùāñ.
- (2) Ç úó, Āífl, ì†í,Ē%áóí†íĀ † ì†í,íó%Ēúófl, ĀĒĒĪĀ „óúó,íóóúĒ, ì†ĒĒĒĒĒ ìíóóíú PICTURE EFFECT %ófl, °.ó † ĒĀí†Āíó,ó ĀĒĒĪ† ~ùúáíúó, Ēáó. †ĒâìĒfl.



### 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 ĀĒĒĪŪ  
ç†ĒĒĒ†ĒĒĒĒ ìíóóíú PICTURE EFFECT %ó úĀí  
óó, óóí†Ē%ĒĒĒ†úó ~ùúáíúó,  
Ēáó. †ĒâìĒfl ĪĀĒĒ-ĀĀĪĀŪ.

Ē ĒĪĀ~†ĒĒĀ óúííóóĒĒĒĒ,íó ~ùúáíúó,  
Ēáó. †ĒâìĒfl  
òòĪĒ ç°, ìí ~ĒĒĒĒĒ ĒĒĒĒĒĒĒ, Ē%áóí†íĀ †  
†,úóí†ĒĒĒĒĒĒĒ,Ā ĪĀŪófl í ìó ì†í,íóíú  
ĀĒĒĪŪ.

Advanced operations ìòó.Ā -Āíóú,ó,†íĪĀ óóĀ†ĒĒĒ

# Using the wide mode function

àÒÒÓÍ, ÁÓ, †ÈÄ ÙÙÍÍ^ÈÈ  
 -È ÓÍÓÚÓ Ì†ÚÍÓ,, Ó ÂÈÈ†

- CCD-TRV24E only

- íÓÍ, ÍÓ CCD-TRV24E

## Selecting the desired mode

Ç° Ó ÈÂ††Â†Ó,, Ó ÂÈÈ†

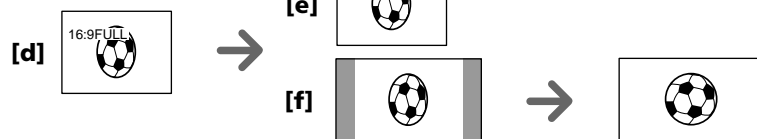
You can record a cinemalike picture (CINEMA) or a 16:9 wide picture to watch on the 16:9 wide-screen TV (16:9FULL).

Ç° ÍÓÈÄÚÄ Á†ÔÈÒ°, †Ú, ÈÁÓ. †ÈÄ†ÈÄ ÓÓ%Ó.ÍÓ ÍÈÍÓÙÈÍ, ††Í (CINEMA) È†È -È ÓÍÓÚÓ Ì†ÚÍÓÄ ÈÁÓ. †ÈÄ†ÈÄ ÚÓ Ì†Ú† 16:9 %Í† Ó ÓÍÓÚÓ † † -È ÓÍÓ† †ÌÓÍ ÚÁ†Ä, ÈÁÓ Á Ò †Á†Ä ÓÍÈÍÄÓÍÓ† 16:9 (16:9FULL).

### CINEMA



### 16:9FULL



### CINEMA

Black bands appear at the top and the bottom of the screen. The viewfinder or the LCD screen [a] and a normal TV screen [b] look wide. You can also watch the picture without black bands on a wide-screen TV [c].

### CINEMA (êÖÙää äàçé)

Ç, Á, Í, Ù È, ÌÈÄÚ Í† †† ÓÓÍ, ñÓÙÍ† Á† Á ÓÓÍÓÓ°. ÇÈÈ%ÓÈÓ†ÚÁ†, È†È Í† † ÚáÑ [a] È ÍÓ Ì†Í, ÌÈ ÚÁ†Ä, ÈÁÈÓÍÈÈ Í† † [b] ·Ù%ÓÚ È†ÄÚ, -È ÓÍÓÚÓ Ì†ÚÍÈÈ, È%Ó. Ç Ú†ÍÈÄ ÍÓÈÄÚÄ Ì†.Í.%†Ú, ÈÁÓ. †ÈÄ†ÈÄ .ÁÁ -Á Ì† ÓÓÍÓÓ Ì† -È ÓÍÓÚÓ Ì†ÚÍÓÍ ÚÁ†Ä, ÈÁÓ Á [c].

### 16:9FULL

The picture in the viewfinder or on the LCD screen [d] or on a normal TV [e] is horizontally compressed. You can watch the picture of normal images on a wide-screen TV [f].

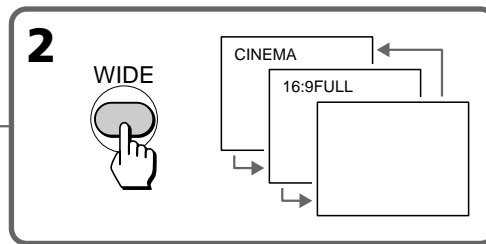
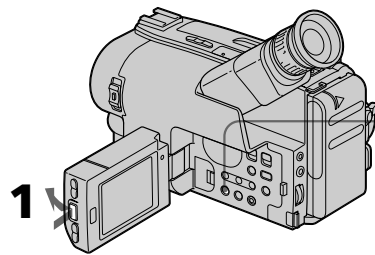
### 16:9FULL (òàèèääéíèèääÍçõâ êÖÙää 16:9)

àÁÓ. †ÈÄ†ÈÄ, È%ÓÈÓ†ÚÁ†Ä È†È Ì† Í†Ä ÚáÑ [d], † Ú†ÍÈÄ Ì† Í†Ä ÍÓ Ì†Í, ÍÓ,, Ó ÚÁ†Ä, ÈÁÓ † [e]·Ù%ÁÚÓÈ†ÚÓÓÓ,, Ó ÈÁÓÍÚ†È. Ç Ú†ÍÈÄ ÍÓÈÄÚÄ Ì†.Í.%†Ú, ÈÁÓ. †ÈÄ†ÈÄ, ÍÓ Ì†Í, ÍÓÍ, È%Á Ì† -È ÓÍÓ† †ÌÓÍ ÚÁ†Ä, ÈÁÓ Á [f].

## Using the wide mode function

### 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.




#### 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.







## Using the wide mode function

### Using the wide mode function

- (1) Πάση πιεζόντων το κουμπί PUSH OPEN, ανοίξτε το LCD.
- (2) Όταν η κάμερα είναι σε κατάσταση Standby, πιέστε το κουμπί WIDE επανειλημμένα, ώστε να εμφανιστεί ο δείκτης της επιθυμητής λειτουργίας.

Για να ακυρώσετε τη λειτουργία Wide, πιέστε το κουμπί WIDE επανειλημμένα, μέχρι να μην εμφανιστεί ο δείκτης.

Για να δείτε το βίντεο που εγγραφήθηκε στη λειτουργία Cinema, ρυθμίστε τη λειτουργία οθόνης της τηλεόρασης Wide σε λειτουργία zoom. Για να δείτε το βίντεο που εγγραφήθηκε στη λειτουργία 16:9FULL, ρυθμίστε τη λειτουργία οθόνης της τηλεόρασης σε λειτουργία full. Για περισσότερες πληροφορίες, ανατρέξτε στο εγχειρίδιο της τηλεόρασης. Σημειώστε ότι η εικόνα που εγγραφήθηκε στη λειτουργία 16:9FULL μπορεί να φαίνεται συμπιεσμένη σε μια κανονική τηλεόραση.

- Δεν μπορείτε να ακυρώσετε τη λειτουργία Wide κατά τη διάρκεια της εγγραφής.
- Εάν η λειτουργία Wide είναι ρυθμισμένη σε 16:9FULL, η λειτουργία SteadyShot δεν λειτουργεί και ο δείκτης  αναβοδονεί.
- Όταν εγγραφείτε στη λειτουργία 16:9FULL, η ημερομηνία ή η ώρα που εμφανίζονται στην οθόνη της τηλεόρασης θα είναι ευρύτερα.
- Εάν εγγραφείτε στη λειτουργία 16:9FULL, ο δείκτης SteadyShot  θα αναβοδονεί.
- Εάν εγγραφείτε στη λειτουργία 16:9FULL, ο δείκτης  θα αναβοδονεί.
- Εάν εγγραφείτε στη λειτουργία 16:9FULL, ο δείκτης  θα αναβοδονεί.
- Εάν εγγραφείτε στη λειτουργία 16:9FULL, ο δείκτης  θα αναβοδονεί.
- Εάν εγγραφείτε στη λειτουργία 16:9FULL, ο δείκτης  θα αναβοδονεί.

# Focusing manually

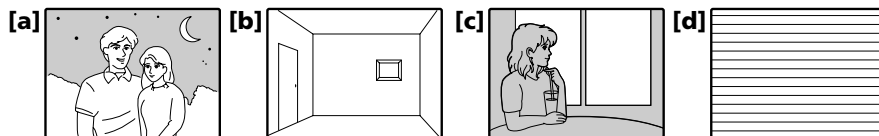
Επιχειρήματα, ερωτήσεις, απαντήσεις

## When to use manual focus

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

Επιχειρήματα, ερωτήσεις, απαντήσεις

Επιχειρήματα, ερωτήσεις, απαντήσεις



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

- Επείγουσα ανάγκη [a]
- Επείγουσα ανάγκη [b]
- Επείγουσα ανάγκη [c]
- Επείγουσα ανάγκη [d]
- Επείγουσα ανάγκη
- Επείγουσα ανάγκη
- Επείγουσα ανάγκη
- Επείγουσα ανάγκη
- Επείγουσα ανάγκη
- Επείγουσα ανάγκη





## Using the PROGRAM AE function

## ÀÒÓÓÍ ÁÓ, †ËÄ 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° ÌÖÊÄÚÄ , ° †Ú, Ó%ÈÌ ÈÁ Ú ÄÌ ÄËËÏÓ, PROGRAM AE (†, ÚÓÍ†ÚË~ÁÓÍÖÈ Ò~ÄÏËË) , ÒÓÓÚ, ÄÚÓÚ, ÈËÓÇ†~ÄËÖËÚ†~ÈÄË. ÒÓÏËÇ° ÈÒÓÓÍ, ÄÚÄÚÄ PROGRAM AE, Ç° ÌÖÊÄÚÄ Ä†ÖÄ~†ÚÍÄÚ, °ÒÓÍÓÓÍÓ ÓÓÚÍÓÄ%ÄËÖÚ, ÈÄ ÈËË ÌÓ~Ì~Ä , È%°.

### Ç° Ó Ì†ËËÛ~Ä, Ó ÄËËË†

Ç° Ä ÈÚÄ Ì†ËËÛ~ËË ÄËËË, ÈÒÓÓÍ, ÄÚÏ ÓÍÄ%Ú, ÈÄ Ó ÈÍÄ °.



#### Sports mode

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

#### ÈÄËËË ÒÓÓ Ú†

- èÓÓ ÚË, Ì~Ä Ò~ÄÌ° , ÌÄ ÒÓÍÄ~ÄÏËË, Ì†Ö ÈÍÄ , ÚÚÚ~ÓÍ, ÚÄÏËË, °ÓÍ, Ú ÈËË Ì° ÈËË
- ä†Ì%~†ÚÚ ÈÄ % , ÈËÛ~Ä, ÒÒÏ †, ÚÓÍÓ~ËÏ

#### 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 , °ÒÓÍÓÓÍÓ ÓÓÚÍÓ, Ó Ä†ÚÓ†

- ÇÁÍ†ËË , Ó , ÄÏË È° , ° , °ÓÍ, Ú ÈËË ÚÄÏËË ÌÓ Ó~Ú, ÓÓ, Ó%Ú Ò~ÄÚÍËË Ä†ÖÄ~†ÚÍÄËÄÏ ÌÏ~†
- ÇÓÓÓ ÓËÄ, Ä%ÄËËÄÓÓ Ä%ÄËËË~Ì° Ò~ÄÏÓ , °ÒÓÍÓÓÍÓ ÓÓÚÍ°È % , ÈËÄËËËËË Ò~ÄÚÍËË, ÄÄËËË ÈÁÓ~ †ÈÄËËËË

#### Twilight mode

- Recording night views, neon signs or fireworks

#### ÈÄËËË ÒÓÏÄ ÄÍ

- ä†ÖËË, ÌÓ~Ì~Ì , È%Ó, ÌÄÓÍÓ, Ì ÄÏ†Ë ÈËË ÚÄËÄ , Ä ÍÓ,

**Using the PROGRAM AE function**

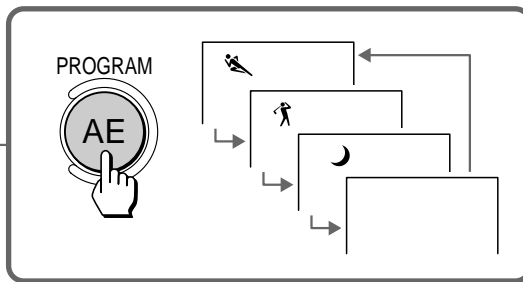
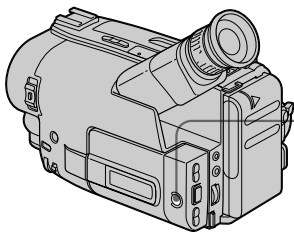
àÒÒÓÎ,ÁÓ,±ÌËÂ ÙÛÍÍ^ËË  
PROGRAM AE

**Using the PROGRAM AE function**

àÒÒÓÎ,ÁÓ,±ÌËÂ ÙÛÍÍ^ËË  
PROGRAM AE

While the camcorder is in Standby mode, press PROGRAM AE until the desired PROGRAM AE indicator appears.

Ç ÚÓ , ÁÏÏ, ÍÓ,%,±,Ë%ÁÓÍ±ÏÁ ± Ì±ÍÓ%ËÛÒÏ ,  
ÁËËÏÁ „ÓÚÓ,ÍÓÓÛË, Ì±ËËÏ±ËÛÁ ÌÍÓÓÍÛ  
PROGRAM AE, ÔÓÍ± ÌÁ ÓÓÏ,ËÛÒÏ ËÁÏ±ÁÏ^Ë  
ËÌ%ËÏ±ÚÓ PROGRAMAE.



**Returning to automatic mode**

Press PROGRAM AE until the PROGRAM AE indicator disappears.

ÇÓÁ, ±~ÁÏËÂ Í ±,ÚÓÍ±ÛË^~ÁÒÍÓÍÛ  
ÁËËÏÛ  
ç±ËËÏ±ËÛÁ ÌÍÓÓÍÛ PROGRAM AE, ÔÓÍ±  
ËÌ%ËÏ±ÚÓ PROGRAMAE ÌÁËÒ^ÁÁÏÁÛ.

**Note on shutter speed**

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

Sports mode – between 1/50 to 1/500

High-speed shutter mode – 1/4000

Twilight mode – 1/50

AUTO mode – 1/50 (or 1/100 when the Steady Shot is on – CCD-TRV24E only)


èËÏÁ~±ÏËÂ Í ÓÍÓ ÓÓÛË Á±Ú,Ó ±  
éÍÓ ÓÓÛ, Á±Ú,Ó ±, Ì±Ë%ÓÏ ÁËËÏÁ  
PROGRAM AE Ï,ÏÏÁÛÒÏ ÓÏÁ%Û^~ÁË:  
èÓÓ ÛË,Ï^Ë ÁËËÏ – ÏÁË%Û 1/50 Ë 1/500  
èÁËËÏ, ÓÓÍÓÒÍÓ ÓÓÛÏÓ,Ó Á±Ú,Ó ± –  
1/4000  
èÁËËÏ ÒÛÏÁ ÁÏ – 1/50  
èÁËËÏ AUTO – 1/50 (ËÏË 1/100, ÁÒÏË  
,Ï^~ÁÏ± ÙÛÍÍ^ËÏ ÛÓÛÓË^Ë,ÓË Ò^~ÁÏË –  
ÚÓÍ,ÍÓ CCD-TRV24E).

