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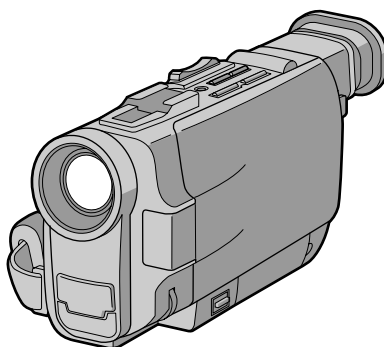
Digital Video Camera Recorder

Operating Instructions

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

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DCR-TRV7E

Mini **DV** Digital
Video
Cassette

Handycam Vision™

CII Cassette
Memory

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.

è È, ÂÙÒÚ, ÛÂÏ Ç‡Ò!

è ÈËÛÂ Ì‡È ÒÓÁ% ‡, ÎÂÏËÎ Ò
Ô ÈÓ. ÂÙÂÏËÂÏ, È%ÂÓÍ‡ÎÂ ° Sony Handycam
Vision™. ùÚ‡ Î‡ÎÂ ‡ ÒÓÁ, ÓÏËÛ Ç‡Î
Â‡ÔÂ~‡ÛÂ, ‡Û ÎÂÓÓ, ÛÓ ÈÏ°Â Ï,, ÎÓ, ÂÏËÎ
ÈÈÂÏË, Â‡ÔÈÓÏ, ÒÛÏË~‡. ~ÈÏÏ, °ÓÓ~‡ÈÈ
Î‡~ÂÓÛ, ÓÏ ÈÂÓ. ‡ÈÂÏËÎ ÈÂ, ÛÏ‡.
ÇÈ%ÂÓÍ‡ÎÂ ‡ Handycam Vision Ó·Ó Û%Ó, ‡Î‡
ÎÏÓÈÂÓÛ, ÓÏ Ò‡Î° Î ÒÓ, ÂÏÂÏ° Î ÛÛÏÏ~ÈÈ È
, ÎÂÓÛÂ Ò ÛÂÏ Ó~ÂÏ. Ò ÒÓÓ‡, Ó. ‡~ÂÏËÈ.
èÏÓ Ò Û Ç‡Ò ÒÓÏ, ÏÛÒÏ ÒÓ·ÓÛ, ÂÏÏ°Â
, È%ÂÓÛËÏ, Ï°, ÍÓÓÓ °Â ÒÏÓ,, ÛÛ %ÓÓÛ‡, ÏÏÛ,
Ç‡Î ‡%ÓÓÛ, %ÓÏ,, ÈÂ,, Ó%°.

è Â%ÓÓÛÂ ÂÈÂÏËÂ

ÇÓ ÈÂ·ÂÈ‡ÎÈÂ ÒÓÈ‡ ‡ ÈÏÈ ÒÓ ‡ÈÂÏËÎ
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ÇÓ ÈÂ·ÂÈ‡ÎÈÂ ÒÓ ‡ÈÂÏËÎ ~ÎÂÏÛ È~ÂÏÏËÏ
ÛÓÍÓÏ ÎÂ, ÒÏ°, ‡ÈÛÂ ÍÓ ÒÛÒ‡ÔÓ‡ ‡Û‡.
ÎÂÏËÈ~ÂÏÍÓÁ Ó·ÓÏÛÈÈ, ‡ÎÈÂ %ÓÏËÏÓ
Ô ÒÈÂ, Ó%ÈÛ, ÒÏ ÛÓÏ, ÍÓ ÒÓÂ~È‡ÏËÛ‡ÏÈ.



Using this manual

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

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

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

Note on Cassette Memory

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

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

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

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

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

For details, see page 78.

Note on TV colour systems

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

Precaution on copyright

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

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çó, òäí úáíóúä ±ììòè èìòú ùí`ëè ì±ä, ±íèí ììòòí è äèèìó, ±.óú., èäóí±ìä °, °äíäì`ä±,,ì±,ì`èè.úí,±íè, ì±ò èìä : "ìòú±ìó, èúä öä äíí.~±úäí, POWER, öóíòèäìèä CAMERA". äì±`óí ì±èíí.óú ±`èíí öäì±`äú, ~úó, °ö öóóú, äúóú, ù`äè íóí±ì° öö%ü, ä èä±äúòíä, úíó, °í öè,,ì±ìóí (·èöä).

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ç ç±`äè, èäöóí±ìä ä èòöóí, äúäúòí úò ì±ú DV. ñíí íää öö%ìö%íú úóí, íó ìèìè-, èäöóí±òòäú° úò ì±ú± DV. èäíóíäìúäí ç±ì èòöóí, áó, ±ú, úä èä ìèì, íóóú °ä öòì±`äì° öö.óú, äììòè` äìú öììòè ö±íííú, . CII.

éú ì±íè`èíí ù ì±òäú° öö.óú, äììòè ö±íííúè ä±, èòèú ±.óú± öìäú, ~èì úòíí`èè: • èòèòí öíóí~±íèíä±òèòè (òú .22) • èòèòí öö%±úä (òú .52) • íóúöóèòí (òú .58) ç±íè`èä ù ì±òäú° öö.óú, äììòè ö±íííúè ö.íä±úäí, íó %íí èòöóí, áó, ±íèí öìäú, ~èì úòíí`èè: • èòèòí öö úèú ±ì (òú .56) • ç±ìòèäìèä úèú ö, (òú .70) • ç, ö%, ±úò òíèì úèú ö, (òú .74) • ä± íè ö, í± ì±òäú (òú .76) èò% ö.ìääö.~úóí öì. ì±úú .78.

é èèòúäì±ì ^, äúìó,,ó úäíä, èääìèí

ç ±äì`ìòú ±ì±ì ö èìäíí, úòíí ±äìè`ì`ä èèòúäì` ^, äúìó,,ó úäíä, èääìèí. ñíí ö öòìóú ± ç±`èì, èäöä±òèòäè ì± úäíä, èäèòììóí ~í ±ìä ç±ì öòì±ö.èúòí úäíä, èäö èèòúäì` PAL .

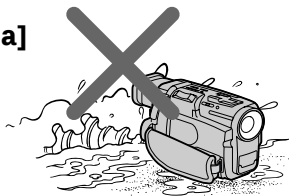
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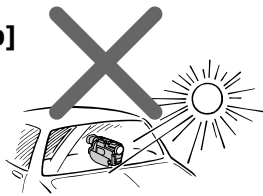
Precautions on camcorder care

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

[a]



[b]



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ó. ±~Äìëë ò, ë%áóí±íÄ òë

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úúó íò í±í, íóÄ íí, íÄíëÄ, ó·úòíó, íÄííóÄ
úÄííë~áóíëíë óóó·Äííóóíííë
ò óëÄ, ó%óú, Äííó,, ó ô~Äòò± ëíëí±í íÄ
óú ±ë±, ~ÄÄóí í± í±~Äóú, Ä, ë%áóÄ±òëòë.
ñóíí íò í±í, íó úúíí ëóíë Ù~ëí
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ò Ä, ~±Äú 99, 99%.
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60°C (140°F), í±ò ëíÄ, ±, úóíó·ëíÄ,
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ò íí~íë íó~±íë óóíí~± [b].

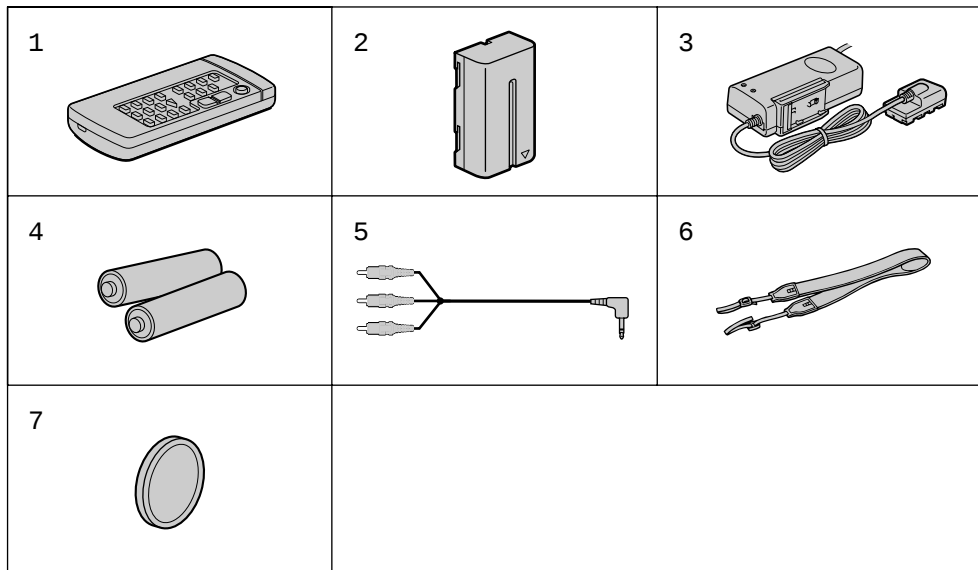
Before you begin / e ÄëÄÄ, òÄ,, ò

Checking supplied accessories

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íóíóíâíú±^ëë

Check that the following accessories are supplied with your camcorder.

ì·Â%ÉÚÂÖ, ~ÚÓ, íóíóíâíú Ç±^ÄÈ
,È%ÄÓí±íÄ °, 10%íú òíÄ%Ú, ~ÉÄ
ò Èí±%íÄÈíóóÈ.



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

- 1 ÄÄòò ó, óíó~ì°È öüî, ú %Èöü±ì^ëóííó,,ó
üò ±, íÄÈí (1) (öü . 111)
- 2 Äííüíüíííúó Í±í·±ú± Äíí NP-F530 (1)
(öü . 7)
- 3 Ä%±úÄ òÄÜÄ,ó,,ó òÈÜ±íÈíí AC-V316 (1)
(öü . 7, 27)
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- 4 Ä±ú± ÄÈí± R6 (±ÄíÄ AA) %ííí öüî, Ü±
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- 5 èóÄ%ÈíÈÜÄí, ì°È ±ü%Èó/, È%Äóí±·Äí, (1)
(öü . 50, 65)
- 6 èíÄ~Ä,òÈ ÄíÄí, (1) (öü . 115)
- 7 á±,,íüí± ó·^ÄíÜÈ,± (1) (öü . 12)

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

Ç öíü~±Ä íÄ, óÄíóÈíóóÈ, È%Äóó^ÄíÈ
ÉíÈ, öóó ÓÉÄ, Ä%ÄíÈí Ä±òÈòÈ öó ö È~ÈíÄ
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,È%Äóí±óóÄÜ° È Ü.ò. íóíóÄìò±^Èíí íÄ
ó Ä%óóú±, ííÄÜòíí.

Charging and installing the battery pack

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

This camcorder operates with the “InfoLITHIUM” battery. If you use any other battery to operate your camcorder, the camcorder may not operate or the battery life may be shorten.

“InfoLITHIUM” is a trademark of Sony Corporation.

Charging the battery pack

Charge the battery pack on a flat surface without vibration.

- (1) Connect the mains lead to mains.
- (2) Align the surface of the battery pack indicated by the Z mark with the edge of the terminal shutter of the AC power adaptor. Then fit and slide the battery pack in the direction of the arrow. The CHARGE lamp (orange) lights up. Charging begins.

When the CHARGE lamp goes out, **normal charge** is completed. For **full charge** which allows you to use the battery longer than usual, leave the battery pack in place for approximately one hour. Unplug the unit from the mains, then remove the battery pack and install it into the camcorder. You can also use the battery pack before it is completely charged.

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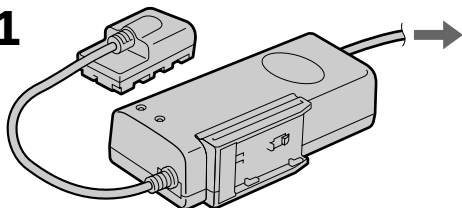
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Sony Corporation.

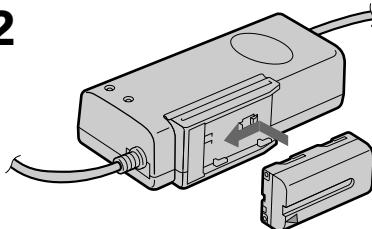
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ó ó%, èí, úá, íó †, íáíèè, úí†áííóí
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èí%èí†úó í†fl í†íóó~í† CHARGE, è
†ú† áfl í†èí†áúá† flêú. òfl.
áó, %† í†íóó~í† CHARGE „†óíáú, ~úó
úí†â, †áú í†á†, â ~áíèâ úú†í% úíó, „ó
~èíí†á† flê†ìèfl. †ú† âè. Ñífl á† flê†ìèfl áâ
í† óóííú, áííóóú, ~úó óóá, óífláú
óóí, áó, †ú, òfl, È%áóí†íâ óè%óí, ~áó. ~íó, „ó,
†ú† Â, òíâ%úáú óóú†, èú, óó%óó%èíáííòè í
†%†úáá úâ~áó èíâ íó í†èí~†ó.
éúíí, ~èúá †%úáá úú áóúè, †á†úáí òìèíèúá
†ú† Â, è óó%óó%èíèúá áâ í, È%áóí†íâ â.
á†ú† áâè íóèíó í†èíú, óóí, áó, †ú, òfl
ú†íèâ íâ%óèè%†fló, óóí† óí†á† flêúòfl
óóííóóú.

1



2



Charging and installing the battery pack

á† fiÊ†iÊÄ Ê ÒÓÚ†iÓ, í†
†íiÓiÓîfiúÓ iÓÈ .†Ú† ÄÈ

Charging time

Battery pack	Charging time *
NP-F530 (supplied)	170 (110)
NP-F730	250 (190)
NP-F930	330(270)

The time required for a normal charge is indicated in parentheses.

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

Battery life

While using with viewfinder

ýrettäB kcap	sani trC gndroer *rið	lac ipY gndroer †ið
NP-F530 (supplied)	110 (100)	80 (70)
NP-F730	255 (230)	190 (170)
NP-F930	400(360)	220(195)

While using with LCD

ýrettäB kcap	sani trC gndroer time **	lac ipY gndroer time ***	gniyaP eri t with LCD
NP-F530 (supplied)	80 (70)	40 (35)	85 (75)
NP-F730	190 (170)	100 (90)	195 (175)
NP-F930	295(265)	160(145)	300 (270)

Numbers in parentheses indicate the time when you use a normally charged battery. Battery life will be shorter if you use the camcorder in a cold environment.

** Approximate continuous recording time indoors.

*** Approximate minutes when recording while you repeat recording start / stop, zooming and turning the power on / off. The actual battery life may be shorter.

è Ó%ÓiÊÉÚÄi, iÓÓÚ, Á† fiÊ†iÊfi

äÓ%Äi, .†Ú† ÄÈ	è Ó%ÓiÊÉÚÄi, iÓÓÚ, Á† fiÊ†iÊfi*
NP-F530 (Ô Êi†,,†ÄÜðfi)	170 (110)
NP-F730	250 (190)
NP-F930	330 (270)

Ç ÒiÓ. í†i Úi†Á†i† Ô Ó%ÓiÊÉÚÄi, iÓÓÚ, ÓÚ†i† ÚiÓ, Ó Êi†i† Á† fiÊ†iÊfi.

* è ÊiÄ iÓÄ, Äifi, iÊiÓÚ†i, iÄÓ. iÓ%ÊiÓÄ %ifi Á† fiÊ†iÊfi †Ä fiÊÄiÓÈ .†Ú† ÄÈ Ò ÓÓiÓ. Ô Êi†,,†ÄiÓ, Ó †%†ÓÚÄ †ÄÚÄ, Ó,, Ó ÒÊÚ†iÊfi (Ô Ê iÊÄiÊi ÚÄiÓÄ †ÚÚ †i Ô Ó%ÓiÊÉÚÄi, iÓÓÚ, Á† fiÊ†iÊfi Ú, ÄiÊ~È, †ÄÜðfi).

Ç Äifi †. ÓÚ° ÓÚ Á† fiÊÄiÓÈ .†Ú† ÄÈ è Ê ÈÓÓi, ÄÓ, †iÊÈ, È%ÓÈÓi†ÚÄifi

äÓ%Äi, .†Ú† ÄÈ	Ç Äifi iÄÓ Ä °, iÓÈ Ò·ÄiÊ**	Ç Äifi Ò·ÄiÊ ÄÄi iÓi ÄÊiÄ***
NP-F530 (Ô Êi†,,†ÄÜðfi)	110 (100)	80 (70)
NP-F730	255 (230)	190 (170)
NP-F930	400 (360)	220 (195)

è Ê ÈÓÓi, ÄÓ, †iÊÈ ÊÈ%iÓi ÊÓÚ†iÊÈ ÄÓiÓ, Ó ~ í †i†

äÓ%Äi, .†Ú† ÄÈ	Ç Äifi iÄÓ Ä °, iÓÈ Ò·ÄiÊ**	Ç Äifi Ò·ÄiÊ ÄÄi iÓi ÄÊiÄ***	Ç Äifi ÓÓÓ Ó·, ÄÄi iÓi ÊÈ%iÓ-í ÊÓÚ†i-ÊÈ ÄÓiÓi ~ í †iÄ
NP-F530 (Ô Êi†,,†ÄÜðfi)	80 (70)	40 (35)	85 (75)
NP-F730	190 (170)	100 (90)	195 (175)
NP-F930	295 (265)	160 (145)	300 (270)

NP-F530 (Ô Êi†,,†ÄÜðfi)	80 (70)	40 (35)	85 (75)
NP-F730	190 (170)	100 (90)	195 (175)
NP-F930	295 (265)	160 (145)	300 (270)

Ç ÒiÓ. í†i Úi†Á†i†, Äifi †. ÓÚ° Ô Ê ÓÚ†i† ÚiÓi Á† fiÄ. †Ú† ÄÈ.

è Ê iÊÄiÊi ÚÄiÓÄ †ÚÚ †i .†Ú† Äfi †Ä fiÊ†ÄÜðfi . °ÚÚ ÄÄ.

* è ÊiÄ i†fi Ó %ÓiÊÉÚÄi, iÓÓÚ, iÄÓ Ä °, iÓÈ Ò·ÄiÊÈ, ÄÄi °ÚÓi ÓÓiÄ ÄiÊÈ.

*** è ÊiÄ i†fi Ó %ÓiÊÉÚÄi, iÓÓÚ, ~ í †i†iÓ, Ó , ÄiÄiÊ Ò È Ò ÄiÄi Ò iÄÓ%iÓi †ÚiÊÈ ÓÓÚ†iÓ, í†iÊÈ, ÊÄiÄiÄiÊiÊÈ ÚÓiÓÓiÓ, Ó †ÓÓÚfiÊfi Ó· ÄiÚÈ, †, , íi, ~ÄiÊfiÊÈ , íi, ~ÄiÊfiÊÈ ÒÊÚ†iÊfi. á† fiÄ. †Ú† ÄÈ Ò È ~ÚÓi iÓÈÄÚ †ÒiÓ, Ó, †Ú, ðfi . °ÚÚ ÄÄ.

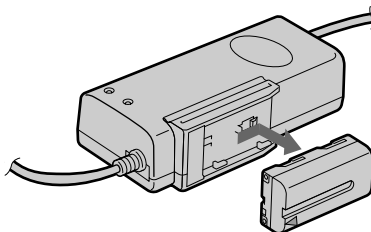
Charging and installing the battery pack

Notes on remaining battery time indication during recording

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

To remove the battery pack

Slide the battery pack in the direction of the arrow.



Notes on charging the battery pack

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

á† ñĒ†İĒĒ Ē ŐŰŰ†İŐ, İ†
†İİŰİŰİ†İŰŐ İŐĒ. †Ű† ĄĒ

àİĒĒİ†ŰŐ ŐŰŰ†. ĄĒ, ŐŐ† Ą† ñĒ†. †Ű† ĄĒ
, Ő, Ąİ†İ Ő ĄİĒĒ
• ÇĄİĒĒĒİ† ŐŰŰ†. ĄĒ, ŐŐ† Ą† ñĒ†. †Ű† ĄĒ
Űİ†Ą†, †ĄŰŐ†, ŐİĄĒ, ĒĒ. ŐĒŐİ†ŰĄİ†İ ĒİĒ İ†
ĒĒ. İŐİ ĒŰŰ†İĒĒ ĄŐİŐİ Ąİ †İĄ. ĒĒİ†İŐ, Ą†,
ĒŐİŐŰĒ ŐŰ ŰŐİŐ, ĒĒ Ē Ő. ŐŰŐİŰĄİ, ŐŰ,
Ő ĄİĒĒ ŐŐİ†Ą†İĒİ† ĄŰŰŰ, Ő ĒİĒĒİ†ŰŐ †İŐŰŰ
. ŰŰ. İĄŰŐ ĄİĒĒ.
• ĒŐŐİĄĄİ ŰĒİ†İ ĒŰİ†İ ŐŐ, ŰŐ İŐŰŰ, †Őİ ŰĒİ†İ
ĒĒ. İŐİ ĒŰŰ†İĒĒ ĄŐİŐĒ Ő†İĄİĒ ŰŐ ĄİĒ
ĒİŰŐ İ† ĄĒ, Ő, ĄİĒĒĒİĄ ŐŰŰ†. ĄĒ, ŐŐ†
Ą† ñĒ† İŐĒİŐ ŐŐİŰĒĒ, İĒĒ, ŐŐŰŰŰ†
Ő ĒİĄ İŐİĒİŰŰŰ.

Ēİ†İŰĒĄ †İİŰİŰİ†İŰŐ İŐĒ. †Ű† ĄĒ
ĒĒ, Ēİ. ŰĄ. †Ű† ĄĒ, İ†Ő †, İĄİĒĒ, Űİ†Ą†İŐİ
ŐŰ ĄİŐĒ.

Ē Ő Ő ĄŐŐĄ Ą† ñĒ†İĒİ†. †Ű† ĄĒ
• àİĒĒİ†ŰŐ İ†İ†İŐŐ Ą† CHARGE
Ő Ő. ŐİĒ†ĄŰ Ő, ĄŰĒŰ, Ő†ĄĒ ĄİĄİŰŰŰ ŐĄ
, Ąİ†İ ŐŐŐİĄ ŰŰŰŰ, Ő, İ†İ Ą† ñĒĄİ†İ†İ. †Ű† Ą†
ŰŰĄİĄİ† ŐŰ †Ē. ŐŰĄ †, † Ő, ŐĒ ŐĒŰ†İĒİ†
ŰŰŐŐĄĒĒİĄİ ŐŰ ŐĄŰĒ. ŰŰŐ İŐ İ†İ. İŐ.
• ŐŐİĒ İ†İŐŐ Ą† CHARGE İĄ Ą†, Ő †ĄŰŐ†,
ŰŰİ† ĄĒŰĄ Ő Ő, ŐĒ ŐĒŰ†İĒİ† ŐŰ ŐĄŰĒ Ē, İŐ,
, İ†, ĄĒŰĄĄ, Ő, ŐĄŰ. Ő ĒİĄ İŐ ĄĄ ŐĒİŰ
İĒİŰŰŰ.
• ÇŐ, Ąİ†İ† ñĒ†İĒİ† †İİŰİŰİ†İŰŐ İŐĒ
. †Ű† ĄĒ ŐĄŰĄ, Ąİ†İ†ŰĄ Őİ İĄİ†, Ą†
ŐŐİ, ĄŐ, †Ű. Ő†İ†İ† ŐĒŰ†İĒİ†, ĒĒ. ĄŐİ†İĄ. ĄĒ.
• Ē Ē ŐŐİ†İ. ĄİĒĒ İ†İ†ŰĄ Ű ŐŐİŐŐŰŰ.
Ą† ñĒĄİŐĒ. †Ű† ĄĒ İ†İŐŐ Ą† CHARGE
Ą†, Ő †ĄŰŐ† İ† İŐ ŐŰİŐĄ, Ą†İ†, †ĄĄĄİ†
ĄĄİĄŰ.

Charging and installing the battery pack

á† ñĒ†İĒÄ Ē ŪŪ†İŲ, İ†
†İİŪİŪİŪİŪŲ İŲĒ ·†Ū† ÄĒ

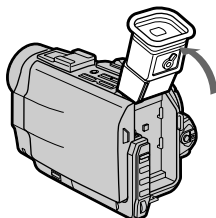
Installing the battery pack

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

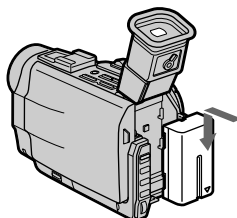
İŲŪ†İŲ, İ† †İİŪİŪİŪİŪ İŲĒ
·†Ū† ÄĒ

- (1) ěŲİĒİĒŪÄ, ĒŲĒŲİ†ŪÄİ.
 - (2) Ç, ÄĒŪÄ ·†Ū† Ä, Ų ÄÄİİĒĒŲÄ, ŲŲ ÄÄİŪĒ Ų†, ÄÄ, İ†Ų †, İÄİĒĒ, Ūİ†Ä†İŲİÄİ†İŲİ \$ İ† İŲ ŲŲÄ ·†Ū† ÄĒ. ěŲŲİ†İĒŪÄ ·†Ū† Ä, İĒÄŲŲŪÄİ ŲŲ, ŲŲİ† İÄÄ† ÄİİİÄŪŲİ ŪĒİŲŲŲ.
- ĒİÄĒŪÄ Ä† İ†ÄĒİŲŲ, ŲŲÄĒİÄİĒİ ·†Ū† ÄĒ Ų, ĒÄŲİ†İÄ ŲĒ.

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2



Notes on installing the NP-F730/F930 battery pack

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

Ē Ē ŪŪ†İŲ, İÄ ·†Ū† ÄĒ NP-F730/F930
·ŲŲİ ÄŪĒŪÄŲ, ĒÄŲİ†İÄ ŲĒ, ŲİÄ, İ† Ų ěŲŲİŲİ, ĒŲĒŲİ†ŪÄİ.

Note on the battery pack

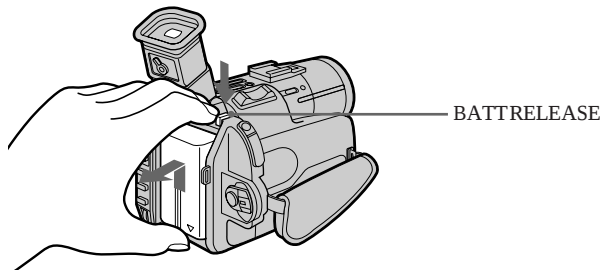
Do not carry the camcorder by grasping the battery pack.

ŲÄŲ ·†İİŪİŪİŪİŪ İ† ·†Ū† ÄİŲİ ÇÄ İŲĒŪÄ, ĒÄŲİ†İÄ Ų, ÄĒ Ē† ÄÄ Ä† ·†Ū† Ä.

To remove the battery pack

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

ĒİİŪĒÄ †İİŪİŪİŪİŪ İŲĒ ·†Ū† ÄĒ ÇĒĒİİİ† İ† İ†ĒŲİ ŪĒİŲŲŲ † BATT RELEASE, ŲĒ, İİ ŪÄ ·†Ū† Ä, İ†Ų †, İÄİĒĒ, Ūİ†Ä†İŲİŲ Ų ÄİİŲĒ.



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

Ç İŲĒŪÄ Ų, ĒÄŪ, ÄÄİŲİŲ †Ē, ŪŲİİĒĒ, İŲŲ İĒ ŲŲİ†Äİ† Ç††, ĒÄŲİ†İÄ † (Ų .117).

Inserting a cassette

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

Make sure that the power source is installed.

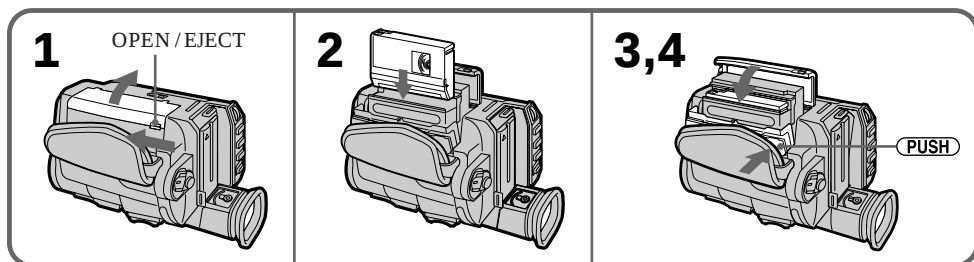
(1) Slide OPEN / EJECT near the grip strap in the direction of the arrow and open the lid. The cassette compartment automatically lifts up and opens.

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

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

(4) Close the lid until it clicks.

* **Mini DV** is a trademark.



Notes

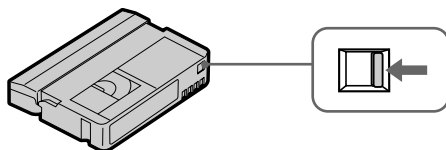
- Before you close the lid of the cassette compartment, make sure the cassette compartment is completely pulled down.
- When you open the lid immediately after you install the battery, the cassette compartment may not lift up. Close the lid and open it again.

