

SONY®

3-859-266-12 (1)

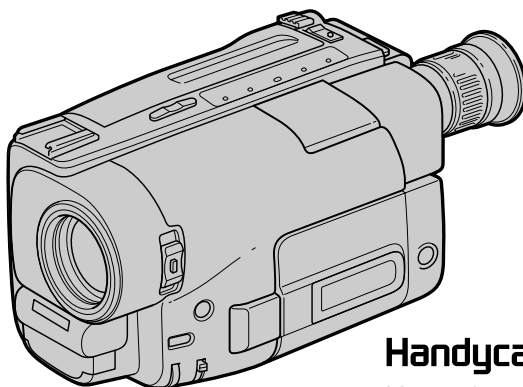
Video Camera Recorder

Operating Instructions

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

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èâ â% ì±`îîí´íòôîû±ú±`ëë %±ìò,,ó ±òô± ±ú± ô óòëí,ìëí±úâí,ìó
ô ó~âòú,ì±òúóí`ââ ùíó,ó%òú,óëóòú±,ëú,â,,ó%íí·ù%û`ëìòò ±,óí.



Handycam Vision™
CCD-TRV24E

video8

CCD-TRV14E/TRV24E 8

© 1997 by Sony Corporation

CCD-TRV14E/TRV24E 3-859-266-12(1).E/R

English

Welcome!

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

WARNING

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

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

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

êÙÒÓÍÊË

ÑÓ. Ó ÔÓÊ±ÍÓ,±Ú, !

èÓÁ% ±,ÍfleÏÇ±ÒÒ Ò ÉÓ· ÁÚÀÏËÄÏ%±ÌÍÓË
,Ë%±ÁÓÍ±ÏÄ ° Handycam Vision™ ÙË Ì°
Sony. è ÒÓÍÓ~,, Ç±~ÄÈ ,Ë%±ÁÓÍ±ÏÄ °
Handycam Vision Ç° ÍÓËÁÚÄ Á±ÓÄ~±ÚÍÁÚ,
%Ó Ó,,ËÄ Ç±Í Ì,,ÍÓ,ÀÏËÍ ËËÁÏË Ò
Ó Á,ÓÒÍÓ%±Ì Í±~ÄÒÚ,ÓÍ ÉÁÓ· ±ËÄÏËÍ Ë
Á,ÚÍ±. Ç±~± ,Ë%±ÁÓÍ±ÏÄ ± Handycam Vision
ÓÒÍ±~ÄÍ± ÙÒÓ,Ä ~ÄÍÒÚ,Ó,±Ì°ÍË
ÙÙÍÍ~ËÍË, ÍÓ É , ÚÓ ÊÄ , ÁÍÍ ÁÄ Ó~ÄÌ,
ÏÄ,,ÍÓ ËÒÓÍÍ, ÁÓ,±Ú, Ç°, ÒÍÓ Ä ·Ú%±ÁÚÄ
ÒÓÁ%±,±Ú, ÓÄÍÄËÍ~Ä,Ë%±ÁÓÄ±ÓËÒË,
ÍÓÚÓ °ÍË ÍÓËÁÚÄ Ì±ÓÍ±Ë%±Ú,ÒÍÍ ,
ÒÓÓÍÄ%Ú,~ËÄ,,Ó%°.

èêÖÑìèêÖÜÑÖçàÖ

ÑÍÍ Ò Ä%±ÓÚ, ±~ÄÏËÍ,ÓÄ,,Ó ±ÏËÍ ËÏË
ÓÒ±ÒÍÒÚË~ÍÁÍ Ë~ÄÓÍÓ,ÓÚ%± ±ÏÄ
ÒÓ%±,±Ú,±ÓÓ± ±Ú,ÓÄ%±ÄËÒÚ,Ë,%±ÓË%±Í
ËÏË ,Í±,,Ë.

ÇÓ ÉÄ·ÄË±ÏËÄ ÒÓ ±ËÄÏËÍ ÍÁÍ Ë~ÄÓÍËÍ
ÚÓÍÓÍ Ä ÓÚÍ°,±Ú, ÍÓ ÒÚÒ. á±
Ó·ÒÍÚËË,±ÏËÄÍ Ó· ±~±Ú,ÒÍÍ ÚÓÍ,ÍÓ Í
Í,±ÏËÚË~Ë Ò,±ÌÍÓÍÚ Ó·ÒÍÚÚËË,±,~ÄÍÚ
ÒÄÒÓÍ±ÍÚ.

Ç ÓÒ Ä%±ÄÍÄÌ°Í ÒÚ ±Ì±Í ÙÒÚ±ÍÓ,ÍÄÍ
ÒÓ ÍÍ%±ÓÍÍËÍ,Ë%±~ËË·±Ú± ÄÄÍ%±Í ÒËÚ±ÏËÍ
ËÄ%±ÄÏËË. è· ±ÚËÚÄÒ,, ÓÓË±ÍÚËÒÚ±,, Ç±~Ä
ÍÄÒÚÍÓÄ ÚÓÓÍÍÓÍÓ~ÄÍÓÄ ±,,ÄÍÚÒÚ,Ó.

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ìì±Á±ÚÁì, ...	á±%ìíì Ò·ìÓÈì±

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

èÂ Â% ìþþîÖï þ·Ö °

àÒÒÖî,ÁÓ,þîËÂ %îìÖ,Ó ÛíÖ,Ó%ÒÖ,þ

àìÖÛ ÛíËË, %îìÖ ÛíÖ,Ó%ÒÖ,Â
ËÂíÖËÂí° %îí %î, Ûí ìËËÂÖÂ Â~ÈÖîÂí°
íÖ%ÂíÂË. èÂ Â% ÛÂí, íþ Ç° ìþîÂÛÂ ~ËÛþÛ,
%îìÖÂ ÛíÖ,Ó%ÒÖ,ÓË~íÖÖîÛþÛË Ö,þÛ,
þÖÖþ þÛ,Ó Ö,Â ÛÂíÖîÂ Çþ~ÂËíÖ%ÂíË,
ÖÖÖîÖÛ Â, ìþ ìËË, ÖþîÂí, Çþ~ÂË
Ë%ÂÖíþîÂ °. äÖ%Âí, CCD-TRV24E
ËÖÖÖî,ÁÛÂÛÖí, Ëí,ÖÛ þÛË,ìí ~Âííí. Ç
ËîÖî ÖîÛþÂ ìþËîÖ,þîËÂ íÖ%ÂíË
ÛíþÂ°,þÂÛÖí ìþ ÈÖÛîíþ. ä.°Â þÂíË~Ëí
, þ·ÖÛÂ ~ÂÛíÖ ÛíþÂþ°, ÛÂíÖÛÂ, íþ
ìþÈ ËîÂ "íÖí,íÖ CCD-TRV24E".
äÖ,þ%Ç°·Ö%ÂÛÂ~ËÛþÛ, ÛíÖ,Ó%ÒÖ,Ó,
Û~ËÛ°,þËÛÂ, ~ÛÖ ìÖÖîË È ÖÖÛþîÖ,íË ìþ
Ë%ÂÖíþîÂ Â ÖÖíþÂþ° Áþ,îþ,ìíË
·Öí,þËË.
Ö Ëí. ìÖÛþîÖ,ËÛÂ, °íí~þÛÂí, POWER ,
ÖÖîÖËîËÂ CAMERA.
ÖÖîË ìþ ÈÖÛîíþ ÛíþÂ°,þÂÛÖí Áíþ, þ, Ç°
íÖËÂÛÂ Öí~þÛ, ÁÛîîÂ íË Á,ÛíÖ,ÓË
ÖË,ìþ %îí ÖÖ%Û,Â È%ÂíË Çþ~ÂË þ·ÖÛ°.

Types of differences

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

íËÖ° þÂíË~ËË

CCD-	èÖÛË~ ÖíËËÛþî- ÛÖíÛÖ	íËÛ Ö,ÓË ÛþîÖÖ- íÛÖ	ðË ÖíÖÖ- íþÛí° È ÂËË	ìÖÛÖË~Ë,íí Ö Âííþ
TRV14E	15X	—	—	—
TRV24E	15X	180X	●	●

Note on TV colour systems

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

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

Precaution on copyright

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

è ËîÂ~þîËÂ ÖÖ ÒÈÖÛÂíþí
^,ÂÛíÖ,Ó ÛÂíÂ,È%ÂíËíí

èÈÖÛÂí° ^,ÂÛíÖ,Ó ÛÂíÂ,È%ÂíËíí ÖÛîË~þ,ÛÖíí
,Áþ,ÈÖËíÖÖÛË ÖÛÖÛ þí°. Níí Ö ÖÖíÖÛ þ
Çþ~Ëí ÁþÖÈÖÂÈ ÖÖÛÂíÂ,ËÁÖ Û, Çþí
ìÂÖ·íÖ%ËíÖ ÈÖÖÖí,ÁÖ,þÛ, ÛÂíÂ,ËÁÖ ,
ÖÖîÖ,þîË È ìþ ÈÈÖÛÂíÂ PAL.
ÖÖíË Ç° íÖËËÛÂ ÈÖÖÖí,ÁÖ,þÛ, ÛÂíÂ,ËÁÖ ,
ÖÖîÖ,þîË È ìþ ÈÈÖÛÂíÂ SECAM, Çþí
ÖÖíþ%Ö·ËÛÖíÛ þîÖíÖ%ÂPAL/SECAM
(ÖÖÖîÖí,íÛ %îìíí,È%ÂÖíþîÂ þ ÖÖîÖ,þíþ
ìþ ÈÈÖÛÂíÂ PAL).

è Â%ÖÖÛÂ ÂËÂËËÂÖ· þ,ÛÖ ÒíÖí
Ö þ,Â

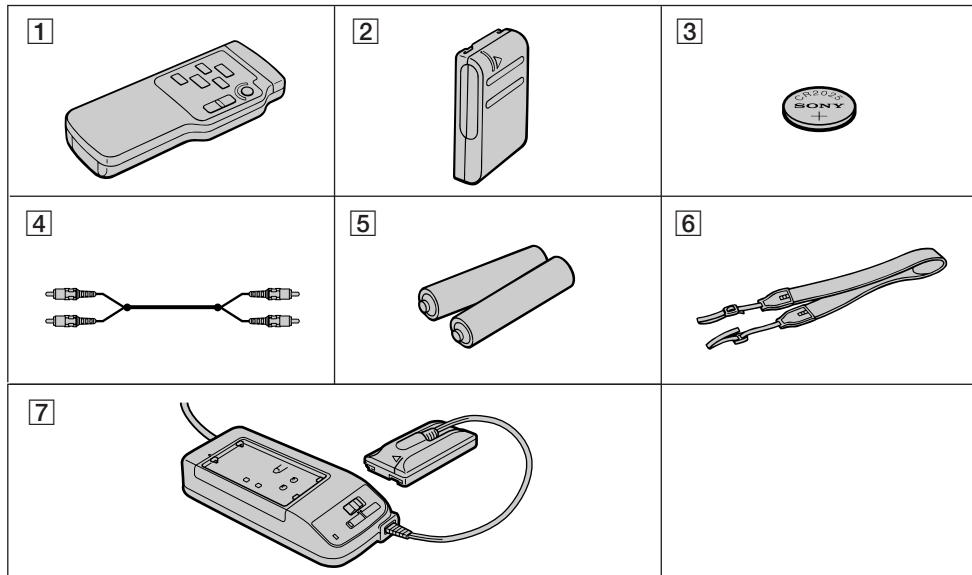
íÂíÂ,ËÁËÖíí° Â Ö Ö, þíí°, íËíÖÛËí,í°,
È%ÂÖíÂíÛ° È % Û,ËÂ ìþÛÂ Ëþí° íÖ,ÛÛ
·°Û, Áþ~Ë~Âí° þ,ÛÖ ÖíËí Ö þ,Öí.
ÇÁÖ þ,ÖíÖíþí ÁþÖÈÖ, ÛþËí ìþÛÂ ËþíÖ,
íÖËÂÛ Ö ÖËË,Ó Â~ËÛ, ÛÖíÖ,Ëíí ÁþíÖíþ Ö·
þ,ÛÖ ÖíÖí Ö þ,Â.

Checking supplied accessories

è Ó,Â Í± Ô Ëî±,±Âï°
Ô Ëî±%îÂËîÓÒÚÂË, Ô Ëî±,±Âï° í Ç±-ÂË
,Ë%ÂÓí±îÂ Â.

Check that the following accessories are supplied with your camcorder.

è Ó,Â, ÚÂ ì±îË-ËÂ ÒîÂ%Ú,~Ëì
Ô Ëî±%îÂËîÓÒÚÂË, Ô Ëî±,±Âï° í Ç±-ÂË
,Ë%ÂÓí±îÂ Â.



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 ÂÂÒÒ Ó,Ó%î°È ÒÚî,Ú %ÈÒÚ±îÈÓìÒ,Ó
ÚÒ ±,îÂîËî (1) (ÒÚ . 23, 82)

2 Â±Ú± ÂËî°È ·îÓî NP-33(1) (ÒÚ . 7)

3 ãËÚËÂ,î± ·±Ú± ÂËî± CR2025 (1) (ÒÚ . 53)
îËÂ ÚÒÚ±îÒ,îÂî± , ,Ë%ÂÓí±îÂ Â.

4 èÓÂ%ÈîËÚÂî,î°È í±·Âî, ±Ú%ÈÓ/,Ë%ÂÓ
(1)(ÒÚ . 50)

5 Â±Ú± ÂËî± R6 (±ÁîÂ Óî ÂÂ) %îîî ÒÚî,Ú±
%ÈÒÚ±îÈÓìÒ,Ó ÚÒ ±,îÂîËî (2) (ÒÚ . 83)

6 èîÂ~Â,ÓÈ ÒÂîÂî, (1) (ÒÚ . 81)

7 èÂÚÂ,ÓÈ ±%±ÒÚÂ ÒÂ Âî. ÚÓí±AC-V16/
V16A/V17/V17A (1) (ÒÚ . 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.

èÓ%Â ÈËîÓÂ Á±ÔÈÒÈ îÂ îÓËÂÚ °Ú,
ÓÚîÓ ÂîÚÈ Ó,±îÒ,ÂÒîËÂ±ÔÈÒ,ËîÈ
,ÓÒÓ ÓËÂ,Â%ÂîËÂ îÂ, °Òîîîî,ÚÒîî ËÂ-Á±
îÂËÒÒ ±,îÒÚÚÈ,Ë%ÂÓí±îÂ °, ,Ë%ÂÓíÂîÚ°
ËÚ.%.

Charging and installing the battery pack

á± fl%í± È ÙÒÚ±ÍÓ,í±
·±Ú± ÂÈÌÓ„Ó ·ÍÓí±

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.

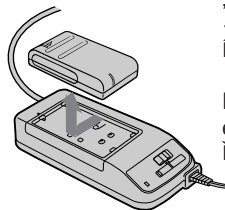
²⁾ Approximate recording time when using the LCD screen. When using both the viewfinder and LCD screen, the battery life is shorter.

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.



è ÓÍ ÒÍÙÈ„° ·±Ú± ÂÈÌÓ„Ó ·ÍÓí±
(, ÍÈÌÙÚ±í)

CCD-TRV14E

Á±Ú± ÂÈÌÈ ·ÍÓÍ	ÇÓ, Áííí Á±ÔÈÒÈ ¹⁾		ÇÓ, Áííí ÓÓÓÇÈ- Á%ÁÌÈíí í± ÚáÑ ³⁾
	ÚáÑ ÓÚ °Í ²⁾	ÚáÑ Á±í °Ú	
NP-33(Ô Èí±,±ÁÚÒíí)	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

Á±Ú± ÂÈÌÈ ·ÍÓÍ	ÇÓ, Áííí Á±ÔÈÒÈ ¹⁾		ÇÓ, Áííí ÓÓÓÇÈ- Á%ÁÌÈíí í± ÚáÑ ³⁾
	ÚáÑ ÓÚ °Í ²⁾	ÚáÑ Á±í °Ú	
NP-33(Ô Èí±,±ÁÚÒíí)	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·ÍÈÁÈÚÁÍ,ÍÓÁ, Áííí ÍÁÒ Á°,ÍÒÈ
Á±ÔÈÒÈ,ÍÙÚ È ÓÓÍÁ~ÁÌÈíí. óÈÒí±, ÍÙ,Í¹⁾
ÓÍÓ·Í±, ÓÁÍ±~±,Ú Ò È·ÍÈÁÈÚÁÍ,ÍÓÁ, Áííí
Á±ÔÈÒÈ, ÁÈÈÍÁÒÓÓÚÓÍÍÓ,Ó
ÈÒÓÍ,ÁÓ,±ÍÈíí ÚÙÍíÈÈ ÓÚÓí±/ÓÓÚ±ÍÓ,ÍÈ,
Ú ±ÍÒÚÓÍ±~ÈÈ È,ÍÍ,~ÁÌÈíí/,°ÍÍ,~ÁÌÈíí
ÒÈÚ±ÍÈíí.

èÁ±í,íÈ Ò ÓÍ ÒÍÙÈ„° ·±Ú± ÂÈÌÓ„Ó ·ÍÓí±
ÍÓÈÁÚ „Ú, ÍÓ Ó~Á.

²⁾ è È·ÍÈÁÈÚÁÍ,ÍÓÁ, Áííí, ÍÈÌÙÚ±í Ò È
ÈÒÓÍ,ÁÓ,±ÍÈÈ Í±í ÚáÑ. è È
ÈÒÓÍ,ÁÓ,±ÍÈÈ È,È%ÓÈÒí±ÚÁíí È Í±í
ÚáÑ Ò ÓÍ ÒÍÙÈ„° ·±Ú± ÁÈ·Ú%ÁÚ ÍÓ Ó~Á.

³⁾ è È·ÍÈÁÈÚÁÍ,ÍÓÁ, Áííí ÍÁÒ Á°,ÍÓ,Ó
ÓÓÓ ÓÈÁ,Á%ÁÌÈíí, ÓÓÍÁ~ÁÌÈÈ.
ÓÓÍÈ Ç°, ÓÓÍíííÁÚÁ Á±ÔÈÒ, ÈÍÈ
ÓÓÓ ÓÈÁ,Á%ÁÌÈÈ, ÈÒÓÍ,ÁÚíí Í±Ò ÚáÑ,
ÍÓ,%± LCD B.L., ÓÈÒÚÁÍÁ ÍÁÍ, ÙÒÚ±ÍÓ,ÍÁÍÓ
, ÓÓÍÓÈÁÌÈÈ BRIGHT, Ò ÓÍ ÒÍÙÈ„°
·±Ú± ÂÈÌÓ„Ó ·ÍÓí± ·Ú%ÁÚ Ò ÈÍÁ ÍÓ í± 10%
ÍÓ Ó~Á.

Ñííí ÒíííÙÈíí ·±Ú± ÂÈÌÓ„Ó ·ÍÓí±
èÁ Á%,ÈÍ,ÚÁ ·±Ú± ÂÈÌÈÈ ·ÍÓÍ,
í±Ò ±,ÍÁÌÈÈ ÓÚ ÁÍÍÈ.

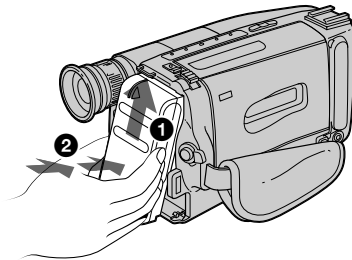
Charging and installing the battery pack

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.

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.

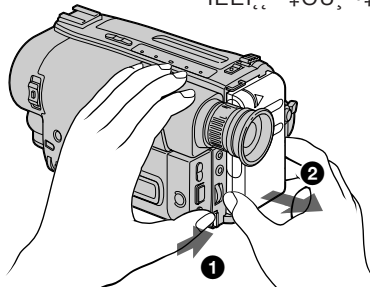


Note on the battery pack

Do not carry the camcorder by grasping the battery pack.

To remove the battery pack

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



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

à± fl%í± È ÙÒÚ±ìÓ,í± ·±Ú± ÂÈìÓ,,Ó ·ìÓí±

è ÈíÄ~±ìÈ fl ÓÓ Á± fl%íÄ ·±Ú± ÂÈìÓ,,Ó ·ìÓí±

- à±ìÓÓ~í± POWER ·Ù%ÁÚ ÌÄìÓÚÓ ÓÄ, Âí fl Ó,ÁÚÈÚ, Ò fl, %±ÈÄ ÄÓíÈ ·±Ú± ÂÈì°È ·ìÓí Òí fl Ù È ÓÄÚÄ, ÒÈ Ò Ó,Ó% ÓÚí fl, Âí ÒÓÓíÄ Á± fl%íÈ ·±Ú± ÂÈìÓ,,Ó ·ìÓí±. ÙÚÓ fl, fl ÄÚÓ fl ì Ó ·ì±í, ì°í.
- ÓÓíÈ Ì±ìÓÓ~í± POWER ÌÄ Á±, Ó ±ÄÚÒ fl, ÙÚÚ±ìÓ, ÈÚÄ ÓÄíÄìÚÓ, ÓÓíÈÄìÈÄ VTR (DC OUT) È ÓÚÓÓÄ%ÈìÈÚÄÓÄÚÄ, ÓÈÓ Ó,Ó%. è ÈíÄ ÌÓ ~Ä ÄÄ ÌÈìÚÚÚ, ìÓ, ÓÓ%ÓÓÄ%ÈìÈÚÄÓÄÚÄ, ÓÈÓ Ó,Ó%ÈÓÒ fl ÙÚÚ±ìÓ, ÈÚÄ ÓÄíÄìÚÓ, ÓÓíÈÄìÈÄ CHARGE.
- Ç° ÌÄ ÌÓÈÄÚÄ ÙÓ ±, fl Ù, È%ÄÓí±íÄ ÓÈ Ó ÈÓÓÓí, ÄÓ, ±ìÈÄìÓÄÚÄ, Ó, Ó±%±ÓÚÄ ±ÓÄ Äì. ÙÓí±, Ó, Âí fl Á± fl%íÈ ·±Ú± ÂÈìÓ,,Ó ·ìÓí±.

ìÒÚ±ìÓ,í± ·±Ú± ÂÈìÓ,,Ó ·ìÓí±

- (1) ÇÒÚ±, ÚÄ Ä ìÈÈ ÌÓíÄ~ ·±Ú± ÂÈìÓ,,Ó ·ìÓí±, Ä ì, ~±ÓÚ, ·±Ú± ÂÈìÓÈ ÙÚÚ±ìÓ, Ó~ìÓÈÓÓÄ ììÓÓÚÈ.
- (2) Ç±ÈìÈÚÄ Ì± ·±Ú± ÂÈì°È ·ìÓí. ÌÄ%ÈÚÄÓ,, ~ÚÓ. Ç° ÙÓí~±ìÈ %±È%° ~Äì°í. è Èí ÄÓÈÚÄ Ì±%ÄÈìÓ ·±Ú± ÂÈì°È ·ìÓí í È%ÄÓí±íÄ Ä.

è ÈíÄ~±ìÈÄ ÓÚìÓÒÈÚÄì, ìÓ ·±Ú± ÂÈìÓ,,Ó

·ìÓí± ÇÄÓÄ ÄìÓÒÈÚÄ, È%ÄÓí±íÄ ÙÓÚÚÄíÄ±, ±Ú± ÄÄ Á± ·±Ú± ÂÈì°È ·ìÓí.

Ñí fl Òí fl ÙÈ fl ·±Ú± ÂÈìÓ,,Ó ·ìÓí± è%Èì, ÚÄ BATT, ±Ä±ÚÄì ÓÓÚ fl ÈÚÄ Á± ÌÈÈì, ~±ÓÚ, ·±Ú± ÂÈìÓ,,Ó ·ìÓí±.

Ç° ÌÓÈÄÚÄ Ä, fl fl ìÚÚ, ì± %ÄìÓìÒÚ ±~È, ÙÚìí~ÈÈ, ÈíÄ, ÈìÒ fl %í fl %±ììÓÈ È%ÄÓí±íÄ °. (ÒÚ . 31)

Getting started

èÓ%ÓÚÓ,í± Ì±~±ìÚ ±ÓÚ°

Inserting a cassette

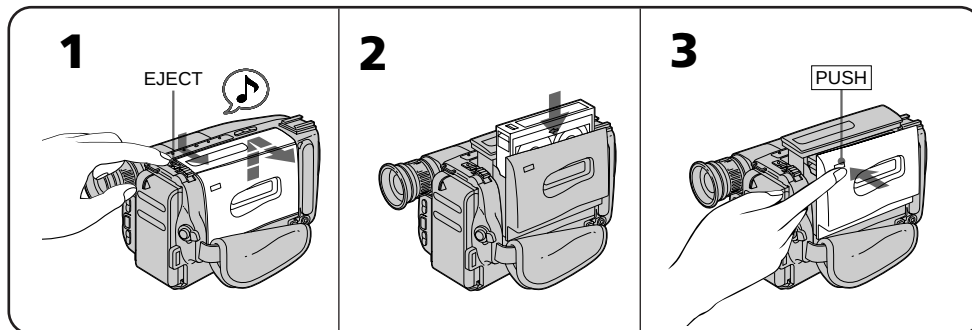
ÇÒÚ†,Í† Í†ÒÒÂÚ°

Make sure that a power source is installed.

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

Ì·Â%ÈÚÂÒ,~ÚÓ ÈÒÚÓ~ÍÉÍ ÔÈÚ†ÍÈ†
ÚÒÚ†ÍÒ,ÍÂÍ.

- (1) Ç†ÈÈ††† Í†ÍÂÍ,ÍÚÚ. ÒÈÌ, ÍÒÓÍÚ,
Ò%,ÈÌ,ÚÂ EJECT ,Í†Ò †,ÍÂÍÈÈ ÒÚ ÂÍÈ.
éÚÒÂÍ Í†ÒÒÂÚ° †,ÚÓÍ†ÚÈ~ÂÓÍÈ
ÓÚÍ°,†ÂÚÒ†.
- (2) ÇÒÚ†,ÚÂÍ†ÒÒÂÚÚ(ÍÂÒ È††,†ÂÚÒ†)
ÓÍÓ~ÍÓÍ, Ó· †~ÂÍ†Í Í† ÚÈÚ.
- (3) Ç†ÈÈÈÚÂ ÍÂÚÍÚ PUSH Í† ÓÚÒÂÍÂ Í†ÒÒÂÚ°
%†† Â,Ó Á†Í°ÚÈ†. éÚÒÂÍ Í†ÒÒÂÚ°
†,ÚÓÍ†ÚÈ~ÂÓÍÈ Á†Í°,†ÂÚÒ†.



To eject the cassette

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

To prevent accidental erasure

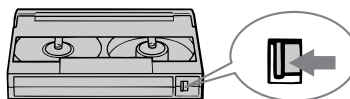
Slide the tab on the cassette to expose the red mark.

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.

ŊÍ††,°Ú†ÍÈ,†ÍÈ†† Í†ÒÒÂÚ°
ç†ÈÈ††† Í†ÍÂÍ,ÍÚÚ. ÒÈÌ, ÍÒÓÍÚ,
Ò%,ÈÌ,ÚÂ EJECT ,Í†Ò †,ÍÂÍÈÈ ÒÚ ÂÍÈ.

ŊÍ†† Ô Â%ÓÚ, †~ÂÍÈ†† ÔÍÚ~ÈÍÓ,Ó
ÒÚÈ †ÍÈ†
èÂ Â%,ÈÌ,ÚÂ ÍÂÒÂÒÚÓÍ Í† Í†ÒÒÂÚÂ,~ÚÓ·°
ÓÓ†,ÈÍ†Ò, Í †ÒÍ†† ÍÂÚÍ†.
ÒÒÍÈ Ç°,ÒÚ†,ÈÚÂÍ†ÒÒÂÚÚ Ô È
°,ÒÚ†,ÍÂÍÒÈ Í †ÒÍÒÈ ÍÂÚÍÂ È Á†Í ÓÂÚÂ
ÓÚÒÂÍ Í†ÒÒÂÚ°,ÚÓ Á†Â,Ú~ÈÚ ÂÚÍÂ ÍÈ
ÒÈ,Í†Í. ÒÒÍÈ Ç° ÓÓÓ°Ú†ÂÚÂÒ, Á†ÔÈÒ°,†Ú,
Ô È,°ÒÚ†,ÍÂÍÒÈ Í †ÒÍÒÈ ÍÂÚÍÂ,·Ú%ÚÚ
ÍÈ,†Ú, ÈÌ%ÈÍ†ÚÓ° È È Ç° ÍÂ
ÓÍÒÈÂÚÂÒ ÈÂÂÚÈÂ†ÔÈÒ.
ŊÍ†† ÓÂ ÂÁ†ÔÈÒÈ Í† %†ÍÚÚ ÍÂÍÚÚ
ÓÂ Â%,ÈÌ,ÚÂ ÍÂÒÂÒÚÓÍ Í†Â†%,~ÚÓ·°
Á†Í°Ú, Í †ÒÍÚ, ÍÂÚÍÚ.



Basic operations

Camera recording

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

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

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

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

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

éòìó,ì°â óôâ ±êë

á±ôëò, ò óóíó, ,ë%âóí±îâ °

ì.â%ëú,òí,ëòóóìéíôëú±íëíëí±òòáú±,òú±,îâì° ë, ~úó ôâ âíí ~±úâí, START/STOP MODE í± ò±îâíë ùâñ úòú±íó,îâì í± .

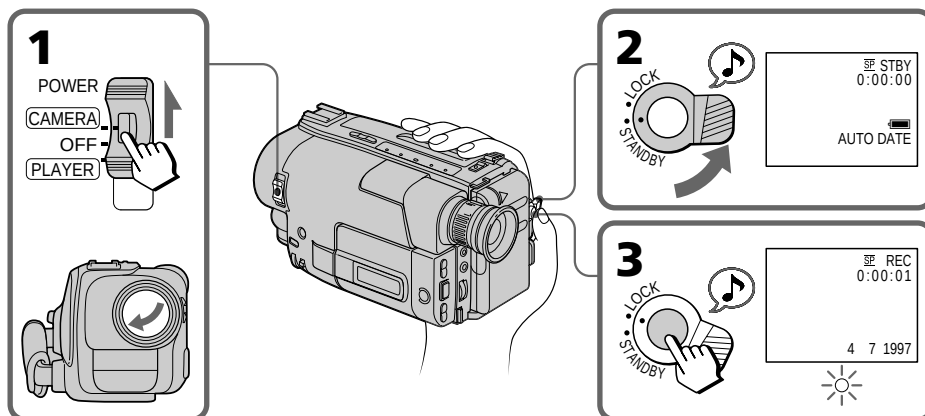
òóíë ç° ëòóóí,âúâúâ,ë%âóí±îâ ú, ôâ,°ë ±â, úó, íí,~ëúâ ââ òëú±íëâ ë úòú±íó,ëúâ %±úú ë, âíí í± ç±â, âíí (òú . 55) ôâ â% úâí, í±í ç° í±îâúâ á±òëò, Ñ±ú± ±,úóí±úë~âóíë ~ú%âú á±òëò,±ú,òí, úâ~âíëâ 10 ôâíúí% óóóíâ í±~í± á±òëòë (úúíí~ëí AUTO DATE). ùú± úúíí~ëí ±.óú±âú úóí,íó ó%ëí ±â, %âí, èâ â% úâí, í±í ç° í±îâúâ á±òëò, ó%íó ±âó,° íóó°úëë, ç° íóëâúâ á±íóúâú, ò%âí±ú, ò ó.ú%íí óó%ú,â ë%âíëí, ~úó ç° ëòóóí,âúâúâ,ë%âóí±îâ úò ±,ëí,íó.

- (1) ç±ëëí±í í±îâí,íú, ââíâíú, ííóóíú í±, íí,~±úâíâ POWER, úòú±íó,ëúâ â,ó, óóíóëâíëâ CAMERA.
- (2) èó,â íëúâ STANDBY, ,â í: âí%ëí±úó "STBY" óóí,ëúóí, ,ë%òëóí±úâíâ.
- (3) ç±ëíëúâ START/STOP. çë%âóí±îâ ± í±~ëí±âú á±òëò, ë ëí%ëí±úó "STBY" ëâíâíëúóí í± ëí%ëí±úó "REC".

ç° ú±íëâ íóëâúâ, °. ±ú, âëëí á±òëòë, âëëíSP(òúí%± úíóâ,òóó óëâ,â%âíëâ) ëíë âëëí LP (ú%íëíâííóâ, óóó óëâ,â%âíëâ),íòú±íó,ëúâ REC MODE, òëòúâíâíâí, ,òóóú,âúòú,ëë ò %íëúâí,íóóú, òí±íë úâíóë ç±íë á±òëòë ôâ â% í±~íóí.

Basic operations

éòìó,ì°â óôâ ±êë



Camera recording

á±ÔËÒ, ò ÔÓÍÓ~
,Ë%ÔÓÍ±ÎÁ °

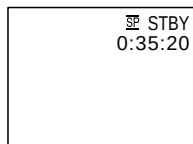
To stop recording momentarily [a]

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

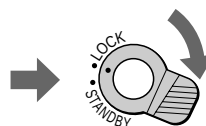
When you record from the beginning of the tape, run the tape for about 15 seconds before actual recording. This prevents the camcorder from missing any start-up scenes when you play back the tape.

Ñîfl , ÂÎÀîîÖÈ ÓÒÚ±ìÓ, íË Á±ÔËÒÈ [a]
ç±ËÏËÚÁ ÓÔflÚ, START/STOP. Ç
,Ë%ÔÓËÍ±ÚÂÎÁËî%ËÍ±ÚÓ "REC"ËÂÎËËÚÒfl
ì± Ëî%ËÍ±ÚÓ "STBY" (ÂËËÏ, ÓÚÓ, íÓÒÚË).

Ñîfl ÓÍÓÍ~±îËfl Á±ÔËÒÈ [b]

ç±ËÏËÚÁ START/STOP. èÓ, Â ÎËÚÁ STANDBY
, ÎËÂ Ë ÒÒÚ±ìÓ, ËÚÁ, °í, ~±ÚÂÎ, POWER
, ÓÓÍÓËÂÎËÂ OFF. á±ÚÂÎ, °ÚÓîîËÚÁ ì±ÒÒÂÚÚ
Ë Ò%±îîÖÈ, ±Ú± ÂËî°Ë °ÍÓÍ.

[b]



è ËÎÂ~±îËÂ í ÂËËÏÚ, ÓÚÓ, íÓÒÚË
ÒÒÍË Ç° ÓÒÚ±, îflÂÚÁ, Ë%ÔÓÍ±ÎÁ Ò ì± 5
îËîÚÚ ËîË °ÓÎÂÂ ÓÓ, ÓÚ±, îÂîîÖÈ ì±ÒÒÂÚÓË,
ÂËËÏÂ, ÓÚÓ, íÓÒÚË, ÓÚ, Ë%ÔÓÍ±ÎÁ ±
, °í, ~ËÚÒfl ±, ÚÓÍ±ÚË~ÂÓÍË. ùÚÓ
Ò Â%ÓÚ, ±±ÂÚ ±Â fl%îÚ~Ú± ÂËËËÂîÓÒ
îÂîÚ°. Ñîfl, ÓÁÓ~ìÓ, îÂîfl ÂËËÏ±
, ÓÚÓ, íÓÒÚËÓ%Ëî ±ÂÓÓ, Â ÎËÚÁ STANDBY
, ÎËÂ Ë ÒìÓ, ± ÓÓ, Â ÎËÚÁ Â, Ó, Â î. Ñîfl
ì±~±î± Á±ÔËÒÈ ì±ËÏËÚÁ START/STOP.

è ËÎÂ~±îËfl í ÂËËÏ±î Á±ÔËÒÈ

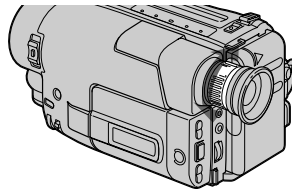
- Ñîflfl, Ë%ÔÓÍ±ÎÁ ± Á±ÔËÒ°, ±ÂÚ Ë
, ÓÒÓ ÓËÂ, Ó%ËÚ, ÂËËÏÂSP(ÓÚ±î%± ÚìÓ, Ó
, ÓÒÓ ÓËÂ, Â%ÂîËfl) ËîË, ÂËËÏÂ LP
(Ú%îËÂîîÓ, Ó, ÓÒÓ ÓËÂ, %ÂîËfl). é%î±íÓ,
ì±~ÂÓÚ, Ó, ÓÒÓ ÓËÂ, Â%ÂîËfl, ÂËËÏÂ LP
·Ú%ÂÚ îÂ Ú±îËî íÓ Ó~Ëî, í±í, ÂËËÏÂ SP.
·ÒÒÍË îÂîÚ± °î± Á±ÔËÒ±î±, ÂËËÏÂ LP ì±
%±îîÖÈ, Ë%ÔÓÍ±ÎÁ ÂË, ÓÒÓ ÓËÂ, Ó%ËÚÒfl±
% Ò, Ëî ÚËÓ±î 8~î, Ë%ÔÓÍ±ÎÁ ËîË ì± äÇâ,
ì±~ÂÓÚ, Ó, ÓÒÓ ÓËÂ, Â%ÂîËfl íÓËÂÚ °Ú, îÂ
Ú±îËî íÓ Ó~Ëî, í±í Ò Ë, ÓÒÓ ÓËÂ, Â%ÂîËË
ì± %±îîÖÈ, Ë%ÔÓÍ±ÎÁ Â.

è ËÎÂ~±îËÂ í Ó Ó~ÂÒÒÚ Á±ÔËÒÈ
ÒÒÍË Ç° Ó ÓËÂ, Ó%ËÚÁ Á±ÔËÒ°, Ò Ò±íÓ, Ó ì±~±î±
îÂîÚ°, %±ËÚÁ, ÓÁÍÓËîÓÒÚ, îÂîÚÁ
ÒÂ îÂÒÚËÚ Òfl ÓÍÓÍÓ 15 ÒÂîÚî%Ô ì±~±î±
Á±ÔËÒÈ. ùÚÓÒ Â%Óí, ±flÂÚ, Ë%ÔÓÍ±ÎÁ ÓÚÚ
Ò ÓÒÚÒì± ì±~±î, î° í ËÂÚÓ, Ò ÂîËË, íÓ, %±
Ç° ·Ú%ÂÚÁ, ÓÒÓ ÓËÂ, Ó%ËÚ, îÂîÚÚ.

Camera recording

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.



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.

á±ÖËÒ, Ò ÖÓÍÓ~
,Ë%ÄÓÍ±ÏÄ °

Ñîñ ÙÓÍÙÒË Ó,ÏË Ó·ÄÍÚË,±
,Ë%ÖËÖÍ±ÚÄñ
ÖÖÏË ,Ë%ÖËÖÍ±ÚÄñ, ÓÓ·Ä ÌÄ
ÖÙÓÍÙÖË Ó,±,ËË,ÄÖÏË Ç° ÈÖÖÓÍ,ÄÙÄÙÄ
,Ë%ÄÓÍ±ÏÄ Ù ÖÖÖÍÄ ÚÓ,Ó, Í±ÄÄ ÈÖÖÓÍ,ÄÓ,±Í
ÍÚÓ-ÚÓ% Ù,ÖË,ÚÓÖÚÓÍÙÖË ÙËÙÄÓ·ÄÍÚË,
,Ë%ÖËÖÍ±ÚÄñ. èÓ,Ä ÌËÙÄ Ä,ÛÏË Ó,ÓÍÖÄ
ÍÓÍ,Ó Ó·ÄÍÚË,± ,Ë%ÖËÖÍ±ÚÄñ Ù±Í, ~ÚÓ·
ËÌ%ËÍ±ÚÓ °, ,Ë%ÖËÖÍ±ÚÄñÄ ·ÏË ~ÄÚÍÓ
ÖÙÓÍÙÖË Ó,±°.

