

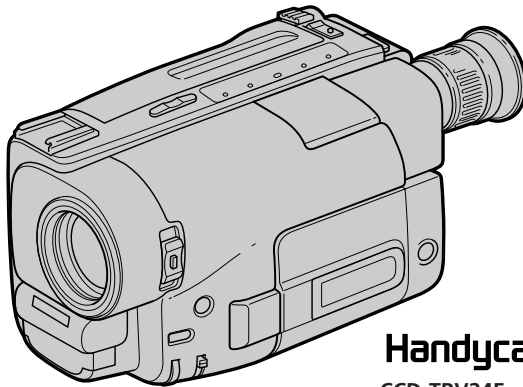
Video Camera Recorder

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, ìÈÛÚÁÌ, ìÓ Ô Ó-ÀÒÚ, ì±ÒÚÓñ-ÀÀ ÙÍÓ, Ó%ÒÚ, ÓÈÓÒÚ±, ÈÚ, Å, Ó%ññ·Ù%ÛÈ, ÓÓ ±, ÓÍ.



Handycam Vision™
CCD-TRV24E

video8

CCD-TRV14E/TRV24E **8**

© 1997 by Sony Corporation

Before you begin

Using this manual

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

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

e.g. Set the POWER switch to CAMERA.

As indicated with \mathcal{B} in the illustrations, you can hear the beep sound to confirm your operation.

Types of differences

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

Note on TV colour systems

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

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

Precaution on copyright

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

èÁ Â% ì¸¸íÓí ¸.Ó °

àÒÒÓí,ÁÓ,¸íÈÁ %¸ìíÓ,,Ó ÙíÓ,Ó%ÒÚ,¸

àìÒÚ ÙíÈÈ, %¸ìíÓí ÙíÓ,Ó%ÒÚ,Á ÈÁíÓÈÁí° %¸íí %¸,Ùí ìÈÈÁÓÁ ÁÈÒíÁìí° ìÓ%ÁíÁÈ. èÁ Â% ÚÁí, í¸í Ç° ì¸íÁÚÁ ~ÈÚ¸Ú, %¸ìíÓÁ ÙíÓ,Ó%ÒÚ,ÓÈ°íÓíÙ¸ÚÈ Ó.¸Ú, ¸ÓÓ¸¸¸Ú,Ó Ó.Á, ÚÁíÓíÁ Ç¸ÁÈíÓ%ÁíÈ, ÓÓÓíÓÚ Á, ì¸ íÈÈì, Ò¸íÁí, Ç¸ÁÈ È%¸ÁÓí¸íÁ °. àÓ%Áí CCD-TRV24E ÈÒÓÓí,ÁÚÁÚÒíí, Èíí,ÓÚ ¸ÚÈ,ìí °Áííí. Ç ÈíÓí ÓíÙ¸¸¸¸ ì¸ÈíÁíÓ,¸íÈÁ ìÓ%ÁíÈ Ùí¸Á°,¸¸ÚÒíí ì¸ ÈÒÚíí¸í. á.°Á ¸¸ÁíÈÈíí, ¸.ÓÚÁ ~ÁÚíÓ Ùí¸Á¸í°, ÚÁíÓÚÁ, í¸í ì¸Ó ÈíÁ "íÓí,íÓ CCD-TRV24E". àÓ,%¸Ç°-Ú%ÁÚÁÈÚ¸Ú ÙíÓ,Ó%ÒÚ,Ó, ÙÈÚ°,¸ÈÚÁ, ~ÚÓ ìíÓíÈÈ È ÚÓÚ¸íÓ,íÈ ì¸ È%¸ÁÓí¸íÁ Á ÓÓí¸¸¸¸ Á¸,í¸,ìíÈÈ. Ò.Ùí,¸íÈÈ. Ó Èí. ìÓÚ¸íÓ,ÈÚÁ, °íí,¸¸ÚÁí, POWER, ÓÓíÓÈÁíÈÁ CAMERA. ÓÓíÈ ì¸ ÈÒÚíí¸í Ùí¸Á°,¸¸ÚÒíí Áí¸íí, \mathcal{B} , Ç° íÓÈÁÚÁ Óí~¸Ú, ÁÚííÁ ìÈ Á,ÙíÓ,ÓÈ ÓÈ,ì¸íí %¸íí ÓÓ%Ú,Á È%¸ÁíÈíí Ç¸ÁÈ ¸.ÓÚ°.

íÈÒ° ¸¸ÁíÈÈÈ

CCD-	èÓÚÈÁ-ÓíÈÈÚ¸ÚÓ	ñÈÚ Ó.ÓÈ Ú¸ÚÓÚ-¸ÚÓ	ðÈ ÓíÓÚÓ-í¸ÚíÈÈ ÁÈÈí	ìÒÚÓÈÈ,¸íí Ó.Áíí¸
TRV14E	15X	-	-	-
TRV24E	15X	180X	●	●

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

èÈÒÚÁí° ^,ÁÚíÓ,,Ó ÚÁíÁ,È%¸ÁíÈíí ÓÚíÈÈ¸.ÚÒíí,¸¸ÈÈÈíÓÚÈ ÓÚÓÚ¸í. Ñíí Ó ÓÓíÓÚ ¸ Ç¸ÁÈí,Á¸ÈÈÒÁÈ ÓÓ ÚÁíÁ,ÈÁÓ Ú,Ç¸í ìÁÓ-ìÓ%ÈíÓ ÈÒÓÓí,ÁÓ,¸Ú, ÚÁíÁ,ÈÁÓ, ÓÓíÓ,¸ìíÈ ì¸ ÓÈÒÚÁíÁ PAL. ÓÓíÈ Ç° íÓÚÈÚÁ ÈÒÓÓí,ÁÓ,¸Ú, ÚÁíÁ,ÈÁÓ, ÓÓíÓ,¸ìíÈ ì¸ ÓÈÒÚÁíÁ SECAM, Ç¸í ÓÓí¸%Ó.ÈÚÒíí¸ííÓíÓ%Á PAL/SECAM (ÓÓÓíÓí,íÚ %¸ìííííí,È%¸ÁÓí¸íÁ ¸ ÓÓíÓ,¸í¸ ì¸ ÒÈÒÚÁíÁ PAL).

è Á%ÒÓÚÁ ÁÈÁíÈÁÓ.¸,ÚÓ ÒíÓí Ò¸,Á

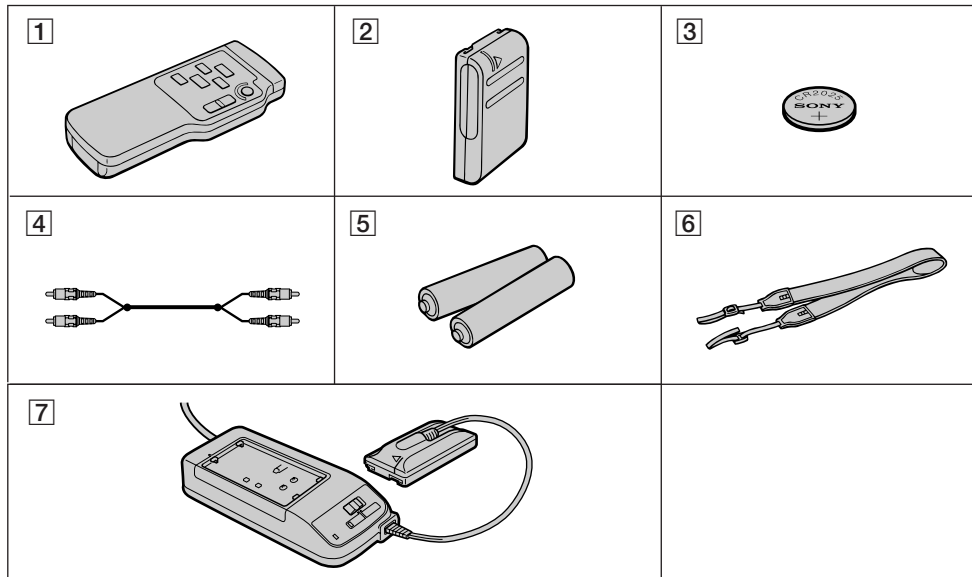
íÁíÁ,ÈÁÈÓíí° Á Ó Ó,,¸íí°, íÈìÓÚÈí,ì°, È%¸ÁÓíÁíÚ° È %¸,ÈÁ ì¸ÚÁ È¸í° íÓ,,ÚÚ.°Ú, Á¸ÈÈÁí° ¸,ÚÓ ÓíÈí Ó.¸,Óí. ÇÁÓ ¸,ÓíÓí¸ííí Á¸ÈÈÈ, Ú¸íÈí, í¸ÚÁ È¸íÓ, íÓÈÁÚ Ó ÓÚÈ,Ó ÁÈÚ, ÚÓíÓ,Èíí Á¸íÓí¸ Ó.¸,ÚÓ ÓíÓíÓ ¸.Á.

Checking supplied accessories

Ελέγξτε τα εξαρτήματα που παρέχονται με την κάμερά σας.

Check that the following accessories are supplied with your camcorder.

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



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

- 1 Ασύρματο τηλεχειριστήριο (1) (σ. 23, 82)
- 2 Πακέτο μπαταρίας NP-33 (1) (σ. 7)
- 3 Μπαταρία CR2025 λιθίου (1) (σ. 53)
Επίσης εγκατεστημένη στην κάμερα.
- 4 Καλώδιο σύνδεσης A/V (1) (σ. 50)
- 5 Μπαταρία R6 (σ. 83) (σ. 83)
- 6 Αρμυρίδα (1) (σ. 81)
- 7 Αδρατήρας 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 ή η αναπαραγωγή δεν πραγματοποιηθεί λόγω βλάβης της κάμερας, της ταινίας ή άλλων εξαρτημάτων, τα περιεχόμενα της εγγραφής δεν μπορούν να αποζημιωθούν.

Charging and installing the battery pack

Battery life (in minutes) CCD-TRV14E

Battery pack	While recording ¹⁾		While playing back on LCD ³⁾
	LCD open ²⁾	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 ¹⁾		While playing back on LCD ³⁾
	LCD open ²⁾	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

¹⁾ 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.

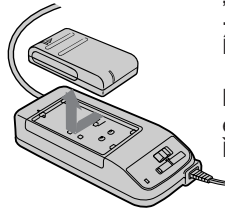
²⁾ Approximate recording time when using the LCD screen. When using both the viewfinder and LCD screen, the battery life is shorter.

³⁾ 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.



á† f%óí† È ÛÒÚ†íÓ,† ·†Ú† ÂÈíÓ„Ó ·íÓí†

è Óí ÒíÛÈ° ·†Ú† ÂÈíÓ„Ó ·íÓí† (, ÌÈíÛÚ†)

CCD-TRV14E

Â†Ú† ÂÈíÈ ·íÓí	ÇÓ, Âíñ Á†ÔÈÈ° ¹⁾		ÇÓ, Âíñ ÒÓÇÈÁ ·Á%ÂíÈñ í† Úáñ ³⁾
	Ûáñ ÓÚ° ²⁾	Ûáñ Á†í°Ú	
NP-33(Ô Èí†,†ÁÚÒñ)	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° ¹⁾		ÇÓ, Âíñ ÒÓÇÈÁ ·Á%ÂíÈñ í† Úáñ ³⁾
	Ûáñ ÓÚ° ²⁾	Ûáñ Á†í°Ú	
NP-33(Ô Èí†,†ÁÚÒñ)	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

¹⁾ è È·ÌÈÁÈÚÁí, ÌÓÁ, Âíñ ÌÁÓ Á°, ÌÓÈ Á†ÔÈÈÈ, ÌÛÚ È ÓÓíÁ~ÂíÈñ. èÈÓí†, í Ú,†í ÓíÓ·í†, ÓÁí†·Ú Ó È·ÌÈÁÈÚÁí, ÌÓÁ, Âíñ Á†ÔÈÈÈ, ÁÈÈíÁÓÓÓÚÓñíÓ„Ó ÈÒÓÓí, ÁÓ,†íÈñ ÛÚíí·ÈÈ ÓÚÓí†/ÓÚÚíÓ, ÌÈ, Ú †íÚÓÓí†·ÈÈ È, Ìí,~ÂíÈñ/, °íí,~ÂíÈñ ÔÈÚ†íÈñ.

èÂ†í, ÌÈ Ò Óí ÒíÛÈ° ·†Ú† ÂÈíÓ„Ó ·íÓí† ÌÓÈÁÚ ·Ú ÌÓ Ó·Á.

²⁾ è È·ÌÈÁÈÚÁí, ÌÓÁ, Âíñ, ÌÈíÛÚ† Ó È ÈÒÓÓí, ÁÓ,†íÈÈ °í †í Úáñ. è È ÈÒÓÓí, ÁÓ,†íÈÈ È, È%·ÈÈÓíÚÁíñ È °í †í Úáñ Ó Óí ÒíÛÈ° ·†Ú† ÁÈ·Ú%ÁÚ ÌÓ Ó·Á.

³⁾ è È·ÌÈÁÈÚÁí, ÌÓÁ, Âíñ ÌÁÓ Á°, ÌÓ„Ó, ÓÓÓ ÓÈÁ, Á%ÂíÈñ, ÓÓíÁ~ÂíÈÈ. ÓÓíÈ Ç°, °ÓíñÁÚÁ Á†ÔÈÈ, ÈíÈ, ÓÓÓ ÓÈÁ, Á%ÂíÈÁ, ÈÒÓÓí, ÁÚñ °í †í Ó Úáñ, ÌÓ„Ó † LCD B.L., ÈÈÓÚÁí† ÌÁí, ÛÒÚ†íÓ, ÌÁíÓ, ÓÓíÓÈÁíÈÁ BRIGHT, Ò Óí ÒíÛÈ° ·†Ú† ÂÈíÓ„Ó ·íÓí† ·Ú%ÁÚ Ó ÈíÁ ÌÓ Ì† 10% ÌÓ Ó·Á.

Ñíñ ÒíñÚÈñ ·†Ú† ÂÈíÓ„Ó ·íÓí† èÁ Á%, Èí ÚÁ ·†Ú† ÂÈíÈ·íÓí, Ì†Ó †, ÌÁíÈÈ ÓÚ ÁííÈ.

Charging and installing the battery pack

Απόφορτίση και φόρτιση μπαταρίας

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.

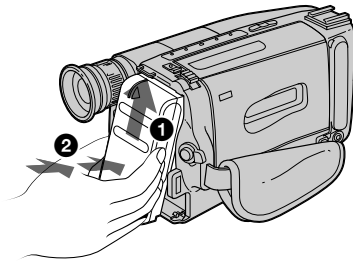
- Η λάμπα φωτισμού POWER θα παραμείνει αναμμένη για λίγο ακόμα, ακόμα κι αν αφαιρέσετε τη μπαταρία και αποσυνδέσετε το καλώδιο τροφοδοσίας μετά το φόρτισμα της μπαταρίας. Αυτό είναι φυσιολογικό.
- Αν η λάμπα φωτισμού POWER δεν ανάψει, ρυθμίστε τον διακόπτη στην κατάσταση VTR (DC OUT) και αποσυνδέστε το καλώδιο τροφοδοσίας. Μετά από περίπου ένα λεπτό, επανασυνδέστε το καλώδιο τροφοδοσίας και ρυθμίστε τον διακόπτη στην κατάσταση CHARGE.
- Δεν μπορείτε να λειτουργήσετε το camcorder χρησιμοποιώντας τον μετασχηματιστή ισχύος κατά τη φόρτιση της μπαταρίας.

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.

Εγκατάσταση μπαταρίας

- (1) Εισάγετε το πάνω μέρος της μπαταρίας στην επιφάνεια της μπαταρίας.
- (2) Σπρώξτε τη μπαταρία. Βεβαιωθείτε ότι ακούτε δύο κλικ. Συνδέστε τη μπαταρία στο camcorder με ασφάλεια.



Note on the battery pack

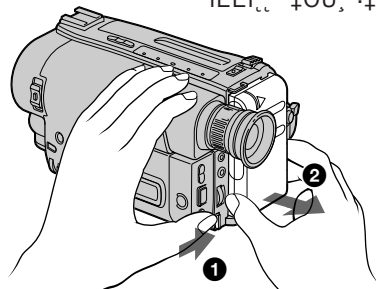
Do not carry the camcorder by grasping the battery pack.

Μην κρατάτε το camcorder από τη μπαταρία.

To remove the battery pack

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

Σηκώστε το BATT και τραβήξτε το κάτω μέρος της μπαταρίας.



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

Μπορείτε να δείτε τη демонстрация των λειτουργιών που είναι διαθέσιμες με αυτό το camcorder. (σ. 31)

Getting started

Επιλογή λειτουργιών

Inserting a cassette

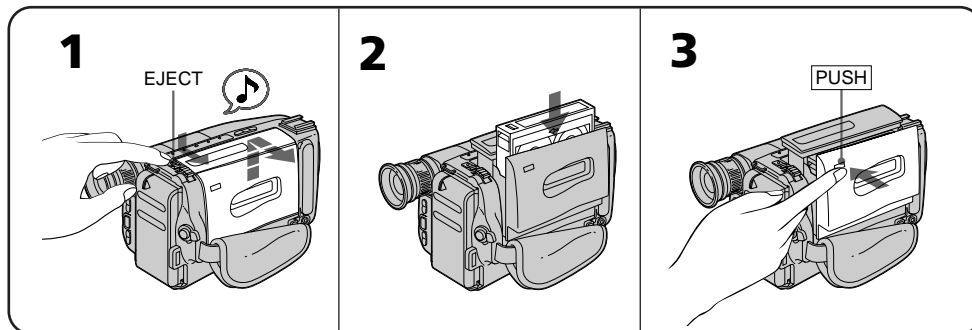
ÇÒÚ±,Í± Í±ÒÒÂÚ°

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



To eject the cassette

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

To prevent accidental erasure

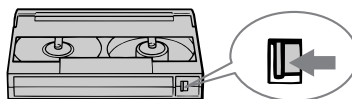
Slide the tab on the cassette to expose the red mark.

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

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

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

ÑÍñ Ò Á%ÓÚ, ±ÁÍÈñ ÒÍÚ±ÈÍÒ,,Ó
ÒÚÈ ±ÍÈñ
ÈÁ%ÈÌ,ÚÁ ÍÁÒÁÒÚÓÍÍ± Í±ÒÒÂÚÁ, °ÚÓ°
ÒÒñ,ÈÍ±Ò, Í±ÒÍ±ñ ÍÁÚÍ±.
ÒÒÍÈÇ°,ÒÚ±,ÈÚÁÍ±ÒÒÂÚÚÒ È
°,ÒÚ±,ÍÁÍÍÒÈ Í±ÒÍÒÈ ÍÁÚÍÁ È Á±Í ÓÁÚÁ
ÓÚÒÁÍ Í±ÒÒÂÚ°, ÚÓ Á±Á,ÚÈÚ ÁÚÍÁ ÍÈ
ÒÈ,,Í±Í. ÒÒÍÈÇ° 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 Í±%±ÍÍÚ, ÍÁÍÚÚ
ÓÁ Á%ÈÌ,ÚÁ ÍÁÒÁÒÚÓÍÍ±Á±%, °ÚÓ°
Á±Í°Ú, Í±ÒÍÚ, ÍÁÚÍÚ.



Camera recording

á±ÔÈÒ ò ÓÓÍÓ
É%ÁÓÍ±Ì

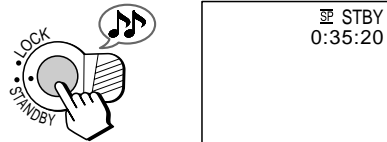
To stop recording momentarily [a]

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.

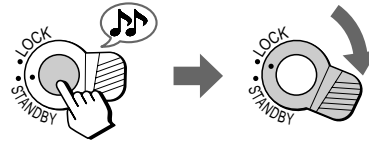
Note on recording

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, ÁÌÀÌÒÈ ÓÓÚ±ÌÓ, ÍÈ Á±ÔÈÒÈ [a]
ç±ÈÌÈÚÁ ÓÓÍÓ, START/STOP. Ç
É%ÓÈÓÍ±ÌÁÌÈÌ%ÈÌ±ÚÓ "REC"ÈÁÌÈÈÚÓñ
Ì±ÈÌ%ÈÌ±ÚÓ "STBY" (ÁÈÈÌ, ÓÓÚ, ÍÓÓÚÈ).

Ñíñ ÓÍÓÌ~±ÌÈñ Á±ÔÈÒÈ [b]
ç±ÈÌÈÚÁ START/STOP. èÓ, Á ÌÈÚÁ STANDBY
ÌÈÁ È ÓÓÚ±ÌÓ, ÈÚÁ, ìí, ~±ÚÁÌ, POWER,
ÓÓÍÓÈÁÌÈÁ OFF. á±ÚÁÌ, ÒÓÍÌÈÚÁ Ì±ÓÓÁÚÚ
È Ó%±ÌÈÚÁ ~±Ú± ÁÈÌÈ È ÌÓÌ.

[b]



è ÈÌÁ~±ÌÈÁ Í ÁÈÈÌÚ, ÓÓÚ, ÍÓÓÚÈ
ÓÓÍÈ Ç ÓÓÚ±, ñÁÚÁ, É%ÁÓÍ±ÌÁ Ú Ì± 5
ÌÈÌÚÚ ÈÌÈ. ÓÌÁÁ ÓÓ, ÓÚ±, ÌÀÌÒÈ Ì±ÓÓÁÚÓÈ,
ÁÈÈÌÁ, ÓÓÚ, ÍÓÓÚÈ, ÚÓ, É%ÁÓÍ±ÌÁ ±
ìí, ÈÚÓñ ±, ÚÓÌ±ÚÈ~ÁÓÍÈ. ùÚÓ
Ó Á%ÓÓÚ, ±±ÁÚ ±Á ñ%ÓÌÚ: ±Ú± ÁÈÈÈÁÌÓÒ
ÌÁÌÚ°. Ñíñ, ÓÁÓ·ÍÓ, ÌÁÌÈñ ÁÈÈÌ±
„ÓÓÚ, ÍÓÓÚÈÓ%ÈÌ ±ÁÓÓ, Á ÌÈÚÁ STANDBY
ÌÈÁ È ÒÍÓ, ± ÓÓ, Á ÌÈÚÁ Á, Ó, Á Ì. Ñíñ
Ì±~±Ì± Á±ÔÈÒÈ Ì±ÈÌÈÚÁ START/STOP.

- è ÈÌÁ~±ÌÈñ Í ÁÈÈÌ±Ì Á±ÔÈÒÈ
- Ñíñ ññ, É%ÁÓÍ±ÌÁ ± Á±ÔÈÒ, ±ÁÚ È
„ÓÓÓ ÓÈÁ, Ó%ÈÚ, ÁÈÈÌÁ SP (ÓÚ±ñ± ÚÍÓ, Ó
„ÓÓÓ ÓÈÁ, Á%ÁÌÈñ) ÈÌÈ, ÁÈÈÌÁ LP
(Ú%ÓÌÈÁÌÒ, Ó, ÓÓÓ ÓÈÁ, %ÁÌÈñ). è%ÓÌ±ÍÓ,
Ì±~ÁÓÚ, Ó, ÓÓÓ ÓÈÁ, Á%ÁÌÈñ, ÁÈÈÌÁ LP
·Ú%ÁÚ ÌÁ Ú±ÌÈÌ ÍÓ ÓÈÌ, Ì±Ì, ÁÈÈÌÁ SP.
- ÓÓÍÈ ÌÁÌÚ± ·ì± Á±ÔÈÒ±Ì±, ÁÈÈÌÁ LP Ì±
%±ÌÒÈ, É%ÁÓÍ±ÌÁ ÁÈ, ÓÓÓ ÓÈÁ, Ó%ÈÚÓñ Ì±
%Ó Ú, ÈÌ ÚÈÓ± 8-ÌÌ, É%ÁÓÍ±ÌÁ ÈÌÈ Ì± äÇá,
Ì±~ÁÓÚ, Ó, ÓÓÓ ÓÈÁ, Á%ÁÌÈñ ÌÓÈÁÚ ·Ú, ÌÁ
Ú±ÌÈÌ ÍÓ ÓÈÌ, Ì±Ì Ó È, ÓÓÓ ÓÈÁ, Á%ÁÌÈÈ
Ì± %±ÌÒÈ, É%ÁÓÍ±ÌÁ Á.

è ÈÌÁ~±ÌÈÁ Í Ó ÁÓÓÚ Á±ÔÈÒÈ
ÓÓÍÈ Ç Ó ÓÈÁ, Ó%ÈÚÁ Á±ÔÈÒ, Ó Ó±ÍÓ, Ó Ì±~±Ì±
ÌÁÌÚ°, %±ÈÚÁ, ÓÁÍÓÈÌÓÓÚ, ÌÁÌÚÁ
ÓÁ ÌÁÓÓÚÈÚ Óñ ÓÍÓÍÓ 15 ÒÁÌÚÌ%Ó Ì±~±Ì±
Á±ÔÈÒÈ. ùÚÓÓ Á%ÓÓ ññÁÚ, É%ÁÓÍ±ÌÁ ÚÓÚ
Ó ÓÓÚÓÌ± Ì±~±Ìì Ìì Ó ÈÁÚÓ, Ó·ÁÌÈÈ, ÍÓ, %±
Ç·Ú%ÁÚÁ, ÓÓÓ ÓÈÁ, Ó%ÈÚ, ÌÁÌÚÚ.

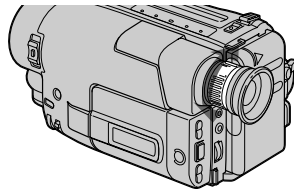
Camera recording

á±ÖËÒ ò ÖÓÍÓ~
 ,Ë%ÁÓÍ±Á °

To focus the viewfinder lens

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

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



Notes on the tape counter

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

Note on beep sound

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

- è ÈÍÁ~±ÍËñ Í Ò·ÁÚ·ÈÍÙ ÍÁÍÙ°
 • è·ÁÚ·ÈÍ ÍÁÍÙ° ÙÍ±Á°,±ÁÚ , Áñ Á±ÖËÒË ÈÍË, Áñ,ÓÖÖ ÈÁ,Á%ÁÍËñ. àÖÓÓÍ,ÁÚËÚÁ Á,Ó, Í±·ÁÓÚ,Á ÚÍÓ,Ó%ÓÚ,±. èÛ·ÁÓÚ,ÚÁÚ ÖÓÓÚ±,±ÍËÁ ÓÓ , ÁÍÁÍË Í± ÍÁÓÍÓÍ,ÍÓ ÒÁÍÍÙ% ÓÚ Ù±ÍÚË·ÁÓÍÓ,Ó , ÁÍÁÍË. Ñíñ ÙÓÓ±ÍÓ,ÍË ÖÓÍ±Á±ÍËË Ó·ÁÚ·ÈÍ± Í ÍÚÍÁ,ÓË ÖÓÍÁÚÍÁ Í±ËÍËÚÁ ÍÍÓÓÍÙ COUNTER RESET Íà ÖáëÍË ÙËÑ.
- ÖÓÍË ÍÁÍÙ± Á±ÖËÓ±±, ÓÓ·ÁÚ±ÍËË ÁËËÍÓ, SP È LP, Ó·ÁÚ·ÈÍ ÍÁÍÙ° ·Ú%ÁÚ ÖÓÍ±Á°,±Ú, ÍÁÖ ±,ÈÍ ÍÓÁ , Áñ Á±ÖËÒË. ÖÓÍË Ç° Í±ÍÁ Á,±ÁÚÁÓ, Ó ÓËÁ,ÁÒÚË ÍÓÍÙ±Ë ÍÁÍÙ° Ò ÈÖÓÓÍ,ÁÓ,±ÍËÁÍ Ò·ÁÚ·ÈÍ± , ÁÍÁÍË ÓÓ,±±ÍÓÍ ÙÍÓ,Ó%ÓÚ,Ú, °ÖÓÍñËÚÁÁ±ÖËÓ, , Ó%ÍÓÍ È ÚÓÍ ÈÁ ÁËËÍÁ (SP ÈÍË LP).