To eject the cassette

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

To Prevent Accidental Erasure

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



Inserting a cassette

Mini DV logo* only.

- (1) Slide OPEN / EJECT near the grip strap in the direction of the arrow and open the lid. The cassette compartment automatically lifts up and opens.
- (2) Insert a cassette with the window facing out.
- (3) Close the cassette compartment by pressing the **[PUSH]** mark on the cassette compartment. The cassette compartment automatically goes down.
- (4) Close the lid until it clicks.

* **Mini DV** is a trademark.

Getting started / e000000, it i 00i, A0, +tE.

è ÈIÀ~IIEñ
• è AE%À~AIÀtI °, +U I °~IU
I+00AU00 ÈAIIEI+, U·A%EUAO, ~UO OI
OIOI~UAi, IO, A IUIOfñ, IEEIAA
OOIOEAIÈA.
• OOIÈ Ç° OUI °, +AUÀ I °~IU O +AU ÈA
, OIA% A+ UOU~IO, IOE +U+ AE UO
%, ÈEAIÈñ I+00AU00 ÈAIIEI+ IOEÀU IÀ
O OEAOUÈ. Ç° UOI OIU~+A A+I OEUÀ I °~IU
È OUI OEUÀ AA OO, UO IO.

àÁ, IÀ~AIÈÀ, È%ÀÓI+00AU°
ÈIÀ%Uñ UI+AIIEñI, O È, A%AI~I, °~A,
ÈA, IAIÈUA I+00AUU, IO%A~U+O+ 2.

è A%OU, +~AIÈÀ OIU~+EIO,, O
OUÈ +IÈñ A+OÈÈ
è%, ÈI, UÀ O A%OI +IÈUAI IU, A+%, ÈE IU I+
I+00AUU, ~UO ° OU+I+, È%I+ I +OIñ
OI+OUÈI+. IÀQA O È OOO·UIA+OÈ°, +U
I+~UO I+00AUU, OIIA, È%OEOI+UAñI ÈIE I+
ÈE%IOI ÈOU+IIE~AOIOI~I +IÀ I+~Ei+. U
IÈ, +U ÈI%I+UO ° L È 6, +A+OÈO IÀ
I+~+AUOfñ. OOU° ° OAI+U I+ I+00AUÀ IO, U
A+OÈO, OÀ A% ÈI, UÀ A+%, ÈE IU +I, ~UO°
I +OIñ OI+OUÈI+ OI+AI+O, A+I °UÈ.

Camera recording

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

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

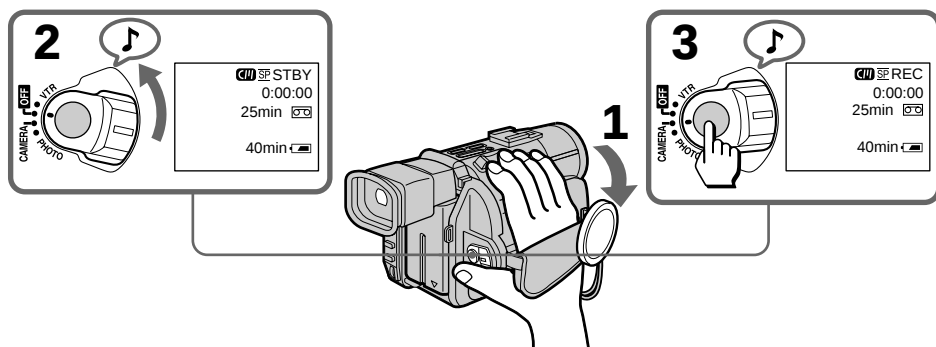
When you use the camcorder for the first time, power on it and reset the date and time to your time before you start recording (p.81).

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

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

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

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

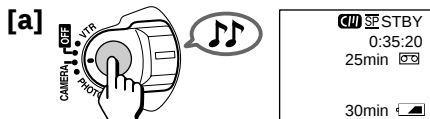


To stop recording momentarily [a]

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

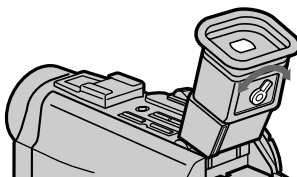
To finish recording [b]

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



To focus the viewfinder lens

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



Note on Standby mode

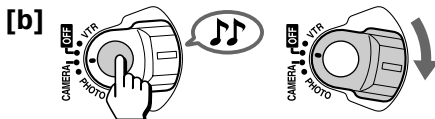
If you leave the camcorder in Standby mode for 5 minutes while the cassette is inserted, the camcorder turns off automatically. This prevents wearing down the battery and wearing out the tape. To resume Standby mode, while pressing the small green button on the POWER switch, set it to OFF once, and then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

Note on recording mode

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

À°ÖÜ ÖÂ, ÎÍ, ~ÂÎÊÂ Á†ÖÊÖÊ [a]
Ç†ÊÎËÜÂ ÎÍÖÖÍÜ START/STOP. Ç ÖÎÎÂ
, Ê%ÖÊÖÍ†ÜÂÎÍ ÖÖÍ, ÎÍÂÜÖÍ ÊÎ%ÊÎ†ÜÖ "STBY"
(ÂÊÊÎ ÖÊÊ%†ÎÊÍ)

è ÂÎ †~ÂÎÊÂ Á†ÖÊÖÊ [b]
ÑÎÍ Ö ÂÎ †~ÂÎÊÍ Á†ÖÊÖÊ Î†ÊÎËÜÂ ÎÍÖÖÍÜ
START/STOP Á~Â †Â. èÂ Â, Â%ËÜÂ
ÖÂ ÂÎÍ ~†ÜÂÎ, POWER, ÖÖÍÖÊÂÎÊÂ OFF.
èÖÖÎÂ ~ÜÖ,, Ö ÊÂ, ÎÂÎËÜÂ Î†ÖÖÂÜÖ È ÖÎÊÎËÜÂ
†ÎÍÜÍÖÍÜÖ ÎÜ. ~†Ü† Â.



èÖ%ÖÜ ÖÊÎ† ÖÍÖÍÍ† †, Ê%ÖÊÖÍ†ÜÂÎÍ
ÖÖÎÊ Ç†ÎÜ Ü%ÖÖ †ÂÎÊ~†Ü, ÊÎ%ÊÎ†ÜÖ °,
ÖÎÎÂ, Ê%ÖÊÖÍ†ÜÂÎÍ, ÊÎÊ ÖÖÎÊ ÖÂ Â%Ç†ÎÊ
Î†ÎÂ ÖÊ ÖÖÍ, ÁÖ, †ÎÖÍ ÜÖÖ-ÜÖ% Ü,, ÖÊ,
Ö ÖÊÂ, Â%ËÜÂ ÖÖ%ÖÜ ÖÊÎÜ ÖÍÖÍÍ†
, Ê%ÖÊÖÍ†ÜÂÎÍ. èÖ, Ö ÖÜÖÍ Â,, ÜÍÜÖÖ †
ÖÖ%ÖÜ ÖÊÎÊ ÖÍÖÍÍ† †%Ö-ÂËÜÂÖ, ÜÖ,, ~ÜÖ.
ÊÎ%ÊÎ†ÜÖ °, ÖÎÎÂ, Ê%ÖÊÖÍ†ÜÂÎÍ ÖÜ†ÎÊ
, Ê%Î° ÖÜ~ÂÛÎÊ, Ö Ê ÂÁÎÖ.

é ÂÊÊÎÂ ÖÊÊ%†ÎÊÍ Î†~†Î† Á†ÖÊÖÊ
ÖÖÎÊ ÖÜ†, ÊÜ, Ê%ÂÖÍ†ÎÂ Ü ÖÜÖÜÍÖ, ÎÂÎÖÊ
, ÎÂÊ Î†ÖÖÂÜÖÊ, ÂÊÊÎÂ ÖÊÊ%†ÎÊÍ-ÖÎÂÂ ~ÂÎ
Î†5 ÎÊÎÜÖ, ÖÍ†, ÜÖÍ†ÜÊ~ÂÖÎÊ, °ÎÍ ~ËÜÖÍ.
ÜÜÖ° ÎÖÍÖÍÜÂ† Í%~†Ü† ÂÊÊ ÖÖÍ ††ÂÜ
ÊÂÎÖÖ, Ê%ÂÖÍÂÎÜ°. ÖÜÖ°, Â ÎÜÜ, Î†ÎÂ Ü,
ÂÊÊÎ ÖÊÊ%†ÎÊÍ Î†~†Î† Á†ÖÊÖÊ, ÖÂ Â, Â%ËÜÂ
ÖÂ ÂÎÍ ~†ÜÂÎ, POWER, Ü%Â ÊÊ, †Í† ÎÂÎ,
Î†Ê†ÜÖÍ ÖÖÍÖÊÂÎÊÊ Î†ÎÂÎ, ÎÜ, ÂÂÎÂÎÜ.
ÎÍÖÖÍÜ, ÖÖÍÖÊÂÎÊÂ OFF, ††ÜÂÎ ÖÍÖ, †,
ÖÖÍÖÊÂÎÊÂ CAMERA. ÖÜÖ° Î†~†Ü, Ö ÂÎÎÜ,
Î†ÊÎËÜÂ ÎÍÖÖÍÜ START/STOP.

é ÂÊÊÎÂ ÖÍÖ ÖÜÖÊ
Ç† †, Ê%ÂÖÍ†ÎÂ † ÖÖÂ, ÖÍÍÂÜ, ÂÖÜÊ Ö ÂÎÎÜ È
, ÖÖÖ ÖÊÂ, Ü%ËÜ, Ê%ÂÖÂ†ÖÊÖÊ, ÂÊÊÎÂ
ÖÜ†Î%† ÜÍÖÊ (SP) È ÎÂ%ÎÂÎÖÊ (LP) ÖÍÖ ÖÜÖÊ.
Ç°Ö ÎÂÊ%Ü ÖÜ†Î%† ÜÍÖÊ È ÎÂ%ÎÂÎÖÊ
ÖÍÖ ÖÜÜ, ÖÜÜ ÂÖÜ, ÎÍÂÜÖÍ Ö ÖÖÍÖ, ÎÂÎ.
Ö† †ÎÂÜ Ö, È Ö%ÖÎÊËÜÂÎ, ÎÖÖÜ, Á†ÖÊÖÊ,
ÂÊÊÎÂ LP, 1,5 †Â† Ö Â, ~†ÂÜ, ÂÎÍ
Á†ÖÊÖÊ, ÂÊÊÎÂ SP.

Notes on LP mode

- We recommend to use this camcorder to play back a tape recorded on this camcorder. If a tape recorded on other camcorder is played back on this camcorder, or vice versa, mosaic-pattern noise may appear.
- When you record in SP and LP modes on one tape or you record some scenes in LP mode, the playback picture may be distorted or the time code may not be written properly between scenes.
- When you record in LP mode, we recommend you to use a Sony Excellence / Master mini DV cassette so that you can get the most out of your camcorder.
- You cannot make audio dubbing on a tape recorded in LP mode. Use the SP mode for the tape to be audio dubbed.

Notes on the time code

- The time code indicates the recording or playback time, "0:00:00" (hours:minutes:seconds) in CAMERA and PHOTO mode and "0:00:00:00" (hours:minutes:seconds:frames) in VTR mode.
- Be sure not to make a blank portion when recording, because the time code will start from "0:00:00:00" again.
- This camcorder uses the drop frame mode.

Note on the 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, select "OFF" in the menu system.

Notes on finder power save

- The recording continues even when the picture in the viewfinder disappears during recording.
- If you set VF PW-SAVE to OFF in the menu system, the picture in the viewfinder does not disappear even when you turn your face away from the viewfinder.

Note on remaining tape indicator

The indicator may not be displayed accurately depending on the tape. Though the indicator does not appear at the time of recording, it will appear in a few seconds.

é òíó òóúÉ LP

- Ñîñ, òòò òéÁ, Æ, ÆîÉñ, Æ, ÆóÁ±òÉòÁÉ, òóúÉñíü"1 %±ííòÉ, Æ, Æóí±íÁ òÉ, ÁíóíÁí, òóúóñ Éòóóí, Áó, ±ü, ÁÁÉÁ. È É, òòò òéÁ, Æ, ÆîÉÉ ±± %±ííòÉ, Æ, Æóí±íÁ Á±±òÉòÁÉ, ò, Æí±íí"1 %ü, òÉ, Æ, Æóí±íÁ òÉ, òÁíóÉíó òóñ, íÁíÉÁ íóÁ±É"1"1 Éóí±ÉÁíÉÉ ÉÁó. ±ÉÁíÉñ.
- òóíÉ ±± ò, òóÉ É úóÉ ÉÁ, Æ, ÆóíÁíúÁ ÉíÁÁúóñ Á±±òÉ, ò, Æí±íííñ ±í, ÁÉÉíÁ SP, úí É, ÁÉÉíÁ LP, ÉíÉ ÁóíÉ ÁÉÉí LP Éòóóí, ÁúÁúóñ, ò, Æí±íí"1 ±, íÁíú± Á±±òÉòÉ, úó"úó íóÉÁú ò É, ò, Æí±íí Éíóí±ÉÁíÉñí ò É, òòò òéÁ, Æ, ÆîÉÉÉ ÉíÉíÁ, Á íóÉ Á, Éúó ±ÉÉ1 íóíÁú É"ÁóíÉ1 íóóó, íÁÉúó ±, íÁíú±íÉ.
- òóíÉ Ç" ò òéÁ, ò, ÉúÁ Á±±òÉ, ÁÉÉíÁ LP, úó í" ÁíóíÁí, òóíÁí Ç±í Éòóóí, Áó, ±ü, í±±òÁú Sony Excellence/Master mini DV, "úó. Ç" íó,, íÉ òóíü"Éú, í±É. óí. ü. òó, ±±"ú óú Ç± ÁÉ, Æ, Æóí±íÁ.
- òóíÉ, Æ, ÆóÁ±òÉòÉ, ò, Æí±íí, ÁÉÉíÁ LP, úó í±±íóÉú, í± íÁÁ, òóóíÁ, ò, ÉÉ Á, úíó, óÁ òòò ò, òÉ, ÆíÉÁ. ò, Æí±íí íÁ, òÁíóÉíó. Á±±òÉòÉ, ò Æ, Æí±íí"Áíí" Á, Æíñ òóóíÁ, ò, Á, ò í±±íóÉÁíÉñ Á, úí±, óíÁ, òóÁ Æí±íí, ÁÉÉíÁ SP.

é ± òíóíÁú É"Áóíóí íóóÁ

- í òíóíÁú É"ÁóíÉÉ íóó òíóÉÉú íñ òóó"Áú± ÁíÁíÉ Á±±òÉòÉ ÉíÉ, òòò òéÁ, Æ, ÆîÉñ, úó í±íÁ "0:00:00" (~±: íÉíú±: òÁíúí±), ÁÉÉí± íñ CAMERA É PHOTO É "0:00:00:00" (~±: íÉíú±: òÁíúí±: í±), ÁÉÉíÁ VTR.
- Çó, Áíñ ò ÁííÉ ú±± ÉúÁó íÁ òóú±, íñú, í± íÁíúÁ íÁÁ±òÉòÉ±í±1 ú"±óíó, úí± í±í òóóíÁ íÉ1 òíóíÁú É"ÁóíÉÉ íóó í± í±íÁú, íó, òóó"Éú, ±ú, òñ ò "0:00:00:00".
- Ç%±ííòÉ, Æ, Æóí±íÁ Á Éòóóí, ÁúÁúóñ ÁÉÉí ò òóóóí±í± ±.

é òÉ, í±íÁ. ÉòÁ ±

Á±í úí±Á, ±Áú Áí±"óí  í±Éíí òú ±Éñí, ò, òíóí ±íí"É Á, úíó, òÉ òÉ, í±í òó, ÆíÁúóñ ò É, íí, "ÁíÉÉ í±íÁ" É í±±íÁ ò ÁííÉ, ±, òí, ±íí"É - ò É íóíóí"ííÉ ò ÁííÉ, òóó, ú, Á É±ñí, ò, òóóó, Áúúó, ò. É1 íóí±í±. ÁÉòÁ ú±íÉÁ òó, ±Áú íÁóíóí íó òóóíÁ, ò, ±úÁí í±í òÉ, í±íó, Æ, Æ, ò Á, òó ÆÉ, ÆíÉñ ò úÁí ÉíÉ Éí"1 ± ü"ÁíÉñí ÁÉÉí± ±. òó" í±íÁ. ÉíÁ, òóÁ ÉíÁú, Æ, Æ, "úó òÉ, í±í" ÉòÁ ±í±, Æ, ÆóíÁíúÁ íÁ Á±±òÉ, ±, úóñ. È É ÉÁí±íÉÉ É1 íóíó òííí. "Éú, , , Ç, ±, íÁí. ò± íÁú ò, òóÁÉ"É. "OFF".

é. " íóíóíÉÉ òÉú±íÉñ, Æ, òÉóí±úÁíñ

- àò"ÁÁò, ÁíÉÁ ÉÁó. ±ÉÁíÉñ, óíÁ, Æ, òÉóí±úÁíñ, ò, Áíñ ò ÁííÉ íÁ òÁí±"±Áú ÁÁ ò Áí ±ÁíÉñ.
- òóíÉ òóú±íó, Éú, óÁ Áíí"±úÁí, VF PW-SAVE, íÁí. ò± íÁú ò, òóíóÉÁíÉÁ OFF, úó ÉÁó. ±ÉÁíÉÁ, óíÁ, Æ, òÉóí±úÁíñ íÁ. ò, Áú ò òó±±í±, %±ÉÁ úó, %, íó, %, Ç" òó, ±íñíÁúÁ òíóíñ òíÉí±.

é. Éí, Éí±í±úó Á òóú±, "ÁÉóñ %íÉí" íÁíú" íó"íóó, òóí±í±íÉÉ"úó, ò Éí, Éí±í±úó ±Á±, ÉòÉú òó úÉò±, Æ, Æóí±±óÁú. È É, íí, ÁíÉÉ Á±±òÉòÉ òí óóñ, íñÁúñ í±"í í±Á íÁ ò ±Áú, ±íÉ. "Á ÁÁ íÁóíóí, íó òÁíóí±.

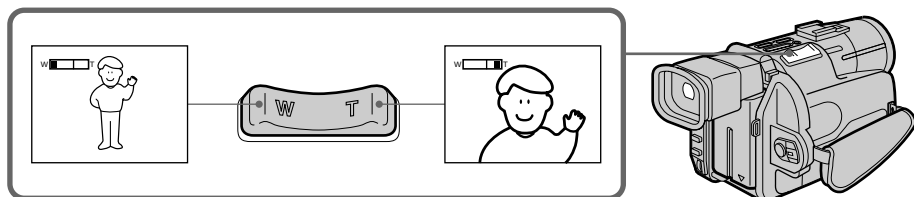
Using the zoom feature

Zooming is a recording technique that lets you change the size of the subject in the scene.

For more professional-looking recordings, use the zoom function sparingly.

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

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



Zooming speed (Variable speed zooming)

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

When you shoot a subject using a telephoto zoom

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

èÓĬ, ÁÓ, †İĖÂ Ú †İÒÙÓİ†ÚÓ ÓĬ
 (“İ†Â%”)

“Ç†Â%ÓĬ” İ†Â°, †ÂÙÒĬ ÓÔÂ †ÚÓ ÒİĖĖ Ô ĖÂİ,
 Ô Ė İÓÚÓ ÓĬ ĖÂİÂİĬ. ÙÒĬ †ÂİÂ ° Ô· ÂİÚ†
 Ò· ÂİİĖ, İ†% Â.

ÓÚÓ· Ç†Ė, Ė%ÂÓÙĖİ, İ°, °, İĬ%ÂİĖ · ÓİÂÂ
 Ô ÒÂÒÓĖÓİ†İ, İÓ, İÂ ÂİÓÚÓÚ Â· İĬĖÚÂ ~ ÜĖİ
 Ô ĖÂİÓİ.

èÚÓ Óİ† “T” - Ò· Âİİ† ÚÂİÂÓ· ÂİÜĖ, ÓĬ
 (Ô Ė· İĖĖÂİĖÂ Ó· ÂİÚ†
 Ò· ÂİİĖ)

èÚÓ Óİ† “W” - Ė ÓİÓÚ, ÓĬ, İ†Ĭ Ò· Âİİ†
 (ÓÚ%İÂİĖÂ Ó· ÂİÚ†)

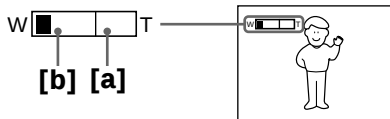
ĖİÓ ÓÓÚ, “İ†Â%†” (“İ†Â%” Ò
 ÔÂ ÂİÂİİÓĖ ÓİÓ ÓÓÚ.)

Ė †, İĖÚÂİ, İÓ İÂ%İÂİİÓÂ Ô Ė· İĖĖÂİĖÂ ĖİĖ
 ÓÚ%İÂİĖÂ %ÓÓÜĖ, †ÂÙÒĬ İÂİİĖİ İ†Ė†ÜĖÂİ İ†
 °~†ĖÓİ ÙÓ †, İÂİĖİ Ù †İÒÙÓİ†ÚÓ ÓĬ; Ô Ė
 · ÓİÂÂ ÒĖİ, İÓİ İ†Ė†ÜĖĖ ÓİÓ ÓÓÚ,
 Ô Ė· İĖĖÂİĖİ ĖİĖ ÓÚ%İÂİĖİ, ÓÂ †ÓÚ†ÂÜ.

Ė· Âİİ† ÚÂİÂÓ· ÂİÜĖ, ÓĬ
 ÒÒİĖ Ô Ė İ†İÒĖİ†İ, İÓİ “Ô Ė· İĖĖÂİĖĖ”
 Ó· ÂİÚ† Ò· ÂİİĖ Ô ÓÓİÓ, ÚÂİÂÓ· ÂİÜĖ, †
 Ç†İ İÂ Ù%ÂÙÒĬ ~ ÂÜİÓ ÒÙÓİÙĖ Ô, †Ü,
 ĖÂÓ· †ĖÂİĖÂ, İ†ĖĖİ†ĖÚÂ ÒÚÓ ÓİÜ “W”
 °~†Ėİ† ÙÓ †, İÂİĖİ Ù †İÒÙÓİ†ÚÓ Óİ%Ó ÚÂİ
 ÓÓ, ÓÓİ†ĖÂÓ· †ĖÂİĖÂ İÂ ÓÚ†İÂÜ ÂÂİĖİ.
 Ė ĖİÂ İÓÂ †ÒÒÙÓİĖÂ ÓÚ ÓÓ, Â İİÒÓÜĖ İĖİÂ°
 %Ó Ó· ÂİÚ† Ô Ė Ò· ÂİİÂ ÚÂİÂÓ· ÂİÜĖ, ÓĬ
 %ÓİĖİÒ ÓÓÓÚ†, İĬÜ, İÂ İÂİÂÂ 80 Óİ, † Ô Ė
 Ė ÓİÓÚ, ÓĬ, İÓĖ Ô· ÂİİÂ - İÂ İÂİÂÂ 1 Óİ.

Notes on digital zoom

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



Selecting the start/stop mode

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

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

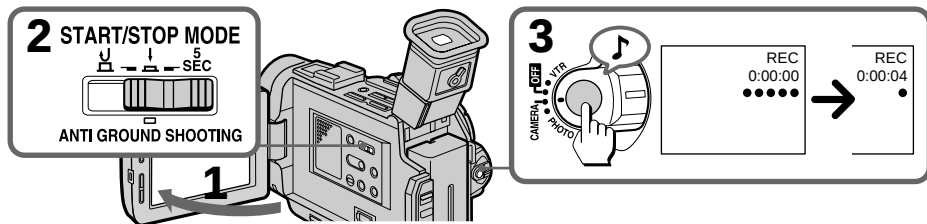
If you selected **5SEC**, five dots appear in the viewfinder or on the LCD screen. The dots disappear at a rate of one per second as illustrated below. When five seconds elapse and all the dots disappear, the camcorder switches to Standby mode automatically.

é `ÈÙ Ó,ÓÍ ÚÁÍÁÓ`ÂÎÍÊ,Â
 • Ì,ÂÎÊ`ÂÎÊÁ Ó,`Â%ÂÓÍÚÊÍ ‡ÚÍÓ,,Ó
 %ÓÓÚÊ,‡ÂÚÓÍÂ‡ Ò`ÂÚ`ÈÚ Ó,ÓÊ Ó. ‡.ÓÚÎÊ
 ÊÁÓ. ‡ÊÂÎÊÍ,ÓÍÂ%ÓÚ,ÊÂ`ÂÓ Ó Ê
 %‡Î. ÎÂÊ`ÂÍ ÎÊ‡ÚÊÊ Î‡ ÓÚÓ ÓÍÚ “T”
 ~‡ÊÍ‡ ÚÓ ‡,ÎÂÎÊÍ Î‡`ÂÓÚ,Ó ÊÁÓ. ‡ÊÂÎÊÍ
 ÚÍÚ%`‡ÂÚÓÍ. ÓÓÎÊ Ç` ÎÂ ÊÂÍ‡ÂÚÂ
 ÓÓÍ. ÁÓ,‡Ú ÓÍ`ÈÚ Ó,`Í Ú,ÂÎÊ`ÂÎÊÂÍ,
 ÚÓÚ‡ÍÓ,ÊÚÂ ÓÂ ÂÍ.~‡ÚÂÍ. ÚÓÚÍ`ÊÊ D ZOOM
 , ÎÂÍ. Ó‡ ‡ÎÂÚ Ó, ÓÓÍÓÊÂÎÊÂ OFF.
 • è ‡ ‡Í‡~‡ÓÚ. [a] ÊÍ%ÊÍ‡ÚÓ ‡ÚÓÍÚÓÍÓ,,Ó
 ‡ÓÓÚÓÍÊÍÓ. ÂÍÚÊ,‡ Ó %ÓÚ‡,ÎÍÂÚ ÓÓ.ÓÊ
 Ó.Î‡ÓÚ. `ÈÚ Ó,Ó,,Ó Ú,ÂÎÊ`ÂÎÊÍ, ‡ ÎÂ,‡Í [b]
 - Ó.Î‡ÓÚ, ÓÓÚÊ`ÂÓÍÓ,,Ó Ú,ÂÎÊ`ÂÎÊÍ. è Ê
 ÚÓÚ‡ÍÓ, ÎÂ ÚÓÚÍ`ÊÊ D ZOOM, ÓÓÍÓÊÂÎÊÂ
 OFF ~‡ÓÚ. [a] ÊÍ%ÊÍ‡ÚÓ ‡ÈÓ`ÂÂ‡Ú.

Ç`Ó ÂÊÊÍ‡,ÎÍ.~ÂÎÊÍ/
 ,ÎÍ.~ÂÎÊÍ Ò`ÂÎÍÊ

èÓÍÊÍÓ Ó.`~ÍÓ,,Ó ÂÊÊÍ‡,ÎÍ.~ÂÎÊÍ Ê
 ,ÎÍ.~ÂÎÊÍ Ò`ÂÎÍÊ Ç‡~‡,Ê%ÂÓÍ‡Â ‡
 ÊÂÂÚ%,‡% Ú,,ÊÍ, ÍÓÚÓ`Â ÓÓÂ,ÓÍÍ Ú
 ÓÓÚ`ÂÚ,ÎÍÚ. ·ÓÚ Ú ÓÍÂÍÚ Î‡% Ó,,
 ÓÊÊ,ÎÍ.~Ú Ç‡`Ê,Ê%ÂÓÚÊÍ.Î.
 (1) ÇÊÊÍ‡Í‡ PUSH OPEN, ‡ÓÍ ÊÓÚÂ
 ÊÊ%ÍÓÍ ÊÓÚ‡ÎÊ`ÂÓÍÚ Ó‡ÎÂÍ.
 (2) Ç`Â ÊÚÂ ÎÚÊÍ`Ê ÂÊÊÍ Ò ÓÓÍÓ`
 ÓÂ ÂÍÍ.~‡ÚÂÍ‡Í START/STOP MODE.
 ⏏ : è`ÂÍ‡ Î‡`ÊÍ‡ÚÓÍ Ó Ê ÎÊ‡ÚÊÊ
 ÎÍÓÓÎÊ START/STOP ÈÓ ÂÍ ‡‡ÂÚÓÍ
 ÓÓ,ÚÓ Í`Î ÎÊ‡ÚÊÂÍ ÚÓÊ ÊÂ ÎÍÓÓÎÊ
 (Ó.`~Í`Ê ÂÊÊÍ).
 ⏏ ANTI GROUND SHOOTING: è`ÂÍ‡
 Ó Ó%ÓÎÊ‡ÂÚÓÍ ÎÊ`%Ó ÚÂÍ ÓÓ, ÓÓÍ‡ Ç`
 Ú%Â ÊÊ,‡ÂÚÂ ÎÍÓÓÍÚ START/STOP,
 ÎÊ‡‡ÚÓÍ ÓÓÍÓÊÂÎÊÊ - ~ÚÓ ÓÓÍÓ,‡ÂÚ
 ÊÂ`ÂÊ‡Ú. ÓÍÚ~‡ÊÍÓÊ Â‡ÓÊÓÊ ÎÂÍÚÊÍ`Í
 Ú ‡,ÎÂÍÚÓ,, ÂÓÎÊ Ç`Â.Ú%ÂÚÂ
 ,ÎÍ.~ÈÚ. Î‡ÎÂ Ú.
 5SEC: è Ê ÎÊ‡ÚÊÊ ÎÍÓÓÎÊ START/STOP
 Ó`ÂÍ‡,ÎÍ.~‡ÂÚÓÍ Î‡ 5 ÓÂÍÚ%, ‡ Â‡ÚÂÍ
 Ó ÂÍ ‡‡ÂÚÓÍ‡,ÚÓÍ‡ÚÊ`ÂÓÎÊ.
 (3) ÇÊÊÍÊÚÂ ÎÍÓÓÍÚ START/STOP. â‡ÎÂ ‡
 Î‡`ÊÍ‡ÚÓ Ò`ÂÎÍÚ.