## Shooting with backlighting

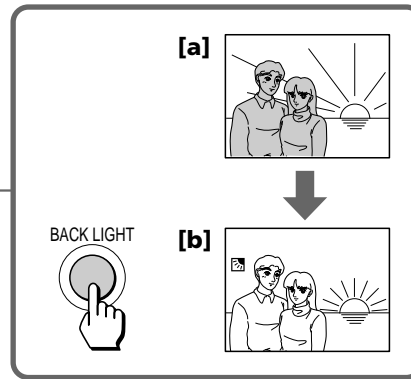
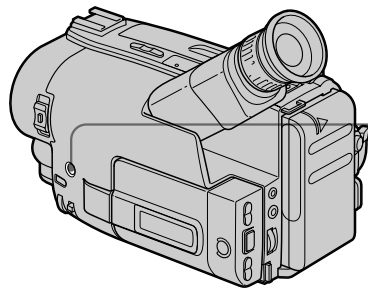
## Επιχειρήματα με φωτισμό από πίσω

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 κουμπί BACK LIGHT. Το  εμφανίζεται στο οπίσθιο φακό 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 αντιστάθμιση 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.

επιβεβαιώστε την απελευθέρωση της προϋπόθεσης αυτής της ρύθμισης πατώντας ξανά το κουμπί BACK LIGHT. Το  εξαφανίζεται. 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.

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

# Releasing the STEADY SHOT function

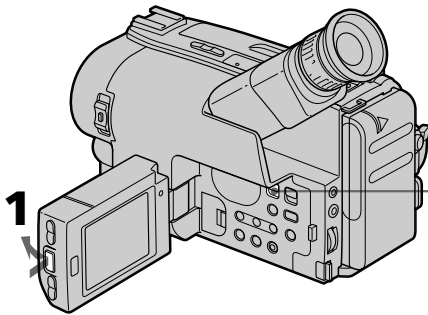
# ÇÍÎ~ÂÏËÂ ÛÛÏ^ËË STÉADY SHOT

## - 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.

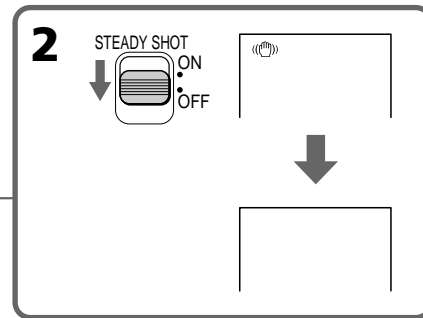


## — ÍÓÏ,ÍÓ CCD-TRV24E

è È , ÓÓÏÏÂÏËË Ò ÂÏÏË ÓÓÏ,ËÛÒÏ ËÏ%ËÏ±ÚÓ “ (📷)”. ùÚÓÓÂÏ±±ÁÚ,~ÚÓ,ÏÏ~ÂÏ± ÛÛÏÏ^ËË SteadyShot È ±ÓÓ± ±Ú ÍÓÏÓÂÏËË ÚÁÚÓÓ% ±,Ë,±ÏËÁ,Ë%ÁÓÏ±ÏÁ °.

Ç° ÍÓËÁÚÁ ÓÚÏÂÏËÛ, ÛÛÏÏ^ËË SteadyShot, ÁÓÏË ÏÁÚ ÏÛË%° ÈÓÓÓÏ,ÁÓ,±Ú, ÛÛÏÏ^ËË ÍÓÏÓÂÏËËË ÓÓ% ±,Ë,±ÏËÏ,Ë%ÁÓÏ±ÏÁ °. ÇÁ ÓÏÁ%ÚÁÚ ÈÓÓÓÏ,ÁÓ,±Ú, ÛÛÏÏ^ËË SteadyShot Ò È Ò ÂÏÏÁ ÏÁÓÓ%,,ËËÏÏ Ò·ÂÏÚÓ, Ò ÓÓÏÓ°, Û ÂÏÓ,,Ë.

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



## 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.

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

è ÈÏÁ~±ÏËÏ ÓÚÏÓËËÚÁÏ,ÍÓ ÛÛÏÏ^ËË SteadyShot

- ÏÛÏÏ^ËË SteadyShot ÏÁ Ï,ÏÏÁÚÏ ÏÛÚÁÏÛË,ÏËÈ %ÏÏ Ï~ÁÁÏÁ ÏÓ,,Ó ÓÓ% ±,Ë,±ÏËÏ,Ë%ÁÓÏ±ÏÁ °.
- è È ,ÏÏ~ÂÏËË ÈÏË ,ÏÏ~ÂÏËË ÛÛÏÏ^ËË SteadyShot,ÓÁÏÓËÏÓ ÓÓ% ±,Ë,±ÏËÁ Ï±% ±.
- è È , ÓÓÏÏÂÏËË Á±ÓËËË, ÁËËÏÁ 16:9FULL ÛÛÏÏ^ËË SteadyShot ÏÁ ±·ÓÚ±ÁÚ, ±ËÏ%ËÏ±ÚÓ “ (📷)”. Û%ÁÚÏË,±Ú,.

Advanced operations

ÏÓÛ·Á~ÂÏÚ,Ó,±ÏÏ^Á ÓÓÁ±ËË

## 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.

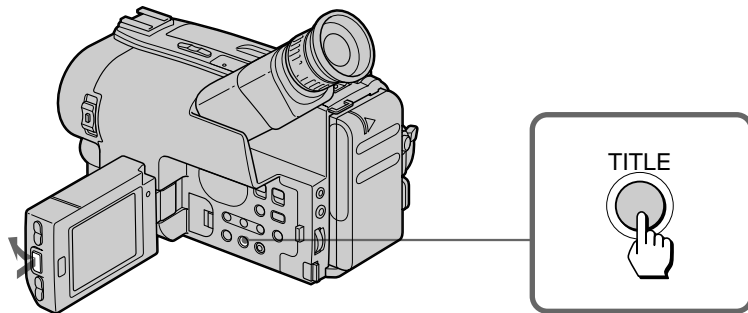
### To superimpose on the way of recording

- (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 ËÄ , ÓÒ, ÏË  
 Ô Ä%„† ÈÚÄÏ, İÓ ÚÒÚ†İÓ, İÄÏì† İ†%ÔËÒÄË Ë  
 %„, Ä Ì†%ÔËÒË, ÓÓÄ%„†İì° Ä Ç†İË, İÓÚÓ ° Ä  
 İÓËİÓ Ì†İì†%„, †Ú, Ì† ÈÄÓ. †ÈÄÏËÄ , Ó  
 , Ä†İÄ†ÔËÒË. ÇÓ†İËË †Ä Ó Ë Ì†È†ÚËË  
 İİÓÓİË TITLE Ô Ä%„† ÈÚÄÏ, İÓ  
 ÚÒÚ†İÓ, İÄÏì° Ä Ì†Ä, †İË†İ ÒÓ†İ, İ†, ÚÒ†İ Ó%ÌÓ  
 Ä†%„ Ú, Èì.

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

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





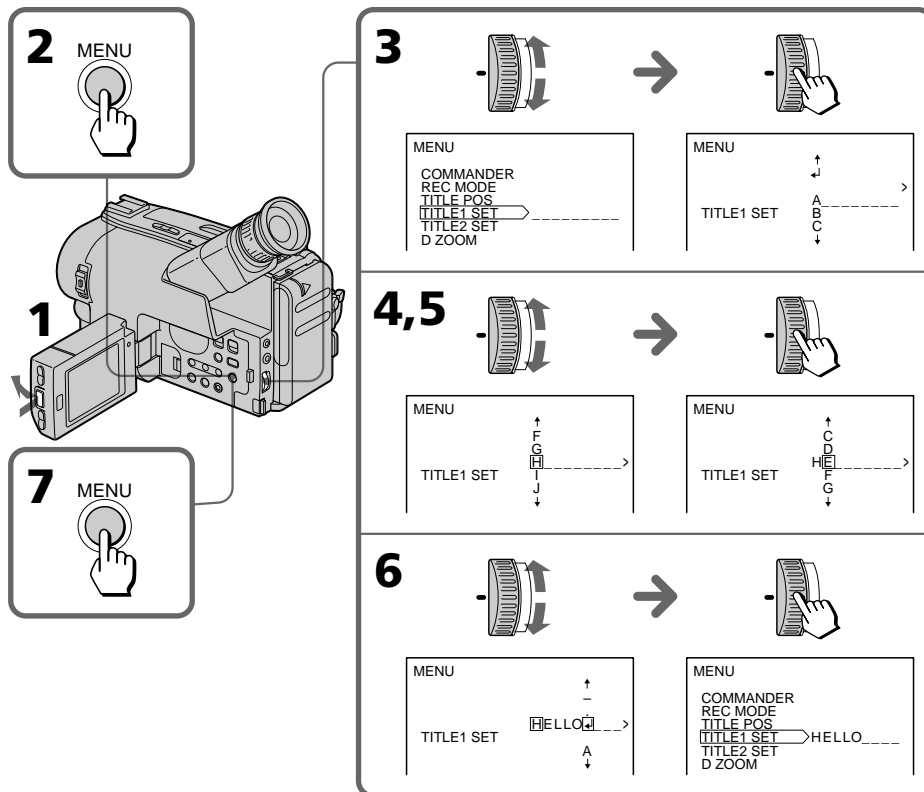
# Making your own titles

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° ÍÖÉÁÚÄ ÖÓÁ%±Ú, %Ö,Ä Ì±%ÖËÖÈ, 22 Äì±± Ì±É%±ñ È Ä±ÌÄÖÚÈ È, Ö±ñÚ.
- â° ÁÍÖÍÄì%ÖÄì, °ÚÖííÚÚ Ì±ÖÖÄÚÚ ÖÄ Ä%Ö ÚÄì, Ì±Í ÖÓÁ%±,±Ú, Ì±%ÖËÖÈ, °ÚÖ° ÖÈÚ±ÈÄ ÌÄ, °í, °±ÍÖÖ, Ö Ö°ÄÖÖÄ ±·ÖÚ°.
- (1) Ç±É±, ÌíÖÖÍÚ PUSH OPEN, ÖÚÍ ÖÈÚÄ Ö±ÌÄ, ÚÄñ.
  - (2) Ç ÚÖ, Äñ, ÍÖ, %±, È%ÖÁÖí±Ä ± Ì±Ö%ÖÈÚÖñ, ÄÈÈÄ, ÖÚÖ,ÍÖÖÚÈ, Ì±ÈÈÚÄ ÌíÖÖÍÚ MENU %ññ ÖÚÖ° ±ÈÄìÈñ ÌÄì.
  - (3) èÖ,Ä ÌÈÚÄ %ÖÖÍ ÚÖ ±ÌÄìÈñ %ññ, °Ö ± TITLE1 SET ÈÈÈ TITLE2 SET, Ä±ÚÄì Ì±ÈÈÚÄ %ÖÖÍ.
  - (4) èÖ,Ä ÌÈÚÄ %ÖÖÍ ÚÖ ±ÌÄìÈñ %ññ, °Ö ± ÈÄì±ÄìÖ, Ö Äì±±, Ä±ÚÄì Ì±ÈÈÚÄ %ÖÖÍ.
  - (5) èÖ,ÚÖ ñÈÚÄ ÖÚÍÚ 4%ÖÚÄì ÖÖ, ÖÖÍ± Ç° ÌÄ Ä±Ä ±ÈÚÄ Ì±%ÖËÖ.
  - (6) èÖ,Ä ÌÈÚÄ %ÖÖÍ %ññ, °Ö ± ↵, Ä±ÚÄì Ì±ÈÈÚÄ %ÖÖÍ. Ç±%ÖËÖ, ·Ú%ÖÄÚ Ä±ÌÄÖÄì±, Ö±ñÚ.
  - (7) Ç±ÈÈÚÄ ÌíÖÖÍÚ MENU, °ÚÖ° Ú%Ö±ÈÈÚ, Èì%ÖÈì±ÈÈ ÌÄì.





## 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 ÌÒÓÍÚ MENU, °·Ä ËÛÄ ì±%ÒËÖË,  
ÍÓÚÓ Û ÍÓÚËÛÄ Û%±ìËÛ, Ë ì±ËìËÛÄ %ËÖÍ.  
Ç°·Ä ËÛÄ  $\leftarrow$  %íñ Ò±ÍÓ,Ó ÍÄ,Ó,Ó Àìì±, Á±ÚÄì  
ì±ËìËÛÄ %ËÖÍ.  
ÇÄ,·Ë ±ËÛÄ ÒÚÒÚÓÄ ÌÄÒÚÓ %íñ Û%±ìËÄì  
Àìì± ÇÒ ÓÚË,ìÓÍÒÍÚ±Ä ÒÚÒÚÓÄ ÌÄÒÚÓ  
·Û%ÄÛ Ä±ìÄÒÄÍÓ, Ò±íñÚ, ì±ì ì±%ÒËÖË,

Ñíñ ËÄìÄìÄìËì ÒÓÁ%±ììÒË Ç±ìË ì±%ÒËÖË  
Ç ÒÚììÚÄ 3, °·Ä ËÛÄ TITLE1 SET ËìË TITLE2  
SET, Á±ËÖËÍÓÓÛË ÓÚ ÚÓ,Ó, ì±ìÚ, ì±%ÒËÖË,  
Ç° ÍÓÚËÛÄ ËÄìÄìËÛ, Á±ÚÄì ì±ËìËÛÄ %ËÖÍ.  
Ç°·Ä ËÛÄ ËÄì±Äì·Ä ·Úì,° ÒìÓ,±.

ÒÒìË Ç° „ÄìË 22 Àìì±, ÒÚììÚÄ 5  
Ç±%ÒËÖË ·Û%ÄÛ Ä±ìÄÒÄì±, Ò±íñÚ, ÚÓÚ±Ò ËÄ  
(ËÇ°ÍÒËÄÛÄ Ò ÒÓÚÒÚËÛ, ÒÚììÚÄ).

ÒÒìË Ò Ë,ÒÚ±,ìÄìÒË ì±ÒÒÄÚÄ ÒÓÁ%±ìËÄ  
ì±%ÒËÖË Ä±ìËì±ÄÚ ·ÓíÄÄ 5 ìËìÚÚ  
ÒÒìË ÄËËì,ÓÚÓ,ÍÓÓËÖÓ ÒÓ%ÒìË±ÄÚÒñ  
·ÓíÄÄ 5 ìËìÚÚ Ò Ë,ÒÚ±,ìÄìÒË ì±ÒÒÄÚÄ,  
ÒËÛ±ìËÄ ±,ÚÓì±ÚË·ÄÒìË,° Ìì·ËÛÒñ.  
ÒÒìË ÒËÛ±ìËÄ,° Ìì·ËÛÒñ,Ó, Äìñ  
ÒÓÁ%±ìËì±%ÒËÖË,ÚÓÚ±ÍÓ,ËÛÄ  
ÒÄ Äìì·±ÚÄì, POWER Òì±·±ì±,  
ÒÓÍÓËÄìËÄ OFF, Á±ÚÄì, ÒÓÍÓËÄìËÄ  
CAMERA. ëÓÁ%±ìì±ñ Ç±ìË ì±%ÒËÖË, ·Û%ÄÛ  
ÒÓÍ ì±ìì±, Ò±íñÚË.