è ÈÍÁ~±ÍËÁ Í ÁÚÍÁ ÍÓÍÙ Á,ÚÍÓ,ÓÍÙ ÒË,,±ÍÍÙ
 ä±Í ÙÍ±Á±ÍÓ Ò ÖÓÍÓ~ ♪ Í± ÈÖÓÍÍ±, ÁÚÍÁ Í·È ÒË,,±Í Í Á,Ú·ËÚ, ÍÓ,%± Ç° Í±ËÍ±ÁÚÁ Á±ÖËÓ , È %± ÁÚÍÁ Í·È ÒË,,±Í± Á,Ú·±Ú, ÍÓ,%± Ç° Á±Í±Ë,±ÁÚÁ Á±ÖËÓ, ÓÓ%Ú,Á È%±ñ ÚÁÍ Ó±Í·Í ±·ÓÚÙ. çÁÓÍÓÍ,ÍÓ ÁÚÍÁ Í·È ÒË,,±ÍÍÓ, Ù±ÍËÁ Á,Ú·ËÚ , Í±·ÁÓÚ,ÁÓ Á%ÚÓ ÁË%ÁÍËñÍ±ÍÓ,Ó·È·Ó ÍÁÍÓ Í±Í,ÍÓ,Ó ÖÓÓÚÓñÍËñ ,Ë%ÁÓÍ±Á °. ä±ÍÁÚ,ÚÁ,´ÚÓ ÁÚÍÁ Í·È Á,ÚÍÓ,ÓË ÒË,,±Í ÍÁ Á±ÖËÓ°,±ÁÚÓñ Í± ÍÁÍÙÚ. ÈçÍË B° ÍÁ ÍÓÚËÚÁ ÒÍ·±Ú, ÁÚÍÁ Í·È ÒË,,±Í, ÙÓÓ±ÍÓ,ËÚÁ BEEP , ÖËÓÚÁÍÁ ÍÁ, ÖÓÍÓËÁÍËÁ OFF.

Camera recording

Note on the AUTO DATE feature

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

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

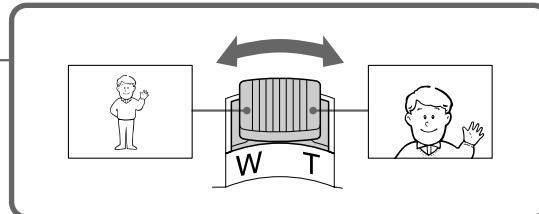
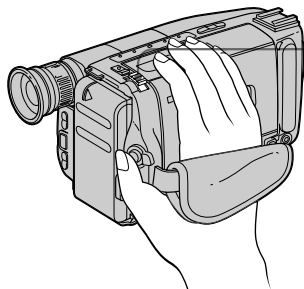
- you reset the date and time.
- you eject and insert the cassette again.
- you stop recording within 10 seconds.

Using the zoom feature

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

T side: for telephoto (subject appears closer)

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



Camera recording

è ÈÏÄ~±ìÈÄ í ÙÙìí~ÈÈ AUTO DATE

ó±ò° Ùòù±ìò,íàì° ì± Á±,ó%ã ì±, Áíñ
 äòì%òì± %òìñ èòã%èìììò,ó äó óíá,òù,± È
 ì±, Áíñ è± ÈÈ± %òìñ %ò Ù,,Èì Á, óóÀÈòìÈì
 ÒÙ ±ì, ÒÈòùÁíÄ íÄì.
 Ç° ìóÈÁùÄ ÒÄ Áùòù±ìò,Èù, ~±ò° ìÙìí~Èñ
 AUTO DATE ±.òù±Áù Ò%èì ±Á, %òÄì.
 é%òì±ìó, %ò±ù±ìóÈÁù Òòñ,Èù, Òñ. ÒíÄÄ Ò%òìò,,ó
 ±Á±, %òÄì, ÁòìÈ:
 -Ç° ÒÄ Áùòù±ìò,ÈùÁ±ùùÈ, Áíñ.
 -Ç° ÙóìììÁùÄ ìÄìùù È,òù±,ÈùÄ ì±òòÁùù
 Òìò ±.
 -Ç° Òòù±ìò,ÈùÄ Á±òÈò, ò Á%Äì±ì 10
 ÓÄìù%ò.

àòòòì Áó,±ìÈÄ ÙÙìí~ÈÈ ì±ÁÁ%ò± ,È%òÄòì±ìÄ °

ç±ÁÁ%ò,È%òÄòì±ìÄ ° ñ,ìñÁùòñ ÙÄìÈ~ÁòìÈì
 Ò ÈÄìòìÁ±òÈòÈ,ìóúó °È ÒóÁ,òñÁù Ç±ì
 ÈÄìÄìñù, ±ÁìÄ Ò·Áìù±, ì±%ò Á. ÇÄ
 Áìóùòòù Á·ñÈùÄ ~ùÈì Ò ÈÄìòì, ÁòìÈ
 ìóùÈùÄ, ~ùó° Ç± È Á±òÈòÈ °, ññ%òÄìÈ
 ·óíÄÄ Ò òùÄòòÈòì±ì,ìò.
 èùó òì± "T": %òìñ ÙÄìÁùòùó (ó·Áìù
 Ò È·ìÈÈ±Áùòñ)
 èùó òì± "W": %òìñ È òíó,,ó Ù,,ì± ò ÁìíÈ
 (ó·Áìù Ù%ò±ìñÁùòñ)

Camera recording

á±ÔËÒ ò ÓÓÍÓ[~]
 ,É%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·ÁÏ± ò ÓÓÍÓ[~] °í ±ì± ÜäÑ

Ç° Ú±íËÄ ÍÓËÁÚÄ ÓÓÛ·ÁÓÛ,íñÚ, Á±ÔËÒ, ÉÁÓ· ±ËÄíËñ, Ó ÓÓÍ±Ú Ë,±ñ Ä,Ó ì± í ±ÏÄ ÜäÑ.

è È ËÓÓÓÍ·ÁÓ,±íËË °í ±ì± ÜäÑ ,É%ÔËÒí±ÚÁÍ, °í, ËËÚÓñ ±,ÚÓí±ÚË·ÁÓíË.

Ç° ÌÄ ÍÓËÁÚÄ Ó ÓÓÍÛ·Ë,±Ú, Ä,Úí ÓÚ °ÓÍÓ,Ó,Ó ËËÁíñ,Ó, Áíñ Á±ÔËÒË.

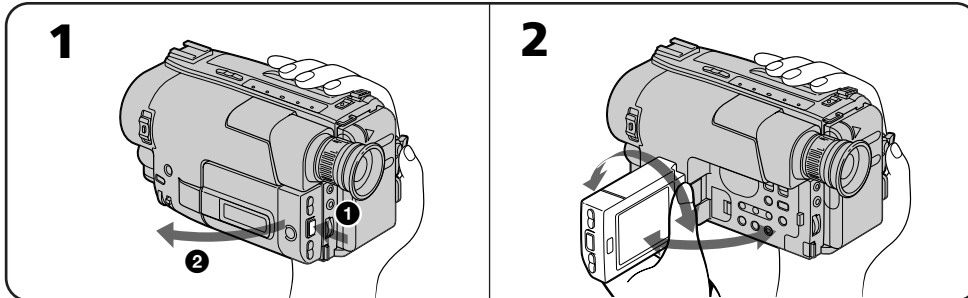
(1) Ç±ËËí±ñ PUSH OPEN, ÓÚí ÓËÛÄ Ó±ÏÄÍ, ÜäÑ.

(2) éÚ Ä,ÚíË ÛËÛÄÚ,Óí Ó±ÏÄíË ÜäÑ.

è±ÏÄÍ, ÜäÑ ÓÄ ÁÏÄ·±ÁÚÓñ Ó Ë·ËËÁÛÄÍ,íÓ ì±90°, ±%ÚÓÓ, °Ó%ÌÚ ÓÚÓ ÓÍÛË ì±210°, ±%ÚÓÓ, %Ó Ú,Ú, ÓÚÓÓÚ.

Ñíñ ÚÓ,Ó, ~ÚÓ· ÓÚ Ä,ÚíË Ó,±Ú, ñ ÍÓÓÚ, °í ±ì± ÜäÑ, ì±ËËÛÄ ÍÍÓÍÛ BRIGHT + ËË -.

è ÓÍ ÓÍÛË· ±Ú± ÄË ·Ú%ÔÁÚ %ÓíËÏÄÄ, ÄÒíË ÜäÑ Ó±ÏÄÍ, Á±í °Ú±. äÓÓÓÍ,ÁÚËÛÄ ,É%ÔËÒí±ÚÁÍ, ÌÄÓÚÓ °í ±ì± ÜäÑ %Óíñ °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.

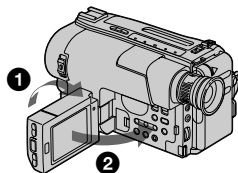
è ËÏÄ·±íËñ í Ó±ÏÄíË ÜäÑ

• è È Á±í °,±íËË Ó±ÏÄíË ÜäÑ ÓÓ,Ó ±Ë,±ËÛÄ ÄÄ, Ä ÚËí±í,íÓ, ÓÓí± òì± ÌÄ Á±·ÁÏÏÄÚÓñ [a].

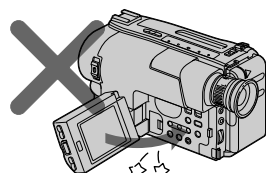
• è È ÓÓ,Ó ±Ë,±íËË Ó±ÏÄíË ÜäÑ ÓÓ,Ó ±Ë,±ËÛÄ ÄÄ, ÓÄ, %±, Ä ÚËí±í,íÓ, ËËË Ó ÚËË,íÓí ÚÛ·±Ä íÓ ÓÚÓ, É%ÔÁÓí±ÏÄ ° ÍÓËÁÚ·Ú, ÓÓ, ÄË%Äí, ËËË Ó±ÏÄÍ, ÜäÑ ÌÄ ÓíÓËÁÚ Á±í °Ú,Óñ Ó ±Ëí,íÓ [b].

• èÓÍÍÓÓÚ, Á±í ÓËÛÄ Ó±ÏÄÍ, ÜäÑ, ÍÓ, %± Ó±ÏÄËÓÓÓÍ,ÁÚÁÚÓñ.

[a]




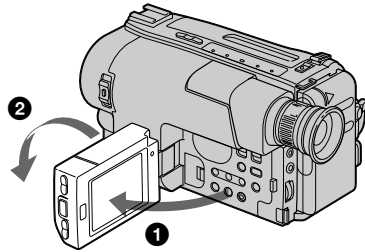
[b]



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.



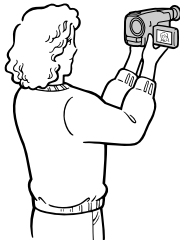
To cancel mirror mode

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.

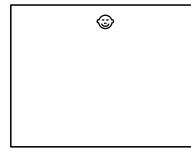
[a]





Ç° İÖÊÀÚÀ ÒÀ Æ,À İÜÜ, Ò±İÀİ, ÜàÑ, Ú±İ, ÒÓİ±İ, Ü%ÀÚÓ. ±Àİ±, %Ü, Ü, ÒÚÓ ÒİÜ È Ç° İÖÊÀÚÀ %±Ü, ,ÓÁİÖÊİÓÓÜ, ÒİÊİ±ÀİÓİÜ ÒÁİÓ,ÀİÜ İ±.İ %±Ü, Ò ÁİİÜ, ÒİÊİ±İİ Ò ÒÓİÓ, ,È%ÖÊÖİ±ÚÀİİ.

èÒÀ, ± ÒÓ, Ó ± È, ±ÈÚÀ Ò±İÀİ, ÜàÑ, Æ ÜÊİ±İ İÓ, ÒÓİ± Òİ± İÀ Á±ÁİİİÀÚÒİİ, ± Á±ÚÀİÓÀ Æ,À İÈÚÀÀÀ. àİ%Èİ±ÚÓ  ÒÒİ,ÈÜÒİ İ± İ±İÀ (ÀÀ İ±İ İÈ ÀÈÈİ) , Èİ%Èİ±ÚÓ ° %±Ü È ÒÁÚÈİ± İÀİÜ ° ±±± ÀÈÈÒ-ÀÀİÜÜ.

èÒÀ, ± ÒÓ, Ó ± È, ±ÈÚÀ Ò±İÀİ, ÜàÑ, Æ ÜÊİ±İ İÓ, ÒÓİ± Òİ± İÀ Á±ÁİİİÀÚÒİİ, ± Á±ÚÀİÓÀ Æ,À İÈÚÀÀÀ. àİ%Èİ±ÚÓ  ÒÒİ,ÈÜÒİ İ± İ±İÀ (ÀÀ İ±İ İÈ ÀÈÈİ) , Èİ%Èİ±ÚÓ ° %±Ü È ÒÁÚÈİ± İÀİÜ ° ±±± ÀÈÈÒ-ÀÀİÜÜ.



Ñİİİ ÒÚİÀİ° ÀÀ İ±İ İÓ, Ó ÀÈÈİ± èÓ,À İÈÚÀ Ò±İÀİ, ÜàÑ İ±À±% , İ±Ó ±,İÀİÈÈ, È%ÖÊÖİ±ÚÀİİ.

- è ÈİÀ-±İÈİ İ ÀÀ İ±İ İÓİÜ ÀÈÈİÜ
- ÒÓİÈ Ç° ÒÓ,À İÀÚÀ Ò±İÀİ, ÜàÑ, Ò È-İÈÀÈÚÀİ, İÓ%Ó%È±Ò±ÀÓİ±ÓÜ 135, „ ±%ÜÓÓ, %Ò210, ±%ÜÓÓ, ÜÓ, È%ÀÓİ±İÀ ±, ÒÈ%ÀÚ, ÀÀ İ±İ İÈ ÀÈÈİ.
- àÒÓÓİ, ÀÚİ ÀÀ İ±İ İÈ ÀÈÈİ, Ç° İÖÊÀÚÀ Á±ÖÈÓ, ±Ü, ÒÀ-İİ İ± İÀİÜÜ, Ò ÒÓİ±Ü È, İİ Ò, ÒÀ ÈÀÓ. ±ÈÀİÈÀ İ± ÜàÑ [a].
- àÀÓ. ±ÈÀİÈÀ İ± ÜàÑ, „ İİ%ÈÜ, İ±İ ÀÀ İ±İ, İÓÀ ÒÚÓ. ±ÈÀİÈÀ, Ò, Àİİ Á±ÖÈÈ, , ÀÀ İ±İ, İÓİ ÀÈÈİÀ [b]. àİ%Èİ±ÚÓ STBY ÒÒİ, İİÀÚÒİ, È%À  È REC, È%À . çÁİÓÚÓ ° ÀÈİ%Èİ±ÚÓ ° İÓ, ÜÜ İÀ ÒÒİ, İİÜ, Òİ, ÀÀ İ±İ, İÓİ ÀÈÈİÀ.
- N±±± ÒÒİ, İİÀÚÒİ, Ò. ±ÚİÓİ ÒÓ İ%İÀ, ÀÒİÈ, İİ, Àİ± ÜÜİ±Èİ AUTO DATE. èÒÓİÀ Á±ÖÈÈ Òİ±. Ü%ÀÚ İÓ İ±İ İÖÈ.
- ÇÓ, Àİİ Á±ÖÈÈÈ, ÀÀ İ±İ, İÓİ ÀÈÈİÀ Ç° İÀ İÖÊÀÚÀ ÜÓ ±, İİÜ, ÒİÀ%Ü ° ÈİÈ İİÓÓİ±È: TITLE, DATE È TIME.
- è-ÀÚÈİ ÒÚÓ. ±È±ÀÚÒİ, ÒÀ Æ,À İÜÜÓİ, È%À, ÒÍÓ-İÀ %ÈÓÓİÀİİ.

[b]



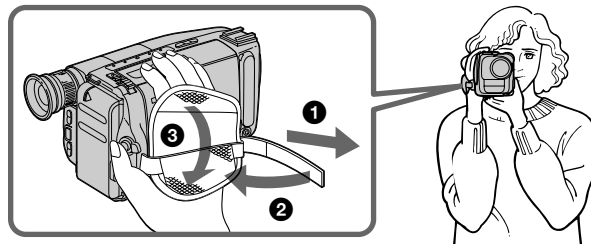
Hints for better shooting

ΕΠΙΧΕΙΡΗΣΙΑΣ
ΟΡΓΑΝΙΣΜΟΣ

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

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

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



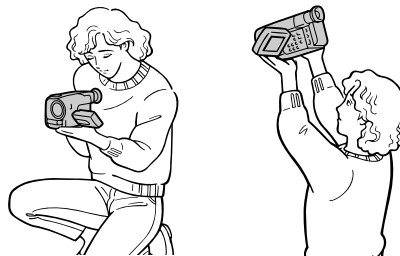
- Place your right elbow against your side.
- Place your left hand under the camcorder to support it.
- Place your eye firmly against the viewfinder eyecup.
- Use the viewfinder frame as a guide to determine the horizontal plane.
- You can record in a low position to get an interesting recording angle.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

- έπúόόίόέέύά çπ° ό π,°έ ίόίόύ, ό-όίú όú
όά-πí.
• έπúόόίόέέύά çπ° ίá,ú. úíú όό%οο
,έ%οάόίπíã όέ%οπíάάόό%οά έίέ.
• çπ°άέίό ό έόίόίέύά çπ° ,,íá ί όίúπí ú
,έ%οέόίπúάπí.
• άόόόί,άύέύά, έάέ ίú, πííú, íπ~άού,ά
úίό.ό%οού,π%οπíόό ά%οάίáίπí
,,ό έάόίπí,ίό,ό όίπí.
• ç° ίόέάύά άπóέό°,πú έά ίέάίό,ό
όόίόέάίέπí%οπí όόίú~άίέπí έίúά άόίό,ό ú,,πú
άπóέόέ. εό%οίέίέύά,έ%οέόίπúάί,,ά í%οπí
άπóέόέέά ίέάίό,ό όόίόέάίέπí [a].
• ç° úπíέά ίόέάύά όίέίπú, έά ίέάίό,ό
όόίόέάίέπí έίέ %οπíέά έά,°όόίό,ό
όόίόέάίέπí ό έόόόί,άό,πíέάí όπíáίέ úãñ
[b].

[a]



[b]



Hints for better shooting

εὐχρηστίως ἡμεῖς ὑμῶν ἀγαθὰ ἔργα

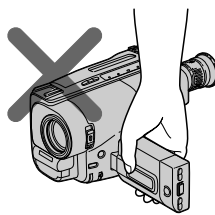
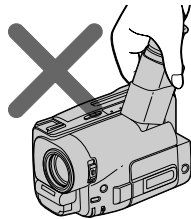
Place the camcorder on a flat surface or use a tripod

Try placing the camcorder on a table top or any other flat surface of suitable height. If you have a tripod for a still camera, you can also use it with the camcorder. When attaching a non-Sony tripod, make sure that the length of the tripod screw is less than 6.5 mm (9/32 in). Otherwise, you cannot attach the tripod securely and the screw may damage the camcorder.

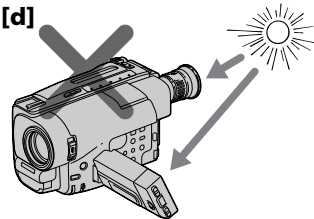
Cautions on the viewfinder and the LCD

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

[c]



[d]



Note on the LCD screen

When you use the LCD screen outdoors in direct sunlight, the LCD screen may be difficult to see. If this happens, we recommend that you use the viewfinder.

ὅταν ἡμεῖς ὑμῶν ἀγαθὰ ἔργα
 ὁφείλομεν εἶναι ἐπιμετέστεροι,
 ἐπιμετέστεροι ὅσον ἡμεῖς
 οὐκ ἐσμὲν ἀγαθοὶ ἑαυτοῦ.
 ὅταν ἡμεῖς ὑμῶν ἀγαθὰ ἔργα
 ὁφείλομεν εἶναι ἐπιμετέστεροι,
 ἐπιμετέστεροι ὅσον ἡμεῖς
 οὐκ ἐσμὲν ἀγαθοὶ ἑαυτοῦ.
 ὅταν ἡμεῖς ὑμῶν ἀγαθὰ ἔργα
 ὁφείλομεν εἶναι ἐπιμετέστεροι,
 ἐπιμετέστεροι ὅσον ἡμεῖς
 οὐκ ἐσμὲν ἀγαθοὶ ἑαυτοῦ.

ὅταν ἡμεῖς ὑμῶν ἀγαθὰ ἔργα
 ὁφείλομεν εἶναι ἐπιμετέστεροι,
 ἐπιμετέστεροι ὅσον ἡμεῖς
 οὐκ ἐσμὲν ἀγαθοὶ ἑαυτοῦ.
 ὅταν ἡμεῖς ὑμῶν ἀγαθὰ ἔργα
 ὁφείλομεν εἶναι ἐπιμετέστεροι,
 ἐπιμετέστεροι ὅσον ἡμεῖς
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 ὅταν ἡμεῖς ὑμῶν ἀγαθὰ ἔργα
 ὁφείλομεν εἶναι ἐπιμετέστεροι,
 ἐπιμετέστεροι ὅσον ἡμεῖς
 οὐκ ἐσμὲν ἀγαθοὶ ἑαυτοῦ.

Basic operations

εὐχρηστίως ἡμεῖς ὑμῶν ἀγαθὰ ἔργα

ὅταν ἡμεῖς ὑμῶν ἀγαθὰ ἔργα
 ὁφείλομεν εἶναι ἐπιμετέστεροι,
 ἐπιμετέστεροι ὅσον ἡμεῖς
 οὐκ ἐσμὲν ἀγαθοὶ ἑαυτοῦ.
 ὅταν ἡμεῖς ὑμῶν ἀγαθὰ ἔργα
 ὁφείλομεν εἶναι ἐπιμετέστεροι,
 ἐπιμετέστεροι ὅσον ἡμεῖς
 οὐκ ἐσμὲν ἀγαθοὶ ἑαυτοῦ.
 ὅταν ἡμεῖς ὑμῶν ἀγαθὰ ἔργα
 ὁφείλομεν εἶναι ἐπιμετέστεροι,
 ἐπιμετέστεροι ὅσον ἡμεῖς
 οὐκ ἐσμὲν ἀγαθοὶ ἑαυτοῦ.

Checking the recorded picture

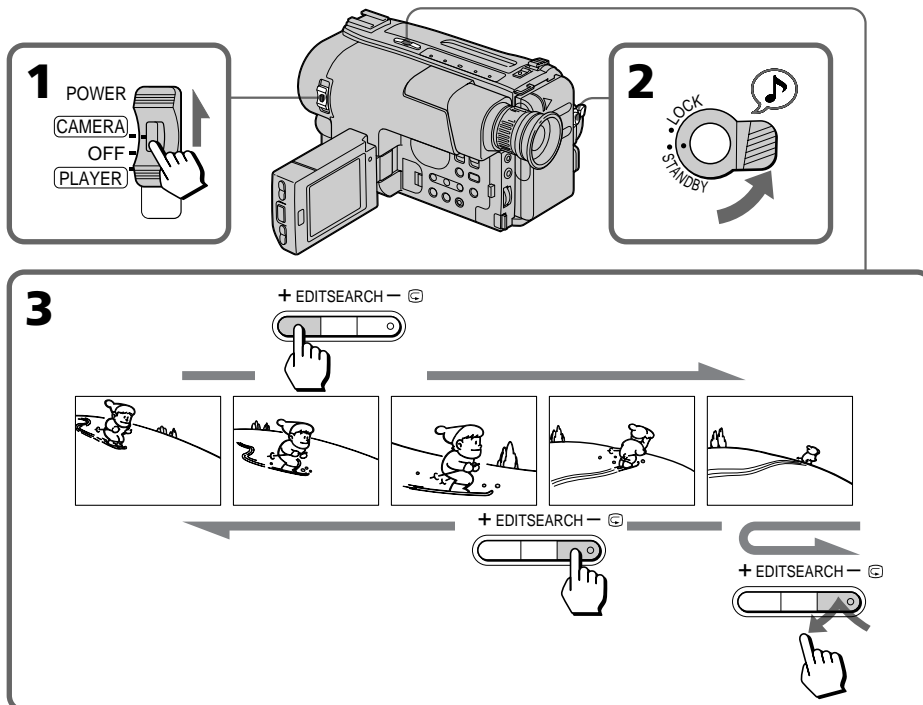
è Ó,Â Í± Á±ÔËÒ±ìíÓ,,Ó
ËÁÓ. ±ÊÁÏËí

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,ÁÛí EDITSEARCH, Ç° ÌÓËÁÛÁ
ÒÁ ÁÓÍÓÛ ÁÛ, ÒÓÒÍÁ%òì, Á±ÔËÒ±ìíÛ.
Ò°ÁÛÛËÏË Ó,Á ËÛ, Á±ÔËÒ±ìíÒÁ
ËÁÓ. ±ÊÁÏËÁ, ,Ë%òÓÒÍ±ÚÁÏÁ. Ç° Ú±ÍËÁ
ÌÓËÁÛÁÒÁ ÁÓÍÓÛ ÁÛ,ËÁÓ. ±ÊÁÏËÁÏ±
°í ±íÁ ÛäÑ.

- (1) Ç±ÊËÏ±íí ±íÁÏ,íÛ, ÁÁÏÁÛÛ, ÌÒÒÓÍÛ Ì±
°íí, ±ÚÁÏÁ POWER, ÛÒÚ±ÍÓ,ËÛÁ Á,,Ó ,
ÒÓÍÓËÁÏËÁ CAMERA.
- (2) èÓ,Á ÌËÛÁ STANDBY ,,Á í.
- (3) ÇÁÏ±%Óí,,Ó Ì±ÊÏËÛÁ ÒÓÓ ÒÍÛ - (⊖) ÌÒÒÓÍË
EDITSEARCH; ÒÓÒÍÁ%òìËÁ ÌÁÒÍÓÍ,ÍÓ
ÒÁÛÛ%Á±ÔËÒ±ìíÓË±ÒÛË.Û%òÛÛ
,ÒÒÒ ÓËÁ,Á%Áì° (ÒÁ ÁÓÍÓÛ Á±ÔËÒËË).
Ç° Ú±ÍËÁ ÌÓËÁÛÁ Ó ÒÓÍÛË,±Ú, Á,Ûí ÒÛ
,, ÒííÓ,Ó,Ó ËÛÁíí ËÏË °Á ÁÁ Ì±Û°ÏËË
(ÌÁ Ó ËÏ±,±,ÛÓí).
ÑÁ ËËÛÁÒÛÓ ÒÍÛ -ÌÒÒÓÍË EDITSEARCH
%òòÛÁ,ÓÓ, ÒÓÍ±,Ë%òÁÒÍ±Á ±íÁ
,Á ÌÁÛÒíí Ì ËÁÏ±ÁÏËË Ò°ÁÏÁ. èÒÒÍÁ%òìííí
Á±ÔËÒ±ìíí±í±±ÒÛ. Û%òÁÛ,ÒÒÒ ÓËÁ,Á%òÁÏ±.
ÑííÓ Ó%ò,ËËÁÏËí,ÒÁ Á%ò%òÁ ËËÛÁ
ÒÛÓ ÒÍÛ + (ÍÓÍÛ±Ëì°Ë ÒÓËÓÍ).