ÓÓÎÊ Ç`·. ‡ÎÊ ÂÊÊÍ 5SEC, ÚÓ,
 Ê%ÊÓÊÍÚÂÍÂ Ó Ê`ÚÓÍ ÓÓÍ,ÎÍ. ÚÓÍ ÓÍÚ
 ÚÓ`ÂÍ. â‡ÚÂÍ ÓÎÊ ÓÓÍÂ%Ó,ÚÂÍ. ÎÓ ÈÓ`ÂÂ‡. Ú
 Ó ÊÍÚÂ, ‡ÍÓÍ, Ó%ÍÚ ÓÂÍÚÍÚ, Î‡Í ÓÓÍ‡ÂÍÓ
 Î‡ ÊÓÚÍÂ ÎÊÊÂ. èÓ ÊÓÚÂ`ÂÎÊÊ ÓÍÚÊ ÓÂÍÚÍ%,
 ÍÓ,%‡ ÚÓ`ÎÊ ÈÓ`ÂÂ‡. Ú Ó%ÊÓÓÍÂÍ,
 Ê%ÂÓÍ‡Â ‡‡.ÚÓÍ‡ÚÊ`ÂÓÎÊ ÓÂ ÂÍÓ%ÈÚ,
 ÂÊÊÍ ÓÊÊ%ÍÊÍ Î‡~‡Í Ò`ÂÎÍÊ.



To extend the recording time in 5SEC mode

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

Note on 5SEC recording

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

Shooting with the LCD screen

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

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

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

(2) Adjust angle of the LCD panel

The LCD panel moves about 90 degrees to this side and about 210 degrees to the other side.

To adjust the brightness of the LCD screen, press LCD BRIGHT + or -.

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

è Ó%ÎÂÎÊÂ , ÂÎÂÎÊ Ò`ÂÎÎÊ , ÂÊÊÎÂ 5SEC

ç‡ÊÎÊÚÂ ÎÎÖÖÎÚ START/STOP ÖÖ.ÚÖ ÎÖ %Ö ÚÖ,,Ö, Î‡Î, Ê%ÖÊÎ‡ÚÂÎ ÊÖ`ÂÂÎÚÚ, ÖÂ ÖÎÚ ÚÖ`ÂÎ. á‡ÖÊÖ .Ú%ÂÚ Ö %ÖÎÊÂÎ‡, ÚÂ`ÂÎÊÂ Â`Â ÖÎÖÎÖ ÖÎÚÊ ÖÂÎÚÎ% Ö ÎÖÎÂÎÚ‡ ÖÖ,ÚÖ ÎÖ,,Ö Î‡Ê‡ÚÊÎ ÎÎÖÖÎÊ START/STOP.

é Ò`ÂÎÎÂ , ÂÊÊÎÂ 5SEC ÖÖÎÊ Ç` ÖÚÎÎ ~ÊÎÊ, *Ö%ÊÎÊÎ‡ÚÖ Ö, Î‡ ÊÊ%ÎÖÎ ÊÖÚ‡ÎÎÊ`ÂÖÎÊÊ`Î Î‡, ÚÖ`ÎÊ Î‡ ÎÂÎ, Ê%Î` ÎÂ .Ú%ÚÚ.

è`ÂÎÎ‡ Ò ÊÖÖÖÎ, ÁÖ,‡ÎÊÂÎ ÊÊ%ÎÖÎ ÊÖÚ‡ÎÎÊ`ÂÖÎÖ,,Ö`Î Î‡Î

Ç` ÎÖÊÂÚÂ Ú‡ÎÊÂ ,ÂÖÚÊ Á‡ÖÊÖ. ÊÁÖ. ‡ÊÂÎÊÎ, ÖÎÂ%Î Á‡ ÎÊÎ ÖÖ ÊÊ%ÎÖÎ ÊÖÚ‡ÎÎÊ`ÂÖÎÖÚ ~Î ‡ÎÚ.

è Ê ÊÖÖÖÎ ÁÖ,‡ÎÊÊ ÊÊ%ÎÖÎ ÊÖÚ‡ÎÎÊ`ÂÖÎÖ,,Ö`Î Î‡Î, Ê%ÖÊÖÎ‡ÚÂÎ ‡,ÚÖÎ‡ÚÊ`ÂÖÎÊ ÖÚÎÎ`ÂÖÚÎ, Î ÖÎÂ ÖÎÚ`Â,, ÎÖ,,%‡`Î Î‡ ÊÖÖÖÎ ÂÖÂÖÚÎ, ÂÂ Î‡Î ÎÖÎ ÂÊÊÎÂ. èÖÎ ÁÖ,‡Ú ÖÎ,, ÖÎÖÎ,,Ö,Ö ÊÚÂÎÂÎ%ÎÎ ÎÖÎÚ ÖÎÎÎ Á‡ÖÊÖÊ Á,ÚÎ‡ Ê Ö`ÂÎÎÂ ÎÂ,ÖÂÎÖÊÎÖ.

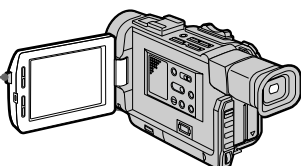
(1) Ç‡ÊÊÎ‡Î Î‡ PUSH OPEN, ‡ÖÎ ÖÊÚÂ ÊÊ%ÎÖÎ ÊÖÚ‡ÎÎÊ`ÂÖÎÖ Ö‡ÎÂÎ.

(2) ÊÚ Â,,ÚÎÊ ÚÊÚÂ Ú,,ÖÎ ‡ÖÖÖÎÖÊÂÎÊÎ Ö‡ÎÂÎÊ. è‡ÎÂÎ, ÎÖÊÎÖ ÖÖ,Â ÎÚÚ. Ö Ê.ÎÊÂÊÚÂÎ ÎÖ Î‡ 90,, ‡%ÚÖÖ, Ö%ÎÖÊ ÖÎÖÖÎÖÚÖÊ Ê Î‡ 210,, ‡%ÚÖÖ, -, % Ú,ÖÊ.

Ú ÎÖÖÚ ÊÊ%ÎÖÎ ÊÖÚ‡ÎÎÊ`ÂÖÎÖ,,Ö`Î Î‡Î Â,,ÚÎÊ ÚÂÖÚÎ ÎÎÖÖÎ‡ÎÊ LCD BRIGHT + Ê -. á‡Î Î%·‡Ú ÊÊ ‡ÖÎÖ%ÚÂÖÚÎ.ÖÎÂÂ`ÎÖÎÖÎÖ Ö Ê Â‡Î`ÚÖÊ ÊÊ%ÎÖÎ ÊÖÚ‡ÎÎÊ`ÂÖÎÖÊ Ö‡ÎÂÎÊ. ÖÚÖ· Ö Ö%ÎÊÚ, ÂÎÎ Ò`ÂÎÎÊ, ÖÖÎ, ÂÖÊÚÂÖ, ,ÎÂÖÚÖ ÊÊ%ÎÖÎ ÊÖÚ‡ÎÎÊ`ÂÖÎÖ,,Ö`Î Î‡Î, Ê%ÖÊÖÎ‡ÚÂÎÂÎ.

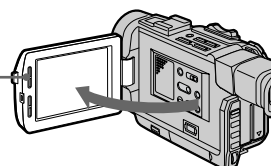
1

PUSH OPEN



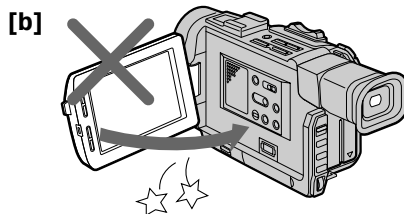
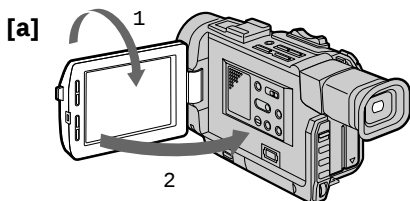
2

+ LCD BRIGHT -



Notes on the LCD panel

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

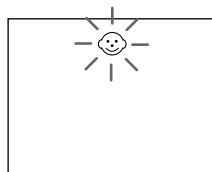
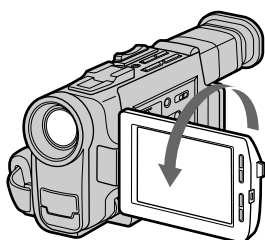


Letting the subject monitor the shot

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

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

You can also use the Remote Commander.



é ÊÊ%ÍÓÍ ÈÒÚ‡ÎÎÊ~ÂÓÍÒÈ Ò‡ÎÂÎÊ
 • á‡Í ` , ‡Î ÊÊ%ÍÓÍ ÈÒÚ‡ÎÎÊ~ÂÓÍÚ Ò‡ÎÂÎ ,
 ÓÓ,Ó ‡Ê,ÈÚÁ ÂÂ , Â ÚÊÎ‡Î, ÍÒÂ
 ÓÓÍÒÊÂÎÊÂ%Ó ~ÂÎ~Í‡ [a].
 • àÂÎÂÎ‡ÎÍÍ ÓÓÍÒÊÂÎÊÂ ÊÊ%ÍÓÍ ÈÒÚ‡ÎÎÊ~ÂÓÍÒÈ
 Ò‡ÎÂÎÊ ÓÚÍÒÓÈÚÁÎ, ÍÓ, È%ÂÓÍ‡ÎÂ ` , ÒÎÂ%ÒÁÚ
 ,ÒÂ,‡Ú%Â ÊÊ,‡Ú, Ò‡ÎÂÎ , , Â ÚÊÎ‡Î ÍÓÍ
 ÓÓÍÒÊÂÎÊÊ; , Ò ÓÚÊ,ÍÓÍ ÓÍÚ~‡Â Ç` ÍÓÊÁÚÁ
 ÓÓ, Â%ÊÚ, ÍÓ ÓÚÓ Í‡ÎÂ ` ÊÎÊ Ç‡Î Â
 Ú%‡ÓÚÒ‡Í Ò‡Î,ÊÎ, ÍÓ Á‡Í `Ú, Ò‡ÎÂÎ, [b].
 • ÒÓÎÊ Ç` ÎÂ ÓÓÍ, ÁÚÁÚÁÓ,
 ÊÊ%ÍÓÍ ÈÒÚ‡ÎÎÊ~ÂÓÍÒÈ Ò‡ÎÂÎ, , %Â ÊÊÚÁ
 ÂÂ ÓÓÍÍÓÚÚ, Á‡Í `ÚÓÈ.
 • ÇÂ%‡, ÈÚÁ Í‡ ÊÊ%ÍÓÍ ÈÒÚ‡ÎÎÊ~ÂÓÍÊÊ ` Í‡
 Ê ÎÂ Ó ÈÍ‡Ò‡ÈÚÁÓ, Í ÎÂÍÚ Ó ÈÓÓ,Ó ÓÚÁ
 Ò‡ÎÂÎÊ.
 • è È ÓÓÍ, ÁÓ, ‡ÎÊÊ, È%ÂÓÍ‡ÎÂ ÒÈ, ÎÂ
 ÓÓÍÂ~ÂÎÊÊ ÊÁÓ. ‡ÊÂÎÊÂ Í‡
 ÊÊ%ÍÓÍ ÈÒÚ‡ÎÎÊ~ÂÓÍÍÓÍ ` Í‡ ÎÂ ÍÓÊÁÚ. `Ú,
 Ú Ú%ÍÓ ‡ÎÊÊ~ÈÍ~ÍÊÂ-Â‡ ÒÈÎ, Í~ÍÚÓÚ, ÁÚÓ, .

Ç‡·Î %ÂÎÊÂ Á‡ ÓÓ·ÓÚ,ÂÎÍ`Í
 ÓÓÍÒÊÂÎÊÂÎ , Í‡% Â

ÇÂ%ÍÓ·ÂÎÍÚ ~Â ÂÂ,È%ÓÈÓÍ‡ÚÁÎ, ÍÓÊÍÓ
 ÓÂ Â,Â ÍÚÚ, ÊÊ%ÍÓÍ ÈÒÚ‡ÎÎÊ~ÂÓÍÚ, Ò‡ÎÂÎ,
 ~Í ‡ÍÓÍ ÍÚÓÍÚ, ÍÓ,,ÓÇ` ÓÎÊÍ‡ÚÁ, ~ÚÓ
 ÓÓÁ,ÓÎÊÚ ÁÍÚ Í‡·Í,‡Ú, Á‡ ÓÓ·ÓÚ,ÂÎ~Í
 ÓÓÍÒÊÂÎÊÂÎ , Í‡% Â.

èÓ,Â ÎÊÚÁÊÊ%ÍÓÍ ÈÒÚ‡ÎÎÊ~ÂÓÍÚ, Ò‡ÎÂÎ,
 ,ÓÍ Ú,,„Ó ÊÁÓÍÚ‡Î, ÍÓÈÓÈ. è È ÂÂÓÓ,Ó ÓÚÁ
 Í‡ 180,, ‡%ÓÓÓ, Í‡ ÊÊ%ÍÓÍ ÈÒÚ‡ÎÎÊ~ÂÓÍÍÓÍ
 ~Í ‡ÎÂ ÓÓÍ,ÍÎÁÚÒ‡ÎÊÊÊÍ‡ÚÓ 
 (ÂÂ Í‡Î,ÍÊ ÂÊÊÍ), ‡Í ÓÍÓÍÁÚ Ê~ÂÓÍÊÊ
 ÍÓ%È ÊÊÊÊÍ‡ÚÓ ÓÚÚ‡,~ÂÈÍ ÎÂÍÚ`ÈÓ~ÂÂ‡,Ú.
 Ç` ÍÓÊÁÚÁ ÓÓÍ, ÁÓ,‡Ú, Ò‡Î Ú‡ÎÊÂ ÓÚÍ, ÚÓÍ
 %ÈÚÚ‡Î~ÈÓÍÍÓ,,Ó ÓÚ ‡, ÎÂÎÊÎ.

To cancel mirror mode

Turn the LCD panel down toward the camcorder body.

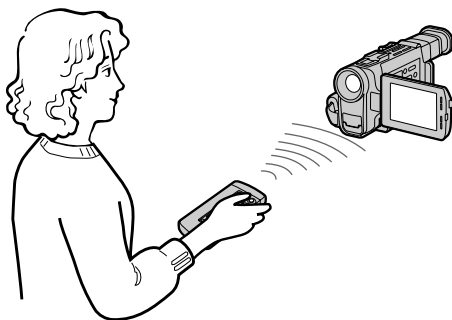
Notes on mirror mode

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

éÚÍÄ† ÂÄ Í†Í, ÌÖ,,Ó ÂÊË†
èÓ,Â ÌÊÜÄ ÊÊ%ÍÓÍ ÊÖÚ†ÍÊ~ÄÖÍÜ, Ò†ÍÄ†,
Ó· †ÜÍÖÍÍÖ ÖÖÜÜ,Ê%ÄÖÍ†ÍÄ °.

- é ÂÄ Í†Í, ÌÖÍ ÂÊË†
• ÇÊ%ÄÖÍ†ÍÄ †ÖÄ ÂÌÖ%ÊÜ, ÂÄ Í†Í, Ì°Ê
ÂÊË† Ö ÈÖÖ,Ó ÖÜÄÊÊ%ÍÓÍ ÊÖÚ†ÍÊ~ÄÖÍÖÊ
Ò†ÍÄÍÊ Í†Ü,,ÓÍÖ ÊÍÄ ÌÖÖÜ 90%Ó 210
„ †%ÖÖÜ,.
• àÖÖÖÍ, ÄÜÍÄÄ Í†Í, Ì°Ê ÂÊË†, Ç° ÌÖÊÄÜÄ
ÒÍÊÍ†Ü, ÖÄ·fl, Ö%ÍÖ, ÄÍÄÍÖ Í†·Í.%†fl
ÜÊÍÖÊ ÜÄÍÖÄ Í†ÍÄ ÖÊ ÊÄÓ· †ÊÄÍÊÄ Í†
ÊÊ%ÍÓÍ ÊÖÚ†ÍÊ~ÄÖÍÖÍ~Í †ÍÄ [a].
• è ÈÖ`ÄÍÄ, ÂÄ Í†Í, ÌÖÍ ÂÊË†Ä Í†
ÊÊ%ÍÓÍ ÊÖÚ†ÍÊ~ÄÖÍÊÊ~Í †Í,°,Ö%ÊÜÖfl
"ÄÄ Í†Í, ÌÖÄ ÖÜ †ÊÄÍÊÄ" Í†% †,
Ä†ÖÈÖ°,†ÄÍÖ,,Ó,Ê%ÄÖÍ†ÍÄ ÖÊ. è È~ÜÖÍ
ÍÄÖÜÖ ÊÍ%ÊÍ†ÜÖ † STBY Í†~Í †ÍÄ,Ê%ÄÍ
ÖÊÍ,ÓÍ Pr, †, ÍÄÖÜÖ ÊÍ%ÊÍ†ÜÖ † REC -
ÖÊÍ,ÓÍ r. èÖÚ†Í, Ì°Ä ÊÍ%ÊÍ†ÜÖ °
„°,Ö%flÜÖfl Í†~Í †Í,Ê%ÄÄÄ Í†Í, ÌÖ,,Ó
ÖÜ †ÊÄÍÊfl. ÇÄÍÖÜÖ °ÄÊÄÊÍ%ÊÍ†ÜÖ Ó,,
ÄÄ Í†Í, ÌÖÍ ÂÊË†Ä ÖÜÍfl~†.ÜÖfl.
• è ÈÖ`ÄÍÄ, ÂÄ Í†Í, ÌÖÍ ÂÊË†Ä ÍÄ
%ÄÊÖÜ,Ü.Ü ÜÜÍÍ°ÊÊ MENU, TITLE, DATA
CODE È ZERO SET MEMORY Í† ÖÜÍ,ÜÄ
%ÊÖÚ†Í~ÈÖÍÍÖ,,ÓÜÖ †,ÍÄÍÊfl.

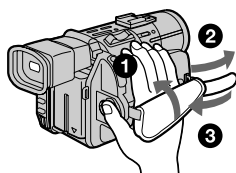
[a]



ëó, Âú° Ì‡~ËÌ‡, ~ÂÏÛ
óôá ‡úó Û

ē ēō āīāō ōī īīēīū ēī āāōī, ūīūō,
 īōēīō%ō.ēū,ōī%,ā ēī,ē%āōīīā ū
 ōīā%ū ēīō. īāōī:
 ā āōīō,ōā īēūāīīā ū ūīōē,
 ō ōōū āīōēōō. ūīōē āīāī, ūīī, ūōō.
 çī.ōī.ōēōīā ēīō, īā,īō
 īīēīōēīō ō.ū īōōōīīēūō ēī,īāīēī[ā].

- [a]**



- ē ēēēŭā īōīŭ ē īō ōōōŭ.
 • āā, ōē ūōē ōōōā ēē, †ēŭā, ē%āōī†īā ū ōīēŭ.
 • ē ē ēēā ūā ōīōīŭ, ē%ōēōī†ŭāīŭ, ōīōīŭ ū ī, †āŭ.
 • ēīā%ēŭā † ūāī, ~ŭō. ° īā ō ēī†ō†ŭ, ōī ī ūō ōīōīŭ ēī ōŭōīŭ.
 • Ŋīŭ, ō ēāōī†ī, īō, ō, ° †, īē, †ēīŭ ī†% † ō ēāŭē ūēŭā ōō †īā ēē%īōī ēōŭ†īē~āōīōē ō†īāīē ēīē †īā ē%ōēōī†ŭāīŭ.
 • Ŋīŭ ōōīŭ~āīē ēīŭā āōī~ † †ŭ ōō, ē%āōō †īŭ īōēō ūīēā, āōŭē ēā ōōīōēāīē “ōīēŭ”. ē ē~ŭōī, ē%ōēōī†ŭāī, %ōīēāī~ŭ ōō, ā īŭŭ, ā † [b].
 • ē †īŭ īā ūōī, īō “ōīēŭ”, īōē “ō, ā ūŭ” īōēōī, āōŭē ūīēā ō ōōīŭ ēē%īōī ēōŭ†īē~āōīōē ō†īāīē [c].
 • ē ē ōōī, āō, †īēē ēē%īōī ēōŭ†īē~āōīōē ō†īāīē, īā ōōīā †īēē, ōō% ō ŭī~īē īŭ†īē ōōī†~†, ēāō. †ēāīē † ēē%īōī ēōŭ†īē~āōīōē~ī †ā īōēāŭ ōŭīō, ēŭ, ōīŭ ū%īō †āīē~ēī~ī. ç ŭ†īē~ī ōīŭ~ŭīŭ †āōīāī%ŭāī ç†ī ōōī, āō, †ŭ, ōīŭ ē%ōēōī†ŭāīŭ.



Hints for better shooting

Place the camcorder on a flat surface or use a tripod

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

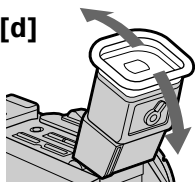
If you wear glasses

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

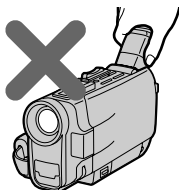
Cautions on the LCD panel and on the viewfinder

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

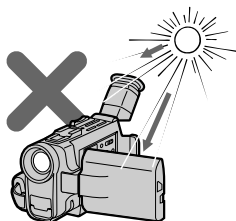
[d]



[e]



[f]



èÓ, ÁÚ° Ì±~ÈÌ±, ~ÀÌÙ
ÔÔÁ ±ÚÓ Û

ìÒÚ±Ì±, ÌÈ, ±ÈÚÁ, È%ÁÓÌ±ÌÁ Ò Ì±
„Ó ÈÁÓÌÙ±Ì, ÌÙ, ÓÓ, Á ÌÌÓÓÙ, ÈÌÈ
ÓÓÌ, ÁÙÈÚÁÓ, ~Ú±ÙÈ, ÓÌ.
èÓÓ Ò·ÈÚÁ ÓÓÓÙ±, ÈÙ, È%ÁÓÌ±ÌÁ Ò Ì± ÓÓÓÌ
ÈÌÈ% Ò, Ò, Ó, ÌÙ, ÓÓ, Á ÌÌÓÓÙ, Ì±
ÓÓ%ÌÓ%Ì~ÀÈ, „ÓÓÚÁ. ÓÒÌÈ Ò Ç±Ò ÀÒÙ, ~Ú±ÙÈ,
%ÌÌ ÒÓÓÙ±ÒÓ± ±Ù±, ÓÓ ÈÌ ÌÓÈÌÓ
, ÓÓÓÓÌ, ÁÓ, ±Ù, ÒÌ È%ÌÌ Ò~ÀÌÓÌ
, È%ÁÓÌ±ÌÁ ÒÈ. è ÀÈ%Á~ÀÌ Ò ÈÒÓÁ%ÈÌÌÙ, Ì
Ì±ÌÁ Á~Ú±ÙÈ, ° Ò ÓÈÁ, Ó%ÓÙ, ±% Ò, ÈÌ ÒÈ Ì,
Ò Ò, Á ÌÈÚÁ%ÌÈÌ Ì ÁÓÁÈÌÓ, „Ó, ÈÌÙ±. èÌ± ÌÁ
%ÓÌÈÌ± Ò Á, ~±Ù, 6,5 ÌÌ - , Ò ÓÙÈ, ÌÓÌ
ÒÌÙ~±Á ÓÓÁ%ÈÌÁÈÁ - Ò%ÁÙ ÌÁÌ±%ÁÈÌ~Ì, ±
, ÈÌÙ ÌÓÈÁÙ ÓÓ, Á%ÈÙ, Ì±ÌÁ Ò.

ÒÒÌÈ Ç° ÌÒÈÈÚÁ Ó~ÌÈ
à ±Ì Ì±Ò±ÌÈ ÌÓÌÌÌ ± ÌÓÈÌÓ ÓÓÙ, ÌÙÙ, Ì±Á±%,
~ÚÓ. ° · ÌÓ Ò%Ó-ÌÁÁ ÒÌÓÙ ÁÙ, ,
, È%ÓÈÒÌ±ÚÁÌ, [d].

àÁ ° Ò Á%ÓÓÓÙ ÓÈÌÓÓÙÈ Ò È Ó. ±~ÀÌÈÈ Ò
ÈÈ%ÌÓÌ ÈÒÙ±ÌÈÈ~ÀÒÌÓÈ Ò±ÌÁÌ, È
, È%ÓÈÒÌ±ÚÁÌÁÌ
• ÇÁ%Á ÈÈÚÁ, È%ÁÓÌ±ÌÁ ÒÁ±, È%ÓÈÒÌ±ÚÁÌ,
ÈÌÈ ÈÈ%ÌÓÌ ÈÒÙ±ÌÈÈ~ÀÒÌÙ, Ò±ÌÁÌ, [e].
• ÇÁ ±ÁÌÁ~±ÈÚÁ Ì±ÌÁ Ò, Ò±ÌÓÌ ÓÓÌÓÁÌÈÈ,
Ò È ÌÓÓÙ ÓÌ Ì±~Ì Ì±, È%ÓÈÒÌ±ÚÁÌÌ ÈÌÈ
ÈÈ%ÌÓÌ ÈÒÙ±ÌÈÈ~ÀÒÌÙ, Ò±ÌÁÌ, ÌÓ, ÒÙ
ÒÓÓ±±Ù, Ò ÌÌ~À ÓÓÌÁ~Ì~À ÌÙ~È. ÒÙÓ
ÌÓÈÁÙ ÓÓ, Á%ÈÙ, ÌÙÙ ÁÌÈÁ%ÁÙ±ÌÈ
, È%ÓÈÒÌ±ÚÁÌÌ ÈÌÈ ÈÈ%ÌÓÌ ÈÒÙ±ÌÈÈ~ÀÒÌÓ, „Ó
~Ì Ì±±. èÓ·Ì %±ÈÚÁ ÓÓÓÙ ÓÈÌÓÓÙ,
ÓÓÙ±, ÌÌÌÌ, È%ÁÓÌ±ÌÁ Ò Ì± ÓÓÌÌ~À ÈÌÈ Ò ÓÌÌ±
Ì.