Ä°ÒÚ ÓÄ Ò Ó%„ËËÄìËÄ ÀììÍÓ,  
ÑÄ ËËÛÄ %ËÖÍ ì±Ë±Ú°ì.

ëÓÁ%±ìËìÒÚÒÚÓ,ÓíÄÒÚ±  
Ç°·Ä ËÛÄ ÒÚÒÚÓÄ ÌÄÒÚÓ.ëíÓ  
±ÒÒì±Ú Ë,±ÄÚÒñ ì±ì Àìì.

Advanced operations

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## Watching on a TV screen

## ΕΠΙΒΛΕΨΗ ΣΤΟ ΤΗΛΕΩΡΑΙΟ

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.

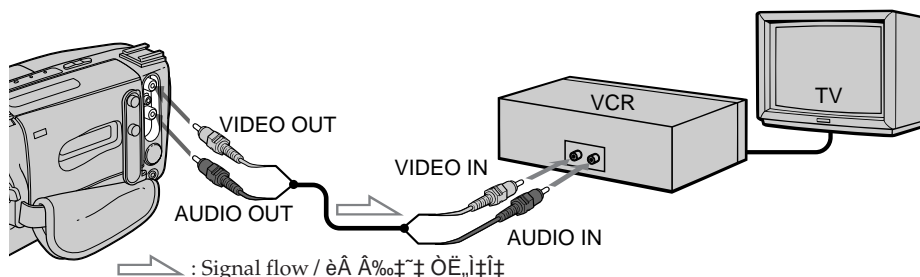
### If your TV is already connected to a VCR

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 στην οθόνη του τηλεωραίου. Όταν παρακολουθείτε την εικόνα που παίζει ο βινιλάκι, συνδέστε το βινιλάκι στο τηλεωραίο ή στο VCR. Συνιστούμε να χρησιμοποιήσετε το ρεύμα του δικτύου ως πηγή ενέργειας. Όταν παίζετε στο τηλεωραίο, κλείστε το LCD. Διαφορετικά, μπορεί να συμβεί παραμόρφωση της εικόνας.

Εάν το τηλεωραίο είναι ήδη συνδεδεμένο στο VCR, ανοίξτε το κάλυμμα των ακουστικών και συνδέστε το βινιλάκι στο LINE IN του VCR χρησιμοποιώντας το παρεχόμενο καλώδιο A/V. Ρυθμίστε τον επιλεκτήρα εισόδου στο VCR στο LINE. Ρυθμίστε τον επιλεκτήρα TV/VCR στο τηλεωραίο στο VCR.

Ανοίξτε το κάλυμμα των ακουστικών και συνδέστε το βινιλάκι στο LINE IN του VCR χρησιμοποιώντας το παρεχόμενο καλώδιο A/V. Ρυθμίστε τον επιλεκτήρα εισόδου στο VCR στο LINE. Ρυθμίστε τον επιλεκτήρα TV/VCR στο τηλεωραίο στο VCR.



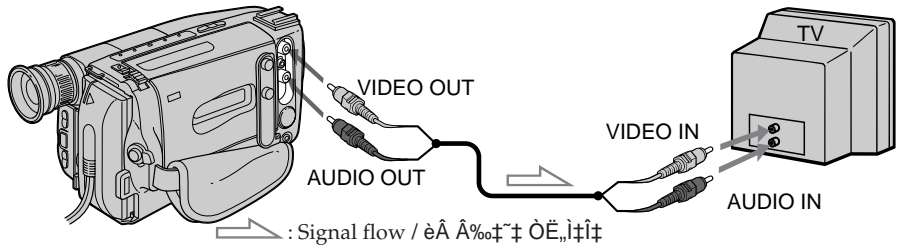
**Watching on a TV screen**

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**If you connect directly to TV**

Connect the camcorder to the inputs on the TV by using the supplied A/V connecting cable. Set the TV/VCR selector on the TV to VCR.

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 έοοοί, άτττττ ο έτττττ, τττττ έ οοά%οειέτττττ ιττττ  
 ιττττ, τττττ έο/έ%οάο. ιούτττττ, έτττττ οάτττττ  
 τττττ ιττττ άτττττ, έάο ά, οοίοέτττττ έάο τττττ.



**To connect to a VCR or TV without Video/Audio input jacks**

Use an RFU adaptor (not supplied).

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 άτττττ, έάο τ .άά, ο%οτττττ, ιάά%ο, έ%οάο/  
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Advanced operations

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## Editing onto another tape

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

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° ÎÓËÁÚÀ ÒÓÁ%±Ù, Ç±Ù ÒÓ·ÒÙ,ÀÌÛÛ, Ë%ÒÁÒÒ Ò,, ±ÌÛ ÒÙÚÁÌ ÎÒÌÙ±Ê± Ò ÒÒÌÒ°  
%Ò Û,,Ò,Ó àÇà ÚËÒ± **8** 8 ÌÌ, **Hi8** Hi8, **VHS** VHS, **S-VHS** S-VHS, **VHS-C** VHSC, **S-VHS-C** S-VHSC ËËÈ **β** Betamax, ÍÓÚÓ °È ËÌÁÁÛ,ÌÒ%° ,È%ÒÁÓ/  
±Ù%ËÒ.

ÌÌÀÌ ÌÈÚÁ ,, ÒÌÍÒÒÙ, Ë%ÒÁÓÌ±ÌÁ °, Ò  
, ÁÌÌ ÎÒÌÙ±Ê±, Ç Ò ÒÙË,ÌÒÌ ÒÌÙ±Á ÌÓ,,ÛÛ  
ÒÒÌ,ËÛ,ÒÌ ËÒÌ±ÊÁÌËÌ.

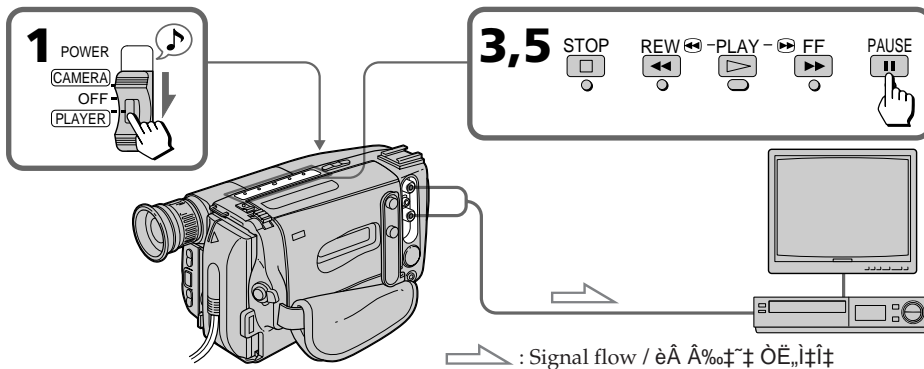
èÒÒÌÁ ÒÓ%ÒÓÁ%ÒËÌÀÌËÌ,È%ÒÁÓÌ±ÌÁ ° Í àÇà,  
(1) ÌÒÙ±ÌÒ,ËÚÁ ,ÌÌ,±ÙÁÌ, POWER Ì±  
PLAYER.

(2) ÇÒÙ±, ÚÁ ÌÈÒÙÛ ÎÀÌÛÛ (ËËÈ ÎÀÌÛÛ,  
ÍÓÚÓ Û Ç° ÌÒÙËÚÁ ÒÁ ÁÁ±ÒËÒ±Ù), àÇà  
È ,ÒÙ±, ÚÁ Á±ÒËÒ±ÌÛ ÎÀÌÛÛ ,  
È%ÒÁÓÌ±ÌÁ Û.

(3) ÇÒÒÒ ÒËÁ,Ò%ËÚÁ Á±ÒËÒ±ÌÛ ÎÀÌÛÛ,  
È%ÒÁÓÌ±ÌÁ Á %Ò ÚÁÌ ÒÒ, ÒÒÌ± Ç° ÌÁ  
Ò-Ì± ÚËËÚÁ ÚÓÍÛ, ÌÓÚÓ ÒË Ç° ÌÒÙËÚÁ  
Ì±±Ù, ÎÒÌÙ±Ê, ± Á±ÚÁÌ Ì±ËËÚÁ **II** %ÌÌ  
,Á%ÒÁÌËÌ,È%ÒÁÓÌ±ÌÁ °, ÁËËÌ Ò±ÚÁ°  
ÒÒÒ ÒËÁÁ%ÒÁÌËÌ.

(4) Ç±È%ËÚÁ Ì± àÇà ÚÓÍÛ Ì±±Ì± Á±ÒËÒË È  
,Á%ÒËÚÁ àÇà, ÁËËÌ Ò±ÚÁ° Á±ÒËÒË.

(5) è%ÒÌÒ, ÁÌÁÌÍÒ Ì±ËËÚÁ **II** Ì±  
È%ÒÁÓÌ±ÌÁ Á È Ì± àÇà %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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èÒ,ÚÓ ÌËÚÁ ÒÙÌÛ° Ò3 ÒÓ5.


ÑÌÌ ÒÒÙ±ÌÒ,± ÎÒÌÙ±Ê±  
Ç±ËËÚÁ **□** È Ì±,È%ÒÁÓÌ±ÌÁ Á, È Ì± àÇà.

**Additional Information**

**Changing the lithium battery in the camcorder**

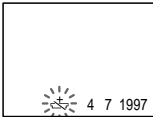
**ΝΟΟΟΙΙΕΥΑΙ, ΙΤΗ ΕΙΥΟ ΙΤ-ΕΗ**

**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 ±Ú± ΑΕΙΟΕ. ΟΟΙΕ ±Ú± ΑΕΙΤ ÒÙ±ΙΑÙ Òì±. ΟΕ ΕΙΕ ΟΟΙΙÓÓ, ±Á ηΕΑΙΙÓΕ ΕΙ%ΕΙ±ÙÓ. Æ. Ù%ΑÙΙΕ, ±Ú, Ε%ΟΕΟΙ±ÙΑΙΑ ΕΙΕ Ι± 'Ι ±ΙΑ ÙΑΝ Ò Ε-ΙΕΑΕΥΑΙ ΙÓ ÙΑ-ΑΙΕΑ 5 ΟΑΙÙΙ%, ΙÓ, %±Ç ÙÓÙ±ÍÓ, ΕΥΑ 'Í ±ÙΑΙ, POWER, ΟΟΙΟΕΑΙΕΑ CAMERA. Ç Ù±ÍΟΙ ΟΙÙ-±Á Α±ΙΑΙΕΥΑ ±Ú± ΑΕΙÙ Ι± ΙΕΥΕΑ, Ù. ±Ú± ΑΕΙÙ Sony CR2025 ΕΙΕ Duracell DL-2025. àÓÓΟΙ, ΑΟ, ±ΙΕΑ % Ù, ΟΕ ±Ú± ΑΕΙΕ ΙÓΕΑÙ Ò Ε, ΑÓÙΕ Ι ΕΟΙÙ, ΟΟΟΙ±ΙΑΙΕΗ ΕΙΕ .Α, ±, αΕΙ, Ε%Ε ÙΕΥΑ ΕΟΟΟΙ, ΑΟ, ±Ι-Α ±Ú± ΑΕΙΕ, ΟÓÓÙ, ΑÙÓÙ, ΕΕ Ο ΕΙÓÙ Ù-ΕΗΙΕ Α± Ο%± ΕΑ, ΟÙÓ, ΕΥΑΗ. αΕΥΕΑ, ηη ±Ú± ΑΕΙ± %οη, Ε%ΑΟΙΤΙΑ ± ÒÙ±ΑÙ Ò Ε-ΙΕΑΕΥΑΙ ΙÓ ÙΑ-ΑΙΕΑ 1, %± Ò Ε ΙÓ Ι±, Ι-Ι ÙΟΙΟ, ΕΗ, 'ΙΟΟΙÙ±Ù± ΕΕ. (αΕΥΕΑ, ΟΕ ±Ú± ΑΕΙΕ, ΙÓÙÓ ηη, 'Ι± ÙÓÙ±ÍÓ, ΙΑΙ± Ι± Α±, Ο%Α, ΙΟΕΑÙ ΙΑ Ι, ±ÚΕÙ, Ι± 1, %ο.)

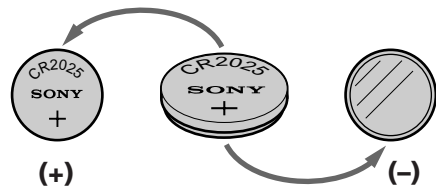


**Notes on lithium battery**

- **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-±ΙΕΗ ΟΥΙΟΟΕΥΑΙ, ΙΟ ΙΕΥΕΑ, ΟΕ ±Ú± ΑΕΙΕ

- 'Ι ±ΙΕΥΑ ΙΕΥΕΑ, Ù. ±Ú± ΑΕΙÙ, ΙΑ ÒÙΑ, ΙΑ %οÓÓÙÓΙΟ%οη%οΑΥΑΕ. Ç ΟΙÙ-±Á, ΑΟΙΕ ΙÙÓ-ΙΕ. Ò Ò Ó ΙÓÙΕΙ ±Ú± ΑΕΙÙ, ΙΑΙΑ%οΑΙΙΟ Ò. ±ÚΕΥΑÓ, Ι ±Ù.
- ΝΗ Ο-ΑΟΟΑ-ΑΙΕΗ ΙÓ Ò-Α, Ó ΙΟΙÙ±Í± Ò ÓÙ ΕΥΑ. ±Ú± ΑΕΙÙ ΟΥΙΟΕΥ±, ±.
- Ç-Α ΕΥΑ ±Ú± ΑΕΙÙ Ò ΟΟΙΟ-ΙΑÙ±ΙΕ ΑΟΙΟ, Ο ΟΕΙ-ΑÙ±, ΕΙ±-Α ΙΟΕΑÙ Ò ΟΕΑΟΕΥΕΙΟ ΟΥΙΟΑΑ±± Ι±ΙΕΑ.
- αΕΥΕΑ, ηη ±Ú± ΑΕΙ± ΕΙΑΑÙ ΟΟΙΟΕΕΥΑΙ, 'Ι Ε ΟΟΙ, Ò (+) Ε ÓÙ Ε-±ÙΑΙ 'Ι Ε ΟΟΙ, Ò (-). èοηΙΕΥΑ, ~ÙÓ ~ÙÓ ΙΕΥΕΑ, Ù. ±Ú± ΑΕΙÙ ΟΙΑ%οΑÙ ±ÒÓΟΙ±, ±Ù, ΟΟΙΟΕΕΥΑΙ, 'Ι ΟΟΙ, ΟΟΙ Ι± ÙΕÙ.