Checking the recorded picture

è Ó,À 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,Â%ÂìËñ
ç±ËÏËÚÄ EDITSEARCH.

Ñîñ ,ÓÁ, ±Ú± Í ÓÒÒìÄ%ìÄÏÙ
Á±ÔËÒ±ìÓìÓìÙ ÌÁÒÙÙ ÓÒÒìÄ
ìÓìÙ±ËÏÓ,,Ó ÓÒËÒì±
ç±ËÏËÚÄ END SEARCH. èÓÒìÄ%ìÄÏÙ
Á±ÔËÒ±ìÓìÓìÙÙ%ÁÙÓÒÒ ÓËÁ,Ó%ËÙ Òñ
Ò Ë.ÏËÄËÚÄì,ìÓ, ÙÄ~ÄìËË 5 ÓÄìÙì%, ÄÒÏË
ìÄìÙ± .ì± Á±ÔËÒ±ì± , ÄËËÏÄ SP, ËÏË ,
ÙÄ~ÄìËÄ 10 ÓÄìÙì%, ÄÒÏË ÌÄìÙ± .ì±
Á±ÔËÒ±ì± , ÄËËÏÄ LP, ± Á±ÚÄì ÌÄìÙ±
ÓÒÙ±ìÓ,ËÙÓñ. è. ±ÚËÚÄ,ìË±ÏËÄ,~ÚÓ
%±ì±ñ ÙÙìí~Ëñ ÌÄ ±.ÓÙ±ÄÙ, ÄÒÏË Ç°
,~ÚÓìÏËÚÄ Ì±ÒÒÄÙÙ ÓÒÒìÄ Á±ÔËÒË ÌÄìÙ°.

Ñîñ Ì±~±ì± ÓÄ ÄÄ±ÔËÒË
ç±ËÏËÚÄ START/STOP. èÄ ÄÄ±ÔËÒ,
ì±ËÏËÄÙÓñÓÙÓÒÒìÄ%ìÄË Á±ÔËÒ±ìÓËÙÓ~íË
ËÏË ÓÙÙÓ~íË ,,%ÄÇ° ÓÙÓÙÓËËË
EDITSEARCH. è Ä%ÙÒìÓÙ ÄìÓ, ~ÚÓ. Ç° ÌÄ
,~ÚÓìÏËÚË Ì±ÒÒÄÙÙ, È ÓÄ ÄìÓ%ìÄË%Ù
ÓÒÒìÄ%ìÄË Ò~ÄìÓË, ÌÓÙÓ Ù Ç° Á±ÔËÒ±ìË, È
ÒìÄ%Ù.~ÄË Ò~ÄìÓË, ÌÓÙÓ Ù Ç°
Á±ÔËÒ°,±ÄÙÄ, .Ù%ÄÙ Òì±,ì.ì.

Basic operations

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Playing back a tape

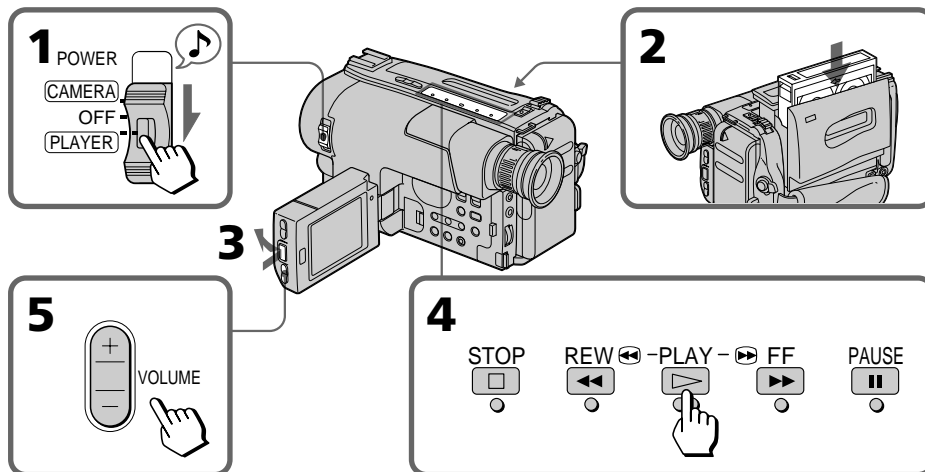
Ç° ÎÖÉÁÚÁ Ô ÓÓİ±Ú Ę,±Ú, ÏÖÖ ÓÉÁ,Ó%ÖİÖÁ ÉÁÓ. ±ÉÂİÉÂ İ± ı±İÂ ÛäÑ.

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 ▷ 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 ÓÓİ±Ú Ę,±Ú,
ÏÖÖ ÓÉÁ,Ó%ÖİÖÁ ÉÁÓ. ±ÉÂİÉÂ İ± ı±İÂ
ÛäÑ.

- (1) Ç±ÉÉİ±İ İ±İÂİ, İÚ, ÂÂİÂİÚ, İİÖÖİÚ İ±
, İİ ±ÚÂİÂ POWER, ÖÂ Â%Öİ, ÚÂ Â,, Ó,
ÖÖİÖÉÂİÉÂ PLAYER.
 - (2) ÇÓÚ±, ÚÂ Â±ÖÉÖ±İİÚ, İ±ÖÖÂÚÚ ÖÍÓ-ÍÓİ,
Ó. ±~Âİİ°İ İ± ÚÉÚ.
 - (3) Ç±ÉÉİ±İ PUSH OPEN, ÖÚÍ ÖÉÚÁ Ö±İÂİ,
ÛäÑ. éÚ Â, ÚİÉ ÚÉÚÁ Ú,, ÖÍ Ö±İÂİÉ ÛäÑ Ę
İ İÖÖÚ, ı±İ± ÛäÑ, ÂÖİÉ ıÚÓ Ú Â-ÚÂÚÖİİ.
 - (4) Ç±ÉİÉÚÁ ▷ %İİ İ±~İ±
, ÖÖÖ ÓÉÁ Â%ÂİÉİİ.
 - (5) éÚ Â, ÚİÉ ÚÉÚÁ, ÖİİÖÖÚ, Ö
ÉÖÖÖÍ, ÁÓ, ±İÉÂİ VOLUME +/-.
- Ç° Ú±İÉÂ ÎÖÉÁÚÁ Ô ÓÓİ±Ú Ę,±Ú,
ÉÁÓ. ±ÉÂİÉÂ İ± ı±İÂ ÚÂİÂ, ÉÁÓ ± ÖÖÖİÂ
ÖÖ%ÖÖÂ%ÖİÂİÉİİ, É%ÖÖİ±İÂ ° İ äÇà/
ÚÂİÂ, ÉÁÓ Ú.



- To stop playback, press □.
- To rewind the tape, press ◀◀.
- To fast-forward the tape, press ▶▶.

Ñİİİ ÖÖÚ±İÖ, İÉ, ÖÖÖ ÓÉÁ, Â%ÂİÉİİ İ±ÉİÉÚÁ
□.

Ñİİİ ÚÖİÖ ÂİİÖÉ ÖÂ ÂİÖÚİÉ İÂİÚ° İ±Â±%
İ±ÉİÉÚÁ ◀◀.

Ñİİİ ÚÖİÖ ÂİİÖÉ ÖÂ ÂİÖÚİÉ İÂİÚ° , ÖÂ Â%
İ±ÉİÉÚÁ ▶▶.

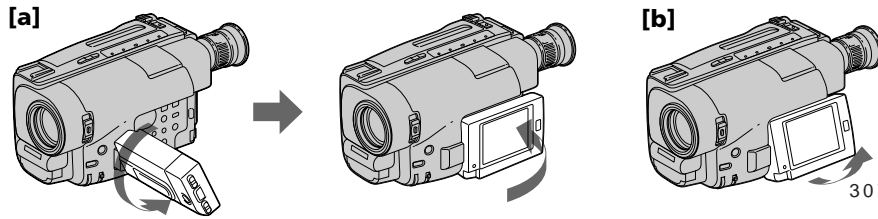
Playing back a tape

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

To erase the screen indicators

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

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

Using an earphone

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

Συνδέστε ακουστικό (δεν παρέχεται) 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 τηλεσκοπικός φακός ανάμνησης ενεργοποιείται αυτόματα. Όταν χρησιμοποιείτε τον τηλεσκοπικό φακό ανάμνησης, μπορείτε να παρακολουθήσετε μόνο τον ήχο χρησιμοποιώντας ακουστικό. Για να δείτε ξανά στην LCD οθόνη, ανοίξτε το LCD οθόνη. Ο τηλεσκοπικός φακός ανάμνησης απενεργοποιείται αυτόματα.

Playing back a tape

ÇÓÒÒ ÓÉÁ,Â%ÀÌÈÄ ÎÄÌÚ°

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±ÁÎË~ì°Â ÄÊËÏ°

,ÓÒÒ ÓÉÁ,Â%ÀÌÈÈ

Ñíñ Ò ÓÓÍÓÚ ± ÎÄÒÓ%,ÈÈÍÓ,,Ó ÉÁ· ±ÈÄÌÈñ

(Ò±ÚÄ±,ÓÒÒ ÓÉÁ,Â%ÀÌÈÈñ)

ç±ÈÏÈÚÄ ÌÍÓÓÍÚ **II** , Ó , ÄÏñ

,ÓÒÒ ÓÉÁ,Â%ÀÌÈÈñ. Ñíñ ,ÓÁÓ·ÌÓ,ÎÄÌÈñ

,ÓÒÒ ÓÉÁ,Â%ÀÌÈÈñ Ì±ÈÏÈÚÄ ÌÍÓÓÍÚ **II** ÈÏÈ **▷**.

Ñíñ ÓÚ°ÒÍ±ÏÈñ ÈÄÏ±ÄÏÓ,,Ó

Ú ±,ÎÄÌÚ± (ÓÓÈÓÍ ÈÁÓ· ±ÈÄÌÈÈñ)

ÑÄ È±Ú, Ì±È±ÚÓÈ ÌÍÓÓÍÚ **◀◀** ÈÏÈ **▶▶** , Ó

, ÄÏñ ,ÓÓÓ ÓÉÁ,Â%ÀÌÈÈñ. Ñíñ ,ÓÁÓ·ÌÓ,ÎÄÌÈñ

ÌÓ Ì±Ï,Ì,Ó,ÓÒÒ ÓÉÁ,Â%ÀÌÈÈñÓÚÓÚÓÚÈÚ,

ÌÍÓÓÍÚ.

Ñíñ ÍÓÍÚ ÓÏñ ÈÁÓ· ±ÈÄÌÈÈñ Ì± , °ÒÓÍÓÈ

ÓÍÓ ÓÓÚÈ, Ó , ÄÏñ ÚÓÍÓ ÄÏÍÓÈ ÓÄ ÄÏÓÚÍÈ

,ÓÄ Ä% ÈÏÈ Ì±Ä±% (ÓÓÈÓÍ ÎÄÚÓ%ÓÍ

Ó Ó,ÓÏ±)

ÑÄ È±Ú, Ì±È±ÚÓÈ ÌÍÓÓÍÚ **◀◀** , Ó ÄÏñ

ÓÄ ÄÏÓÚÍÈ ÎÄÌÚ° Ì±Ä±% ÈÏÈ ÌÍÓÓÍÚ **▶▶** , Ó

, ÄÏñ ÓÄ ÄÏÓÚÍÈ ÎÄÌÚ°, ÓÄ Ä%. Ñíñ

,ÓÁÓ·ÌÓ,ÎÄÌÈñ ÌÓ Ì±Ï,Ì,Ó,

,ÓÒÒ ÓÉÁ,Â%ÀÌÈÈñ Ì±È±Ú, ÌÍÓÓÍÚ **▷**.

è ÈÏÄ~±Èñ Í , ÓÒÒ ÓÉÁ,Â%ÀÌÈÈ

• Ç ±ÁÎË~ì° ÄÊËÏ±, ÓÒÒ ÓÉÁ,Â%ÀÌÈÈñ Ì±

Í±Ä ÎÓ,ÚÚ ÓÓñ,ÈÚ,Òñ ÓÓÍÓÓ° È Á,ÚÍ

·Ú%ÄÚÓ È,ÏÚ·ÄÏ.

• ÓÓÏÈ ÄÊËÏÓ±ÚÄ°, ÓÒÒ ÓÉÁ,Â%ÀÌÈÈñ

Ó Ó%ÓÏÈ±ÄÚÒñ ÑÏÈÏÚÚ ÈÏÈ·ÓÏÄÄ,

,È%ÄÓÍ±Ä ± ±,ÚÓÍ±ÚÈ·ÄÓÏÈ,ÓÈ%ÄÚ,

ÄÊËÏ ÓÓÚ±ÍÓ,ÏÈ.

Searching for the end of the picture

èÓËÒÍ ÍÓÌ^† 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.

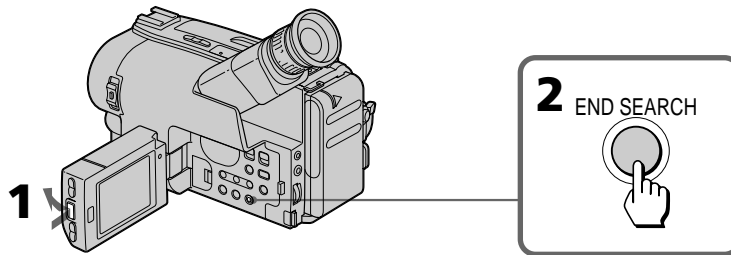
This function works when the POWER switch is set to either CAMERA or PLAYER.

ç° ÍÓËÁÚÂ ÔÂ ÂËÛË ÍÍÓÌ^Ú Á†ÔËÒ†ÏÏÓË
~†ÓÛËÒÓÓÍÁ†ÔËÒËË,ÓÓÓ ÓËÁ,Á%ÂÏËfl
ÍÂÏÚ° %òfl Ó·ÁÓÔÂ^ÂÏËfl ÓÍ†,ÍÓ,,Ó ÔÂ ÂÍÓ%†
ÍÂË%Ú ÓÓÓÍÁ%ÍÂË Ó^ÂÏÓË, ÍÓÚÓ Ú, ç°
Á†ÔËÒ†ÏË, Ë ÓÍÁ%Ú, ^ÂË Ó^ÂÏÓË. äÂÏÚ†
†~Ë†ÁÚ ÚÓÍÓ ÂÏÓ ÔÂ ÂÍ†Ú°,†Ú,Òfl ††Á†%
ËË,ÔÂ Á%ò. ä†ÚÂÏ ÓÓÓÍÁ%òÍËÁ 5 ÓÁÍÚÍ%ò
·Ú%ÚÚ,ÓÓÓ ÓËÁ,Á%ÂÏ°, ÂÓÏËÍÂÏÚ†
Á†ÔËÒ†Ï†, ÂËËÍÁ SP, ËËË ÓÓÓÍÁ%òÍËÁ 10
ÓÁÍÚÍ%ò·Ú%ÚÚ,ÓÓÓ ÓËÁ,Á%ÂÏ°, ÂÓÏËÍÂÏÚ†
Á†ÔËÒ†Ï†, ÂËËÍÁ LP. ä†ÚÂÏ ÍÂÏÚ†
ÓÓÚ††,Ë,†ÁÚÒfl, ÍÓÌ^Á Á†ÔËÒ†ÏÓ,,Ó
ËÁÓ· †ËÂÏËfl (ÓÓËÓÍ ÍÓÌ^†).
é· †ËËÚÂ, ÍË†ÍËÁ, ~ÚÓ ÚÚÍ^Ëfl ÓÓËÒÍ†
ÍÓÌ^† ÍÂ †·ÓÚ†ÁÚ, ÂÓÏË ç°, ^ÓÓÍÍÚÏË
††ÓÓÁÚÚ ÓÓÓÍÁ, ^ÓÓÍÍÂÏËfl ç†^ÂË Á†ÔËÒË ††
ÍÂÏÚÂ.

(1) ç†ËËË†fl PUSH OPEN, ÓÚÍ ÓËËÚÂ Ô†ÍÂÏ,
Ú äN.

(2) ç†ËËËÚÂ END SEARCH.

N†Í††fl ÚÚÍ^Ëfl †·ÓÚ†ÁÚ, ÍÓ,,%ò†
,^Í^†ÚÂÏ, POWER ÚÓÚ†ÍÓ,ÍÂÏ, Í,Ú,
ËÁ ÓÓÁË^ËË, ðAMERA ËËË PLAYER.



Advanced operations

Using alternative power sources

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

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

Note on power sources

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



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

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Using alternative power sources

àÒÒÓÍ,ÁÓ,±ÈÄ ±Ï,ÚÂ Ì±ÚË,Ì,ÈÒÚÓ~ÍËÍÓ,ÒËÚ±ËË

Using the mains

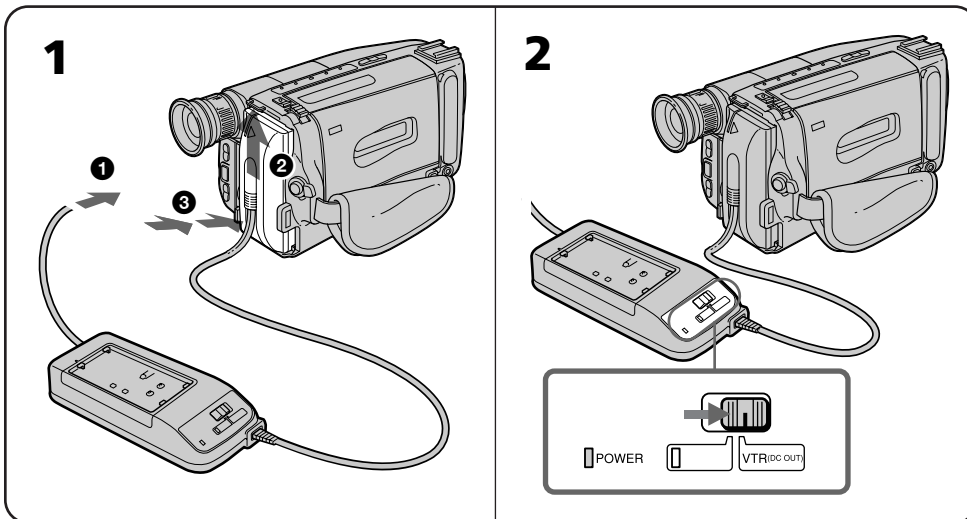
To use the supplied AC power adaptor:

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

àÒÒÓÍ,ÁÓ,±ÈÄ ±ÏÁÍÚ È~ÄÓÍÓÈ ÒÂÚË

ÑËË ÈÒÒÓÍ,ÁÓ,±ËË Ò ÈÏ±,±ÁÍÓ,,ÒÓÁÚÁ,Ó,,Ò ±%±ÔÚÁ ±ÒÁ ÁÍ.ÚÓÏ±:

- (1) èÒ%ÒÓÁ%ÈËËÒÁÚÁ,ÒÈÒ Ó,Ó%ÒÁÚÁ,ÒÈ ÓÁÁÚÁ. ÇÓÚ±, ÚÁ, Á ÌÈÈ ÍÒÍÁ ÓÓÁ%ÈËËÚÁÏ ÌÓÈÒÏ±ÒÚËÏ ÓÁÚÁ,Ó,,Ò ±%±ÔÚÁ ± ÓÁ ÁÍ. ÚÓÏ±, Á Ì, ±ÔÚ, ±Ú± ÁËÍÓËÚÓÚ±ÍÓ,Ó~ÍÓÈÓÓ,Á ÌÍÓÓÚË. Ç±ÈËËÚÁ Ì± ÓÓÁ%ÈËËÚÁÏ ÌÚ, ÒÏ±ÒÚËÏÚ, Ú±Ï, ~ÚÓ. ÒÏ± Ó ÈÒÓÁ%ÈËË±Ò, Ì±%ÁÈÍÓ. Ì.Á%ÈÚÁÒ,, ~ÚÓ. Ç ÚÓÏ±ÏË ~ÁÏ~ÓÍ %,,±È%.
- (2) ÌÓÚ±ÍÓ,ÈÚÁ ÒÁÏÁÍÚÓ, ÒÓÍÓÈÁËÈÄ 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.

èèÒÑìèèÖÛÑÒçàÖ èÁÚÁ,ÒÈÒ Ó,Ó%ÒÍÁ%ÚÁÚ Á±ÏÁÏÚ, ÚÓÍ,ÍÓ, Ì±ÔÚÁ ÒÍÓÈ Ì,±ËËË È Ó,±ÍÓ,,Ò Ó.ÒÍËÈÈ,±ËË.

èèÒÑìèèÖÛÑÒçàÖ Ñ±ÏÏ È ±ÒÒ± ±Ú ÌÁ ÓÛÏ ±±ÁÚÒÏ ÓÚ ÈÒÚÓ~ÍËÏ± ÒËÚ±ËË ÒÁ ÁÍ. ÚÓÏ±, ÒÓÏ± ÒÍ ÓÓ%ÒÓÁ%ÈËËÏ±Ï ÌÁÍÚ È~ÄÓÍÓÈÒÁÚË,%±ÈÄ ÁÒÍÈ Ò±Ï± ±ÔÔ± ±Ú ÓÛÏ,±ÁÏ.

Advanced operations

ÌÒÒ,Á~ÁÍÓÚ,Ó,±Ï~Á ÓÓÁ±ÈÈ

Using alternative power sources

àÒÒÓÍ, ÁÓ, †ÈĒ †Í, ÚĀ Ì†ÚĒ, Ì†ÈÓÚÓ ÌĒÍÓ, ÓĒÚ†ÈĒ

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 ĒĪ~†ÈĒ Ì Ĩ†ĪÓÓ~ĪĀ POWER

- à†ĪĪÓÓ~†ÈĒ POWER ·Ú%ÁÚ ÓÓÚ†,†Ú,ÒĒ „Ó ĒĒĒ Ĩ†ĪÓĀ-ÚÓ, ĀĒĒ, %†ĒĒ ĀÓĪĒ †ÓÓ† †Ú ·Ú%ÁÚÓÓÓĀ%ĒĪĪĪÓÓĪĪĒÓÓĪ,ĀÓ,†ÈĒ. ùÚÓ Ē,ĒĒĀÚÓĒ ÌÓ Ĩ†Ī,†Ī.
- ÓÓĪĒ Ĩ†ĪÓÓ~†ÈĒ POWER ĪĀ Ā†, Ó †ĀÚÒĒ, ÚÓÚ†ĪÓ,ĒÚĀ ÓĀĪĪĪÚÓ, ÓÓĪÓĒĪĒĒ VTR (DC OUT)ĒÓÓÓĀ%ĒĪĒÚĀÓĀÚĀ,ÓĒÓ,Ó% . è ĒĒĒĒĒĒĒ ĪÓ Ā ĀĀ Ó%ĪÚ ĨĒĪÚÚÚ ÓĪÓ,† ÓÓ%ÓĀ%ĒĪĒÚĀÚĀ,ÓĒÓ,Ó%.

ÑĪĒ ÒĪĒÚĒĒ †%†ÓÚĀ †

Ā%†ÓÚĀ ÒĪĒ†ĀÚÒĒ Ĩ†ĪĒĒĒ ĒĀ Ó. †ĀÓĪ, Ĩ†ĪĒ ·†Ú† ĀĒĪ°Ē ·ĪÓĪ.

àÒÒÓÍ, ÁÓ, †ÈĒ †, ÚÓĪÓ·ĒĪ, ĪÓ, Ó †ĪĪÚĪÚĪĒÚÓ †

àÒÒÓÍ, ÁÚĒÚĀ ·ĪÓĪ ÓÓÓÚ. ÚÓĪ† DCP-77 Sony (ĪĀ Ó ĒĒ,†ĀÚÒĒ). èÓ%ÓÓĀ%ĒĪĒÚĀ ĨÚ ·ĪÓĪ† ÓÓÓÚ.ÚÓĪ†Ī,ĪĀĀ%ÚÓĒ,† ĀÚĪÓ,Ó Ó ĒĪÚ Ē,†ÚĀĒĒ †,ÚÓĪÓ·ĒĒ (12 Ç ĒĒ 24 Ç). èÓ%ÓÓĀ%ĒĪĒÚĀ·ĪÓĪÓÓÓÚ.ÚÓĪ†Ī ÚÓÚ†ĪÓ,ÓĪÓĒÓÓ,Ā ĪĪÓÓÚĒ·†Ú† ĀĒ ,Ē%ĀÓĪ†ĪĀ °.

ÑĪĒ ÒĪĒÚĒĒ ·ĪÓĪ† ÓÓÓÚ. ÚÓĪ† ĀĪÓĪ ÓÓÓÚ. ÚÓĪ† ÒĪĒ†ĀÚÒĒ Ĩ†ĪĒĒĒĒ ĒĀ ÓÓÓÓ·ÓĪ, Ĩ†ĪĒ ·†Ú† ĀĒĪ°Ē ·ĪÓĪ.

Changing the mode settings

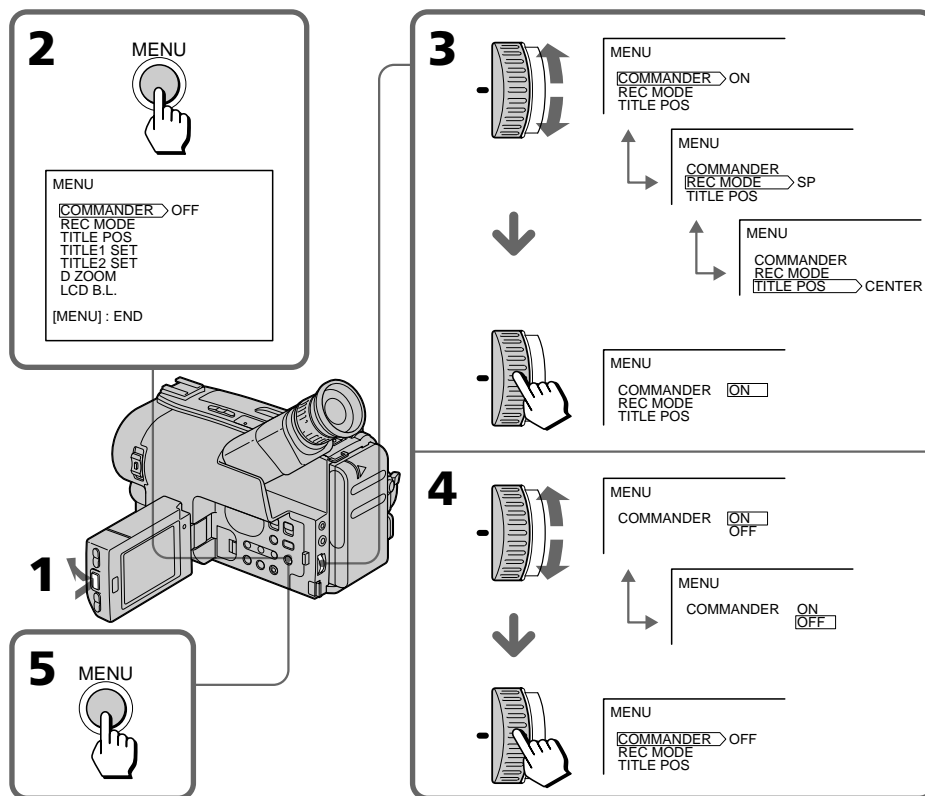
Αλλάζοντας τις ρυθμίσεις λειτουργίας

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

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

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

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



Changing the mode setting

ÀÁÏÀÏÀÏÈÄ ÄÊËÏ ÒÒÙ±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 ÒÒÙ±ÌÓ,ÍË ÄÊËÏ± ÓÓ Ì±Ê%ÓÍÙ ÒÙÌÍÙÙ

èÙÌÍÙ° %ÍË ÄÊËÏÓ, CAMERA È PLAYER

èìäúí ìèèÄÇãÖçàü COMMANDER <ON/OFF>

- ìÒÙ±ÌÓ,ÈÚÄ, ÒÓÍÓËÄÏÈÄ ON, ÄÒÏÈ Ç° ÒÓÍÙÁÙÁÙÁÓ, Ò Èì±,±ÄÏ'íí,È%ÁÓÍ±Ä Ä ÒÙÌ,ÚÓÍ%ÈÒÙ±ÊÓÌÍÓ,Ó ÒÓ ±ÄÏÈË.
- ìÒÙ±ÌÓ,ÈÚÄ, ÒÓÍÓËÄÏÈÄ OFF, ÄÒÏÈ Ç° ÌÄ ÈÒÓÓÍ,ÁÙÁÙÁÙÁÙ,Ú%ÈÒÙ±ÊÓÌÍÓ,Ó ÒÓ ±ÄÏÈË.