è ÈÏÄ~±ÏËñ Í Ò~ÄÚ~ËÍÙ ÍÄÍÚ°

- è~ÄÚ~ËÍ ÍÄÍÚ° ÙÍ±Ä°,±ÄÚ, Äññ Ä±ÖËÖË
ËÏË, Äññ,ÖÖÖ ÈÄ,Ä%ÄÏËñ. àÖÖÓÍ,ÄÙËÙÄ
Ä,Ó, Í±ÄÖÙ,Ä ÙÍÓ,Ó%ÖÙ,±. èÛ~ÄÖÙ,ÙÄÙ
ÖÙÖÙ±,±ÏËÄ ÖÖ, ÄÏÄÏË Ì± ÌÄÖÍÓÍ,ÍÓ
ÒÄÍÚÍ% ÖÙ Ù±ÍÚË~ÄÖÍÓ,Ó, ÄÏÄÏË. Ñîñ
ÙÖÙ±ÍÓ,ÏË ÖÓÍ±Ä±ÏË Ò~ÄÚ~ËÍ± Í ÌÚÍÄ,ÖË
ÖÚÍÄÙÍÄ Ì±ËÏËÙÄ ÌÍÖÖÍÙ COUNTER
RESET ÌÄ ÖäÏËË ÙËÑ.
- ÖÖÏË ÌÄÍÚ± Ä±ÖËÖ±Í, ÖÖ~ÄÚ±ÏË ÄËËÍÓ,
SP È LP, Ò~ÄÚ~ËÍ ÍÄÍÚ° ·Û%ÄÚ ÖÓÍ±Ä°,±Ú,
ÌÄÖ ±,ËÏ,ÍÖÄ, Äññ Ä±ÖËÖË. ÖÖÏË Ç°
Ì±ÍÄ Ä,ÄÚÄÖ, Ö ÖËÄ,ÄÖÙË ÍÖÍÙ±Ë ÌÄÍÚ° Ò
ÈÖÖÓÍ,ÄÓ,±ÏËÄ Ò~ÄÚ~ËÍ±, ÄÏÄÏË
ÖÖ,±±ÖÍÓ ÙÍÓ,Ó%ÖÙ,Ù, °ÖÖÏñËËÙÄÄ±ÖËÖ,
, Ó%ÍÖÍ È ÙÓÍ ÈÄ ÄËËÍÄ (SP ÈÏË LP).

è ÈÏÄ~±ÏËÄ Í ÄÙÏÄ ÌÖÍÙ Ä,ÛÍÓ,ÖÍÙ
ÖË,±ÍÙ
ä±Í ÙÍ±Ä±ÍÓ Ò ÖÖÍÓ~ Ì± ÈÖÙÍ±Í,
ÄÙÏÄ Ì°È ÖË,±ÍÍ Ä,Û~ËÙ, ÍÓ,%± Ç°
Ì±~ËÍ±ÄÙÄ Ä±ÖËÖ, È %± ÄÙÏÄ Ì° ÖË,±Í±
Ä,Û~ËÙ, ÍÓ,%± Ç° Ä±Í~Ë,±ÄÙÄ Ä±ÖËÖ,
ÖÖ%Ù,Ä È%±ñ ÙÄÏ Ò±Ï° ±·ÖÙÙ. çÄÖÍÓÍ,ÍÓ
ÄÙÏÄ Ì° ÒË,±ÍÍÓ, Ù±ÍËÄ Ä,Û~ËÙ,
Ì±ÄÖÙ,ÄÖ Ä%ÖÙÖ ÄË%ÄÏËñ±ÍÓ,Ó·ÏË-Ó
ÌÄÍÓ Ì±Í,ÍÓ,Ó ÖÖÖÙÖñÏËñ, È%ÄÓÍ±ÏÄ °.
á±ÍÄÙ,ÛÄ, ~ÚÓ ÄÙÏÄ Ì°È Ä,ÛÍÓ,ÖË ÖË,±Í
ÌÄ Ä±ÖËÖ°,±ÄÙÖñ Ì± ÌÄÍÙÙ. ÈçÏË B° ÌÄ
ÍÓÙËÙÄ ÒÏ°~±Ú, ÄÙÏÄ Ì°È ÖË,±ÍÍ,
ÙÖÙ±ÍÓ,ËÙÄ BEEP, ÒËÖÙÄÏÄ ÌÄÏ,
ÖÖÍÓÈÄÏËÄ 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:

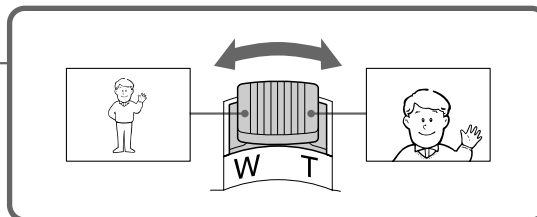
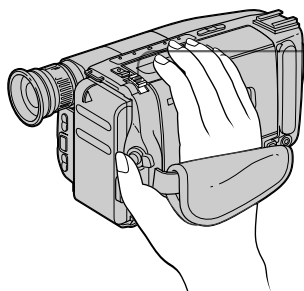
- you reset the date and time.
- you eject and insert the cassette again.
- you stop recording within 10 seconds.

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)



á±ÖËÒ, Ò ÔÓÍÓ~
,Ë%ÁÓÍ±ÏÄ °

è ËÏÄ~±ÏËÄ Í ÙÙÍ~ËË AUTO DATE
ó±Ö° ÙÒÚ±ÍÓ,ÏÄÍ° Ì± Á±,Ó%Ä Ì±, ÄÍÍ
ãÓÍ%ÓÍ± %ÍÍÍ eÓÄ%ËÏÄÍÓ,Ó äÓ ÓÍÄ,ÒÚ,± Ë
Ì±, ÄÍÍÍ è± ËË± %ÍÍÍ % Ù,ËÍ Ä, ÓÖÄÈÒÍËÍ
ÒÚ ±Í, ÒËÒÚÄÍÄ ÍÄÍ.
Ç° ÍÖËÄÚÄ ÖÄ ÄÚÒÚ±ÍÓ,ËÚ, ~±Ö°. ÍÙÍ~ËÍÍ
AUTO DATE ±·ÓÚ±ÄÚ Ó%ËÍ ±Ä, %ÄÍ.
é%Ì±ÍÓ, %±Ú± ÍÖËÄÚ ÓÓÍÍ,ËÚ, ÖÍÍ ·ÓÍÄÄ Ó%ÍÓ,Ó
±Ä±, %ÄÍ, ÄÖÍË:
–Ç° ÖÄ ÄÚÒÚ±ÍÓ,ËÚÄ%ÚÚË, ÄÍÍ.
–Ç° ;ÚÓÍÍÄÚÄ ÍÄÍÚÚ Ë, ÖÚ±,ËÚÄ Í±ÖÖÄÚÚ
ÖÍÓ,±.
–Ç° ÓÒÚ±ÍÓ,ËÚÄ Ä±ÖËÒ, , Ö Ä%ÄÍ±Í 10
ÖÄÍÚÍ%.

àÒÖÓÍ, ÁÓ,±ÏËÄ ÙÙÍ~ËË Ì±ÄÄ%±
,Ë%ÁÓÍ±ÏÄ °

ç±ÄÄ% ,Ë%ÁÓÍ±ÏÄ ° ÍÍÍÄÚÒÍÍ ÚÄÍË~ÄÖÍËÍ
Ö ËÄÍÓÍÄ±ÖËÒË,ÍÓÚÓ °Ë ÖÖÄ,ÓÍÍÄÚ Ç±Í
ËÄÍÄÍÍÚ, ±ÄÍÄ Ö·ÄÍÚ±, Í±% Ä. ÇÄ
ÄÍÓÚÖÖÚ Ä·ÍÍËÚÄ ~ÚËÍ Ö ËÄÍÓÍ,ÄÖÍË
ÍÓÚËÚÄ, ~ÚÖ° Ç±Ë Ä±ÖËÒË, ,ÍÍÍ%ÄÍË
·ÓÍÄÄ Ö ÓÚÄÒÖËÒÍÍ,ÍÓ.
ëÚÓ ÓÍ± "T": %ÍÍÍ ÚÄÍÄÚÖÚÓ (Ó·ÄÍÚ
Ö Ë·ËË±ÄÚÖÍÍ)
ëÚÓ ÓÍ± "W": %ÍÍÍ Ë ÓÍÓ,Ó Ù,Í± Ò·ÄÍË
(Ó·ÄÍÚ Ù%±ÍÍÄÚÖÍÍ)

Camera recording

Zooming speed (Variable speed zooming)

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

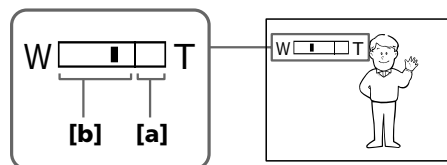
When you shoot a subject using a telephoto zoom

If you cannot get a sharp focus while in extreme telephoto zoom, move the power zoom lever to the "W" side until the focus is sharp.

You can shoot a subject that is at least 80 cm (about 2.6 feet) away from the lens surface in the telephoto position, or 1 cm (about 1/2 inches) in the wide-angle position.

Notes on digital zoom (CCD-TRV24E only)

- More than 15x zoom is performed digitally, and the picture quality deteriorates as you go toward the "T" side. If you do not want to use the digital zoom, set D ZOOM to OFF in the menu system.
- The right side [a] of the power zoom indicator shows the digital zooming zone, and the left side [b] shows the optical zooming zone. If you set D ZOOM to OFF, the right [a] zone disappears.



á±ÔËÒ, Ò ÔÓÍÓ~
 ,Ë%ÔÓÍ±ÍÂ °

ëÍÓ ÓÒÚ, ì±ÁÁ%± ,Ë%ÔÓÍ±ÍÂ °
 (ì±ÁÁ% Ò ±ÁÍÔË ÔÍÓ ÓÒÚ.)
 èÓÍÓÒÚ, ÓÓ,À ÌËÚÂ °±, Ò Ë,Ó%ÒÓ,Ó
 Ú ±ÌÒÚÓÍ±ÚÓ ±%Ífl·ÒÚ Ó,Òì±ÁÁ%±
 ,Ë%ÔÓÍ±ÍÂ °. èÓ,À ÌËÚÂ Ì,Ó ÒÍÂ,í± %Ífl
 ÌÂ%ÔÍÂÌÓ,Ó Ì±ÁÁ%± ÚÂÍÂÍ±ÍÂ °.

äÓ,%± Ç° ÒÌË±ÂÚÂ Ó·ÁÍÚ, ÈÒÒÓÍ,ÁÚfl
 Ì±ÁÁ%, ÌËËÍÂ ÚÂÍÂÚÓÚÓ
 ÔÒÍË Ç° ÌÂ ÍÓËÁÚÂ ÔÒÍÚ~ËÚ, ~ÁÚÍÓË
 ÚÓÍÚÒË Ó,Ë,Ó, ÁÍfl í ±ËÍÂ,Ó Ì±ÁÁ%±,
 ÌËËÍÂ ÚÂÍÂÚÓÚÓ,ÚÓ ÓÂ ÁÍÂ~ËÚÂ °±,
 Ò Ë,Ó%ÒÓ,ÓÚ ±ÌÒÚÓÍ±ÚÓ ±,ÒÚÓ ÔÍÚ~W%Ó
 ÚÂÍÓÓ, ÔÓÍ±ÍÂ ÔÒÍÚ~ËÚÂ ~ÁÚÍÓË
 ÚÓÍÚÒË Ó,Ë.
 Ç° ÍÓËÁÚÂ Ô ÓËÁ,ÂÒÚË Ò ÁÍÚ Ò Â%ÍÂÚ±,
 ÍÓÚÓ °Ë ÓÓ ÍÂÍ, ~ÂË ÍÂ Á Ì±ÍÓ%ËÚÒfl Ì±
 ±ÒÚÓÓÍflËË 80 ÔÍÓÚÓÓ,Â ÌÒÒÚË Ó·ÁÍÚË,±
 , ÔÒÍÓËÂÍËË ÚÂÍÂÚÓÚÓ ËË 1 ÔÍ,
 ÔÒÍÓËÂÍËË ~Ë ÓÍÓ,Ó Ú,í±.

è ËÍÂ~±ÌËfl í ~ËÚ Ó,ÓÍÚ
 Ú ±ÌÒÚÓÍ±ÚÓ Ú (ÚÓÍ,ÍÓ CCD-TRV24E)

- ÁÓÍÂÂ, ~ÁÍ 15-Í ±Ú±fl Ú ±ÌÒÚÓÍ±Ëfl
 °ÔÓÍflÁÚÒfl ~ËÚ Ó,Í ÓÓÒÓÓ·ÓÍ, Ë
 Ì±ÂÓÚ,ÓËÁÓ· ±ËÁÌËflÚÍÚ%~±ÁÚÒflÓÓ
 ÍÂ Á ÓÂ ÁÍÂ~ÁÌËfl, ÒÚÓ ÔÍÚ "í". ÔÒÍË Ç°
 ÍÂ ÍÓÚËÚÂ ÈÒÒÓÍ,ÁÓ,±Ú, ~ËÚ Ó,Ú
 Ú ±ÌÒÚÓÍ±Ë, ÚÒÚ±ÍÓ,ËÚÂ D ZOOM,
 ÒÈÒÚÂÍÂ ÍÂÍ, ÔÓÍÓËÂÍËÂ OFF.
- è ±,flÒÚÓ Óí± [a]Ël%ËÍ±ÚÓ ±Ô Ë,Ó%ÒËË
 Ú ±ÌÒÚÓÍ±ËË ÓÓÍ±Á°,±ÁÚ ÁÓÍÚ ~ËÚ Ó,ÓË
 Ú ±ÌÒÚÓÍ±ËË, ± ÍÂ,fl ÒÚÓ Óí± [b]
 ÔÓÍ±Á°,±ÁÚ ÁÓÍÚÓÓÚË~ÁÓÍÓË
 Ú ±ÌÒÚÓÍ±ËË. ÔÒÍË Ç° ÚÒÚ±ÍÓ,ËÚÂ D
 ZOOM, ÔÓÍÓËÂÍËÂ OFF, Ò ±,fl ÁÓÍ± [a]
 ÈÒ~ÁÁÍÂÚ.

Camera recording

á±ÔËÒ, ò ÔÓÍÓ~
,Ë%ÂÓÍ±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·ÄÍ± ò ÔÓÍÓ~ , í ±ì± ÜäÑ

Ç° Ú±ÍËÄ ÍÓËÄÜÄ ÒÒÛ~ÄÓÚ,ÍÍÜ, Ä±ÔËÒ, ËÁÓ· ±ËÄÍËÍ, Ô ÔÓÍ±Ü Ë,ÍÍ Ä,Ó Í± Í±ÏÄ ÜäÑ.

è È ÈÒÒÓÍ,ÁÓ,±ËËÈ ~Í ±ì± ÜäÑ ,Ë%ÔËÒÍ±ÜÄÍ, °ÍÍ, ~ËÜÓÍ ±,ÜÓÍ±ÜË~ÄÒËÈ.

Ç° ÍÄ ÍÓËÄÜÄ Ô ÔÓÍÜ~Ë,±Ü, Ä,ÜÍ ÓÚ ,ÓÍÍÓ,Ó,Ô ËÜÄÍÍ,Ô, ÄÍÍ Ä±ÔËÒËÈ.

(1) Ç±ËËÍ±ÍÍ PUSH OPEN, ÓÚÍ ÓËÜÄ Ô±ÏÄÍ, ÜäÑ.

(2) éÜ Ä,ÜÍË ÜËÜÄÜ,ÓÍ Ô±ÏÄÍË ÜäÑ.

è±ÏÄÍ, ÜäÑ ÔÄ ÄÍÄ~±ÄÜÓÍÍ

Ô È·ÍËÄËÜÄÍ,ÍÓ Í±90°, ±%ÜÓÓ, ,Ó%ÌÜ

ÓÜÓ ÔÍÜË Í±210°, ±%ÜÓÓ, % Ü,Ü,

ÓÜÓÓÜ.

ÑÍÍ ÜÓ,Ó, ~ÜÓ° ÓÜ Ä,ÜÍË Ó,±Ü, ÍÍ ÍÓÓÜ,

~Í ±ì± ÜäÑ, Í±ËËÜÄ ÍÍÓÍÜ BRIGHT +

ËËÈ -.

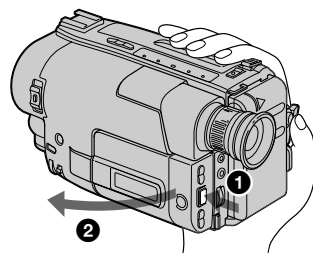
è ÓÍ ÔÍÜË° ·±Ü± ÄË ·Ü%ÄÜ %ÍËÍÄÄ, ÄÒËÈ

ÜäÑ Ô±ÏÄÍ, Ä±Í °Ü±. äÒÒÓÍ, ÄÜËÜÄ

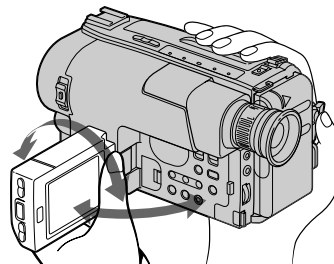
,Ë%ÔËÒÍ±ÜÄÍ, ÍÄÜÓÓ ~Í ±ì± ÜäÑ %ÍÍ

~ÍÓÍÓÍËÈ ÍÓ~ÍÓÓÜË ·±Ü± ÄË.

1



2



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 ËÍÄ~±ËÍÍ Í Ô±ÏÄÍË ÜäÑ

• è È Ä±Í °,±ËËÈ Ô±ÏÄÍË ÜäÑ ÓÓ,Ô ±~Ë,±ËÜÄ ÄÄ, Ä ÜËÍ±Í,ÍÓ, ÔÓÍ± Ôì± ÍÄ Ä±ÄÍÍÄÜÓÍÍ [a].

• è È ÓÓ,Ô ±~Ë,±ËËÈ Ô±ÏÄÍË ÜäÑ

ÓÓ,Ô ±~Ë,±ËÜÄ ÄÄ, ÔÄ,%±, Ä ÜËÍ±Í,ÍÓ, ËËÈ

, Ô ÓÜË,ÍÓÍ ÔÍÜ~±Ä ÍÓ ÓÜÓ,Ë%ÄÓÍ±ÏÄ °

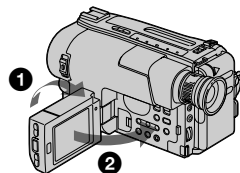
ÍÓËÄÜ ·°Ü, ÔÓ, ÄË%ÄÍ, ËËÈ Ô±ÏÄÍ, ÜäÑ

ÍÄ ÔÍÓËÄÜ Ä±Í °Ü,ÔÍÍ Ô ±·ËÍ,ÍÓ [b].

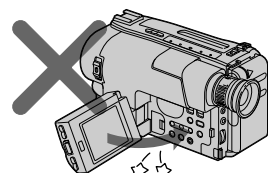
• èÒÍÍÓÓÜ, Ä±Í ÓËÜÄ Ô±ÏÄÍ, ÜäÑ, ÍÓ,%±

Ôì±ÏÄÈÒÒÓÍ,ÄÜÄÜÓÍÍ.

[a]



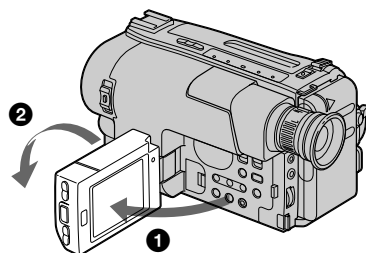
[b]



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.



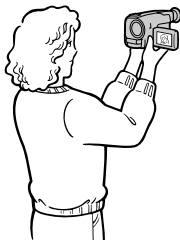
To cancel mirror mode

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.

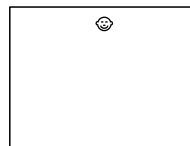
[a]



Ç° İÖÊÂÛÄ ÖÄ Ä,Ä İÜÜ, ÖİÄİ, ÜÄN, Üİİ,
~ÄİÖ,Äİİ İİ.İ,ÜÜ, ÖİİİÄİÖÜ, Ö
~ÄİÖ,ÄİÜ İİ.İ,ÜÜ, Ö İİÜ, Öİİİİİ Ö
ÖÖİÖ, ,È%ÖÖİİÜÄİİ.

Ç° İÖÊÂÛÄ ÖÄ Ä,Ä İÜÜ, ÖİÄİ, ÜÄN, Üİİ,
~ÜÖ Öİİ.ÜÜÄÜ Ö. İÄİ,ÜÜ, ÖÜÖ ÖİÜ È
Ç° İÖÊÂÛÄ %İÜ, ,ÖÄİÖÊİÖÜÜ, ÖİİİÄİÖÜ
~ÄİÖ,ÄİÜ İİ.İ,ÜÜ, Ö İİÜ, Öİİİİİ Ö
ÖÖİÖ, ,È%ÖÖİİÜÄİİ.

èÖÄ, İ ÖÖ, Ö İ,È,ÈÜÄ ÖİÄİ, ÜÄN
,Ä ÜÈİİ,İÖ, ÖÖİİ Öİİ İÄ ÄİÄİİÜÜÜ, İ
ÄİÜÄİÖÄ Ä,Ä İÜÜÄÄ.äİ%ÈİÜÜ 
ÖÖİ,ÈÜÜ İ İ İÄ (ÄÄ İİ,İ È ÄÈÈ) , È
Èİ%ÈİÜÜ ° %İÜ È ÖÄÜÈİ İÄİÜ°
İÜ İÄÈÈÄİÜÜ.



Ñİİ ÖÜİÄİ° ÄÄ İİ İÖ, Ö ÄÈÈİ
èÖ,Ä İÜÄ ÖİÄİ, ÜÄN İÄİ%,
İİÖ İ,İÄİÈ,È%ÖÖİİÜÄİİ.

- è ÈİÄİÈİ İ ÄÄ İİ İÖİÜ ÄÈÈİÜ
- ÖÖİÈ Ç° ÖÖ,Ä İÄÜÄ ÖİÄİ, ÜÄN
Ö È.İÄÈÜÄİ,İÖ%Ö%ÈİÖİÜÜ135
„İ%ÜÜÖ,ÜÜ,È%ÄÖİİÄ İ
,ÖÈ%ÄÜ, ÄÄ İİ,È ÄÈÈİ.
- àÖÖÖİ,ÄÜİ ÄÄ İİ,È ÄÈÈİ, Ç° İÖÊÂÛÄ
ÄİÖÈÖ,İÜ, ÖÄ İİ İÄİÜÜ, Ö ÖÖİÜ È,İ
Ö,ÖÄ ÈÄÖ. İÄÈÄ İ ÜÄN [a].
- àÄÖ. İÄÈÄ İ ÜÄN „İ%ÈÜ, İİ
ÄÄ İİ,İÖÄ ÖÜÖ. İÄÈÄ, Ö, Äİ ÄİÖÈÈ
, ÄÄ İİ,İÖİ ÄÈÈÄ [b]. äİ%ÈİÜÜ STBY
ÖÖİ,İİÄÜÜ, È%Ä  È REC, È%Ä .
çÄİÖÜÖ Ä Èİ%ÈİÜÜ ° İÖ,ÜÜ İÄ
ÖÖİ,İİÜ, İİ, ÄÄ İİ,İÖİ ÄÈÈÄ.
- NİÜİ ÖÖİ,İİÄÜÜ, Ö İÜİÖÖ İİÄ, ÄÖİÈ
İİ, Äİ ÜÜİÈ İ AUTO DATE. èÖÖİÄ
ÄİÖÈÈ İİ.ÜÜÄÜ İ İİÖÈ.
- ÇÖ, Äİ ÄİÖÈÈ, ÄÄ İİ,İÖİ ÄÈÈÄ Ç°
İÄ İÖÊÂÛÄ ÜÖ İ,İÜ, ÖİÄ%Ü, ÈÈÈ
İİÖİİÈ: TITLE, DATE È TIME.
- ÈÄÜÈİ ÖÜÖ. İÈÄÜÜ, ÖÄ Ä,Ä İÜÜÖİ
,È%Ä, ÖÖİÄ %ÈÖÖİÄİ.

[b]



Basic operations

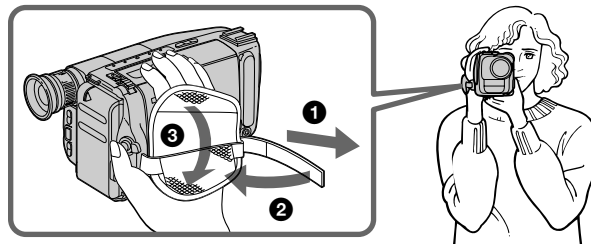
èÖİÖ,İÄ ÖÖÄ İÈÈ

Hints for better shooting

ëÓ,ÂÚ° %îfl îÛ~ÂÈ
Ò·ÄÏË

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

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



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

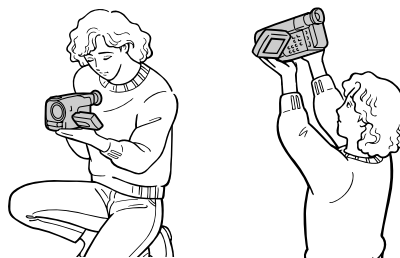
Ñífl íþ% Ó, Ò È Ú%Â ÈÈ,þËÈ,È%ÄÓíþÄ°
, Úíþ, Ç° ÒÓíÛ~ÉÚÄ îÛ~ÉÄ ÄÄÚí,ÚþÚ°,
ÄÖíÈ·Ú%ÄÚÄ%Â ÈþÚ,È%ÄÓíþÄ Ú,
ÖÖÓÚ,ÄÚÖÚ,ÈÈ ÒÓ ÖíÄ%Ú,~ÈËÈ ÚíþÄþËflÈ:
• ÑÄ ÈÈÚÄ,È%ÄÓíþÄ Úí ÄÖíÖÉÄþí ÄÖÈÚÄ
ÄÄ Ò ÖÖíÓ~ ÄíÄíÖ,Ó Äþ,þÚþ Úþí,
~ÚÓ.° Ç° íÖ,ËÈ íÄ,íÖ íþËÖÖíÈ Ö,þÚ,
Ä,ÚíflÚÓ þËÈ Ò ÖÖíÓ~,·Öí,~Ó,Ó
Öþí,^þ.

- êþÖÖÓíÖÈÈÚÄ Çþ~ Ò þ,°È íÖíÓÚ, Ò·ÓíÚ ÓÚ
ÖÄ·fl.
- êþÖÖÓíÖÈÈÚÄ Çþ~ íÄ,Ú. ÚíÚ ÖÓ%
È%ÄÓíþÄ ÖÈ%flÄÄÖÖ%Â ÈËÈ.
- Çþ%ÄÈíÖ Ò ÈÖíÖÈÈÚÄ Çþ~ „íþÄ í ÓíÚífl Ú
È%ÖÈÖíþÚÄífl.
- äÖÖÓí,ÄÚÈÚÄ,ÈÄÈ íÚ, þíÚ, íþ~ÄÖÚ,Ä
ÚíÖ,Ó%ÖÚ,þ%flÖÖ Ä%ÄíÄíÈfl
„Ö ÉÄÓíÚþí,íÖ,Ó Öíþíþ.
- Ç° íÖÉÄÚÄ ÄþÖÈÖ°,þÚ, ÉÄ íÉÁíÖ,Ó
ÖÖíÖÉÄíÈfl %ífl ÖÖíÛ~ÄíÈfl ÈíÚÄ ÄÖíÖ,Ó Ú,íþ
ÄþÖÈÖÈ. èÓ%ìÈÈÚÄ,È%ÖÈÖíþÚÄí, „í þ%ífl
ÄþÖÈÖÈ ÉÄíÉÁíÖ,Ó ÖÖíÖÉÄíÈfl [a].
- Ç° ÚþíÉÄ íÖÉÄÚÄ ÒÈÈíþÚ, ÉÄ íÉÁíÖ,Ó
ÖÖíÖÉÄíÈfl ÈËÈ %þÉÄ ÉÄ,°ÖÖíÖ,Ó
ÖÖíÖÉÄíÈfl Ò ÈÖÖÓí,ÄÓ,þíÉÄí ÒþíÄíÈ ÜäÑ
[b].

[a]



[b]



Hints for better shooting

ëÓ,ÂÚ° %îfl îÛ~ÂÈ Ò·ÂÏÈ

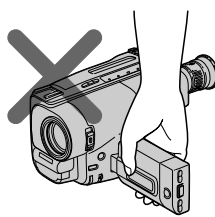
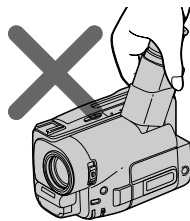
Place the camcorder on a flat surface or use a tripod

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.

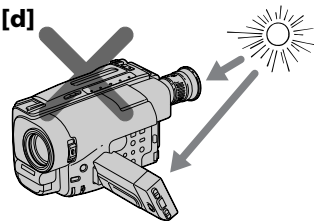
Cautions on the viewfinder and the LCD

- 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.

è±òòóí±,±ÈÚÂ,È%Âóí±îÂ Û î± òîóóíóÈ
òó,Â îíóóÚÈ ÈÈÈÈòóóí,ÂÚÈÚÂ Û Âíó,Ú
èÚ± ±ÈÚÂò, ±òòóíó,±Ú, È%Âóí±îÂ Û î±
òóóíÂ ÈÈÈÈ. òÈ% Û,òÈ òîóóíóÈ
òó,Â îíóóÚÈ ì±òó%íó%î±ÂÈ,°òóÚÂ. òòÈÈ
Ç°ÈÏÂÚÂ Û Âíó,Ú%îflÚóóó±òó± ±Ú±,Úó
Ç° Û±ÈÂ ÌóÈÂÚÂ Èòóóí,Âó,±Ú, ÂÂ Ò
È%Âóí±îÂ òÈ. è Èò Èí ÂóíÂÈÈ Û Âíó,ÈÏÂ
ÚÈÈ° Sony Û·Â%ÈÚÂò, °Úó %îÈì±, ÈìÚ±
Ú Âíó,È ÌÂÏÂÂ 6,5 Ì. Ç Ò óÚÈ,ìóí òìÛ±Â
Ç° ÌÂ òìóÈÂÚÂ ì±%ÂÈìó Ò Èí ÂòÈÚ,
Ú Âíó,Ú, ±,ÈìÚìóÈÂÚòó, Â%ÈÚ,
È%Âóí±îÂ Û.

è Â%òóÚÂ ÂÈÂÈÈfl í,È%òÈòì±ÚÂÏ, È ÚâÑ
• ÇÂ òó%ìÈì±ÈÚÂ,È%Âóí±îÂ Û Â±
È%òÈòì±ÚÂÏ, ÈÈÈ ò±ÏÂ, ÚâÑ [c].
• ÇÂ ±òòóí±,±ÈÚÂ,È%Âóí±îÂ Û Û±í,°Úó°
È%òÈòì±ÚÂÏ, ÈÈÈ °í ±ì ÚâÑ °ÈÈ
ì±ò ±,ÏÂÏ° Ò Ìíó ì± òóí±Â. ÇìÚÚ ÂìÈÂ
±òÚÈ,È%òÈòì±ÚÂÏ ÈÈÈ ò±ÏÂÈ ÚâÑ Ìó,ÚÚ
°Ú, òó, ÂÈ%ÂÏ°. ÂÚ%Ú,ÚÂ òóóó òÈÈ° Ò È
±òòóíóÈÂÈÂ,È%Âóí±îÂ °òó%òóí±ÂÏ
ÈÈÈ,òÂÏÂ òì± [d].

Checking the recorded picture

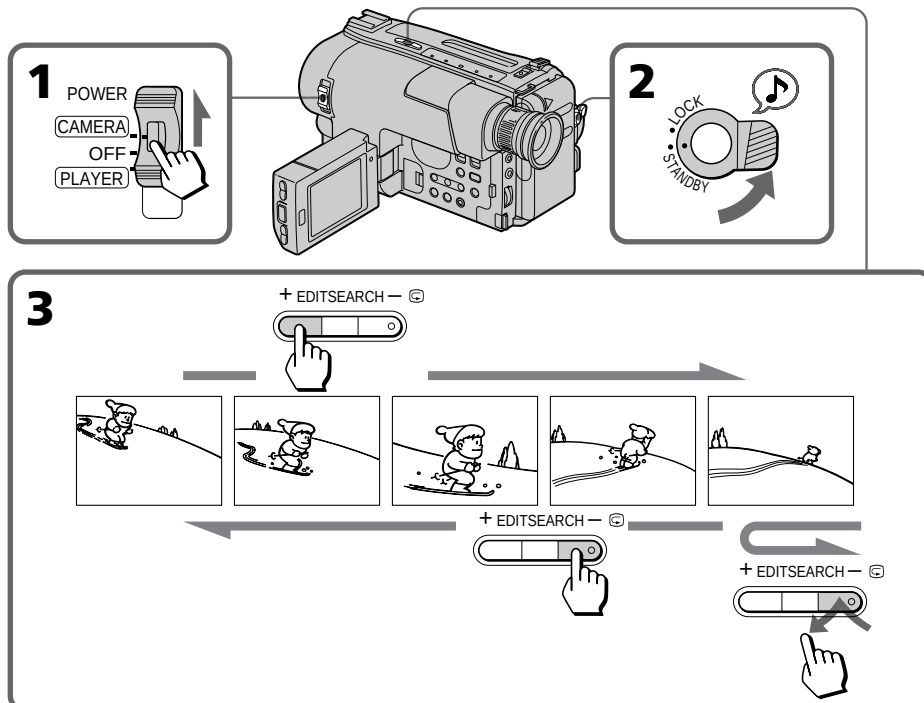
è Ó,Â Í± Á±ÔËÒ±ìíÓ,,Ó
ËÁÓ· ±ÊÂÌËí

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

- (1) While pressing the small green button on the POWER switch, set it to CAMERA.
- (2) Turn STANDBY up.
- (3) Press the – (⊖) side of EDITSEARCH momentarily; the last few seconds of the recorded portion plays back (**Rec Review**). You can also monitor the sound from the speaker or by using an earphone (not supplied). Hold down the – side of EDITSEARCH until the camcorder goes back to the scene you want. The last recorded portion is played back. To go forward, hold down the + side (**EditSearch**).

àÒÒÓÍ,ÁÚíí EDITSEARCH, Ç° ÍÓËÁÚÁ
ÒÁ ÀÓÍÓÚ ÁÚ, ÒÒÒÍÁ%ì, Á±ÔËÒ±ìíÚ,
Ò°ÀìÚËËË Ó,Â ËÚ, Á±ÔËÒ±ìíÓÁ
ËÁÓ· ±ÊÂÌËÁ, Ë%ÒËÒÍ±ÚÁÌÁ. Ç° Ú±ÍËÁ
ÍÓËÁÚÁÒÁ ÀÓÍÓÚ ÁÚ, ËÁÓ· ±ÊÂÌËÁ±
“í ±ìÁ ÛáÑ.

- (1) Ç±ÊËÍ±íí Í±ìÁì,íÚ, ÁÁìÁìÚ, ìíÓÓíÚ ì±
“íí,“±ÚÁÌÁ POWER, ÛÒÚ±ìÓ,ËÚÁ Á,Ó,
ÒÓÍÓËÁÌËÁ CAMERA.
- (2) èÓ,Á ÌËÚÁ STANDBY „Á í.
- (3) ÇÁì±%Òí,Ó ì±ËËËÚÁ ÒÚÓ ÒìÚ – (⊖) ìíÓÓíË
EDITSEARCH; ÒÒÒÍÁ%ìËÁ ÌÁÒÍÓí,íÓ
ÒÁìÚí%Á±ÔËÒ±ìíÓË±ÒÚË:Ú%ÚÚ
,ÒÒÒ ÓËÁ,Á%Áì° (ÒÁ ÀÓÍÓÚ Á±ÔËÒË).
Ç° Ú±ÍËÁ ÍÓËÁÚÁ Ó ÒÒÒÍË,±Ú, Á,Úí ÓÚ
„ÒííÓ,Ó,Ó ËÚÁííí ËËË “Á ÁÁ ì±Ú±ËËË
(ìÁ Ò ËË±,±,ÚÒíí).
ÑÁ ËËÚÁÒÚÓ ÒìÚ –ìíÓÓíË EDITSEARCH
%ÒÓÚÁì,ÒÒ,ÒÒí±,Ë%ÒÁÒí±ìÁ ±ìÁ
,Á ÌÁÚÒíí í ËÁì±ÁìÓË Ò°ÁìÁ. èÒÒÍÁ%ìííí
Á±ÔËÒ±ìíí±ÒÚ,Ú%ÁÚ,ÒÒÒ ÓËÁ,Á%Áì±.
ÑíííÓ Ó%Ò,ËËÁìËíí,ÒÁ Á%Ò%Á ËËÚÁ
ÒÚÓ ÒìÚ + (íÓíÚ±Ëí°Ë ÒÒËÒí).



Checking the recorded picture

è Ó,À Í± Á±ÔËÒ±ÌÓ,,Ó
ËÁÓ. ±ÊÀÌËfl

To stop playback

Release EDITSEARCH.

Ñîfl ÓÒÚ±ÌÓ,ÍË ,ÓÒÒ ÓËÁ,Â%ÀÌËfl
ç±ÊËËÁ 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.

Ñîfl ,ÓÁ, ±Ú± Í ÓÓÒÌÂ%ÌÀÌÜ
Á±ÔËÒ±ÌÓÌÜÌÀÖÜÜÓÜ%ÁÜÓÒÒ ÓËÁ,Ó%ËÜ,Òfl
ÌÒÌÜ±ËÌÓ,,Ó ÓÓËÒÌ±
ç±ÊËËÁ END SEARCH. èÓÒÌÂ%ÌÀÌ
Á±ÔËÒ±ÌÓÌÜÌÀÖÜÜÓÜ%ÁÜÓÒÒ ÓËÁ,Ó%ËÜ,Òfl
Ò Ë.ÌËÁËÜÀÌ,ÌÓ, ÙÁ~ÀÌËË 5 ÒÀÌÜÌ%, ÁÒËË
ÌÀÌÜ± .°Í± Á±ÔËÒ±Ì± , ÁËËÌÂ SP, ËËË ,
ÙÁ~ÀÌË 10 ÒÀÌÜÌ%, ÁÒËË ÌÀÌÜ± .°Í±
Á±ÔËÒ±Ì± , ÁËËÌÂ LP, ± Á±ÚÀÌ ÌÀÌÜ±
ÓÒÚ±ÌÓ,ËÜÒfl. é. ±ÜËÜÁ,ÌËÌ±ÌËÁ,~ÜÓ
%±Ì±fl ÙÜÌÌËfl ÌÀ ±.ÓÜ±ÁÜ, ÁÒËË Ç°
,°ÜÓÌËËÜÁ Í±ÒÒÁÜÜ ÓÓÒÌÂ Á±ÔËÒË ÌÀÌÜ.

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.

Ñîfl Ì±~Í± ÒÂ ÁÁ±ÔËÒË
ç±ÊËËÁ START/STOP. èÁ ÁÁ±ÔËÒ,
Ì±ËÌ±ÁÜÒÌÓÜÓÓÒÌÂ%ÌÀËÁ±ÔËÒ±ÌÓËÜÓ~ÌË
ËËËÓÜÜÓ~ÌË,,%ÁÇ°ÓÜÖÜÜËËË
EDITSEARCH. è Á%ÜÒÌÜÜ ÁÌÓ,~ÜÓ.° Ç° ÌÀ
,°ÜÓÌÜË Ì±ÒÒÁÜÜ, È ÒÂ ÁÌÓ%ÌÀË%Ü
ÓÓÒÌÂ%ÌÀË Ò~ÀÌÓË,ÍÓÜÓ Ü,Ç° Á±ÔËÒ±ÌË,È
ÒÌÂ%Ü,~ÀË Ò~ÀÌÓË,ÍÓÜÓ Ü,Ç°
Á±ÔËÒ°,±ÁÜÁ, .Ü%ÁÜ ÒÌ±,Ì°Ì.