**WARNING**

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

ÈÈ ÒÑìèè Ò Ñ Ò Ç à Ò ÒΟΙΕ Ò ±Ú± ΑΕΙΟΕ ΙΑ Ò ±ΕΙ, ΙÓ Ò. ±±Ù, Òη, Οì± ΙΟΕΑ, ΑΟ, ±Ù, Òη, ÇÁ ÒÁ ΑΑ± ηΕ±Ù, ΙΑ ±Α-Ε ±Ù, ΕΙΑ- ÒÓ±Ù, ±Ú± ΑΕΙÙ, Ò, ÒΙ.

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 as a percentage of the fully charged battery level. The battery level indicator shows 0% when the battery pack is completely discharged.

### Additional information

The battery level indicator shows the remaining battery level as a percentage of the fully charged battery level. The battery level indicator shows 0% when the battery pack is completely discharged. The battery level indicator shows 100% when the battery pack is fully charged.

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The battery level indicator shows the remaining battery level as a percentage of the fully charged battery level. The battery level indicator shows 0% when the battery pack is completely discharged. The battery level indicator shows 100% when the battery pack is fully charged.

Additional information

## 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.

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

### 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.

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

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.

## 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

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.

### 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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īō īā ēōōōī,āó,†īōfl %ōīēūāī,īōā, āfl  
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†ú† āēīō,,ō †īō† †ū%ōāū īō ō°, †āī  
ō.†īō. ēōōīā īāōīōī,īē †ēīō, ā† fl%ōīē  
ē †ā fl%ōīē ō ōī ōīūē. †ú† āēīō,,ō †īō†  
ōōōū†īō,ēūōfl,ōōōū,āūōū,ēēōōō,ōāē  
ōā,ō†††ī,īōē āīīōōū,,.

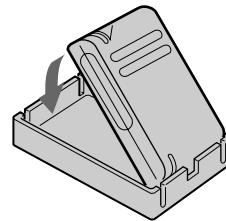
ē ēīā~†īēfl ōūīōōēūāī,īō  
īōīū†īūō,

ōōīē īōīū†īū° (īāū†īē~āōīēā †ōūē ī†  
ā†%ōīāē †ōūē) ā†, flāīāī°,  
ō ō%ōōīēēūāī,īōōū, ā† fl%ō† †ú† āē  
ōōī †ūēūōfl. ōōīē īōīū†īū° ā†, flāīāī° ēīē  
āōīē †ú† āēī°ē †īō† īā ēōōōī,āó,†īōfl  
%ōīēūāī,īōā, āfl,ōō,ūō ēūā ūōū†īō,īū ē  
ōīflūēā †ú† āēīō,,ō †īō† īāōīōī,īō †ā.  
ūūō ūīū†āū ōōōūōflēā īōīū†īūō,,  
ē ōū ēūā ū†īēā īōīū†īū° + ē - fl,īōē  
ū††,, ēīē ō†īūāūīōē.

çā ā†.ū%ō,ūā ōō.ī,%ō†ū, ōīā%ōū,~āā

- Nīfl ō ā%ōōū, †āīēfl īāō†ōūīō,,ō  
ōīū~†fl, †ā,†īō,,ō īō ōūīēī  
ā†††īēāī, īā %ōōōūōī†ēūā, †ūō.  
īāū†īē~āōīēā ō.āīū°, ū†īēā, ††  
ōēā āīā, ō ēī†ō†īēō īōīū†īū†  
†ú† āē. çōōēūā †ú† āēī°ē †īō† ō  
ī.†īōē %ōīfl īōīū†īūō. [b]
- †īēūā †ú† āēī°ē †īō†, %ō†īē ōū ō,,fl.
- †īēūā †ú† āēī°ē †īō†, ōū,ōī,ē%ōā,
- çā ōūī,†ēūā ē īā ō†ēūāō, †āō. †ū,  
†ú† āēī°ē †īō†.
- çā ōō%ō,ā, †ēūā †ú† āēī°ē †īō† ††ēī-  
īē.ō īā†īē~āōīēī ū%ō† †ī,ōā%ōāēōū,ēfl.

[b]





# Maintenance information and precautions


àìÙÓ Ì±Èñ ÒÓ ÙìÓ%Ù Á±±ÒÔ±-  
±ÙÓÈÖ Å%ÒÙÓ ÒÈìÓÙÈ

## Moisture condensation

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

### Inside the camcorder

When the  and  indicators flash, moisture has condensed inside the camcorder. If this happens, no other functions except for tape ejection will work.

**Eject the tape, turn off the camcorder and leave it with the cassette compartment open for at least one hour.** The camcorder can be used again if the  indicator does not appear when the power is turned on again.

### On the lens

If moisture condenses on the lens, no indicator appears, but the picture becomes dim. Turn off the power and do not use the camcorder for about one hour.




### How to prevent moisture condensation

When bringing the camcorder from a cold place to a warm place, put the camcorder in a plastic bag and allow it to adapt to room conditions over a period of time.

- (1) Be sure to tightly seal the plastic bag containing the camcorder.
- (2) Remove the bag when the air temperature inside it has reached the temperature surrounding it (after about one hour).

## äÓì%ÀìÒ±Èñ ,ì±,È

ÒÒìÈ,È%ÀÓì±Ì ±,ÌÀÒÀì±ÌÀÒÓÓ À%ÒÙ,ÀìÒ ÈÁ ìÓìÓ%ìÒ,ÒÌÀÒÙ±,ÚÁÒìÒÁ,ìÙÙ È,È%ÀÓì±Ì ° ÌÓÈÁÙ ìÓì%ÀìÒÈ Ò,±Ù,Òñ ,ì±,±, ± Ù±ÌÈÁ ì± ÒÓ,À ììÒÙÈ ÌÁìÙ ° ÈìÈ ì± Ò·ÁìÙÈ,À. è È Ù±ìÓì ÙÒìÓ,ÈÈ, ÌÁìÙ± ÌÓÈÁÙ Ò ÈìÈÒìÙÙ, Ì ± ±,±ìÙ,ÒìÓ,ìÈ È ·Ù%ÀÙ ÒÓ, ÀÈ%Àì± ÈìÈ ÈÁ,È%ÀÓì±Ì ÌÓÈÁ ±·ÓÙ±Ù, ÌÀÒ ±,Èì ìÒ. Ñìñ Ò À%ÒÙ, ±·ÁìÈñ ,ÒÁìÒÈìÒ,Ò ÒÓ, ÀÈ%ÀìÈñ ,,È%ÒÙ Ù±ÌÈ Ò·ÓÙÒñÙÁì ÒÙ,,È%ÀÓì±Ì Ù,ÒÙ ÒÁì ° %±Ù·ÈìÈ, Ì±,È. è Ò·ì,%±ÈÙÁ ÒìÁ%ÒÙ,·ÈÁ Ò·À%ÒÙÓÙÈÈÖÙÈ

ÇìÙÙ È,È%ÀÓì±Ì ° ÒÒìÈ ÌÈ,± Ù  Èì%Èì±ÙÓ ° È  ,ìÙÙ È,È%ÀÓì±Ì ° Ò ÒÈÁÓ·ì ìÓì%ÀìÒ±Èñ ,ì±,È. Ç ÒìÙ·±Á, ÀÒìÈ ~ÙÓ Ò ÒÈÁÓ·ìÓ, ìÈ Ò%ì±ÈÁ ÙÙìì·ÈÈ, Ì ÒìÁ, ° Ù±ÌÈÈ,±ìÈñ Ì±ÒÒÁÙ °, ÌÁ·Ù%ÀÙ ±·ÓÙ±Ù,, è Ùì ÒÈÙÁ ÒÙÒÁì Ì±ÒÒÁÙ °, ° Ìì·ÈÙÁ,È%ÀÓì±Ì Ù È ÒÒÙ±,ÚÁ ÁÁ Ò ÈìÁ ìÒ ì± Ò%Èì ~±Ò. ÇÈ%ÀÓì±Ì ± òìÓ,± ÌÓÈÁÙ ·Ù, ÈÒÒÒì,ÁÓ,±±, ÀÒìÈ Èì%Èì±ÙÓ  ÌÁ ÒÓñ,ÈÙÒñ, ÌÓ,,%± ÒÈÙ±ìÈÁ ·Ù%ÀÙ, Ìì·ÁìÒ ÒÒñÙ.

ç± Ò·ÁìÙÈ,À ÒÒìÈ,ì±,± òìÓì%ÀìÒÈ Ò,±ì±Ò, ì± Ò·ÁìÙÈ,À, ÙÓ ÌÈì±ì± Èì%Èì±Èñ ÒÓñ,ìñÙ,Òñ ÌÁ ·Ù%ÀÙ, ÌÒ ÈÁÓ· ±ÈÁìÈÁ ÒÙ±ìÒ,ÈÙÒñ ÙÙÒìì·ì. è Ùìì·ÈÙÁ ÒÈÙ±ìÈÁ È ÌÁ ÈÒÒÒì,ÁÙÈÙÁ,È%ÀÓì±Ì Ù, ÚÁ·ÁìÈÁ 1 ~±Ò±.

- ä±ì Ò À%ÒÙ, ±ÙÈÙ, ìÓì%ÀìÒ±Èñ, Ì±,È È È,ÌÀÒÀìÈÈ,È%ÀÓì±Ì ° Ò ìÓìÓ%ìÒ,Ò ÌÀÒÙ±,ÚÁÒìÒÁ ÒÒìÓÈÈÙÁ,È%ÀÓì±Ì Ù, ÒÒìÈ·ÙÈìÁìÒ,È Ò±ìÁÙ È %±ÈÙÁ ÀÈ,ÒÁìÒÈìÒÙÙ, ±%±ÒÙÈ Ò,±Ù,Òñ Ì ÌÓìì±Ùì·ì ÙÒìÓ,Èñì,ÚÁ·ÁìÈÁ ÒÒ À%ÀìÁìÒ,ÒÒÁ ÈÓ%±, ÁìÁìÈ.
- (1) ÇÁ Á±·Ù%Ù,ÚÁ,,Á ÌÁÙÈ·ìÓ Á±,ñÁ±Ù, ÒÒìÈ·ÙÈìÁìÒ,È Ò±ìÁÙ, ÒÒ%Á È±ÈÈ,È%ÀÓì±Ì Ù.
  - (2) èìÈìÈÙÁ Ò±ìÁÙ, ÌÓ,,%± ÙÁìÒÁ ±ÙÙ ±,ìÙÙ È ÌÁ,Ò%ÒÓÙÈ,,ÌÁÙÙÁìÒÁ ±ÙÙ ° Òì ÙÈ±,·ÀÈ Ò À%° (Ò ÈìÁ ìÒ ÒÒÙÒÙñ 1 ~±Ò).


Additional information NòòòìèÙÁì,ì±ñ ÈìÙÓ Ì±Èñ

**Maintenance information and precautions**

αὐτὸ ἰσχύει καὶ ἐν ᾧ ἔχεται ἡ  
 ἰσορροπία τοῦ ὀπίσθιου ὀφθαλμοῦ.

**Video head cleaning**

ἡ ἰσορροπία τοῦ ὀπίσθιου ὀφθαλμοῦ

To ensure normal recording and clear pictures, clean the video heads. When  appears in CAMERA mode or playback pictures are "noisy" or hardly visible, the video heads may be dirty.

ἡ ἰσορροπία τοῦ ὀπίσθιου ὀφθαλμοῦ  
 ἔχει ἄλλοτε ἄλλοτε ἰσορροπία καὶ ἄλλοτε  
 ἄλλοτε ἰσορροπία. ἡ ἰσορροπία τοῦ  
 ὀπίσθιου ὀφθαλμοῦ ἔχει ἄλλοτε ἄλλοτε  
 ἰσορροπία καὶ ἄλλοτε ἄλλοτε ἰσορροπία.  
 ἡ ἰσορροπία τοῦ ὀπίσθιου ὀφθαλμοῦ  
 ἔχει ἄλλοτε ἄλλοτε ἰσορροπία καὶ ἄλλοτε  
 ἄλλοτε ἰσορροπία.



[a]



[b]

[a] Slightly dirty

[b] Dirty

If this happens, clean the video heads with the Sony V8-25CLH cleaning cassette (not supplied). After checking the picture, if it is still "noisy", repeat the cleaning. (Do not repeat cleaning more than 5 times in one session.)

**Caution**

Do not use a commercially available wet-type cleaning cassette. It may damage the video heads.

**Note**

If the V8-25CLH cleaning cassette is not available in your area, consult your nearest Sony dealer.

[a] ἡ ἰσορροπία τοῦ ὀπίσθιου ὀφθαλμοῦ

[b] ἡ ἰσορροπία τοῦ ὀπίσθιου ὀφθαλμοῦ

ἡ ἰσορροπία τοῦ ὀπίσθιου ὀφθαλμοῦ  
 ἔχει ἄλλοτε ἄλλοτε ἰσορροπία καὶ ἄλλοτε  
 ἄλλοτε ἰσορροπία. ἡ ἰσορροπία τοῦ  
 ὀπίσθιου ὀφθαλμοῦ ἔχει ἄλλοτε ἄλλοτε  
 ἰσορροπία καὶ ἄλλοτε ἄλλοτε ἰσορροπία.  
 ἡ ἰσορροπία τοῦ ὀπίσθιου ὀφθαλμοῦ  
 ἔχει ἄλλοτε ἄλλοτε ἰσορροπία καὶ ἄλλοτε  
 ἄλλοτε ἰσορροπία.

ἡ ἰσορροπία τοῦ ὀπίσθιου ὀφθαλμοῦ

ἡ ἰσορροπία τοῦ ὀπίσθιου ὀφθαλμοῦ  
 ἔχει ἄλλοτε ἄλλοτε ἰσορροπία καὶ ἄλλοτε  
 ἄλλοτε ἰσορροπία. ἡ ἰσορροπία τοῦ  
 ὀπίσθιου ὀφθαλμοῦ ἔχει ἄλλοτε ἄλλοτε  
 ἰσορροπία καὶ ἄλλοτε ἄλλοτε ἰσορροπία.  
 ἡ ἰσορροπία τοῦ ὀπίσθιου ὀφθαλμοῦ  
 ἔχει ἄλλοτε ἄλλοτε ἰσορροπία καὶ ἄλλοτε  
 ἄλλοτε ἰσορροπία.

ἡ ἰσορροπία τοῦ ὀπίσθιου ὀφθαλμοῦ

ἡ ἰσορροπία τοῦ ὀπίσθιου ὀφθαλμοῦ  
 ἔχει ἄλλοτε ἄλλοτε ἰσορροπία καὶ ἄλλοτε  
 ἄλλοτε ἰσορροπία. ἡ ἰσορροπία τοῦ  
 ὀπίσθιου ὀφθαλμοῦ ἔχει ἄλλοτε ἄλλοτε  
 ἰσορροπία καὶ ἄλλοτε ἄλλοτε ἰσορροπία.  
 ἡ ἰσορροπία τοῦ ὀπίσθιου ὀφθαλμοῦ  
 ἔχει ἄλλοτε ἄλλοτε ἰσορροπία καὶ ἄλλοτε  
 ἄλλοτε ἰσορροπία.