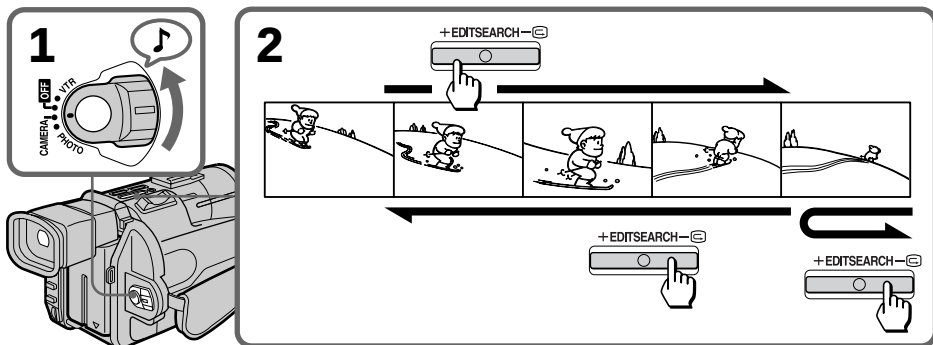
Checking the recorded picture

è ó, Â Í± ÓÚÒìfiÚÓ,,ó
Ì±ÚÁ È±Ì±

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

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

è ÒÓÍÓ~. ÒÚÌí`ÈÈ EDITSEARCH Ç°
ÌÓÈÁÚÁ Ò ÒÒÌ±Ú È,±Ú, ÒÒÒÌÁ%ÌÈÁÚÒÌ, ÍÓ ~ÚÓ
ÓÚÒÌfiÚ`Á Í±%. ° È Ò Ó,Á fiÚ, Í±`ÁÓÚ,Ó
ÈÁÓ. ±ÈÀÌÈfi, ÒÒÒ ÓÈÁ,Ó%fiÁ,,Ó Í±`Í ±ÌÁ
È%ÒÈÒÌÚÁfi.
(1)Ì%Á ÈÈ,±fi, Í±È±ÚÒÌ ÒÓÌÓÈÁÌÈÈ
Ì±ÌÁ ÍÚ. ÁÁÌÁÌÚ. ÍÌÒÓÌÚ Í±
ÒÁ Áfi. ±ÚÁÌÁ POWER, ÒÁ Á%,Èì, ÚÁ Á,,Ó
, ÒÁÈÈ`È. CAMERA.
(2)Ç±ÈÌÈÚÁ È ÓÚÒÚÓÈÚÁ ÓÚÓ ÓÌÚ - . ÍÌÒÓÌÈ
EDITSEARCH; Ò È`ÚÓÌ. Ò%ÚÚ
, ÒÒÒ ÓÈÁ,Á%ÁÌ° ÒÒÒÌÁ%ÌÈÁ ÍÁÒÍÒÌ, ÍÓ
ÒÁÌÚÌ% ÓÚÒÌfiÚ,,Ó Ç±ÈÈ Í±ÚÁ È±Ì±
(Ò Ó,Á Í± Á±ÒÈÒÈ). ÓÚÓ.° Í±ÈÚÈ ÍÚÈÌ°È
Ì±%, ÍÁ ÓÚÒÚÒÌÈÚÁ ÓÚÓ ÓÌÚ - ÍÌÒÓÌÈ
EDITSEARCH, ÓÒÌ± ÒÌ ÍÁ. Ò%ÁÚ Í±È%ÁÌ.
èÒÒÌÁ`ÚÓ,,Ó. Ò%ÁÚ, ÒÒÒ ÓÈÁ,Á%ÁÌ±, Òfi
Á±ÒÈÒ, ÒÌÁ%Ú. ±fiÁ±`ÚÈÌ Í±% ÒÌ.
ÓÚÓ.° Ò ÓÌÓÚ±Ú, ÍÁÌÚÚ,ÒÁ Á%, Í±ÈÌÈÚÁ È
Ú%Á ÈÈ,±ÈÚÁ ÍÌÒÓÌÚ ÓÓ ÓÚÓ ÒÌ° +
(ÍÓÌÚ±ÈÌ°È ÒÓÈÒÌ).



To stop playback
Release EDITSEARCH.

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

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

To begin re-recording

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

èÓÚ±ÌÓ,Í±,ÒÒÒ ÓÈÁ,Á%ÁÌÈfi
èÓÚÒÚÓÈÚÁ ÍÌÒÓÌÚ EDITSEARCH.

ÇÓÁ, ±`ÀÌÈÁ Í ÍÓÌ`Ú ÓÚÒÌfiÚÓ,,Ó
Ì±ÚÁ È±Ì± (END SEARCH)
Ç±ÈÌÈÚÁ ÍÌÒÓÌÚ END SEARCH. á±ÌÁ ±
,ÒÒÒ ÓÈÁ,Ó%ÈÚ ÒÒÒÌÁ%ÌÈÁ 5 ÁÁÌÚÌ%
ÈÌÁ. `ÀÈÒfi Í± ÍÁÌÚÁ Á±ÒÈÒÈ È Ò ÁÌ ±`ÁÚ
,ÒÒÒ ÓÈÁ,Á%ÁÌÈÁ. èÌÁ%ÚÁÚ ÈÌÁÚ, ,È%Ú,`ÚÓ
Ò È ÒÒÌ,ÁÓ,±ÈÈÈ Í±ÒÒÁÚ±È, ÍÁ ÒÒÌ±`ÁÌÌ°ÈÈ
`ÌÁÌÚ ÓÌÌÓÈ Ò±fiÚ, ,%±Ì±fi ÚÚÌÍ`Èfi
%ÀÈÚ,ÚÁÚ ÈÈ. %Ó ÒÁ,Ó,,Ó ÈÁ,ÌÁ`ÀÌÈfi
Ì±ÒÒÁÚ° Ò Á±ÒÈÒ. ÈÁ,È%ÁÓÌ±ÌÁ °.

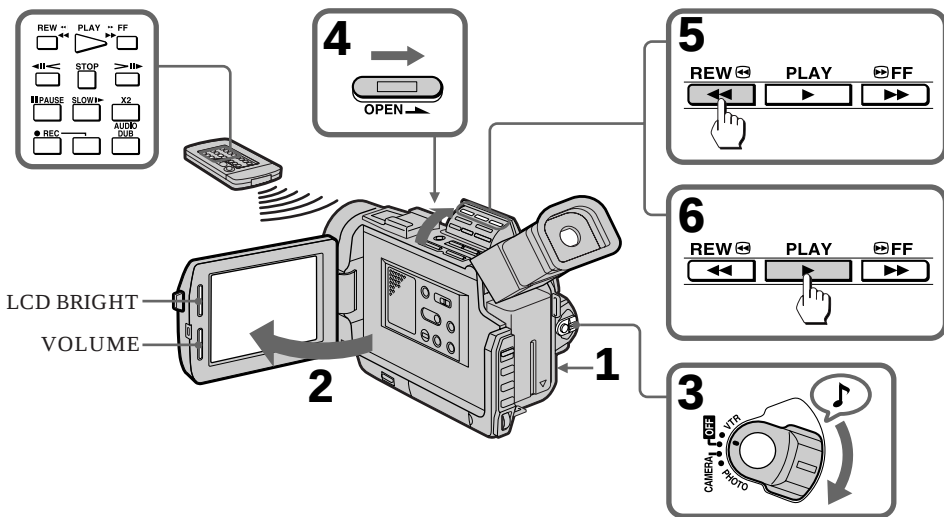
èÓ,ÚÓ Í±fi Á±ÒÈÒ.
Ç±ÈÌÈÚÁ START/STOP. èÓ,ÚÓ Í±fi Á±ÒÈÒ.
Í±`ÌÁÚÒfi Ò ÍÓÌÁÌÚ±, ÍÓ,,%± Ç° ÓÚÒÚÓÈÈÈ
ÌÌÒÓÌÚ EDITSEARCH. ÒÒÌÈ Ç° ÍÁ ÈÁ,ÌÁÌ±ÈÈ
Ì±ÒÒÁÚÚ ÈÁ,È%ÁÓÌ±ÌÁ °,ÚÓ ÒÁ ÁÌÓ%ÓÚ
ÒÒÒÌÁ%ÌÈÁ ÓÚÒÌfiÚÓÈ Ò`ÁÌ° Í ÒÌÁ%Ú,`ÀÈ
·Ú%ÁÚ ÒÌ±,Ì°Ì.

Playing back a tape

You can monitor the playback picture on the LCD screen or in the viewfinder.

- (1) Insert the recorded tape with the window facing out.
- (2) While pressing PUSH OPEN, open the LCD panel.
- (3) While pressing the small green button on the POWER switch, set it to VTR.
- (4) Slide OPEN C and pull the video control compartment until it clicks.
- (5) Press θ to rewind the tape.
- (6) Press $\rightarrow$ to start playback.
- (7) Adjust the volume using VOLUME +/- and the brightness of the LCD screen using LCD BRIGHT +/-.

You can also monitor the picture on a TV screen, after connecting the camcorder to a TV or VCR.



To stop playback, press θ .

To rewind the tape, press θ .

To fast-forward the tape rapidly, press $\rightarrow$.

Using the Remote Commander

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

ÇÒÒÔ ÒÉÁ, Â%ÂÎÈÂ
, È%ÂÓÁ±ÔÈÒÈ

- Ç° ÎÓÉÁÚÁ Ô ÒÒÎ±Ú È, ±Ú ÓÚÒÎÍÚ°Á Î±%
Î± ÈÈ%ÎÓÎ ÈÚ±ÎÈ°ÂÒÎÔÎ ± ÎÁ ÈÎÈ, ÔÎÁ
È%ÔÈÔÎ±ÚÁÎÎ.
 - (1) ÎÚ±ÎÔ, ÈÚÁ, Î±ÎÁ Ú Á±ÔÈÔ±ÎÚ, Î±ÔÒÁÚÚ
ÔÎÔ ÎÔÎ Î± ÚÈÚ.
 - (2) Ç±ÈÈÎ±ÎÎ PUSH OPEN, ±ÒÎ ÓÈÚÁ
ÈÈ%ÎÓÎ ÈÚ±ÎÈ°ÂÒÎÔÎ Ô±ÎÁÎ.
 - (3) Î%Á ÈÈ, ±ÎÎ, Î±È±ÚÔÎ ÔÒÎÓÈÁÎÈÈ
Î±ÎÁÎ ÎÚ ÁÁÁÎÁÚ ÎÔÒÔÎ Î±
ÔÁ ÁÎÎ ±ÎÁÎÁ POWER, ÔÁ Â%, ÈÎ, ÚÁ Â,, Ô
ÔÓÁÈ°È VTR.
 - (4) È%, ÈÎ, ÚÁ ±±ÈÔÎ OPENC È, °ÚÎÎÈÚÁ
%Ô°ÁÎ±Î± ÎÔÎ ÚÔ ±, ÎÁÎÈÎ
È%ÂÔÔ ÔÒÎÔÚ ÔÎ.
 - (5) ÎÎÎ ÔÁ ÁÎÔÚÎÈ ÎÁÎÚ° Î±ÈÈÎ±ÈÚÁ Ô
 - (6) ÎÎÎ Î±±±, ÔÔÔ ÓÈÁ, Â%ÁÎÈÎ Î±ÈÈÎ±ÈÚÁ
(
 - (7) ÎÎÎ Á ÔÎÈ Ó, ÎÈ, ÔÎÎÔÚÈÁ, ÚÎ±
ÔÔÎ, ÁÚÈÁÔ, ÎÎÔÎÔÈ VOLUME +/-, ±%ÎÎ
ÔÔÔÚ ÓÈÎÈÎ ÎÔÚÈÈ
ÈÈ%ÎÓÎ ÈÚ±ÎÈ°ÂÒÎÔÎ, Ô°Î ±Î± ÎÎÔÔÎÈ
LCD BRIGHT +/-.
- èÔ%ÎÎ ±È, Î±ÎÁ Ú ÚÁÎÁ, ÈÁÔ ÚÈÈÈ
È%ÂÔÎ±, ÎÈÚÔÚÔÎÚ, Ç° ÎÓÉÁÚÁ Ú±ÈÈÁ
Ô ÒÒÎ±Ú È, ±Ú ÓÚÒÎÍÚ°Á, È%ÂÔÚÈÎ, Î°Î±
ÚÁÎÁ, ÈÁÈÔÎÔÎ°Î ±ÎÁ.

Playing back a tape

To display the LCD screen/viewfinder screen indicators

Press DISPLAY.

To erase the indicators, press again.

Notes on screen indicators

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

Using headphones

Connect headphones (not supplied) to the 2 jack. You can adjust the volume of the headphones using VOLUME +/-.

To view the playback picture in the viewfinder

Close the LCD panel. The viewfinder turns on automatically.

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

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

Various playback modes

To view a still picture (playback pause)

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

To locate a scene (picture search)

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

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

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

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

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

ÇÓÔÔ ÔÉÁ,Â%ÂÏÈÄ
,È%ÔÔÁ±ÔÈÒÈ

Ç°,Ô%Èì%Èí±ÚÔ Ó,ì±~í ±ì
ÈÈ%ÍÓÍ ÈÒÚ±ÏÈ~ÄÔÍÔÈ Ô±ÏÄÏ/
,È%ÔÈÒí±ÚÄífl
Ç±ÈÏÈÜÄ ÌÍÔÔÍÚ DISPLAY
ÓÚÔ.°Ú. ±Ú Èì%Èí±ÚÔ °Ô~í ±ì±, Ì±ÈÏÈÜÄ
ÓÚ ÈÄ ÌÍÔÔÍÚ ÔÔ,ÚÔ ÍÔ.

é.~í ±ì±~ì Èì%Èí±ÚÔ ±ì
• è È,°,Ô%Ä Ì±~í ±ìÚÈÚ ±~í ±ì~Ä
Èì%Èí±ÚÔ °ÈÒÄÄ±.Ú.
• ÔÔÈÔ È,ÔÔÔ ÔÉÁ,Â%ÄÏÈÈ,È%ÔÔÁ±ÔÈÒÈ
ì±ÏÄ ±ÔÈÚ±ÄÚÔÍÔÚ.±Ú± ÄÈ "InfoLITHIUM",
ÚÔ,ÄÏÈ~ÈÍÚ ÔÚÚ±,Ä,ÔÔÍÄ± fl%±.±Ú± ÄÈ
Ô È~ÚÔÍ Úí±Ä°,±ÄÚÔÍ ÍÔÈÈ%Èí±ÚÔ B .
ÈÒÚ±.~ÄÄÔÍ, Äífl ±.ÔÚ°, ÌÈÍÚÚ± Ì±
~í ±ìÏÄ,°,Ô%ÈÚÔÍ.

èÔÍ,ÄÓ,±ÏÈÄ Ì±Ú~ÏÈí±ÈÈ
èÔ%Ïì.~ÈÜÄ Ì±Ú~ÏÈÈ (, ÍÔÍÔÏÄÍÚ ÏÄ,ÌÔ%ÍÚ)
ì,ÏÄÄ%Ú.È ÔÍÍÔÔ.Ä,Úí±, Ì±Ú~ÏÈí±ì
Ä,ÚÏÈ ÚÄÚÔÍ ÌÍÔÔÍÔÈ VOLUME +/-.

è ÔÔÍÔÚ ÔÚÔÍÍÚÔ,Ô ÈÄÓ. ±ÈÄÏÈ~Ä ÄÄ
,È%ÔÈÒí±ÚÄí.
á±í ÔÈÜÄ ÈÈ%ÍÓÍ ÈÒÚ±ÏÈ~ÄÔÍÚ Ô±ÏÄÏ. .
è È~ÚÔÍ ±,ÚÔÍ±È~ÄÔÍÈ,Ïì.~±ÄÚÔÍ
,È%ÔÈÒí±ÚÄí. .
è ÈÔ ÔÔÍÔÚ Ä~Ä ÄÄ,È%ÔÈÒí±ÚÄí,Ä,Úí
ÍÔÈÍÔ ÔÍ~±Ú. ÚÔÍ,ÍÔ, Ì±Ú~ÏÈí±ì.
ÓÚ.°,Ä ÍÚÚ ÔÍÍÔ ÔÔÍÔÚ Úí±
ÈÈ%ÍÓÍ ÈÒÚ±ÏÈ~ÄÔÍÔ~í ±ÏÄ,ÔÚÍ ÔÈÜÄ
Ô±ÏÄÏ,ÍÔ,. ÇÈ%ÔÈÒí±ÚÄí,±,ÚÔÍ±È~ÄÔÍÈ
ÔÚÍì.~±ÄÚÔÍ.

è±ÄÏÈ~ì~Ä ÄÈÈì°
,ÔÔÔ ÔÉÁ,Â%ÄÏÈÈ

èÚÔÔ-Í±% (Ô±ÚÄ±Ô È
,ÔÔÔ ÔÉÁ,Â%ÄÏÈÈ)
ÇÓ, Äífl,ÔÔÔ ÔÉÁ,Â%ÄÏÈÈ Ì±ÈÏÈÜÄ ÌÍÔÔÍÚ
P.ÓÚÔ.°Ô Ô%ÔÍÈÈÜ,ÔÔÔ ÔÉÁ,Â%ÄÏÈÄ,
Ì±ÈÏÈÜÄ P ÈÏÈ (.

Ç±ÌÔÈ%ÄÏÈÄ ÌÚÈÍÔ,,Ó Ú ±,ÏÄÍÚ±
Ä±ÔÈÒÈ (ÔÔÈÒÍ Í±% ±)
ÇÓ, Äífl,ÔÔÔ ÔÉÁ,Â%ÄÏÈÈ Ú%Ä ÈÈ,±ÈÜÄ,
Ì±È±ÚÔÍ ÔÔÍÔÈÄÏÈÈ ÌÍÔÔÍÚ Ô ÈÏÈ) . Ñífl
,ÔÄ, ±~ÄÏÈÈ ÍÍÔ Ì±ì,ÍÔÍÚ
,ÔÔÔ ÔÉÁ,Â%ÄÏÈ. ÓÚÔÚÔÈÜÄ ÌÍÔÔÍÚ.

ìÔÍÔ ÄÏì~ÈÈ Ô ÔÔÍÔÚ ÈÄÓ. ±ÈÄÏÈÈ
,Ó, Äífl ÔÄ ÄÍÔÚÍÈ,ÔÄ Ä% ÈÏÈ Ì±Ä±%
(ÔÍ±ÏÈ Ò.~±fl ÔÄ ÄÍÔÚÍ±)
ì%Ä ÈÈ,±ÈÜÄ, Ì±È±ÚÔÍ ÔÔÍÔÈÄÏÈÈ ÌÍÔÔÍÚ
Ô Ô ÈÔÄ ÄÍÔÚÍÄ Ì±Ä±% ÈÏÈ ÌÍÔÔÍÚ) Ô È
ÔÄ ÄÍÔÚÍÄ,ÔÄ Ä%. Ñífl,ÔÄ, ±~ÄÏÈÈ,
Ó.°~ìÈÈ ÄÈÈÈ ÔÄ ÄÍÔÚÍÈ ÓÚÔÚÔÈÜÄ ÌÍÔÔÍÚ.

Playing back a tape

To view the picture at double speed

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

To view the picture frame-by-frame

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

To change the playback direction

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

Notes on playback

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

Note on slow playback

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

ÇÓÒÔ ÔÉÁ, Â%ÂÏËÄ
, Ë%ÂÓÁ±ÔËÒÈ

è ÒÒÏÓÚ , Ë%ÂÓÁ±ÔËÒÈ Ò 1/3
ÏÓ Ì±Ì, ÌÒÈ ÒÍÓ ÒÒÚÈ (Á±ÌÂ%ÌÂÏÒÂ
, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ)
ÇÓ , ÂÌ Ì, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ Ì±ËËËÄ ÌÒÒÓÏ
& Ì±ÒÏÌ, ÚÂ%ËÒÚ±Ì'ËÓÏÒ, ÒÚ Ì, ÌÂÏÌ.
ÑÌÌ Â±ÌÂ%ÌÂÏÒ, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ Ì,
Ò. ±ÚÏ, ÒÒÔ ÒÍÚ Ì±ËËËÄ < , ±Â±ÚÂÌ & .
ÓÚÓ.°, ÓÁÓ.ÌÓ, ËÚ, ÌÓ Ì±Ì, ÌÒÂ
, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ, Ì±ËËËÄ ÌÒÒÓÏ (.

è ÒÒÏÓÚ , Ë%ÂÓÁ±ÔËÒÈ Ò Ò% , ÓÂÏÒÈ
ÒÍÓ ÒÒÚ, .
ÓÚÓ.°, ÒÒÔ ÔÉÁ, ÂÒÚÈ Â±ÒÈÒ, Ò Ú% , ÓÂÏÒÈ
ÒÍÓ ÒÒÚ, , Ò. ±ÚÏ, ÒÒÔ ÒÍÚ, Ì±ËËËÄ ,
1Ò%Â, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ ÌÒÒÓÏ < , ±Â±ÚÂÌ
ÌÒÒÓÏ ×2 Ì±ÒÏÌ, ÚÂ%ËÒÚ±Ì'ËÓÏÒ, Ò
ÚÒ Ì, ÌÂÏÌ. ÑÌÌ, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ Ò
Ú% , ÓÂÏÒÈ ÒÍÓ ÒÒÚ, , ÓÂ Â% Ì±ËËËÄ Ò È
, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ ÌÒÒÓÏ > , ±Â±ÚÂÌ ÌÒÒÓÏ
×2. ÓÚÓ.°, Â ÌÚÚ, ÒÌ ÌÓ Ì±Ì, ÌÒÚ
, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ, Ì±ËËËÄ (.

èÓÍ±% Ó, °È Ò ÒÒÏÓÚ
Ç ÂËËÄ Ò±ÚÂ° Ò È, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ
Ì±ËËËÄ Ì±ÒÏÌ, ÚÂ%ËÒÚ±Ì'ËÓÏÒ, Ò
ÚÒ Ì, ÌÂÏÌ ÌÒÒÓÏ ' ÈË 7 . ÇÂ ÓÚÓÒÍ±Ì
~ÚÚ ÌÒÒÓÏ, Ç' ÌÓËÁÚ Ò ÒÒÏ±Ú È, ±Ú,
ËÁÓ. ±ËÂËÄ Ò 1/25 ÌÓ Ì±Ì, ÌÒÈ ÒÍÓ ÒÒÚÈ.
ÓÚÓ.°, Â ÌÚÚ, ÒÌ ÌÓ Ì±Ì, ÌÒÚ
, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ, Ì±ËËËÄ (.

èÌÂÌ± Ì±Ò Ì, ÌÂÏÌ Ò ÒÒÏÓÚ Ì
Ç ÂËËÄ, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ Ì±ËËËÄ Ì±
ÒÏÌ, ÚÂ%ËÒÚ±Ì'ËÓÏÒ, ÒÚ Ì, ÌÂÏÌ ÌÒÒÓÏ <
%ÌÌ ÒÒÏÓÚ Ì, Ò. ±ÚÏ, ÒÒÔ ÒÍÚ ÈË ÌÒÒÓÏ
> %ÌÌ ÒÒÏÓÚ Ì, ÓÂ Â% . ÓÚÓ.°, Â ÌÚÚ, ÒÌ Ì
ÌÓ Ì±Ì, ÌÒÚ, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ, Ì±ËËËÄ (.

é , ÒÒÔ ÔÉÁ, Â%ÂÏËÄ

- è È ÓÂ ÂÌÓ%Â ÓÚ ÌÓ Ì±Ì, ÌÓ, Ò Í% Ú, ÈÌ
ÂËËÄ Ì, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ Â, ÒÌ
ÓÚÌ, ~±ÁÚÒÌ.
- Ç% Ú, ÈÌ ÂËËÄ Ì, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ
ËÁÓ. ±ËÂËÄ ÌÓËÁÚ Ò ÈÓ. ÂÚ±Ú,
"ÌÓÂ±È" Ì"Â" ÌÓÏÚÚ . ÚÚÓ ÌÂÌ, ÌÌÂÚÒÌ
Ò ÈÂÏÒÌ ÌÂËÒ Ì, ÌÓÚÈ.
- èÒÒÌÂ 5 ÈËÏÚ Â°, ÌÈÌ, ÂËËÄ Ò±ÚÂ°
, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ Ì, ÚÓÏ±ÚÈ~ÂÒËÈ
Ò ÂÌ Ì±ÁÚÒÌ. ÓÚÓ.°, ÓÁÓ.ÌÓ, ËÚ,
, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ, Ì±ËËËÄ ÌÒÒÓÏ (.

é Â±ÌÂ%ÌÂÏÒÌ, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ
ÇÈ%ÂÓÍ±ÌÂ Ì ÒÒÒÒÓ. Ì±Ò. ÂÒÂÂ"È, ±Ú,
, °ÒÍÓÏ±~ÂÚ, ÂÏÒÂ ÈÁÓ. ±ËÂËÄ Ò È
Â±ÌÂ%ÌÂÏÒÌ, ÒÒÔ ÔÉÁ, Â%ÂÏËÄ; ÒÍÓ, Ó% Ì±ÍÓ,
ÌÂ Ò ÁÓ. ±ÁÚÁÚÒÌ, , , ÌÓ%ÒÈ ÒÈ, Ì±Ì,
ÒÒ%±, ±ÂÌ"È Ì± , ÌÂÂ%Ó DV IN OUT.

Searching for the end of the picture

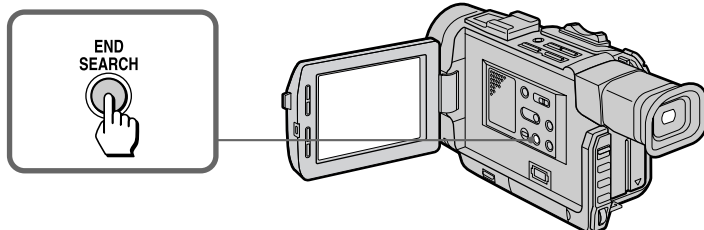
Ç ± 1 0 Ê % Â Î Ë Â Í Ó Î ^ ±
 , Ê % Â Ó Á ± Ô Ë Ò Ë

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

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

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 Í ± Ú Â Ê ± Í ± , Ê % Â Ó Í ± Í Â ± Í Ó Ê Á Ú
 ± , Ú Ó Í ± Ú Ê ^ Â Ó Í Ê Í ± 1 Ó % Ê Ú Í Ó Í Â ^ Á ± Ô Ë Ò ± Í Ó , Ó
 Ú ^ ± Ú Ó Í ± Í Â Í Ú ° . è Ê ^ Ú Ó Í Í Â Í Ú ±
 Ó Â Á Í Ú ° , ± Á Ú Ò Í , Ó Â Á % Ê Í Ê Í ± Á ± % , Ó Ó Ó Í Â
 ^ Â , Ó , Ó Ó Ó Ó Ê Á , Ó % Ê Ú Ò Í Ó Ó Ó Í Â % Ê Ê Ú ± , Í Â Í Ú
 Ó % Â Í ± Í Ó Ê Í ± Í Â Ê Á ± Ô Ë Ò Ê
 Ô Ó % Ó Í Ê Ê Ú Á Í Í Ó Ó Ú , Ó Í Ó Í Ó Ô Í Ú Ê Ò Â Í Ó Í % .
 á ± Ú Â Í , Ó Ó Ó Ó Ê Á , Â % Â Í Ê Á Ó Ó Ú ± Í ± , Í Ê , ± Á Ú Ò Í ,
 Í Ó Í ^ Â Á ± Ô Ë Ò ± Í Ó , Ó Ú ^ ± Ú Ó Í ± (± , Ú Ó Ó Ó Ê Ó Í
 Í Ó Í ^ Â Á ± Ô Ë Ò Ê) .

Ç Â Ê Ê Í Â Ó Ê Ê % ± Í Ê Í Í ± ^ ± Í ± Ò ^ Â Î Ë Ê
 ± Ó Í Ó Ê Ú Â Ê Ê % Ó Í Ó Ê Ó Ú ± Í Ê ^ Â Ó Í Ú Ó ± Í Â Í Ê Ê
 Í ± Ê Í Ê Ú Â Í Í Ó Ó Í Ú END SEARCH.
 Ú Ú ± Ú Ú Í Í Ê Í % Â Ê Ó Ú , Ú Á Ú , Í Ó , % ±
 Ó Â Á Í Í ^ ± Ú Â Í , POWER Í ± 1 Ó % Ê Ú Ò Í ,
 Ó Ó Í Ó Ê Â Í Ê Í ± CAMERA, VTR Ê Í Ê PHOTO.



Note on End Search

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

é . ± , Ú Ó Ó Ó Ê Ó Í Â Í Ó Í ^ ± Á ± Ô Ë Ò Ê
 è Ê Ê Ó Ó Ó Í , Á Ó , ± Í Ê Ê Í ± Ó Ó Á Ú , Í Â Ê Í Â ^ Ê 1
 ^ Í Â Í Ú Ó Í Ó Ê Ó ± Í Í Ú Ê , ± , Ú Ó Ó Ó Ê Ó Í Ó Í ^ ± Á ± Ô Ë Ò Ê
 , Ó Á Í Ó Ê Á Í Í Ê , % Ó Ó Â , Ó , Ó Ê Á , Í Â ^ Â Í Ê Í Ê Á
 Í ± Í Â ^ Á ± Ô Ë Ò ± Í Ó Ê , Ê % Â Ó Í ± Ó Ó Á Ú ° .

Using alternative power sources

èóî, áó, ðïëâ óòúðî, ì°ïë ùûìí^ëflïë

Ç° . Ó ÈÒÚÓ~ÌËÍÓ,
ÖËÚ±ÌËfl

[illegible]

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

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.