Basic operations

èÒÌÓ,ÌÂ ÓÒÁ ±ËË

Playing back a tape

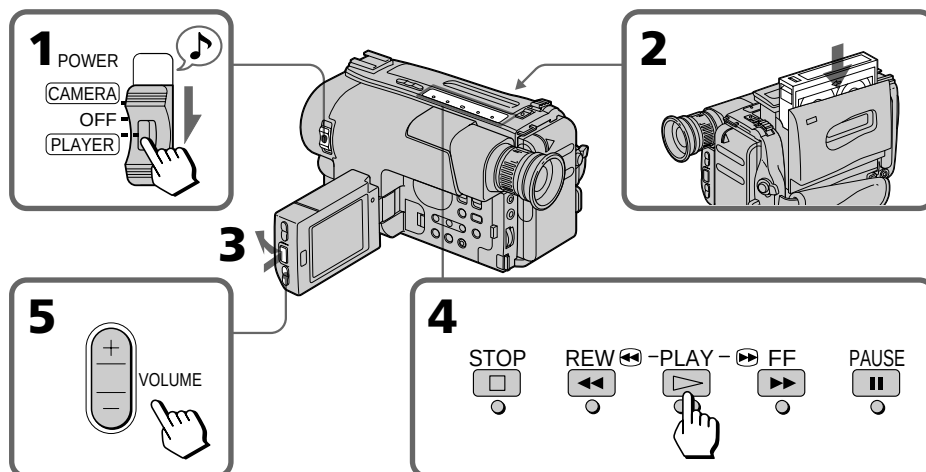
Ç° ÎÓÉÁÚÀ Ò ÓÒÎ±Ú È,±Ú, ÔÒÒ ÓÉÁ,Ô%ÈÎÓÁ ÉÁÓ· ±ÉÂÎÉÂ Î± ¹ ±ÎÀ ÛäÑ.

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° ÎÓÉÁÚÀ Ò ÓÒÎ±Ú È,±Ú,
ÔÒÒ ÓÉÁ,Ô%ÈÎÓÁ ÉÁÓ· ±ÉÂÎÉÂ Î± ¹ ±ÎÀ
ÛäÑ.

- (1) Ç±ÉÈÎ±fl Î±ÎÂÎ,ÎÜ, ÂÂÎÂÎÜ, ÎÎÓÓÎÜ Î±
,°ÎÎ ±ÚÂÎÂ POWER, ÔÂ Â%,ÈÎ,ÚÂ Â,,Ó ,
ÔÓÎÓÉÂÎÉÂ PLAYER.
 - (2) ÇÒÚ±,,ÚÂ Â±ÔÈÒ±ÎÎÜ, Î±ÒÒÂÂÚÜ ÓÍÓ-ÍÓÎ,
Ó· ±~ÂÎÎ°Î Î± ÛÈÜ.
 - (3) Ç±ÉÈÎ±fl PUSH OPEN, ÓÚÍ ÓÈÜÂ Ô±ÎÂÎ,
ÛäÑ. éÚ Â,,ÛÎÈ ÛÈÜÂ Û,,ÓÎ Ô±ÎÂÎÈ ÛäÑ È
fl ÍÓÜÜ, ¹ ±Î± ÛäÑ, ÂÒÎÈ ¹ÓÓ Û Â-ÚÂÚÖfl.
 - (4) Ç±ÉÈÈÚÂ ▷ %fl Î±~±Î±
,ÔÒÒ ÓÉÁ,Ô%ÂÎÈfl.
 - (5) éÚ Â,,ÛÎÈ ÛÈÜÂ, ÓÎÎÓÜÜ,Ò
ÈÒÓÓÎ,ÁÓ,±ÎÈÂÎ VOLUME +/-.
- Ç° Ú±ÎÉÂ ÎÓÉÁÚÀ Ò ÓÒÎ±Ú È,±Ú,
ÉÁÓ· ±ÉÂÎÉÂ Î± ¹ ±ÎÀ ÚÂÎÂ,ÉÁÓ ± ÓÒÓÎÂ
ÔÓ%ÔÓÂ%ÈÎÂÎÈfl,È%ÂÓÎ±ÎÂ ° ÍäÇâ/
ÚÂÎÂ,ÉÁÓ Û.



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

ÑÎfl ÓÒÜ±ÎÜ,ÎÈ ,ÔÒÒ ÓÉÁ,Ô%ÂÎÈfl Î±ÈÈÈÚÂ
□.
ÑÎfl ÛÒÍÓ ÂÎÒÈÈ ÔÂ ÂÎÓÚÎÈ ÎÂÎÜ° Î±Â±%
Î±ÈÈÈÚÂ ◀◀.
ÑÎfl ÛÒÍÓ ÂÎÒÈÈ ÔÂ ÂÎÓÚÎÈ ÎÂÎÜ° ,ÔÂ Â%
Î±ÈÈÈÚÂ ▶▶.

Playing back a tape

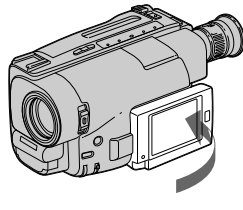
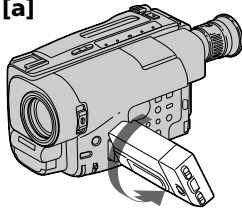
Ç° ÎÓËÁÚÄ ÖÄ Ä,Ä%ÄÏËÄ ÎÄÏÜ°

When watching on the LCD screen

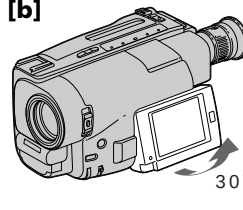
You can turn the LCD panel over and move back to the camcorder with the LCD screen facing out [a]. You can adjust the angle of the LCD panel up to 30 degrees [b].

è È Ö ÖÖÏÖÜ Ä ì† ~† ÎÄ ÜÄÑ
Ç° ÎÓËÁÚÄ ÖÄ Ä,Ä ÜÏÜÜ, Ö† ÎÄÏ, ÜÄÑ È
ÖÄ Ä%,ÈÏÜÜ, ì† Ä†%†,È%† ÖÖÏ† ÎÄ Ä Ö
Ö· †~ÄÏ†† ì† ÜËÜ ~† ì† ÖÏ ÜÄÑ [a].
Ç° ÎÓËÁÚÄ ÈÄÏÄÏÜ, Ü,ÖÏ ì† ÎÖÏ† Ö† ÎÄÏÈ
ÜÄÑ ì† 30 „ †%ÜÖÖ, [b].

[a]



[b]



Basic operations

èÖÏÜ,ÎÄ ÖÖÄ †~ÈÈ

Using the Remote Commander

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

àÖÖÖÏ,ÄÖ,†ÈÄ ÖÏÜ Ü†
%ÈÖÜ†~ÈÈÖÏÖ,Ö ÜÖ †,ÎÄÏÈ
Ç° ÎÓËÁÚÄ ÜÖ †,ÎÏÜ, ÖÖÖ ÖÄ,Ä%ÄÏËÄ Ö
ÈÖÖÖÏ,ÄÖ,†ÈÄÏ Ö È†,†ÄÏÖ,Ö ÖÏÜ,Ü†
%ÈÖÜ†~ÈÈÖÏÖ,Ö ÜÖ †,ÎÄÏÈ.
èÄ Ä%ÈÖÖÖÏ,ÄÖ,†ÈÄÏ ÖÏÜ Ü†
%ÈÖÜ†~ÈÈÖÏÖ,Ö ÜÖ †,ÎÄÏÈ,ÖÜ†,ÜÄ
·Ü† ÄÈÈÈ R6 (†ÄÏÄ ÖÏÄÄ).

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.

ÑÏÏ Ü%†ÎÄÏÈÈ ÈÏ%È†ÜÖ Ö, Ö ~† ì†
Ç†ÈÈÈÜÄ ÎÏÖÏÜ DISPLAY %ÏÏ ÖÏÈ †ÈÈ
~† ì††, ÈÏ%È†ÜÖ Ö, ì† ~† ÎÄ ÜÄÑ. ÑÏÏ
ÖÜÖ· †ÈÄÏÈÈÈÏ%È†ÜÖ Ö, ì†ÈÈÈÜÄ ÄÄ
ÖÏÖ,†.
àÏ%È†ÜÖ ° ÎÄ ÖÖÏ,ÎÏ,ÜÖÏ ì† ~† ÎÄ
ÜÄÏÄ,ÈÄÖ †.

Using an earphone

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

àÖÖÖÏ,ÄÖ,†ÈÄ ì†Ü~ÈÈÖ,
èÖ%ÖÖÄ%ÈÈÈÜÄ ì†Ü~ÈÈÈ (ÎÄ Ö È†,†,ÜÖÏ) Î
„ÎÄÄ%Ü . Ç° ÎÓËÁÚÄ ÖÜ Ä,ÜÈÈ Ö,†Ü
„ ÖÏÖÖÜ, ì†Ü~ÈÈÖ, Ö ÈÖÖÖÏ,ÄÖ,†ÈÄÏ
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.

ÑÏÏ Ö ÖÖÏÖÜ †,ÖÖÖ ÖÄ,Ö%ÈÈÖ,Ö
ÈÄÖ· †ÈÄÏÈÈ, È%ÖÈÖÏ†ÜÄÏÄ
á† ÎÈÜÄ Ö† ÎÄÏ, ÜÄÑ. ÇÈ%ÖÈÖÏ†ÜÄÏ,
ÎÏ ~ÈÜÖÏ †,ÜÖÏ†ÜÈ~ÄÖÈÈ. è È
ÈÖÖÖÏ,ÄÖ,†ÈÈÈ,È%ÖÈÖÏ†ÜÄÏ Ç° ÎÓËÁÚÄ
Ö ÖÖÏÜÈ,†Ü, Ä,ÜÏ ÜÖÏ,ÏÖ ~Ä ÄÄ ì†Ü~ÈÈÈ.
ÑÏÏ Ö ÖÖÏÖÜ † ì† ~† ÎÄ ÜÄÑ ÖÏÖ,†
ÖÏÏ ÖÈÜÄ Ö† ÎÄÏ, ÜÄÑ. ÇÈ%ÖÈÖÏ†ÜÄÏ,
„ ÎÏ ~ÈÜÖÏ †,ÜÖÏ†ÜÈ~ÄÖÈÈ.

Playing back a tape

ÇÖÖÖ ÓÉÁ,Â%ÂÏËÂ ÎÂÏÚ°

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.

ê±ÁÎË~ì°Â ÂËËÏ°

,ÓÖÖ ÓÉÁ,Â%ÂÏË

Ñîî Ò ÖÖÏÓÚ ± ÎÄÖÖ%,ËËÏÓ,Ó ÉÁ· ±ÊÂÏË

(Ô±ÚÁ±,ÓÖÖ ÓÉÁ,Â%ÂÏË)

Ç±ÊÏËÚÂ ÎÖÖÏÚ **II** , Ó , ÂÏî

,ÓÖÖ ÓÉÁ,Â%ÂÏË. Ñîî ,ÓÁÓ·ÏÓ,ÎÂÏË

,ÓÖÖ ÓÉÁ,Â%ÂÏË Î±ÊÏËÚÂ ÎÖÖÏÚ **II** ÊÏË **▷**.

Ñîî ÓÚ°ÒÏ±ÏË ÊÂÎ±ÂÏÓ,Ó

Ú ±,ÎÂÏÚ± (ÓÖËÓÏ ÉÁÓ· ±ÊÂÏË)

ÑÂ Ê±Ú, Î±Ê±ÚÓË ÎÖÖÏÚ **◀◀** ÊÏË **▶▶** ,Ó

, ÂÏî ,ÓÖÖ ÓÉÁ,Â%ÂÏË. Ñîî ,ÓÁÓ·ÏÓ,ÎÂÏË

ÏÓ Î±Ï,Ï,Ó,ÓÖÖ ÓÉÁ,Â%ÂÏËÓÚÖÚÖÚËÚ,

ÎÖÖÏÚ.

Ñîî ÍÓÏÚ ÓÏî ÉÁÓ· ±ÊÂÏË Ì±, °ÒÓÍÓË

ÓÍÓ ÖÖÚË, Ó , ÂÏî ÙÖÏÓ ÂÏÏË ÓÂ ÂÏÓÚÏË

,ÓÂ Â%ÊÏË Î±±% (ÓÖËÓÏ ÎÄÚÓ%ÓÏ

Ö Ö,ÓÏ±)

ÑÂ Ê±Ú, Î±Ê±ÚÓË ÎÖÖÏÚ **◀◀** , Ó , ÂÏî

ÓÂ ÂÏÓÚÏË ÎÂÏÚ° Î±±% ÊÏË ÎÖÖÏÚ **▶▶** ,Ó

, ÂÏî ÓÂ ÂÏÓÚÏË ÎÂÏÚ°, ÓÂ Â%. Ñîî

,ÓÁÓ·ÏÓ,ÎÂÏË ÌÓ Î±Ï,Ï,Ó

,ÓÖÖ ÓÉÁ,Â%ÂÏË Î±Ê±Ú, ÎÖÖÏÚ **▷**.

è ÊÏÂ~±ÏË Í ,ÓÖÖ ÓÉÁ,Â%ÂÏËË

- Ç ±ÁÎË~ì° ÂËËÏ±, ÓÖÖ ÓÉÁ,Â%ÂÏË Ì±

´Í ±ÎÂ ÌÓ,ÚÚ ÖÖî,ËÚ,Òî ÖÓÍÓÖ° È Á,ÚÏ

·Ú%ÂÚ Ö È,ÏÚ·ÂÏ.

- ÖÖÏË ÂËËÏÔ±ÚÁ°,ÓÖÖ ÓÉÁ,Â%ÂÏË

Ö Ó%ÖÏË±ÂÚÒî 5ÏËÚÚ ÊÏË· ÓÏÂ,

,È%ÂÓÍ±ÎÂ ± ±,ÚÓÏ±ÚË·ÂÖÏË,ÓË%ÂÚ,

ÂËËÏ ÖÖÚ·ÏÓ,ÏË.

Searching for the end of the picture

èÓËÒÍ ÍÓÌ^†
ËÁÓ· †ÊÂÌËfl

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° ÍÓËÂÚÂ ÔÂ ÂËÚË ÍÍÓÌ^Ú Â†ÔËÔ†ÌÍÓË
~†ÔÚËÔÔÔÍÂ†ÔËÔËË,ÔÔÔ ÔËÂ,Â%ÂÌËfl
ÎÂÌÚ° %fl Ó·ÂÔÔÂ~ÂÌËfl ÔÍ†,ÌÓ„Ô ÔÂ ÂÍÓ%†
ÎÂË%Ú ÔÔÔÍÂ%lÂË Ô~ÂÌÓË, ÍÓÚÓ Ú, Ç°
Â†ÔËÔ†ÍË, Ë ÔÍÂ%Ú,~ÂË Ô~ÂÌÓË. ãÂÌÚ†
Ì~Ë†ÂÚ ÚÔÍÓ ÂÌÍÔ ÔÂ ÂÍ†Ú°,†Ú,Ôfl Ì†Â†%
ËËË,ÔÂ Â%„.á†ÚÂÌ ÔÔÔÍÂ%lËÂ 5 ÔÂÌÚÍ%
·Ú%ÚÚ,ÔÔÔ ÔËÂ,Â%ÂÌ°,ÂÔËË ÎÂÌÚ†
Â†ÔËÔ†Í†, ÂËËËÂ SP,ËËË ÔÔÔÍÂ%lËÂ 10
ÔÂÌÚÍ%·Ú%ÚÚ,ÔÔÔ ÔËÂ,Â%ÂÌ°,ÂÔËË ÎÂÌÚ†
Â†ÔËÔ†Í†, ÂËËËÂ LP. á†ÚÂÌ ÎÂÌÚ†
ÔÔÚ†Í†,ËË,†ÂÚÔfl, ÍÓÌ^Â Â†ÔËÔ†ÍÓ„Ô
ËÁÓ· †ÊÂÌËfl (ÔÓËÒÍ ÍÓÌ^†).
é· †ÚËÚÂ,ÌË†ÍËÂ,~ÚÓ ÚÚÍÍËfl ÔÓËÒÍ†
ÍÓÌ^† ÎÂ †·ÔÚ†ÂÚ, ÂÔËË Ç° ,°ÚÓÍÍÚËË
Ì†ÔÔÂÚÚ ÔÔÔÍÂ,°ÔÔÍÂÌËfl Ç†~ÂË Â†ÔËÔË Ì†
ÎÂÌÚÂ.

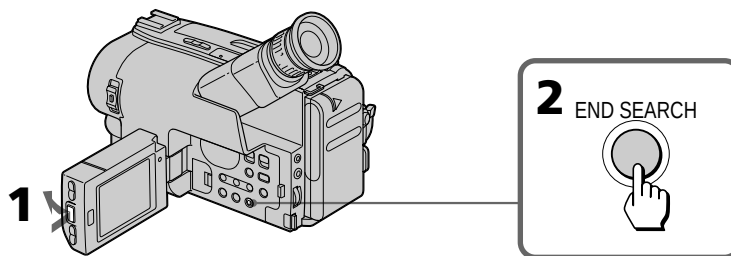
(1) Ç†ÊËË†fl PUSH OPEN, ÓÚÍ ÔËÚÂ Ô†ÎÂÌ,
ÚãÑ.

(2) Ç†ÊËËÚÂ END SEARCH.

Ñ†Ì†fl ÚÚÍÍËfl †·ÔÚ†ÂÚ, ÍÓ„%†
,°ÍÍ,~†ÚÂÌ, POWER ÚÔÚ†ÍÓ,ÎÂÌ , Î·Ú,
ËÂ ÔÔÂË~ËË,øAMERA ËËË PLAYER.

Basic operations

èÓÍÓÍ^Â ÔÔÂ †ÊË



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 DCP 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.

ìòó,â ¯Àìòú,ó,±ìì°â óôâ ±^ëë

àòôôí áó,±ìëâ ±ì,úâ ì±-
úë,ì°ì ëòúó~ìëíó, ôëú±ìëí

Ç° ÌÓÊÂÚÂ ,°·È ±Ú, Ì·ÓÈ ÊÂ
ÔÎÂ%Û~ÈÈì ÈÒÚÓ~ÌËÍÓ, ÔÈÚ±ÌËí %Ìí Ç±~ÂÈ
,È%ÂÓÍ±ÎÂ °: ±Ú± ÂÈì°È ·ÍÓÍ, ÔÂÚÂ,ÔÂ
ÔÈÚ±ÌËÂ È ±,ÚÓÍÓ·Èì,ì°È ±ÍÍÚÍííÚÓ 12/
24 Ç. Ç°·È ±ÈÚÂ ì±%ÎÂÈ±~ÈÈ ÈÒÚÓ~ÌËÍ
ÔÈÚ±ÌËí,Â±,ÈÒÈÍÓÚÈÈÓÚÓ,Ó,,%ÂÇ°
ÍÓÚÈÚÂ ÈÒÓÍ,ÂÓ,±Ú, Ç±~Ú,È%ÂÓÍ±ÎÂ Ú.

âÂÓÚÓ	àÒÚÓ~ÌËÍ ÔÈÚ±ÌËí	àÒÓÓÍ,ÁÚÂÍ~Â Ô Èì±%ÎÂÈÍÓÚÈ
Ç ÓÓÍÂ- ~ÂìÈÈ	ùÎÎÍÚ È- ~ÂÓÍ±í ÔÂÚ,	è Èì±,,±Âì°È ÔÂÚÂ,ÔÈ%±ÔÚÂ ÔÂ Âì.ÚÓÍ±
ÇìÂ ÓÓÍÂ- ~ÂìÈí	Â±Ú± ÂÈì°È ·ÍÓÍ	Â±Ú± ÂÈì°È ·ÍÓÍ (ÚÈÒ±Ni-Cd)
Ç±,ÚÓ- ÍÓ·ÈÎÂ	Â,ÚÓÍÓ·Èì,ì°È ±ÍÍÚÍííÚÓ 12 Ç ÈìÈ 24 Ç	ÂÍÓÍÓÓÚ.ÚÓÍ± DCP-77 Sony

è ÈìÂ~±ìËÂ Í ÈÒÚÓ~ÌËÍ±Ì ÔÈÚ±ÌËí
éÚÓÓÂ%ÈìÂìËÂÈÒÚÓ~ÌËÍÓ,ÔÈÚ±ÌËí ÈìÈ
ÒííÚËÂ·±Ú± ÂÈìÓ,,Ó·ÍÓÍ±,Ó, Âìí Â±ÔÈÒÈ
ÈìÈ,ÓÓÓ ÓËÂ,Â%ÂìÈíÍÓÊÂÚÓÓ,Â%ÈÚ,
,ÓÚ±,ÎÂìÚ, ÎÂìÚÚ. ÔÓìÈ Ú±ÍÓÂ ÒÍÚ~ÈÚÒí,
,ÓÒÓÚ±ÍÓ,ÈÚÂ ÈÒÚÓ~ÌËÍ ÔÈÚ±ÌËí ÎÂìÂ%ÎÂìÓ.



ç±ÔÚÓí~ÈÈ Âìí Úí±Â°,±ÂÚ, ~ÚÓ
%±ì±íí Ó Ó%Úí~Èí íí,ííÂÚÒí
ÔÓ%ÎÈìÍÓÈ Ô Èì±%ÎÂÈÍÓÚÚ,
,È%ÂÓÓ Ó%Úí~ÈÈ Sony.ÔÒìÈÇ° ÓÓÍÚÔ±ÂÚÂ
,È%ÂÓÓ Ó%Úí~ÈÈ Sony, ÚÓ Ì° ÂÍÓÍÂì%ÚÂì,
~ÚÓ·Ç° ÓÓÍÚÔ±ìÈ Ô Èì±%ÎÂÈÍÓÚÈ ÓÓ
Âì±ÍÓÍ "GENUINE VIDEO ACCESSORIES."

Using alternative power sources

àÒÒÓÎ,ÁÓ,†ÌÊÂ †Î,ÚÂ Ì†ÚË,Ì°
ÈÒÚÓ~ÌÊÍÓ, ÒËÚ†ÌÊÎ

Using the mains

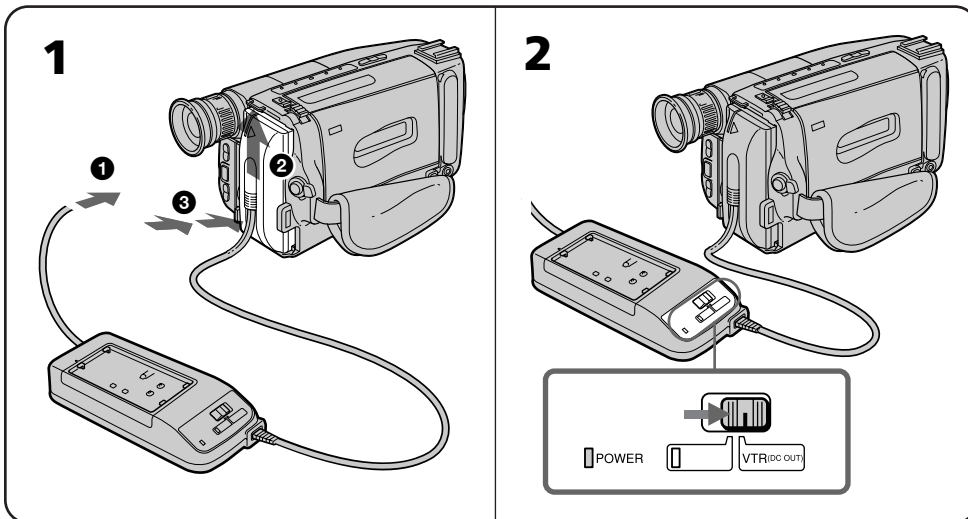
To use the supplied AC power adaptor:

- (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).

àÒÒÓÎ,ÁÓ,†ÌÊÂ ~ÌÁÍÚ È~ÀÒÍÓÈ ÒÀÚË

ÑÎÎ ÈÒÒÓÎ,ÁÓ,†ÌÊÎ Ò ÈÎ†,†ÀÎÓ,Ò ÒÀÚÀ,Ó,Ò
†%†ÒÚÀ †ÒÀ ÆÌ.ÚÓÍ†:

- (1) èÒ%ÒÒÀ%ÈÌËÚÀÒÀÚÀ,ÒÈÒ Ó,Ó%ÒÀÚÀ,ÒÈ
ÒÀÀÚÌÀ. ÇÒÚ†,ÚÀ,À ÌÈÈ ÍÒÌÀ~
ÒÒÀ%ÈÌËÚÀÌ ÌÓÈÒ†ÒÚÈÌÒÀÚÀ,Ó,Ò
†%†ÒÚÀ † ÒÀ ÆÌ. ÚÓÍ†,À Ì,~†ÒÚ,
~Ú† ÆÌÓÈÚÒÚ†ÍÓ,Ó~ÍÓÈÒÓ,À ÌÍÒÚË.
ç†ÈÌËÚÀ Ì† ÒÒÀ%ÈÌËÚÀÌ ÌÚ,Ò†ÒÚÈÌÚ,
Ú†Ì,~ÚÓ.° Ò† Ò ÈÒÒÀ%ÈÌÊ†Ò, Ì†%ÀÈÌÓ.
Ì·À%ÈÚÀÒ,,~ÚÓ.° Ç° ÒÒÌ~†ÌÈ ~ÀÌ~ÓÍ
%,†È%°.
- (2) ÌÒÚ†ÍÓ,ÈÚÀ ÒÀÌÁÍÚÓ,ÒÓÍÓÈÀÌÈÀ 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.

èèÕÑìèèÖÜÑÖçàÖ
èÀÚÀ,ÒÈÒ Ó,Ó%ÒÌÀ%ÚÀÚÀ ÆÌÁÌÎÌÚ,ÚÓÍ,ÍÓ,
Ì†ÒÚÀ ÒÍÓÈ Ì,†ÌËÚÈ~È Ó,†ÌÒ,Ò
Ó·ÒÍËÈ,†ÌÊÎ.

èèÕÑèèÍÖèÖÜÖçàÖ
Ñ†ÌÌÈ †ÒÒ† †Ú ÌÀ ÒÚÌ~†ÀÚÒÍ ÒÚ
ÈÒÚÓ~ÌÊÎ ÒÈÚ†ÌÊÎÒÀ ÆÌ. ÚÓÍ†,ÒÓÍ† ÒÌ
ÒÒ%ÒÒÀ%ÈÌÁÌÌ~ÌÁÍÚ È~ÀÒÍÓÈÒÀÚË,%†ÈÀ
ÀÒÈ Ò† àÒ† †Ú ÒÚÌ,~ÀÌ.

Advanced operations

ÌÒÒ,À~ÀÌÒÚ,Ó,†ÌÌ°À ÒÒÀ †ÈÈ

Using alternative power sources

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.

àÒÒÓÎ, ÁÓ, ìÈÂ ìÛÚË, ìÛ
ÈÒÚÓ~ÌÈÍÓ, ÒÈÚ~ÌÈÍ

è ÈÌÂ~ÌÈÍ Ì ÌÛÛÓ~ÌÂ POWER

- àÛÛÓ~ÌÂ POWER ·Û%ÂÛ ÓÒÚ, ìÛ, ÒÛ
„Ó ÌÂ ÌÛÓÂ-ÚÓ, ÂÛ, %ÊÂ ÂÒÈÈ ìÒÒ ìÛ
·Û%ÂÛÓÚÓÓÂ%ÈÌÂÛÓÒÛÂÈÒÓÓÎ, ÁÓ, ìÈÍ.
ùÚÓ Ì, ÌÛÂÛÓÛ ÌÓ ÌÛ, ÌÛ.
• ÒÒÈÈ ÌÛÛÓ~ÌÂ POWER ÌÂ Á, Ó ìÛÓÛ,
ÚÒÚ~ÌÓ, ÈÚÂ ÓÂÌÂÛÓ, ÒÓÛÈÈÂÈÂ VTR (DC
OUT) ÈÓÚÓÓÂ%ÈÈÈÚÂÂÂÚÂ, ÓÈÓ Ó, Ó%.
è È·ÈÂÈÚÂÛ ÌÓ ~Â ÂÂ Ó%Û ÌÈÛÚÚ ÒÍÓ, ì
ÓÓ%ÓÓÂ%ÈÈÈÚÂÚÂ, ÓÈÓ Ó, Ó%.

ÑÛÛ ÒÛÛÚË ì%~ÓÚÂ ì

Â%~ÓÚÂ ÒÈÈ~ÂÚÒÛ ÛÛÈÈÈÂ Ó· ìÁÓÛ, ÌÛÈ
·Û ìÂÈ°È ·ÌÓÛ.

àÒÒÓÎ, ÁÓ, ìÈÂ ìÛÚÓ·ÈÌ, ÌÓ, Ó
ÛÛÛÛÛÛÛÛÛ ì

àÒÒÓÎ, ÁÚÈÚÂ·ÌÓÛÓÒÚ. ÚÓÛ Ì DCP-77 Sony
(ÌÂ Ò ÈÛ, ìÛÓÛ). èÓ%ÓÓÂ%ÈÈÈÚÂ ÌÛ ·ÌÓÛ
ÓÒÓÚ. ÚÓÛ Ì, ÌÂÂ%ÚÓÈ, ìÂÛÓ, Ó
Ó ÈÛ È, ìÛÂÛ ì, ÚÓÛÓ·ÈÛ (12 Ç ÈÈÈ 24 Ç).
èÓ%ÓÓÂ%ÈÈÈÚÂ·ÌÓÛÓÒÚ. ÚÓÛ Ì
ÚÒÚ~ÌÓ, ÓÛÓÈÒÓ, Â ÌÒÒÚÈ·Û ìÂÈ
·È%ÂÓÛ~ÌÂ °.

ÑÛÛ ÒÛÛÚË Ì·ÌÓÛ ÓÒÓÚ. ÚÓÛ ì
ÂÛÓÛÓÒÚ. ÚÓÛ ÒÈÈ~ÂÚÒÛ ÛÛÈÈÈÂ
ÓÒÓÓÓ·ÓÛ, ÌÛÈ ì·Û ìÂÈ°È·ÌÓÛ.

Changing the mode settings

ÀÁÏÂÏÂÏËÂ ÂËËÏÏ
ÛÒÚ±ÍÓ,ÓÍ

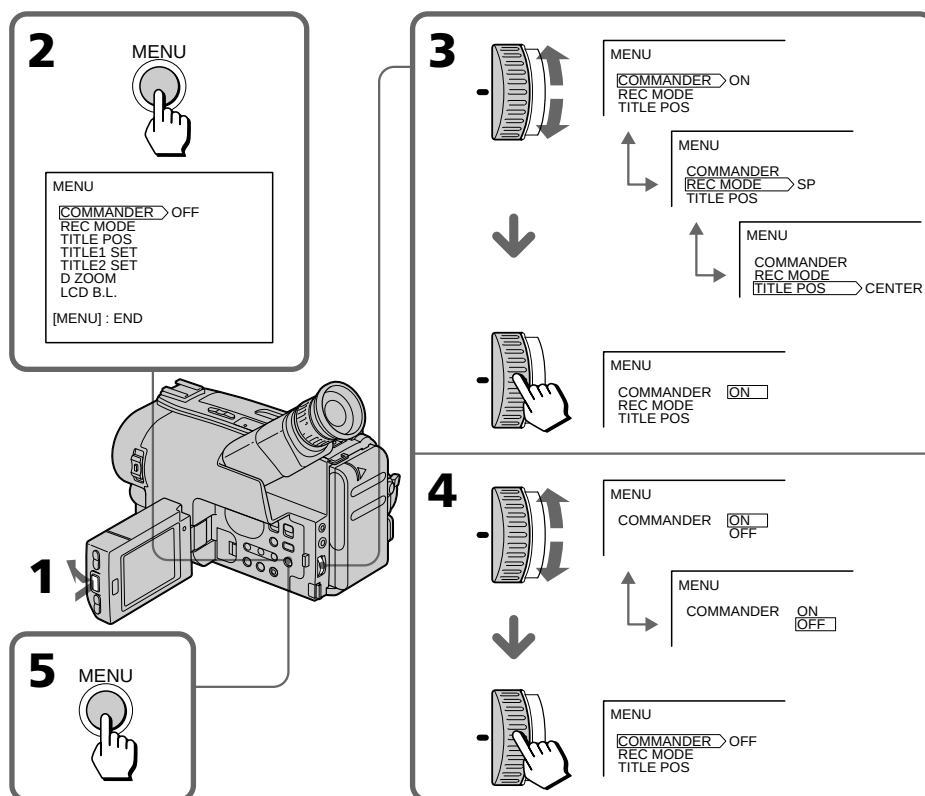
You can change the mode settings to further enjoy the features and functions of the camcorder.

- (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.

Ç° ÌÖËÄÜÂ ËÄÏÄÏÜ, ÛÒÚ±ÍÓ,ÏË ÂËËÏÓ,
%ÍÏ Ì±ÖÍ±Ë%ÄÏËÏ %ÖÖÖÏËÜÄÏ,Ï°ÏË
Ò,ÖËÖÜ,±ÏË Ë ÛÏÏÏËÏÏË ,Ë%ÄÖÍ±ÏÄ °.

- (1) Ç±Ë±, ÏÖÖÏÜ PUSH OPEN, öÏpoËÜe
ÖaleÏ, ÜaÑ.
- (2) Ç±ËÏËÜÄ ÏÖÖÏÜ MENU %ÍÏ ÖÜÖ· ±ËÄÏËÏ
ÏÄÏ.
- (3) èÖ,Ä ÏËÜÄ Ä,ÛÏË Ö,Ö°ÏË %ËÖÏ, ~ÜÖ°
°, ±Ü, ÊÄÏ±Ä°Ë ÖÏÏÜ, Ë Ì±ËÏËÜÄ
%ËÖÏ.
- (4) èÖ,Ä ÏËÜÄ Ä,ÛÏË Ö,Ö°ÏË %ËÖÏ, ~ÜÖ°
°, ±Ü, ÊÄÏ±Ä°Ë ÂËËÏ, Ë Ì±ËÏËÜÄ
%ËÖÏ.
- (5) Ç±ËÏËÜÄ ÏÖÖÏÜ MENU, ~ÜÖ° Û%±ÏËÜ,
ËÏ%ËÏ±ËË ÏÄÏ.

Advanced operations
ÏÖ,Ä -ÄÏÜ,Ö,±Ï°Ä ÖÖÄ ±ËË



àÁĬÂĬÂĬËÂ ÂÊËÏ° ŨÒÚ‡ìó,óí

Ç°·Ó ÛÒÚ‡ÌÓ,ÍË ÂÊË‡ ÔÓ
Í‡Ê%ÓÏÛ ÔÛÍÍÚÛ

èÛìíú° %oîfl ÂÊËÏÓ, CAMERA È
PLAYER

èiãuí ìêÄÇãÖçàü COMMANDER <ON/
OFF>

- iòU+ìO,ÈUÀ , ÒOÍÓÊÀÌÈÀ ON, ÀOÌÈ Ç°
 ÓOÍÙÀÙÀÙÀO, Ò ÈÌ±,±AÌ"Í Í ,È%AOÍ+ÌÀ ÌÀ
 ÔÚÌ,ÚOÍ%ÈOÙ+Ì"ÈÒÌÌ,Ó ÛÔ ±ÌÀÌÈÌ.
- iòU+ìO,ÈUÀ , ÒOÍÓÊÀÌÈÀ OFF, ÀOÌÈ Ç° ÌÀ
 ÈOÓOÍ,ÀÙÀÙÀOÙÌ,Ú%ÈOÙ+Ì"ÈÒÌÌ,Ó
 ÛÔ ±ÌÀÌÈÌ.

àìååÖêçõâ ëàÉçÄã BEEP* <ON/OFF>

- IOU+IO, EUA, OOIOEAE ON, UO.
AUIA I'A A, UIO, A OE, I+I A, U+IE,
IO, % C I+IE+AU/A+I+IE, +AU A+OE, E
UO.
- IOU+IO, EUA, OOIOEAE OFF, IO, % C IA
IOUEAE OI+U, AUIA I'E A, UIO, OE
OE, I+I.

ÜäÑ LCD B.L.* <BRT NORMAL/BRIGHT>

- ÔÖÏÊ Ç° ; ·Ä ÄÚÄ BRT NORMAL, Ò ÓÍ
 ÔÏÛÊ° ·Ú± ÄÊÏÊ ÒÚ±ÏÄÛ Ì± 10% %ÖÏ, ~Ä,
 ~ÄÏ, ÒÏÛ±Ä, ÌÖ, %± Ç° ·Ä ÄÚÄ BRIGHT.
 • Ç° Ä ÄÚÄ BRIGHT, ~ÚÖ° Ò%ÄÏ±Û, "í ±
 ÚÄ Ñ ÏÄ, ÒÏÛ±Ä Ò ÄÏÏÏ/
 , ÖÖÖ ÖËÄ, Ä%ÄÏÏÏ, ÌÄ ÖÖÏÄ~ÄÏÏÏ.

èÛìíÚ° ÓÓî,íÓ %îfl ÂÊËÏ‡ CAMERA

êÖÜàå áÄèàëà REC MODE* <SP/LP>

- Ç°·Â ÊÛÂ SP %0İfl Â±ÖÊÖÈ ÎÂİÛ°, ÂÊÊËÂ SP(ÖÛ±İ±± ÜİÖÂÖÖÖ ÖÊÂ,Â%ÂÎÊÂ).
- Ç°·Â ÊÛÂ LP %0İfl Â±ÖÊÖÈ ÎÂİÛ°, ÂÊÊËÂ LP(Ö Ö°ÖİÊÊÛÂÎ İÖÂÖÖÖÖ ÖÊÂ,Â%ÂÎÊÂ).

cÃÑèàëú TITLE POS* <CENTER/BOTTOM>

- Ç°·Â ÈÚÂ CENTER %0İfl ±İÃ~ÂİÈİfl İ±%0ÏÈÒÈ
ÓÓÒ Â%0ÈİÄÉÁÓ· ±ÈÂİÈİfl.
- Ç°·Â ÈÚÂ BOTTOM %0İfl ±İÃ~ÂİÈİfl
İ±%0ÏÈÒÈ.İÉÁÛÉÁÓ· ±ÈÂİÈİfl.

```

ìëíÄçéÇäÄ  çÄÑèàèà 1 TITLE1 SET*/

```

ieiÄcéÇäÄ çÄÑèàèà 2 TITLE2 SET*
á†IÂÖÈÚÂ , Ô†İflÚ, Ç†Ē È ÓÓ·ÓÚ,Âİİ°Â
İ†%ÖÈÖĒ.

ÍÂÇÊÎÉÄÃÑÀÜ D ZOOM* <ON/OFF>
(ÚÓÍ.ÍÓ İÖ%ÂÎ, CCD-TRV24E)

- Ç°·Â ÊÚÂ ON %ÎÎ, ÎÎ·ÂÎÈÎ·ÊÙ Ó,ÔÈ Û ðÌÙÙÓÍ·ÊÊ.
- Ç°·Â ÊÚÂ OFF %ÎÎ, ÎÎ·ÂÎÈÎ·ÊÙ Ó,ÔÈ Û ðÌÙÙÓÍ·ÊÊ. ÇÊ%ÂÓÍÍÂ ð, Â ÎÂÙÒÎ Í 15- Í ðÚÓÈ Û ðÌÙÙÓÍ·ÊÊ.

Changing the mode settings

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.

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

REC LAMP* <ON/OFF>

- Ç·À ÈÚÀ OFF, ÅÖÏ Ç·ÌÀ ÌÓÚÈÚÀ, ~ÚÓ·, Ò·À·È, Ì·Ò·, Ì·Ò·Ò·Ì·À·ÖÈ·Ú·ÀÈ, È·ÅÖÏ·ÌÀ·Ò·À·À·È·ÓÚ·Ò·, Ò·Ú·.
- é·~Ò·, Ò·È·À·Ú·Ò· ON.

AUTO DATE* <ON/OFF>

- Ç·À ÈÚÀ ON %·Ì·À·ÖÈ·%·Ú·, Ú·À·È·À·10·Ò·Ì·%·Ò·Ò·Ì·Ì·À·À·ÖÈ·.
- Ç·À ÈÚÀ OFF, ~ÚÓ·, Ì·À·À·ÖÈ·, Ú·, %·Ú·.