áìääÖèçöâ èàÉçÄâ BEEP* <ON/OFF>

- ìÒÙ±ÌÓ,ÈÚÄ, ÒÓÍÓËÄÏÈÄ ON, ~ÚÓ.° ÄÙÏÄ Ì°Ä Ä,ÚÍÓ,°Ä ÒÈ,,ì±Í° Ä,Ù±ÍÈ, ÍÓ,,%± Ç° Ì±ÊÏ±ÁÙÁ/Ä±Í±Ê,±ÄÙÄ Ä±ÖÈÖ, È ÒÙ.
- ìÒÙ±ÌÓ,ÈÚÄ, ÒÓÍÓËÄÏÈÄ OFF, ÍÓ,,%± Ç° ÌÄ ÌÓÙÈÚÄ Òì±Ù, ÄÙÏÄ Ì°È Ä,ÚÍÓ,ÓÈ ÒÈ,,ì±Í.

ÛäÑ LCD B.L.* <BRT NORMAL/BRIGHT>

- ÒÓÍÈ Ç° ,°Ä ÄÙÄ BRT NORMAL, Ò ÓÍ ÒÍÙÈ.° ±Ù± ÄËÏÈ ÒÙ±ÍÄÙ Ì± 10% %ÓÍ,~Ä, ~ÄÏ, ÒÍÙ±Ä, ÍÓ,,%± Ç° ,°Ä ÄÙÄ BRIGHT.
- Ç°·Ä ÈÚÄ BRIGHT, ~ÚÓ.° Ò%Äì±Ù, 1 ± ÛäÑ Ë ÌÄ, ÒÍÙ±Ä Ò ÄÏÏÈ/ ,ÓÓÓ ÓÈÄ,Ä%ÄÏÈË,ÌÄ ÓÓÍÄ~ÄÏÈË.

èÙÌÍÙ° ÒÓÍ,ÍÓ %ÍË ÄÊËÏ± CAMERA

èÒÙää áÄèääè REC MODE* <SP/LP>

- Ç°·Ä ÈÚÄ SP %ÍË Ä±ÖÈÖÈ ÌÄÌÙ°, ÄÊËÏÄ SPÒÙ±%± ÒÍÓÓÓÓ ÓÈÄ,Ä%ÄÏÈÄ).
- Ç°·Ä ÈÚÄ LP %ÍË Ä±ÖÈÖÈ ÌÄÌÙ°, ÄÊËÏÄ LP(Ò %ÓÍÈÈÙÄÏ,ÌÓÄ,ÓÓÓ ÓÈÄ,Ä%ÄÏÈÄ).

çÄÑèääéú TITLE POS* <CENTER/BOTTOM>

- Ç°·Ä ÈÚÄ CENTER %ÍË ±ÄÄÏÈË Ì±%ÖÈÖÈ ÓÓÓ Ä%ÈÏÈÄÓ. ±ÈÄÏÈË.
- Ç°·Ä ÈÚÄ BOTTOM %ÍË ±ÄÄÏÈË Ì±%ÖÈÖÈ,ÌÈÄÙÈÄÓ. ±ÈÄÏÈË.

ìèìÄçéÇäÄ çÄÑèääè 1 TITLE1 SET*/

ìèìÄçéÇäÄ çÄÑèääè 2 TITLE2 SET*

á±ÄÓÈÚÄ, Ò±ÍÍÙ, Ç±Ê È ÓÓ·ÒÙ,Äì°Ä Ì±%ÖÈÖÈ

ìèìÄçéÇäÄ çÄÑèääè D ZOOM* <ON/OFF>

(ÚÓÍ ÍÓ ÍÓ%ÄÏ, CCD-TRV24E)

- Ç°·Ä ÈÚÄ ON %ÍË ,ÍÌ,~ÄÏÈË ^ÈÙ Ó,ÓÈ ÒÙÙÓÍ±ÈÈ.
- Ç°·Ä ÈÚÄ OFF %ÍË ,ÍÌ,~ÄÏÈË ^ÈÙ Ó,ÓÈ ÒÙÙÓÍ±ÈÈ. ÇÈ%ÁÓÍ±Ä ±,Ä ÌÄÙÒÍ Ì15- Í±ÍÙÈÙ ±ÙÙÓÍ±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 áÄèàèä REC LAMP* <ON/OFF>

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

ÄÇíéääÄíáóÖëääÜ ÑÄíÄ AUTO DATE* <ON/OFF>

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

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

ÑÖáéçëíÈÄñáéççöä êÖÜää DEMO MODE* <ON/OFF>

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

* ùÚÈ ÛÒÙ±ìó, ÌÈ ÓÓì ±fl, ÛÒfl %±ÈÄ ÓÓÓÌÄ ÓflflÈfl, ±Ú± ÄÈìó, Ó·ìó±, ÅÒÏÈ ÌÈÚÈÄ, ±fl ±Ú± ÄÈ±·Ú%·ÄÚ ÓÓÙ±, ±Ú, Ófl Ì±ÌÄÓÙÄ.

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

- Ç±Ä±, Ó%·Ä·ÈÄ, ÓÓÙ, ÈÚÄÌÄ DEMO MODE ÛÓÙ±ìó, ÌÄì, ÓÓÌÓÈÄÌÈÄ STBY, È %·ÄÌÓÌÓÙ ±Èfl Ì±ÌÄÚÒfl Ó ÈÌÄ ÌÓ·Ä ÄÄ 10 ÌÈÌÚÚ ÓÓÓÌÄ ÛÓÙ±ìó, ÌÈ , Ìì·±ÚÄflfl POWER , ÓÓÌÓÈÄÌÈÄ CAMERA ·ÄÄ ÛÓÙ±ìó, ÌÈ Ì±ÒÓÄÚ°
- é· ±ÚÈÚÄ , ÌÈ±ìÈÄ, ~ÚÓ Ç° ÌÄ ÌÓÈÄÚÄ , ° ±Ú ÛÓÙ±ìó, ÌÚ STBY %·ÄÌÓÌÓÙ ±ÈÈÓììó, Ó·ÄÈÈ± DEMO MODE , ÓÈÈÓÙÄÌÄ ÌÄì.
- Ç° ÌÄ ÌÓÈÄÚÄ , ° ±Ú, %·ÄÌÓÌÓÙ ±ÈÈÓììÈÈ ÄÈÈÌ DEMO MODE, ÅÒÏÈ , È%·ÄÓÏ±Ä Û , ÓÙ±, ÌÄì± Ì±ÒÓÄÚ±, Ó·Äfl %·ÄÌÓÌÓÙ ±ÈÈ, ÛÓ%·ÄÌÓÌÓÙ ±ÈÈ, Û%·ÄÚ ÓÓÙ±ìó, ÌÄì±. Ç° ÌÓÈÄÚÄ Ì±±Ú, Ä±ÒÈÖ°, Ì±í Ó·~ìó. ÑÄÌÓÌÓÙ ±ÈÈÓììÈ ÄÈÈÌ DEMO MODE ±, ÛÓÏ±ÚÈ·ÄÓÏÈ , Ä ÌÄÚÒfl , STBY.

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

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

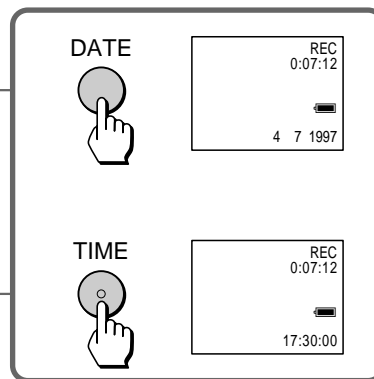
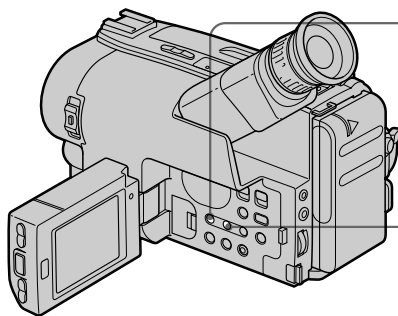
Recording with the date or time

Á±ÔÈÒ Ò%±ÚÓÈÈÏÈ , ÁÌÁÌÁÌ

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

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

Èepe% ÚÁÌ, í±í ì±±Ú Á±ÔÈÒ ÈÏÈ Ó , ÁÌÁÌ Á±ÔÈÒÈ ì±ÈÏÈÚÁ ÌÍÓÓÍÚ DATE ÈÏÈ TIME ÓÓ% Ó±íÁÌ, ÚáÑ. Ç° ÍÓÈÁÚÁ Á±ÔÈÒ±Ú, %±ÚÚ ÈÏÈ , ÁÌÁÌ, ÓÚÓ. ±È±ÁÌ°Á ì± Ñ ì±Á 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, ÌÁÌ° ì± Á±, Ó%Á ì± , ÁÌÁÌ èÈ%ÍÁÌ%ÍÁÌ%±Ú, ÓÚ ±ÈÈÓÍÓÈ È ÍÓ, ÓÁÁÌ±%ÓÍÓÈ ÍÓ%ÁÌÁÈ, ì± , ÁÌÁÌ ÍÓÍÈÓ %±ÍÍ ÍÓ%ÁÌÁÈ, Ó Ó%±, ±ÁÌ° Ì, ÚÓÓÍÈÈ È ì± , ÁÌÁÌ ÈÓÍÍÓÌ, ± %±ÍÍ ÓÓÚ±Ì° Ì° ÍÓ%ÁÌÁÈ. Ç° ÍÓÈÁÚÁ, °ÓÍÍÈÚ, ÓÓ, ÚÓ ÍÚ, ÚÓÚ±ÍÓ, ÍÚ ±±ÓÓ, , ÓÈÓÚÁÌÁ ÌÁÌ.



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, ÌÈ Á±ÔÈÒÈÒ Ò %±ÚÓÈÈÏÈ , ÁÌÁÌÁÌ Ç±ÈÏÈÚÁ DATE ÈÏÈ TIME òÍÓ, ±. àì%ÈÏ±ÚÓ %±Ú° ÈÏÈ , ÁÌÁÌÈ ÈÓ°ÁÁÌÁÚ. á±ÔÈÒ, ÓÓ%ÓÍÈÈÚÓÍ.

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


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.

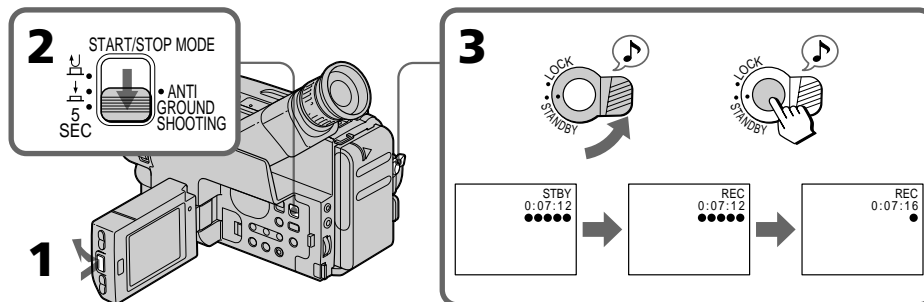
 : Recording starts when you press START/STOP, and stops when you press it again (normal mode).

 (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.

While pressing PUSH OPEN, open the LCD panel. 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. When you press START/STOP, the camcorder records for 5 seconds and then stops automatically. 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.

(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.

 (ANTI GROUND SHOOTING): The camcorder records only while you press down START/STOP so that you can avoid recording unnecessary scenes. When you press START/STOP, the camcorder records for 5 seconds and then stops automatically.

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

(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.

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

Fade-in and fade-out

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

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

When fading in [a]

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

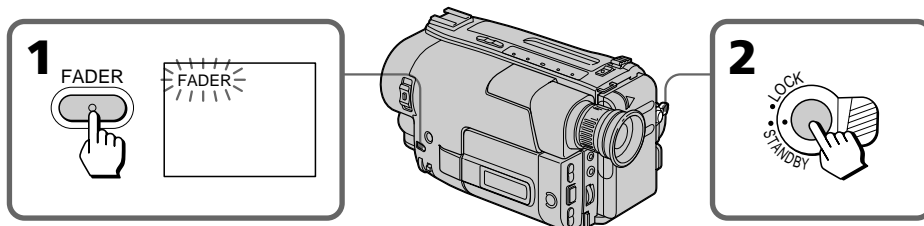
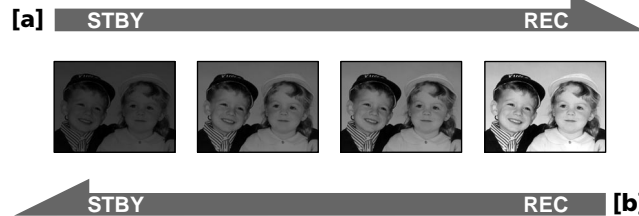
When fading out [b]

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

Ç° İÖÉÂÚÂ „Ó%oÉÚ, ÈiË , ;, Ó%oÉÚ,
ÉÁÓ. †ÉÂiËÂ, ÚÓÓ È%o†ÓÚÇ†-ÁÉÁ†ÓÈÒÈ
Ó ÓÚÂÓÓÈÓi†i, i°È , È%o.
è È „, Â%oÂiËÈÈ ÉÁÓ. †ÉÂiËÂ 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, İÉÁ†ÓÈÈÈ. ài%oÈi†ÚÓ FADER
Ó Âi †ÚÈÚiÈ, †Ú, ÓÓÓiÂ ~Á, Ó i†iÁÚÓfi
Á†ÓÈÈ.



Fade-in and fade-out

Ç, Å%ÅîÈÄ È , °, Å%ÅîÈÄ
 ÈÁÓ. ‡ÈÄîÈfl

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.

Ñfl ÓÚÍÄì° ÙÙÍí^ÈÈ „Å%ÅîÈfl/
 , °, Å%ÅîÈfl ÈÁÓ. ‡ÈÄîÈfl
 èÄ Å% ÅÚÄî, í†í ì‡È‡Ú, îíÓÓÍÚ START/STOP,
 ì‡ÈÈÈÚÄ îíÓÓÍÚ FADER, ~ÚÓ° , °íí~ÈÚ,
 Èí%Èí‡ÚÓ FADER.

Ç ÒÍÛ~‡Ä ÓÚÓ. ‡ÈÄîÈfl ì‡ %ÈÒÒÍÄÄ
 %‡Ú°, ÄîÄîÈ
 Ñ‡Ú‡, Äîfl ÈîÈ ì‡%ÒÈÒ, ìÄ „Ó%flÚÒfl È ìÄ
 , °Ó%flÚÒfl ì‡ ÈÁÓ. ‡ÈÄîÈÈ.

ÖÒÍÈ ÒÄ Äîí~‡ÚÄî, START/STOP MODE
 ÙÒÚ‡ìÓ,ÍÄì , ÓÓÍÓÈÄîÈÄ  ÈîÈ 5SEC
 Ç ìÄ ÍÓÈÄÚÄ ÈÒÓÓÍ,ÁÓ,‡Ú ÙÙÍí^È
 „Å%ÅîÈfl/, °, Å%ÅîÈfl ÈÁÓ. ‡ÈÄîÈfl.

Enjoying picture effect

àÒÒÓÎ ÁÓ,†ÏËÄ ~ÙÙÂÍÚÓ,
ËÁÓ. †ËÂÏË†

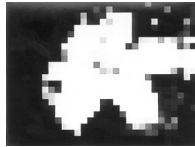
Selecting picture effect

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.

ëéãüêääÄñàü [b]

ìÒËÏË,†ÂÙÒ†† ÌÓÓÙ Ò,ÂÙ†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,ËÙÒ††

ÏÓÌÓ, Ò††ÚËË~ÄÒÏËË (~Á ÌÓ--Â††).

SEPIA

The picture is sepia.

ë Ö è à ü

àÁÓ. †ËÂÏËÄ Ò ÁÓ. †ÁÙÂÙÒ††, ^ÂÙÒÁÖËË.

NEG. ART [c]

The colour of the picture is reversed.

çÖËÄÏàÇçéÖ àèàìèèìÇé [c]

àÁÓ. †ËÂÏËÄ Ò Á%ÒÚ†,†ÚÙÒ††, ÌÁ,,†ÚËË,ÌÓ†
^,ÂÙÁ.

Enjoying picture effect

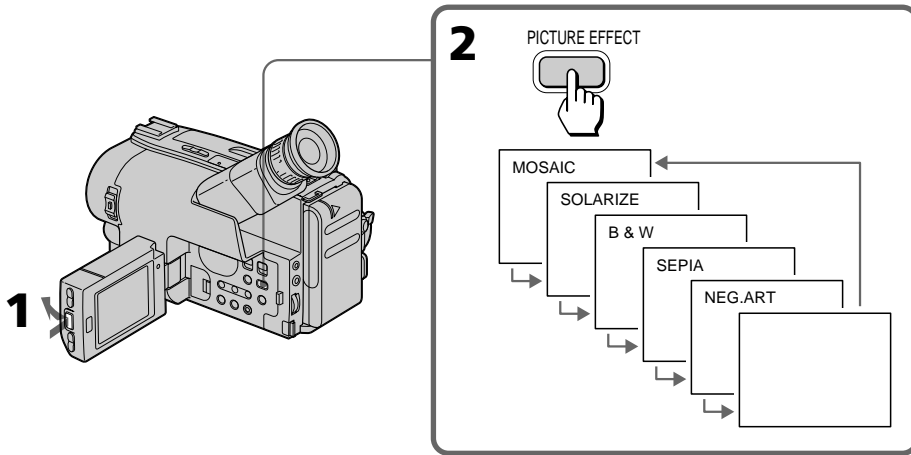
àòòóí.áó,†ìĒÂ ~ùúáíúó,
ĒÁÓ. †ĒĀĪĒfl

Using picture effect function

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

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

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



Returning to normal mode

Press PICTURE EFFECT until the Picture Effect indicator disappears.

Note on the picture effect

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

çóá, †ú í ìó ì†í,íóíú ĀĒĒĪŮ
ç†ĒĒĒ†ĒĒĒ ìíóóíú PICTURE EFFECT %ó úĀí
óó, óóí†Ē%ĒĒĒúó ~ùúáíúó,
ĒÁÓ. †ĒĀĪĒfl ĪĀĒŮĀĀĪĀŮ.

Ē ĒĪĀ~†ĒĒĒ óúííóóĒĒĒ,íó ~ùúáíúó,
ĒÁÓ. †ĒĀĪĒfl
òòĒĒ ç°, ĩĪ ~ĒĒĒĒ ĒĒĒ†ĒĒĒ, Ē%áóí†Ā †
†,úóí†ĒĒĒĒĒ,Ā ĪĀŮófl í ìó ì†í,íóíú
ĀĒĒĪŮ.

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

Using the wide mode function

àÒÒÓÍ, ÁÓ, †ËÄ ÙÛÍ^ÈÈ
 -È ÓÍÓÚÓ Ì†ÚÍÓ,, Ó ÄÊË†

- CCD-TRV24E only

- íÓÍ, ÍÓ CCD-TRV24E

Selecting the desired mode

Ç° Ó ÊÄË†ÄÏÓ,, Ó ÄÊË†

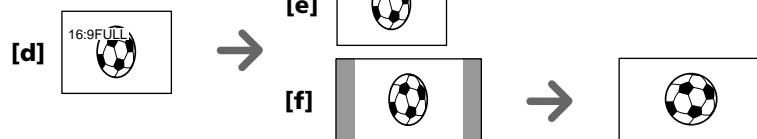
You can record a cinemalike picture (CINEMA) or a 16:9 wide picture to watch on the 16:9 wide-screen TV (16:9FULL).

Ç° ÍÓÊÄÚÄ Ä†ÖÈÖ°, †Ú, ÈÁÓ. †ÊÄËÄ
 ÓÓ%Ó.ÍÓ ÍËÍÓÚËÍ, †Í (CINEMA) ÈÏÈ
 -È ÓÍÓÚÓ Ì†ÚÍÓÄ ÈÁÓ. †ÊÄËÄ ÚÓ Ì†Ú†
 16:9 %Í† Ó ÓÓÍÓÚ † † -È ÓÍÓÍ †ÏÍ
 ÚÄÏÄ, ÈÁÓ Ä Ó †ÄÏÄ ÓÍËÏÄÓÍÓ† 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 (êÖÜää äàçé)

Ç, Ä, Í Ú È, ÌÊÄÚ †Í †† ÓÓÍ, ñÚÓÍ† ÄÏÄ
 ÓÓÍÓÓ°. ÇÈ%ÓÈÖÍ†ÚÄÏÄ, ÈÏÈ †Í †Í ÚÄÑ [a] È
 ÍÓ Ì†Í, ÌÈ ÚÄÏÄ, ÈÁÈÓÍÏÈ †Í †Í [b] ·Ú%ÓÚ
 ÈÏÄÚ, -È ÓÍÓÚÓ Ì†ÚÍÈ, È%°. Ç Ú†ËÄ
 ÍÓÊÄÚÄ Ì†.Í.%†Ú, ÈÁÓ. †ÊÄËÄ .ÄÄ
 -Ä Ì† ÓÓÍÓÓ Ì† -È ÓÍÓÚÓ Ì†ÚÍÓÍ
 ÚÄÏÄ, ÈÁÓ Ä [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 (òàèéäéíéèäÄíçõâ êÖÜää 16:9)

àÁÓ. †ÊÄËÄ, È%ÓÈÖÍ†ÚÄÏÄ ÈÏÈ Ì† †ÍÄ
 ÚÄÑ [d], † Ú†ËÄ Ì† †ÍÄ ÍÓ Ì†Í, ÍÓ,, Ó
 ÚÄÏÄ, ÈÁÓ † [e]·Ú%ÄÚÓÈ†ÚÓÓÓ, Ó ÈÁÓÍÚ†È.
 Ç Ú†ËÄ ÍÓÊÄÚÄ Ì†.Í.%†Ú, ÈÁÓ. †ÊÄËÄ
 , ÍÓ Ì†Í, ÍÓÍ, È%Ä Ì† -È ÓÍÓÍ †ÏÍ
 ÚÄÏÄ, ÈÁÓ Ä [f].

Using the wide mode function

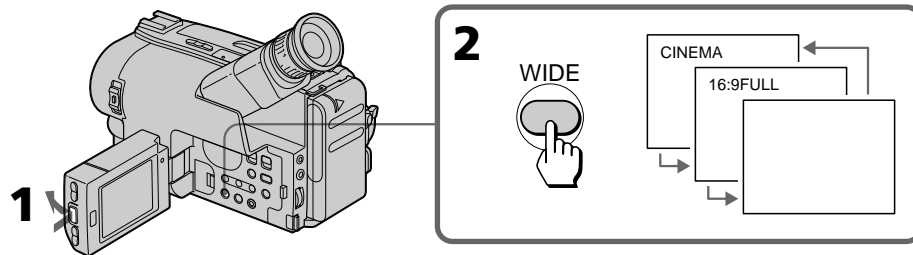
àÒÒÓÎ,ÁÓ,±ÌËÂ ÙÛÌÍ^ËË
-Ë ÓÍÓÛÓ Ì±ÛÌÓ,,Ó ÆËËÌ±

Using the wide mode function

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

àÒÒÓÎ,ÁÓ,±ÌËÂ ÙÛÌÍ^ËË
-Ë ÓÍÓÛÓ Ì±ÛÌÓ,,Ó ÆËËÌ±

- (1) ÑÄ Ë± Ì±Ë±ÛÓË ÌÍÓÓÍÛ PUSH OPEN, ÓÛÍ ÓËÛÄ Ó±ÌÄÍ, ÛÄÑ.
- (2) Ç ÓÛÓ, ÄÍñ, Ì±Ì, Ë±%ÄÓÍ±ÌÄ ± Ì±ÍÓ%ËÛÒñ, ÆËËÌÄ,,ÓÛÓ,ÍÓÓÛË, Ì±ËËÌ±ËÛÄ ÓÓ,ÛÓ ÌÓ ÌÍÓÓÍÛ WIDE, ÛÄÍ, ~ÛÓ~ ÓÓñ,ËÍÓñ ËÌ%ËÌ±ÛÓ ËÄÌ±ÄÍÓ,,Ó ÆËËÌ±.



To cancel wide mode

Press WIDE repeatedly until the wide mode indicator disappears.

To watch the tape recorded in wide mode

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

Notes on wide mode

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

ÑÍñ ÓÛÍÄÍ° -Ë ÓÍÓÛÓ Ì±ÛÌÓ,,Ó ÆËËÌ±
ç±ËËÌ±ËÛÄ ÓÓ,ÛÓ ÌÓ ÌÍÓÓÍÛ WIDE, ÓÓÍ± ËÌ%ËÌ±ÛÓ -Ë ÓÍÓÛÓ Ì±ÛÌÓ,,Ó ÆËËÌ± ÌÄ ËÓ^ÄÄÍÄÛ.

ÑÍñ Ó ÓÓÍÓÛ ± Ä±ÓËËË ÌÄÍÛ° ,
-Ë ÓÍÓÛÓ Ì±ÛÌÓÍ ÆËËÌÄ
ÑÍñ Ó ÓÓÍÓÛ ±Ä±ÓËËË, ÆËËÌÄ CINEMA ÛÓÛ±ÍÓ,ËÛÄ °Í ±ÌÍ° ÆËËÌ
-Ë ÓÍÓ°Í ±ÌÍÓ, Ó ÛÄÍÄ,ËÄÓ ±, ÆËËÌ
Ì±Ó±Û±Ë Ó ±ÌËñ. ÑÍñ Ó ÓÓÍÓÛ ±Ä±ÓËËË ÌÄÍÛ° ÆËËÌÄ 16:9FULL ÛÓÛ±ÍÓ,ËÛÄ ÛÄÍÄ,ËÄÓ, ÓÓÍÍÓÛÓ Ì±ÛÌ° ÆËËÌ. óÛÓ Ì±Ó±ÛÓñÓÓ% Ó-ÍÓÓÛÄË.Ó. ±ËËÛÄÓ,Í ÛÍÓ Ó%ÓÛ,ÛÓÓ °ÍÓÓÍÛ±Û±ËËç±Ä,Ó ÛÄÍÄ,ËÄÓ ±. èÓÍÍËÛÄ, ~ÛÓ ËÄÓ. ±ËÄÍËÄ, Ä±ÓËËË±ÌÍÓÄ, ÆËËÌÄ 16:9FULL, Ì± ÌÓ Ì±Ì,ÍÓÍ ÛÄÍÄ,ËÄÓ Ä ±.Û%ÄÛ ÓË±Û°Í.