To use the supplied AC power adaptor:

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

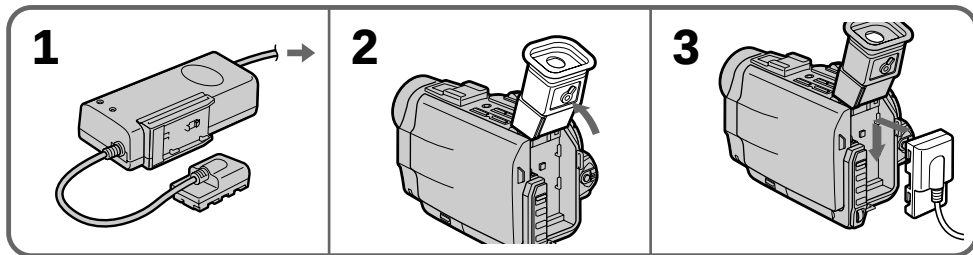
ǎǎǎǎ	ǎǎǎǎ~ǎǎǎ ǎǎǎǎǎǎ	ǎǎǎ.ǎǎ%ǎǎ^ǎ ǎ ǎǎ%ǎǎǎǎǎǎ
ǎ ǎǎǎǎ~ǎǎǎ	ǎǎ,	ǎ ǎǎǎ,,ǎǎ^ǎ ǎǎǎǎǎ ǎǎǎ,ǎ, ǎǎǎǎǎǎ
ǎǎ ǎǎǎǎ~ǎǎǎǎ	ǎǎǎǎ ǎǎǎ	ǎǎǎǎǎǎǎǎǎ ǎ^ǎ ^ǎǎǎ ǎǎ NP-F530 (ǎ ǎǎ,,ǎǎǎǎ), NP-F730, NP-F930
ǎǎ,,ǎǎǎǎ.ǎǎǎ	ǎ,ǎǎǎǎ.ǎǎ ǎ^ǎ ǎǎǎǎǎǎǎǎ ǎ ǎǎǎ ǎǎǎǎǎǎǎ 12 ǎ ǎǎǎ 24 ǎ	ǎǎ ǎǎǎǎ ǎǎǎ ǎǎǎ,ǎ%ǎǎ ǎ,,ǎǎǎǎ.ǎǎ ǎ^ǎ ǎǎǎǎǎǎǎǎ ǎ, Sony DC-V515A

[illegible]

èËÚ±ìËÂ ÓÚ ÒÂÚË

ÓÚÓ·° ¯ÓÓ%ÎÎ ~ÉÚ, Í±ÏÂ Û Í Ô ËÎ±,,±ÂÍÓÏÛ
±%±ÓÚÂ Û ÒÁÚÂ,Ó,,Ó ÒÉÚ±ÏËfl:

- (1) e0%00%IEIUA OAUA, OE O O, 0% I OAUIA.
 (2) e0%IEIUA, E%OEUIAI.
 (3) COUT, UA IOIU+IUIU. OI+OUIEIU,
 I+O +, I+I, EA OA+ I+ A+IAE OUO OIA
 IO OUO+, E%AOI+IA ° E O%, EI, UA AA, IEA%O
 AI+I.



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

éÚ%âîâîèâ íóíú†íúíòè òî‡òúèì°.
 éÚ%âîíú, íóíú†íúíò, òî‡òúèìò óú í‡îâ°
 òîâ%òâú ú‡íêâ, í‡í‡ííúíòííúò ìò. ‡ú‡â.

WARNING

The mains lead must only be changed at a qualified services shop.

PRECAUTION

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

Using a car battery

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



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

è è Ò Ñ è è Ì Ò è Ò Ò Ç à Ò
á ± Ì Á Ì Ò Ò Á Ò Á, Ó,, Ó Ò, Ó, Ò ± Ì Ó È Ì Ó Ò Ó È Á, Ó, È Ò,
Ú Ó Ì, Ì Ó, Ò Ó Á Ò ± Ì È Á È Ó, Ò ± Ì Ì Ó È Ì ± Ò Ú Á Ó Ì Ó È.

Ç Ç à á Á Ç à Ò
è È Ò ± Ì È Á Ì Á Ó Ò Ì Ì, ~ Á Ì Ó, Ó Ú Á Ì Ó Ó, Ò Ó Ì ±
Ò Á Ò Á, Ó È Ò Ó, Ó, Ó Ó Ú ± Á Ó Ò Ì Ó Ó Ó Á ± È Ì Á Ì Ì ° Ì Ì
Ó Á Á Ò Á, ± È Á Á Ò È Ò Ì ± Ò Ó ± ± Ú Ò È ~ Ú Ó Ì
, ° Ì Ì, ~ Á Ì.

è È Ò ± Ì È Á Ó Ú ±, Ú Ó Ì Ó · È Ì, Ì Ó,, Ó
± Ì Ò Ò Ò Ì Ì Ó Ú Ó ±

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Ú Ó Ú Ó È Ó Ú, Ó, ± Ì Ì ±, Ú Ó Ì Ó · È Ì, Ì ° Ì
± Ì Ò Ò Ò Ì Ì Ó Ú Ó, Ì ± Ò È Ì Á Ì Ó Á Ì, Sony
DC-V515A (, Ì Ó Ì Ó Ì Á Ì Ì Á, Ì Ó, È Ò).
è Ó, Ì Ì, ~ È Ú Á Ò Ó, Ó, È Ò È Ò ± Ì È Ì Ó Ú
±, Ú Ó Ì Ó · È Ì, Ì Ó,, Ó ± Ì Ò Ò Ò Ì Ì Ó Ú Ó ± Ì,, Ì Á Á Ó Ú
Ò È Ì Ó È, ± Ú Á Ì Ì, Ò ± Ì Ó Ì Á ±, Ú Ó Ì Ó · È Ì Ì (Ò
Ì ± Ò Ì È Á Ì È Á Ì · Ó Ú Ó, È È Á Ú È Ì Ç È Ì È 24 Ç).
è Ó Á ± È Ì È Ú Á Á ± Ì Ì Ó Á Ú Ó Ú Ó È Ó Ú, Ó, ± Ì Ì
±, Ú Ó Ì Ó · È Ì, Ì ° Ì ± Ì Ì Ò Ò Ì Ì Ó Ú Ó, Ò
, È, Ì Ó Ì ± Ì Á Ó È Ò È Ó Ó Ì Ó · È Ò È Ì ±,, ± Á Ì Ó,, Ó
Ò Ó Á ± È Ì È Ú Á Ì, Ì Ó,, Ó Ì Ò ± DK-315
(Ò Ó Ó Ú ±, Ì Ì Á Ó Ò Ì, Ì Á Ó Ú Á Ò DC-V515A).

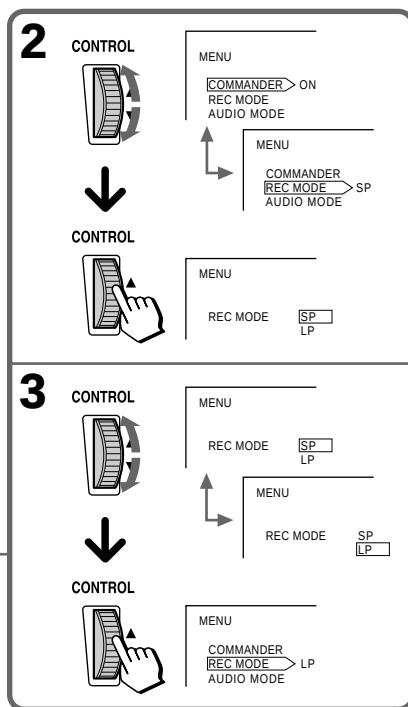


Ç ± Ò Ó Ò Ì ~ Ì Ì · Ì Á Ì ±
Ó Ó, Ú, Á È ± Á Ú, ~ Ú Ó Ó Ó Ì Á ~ Á Ì Ì Ó Á
Á È Á ± Á È Á Ò Á Ó Ú ±, Ì Ì Á Ú Ó Ó · Ó È
Ú È Ì Á Ì Ò Ì Ó Ì Ó Ì Á Ì Ó Ú Ó, ~ Ó,
~ ± Ó Ú, Ì, È, Ì Ó ± Ó Ó ± ± Ú Ó Á Sony.
á Ó Ì Ó ± Ì È Ì Sony Á Ì Ó Ì Á Ì Ó Ú Á Ç ± Ì
Ò È Ó. Á Ú ± Ú, Ì Á Á
, È, Ì Ó ± Ó Ó ± ± Ú Ó Á
Ì Ó Ì Ó Ì Á Ì Ó Ú Ó, ~ È Á, Ó Ó Ì Á ~ Á Ì Ì ° Á
± Ì Ì Ó È ~ Ì · Ì Á Ì Ó È ("GENUINE
VIDEO ACCESSORIES").

èÂ ÂÍÎ, ~ÂÌËÂ
ÂÊËÏÓ, ‡·ÓÚ°

Ç° ÎÖĖĀŪĀ ĖÖÖÖÎ, ĀÓ, †Ū, , ÒĀ †ĀÎÖÖ. †ĀĖĀ
ŪŪÎÎ ĖĖĖ Ė, ÓĀÎÖĖÎÖÖŪĀĖ Ç†ĀĖ
Ė, ĀÓÎ†ĪĀ °, ŌĀ ĀÎÎ, ††Ī ĀĖĖ° ĀĀ
†. ÖŪ. ° ĀĀ ĪĀÎ. Ō† †ĪĀŪ Ó.,

- (1) ÇİÊ±ÚÊÁİİ İİÖÖİÊ MENU , °ÁÖ, ÊÚÁ İÁİ.
İİÊÊ·İÖİ ÊÖÚİİÊ·ÁÖİÊÊ·İ İİ.
- (2) Ç İ±·İİ ÜİÖİİÜİÜ CONTROL , °·Á ÊÚÁ
İÜÊİÜ. ÖÖÁÊ·Ê ÊİİÊİÊÚÁ İİ ÜİÖİİÜİÜ
CONTROL. Çİ·İ İİÁ ÖÖÚ·ÁÜÖİ ÜÖİ, İÖ
, °· İİİİİÇİİÊ ÖÖÁÊ·Êİİ.
- (3) ÊÖ, Ö ÖÜÖİ ÜİÖİİÜİÊ CONTROL , °·Á ÊÚÁ
İÁÖ·İÖÊİ·Ê ÁÊÊİ ÊİİÊİÊÚÁ İİ
ÜİÖİİÜİÜ CONTROL. İİİİ ÖÁ Áİİ··ÁİÊİ
% Ü, Êİ ÁÊÊİÖ, ÖÖ, ÜÖ ÊÚÁ ÖÖÁ İ·ÊÊİÊİ3.
- (4) ÖÜÖ·Ü. İÜ İÁİ·Ö·İ İİİ, İÖ,
İİÊİÊİÊ İİÖÖİÜ MENU.



èÂ ÂÍÎ,~ÂÌËÂ ÂÊËÏÓ,
±·ÓÚ°

è È Ò ÂĬĬÂ , ÁÂ ÍĬĬ ĬÓĬ ÂÊÊĬÂ ĬÂĬ ,
ÔĬ ĬĬÂÚ Ó, ĬÂ%ÂÈÓÚ,ÚÂÚ.

é ÔÂ ÂÎÎ.~ÂÎËË ÂËËÎÓ, †.ÓÚ°
 ÈÓ%Â Ê†ËÊÂ ÎÂÎ. ÎÂÎ†ÎÁÚÓ†, Â†,ÈÈËÎÓÓÛË
 ÓÚ ÓÓ,Ó, Î†10%ËÚÓ† ÎË ÔÂ ÂÎÎ.~†ÚÂÎ, POWER
 , ÓÓÎÓËÂÎËË VTR ËËË CAMERA/PHOTO.

ÇÓÁĬÓÊÌ°Â ÂÊËÏ°‰Îfl
İ±Ê‰ÓÈ ÔÓÄË^ËË İÂİ

é.~ÊÂ ÔÓÁË~ËË %Îfl ÔÓÎÓÊÂÎËË
CAMERA/PHOTO Ë VTR
COMMANDER* <ON/OFF>

- εΑΕΕΙ ON - ΟΟΙ, ΑΟ, ‡ΙΕΑ Ο ΕΙ‡, ‡ΑΙ°Ι
ΟΟΙ, ΟΟΙ%ΕΟΥ‡Ι°ΕΟΙΟ, Ο ΟΟ ‡, ‡ΑΙΕΠ
, Ε%ΑΟΙ‡ΙΑ ΟΕ.
- εΑΕΕΙ OFF - ΟΟΙ, Ο%ΕΟΥ‡Ι°ΕΟΙΟ, Ο
ΟΟ ‡, ‡ΑΙΕΠ ‡ΑΕΟΟΙ ΑΟΥΟΠ.

- REC MODE <SP/LP>
- ÊÄËÏ SP - ÕÚ±Ì%± ÙÌ±ÍÌ ÒÍÓ ÒÓÚ, Á±ÊÈÈ.
 - ÊÄËÏ LP - ÌÄ%ÌÄÌ±ÍÌ ÒÍÓ ÒÓÚ, Á±ÊÈÈ.

BEEP <ON/OFF>

- eÂÊËÏ ON - Ì±~±ÍÓ/Ô ÂÍ ±~ÂÌÊÂ Â±ÔÈÒÈ È
Ú.Ô. ÒÒÔ Ó,ÔÊ%±ÂÙÒfÌÒÈ,,Ì±ÍÓÍ ·ÈÔÂ ±.
- eÂÊËÏ OFF - ·ÈÔÂ ÓÚÍÎ.~ÂÌ.

TITLE ERASE

- $$\mathfrak{e}\mathfrak{U}\mathfrak{E} \pm \mathfrak{I}\mathfrak{E}\mathfrak{A} \mathfrak{I} \pm \mathfrak{I}\mathfrak{O}\mathfrak{E}\mathfrak{A} \mathfrak{I} \mathfrak{I}\mathfrak{O},, \mathfrak{O} \mathfrak{U}\mathfrak{E}\mathfrak{U} \pm.$$

LCD B.L. <BRT NORMAL/BRIGHT>

• ê. ° ~ Ì È ÂÊËÏ - BRT NORMAL.
• êÂÊËÏ BRIGHT , °. È ‡ÂÛÒfl Ô È
ÌÂ%ÒÙÚ†ÚÓ~ÌÒÈ fl ÍÓÙÛÈ
ÊÊ%ÍÓÍ ÈÒÙ†ÎËË~ÂÒÍÓ,Ó ~ Í ‡†.

êÄ,,ÛÏË Ó,Í±Ô± ±ÏÄÚ ± LCD B.L. ÌÄ,ÏËfÏÄÚ
Ì± Á±ÔËÒ°. ±ÄÏÔÄ ËÁÓ. ±ËÄÏËÄ.

- LCD COLOUR

Ç°· ‡, ~ÚÚ ÓÓÄÊ°Ê_Ê Ê ÊÄÏÄÏÊÏÏ ÓÓÏ‡Ä‡ÏÊÏ
 ÈÏ%ÊÏ‡ÚÓ ‡ ÓÓ, Ó ÓÓÏÏ ÓÏÓÏÚÏÊ CONTROL
 ,, Â 1(+)ÊÏÊ , ÌÊÁ (-), Ç° ÌÓÊÄÚÄ
 Â,, ÓÏÊ Ó, ‡Ú, ^, ÁÚÓ, Ú_ Ì‡Ò~ÄÏÒÓÚ,
 ÊÁÓ. ‡ÊÄÏÊÏ.

ĖÁÓ. ±ÊÂÏËfl.

Changing the mode settings

VF BRIGHT

Close the LCD panel.

Select this item to adjust the brightness of the viewfinder. The viewfinder becomes brighter when you turn the CONTROL dial up (+), and darker when you turn it down (-).

VFPW-SAVE <ON/OFF>

- Select ON to activate "finder power save" (page 14).
- Select OFF to inactivate "finder power save".

DISPLAY <LCD/"V-OUT/LCD">

- Normally select LCD.
- Select V-OUT / LCD to display indicator both on the LCD panel and TV screen.

Items for CAMERA/PHOTO mode only

D ZOOM <ON/OFF>

- Select ON to activate digital zooming.
- Select OFF not to use the digital zoom. The camcorder goes back to 10x optical zoom.

STEADYSHOT <ON/OFF>

- Normally select ON.
- Select OFF when you do not have to worry about camera-shake.

RECLAMP <ON/OFF>

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

CLOCK SET

Select this item to reset the date or time.

VF BRIGHT

á†í ÒÈÚÁÈÈ%ÍÓÍ ÈÒÚ†ÎÈ~ÀÓÍÚ. Ò†ÎÄÎ. Ç°· ‡, ~ÚÚ ÓÓÁÈ~È, Ç° ÍÓÈÁÚÁ
Â,ÚÎÈ Ó,†Ú Æ ÍÓÓÚ. ~Í ‡†,È%ÓÈÒ†ÚÁÎÆ.
ÚÍ ‡†,È%ÓÈÒ†ÚÁÎÆ ÒÚ†ÍÓ,ÈÚÒÆ Æ ~Â Ò È
ÓÓ,Ó ÓÚÁ ÚÍÓÍÚÎÈ CONTROL,,Â 1 (+) È
ÚÁÎÎÄÄ Ò ÈÄÄÓÓ,Ó ÓÚÁ,ÎÈÁ (-).

VF PW-SAVE <ON/OFF>

- ÈÄÈÈÍ ON - "" ÍÓÍÓÎÈ ÒÈÚ†ÎÈÆ
È%ÓÈÒ†ÚÁÎÆ" (ÒÚ .14).
- ÈÄÈÈÍ OFF - È%ÓÈÒ†ÚÁÎ, ‡.ÓÚ†ÂÚ
ÓÓÓÚÒÎÎÍÓ.

DISPLAY <LCD/"V-OUT/LCD">

- È·°~Ì°È ÄÈÈÍ - LCD.
- ÈÄÈÈÍ V-OUT/LCD - ÈÌÈÈÍÚÓ ,°,ÓÈÚÒÆ
Í†Í ‡†ÈÈ%ÍÓÍ ÈÒÚ†ÎÈ~ÀÓÍÚ. Ò†ÎÄÎ, Ú†Í
È ‡†~Í ‡†ÚÁÎÄ,ÈÁÓ ‡.

èÓÁÈ~ÈÈ ÎÄÌ. ÚÓÎ. ÍÓ %ÎÆ ÓÓÍÓÈÄÎÈÆ CAMERA/PHOTO

D ZOOM <ON/OFF>

- ÈÄÈÈÍ ON - ÈÒÓÓÎ, ÁÚÁÚÒÆ ÒÈÚÁÎ†
~ÈÚ Ò,Ó,,ÓÚ,ÂÎÈ~ÂÎÈÆ.
- ÈÄÈÈÍ OFF - ~ÈÚ Ó,ÓÁ Ú,ÂÎÈ~ÂÎÈÄ ÎÄ
ÈÒÓÓÎ, ÁÚÁÚÒÆ. È~ÂÎ†,Â%ÁÚÒÆ ÚÓÍ, ÍÓ
ÓÓÚÈ~ÀÓÎÈ ÚÁÎÁÓ. ÂÍÚÈ,ÓÍ Ò
%ÂÒÎÚÈÍ ‡ÚÍ°Í Ú,ÂÎÈ~ÂÎÈÄÎ.

STEADYSHOT <ON/OFF>

- È·°~Ì°È ÄÈÈÍ - ON.
- ÈÄÈÈÍ OFF ,°·È ‡ÁÚÒÆ, ÒÎÚ~†ÆÌ, ÍÓ,,%†
ÎÁÚ ÎÁÓ.1ÓÈÈÍÓÓÚÈ ÍÓÍÓÁÎÒÈ Ó,†Ú,
ÍÓÎÄ.†ÎÈÆ,È%ÁÓÍ†ÎÄ ° Ò ÈÒÂÎÎÄ.

REC LAMP <ON/OFF>

- È·°~Ì°È ÄÈÈÍ - ON.
- Ç ÄÈÈÍÄ OFF ÒÈ,,††Í,††Í Î†ÍÓÓ~Í†
Ò ÂÎÈÈ/ÓÓÓÚÒÎÈÆ.†Ú† ÄÈ ‡†ÓÁ Ä%ÎÄÈ
ÓÚÓ ÓÎÄ ÍÓ ÓÚÒ†,È%ÁÓÍ†ÎÄ ° ÎÄ
Â†,Ó ‡ÁÚÒÆ.

CLOCK SET

àÓ ÂÍÚÈ Ó,††%†Ú°È, ÂÎÄÎÈ.

Changing the mode settings

DEMO MODE <STBY/OFF>

- Select STBY to glance over the function of camcorder.
- Select OFF not to display demonstration.

Notes on DEMO MODE

- DEMO MODE is set to STBY (Standby) 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 STBY of DEMO MODE and erase the menu display. The demonstration will begin. When you turn off the camcorder once, DEMO MODE automatically returns to STBY.

AUDIO MODE <12BIT/16BIT>

- Normally select 12BIT to record two stereo sound.
- Select 16BIT to record the one stereo sound with high quality.

Items for VTR mode only

TITLE DSPL <ON/OFF>

- Select ON to display the title you have superimposed.
- Select OFF not to display the title.

TAPE TITLE

Select this item to label the cassette tape.

AUDIO MIX*

Select this item and adjust the balance between the stereo 1 and stereo 2 by turning the CONTROL dial.

DEMO MODE <STBY/OFF>

- eÄÊËÏ STBY - %ÄÏÖÏÖ ÷`Èfl ÙÛÏÏ`ÈÈ ,È%ÄÖÏ÷IÄ`.
- eÄÊËÏ OFF - %ÄÏÖÏÖ ÷`Èfl ÖÚÏÏ,`ÄÏ÷.

e %ÄÏÖÏÖ ÷`ÈÖÏÏÖÏ ÄÊËIÄ (DEMO MODE)

- eÄ ÄÏÏ,`÷UÄÏ %ÄÏÖÏÖ ÷`ÈÖÏÏÖ,,Ö ÄÊËI÷ ÖÛ÷IÖ, IÄI ÈÄ,,ÖÚ, ÈUÄIÄI , ÖÖÏÖÈÄIÈÄ STBY (ÖÊÈ%÷IÈÄ ,ÏÏ,`ÄÏÈfl). e È`ÚÖÏ %ÄÏÖÏÖ ÷`Èfl ÙÛÏÏ`ÈÈ Ï÷IÄ` ÷`I÷`ÈI÷ÄÛÖfl ÖIÄ ÏÖ`Ä ÄÄ ÏÖ ÏËÏÛ ÖÖÖIÄ ÖÄ Ä,Ö%÷ ÖÄ ÄÏÏ,`÷UÄÏfl POWER , ÖÖÏÖÈÄIÈÄ CAMERA, ÄÖÏÈ %`ÚÖ,,Ö, Ï÷IÄ Ù IÄ ÙÛ÷IÖ, IÄI÷ Ï÷ÖÄÛ÷.
- e. ÷UÈUÄ, ÏËI÷IÈÄ Ï÷ ÖÖ,`ÚÖ ÙÛÏÏ`ÈÈ. DEMO MODE IÄ, ÖÄÏÖÈÏÖ ÖÄ Ä, ÄÖUÈ , ÄÊËI STBY Ö ÖÖÏÖ` ,. IÄI, Ö÷ ÷IÄÖ Ö,.
- ÏÛÏÏ`ÈÈ DEMO MODE IÄ, ÏÏ,`÷ÄÛÖfl, ÄÖÏÈ ,È%ÄÖÏ÷IÄ Ù ÖÛ÷IÖ, IÄI÷ Ï÷ÖÄÛ÷.
- e È È ÖÛ÷IÖ, IÄ Ï÷ÖÄÛ÷,,Ö, ÄÏfl %ÄÏÖÏÖ ÷`ÈÈ %ÄÏÖÏÖ ÷`Èfl Ö ÄÏ ÷`ÄÛÖfl, È Ç`ÏÖÈUÄ Ï÷`ÈI÷U, Ö`ÄÏÛ Ï÷I Ö`~ÏÖ. ÏÛÏÏ`ÈÈ DEMO MODE ÷, ÙÖÏ÷UÈ`ÄÖÏÈ, ÖÄ, ÷`ÄÛÖfl , ÄÊËI STBY.

e flÏÖÄ, ÏÏ,`ÄIÈÄ %ÄÏÖÏÖ ÷`ÈÖÏÏÖ,,Ö ÄÊËI÷ ÖÖÏÈ ,È%ÄÖÏ÷IÄ ÄI÷IÖ%ÈÛÖfl Ï÷ÖÄÛ÷, ÈÄ, IÄÏÈUÄ ÄÄ. eÄ Ä, Ä%ÈUÄ ÙÛÏÏ`ÈÈ. DEMO MODE , ÄÊËI STBY È Ù`Ä ÈUÄ Ö`Ï Ï÷I IÄI. ÑÄÏÖÏÖ ÷`Èfl Ï÷`ÈI÷ÄÛÖfl. e È ,`ÏÏ,`ÄÏÈÈ, È%ÄÖÏ÷IÄ` ÙÛÏÏ`ÈÈ DEMO MODE ÷, ÙÖÏ÷UÈ`ÄÖÏÈ , ÖÄ, ÷`ÄÛÖfl , ÄÊËI STBY.

AUDIO MODE <12BIT/16BIT>

- e.`~Ï`È ÄÊËI - 12BIT (Ä÷ÖÈÖ, ÖUÄ ÄÖÄ, ÙÏ÷ÈÄ%, ÙÏ ÈÖÛÖ`ÏËÏÖ,)
- eÄÊËÏ 16BIT - ,`ÖÖÏÖÏ÷`ÄÛ, ÄÏI÷fl Ä÷ÖÈÖ, ÖUÄ ÄÖÄ, ÙÏ÷ÈÄ Ö%ÏÖ,,Ö ÈÖÛÖ`ÏËÏÖ.

èÖÄÈ`ÈÈ IÄI,` ÖÓÏ, ÏÖ %Ïfl ÖÖÏÖÈÄIÈÈfl VTR

TITLE DSPL <ON/OFF>

- eÄÊËÏ ON - ,`Ö% Ï÷`Ï Ï÷ Ï÷ÏÖÈÄÏÖ,,Ö Ç÷ÏÈ ÙÈÛ ÷.
- eÄÊËÏ OFF - ÖÚIÄI÷ ,`Ö%÷ ÙÈÛ ÷.

TAPE TITLE

ÑÏfl Ï÷ ÏÈ Ö, ÏÈ, È%ÄÖÏ÷ÖÖÄÛ.

AUDIO MIX*

Ç`. ÷,`~Û ÖÖÄÈ`È, Ç`ÏÖÈUÄ Ö ÖÖÏÖ` ,. ÙÏÖflÛÏÈ CONTROL Ä,,ÛÈ Ö, ÷Û. ÷I÷IÖ ÏÄÈ%Ö Ä, ÙÏÖ,`ÏÈ %Ö ÖÈI÷ÏÈ ÖUÄ ÄÖ 1 È ÖUÄ ÄÖ2.

Changing the mode settings

CM SEARCH <ON/OFF>

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

DATA CODE <DATE/CAM or DATE>

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

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

When recording a close subject

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

Note

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

CM SEARCH <ON/OFF>

- ÊÂÊËÏ ON - ÔÊËÒÏ Ò ÊÒÒÓÏ, ÁÓ, ‡ÎÊÂÎ Ò‡ÎÎÚÊ Ì‡ÒÒÁÚ°.
- ÊÂÊËÏ OFF - ÔÊËÒÏ · ÂÁ ÔÓÏÓ~Ê Ò‡ÎÎÚÊ Ì‡ÒÒÁÚ°.

DATA CODE <DATE/CAM ÊÎÊ DATE>

- ÊÂÊËÏ DATE/CAM - , °, Ô% %‡Ú° Ê ÊÎÚÓ Ì‡ÊÊ ÓÁ‡ÔÊÒÊ Ì‡~Í ÌÎ Ò Ê , ÒÒÔ ÔÊÁ, Â%ÂÎÊÊ.
- ÊÂÊËÏ DATE - , °, Ô% %‡Ú° Ì‡~Í ÌÎ Ò Ê , ÒÒÔ ÔÊÁ, Â%ÂÎÊÊ.

* ÚÚÊ ÒÚÚ‡Ó, ÌÊ ÒÓÏ ‡ÎÎ ÚÒÎ, Ò‡ÎÎÚÊ , Ê%ÂÓÏ‡Â ° %ÊÂ ÔÓÓÏÁ ÓÚ%ÂÎÂÎÊÎ ÓÚ ÌÂÂ ÌÎÎÚÎÚÎÚÓ ÌÒÊ ·Ú‡ ÂÊ, %ÓÚÂ ÒÓ , ÔÓÏ‡ ÌÂ ‡Â Ê%ÊÚÒÎ, ÌÚÚ ÂÎÎÎÎ, ‡Î%ÊÂ, Ó-ÎÊÚÊÁ, ‡Î ·Ú‡ ÂÎ. ÓÚÓ Ì‡‡ÂÚÒÎ ÔÓÂÊ~ÊÊ, ÌÂ ÔÓÏÁ~ÂÎÎ· ÌÂ, ÂÁ%Ó~ÏÒÊ, ÚÓ Ê ÌÚÚ‡Ó, ÌÊ , ÓÁ, ‡~‡ ÚÒÎ Ì ÓÚ‡‡‡ ÚÏ~Ï ÒÓÚÚÎ 5 ÊÊ ·ÓÏÁ ÌÊÎÚÚ ÔÓÓÏÁ ÓÚ%ÂÎÂÎÊ ÌÎÎÚÎÚÎÚÓ ÌÒÊ ·Ú‡ ÂÊ.