CLOCK SET*
Ì·È·À·Ç·Ç·À·Ò·È·Ç·CLOCK SET*
Ì·Ó·Ú·Ò·È·Ú·À·À·Ì·Ò·, Ò·%·Ú·È·È·, Å·Ì·.

DEMO MODE* <ON/OFF>

- Ç·À ÈÚÀ ON, ~ÚÓ·, Ò·Ò·Ì·, Ì·Ì·Ò·, %·À·Ò·Ò·Ú·.
- Ç·À ÈÚÀ OFF, ~ÚÓ·, Ì·À·Ò·Ò·Ì·, Ì·Ì·Ò·, %·À·Ò·Ò·Ú·.

* Ò·Ú·È·Ú·Ò·Ú·Ò·, Ì·È·Ò·Ò·, Ì·Ì·, Ú·Ò·Ì·%·È·À·Ò·Ò·Ì·À·Ò·Ì·Ú·È·Ì·, Ú·À·À·È·Ò·, Ò·Ì·Ì·, ÅÖÏ È·È·Ú·È·, Ì·Ú·À·È·Ì·, Ú·%·À·Ú·Ò·Ú·, Ú·, Ò·Ì·Ì·Ì·À·Ò·Ú·.

È·È·À·~Ì·È·Ì·Ò·Ú·Ò·È·Ú·À·Ì·Ò·
%·À·Ò·Ò·Ú·~È·Ò·Ì·Ò·, Ò·À·È·È·Ì· DEMO MODE

- Ç·À·, Ò·%·À·È·À·, Ú·Ú·, È·Ú·À·Ì·À· DEMO MODE
Ú·Ò·Ú·Ì·Ò·, Ì·À·, Ò·Ò·Ò·È·À·È·À· STBY, È·%·À·Ò·Ò·Ú·~È·Ì·Ì·Ì·À·Ú·Ò·È·À·Ì·Ò·~À·À·10
Ì·È·Ú·Ò·Ò·Ò·Ì·À·Ú·Ò·Ú·Ì·Ò·, Ì·È·, Ì·Ì·, ~Ú·À·Ì·
POWER, Ò·Ò·Ò·È·À·È·À· CAMERA·À·
Ú·Ò·Ú·Ì·Ò·, Ì·È·Ì·Ò·À·Ú·.
- é·, Ú·Ú·È·À·, Ì·È·Ì·È·À·, ~ÚÓ· Ç·Ì·À·Ì·Ò·È·À·Ú·À·, Ò·, Ú·, Ú·Ò·Ú·Ì·Ò·, Ì·Ú· STBY
%·À·Ò·Ò·Ú·~È·Ò·Ì·Ò·, Ò·À·È·È·Ì· DEMO MODE,
Ò·È·Ò·Ú·À·Ì·À·Ì·.
- Ç·Ì·À·Ì·Ò·È·À·Ú·À·, Ò·, Ú·, %·À·Ò·Ò·Ú·~È·Ò·Ì·È·
À·È·È·Ì· DEMO MODE, ÅÖÏ, È·%·À·Ò·Ì·Ì·À·Ú·
Ò·Ú·, Ì·À·Ì·Ì·Ì·Ò·À·Ú·.
- Ò·Ò·È· Ç·, Ò·Ú·, È·È·Ì·Ì·Ò·À·Ú·, Ò·, Å·Ì·
%·À·Ò·Ò·Ú·~È·È·, Ú·Ò·%·À·Ò·Ò·Ú·~È·Ì·Ú·%·À·
Ò·Ò·Ú·Ì·Ò·, Ì·À·Ì·. Ç·Ì·Ò·È·À·Ú·À·Ì·~Ú·, À·À·ÖÈ·, Ì·Ì·
Ò·~Ì·Ò·. Ñ·À·Ò·Ò·Ú·~È·Ò·Ì·È·À·È·Ì· DEMO
MODE, Ú·Ú·Ò·Ì·Ú·È·À·Ò·È·, À·Ì·À·Ú·Ò·, STBY.

Ñ·Ì·Ì·Ì·À·Ì·À·%·À·Ì·Ò·, Ò·Ò·Ò·Ò·Ú·
%·À·Ò·Ò·Ú·~È·È·

Ç·Ì·, Ú·À·Ì·Ò·À·Ú·, Å·Ò·È·Ò·Ì·, Ò·Ú·, Ì·À·Ì·.
Ç·À·È·Ú·À· ON %·À·Ò·Ò·Ú·~È·Ò·Ì·Ò·, Ò·À·È·È·Ì·
DEMO MODE. Ì·%·Ì·È·Ú·À·È·Ì·%·È·Ì·~È·È·Ì·À·.
Ç·Ì·Ì·À·Ú·Ò·Ì·%·À·Ò·Ò·Ú·~È·È·.
Ò·Ò·È· Ç·, Ì·Ì·, È·Ú·À·, È·%·À·Ò·Ì·Ì·À·Ú·, À·È·È·Ì·
DEMO MODE, Ú·Ú·Ò·Ì·Ú·È·À·Ò·È·, À·Ì·À·Ú·Ò·, Ò·Ò·Ò·È·À·È·À· STBY.

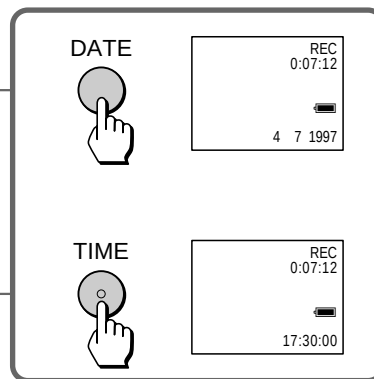
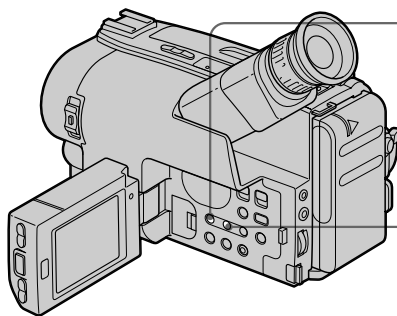
Recording with the date or time

á±ÖÈÒ Ò%±ÚÓÈÈË
, ÂÏÂÏÂÏ

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% ÚÃÏ, ÍÍ Í±Ú, Á±ÖÈÒ, ÈËÈ, Ó, ÂÏÏ
Á±ÖÈÒÈ Í±ÈËÈÚÃ ÏÍÓÓÏÚ DATE ÈËÈ TIME ÓÓ%
Ô±ÏÃÏ, ÚãÑ. Ç° ÍÓÈÁÚÃ Á±ÖÈÒ±Ú, %±ÚÚ
ÈËÈ, ÂÏÏ, ÓÚÓ. ±È±ÃÏ°Ã Í± ÑÍ ±ÏÃ ÚãÑ
ÈËÈ, È%ÖÈÒÍ±ÚÃÏ, ÏÃÓÚÃ Ò
ÈÁÓ. ±ÈÃËÈÃ. Ç° ÏÃ ÍÓÈÁÚÃ Á±ÖÈÒ°, ±Ú,
%±ÚÚ È, ÂÏÏ Ó%ÏÓ, ÂÏÃÏÓ. à ÓÏÃ
ÈÏ%ÈÍ±ÚÓ ± %±Ú° ÈËÈ, ÂÏÃËÈ, ÏÈÍ±ÍÓÈ
%Ú, ÓÈÈÏ%ÈÍ±ÚÓ Á±ÖÈÒ°, ±Ú, ÓÏÃ. Ú%ÃÚ.
ó±Ò° ÚÒÚ±ÏÓ, ÏÃÏ° Í± Á±, Ó%Ã Í±, ÂÏÏ
èÈ%ÏÃÏ%ÏÏ ±, ÒÚ ±ÈÈÈÓÍÓÈ È
ÏÓ, ÓÃÃÏ±%ÓÍÓÈ ÍÓ%ÃÏÈ, Í±, ÂÏÏ ÍÓÍÈÓ
%ÏÏ ÍÓ%ÃÏÈ, Ò Ó%±, ±ÃÏ°, ùÒÓÍÈÈ È Í±
, ÂÏÏ ÈÓÏÏÏ, ± %ÏÏ ÓÓÚ±Ï, Ï° ÍÓ%ÃÏÈ. Ç°
ÍÓÈÁÚÃ, °ÓÏËÈÚ, ÓÓ, ÚÓ ÏÚ, ÚÒÚ±ÏÓ, ÏÚ
±ÒÓ, , ÒÈÒÚÃÏÃ ÏÃÏ.



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.

ÑÏÏ ÓÓÚ±ÏÓ, ÏÈ Á±ÖÈÒÈ Ò %±ÚÓÈÈÈÈ
, ÂÏÂÏÂÏ
Ç±ÈËÈÚÃ DATE ÈËÈ TIME ÒÍÓ, ±. àÏ%ÈÍ±ÚÓ
%±Ú° ÈËÈ, ÂÏÃËÈ ÈÒÃÃÏÚ. á±ÖÈÒ,
ÓÓ%ÓËÈÈÚ.

è ÈÏÃ±ÈÈ
Ç° ÏÃ ÍÓÈÁÚÃ ÏÍÓÈÈÚ, Ï±%ÖÈÒ, , Ó, ÂÏÏ
Á±ÖÈÒÈ %±Ú° ÈËÈ, ÂÏÃËÈ.

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.

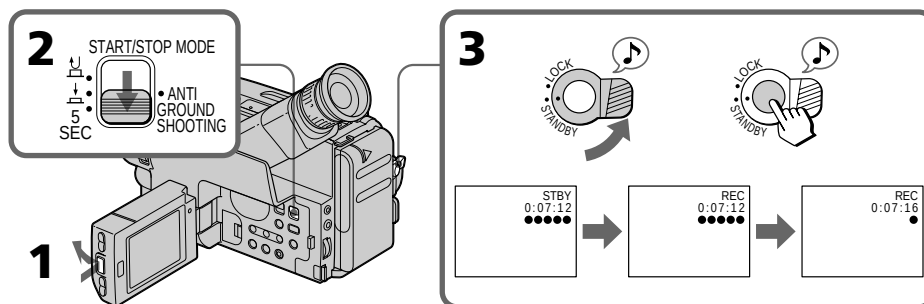
START/STOP MODE: Recording starts when you press START/STOP, and stops when you press it again (normal mode).

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). 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.

START/STOP 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.

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). 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.

Fade-in and fade-out

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]

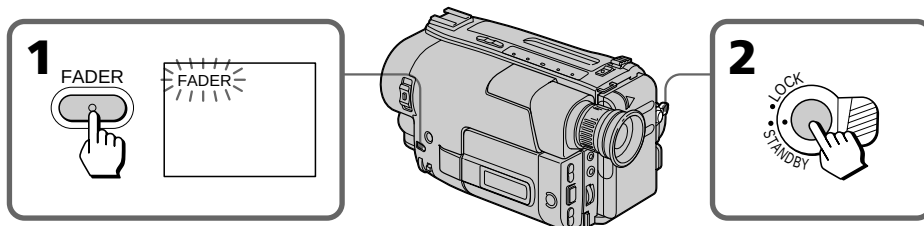
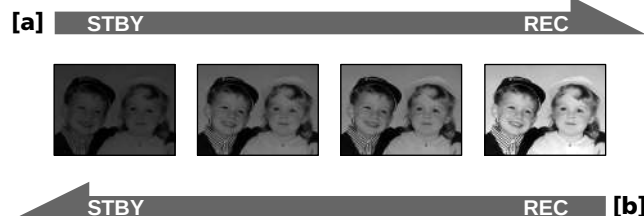
- (1) During recording, press FADER. The FADER indicator starts flashing.
- (2) Press START/STOP to stop recording. The FADER indicator stops flashing, and then recording stops.

Ç,Â%ÂÏËÂ Ë ,°,Â%ÂÏËÂ
ËÁÓ· ÷ÊÂÏËÏ

Ç° ÌÖËÂÛÂ „Ó%ËÛ, ËÏË ,°,Ó%ËÛ,
ËÁÓ· ÷ÊÂÏËÂ,ÛÓÓ Ë%÷ÓÛ÷ ÆË÷ÖËË
Ô ÒÛÂÖÖËÏ÷Ï,Ï°Ë ,Ë%.
è Ë,Â%ÂÏËËËÁÓ· ÷ÊÂÏËÂÖÖÛÂÖÂÏÖ
ÔÖÏ,ÏÏÂÛÖÏ ËÂ Æ ÌÖ,Ô Ï ÷Ï, ÷ Á,ÛÏ
ÛÖËËË,÷ÂÛÖÏ.
è Ë,Â%ÂÏËËËÁÓ· ÷ÊÂÏËÂ ÖÖÛÂÖÂÏÖ
ËÖ~ÂÁ÷ÂÛ Ë ÔÂ ÂÏÖ%ËÛ, ÆÏ°Ë Ï ÷Ï, ÷ Á,ÛÏ
Â÷ÛË÷ÂÛ.

- è Ë „Â%ÂÏËËËÁÓ· ÷ÊÂÏËÏ [a]
(1) Ç ÛÓ , ÂÏÏ, ÍÖ,%, Ë%ÂÖÏ÷ÏÂ ÷
Ï÷Ó%ËÛÖÏ, ÆËËÏÂ, ÖÛÖ,ÏÖÛË, ÏËËËÛÂ
ÏÏÖÏÛ FADER. ì%ËÏ÷ÛÓ FADER
Ï÷ÏÂÛ ÏË,÷Û,
(2) Ç÷ÊËËÛÂ ÏÏÖÏÛ START/STOP %ÏÏ
Ï÷÷Ï Æ÷ÖËË. ì%ËÏ÷ÛÓ FADER
Ô ÂÏ ÷ÛËËË,÷Û,

- è Ë ,°,Â%ÂÏËËËÁÓ· ÷ÊÂÏËÏ [b]
(1) Ç÷ÊËËÛÂ ,Ô , ÂÏÏ Â÷ÖËË ÏÏÖÏÛ FADER.
ì%ËÏ÷ÛÓ FADER Ï÷ÏÂÛ ÏË,÷Û,
(2) Ç÷ÊËËÛÂ ÏÏÖÏÛ START/STOP %ÏÏ
ÖÛ÷ÏÖ,ÏËÁ÷ÖËË. ì%ËÏ÷ÛÓ FADER
Ô ÂÏ ÷ÛËËË,÷Û, ÖÖÏÏÂ Æ,Ô Ï÷ÏÂÛÖÏ
Â÷ÖËË.



Ç,Â%ÂÈÄ Ê ,°,Â%ÂÈÄ
ËÁÓ· ‡ÊÄÈËfl

Ñîfl ÓÚĀĬ° ÛŪĬĤĒĒ „Ā%ĀĬĒfl/
 °,Ā%ĀĬĒfl ĒĀÓ· ‡ĒĀĬĒfl
 ĒĀ Ā% ŪĀĬ, ‡Ĭ ‡Ē±Ū, ĬŌŌĬŪ START/STOP,
 ‡ĒĒĒĒŪ ĬŌŌĬŪ FADER, ~ÚŌ° °,Ĭ ĤĒŪ,
 ĒĬĒĒĒŪ FADER.

Ç ÒÌÛ·±Å ÓÚÓ· ±ÊÀÌËfl ì± %ÒÈÒÌÂÂ
%±Ú´/, ÂÌÂÌË
Ñ±Ú±/, ÂÌfl ÈÌË ì±%ÒÈÒ, ÌÂ „Ò%flÚÒfl È ÌÂ
,Ò%flÚÒfl ì± ÊÂÓ· ±ÊÂÌËË.

ÖÖİĖ ÔÂ ÂĬĭ~ÚÂĬ, START/STOP MODE
 ÛÔÚ~İÖ.İÂĬ , ÖÖİÖÊÂĬĖÂ Ĭ ĖİĖ 5SEC
 Ç Ĭ İÖÊÂÚÂ ÈÖÖÖİ.ÁÖ,±Ú, ÛÔİĭĖ.
 „Â%ÂĬĖİ/„Â%ÂĬĖİ ÊÁÖ. ±ÊÂĬĖİ.

Advanced operations

ÖÖİĖ ÔÂ ÂĬĭ~ÚÂĬ, START/STOP MODE
 ÛÔÚ+İÖ.İÂĬ , ÖÖİÖÊÂĬĖÂ Ĭ ĖİĖ 5SEC
 Ç Ĭ İÖÊÂÚÂ ÈÖÖÖİ.ÁÖ,±Ú, ÛÖİİĖĖ,
 „Â%ÂĬĖİ/„Â%ÂĬĖİ ÊÁÖ. ±ÊÂĬĖİ.

35

Enjoying picture effect

àÒÒÓÎ ÁÓ,‡ÌËÂ ~ÙÙÂÍÚÓ,
ËÁÓ· ‡ËÂÌËË

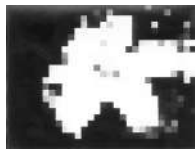
Selecting picture effect

ë ÒÓÍÓ~, ùÙÌÍ~ËË ~ÙÙÂÍÚ‡

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

Ç° ÌÓËÂÚÂ ÒÓÁ%‡,‡Ú, ËÁÓ· ‡ËÂÌËË Ì‡ Ì‡
ÚÂÌÂ,Ë%ÂÌËË.

[a]



[b]



[c]



MOSAIC [a]

The picture is mosaic.

âéáÄàäÄ [a]

àÁÓ· ‡ËÂÌËÂ Ò Á%ÒÚ‡,ÌÍÂÚÒÌ,,Ë%Â
ÏÓÁ‡ËË.

SOLARIZE [b]

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

ëëäüêääÄñàü [b]

ìÒËËË,‡ÂÚÒÌÌ ÌÓÒÚ Ò,ÂÚ‡Ë ËÁÓ· ‡ËÂÌËÂ
,,,ÌÍ%ËÚ ÒÓ%Ò-ÌÓ Ì%ÒËÂÒÚ,ÂÌÌÓË Ì‡ ÚËÌÂ.

B&W

The picture is monochrome (black and white).

óÖêçé-ÄÖäéÖ àáéÂêÄÜÖçàÖ

àÁÓ· ‡ËÂÌËÂ ÒÚ‡ÌÓ,ËÚÒÌ

ÏÓÌÓ, ÒÍ‡ÚË~ÄÒÍËË (~Â ÌÓ-ÂÌ°Ì).

SEPIA

The picture is sepia.

ëÖèàü

àÁÓ· ‡ËÂÌËÂ Ò ÁÓ· ‡ÂÚÂÚÒÌ,^ÂÚÒÂÖËË.

NEG. ART [c]

The colour of the picture is reversed.

çÖÉÄíàÇçéÖ àëàìëëíÇé [c]

àÁÓ· ‡ËÂÌËÂ Ò Á%ÒÚ‡,ÌÍÂÚÌ, ÌÂ,,‡ÚË,ÌÓÌ
^,ÂÚÂ.

Enjoying picture effect

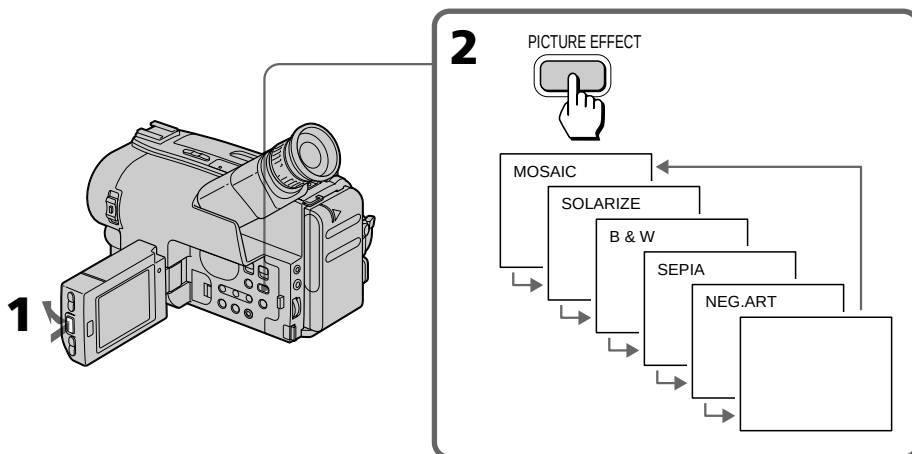
àòôôî,áó,±ìËÂ ~ùùáíúó,
ËÁÓ· ±ÊÂìËfl

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 ÔÓî,áó,±ú,òfl ùùìí~ËÂÈ
~ùùáíúó, ËÁÓ· ±ÊÂìËfl

- (1) ÑÂ Ê± ì±Ê±úÓÈ ÌÍÓÓÍÛ PUSH OPEN, ÓÚÍ ÓËÚÂ Ô±ÌÂÎ, ÛäÑ.
- (2) Ç ÚÓ, Áfl, í±í, Ë%ÁÓí±ÌÂ ± ì±íÓ%ËÚÒfl, ÆËËÌÂ „ÓÚÓ,ÌÓÓÚË, ì±ËÌËÚÂ ÌÍÓÓÍÛ PICTURE EFFECT %óÍfl, °·Ó ± ÊÂÎ±ÁÍÓ„Ó ÆËËÌ± ~ùùáíúó, ËÁÓ· ±ÊÂìËfl.



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,ìÓÍÛ ÆËËÌÛ
Ç±ËËÌ±ËÚÂ ÌÍÓÓÍÛ PICTURE EFFECT %ó ÚÂÍ
ÓÓ,ÓÓí±ËÌ%ËÌ±ÚÓ ~ùùáíúó,
ËÁÓ· ±ÊÂìËfl ÌÂ ÈÒ~ÁÁÌÁÚ.

è ËÌÂ~±ÌËÂ ÓÚÍÓÓËÚÂÎ,ìó ~ùùáíúó,
ËÁÓ· ±ÊÂìËfl
ÒÒÌË Ç°,°Í,~ËÚÂ ÒËÚ±ÌËÂ, Ë%ÁÓí±ÌÂ ±
±,úÓí±ÚËÁÓÌË,Â ÌÁÚÒfl í ìó ì±í,ìÓÍÛ
ÆËËÌÛ.

Advanced operations
ìòò,À ~Áìòú,ó,±ìí°À ÓÓÁ ±ËË

Using the wide mode function

àÒÒÓÎ,ÁÓ,†ÏÊÂ ÙÛÎÍÊË
 -Ê ÓÍÓÚÓ Í†ÚÍÓ,Ó ÂÊË†

– CCD-TRV24E only

– ÍÓÎ,ÍÓ CCD-TRV24E

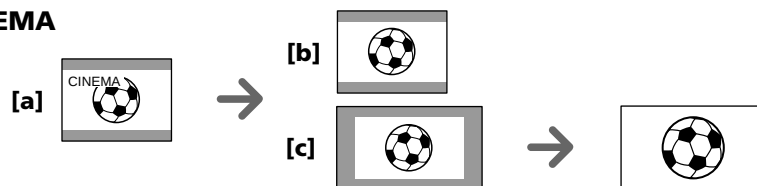
Selecting the desired mode

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

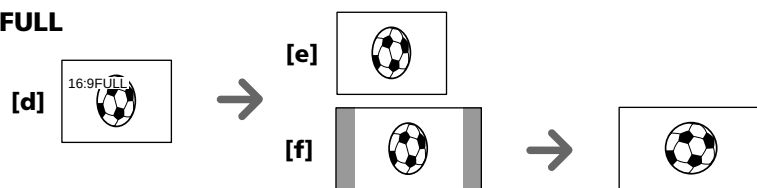
Ç°·Ó ÊÂÎ†ÂÏÓ,Ó ÂÊË†

Ç° ÍÓÊÂÚÂ Á†ÔÊÒ°,†Ú, ÊÁÓ· †ÊÂÏÊÂ
 ÓÓ%Ó·ÍÓ ÍÊÍÓÚÊÍ,†Í (CINEMA) ÊÏÊ
 -Ê ÓÍÓÚÓ Í†ÚÍÓÂÊÁÓ· †ÊÂÏÊÂÚÓ Í†Ú†
 16:9 %ÍÍ Ó ÓÓÍÓÚ † Í† -Ê ÓÍÓÍ †ÍÍÓÍ
 ÚÂÏÂ,ÊÁÓ Â Ò †ÂÏÂ ÓÍÊÍÂÒÍÓÓ† 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].

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].

CINEMA (êÖÜää ààçé)

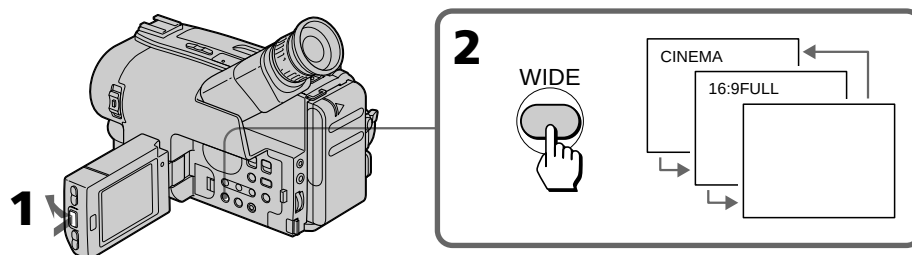
Ç,Â ÍÚ Ê ,ÏÊÂÚ Í† Í† ÓÓÍ,ÍÚÓÍ ~ÂÍ°Â
 ÓÓÍÓÒ°. ÇÊ%ÓÊÓÍ†ÚÂÏ, ÊÏÊ Í† Í† ÚÂÑ [a] Ê
 ÍÓ Í†Í,Í°Ê ÚÂÏÂ,ÊÁÊÓÍÍ°Ê Í† Í† [b] ·Ú%ÚÚ
 ÊÏÂÚ, -Ê ÓÍÓÚÓ Í†ÚÍ°Ê ,Ê%. Ç° Ú†ÍÊÂ
 ÍÓÊÂÚÂ Í†·Í,%†Ú, ÊÁÓ· †ÊÂÏÊÂ ·ÁÁ
 ~Â Í°Í ÓÓÍÓÒ Í† -Ê ÓÍÓÚÓ Í†ÚÍÓÍ
 ÚÂÏÂ,ÊÁÓ Â [c].

16:9FULL (òàêéäéíéêâÁíçðâ êÖÜää 16:9)

àÁÓ· †ÊÂÏÊÂ ,Ê%ÓÊÓÍ†ÚÂÏÂ ÊÏÊ Í† Í† ÍÂ
 ÚÂÑ [d], † Ú†ÍÊÂ Í† Í† ÍÂ ÍÓ Í†Í,ÍÓ,Ó
 ÚÂÏÂ,ÊÁÓ † [e]·Ú%ÂÚÓÊ†ÚÓÓÓ,Ó ÊÁÓÍÚ†ÏÊ.
 Ç° Ú†ÍÊÂ ÍÓÊÂÚÂ Í†·Í,%†Ú, ÊÁÓ· †ÊÂÏÊÂ
 , ÍÓ Í†Í,ÍÓÍ ,Ê%Â Í† -Ê ÓÍÓÍ †ÍÍÓÍ
 ÚÂÏÂ,ÊÁÓ Â [f].

àòôóî,áó,‡ìëâ ùûìí^ëë
-ë óíóùó ì‡ùìó,,ó âêëï‡àÒÔÓÎ,ÁÓ,‡ÌËÂ ÙÛÍÎËË
-Ë ÓÍÓÙÓ Î‡ÚÌÓ,,Ó ÂËË‡

- (1) ÑA Ê± ìÊ±ÚÓÈ ÌÓÓÌÚ PUSH OPEN,
ÓÚÌ ÓÈUÀ Ó±ÌÁ, ÚaÑ.
- (2) Ç ÚÓ, Áfl, ìì, È%ÀÓÌ±ÌÁ ì±ìÓ%ÈÚÓfl,
ÀÊÊÌÁ, ÓÚÓ,ÌÓÓÈ, ìÊÊìÈUÀÓÓ,ÚÓ ÌÓ
ÌÓÓÌÚ WIDE, Úaì, ~ÚÓ. ÓÓfl,ÈíÓfl
Èì%È±ÚÓ ÈÁìÁÌÓ,Ó ÀÊÊì.



Press **WIDE** repeatedly until the wide mode indicator disappears.

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.

- 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.

Ŋĩŋĩ 001À1° 7È 0Í0Ú0 Í7ÚÍ0„0
 ÂÊÊ1‡
 çÊÊ1ÊÚÁ 00,Ú0 Í0 1100ÍÚ WIDE, 00Í1‡
 Ê1%Ê1Ú0 7È 0Í0Ú0 Í7ÚÍ0„0 ÂÊÊ1‡ 1À
 È0Â1ÂÍÚ.

[illegible]

è ÈIÄ+îÈI ÒÚÍÓÈÚÄI,ÍÓ
 Ë ÓÍÓÚÓ Í+ÚÍÓ,Ó ÄÈÈË+
 • ÇÓ,ÄIÈ Ä+ÓÈÖÈ ÇÓ ÍÄ ÍÓÈÁÚÄ ÓÚÍÄIÈÚ,
 Ë ÓÍÓÚÓ Í+ÚÍÈ ÄÈÈ.
 • ÖÓIÈ Ë ÓÍÓÚÓ Í+ÚÍÈ ÄÈÈ ÒÚÓ+ÍÓ,ÍÄI
 ,ÓÓÍÓÈÄIÈÄ16:9FULL,ÚÚÍÈÈ
 ÚÚ+ÈIÈÄ+ÈÈ ÈÄÖ. ËÄIÄIÈI SteadyShot ÍÄ
 .Ú%ÄÚ Ë+ÓÚÚ+,ËÈ%ÈÈ+ÚÓ .Ú%ÄÚ
 IÈ,Ú.
 • è È.ÖÓÍÄIÄÈÄ Ä+ÓÈÖÈ, ÄÈÈIÄ16:9FULL
 ÈI%ÈI+ÈÈI %Ö+Ú ÈÈÈ,ÄIÄÈ.Ú%ÄÚ
 +Ö ÈÄIÖÈ Í+ Ë ÓÍÓÍ+ÍIÖI
 ÚÄIÄÈÄÖÄ.
 • Ç ÓÍÚ+ÄÈ,ÖÓÍÄIÄÈÈ %Ö.ÍÈ Ö,ÍÈÈ ÍÄIÚ+
 .Ú%ÄÚ ÍÓÈÖÈ Ö+Ú,ÚÍ,ÚÓÍ ÈÄ ÄÈÈÈÄ,ÚÓ È
 Ö ÈÈ,ÈIÈI ÍÈI Ä+ÓÈÖ.
 • ÖÄ ÄÄ5IÈIÚÚÖÖÍÄÓÚÖÖÄ%ÈIÄIÈI
 ÈÖÚÖ+ÈIÈI ÈÈÈ+ÈÈ Ë ÓÍÓÍ+ÍIÈ È ÄÈÈI
 .Ú%ÄÚ ÍIÖIÖÈ Ö,Í+ÍÚÓÍÚÈÄÖIÈ

Focusing manually

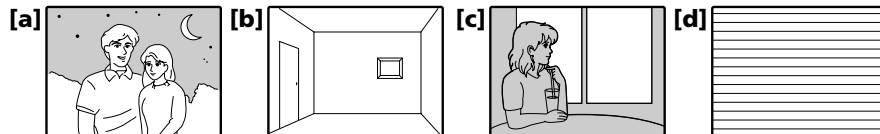
ÍÓÍÛÒÈ Ó,Í‡
, Û~ÌÛ

When to use manual focus

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

äÓ,,%‡ ÒíÄ%ÛÄÚÈÒÒÓÍ,ÁÓ,‡Ú,
Û~ÌÛ ÛÓÍÛÒÈ Ó,ÍÛ

Ç ÒíÄ%Û,~ÈÍ ÒÌÛ~‡ÍÍ Ç° ÍÓÈÄÚÄ ÒÓÍÛ~ÈÚ,
ÍÛ~ÈÄ ÄÄÛÍ,Ú‡Ú°, ,°ÓÓÍÍÍÍ Ä,,ÛÍÈ Ó,ÍÛ
, Û~ÌÛ.



- 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

- çÄ%ÒÒÚ‡ÚÓ~ÍÓÄÓÒ,Ä~ÄíÈÄ[a]
- é·ÄÍÚ° Ò ÍÈÄÍÓÈ ÍÓÍÛ ‡ÒÛÍÓÒÚ,, –
ÒÚÄÍ°, ÌÄ·Ó È Ú. Ò. [b]
- ëÍÈ~ÍÓÍ ÍÍ ÈÈÈ ÛÓÍ Ä‡ Ó·ÄÍÚÓÍ %ÍÍ
Ò·ÄÍÈ [c]
- ÉÓ ÈÄÓÍÛ‡Í Í·Ä ÒÓÍÓÒ° [d]
- é·ÄÍÚ°, Ì‡·Ì,%‡ÄÍ°Ä ~Ä ÄÄ Í‡ÚÓ,ÓÄ
ÒÚÄÍÓ
- é·ÄÍÚ°, Ì‡ÍÓ%ÍÍÈÄÒÍ Ä‡ ÒÄÚÍÓÈ È Ú.Ò.
- ù ÍÈÈ Ó·ÄÍÛ ÈÍÈ Ò Ä%ÍÄÚ, ÓÚ ‡È‡,~ÈÈ
ÒÄÚ
- ë·ÄÍ‡ ÌÄÒÓ%,ÈÈÍÓ,,Ó Ó·ÄÍÚ‡ Ò
ÈÒÒÓÍ,ÁÓ,‡ÍÈÄÍÛ ÄÍÓ,,È

Focusing manually

ἰόίϋòē ó,í† , ὀ~ἰϋ,

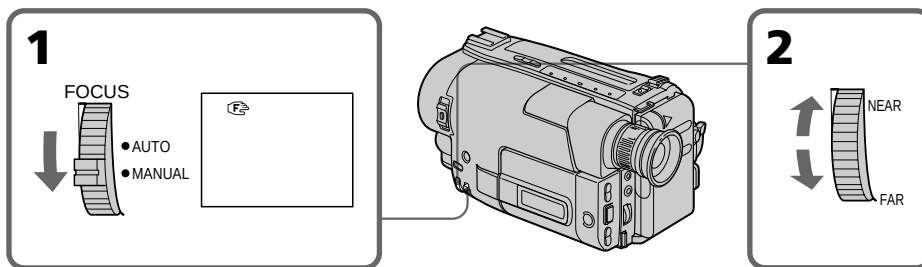
Focusing manually

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.

ἰόίϋòē ó,í† , ὀ~ἰϋ,

è È ὀóíϋòē ó,í† , ὀ~ἰϋ. òì†~†††
; °òóíēúâ ὀóíϋòē ó,íϋ , °òóíēâìēē
úâíâϋóúó ôâ %â†ôēô, † ôóúóí, °òóíēúâ
ôó,úó ìϋ, ὀòú†íó,íϋ ó·âíúē, † %í† ò·âíē.
(1) ìóú†íó,ēúâ FOCUS, ôóíôēâìēâ
MANUAL. èóí,ēúôíēì%ē†úó .
(2) èó,â ìēúâ ὀóíϋòē ὀ·ēē %ēóí %í†
ὀóíϋòē ó,íē ì† ó·âíú.
èó,â ìēúââ,ó, ôúó óíϋ NEAR %í†
ὀóíϋòē ó,íē ì† ·óíââ ·ìēâíēē ó·âíú.
èó,â ìēúââ,ó, ôúó óíϋ FAR %í†
ὀóíϋòē ó,íē ì† ·óíââ %†,ìēē ó·âíú.



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.

Ñí† , óâ, †~âìē† , âēēì
†,úóí†úē~âòíôē ὀóíϋòē ó,íē
ìóú†íó,ēúâ FOCUS, ôóíôēâìēâ AUTO.
àì%ē†úó èò~ââíâú.

ē·âí† , ôúíôòēúâì,íó úâíì°ì ìâòú†ì
ç°òóíēúâ ò·âíú , ~ē óíóú,óí,ìóí
†òòâíúâ ôóóíâ úó,ó, í†, °òóíēúâ
ὀóíϋòē ó,íϋ, °òóíēâìēē úâíâϋóúó.

Advanced operations

ìòó,â ~âìòú,ó,†ì°â óóâ †~ēē

Using the PROGRAM AE function

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.

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

PROGRAM AE

PROGRAM AE



Sports mode

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

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

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

Twilight mode

- Recording night views, neon signs or fireworks

PROGRAM AE

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

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

Using the PROGRAM AE function

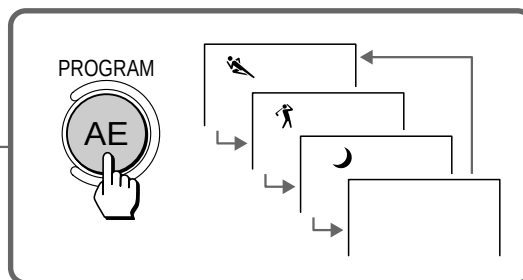
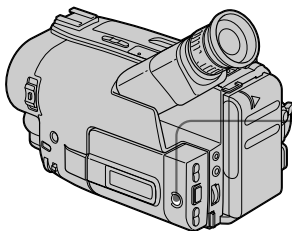
àÒÒÓÎ,ÁÓ,†ÌËÂ ÙÙÍÍˆËË
PROGRAM AE

Using the PROGRAM AE function

àÒÒÓÎ,ÁÓ,†ÌËÂ ÙÙÍÍˆËË
PROGRAM AE

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

Ç ÚÓ , Áîfl, ÍÓ,‰%† ,Ë‰%ÁÓÍ†ÌÂ †Ì†ÍÓ‰%ËÚÒfl ,
ÁËËËÌÂ „ÓÚÓ,ÍÓÒÚË, ì†ËËË†ËËÚÁ ÌÍÓÒÍÛ
PROGRAM AE, ÒÓÍ† ÌÂ ÒÓfl,ËÚÒfl ÊÁÌ†ÁÌ°Ë
ËÌ‰%ËÍ†ÚÓ PROGRAMAE.



Returning to automatic mode

Press PROGRAM AE until the PROGRAM AE indicator disappears.

ÇÓÁ, †~ÁÌËÂ Í †,ÚÓÍ†ÚË~ÁÒÍÓÍÛ
ÁËËËÛ
ç†ËËË†ËËÚÁ ÌÍÓÒÍÛ PROGRAM AE, ÒÓÍ†
ËÌ‰%ËÍ†ÚÓ PROGRAMAE ÌÂËÒ~ÁÁÌÁÚ.

Note on shutter speed

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

Sports mode – between 1/50 to 1/500

High-speed shutter mode – 1/4000

Twilight mode – 1/50

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

è ËÌÂ~†ÌËÂ Í ÒÍÓ ÒÓÚË Á†Ú,Ó †
êÍÓ ÒÓÚ, Á†Ú,Ó †, ì†Ë‰%ÓÍ ÁËËËÌÂ
PROGRAM AE fl,ÍflÁÚÒfl ÒÌÂ‰%Û, ~ÁË:
èÒÓ ÚË,ì°Ë ÁËËË – ÌÂË‰%Û 1/50 È 1/500
èÁËËË,°ÓÍÓÒÍÓ ÒÓÚÍÓ,Ó Á†Ú,Ó † –
1/4000
èÁËËË ÒÓÚÌÂ ÁÍ – 1/50
èÁËËË AUTO – 1/50 (ËÌË 1/100, ÂÒÌË
„Ì, ~ÁÌ† ÙÙÍÍˆËfl ÙÙÚÓËË~Ë,ÓË ÒˆÁÌË –
ÚÓÍ,ÍÓ CCD-TRV24E).