**Maintenance information and precautions**

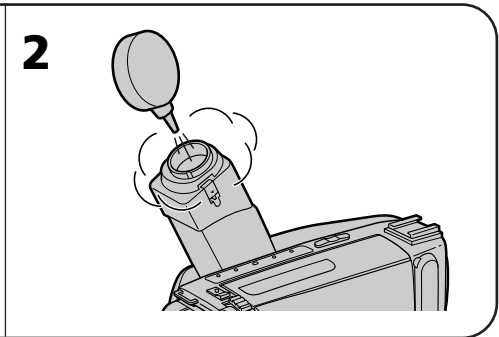
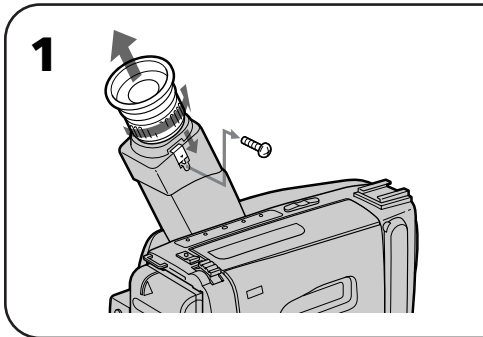
αὐτὸ ἰσχύει ὅσο ὑπόλοιπα  
 ἰσοσταθμιστικά ἔχουν ὀφείλει

**Removing dust from inside the viewfinder**

ἰσοσταθμιστικά ὀφείλει  
 ἔχουν ὀφείλει

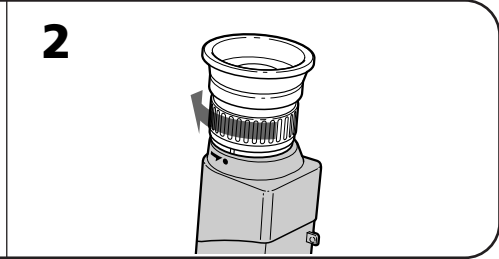
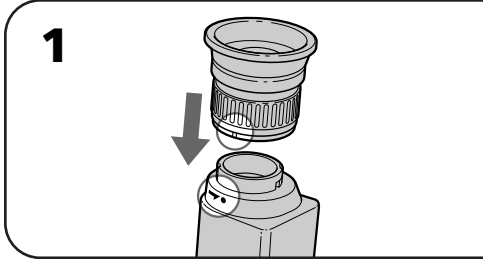
- (1) Remove the screw with a screwdriver (not supplied). Then, while sliding the RELEASE knob, turn the eyecup in the direction of the arrow and pull it out.
- (2) Clean the surface with a commercially available blower.

- (1) ἀφαιρέστε τὸ ὀφθαλμιοκίνητο ἔκδοχο (ἀφαιρέστε τὸ ὀφθαλμιοκίνητο ἔκδοχο). Ἐνῶς ὁ ἀφαιρέτης ὀφθαλμιοκίνητος ἀφαιρᾶται, στρέψτε τὸ ὀφθαλμιοκίνητο ἔκδοχο ἐν τῇ κατεύθυνσιν τοῦ βέλτου καὶ ἀφαιρέστε τὸ ὀφθαλμιοκίνητο ἔκδοχο.
- (2) Ἐκκαθαρίστε τὴν ὀπίσθια ὀφθαλμιοκίνητος ἔκδοχο μετὰ ἕνα ἐμπορτικὸν ἀπορροφητικὸν ἀερίον.



- To reattach the eyecup**
- (1) Align the groove on the eyecup with the mark on the barrel.
  - (2) Turn the eyecup in the direction of the arrow.
  - (3) Replace the screw.

- Ἡ ὀπίσθια ὀφθαλμιοκίνητος ἔκδοχο ἔχει ἕνα ἄνοιγμα ἔνθεν ὁ ὀφθαλμιοκίνητος ἔκδοχο ἀφαιρᾶται.
- (1) Ἐξισωτε τὴν ὀπίσθια ὀφθαλμιοκίνητος ἔκδοχο ἐν τῇ κατεύθυνσιν τοῦ βέλτου.
  - (2) Ἐκκαθαρίστε τὴν ὀπίσθια ὀφθαλμιοκίνητος ἔκδοχο μετὰ ἕνα ἐμπορτικὸν ἀπορροφητικὸν ἀερίον.
  - (3) Ἰσοσταθμίστε τὸ ὀφθαλμιοκίνητο ἔκδοχο.



**Caution**  
 Do not remove any other screws. You may remove only the screw to remove the eyecup.

Ὁ ὀφθαλμιοκίνητος ἔκδοχο  
 ἔχει ἕνα ἄνοιγμα ἔνθεν ὁ ὀφθαλμιοκίνητος ἔκδοχο ἀφαιρᾶται. Ἐνῶς ὁ ὀφθαλμιοκίνητος ἔκδοχο ἀφαιρᾶται, στρέψτε τὸ ὀφθαλμιοκίνητο ἔκδοχο ἐν τῇ κατεύθυνσιν τοῦ βέλτου καὶ ἀφαιρέστε τὸ ὀφθαλμιοκίνητο ἔκδοχο.

Additional information ἰσοσταθμιστικά ἔχουν ὀφείλει ἰσχύει









## Maintenance information and precautions

## àìÚÓ ì±Èñ ÒÓ ÙìÓ%Ù Á± ±ÓÓ± ±ÚÓÈÒ Á%ÒÓÚÓ ÒÈìÓÙÈ

- The unit becomes warm while in use. This is normal.
- Do not place the unit in locations that are:
  - Extremely hot or cold
  - Dusty or dirty
  - Very humid
  - Vibrating

### Notes on the dry batteries

To avoid possible damage from battery leakage or corrosion, observe the following.

- Be sure to insert the batteries in the correct direction.
- Dry batteries are not rechargeable.
- Do not use a combination of new and old batteries.
- Do not use different types of batteries.
- The batteries slowly discharge while not in use.
- Do not use a battery that is leaking.

### If battery leakage occurred

- Wipe off the liquid in the battery compartment carefully before replacing the batteries.
- If you touch the liquid, wash it off with water.

If any difficulty should arise, unplug the unit and contact your nearest Sony dealer.

- ÀÓÓ± ±Ú ÓÙ±ìÓ,ÈÚÒñ ÙÁÒì°ì, Ó, Áññ ÈÒÓÓì,ÁÓ,±ìÈñ. ùÚÓ ñ,ññÁÙÒñ ì Ó ì±ì, ì°ì.
- ÇÁ ±ÁìÁ±ÈÙÁ ±ÓÓ± ±Ú, ìÁÒÙ±, ìÓÚÓ °Á:
  - ì±ÈìÁ „Ó ñÈÁ ÈìÈ ìÓìÓ%ìÁ
  - Ó°ì ì°Á ÈìÈ „ ñÁì°Á
  - Ó°Áì „ì±Èì°Á
  - ÓÓ%„Á ÈÁì° „È±ÈÈ

- è ÈìÁ±ìÈñ ÒÙìÓÒÈÙÁì, ìÓ ±Ú± ÁÁì ÓÙìÓ„ÓÙÈÒ±
- ÇÓ ÈÁ.ÁÈ±ìÈÁ, ÓÁìÓÈìÓ, Ó ÓÓ, ÁÈ%ÁìÈñ ,ÓìÁ%ÒÙ,ÈÁ ÙÙÁ°ìÈ, ìÙÙ ÁììÁ„Ó „Á°ÀÓÙ,± ÈÁ ±Ú± ÁÁìÈìÈìÓ ÓÁÈÈ ÓÓ.ì%±ÈÙÁ ÒìÁ%Ù.ÈÁìÁ °Á%ÒÓÚÓ ÒÈìÓÙÈ.
- èÓ.ì%±ÈÙÁ Ó ±Èì, ìÙ, ÒÓñ ìÓÒÙ, Ó È ÙÒÙ±ìÓ,ìÁ ±Ú± ÁÁì.
  - Á±Ú± ÁÈìÈÒÙìÓ, ÓÙÈÒ±ìÁÒÓ%ìÁÈ±Ù ÓÁÁ±ñ%ìÁ.
  - ÇÁ ÈÒÓÓì,ÁÙÈÙÁ, ìÁÒÙÁ ìÓ, Á È ÓÙ± °Á ±Ú± ÁÈìÈ.
  - ÇÁ ÈÒÓÓì,ÁÙÈÙÁ, ìÁÒÙÁ ±Ú± ÁÈìÈ ±ÁìÓ, Ó ÙÈÒ±
  - Á±Ú± ÁÈìÈÒÓÙÁÒÁììÓìÁ%ìÁììÓ ±Á ñÈ±. ÙÒñ, ÁÒìÈ ìÁ ÈÒÓÓì,ÁÙ. ÙÒñ.
  - ÇÁ ÈÒÓÓì,ÁÙÈÙÁ ±Ú± ÁÁì, ÈÁ ìÓÚÓ °ì ÈìÁÁÙ ìÁÒÚÓ ÙÙÁ°ìÈ, ìÙÙ ÁììÁ„Ó „Á°ÀÓÙ,±

- Ç ÓìÙ±Á ÙÙÁ°ìÈ, ìÙÙ ÁììÁ„Ó „Á°ÀÓÙ,± ÈÁ ±Ú± ÁÁì
- è ÁÈ%Á, °Áì ÙÒÙ±ìÓ,ÈÙ. ìÓ, °Á ±Ú± ÁÈìÈ, Ù±ÙÁì ìÓÒ ÓÙ ÈÙÁÓÙÒÁì.±Ú± ÁÁìÓÙ ÈÈ%ìÓÙÈ.
  - ÇÓìÙ±Á Ò Èì±ò±ìÈñìÈÈ%ìÓÒÙÈÒ ÒìÓÈÙÁ ÁÁÓ%ÒÈ.

ÇÒìÙ±ÁÙ Ù%ìÓÒÙÁÈÓÙÒÓÁ%ÈìÈÙÁ±Òò± ±ÙÈ Ó. ±ÙÈÙÁÒ, Ç±Á ìÈÈ±È°Á ±„ÁìÙÒÙ, Ó Sony.

# Using your camcorder abroad

àÒÒÓÏ,ÁÓ,±ÈÄ Ç±-ÄÈ  
,È%ÁÓÍ±ÏÄ ° 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.

ä±È%±ñ ÒÙ ±ì± ÈÏÈ Ó-ì±ÓÙ, ÈÏÄÄÙ Ò,Ó  
ÓÓ-ÓÙ,ÄìÛ, ÒÈÓÙÄÏÛ ÍÄÏÛ È-ÄÓÍÓÈ ÓÄÛÈ È  
ÒÈÓÙÄÏÛ,ÄÛÍÓ,,ÓÙÄÏÄ,È%ÄÏÈñ. èÄ Ä%  
ÈÓÓÓÏ,ÁÓ,±ÈÄÏ Ç±-ÄÈ ,È%ÁÓÍ±ÏÄ ° Á±  
Û-ÄÈÓÏ Ò Ó,Ä ,ÚÄ ÓÍÄ%Ù,ÈÄ ÓÛÏÛ:

## àÒÙÓ-ìÈÏÈ ÒÈÛ±ÏÈñ

Ç° ÌÓÈÄÙÄ ÈÒÓÓÏ,ÁÓ,±Ù, Ç±Û  
,È%ÁÓÍ±ÏÄ Û ,Ï-ÓÈ ÓÙ ±ÏÄ ÈÏÈ Ó-ì±ÓÙÈ Ò  
Ò ÈÏ±,±ÄÏ Ì ÓÄÙÄ,,ì ±%±ÓÙÄ ÓÏ ÓÄ ÄÏ.  
ÓÓÏ± ,Ò Ä%ÄÏ± ÒÙ 110 Ç%Ó 240 Ç ÓÄ ÄÏ.  
ÓÓÏ±, 50/60 È°.

## è±ÄÏÈ-Èñ , ÒÈÓÙÄÏ± Ì,ÄÛÍÓ,,Ó ÚÄÏÄ,È%ÄÏÈñ

Ñ±Ï±ñ ,È%ÁÓÍ±ÏÄ ± ÓÓÍÓ,±± Ì± ÒÈÓÙÄÏÄ  
PAL. ÓÓÏÈÇ° ÌÓÙÈÛÄ Ó ÓÓÍÓÙ ÄÛ,  
ÓÓÓ ÓÈÄ,Ó%ÈÏÓÄÈÄÓ. ±ÄÏÈÄÏ±  
ÚÄÏÄ,ÈÄÓ Ä, Óì %ÓÏÈÄÏ .Û, ÓÓÍÓ,± Ì±  
ÒÈÓÙÄÏÄ PAL ÈÏÈ ÈÄ Ì± ÒÈÓÙÄÏÄ SECAM Ò  
Û ±ÏÓÍ%Ä ÓÏPAL-SECAM:è Ó,Ä ,ÚÄ  
ÓÍÄ%Ù,ÈÈÈÓÈÓÓÏ.

### èÈÓÙÄÏ± PAL

Ä,ÓÙ ±ÏÈñ, Ä,ÓÙ Èñ, ÄÄÏ,,Èñ,  
ÇÄÏÈÍÓ- ÈÛ±ÏÈñ, ÈÄ Ì±ÏÈñ, ÈÓÏ±%Èñ,  
ÈÓÍÓÍ,, Ñ±ÏÈñ, àÒÓ±ÏÈñ, àÙ±ÏÈñ, àÈÛ±È,  
àÛ,ÄÈÛ, à±Ï±ÈÄÈñ, ÇÓ,±ñ áÄÏ±%Èñ,  
ÇÓ,Ä,,Èñ, èÓ ÛÛ,±ÏÈñ, èÈÏ,±ÓÙ , Ì±ÈÏ±%  
ÏÈÏñ%Èñ, ò,Ä-Èñ, ò,ÄÈ-± Èñ, È %.

### èÈÓÙÄÏ± PAL-M

Ä ±ÄÈÏÈñ

### èÈÓÙÄÏ± PAL-N

Ä,,ÄÏÛÈÏ±, è± ±,,±È, Ì Û,,±È

### èÈÓÙÄÏ± NTSC

Ä±,±ÏÓÈÄ ÓÓÙ Ó,±, ÄÓÏÈ,Èñ, ÇÄÏÄÒÛ-Ï±,  
à±±%±, äÓÏÛÏ-Èñ, äÓ Äñ, áÄÏÓÈÏ±, èÄ Û,  
èÛ ÈÏ±Ï, èòÄ, Ì±È,±Ï, ÌÈÏÈÓÓÈÏ,  
ñÄÏÛ ±Ï,Ï±ñ ÄÏÄ ÈÏ±, óÈÏÈ, ùÏ,±%Ó ,  
ÛÏ±ÈÏ±, ÛÓÓÏÈñ È %.

### èÈÓÙÄÏ± SECAM

ÄÓÏ,± Èñ, ÇÄÏ,, Èñ, È±È±Ï±, à ±Ï, à ±Ï,  
àÓÏ±ÍÓ, èÓÏ,±, èÓÓÓÈñ, èÏÓ,±Ï±ñ  
èÄÓÓÛ-ÏÈÏ±, ÌÏ ±ÈÏ±, Ì ±Ï-Èñ, óÄ-ÓÏ±ñ  
èÄÓÓÛ-ÏÈÏ±È%.