è ËÌÄ~±ÌËñ ÓÛÍÓÒËÛÄÍ,ÍÓ
-Ë ÓÍÓÛÓ Ì±ÛÌÓ,,Ó ÆËËÌ±
• ÇÓ, ÄÍñ Ä±ÓËËË Ç ÌÄ ÍÓËÄÛÄ ÓÛÍÄÍËËÛ,
-Ë ÓÍÓÛÓ Ì±ÛÌ° ÆËËÌ.
• ÓÓÍË -Ë ÓÍÓÛÓ Ì±ÛÌ° ÆËËÌ ÛÓÛ±ÍÓ,ÌÄÍ, ÓÓÍÓËÄÍËÄ 16:9FULL, ÛÛÌÍ°Ëñ ÓÛ±.ËÍËÄ±ËË ËÄÓ. ±ËÄÍËñ SteadyShot ÌÄ ±.Û%ÄÛ ±.ÓÛ±Û,±ËÌ%ËÌ±ÛÓ .Û%ÄÛ ÌË±Û.
• è Ë, °ÓÓÍÄÍËË Ä±ÓËËË, ÆËËÌÄ 16:9FULL ËÌ%ËÌ±Ëñ %±Û° ËË, ÄÍÄÍË.Û%ÄÛ ±Ó Ë ÄÍÍË Ì± -Ë ÓÍÓ°Í ±ÌÍÓÍ ÛÄÍÄ,ËÄÓÄ.
• Ç ÓÍÛ±Ä, °ÓÓÍÄÍËñ %Û.ËË Ó ±ÌËñ ÌÄÍÛ±.Û%ÄÛ ÌÓÓË Ó.±Û.Óñ, ÛÓÍËÄ ÆËËÌÄ, ~ÛÓ Ë Ó Ë.Ë±Ì Ì±ñ Ä±ÓËËË.
• óÄ ÄÄÍËËÛÓÓÓÍÄÓÛÓÓÄ%ËÍÄÍËñ ËÓÛÓ°ÍËË± ËËÛ±Ëñ -Ë ÓÍÓ°Í ±ÌÍ° ÆËËÌ.Û%ÄÛ ±ÌÍËË Ó,±Ì ±.ÛÓÍ±ËËÄÓÍË.

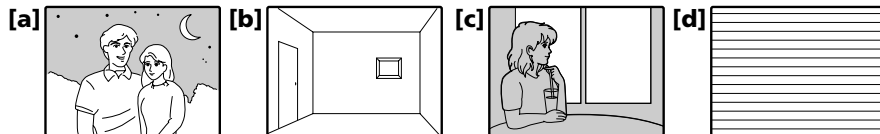
Focusing manually

When to use manual focus

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

When to use manual focus

When to use manual focus




- 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

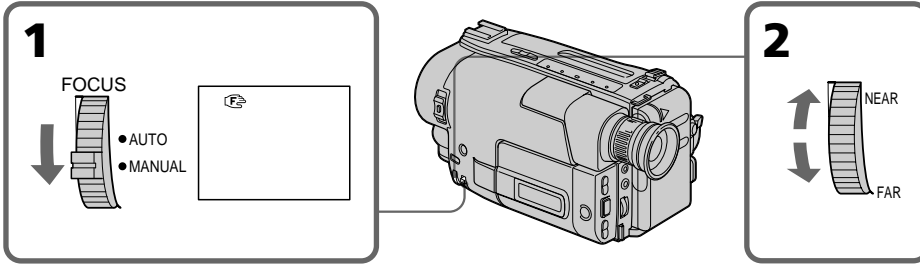
- Insufficient light **[a]**
- Subjects with little contrast — walls, sky, etc. **[b]**
- Too much brightness behind the subject **[c]**
- Horizontal stripes **[d]**
- Subjects through frosted glass
- Subjects beyond nets, etc.
- Bright subject or subject reflecting light
- Shooting a stationary subject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


Focusing manually

Focusing manually

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


- (1) Set FOCUS to MANUAL. The  indicator appears.
- (2) Turn the focus dial to focus on the subject. Turn to the NEAR side to focus on a nearer object. Turn to the FAR side to focus on a farther object.




To return to the autofocus mode
Set FOCUS to AUTO. The  indicator goes out.

Shooting in relatively dark places
Shoot at wide-angle after focusing in the telephoto position.

Focusing manually

è È ÙÓÍÛÒÈ Ó,ÍÁ , Û~ÏÛ ÒÏ±~±Ï±
; °ÓÏÏÈÛÁ ÙÓÍÛÒÈ Ó,ÍÛ , °ÓÍÓÈÁÏÈÈ
ÛÁÏÁÛÓÛÓ ÕÁ %Á±ÓÈÖ , ± ÕÓÛÓÏ, °ÓÏÏÈÛÁ
ÕÓ,ÛÓ ÌÛ ÛÒÛ±ÏÓ,ÍÛ Ó·ÁÏÛÈ,± %óÏÏ Ó·ÁÏÏÈ.
(1) ÌÛÛ±ÏÓ,ÈÛÁ FOCUS , °ÓÍÓÈÁÏÈÁ
MANUAL. èÓÏÏ,ÈÛÓÏÏÈÏ%ÈÏ±ÛÓ .
(2) èÓ,Á ÌÈÛÁ ÙÓÍÛÒÈ Û·ÈÈ %ÈÓÏ %óÏÏ
ÛÓÍÛÒÈ Ó,ÍÈ Ì± Ó·ÁÏÛ.
èÓ,Á ÌÈÛÁ Á,Ó , ÕÓÓ ÕÏÛ NEAR %óÏÏ
ÛÓÍÛÒÈ Ó,ÍÈ Ì± ·ÓÏÁÁ ·ÌÈÁÏÈÈ Ó·ÁÏÛ.
èÓ,Á ÌÈÛÁ Á,Ó , ÕÓÓ ÕÏÛ FAR %óÏÏ
ÛÓÍÛÒÈ Ó,ÍÈ Ì± ·ÓÏÁÁ %±Ï,ÌÈÈ Ó·ÁÏÛ.

ÑÏÏ , ÓÁ, ±~ÁÏÈÏ , ÁÈÈÏ
±,ÛÓÏ±ÛÈ·ÁÓÍÓÈ ÙÓÍÛÒÈ Ó,ÍÈ
ÏÛÛ±ÏÓ,ÈÛÁ FOCUS , °ÓÍÓÈÁÏÈÁ AUTO.
àÏ%ÈÏ±ÛÓ ÈÒ·ÁÏÁÛ.
è·ÁÏÏ± , ÕÓÍÓÈÈÛÁÏ ÌÓ ÛÁÏÏ· ÌÁÕÛ±
ç·°ÓÏÏÈÛÁ Ò·ÁÏÛ , ±È ÓÏÛ,ÓÏ,ÏÏÏ
±ÒÒÁÏÛÁ ÕÓÒÏÁ ÛÓ,Ó , Ì±Ï, °ÓÏÏÈÛÁ
ÛÓÍÛÒÈ Ó,ÍÛ , °ÓÍÓÈÁÏÈÈ ÛÁÏÁÛÓÛ.

Advanced operations
ÏÒ,Á -ÁÏÛ,Ó,±Ï·Á ÕÒÁ±ÈÈ

Using the PROGRAM AE function

ÀÒÓÓÍ ÁÓ, †ÏËÄ ÙÛÏËË PROGRAM AE

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

Selecting the best mode

Select the best mode by using the following examples.

Ç° ÌÖËÄÚÄ , ° †Ú, Ó%ÈÌ ËÁ Ú ÄÌ ÆËËÏÓ, PROGRAM AE (†, ÚÓÍ†ÚË~ÁÓÍÖË Ò~ÄÏËË) , ÒÓÓÚ, ÄÚÓÚ, ËËÓÇ†~ÆËÖËÚ†~ËÄË. ÒÓÏËÇ° ËÖÓÓÍ, ÄÚÄÚÄ PROGRAM AE, Ç° ÌÖËÄÚÄ Ä†ÖÄ~†ÚÍÄÚ, °ÒÓÍÓÓÍ ÒÓÚÍÄ%ÄËÖÚ, ËÄËË ÌÓ~Ì~Ä , Ë%°.

Ç°·Ó Ì†ËËÛ~Ä,, Ó ÆËËË†

Ç°·Ä ËÚÄ Ì†ËËÛ~ËË ÆËËË, ËÖÓÓÍ, ÄÚÏ ÒÍÄ%Ú, ËÄ Ò ËËÄ °.



Sports mode

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

ËÄËËË ÒÓÓ Ú†

- ËÖÓ ÚË, Ì~Ä Ò~ÄÌ° , ÌÄ ÒÓÍÄ~ÄÏËÏ, Ì†Ö ËËÄ , ÚÚÚ·ÓÍ, ÚÄÏËË, °, ÓÍ, Ú ËËË Ì° ËËË
- ä†Ì%~†ÚÚ ËÄ %,, ËËÛ~Ä,, ÒÒÏ †, ÚÓÍÓ·ËÏÏ

High-speed shutter mode

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

ËÄËËË , °ÒÓÍÓÓÍ ÒÓÚÍÓ,, Ó Ä†ÚÓ†

- ÇÁÍ†ËË , Ó , ÄÏÏ Ë° , °, °, ÓÍ, Ú ËËË ÚÄÏËË ÌÓ Ó~Ú, ÒÓ, Ó%Ú Ò~ÄÚËËË Ä†ÖÄ~†ÚÍÄËÄË ÌÏ~†
- ÇÓÓÓ ÓËÄ, Ä%ÄËËÄÓÓ Ä%ÄËËË~Ì°Ò~ÄÏ° , °ÒÓÍÓÓÍ ÒÓÚÍ~ËË %,, ËËÄËËËËË Ò~ÄÚËËË, ÄÄËËËËÄÓ· †ËÄËËËËË

Twilight mode

- Recording night views, neon signs or fireworks

ËÄËËË ÒÓÏÄ ÄÍ


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

Shooting with backlighting

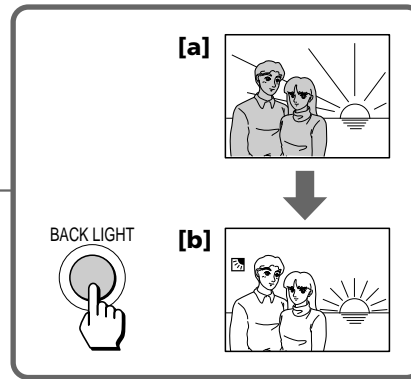
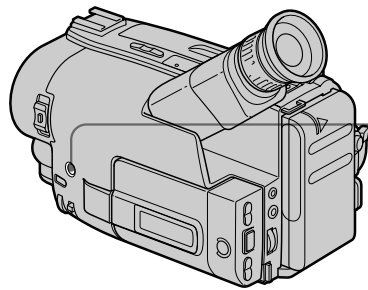
Επιχειρήματα με φωτισμό από πίσω

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

Όταν τραβήξετε φωτογραφία με το φως να βρίσκεται πίσω από το θέμα ή με θέμα που έχει φωτεινό υπόβαθρο, 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 αποζημίωση φωτισμού από πίσω.

After shooting

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

Μετά το τραβήξιμο

βεβαιωθείτε ότι απελευθερώσατε αυτή την κατάσταση με το 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, ή στην παραλία με έντονο ηλιακό φως.


- 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.

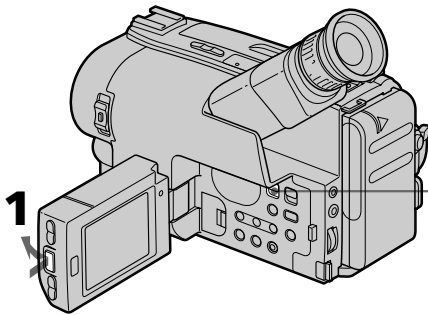
Releasing the STEADY SHOT function

– CCD-TRV24E only

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

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


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



To activate the SteadyShot function again


Set STEADY SHOT to ON.

Notes on the SteadyShot


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

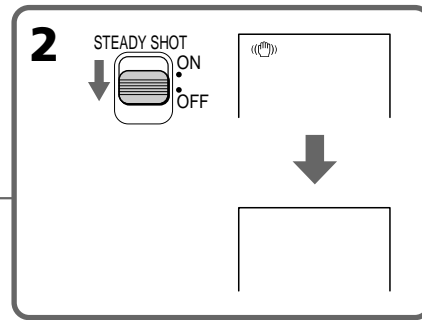
ÇÍÛ~ÂÏËÂ ÛÛÏ^ËË STEADY SHOT

— ÍÓÏ,ÍÓ CCD-TRV24E

è È , ÓÓÏÏÂÏËË Ò ÂÏÏË ÓÓÏ,ËÛÒÏ
ËÏ%ËÏÏÛÓ “  ”. ÛÛÓÓÂÏÏÏÏÏ, ÛÓ
ÏÏ ~ÂÏÏ ÛÛÏÏÏÏ SteadyShot È ÏÓÓÏ ÏÛ
ÍÓÏÓÂÏÏË ÛÂÛÓÓ% Ï,Ë,ÏÏËÂ,Ë%ÂÓÏÏÏÂ °.


Ç ° ÍÓËÂÛÂ ÓÛÏÏËËÛ. ÛÛÏÏÏÏ SteadyShot,
ÂÓÏË ÏÂÛ ÏÛË%° ÈÓÓÓÏ,ÁÓ,ÏÛ, ÛÛÏÏÏÏ
ÍÓÏÓÂÏÏÏÏËË ÓÓ% Ï,Ë,ÏÏËÏ,Ë%ÂÓÏÏÏÂ °.
çÂ ÓÏÂ%ÛÂÛ ÈÓÓÓÏ,ÁÓ,ÏÛ, ÛÛÏÏÏÏ
SteadyShot Ò È Ò ÂÏÏÏÏ ÏÂÓÓ%ËËÏÏ
Ó·ÂÏÛÓ, Ó ÓÓÏÓ°, Û ÂÏÓ,Ë.

- (1) çÏËÏ,ÍÓÓÓÏÛ PUSH OPEN, ÓÛÏ ÓËÛÂ
ÓÏÏÏÏ, ÛÂÏ.
- (2) ÏÓÛÏÏÓ,ËÛÂ STEADY SHOT , ÓÓÏÓËÂÏËÂ
OFF. àÏ%ËÏÏÛÓ “  ” ÈÒÂÂÏÏÏÏ.



ÑÏÏ ÛÓ,Ó, ÛÓ.° ÁÏ%ÂËËÓÛ,Ó,ÏÛ,
ÛÛÏÏÏÏ SteadyShot çÏÓ,Ï.
ÏÓÛÏÏÓ,ËÛÂ STEADY SHOT , ÓÓÏÓËÂÏËÂ ON.

è ÈÏÂ~ÏÏÏÏ ÓÛÏÓËËÛÂÏ,ÍÓ ÛÛÏÏÏÏ
SteadyShot

- ÏÛÏÏÏÏ SteadyShot ÏÂ ÏÏ,ÏÏÂÛÏ
ÛÛÂÏÏË,ÍÓË %ÏÏ ~ÂÂÏÏ ÏÓ,Ó
ÓÓ% Ï,Ë,ÏÏËÏ,Ë%ÂÓÏÏÏÂ °.
- è È ,ÏÏ ~ÂÏËË ÈÏË ,ÏÏ ~ÂÏËË ÛÛÏÏÏÏ
SteadyShot,ÓÂÏÓËÏÓ ÓÓ% Ï,Ë,ÏÏËÂ ÏÏ% Ï.
- è È , ÓÓÏÏÂÏËË ÁÏÓËËË, ÂËËÏÏ
16:9FULL ÛÛÏÏÏÏ SteadyShot ÏÂ Ï·ÓÛÏÏÏ,
ÏËÏ%ËÏÏÛÓ “  ”. Û%ÂÛÏË,ÏÛ,.

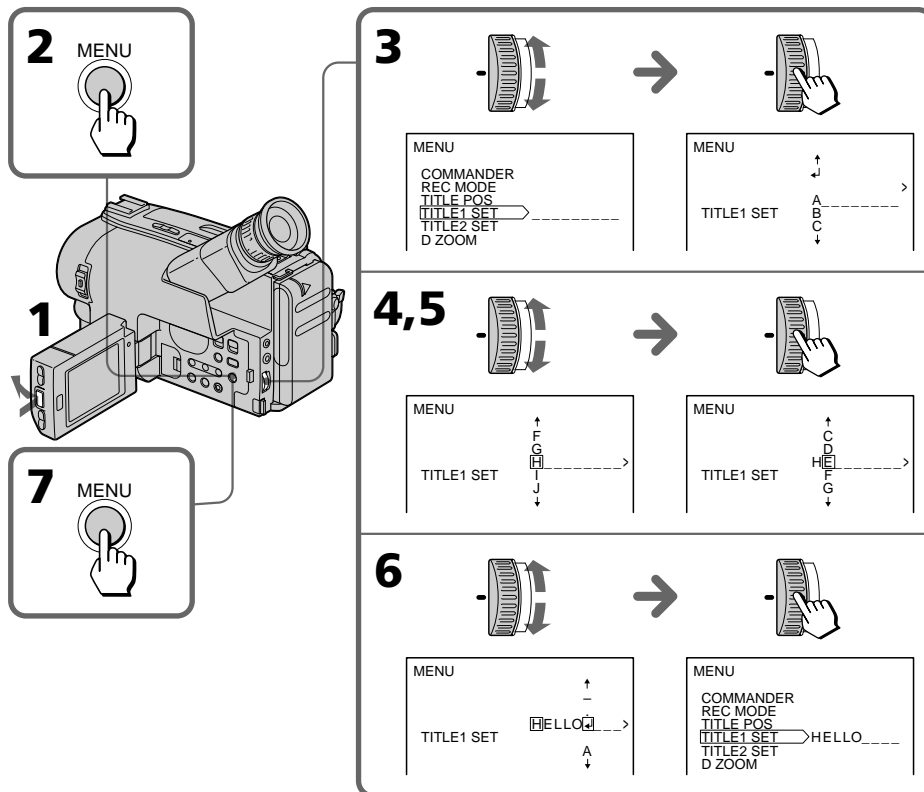
Making your own titles

ÖÓÁ%±İËÂ Ç±È
ÖÓ·ÖÚ,Àİİ° İ±%ÖËÒÂÈ

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° İÖÉÁÚÂ ÖÓÁ%±Ú, %Á İ±%ÖËÒÈ, 22 Àİİ± İ±È%±İ È Á±İÁÖÚÈ È, Ö±İİÚ.
- â° ÁÍÓİÁİ%ÚÁİ, °ÚÓİİİÚÚ İ±ÖÖÁÚÚ ÖÂ Â% ÚÁİ, İ±İ ÖÓÁ%±,±Ú, İ±%ÖËÒÈ, °ÚÓ° ÖËÚ±İÉÁ İÂ, °İİ° ±İÓÖ, Ö Ö°ÁÖÖÂ ±·ÖÚ°.
- (1) Ç±È±, İİÖÖİÚ PUSH OPEN, ÖÚİ ÖËÚÂ Ö±İİ, Úâİ.
 - (2) Ç ÚÓ, Áİİ, İÓ, %±, È%ÁÖÍ±İ ± İ±Ö%ÈÚÖİİ, ÁÈÈİÁ, ÖÚÓ, İÖÖÚÈ, İ±ÈÈÚÂ İİÖÖİÚ MENU %İİ ÖÚÓ° ±ÈÁİÈİ İÂİ.
 - (3) èÓ, Á İËÚÂ %ÈÖÍ ÚÖ ±, İÁİÈİİ %İİ, ° Ö ± TITLE1 SET ÈÈÈ TITLE2 SET, Á±ÚÁİ İ±ÈÈÚÂ %ÈÖÍ.
 - (4) èÓ, Á İËÚÂ %ÈÖÍ ÚÖ ±, İÁİÈİİ %İİ, ° Ö ± ÈÁİ±ÁİÖ, Ö Áİ±İ±, Á±ÚÁİ İ±ÈÈÚÂ %ÈÖÍ.
 - (5) èÓ, ÚÓ İËÚÂ ÖÚİİÚ 4% Ö ÚÁİ ÖÖ, ÖÖİ± Ç° İÂ Á±, Á ÈÚÂ İ±%ÖËÖ.
 - (6) èÓ, Á İËÚÂ %ÈÖÍ %İİ, ° Ö ± ↵, Á±ÚÁİ İ±ÈÈÚÂ %ÈÖÍ. Ç±%ÖËÖ, ·Ú%ÁÚ Á±İÁÖÁİ±, Ö±İİÚ.
 - (7) Ç±ÈÈÚÂ İİÖÖİÚ MENU, °ÚÓ° Ú%±İËÚ, Èİ%Èİ±ÈÈ İÂİ.



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 ËÚÄ ì±%ÒËÖË,
ÍÓÚÓ Û ÍÓÚËÛÄ Û%±ìËÛ, È ì±ËìËÛÄ %ËÖÍ.
Ç°·Ä ËÚÄ \leftarrow %íñ Ò±ÍÓ,Ó ÍÄ,Ó,Ó Áì±ì±, Á±ÚÄì
ì±ËìËÛÄ %ËÖÍ.
ÇÄ,·È ±ËÛÄ ÒÚÒÚÓÄ ÍÄÒÚÓ %íñ Û%±ìËÄìñ
Áì±ì± Ç ÒÓÚË,ìÓÍÒÍÚ±Ä ÒÚÒÚÓÄ ÍÄÒÚÓ
·Û%ÄÚ Á±ÍÄÒÄÍÓ, Ò±íñÚ, ì±ì ì±%ÒËÖË,

Ñíñ ÈÄÍÄÍÄìÈñ ÒÓÁ%±ììÒË Ç±ìË ì±%ÒËÖË
Ç ÒÚìíÚÄ 3, °·Ä ËÚÄ TITLE1 SET ÈìÈ TITLE2
SET, Á±ÈÒËÍÓÓÚË ÒÚ ÚÓ,Ó, ì±íÚ, ì±%ÒËÖË,
Ç° ÍÓÚËÛÄ ÈÄÍÄìËÛ, Á±ÚÄì ì±ËìËÛÄ %ËÖÍ.
Ç°·Ä ËÚÄ ÈÄì±Äì·Ä ·Úí,° ÒìÓ,±.

ÒÒìÈ Ç° „ÄìÈ 22 Áì±ì±, ÒÚìíÚÄ 5
Ç±%ÒËÖË ·Û%ÄÚ Á±ÍÄÒÄì±, Ò±íñÚ, ÚÓÚ±ò ÈÄ
(ÈÇ°ÍÓËÄÚÄ Ò ÒÓÚÒÚËÛ, ÒÚìíÚÄ).

ÒÒìÈ Ò È,ÒÚ±,ìÄìÒË ì±ÒÒÄÚÄ ÒÓÁ%±ìËÄ
ì±%ÒËÖË Ä±Ëì±ÄÚ ·ÓíÄÄ 5 ìÈìÚÚ
ÒÒìÈ ÄËÈì,ÓÚÓ,ÍÓÓÚËÓ ÒÓ%ÒìÈ±ÄÚÒñ
·ÓíÄÄ 5 ìÈìÚÚ Ò È,ÒÚ±,ìÄìÒË ì±ÒÒÄÚÄ,
ÒËÛ±ËÄ ±,ÚÓí±ÚË·ÄÒìÈ,°Íì·ÈÚÒñ.
ÒÒìÈ ÒËÛ±ËÄ,°Íì·ÈÚÒñ,Ó,Äìñ
ÒÓÁ%±ììñ±%ÒËÖË,ÚÓÚ±ÍÓ,ËÚÄ
ÒÄ Áìì·±ÚÄì, POWER Òì±·±ì±,
ÒÓíÓËÄìÈÄ OFF, Á±ÚÄì, ÒÓíÓËÄìÈÄ
CAMERA. ëÓÁ%±ììñ Ç±ìË ì±%ÒËÖË,·Û%ÄÚ
ÒÓí ì±ì±ì±, Ò±íñÚË.

Ä°òÚ ÓÄ Ò Ó%„ÈÈÄìÈÄ Áì±ÍÓ,
ÑÄ ÈËÛÄ %ËÖÍ ì±Ë±Ú°í.

ëÓÁ%±ìËÄìÒÚÒÚÓ,ÓíÄÒÚ±
Ç°·Ä ËÚÄ ÒÚÒÚÓÄ ÍÄÒÚÓ.èíÓ
±ÒÒì±Ú È,±ÄÚÒñ ì±ì Áì±ì.

Advanced operations

ìÒÓ,Ä-ÀìÚ,Ò,±ìì·Ä ÒÓÄ±ÈÈ

Watching on a TV screen

ΕΠΙΒΛΕΨΗ ΣΤΟ ΟΘΥΝΟ ΤΗΛΕΟΡΑΣΗΣ

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

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

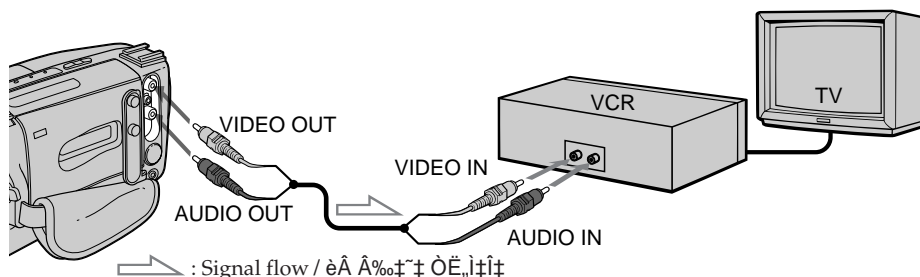
If your TV is already connected to a VCR

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

Επιβλέψτε την εικόνα αναπαραγωγής στην οθόνη της τηλεόρασης. Συνδέστε την κάμερα στο VCR ή την τηλεόραση για να παρακολουθήσετε την εικόνα αναπαραγωγής στην οθόνη της τηλεόρασης. Συνιστούμε να χρησιμοποιήσετε την πηγή τροφοδοσίας ρεύματος για την τροφοδοσία της κάμερας κατά την παρακολούθηση της εικόνας αναπαραγωγής στην οθόνη της τηλεόρασης.

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

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



Editing onto another tape

ÀÒÌÙ±Ê Ì± %Ò Û,,Û_ç ÌÀÌÙÙ

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

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

After connecting the camcorder to the VCR,

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

Ç° ÌÓÈÁÚÁ ÒÓÁ%±Ù, Ç±Ù ÒÓ·ÒÙ,ÀÌÙÙ, Ë%ÒÁÒÒ Ò,, ±ÌÙÙ ÒÙÚÁÌ ÌÒÌÙ±Ê± Ò ÒÒÌÒ°
%Ò Û,,Ò,Ó àÇá ÛÈÒ± **8** 8 ÌÌ, **Hi8** Hi8, **VHS** VHS, **S-VHS** S-VHS, **VHS-C** VHSC, **S-VHS-C** S-VHSC ÈÌÈ **β** Betamax, ÍÓÚÓ °È ÈÌÁÁÙ,ÌÒ%° ,È%ÒÁÓ/
±Ù%ÈÒ.

ÌÌÀÌ ÌÈÚÁ ,, ÒÌÌÒÒÙ, Ë%ÒÁÓÌ±ÌÁ °, Ò
, ÁÌÌ ÌÒÌÙ±Ê±, Ç Ò ÒÙÈ,ÌÒÌ ÒÌÙ±Á ÌÓ,,ÙÙ
ÒÒÌ,ÈÙ,ÒÌ ÈÒÌ±ÈÁÌÈÌ.