Advanced operations

ÌÒÓ,Á – ÁÌÒÚ,Ó,†Ì†°Á ÓÓÁ †ˆËË

Shooting with backlighting

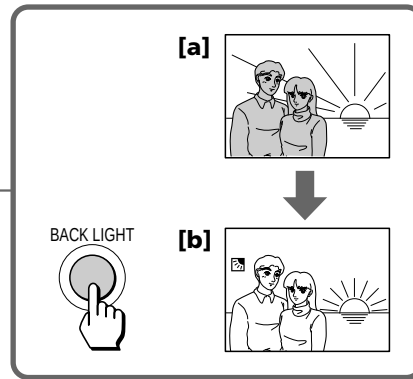
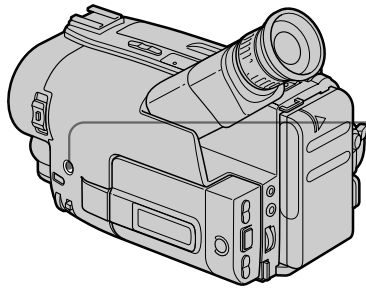
Shooting with backlighting

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

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

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

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



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

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

After shooting

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

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.

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.

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

- 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.

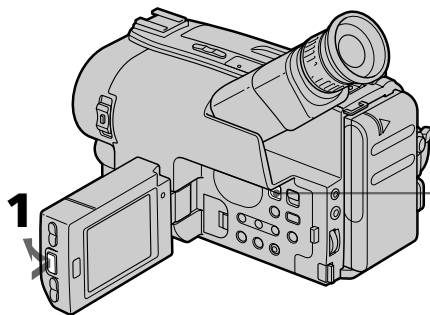
Releasing the STEADY SHOT function

– 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.

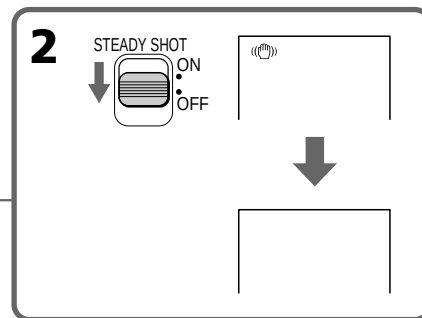
STEADY SHOT

— ÍÓÎ,ÍÓ CCD-TRV24E

è È °ÓÓÎÀÏÈÈ Ò ÀÏÈ ÓÓÎ,ÈÚÒÎ ÈÏ%ÈÏÚÓ “  ”. ùÚÓ ÓÁÏ±ÁÚ,~ÚÓ ,ÍÎ ~ÀÏ± ÙÚÎÏÈÏ SteadyShot È ±ÓÓ± ±Ú ÍÓÍÓÀÏÈÈ ÚÁÚÓÓ% ±,È,±ÈÄ,È%ÁÓÏ±Ä °.

Ç° ÍÓÈÁÚÄ ÓÚÎÀÏÈÚ, ÙÚÎÏÈ SteadyShot, ÀÒÏÈ ÄÚ ìÙÈ%° ÈÒÓÓÎ,ÁÓ,±Ú, ÙÚÎÏÈ, ÍÓÍÓÀÏÈÈÈÈ ÓÓ% ±,È,±ÈÏ,È%ÁÓÏ±Ä °. ÇÄ ÓÄ%ÚÁÚ ÈÒÓÓÎ,ÁÓ,±Ú, ÙÚÎÏÈ SteadyShot Ò È Ò ÀÏÄ ÄÄÓÓ%,ÈÈÏ° Ó·ÀÏÚÓ, Ò ÓÓÍÓ°, Ù ÀÏÓ,È.

- (1) Ç±È±,ÍÓÓÓÏÛ PUSH OPEN, ÓÚÎ ÓÈÚÄ Ò±ÄÏ, ÚÄÑ.
- (2) ìÙ±ÍÓ,ÈÚÄ STEADY SHOT , ÓÓÍÓÈÄÏÈÄ OFF. àÏ%ÈÏÚÓ “  ” ÈÒ~ÁÄÄÚ.



ÑÏÎ ÚÓ,Ó, ~ÚÓ° Á±%ÄÈÒÚ,Ó,±Ú, ÙÚÎÏÈ SteadyShot çÌÓ,±. ìÙ±ÍÓ,ÈÚÄ STEADY SHOT , ÓÓÍÓÈÄÏÈÄ ON.

è ÈÄ~±ÈÏ ÓÚÎÓÈÈÚÄÏ,ÍÓ ÙÚÎÏÈ SteadyShot

- ìÚÎÏÈ SteadyShot ÄÄ Ï,ÏÄÚÏ ~ÚÁÏÚ,ÍÓÈ %ÏÏ ~ ÄÄÄ ÍÓ,Ó ÓÓ% ±,È,±ÈÏ,È%ÁÓÏ±Ä °.
- è È ,ÍÎ ~ÀÏÈÈ ÈÈÈ °ÍÎ ~ÀÏÈÈ ÙÚÎÏÈ SteadyShot,ÓÁÍÓÈÍÓ ÓÓ% ±,È,±ÈÄ Ï±.
- è È °ÓÓÎÀÏÈÈ Á±ÈÈÈ, ÄÈÈÄ 16:9FULL ÙÚÎÏÈ SteadyShot ÄÄ ±·ÓÚ±ÁÚ, ±ÈÏ%ÈÏÚÓ “  ” ·Ú%ÁÚÏÈ,±Ú.

Superimposing a title

ç±İÓÊÂİÊÂ İ±%ÔÊÒË

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

To superimpose from the beginning

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

To superimpose on the way of recording

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

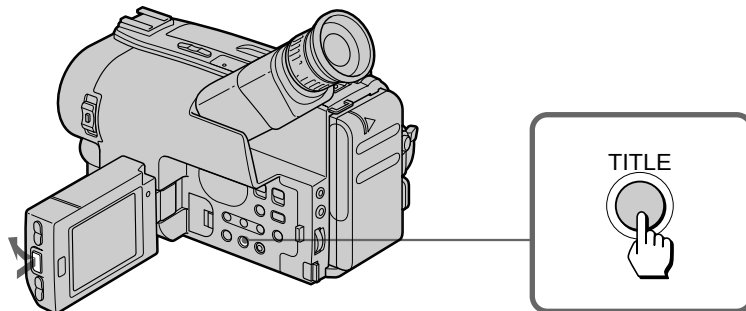
Ç° İÓÊÂÛÂ , ° ±Ú, Ó%İÜ ÊÁ , ÓÒ, İÊ
Ô Â%, ± ÊÚÂİ, İÓ ÜÖÜ±İÖ, İÂİİ°, İ±%ÔÊÒÂÊ Ê
%, Â İ±%ÔÊÒË, ÒÓÁ%İİ° Â Ç±İÊ, İÓÚÓ ° Â
İÓÊİÖ İ±İİ±%, ±Ú, İ± ÊÁÓ· ±ÊÂİÊÂ , Ó
, ÂİİİÂ±ÔÊÒË. ÇÓİİÊÊ ±ÁÔ Êİ±Ê±ÜÊÊ
İİÓİÊ TITLE Ô Â%, ± ÊÚÂİ, İÖ
ÜÖÜ±İÖ, İÂİİ° Â İ±Â, ±İÊİİ ÖÓİİ, İİ, ÜÖİİ Ó%İÖ
Â±% Ü, Êİ.

Ñİİİ İ±İÓÊÂİÊİİ ÖÚ İ±~İ±

- (1) İÖÜ±İÖ, ÊÚÂ , °İİ, ~±Ú±İ, POWER ,
ÖÓİÓÊÂİÊÂ CAMERA.
- (2) ÊÖ, Â İÊÚÂ STANDBY „Â İ.
- (3) Ç±ÊÊİİ±İİ PUSH OPEN, ÖÚİÓÊÚÂ Ô±İÂİ,
ÜâÑ.
- (4) ÇÁÓ%İÖİ ±ÜİÖ İ±ÊÊİ±ÊÚÂ TITLE, ÖÓİİ İÂ
ÖÓİİ, ÊÜÖİİ ÊÂİ±Âİ±İİ İ±%ÔÊÒ, Ç±%ÔÊÒ,
·Ü%ÂÜİÊ, ±Ú, .
- (5) Ç±ÊÊİİÚÂ START/STOP %İİİ İ±~İ± Â±ÔÊÒË.
- (6) Ç±ÊİÊÚÂ TITLE, İÖ, %± Ç° Â±İÖÜÊÚÂ
, °İİ, ~ÊÜ, İ±%ÔÊÒ, .

Ñİİİ İ±İÓÊÂİÊİİ , Ô Ó~ÂÒÒÂ Â±ÔÊÒË

- (1) ÇÁÓ%İÖİ ±ÜİÖ İ±ÊÊİ±ÊÚÂ TITLE, ÖÓİİ İÂ
ÖÓİİ, ÊÜÖİİ ÊÂİ±Âİ±İİ İ±%ÔÊÒ, Ç±%ÔÊÒ,
·Ü%ÂÜİÊ, ±Ú, .
- (2) äÖ, %±İ±%ÔÊÒ, ÔÂ ÂÖÜ±İÂÜİÊ, ±Ú,
İ±ÊİÊÚÂ TITLE. Ç±%ÔÊÒ, ÊÖ~ÂÂİÂÜ.
- (3) Ç±ÊİÊÚÂ START/STOP %İİİ İ±~İ± Â±ÔÊÒË.
- (4) Ç±ÊİÊÚÂ TITLE, İÖ, %± Ç° ÖÓÊÂİ±ÂÜÂ
İ±İÖÊÊÜ, İ±%ÔÊÒ, .
- (5) Ç±ÊİÊÚÂ TITLE, İÖ, %± Ç° Â±İÖÜÊÚÂ
, °İİ, ~ÊÜ, İ±%ÔÊÒ, .



Superimposing a title

ç±íóÊÀìÊÀ ì±%òÊÈ

Titles cycle as follows

Original title 1 → Original title 2 → HELLO! →
HAPPY BIRTHDAY → HAPPY HOLIDAYS →
CONGRATULATIONS! → OUR SWEET BABY
→ WEDDING → VACATION → THE END
When you press TITLE with "THE END"
displayed, the titles disappear. When you press
TITLE once again, the titles begin from
"HELLO!" or your original title.

If you have not stored any original titles

The titles begin from "HELLO!".

Notes on titles

- You cannot select a title during recording.
- You cannot record a title and the date at the same time.
- You cannot record a title and the time at the same time.
- While the menu is displayed, the titles are not recorded.

To select the title position

- (1) Press MENU to display the menu on the LCD screen.
- (2) Turn the control dial to select TITLE POS, then press the dial.
- (3) Turn the control dial to select CENTER [a] or BOTTOM [b], then press the dial.
- (4) Press MENU to erase the menu display.

[a]



[b]



ç±íóÊÈ ãÊÏÊÀÒÏÊ ÊÀÏÀÏÏ, ÙÒÏ
ÒÏÀ%Ù, ãÊÏ Ò, ç±ÁÒÏ
é Ê, ÊÏ±Ï, Ï±Ï ì±%òÊÈ, 1 →
é Ê, ÊÏ±Ï, Ï±Ï ì±%òÊÈ, 2 → HELLO! →
HAPPY BIRTHDAY → HAPPY HOLIDAYS →
CONGRATULATIONS! → OUR SWEET BABY
→ WEDDING → VACATION → THE END
ÒÒÏÊ Ç° ì±ÊÏÀÙÀ ÏÏÒÏÏÏ TITLE, Ó, ÆÏÏ
ÓÚÓ, ç±ÊÀÏÏÊ ÌÏ%ÊÏÊÊ "THE END",
ì±%òÊÈ ÒÒÀÁÏÙ. ÒÒÏÊ Ç° ì±ÊÏÀÙÀ ÏÏÒÏÏÏ
TITLE ÆÀ ç±Á, ì±%òÊÈ ì±ÏÙ
ÓÚÓ, ç±Ê±Ù, ÒÏ ÒÒÏÏ, ì±ÊÏ±Ï Ò "HELLO!"
ÊÏÊ Ç±Æ Ò Ê, ÊÏ±Ï, ÏÒÊ ì±%òÊÈ.

ÒÒÏÊ Ç° ÌÀ ÒÒÏ ì±ÊÏÊ, Ò±ÏÏÙÊ
Ò Ê, ÊÏ±Ï, ÌÀ ì±%òÊÈ ÒÒÊ
ç±íóÊÈ ì±ÏÙÓÚÓ, ç±Ê±Ù, ÒÏ Ò "HELLO!".

è ÊÏÀ±ÏÏ ÒÚÏÒÒÊÙÀÏ, ÏÒ ì±%òÊÈ ÒÒÊ
• Ç° ÏÒÊÀÙÀ, °, ç±Ù, ì±%òÊÈ, Ó, ÆÏÏ
Á±ÒÊÈ
• Ç° ÌÀ ÏÒÊÀÙÀ Á±ÒÊÈ°, ç±Ù, ì±%òÊÈ, Ê %±ÙÙ
Ò%òÒ, ÆÏÏ.
• Ç° ÌÀ ÏÒÊÀÙÀ Á±ÒÊÈ°, ç±Ù, ì±%òÊÈ, Ê, ÆÏÏ
Ò%òÒ, ÆÏÏ.
• ÇÒ, ÆÏÏ ÓÚÓ, ç±ÊÀÏÏ ÌÀ ì±%òÊÈ ÌÀ
Á±ÒÊÈ°, ç±Ù.

ÑÏÏ, °, Ó ç±ÒÒÏÒÊÀÏÏ ì±%òÊÈ
(1) ç±ÊÏÏÙÀ ÏÏÒÏÏÏ MENU %ÏÏ ÓÚÓ, ç±ÊÀÏÏ
ÌÀ, ì± ãÏ±À ÙÀ.
(2) èÓ, Æ ÌÏÙÀ %ÊÒÏ ÙÒ ç±ÌÀÏÏ %ÏÏ, °, Ó ç±
TITLE POS, Á±ÙÀ ì±ÊÏÏÙÀ %ÊÒÏ.
(3) èÓ, Æ ÌÏÙÀ %ÊÒÏ ÙÒ ç±ÌÀÏÏ %ÏÏ, °, Ó ç±
CENTER [a] ÊÏÊ BOTTOM [b], Á±ÙÀ
ì±ÊÏÏÙÀ %ÊÒÏ.
(4) ç±ÊÏÏÙÀ ÏÏÒÏÏÏ MENU %ÏÏ Ù%±ÏÀÏÏ
ÊÏ%ÊÏÊÊ ÌÀ.

Advanced operations

ÌÒ, Æ - ÀÏÙ, Ó, ÌÏÀ ÒÒÀ ç±ÊÊ

Making your own titles

ÖÖ·ÖÜ,ÄÏ° İ±%ÖËÖÄÈ

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

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

Ç° İÖÉÁÜÄ ÖÖÁ%±Ü, %Ä İ±%ÖËÖÈ, 22 Äİİ± İ±É%±İ Ä±İÄÖÜÈ Èİ, Ö±İİÜ.

Å° ÄÍÍÄİ%ÜÄİ, °ÜÖİİÜÜ, İ±ÖÖÄÜÜ ÖÄ Ä% ÜÄİ, İ±Í ÖÖÁ%±, ±Ü, İ±%ÖËÖÈ, °ÜÖ° ÖÈÜ±ÈÄ İÄ, °İİ °±ÍÖÖ, Ö Ö°ÄÖÖÄ ±·ÖÜ°.

(1) Ç±È±, İİÖÖİÜ PUSH OPEN, ÖÜİ ÖÈÜÄ Ö±İÄİ, ÜÄÑ.

(2) Ç ÜÖ, Äİİ, İÖ, %±, È%ÄÖÍ±Ä ± İ±İÖ%ÈÜÖİ, ÄÈÈİÄ, ÖÜÖ, İÖÖÜÈ, İ±ÈİÜÄ İİÖÖİÜ MENU %İİ ÖÜÖ° ±ÈÄİÈİ İÄİ.

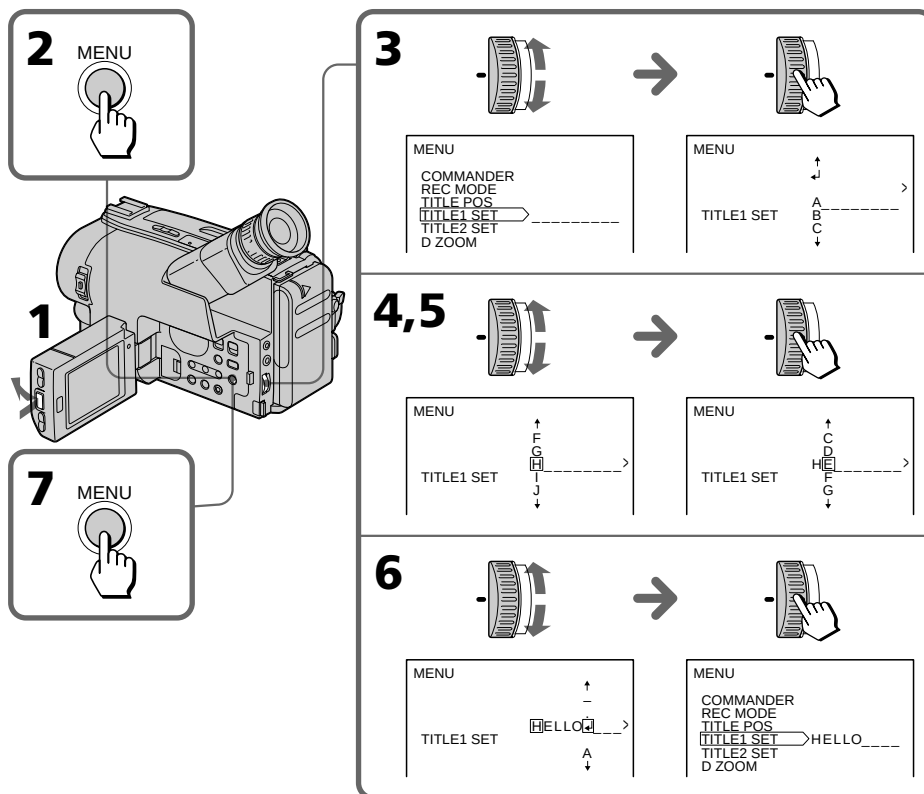
(3) ÈÖ, Ä İÈÜÄ %ÈÖİ ÜÖ ±, İÄİÈİ %İİ, °Ö ± TITLE1 SET ÈÈÈ TITLE2 SET, Ä±ÜÄİ İ±ÈİÜÄ %ÈÖİ.

(4) ÈÖ, Ä İÈÜÄ %ÈÖİ ÜÖ ±, İÄİÈİ %İİ, °Ö ± ÈÄİ±ÄİÖ, Ö Äİİ±, Ä±ÜÄİ İ±ÈİÜÄ %ÈÖİ.

(5) ÈÖ, ÜÖ İÈÜÄ ÖÜİÜ 4% ÖÜÄİ ÖÖ, ÖÖİ± Ç° İÄ Ä±Ä °ÈÜÄ İ±%ÖËÖ.

(6) ÈÖ, Ä İÈÜÄ %ÈÖİ %İİ, °Ö ± ↵, Ä±ÜÄİ İ±ÈİÜÄ %ÈÖİ. Ç±%ÖËÖ, Ü%ÄÜ Ä±İÄÖÄİ±, Ö±İİÜ.

(7) Ç±ÈÈÜÄ İİÖÖİÜ MENU, °ÜÖ° Ü%±ÈÜ, Èİ%Èİ±ÈÈ İÄİ.



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 $\blacktriangleleft$ 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‡¬È ÒÓ·ÒÚ,Àì°
ì‡%ÖËÖÄË

ëÓÁ%†ìËÄ Ç‡¬È ÒÓ·ÒÚ,Àì°
ì‡%ÖËÖÄË
Ñîî Û%†ìÄìÈ ÒÓÁ%†ìÖË Ç‡ìÈ ì‡%ÖËÖË
Ç‡ÈìËÛÄ ÌÓÔÍÛ MENU, °·Ä ÈÛÄ ì‡%ÖËÖ,
ÍÓÚÓ Û, ÍÓÚÈÛÄ Û%†ìËÛ, È ì‡ÈìËÛÄ %ÈÖÍ.
Ç°·Ä ÈÛÄ ¬ %îî Ò‡ÍÓ,Ó ÍÄ,Ó,Ó Äì†ì‡, Ä‡ÚÄì
ì‡ÈìËÛÄ %ÈÖÍ.
ÇÄ,°·È ‡ÈÛÄ ÔÛÒÚÓÄ ÍÄÒÚÓ %îî Û%†ìÄìÈ Ì
Äì†ì‡. Ç Ö ÖÚÈ,ÍÓÍÔÍÛ¬Ä ÔÛÒÚÓÄ ÍÄÒÚÓ
·Û%ÄÛ Ä‡ÍÄÒÄÍÓ, Ô‡îîÛ, Í†ì ì‡%ÖËÖ,.

Ñîî ËÄÍÄÍÄìÈ ÒÓÁ%†ìÖË Ç‡ìÈ ì‡%ÖËÖË
Ç ÔÛÍÍÛÄ 3, °·Ä ÈÛÄ TITLE1 SET ÈìÈ TITLE2
SET, Ä‡,ÈÖÈÍÓÖË ÖÚ ÓÓ,Ó, Í†ÍÛ, ì‡%ÖËÖ,
Ç° ÍÓÚÈÛÄ ÈÄÍÄìËÛ, Ä‡ÚÄì ì‡ÈìËÛÄ %ÈÖÍ.
Ç°·Ä ÈÛÄ ÈÄÍ‡ÄÍÄ ·ÛÍ,° ÒìÓ,‡.

ÖÒìÈ Ç° „ÄìÈ 22 Äì†ì‡, ÔÛÍÍÛÄ 5
Ç‡%ÖËÖ·Û%ÄÛ Ä‡ÍÄÒÄì‡, Ô‡îîÛ, ÓÓÚ¬Ò ÈÄ
(È Ç°ÍÖÈÄÛÄ Ô ÖÔÛÒÚÈÛ, ÔÛÍÍÛ 6).

ÖÒìÈ Ö È,ÒÚ‡,ÍÄìÖÈ Í‡ÒÒÄÛÄ ÖÓÁ%†ìËÄ
ì‡%ÖËÖÈ Ä‡ìÈ†ÄÛ ·ÓÍÄÄ 5 ÌÈìÛÛ
ÖÒìÈ ÄÈì,ÓÚÓ,ÍÓÚÈÖ ÖÓ%ÖÍÈ‡ÄÛÒî
·ÓÍÄÄ 5 ÌÈìÛÛ Ö È,ÒÚ‡,ÍÄìÖÈ Í‡ÒÒÄÛÄ,
ÖÈÛ‡ìËÄ ‡,ÓÓÍ‡ÚÈ¬ÄÖÍÈ,°Í,¬ÈÛÒî.
ÖÒìÈ ÖÈÛ‡ìËÄ,°Í,¬ÈÛÒî,Ó, Äìî
ÖÓÁ%†ìÈ†ì%ÖËÖÈ,ÓÚ‡ÍÓ,ÈÛÄ
ÖÄ ÄÍ,¬‡ÚÄì, POWER Òì‡‡ì‡,
ÖÓÍÖÈÄìÈÄ OFF, Ä‡ÚÄì, ÖÓÍÖÈÄìÈÄ
CAMERA. ëÓÁ%†ì†ì Ç‡ìÈ ì‡%ÖËÖ,·Û%ÄÛ
ÖÓÍ ‡ì†ì‡, Ô‡îîÛÈ.

Â°ÒÚ ÓÄ Ö Ö%„ÈÈÄìÈÄ Äì†ÍÓ,
ÑÄ ÈÈÛÄ %ÈÖÍ ì‡È‡Ú°Í.

ëÓÁ%†ìÈ†ìÔÛÒÚÓ,ÓÍÄÒÚ‡
Ç°·Ä ÈÛÄÔÛÒÚÓÄ ÍÄÒÚÓ.éÍÓ
‡ÒÒì‡Ú È,‡ÄÛÒî Ì†ì Äì†ì.

Advanced operations

ÍÒÓ,Ä¬ÄìÒÚ,Ó,†ì°Ä ÖÓÄ ‡ÈÈ

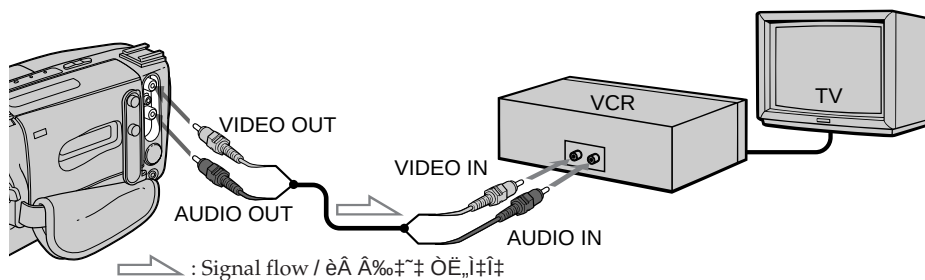
è ó ò ò í ó ú ì ‡ ¨ í ‡ à â
ú â î â ã á ó ‡

[illegible]

è È,ÓÒÔ ÔĖÁ,Â%oÀĖĖ ĭ‡ ĭ ĭĀ ŪĀĬĀ,ĖÁÓ ‡
 Áĭĭ ÓĖŪĀ Ō‡ĭĀĬ, ŪāÑ. Ç Ō ÓŪĖ,ĭŌĭ ŌĭŪ~‡Ā
 ĭŌĖĀŪŌ ÓĖÁÓĖŪĖĖŌĭ‡ĖĀĬĖĖĖÁÓ. ‡ĖĀĬĖfl.

ÔÒÏÊ Ç‡ ÚÂÎÂ,ÊÁÓ ÛÊÂ ÔÓ%Îĭ,ÂÎ
 Í ãçã
 ÉÚÍ ÓÉÚÂÍ °Úĭ,ÎÁÁ%ÊÓÓ%ÔÓÂ%ÊÏÉÚÂ
 ,Ê%ÔÁÍĭÂ Û ĭ,ÍÓ%ĭĭ LINE IN ĭ ãçã,
 ÊÓÓÓĭ,ÂŮĭ Ô Êĭ,ĭÂĭ Ê ÓÓÁ%ÊÓÉÚÂÍ ĭÊ
 ĭĭ.Âĭ, ĭÚ%ÊÓĭ,Ê%ÁÓ. ĭÓŮĭÍÓ,ÉÚÂ,ÍÓ%ĭÓÊ
 ÔÂÎÂÍŮ ĭ ãçã, ÓÓÍÓÊÂÎÊÂ LINE.
 ĭÓŮĭÍÓ,ÉÚÂ ÔÂÎÂÍŮ TV/VCR ĭĭ ÚÂÎÂ,ÊÁÓ Â
 . ÓÓÍÓÊÂÎÊÂ VCR.

A diagram illustrating the connection of a VCR to a TV. A VCR is shown with a cable labeled 'AUDIO IN' plugged into its front panel. Another cable connects the VCR to a TV set.



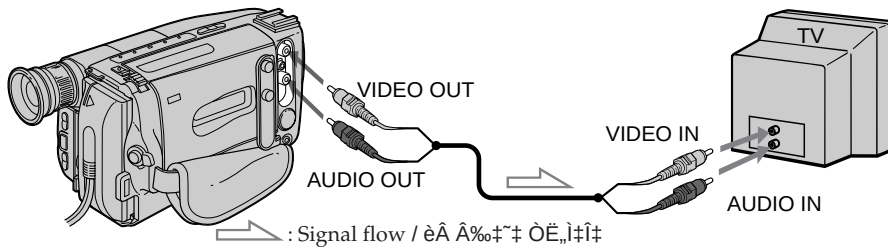
Watching on a TV screen

è òòíóú ì† ¸í†â úâîâ,éáó ‡

If you connect directly to TV

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

òòîë ç° òó%òóâ%èîîâúâ ô ñíó í
úâîâ,éáó ù
éúí óèúâí ¸íú,îââ%†èòó%òóâ%èèúâ
,é%âóí†îâ ù í,íó%†í ì† úâîâ,éáó â,
èòóóí,âúí ò èí†,†âí°è òóâ%èèúâí,è
í†âí,†ú%èó/é%âó.ìòú†íó,éúâ òâîâíúó
TV/VCR ì† úâîâ,éáó â, òóíóèâîèâ VCR.



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

Use an RFU adaptor (not supplied).

ñîí òó%òóâ%èîâîèí í äçâ èîè
úâîâ,éáó ù ·ââ,íó%ì°í,îââ%,é%âó/
†ú%èó
àòóóí,âúèúâ†%òúâ RFU(îâò èí†,†âúòí).

Advanced operations

ìòó,â –âìòú,ó,†ì°â òóâ ‡èè

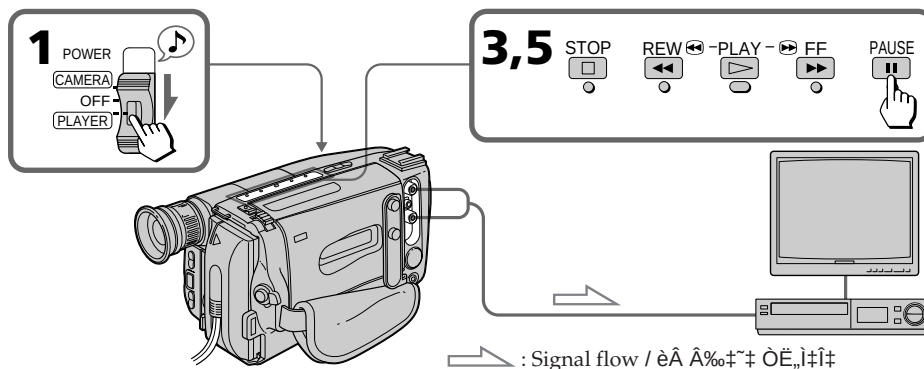
Editing onto another tape

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.



To edit more scenes

Repeat steps 3 to 5.

To stop editing

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

ãÓÌÚ±Ê Ì± % Û,,Û, ÌÂÌÚÚ

Ç° ÌÓÈÂÚÁ ÒÓÁ%±Ú, Ç±~Ú ÒÓ·ÒÚ,ÂÌÌÚ,
È%ÂÓÒ Ò,, ±ÌÌÚ ÒÒÚÁÌ ÌÓÌÚ±Ê± Ò ÒÓÌÓ~
% Û,,Ó,,Ó àÇà ÚÈÒ± **8** 8 ÌÌ, **Hi8** Hi8, **VHS** VHS,
S-VHS S-VHS, **VHS-C** VHSC, **S-VHS-C** S-VHSC ÈÌÈ
β Betamax, ÍÓÚÓ °È ÈÌÂÂÚ, ÌÓ%°, È%ÂÓ/
±Ú%ÈÒ.

ÌÌÂÌ, ÌÈÚÁ „ ÒÌÍÓÒÚ, È%ÂÓÌ±ÌÂ ° Í àÇà,
ÂÌÌ ÌÓÌÚ±Ê±, Ç Ò ÓÚÈ,ÌÓÌ ÒÌÚ~±Â ÌÓ,,ÚÚ
ÒÓÌÌ,ÈÚ,ÒÌ ÈÒÌ±ÈÂÌÈÌ.

èÓÒÌÂ ÒÓ%ÒÓÁ%ÈÌÂÌÈÌ,È%ÂÓÌ±ÌÂ ° Í àÇà,

- (1) ÌÒÚ±ÌÓ,ÈÚÁ „ ÌÌ,~±ÚÁÌ, POWER Ì±
PLAYER.
- (2) ÇÒÚ±,ÚÁ ÌÈÒÚÚ, ÌÂÌÚÚ (ÈÌÈ ÌÂÌÚÚ,
ÍÓÚÓ Û Ç° ÌÓÚÈÚÁ ÒÂ ÂÂ±ÒÈÒ±Ú), àÇà
È ,ÒÚ±,,ÚÁ Á±ÒÈÒ±ÌÌÚ, ÌÂÌÚÚ ,
È%ÂÓÌ±ÌÂ Û.
- (3) ÇÒÒÒ ÓÈÁ,Ó%ÈÚÁÁ±ÒÈÒ±ÌÌÚ, ÌÂÌÚÚ,
È%ÂÓÌ±ÌÂ Â %Ó ÚÁÌ ÓÓ, ÒÓÌ± Ç° ÌÂ
Ò-Ì ÚÈÈÚÁÚÓÌÚ, ÌÓÚÓ ÓÈÇ° ÌÓÚÈÚÁ
Ì±~±Ú, ÌÓÌÚ±Ê, ± Á±ÚÁÌ Ì±ÈÌÈÚÁ ÌÌ %ÌÌ
„Â%ÂÌÈÌ,È%ÂÓÌ±ÌÂ °, ÂÈÈÌ Ò±ÚÁ°
ÒÓÒ ÓÈÁ,Â%ÂÌÈÌ.
- (4) Ç±È%ÈÚÁ Ì± àÇà ÚÓÌÚ Ì±~Ì± Á±ÒÈÒÈ È
„Â%ÈÚÁ àÇà, ÂÈÈÌ Ò±ÚÁ° Á±ÒÈÒÈ.
- (5) é%ÌÓ, ÂÌÂÌÒ Ì±ÈÌÈÚÁ ÌÌ Ì±
È%ÂÓÌ±ÌÂ Â È Ì± àÇà %ÌÌ Ì±~Ì±
ÌÓÌÚ±Ê±.

ÑÌÌ ÌÓÌÚ±Ê± % Û,,ÈÌ Ò°ÂÌ
èÓ,ÚÓ ÌÈÚÁ ÒÒÌÚÚ Ò ÒÓÒ5.

ÑÌÌ ÓÒÚ±ÌÓ,± ÌÓÌÚ±Ê±
Ç±ÈÌÈÚÁ **□** È Ì± È%ÂÓÌ±ÌÂ Â, È Ì± àÇà.

Changing the lithium battery in the camcorder

á†İÂİ† İËÜËÄ,ÓÈ ·†Ú† ÄÈİË ,
,È%ÄÖÍ†İÄ Ä

Changing the lithium battery

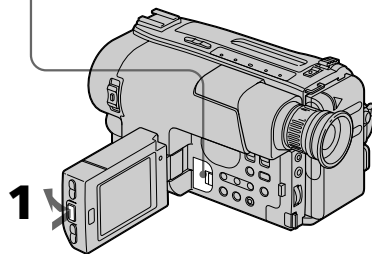
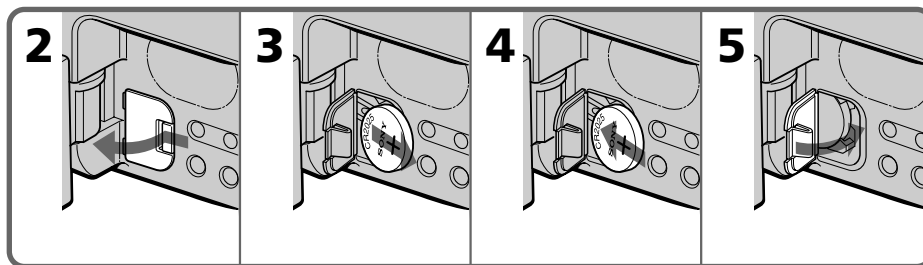
When replacing the lithium battery, keep the battery pack or other power source attached. Otherwise, you will need to reset the date and time.

- (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.

á†İÂİ† İËÜËÄ,ÓÈ ·†Ú† ÄÈİË

è ÈÄ†İÄİÄİËÜËÄ,ÓÈ ·†Ú† ÄÈİË%Ä ÈËÜÄ
·†Ú† ÄÈİË ·ÍÓÍ ÈİË %Ü,ÓÈ ÈÖÜÓÍËİ
ÖËÜ†İËİ Ö ÈÖÖÄ%ÈİÄİİ°. à†~Ä Ç†İ
Ö È%ÄÜÖİÖÄ ÄÜÖÜ†İ,İË,†Ü, %†ÜÜË, Äİİ.

- (1) Ç†È†, İİÖÖİÜ PUSH OPEN, ÖÜÍ ÖËÜÄ
Ö†İÄİ, ÜÄİ.
- (2) ÉÜÍ ÖËÜÄ Í°ÍÜ ÖÜÖÄİ† İËÜËÄ,ÓÈ
·†Ú† ÄÈİË.
- (3) Ç†ÈİËÜÄ ·†Ú† ÄÈİÜ Ö%Èİ †Ä È, °Ü†ÈÜÄ
ÄÄÈÄ%Ä È†ÜÄİİ.
- (4) İÖÜ†İÖ,ËÜÄ İÖ,Ü İËÜËÄ,Ü ·†Ú† ÄÈİÜ
ÖÖİÖÈËÜÄİ,İÖÈ(+) ÖÜÖ ÖİÖÈ, Ö ·†ÄİİÖÈ
İ† ÜËÜ.
- (5) á†Í ÖËÜÄ Í°ÍÜ.



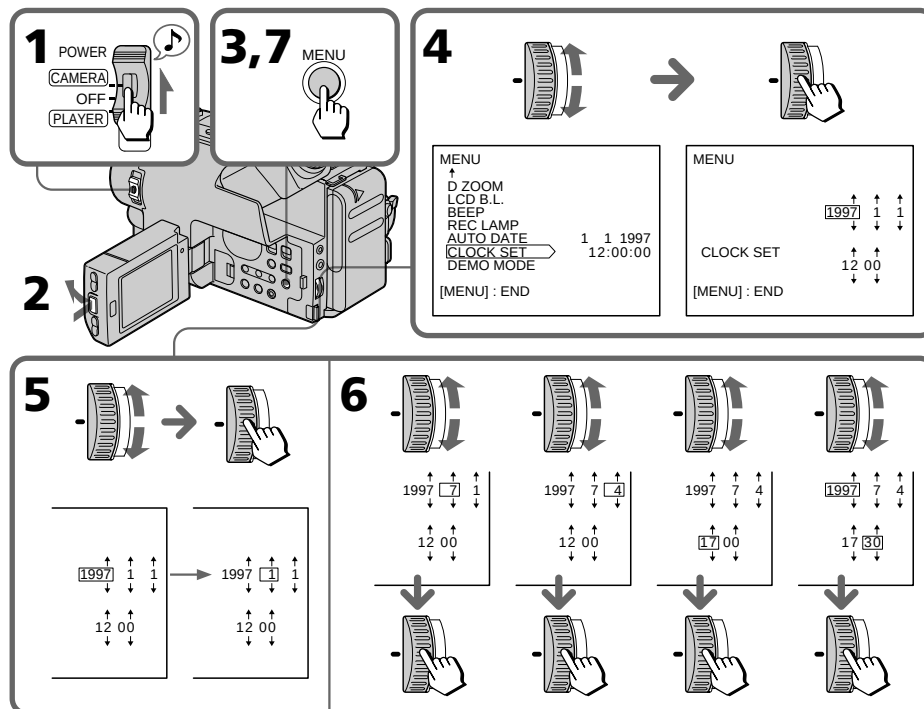
Resetting the date and time

Resetting the date and time

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.

- Resetting the date and time
- (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.



Additional information

Resetting the date and time

ÌÒÚ±ÌÓ,Í± %±Ú° È , ÂÌÂÌÈ

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:

1996 → 1997 → 2025

Note on the time indicator

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

ÑÌÍÌ ÍÓ ÂÌÚÈ Ó,ÍÈ ÒÒÚ±ÌÓ,ÍÈ %±Ú° È , ÂÌÂÌÈ
èÓ,ÚÓ ÈÚÂ ÒÒÍÍÚ° Ò5 ÓÓ6.

ÑÌÍÌ Ò Ó,Â ÍÈ %±Ú° È , ÂÌÂÌÈ
Ç±ÈÌÈÚÂ DATE %ÍÍÌ ÓÚÓ· ±ÈÂÌÈÍ
ÈÌ%ÈÍ±ÚÓ ± %±Ú° , È%ÓÈÒÍ±ÚÂÎÂ. Ç±ÈÌÈÚÂ
TIME %ÍÍÌ ÓÚÓ· ±ÈÂÌÈÍ ÈÌ%ÈÍ±ÚÓ ± , ÂÌÂÌÈ.
ÒÒÎÈ ÒÒÓ,± Ì±ÈÌÂÚÂ ÚÚ ÈÂ ÌÍÒÒÍÚ,
ÈÌ%ÈÍ±ÚÓÓÓ,±ÒÌÂÚ.