Additional information

## 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>

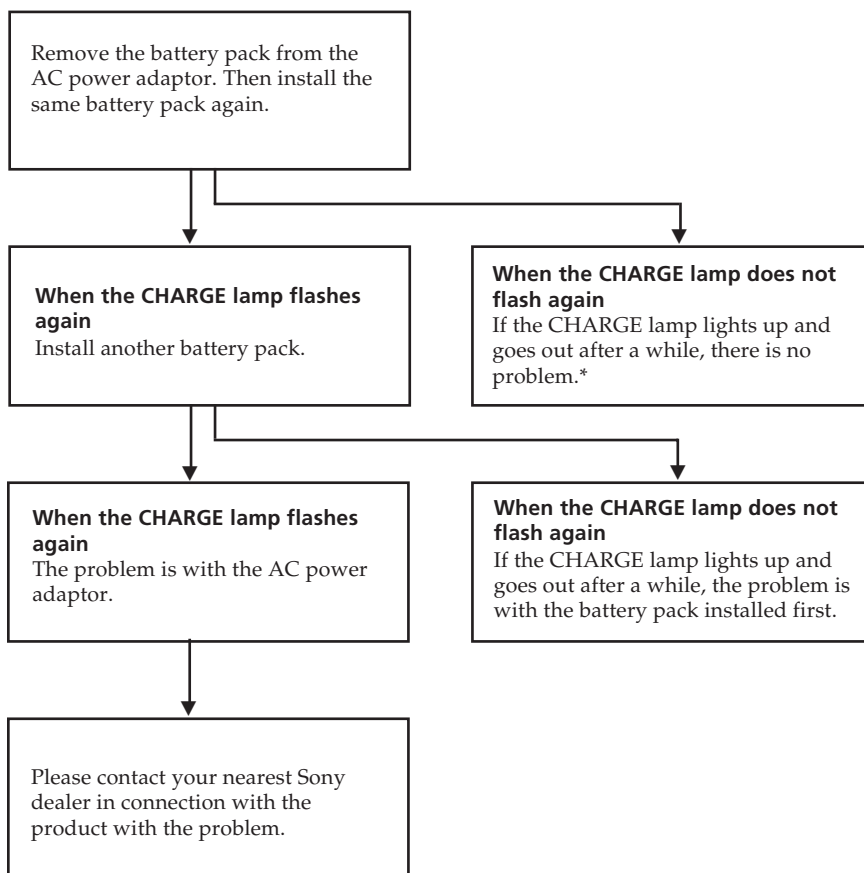
## Trouble check

### 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,ÚÓ ÌÓÈ ÙÓÚ±ÍÓ,ÌÈ Í±ÒÒÄÙ°.</li> </ul>
àÒ·ÄÄ±ÄÙÈÌ%ÈÌ±ÚÓ %±Ù° ÈÌÈ , ÄÌÄÌÈ.	<ul style="list-style-type: none"> <li>• èÌÓ,±ÙÓÚ±ÍÓ,ÈÙÄ%±ÙÈ, 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,ÌÄÌ, ÓÓÍÓÈÄÌÈÄ OFF. → ìÓÚ±ÍÓ,ÈÙÄ, °ÍÌ, ±ÙÄÌ, STEADY SHOT, ÓÓÍÓÈÄÌÈÄ ON. (ÓÚ . 45)</li> <li>• ìÙÌÍÈfl SteadyShot ÎÄ ±.ÓÚ±ÄÙ, ÒÌÙ·±Ä, ÄÒÌÈ È ÓÍÓ·Í ±ÌÈÈ ÄÈÈÌ ÙÓÚ±ÍÓ,ÌÄÌ, ÓÓÍÓÈÄÌÈÄ 16:9FULL. (ÓÚ . 39)</li> </ul>
çÄ ±.ÓÚ±ÄÙ ÙÙÌÍÈfl ±.ÓÚ±ÙÈÈ·ÄÓÍÓÈÙÓÍÙÒÈ Ó,ÌÈ.	<ul style="list-style-type: none"> <li>• èÄ ÄÌÌ, ±ÙÄÌ, FOCUS ÙÓÚ±ÍÓ,ÌÄÌ, ÓÓÍÓÈÄÌÈÄ MANUAL. → ìÓÚ±ÍÓ,ÈÙÄ Ä,Ó, ÓÓÍÓÈÄÌÈÄ AUTO. (ÓÚ . 41)</li> <li>• ìÓÍÓ,Èfl Ò·ÄÌÈÈ fl,fl ÙÓfl ÎÄÓÓ%ÌÓ%flÈÈ %fl ±.ÓÚ±ÙÈÈ·ÄÓÍÓÈÙÓÍÙÒÈ Ó,ÌÈ. → ìÓÚ±ÍÓ,ÈÙÄ ÒÄ ÄÌÌ, ±ÙÄÌ, FOCUS, ÓÓÍÓÈÄÌÈÄ MANUAL %fl ÙÓÍÙÒÈ Ó,ÌÈ, Ù·Ì. (ÓÚ . 41)</li> </ul>
ä±ÖÈÒ, ÓÓÚ±Ì±,ÌÈ,±ÄÙÓfl ·Ä ÄÄ ÎÄÓÍÓÍ,ÌÓ ÓÄÌÙÌ%.	<ul style="list-style-type: none"> <li>• èÄ ÄÌÌ, ±ÙÄÌ, START/STOP MODE ÙÓÚ±ÍÓ,ÌÄÌ, ÓÓÍÓÈÄÌÈÄ <u>⏏</u> ÈÌÈ 5SEC. → ìÓÚ±ÍÓ,ÈÙÄ Ä,Ó, ÓÓÍÓÈÄÌÈÄ <u>⏏</u>. (ÓÚ . 33)</li> </ul>
è%ÈÌÙÓÚÓÓÓÍÓÈÄÌÈÄ ÈÌÈÈÈ ÙÄÌÓÈ±%ÓÈÖÈ.	<ul style="list-style-type: none"> <li>• èÄ Ä% Ì±%ÖÈÒ, ÈÌÈ ÓÓÓÌÄ ÎÄÄ ÈÌÄ ÙÓfl ÓÙÓÚ·Ä ÎÄÓÚ±. → ì%±ÌÈÙÄ ÈÌ, ± Ä±ÙÄÌ, °Ä ÈÙÄ <u>⏏</u>.</li> </ul>
çÄ ±.ÓÚ±ÄÙ ÙÙÌÍÈfl, Ä%ÄÌÈfl/ , Ä%ÄÌÈÈÈ ÈÁÓ. ±ÈÄÌÈfl.	<ul style="list-style-type: none"> <li>• èÄ ÄÌÌ, ±ÙÄÌ, START/STOP MODE ÙÓÚ±ÍÓ,ÌÄÌ, ÓÓÍÓÈÄÌÈÄ 5SEC ÈÌÈ 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%ÓÈÈÒÌ±ÙÄÌfl ÎÄ ·ÄÙÌÓÄ.	<ul style="list-style-type: none"> <li>• çÄ ÓÚ Ä,ÙÌÈ Ó,±Ì Ó·ÄÌÙÈ, È%ÓÈÈÒÌ±ÙÄÌfl. → èÙ Ä,ÙÌÈ ÙÈÙÄÓ·ÄÌÙÈ, È%ÓÈÈÒÌ±ÙÄÌfl. (ÓÚ . 13)</li> </ul>
èÓfl,ÌflÄÙÓfl, Ä ÙÈÌ±Ì,Ì±fl ÓÓÍÓÓ±, ÄÓÌÈ Ù±ÌÈÄ Ó·ÄÌÙ°, Ì±Í Ò,ÄÙ ÈÌÈ ÒÌ±fl Ò,ÄÈ ÒÌÈ±,ÙÓfl Ì± ÙÄÌÌÓÌ ÙÓÌÄ.	<ul style="list-style-type: none"> <li>• èÌÈÈ·ÍÓÌ·ÓÌ,ÈÈÈ ÌÓÌÙ ±ÒÙ ÎÄÈ%Ù Ó·ÄÌÙÓÌ È ÙÓÌÓÌ. ÇÈ%ÄÓÌ±Ì± ± ±.Ó ±ÄÙÌÓ Ì±Í,ÌÓ. → àÄÌÄÌÈÙÄ ÓÓÄÈÈ, Ò·ÄÌÈÈ.</li> </ul>
àÄÓ. ±ÈÄÌÈÄ "Ä±·ÌÌÄÌÓ".	<ul style="list-style-type: none"> <li>• ÇÓÄÌÓÈÌÓ Ä±, flÄÌÄÌ°, È%ÄÓ,ÓÌÓ,ÌÈ. → èÈÈÒÈÈÙÄ,ÓÌÓ,ÌÈ, ÈÒÓÓÌ,ÄÙfl %flfl "ÙÓ,Ó ÓÈÈÒÈÈÙÄÌ,ÌÙ, Ì±ÒÒÄÙÙV8-25CLH. (ÓÚ . 62)</li> </ul>
àÄÓ. ±ÈÄÌÈÄ ÎÄ ÓÓfl,ÌflÄÙÓfl , È%ÓÈÈÒÌ±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,ÌflÄÙÓfl Ì± ·Í ±ÌÄ ÙÄÌ.	<ul style="list-style-type: none"> <li>• ÇÓÙ ÓÄÌÌ±fl ÎÈÌÄÒ·ÄÌÙÌ±fl Ì±ÍÒ±, °Í± ÈÄ ÓÙ Ófl. → è,flÈÈÙÄÓ, ÓÓÈ±ÌÈÈÓÙ±, Ò Ç±ÈÌ·ÌÈÈ±ÈÈÈÈÈ ÓÌ Sony.</li> </ul>
ÇÄ ÙÈÌ±Ì,Ì±fl ÓÓÍÓÒ±ÓÓfl,ÌflÄÙÓfl ÒÈÈ Ó·ÄÌÄ Ó·ÄÌ, fl ÈÌÈ Ó·ÄÌÙÓ,.	<ul style="list-style-type: none"> <li>• ÇÈ%ÄÓÌ±Ì± ± ÎÄ fl,ÌflÄÙÓfl ÎÄÈÒÒ ±,ÌÓÈ.</li> </ul>
è Ó%ÓÍÈÄÌÈÄ Ì± ÓÌÄ%Ù,ÈÈÈ ÒÙ ±ÌÈ·Ä	

Additional information No001EUA1,1fl ÈÌÙÓ·Í±Èfl

è Ó,À Í± ÌÄÈÒÔ ±,ÌÒÓÚÄÈ

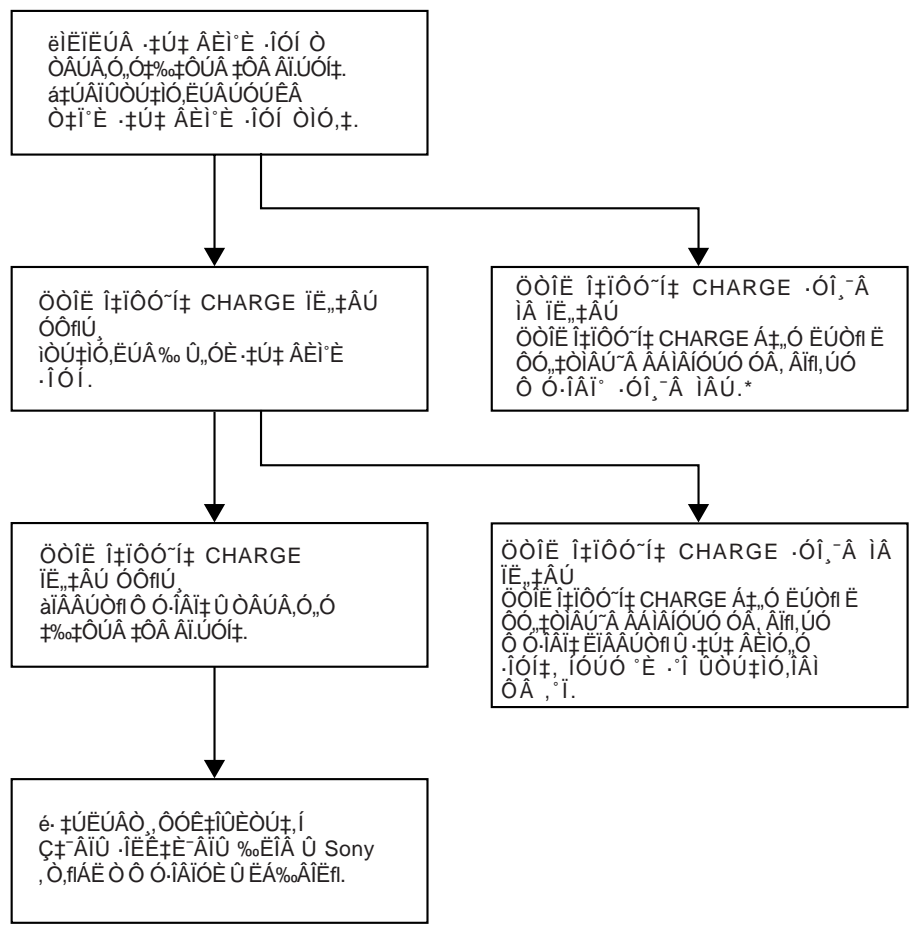
è ÈÄÌ±Í	è È~ÈÌ± È/ÈÌÈ %ÄÈÒÚ,Èñ ÓÓ ÛÒÚ ±ÌÄÌÈ
Ç,È%ÓÈÒÍ±ÚÄÌÄ ÈÌÈ Ì± ´Í ±ÌÄ ÛÄÑÓÓÓ ÓÈÄ,Ó%ÈÚÒñ ÌÄÈÄ,ÄÓÚÌÓÄÈÄÓ. ±ÈÄÌÈÄ.	<ul style="list-style-type: none"> <li>• ÒÓÌÈ Ò Ó´ÍÓ 10 ÌÈÌÚÚ ÒÓÒÌÄ ÚÓ,,Ó, Í±Í Ç° ÛÒÚ±ÌÓ,ÈÌÈ ÒÄ ÄÌÌ ±ÚÄÌ, POWER, ÒÓÌÓÈÄÌÈÄ CAMERA, ÌÄ ÒÚ±È, Ò È ´ÚÓÍ Í±ÒÓÄÚÚ, È%ÄÓÍ±ÌÄ ±±,ÚÓÍ±ÚÈ~ÄÒÌÈ Ì±´ÌÄÚ %ÄÌÓÌÓÚ ±ÈÈ.</li> <li>→ ÇÒÚ±, ÚÄÌ±ÒÓÄÚÚÈ%ÄÌÓÌÓÚ ±Èñ ÓÓÚ±ÌÓ,ÈÚÒñ. Ç° ÌÓÈÄÚÄ Ò%ÄÌ±Ú, Ú±Í, ´ÚÓ%ÄÌÓÌÓÚ ±Èñ ÌÄ.Ú%ÄÚ ÒÓÍ±Ä°, ±Ú, Òñ, ÒÈÒÚÄÌÄ ÌÄÌ. (ÓÚ .29)</li> </ul>
è Ó~ÄÄ	è È~ÈÌ± È/ÈÌÈ %ÄÈÒÚ,Èñ ÓÓ ÛÒÚ ±ÌÄÌÈ
è ÈÄÌ±Í	è È~ÈÌ± È/ÈÌÈ %ÄÈÒÚ,Èñ ÓÓ ÛÒÚ ±ÌÄÌÈ
è ÈÌ±,±ÄÌÈ ÒÚÌ,Ú %ÈÒÚ±ÌÈÒÌÓ,ÓÚÒ ±ÌÄÌÈñ ÌÄ ±ÓÚ±ÄÚ.	<ul style="list-style-type: none"> <li>• COMMANDER ÛÒÚ±ÌÓ,ÌÄÌ, ÒÓÌÓÈÄÌÈÄ OFF. → ÌÒÚ±ÌÓ,ÈÚÄ Ä,,Ó, ÒÓÌÓÈÄÌÈÄ ON, ÒÈÒÚÄÌÄ ÌÄÌ. (ÓÚ 29)</li> <li>• óÚÓ-ÚÓ Ò Ä,, ±È%±ÄÚ ÒÚÚ, ÈÌÙ ±Í ±ÒÌ´ÌÌÚ~±Ì. → ÌÒÚ ±ÈÈÚÄÄ Ä,, ±%Ú.</li> <li>• Ä±Ú± ÄÈÌÈ, ÒÚ±,ÌÄÌ° ò ÌÄÒ ±,ÈÌ,ÌÓÈ ÒÓÌñ ÌÒÓÚ,, → ÇÒÚ±, ÚÄ. ±Ú± ÄÈÌÈ, ÒÓ.Ì.%±ñ Ò ±,ÈÌ,ÌÚ ÒÓÌñ ÌÒÓÚ. (ÓÚ .83)</li> <li>• á±ñ%±Ú± ÄÄÌÈÄ ±ÒÌÓ%Ó,±Ì. → ÇÒÚ±, ÚÄ ÌÓ, Ä. (ÓÚ . 83)</li> </ul>
á±Ò´ÌÈÌÒñ,È%ÓÈÒÍ±ÚÄÌ,.	• ÈÚÒÓÄ%ÈÌÈÚÄÓÌÚñ ÈÓÈÒÈÚÄÓ.ÄÌÚÈ,,È%ÓÈÒÍ±ÚÄÌñ. (ÓÚ .63)