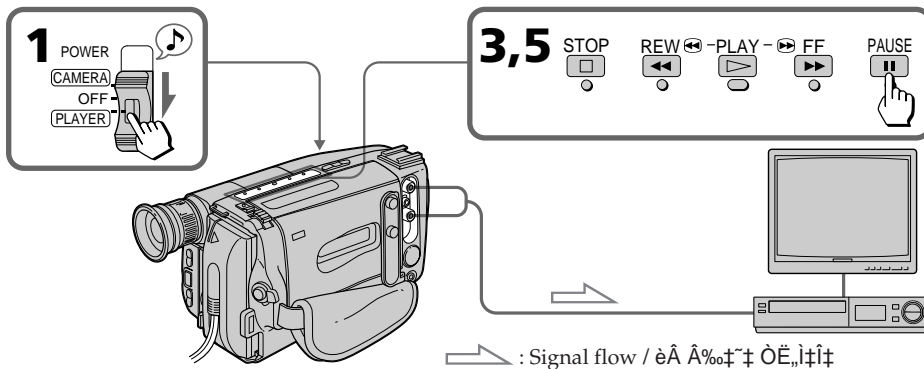
ÈÒÒÌÁ ÒÓ%ÒÓÁ%ÈÌÀÌÈÌ,È%ÒÁÓÌ±ÌÁ ° Í àÇá,
(1) ÌÒÙ±ÌÒ,ÈÚÁ ,ÌÌ,±ÙÁÌ, POWER Ì±
PLAYER.

(2) ÇÒÙ±, ÚÁ ÌÈÒÙÙ ÌÀÌÙÙ (ÈÌÈ ÌÀÌÙÙ,
ÌÓÚÓ Û Ç° ÌÒÙÈÚÁ ÒÁ ÁÁ±ÒÈÒ±Ù), àÇá
È ,ÒÙ±, ÚÁ Á±ÒÈÒ±ÌÙ, ÌÀÌÙÙ ,
È%ÒÁÓÌ±ÌÁ Û.

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

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

(5) È%ÒÌÒ, ÁÌÁÌÒ Ì±ÈÌÈÚÁ **II** Ì±
È%ÒÁÓÌ±ÌÁ Á È Ì± àÇá %ÌÌ Ì±±Ì±
ÌÒÌÙ±Ê±.



To edit more scenes

Repeat steps 3 to 5.

To stop editing

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

ÑÌÌ ÌÒÌÙ±Ê± %Ò Û,,ÈÌ Ò°ÀÌ
ÈÒ,ÚÓ ÌÈÚÁ ÒÙÌÙ° Ò3 ÒÓ5.


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

Additional Information

Changing the lithium battery in the camcorder

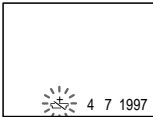
ΝΟΟΟΙΙΕΥΑΙ, ΙΤΗ ΕΙΥΟ ΙΤΕΗ

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.)

ÇΤΤ, Ε%ΑΟΙΤΙΑ Τ ΟΙΤ. ΕΑΙΤ ΎΟΥΤΙΟ, ΙΑΙΙΟΕ ΙΕΥΕΑ, ΟΕ ΤΥΤ ΑΕΙΟΕ. ΟΟΙΕ ΤΥΤ ΑΕΙΤ ΟΥΤΙΑΥ ΟΙΤ. ΟΕ ΕΙΕ ΟΟΙΙΟΥ, ΤΑ ΗΕΑΙΙΟΕ ΕΙ%ΕΙΤΥΟ. Τ. Υ%ΑΥΙΕ, ΤΥ, Ε%ΟΕΟΙΤΥΑΙΑ ΕΙΕ ΙΤ ΤΙΑ ΥΑΝ Ο Ε-ΙΕΑΕΥΑΙ ΙΟ ΥΑ-ΑΙΕΑ 5 ΟΑΙΥΙ%, ΙΟ, %Τ Ç ΎΟΥΤΙΟ, ΕΥΑ ΤΙ ΤΥΑΙ, POWER, ΟΟΙΟΕΑΙΕΑ CAMERA. Ç ΤΥΤΙΟΙ ΟΙΥ ΤΑ ΑΤΙΑΙΕΥΑ ΤΥΤ ΑΕΙΥ ΙΤ ΙΕΥΕΑ, Υ. ΤΥΤ ΑΕΙΥ Sony CR2025 ΕΙΕ Duracell DL-2025. àΟΟΟΙ, ΑΟ, ΤΙΕΑ % Υ, ΟΕ ΤΥΤ ΑΕΙΕ ΙΟΕΑΥ Ο Ε, ΑΟΥΕ Ι ΕΟΙΥ, ΟΟΟΙΤΙΑΙΕΗ ΕΙΕ Α, Τ, ΑΕΙ, Ε%Ε ΥΕΥΑ ΕΟΟΟΙ, ΑΟ, ΤΙ Α ΤΥΤ ΑΕΙΕ, ΟΟΟΥ, ΑΥΟΥ, ΕΕ Ο ΕΙΟΥ ΥΤΕΗΙΕ ΑΤ Ο%Τ ΕΑ, ΟΥΟ, ΕΥΑΙΗ. àΕΥΕΑ, ΤΗ ΤΥΤ ΑΕΙΤ %ΟΙΗ, Ε%ΑΟΙΤΙΑ Τ ΟΥΤΑΥ Ο Ε-ΙΕΑΕΥΑΙ ΙΟ ΥΑ-ΑΙΕΑ 1, Ο%Τ Ο Ε ΙΟ ΙΤ, ΙΤ ΎΟΙΟ, ΕΗ, ΤΙΟΟΙΥΤΥΤ ΕΕ. (àΕΥΕΑ, ΟΕ ΤΥΤ ΑΕΙΕ, ΙΟΥΟ ΤΗ, Τ ΎΟΥΤΙΟ, ΙΑΙΤ ΙΤ ΑΤ, Ο%Α, ΙΟΕΑΥ ΙΑ Ι, ΤΥΕΥ, ΙΤ 1, Ο%.)

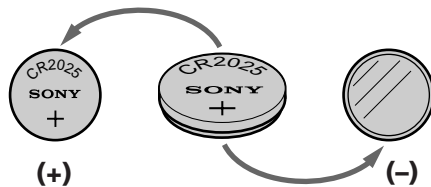


Notes on lithium battery

- **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 ΤΙΕΗ ΟΥΙΟΟΕΥΑΙ, ΙΟ ΙΕΥΕΑ, ΟΕ ΤΥΤ ΑΕΙΕ

- Ι ΤΙΕΥΑ ΙΕΥΕΑ, Υ ΤΥΤ ΑΕΙΥ, ΙΑΟΥΑ, ΙΑ %ΟΟΥΥΟΙΟ%ΑΥΑΕ. Ç ΟΙΥ ΤΑ, ΑΟΙΕ ΙΥΟ-ΙΕ. Ο Ο Ο ΙΟΥΕΙ ΤΥΤ ΑΕΙΥ, ΙΑΙΑ%ΑΙΙΟ Ο. ΤΥΕΥΑΟ, Ι ΤΥ.
- ΝΗ Ο-ΑΟΟΑ-ΑΙΕΗ ΙΟ Ο-Α, Ο ΙΟΙΥΤΙΥ Ο ΟΥ ΕΥΑ ΤΥΤ ΑΕΙΥ ΟΥΙΟΕΥΤΙ.
- Ç Α ΕΥΑ ΤΥΤ ΑΕΙΥ Ο ΟΟΙΟ ΙΑΥΤΙΕ ΑΟΙΟ, Ο ΟΕΙ ΑΥΤ, ΕΙΤ Α ΙΟΕΑΥ Ο ΟΕΑΟΕΥΕΙΟ ΟΥΙΟΑΑΤΙ ΤΙΕΑ.
- àΕΥΕΑ, ΤΗ ΤΥΤ ΑΕΙΤ ΕΙΑΑΥ ΟΟΙΟΕΕΥΑΙ, Ι Ε ΟΟΙ Ο (+) Ε ΟΥ Ε ΤΥΑΙ Ι Ε ΟΟΙ Ο (-). èΟΙΙΕΥΑ, ΤΥΟ ΤΥΟ ΙΕΥΕΑ, Υ ΤΥΤ ΑΕΙΥ ΟΙΑ%ΥΑΥ ΤΟΟΟΙΤ, ΤΥ, ΟΟΙΟΕΕΥΑΙ, Ι Τ ΟΟΙ, ΟΟΙ ΙΤ ΥΕΥ.



WARNING

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

èè Ñìèè ÕÑ Ñçà Ò ΟΟΙΕ Ο ΤΥΤ ΑΕΙΟΕ ΙΑΟ Τ, ΕΙ, ΙΟ Ο. Τ ΤΥ, ΟΗ, ΟΙΤ ΙΟΕΑ, ΑΟ, ΤΥ, ΟΗ, ÇΑ ΟΑ ΑΑΤ ΗΕΤΥ, ΙΑ ΤΑ-Ε ΤΥ, ΕΙΑ ΟΟΤΥ, ΤΥΤ ΑΕΙΥ, Ο, ΟΙ.

Additional Information ΝΟΟΟΙΙΕΥΑΙ, ΙΤΗ ΕΙΥΟ ΙΤΕΗ

Changing the lithium battery in the camcorder

άτιΆίτι ΙΈύΈΆ,ΌΈ .τιύτι ΆΈίΈ ,
Έ%οΑΟίτιΆ Ά

Changing the lithium battery

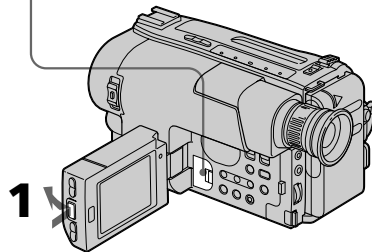
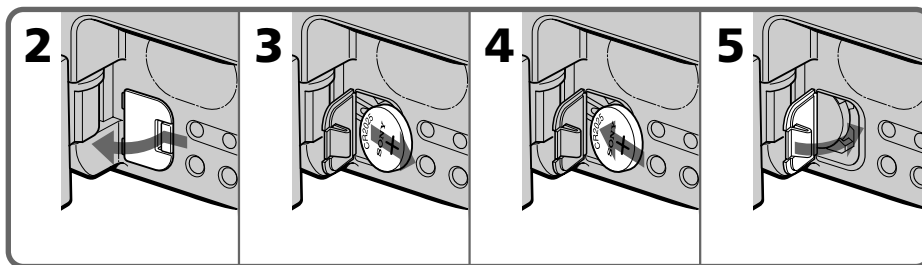
When replacing the lithium battery, keep the battery pack or other power source attached. Otherwise, you will need to reset the date and time .

- (1) While pressing PUSH OPEN, open the LCD panel.
- (2) Open the lid of the lithium battery compartment.
- (3) Push the battery in once and pull it out from the holder.
- (4) Install the new lithium battery with the positive (+) side facing out.
- (5) Close the lid.

άτιΆίτι ΙΈύΈΆ,ΌΈ .τιύτι ΆΈίΈ

è È ΑτιΆίτι ΙΈύΈΆ,ΌΈ .τιύτι ΆΈίΈ %οΑ ΈΈύΆ .τιύτι ΆΈίΈ .ιόί ΈίΈ %ο ύ,ΌΈ Έούό~ιέι ΌΈύτιΈη Ό ΈοόΆ%έιΆιι~ι. αιτι~Ά Çτι Ό Έ%οΑύΌηΌΆ ΆύΌύτιτι,ίΈ.τιύ, %οτιύύΈ, Άηη.

- (1) ÇτιΈτι, ίιόόίύ PUSH OPEN, όύί όΈύΆ ΌτιΆί, ύάÑ.
- (2) έύί όΈύΆ ί ~ιύ όύόΆίτι ΙΈύΈΆ,ΌΈ .τιύτι ΆΈίΈ.
- (3) ÇτιΈίΈύΆ .τιύτι ΆΈίύ ό%οέι τι Έ, ~ύτι ΈύΆ ΆΆΈΆ%οΑ ΈτιύΆηη.
- (4) ιόύτιό,ΈύΆ ίό,ύ, ΙΈύΈΆ,ύ, .τιύτι ΆΈίύ όόίόΈΈύΆί,ιόΈ (+) όύό όίόΈ, ό. τι~ΆίιόΈ ιτιύΈύ.
- (5) άτι όΈύΆ ί ~ιύ.



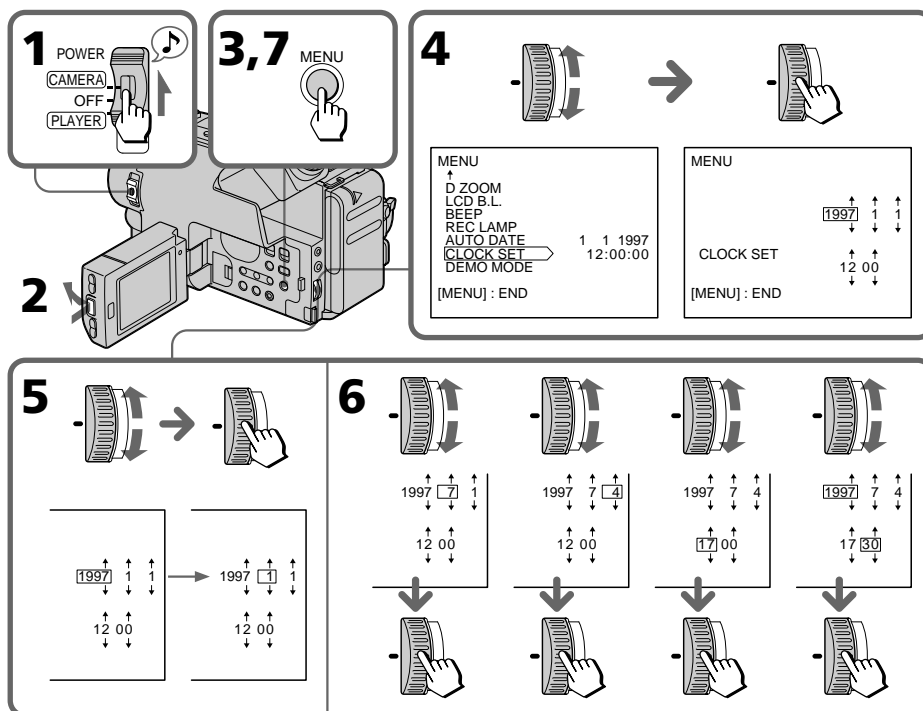
Resetting the date and time

Ἰὸὐτῖό, ἰτ %οτῦ° Ἐ, ἈἰἰἘ

You can reset the date and time in the menu system.

- (1) Set the POWER switch to CAMERA.
- (2) While pressing PUSH OPEN, open the LCD panel.
- (3) Press MENU to display the menu.
- (4) Turn the control dial to select CLOCK SET, then press the dial.
- (5) Turn the control dial to select the desired year, then press the dial.
- (6) Set the month, day, hour, and minutes by turning the control dial and pressing the dial.
- (7) Press MENU to erase the menu display.

- ç° ἰὸἘἈῦἈ, °ὀὀἰἘῦ ὀὀ, ὕὀ ἰῦ, ὕὀὐτῖό, ἰῦ %οτῦ° Ἐ, ἈἰἰἘ, ὀἘὀῦἈἰἈ ἰἈἰ.
- (1) ἰὸὐτῖό, ἘῦἈ ὀἈ Ἀἰἰ, τῖῦἈἰ, POWER, ὀὀἰὸἘἈἰἘἈ CAMERA.
- (2) ç° , Ἀἰἰ ἰτἘτῖῦἘἠ ἰἰὀὀἰἘ PUSH OPEN ὀῦἰ ὀἘῦἈ ὀτῖἈἰ, ὕἈἠ.
- (3) çτἘἰἘῦἈ ἰἰὀὀἰῦ MENU %οἠἠ ὀῦὀ. τἘἈἰἠἠ ἰ Ἀ ἰ.
- (4) Ἐὀ, Ἀ ἰἘῦἈ %οἘὀἰ ὕὀ τῖἈἰἠἠ %οἠἠ, °ὀ τ CLOCK SET, ἈτῖῦἈἰ ἰτἘἰἘῦἈ %οἘὀἰ.
- (5) Ἐὀ, Ἀ ἰἘῦἈ %οἘὀἰ ὕὀ τῖἈἰἠἠ %οἠἠ, °ὀ τ ἘἈἰτἈἰὀ, ὀ, ὀ%οτ, ἈτῖῦἈἰ ἰτἘἰἘῦἈ %οἘὀἰ.
- (6) ἰὸὐτῖό, ἘῦἈ ἰἈὀἠ, %οἈἰ, τῖὀ Ἐ ἰἘἰῦῦ ὀῦἰἈἰὀὀ, ὀ ὀῦτ%οἘὀἰτῖὀ τῖἈἰἠἠἠ ἰτἘτῖῦἘἠ %οἘὀἰ.
- (7) çτἘἰἘῦἈ ἰἰὀὀἰῦ MENU %οἠἠ ὕ%οτῖἈἰἠἠ Ἐἰ%οἘἰτῖἘἘ ἰἈἰ.



Additional information ἸὸὀἰἠῦἈἰ, ἰτἠ Ἐἰῦὀ ἰτῖἠ

Resetting the date and time

ιòÚ±ιò,ί± %ο±Ú° È , ÂĪÂĪË

To correct the date and time setting

Repeat steps 5 and 6.

To check the date and time

Press DATE to display the date indicator. Press TIME to display the time indicator. When you press the same button again, the indicator goes out.

The year indicator changes as follows:



Note on the time indicator

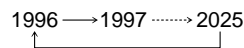
The internal clock of this camcorder operates on a 24-hour cycle.

Νίηι ίό ÂĪÛË Ó,ĪË ÛòÚ±ιò,ĪË %ο±Ú° È , ÂĪÂĪË

èó,ύó ÈÚÂ ÒÛĪĪÛ° ò5 Òó6.

Νίηι Ò Ó,Â ĪË %ο±Ú° È , ÂĪÂĪË
ç±ÈĪËÚÂ DATE %οĪηι ÓÚÓ· ±ÈÂĪËηι
ÈĪ%οÈĪ±ÚÓ ± %ο±Ú° , È%οÓËÓĪ±ÚÂĪÂ. ç±ÈĪËÚÂ
TIME %οĪηι ÓÚÓ· ±ÈÂĪËηι ÈĪ%οÈĪ±ÚÓ ± , ÂĪÂĪË.
ÒòĪË òιò,± Ī±ÈĪÂÚÂ ÛÚ ÈÂ ĪιòòĪ, Ò
ÈĪ%οÈĪ±ÚÓÓÓ,±òĪÂÛ.

àĪ%οÈĪ±ÚÓ „ Ó%ο± ÈÂĪÂĪηιÂÚòηι
ÒĪÂ%οÛ, ~ÈĪ Ó· ±ÁÓĪ:



è ÈĪÂ~±ĪËÂ ÓÚιòòÈÚÂĪ,ιò ÈĪ%οÈĪ±ÚÓ ± , ÂĪÂĪË
çĪÛÚ ÂĪËÈÂ ~±Ó° %ο±ĪĪÓË , È%οÁÓĪ±ĪÂ °
±.ÓÚ±,Ú , 24~±òó,óĪ ~ÈĪÂ.

Playback modes

êÂËËĪ°
, Óòò ÓËÁ,Â%οÂĪËηι

The playback mode (SP/LP) is selected automatically according to the format in which the tape has been recorded. The quality of the recorded picture in LP mode, however, will not be as good as that in SP mode.

Foreign 8 mm video

You may not play back tapes recorded on a different TV colour system. Because the TV colour systems differ from country to country, you may not be able to play back foreign pre-recorded tapes. Refer to the list of "Using your camcorder abroad" to check the TV colour system of foreign countries.

êÂËËĪ, Óòò ÓËÁ,Â%οÂĪËηι (SP/LP)
, ° È ±ÂÚòηι ±,ÚÓĪ±ÚË~ÂÓĪË Óò,Ī±òιò
ÚÓ Ī±ÚÚ, , ίóÚó òĪ . Ī± Á±òÈò±Ī± ĪÂĪÚ±.
é%οĪ±ιò Ī±~ÂÓÚ, Ó ÈÁÓ· ±ÈÂĪËηι, Á±òÈò±Īιò, Ó
, ÂËËĪÂ LP .Ú%οÂÛ ĪÂÓĪóĪ,ιò ιÚËÂ, ~ÂĪ ,
ÂËËĪÂ SP.

àĪóóÚ ±ĪĪ° 8 ĪĪ , È%οÁÓĪÂĪÛ°
ç ĪÂ ĪóËÂÚÂ , Óòò ÓËÁ, Ó%οÈÛ ĪÂĪÚ,
Â±òÈò±ĪĪ° , %οÛ, ÓËÈòÈòÚÂĪÂ, ÂÚιò, Ó
ÚÂĪÂ, È%οÂĪËηι. Ī±Ī Ī±Ī ÒÈòÚÂĪ° ^, ÂÚιò, Ó
ÚÂĪÂ, È%οÂĪËηι ÓÚĪË~±, Úòηι , Á±, ÈòÈĪóóËÈ ÓÚ
òÚ ±Ī°, ÚÓ , ÓÁĪóËĪó ç ĪÂ óĪóËÂÚÂ
, Óò ÓËÁ, Ó%οÈÛ ÈĪóóÚ ±ĪĪ°
ò Â%ο,± ÈÚÂĪ, ιò Á±òÈò±ĪĪ° ĪÂĪÚ°.
ëĪóÚ ÈÚÂ ÓòÈòóĪ, ±Á%οÂĪÂ "αòóóĪ, Áó, ±ĪËÂ
ç±~ÂË , È%οÁÓĪ±ĪÂ ° Á± „ ±ĪË~ÂË" %οĪηι
ò Ó, Â ĪË ÒÈòÚÂĪ° ^, ÂÚιò, Ó ÚÂĪÂ, È%οÂĪËηι
ÈĪóóÚ ±ĪĪ°, ÓòÚ%ο± ÓÚ.

Tips for using the battery pack

ëÓ,ÁÚ° ÒÓ ÈÒÒÓÍ,ÁÓ,±ÍÈ, ±Ú± ÂÈÌÓ,,Ó ·ÍÓÍ±

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.

Ç %±ÍÓÍ ±Á%ÁÎÁ ÒÓÍ±Á±ÍÓ, Í±Í Ç° ÍÓÈÁÚÁ ÈÒÒÓÍ,ÁÓ,±Ú, Ì±ÈÌÛ-ÈÌ Ó· ±ÁÓÍ Ç±- ±Ú± ÂÈÌ°È ·ÍÓÍ.

èÓ%,ÓÚÓ,Í± ·±Ú± ÂÈÌÓ,,Ó ·ÍÓÍ±

ÇÒÀ,%±±ÍÒÈËÚÁÒÒÓ·ÓÈ %ÓÓÓÍÈËÚÁÍ,Ì°Á ·ÍÓÍÈ áÍÂÈÚÁ%ÒÒÚ±ÚÓ°ÍÓÁÍÓÍÈ-ÁÓÚ,ÓÁ± ±%±, ±Ú± ÂÈÌ°Í ·ÍÓÍ±, ~ÚÓ· ÈÍÁÚ, °ÓÁÍÓÈÍÓÒÚ, °ÓÓÍÈËÚ, Ò·ÁÍÛ ÓÚ 2 %Ó 3 ±Á

ë ÓÍ ÒÈÛÈ° ·±Ú± ÂÈÌÓ,,Ó ·ÍÓÍ± ±Í±ÁÚÒ± ·ÓÍÁÁ ÍÓ ÓÚÍÈÍ, ÍÓÍÓ%Ì° ÍÚÓÍÓ,È±Í ùÚÚÁÍÚÈ,ÍÓÓÚ, ±Ú± ÂÈÌÓ,,Ó ·ÍÓÍ± ÒÈÈ±ÁÚÒ±ÈÁ± ±%±Ú%±ÁÚÈÁ ±ÓÍ°%Ó,± °ÓÚ ÁÁ,ÂÒÍÈ Ç° Ò ÓÈÁ,Ó%ÈÚÁ Á±ÓÈÓ,, ÍÓÍÓ%±Í ÚÓÍÓ,È±Í.

ÑÍ± ÒÓÍ ±ÍÁÍÈ± Á± ±%± ·±Ú± ÂÈÌÓ,,Ó ·ÍÓÍ± áÓ,%±±Á±ÓÈÒ,ÍÁÓ ÓÈÁ,Ó%ÈÚÒ±,ÓÓ,Á ÍÈÚÁ, °Í ±ÚÁÍ, È%ÁÓÍ±Á ° STANDBY,ÍÈÁ %±Í ÒÓÍ ±ÍÁÍÈ± Á± ±%± ·±Ú± ÂÈÌÓ,,Ó ·ÍÓÍ±. áÂÈ%Ú Ò·ÁÍ±È ÍÓÈÁÚ ·Ú, Ò%ÁÍ±Í ÓÍ±,È ÓÁ ÁÍÓ%, %±ÈÁ ÁÓÍÈ Á±ÓÈÓ, ÓÓÚ±ÍÓ,ÍÁÍ± È Ì±±Ú± ÓÓ±Ú, ÇÓ, ÁÍ± ÓÓÁÈ°ÈÓÈ Ó,±È± Ó·ÁÍÚ±, °Ó ± Ú,,Í± ÈÍÈ Ó ÓÒÍÓÚ ±·Á ÁÁ Ó·ÁÍÚÈ, È%ÓÈÓÍ±ÚÁÍ± ÈÍÈ Ì± ±ÍÁ ÚáÑ, Ó·ÁÍÚÈ, ÓÁ Á%,È,±ÁÚÒ±,ÚÓÍ±ÚÈ-ÁÓÍÈ È·±Ú± ÂÈÌ°È ·ÍÓÍ ÈÒÒÓÍ,ÁÚÁÚÓ±. Á±Ú± ÂÈÌ°È ·ÍÓÍ Ú±ÍÈÁ ÈÒÒÓÍ,ÁÚÁÚÓ±,ÍÓ,%±,ÓÚ±,±ÁÚÓ±È, °ÈÍ±ÁÚÒ± Í±ÓÓÁÚ±.


Additional information ÑÓÒÓÍÈËÚÁÍ,±± ÈÌÚÓ Í±-È±


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

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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.

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).

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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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ē †ā fl%ōīē ō ōī ōīūē. †ú† āēīō,,ō †īō†
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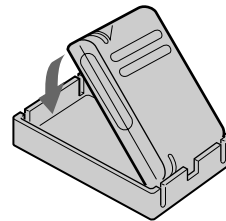
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ōōīē īōīū†īū° (īāū†īē~āōīēā †ōūē ī†
ā†%ōīāē †ōūē) ā†, flāīāī°,
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ōōī †ūēūōfl. ōōīē īōīū†īū° ā†, flāīāī° ēīē
āōīē †ú† āēī°ē †īō† īā ēōōōī,āó,†īōfl
%ōīēūāī,īōā, āfl,ōō,ūō ēūā ūōū†īō,īū ē
ōīflūēā †ú† āēīō,,ō †īō† īāōīōī,īō †ā.
ūūō ūīū†āū ōōōūōflēā īōīū†īūō,,
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- çā ōō%ō,ā, †ēūā †ú† āēī°ē †īō† ††ēī-
īē.ō īā††ē~āōīēī ū%ō† †ī,ōā%ōāēōū,ēfl.