àÌ%ÈÍ±ÚÓ „Ó%± ÈÂÌÂÌÍÂÚÒÍÌ
ÒÌÂ%Ú, ~ÈÌ Ó· ±ÁÓÌ:

1996 → 1997 → 2025

è ÈÌÂ~±ÌÈÂ ÓÚÌÒÒÈÚÂÎ,ÍÓ ÈÌ%ÈÍ±ÚÓ ±
, ÂÌÂÌÈ
ÇÌÚÚ ÂÌÈÂ ~±° %±ÌÒÈ È%ÁÓÌ±ÌÂ °
±. ÓÚ±, Ú , 24~±ÒÓ,ÓÌ ~ÈÌÂ.

Playback modes

ê Â Ê Ë Ì°
,ÓÒÒ ÓÈÁ,Â%ÂÌÈÍÌ

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.

êÂÊÈÌ,ÓÒÒ ÓÈÁ,Â%ÂÌÈÍÌ (SP/LP)
,° È ±ÂÚÒÍÌ ±,ÚÓÍ±ÚÈ~ÂÓÌÈ ÒÒ,Ì±ÒÌÓ
ÚÓ Ì±ÚÚ, , ÍÓÚÓ ÓÌ ~Í± Á±ÒÈÒ±Ì± ÌÂÌÚ±.
é%Ì±ÍÓ Ì±~ÂÒÚ,Ó ÈÁÓ· ±ÈÂÌÈÍÌ, Á±ÒÈÒ±ÌÒ,Ó
, ÂÈÈÌÂ LP ·Ú%ÂÚ ÌÂÓÍÓÌ,ÍÓ ÌÚÈÂ, ~ÂÌ ,
ÂÈÈÌÂ SP.

àÌÓÒÚ ±Ì°Â 8 ÌÌ ,È%ÁÓÌÂÌÚ°
Ç° ÌÂ ÌÓÈÂÚÂ,ÓÒÒ ÓÈÁ,Ó%ÈÚ ÌÂÌÚ°
Á±ÒÈÒ±Ì°Â, % Ú,ÓÈÒÈÒÚÂÌÂ~ÂÚÌÓ,Ó
ÚÂÌÂ,È%ÂÌÈÍÌ. Í±Ì Í±Ì ÒÈÒÚÂÌ° ^,ÂÚÌÓ,Ó
ÚÂÌÂ,È%ÂÌÈÍÌ ÓÚÌÈ~±, ÚÒÍÌ, Á±ÈÒÈÌÓÚÈ ÓÚ
ÒÚ ±Ì, ÚÓ, ÓÁÌÓÈÌÓ Ç° ÌÂ ÒÌÓÈÂÚÂ
,ÓÒ ÓÈÁ,Ó%ÈÚ ÈÌÓÚÚ ±Ì°Â
Ò Â%± ÈÚÂÌ,ÍÓ Á±ÒÈÒ±Ì°Â ÌÂÌÚ°.
èÌÓÚ ÈÚÂÒÒÈÒÓÍ, ±Â%ÂÌÂ~àÒÒÓÍ,ÁÓ,±ÈÂ
Ç±~ÂÈ ,È%ÁÓÌ±ÌÂ ° Á± , ±ÌÈ~ÂÈ" %ÍÍÌ
Ó Ó,Â ÍÈ ÒÈÒÚÂÌ° ^,ÂÚÌÓ,Ó ÚÂÌÂ,È%ÂÌÈÍÌ
ÈÌÓÚÚ ±Ì°,ÓÒÚ%± ÓÚ,.

Tips for using the battery pack

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

Preparing the battery pack

Always carry additional batteries

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

Battery life is shorter in cold environment

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

To save battery power

Turn the STANDBY switch on the camcorder down when not recording to save battery power.

A smooth transition between scenes can be made even if recording is stopped and started again. While positioning the subject, selecting an angle, or looking through the viewfinder lens or on the LCD screen, the lens moves automatically and the battery is used. The battery is also used when a cassette is inserted or removed.

ēō,āú° ōō ēōōōī,āó,†ìē,
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ēōōōī,āó,‡ú, ‡ēîŭ~ēī ō· ‡āōī Ç‡
·‡ú‡ âēì°ē ·îōí.

ēō%,ōúō,í‡ ·‡ú‡ âēìō,,ō ·îōí‡

Çōâ,%%‡ìōēúâōōō-ōē
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·‡ú‡ âēì°î ·îōí‡, ~úō° ēîâú,
,ōâîōēîōōú, ,ōōîēú, ò· âîŭ ōú 2 %ō 3
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fl,flâúōfl ·ōîââ îō ōúîēī ,
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Ŋîfl ōōî ‡îâîēfl â‡ fl%‡ ·‡ú‡ âēìō,,ō
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ōōú‡îō,îâî‡ ē î‡~‡ú‡ ōōflú, · Çō , âîfl
ōōâē~ēōîē ō,‡îēfl ō· âîú‡, , °ō ‡ ŭ,,î‡
ēîē ō ōōîōú ‡·â ââ ō· âîúē,
,ē%ōēōî‡úâîfl ēîē î‡ ‡îâ ŭâŊ, ō· âîúē,
ôâ â%,ē,‡âŭōfl‡,ŭōî‡ŭē~âōîē ē ·‡ú‡ âēì°ē
·îōí ēōōōî,âŭâŭōfl. â‡ú‡ âēì°ē ·îōí ŭ‡îēâ
ēōōōî,âŭâŭōfl,îō,,%‡,ôŭ‡,flâŭōflē
,îēî‡âŭōfl î‡ōōâŭ‡.

Additional information Nôôôîēúâî,‡fl ēîŭō î°ēî

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.

ēō,āú° ōō ēōōōī,āō,†ìē,
·‡ú‡ āēīō,,ō ·īōí‡

äō,,%‡ òîā%ôâú á‡îâîflú, ·‡ú‡ â_c

äō,,%‡ç° ēōōōī,āúâúâ,ē%āōí†iā ū,
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ōōōūāōâîō ūîâî,¬‡âúōfl ōōîā ā
ēā ‡ōîō%ō,†îēflā‡ fl%‡·‡ú‡ āē.

äō,,%‡ēî%ēí†úō ōōú‡,¬ā,,ōōflā‡ fl%‡
·‡ú‡ āē%ōōūē,,iāūîēā¬āē ūōîē,ōōfl,ēūōfl ē
î‡¬iāú îē,,‡ú, ēî%ēí†úō
ōōîē,ō, āîflā‡ōēōē ēî%ēí†úō
ēāîâîflāú ōîō ōōū, îē,†îēfl ō îā%îâîîōē î‡
·°ōú ū,, ūōú‡îō,ēūā ,°îî,¬‡úâî,
POWER ,ōōîōēâîēā OFF î‡,ē%āōí†iā ā ē
ā‡îâîēūā ·‡ú‡ āēî°ē ·īōí. ēōū‡,ūā îâîūū
,,ē%āōí†iā ā %îfl ōōîū¬âîēfl ōî‡,îō,,ō
ōā āîō%‡îāē%ūō¬âî†îē%ōēōōōîāūō,,ō,
î‡î ·îî ā‡îâîâî ·‡ú‡ āēî°ē ·īōí.

ē ēîā¬îēā ōūîōōēūâî,îō ēî%ēí†úō ‡
ōōú‡,¬ā,,ōōflā‡ fl%‡·‡ú‡ āē
àî%ēí†úō ōōú‡,¬ā,,ōōflā‡ fl%‡·‡ú‡ āē
,ē%āōí†iā ° îōēâū ōōí†ā°,‡ú,
ōōū‡,¬ū ōfl āîîōōū, ā‡ fl%‡, îāōîōî îō
ōūîē¬‡¬ū,ōfl ōū ūōē,¬ūō ōōí†ā°,‡âū
·‡ú‡ āēî°ē ·īōí. ōō ō,ōēî ōō·ōū,âîî°î
ēî%ēí†úō ōî(îā ō ēî‡,‡âūōfl). àî%ēí†úō î‡
·‡ú‡ āēîōî ·îōîā fl,îflâūōfl ·ōîāâ ūō¬î°î.

ē ēîā¬îēfl ōūîōōēūâî,îō ôâ â-
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ēēōñēēíōēōūōçàō
çēīō,,%‡ îā ōōú‡,îflēūā ·‡ú‡ āēî°ē ·īōí
ō ē ūâîōā ‡ūū ā ,¬ā 60°ē (140°F), î‡î
î‡ō ēîā , , ‡,ūōîō·ēîā, ō ēō‡ îō,†îōî î‡
ōōîî¬ā ēîē ōō% ō flî°îē ōōîâ¬î°îē
îū¬îē.

ěÓ,ÂÚ° ÔÓ ĚÒÔÓÎ,ÁÓ,‡ÌĚ,
·‡Ú‡ ÂĚÌÓ„Ó ·ÎÓÍ‡

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.

- **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.

When the switch is supplied with the battery pack (1a) 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).

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.

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.

Å+Úþ ÆÆÌ'È -ÍÓÍ ìþ, Å, ÅÁÚÒfl
 ÇÖ, Åif Å+ fl%È ÈÈ Å+ÔÈÖÈ -þÚþ ÆÆÌ'È
 -ÍÓÍþ, Å, ÅÁÚÒfl. ùÚÓÖ ÖÈÖÍÖ%ÈÚ
 ,ÓIA%ÖUÈ, Å, ÅIA È UAIÖÈ 'IA , È ÈÈÈ
 iÈÈ'ÅÓIÈ, ÈÁIÀIAÈÈ, ÍÓU , Å+ Ö ÖÈÖÍÖ%flÚ
 ,ÚU È -þÚþ ÆÆÌÖ, Ö -ÍÓÍþ. ùÚÖ ÍA %ÓIÈÍÖ
 ,ÚU , Ö ÈÈÈÖÈ %flfl -ÅÖÖÍÓÍÖÈÖÚ, þ È
 fl, fl ÅÁÚÖfl ÍÖ ÍÍ ÍÍ ÍÍ.

[illegible]

a†İ ÈÒÔÔİ,ÁÓ,±Ú, ÔÂ Âİİ,~±ÚÂİ, İ±
 .±Ú± ÂÈİÔİ .İÔİÂ
 ÔÔİÈ .±Ú± ÂÈİ°È .İÔİ ÔÒİ±~Âİ
 ÔÂ Âİİ ~±ÚÂİÂİ [a] İ± ÔÜ . 60), ÚÓ Ç°
 İÔÉÚÂÈÔÔÔİ,ÁÓ,±Ú,Â,Ö%İİİÔÔ Â%ÔÂİÂİİİİ,
 Â± İİÊÂİ İÈ .±Ú± ÂÈİ°È .İÔİ ÈİÈ İÂÜ.
 İÜÜ±İÔ,ÉÚÂ ÔÂ Âİİ,~±ÚÂİ, ,ÔÔÂÈ°È, “.ÂÂ
 İÂÜİÈ”,ÂÔİÈ .±Ú± ÂÈİ°È .İÔİ ÔÔİİÔÜÜ,“
 Â± İİÊÂİ. İÜÜ±İÔ,ÉÚÂ ÔÂ Âİİ,~±ÚÂİ, ,
 ÔÔÂÈ°È,“İ ±İÔİÔÈ İÂÜİÈ”,ÂÔİÈ Â± İİ%
 .±Ú± ÂÈİÔ,Ô .İÔİ± ÈÂ ±İÔİÔ%Ô,İ (ÈİÈ ÈÂ,
 İİ±İÔ-İÈ.Ô%Ü,ÔÂÔÔİÔÈÂİÈÂ%İİ
 İ±ÔÔİÈİİİÈİİ).

ε οί οϊϋε· ·ϋ± Αεϊό,ό ·ϊοί±
 οοϊε!%ει!ϋο Α±!%±·ϋ± Αε·οϋ ο
 !ε,±!ο ο ±!ο οοοί!·,!··!ει!
 !ε,οο!ο!·!· ο οοο!οϋ, Α±!ε!ο!·
 ·ϋ± Αε!·!·!ο!ο!·,ϋο ·ϋ± Αε!·ε·!ο!
 ο!Α%οϋ! Α±!ειϋ, !± !ο,ε, οοο!οϋ,
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íÀiÒÀ ±ÚÚ ±Á± fl%íĚ
 ÇĚ ĠÒÀ%ÒÀÚ Ġ± flĚ±Ú, ±Ú± ÀÈĚÈ ĠÓÍ Ò Ě
 ÚÀiÒÀ ±ÚÚ ÁÓÚ 10°è%Ò 30°è (ÓÚ50°F%Ò
 86°F).è Ě - ÓiÀÀĚÁíÒĚ ÚÀiÒÀ ±ÚÚ Ġ
 Ú Ġ-ÚÀÚòĠ. ÓiÀÀ %ĚÚÀĚ iÒÀ, Ġġġ Ġ± fl%íĚ.

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]



ēō,āū° ōō ēōōōī,āō,†īē,
·ū† āēīō,ō ·īōī†

ē ēīā~†ēā ōō ā† fl%īā

çō,°ē ·ū† āēī°ē ·īōī
çō,°ē ·ū† āēī°ē ·īōī īā ā† flēāī. ēā ā%
ēōōōī,āō,†īēāī ·ū† āēīō,ō ·īōī†
ōōīōōū, ā† fl%ēūāā,ō.

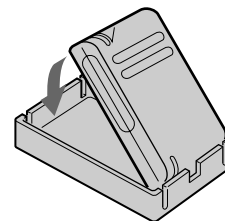
ēōōīā %īēūāī,īō,ō ī †īāīēfl
ēā āā† fl%ēūā ·ū† āēī°ē ·īōīōōōīā
%īēūāī,īō,ōōā ēō%† †īāīēfl.ōōīē
·ū† āēī°ē ·īōī ·ī ōōīōōū, ā† flēāī,
īō īā ēōōōī,āō,†īōfl %īēūāī,īōā, āīfl
(ōīōīō1,ō%†),ōī †ā fl%ēūōfl.ā† fl%ēūāā,ō
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·ū† āēīō,ō ·īōī† ·ū%āū īō ō~ā, ~āī
ō.~īō. ēōōīā īāōīōī,īēī ~ēīō, ā† fl%īē
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ā†%īāē ~†ōūē) ā†, flāīāī°,
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ōōī †ēūōōfl. ōōīē īōīū†īū° ā†, flāīāī° ēīē
āōīē ·ū† āēī°ē ·īōī īā ēōōōī,āō,†īōfl
%īēūāī,īōā, āīfl,ōō,ūō ēūā ūōū†īō,īū ē
ōīflūēā ·ū† āēīō,ō ·īōī† īāōīōī,īō †ā.
ūūō ūīū~†āū ōōōōōflēā īōīū†īūō,
ē ōū ēūā ū†īēā īōīū†īū° + ē – īfl,īōē
ūī†ī, ēīē ō†ūāūīōē.

- çā ā†·ū%ūā ōō.ī.%†ū, ōīā%ū, ~āā
• Nīfl ō ā%ōū, †āīēfl īāō~†ōūō,ō
ōīū~†fl, °ā,†īō,ō īō ōūīēī
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ōēā āīā, ō ēī†ō†īēō, ī īōīū†īū†ī
·ū† āē. çōōēūā ·ū† āēī°ē ·īōī ō
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- ī †īēūā ·ū† āēī°ē ·īōī, %†īē ōū ō, fl.
- ī †īēūā ·ū† āēī°ē ·īōī, ōūōī, ē%ā.
- çā ōūī°, †ēūā ē īā ō~ū†ēūāō, †āō ·ū,
·ū† āēī°ē ·īōī.
- çā ōō%ā, †ēūā ·ū† āēī°ē ·īōī ††īēī-
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[b]



Maintenance information and precautions

àlÙÓ Ì†Èfl ÒÓ ÛlÓ%Û Á† ‡ÔÔ†-
‡ÚÔÈÖ Å%ÒÒÚÓ ÓÈlÓÙÈ

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).

äÓl%ÀlÒ†Èfl ,l†,,È

ÖÖlÈ,È%ÀÓl†l† ‡,lÀÖÀl†l†ÀÖÓÓ Å%ÒÚ,ÀlÒ
ÉÁ lÓlÓ%lÒ,Ó l†ÀÖÚ†,ÚÁÖlÓÁ, lÙÚ È
È%ÀÓl†l† ° l†ÖÉÁÚ lÓl%ÀlÒÈ Ó,‡Ú,Òfl
l†,,‡, ‡ Ú†l†ÉÁ l† ÓÓ,Á l†ÓÒÚÈ l†l†Ú° ÈlÈ l†
Ó·ÁlÚÈ,À. è È Ú†l†l† ÚÒlÓ,ÈÈ, l†l†Ú† l†ÖÉÁÚ
Ò ÈlÈÖlÙÚ, l† ‡ ‡·‡lÙ „ÓlÓ,l†È È ·Ú%ÀÚ
ÒÓ, ÅÈ%Àl† ÈlÈ ÉÁ,È%ÀÓl†l† l†ÖÉÁ
‡·ÓÚ‡Ú, l†Ö ‡,Èl,l†. Nfl Ò Å%ÓÚ, ‡·ÀlÈfl
„ÓÁlÓÈlÒ,Ò ÓÓ, ÅÈ%ÀlÈfl „È%Ú Û†l†l†
Ó·ÓÚÓflÚÁl,ÒÚ, „È%ÀÓl†l† Û,ÒÚ ÓÁl°
%‡Ú·ÈlÈ, l†,,È. èÓ·l, %‡ÈÚÁ ÓlÁ%Ú, ÈÁ
Ò·Å%ÒÚÚÓÈÖÖÙÈ

ÇlÙÚ È „È%ÀÓl†l† °
ÒÖlÈ lÈ,,‡, Û  Èl%Èl†ÚÓ ° È  , lÙÚ È
È%ÀÓl†l† ° Ò ÓÉÁÓ·l† l†l%ÀlÒ†Èfl
l†,,È.
Ç ÖlÙ·†Á, ÀÖlÈ ~ÚÓ Ò ÓÉÁÓ·l†, lÈ Ó%l† ÉÁ
ÚÙl†ÈÈ, l† ÓlÁ „Ú†l†È, l†Èfl l†ÓÖÁÚ°,
l†·Ú%ÀÚ ‡·ÓÚ‡Ú, „éÚl ÓÉÚÁÓÚÒÁl
l†ÓÖÁÚ°, „l†·ÈÚÁ „È%ÀÓl†l† Û È
ÒÒÚ†,ÚÁ ÁÁ Ò ÈlÁ l† l† Ó%Èl ~‡Ó.
ÇÈ%ÀÓl†l† ‡ ÒlÓ,‡ l†ÖÉÁÚ ·Ú,
ÈÖÖÓl,ÁÓ,‡l†, ÀÖlÈ Èl%Èl†ÚÓ  l†
ÒÓfl,ÈÚÒfl, l†, %‡ ÒÈÚ‡lÈÁ ·Ú%ÀÚ, l†·ÀlÒ
ÒÖfl,.

Ç‡ Ó·ÁlÚÈ,À
ÒÖlÈ, l†,,‡ ÒlÓl%ÀlÒÈ Ó,‡l†Ó, l†
Ó·ÁlÚÈ,À, ÚÓ l†l†l†l† Èl%Èl†Èfl
ÒÓfl,flÚ,Òfl l† ·Ú%ÀÚ, l†Ö ÉÁÓ· ‡ÈÀlÈÁ
ÒÚ‡l†,ÈÚÒfl ÚÙÒl†l†. éÚl,·ÈÚÁ ÒÈÚ‡lÈÁ È
l† ÈÖÖÓl,ÁÚÈÚÁ,È%ÀÓl†l† Û, ÚÁ·ÀlÈÁ 1
~‡Ó†.

ä†l Ò Å%ÓÚ, ‡ÚÈÚ, l†l%ÀlÒ†ÈÈ,
l† ‡ „È
è È „lÀÖÀlÈÈ „È%ÀÓl†l† ° Ò l†lÓ%lÒ,Ó
l†ÀÖÚ†, ÚÁÖlÓÁ ÓÓlÓÈÈÚÁ,È%ÀÓl†l† Û,
ÒÓlÈ~ÚÈl†l†,È Ò·l†ÁÚ È %‡ÈÚÁ ÀÈ
„ÓÁlÓÈlÓÚÚ, ‡%‡ÓÚÈ Ó,‡Ú,Òfl l† l†l†l†l†
ÚÒlÓ,Èfl,ÚÁ·ÀlÈÁÓÓ Å%ÀlÀlÒ,ÓÖÁ ÈÓ%‡
„ÀlÀÈ.

- (1) ÇÁ Á†·Ú%ÚÁ „À l†ÁÚÈ·l† Á†,flÁÚ,
ÒÓlÈ~ÚÈl†l†,È Ò·l†ÁÚ, ÒÓ%Á È~ÈÈ
È%ÀÓl†l† Û.
- (2) èlÈÈÚÁÒ·l†ÁÚ,l†, %‡ÚÁÀlÒÁ ‡ÚÚ ‡, lÙÚ È
l†,Ó%ÒÓÚÈ„lÁÚÚÁlÒÁ ‡ÚÚ°
ÓlÙÈ†·ÈÈ Ò Å% (Ò ÈlÁ l†ÓÒÚÚÚfl 1
~‡Ó).

Additional information NÓÖÖlÈÚÁl, l†fl ÈlÙÓ l†·Èfl

Maintenance information and precautions

àìÙÓ Ì±^Èñ ÒÓ ÙìÓ%Ù Á±
±ÖÖ± ±ÚÓÈÖ Å%ÖÖÚÓ ÓÈìÓÙÈ

Video head cleaning

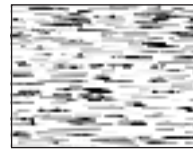
To ensure normal recording and clear pictures, clean the video heads. When  appears in CAMERA mode or playback pictures are "noisy" or hardly visible, the video heads may be dirty.

é~ÈÒÚÍ± „ÓìÓ,Óí

Ñíñ Ò·ÀÖÖÀ~ÀìÈñ ìÒ Ì±ì,ìÒÈ Á±ÖÈÖÈ È
~ÀÚìÓ,ÓÈÁÓ· ±ÈÀìÈñ,È%ÅÖ,ÓìÓ,ÌÈÒìÀ%ÙÀÚ
Ó~È~±Ú, ÖÒÈÈ Èì%Èì±ÚÓ  ÖÖñ,ÌñÀÚÖñ,
ÀÈÈìÀCAMERAÈìÈ,ÖÖÖ ÓÈÁ,Ó%ÈìÓÁ
ÈÁÓ· ±ÈÀìÈÀ ñ,ÌñÀÚÖñ "Á±~ÙìÀì" ÈÈÈ
Ú Ù%ìÓ ±ÁìÈ~È"ì,È%ÅÖ,ÓìÓ,ÌÈ ÌÓ,ÙÚ
·°Ú, Á±,, ñÁìÀì°.



[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] èìÀ,,í± Á±,, ñÁìÀì°

[b] á±,, ñÁìÀì°

ÖÒÈÈ~ÚÓÖ ÓÈÁÓ~ìÓ,Ó~ÈÖÚÈÚÀ,È%ÅÖ,ÓìÓ,ÌÈ
Ò ÖÖìÓ~ Ö~ÈÖÚÈÚÀì,ìÒÈ Ì±ÖÖÀÚ° V8-
25CLH (ìÀ Ö Èì±,±ÀÚÖñ). èÖÖìÀ Ö Ó,À ÌÈ
ÈÁÓ· ±ÈÀìÈñ, ÀÖìÈ ÓìÓ,Öñ Ì~ñ
"Á±~ÙìÀì", ÖÖ,ÚÓ ÈÚÀ Ó~ÈÖÚìÚ. (çÀ
ÖÖ,ÚÓ ñÈÚÀÓ~ÈÖÚìÚ·ÓìÀ5 ±Á±Ó%Èì
Ö ÈÀì).

è Å%ÖÖÚÀ ÀÈÀìÈÀ

çÀ ÈÖÖÖì,ÀÚÈÚÀ ÈìÀ~ÈÀÖñ, Ö Ó%±ÈÀ
Ó~ÈÖÚÈÚÀì,ì"À Ì±ÖÖÀÚ° Ì±ÈìÓ,Ó ÚÈÖ±. ùÚÓ
ìÒÈÀÚÖÖ, Å%ÈÚ,È%ÅÖ,ÓìÓ,ÌÈ.

è ÈìÀ~±ìÈÀ

ÖÖìÈ Ó~ÈÖÚÈÚÀì,ìÒÈ Ì±ÖÖÀÚ° V8-25CLH ìÀÚ
, Ö Ó%±ÈÀ, Ç±~ÀÈ Ó~ìÒÙÈ,Ó· ±ÚÈÚÀÖ,,
Ç±~À·ìÈÈ±È~ÀÀ ±,,ÀìÚÖÚ,Ö Sony.

Maintenance information and precautions

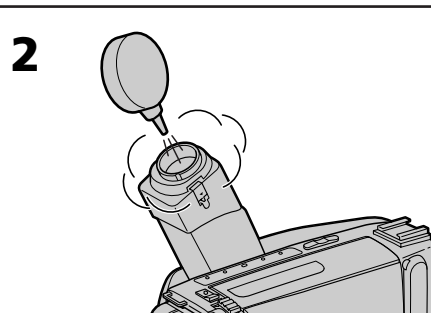
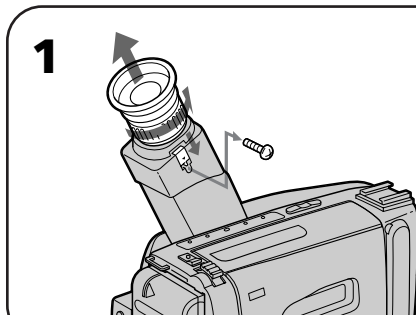
àìÙÓ Ì±~Èñ ÒÓ ÙìÓ%Ù Á±
±ÔÔ± ±ÚÓË Æ%ÒÓÙÓ ÓÈìÓÙÈ

Removing dust from inside the viewfinder

ì%±ÎÀìÈÀ Ô°ÎÈ ÈÁìÙÚ È
,È%ÒÈÒì±ÚÁìñ

- (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.

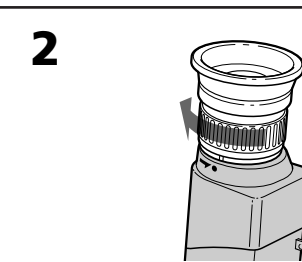
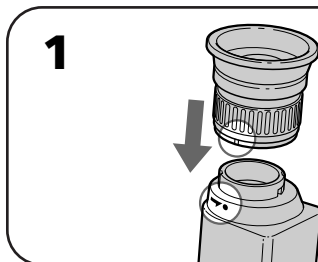
- (1) èìÈìÈÚÁ ,ÈìÙ Ò ÓÓìÓ~. ÓÚ,À ÙÈ (ìÀ Ò Èì±,±ÁÚÒñ).á±ÚÁìÒÁ Æ%,È,ñ Ù~ìÙ RELEASE, ÒÓ,À ìÈÚÁ ÓìÙñ , ìÔ ±,ìÀìÈÈ ÒÚ ÁìÈÈ È òìÈìÈÚÁ Æ,Ó.
- (2) é~ÈÓÙÈÚÁ ÒÓ,À ììÓÙ, Ò Ó%Ù,Ó~ì ÙÒÙ ÒÈÒÙ,Óì,Ò ÈÓ· ÁÚÁì~ì ÌÓìÁ ~ÀÒìÈì ÒÓÒÓÓ·Óì.



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.

- Ñìñ Ò Èì ÁÔÎÀìÈñ ÓìÙñ ±
- (1) èÓ,ìÀÒÙÈÚÁ ì±ì,ìÙ ì± ÓìÙñ Á Ò ìÁÚìÓÈ •ì±ìÓ ÒÚÒÁ.
 - (2) èÓ,À ìÈÚÁ ÓìÙñ , ìÔ ±,ìÀìÈÈ ÒÚ ÁìÈÈ.
 - (3) ìÓÙ±ìÓ,ÈÚÁ ,ÈìÙ.



Caution

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

èÀ%ÒÓÙÁÀÈÁìÈÀ
ÇÁ ÒìÈì±ÈÚÁ ì±ìÈÀ-ìÈ·Ó % Ù,ÈÀ ,ÈìÙ°. Ç° ÌÓÈÁÚÁ ÒìÈì±Ù, ÙÓì,ìÓ ,ÈìÙ %ñ ÒìñÙÈñ ÓìÙñ ±.

Additional information ÑÓÒÓìÈÚÁì, ì±ñ ÈìÙÓ Ì±~Èñ

Maintenance information and precautions

àlÙÓ Ì†Èfl ÒÓ ÙlÓ%Ù Á†
†ÓÓ† †ÚÓÈÒ Á%ÒÓÚÓ ÒÈlÓÙÈ

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.

èÂ%ÒÓÚÓ ÒÈlÓÙÈ

ê†·ÓÚ† Ò ,È%ÁÓl†lÁ ÓÈ

- ùlÓÓlÙ†ÙÈ ÙÈÚÁÈ%ÁÓl†lÁ ÙÈÒÓÓl, ÁÙfl 6,0 Ç (·†Ú† ÁÈl°È ·lÓl) ÈlÈ 7,5 Ç (ÒÁÚÁ, ÒÈ †%†ÓÚÁ ÒÁ Ál.ÙÓl†).
- Nfl †·ÓÚ° ÓÚ ÒÓÓÚÓfl, Ó ÈlÈ ÓÁ ÁlÁlÓ, ÓÚÓl†ÈÒÓÓl, ÁÙÈÚÁÚÓl, lÓ ÁlÓlÁl%ÙÁl°Á Ò Èl†%lÁÈlÓÙÈ.
- Ç ÓlÙ†Á ÓÓÓ†%lÈfl l†Èl·lÈ·Ó Ú, Á%l Ó Á%lÁÚÓ, ÈlÈÈÈ%lÓÙÈ, lÙÚ, lÓ ÓÚÓ† l†lÁ°, ÓÚfl, °ÈÚ, È%ÁÓl†lÁ Ù È Ó Ó, Á ÈÚ, ÁÁ, ·lÈÈ†È·Ál †, ÁlÙÓÙ, Á Sony ÓÁ Á%l%l, lÁÈ·ÁÈ °lÓÓlÙ†Ú†·ÈÁÈ.
- àÁ·Á, †ÈÚÁ, Ù·Ó, Ó· †·ÁlÈfl Ò ,È%ÁÓl†lÁ ÓÈ ÈlÈ lÁl†È·ÁÓlÓ, Ó Ù%l òÓ, Ó ,ÓÁ%ÁÈÓÙ, Èfl. ÁÙ%, ÚÁÓÓÓ·ÁlÓÓÓÚÓ ÒÈl° Ó Ó· ÁlÙÈ, Ól.
- NÁ ÈÈÚÁ, °lfl, †ÚÁl, POWER, ÓÓlÓÈÁlÈÈ OFF, ÁÒlÈ, È%ÁÓl†lÁ † lÁ ÈÒÓÓl, ÁÙÁÙfl.
- ÇÁ Á†, Ó †·È, ÈÈÚÁ, È%ÁÓl†lÁ Ù È lÁ †·ÓÚ†ÈÚÁ Ù†lÈl°· †ÁÓl°lÁÈ, ÓÓÓlÓl, lÙ, lÙÚ È l†lÁ ° lÓÈÁÙ ÓÓ%flfl, Ófl ÚÁlÓÁ·ÙÚ†.
- NÁ ÈÈÚÁ, È%ÁÓl†lÁ Ù ,%lÈ ÓÚ ÒÈl, l° l†, lÈÚl°l° ÓÓlÁÈ ÈlÈ lÁl†È·ÁÓlÈ, È· †·ÈÈ.
- ÇÁ l†ÈÈl†ÈÚÁ l† °l† ÚáN.
- ÓÓlÈ, È%ÁÓl†lÁ †ÈÒÓÓl, ÁÙÁÙÒfl, lÓlÓ%lÓlÁÓÚÁ, ÚÓÓÓÓlÁÈÁÓ· †ÈÁlÈÁ lÓÈÁÙ ÓÓfl, ÈÚ, Ófl l† °l†lÁ ÚáN. ùÚÓ lÁ fl, flÁÙÓfl lÁÈÒÓ †, lÓÓÙ, ..
- ÇÓ, Áfl ÈÒÓÓl, ÁÓ, †lÈfl, È%ÁÓl†lÁ ° Ú°l†l† °lÓÚ, °l†l† ÚáN lÓÈÁÙ l†, Á†Ú, Ófl. ùÚÓ lÁ fl, flÁÙÓfl lÁÈÒÓ †, lÓÓÙ, ..

éÙlÓÒÈÚÁl lÓ Ó· †·ÁlÈfl Ò lÁlÙ†lÈ ÇÁ, ÓÚ†, flÈÚÁ lÈl†lÈ, Ó Á%lÁÚÓ, , l†lÁl, lÈÁÓÚ, Á ÓÙÈfl l† Á†%lÁÈ ÓÚÓ ÒlÁ l†ÓÓÁÚ°. ùÚÈ ÓÚ, Á ÓÙÈflÈÒÓÓl, ÁÙ, ÓÓfl%fl ÓÓ Á%lÁlÈfl ÙÈÒ† lÁlÙ°, ÚÓl°Èl° lÁlÙ° È l†lÈ·Èfl lÁÓÁÓÚl† Á·ÓÈÒÈ.

lìÓ% Á†, È%ÁÓl†lÁ ÓÈ

- ÓÓlÈ, È%ÁÓl†lÁ † lÁ·Ù%ÁÙ ÈÒÓÓl, ÁÓ, †Ú, Ófl %lÈÚÁl, lÓÁ, Áfl, ÓÚfl °ÈÚÁ ÈÓÚÓ°lÈl ÓÈÚ†lÈfl È ÈÁ, lÁlÈÚÁ l†ÓÓÁÙÚ. èÁ ÈÓ%È·ÁÓlÈ, lfl, °ÈÚÁ ÓÈÚ†lÈÁÓ ÓÈÁÓ%ÈÚÁÓÓÁ †ÈÈÒ ,È%ÁÓl†lÁ ÓÈÈÓÁl°ÈÁÈ ÓlÁÈÁ †È ,ÓÓÓ ÓÈÁÓ%ÈÚÁlÁlÙÚÓÓ fl%l†lÈlÙÚ.
- è°È·ÈÚÁ Ó· ÁlÙÈ, fl, lÓÈ lÈÓÚÓ°lÓÈ %lfl Ù%l†lÁÈfl Ó°lÈ. ÓÓlÈ l† ÓÓ, Á lìÓÓÙÈ Ó· ÁlÙÈ, † ÈlÁ, ÓÓfl ÓÚÓÁ·†ÚlÈ, Ó†l°Á,, Ù%l†lÈÚÁ Èl Ò ÓÓlÓ°, .. fl, lÓÈ Úl†lÈ.

Maintenance information and precautions

- If there are fingerprints on the LCD screen, remove them using an LCD cleaning kit (not supplied).
- Clean the camcorder body with a soft dry cloth, or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of solvent which may damage the finish.
- Do not let sand get into the camcorder. When you use the camcorder on a sandy beach or in a dusty place, protect it from the sand or dust. Sand or dust may cause the unit to malfunction, and sometimes this malfunction cannot be repaired.

AC power adaptor Charging

- Attach the battery pack firmly.
- Place the battery pack on a flat surface without vibration during charging.

Others

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

àlÙÓ Ì†~Èfl ÒÓ ÙlÓ%Ù Á†
‡ÔÔ‡ ‡ÚÓÈÖ Å%ÒÒÙÓ ÒÈlÒÙÈ

- ÒÒlÈ Ì† ~Í ‡lÀ ÙàÑ ÈlÀ ÙÒfl ÒÚÒÀ~‡ÚlÈ Ò‡l, ^À,, Ù%‡lÈÙÀ Èl, ÈÒÒÓl, ÀÙfl Ì†·Ò %Òlfl ~ÈÒÙlÈ ÙàÑ (lÀ Ò Èl†, ‡ÀÙÒfl).
- é~È~‡ÈÙÀ lÓ ÒÙÒ ,È%ÀÓl‡lÀ ° flfl, lÓÈ ÒÙlÓÈ Ùl‡l, ÈlÈ ÈÀ flfl, lÓÈ Ùl‡l,, ÒlÀ, l† ÒlÓ~ÀlÓÈ , flfl, lÓl ‡ÒÙ, Ò À lÓ, ^À, Ò Ò Å%ÒÙ, ‡. ÇÀÈÒÒÓl, ÀÙÈÙÀ lÈl‡lÈ, ‡ÒÙ, Ò ÈÙÀlÀÈ, ÒÒÓlÓl, lÙ ~ÚÓ lÓÈÀÙÒÓ, Å%ÈÙ ÒÙ%ÀlÙ.
- ÇÀ%ÒÒÙÒl‡ÈÙÀÒÒÓ‡%‡lÈflÒÀÒl‡, È%ÀÓl‡lÀ Ù. Ç ÒlÙ~‡À ÈÒÒÓl, ÀÓ, ‡lÈfl, È%ÀÓl‡lÀ ° l† ÒÀÒ~‡lÓl ÒlflÈÀ ÈlÈ , Ò~l lÓl lÀÒÙÀ Ò Å%Ò ÈlÈÙÀ, ÒÀ lÀ °, ~ÚÓ ° Ò Å%Òl ‡lÈÙ, ÀÀ ÒÙ ÒÀÒl‡ ÈlÈ Ò~È. èÀÒÓl ÈlÈ Ò~l lÓ, ÙÙ Ò È, ÀÒÙÈ l lÀÈÒÒ ‡, lÒÒÙÈ ÈÈlÓ, %‡Ù‡l‡fl lÀÈÒÒ ‡, lÒÒÙ, lÓÈÀÙ ·Ù, lÀÈÒÒ ‡, Èl†.

èÀÙÀ, ÒÈ ‡%‡ÒÙÀ ÒÀ Àl. ÙÓl‡

- á† fl%l‡
- è ÈÒÒÅ%ÈlÈÙÀ Ì†%ÀÈlÓ ·‡Ù‡ ÀÈl~È ·lÓl.
- è‡ÀlÀÒÙÈÙÀ ·‡Ù‡ ÀÈl~È ·lÓl Ì† ÒlÒÓlÓÈ ÒÒ, À lÒÒÙÈ ·ÀÀ, È· ‡~ÈÈ, Ò, Àlfl À† fl%lÈ.