è Ó,À Í± ÎÄÈÒÒ ±,ÌÓÓÚÄÈ

èÄÚÄ,ÓÈ ±%±ÔÚÄ ÔÄ ÄÌÄÌÒ,Ó ÚÓÍ±

è ÈÄÌ±Í	è ÈÈÌ± È/ÈÈÈ %ÄÈÓÚ,ÈÍ ÓÓ ÚÓÚ ±ÌÄÈ
ä±ÌÓÓ~Í± POWER ÌÄ „Ó ÈÚ.	• ìÓÚ±ÌÓ,ÈÚÄ ÔÄÌÄÌÚÓ , ÔÓÌÓÈÄÌÈÄ VTR (DC OUT) È ÓÚÓÓÄ%ÈÈÈÚÄÓÄÚÄ,ÓÈÒ Ó,Ó%ÓÄ ÄÄÓ%ÌÚÈÈÌÚÚÓÌÓ,± ÓÓ%ÓÓÄ%ÈÈÈÚÄÓÄÚÄ,ÓÈÒ Ó,Ó%α(ÒÚ 9)
äÈ„±ÄÚ Ì±ÌÓÓ~Í± CHARGE.	• èÌÓÚ ÈÚÄ ÒÌÄ%Ú~Ú Ú±.ÌÈ~Ú.

äÓ„%± ÌÈ„±ÄÚ Ì±ÌÓÓ~Í± CHARGE  
è Ó,À ÈÚ, ÓÓ ÒÌÄ%Ú~ÄÈ Ú±.ÌÈ~Ä.



\* ÒÓÌÈÈ Ç° ÈÒÓÓÌ,ÄÚÄÚÄ ±Ú± ÄÈÈÈÈ ·ÌÓÌ, ÌÓÚÓ °È Ç° ÚÓÌ,ÌÓ ~ÚÓ ÌÚÈÈÈÈ, ÈÈÈ ÌÓÚÓ °È ·Í ÓÓÚ±,ÌÄÌ Ì±%ÈÈÈÄÌ,ÌÓÄ, ÄÍÍ,ÚÓ Ì±ÌÓÓ~Í± CHARGE ÌÓÈÄÚ ÌÈ„±Ú, Ò È ÓÄ, ÓÈ Ä± Í%ÄÌÄ. ùÓÓ ÌÄ ÒÌÄÄ,±ÄÚ Ì± Ò Ó·ÌÄÌÚ. èÓ,ÚÓ ÈÚÄ Ò Ó·Ä%Ú Ò Ä± Í%ÈÈÈ Ò ÚÄÌ ÈÄ Ò±Ì~Í ±Ú± ÄÈÈÈÈ ·ÌÓÌÓÌ.

Additional information NOÖÖÌÈÈÄÌ,ÌÍÍ ÈÌÚÓ Ì±~ÈÍ

**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± ±  
 εΕΟΥΑΐ±  
 εΕΟΥΑΐ±,É%ÔÁ±ÔÈÈ  
 N,À, ±,ÉΑΟfl „ΟΙΟ,ΙΕ,  
 ιΐΐΟΙΟ-ΟΨ Οΐ±fl ±,À,ΐ±,  
 ÔÈΟΥΑΐ± óá  
 εΕΟΥΑΐ±,É%ÔÁ±ÔÈÈ  
 Ç ±,ÉΑΟfl „ΟΙΟ,ΙΕ, ÔÈΟΥΑΐ±  
 ó á  
 ÇÉ%ÔÁÔÈ,±  
 fl,À,Ψ,ÔÈÈ,±fl PAL, ΟΨ±%± Ψ  
 ÔÔ áááε  
 áÔÔΟΐ,ΑΨΑΐ^Α ι±ÔÔΑΨ^  
 á±ÔÔΑΨ^ 8-ΐ,É%ÔÁÔΨ ι±Ψ±  
 (ÔΨ±%± Ψ 8ΐ)  
 Ç Αΐfl Α±ÔÈÈ/  
 „ÔÔ ÔÈΑ,À%Αΐfl  
 εΑÈÈ SP: 1^ ±Ô È 30 ΐÈΐΨΨ (ε5-90)  
 εΑÈÈ LP: 3^ ±Ô± (ε5-90)  
 Ç Αΐfl ÔÁ ΑΐΟΨΐΕ,ÔÁ À%  
 ΐ±±%  
 è È.ΙΕΑ. 5 ΐÈ. (ε5-90)  
 ΐÔ ΐÈ,Ô,±ΨΑΐ, ΕΑΟ. ±ÈΑΐfl  
 CCD(Ô È-Ô ÔÁ± fl%Ô,ÔÈ  
 Ô, fl Α.)  
 ÇÉ%ÔÈÈΐΨΑΐ,  
 ΐΐΑΐΨ Ôΐΐ^,É%ÔÈÈΐΨΑΐ,  
 óÁ ΐÔ-Αΐ^È  
 ε. ^ ΑΐΨÈ,  
 CCD-TRV14E: 15x (ÔÔΨÈ^ΑΟΐÈÈ)  
 CCD-TRV24E: 15x (ÔÔΨÈ^ΑΟΐÈÈ),  
 180x (ÈΨ Ô,ÔÈ)  
 áÔΐ:ÈΐÈ Ô,±ΐΐ^È Ô. ^ΑΐΨÈ, Ô  
 Ô È,Ô%ΐΐ ΐΨ ΐΨΟΨΐΨÔ Ôΐ,  
 F1,4 - 2,4  
 NÈ±ΐΑΨ ΨÈΐ,Ψ ± 37 ΐΐ  
 ΐΟΐΨΐÔÁ ±ÔΨΨflÈÁ  
 f = 4,1 - 61,5 ΐΐ  
 è È Ô ÁÔ. ±ÁÔ,±ÈÈ %fl 35-ΐΐ  
 ΨΨΨÔΨ±Ψ±  
 CCD-TRV14E: 39 - 585 ΐΐ  
 CCD-TRV24E: 47 - 705 ΐΐ  
 fl,À,Ψ,±fl ΨΑΐÔÁ ±ΨΨ ±  
 Α,ΨÔ  
 áÈΐÈΐΐ,ΐÔÁ ÔÔ,Α^ΑΐÈÁ  
 CCD-TRV14E: 0,4 ΐΐ Ô È F1,4  
 CCD-TRV24E: 0,7 ΐΐ Ô È F1,4  
 NÈ±Ô±ΑΟΐ ÔÔ,Α^ΑΐΐÔΨÈ  
 CCD-TRV14E: ÔΨ 0,4%Ô 100000  
 ΐ ΐ  
 CCD-TRV24E: ÔΨ 0,7%Ô 100000  
 ΐ ΐ  
 εΑΐΐÔΐÀ%ÔΨΑΐ±fl ÔÔ,Α^ΑΐΐÔΨ,Ψ,  
 ΑΟΐΑÁ 100 ΐΐ

ΐΐ ΐΐ ΨáÑ  
 àÁÔ. ±ÈΑΐÈÁ  
 2,5%„È± ÔÔ %È±,Ôΐ±È  
 CCD-TRV14E: 50,2 x 37,1 ΐΐ  
 (2,5%„È±)  
 èèD-TRV24E: 50,3 x 37,4 ΐΐ  
 àΐΨÔ ΐ±^ÈÔΐΐ^È ΐΐ ΐΐ  
 ΑΐΨÈ,ΐÔ-ΐ±Ψ È^ΐ±fl ΨΑΐÔΐÔ,Èfl  
 TN ΨáÑ/TFT (ΨΟΐΐÔΐΑΐÔΐ^È  
 ΨΐΑÈΟΨ)  
 ε.^ΑÁ ^ÈÔΐÔ ^ΐΑΐΑΐΨÔ,  
 ΕΑΟ. ±ÈΑΐÈfl:  
 61380 (279 x 220)

ÇΐÔ%ΐ^Á È ,ΐÔ%ΐ^Á  
 ±Á^ Áΐ^  
 ÇÉ%ÔÁ,ΐÔ%  
 ΐΟΐ,ΐΑÁ%Ô,1Ç ÔÔ%„ÔÈΐÔÈ  
 ΐΐΟΐÈΨΨ%Á 75 εΐ,  
 ΐΑÔÈΐΑΨ È^ΐÔÁ  
 ΑΨ%ÈÔ,ΐÔ%  
 áΟΐΨΟΐÈ^ΑΟΐÈÈ,ΐΟΐÔ,ΐΑÁ%Ô,  
 327 ΐÇ (Ô È ÔΐΐÔΐ  
 ÔÔÔ ÔΨÈ,ΐΑΐÈÈ±,ΨΑΐÈ 47  
 ΐÈΐÔΐ),ÔΐΐÔÁ ÔÔÔ ÔΨÈ,ΐΑΐÈÁ  
 ΐΑΐΑ,^Αΐ 2,2 ΐÈΐÔΐ  
 RFU DC OUT  
 èÔÁ^È±ΐ ΐÔÁ ΐÈΐÈ,ΐΑÁ%Ô, 5 Ç  
 ÔÔΨΨΨ±  
 ÈΐΑÁ%Ô ΐ±Ψ^ΐÈΐÔ,  
 áÈΐÈ,ΐΑÁ%Ô  
 ÈΐΑÁ%Ô ΨÔ ±ΐΑΐÈfl LANC  
 εΨΑ^ΑΨΟΐÈ^ΑΟΐÔΑΐÈÈ-,ΐΑÁ%Ô  
 (Ô 2,5 ΐΐ)  
 ÈΐΑÁ%ÔMIC  
 áÈÈ-,ΐΑÁ%Ô, 0,388 ΐÇ, ΐÈΑΐÔÁ  
 ÔΐΐÔÁÔÔÔ ÔΨÈ,ΐΑΐÈÁÔ  
 „ΐÔ%ÔΐÔΨ 2,5%Ô 3Ç ÔÔÔΨ.  
 ΨÔ±,ÔΐΐÔÁ ÔÔÔ ÔΨÈ,ΐΑΐÈÁ 6,8  
 ΐÈΐÔΐ (Ô 3,5 ΐΐ)  
 È ÔΐΐÔ„Ô,Ô ÈΨΑΐ,  
 NÈ±ΐÈ^ΑΟΐÈÈ  
 „ ÔΐΐÔ„Ô,Ô ÈΨΑΐ,

ε.^Á Á  
 ΐ Α.Ô,±ΐÈfl ΐ ÔÈΨΐÈÈ,  
 7,5Ç(ÔÁΨ,ÔÈ±%±ÔΨÁ ÔÁ Αΐ.  
 ΨÔ±)  
 è À%flfl ÔÔΨ Α^flfl  
 ΐÔ^ΐÔΨΨ  
 „È%ΑΟΐ±Α ÔÈÔ  
 ÈÔÔΟΐ,ΑΟ,±ÈΑΐ ΨáÑ  
 CCD-TRV14E: 4,2 ÇΨ  
 CCD-TRV24E: 4,5 ÇΨ  
 ÇÔ, Αΐfl, ^ÔΐΐΑΐÈfl Α±ÔÈÈÈ  
 „È%ΑΟΐ±Α ÔÈÔ  
 ÈÔÔΟΐ,ΑΟ,±ÈΑΐ,É%ÔÈÈΐΨΑΐfl  
 CCD-TRV14E: 3,3 ÇΨ  
 CCD-TRV24E: 3,5 ÇΨ  
 ε±.Ô^fl ΨΑΐÔÁ ±ΨΨ ±  
 εΨ 0^È %Ô 40^È  
 (ÔΨ 32^F%Ô 104^F)

ΐΑΐÔÁ ±ΨΨ ± ΐΐΑΐÈfl  
 εΨ -20^È %Ô +60^È  
 (ÔΨ -4^F%Ô +140^F)  
 ε±ΑΐΑ^ (Ô È.ΙΕΑ.)  
 è È.ΙΕΑ. 112 ΐ 102 ΐ 201 ΐΐ  
 (^,/,)  
 á±ÔÔ±  
 è È.ΙΕΑ. 890 „  
 ÇÁ,ΐΐ^fl ±Ψ± ΑÈΐÔ,Ô.ΐΟΐ±,  
 ΐÈΨÈÁ,ÔÈ.±Ψ± ΑÈΐÈ,ΐ±ÔÔΑΨ^ È  
 ÔΐΑ^Α,ÔÈ. Αΐfl  
 è È.ΙΕΑ. 1,1 ΐ,  
 Çΐΐ^fl ±Ψ± ΑÈΐÈÈ.ΐΟΐ NP-  
 33, ΐÈΨÈÁ,Ψ.±ΨÁ ΑÈΐΨ  
 CR2025,ΐ±ÔÔΑΨΨ ε5-90 È  
 ÔΐΑ^Α,ÔÈ. ΑΐΑΐ,  
 áÈΐ ÔΨÔΐ  
 ΐΐΑΐΨ È^ΑΟΐÈÈ ΐΟΐ%ΑΐÔÔ ΐ^È  
 ΐÈΐ ÔΨÔΐ ΐΟΐΨΟΐÈ^ΑΟΐÔ,Ô  
 ΨÈ±  
 è Èΐ±,±Αΐ^Α Ô Èΐ±%ΑÈΐÔÔΨÈ  
 εΐ. ÔΨ 6.