è·ÂÏ‡ Ó··ÂÏÚ‡, Ì‡Ï%Î~Â, ÒÒÎ Ì‡ Ì‡ÔÓÏ òÚÚÚÎÊÊ ÓÚ Ó··ÂÏÚÊ, ‡ÔÏÊ ÓÁ ÂÏÎ, ~‡ÚÂÏ ÒÊ, Ì‡Ï ÌÒÊ Ì‡ÔÓ~ÊÊ REC LAMP Ì‡Ï%ÊÚÒÎ, ÔÓÏÊÂÎÊÊ ON, ÚÓ Ò, ÂÚ Ì ‡ÔÏÊ ÒÊ, Ì‡Ï ÌÒÊ Ì‡ÔÓ~ÊÊ Á‡ÔÊÒÊ, ‡ÔÓÏÏÊÂÎÏÊ Ì‡ÔÁ Â%ÎÂÊ ÓÚÓ ÒÏÁ ÏÓ ÒÚ‡ Ì‡Â , ÌÒÊÁÚ ÔÓÓ‡‡Ú, Ì‡·ÊÂÏÓ ‡ÔÓÏÏÊÂÎÎ· È Ò Â%ÎÁÚ Ò·ÂÏÊ. ÇÚ‡ÊÏ ÒÏÚ~‡Î ÌÂÏÏÂÎÎÚÁÚÒÎ, °·Ê ‡Ú, ÌÂÏ, %ÎÎ ÓÁ ÂÏÎ, ~‡ÚÂÏ REC LAMP ÔÓÂÊ~Ê, OFF.

è ÊÏ~‡ÎÊÂÎ

- è Ê , ÒÒÔ ÔÊÁ, Â%ÂÎÊÊ Á‡ÔÊÒÊ, Ò%ÂÏ‡ÏÒÊ , 16-·ÊÚÏÓÏ ÂÊËÂ, ÚÚÏÎ~ÊÎ Â, ÚÏÊ Ó, ÌÊ ·Ï‡ÏÒ‡ AUDIO MIX ÌÂ ‡·ÓÚÁÚ.
- ÔÒÏÊ , ÌÂÏ, AUDIO MODE , °· Ì‡‡ ÔÓÂÊ~ÊÎ 16BIT, ÚÓ Ì‡ÏÊÂÎÊÁ Â, ÚÏ‡ ÌÂ, ÔÂÏÊÏ.
- ÔÒÏÊ , ÔÓÂÊ~ÊÊ LCD B.L. , °· Ì‡ ÂÊËÏ BRIGHT, ÚÓ Ò Ô%ÔÏÊÊÚÂÏ, ÌÓÚÚ, Ò·ÂÏÊ ·ÂÁ ÔÓ%Á‡ Ê%ÎÊ ·Ú‡ ÂÊ ÓÓÏ ‡~‡ÚÒÎ Ì‡ 10 - 20%. è Ê ÓÓÏ, ÁÓ, ‡ÎÊÊ % Ú, ÊÊÊ ÊÒÚÓ~ÊÊÏÊÊ ÊÊÚ‡ÊÎÎ ÓÁ ÂÏÎ, ~‡ÚÂÏ, LCD B.L. ‡, ÚÓÏ‡ÚÊ~ÂÏÊ ÓÁ Â, Ô%ÊÚÒÎ, ÂÊËÏ BRIGHT, ‡ ÔÓÓÚ, ÂÚÚÚ, Ú~‡Î ÔÓÂÊ~ÊÎ ÌÂÏ, Ì‡~Í ÌÎ ÌÂ, °, Ô%ÊÚÒÎ.

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 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 until the desired indicator flashes.
- (2) Press START/STOP to start recording. The fade indicator stops flashing.

When fading out [b]

- (1) During recording, press FADER until the desired indicator flashes.
- (2) Press START/STOP to stop recording. The fade indicator stops flashing, and then recording stops.

[a]

STBY

REC

FADER



M.FADER



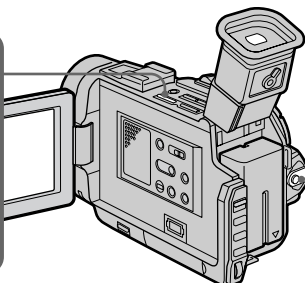
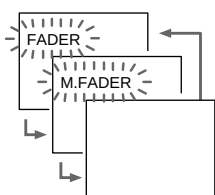
STBY

REC

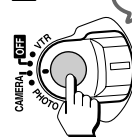
[b]

1

FADER



2



á†ÚÂÏÏÂÏËÂ Ë , °10%
ËÁ Á†ÚÂÏÏÂÏËfl

óúó. ° Ç†Ë , Ë%âóúËÏ, Ì° òíóú ÁÏËò. ·óíÁÁ
ò úúâóóóóí†í, íó, Ç° íóËÁúÁ Èóóóí, Áó, †ú, ,
ÏË1 Ú†ÏËÁ ò ÈÁ†°, Ì†í Á†ÚÂÏÏÂÏËÁ È , °10% ÈÁ
Á†ÚÂÏÏÂÏËfl.

è È , °10%Á ÈÁ Á†ÚÂÏÏÂÏËfl ÈÁó. †ÈÁÏËÁ
óóóúâóáííó ò óóóúó†ÁÚ Ì† ÚÁÏíó† ~í Ì†Á ò
ó%íó, Á†Áí†~í, óÁ †óú†ÏËÁ†, „ óííóóúÈ
Á, Úí†. è È Á†ÚÂÏÏÂÏËÈ fl íóóú, ÈÁó. †ÈÁÏËfl
óóóúâóáííó ÚíÁ†, †ÁÚófl %ò Á,,ò óóííó,,ò
òÏËflÏËfl ò ÚÁÏí° Ì úóíó†, ~úó
òóó ó, óÈ%†ÁÚófl ò È,,íú ÁÏËÁ† Á, Úí†.

Ç°10% ÈÁ Á†ÚÂÏÏÂÏËfl [a]

- (1) Ç° ÁËËÏÁ ÓËË%†ÏËfl Ì†~í† ò ÁÏËÈ
Ì†ÈËÌ†ÈÚÁ Ìíóóíú FADER %ó ÚÁ1 Óó , óóí†
ÌÁ Ì†~íÁÚ ÏË,,†ú. ÌÚË†°È ÈÏ%Ëí†úó .
- (2) Ç†~íÈÚÁ ò Áííú Ì†È†ÚËÁ† ÌíóóíÈ START/
STOP. ðË,,†ÏËÁ ÈÏ%Ëí†úó † Á†ÚÂÏÏÂÏËfl
ò Á† ~†ÁÚófl.

á†ÚÂÏÏÂÏËÁ [b]

- (1) Çó , Á†fl ò ÁÏËÈ Ì†ÈËÌ†ÈÚÁ Ìíóóíú
FADER %ó ÚÁ1 Óó , óóí† ÌÁ Ì†~íÁÚ ÏË,,†ú.
ÌÚË†°È ÈÏ%Ëí†úó .
- (2) èóú†íó, ÈÚÁ ò Áííú Ì†È†ÚËÁ† ÌíóóíÈ
START/STOP. ðÏ%Ëí†úó Á†ÚÂÏÏÂÏËfl
óÁ Áóú†ÁÚ ÏË,,†ú, , óóóíÁ ~Á,,ò ò Áíí†
ò Á† ~†ÁÚófl.

Fade-in and fade-out

To cancel the fade-in/fade-out function

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

When the POWER switch is set to PHOTO, or the START/STOP MODE control is set to ANTI GROUND SHOOTING 1 or 5SEC

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

Note on the fader function

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

- Title

á±úÁîîÀîÈÊ Ë , °10% ËÁ
Á±úÁîîÀîÈÊ

éÚÍÁî± Á±úÁîîÀîÈÊ//, °10%± ÈÁ Á±úÁîîÀîÈÊ
èÁ Â% Í±È±ÚÈÁî Í± START/STOP Í±ÈîÈÚÁ
îîÓÓÍÚ FADER, °ÚÓ·° Èî%Èî±ÚÓ Á±úÁîîÀîÈÊ
Èò~ÁÁò~í ±±±.

ÒÒîÈ ÒÁ Áîí,~±úÁî, POWER Í±10%ÈÚÒÊ ,
ÓÓÍÓÈÁîÈÈ PHOTO, îÈ·Ó ÒÁ Áîí,~±úÁî,
ÂÈÈî± START/STOP MODE ÙÙ±îÓ,îÁî ,
ÓÓÍÓÈÁîÈÈ ANTI GROUND SHOOTING 1
ÈîÈ 5SEC
Ç~ÚÈ1 ÒîÚ~±Êî ÙÙîí~ÊÊ Á±úÁîîÀîÈÊ//, °10%±
ÈÁ Á±úÁîîÀîÈÊ îÁ ÂÈÒÚ,ÚÁÚ.

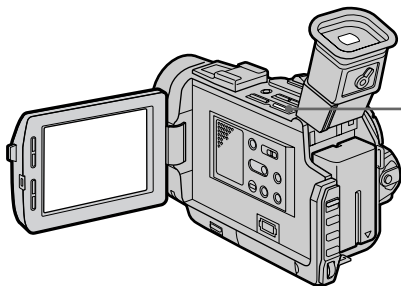
é ÙÙîí~ÈÈ Á±úÁîîÀîÈÊ
ÇÈÈÁÒÁ Â~ÈÒîÁîî~îÈ ÙÙîí~ÊÊ îÁî, Áî
ÓÓî, ÁÓ, ±Ú, ÒÊ, Ó, ÁîÊ ±·ÓÚ° ÙÙîí~ÈÈ
Á±úÁîîÀîÈÊ. îÙîí~È, Á±úÁîîÀîÈÊ, , Ò, Ó,
Ó~Á Â%, , îÁî, ÁîÈÒÓÓî, ÁÓ, ±Ú, Ó, ÁîÊ
ÓÓî, ÁÓ, ±îÈÊ~ÚÈîÈ ÙÙîí~ÊÊ.
- îÈÚ °

Shooting with backlighting

è Ì ÌÍÍ± Ô ÓÚË, Ò, ÂÚ±

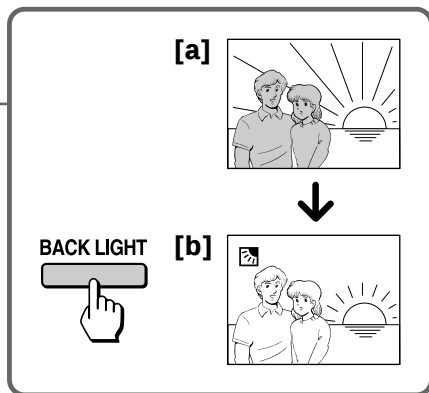
When you shoot a subject with the light source behind the subject or a subject with a light background, use the BACKLIGHT function.

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



è È Ò ÌÍÍÁ Ó Ì ÌÍÍ±, ÓÓÁ±È ÍÓÚÓ Ó, Ó Ì±ÍÓÈÚÓÍ ÈÓÚÓ~ÍÈÍ Ò, ÂÚ±, ÈÍÈ Ó Ì ÌÍÍ± Ì± Ò, ÂÚÍÓÍ ÒÓÍÁ, ÓÓÍ, ÂÚÈÚÁÓ, ÒÚÍÍ~ÈÁÈ BACK LIGHT.

Ç±ÈÍÈÚÁ ÍÍÓÓÍÚ BACK LIGHT. è È ~ÚÓÍ Ì± ÈÈ%ÍÓÍ ÈÓÚ±ÍÈ~ÀÓÍÓÍ ~Í ±ÍÁÈÍÈ, ÓÍÍÁ, È%ÓÈÍ±ÚÁÍÍÍ ÓÓÍ, ÍÍÁÚÓÍ ÈÍÈÍ±ÚÓ c.



[a] Subject is too dark because of backlight.

[b] Subject becomes bright with backlight compensation.

After shooting

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

This function is also effective under the following conditions:

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

Note on the BACK LIGHT function

When you press EXPOSURE, the BACKLIGHT function is cancelled.

[a] è Ì ÌÍÍÁ Ó Ì ÌÍÍ±, ~ÍÍÈÚÓ ÍÈ~ÍÓÍ ÚÁÍÍ~Í ÈÁ-Á±, ÓÚ Ì ÌÍÍÁ Ó, ÓÚ, ÂÚ±.

[b] àÓÍÓÁÍÓ±~ÈÍÍ, ÓÚ Ì ÌÍÍÁ Ó, ÓÚ, ÂÚ± Á±ÓÚ±, ÍÍÁÚ Ó Ì ÌÍÍ±, ~ÍÍÈÚÓ, Ò, ÂÚÍÁÁ.

èÓ ÓÍÓÍ~±ÍÈÈ Ò Ì ÌÍÍÈ ÇÁÁ±.Ú%ÚÁ ÓÚÍÍ~ÈÚ, ÁÈÈÍ ÍÓÍÓÁÍÓ±~ÈÈ, ÓÚ Ì ÌÍÍÁ Ó, ÓÚ, ÂÚ± ÓÓ, ÚÓ Ì~Í±È±ÚÈÁÍ ÍÍÓÓÍÈ BACK LIGHT. è È ~ÚÓÍ ÈÍÈÍ±ÚÓ c %ÓÍÈÁÍ ÈÓ~ÁÁÍÚÚ. àÍ±~ÁÓÚÓÍÍÚÓÁ Ó È ÍÓ Ì±Í, ÍÓÍ ÓÓ, Ì ÌÍÍÈÈ ÈÁÓ. ±ÈÁÍÈÁ.Ú%ÁÚ, ~ÍÍÈÚÓ, "Á±Ó, Ì ÌÍÍ~Í".

Ñ±Í±ÍÍ ÒÚÍÍ~ÈÍÍ ÍÓÈÁÚ. ~Ú, ÓÓÍÁÁÍÓÈ Ú±ÍÈÁ, ÓÍÁ%Ú~ÈÍ ÒÍÚ~ÍÍÍ:

- è È Ò ÌÍÍÁ Ó Ì ÌÍÍ±, ÍÍ%ÓÍ Ò ÍÓÚÓ ~Í Ì±ÍÓÈÚÓÍ ÈÓÚÓ~ÍÈÍ Ò, ÂÚ± ÈÍÈ ÁÁ Í±ÍÓ, ÓÚ ±È±~ÁÁÍÍ ÍÈÈ Ò, ÂÚ.
- è È Ò ÌÍÍÁ Ó Ì ÌÍÍ±, ÌÍÍÁ, Ó, ÂÚ± Ì± ÌÍÍÁ ÒÓÍÁ. à ÓÍÁÚÓ, Ó, ÍÈ~Ó~ÍÍÓ, ÁÍ±, Ó%ÁÈ%Á ÈÁ. ÍÁÓÚÍÍ~ÁÈ ÌÍÍÁ, ÓÈ ÈÍÈ ÒÈÍÚÁÚÈ~ÀÓÍÓÈ ÚÍ±ÍÈ, ÌÓÍÈ ÒÈÍÈ±Ú, Á, Ó. ÁÁ ÓÓÍÓ~È %±ÍÍÓÈ ÒÚÍÍ~ÈÈ, ~ÚÁÚ, ~ÍÍÈÚÓ, ÚÁÍÍ~Í.

é ÒÚÍÍ~ÈÈ BACK LIGHT

è È Í±È±ÚÈÈ ÍÍÓÓÍÈ EXPOSURE ÒÚÍÍ~ÈÍ BACK LIGHT ÓÚÍÍ~±ÁÚÓÍÍ.

Photo recording

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

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

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

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

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

èóí±% ó, °À
, È%ÀÓÙÓÚÓÒÌÈÌÍÉ

Ç° ÍÓÉÁÚÁ ÛÈÌÒÈ Ó, ±Ú, í±, È%ÀÓÌÁÌÚÁ ÓÚÓÓ-
Í±% °, Ó Ó%ÓÌÈ±. ÈÁÓÍ ÓÍÓÍÓ ÓÁÌÈ ÓÁÌÚÍ%.
ÚÚÓ ÓÓÌÁÁÍÓ, ÓÍÚ ±ÍÍ, ÍÓ, %± Ç±Í ÍÓ ÀÚÓÍ
±ÓÍÚÓ ÁÚ, ÓÚ%ÁÍ Í ÈÍ±% Í±
ÚÓÚÓ, ±ÚÈ ÈÌÈ ±ÓÓÁ ±ÚÚ Á,, Ó Í±
, È%ÀÓÓ ÈÌÚÁ À (, ÍÓÍÓÌÁÌÚ ÍÁ, 10%ÈÚ). Ç

ÀÈÈÌÁ Sè í±, È%ÀÓÌ±ÓÓÁÚÁ
Ó Ó%ÓÌÈÈÚÁÍ ÍÓÚÚ. 60 ÍÈÍÚÚ ÍÓÉÁÚ
ÓÓÌÁÓÚÈÚ ÓÍ ÓÍÓÍÓ 510 Ú±ÈÌ Í±% Ó, . è È
"ÚÓÍ, %Á ÈÍ± ÓÚ ÓÚÍ±± ÚÍÓÈ %Ó 1/1000
ÚÓÚ±Í±, ÍÈ, ±ÁÚÓÍ ±, ÚÓÍ±ÚÈ ~ÁÓÌÈ ,
Á±, ÈÓÈÍÓÓÈ ÓÚ ÓÓ, À ÁÌÍÓÓÈ.

(1) Í%Á ÈÈ, ±Í, Í±È±ÚÓÍ ÓÓÍÓÈÁÌÈÈ
Í±ÍÁÍ ÍÚ ÁÁÌÁÌÚ ÍÍÓÓÍÚ Í±
ÓÁ ÁÍÍ ~±ÚÁÌÁ POWER, ÓÁ Á%, ÈÌ, ÚÁ Á,, Ó
, ÓÓÍÓÈÁÌÈÁ PHOTO. ÚÚÓ ÓÓÓ Ó, ÓÈ%±ÁÚÓÍ
%, ÓÈÍ "Í ÓÈ, ±ÍÍÓÍ . ÈÓÁ ±.

(2) Ç±ÈÈÍ±ÈÚÁ ÓÌÁ,, Í± Í± ÍÍÓÓÍÚ START/
STOP, ÓÓÍ± Í± ÈÈ%ÍÓÍ ÈÓÚ±ÌÈ~ÁÓÍÓÍ
~Í ±ÌÁ ÈÌÈ, ÓÌÌÁ, È%ÓÈÍ±ÚÁÍÍ ÍÁ
ÓÓÍ, ÈÚÓÍ ÓÚÓÓ-Í±% È Í±%ÓÈÓ, "PHOTO
CAPTURE".

ÚÚÓÚ Í±% ÓÓÍ± ÍÁ Á±ÓÈÓ±Í. ÓÚÓ°, °. ±Ú,
% Ú,, ÓÈ Í±%, ÓÚÓÚÓÚÈÚÁ ÍÍÓÓÍÚ START/
STOP, Í±È%ÈÚÁ ÍÓ, ° ÈÍ±% È, ÍÓ, ÓÌÁ,, Í±
Í±ÈÈÚÁ START/STOP.

ÓÓÌÈ, ÍÓÌÁÌÚ, ÍÓ, %± Í±
ÈÈ%ÍÓÍ ÈÓÚ±ÌÈ~ÁÓÍÓÍ ~Í ±ÌÁ ÈÌÈ, ÓÌÌÁ
, È%ÓÈÍ±ÚÁÍÍÁÚÈÍÓÈ Ó, ±Í ÓÚÓÓ-Í±%,
Í±È±Ú. ÍÍÓÓÍÚ PHOTO Í± ÓÚÍ ÚÁ
%ÈÓÚ±Í ÈÓÍÓ,, ÓÚÓ ±, ±ÁÌÈÍ, "ÚÚÓ ÓÚÓÓ-
Í±% . Ú%ÁÚ Á±ÓÈÓ±Í ÍÁ ÓÈ Í± ÍÁÌÚÚ.
Ñ±ÌÍÓÈ ÍÍÓÓÍÓÈ, Ó%Í±ÍÓ, ÍÁÍ, ÁÍÍ
ÓÓÍ, ÁÓ, ±Ú, ÓÍÍ%ÍÍ, °. Ó ±Í±% ± ÓÁ Á%
Ó "ÁÌÍÓÈ.

(3) ÈÈÍ ÍÁÁ Í±ÈÈÚÁ ÍÍÓÓÍÚ START/STOP.
è È "ÚÓÍ Í±~ÈÌÁÚ ÍÈ,, ±Ú. ÚÍÁ±ÚÁÍ,
"PHOTO REC", ±±ÁÚÈÍÓÈ Ó, ±ÌÍ~È Í±
ÈÈ%ÍÓÍ ÈÓÚ±ÌÈ~ÁÓÍÓÍ ~Í ±ÌÁ ÈÌÈ, ÓÌÌÁ
, È%ÓÈÍ±ÚÁÍÍ ÓÚÓÓ-Í±% Á±ÓÈÓ, ±ÁÚÓÍÍ,
ÚÁ~ÁÌÈÁ Ó ÈÌÁ ÍÓ ÓÁÌÈ ÓÁÌÚÍ%. Ç~ÚÈ ÓÁÌ,
ÓÁÌÚÍ% Ó Ó%ÓÌÈ±ÁÚÓÍ Ú±ÈÁ Á±ÓÈÓ Á, ÚÍ±,
±Í±% "Í± ÈÈ%ÍÓÍ ÈÓÚ±ÌÈ~ÁÓÍÓÍ ~Í ±ÌÁ
ÈÌÈ, È%ÓÈÍ±ÚÁÌÁ ÓÌÁÍÍ. Ú% Ú,, % Ú,, ±
Í±ÍÓ È ÍÈÍÓÍÓÚ±ÈÁ. ÇÓ, ÁÍÍ Á±ÓÈÓÈ
ÍÁÍ, ÁÍÍ ÁÌÍÚ, ÓÓÍÓÈÁÌÈÁ ÓÁ ÁÌÍ ~±ÚÁÍÍ
POWER ÈÌÈ Í±ÈÈÍ±Ú. ÍÍÓÓÍÚ START/
STOP.

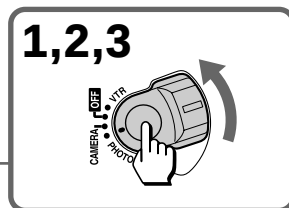
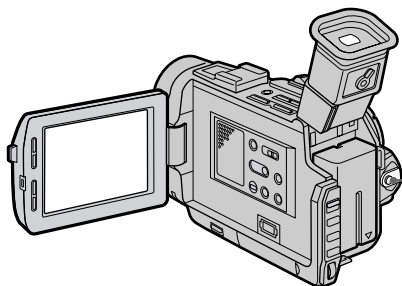


Photo recording

Note on the still picture

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

Note on the video flash light

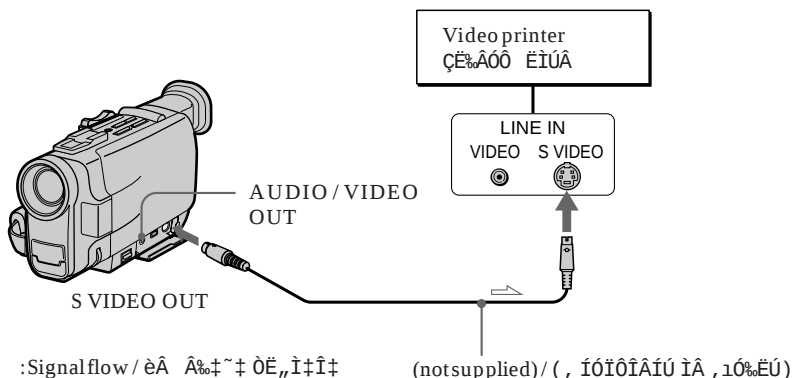
We recommend you to use the HVL-FDH video flash light (not supplied) when shooting in the dark. When you use the video flash light, set AUTO LOCK to ON.

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

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

Printing the still picture

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



If the video printer is not equipped with S VIDEO input

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

èóí±% ó, °Å
, È%ÅÖÙÓÚÒÒÌÈÌÍÈ

é ÒÙÒ-Ì±% ±1

è È, ÓÒÒ ÓÈÀ, Å%ÀÌÈÈ Ì±% Ò,, ÓÌ

, È%ÀÓÌ±,, ÌÈÙÓÙÒÌÀ ÒÙÒ-Ì±% Ó,, ÓÙÒÌÍÙ°1

%±ÌÒÈ, È%ÀÓÌ±ÌÀ ÓÈ, ÈÀÓ. ±ÈÀÌÈÀ ÌÓÈÀÙ
ÙÙ ±"È, ±Ù. ÀÁÌÓÙ. ± ÒÙÓ ÌÀÒ, È%ÀÙÀÌ, ÒÙ, ÒÀÙ
ÓÌÀÈÒÒ ±, ÌÓÙÈ ±ÒÒ± ±ÙÙ °.

é , È%ÀÓ, ÒÒ°-ÌÀ

ÑÌÍ Ò°ÀÌÈ, ÒÀÌÌÓÙÀ ÀÌÒÌÀÌ%ÒÀÌ Ç±Ì

ÒÒÌ, ÀÓ, ±Ù, ÒÌ, È%ÀÓ, ÒÒ°-ÌÓÈ HVL-FDH (,

ÌÓÌÒÌÀÌÙ ÌÀ, ÌÓÈÙ). è È ÓÒÌ, ÀÓ, ÌÈÈ

, È%ÀÓ, ÒÒ°-ÌÓÈ ÒÙ±Ì±, ÌÈ, ±ÈÙÀ

ÒÀ ÀÌÌ, ~±ÙÀÌ, AUTO LOCK, ÓÒÌÓÈÀÌÈÀ ON.

èÓÌ, ÌÀÌÈÀ ÈÌÈÌ±ÙÓ ± ÒÌ±À°, ±ÀÙ, ~ÙÓ

, ÒÒ°-Ì±, ÒÙÓ, ±Ì ±·ÓÙÀ. àÒ, % ÈÌÈÌ±ÙÓ 

ÌÈ,, ±ÀÙ, , ÒÒ°-ÌÓÈ ÓÒÌ, ÀÓ, ±Ù, ÒÌ ÌÀÌ, ÀÌ.

è Ó, À, ÒÙÀ À ±À ÓÒÌÓÈÀÌÈÀ

ÒÀ ÀÌÌ, ~±ÙÀÌ AUTO LOCK.

èÀ~±Ù, , È%ÅÖÙÓÚÒÒÌÈÌÍÈ, ÌÓ,

èÙÒÒ-Ì±% ÌÓÈÌÒ ±ÒÀ~±Ù±Ù Ì±

, È%ÀÓÒ ÈÌÙÀ À (, ÌÓÌÒÌÀÌÙ ÌÀ, ÌÓÈÙ).

èÓ%ÌÌ, ~ÈÙÀ, È%ÀÓÒ ÈÌÙÀ ÌÌ±ÌÀ ÀÒ

ÒÒÌÒ°, Ò ÈÌ±,, ±ÀÌÒ, ÒÒÀ%ÈÌÈÙÀÌ ÌÒ,, Ó S-

, È%ÀÓÌ±·ÀÌÍ (, ÌÓÌÒÌÀÌÙ ÌÀ, ÌÓÈÙ).

ÈÌÀ%ÒÈÙÀ ÒÌÈÀ ÒÌ±À±ÌÈÌÍ, Ò È, Å%ÀÌÌ°Ì,

ÈÌÒÙ ÒÌÈÈÌ, È%ÀÓÒ ÈÌÙÀ Ò.

ÒÒÌÈ Ò, È%ÀÓÒ ÈÌÙÀ ± ÓÙÒÙÒÙ, ÒÀÙ

, ÌÓ%ÌÀÀ,, ÌÀÀ%Ó S VIDEO

ÇÒÒÒÒÌ, ÀÙÈÙÀÒ. Ò ÈÌ±,, ±ÀÌ°Ì ±ÙÈÓ/

, È%ÀÓÌ±·ÀÌÀÌ. è%ÈÌ À,, Ó ÌÓÌÀ° ÒÌÀ%ÒÀÙ

ÒÒ%ÌÌ, ~ÈÙ, Ì,, ÌÀÀ%Ù AUDIO/VIDEO OUT, ±

ÈÀÌÙ°È°ÙÀÌÀ % Ò,, Ó, Ò ÌÓÌ° ± - Ì, ÌÓ%ÌÓÌÙ

, ÌÀÀ%Ù, È%ÀÓÒ ÈÌÙÀ ±, Ò·ÓÀÌ±·ÀÌÌÒÌÙ

ÒÒÌ, ÓÌ VIDEO.

Enjoying picture effect

è ÈÏÂÏÂÏÊÂ
,Ë%ÂÓ~ ÛÛÂÍÚÓ,

Selecting picture effect

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

[a]



[b]



[c]



[d]



[e]



[f]



PASTEL [a]

The picture is in pastel tones.