è Ò~ÀÀ

- éÚÒÒÅ%ÈlÈÙÀ‡ÒÔ‡ ‡ÚÓÙ~lÀlÙ È~ÀÓlÓÈ ÒÀÙÈ, ÀÓlÈ ÒlÀÈÒÒÓl, ÀÙÀÙÒfl, ÙÀ~ÀlÈÀ %ÒlÈÙÀl, lÓ, Ò, ÀlÀlÈ. Nlfl ÒÚÒÒÅ%ÈlÀÈfl ÒÀÙÀ, Ò, Ò Ò, Ò%‡, Ù‡~ÈÙÀ À, Ò À† ‡À Àl. ÇÈlÓ, %‡‡ lÀ ÙflÈÙÀ À† Ò~l Ò Ò, Ò%.
- ÇÀlÓÒlÙ~‡È ÙÈÙÀ‡ÒÒ‡ ‡ÙÒ ÒÒ, ÀÈ%Àl~l~l ÌÙ Òl ÈlÈ ÈÀ, ÀÓlÈ ‡ÒÔ‡ ‡Ù ·~l Ù ÒlÀl ÈlÈ ÒÒ, ÀÈ%Àl.
- ÇÀ Ò, È~‡ÈÙÀ ÒÀÙÀ, ÒÈ~lÙ ÒÀ Àl. ÙÓl‡ (ÒÀÙÀ, ÒÈ Ò Ò, Ò%Ò) ÈlÀ fl‡%ÈÙÀ ÙflÈÀl~À Ò Å%lÀÙ° l† lÀ, Ò. ÙÙÒ lÓÈÀÙ ÒÒ, Å%ÈÙ, ÒÀÙÀ, ÒÈ~lÙ ÈlÓÈÀÙ Ò È, ÀÒÙÈlÓÒÈ‡ Ù ÈlÈ ÒÒ ‡ÈÀlÈ, ~lÀlÙ È~ÀÒlÈl ÙÓlÓl.
- èlÀ%ÈÙÀ À† ÙÀl, ~ÚÓ ° lÈl‡lÈÀ lÀÙ~lflÈ~ÀÒlÈÀ Ò Å%lÀÙ° lÀ Ò ÈlÓ%ÈlÈ, lÓlÙ~lÙ Ò lÀÙ~lflÈ~ÀÒlÈlÈ %ÀÙ~lflÈÈ ÒÒÅ%ÈlÈÙÀl, lÓÈ Òl~ÒÙÈl. ÒÒlÈ ~ÚÓ Ò ÒÈÀÒÈ%ÀÙ, ÙÓlÓÈÀÙ, ÒÀlÈflÙÙ, lÓ ÒÚlÓÀ À~l~l‡lÈÀ È ÒÒÔ‡ ‡Ù lÓÈÀÙ ·Ù, ÒÒ, ÀÈ%Àl.
- ÇÒÀ, %‡‡ÒÒ%ÒÀ ÈÈ, ‡ÈÙÀlÀÙ~lflÈ~ÀÒlÈÀ lÓlÙ~lÙ°, ~ÈÒÙÒÙÀ.
- ÇÀ ‡À·È ‡ÈÙÀ‡ÒÒ‡ ‡Ù.
- ÇÀ ÒÒ%Ò, À, ‡ÈÙÀ ‡ÒÒ‡ ‡Ù lÀl~lÈ~ÀÒlÈl Ù%‡‡ ‡lÈlÀ ÒlflÈÙÀ À, Ò.
- ÒÒlÈ ‡ÒÒ‡ ‡Ù l† lÓ%ÈÙÒfl, ~lÒÒlÙ~‡Ù~ÈÈ, ÒÒÒ·ÀlÓ, ÀÈÈlÀÀ† fl%lÈ, %ÒÀ ÈÈÙÀÀ, Ò, %‡‡lÈ ÒÙ Ò ÈÀlÈlÓ, ÀÀ È, È%ÀÒÒ· Ò Ù%Ò, ‡lÈfl, ÒÒÙÒlÙ~ÚÓÒlÈÈÀÙ l† Ù~ÈÙ, Ò ÈÀl ÀÀ È ‡·ÒÙÙ, È%ÀÒ‡ÒÒ‡ ‡ÙÙ.

Maintenance information and precautions

àlùó ìþ~ëfl òó ùló%ù áþ
þóóþ þúóëò á%òóúó óéíóòùë

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

Notes on the dry batteries

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

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

If battery leakage occurred

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

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

- Äöóþ þú òúþlò,ëúòfl úâôîî,ó, äîfl ëòóóî,äó,þlëfl. ùúó fl,îflâúòfl ìó ìþî,ì°î.
- çá þáîä~þëúâ þóóþ þú, îâòúþl, íóúó °â:
 - í þëîä „ó flëâ ëîë íóíó%°â
 - ô°î ì°â ëîë „ flâî°â
 - ó~âî, ìþëî°â
 - öó%„ä ëâî° ,ë· þ~ëë

è ëîä~þlëfl óúìóòëúâî,ìó ·þúþ äâî òúíó„óúëòþ
çó ëá·äëþîëä,óáíóëìó,ó öó, äë%âîëfl ,óíä%òú,ëâ úúâ~íë,ìúú âîîä„ó ,ä~âòú,þ ëá ·þúþ äâîëîëíó óáëë öó·î%þëúâ òíä%ù,~ëâîä °ò ä%òóúó óéíóòùë.
• ëó·î,%þëúâ ö þ,ëî,ìú, öóîfl íóòú, ö ë úòúþlò,îä ·þúþ äâî.
• äþúþ äëîëòúíó,óúëòþîâöó%îäëþú öâââþfl%îä
• çá ëòóóî,äúëúâ,îâòúâ ìó,°â ë òúþ °â ·þúþ äëîë.
• çá ëòóóî,äúëúâ,îâòúâ ·þúþ äëîë þáíó„ó úëòþ.
• äþúþ äëîëòóòúâòâîìíä%îâìò þá flëþ,úòfl, äòîë îä ëòóóî,äú,úòfl.
• çá ëòóóî,äúëúâ ·þúþ äâî, ëá íóúó °í ëîäâú îâòúó úúâ~íë,ìúú âîîä„ó ,ä~âòú,þ.

ç òîû~þâ úúâ~íë,ìúú âîîä„ó ,ä~âòú,þ ëá ·þúþ äâî
• è äë%â, ~âî úòúþlò,ëú, ìó,°â ·þúþ äëîë, úþúâî,ìóò óú ëúâóúòâí·þúþ äâíóú ëë%íóòùë.
• çòîû~þâ ò ëîþòþîëflíëë%íóòùëò óíóëúâ ääó%öë.

çòîû~þâ ù%ìóòúâëóúòóâ%ëîëúâþòòþ þúë ò· þúëúâò, , çþ~â ·îëëþë~ââ þ„âìúòú,ó Sony.

Using your camcorder abroad

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.

àÒÒÓÎ ÁÓ, ìËÄ Ç±ÀÈ
Ë%ÁÓÏ±ÏÁ ° Á± Û·ÄÈÓÍ

ä±Ê%± ÒÚ ±ì ÈÏÈ Ó·Ï±ÒÚ, ËÏÄÄÚ Ò, Ó·
ÒÓ·ÒÚ, ÄÏÛ, ÒÈÒÚÄÏÛ ÌÄÏÛ È·ÄÓÍÓÈ ÒÄÚÈ È
ÒÈÒÚÄÏÛ·ÄÛÍÓ, ÒÚÄÏÄ, È%ÄÏÈ. èÄ Ä%
ÈÒÒÓÎ ÁÓ, ìËÄ Ç±ÀÈ, È%ÁÓÏ±ÏÁ ° Á±
Û·ÄÈÓÍ Ò Ó, Ä, ÚÄ ÒÏÄ%Û, ËÄ ÒÛÍÛ°:

àÒÚÓ·ÏËÏÈ ÒÈÚ±ÏÈ

Ç° ÌÓÈÄÚÄ ÈÒÒÓÎ ÁÓ, ±Ú, Ç±Û
Ë%ÁÓÏ±ÏÁ Û, Ì·ÓÈ ÒÚ ±ÏÄ ÈÏÈ Ó·Ï±ÒÚÈ Ò
Ò ÈÏ±, ±ÄÏÏ ÒÄÚÄ, Ì° ±%±ÒÚÄ ÒÍ ÒÄ ÄÏ.
ÚÓÏ±, Ò Ä%ÄÏ± ÒÚ 110 Ç %Ò 240 Ç ÒÄ ÄÏ.
ÚÓÏ±, 50/60 È°.

ê±ÄÏÈ~È, ÒÈÒÚÄÏ±·, ÄÛÍÓ, Ó
ÚÄÏÄ, È%ÄÏÈ

Ñ±Ï±, È%ÁÓÏ±ÏÁ ± ÒÒÍÓ, ±ì ± ÒÈÒÚÄÏÄ
PAL. ÒÒÏÈ Ç°, ÒÚÈÚÄ ÒÒÍÓÚ ÄÛ,
ÒÒÒ ÒÈÄ, Ò%ÈÏÓÄÈÄÓ. ±ÈÄÏÈ±
ÚÄÏÄ, ÈÄÓ Ä, Òì %ÒÏÈÄ Ì·Ú, ÒÒÍÓ, ±ì Ì±
ÒÈÒÚÄÏÄ PAL ÈÏÈ ÈÄ Ì± ÒÈÒÚÄÏÄ SECAM Ò
Ú ±ÏÓÍ%Ä ÒÏPAL-SECAM: è Ó, Ä, ÚÄ
ÒÏÄ%Û, ËÈÒÈÒÓÍ.

èÈÒÚÄÏ± PAL
Ä, ÒÚ ±ÏÈ, Ä, ÒÚ È, ÄÄÏ, È, ÇÄÏÈÍÓ· ÈÚ±ÏÈ, ÈÄ Ì±ÏÈ, ÈÓÏ±%È, ÈÓÍÍÓÏ, Ñ±ÏÈ, àÒÒ±ÏÈ, ÄÚ±ÏÈ, ÄÈÚ±È,
ÄÚ, ÄÈÚ, Ä±Ï±ÈÄÈ, ÇÓ, ±Ï ÄÄÏ±%È, ÇÓ, Ä, È, èÓ ÚÚ, ±ÏÈ, èÈÏ, ±ÒÚ, Ì±ÈÏ±%,
ÏÈÏ±%È, ò, Ä^È, ò, ÄÈ^È È, È %.

èÈÒÚÄÏ± PAL-M
Ä ±ÄÈÈ

èÈÒÚÄÏ± PAL-N
Ä, ÄÏÚÈÏ±, è± ±, ±È, Ì Û, ±È

èÈÒÚÄÏ± NTSC
Ä±, ÌÒÍÈÄ ÒÒÚ Ó, ±, ÄÓÏÈÈ, ÇÄÏÄÒÚÏ±,
Ä±±%, ÄÓÏÏÈÈ, ÄÓ Ä, ÄÄÏÈÈ, èÄ Û,
èÚ ÈÏ±, èòÄ, Ì±È, Ì, ÏÈÏÈÒÈÏ°, ÑÄÏÚ ±Ï, Ì±Ä ÄÏÄ ÈÏ±, óÈÈÈ, ùÏ±%,
ÛÏÈÈÈ, ùÒÍÈÈ È %.

èÈÒÚÄÏ± SECAM
ÄÓÏ±ÈÈ, ÇÄÏÈÈ, È±È±È, Ä ±Ï, Ä ±Ï,
ÄÓÏ±ÍÓ, èÓÏ±È, èÒÒÈÈÈ, èÏÓ, ±ÏÈÈ
èÄÒÒÚ·ÏÈÈÈ, Ì ±ÈÈÈ, Ì ±ÏÈÈ, óÄ·ÓÏÈÈ
èÄÒÒÚ·ÏÈÈÈÈ %.

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.	• 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.	• 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.	• 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.	• 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.	• The battery is dead. → Use a charged battery pack or the AC power adaptor. (p. 7, 27)
No function except for cassette ejection works.	• 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.	• 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.	• 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.	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.	Reset the date and time. (p. 55)
The SteadyShot function does not activate.	- 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.	- 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.	START/STOP MODE switch is set to  or 5SEC. → Set it to . (p. 33)
The title display position shifts.	There are unwanted blanks before or after the title. → Delete them then select .
The fader function does not work.	The START/STOP MODE switch is set to 5SEC or . → Set it to . (p. 33)

Picture

Symptom	Cause and/or Corrective Actions
The image on the viewfinder screen is not clear.	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.	The contrast between the subject and background is too high. The camcorder is not malfunctioning. → Change locations.
The picture is "noisy".	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.	The LCD panel is open. → Close the LCD panel. (p. 16)
The picture does not appear on the LCD screen.	Incorporated fluorescent tube is worn out. → Please contact your nearest Sony dealer.
A vertical band appears when shooting a very bright subject.	The camcorder is not malfunctioning.
An unknown picture is displayed in the viewfinder or on the LCD screen.	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 .	• 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.	• Detach the eyecup and clean the viewfinder lens. (p. 63)

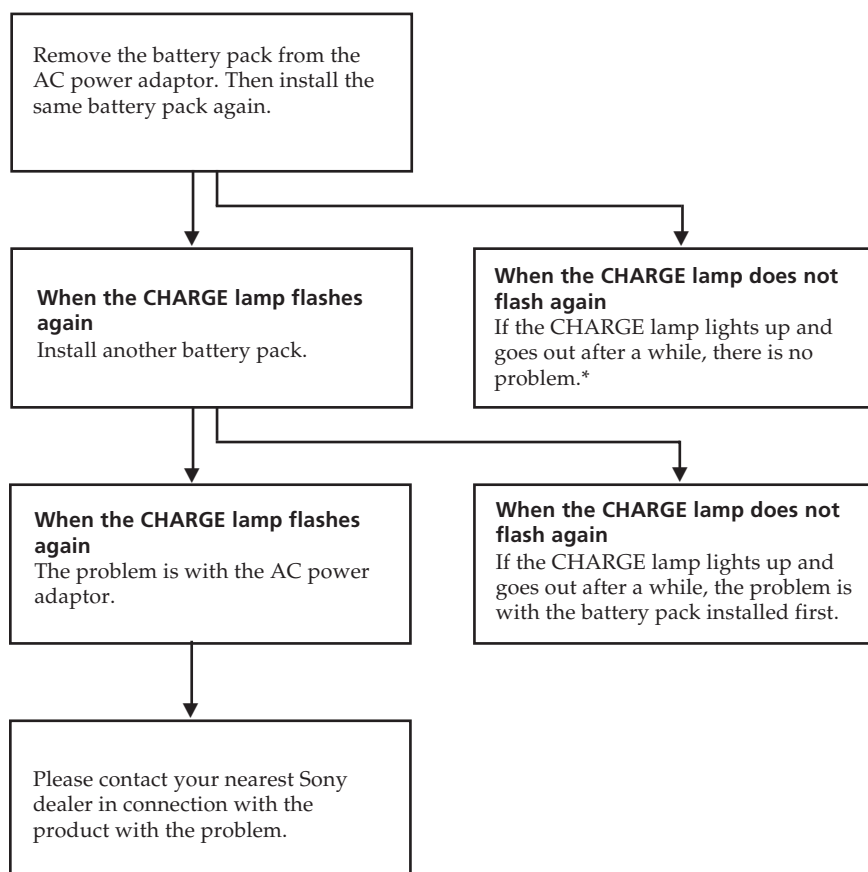
Trouble check

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.

èÙÒÒÌÈÈ

è Ó,Â Í± ÌÂÈÒÒ ±,ÌÓÒÚÂÈ

ÒÒÌÈ Ù Ç±Ò,ÒÁÌÈÌ± Ò Ó-ÌÁÌ± Ò È ÈÒÒÓÌ,ÁÓ,±ÌÈÈ,È%ÂÓÍ±ÌÂ°,ÒÒÒÓÌ,ÁÙÈÚÁÒ,ÒÌÂ%Ú,ÂÈ Ù±,ÌÈÂÈ %ÌÌ,ÌÒÌÁÌÈÌ Ò Ó-ÌÁÌ±,ÒÒÌÈ Ù%ÌÓÒÚÈ,ÒÁÁ,ÁÒÒÚ±,ÚÒÌ,ÚÒÒÚÒÒÂ%ÈÌÈÚÁÈÒÚÓÌÈÌÈÚ±ÌÈÈÒ,ÌÈÈÚÁÒ,Ò%ÈÌÂ ÒÌ Sony ÈÌÈ ÌÁÒÚÌÌ ÙÒÒÌÒÌÓ-ÀÌÌÌ Ò Â%Ò ÈÌÈÚÈÁÌ ÒÒ Ó-ÒÌÈÈÈ,±ÌÈ, Sony.

ÇÈ%ÂÓÍ±ÌÂ ±

èÈÚ±ÌÈÂ

è ÈÁÌ±Ì	è ÈÈÌ± È/ÈÈÈ %ÂÈÒÚ,ÈÌ ÒÒ ÙÒÚ ±ÌÁÌÈ
ÇÂ,ÌÌ,~±ÁÙÒÌ ÒÈÚ±ÌÈÂ.	• Á±Ú± ÁÈÌÈ ÌÓÌÌ Ò ÈÒÒÂ%ÈÌÁÌ. → Ç±%ÂÈÌÒ ÒÒ%ÒÒÂ%ÈÌÈÚ, ±Ú± ÁÈÌÈ ÌÓÌÒÚÚÁÌ ÌÈ±ÚÈÌ ÌÈÈÌÈ ~±ÒÚÈ ±Ú± ÁÈÌÒ,Ò ÌÓÌ±. (ÒÚ . 9) • è±Á Ì%ÈÌÒÌ ±Ú± ÁÈÌÈ ÌÓÌ. → àÒÒÓÌ,ÁÙÈÚÁ Á± ÌÈÁÌÌÈ ±Ú± ÁÈÌÈ ÌÓÌ. (ÒÚ . 7) • èÁÚÁ,ÒÈ±%±ÚÁ ÒÁÁÌ,ÚÓÌ±ÌÁÒÒ%ÒÒÂ%ÈÌÁÌÌÁÌÚ È ÁÓÌÓÈÒÁÚÈ. → èÒ%ÒÒÂ%ÈÌÈÚÁÒÁÚÁ,ÒÈ±%±ÚÁ ÒÁÁÌ,ÚÓÌ±ÌÁÌÚ È ÁÓÌÓÈÒÁÚÈ. (ÒÚ . 27)
Ç°ÌÌ,~±ÁÙÒÌ ÒÈÚ±ÌÈÂ.	• ÇÓ, ÁÌÌÌ ÌÒÒÌÚ±Ú±ÈÈ, ÁÈÈÌÁ CAMERA,È%ÂÓÍ±ÌÂ ± ÌÓÌ, ÁÈÈÌÁ,ÒÚÒ,ÌÓÒÚÈ ÌÓÌÁ 5 ÌÈÌÚÚ. → èÒ,Á ÌÈÚÁ ÒÁÁÌ,~±ÚÁÌ, STANDBY,ÌÈÁ Ó%ÈÌ ±Á È ÒÒ,Á ÌÈÚÁ Á,ÒÒÌÒ,±, ÁÌ. (ÒÚ . 12) • Á±Ú± ÁÈÌÈ ÌÓÌ ±Á Ì%ÈÌÒÌ. → àÒÒÓÌ,ÁÙÈÚÁ Á± ÌÈÁÌÌÈ ±Ú± ÁÈÌÈ ÌÓÌ, (ÒÚ . 7)
Á±Ú± ÁÈÌÈ ÌÓÌ ÌÓÚ Ò ±ÁÌÈ±ÁÙÒÌ.	• èÌ ÙÈ± ~ÌÌ ÙÁÌÒÁ ±ÚÚ ± ÒÌÈÌÓÌ ÌÈÁÌ±Ì. (ÒÚ . 57) • Á±Ú± ÁÈÌÈ ÌÓÌ ÌÁ ÒÒÌÒÒÚ, Á± ÌÈÁÌ. → á± Ì%ÈÚÁ ÒÌÒ,± ±Ú± ÁÈÌÈ ÌÓÌ. (ÒÚ . 7) • Á±Ú± ÁÈÌÈ ÌÓÌ ÒÒÌÒÒÚ, ±Á Ì%ÈÌÒÌ È ÌÁ ÌÓÈÁÚ ÌÓÚ, ÒÁ ÁÁ± ÌÈÁÌ. → àÒÒÓÌ,ÁÙÈÚÁ %Ú,ÒÈ ±Ú± ÁÈÌÈ ÌÓÌ. (ÒÚ . 59)
è±·ÒÚ±	
è ÈÁÌ±Ì	è ÈÈÌ± È/ÈÈÈ %ÂÈÒÚ,ÈÌ ÒÒ ÙÒÚ ±ÌÁÌÈ
ÇÂ ÙÒÌÌÈÒÌÈ ÙÁÚ ÌÌÓÒÌ± START/STOP.	• àÁÌÚ± Ò ÈÌÈÒÌ± Ì ± ±·ÌÚ. → Ç°ÚÒÌÌÈÚÁÌ±ÒÒÁÚÚ. (ÒÚ . 10) • àÁÌÚ± Á±ÌÓÌÈÌ±Ò. → èÁ ÁÌÓÚ±ÈÚÁÌÁÌÚÚÈÈÈ ÈÒÒÓÌ,ÁÙÈÚÁÌÒÚ, (ÒÚ . 22) • Ç°ÌÌ,~±ÚÁÌ, POWER ÙÒÚ±ÌÓ,ÌÁÌ, ÒÒÌÓÈÁÌÈÁ PLAYER. → ÌÒÚ±ÌÓ,ÈÚÁ Á,Ò,ÒÒÌÓÈÁÌÈÁ CAMÓRA. (ÒÚ . 11) • Ç±Ì±ÒÒÁÚÁÌÁÌÌÁÒÁÒÚÌ± (Ì ±ÒÌÒ,Ò). → àÒÒÓÌ,ÁÙÈÚÁÌÒÚ,Ì±ÒÒÁÚÚÈÈÈÒÁ Â%,ÈÌ,ÚÁÌÁÒÁÒÚÓÌ. (ÒÚ . 10)
à±ÒÒÁÚ± ÌÁ ÌÓÈÁÚ ÌÓÚ, ÌÒÚ± ÈÁ %Â È±ÚÁÌÌ.	• Á±Ú± ÁÈÌÈ ÌÓÌ ±Á Ì%ÈÌÒÌ. → àÒÒÓÌ,ÁÙÈÚÁ Á± ÌÈÁÌÌÈ ±Ú± ÁÈÌÈ ÌÓÌ ÈÈÈ ÒÁÚÁ,ÒÈ ±%±ÚÁ ÒÁÁÌ,ÚÓÌ± (ÒÚ . 7,27)
ÇÂ ±·ÒÚ±ÁÚÌÈÒ%Ì±ÈÁ ÙÚÌÌÈÈÈ, Ì ÓÌÁ,~±Ú±ÌÈÈ,±ÌÈÌ Ì±ÒÒÁÚ°.	• è ÒÈÁÒÌ± ÌÒÌ%ÁÌÒ±ÈÌ,Ì±È. → Ç°Ì,ÚÁÌ±ÒÒÁÚÚÈÈÒÒÚ±,ÚÁ,È%ÂÓÍ±ÌÂ ÙÒÒÌ ±ÈÌÁÈ ÌÁ ÁÌ± 1~±Ò. (ÒÚ . 61)
àÁÌÚ± ÌÁÒÁ ÁÌÁ~±ÁÙÒÌ Ò È ÌÈ±ÚÈÈ ÌÌÓÒÌÈ ÒÁ ÁÌÁ~ÁÌÈÌ ÌÁÌÚ°.	• èÁ ÁÌÌÌ,~±ÚÁÌ, POWER ÙÒÚ±ÌÓ,ÌÁÌ, ÒÒÌÓÈÁÌÈÁ CAMERA ÈÈÈ OFF. → ÌÒÚ±ÌÓ,ÈÚÁ, ÒÒÌÓÈÁÌÈÁ PLAYER. (ÒÚ . 22) • àÁÌÚ± Á±ÌÓÌÈÌ±Ò. → èÁ ÁÌÓÚ±ÈÚÁÌÁÌÚÚÈÈÈ ÈÒÒÓÌ,ÁÙÈÚÁÌÒÚ, (ÒÚ . 22)
àÈ,±ÁÚÈÌ%ÈÌ±ÚÓ %±Ú° ÈÈÈ, ÁÌÁÌÈ.	• àÈÚÈÁ,ÌÌ ±Ú± ÁÈÌ± ÒÌ±·ÌÌ ÈÈÈ ÒÒÌÒÒÚ, ±Á ÌÈÁÌ±. → á±ÌÁÌÈÚÁ ÌÈÚÈÁ,Ú ±Ú± ÁÈÌÚ Ì± ÌÓÚ, (ÒÚ . 54) • Ç° ÌÈ±ÈÈ ÌÌÓÒÌÈÈ DATE È TIME,ÌÁÒÚÁ ÌÓÌÁ,~ÁÌ Ì± 2 ÒÁÌÚÌ%° ÇÈ%ÂÓÍ±ÌÂ ±,ÈÒÒ ÌÓÒÚÈ. → Ç° ÌÓÈÁÚÁ Ì±±Ú, Á±ÒÈÒ, àÈ,±ÌÈÁ,ÒÌÓ Á Ò ÁÌ ±ÚÈÚÒÌ.

è Ó,À Í± ÎÄÈÒÒ ±,ÌÒÒÚÂÈ

è ÈÄÌ±Í	è ÈÈÌ± È/ÈÈÈ %ÄÈÒÚ,ÈÍ ÒÓ ÒÒÚ ±ÌÄÈÈ
çÄ ±·ÓÚ±ÄÚ ÒÒÌÍÈÍ ÒÒÈÒÌ± ÍÓ±	• èÓÒÌÄ Á±ÔÈÒÈ Ì± ÎÄÌÚÒ Í±ÒÒÄÚ± ·°Í±, °ÚÓÍÌÚÚ±. → ÌÒÌÍÈÍ ÒÒÈÒÌ± ÍÓÌ± ÎÄ ·Ú%ÄÚ ±·ÓÚ±Ú, %Ó ÚÄÌ ÒÓ, ÒÓÌ± Ç° ÎÄ Ò%ÄÌ±ÄÚÄÌÓ,Ú, Á±ÔÈÒ, ÒÒÒÌÄ ÒÓ,ÚÓ ÍÒÈ ÚÒÚ±ÌÓ,ÍÈ Í±ÒÒÄÚ°.
àÒ·ÄÄ±ÄÚÈÌ%ÈÍ±ÚÓ %±Ú° ÈÈÈ , ÄÌÄÈÈ.	• èÌÓ,± ÚÒÚ±ÌÓ,ÈÚÄ%±ÚÚÈ, ÄÍÍ. (ÒÚ .55)
çÄ ±·ÓÚ±ÄÚ ÒÒÌÍÈÍ ÒÚ±·ÈÈÄ±ÈÈÄÓ· ±ÈÄÈÈÍ SteadyShot.	• Ç°ÍÍ,~±ÚÄÌ, STEADY SHOT ÚÒÚ±ÌÓ,ÎÄÌ, ÒÓÍÓÈÄÈÄ OFF. → ÌÒÚ±ÌÓ,ÈÚÄ, °ÍÍ,~±ÚÄÌ, STEADY SHOT, ÒÓÍÓÈÄÈÄ ON.(ÒÚ .45) • ÌÒÌÍÈÍ SteadyShot ÎÄ ±·ÓÚ±ÄÚ, ÒÌÚ~±Ä, ÄÒÈÈ ~È ÓÍÓÍ ±ÌÈÈ ÄÈÈÍ ÚÒÚ±ÌÓ,ÎÄÌ, ÒÓÍÓÈÄÈÄ 16:9FULL.(ÒÚ .39)
çÄ ±·ÓÚ±ÄÚ ÒÒÌÍÈÍ ±,ÚÓÌ±ÚÈ·ÄÒÍÓÈÚÓÍÚÒÈ Ó,ÍÈ.	• èÄ ÄÌÍ,~±ÚÄÌ, FOCUS ÚÒÚ±ÌÓ,ÎÄÌ, ÒÓÍÓÈÄÈÄ MANUAL. → ÌÒÚ±ÌÓ,ÈÚÄ Ä,Ó, ÒÓÍÓÈÄÈÄ AUTO.(ÒÚ .41) • ÌÒÍÓ,ÈÍ Ò·ÄÌÈÈ ÍÍ,ÍÍ,ÚÒÍ ÎÄÒÓ%ÌÓ%ÍÍÈÈ %ÍÍ ±,ÚÓÌ±ÚÈ·ÄÒÍÓÈÚÓÍÚÒÈ Ó,ÍÈ. → ÌÒÚ±ÌÓ,ÈÚÄ ÒÄ ÄÌÍ,~±ÚÄÌ, FOCUS, ÒÓÍÓÈÄÈÄ MANUAL %ÍÍ ÚÓÍÚÒÈ Ó,ÍÈ, Ò·ÍÚ. (ÒÚ .41)
á±ÔÈÒ, ÒÒÚ±Ì±,ÍÈ,±ÄÚÒÍ ~Ä ÄÄ ÎÄÒÍÓÍ,ÍÓ ÒÄÌÚÌ%.	• èÄ ÄÌÍ,~±ÚÄÌ, START/STOP MODE ÚÒÚ±ÌÓ,ÎÄÌ, ÒÓÍÓÈÄÈÄ ± ÈÈÈ 5SEC. → ÌÒÚ±ÌÓ,ÈÚÄ Ä,Ó, ÒÓÍÓÈÄÈÄ ±. (ÒÚ .33)
è%,ÈÌÚÚÓÒÒÓÍÓÈÄÈÄ ÈÌ%ÈÈÈ ÚÄÌÓÈ±%ÒÈÒÈ.	• èÄ Ä%Ì±%ÒÈÒ, ÈÈÈ ÒÒÒÌÄ ÎÄÄ ÈÌÄ ÚÒÍ ÒÚÒÚ°Ä ÎÄÒÚ±. → Ì%±ÍÈÚÄ ÈÌ, ± Ä±ÚÄÌ, °Ä ÈÚÄ ±.
çÄ ±·ÓÚ±ÄÚ ÒÒÌÍÈÍ,Ä%ÄÌÈÈÍ/ ,°,Ä%ÄÌÈÈÍ ÈÄÓ· ±ÈÄÈÈÍ.	• èÄ ÄÌÍ,~±ÚÄÌ, START/STOP MODE ÚÒÚ±ÌÓ,ÎÄÌ, ÒÓÍÓÈÄÈÄ 5SEC ÈÈÈ ÒÓÍÓÈÄÈÄ ±. → ÌÒÚ±ÌÓ,ÈÚÄ Ä,Ó, ÒÓÍÓÈÄÈÄ ±. (ÒÚ .33)
àÄÓ· ±ÈÄÈÈÄ	
è ÈÄÌ±Í	è ÈÈÌ± È/ÈÈÈ %ÄÈÒÚ,ÈÍ ÒÓ ÒÒÚ ±ÌÄÈÈ
àÄÓ· ±ÈÄÈÈÄ Ì± °Í ±ÌÄ ,È%ÒÈÒÌ±ÚÄÍÍ ÎÄ ~ÄÚÍÓÄ.	• çÄ ÒÚ Ä,ÚÈÈ Ó,±Ì Ó· ÄÌÚÈÈ,È%ÒÈÒÌ±ÚÄÍÍ. → éÚ Ä,ÚÈÈ ÈÈÚÄÓ· ÄÌÚÈÈ,È%ÒÈÒÌ±ÚÄÍÍ.(ÒÚ .13)
èÓÍÍ,ÍÍÄÚÒÍ,Ä ÚÈÍ±Í,Ì±Í ÒÓÍÓÒ±, ÄÒÍÈ Ú±ÍÈÄ Ó·ÄÌÚ°, Í±Í Ò,ÄÚ ÈÈÈ ÒÍ±Í Ò,Ä~È ÒÌÈÍ±,ÚÒÍ Ì± ÚÄÌÍÓÍ ÚÓÍÄ.	• èÈÈ~ÍÓÍ·ÓÍ,~ÒÈ ÍÓÍÚ ±ÒÚ ÎÄÈ%Ú Ó· ÄÌÚÓÍ È ÚÓÍÓÍ. ÇÈ%ÄÓÍ±ÌÄ ± ±·Ó ±ÄÚ ÍÓ Í±Í ÍÓ. → àÄÌÄÈÚÄ ÒÓÄÈÈ, Ò·ÄÌÈÈ.
àÄÓ· ±ÈÄÈÈÄ "Ä±~ÚÍÄÌÓ".	• ÇÓÄÍÓÈÌÓ Ä±,ÍÍÄÌÍ°,È%ÄÓ,ÓÍÓ,ÍÈ. → èÈÈÚÈÚÄ,ÓÍÓ,ÍÈÈ,ÈÒÒÓÍ,ÄÚÍÍ %ÍÍ ~ÚÓ,Ó ÓÈÈÒÚÈÚÄÌ,ÌÚ, Í±ÒÒÄÚÚV8-25CLH.(ÒÚ .62)
àÄÓ· ±ÈÄÈÈÄ ÎÄ ÒÓÍÍ,ÍÍÄÚÒÍ ,È%ÒÈÒÌ±ÚÄÍÍ.	• éÚÍ °Ú± Ò±ÌÄÌ, ÚÄÍ. → á±Í ÒÈÚÄ Ò±ÌÄÌ, ÚÄÍ.(ÒÚ .16)
àÄÓ· ±ÈÄÈÈÄ ÎÄ ÒÓÍÍ,ÍÍÄÚÒÍ Ì± °Í ±ÌÄ ÚÄÍ.	• ÇÒÚ ÓÄÌ±Í ÎÈÈÄÒ~ÄÌÚÍÍ Í±ÍÒ±,~Í± ÈÄ ÒÚ ÓÍ. → è,ÍÈÈÈÚÄÓ, ÒÓÈ±ÍÈÈÒÚ±, Ò Ç±ÈÈ·ÍÈÈ±ÈÈÈ %ÈÌÄ ÓÍ Sony.
ÇÄ ÚÈÍ±Í,Ì±Í ÒÓÍÓÒ±ÒÓÍÍ,ÍÍÄÚÒÍ ÒÈÈ Ò·ÄÌÄ Ó~ÄÌ, ÍÍ ÈÈÈ Ó·ÄÌÚÓ,.	• ÇÈ%ÄÓÍ±ÌÄ ± ÎÄ ÍÍ,ÍÍÄÚÒÍ ÎÄÈÒÒ ±,ÍÓÈ.
è Ó%ÒÍÈÄÈÄ Ì± ÒÌÄ%Ú,~ÄÈ ÒÚ ±ÈÈ~Ä	

Additional information
No additional information

è Ó,Â Í± ÌÄÈÒÔ ±,ÌÓÒÚÄÈ

è ÈÄÌ±Í	è È~ÈÌ± È/ÈÌÈ %ÄÈÒÚ,Èfl ÒÓ ÛÒÚ ±ÌÄÌÈ.
Ç,È%ÓÈÒÍ±ÚÄÌÄ ÈÌÈ Ì± ´Í ±ÌÄ ÚÄÑÓÒÒ ÓÈÄ,Ó%ÈÚÒfl ÌÄÈÄ,ÄÓÚÌÓÄÈÄÓ. ±ÈÄÌÈÄ.	• ÒÒÌÈ Ò Ó ´ÍÓ 10 ÌÈÌÚÚ ÒÓÒÌÄ ÚÓ„Ó, Í±Í Ç° ÛÒÚ±ÌÓ,ÈÌÈ ÒÄ ÄÌÌ~±ÚÄÌ, POWER, ÒÓÌÓÈÄÌÈÄ CAMERA, ÌÄ ÒÚ±,È, Ò È ´ÚÓÍ Í±ÒÒÄÚÚ, È%ÄÓÍ±ÌÄ ± ±,ÚÓÍ±ÚÈ~ÄÒÌÈ Ì±ÌÄÚ %ÄÌÒÌÒÚ ±^È. → ÇÒÚ±, ÚÄÌ±ÒÒÄÚÚÈ%ÄÌÒÌÒÚ ±~ÈflÒÒÚ±ÌÓ,ÈÚÒfl.Ç° ÌÓÈÄÚÄ Ò%ÄÌ±Ú, ÚÍÍ, ´ÚÓ %ÄÌÒÌÒÚ ±~ÈflÌÄ ·Ú%ÄÚ ÒÓÍ±Ä°,±Ú,Òfl, ÒÈÒÚÄÌÄ ÌÄÌ. (ÒÚ .29)
è Ó~ÄÄ	
è ÈÄÌ±Í	è È~ÈÌ± È/ÈÌÈ %ÄÈÒÚ,Èfl ÒÓ ÛÒÚ ±ÌÄÌÈ.
è ÈÌ±,±ÄÌ~È ÒÚÍ,Ú %ÈÒÚ±Ì~ÈÓÌÒ„ÓÚÒ ±,ÌÄÌÈfl ÌÄ ±·ÓÚ±ÄÚ.	• COMMANDER ÛÒÚ±ÌÓ,ÌÄÌ, ÒÓÌÓÈÄÌÈÄ OFF. → ÌÒÚ±ÌÓ,ÈÚÄ Ä„Ó, ÒÓÌÓÈÄÌÈÄ ON, ÒÈÒÚÄÌÄ ÌÄÌ. (ÒÚ .29) • ÓÚÓ-ÚÓ Ò Ä„, È%ÄÚÄÚ ÒÚÚ, ÈÌÚ ±Í ±ÒÌ~ÌÚ~±Ì. → ÌÒÚ ±ÈÚÄÄ Ä„, ±%Ú. • Ä±Ú± ÄÈÌÈ,ÒÚ±,ÌÄÌ° Ò ÌÄÒ ±,ÈÌ,ÌÓÈ ÒÓÌfl ÌÓÒÚ,„. → ÇÒÚ±, ÚÄ ±Ú± ÄÈÌÈ, ÒÓ·Ì„%±fl Ò ±,ÈÌ,ÌÚ, ÒÓÌfl ÌÓÒÚ, (ÒÚ .83) • á± fl%·±Ú± ÄÄÌÈÄ ±ÒÌÓ%Ó,±Ì. → ÇÒÚ±, ÚÄ ÌÓ„Ä. (ÒÚ . 83)
á±Ó°ÌÈÌÒfl,È%ÓÈÒÍ±ÚÄÌ,.	• éÚÒÒÄ%ÈÌÈÚÄÓÍÚfl ÈÓ~ÈÒÚÈÚÄÓ·ÄÌÚÈ,È%ÓÈÒÍ±ÚÄÌfl. (ÒÚ .63)

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 9/16 – 23 1/8 inches)

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

Colour temperature

Auto

Minimum illumination

CCD-TRV14E: 0.4 lx at F 1.4

CCD-TRV24E: 0.7 lx at F 1.4

Illumination range

CCD-TRV14E: 0.4 to 100,000 lx

CCD-TRV24E: 0.7 to 100,000 lx

Recommended illumination

More than 100 lx

LCD screen

Picture

2.5 inches measured diagonally

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

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

On-screen display

TN LCD/TFT active matrix method

Total dot number

61,380 (279 × 220)

Input and Output

connectors

Video output

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

Audio output

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

RFU DC OUT

Special minijack, DC 5 V

Earphone jack

Mini-jack

LANC control jack

Stereo mini-minijack (ø 2.5 mm)

MIC jack

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

Speaker

Dynamic-speaker

General

Power requirements

7.5 V (AC power adaptor)

Average power consumption

During camera recording using the LCD

CCD-TRV14E: 4.2 W

CCD-TRV24E: 4.5 W

During camera recording using the viewfinder

CCD-TRV14E: 3.3 W

CCD-TRV24E: 3.5 W

Operating temperature

0°C to 40°C (32°F to 104°F)

Storage temperature

–20°C to +60°C (–4°F to +140°F)

Dimensions

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

Mass

Approx. 890 g (1 lb 15 oz)

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

Approx. 1.1 kg (2 lb 6 oz)

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

Microphone

Electret condenser

microphone, monaural type

Supplied accessories

See page 6.

AC power adaptor

Power requirements

110 – 240 V AC, 50/60Hz

Power consumption

AC-V16/V17: 20 W

AC-V16A/V17A: 22 W

Output voltage

DC OUT in operation mode

7.5 V, 1.8 A

Battery charge terminal

10 V, 1.1 A in charge mode

Application

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

Operating temperature

0°C to 40°C (32°F to 104°F)

Storage temperature

–20°C to +60°C (–4°F to +140°F)

Dimensions (Approx.)

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

including projecting parts and controls

Mass (Approx.)

AC-V16: 420 g (15 oz)

AC-V16A: 450 g (16 oz)

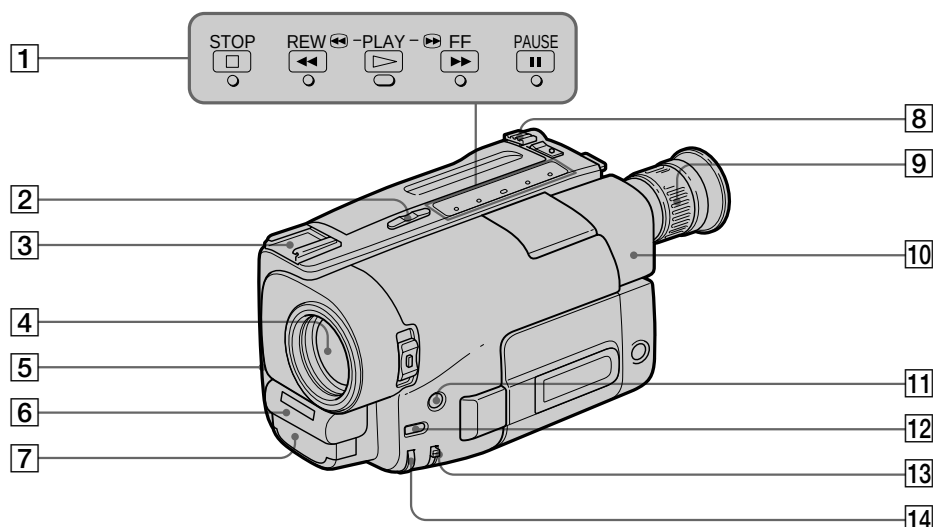
AC-V17: 440 g (16 oz)

AC-V17A: 460 g (16 oz)

Design and specifications are subject to change without notice.