[b]





Maintenance information and precautions


àìÙÓ Ì†Èñ ÒÓ ÛìÓ%Ù Á†±ÔÔ†-
†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).

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Ó·ÁìÙÈ,À. è È Ù†ìÒì ÙÒìÓ,ÈÈ, ÌÁìÙ† ÌÓÈÁÙ
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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,
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~†Ò.

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(2) èìÈÈÙÁ Ò†ìÁÙ, ìÓ, %† ÙÁìÒÁ †ÙÙ †,ìÙÙ È
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Òì ÙÈ†,·ÈÈ Ò À%Ò° (Ò ÈìÁ ìÒ ÒÒÙÒÙñ 1
~†Ò).

Additional information ΝΟΟÙÈÙÁì,†ñ ÈìÙÓ ì†Èñ

Maintenance information and precautions

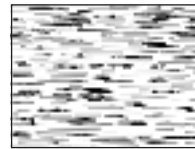
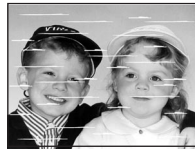
αὐτὸ ἵππερὶ ὅ ὑπόμῳ ἄτ
 τὸὸτ τὸῦεὸ ἄ%οὐὐὐ ὀείουὐε

Video head cleaning

ἐ~Ἐὐὐίτ ,,ὀίό,ὀί

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.

Νίη ὀ. ἄὐὐἄ~ἄιἔη ἰὸ ἱτῖ ἰὸε ἄτὐἔὐε ἔ
 ~ἄύίό, ὀἔἄό. τἔἄιἔη, ἔ%οἄό, ὀίό, ἰεὐὐἄ%ὐἄῦ
 ὀ~ἔ~τῦ. ὀὐἔἔ ἔι%ἔτῦὐ ὀ ⊗ ὀὐη, ἱηἄῦὐη,
 ἄἔἔἰἄ CAMERA ἔἔἔ, ὀὐὐ ὀἔἄ, ὀ%ἔἰὐἄ
 ἔἄό. τἔἄἰἔἄ ἠ, ἱηἄῦὐη “ἄτ~ὑἱἄἰἰ” ἔἔἔ
 ὑ ὑ%ἰὸ τἄἰἔ~ἔἰἰ, ἔ%ἄὐ, ὀίό, ἰε ἰό,, ὑῦ
 ~ῦ, ἄτ,, ἠἄἰἄἰ°.



[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] ἔἰἄ,, ἰτ ἄτ,, ἠἄἰἄἰ°

[b] ἄτ,, ἠἄἰἄἰ°

ὀὐἔἔ ὑὐὐ ὀἔἄόἰό, ὀ~ἔὐὐἔῦἄ, ἔ%ἄὐ, ὀίό, ἰε
 ὀ ὀὐἰὐ~ ὀ~ἔὐὐἔῦἄἰ ἰὸε ἰτὐὐἄῦ° V8-
 25CLH (ἰἄ ὀ ἔἰτ,, τἄῦὐὐη). ἐὐὐἰἄ ὀ ὀ, ἄ ἰἔ
 ἔἄό. τἔἄἰἔἄ, ἄὐἔἔ ὀἰὐ ὀ, ἠ ἄ~ἠ
 “ἄτ~ὑἱἄἰἰ”, ὀὐ, ὑὐ ἔῦἄ ὀ~ἔὐὐἰῦ. (çἄ
 ὀὐ, ὑὐ ἠἔῦἄ ὀ~ἔὐὐἰῦ. ὀἰἄἄ5 τἄἄτὐ%ἔἰ
 ὀ ἔἄἰ).

ἔ ἄ%ὐὐἄ ἄἔἄἰἔἄ

çἄ ἔὐὐἰἄ, ἄῦἔῦἄ ἔἰἄ ~ἔἄὐη, ὀ ὀ%τἔἄ
 ὀ~ἔὐὐἔῦἄἰ, ἰἄ ἰτὐὐἄῦ°, ἰτἔἰὐ, ὀ ὑἔὐτ. ὑῦὐ
 ἰὸἔἄῦὐὐ, ἄ%ἔῦ, ἔ%ἄὐ, ὀίό, ἰἔ.

ἔ ἔἰἄ~τἰἔἄ

ὀὐἔἔ ὀ~ἔὐὐἔῦἄἰ ἰὸε ἰτὐὐἄῦ° V8-25CLH ἰἄῦ
 , ὀ ὀ%τἔἄ, çτἄἄἔ ὀ~ἰτὐὐἔ, ὀ τῦἔῦἄὀ,,
 çτἄ ἄ ἰἔἔτἔ~ἄἄ τ,, ἄἰῦὐὐ, ὀ Sony.

Maintenance information and precautions

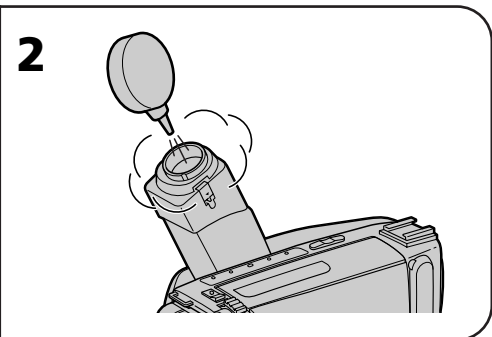
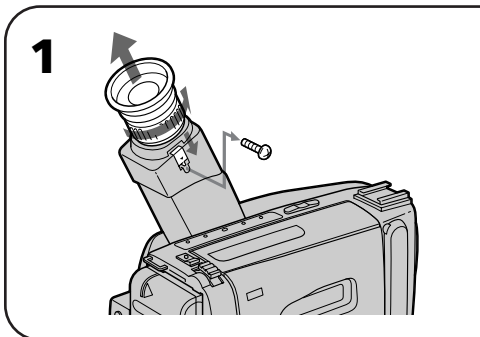
αὐτὸ ἰσχύει ὅσο ὑπόλοιπα
 ἰσοσταθμιστικά ἔχουν ὀφείλει

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.

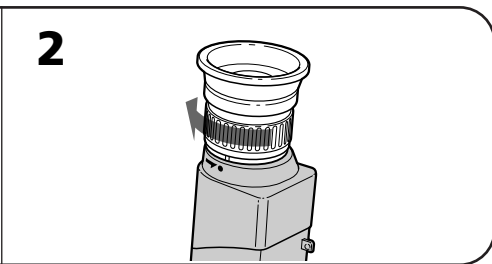
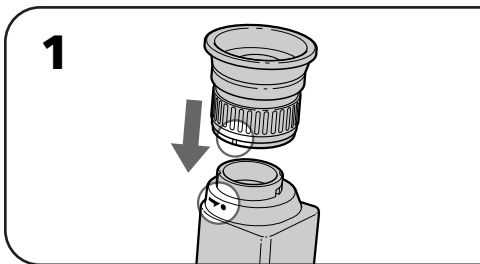
- (1) ἀπομακρύνετε τὸ βίδιο (ὅσο ὑπόλοιπα ἔχουν ὀφείλει). ἔπειτα, ὡς ἀποτέλεσμα τῆς κίνησης τοῦ RELEASE, στρέψτε τὸ ὀφθαλμιοκίνητο ὡς ἀποτέλεσμα τῆς κίνησης τοῦ βέλους καὶ ἀφαιρέστε τὸ.
- (2) Ἐξοφλεῖτε τὸ ἔσω μέρος τοῦ ὀφθαλμιοκινήτου μετὰ ἕνα ἰσοσταθμιστικό.



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 ἰσοσταθμιστική ὀφθαλμιοκίνητος
 (1) ἔχει ἕνα ὀφθαλμιοκίνητο ἰσοσταθμιστικό ὅπου ἔχει ἕνα σημεῖο
 ἰσοσταθμιστικό.
- (2) Ἐστρέψτε τὸ ὀφθαλμιοκίνητο ὡς ἀποτέλεσμα τῆς κίνησης τοῦ βέλους.
- (3) Ἰσοσταθμιστικά, ἔχουν ὀφείλει.



Caution

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

ὁ ἰσοσταθμιστικός ἔχει ἕνα
 σημεῖο ὀφθαλμιοκίνητο ἰσοσταθμιστικό ὅπου ἔχει ἕνα σημεῖο ὀφθαλμιοκίνητο ἰσοσταθμιστικό.

Additional information ἰσοσταθμιστικά ἔχουν ὀφείλει

Maintenance information and precautions

**àìÙÓ Ì±Èñ ÒÓ ÛìÓ%Ù Á±
±ÓÓ± ±ÙÓÈÒ Æ%ÒÓÙÓ ÒÈìÓÙÈ**

Precautions

Camcorder operation

- Operate the camcorder using 6.0 V (battery pack), or 7.5 V (AC power adaptor).
- For DC or AC operation, use only the recommended accessories.
- Should any solid object or liquid fall into the casing, unplug the camcorder and have it checked by your nearest Sony dealer before operating it any further.
- Avoid rough handling or mechanical shock. Be particularly careful of the lens.
- Keep the POWER switch set to OFF when not using the camcorder.
- Do not wrap up the camcorder and operate it since heat may build up internally.
- Keep the camcorder away from strong magnetic fields or mechanical vibration.
- Do not push the LCD screen.
- If the camcorder is used in a cold place, a residual image may appear on the LCD screen. This is not a malfunction.
- While using the camcorder, the back of the LCD screen may heat up. This is not a malfunction.

On handling tapes

Do not insert anything in the small holes on the rear of the cassette. These holes are used to sense the type of tape, thickness of tape, and if the recording tab is out or in.

Camcorder care

- When the camcorder is not to be used for a long time, disconnect the power source and remove the cassette. Periodically turn on the power, operate the camera and player sections and play back a tape for about 3 minutes.
- Clean the lens with a soft brush to remove dust. If there are fingerprints on the lens, remove them with a soft cloth.

èÀ%ÒÓÙÓ ÒÈìÓÙÈ

- è±.ÓÙ± ò ,È%ÀÓì±ìÀ ÓÈ
• ùìÓÓìÙ±ÙÈ ÛÈÙÀÈ%ÒÓÙÈ ÛÈÒÓÓì,ÁÙñ 6,0 Ç (-±Ù± ÆÈìÈ .ìÓì) ÈìÈ 7,5 Ç (ÒÁÙÀ,ÒÈ ±%±ÓÙÀ ÒÁ.Áì.ÙÓì±).
- Ñññ ±.ÓÙ° ÒÙ ÒÓÓÙÓñì,Ó ÈìÈ ÒÁ ÁìÁìÒ,ÓÙÓì±ÈÒÓÓì,ÁÙÈÙÀ ÛÓì,ìÓ ÁìÓìÁì%ÙÁì.À Ò Èì±%ìÀÈìÓÙÈ.
- Ç ÒìÙ±Á ÒÓÓ±%±ìÈñ Ì±ìÈì.È.Ó Û,À %° ì Ò.À%ìÁÙÓ,ÈìÈÈÈ%ìÓÙÈ,ìÙÙ ìÓ ÒÙÓ± Ì±ìÀ , ÒÙìì.ÈÙ.È%ÀÓì±ìÀ Û È Ò.Ó.À ÈÙ. ÆÁ. ÌÈÈ±È.Áì ±.Áì.ÙÓÙ,À Sony ÒÁ.À%ÒÓÙÈ,ìÀÈ.ÆÈ.ìÓÓìÙ±Ù±È.ÆÈ.
- à.À.±ÈÙÁ, Û.Ó.Ó.Ç. ±.ÁìÈñ Ò.È%ÀÓì±ìÀ ÒÈ ÈìÈ.ì.Áì±ìÈ.ÀÓìÓ,Ó Û%± ìÓ,Ó.Ò.Á%ÆÈÓÙ.Èñ.ÁÙ%Ù.ÁÓÓÓ.ÁììÓÓÓÙÓ ÒÈì.Ò.Ó.Áì.ÙÈ,Óì.
- ÑÁ ÈÈÙÁ, ìì.±.Ù.Áì. POWER, ÒÓìÓÈÁìÈÈ OFF, ÀÓìÈ,È%ÀÓì±ìÀ ± ìÀ ÈÒÓÓì.ÁÙ.ÁÙñ.
- Ç.À.Á.±.È.±.ÈÙÁ,È%ÀÓì±ìÀ Û È ìÀ ±.ÓÙ±ÈÙÁ Û±ìÈì.Ç. ±.ÁÓì.Ò.ì.ÀÈ.ÒÓÓìÓì.ìÙ.ìÙÙ È Ì±ìÀ ° ìÓÈÁÙ ÒÓ%ññÙ, Òñ Û.Áì.Ò.Á.±.Ù.±.
- ÑÁ ÈÈÙÁ,È%ÀÓì±ìÀ Û, %±ìÈ ÒÙ ÒÈì.ì.ì. Ì±.ìÈ.Ù.ì. ÒÓì.ÀÈ ÈìÈ.ì.Áì±ìÈ.ÀÓìÈì.È. ±.ÈÈ.
- Ç.À. Ì±ÈÈì±ÈÙÁ Ì±.ì.±. Û.à.Ñ.
- ÒÓìÈ,È%ÀÓì±ìÀ ±ÈÒÓÓì.ÁÙ.ÁÙñ, ì.Òì.Ò%ì.Òì.ÁÓÙ.Á, Û.ÒÓÓì.ì.ÀÈ.ÁÓ. ±.È.Áì.È.À ì.ÒÈ.ÁÙ Ò.Òñ.ÈÙ.Òñ Ì±.ì.±.ì. Û.à.Ñ. Û.ÙÓ ìÀ ñ,ñ.ÁÙ.Òñ ì.ÀÈ.Ò.Ç. Ì.Ò.Ù.
- Ç.Ó. Áìñ ÈÒÓÓì.ÁÓ.±ìÈñ,È%ÀÓì±ìÀ ° Û.ì.ì.±.ñ. ±.ÓÙ. ì.±.±. Û.à.Ñ. ì.ÒÈ.ÁÙ Ì±. Æ.±.Ù.Òñ. Û.ÙÓ ìÀ ñ,ñ.ÁÙ.Òñ ì.ÀÈ.Ò.Ç. Ì.Ò.Ù.

éÙìÓÒÈÙÁì ìÓ.Ó. ±.ÁìÈñ Ò ì.Áì.Ù.±.ÈÈ Ç.À. ÒÙ±.ñ.ñ.Ù.Á. ìÈì.±.È.ì. Ò.À%ì.Á.Ù.Ó, Ì±.ì.Áì. ì.È.À.ÓÙ.Á. ÒÙÈñ Ì±.Á.±.ñ.ì.ÀÈ.ÓÙÓ.Òì.À Ì±.Ò.Ó.ÁÙ. Û.ÙÈ.ÓÙ.Á. ÒÙÈñ ÈÒÓÓì.ÁÙ. Û.Òñ%ñ.ñ. Ò.À%Àì.ÁìÈñ ÛÈÒ±.ì.Áì.Ù°, Û.Óì.Èì. ì.Áì.Ù° È Ì±.ÈÈ.ñ.ì.À.Ò.Á.Ò.Ù.±.Á.±.È.È.È.

- ì.Ò.Ù.Á.±.È.±.È.Ù.Á. ÓÈ
• ÒÓìÈ,È%ÀÓì±ìÀ ± ìÀ.Ù%ÁÙ ÈÒÓÓì.ÁÓ.±.Ù.Òñ ì.È.Ù.Áì.ì.Ò.Á. Áìñ, ÒÙìì.È.Ù.Á. ÈÒÙ.Ò.ì.Èì.ÒÈÙ.±.È.ñ È.È.Á.ì.Áì.È.Ù.Á. Ì±.Ò.Ó.Á.Ù.Ù. è.À.È.Ò%È.À.ÓìÈ.ìì.±.È.Ù.Á. ÒÈÙ.±.È.È.Á.Ò.È.È.Á.Ò%È.Ù.Á.Ò.Ó.Á. ±.ÈÈ.Ò.È%ÀÓì±ìÀ ÒÈÈ.Ò.Áì.È.ÆÈ.Òì.Á.È.À. ±.È.Ò.Ó.Ò.È.È.Á.Ò%È.Ù.Áì.Áì.Ù.Ù.Ò.Ò.ñ.±.±.È.ì.Ù.Ù.
- è.È.±.È.Ù.Á. Ò.Áì.ÙÈ. ñ,ñ.ì.ÓÈ. ì.È.ÒÙ.Ò.ì.ÒÈ. %ñ.ñ. Û%±.ì.È.ñ. Ò.ì.È. ÒÓìÈ Ì±.Ò.Ó.Á. ì.Ò.Ù.È.Ò.Áì.ÙÈ.±.È.ì.Á. Û.Òñ.ÒÙ.Ò.Á.±.Ù.È.È.Ò.±.Á., Û%±.ì.È.Ù.Á. È.ì. Ò.Ò.Óì.Ç. ñ,ñ.ì.ÒÈ. Ûì.±.È.

Using your camcorder abroad

àÒÒÓÏ,ÁÓ,±ÈÄ Ç±-ÄÈ
,È%ÁÓÍ±ÌÁ ° Á± Û-ÄÈÓÌ

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%±fl ÒÚ ±ì ÈìÈ Ò-ì±ÒÚ ÈìÄÄÚ Ò,Ó ÒÓ-ÒÚ,ÄìÛ, ÒÈÒÚÄìÛ ÌÄìÛ È-ÄÓÍÒÈ ÒÄÛÈ È ÒÈÒÚÄìÛ ^,ÄìÛÓ,,ÓÚÄìÄ,È%ÄìÈfl. èÄ Ä% ÒÈÒÓÏ,ÁÓ,±ÈÄÏ Ç±-ÄÈ ,È%ÁÓÍ±ÌÁ ° Á± Û-ÄÈÓÌ Ò Ó,Ä ,ÚÄ ÒìÄ%Û,ÈÄ ÒÛìÛ:

àÒÚÓ-ìÈìÈ ÒÈÛ±ìÈfl

Ç° ÌÒÈÄÚÄ ÈÒÒÓÏ,ÁÓ,±Ú, Ç±Û È%ÁÓÍ±ÌÁ Û ,Ï .ÒÈ ÒÚ ±ìÄ ÈìÈ Ò-ì±ÒÚÈ Ò Ò Èì±,±Äì Ì ÒÄÚÄ, Ì ±%±ÒÚÄ Òì ÒÄ Äì. ÚÓì± , Ò Ä%Äì± ÒÚ 110 Ç % Ò 240 Ç ÒÄ Äì. ÚÓì±, 50/60 È°.

è±ÄìÈ-Èfl , ÒÈÒÚÄì±ì ^,ÄìÛÓ,,Ó ÚÄìÄ,È%ÄìÈfl

Ñ±ìì±fl ,È%ÁÓÍ±ÌÁ ± ÒÒìÒ,±ì± ì± ÒÈÒÚÄìÄ PAL. ÒÒìÈÇ° ,ÒÚÈÛÄ Ò ÒÒìÓÚ ÄÛ, ÒÒÒ ÒÈÄ,Ò%ÈìÒÄÈÄÓ. ±ÄìÈÄì± ÚÄìÄ,ÈÄÓ Ä, Òì %ÒìÈÄì . Û, ÒÒìÒ,±ì ì± ÒÈÒÚÄìÄ PAL ÈìÈ ÈÄ ì± ÒÈÒÚÄìÄ SECAM Ò Û ±ìÒì%Ä ÒìPAL-SECAM:è Ó,Ä ,ÚÄ ÒìÄ%Û,ÈÈÈÒÈÒÓì.

èÈÒÚÄì± PAL

Ä,ÒÚ ±ìÈfl, Ä,ÒÚ Èfl, ÄÄì,,Èfl, ÇÄìÈìÓ. ÈÛ±ìÈfl, ÈÄ ì±ìÈfl, ÈÓìì±%Èfl, ÈÓììÓì,, Ñ±ìÈfl, àÒÒ±ìÈfl, àÚ±ìÈfl, àÈÛ±È, àÛ,ÄÈÛ, à±ì±ÈÄÈfl, çÓ,±fl áÄì±ì%Èfl, çÓ,Ä,,Èfl, èÓ ÚÚ,,±ìÈfl, èÈì,±ÒÚ , ì±Èì±ì%, ìÈìflì%Èfl, ò,Ä-Èfl, ò,ÄÈ-± Èfl, È % .

èÈÒÚÄì± PAL-M

Ä ±ÄÈìÈfl

èÈÒÚÄì± PAL-N

Ä ,,ÄìÛÈì±, è± ±,,±È, ì Ú,,±È

èÈÒÚÄì± NTSC

Ä±,±ìÒìÈÄ ÒÒÚ Ó,±, ÄÓìÈ,Èfl, ÇÄìÄÒÚ-ì±, à±ì±%±, äÓìÛì-Èfl, äÓ Äfl, áÄìÓÈì±, èÄ Ú, èÛ Èì±ì, èòÄ, ì±È,±ì , ìÈìÈÒÓÈì°, ñÄìÛ ±ì,ì±fl ÄìÄ Èì±, óÈìÈ, ùì,±%Ó , ùì±Èì±, ùÒÒìÈfl È % .

èÈÒÚÄì± SECAM

ÄÓì,± Èfl, ÇÄì,,Èfl, È±È±ì±, à ±ì, à ±ì, àÓì±ìÓ, èÓì,±, èÓÒÒÈfl, èìÓ,±ì±fl èÄÒÒÚ-ìÈì±, ìì ±Èì±, ì ±ì-Èfl, óÄ-Òì±fl èÄÒÒÚ-ìÈì±È% .

Additional information ÑÒÒÒìÈÛÄì,ì±fl ÈìÛÓ Ì±-Èfl

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"> • 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) • The battery is dead. → Use a charged battery pack. (p. 7) • The AC power adaptor is not connected to mains. → Connect the AC power adaptor to mains. (p. 27)
The power goes off.	<ul style="list-style-type: none"> • 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) • The battery is dead. → Use a charged battery pack. (p. 7)
The battery pack is quickly discharged.	<ul style="list-style-type: none"> • The ambient temperature is too low. (p. 57) • The battery pack has not been charged fully. → Charge the battery pack again. (p. 7) • The battery pack is completely dead, and cannot be recharged. → Use another battery pack. (p. 59)

Operation

Symptom	Cause and/or Corrective Actions
START/STOP does not operate.	<ul style="list-style-type: none"> • The tape is stuck to the drum. → Eject the cassette. (p. 10) • The tape has run out. → Rewind the tape or use a new one. (p. 22) • The POWER switch is set to PLAYER. → Set it to CAMERA. (p. 11) • The tab on the cassette is out (red). → Use a new cassette or slide the tab. (p. 10)
The cassette cannot be removed from the holder.	<ul style="list-style-type: none"> • The battery is dead. → Use a charged battery pack or the AC power adaptor. (p. 7, 27)
No function except for cassette ejection works.	<ul style="list-style-type: none"> • Moisture condensation has occurred. → Remove the cassette and leave the camcorder for at least 1 hour. (p. 61)
The tape does not move when a tape transport button is pressed.	<ul style="list-style-type: none"> • The POWER switch is set to CAMERA or OFF. → Set it to PLAYER. (p. 22) • The tape has run out. → Rewind the tape or use a new one. (p. 22)
The date or time indicator is flashing.	<ul style="list-style-type: none"> • The lithium battery is weak or dead. → Replace the lithium battery with a new one. (p. 54) • You pressed DATE and TIME together for more than 2 seconds. The camcorder is not malfunctioning. → You may start recording. Flashing will stop soon.

Trouble check

Symptom	Cause and/or Corrective Actions
The End Search function does not activate.	<ul style="list-style-type: none"> 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.
The date or time indicator disappears.	<ul style="list-style-type: none"> Reset the date and time. (p. 55)
The SteadyShot function does not activate.	<ul style="list-style-type: none"> STEADY SHOT is set to OFF. → Set STEADY SHOT to ON. (p. 45) The SteadyShot function does not work when the wide mode is set to 16:9FULL. (p. 39)
The autofocusing function does not work.	<ul style="list-style-type: none"> FOCUS is set to MANUAL. → Set it to AUTO. (p. 41) Shooting conditions are not suitable for autofocus. → Set FOCUS to MANUAL to focus manually. (p. 41)
Recording stops in a few seconds.	<ul style="list-style-type: none"> START/STOP MODE switch is set to $\frac{1}{2}$ or 5SEC. → Set it to $\frac{1}{2}$. (p. 33)
The title display position shifts.	<ul style="list-style-type: none"> There are unwanted blanks before or after the title. → Delete them then select \downarrow.
The fader function does not work.	<ul style="list-style-type: none"> The START/STOP MODE switch is set to 5SEC or $\frac{1}{2}$. → Set it to $\frac{1}{2}$. (p. 33)

Picture

Symptom	Cause and/or Corrective Actions
The image on the viewfinder screen is not clear.	<ul style="list-style-type: none"> The viewfinder lens is not adjusted. → Adjust the viewfinder lens. (p. 13)
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"> The contrast between the subject and background is too high. The camcorder is not malfunctioning. → Change locations.
The picture is "noisy".	<ul style="list-style-type: none"> The video heads may be dirty. → Clean the heads using the Sony V8-25CLH cleaning cassette. (p. 62)
The picture does not appear in the viewfinder.	<ul style="list-style-type: none"> The LCD panel is open. → Close the LCD panel. (p. 16)
The picture does not appear on the LCD screen.	<ul style="list-style-type: none"> Incorporated fluorescent tube is worn out. → Please contact your nearest Sony dealer.
A vertical band appears when shooting a very bright subject.	<ul style="list-style-type: none"> The camcorder is not malfunctioning.
An unknown picture is displayed in the viewfinder or on the LCD screen.	<ul style="list-style-type: none"> 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)