NEG. ART [b]

The colour of the picture is reversed.

SEPIA

The picture is sepia.

B&W

The picture is monochrome (black and white).

SOLARIZE [c]

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

MOSAIC [d]

The picture is mosaic.

SLIM [e]

The picture expands vertically.

STRETCH [f]

The picture expands horizontally.

PASTEL [a]

àÁÓ. ‡ÊÂÏÊÂ Ò ÊÓ. ÂÚ‡ÂÚ Ò‡ÒÚÂÏ, Ì°Â ÚÓÏ‡

NEG. ART [b]

àÁÓ. ‡ÊÂÏÊÂ ÒÚ‡ÏÓ, ÊÚÒfl ÒÓ1ÓÊËÏ Ì‡ ÌÂ,,‡ÚË,

SEPIA

àÁÓ. ‡ÊÂÏÊÂ Ò ÊÓ. ÂÚ‡ÂÚ ÓÚÚÂÏÓÍ, Ì‡ÒÓÏÊÏ‡, ~ÊÊ ÒÚ‡ °Â ÚÓÚÓ,, ‡ÚËË

B & W

àÁÓ. ‡ÊÂÏÊÂ ÒÚ‡ÏÓ, ÊÚÒfl ~Â ÌÓ-·ÂÏ°Ï

SOLARIZE [c]

è,ÂÚ, ÚÂÏË È ^,ÂÚÓ, °Â ÒflÚÏ‡ ÒÚ‡ÏÓ, flÚÒfl ÍÓÍÚ ‡ÓÚÏÂÂ, Í‡Í Ì‡ ÊÒÚÏÂ.

MOSAIC [d]

"âÓÂ‡Ë~ÌÓÂ" ÊÁÓ. ‡ÊÂÏÊÂ

SLIM [e]

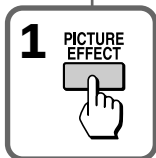
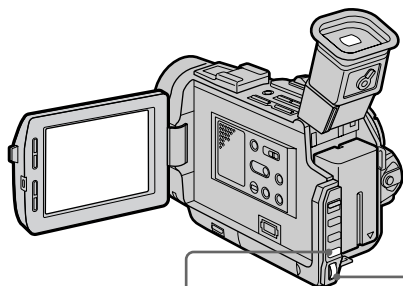
àÁÓ. ‡ÊÂÏÊÂ , °fl,,Ë, ‡ÂÚÒfl ÒÓ ,Â ÚËÏ‡ËË

STRETCH [f]

àÁÓ. ‡ÊÂÏÊÂ ‡ÓÚfl,,Ë, ‡ÂÚÒfl ÒÓ ,Ó ÊÁÓÍÚ‡ËË

Using picture effect function

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



2

CONTROL

CONTROL



STRETCH

SLIM

MOSAIC

SOLARIZE

B&W

SEPIA

NEG.ART

PASTEL

Returning to normal mode

Press PICTUREEFFECT repeatedly until the PictureEffectindicator disappears.

Note on the picture effect

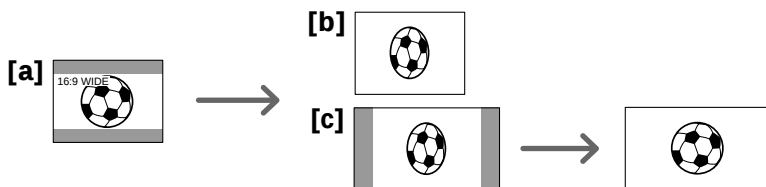
When you turn the power off, the camcorder returns automatically to normal mode.

ÇÓÁ, ‡~ÂÏÈË , Ó.~i*È ÂÈËÏ
ÇÊËÏÊÛÂ Ì‡ ÌÏÓÏÏÛ PICTURE EFFECT %Ó
ÚÂÏ ÓÓ , ÓÓÏ‡ÈÏÊÏÚÓ ,È%ÃO~ÙÙÂÏÚÏ ÌÂ
ÈÓ~ÂÂÏÚÓ Ò~Ï ÌÏ‡.

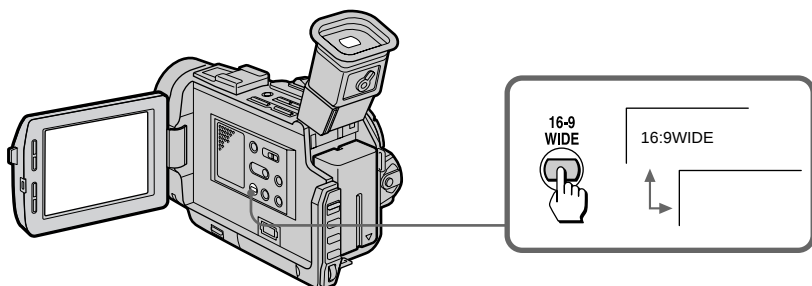
é ÙÙÏÏ~ÈÈ ,È%ÃO~ÙÙÂÏÚÓ,
è È , °ÏÏ~ÂÏÈÈ ÒÈÛ‡ÏÈÏ ,È%ÃOÏ‡ÏÂ ‡
‡, ÚÓÏ‡ÛÈ~ÂÓÏÈ , ÓÁ, ‡~‡ÂÛÓÏ , Ó.~i*È
ÂÈËÏ.

Using the wide mode function

You can record a 16:9 wide picture to watch on the 16:9 wide-screen TV (16:9WIDE). The picture with black bands at the top and the bottom on the LCD screen or in the viewfinder **[a]** is normal. The picture on a normal TV **[b]** is horizontally compressed. You can watch the picture of normal images on a wide-screen TV **[c]**.



While in Standby mode, press 16:9 WIDE. 16:9 WIDE appears on the LCD screen.



To cancel wide mode

Press 16:9 WIDE again.

To watch the tape recorded in wide mode

To watch the tape recorded in 16:9WIDE mode, set it to full mode. For details, refer to the instruction manual of your TV.

Note that the picture recorded in 16:9WIDE mode looks compressed on a normal TV.

Note on wide mode

You cannot select or cancel the wide mode during recording.

ðË ÓÍÓÚÓ Ì±ÚÌ°È
ÂÊËÏ

Ç° ÌÓÉÁÚÁ, ÆÓÚË Ì°ÁÌÍÚ, ÚÓ Ì±ÚÁ 16:9%ÍÍ
ÓÓÓÍÁ%Ú, Æ, ÓÓ ÓÓÍÓÚ Ì±Ú°È ÓÍÓ°Í Ì±ÍÓÍ
ÚÁÌÁ, ÉÁÓ Æ (16:9WIDE).
Ç±ÊË%ÍÓÍ ÈÓÚ±ÍË°ÁÓÍÓ°Í Ì±ÁÊËË, ÓÍÁ
È%ÓËÓÍ±ÚÁÍÍ, È%ÍÓ ÍÓ Ì±Í, ÍÓÁ
ÉÁÓ. ±ÊÁÌËÁ, Ó,, ±ÍË°ÁÌÍÓÁÒ, Æ ÌÓËÒÉÁÚ
°Á Ì°ÍË ÓÓÍÓÚ±ÍË **[a]**. Ç±°Í Ì±ÁÓ. °°ÍÓ,, Ó
ÚÁÌÁ, ÉÁÓ ±ÊÁÓ. ±ÊÁÌËÁ, °,, ÍÍ%ÈÚ ÒË±Ú°Í
ÓÓ,, Ó ÉÁÓÍÚ±ÍË **[b]**. Ç±°Í Ì±Á
°È ÓÍÓ°Í Ì±ÍÓ,, Ó ÚÁÌÁ, ÉÁÓ ±
, ÓÓÓ ÓÉÁ, Ó%ÈÚÓÍ ÍÓ Ì±Í, ÍÓÁ ÉÁÓ. ±ÊÁÌËÁ
[c].

Ç ÂÊËÏÁ ÓËË%±ÍËÍ Ì±°Í± Ì°ÁÌÍË Ì±ÊËËÚÁ
ÍÍÓÓÍÚ 16:9 WIDE. Ç±ÊË%ÍÓÍ ÈÓÚ±ÍË°ÁÓÍÓ°Í
°Í Ì±Á ÓÍÍ, ÍÍÁÚÓÍ ÚÍ±Á±ÚÁÌ, 16:9 WIDE.

éÚÍÁÌ±°È ÓÍÓÚÓ Ì±ÚÍÓ,, Ó ÂÊËÏ±
Ç±ÊËÚÁ ÍÍÓÓÍÚ 16:9 WIDE °Á°Á.

è ÓÓÍÓÚ, È%ÁÓÁ±ÓËÒË, Ó%ÁÌ±ÍÍÓË,
°È ÓÍÓÚÓ Ì±ÚÍÓÍ ÂÊËÏÁ
ÑÍÍÓ ÓÓÍÓÚ ±, È%ÁÓÁ±ÓËÒË, Ó%ÁÌ±ÍÍÓË,
ÂÊËÏÁ 16:9WIDE, ÍÁÓ. ÌÓ%ÈÍÓ ÓÁ ÂËÚË,
ÓÓÍÍÓÚÓ Ì±ÚÌ°È ÂÊËÏ. èÓ% Ó. ÍÁÁÒÍ.,
ÈÍÓÚ ÚÍÊË ÓÓ°ÍÓÍÚ±Ú°È ÚÁÌÁ, ÉÁÓ ±.
é. ±ÚËÚÁ, ÌË±±ËÁ Ì±ÚÓ, °ÚÓ Ì±°Í Ì±Á
Ó. °°ÍÓ,, Ó ÚÁÌÁ, ÉÁÓ ±ÊÁÓ. ±ÊÁÌËÁ, ÓÚÓÍÍÚÓÁ
, ÂÊËÏÁ 16:9WIDE, °,, ÍÍ%ÈÚ ÒË±Ú°Í ÓÓ
,, Ó ÉÁÓÍÚ±ÍË.

é°È ÓÍÓÚÓ Ì±ÚÍÓÍ ÂÊËÏÁ
ðË ÓÍÓÚÓ Ì±ÚÌ°È ÂÊËÏ ÍÁ, ÓÁÍÓËÍÓ
, ÍÍ%ÈÚ, ÈËËÓÚÍ, °ÈÚ, Ó, ÁÍÍÁ±ÓËÒË.

Using the PROGRAM AE function

PROGRAM AE

You can select from six PROGRAM AE (Auto Exposure) modes to suit your shooting situation. When you use PROGRAM AE, you can get a Portrait effect (the subject is in focus and the background is out of focus), capture high-speed action, record night views, etc.

Selecting the best mode

Select a proper PROGRAM AE mode referring to the following description.



Spotlight mode

Recording a subject spotlighted on a stage or at a wedding ceremony, etc.



Soft portrait mode

To record

- A still subject such as a person or flower
- A softened picture
- A person in clearer flesh tones



Sports lesson mode

Capturing high-speed action in sports such as golf or tennis

Beach & Ski mode

Recording a person in a place such as on the beach or in the ski slopes where there is a lot of reflection

Sunset & Moon mode

Recording sunset, night views, fireworks or neon signs

Landscape mode

Recording a landscape through a window or wire net

Ç Â, ÈÈÌÒÒÙÈ ÓÚ ÒÒÍÓ, ÈÈ Ò ÂÌÍÈ Ç° ÍÒÈÁÚÁ
 , ° · ÛÚ, ÓÈÌÈ ÈÁ ÒÁÚÈ ÁÚÒ Ó,, ÍÍÈ Ó, ÍÍ°
 ÁÈÈÍÒ, Í, ÚÓÍÚÈ ÒÁÒÍÈ Ò ÍÒÒÓÁÈ ÒÈÈ
 (PROGRAM AE). ÈÓÌ, ÁÚÍÒ, ÒÚÍÍ ÒÈÈ
 PROGRAM AE, ÍÒÈÍÒ ÓÓÍÚ ÛÚ, ÒÚÁÍÚ
 ÓÓ Ò ÁÚÍÈ Ò ÁÌÍÈ (Ó· ÁÍÚ, ÚÓÍÚÒÁ, ÁÍÈÈÈ
 ÓÍÍÍ ÒÓÚÓÍÚÈÈ Ó, ÍÍ), ÁÚÒÁ ÛÚÍÁ, ÛÚ,
 · ÓÚ Ó%, ÈÈ ÒÈÁÚÍ Ò Á%ÍÁÚ°, ÒÈÈÍÚ,
 ÍÓ· Í· ÁÒÁÈÁÈÈÈ È È. %.

Ç° · Ó ÓÓÚÈÍÍÍ, ÍÓ, Ó ÁÈÈÍÍ

È È, ° · Ó Á ÁÈÈÍÍ PROGRAM AE
 ÚÍÓ, Ó%ÓÚ, ÚÈÚÁÒ, ÍÈÈÁÒÍÁ%Ú, ÒÈÈ
 ÓÓÍÒÍÁÈÍÈÈÈ.



È: È· ÁÌÍÍ Ò È ÒÈÚÁ ÍÍ
 àÒÓÓÍ, ÁÚÁÚÓÍ, ÒÍÚ ÒÍÍ, ÍÓ, %· Ò Á%ÍÁÚ
 Ò ÁÌÍÈ, %ÁÍÁÈ ÈÒÍÚÒÓÚ, ÁÍÍÈÈ ÓÓÒ, ÁÚÍÈÈ
 (ÍÍ Ò· ÁÍÁ, , ÍÓÁÒ, %Á· ÍÈÈ ÒÁ ÁÍÍÈÈÈ È È. %.)

Í: ÁÍÍ, ÍÈÈ ÓÓ Ò ÁÚÍ· È ÁÈÈÍ
 àÒÓÓÍ, ÁÚÁÚÓÍ %ÍÍ:
 • Ò· ÁÌÍÈ ÍÁÒÓ%, ÈÈÍ° Í Ò Á%ÍÁÚÓ, (ÍÈ° Ó
 ÒÁÚ, ÁÍÍ, ^, ÁÚÓÍ)
 • ÒÍÍÍ, ÒÁÍÈÈ ÈÒÚÍÍ ÍÍ% Í
 • ÓÓ% ÒÁ ÍÈ, ÍÈÈÈ ÁÒÚÁÚÓ, ÁÍÍ° Í ÚÓÍÓ, ÍÈ° Í,
 ÍÍ% Á

Í: ÈÓÓ ÚÈ, Í· È ÁÈÈÍ
 ÒÍÍÍ ÚÈÍÒÍ· ÈÈ · ÓÚ ° Í%, ÈÈÁÍÈÈ, ÍÍÒ ÈÍÁ
 Ò ÈÓÓ ÚÈ, Í· ÍÈ,, ÍÍ (°Í, Ò, ÚÁÍÈÈÒ)

Í: ÈÍÍÈÈÈ· È, ° ÍÓÍ· ÈÈÈ ÁÈÈÍ
 ÒÍÍÍ Ò· ÁÌÍÈ, ÍÍ ÍÓÓ, Á· ÁÍÍ° Í ÓÓÍÍ· ÁÍ
 ÍÁÚÚÍ Ò ÒÈÈ, Í· Í ÓÚ ÍÈÁÍÈÁÍ ÓÓÍÍÁ· Í° Í
 ÍÚ· ÁÈ (ÓÍÍÈÈ, ° ÍÓÍ· ÈÈ· ÁÒÍÍÓÍ·)

È: ÇÁ· Á ÍÈÈ/ÍÓ· ÍÈÈ ÁÈÈÍ
 ÒÍÍÍ Ò· ÁÌÍÈ ÍÍ ÁÍÍÚÁ ÓÓÍÍ·, Ò· ÁÌÍÈ
 ÓÁÈÁÈÈÈ Ò È ÍÚÍÁ, ÚÁÈÁ, Á ÍÓ, ÈÈÈ
 ÍÁÓÍÓ, ° Í, °, ÁÒÓÍ

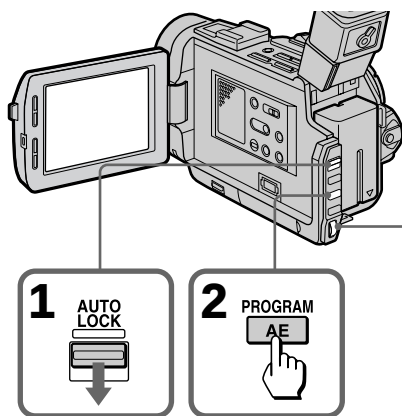
Í: ÁÍÍ· ÒÚÚÍ· È ÁÈÈÍ
 ÒÍÍÍ Ò· ÁÌÍÈ ÓÁÈÁÈÈÈ ÒÁ ÁÁÓÍÍÈÈÈ
 Ò Ó, ÓÍÓ· Í· ÁÒÁÍÈÈ.

Notes on focus setting

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

Using the PROGRAM AE function

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



To return to automatic adjustment mode

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

Note on shutter speed

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

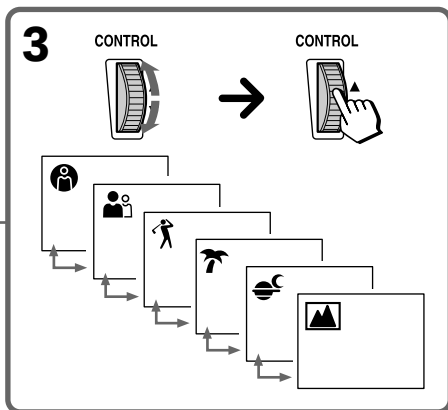
- Soft Portrait mode – from 1/50 to 1/425
- Sports lesson mode – from 1/215 to 1/4000
- Beach & Ski mode – from 1/50 to 1/215

é ì†, 0% IÁ ì† ÁÁÍÓÙ.

- Ç ÁÊËÏÄ Ò ÁÍË Ò È ÒËÛÄ ††, † Û†ÍËÄ, ÓÓÓ ÛË, ÍÓÍ È ÒÍÊÍÓÍ/„Ó ÍÓÍ ÈÍÓÍ ÁÊËÏ†† Í ÛÓÍ ÁÓÍ†† ÒÈË†Û. ÍÄÍ, ÄÍ, Û†Í Í†Í Ó ÁÍÛË, È%ÁÓÍ†† ÛÓÍÛË ÛÄÛÓÍ ÛÓÍ, ÍÓ Í†%†Í. ÍË Í È Ò Á%ÍË ÒÍ†††.
- Ç, Á Ä ÍÄÍ/ÍÓÍ ÒÍË È Í†Í%†† ÛÓÍÓÍ ÁÊËÏ††, È%ÁÓÍ†† † ÛÓÍÛË ÛÄÛÓÍ ÛÓÍ, ÍÓ Í†%†Í. ÍË Í ÒÍ†††.

èÓÍ, ÁÓ, †ÍËÄ ÛÓÍÍ~ÈÄÈ PROGRAM AE

- (1) Ç ÁÊËÏÄ Ò ÁÍË ÈÍË ÓËÈ%††ÍËÍ Í†~†† Ò ÁÍË 0%, ÈÍ, ÛÄ, ÍËÄ ~†ËÓÍ AUTO LOCK.
- (2) Ç†ËÍËÛÄ ÍÍÓÓÍÛ PROGRAM AE.
- (3) èÓ, Á ÍËÛÄ ÛÓÍÍÛÓÍ CONTROL Û†Í, ~ÓÓ. ÒÈÍ, ÓÍ ÍÛËÍÓ,„Ó ÁÊËÏ†† PROGRAM AE. ~Í ÓÓÍ††Í ÈÍ%ÈÍ†ÛÓ ÓÍ Í† ÈÈ%ÍÓÍ ÈÛ†ÍË~ÄÓÍÓÍ~Í ††Ä ÈÈ, ÓÍ†Ä, È%ÓËÓÍ††Í.



ÇÓÁ, †~ÄÍËÄ, ÁÊËÏ †, ÛÓÍ†ÛË~ÄÓÍË ~ÍÓÓÓÁÈ~ÈÈ Ç†ËÍËÛÄ ÍÍÓÓÍÛ PROGRAM AE, ~ÓÓ. ÈÍ%ÈÍ†ÛÓ ÈÒ~ÄÄ Ò Í Í††, ÈÍË ÓÄ Á%, ÈÍ, ÛÄ ~†ËÓÍ AUTO LOCK, , Á 1.

é ÒÍÓ ÓÙÛË, %Ä ÈÍË ÇËËÄ Ò È, 0% ÈÛÓÍÓÍÓ ÓÙ, %Ä ÈÍË, ÓÓÓ, ÄÛÓ, Û, ~†Í Í†È%ÓÍÛ ÈÄ ÁÊËÏ†, PROGRAM AE: ÄÍ, ÍËÈ ÓÓ Û ÄÛÍ~È ÁÊËÏ – ÓÙ 1/50%Ó 1/425 èÓÓ ÛË, ì~È ÁÊËÏ – ÓÙ 1/215%Ó 1/4000 èÍÍÊÍ~È/„Ó ÍÓÍ~ÈÍ~È ÁÊËÏ – ÓÙ 1/50%Ó 1/215

Focusing manually

êÛ~ì†fl ì†, Ó%í† ì†
 ÂÁÍÓÚ,

When to use manual focus

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

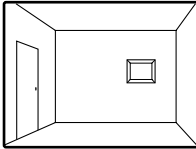
äó,,%† òîÂ%ûÁú ôóî, Áó, †ú, òfl
 û~îóè ì†, Ó%íóè ì† ÂÁÍÓÚ,

êÛ~ì†fl ì†, Ó%í† ì† ÂÁÍÓÚ, ÓóÁ, óîflÁú
 %ó·Éú, òfl îÛ~É1 ÂÁÚî, ú†úó, , òîÂ%û, ~É1
 òîÛ~†fl:

[a]



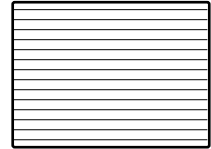
[b]



[c]



[d]



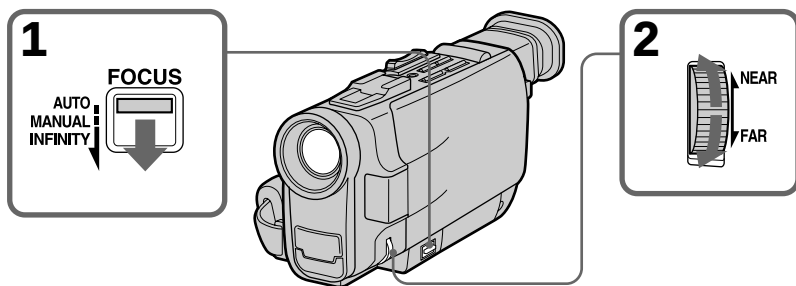
- Insufficient light **[a]**
- Subjects with little contrast—walls, sky, etc. **[b]**
- Too much brightness behind the subject **[c]**
- Horizontal stripes **[d]**
- Subjects through frosted glass
- Subjects beyond nets, etc.
- Bright subject or subject reflecting light
- Shooting a stationary subject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

- è È îÂ%óóú†úó~íóî óó, Â~ÂîÈÈ **[a]**
- è È ò`ÂîíÂ ì†íóíóíú †òúî~1 ô Â%îÁúó, (òúÁî°, îÂ·óÉú.%.) **[b]**
- è È ò`ÂîíÂ ô óúÉ, fl íó,,óò, Âú† **[c]**
- è È ì†îÈ~ÈÈ, í†% Â,,ó ÈÁóíú†î, î~1 óóíóò **[d]**
- è È ò`ÂîíÂ ~Â ÂÁ ì†úó, ÓÁ óúÁííó
- è È ò`ÂîíÂ ~Â ÂÁ òÁúíú Èú.%.
- è È ò`ÂîíÂ ô Â%îÁúó,, ÈÁîÛ~†. ~É1 ÈîÈ óú †È†. ~É1 ô, Âú
- è È ò`ÂîíÂ ìÂóó%, ÈÈî~1 ô Â%îÁúó, òó ~ú†úÈ, †

Focusing manually

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

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



To focus in infinity

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

To return to the autofocus mode

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

Shooting in relatively dark places or shooting the subject moving quickly outside

Shoot at wide-angle after focusing in the telephoto position.

If lights up

Subject is too close.

êÛ~ì†fl ì†,ó%í† ì† ÂÁÍÓÚ,

- è È Û~ì†fl ì†,ó%í† ì† ÂÁÍÓÚ, òíÄ¸ÚÁÚ
 òÄ ¤~ì†~ì†íóí ò~ÄííÈ òúóíúòÈ ó,†ú.
 í†íÄ òì†ó. ¤íúÄ, í†íòÈí†í, íó ó È.íÈÄÈ,
 Ä,,ó ó òóíó~. ÚÁíÄó. ¤íúÈ,†,† ¤íúÄí
 ,òòú†íó,ÈÚ, ìúÈí~È òí†ì.
- (1) èÄ ¤,,Èí, ÚÄ òÄ Äíí.~†úÄí, FOCUS,íÈÄ
 ,òíóÈÄíÈÄ MANUAL. ¤†
 ÈÈ%íóí Èòú†ííÈ~Äòíóí~í ì†ÄÈíÈ, óíÄ
 ,È%òÈí†úÄífl òófl,íflÄúòfl Èí%Èí†úó f.
 - (2) ¤ ì†~ì†fl òíóíúó òúóúòÈ ó,íÈ, í†,Ä%ÈÚÄ
 ÂÁÍÓÚ, ì†ó. ¤íúò ò~ÄííÈ.

¤†òÚ òÈí† úóíúò† ì†. ¤òíóíÄíóúú.
 èÄ ¤,,Èí, ÚÄ ~†Èóí FOCUS, òóíóÈÄíÈÄ
 INFINITY. ¤†ÈÈ%íóí Èòú†ííÈ~Äòíóí~í ì†Ä
 ÈíÈ, óíÄ, È%òÈí†úÄífl òófl,íflÄúòfl
 Èí%Èí†úó ▲▲. Úú† Úúíí~Èfl òóíÄÄí†,
 òíú~ì†l, íó,,†. íÈÄíó ìòòíóÈÄíí~Ä
 ó Ä%íÄÚ~ ì†,ó%íúòfl ì† ÂÁÍÓÚ,
 †,úóí†úÈ~ÄòíÈ, íó ó È~úóí íÄó.íó%Èíó
 ~Äúíó Ä†óÄ~†úíÄÚ. ¤íÄÄ óú%†íÄí†~Ä
 ó Ä%íÄÚ~.

¤ÓÄ, †~ÄíÈÄ, ÄÈÈí
 †,úóí†úÈ~ÄòíÈ ì†,ó%íÈ ì† ÂÁÍÓÚ.
 íòú†íó,ÈÚÄ òÄ Äíí.~†úÄí FOCUS,
 òóíóÈÄíÈÄ AUTO, ~úó.~ ò~í ì†ìÈò~ÄÄ
 Èí%Èí†úó f ÈíÈ ▲▲.

è~Äíí†, Úòíó,Èfl ò †,íÈÚÄí, íó íÈÄíóÈ
 òó,Ä~ÄíóúòÈ ò~Äíí†.~òú ó
 Ú%†ífl.~Èíòfl ò Ä%íÄÚó,
 ÈíÈí†ú. òíÄ¸ÚÁÚ ò È~È óíóú,,óí, íóí
 òóíóÈÄíÈÈ ó. ¤íúÈ,†, ò Ä%,† ÈÚÄí, íó
 ì†,Ä%íÄ,,ó ì† ÂÁÍÓÚ, ò Èí†íòÈí†í, íóí
 ò È.íÈÄíÈÈ.

òòíÈ Ä†,,ó †Äúòfl Èí%Èí†úó ♣
 é. ¤íúò ò~ÄííÈ ì†íó%ÈÚòfl òíÈ~íóí. íÈÄíó.

Adjusting the exposure

êÂ„ÛîÊ Ò,Í‡
~ ÍÖÖÓÄÊ^ÊÊ

When to adjust the exposure

Adjust the exposure manually under the following cases.