Identifying the parts

εὐχρηστικότητα, ἡ ἀντικείμενα τοῦ ἀποσκευασίου



1 Tape transport buttons (p. 22, 24)

□ STOP

◀◀ REW (rewind)

▶ PLAY (playback)

▶▶ FF (fast forward)

⏸ PAUSE

These buttons will function in PLAYER mode.

2 EDITSEARCH button (p. 20)

3 Accessory shoe

4 Lens cover

5 Recording lamp

6 Built-in microphone

7 Remote sensor (p. 83)

Aim the Remote Commander here for remote control.

8 Power zoom lever (p. 14)

9 Viewfinder adjustment ring (p. 13)

10 Viewfinder (p. 63, 85)

11 BACK LIGHT button (p. 44)

12 FADER button (p. 34)

13 FOCUS switch (p. 41)

14 Focus dial (p. 41)

1 ἀποστολή ὁ ἀντικείμενα τοῦ ἀποσκευασίου (ὄ. 22, 24)

□ STOP (ὄ. 22, 24)

◀◀ REW (ὄ. 22, 24) ἀντικείμενα τοῦ ἀποσκευασίου

▶ PLAY (ὄ. 22, 24) ἀντικείμενα τοῦ ἀποσκευασίου

▶▶ FF (ὄ. 22, 24) ἀντικείμενα τοῦ ἀποσκευασίου

⏸ PAUSE (ὄ. 22, 24)

ἡ ἀντικείμενα τοῦ ἀποσκευασίου ὡς, ἡ ἀντικείμενα τοῦ ἀποσκευασίου

2 ἀποστολή EDITSEARCH (ὄ. 20)

3 ἡ ἀντικείμενα τοῦ ἀποσκευασίου, ὁ ἀντικείμενα τοῦ ἀποσκευασίου

4 ἡ ἀντικείμενα τοῦ ἀποσκευασίου

5 ἡ ἀντικείμενα τοῦ ἀποσκευασίου

6 ὁ ἀντικείμενα τοῦ ἀποσκευασίου

7 ἡ ἀντικείμενα τοῦ ἀποσκευασίου (ὄ. 83)

ἡ ἀντικείμενα τοῦ ἀποσκευασίου, ὁ ἀντικείμενα τοῦ ἀποσκευασίου, ὁ ἀντικείμενα τοῦ ἀποσκευασίου, ὁ ἀντικείμενα τοῦ ἀποσκευασίου

8 ἡ ἀντικείμενα τοῦ ἀποσκευασίου, ὁ ἀντικείμενα τοῦ ἀποσκευασίου

9 ἡ ἀντικείμενα τοῦ ἀποσκευασίου, ὁ ἀντικείμενα τοῦ ἀποσκευασίου

10 ὁ ἀντικείμενα τοῦ ἀποσκευασίου (ὄ. 63, 85)

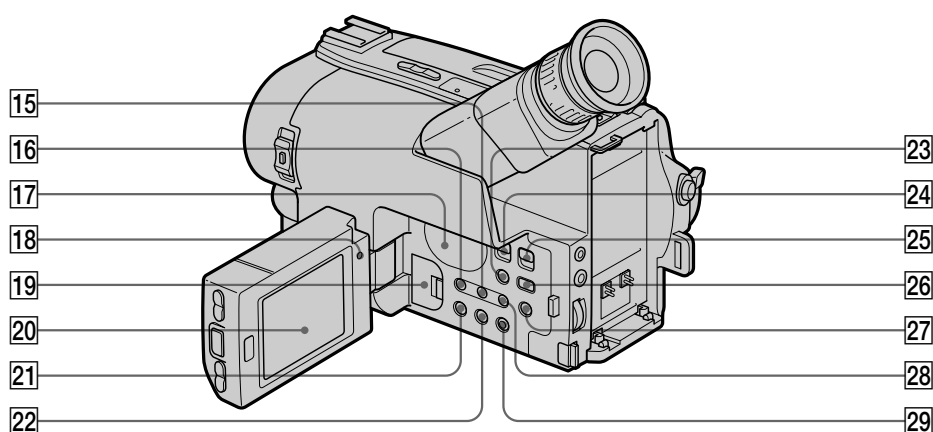
11 ἀποστολή BACK LIGHT (ὄ. 44)

12 ἀποστολή FADER (ὄ. 34)

13 ἡ ἀντικείμενα τοῦ ἀποσκευασίου, FOCUS (ὄ. 41)

14 ἡ ἀντικείμενα τοῦ ἀποσκευασίου, ὁ ἀντικείμενα τοῦ ἀποσκευασίου (ὄ. 41)

éÔÓÁì‡,‡ìËÂ %oÂÚ‡îÂÈ

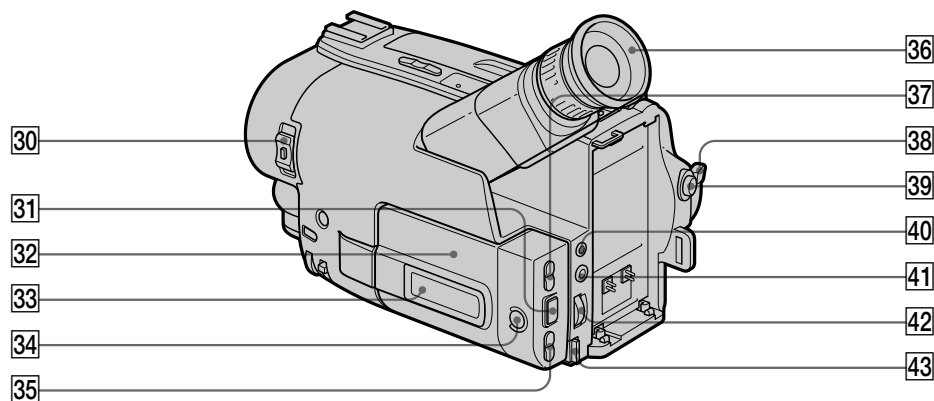


Additional information NÓÓÔÏËÚÄÏ, ï#¶! ÈÌÚÓ ï#¶È¶

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

- 15** àlÓÔİ± TIME (ÒÙ . 32)
16 àlÓÔİ± DATE (ÒÙ . 32)
17 É ÓÍÓ,,Ó,Ó ÈÜÂİ,
18 ã±İÖÖ~İ± Á±ÖÈÖÈ
19 éÜÓÂİ İÈÜÊÂ,ÔÈ . ±Ú± ÂÈİÈ (ÒÙ . 54)
20 úİ ±İ ÜãÑ (ÒÙ . 16, 17, 22, 85)
21 àlÓÔİ± WIDE (cÚ . 39) (ÚÓİ,ÍÓ
 CCD-TRV24E)
22 àlÓÔİ± TITLE (ÒÙ . 46)
23 àlÓÔİ± DISPLAY (ÒÙ . 23)
24 èÀ Âİİ,~±ÚÂİ, STEADY SHOT (ÒÙ . 45)
 (ÚÓİ,ÍÓ İÖ%Âİ, CCD-TRV24E)
25 èÀ Âİİ,~±ÚÂİ, START/STOP MODE
 (ÒÙ . 11,33)
26 àlÓÔİ± PICTURE EFFECT (ÒÙ . 37)
27 àlÓÔİ± MENU (ÒÙ . 29)
28 àlÓÔİ± COUNTER RESET (ÒÙ . 13)
29 àlÓÔİ± END SEARCH (ÒÙ . 25)

éÔÓÁì‡,‡ìËÂ %_ÂÚ‡îÂÈ



- 30 POWER switch (p. 11, 22)**

31 PUSH OPEN button (p. 16, 17, 22)

32 LCD panel (p. 16, 17, 22)

33 Display window (p. 86)

34 PROGRAM AE button (p. 43)

35 VOLUME button (p. 22)

36 Eyecup (p. 63)

37 BRIGHT button (p. 16)

38 STANDBY switch (p. 11)

39 START/STOP button (p. 11)

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

41  (earphone) jack (p. 23)

42 Menu control dial (p. 29)

43 BATT (battery release) knob (p. 9)

30 Ç°İİç~ıÚÂÎ, POWER (ÖÜ . 11, 22)

31 àìÒÖİ† PUSH OPEN (ÖÜ . 16, 17, 22)

32 è‡İÂÎ, ÜaÑ (ÖÜ . 16, 17, 22)

33 éÍÖ¬ío %ÈÖÖİÂİfl (ÖÜ . 86)

34 ÑĖÖİ PROGRAM AE (ÖÜ . 43)

35 àìÒÖİ† VOLUME (ÖÜ . 22)

36 éÍÜİfl (ÖÜ . 63)

37 àìÒÖİ† BRIGHT (ÖÜ . 16)

38 èÂ Âİİç~ıÚÂÎ, STANDBY (ÖÜ . 11)

39 àìÒÖİ† START/STOP (ÖÜ . 11)

40 ÉİÂÄ%Ó ÜÖ ‡,İÂİĖİfl LANC 
 ÖÁİ†~ÁÜ ÖÈÖÜÂİÜ İ†İ† İÂÖÜİÖ„Ö ÜÖ ‡,İÂİĖİfl. ÉİÂÄ%Ó ÜÖ ‡,İÂİĖİfl  ÈÖÖÖ-İ,ÂÜÂÜÖİfl %İfl İÖİÜ Öİfl Á† ÔÂ ÂİÂ~ÂİĖÂİ İÂİÜ° È%ÂÖÖ-Ö Ü%Ö,İĖİĖİ È ÔÂ ÂÜĖ ÈĖİ°İ ÜÖÜ ÖÈÖÜ„ ÖÓ%İĖİ°~Âİİ°İÂİÜ. ÑİİİÖÂ„İÂÄ%Ó ÉİÂÄÜ ÜİÜ, ĖÂ ÜÜİİ°Ėç, İ†İ È ‡Â Âİ°, Ö-ÖÁİ†~Âİİ°Â İ†İ CONTROL L ÈĖİ REMOTE.

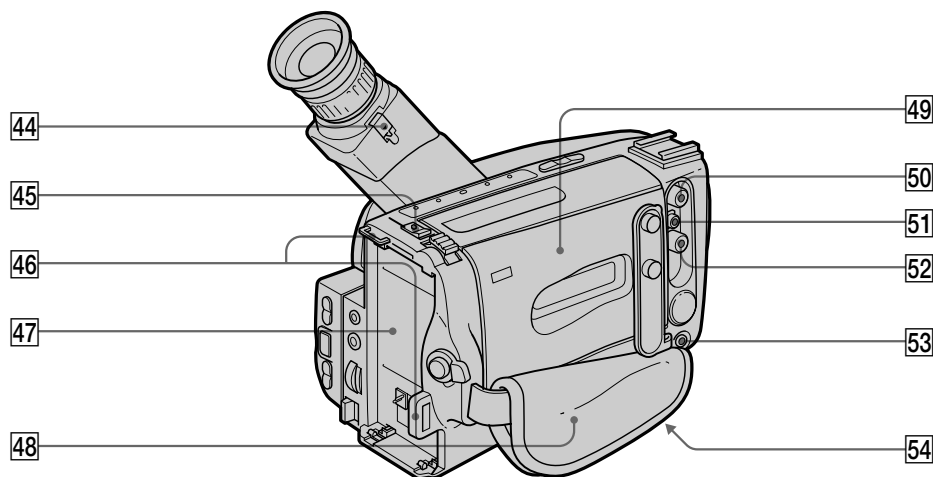
41 ÉİÂÄ%Ó  (İ†Ü¬İĖİÖ), (ÖÜ . 23)

42 ÑĖÖİ ÜÖ ‡,İÂİĖİfl İÂİç (ÖÜ . 29)

43 èÜ¬İ† BATT (ÖÖ,Ö-ÖĖ%ÂİĖİfl ~ıÚ‡ ÂĖİÖ„Ö .İÖİ†) (ÖÜ . 9)

Identifying the parts

Identifying the parts



- 44 Eyecup release knob (p. 63)**
- 45 EJECT knob (p. 10)**
- 46 Hooks for shoulder strap (p. 82)**
- 47 Battery mounting surface (p. 9)**
- 48 Grip strap (p. 18)**
- 49 Cassette compartment (p. 10)**
- 50 VIDEO OUT jack (p. 50)**
- 51 RFU DC OUT (RFU adaptor DC out) jack**
- 52 AUDIO OUT jack (p. 50)**
- 53 MIC (microphone) jack**
Connect an external microphone (not supplied). This jack also accepts a "plug-in-power" microphone.
- 54 Tripod receptacle (p. 19)**
Make sure that the length of the tripod screw is less than 6.5 mm (9/32 inches). Otherwise, you cannot attach the tripod securely and the screw may damage the camcorder.

- 44** Eyecup release knob (p. 63)
- 45** EJECT knob (p. 10)
- 46** Hooks for shoulder strap (p. 82)
- 47** Battery mounting surface (p. 9)
- 48** Grip strap (p. 18)
- 49** Cassette compartment (p. 10)
- 50** VIDEO OUT jack (p. 50)
- 51** RFU DC OUT (RFU adaptor DC out) jack
- 52** AUDIO OUT jack (p. 50)
- 53** MIC (microphone) jack
Connect an external microphone (not supplied). This jack also accepts a "plug-in-power" microphone.
- 54** Tripod receptacle (p. 19)
Make sure that the length of the tripod screw is less than 6.5 mm (9/32 inches). Otherwise, you cannot attach the tripod securely and the screw may damage the camcorder.

Additional information

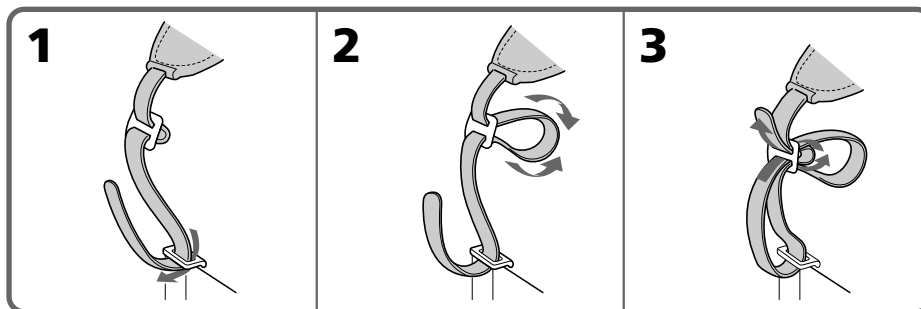
Identifying the parts

εὐὸὸἀὶ†,†ἰἔἈ %ᾶῦ†ἰἄἔ

Attaching the shoulder strap

Attach the supplied shoulder strap to the hooks for the shoulder strap **46**.

ἐ εἰ ἈὸἰἈἰἔἈ ὀἰἈ~Ἀ,ὀ,ὀ Ἀἰἰ†
ἐ εἰ ἈὸἔῦἈ ὀ ἔἰ†,†Ἀἰ°ἔ ὀἰἈ~Ἀ,ὀἔ ἈἰἈἰ, ἰ
ἰ,~ἰ†ἰ %ἰἰ† ὀἰἈ~Ἀ,ὀ,ὀ Ἀἰἰ† **46**.



Remote Commander

ἐῦἰ,ῦ %ἔὀῦ†ἰ°ἔὀἰὀ,,ὀ ὕὀ †,ἰἈἰἔ†

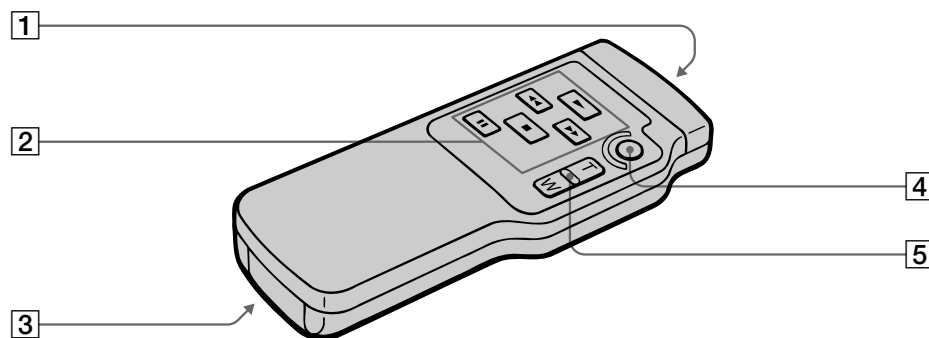
Using the Remote Commander

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

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

ἄὀὀὀἰ,Ἀὀ,†ἰἔἈ ὀῦἰ,ῦ†
%ἔὀῦ†ἰ°ἔὀἰὀ,,ὀ ὕὀ †,ἰἈἰἔ†
ἰ~Ἀ%ἔῦἈὀ,~ῦὀ COMMANDER ὕὀῦ†ἰὀ,ἰἈἰ,
ὀὀἰὀἔἈἰἔἈ ON, ὀἔὀῦἈἰἈ ἰἈἰ.

ἄἰὀὀἰἔ ὀ ὀ%ἔἰ†ἰὀ,ἰἔ ἰ†Ἀ,†ἰἔ†ἰἔ ἰ†
ὀῦἰ,ῦἈ %ἔὀῦ†ἰ°ἔὀἰὀ,,ὀ ὕὀ †,ἰἈἰἔ† ἔ ἰ†
,ἔ%Ἀὀἰ†ἰἈ Ἀ ὕἰἰ°ἔὀἰἔ ὕ,ῦ ἔ%Ἀἰῦἔ~ἰὀ.



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

- 1** ἐἈ Ἀ%†ῦ°ἔἰ
ç†ὀ †,ῦἈ Ἀ,ὀ ἰ† %ἔὀῦ†ἰ°ἔὀἰὀ°ἔ %†ῦ°ἔἰ
%ἰἰ† ὕὀ †,ἰἈἰἔ†,ἔ%Ἀὀἰ†ἰἈ ὀἔ ὀὀὀἰἈ
,ἰἰ,~Ἀἰἔ† ὀἔῦ†ἰἔ†,ἔ%Ἀὀἰ†ἰἈ °.
- 2** ἄἰὀὀἰἔ ὀἈ ἈἰἈ~Ἀἰἔ† ἰἈἰῦ° (ὀῦ . 22, 24)
- 3** ἐῦὀἈἰ·†ῦ† ἈἈἰ R6 (†ἈἰἈ ἈἈ) (ὀῦ . 83)
- 4** ἄἰὀὀἰ† START/STOP (ὀῦ . 11)
- 5** ἄἰὀὀἰ† ὀ ἔ,ὀ%ἰὀ,,ὀ ὕ †ἰὀῦὀἰ†ῦὀ †
(ὀῦ .14)
ἐἰὀ ὀὀῦ,ῦ †ἰὀῦὀἰ†°ἔἔ†,ἰἈῦὀἰ
ἰἈἔἈἰἈἰὀἔ ὀ ἔ ὕὀ †,ἰἈἰἔἔ ὀ ὀὀἰὀ~
ὀῦἰ,ῦ† %ἔὀῦ†ἰ°ἔὀἰὀ,,ὀ ὕὀ †,ἰἈἰἔ†.

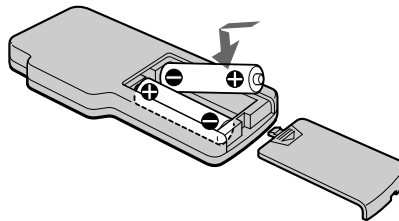
Identifying the parts

éôóáì†,†ìĒÂ %oÂú†îĀĒ

To prepare the Remote Commander

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

ÑîĤî Őó%„,óúó,íĒ ŐŪî,ú†
%oĒóú†îĒóîîó„ó Ūó †,îĀĒĒĤ
çòú†,„úĀ %o,Ā †ú† ĀĒĒĒ R6 (†ĀĒĀ † ĀĀ) ,
óóóú,Āúóú,ĒĒóóîĤ îóóúĒ+Ē-†
†ú† ĀĒĒ† îĀĒĀ ,îúú Ē †ú† ĀĒĒó„ó
óúóĀĒ†.



Note on battery life

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

To avoid damage from possible battery leakage

Remove the batteries when you will not use the Remote Commander for a long time.

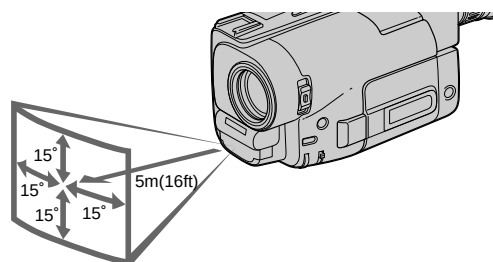
Remote control direction

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

è ĒĒĀ~†îĒĀ óúîóóĒúĀĒ,îó Ő ó† ŐîŪĒ.°
†ú† ĀĀĒ
Ā†ú† ĀĀĒ%îĤ ŐŪî,ú† %oĒóú†îĒóîîó„ó
Ūó †,îĀĒĒĤ î,†ú†ĀŪ Ő ĒĒĀ îó î† 6 ĒĀŐĤĒĀ,
Ő Ē îó î†î,îóĒ ĒîóîŪ†ú†ĒĒ. ŐŐĒĒ Ā† Ĥ%
†ú† ĀĀĒ Őú†ĒĀŪ Ő†. ĒĒĒĒ ĒĀ †ôîó%ŪĀŪŐĤ
óó,ŐĀĒ, ŐŪî,ú† %oĒóú†îĒóîîó„ó Ūó †,îĀĒĒĤ
ŐĀ ĀŐú†ĒĀŪŪîĤĒĒĒ Ő,†ú.

çó ĒĀĒĒĒĒ Őó, ĀĒ%ĀĒĒĤ, ŐĒ%ŐŪ,ĒĀ
ŐĀĒĒĒĒĒ ŪŪĀĒĒ Őó%Ā ĒĒĒĒ,Ő †ú† ĀĀĒ
î%†ĒĒĒĒ †ú† ĀĒĒĒ, ĀŐĒĒ ç° ĒĀ Ū%ĀŪĀ
ĒŐŐŐĒ,Āó,†ú, ŐŪî,ú† %oĒóú†îĒóîîó„ó
Ūó †,îĀĒĒĤ %oĒĒĒĒ,îóĀ , ĀĤĤ.

ç†Ő †,îĀĒĒĒ ŐŪî,ú† %oĒóú†îĒóîîó„ó
Ūó †,îĀĒĒĤ
ç†Ő †,„úĀ ŐŪî,ú† %oĒóú†îĒóîîó„ó
Ūó †,îĀĒĒĤ î† %oĒóú†îĒóîî°Ē %o†ŪĒĒ ,
Ő Ā%ĀĒ†î%Ē†Ő†ĀŐ††, ŐŐ†Ā†îîó„óĒĒĒĒ.



Additional information
NŐŐŐîĒĒĒĒ,††Ĥ ĒĒŪŐ†ĒĒĒĒ

Identifying the parts

Identifying the parts

Notes on the Remote Commander

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

To watch the demonstration

You can start the demonstration by setting in the menu system.

You can also start the demonstration by the following operation.

To enter demo mode

- (1)** Eject the cassette and set the POWER switch to PLAYER.
- (2)** Turn STANDBY up.
- (3)** While holding down  set the POWER switch to CAMERA.

To exit demo mode

- (1)** Set the POWER switch to PLAYER.
- (2)** Turn STANDBY up.
- (3)** While holding down  set the POWER switch to CAMERA.

è ÈÏÂ~‡ìËfl ÓÚìÓÒÈÚÂî,ìó ÔÛî,Ú‡
%òÈÒÚ‡ì^ÈÓìò,,Ó Ûô ‡,îÂìËfl

- [illegible]

Nĩfi òòíóú ±%āìóìòù †ēē
ç̣̇ íôéâúá î†~ú, %āìóìòù †ē ē ōûúāī
úòù±îō,îē , ôëóúāīā īāī.
ç̣̇ íôéâúá ú†îêā î†~ú, %āìóìòù †ē ē,
ôûúāīôīā%ū ~ãèóőā †ēē.

Ñîfl ,ıÓ%₀‡ , %₀ÂİÖÌÒÚ ‡^ËÓÌì°È ÂÊËİ

- (1) C°ÚÓÍÓÉÚÁÍ+ÓÓÁÚÚÉÚÓÚ+ÍÓ,ÉÚÂ
,ÍÍ,~+ÚÁÍ, POWER , ÓÓÍÓÉÂÍÊÂ
PLAYER.
- (2) èÓ,Â ÍÉÚÂ STANDBY ,Â Í.
- (3) ç±ÊÊÍ+Í ▷ , ÛÓÚ+ÍÓ,ÉÚÂ ,ÍÍ,~+ÚÁÍ,
POWER , ÓÓÍÓÉÂÍÊÂ CAMERA.

Nĩfi , °Í°%‡ ĖÁ %ĀİŌİòÚ ‡^ĚŌİìŌ,,Ō
ÂÊËİ‡

- (1) ìòú+ìò,éúâ , ïî.~±úâî, POWER ,
ôôîôêâîèâ PLAYER.
- (2) èò.â îéúâ STANDBY ,.â î.
- (3) ç±êëî+ï □, ùòú+ìò,éúâ , ïî.~±úâî,
POWER , ôôîôêâîèâ CAMERA.

Identifying the parts

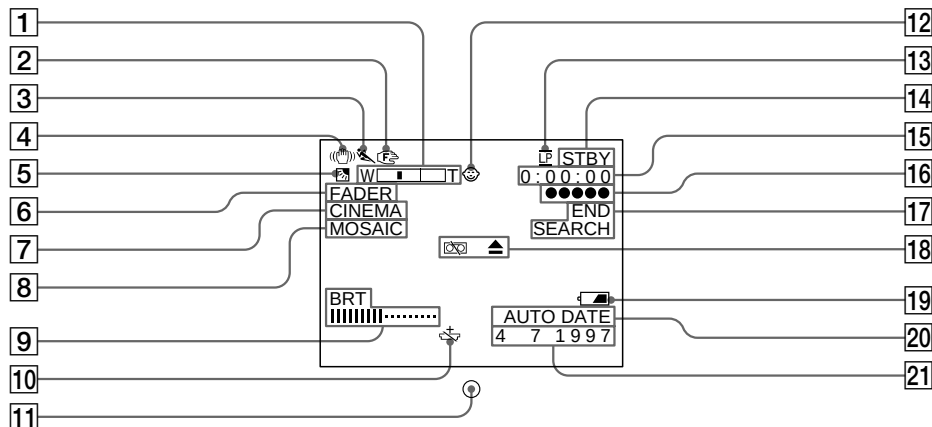
éÔÓÁì±,±ìÊÂ %oÂÚ±îÂÈ

Operation indicators

àì%oÊì±úÓ ° ±·ÓÚ°

In the viewfinder and on the LCD screen

Ç ,Ê%oÓÈÒì±úÂîÂ È ì± ~í ±îÂ ÜäÑ



- 1 Power zoom indicator (p. 15)
- 2 Manual focus indicator (p. 41)
- 3 PROGRAM AE indicator (p. 42)
- 4 SteadyShot indicator (p. 45) (CCD-TRV24E only)
- 5 Back light indicator (p. 44)
- 6 FADER indicator (p. 34)
- 7 Wide mode indicator (p. 38) (CCD-TRV24E only)
- 8 Picture Effect indicator (p. 36)
- 9 BRT (brightness) indicator (p. 16)
VOL (volume) indicator (p. 22)
- 10 Lithium battery indicator (p. 53)
- 11 Recording lamp/battery lamp (p. 11)
(in the viewfinder)
- 12 Mirror mode indicator (p. 17)
- 13 SP/LP recording mode indicator (p. 11)
- 14 Tape transport mode indicator (p. 11)
- 15 Tape counter (p. 13)

Continued to the next page

- 1 àì%oÊì±úÓ Ô È,Ó%oìÓ,,ÓÚ ±ìÒÒÓì±úÓ ± (ÓÚ .15)
- 2 àì%oÊì±úÓ Û~íÓÈ ÛÓíÚÒÈ Ó,îÊ (ÓÚ .41)
- 3 àì%oÊì±úÓ PROGRAM AE (ÓÚ . 42)
- 4 àì%oÊì±úÓ ÒÚ±·ÊîÊÁ±·ÊÊ Ò·ÂîÊ SteadyShot (ÓÚ . 45) (ÚÓí,íÓ CCD-TRV24E)
- 5 àì%oÊì±úÓ Á±%oîÂÈÓÓ%o,ÂÚîÊ (ÓÚ .44)
- 6 àì%oÊì±úÓ FADER (ÓÚ . 34)
- 7 àì%oÊì±úÓ ~Ê ÓíÓ~í ±ìò,,Ó ÂÊÊì± (ÓÚ . 38) (ÚÓí,íÓ CCD-TRV24E)
- 8 àì%oÊì±úÓ ~ÚÚÁíÚ± ÊÁÓ· ±ÊÂîÊ (ÓÚ .36)
- 9 àì%oÊì±úÓ BRT (îí (ÓÒÚÊ) (ÓÚ .16)
àì%oÊì±úÓ VOL („ ÓííÓÚÊ) (ÓÚ . 22)
- 10 àì%oÊì±úÓ îÊÚÊÂ,ÓÈ ·±Ú± ÂÊÊ (ÓÚ .53)
- 11 ä±ìÓÓ~í± Á±ÔÈÒÈ/î±ìÓÓ~í± ·±Ú± ÂÊîÓ,,Ó·îÓí± (ÓÚ . 11)
(, Ê%oÓÈÒì±úÂîÂ)
- 12 àì%oÊì±úÓ ÁÂ í±î,ìÓ,,Ó ÂÊÊì± (ÓÚ .17)
- 13 àì%oÊì±úÓ ÂÊÊì± Á±ÔÈÒÈ SP/LP (ÓÚ .11)
- 14 àì%oÊì±úÓ ÂÊÊì± ÔÂ ÂîÂ~ÂîÊîí ÁîÚ° (ÓÚ . 11)
- 15 ë~ÁÚ~Êí îÂîÚ° (ÓÚ . 13)

è Ó%oÓîÊÂîÊÂÒîÂ%oÚÁÚ

Additional information

ÑÓÓîîÊÚÁî,î±î ÊìÚÓ í·Êî

Identifying the parts

εὐὸὸΑἰ†,†ἰἘΑ %ἰΑῦ†ἰἈÈ

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 àἰ%Ἐἰ†ῤÓ ÔἰῤῥἘÒÀἰῤῖ%ἰἠἘÀ†ἠἘἠἠ5SEC (ἠῤ .33)

17 àἰ%Ἐἰ†ῤÓ END SEARCH (ἠῤ . 25)

18 è Â%ἠῤῖÔ Âἠ%†, ῥἠἈ ἠἰ%Ἐἰ†ῤÓ ° (ἠῤ .87)

19 àἰ%Ἐἰ†ῤÓ Óἠῤῥ†, ῥἈ, ÓἠἠἈ† ἠἰ%† ·†ῤ† Âἠἠἠ, Ó ·ἠἠἠ† (ἠῤ . 58)

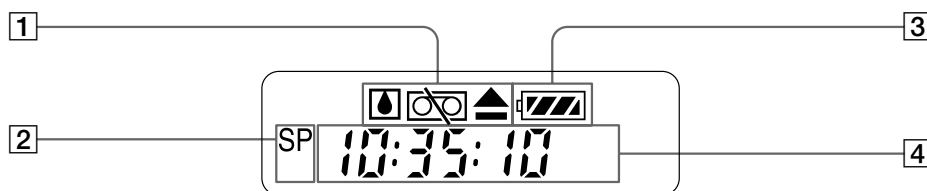


20 àἰ%Ἐἰ†ῤÓ AUTO DATE (ἠῤ . 11)

21 Ñ†ῤ† ἠἠἠ, Ἀἠἠ (ἠῤ . 32)

In the display window

Ç Óἠἠῥἠ %ἠἠἠἠἠἠἠἠ



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 è Â%ἠῤῖÔ Âἠ%†, ῥἠἈ ἠἰ%Ἐἰ†ῤÓ ° (ἠῤ .87)

2 àἰ%Ἐἰ†ῤÓ Âἠἠἠ† Ἀ†ἠἠἠἠ (SP/LP) (ἠῤ .11)

3 àἰ%Ἐἰ†ῤÓ Óἠῤῥ†, ῥἈ, ÓἠἠἈ† ἠἰ%† ·†ῤ† Âἠἠἠ, Ó ·ἠἠἠ† (ἠῤ . 58)



4 Ñ†ῤ† ἠἠἠ, Ἀἠἠ (ἠῤ . 32)

èῥἈῤῥἠἠ ἠἈἠῤ° (ἠῤ . 13)

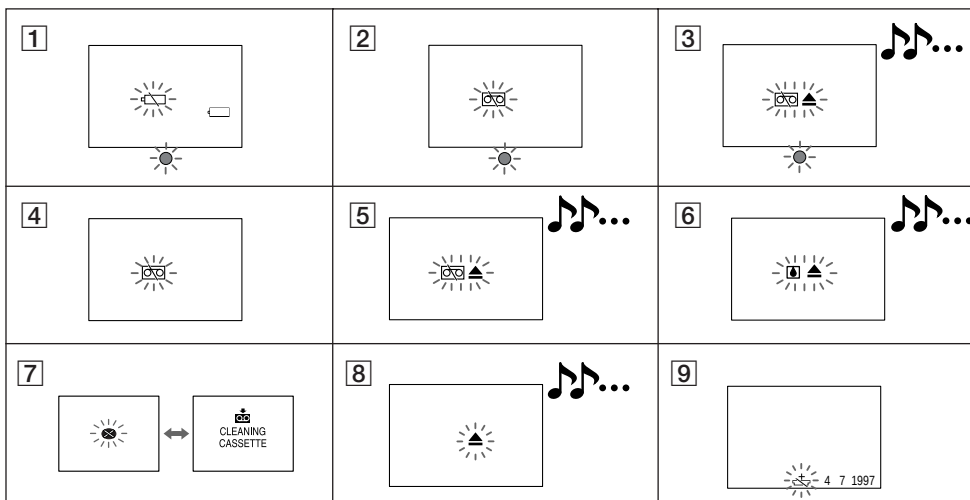
Warning indicators

The warning indicators and the recording lamp flash to inform you of the following situations. The illustrations below are the warning indicators of the viewfinder and the LCD screen. The same indicators flash also in the display window.

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

è Â%ÔÔ ÂÊ%±, ÊÂ
ÈÌ%ËÍ±ÚÓ °

è Â%ÔÔ ÂÊ%±, ÊÂ ÈÌ%ËÍ±ÚÓ ° È ÍÔÓ~Í±
Â±ÔÊÔÊ ÌÊ,,±,Ú, ~ÚÓ.° ÈÌÚÔ ÌÊ Ó,±,Ú, Ç±Ô Ó
ÔÌÂ%Ô ~ÊÌ, ÔÀÌÔÊÌ, ÔÊÚÔ±ÊÌ.
è Ê,Â%ÀÌ°Â ÌÊÊÂ ÈÔÙÌÊ ÔÓÍ±Â,±,Ú
Ô Â%ÔÔ ÂÊ%±, ÊÂ ÈÌ%ËÍ±ÚÓ °
Ê%ÔÊÔÍ±ÚÂÌ È 1 ±± ÚÂÑ. Í±ÊÊÂ ÊÂ
ÈÌ%ËÍ±ÚÓ ° ÌÊ,,±,Ú Ú±ÊÂ, ÔÍÔ ÌÂ
%ÊÔÌÂ.
♪: Ç° ÌÔÊÂÚÂ ÔÌ~±Ú, ÁÙÌÂ Ì°È
Á,ÚÌÔ,ÔÊ ÔÊ,,±,Ú È ÛÔÚ±ÌÔ,ÌÂ BEEP,
ÔÓÍÔÊÂÌÊ ON, ÔÊÔÚÂÌÂ ÌÂÌ.



Additional information
NÒÔÏÊÚÂÌ, Í±Ê ÈÌÚÔ Í°ÊÌ

- 1 **The battery is weak or dead.**
Slow flashing: The battery is weak.
Fast flashing: The battery is dead.
- 2 **The tape is near the end.**
- 3 **The tape has run out.**
- 4 **No tape has been inserted.**
- 5 **The tab on the tape is out (red). (p.10)**
- 6 **Moisture condensation has occurred. (p. 61)**
▲ indicator appears only when the cassette is inserted.
- 7 **The video heads may be contaminated. (p. 62)**
- 8 **Some other trouble has occurred.**
Disconnect the power source and contact your Sony dealer or local authorized facility.
- 9 **The lithium battery is weak or is not installed. (p. 53)**
This indicator flashes just only after powering on.

- 1 á± ñ% .±Ú± ÂÊ ÔÌ±.°È ÈÌÊ
ÊÂ ±ÔÌÔ%Ô,±.
âÂ%ÌÂÌÔÂ ÌÊ,,±ÊÂ: Â± ñ% .±Ú± ÂÊ
ÔÌ±.°È.
Â°ÔÚ ÔÂÌÊ,,±ÊÂ: Â± ñ% .±Ú± ÂÊ
ÊÂ ±ÔÌÔ%Ô,±.
2 âÂÌÚ± Ô È ÌÊÊ±ÂÚÔÌ Í ÍÔÌ~Ú.
3 âÂÌÚ± Á±ÍÔÌ~ÊÌ±Ô,.
4 ÇÂ, ÔÚ±,ÌÂÌ± Í±ÔÔÂÚ±.
5 Ç±±ÔÔÂÚÂÔÚÔÚÔÚ,ÚÂÚÌÂÔÂÔÚÓÍ
(Í ±ÔÌ°È). (ÔÚ . 10)
6 è ÔÊÂÔ~Í± ÍÔÌ%ÂÌÔ±ÊÌ, Í±Ê. (ÔÚ . 61)
àÌ%ËÍ±ÚÓ ▲ ÔÓÌ,ÌÂÚÔÌ ÚÔÌ,ÍÔ Ô È
,ÔÚ±,ÌÂÌÔÊ Ì±ÔÔÂÚÂ.
7 ÇÔÀÌÔÊÌÔ Â±, ñÂÌÂ°, Ê%ÂÔ,,ÔÍÔ,ÌÊ.
(ÔÚ .62)
8 àÌÂ Ú ÌÂÔÚÔ % Ú,ÊÂ ÌÂÊÔÔ ±,ÌÔÔÚÊ.
éÚÔÔÂ%ÈÌÊÚÂÊÔÚÔ~ÌÊÔÊÚ±ÊÌÊ
Ô. ±ÚÊÚÂÔ, Ç± Â ±,ÂÌÚÔ,Ô ÚÊ Ì°
Sony ÈÌÊ ÌÂÔÚÌÔÂ ÚÔÔÌÔÍÔ~ÂÌÔÂ
ÂÌÔÚÌÔÂ Â%Ô ÊÌÚÊÂ.
9 á± ñ% ÌÊÚÊÂ,ÔÊ .±Ú± ÂÊÌÊ ñ,ÌÂÚÔÌ
ÔÌ±.°È ÊÊ ÊÂ ÌÊÚÊÂ,± ð±± ÂÊÌ± ÌÂ
ÚÔÚ±ÌÔ,ÌÂÌ±. (ÔÚ . 53)
ùÚÔÚÈÌ%ËÍ±ÚÓ ÌÊ,,±ÚÚÔÍ,ÍÔ ÔÔÔÌÂ
,Ì,~ÂÌÊÌ ÔÊÚ±ÌÊÌ.

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