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

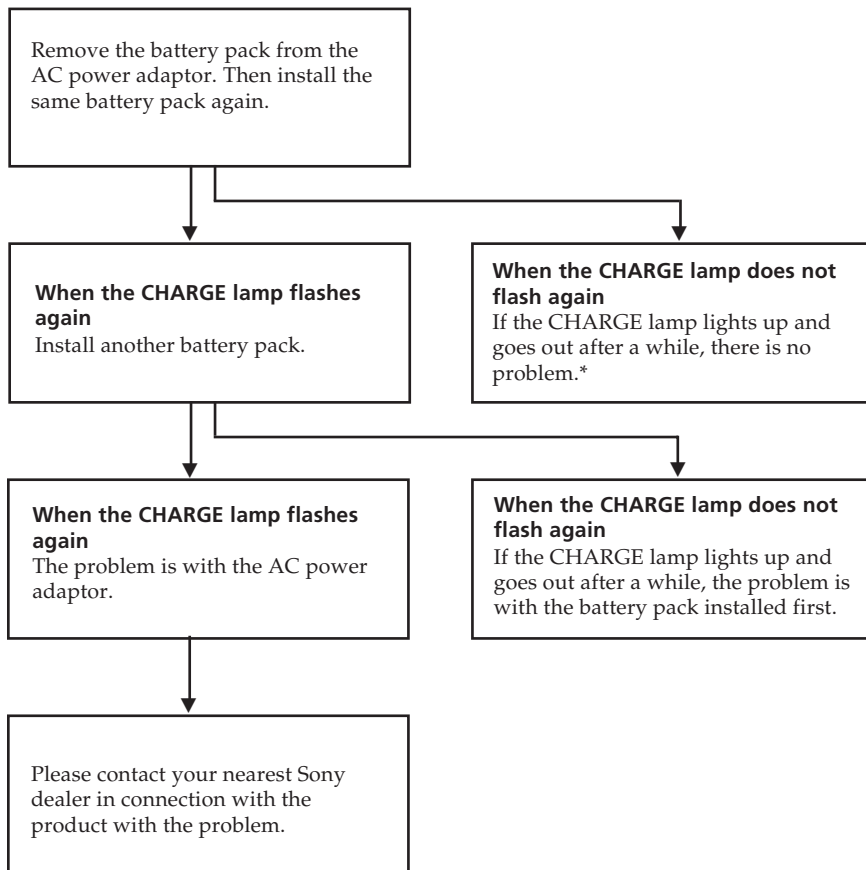
Trouble check

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"> • èÓÓÌÄ Ä±ÖÈÒÈ Ì± ÎÄÌÚÙ Í±ÒÒÄÙ± ·Í±, °ÙÓÍÌÙÚ±. → ìÙÌÍÈfl ÓÓÈÒÌ±ÍÓÌ± ÎÄ ·Ù%ÄÙ ±.ÓÚ±Ù, %Ó ÚÄÌ ÓÓ, ÓÓÌ±Ç· ÎÄ Ó%ÄÌ±ÄÙÄÌÓ, Ù, Ä±ÖÈÒ, ÓÓÓÌÄ ÓÓ, ÙÓ ÌÓÈ ÙÓÚ±ÍÓ, ÎÈ Í±ÒÒÄÙ°.
àÒ·ÄÄ±ÄÙÈÌ%ÈÌ±ÙÓ %±Ù° ÈÌÈ , ÄÌÄÌÈ.	<ul style="list-style-type: none"> • èÌÓ,±ÙÓÚ±ÍÓ,ÈÙÄ%±ÙÙÈ, Äfl. (ÒÚ . 55)
çÄ ±.ÓÚ±ÄÙ ÙÙÌÍÈfl ÓÚ±.ÈÌÈÄ±ÈÈÈÁÓ. ±ÈÄÌÈfl SteadyShot.	<ul style="list-style-type: none"> • Ç·ÍÌ, ±ÙÄÌ, STEADY SHOT ÙÓÚ±ÍÓ, ÎÄÌ, ÓÓÍÓÈÄÌÈÄ OFF. → ìÓÚ±ÍÓ, ÈÙÄ, °ÍÌ, ±ÙÄÌ, STEADY SHOT, ÓÓÍÓÈÄÌÈÄ ON. (ÒÚ . 45) • ìÙÌÍÈfl SteadyShot ÎÄ ±.ÓÚ±ÄÙ, ÒÌÙ·±Ä, ÄÒÌÈÈ ÓÍÓ·Í ±ÌÈÈ ÄÈÈÌ ÙÓÚ±ÍÓ, ÎÄÌ, ÓÓÍÓÈÄÌÈÄ 16:9FULL. (ÒÚ . 39)
çÄ ±.ÓÚ±ÄÙ ÙÙÌÍÈfl ±.ÓÚ±ÙÈÈ·ÄÓÍÓÈ ÙÓÍÙÒÈ Ó, ÎÈ.	<ul style="list-style-type: none"> • èÄ ÄÌÌ, ±ÙÄÌ, FOCUS ÙÓÚ±ÍÓ, ÎÄÌ, ÓÓÍÓÈÄÌÈÄ MANUAL. → ìÓÚ±ÍÓ, ÈÙÄ Ä, Ó, ÓÓÍÓÈÄÌÈÄ AUTO. (ÒÚ . 41) • ìÓÍÓ, Èfl Ò·ÄÌÈÈ fl, Îfl ÙÓfl ÎÄÓÓ%ÌÓ%flÈÈ %fl ±.ÓÚ±ÙÈÈ·ÄÓÍÓÈ ÙÓÍÙÒÈ Ó, ÎÈ. → ìÓÚ±ÍÓ, ÈÙÄ ÒÄ ÄÌÌ, ±ÙÄÌ, FOCUS, ÓÓÍÓÈÄÌÈÄ MANUAL %fl ÙÓÍÙÒÈ Ó, ÎÈ, Ù·Ì. (ÒÚ . 41)
ä±ÖÈÒ, ÓÓÚ±Ì±, ÎÈ, ±ÄÙÓfl ·Ä ÄÄ ÎÄÓÍÓÌ, ÍÓ ÓÄÌÙÌ%.	<ul style="list-style-type: none"> • èÄ ÄÌÌ, ±ÙÄÌ, START/STOP MODE ÙÓÚ±ÍÓ, ÎÄÌ, ÓÓÍÓÈÄÌÈÄ $\underline{\text{L}}$ ÈÌÈ 5SEC. → ìÓÚ±ÍÓ, ÈÙÄ Ä, Ó, ÓÓÍÓÈÄÌÈÄ $\underline{\text{M}}$. (ÒÚ . 33)
è%fl, ÈÌÙÓÚÓÓÓÍÓÈÄÌÈÄ ÈÌ%ÈÈÈ ÙÄÌÓÈ±%ÓÈÖÈ.	<ul style="list-style-type: none"> • èÄ Ä% Ì±%ÖÈÒ, ÈÈÈ ÓÓÓÌÄ ÎÄÄ ÈÌÄ ÙÓfl ÒÙÓÚ·Ä ÎÄÓÚ±. → ì%±ÌÈÙÄ ÈÌ, ± Ä±ÙÄÌ, °·Ä ÈÙÄ L.
çÄ ±.ÓÚ±ÄÙ ÙÙÌÍÈfl, Ä%ÄÌÈfl/ , Ä%ÄÌÈÈÈ ÈÁÓ. ±ÈÄÌÈÈfl.	<ul style="list-style-type: none"> • èÄ ÄÌÌ, ±ÙÄÌ, START/STOP MODE ÙÓÚ±ÍÓ, ÎÄÌ, ÓÓÍÓÈÄÌÈÄ 5SEC ÈÈÈ ÓÓÍÓÈÄÌÈÄ $\underline{\text{L}}$. → ìÓÚ±ÍÓ, ÈÙÄ Ä, Ó, ÓÓÍÓÈÄÌÈÄ $\underline{\text{M}}$. (ÒÚ . 33)
àÄÓ. ±ÈÄÌÈÄ	
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"> • çÄ ÓÚ Ä, ÙÌÈ Ó, ±Ì Ó·ÄÌÙÈ, È%ÓÈÈÒÌ±ÙÄÌfl. → èÙ Ä, ÙÌÈ ÙÈÙÄÓ·ÄÌÙÈ, È%ÓÈÈÒÌ±ÙÄÌfl. (ÒÚ . 13)
èÓfl, ÎflÄÙÓfl, Ä ÙÈÌ±Í, 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"> • èÌÈÈ·ÍÓÌ ·ÓÌ, ·ÓÈ ÌÓÌÙ ±ÒÙ ÎÄÈ%Ù Ó·ÄÌÙÓÌ È ÙÓÌÓÌ. ÇÈ%ÄÓÌ±ÍÄ ± ±.Ó ±ÄÙÌÓ Ì±Í, ÌÓ. → àÄÌÄÌÈÙÄ ÓÓÄÈÈ, Ò·ÄÌÈÈ.
àÄÓ. ±ÈÄÌÈÄ "Ä±·ÙÌÄÌÓ".	<ul style="list-style-type: none"> • ÇÓÄÌÓÈÌÓ Ä±, flÄÌÄÌ°, È%ÄÓ, ÓÌÓ, ÎÈ. → èÈÈÒÈÙÄ, °ÍÓ, ÎÈ, ÈÒÓÓÌ, ÄÙfl %flfl "ÙÓ, Ó ÓÈÈÒÈÙÄÌ, ÌÙ, Ì±ÒÒÄÙÙV8-25CLH. (ÒÚ . 62)
àÄÓ. ±ÈÄÌÈÄ ÎÄ ÓÓfl, ÎflÄÙÓfl , È%ÓÈÈÒÌ±ÙÄÌÄ.	<ul style="list-style-type: none"> • èÙÌ °Ù± Ò±ÌÄÌ, ÙÄÌ. → ä±Í ÓÈÙÄ Ò±ÌÄÌ, ÙÄÌ. (ÒÚ . 16)
àÄÓ. ±ÈÄÌÈÄ ÎÄ ÓÓfl, ÎflÄÙÓfl Ì± ·Í ±ÌÄ ÙÄÌ.	<ul style="list-style-type: none"> • ÇÓÙ ÓÄÌÌ±fl ÎÈÌÄÒ·ÄÌÙÌ±fl Ì±ÍÒ±, °Í± ÈÄ ÓÙ Ófl. → è, flÈÈÙÄÓ, ÓÓÈ±ÌÈÈÓÚ±, Ò Ç±ÈÌ·ÌÈÈ±ÈÈÈÈÈ ÓÌ Sony.
ÇÄ ÙÈÌ±Í, Ì±fl ÓÓÍÓÒ± ÓÓfl, ÎflÄÙÓfl ÒÈÈ Ó·ÄÌÄ Ó·ÄÌ, fl ÈÈÌ Ó·ÄÌÙÓ,.	<ul style="list-style-type: none"> • ÇÈ%ÄÓÌ±ÍÄ ± ÎÄ fl, ÎflÄÙÓfl ÎÄÈÒÒ ±, ÌÓÈ.
è Ó%ÓÍÓÈÄÌÈÄ Ì± ÓÌÄ%Ù, ·ÄÈ ÒÙ ±ÌÈ·Ä	

Additional information No. 0011541, 1fl ÈÌÙÓ·Í±Èfl

è Ó,À Í± ÌÄÈÒÔ ±,ÌÒÓÚÄÈ

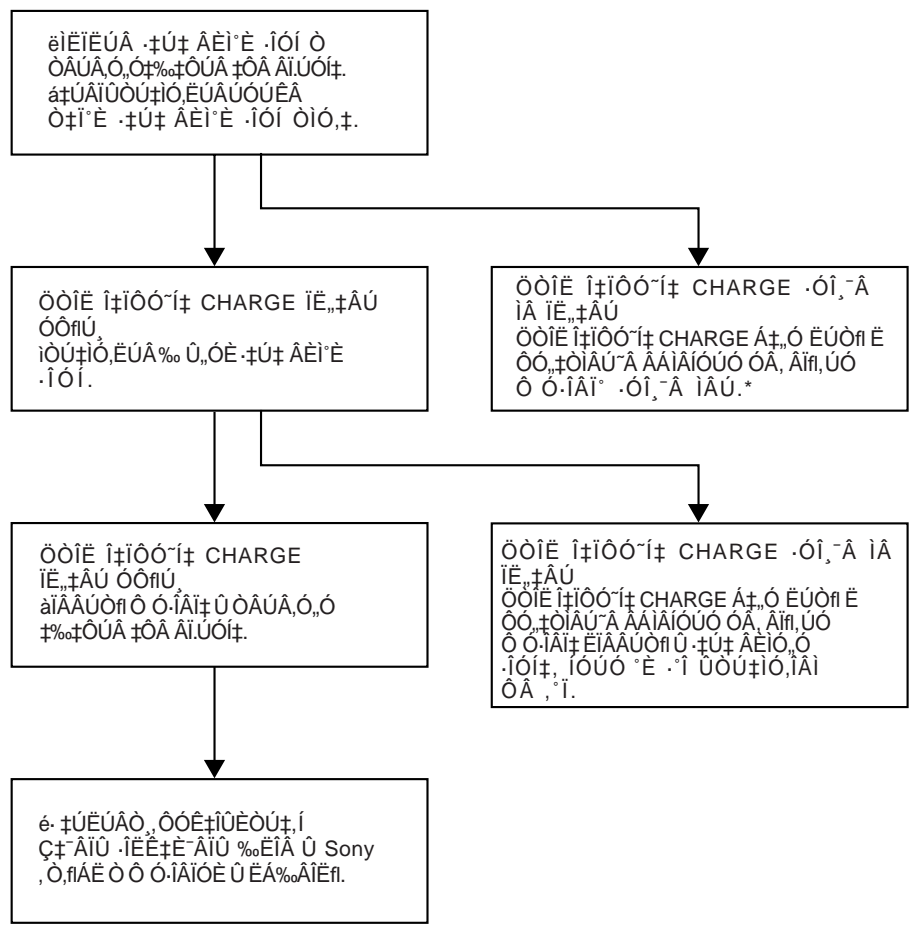
è ÈÄÌ±Í	è È~ÈÌ± È/ÈÌÈ %ÄÈÒÚ,Èñ ÓÓ ÛÒÚ ±ÌÄÌÈ
Ç,È%ÒÈÒÍ±ÚÄÌÄ ÈÌÈ Ì± ´Í ±ÌÄ ÚÄÑÒÓÒ ÓÈÄ,Ò%ÈÚÒñ ÌÄÈÄ,ÄÒÚÌÓÄÈÄÓ. ±ÈÄÌÈÄ.	<ul style="list-style-type: none"> • ÒÓÌÈ Ò Ó´ÍÓ 10 ÌÈÌÚÚ ÒÓÒÌÄ ÚÓ,,Ó, Í±Í Ç° ÛÒÚ±ÌÓ,ÈÌÈ ÒÄ ÄÌÌ ±ÚÄÌ, POWER, ÒÓÌÓÈÄÌÈÄ CAMERA, ÌÄ ÒÚ±È, Ò È ´ÚÓÌ Í±ÒÓÄÚÚ, È%ÄÓÍ±ÌÄ ±±,ÚÓÌ±ÚÈ~ÄÒÌÈ Ì±ÌÄÚ %ÄÌÓÌÒÚ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

è Ó,À Í± ÎÄÈÒÒ ±,ÌÓÓÚÄÈ

èÄÚÄ,ÓÈ ±%±ÔÚÄ ÔÄ ÄÏÄÌÒ,Ó ÚÓÍ±

è ÈÄÌ±Í	è ÈÈÌ± È/ÈÈÈ %ÄÈÓÚ,ÈÍ ÓÓ ÚÓÚ ±ÌÄÈ
ä±ÍÔÓ~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 Í±ÌÔÓ~Í± CHARGE.	• èÌÓÚ ÈÚÄ ÒÌÄ%Ú~Ú Ú±.ÌÈ~Ú.

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



* ÒÒÌÈÈ Ç° ÈÒÓÓÌ,ÄÚÄÚÄ ±Ú± ÄÈÈÈÈ ·ÌÓÌ, ÌÓÚÓ °È Ç° ÚÓÌ,ÌÓ ~ÚÓ ÍÚÈÈÈÈ, ÈÈÈ ÌÓÚÓ °È ·Í ÓÓÚ±,ÌÄÌ Ì±%ÈÈÈÄÌ,ÌÓÄ, ÄÍÍ,ÚÓ Ì±ÌÔÓ~Í± CHARGE ÌÓÈÄÚ ÌÈ,,±Ú, Ò È ÓÄ,ÓÈ Ä±Í%ÄÌ. ùÓÓ ÌÄ ÚÌ±Ä,±ÄÚ Ì± Ò Ó·ÌÄÌÚ. èÓ,ÚÓ ÈÚÄ Ò Ó·Ä%Ú Ò Ä±Í%ÈÈÈ Ò ÚÄÌ ÈÄ Ò±Ì~Ì ±Ú± ÄÈÈÈÈ ·ÌÓÌ.

Additional information NO001EUA1,ÍÍÍ ÈÌÚÓ Í±ÈÈ

English

Specifications

Video camera recorder System

Video recording system

Two rotary heads, Helical scanning, FM system

Audio recording system

Rotary heads, FM system

Video signal

PAL colour, CCIR standards

Usable cassette

8 mm video format cassette (standard 8 mm)

Recording/Playback time

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

LP mode: 3 hours (P5-90)

Fastforward/rewind time

Approx. 5 min. (P5-90)

Image device

CCD (Charge Coupled Device)

Viewfinder

Electronic viewfinder

Black and white

Lens

CCD-TRV14E: 15× (optical)

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

Combined power zoom lens, F1.4 – 2.4

Filter diameter 37 mm (1 1/2 inches)

Focal distance

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

When converted to a 35 mm still camera

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

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

Colour temperature

Auto

Minimum illumination

CCD-TRV14E: 0.4 lx at F 1.4

CCD-TRV24E: 0.7 lx at F 1.4

Illumination range

CCD-TRV14E: 0.4 to 100,000 lx

CCD-TRV24E: 0.7 to 100,000 lx

Recommended illumination

More than 100 lx

LCD screen

Picture

2.5 inches measured diagonally

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

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

On-screen display

TN LCD/TFT active matrix method

Total dot number

61,380 (279 × 220)

Input and Output

connectors

Video output

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

Audio output

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

RFU DC OUT

Special minijack, DC 5 V

Earphone jack

Mini-jack

LANC control jack

Stereo mini-minijack (ø 2.5 mm)

MIC jack

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

Speaker

Dynamic-speaker

General

Power requirements

7.5 V (AC power adaptor)

Average power consumption

During camera recording using the LCD

CCD-TRV14E: 4.2 W

CCD-TRV24E: 4.5 W

During camera recording using the viewfinder

CCD-TRV14E: 3.3 W

CCD-TRV24E: 3.5 W

Operating temperature

0°C to 40°C (32°F to 104°F)

Storage temperature

-20°C to +60°C (-4°F to +140°F)

Dimensions

Approx. 112 x 102 x 201 mm (4 1/2 x 4 1/8 x 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 x 43 x 75 mm (6 5/8 x 1 11/16 x 3 inches) (w/h/d)

including projecting parts and controls

Mass (Approx.)

AC-V16: 420 g (15 oz)

AC-V16A: 450 g (16 oz)

AC-V17: 440 g (16 oz)

AC-V17A: 460 g (16 oz)

Design and specifications are subject to change without notice.

εΥΟΟΙΕΕ

ΙΑΙΕ~ΑΟΙΕΑ ι ιΐΐΑ ΕΟΥΕΙΕ

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

ú ĩ ÜäÑ
 äÄÔ. ±ÈÄİÈÄ
 2,5%Èİ ÔÔ %È±,Ôİ±İÈ
 CCD-TRV14E: 50,2 x 37,1 İİ
 (2,5%Èİ±)
 èèD-TRV24E: 50,3 x 37,4 İİ
 äİÛÔ İ±ÈÈÔİİ^È İ±İ
 ÄİÛÈ,İÔ-İ±Û È-İ±ñ ÚÄİİÔİÔ,Èñ
 TN Üäñ/TFT (ÚÔİİÔÔİÄİÔ-İ^È
 Ú±ÄÈÔÛ)
 è.^ÄÄ ^ÈÔİÔ İÄİÄİÛÔ,
 ÈÁÔ. ±ÈÄİÈÈñ:
 61380 (279 x 220)

ÇİÔ%İ^Ä È ,İÔ%İ^Ä
 ±Ä^Äİ^
 ÇÉ%Ä,İÔ%
 İÔİÔ,İÄÄ%Ô,1Ç ÔÔ%ÔÈİÔÈ
 ±İÔİÈÛÛ%Ä 75 èİ,
 İÄÔÈİÄÛ È-İÔÄ
 ÄÛ%ÈÔ,İÔ%
 äÔİÔÛÔİÈ^ÄÔİÈÈ,İÔİÔ,İÄÄ%Ô,
 327 İÇ (Ô È ÔÔİİÔİ
 ÔÔÔ ÔÛÈ,İÄİÈÈ±,ÚÄİÈ47
 İÈİÔÔİ),ÔÔİİÔÄ ÔÔÔ ÔÛÈ,İÄİÈÄ
 İÄİÄÄ, Äİ 2,2 İÈİÔÔİ
 RFU DC OUT
 èÔÄ^È±İ,İÔÄ İÈİÈ,İÄÄ%Ô, 5 Ç
 ÔÔÛÛÛÔ±
 ÈİÄÄ%Ô İ±Û-İÈİÔ,
 äÈİÈ,İÄÄ%Ô
 ÈİÄÄ%Ô ÚÔ ±İÄİÈñ LANC
 èÜÄ ÄÔÛÔİÈ^ÄÔİÔÄİÈÈ-,İÄÄ%Ô
 (Ø 2,5 İİ)
 ÈİÄÄ%ÔMIC
 äÈİÈ-,İÄÄ%Ô,0,388 İÇ,İÈÄİÔÄ
 ÔÔİİÔÄÔÔÔ ÔÛÈ,İÄİÈÄÔ
 ,İÔ%ÔİÔÛ 2,5%Ô 3Ç ÔÔÔÛ.
 ÚÔİ±,ÔÔİİÔÄ ÔÔÔ ÔÛÈ,İÄİÈÄ6,8
 İÈİÔÔİ (Ø 3,5 İİ)
 È ÔİİÔ„Ô ÈÛÄİ,
 NÈİ±İÈ^ÄÔİÈÈ
 „ ÔİİÔ„Ô ÈÛÄİ,

è.^ÄÄ
 İ Ä.Ô,İÈÈñ İ ÔÈÛÛİÈÈ,
 7,5Ç(ÔÄÛÄ,ÔÈ±%±ÔÛÄ ÔÄ Äİ.
 ÚÔİ±)
 è Ä%ññ ÔÔÛ Ä-İñÄİ±ñ
 İÔ^İÔÔÛ
 È Ä%ññ ÔÔİÄİÈñ Ä±ÔÈÈÈ
 ,É%ÔÁÍ±Ä ÔÈÔ
 ÈÔÔÔİ,ÄÔ,İÈÄİ ÜäÑ
 CCD-TRV14E: 4,2 ÇÛ
 CCD-TRV24E: 4,5 ÇÛ
 ÇÔ, Äİñ, ÔÔİÄİÈñ Ä±ÔÈÈÈ
 ,É%ÔÁÍ±Ä ÔÈÔ
 ÈÔÔÔİ,ÄÔ,İÈÄİ,É%ÔÈÈİ±ÚÄİñ
 CCD-TRV14E: 3,3 ÇÛ
 CCD-TRV24E: 3,5 ÇÛ
 è±.Ô^ñ ÚÄİÔÄ ±ÚÛ ±
 èÛ 0^è %Ô 40^è
 (ÔÛ32^F%Ô104^F)

İÄİÔÄ ±ÚÛ ± İ±İÄİÈñ
 èÛ -20^è %Ô +60^è
 (ÔÛ-4^F%Ô+140^F)
 è±ÄİÄ^ (Ô È.İÈÄ.)
 è È.İÈÄ. 112 İ 102 İ 201 İİ
 (-,/,)
 ä±ÔÔ±
 è È.İÈÄ. 890 „
 ÇÄ,İİ^ñ,±Ú± ÄÈİÔ„Ô.İÔİ±,
 İÈÛÈÄ,ÔÈ.±Ú± ÄÈİÈ,İ±ÔÔÄÛ^ È
 ÔİÄ^Ä,Ô. Äİİñ
 è È.İÈÄ. 1,1 İ,
 Çİİ^ñ,±Ú± ÄÈİÈÈ.İÔİ NP-
 33,İÈÛÈÄ,Û.±ÚÄ ÄÈİÛ
 CR2025,İ±ÔÔÄÛÛ è5-90 ÈÈ
 ÔİÄ^Ä,ÔÈ ÄİÄİ,
 äÈİ ÔÛÔİ
 ÚİÄİÛ È^ÄÔİÈÈ İÔİ%ÄİÔÔ İ^ÈÈ
 İÈİ ÔÛÔİ İÔİÔÛÔİÈ^ÄÔİÔ„Ô
 ÜÈÔ±
 è Èİ±,±Äİ^Ä Ô Èİ±%İÄÈİÔÛÈÈ
 èİ. ÔÛ 6.

èÄÛÄ,ÔÈÈ%±ÔÛÄ,
 ÔÄ ÄİÄİİÔ„Ô ÚÔİ±
 İ Ä.Ô,İÈÈñ İ ÈÛÛÔ^İÈÛ
 ÔÈÛ±İÈñ
 110-240 Ç ÔÄ Äİ. ÚÔİ±, 50/60 È^
 èÔÛ Ä-İñÄİ±ñ İÔ^İÔÔÛ,
 AC-V16/V17: 20 ÇÛ
 AC-V16A/V17A: 22 ÇÛ
 Ç^İÔ%İÔÄ İ±Ô ñÈÄİÈÄ
 DC OUT , ±.Ô^Äİ ÄÈÈİÄ
 7,5 Ç, 1,8 Ä
 Ç^İÔ%ññ Ä±ññÈÈ.±Ú± ÄÈÈ
 10 Ç, 1,1 Ä, ÄÈÈİÄ Ä±ññÈÈÈ
 è ÈİÄİÈÈ^Ä. ±Ú± ÄÈİÈ^Ä
 .İÔİÈÈ
 Ä±Ú± ÄÈÈÈÈ.İÔİ Sony NP-33
 (Ô Èİ±,±ÄÛÔñ), NP-55H, NP-C65,
 NP-66, NP-67, NP-77H, NP-98
 è±.Ô^ñ ÚÄİÔÄ ±ÚÛ ±
 èÛ 0^è %Ô 40^è
 (ÔÛ32^F%Ô104^F)
 İÄİÔÄ ±ÚÛ ± İ±İÄİÈñ
 èÛ -20^è %Ô +60^è
 (èÛ-4^F%Ô+140^F)
 è±ÄİÄ^ (Ô È.İÈÄ.)
 166 x 43 x 75 İİ (-,/,),
 ,İİ^ñ,ÔÛÛÔ±,ÈÄ^±ÔÛÈÈ È
 Ä,ÛñÛÛÔ^
 ä±ÔÔ± (Ô È.İÈÄ.)
 AC-V16: 420 „
 AC-V16A: 450 „
 AC-V17: 440 „
 AC-V17A: 460 „

äÔİÔÛ Û^ÈÈÈ È ÚÄİÈÈ^ÄÔİÈÄ
 İ±İÛÄ ÈÛÛÈÈÈ İÔ„ÛÛ.ÛÛ
 ÈÄİÄİÄİ^ .ÄÄ Û,Ä%ÔÔİÄİÈÈ.

Additional information NOÖİÈÛÄİ,İ±ñ ÈÛÔ ÈÛ^Èñ

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 ὀθροειδὸς ἰσοπέδωσης 5SEC (ὄψ. 33)

17 αὐτοεπιβεβαιωτικό END SEARCH (ὄψ. 25)

18 ἐπιεικτικὰ ἠχῶν ἔλεγχος ἐπιεικτικῶν ° (ὄψ. 87)

19 αὐτοεπιβεβαιωτικό ὀθροειδὸς ἰσοπέδωσης ἰσοπέδωσης ἰσοπέδωσης ἰσοπέδωσης (ὄψ. 58)

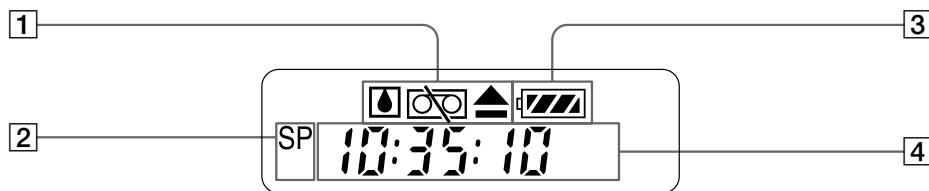


20 αὐτοεπιβεβαιωτικό AUTO DATE (ὄψ. 11)

21 Ἡμερομηνία ἔλεγχος ἰσοπέδωσης (ὄψ. 32)

In the display window

Ὁφθαλμικὸ ἐπιπέδωμα



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 ἐπιεικτικῶν ° (ὄψ. 87)

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

3 αὐτοεπιβεβαιωτικό ὀθροειδὸς ἰσοπέδωσης ἰσοπέδωσης ἰσοπέδωσης ἰσοπέδωσης (ὄψ. 58)



4 Ἡμερομηνία ἔλεγχος ἰσοπέδωσης (ὄψ. 32)

ἔλεγχος ἰσοπέδωσης (ὄψ. 13)