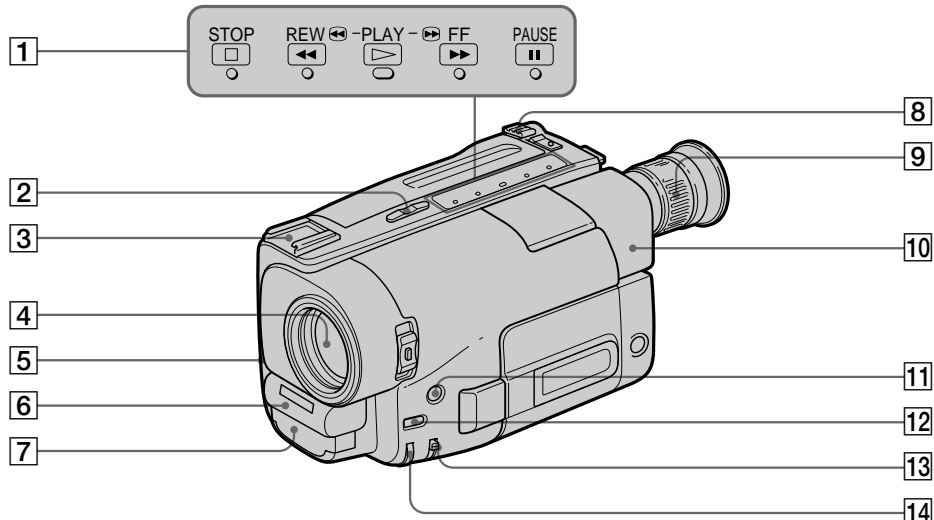
εΑΨ,ÔÈ±%ÔΨΑ,  
 ÔÁ ΑΐΑΐΐÔ,„Ô ΨΟΐ±  
 ΐ Α.Ô,±ΐÈfl ΐ ÈÔΨÔ^ΐÈΨ  
 ÔÈΨ±Èfl  
 110-240 Ç ÔÁ Αΐ. ΨΟΐ±, 50/60 È^  
 èÔΨ Α^flfl ΐΐ ΐÔ^ΐÔΨ,  
 AC-V16/V17: 20 ÇΨ  
 AC-V16A/V17A: 22 ÇΨ  
 Ç^ΐÔ%ΐÔÁ ΐÔÈ flÈΑΐÈÁ  
 DC OUT, ±.Ô^Αΐ ΑÈÈΐΑ  
 7,5 Ç, 1,8 Α  
 Ç^ΐÔ%ΐÔÁ flflfl ±Ψ± ΑÈ  
 10 Ç, 1,1 Α, ΑÈÈΐΑ ±flflÈÈ  
 è ÈΐΑΐÈ^Α. ±Ψ± ΑÈΐ^Α  
 „ΐΟΐÈÈ  
 Α±Ψ± ΑÈΐÈÈ.ΐΟΐ Sony NP-33  
 (Ô Èΐ±,±ΨΨfl), NP-55H, NP-C65,  
 NP-66, NP-67, NP-77H, NP-98  
 ε±.Ô^fl ΨΑΐÔÁ ±ΨΨ ±  
 εΨ 0^È %Ô 40^È  
 (ÔΨ 32^F%Ô 104^F)  
 ΐΑΐÔÁ ±ΨΨ ± ΐΐΑΐÈfl  
 εΨ -20^È %Ô +60^È  
 (εΨ -4^F%Ô +140^F)  
 ε±ΑΐΑ^ (Ô È.ΙΕΑ.)  
 166 x 43 x 75 ΐΐ (^,/,),  
 „ΐΐ^fl „ÔΨΨÔ±.ÈÁ^±ÔΨÈ È  
 Α,ΨflΨÔ^  
 á±ÔÔ± (Ô È.ΙΕΑ.)  
 AC-V16: 420 „  
 AC-V16A: 450 „  
 AC-V17: 440 „  
 AC-V17A: 460 „

áΟΐÔΨ Ψ^Èfl È ΨΑΐÈÈ^ΑΟΐÈÁ  
 ΐ± ΐΨÁ ÈÔΨÈÈÈ ΐÔ,ΨΨ.Ψ,  
 ÈΑΐΑΐΑΐ^ .ΑΑ Ψ,À%ÔΐΐΑΐÈfl.

Additional information NO001EUA1,flfl ÈΨÔΐÈ^Èfl

## Identifying the parts

εὐχρηστικότητα



### 1 Tape transport buttons (p. 22, 24)

□ STOP

◀◀ REW (rewind)

▶ PLAY (playback)

▶▶ FF (fast forward)

▬ PAUSE

These buttons will function in PLAYER mode.

### 2 EDITSEARCH button (p. 20)

### 3 Accessory shoe

### 4 Lens cover

### 5 Recording lamp

### 6 Built-in microphone

### 7 Remote sensor (p. 83)

Aim the Remote Commander here for remote control.

### 8 Power zoom lever (p. 14)

### 9 Viewfinder adjustment ring (p. 13)

### 10 Viewfinder (p. 63, 85)

### 11 BACK LIGHT button (p. 44)

### 12 FADER button (p. 34)

### 13 FOCUS switch (p. 41)

### 14 Focus dial (p. 41)

### 1 εὐχρηστικότητα (p. 22, 24)

□ STOP (ἄρση)

◀◀ REW (ὑπομόλιση)

▶ PLAY (ὑπομόλιση)

▶▶ FF (ὑπομόλιση)

▬ PAUSE (ἄρση)

ἔνδειξη εὐχρηστικότητας ὑπομόλισης, ἔνδειξη

PLAYER.

### 2 εὐχρηστικότητα EDITSEARCH (p. 20)

### 3 ἔνδειξη εὐχρηστικότητας ἄρσης, ἔνδειξη ὑπομόλισης

### 4 ἔνδειξη ἄρσης

### 5 εὐχρηστικότητα ἄρσης

### 6 ἔνδειξη ἄρσης

### 7 ἔνδειξη ἄρσης (p. 83)

ἔνδειξη ἄρσης, ἔνδειξη ὑπομόλισης, ἔνδειξη ἄρσης, ἔνδειξη ὑπομόλισης, ἔνδειξη ἄρσης.

### 8 ἔνδειξη ἄρσης, ἔνδειξη ὑπομόλισης

### 9 ἔνδειξη ἄρσης, ἔνδειξη ὑπομόλισης, ἔνδειξη ἄρσης

### 10 ἔνδειξη ἄρσης (p. 63, 85)

### 11 εὐχρηστικότητα BACK LIGHT (p. 44)

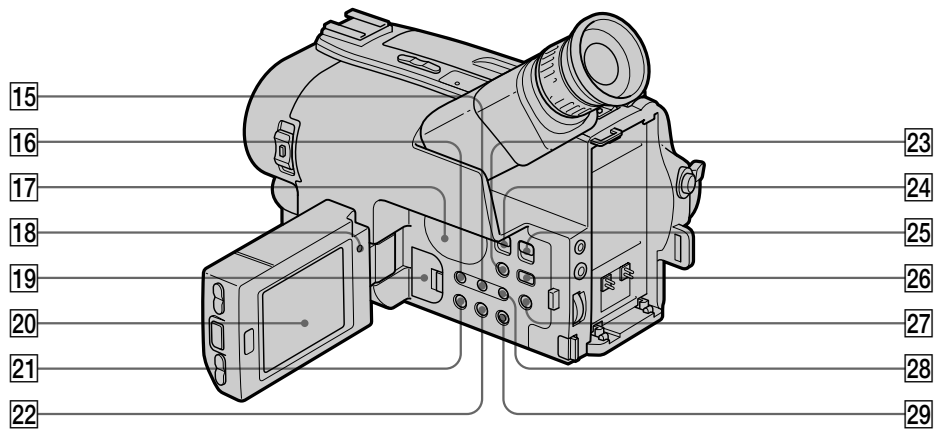
### 12 εὐχρηστικότητα FADER (p. 34)

### 13 ἔνδειξη ἄρσης, ἔνδειξη ὑπομόλισης, FOCUS (p. 41)

### 14 ἔνδειξη ἄρσης, ἔνδειξη ὑπομόλισης (p. 41)

## 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 ἠχοβόητο
- 18 Ἰνδικοδείκτης εἰσαγωγῆς
- 19 Ἐπιπέδιο μπαταρίας λιθίου (σ. 54)
- 20 Ὁθροὶς (σ. 16, 17, 22, 85)
- 21 αὐτοματὸν ὄριο πλάτους (σ. 39) (μόνο τοῦ τύπου CCD-TRV24E)
- 22 αὐτοματὸν ὄριο τίτλου (σ. 46)
- 23 αὐτοματὸν ὄριο ἐπιλογῆς (σ. 23)
- 24 Ἐπιλογὴ ἰσοστάθμισης, STEADY SHOT (σ. 45) (μόνο τοῦ τύπου CCD-TRV24E)
- 25 Ἐπιλογὴ ἄρξης/παύσης λειτουργίας (σ. 11, 33)
- 26 αὐτοματὸν ὄριο ἐπιλογῆς εἰκαστικῶν (σ. 37)
- 27 αὐτοματὸν ὄριο μενῦ (σ. 29)
- 28 αὐτοματὸν ὄριο ἀποκατάστασης ἀριθμοῦ (σ. 13)
- 29 αὐτοματὸν ὄριο ἀποκατάστασης ἀναζήτησης (σ. 25)

Additional information







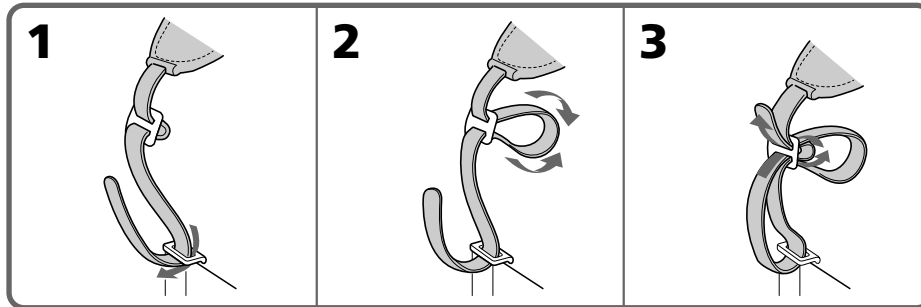
## Identifying the parts

## εὐρίσκειν τὰ μέρη

### Attaching the shoulder strap

Attach the supplied shoulder strap to the hooks for the shoulder strap [46](#).

Ἐπιβάλλετε τὴν ὑποκατασκευασμένη ἰμάντα ἐπὶ τὰς ἀγκύρας τῆς ἰμάντας [46](#).



## Remote Commander

## Ἐξέλεγκτης ἀπομακρυσμένης ἐλέγχου

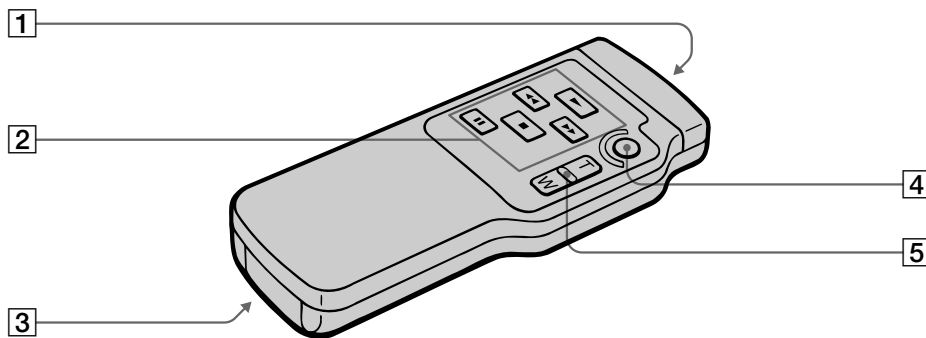
### Using the Remote Commander

Make sure that COMMANDER is set to ON in the menu system.

Ἀσφαλίστε τὸν ἔλεγκτη ἀπομακρυσμένης ἐλέγχου ἐν ἰσχύει τὸ μενού COMMANDER ἐν ἰσχύει.

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

Ἡ λειτουργία τῶν κουμπιῶν τοῦ ἔλεγκτη ἀπομακρυσμένης ἐλέγχου εἶναι ἰσοδύναμη μετὰ τῶν κουμπιῶν τῆς βιντακασέτας.



- 1 Transmitter**  
Point toward the remote sensor to control the camcorder after turning on the camcorder.
- 2 Tape transport buttons (p. 22, 24)**
- 3 R6 (size AA) battery compartment (p. 83)**
- 4 START/STOP button (p. 11)**
- 5 Power zoom button (p. 14)**  
The zooming speed is unchangeable on the Remote Commander.

- 1** Ἐξέλεγκτης ἀπομακρυσμένης ἐλέγχου  
Πομπὴ ἀπομακρυσμένης ἐλέγχου. Ἐπιβάλλετε τὴν ἀπομακρυσμένης ἐλέγχου ἐπὶ τὸν ἀπομακρυσμένης ἐλέγχου ἀπομακρυσμένης ἐλέγχου.
- 2** ἀπομακρυσμένης ἐλέγχου ἀπομακρυσμένης ἐλέγχου (ὄψ. 22, 24)
- 3** ἐξέλεγκτης ἀπομακρυσμένης ἐλέγχου R6 (ἀπομακρυσμένης ἐλέγχου 83)
- 4** ἀπομακρυσμένης ἐλέγχου START/STOP (ὄψ. 11)
- 5** ἀπομακρυσμένης ἐλέγχου ἐξέλεγκτης ἀπομακρυσμένης ἐλέγχου  
(ὄψ. 14)  
Ἡ ταχύτητα τοῦ ἐξέλεγκτη ἀπομακρυσμένης ἐλέγχου εἶναι ἀμετάβλητη ἐν ἰσχύει τὸ μενού COMMANDER ἐν ἰσχύει.







## 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 ὁλοκλήρωσης 5SEC (ὄψ. 33)

17 αὐτοεπιβεβαιωτικό END SEARCH (ὄψ. 25)

18 ἐπιεικτικὰ ἠχῶν ἔλεγχος μπαταρίας ° (ὄψ. 87)

19 αὐτοεπιβεβαιωτικό ὁλοκλήρωσης ἠχῶν ἔλεγχος μπαταρίας ἠχῶν ἔλεγχος ἠχῶν (ὄψ. 58)

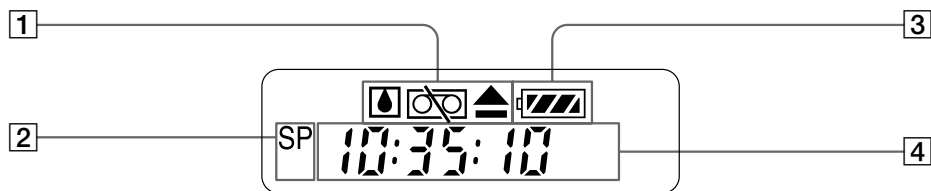


20 αὐτοεπιβεβαιωτικό AUTO DATE (ὄψ. 11)

21 Ἡμερομηνία ἠχῶν ἔλεγχος (ὄψ. 32)

## In the display window

## Ὡς ὁφθαλμικὸ ἐπιπέδον



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 μπαταρίας ° (ὄψ. 87)

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

3 αὐτοεπιβεβαιωτικό ὁλοκλήρωσης ἠχῶν ἔλεγχος μπαταρίας ἠχῶν ἔλεγχος ἠχῶν (ὄψ. 58)



4 Ἡμερομηνία ἠχῶν ἔλεγχος (ὄψ. 32)

ἔλεγχος ἠχῶν ἔλεγχος ἠχῶν (ὄψ. 13)