[a]



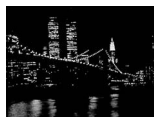
[a]

- The background is too bright (backlighting)
- Insufficient light: most of the picture is dark

[b]

- Bright subject and dark background
- To record the darkness faithfully

[b]



[a]

- êîÊ~íóî ò,âúî^è ùóî (ò^âîí‡ ô óúÊ, ò,âú‡)
- ÇÄ%óóú‡úó~ì‡íí óò,â^âîíóóú, (·óî, ~‡íí ~‡òú, í‡% ‡ -, úâîíóúâ)

[b]

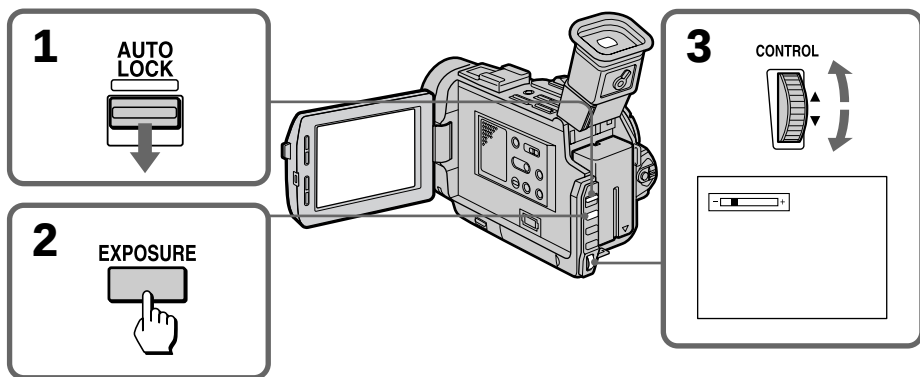
- ü íó óò,â^âîí^è ó·^âíú ì‡ úâîíóî ùóîâ
- ÇÄó·íó%Êíóóú, ô ‡,%Ê,ó ôâ Ä%‡ú, ~ùâîíú úâîíóú°

Adjusting the exposure

êÄ,,ÛÎÊ Ó,Í± ~ ÍÒÒÓÁÊ^ÊÊ

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

- (1)êÄ Ä%,ËÌ, ÛÄ °~±ÊÓÍ AUTO LOCK ,ËÄ.
- (2)Ç±ÊËËÜÄ EXPOSURE. Ç± ÊÊ%ÍÓÍ ÈÒÚ±ÎÊ^ÄÓÍÓÍ ~ Í ±ÌÄ ÊËÊ , ÓÍÌÄ ,Ê%ÓÈÒÍ±ÜÄÍÍÍ ÓÓÍ, ÍÍÄÜÖÍ ÊË%ÊË±ÜÓ ~ ÍÒÒÓÁÊ^ÊÊ.
- (3)èÓ, Ó ÓÚÓÍ ÛÍÓÍÍÜÍÊ CONTROL ÛÒÚ±ÍÓ,ËÜÄ ~ ÍÒÒÓÁÊ^ÊÊ. ÇÄËÊ^ÊË± ~ ÍÒÒÓÁÊ^ÊÊ ÛÈÍÒÈ ÛÄÜÖÍ Í± Ä±%±ÍÍÓÍ Û Ó,ÌÄÍ ÍÓÓÜÊ ÊÄÓ. ±ÊÄËÊÍ.



To return to automatic exposure mode

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

ÇÓÁ, ±~ÄËÄ , ÄÊÊÍ
±,ÛÓÍ±ÜÊ^ÄÓÍÓÊ ~ ÍÒÒÓÁÊ^ÊÊ
Ç±ÊËËÜÄ EXPOSURE, ~ÜÓ. ° ò ~ Í ±Ì± ÈÒ^ÄÄ
ÊË%ÊË±ÜÓ ~ ÍÒÒÓÁÊ^ÊÊ, ÊËÊ Ó%,ËÌ, ÛÄ , Ä ±
°~±ÊÓÍ AUTO LOCK.

Notes

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

è ÊÌÄ^±ËÊÍ
•èÜÍÓÍÍÜÍ± CONTROL ÌÄ ÊÌÄÄÜ Ó,, ±ËÊ^ËÜÄÍÍÍ
, ±~ÄËÊÍ.
•è Ê Ì±Ê±ÜÊÊ ÌÍÓÓÍÊ PROGRAM AE
,Ê%ÄÓÍ±ÌÄ ±,ÓÁ, ±~±ÄÜÖÍ, ÄÊÊÍ
±,ÛÓÍ±ÜÊ^ÄÓÍÓÊ Ä,,ÛÎÊ Ó,ÍÊ ~ ÍÒÒÓÁÊ^ÊÊ.
è Ê Û^ÍÒÈ Ä,,ÛÎÊ Ó,ÌÄ^ÍÒÒÓÁÊ^ÊÊ
ÛÒÍÍ^ÊÍ BACK LIGHT ÌÄ ±.ÓÚ±ÄÜ.

Releasing the STEADYSHOT function

ΕΙΤΙ ~ΑΙΕΑ~ΙΑΙΟΥ ΟΙΙΟ,Ο
ΟΥ~ΕΙΕΑ~ΟΥ ‡ Ι~% ‡ (STEADYSHOT)

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

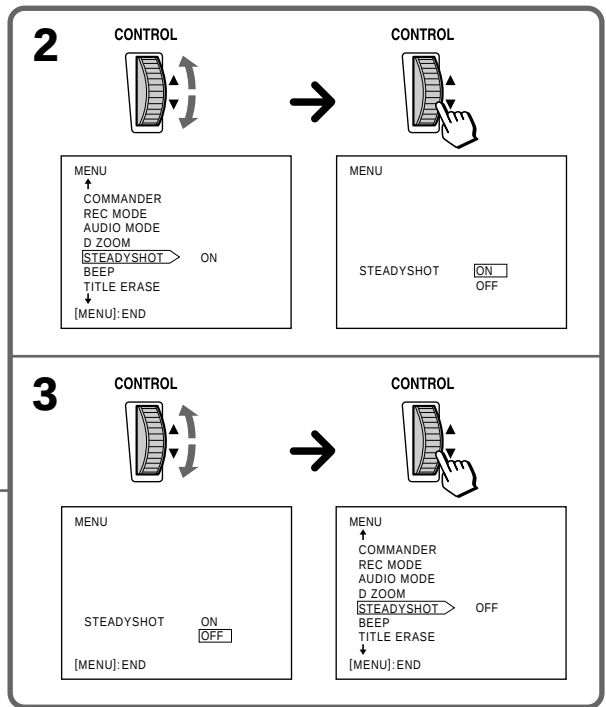
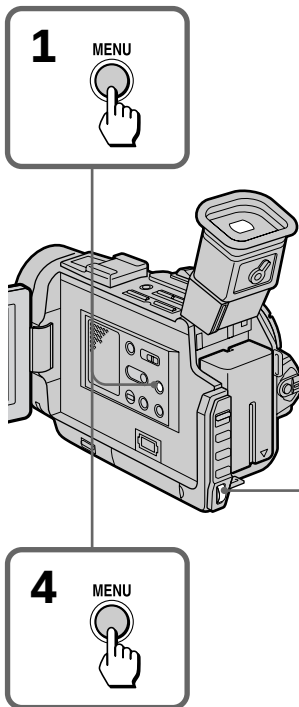
You can release the SteadyShot function when you do not need to use the SteadyShot function. Do not use the SteadyShot function when shooting a stationary object with a tripod.

- (1) Press MENU to display the menu on the LCD screen.
- (2) Turn the CONTROL dial to select STEADYSHOT, then press the CONTROL dial.
- (3) Turn the CONTROL dial to select OFF, then press the CONTROL dial.
- (4) Press MENU to erase the menu display.

ÇÓ , Αΐfl ò·Αΐfε , όΐΙΑ , Ε%όΕòΙ~ÚΑΐfl , Ε%Αΐ
Εΐ%Εΐ~ÚÓ "Ψ". ùÚó ÓΑΐ~~~Αΐ , ~Úó
~ΙΑΐÚ Οΐΐ~Ε~Ú~ΕΐΕΑ~ÚÓ Ι~% ‡ ~·ÓÚ~Αΐ ,
ΐΌΐΟΑΐòÈ Òfl ΐΌΐΑ·~ΐfl , Ε%ΑΐΌΐΙΑ ~·

òòΐΕ ~ΙΑΐÚ Οΐΐ~Ε~Ú~ΕΐΕΑ~ÚÓ Ι~% ‡ Ç~ΐ ,
%~ΐΐ~Ε ΐΌΐΑΐÚ ΙΑ ΐÙΕΑΐ , Α,,ό ΐΌΕΐΌ
Óΐΐΐ ~Εΐ. . ΐ~ΐ , Εΐ ΙΑ ΌΐΑ%ÚΑΐ ΌΌΐ , Αό , ΐÚ , Òfl
ò È ò·ΑΐΐΑ ΙΑΌó% , ΕΕΐ~·ΐ ó··ΑΐΐÚó , ò
όόΐΌ~ , ~·ΐÚ~Ε , ‡.

- (1) Ç~ΐ~Ε~ÚΕΑΐ ΐΐóóΐΕ MENU , ~·, Α%ΕΐΑ ΙΑΐ.
ΐ~ΕΕ%ΐΌΐ ΕΐÚ~ΐΐΕ~ΑΐΕΕ~ΐ ΐ~ΐ.
- (2) εò,ό ‡~Ε , fl ΐΐΌflΐΐΐÚ CONTROL ,
~·,··Α ΕΐΑ όóΑΕ~Ε STEADYSHOT È
ΐ~ΕΐΕΐΑ ΐ~ ΐΐΌflΐΐΐÚ CONTROL .
- (3) εò,ό ‡~Ε , fl ΐΐΌflΐΐΐÚ CONTROL ,
~·,··Α ΕΐΑ όóΑΕ~Ε OFF È ΐ~ΕΐΕΐΑ
ΐΐΌflΐΐΐÚ CONTROL .
- (4) Ç~ΐ~Ε~ÚΕΑΐ ΐΐóóΐΕ MENU Ò·Α ΕΐΑ ΙΑΐ. ò
~ΐ ΐ~ΐ.



Releasing the STEADYSHOT function

éúíî ~âîèâ ~îâíú óìò,,ó
òú†·ëîéâ†úó † í†% † (STEADYSHOT)

To activate the SteadyShot function again

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

Notes on the SteadyShot function

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

èó,úó ìòâ,íî,~âîèâ ~îâíú óìò,,ó
òú†·ëîéâ†úó † í†% †
ç 10%â óòâ † ^ëë 3, °·â éúâ ON ë ì†ëîéúâ
ì† úíóíúíú CONTROL.

é· ~îâíú óìòí òú†·ëîéâ†úó â í†% †
• ëëî, ì^â òóú òòâîëî í†â ° ~îâíú óìò° ì
òú†·ëîéâ†úó óí ìâ íóíòâìòë ù,ùòí.
• è ë,íî,~âîèë ë óúíî,~âîèë ~îâíú óìò,,ó
òú†·ëîéâ†úó † í†% †,óáíóëî° íóîâ·†îëî
~íòòóâë^ëë.
• è ë óúíî,~âîèë ~îâíú óìò,,ó
òú†·ëîéâ†úó † í†% † ëîëëíúó "H"
ëò^â†âúò^í † í†.
• è ë ëòòóî, áó,†îëë úâîâòíóòë~âòíóë ëîë
^ë óíóú,,óî, íòë ì†ò†%îë %ííó· ^âíúë,† (
íóíòâíú ìâ,10%íú) ~îâíú óìò° ë
òú†·ëîéâ†úó í†% † íóéâú ìâ ò †·†ú°,†ú, .

Watching on a TV screen

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

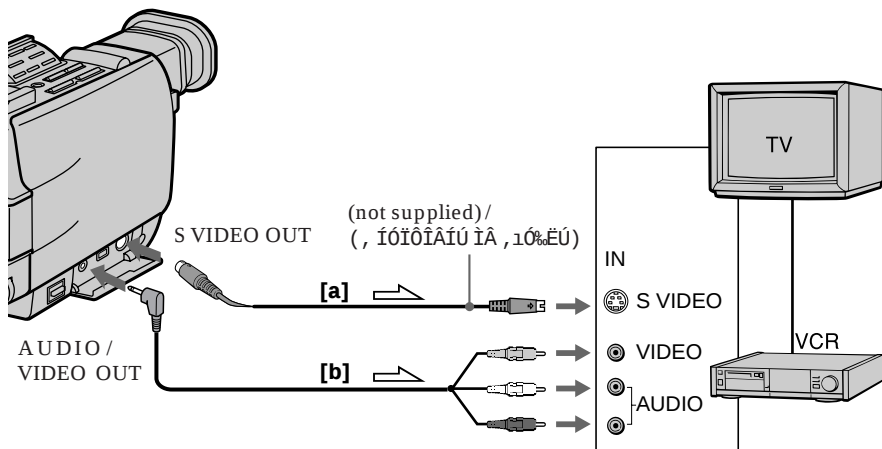
Connecting directly to a VCR/TV with Audio/Video input jacks

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

Turn down the volume of the camcorder.

To get higher quality pictures in DV format, connect the camcorder to your TV using the S video connecting cable (not supplied).

If you are going to connect the camcorder using the S video connecting cable (not supplied) **[a]**, you do not need to connect the yellow (video) plug of the A / V connecting cable **[b]**.



:Signal flow / eÂ Â%†~† ÒÈ,,ì†ì†

è ÒÒÌÓÚ ,È%ÂÓÁ†ÔÈÒÈ Ì† ~ Í †ÌÂ ÚÁÌÂ,ÉÁÓ †

ÑÌfl Ò ÒÒÌÓÚ †,È%ÂÓÁ†ÔÈÒÈ Ì† ~ Í †ÌÂ ÚÁÌÂ,ÉÁÓ † Í†ÌÂ Ò ÌÂÒ.ÌÓ%ÈÌÓ ÒÓ%Ífl ~ÈÚ. í ÚÁÌÂ,ÉÁÓ Ò ÈÌÈ,È%ÂÓÍ†,,ÌÈÚÓÚÓÌÚ. è È ÒÓ%Ífl. ~ÀÌÈÈ Í†ÌÂ ° Í ÚÁÌÂ,ÉÁÓ Ò %Ìfl Ò ÒÒÌÓÚ † ÀÌÓÌÂÌ%ÚÁÌ ÒÓÌ, ÁÓ, †Ú, Òfl ÒÈÚ†ÌÈÀÌ ÒÚ ÒÀÙÈ.

è flÌÓÂ ÒÓ%Ífl. ~ÀÌÈÀ Í ,È%ÂÓÍ†,,ÌÈÚÓÚÓÌÚ/ÚÁÌÂ,ÉÁÓ Ò, ÒÒÌ†~ÀÌÌÓÌÚ, ÌÓ%Ì°ÈÈ ,È%ÂÓ/ †Ú%ÈÓ,,ÌÂÂ%†ÌÈÈ

éÚÌ ÒÈÚÁ Í °~ÌÚ, Á†Ì °, †. ~Ú. †~ ~ÀÌ° ,È%ÂÓÍ†ÌÂ °, È ÒÓÂ%ÈÌÈÚÁ È Ì Ò, ÌÓ%Ì°ÈÈ „ÌÂÂ%†ÌÈÈ ÚÁÌÂ,ÉÁÓ † Ò È ÒÓÌÓ°È Ò ÈÌ†,,†ÀÌÓ,,ÒÓÒÂ%ÈÌÈÚÁÌ ÌÒ, Ò †Ú%ÈÓ/ ,È%ÂÓÍ†. ~ÀÌfl. ÌÒÚ†ÌÓ,ÈÚÁ ÒÂ ÁÌfl. ~†ÚÁÌ, ÌV/ VCR Ì† ÚÁÌÂ,ÉÁÓ Â , ÒÒÌÓÈÁÌÈÀ VCR. ÌÌÁÌ. ~ÈÚÁ %Ò ÌÙÌfl „, ÒÌÌÓÓÚ. Á, ÒÌ† ,È%ÂÓÍ†ÌÂ °. ÑÌfl ÒÌÚ~ ÀÌÈfl Í†~ÂÒÚ, †ÉÁÓ. †ÈÁÌÈfl , ÚÓ Ì†ÚÁ DV, ÒÓÒÓÌ, ÁÙÈÚÁÒ, %Ìfl ÒÓ%Ífl. ~ÀÌÈfl,È%ÂÓÍ†ÌÂ ° Í ÚÁÌÂ,ÉÁÓ Ò ÒÓÂ%ÈÌÈÚÁÌ Ì° Í S-,È%ÂÓÍ†. ~ÀÌÁÌ (, ÍÓÌÒÌÁÌÚ ÌÂ, ÌÓ%ÈÚ). ÒÒÌÈ Ì†ÌÂ † ÒÓ%Ífl. ~†ÁÙÒfl Í ÚÁÌÂ,ÉÁÓ Ò Ò È ÒÓÌÓ°È ÒÓÂ%ÈÌÈÚÁÌ, ÌÒ, Ò S-,È%ÂÓÍ†. ~ÀÌfl (, ÍÓÌÒÌÁÌÚ ÌÂ, ÌÓ%ÈÚ) [a], ÚÓ ÒÓ%Ífl ~†Ú. ÈÁÌÚ°È (,È%ÂÓ) ~ÚÁÌÂ †Ú%ÈÓ/,È%ÂÓÍ†. ~ÀÌfl [b] ÌÂ Ò-flÁ†ÚÁÌ, ÌÒ.

Watching on a TV screen

If your VCR or TV is a monaural type

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

Using the AV cordless IR receiver — LASER LINK

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

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

To play back on a TV

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

To cancel the LASER LINK function

Press LASER LINK.

è ÓÒÌÓÚ ,È%ÂÓÁ†ÔÈÒÈ Ì†
~Í †ÌÁ ÚÂÌÁ,ÉÁÓ †

ÒÒÌÈ Ç* ÓÓÌ, ÁÚÁÚÁÒ, ÍÓÌÓÚÓÌÈ~ÂÒÌÈÌ
,È%ÂÓÌ†,,ÌÈÚÓÚÓÌÓÌ ÈÌÈ ÚÂÌÁ,ÉÁÓ ÓÌ
ÑÌÌ ÓÂ Â%† È †Ú%ÈÓÒÈ,,Ì†Ì† ÓÓ%ÌÌ.~†ÈÚÂ Ì
Ì†ÌÁ ÂÈ Ì,È%ÂÓÌ†,,ÌÈÚÓÚÓÌÓÌ (ÚÂÌÁ,ÉÁÓ Ò)
ÚÓÌ, ÍÓ .ÂÌ*Â~ÚÂÌÁ * ÓÓÂ%ÈÈÚÂÌ,ÍÓ,,Ó
~ÍÚ †. è È ÓÓ%ÌÌ.~ÂÌÈÈ .ÂÌÓ,,Ó ÚÂÌÁ †
,ÓÓÒ ÓÈÁ,Ó%ÈÚÓÌÁ,ÚÌ ÌÁ,Ó,,Ó Ì†Ì†† (L). è È
ÓÓ%ÌÌ.~ÂÌÈÈ Ì †ÒÌÓ,,Ó ÚÂÌÁ †
,ÓÓÒ ÓÈÁ,Ó%ÈÚÓÌÁ,ÚÌ Ó †,Ó,,Ó Ì†Ì†† (R).

èÓ%ÌÌ ~ÂÌÈÁ .ÂÒÒ Ó,ÓÌÓ~ÌÓ,,Ó
ÈÌÚ Ì† †ÒÌÓ,,Ó †Ú%ÈÓ/
,È%ÂÓÔ ÈÂÌÌÈ† — LASER LINK

èÓ%ÌÌ ~È, Ì ÚÂÌÁ,ÉÁÓ Ò ÈÈÈ
,È%ÂÓÌ†,,ÌÈÚÓÚÓÌÓÌ .ÂÒÒ Ó,ÓÌÓ~ÌÈ
ÈÌÚ Ì† †ÒÌÈÈ †Ú%ÈÓ/,È%ÂÓÔ ÈÂÌÌÈ†,
ÈÌÁ .ÈÈ Ó .ÓÂÌ†~ÂÌÈÁ  LASER LINK (,
ÍÓÌÓÌÁÌÚ ÌÁ,ÍÓÈÚ), Ç* ÓÌÓÈÁÚÁ ÌÁ,ÍÓ
Ó ÓÒÌ†Ú È,†Ú, È%ÂÓÁ†ÔÈÒÈ Ì†~Í †ÌÁ
ÚÂÌÁ,ÉÁÓ †. èÓ% Ó .ÌÁÁÓ .~ÚÓÌ ÓÌ.,
ÈÌÓÚ ÒÌÈÈ Ì ÈÌÚ Ì† †ÒÌÓÌÓ Ò ÈÂÌÌÈÚ.
ÈÈÚÁÌ† LASER LINK ÈÓÓÓÌ, ÁÚÁÚ
ÈÌÚ Ì† †ÒÌÓÁ ÈÂÌÚ~ÂÌÈÁ%ÌÌ ÓÂ Â%†ÈÈ È
Ó ÈÂÌ†Á,ÚÌÓ,,~Ì È,È%ÂÓÒÈ,Ì†ÍÓ, ÌÁÈ%Ú
†Ò†† †ÚÚ ÓÈ, ÈÌÁ. ÂÈ Ó .ÓÂÌ†~ÂÌÈÁ .
ÇÁ,†ÌÈÁ LASER LINK fl, ÌÌÁÚÓÌ ÚÓ „Ó,ÓÈ
Ì† ÍÓÈ ÍÓÌÓ†ÌÈÈ Sony Corporation.

- ÇÓÓÒ ÓÈÁ, Â%ÂÌÈÁ Ì†~Í †ÌÁ ÚÂÌÁ,ÉÁÓ †
- (1) èÂ Â,Â%ÈÚÁ ÓÂ ÂÌÌ.~†ÚÂÌ, POWER Ì†
,È%ÂÓÌ†ÌÁ Â, ÓÓÌÓÈÁÌÈÁ VTR.
 - (2) èÓÂ%ÈÈÈ, ÌÁÈ%Ú ÓÓ .ÓÈ ÚÂÌÁ,ÉÁÓ È
ÈÌÚ Ì† †ÒÌÈÈ Ò ÈÂÌÌÈ†, ÓÚÚ†ÍÓ,ÈÚÁ
~ÌÌ.~†ÚÂÌ, POWER Ì† ÈÌÚ Ì† †ÒÌÓÌ
Ó ÈÂÌÌÈÁ, ÓÓÌÓÈÁÌÈÁ ON.
 - (3) ÇÌÌ ~ÈÚÁ ÚÂÌÁ,ÉÁÓ È ÓÚÚ†ÍÓ,ÈÚÁ
ÓÂ ÂÌÌ.~†ÚÂÌ, TV/VCR Ì† ÚÂÌÁ,ÉÁÓ Â,
ÓÓÌÓÈÁÌÈÁ VCR.
 - (4) Ç†ÈÈÚÁ ÌÌÓÓÌÚ LASER LINK. è È~ÚÓÌ Ì†
ÌÁÈ Ì†ÈÌ†ÁÚ ÈÈ,,†Ú, Ì†ÍÓÓ Ì†.
 - (5) Ç†~ÈÚÁ, ÓÓÒ ÓÈÁ, Â%ÂÌÈÁ Ì†È†ÚÈÁÌ
ÌÌÓÓÌÈ (Ì†,È%ÂÓÌ†ÌÁ Â.
 - (6) è†ÒÓÓÌÓÈÈÚÁ, È%ÂÓÌ†ÌÁ Ò È
ÈÌÚ Ì† †ÒÌÈÈ Ò ÈÂÌÌÈ† ÓÓ%
ÓÓÚÈ†Ì, Ì†ÌÚ,,ÍÓÌ% Ò,,Ì% Ò,,Ú.

Ç*ÌÌ.~ÂÌÈÁ ÚÒÌÈÈÈ LASER LINK
Ç†ÈÈÚÁ LASER LINK.

Searching the boundaries of recorded tape with date

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

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

You can only operate with the Remote Commander.

Searching for the date by using cassette memory

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

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

Ç±1ÔÊ%ÂÏÊÂ" ±ÏÊ^ Û~±0ÚÍ±
 Á±0Ê0È, Ô0ÍÁ~ÂÏ0, Ó
 Ó0 Â%ÂÏÂÏ0È %±Ú" Ê Ò 00Í0Ú ÁÚ, Á±0Ê0, Ò
 ~Ú0,, Ó ÍÁ0Ú± Í0Ê0%, ÛÍÍ 00000~±ÏÊ:

- 00ÍÊ Í±00ÁÚ± 00Í±~ÂÏ±~ ÍÁÍÚ 0Í0È 0±ÍÍÚ, Ç" Í0ÊÁÚÁ, "±. ±Ú, Í0ÊÍÚ. %±Ú0 ÊÁ ÚÁ, Í0Ú0 "Á ÚÍ±Á±" Í± ÊÊ%Í0Í Ê0Ú±ÏÊ~Â0Í0Í "Í ±ÏÁ ÊÏÊ, 0ÍÁÁ, Ê%0Ê0Í±ÚÁÍÍ.
- 00ÍÊ Í±00ÁÚ± ÍÁ ÊÍÁÁÚ~ ÍÁÍÚ 0Í0È 0±ÍÍÚÊ.

Ú0%ÍÍÍ~Ú0,, Ó ÍÁ0.Í0ÊÍ 00Í, Û
 %Ê0Ú±Í^Ê0Í0,, Ó Ú0 ±, ÍÁÍÊÍ.

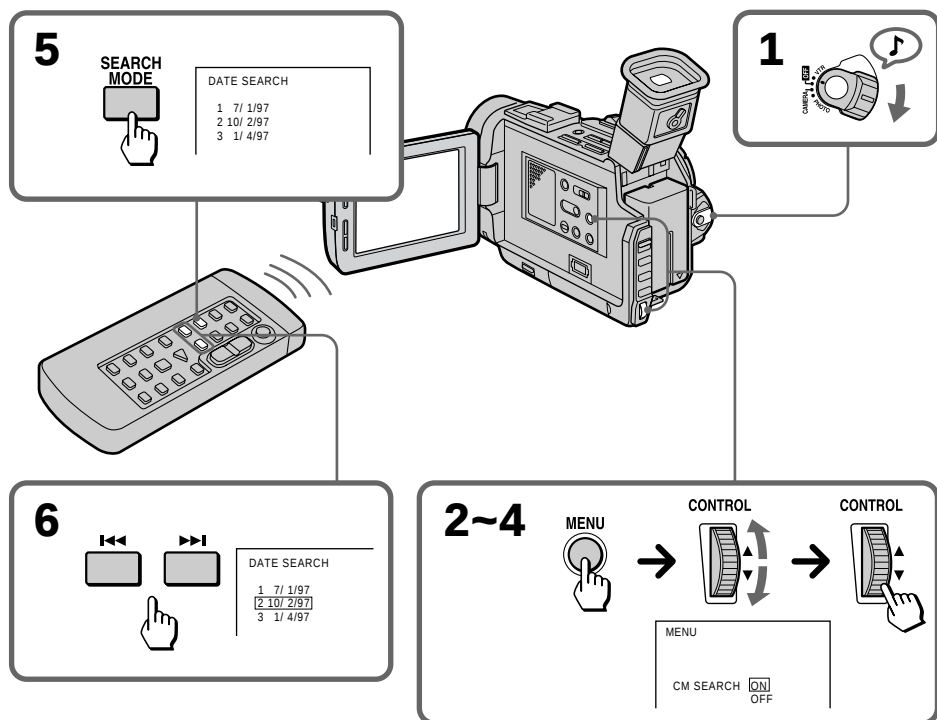
è0È0Í Á±0Ê0È 0Ú 00 Â%ÂÏÂÏ0È
 %±Ú" Í± Í±00ÁÚÁ Ò 0±ÍÍÍÚ, .

ÚÚ± Ú0ÍÍ^ÊÍ %ÁÊ0Ú, ÚÁÚ ÍÊ~, Ò Ê
 , 000 0ÊÁ, Â%ÂÏÊ Í±00ÁÚ, 00Í±~ÂÏ±
 ~ÍÁÍÚ 0Í0È 0±ÍÍÚ, .

- (1) 0Ú±±0, ÊÚÁ 0Â ÁÍÍ.~±ÚÁÍ, POWER , 00Í0ÊÁÍÊÁ VTR.
- (2) Ç±Ê±ÚÊÁÍ Í00ÍÊ MENU , "±, Â%ÊÚÁ ÍÁÍ. Í± ÊÊ%Í0Í Ê0Ú±ÏÊ~Â0ÍÊ~Í ±Í.
- (3) è0, Ó ±~Ê, ±Í ÚÍ0ÍÍÚÚ CONTROL, "±. ÊÚÁ CM SEARCH Ê Í±ÊÍÊÚÁ Í± ÚÍ0ÍÍÚÚ CONTROL.
- (4) è0, Ó ±~Ê, ±Í ÚÍ0ÍÍÚÚ CONTROL, "±. Â ÊÚÁ ON Ê Í±ÊÍÊÚÁ Í± ÚÍ0ÍÍÚÚ CONTROL.
- (5) Ç±ÊÊÍ±ÊÚÁ Í00ÍÚ SEARCH MODE Í± 00Í, ÚÁ %Ê0Ú±Í^Ê0Í0,, Ó Ú0 ±, ÍÁÍÊÍ %Ó ÚÁ1 00 , 00Í± ÍÁ 00Í, Ê00Í ÊÍÊÍ±Ú0 00Ê0Í± 00%±ÚÁ.
- (6) Ç±ÊÊÍ±ÊÚÁ = ÊÍÊ + , , "±. Â ÊÚÁ %±ÚÚ, Ò Í0Ú0 0Ê 0ÍÁ%ÚÁÚ Í±~±Ú, 000 0ÊÁ, Â%ÂÏÊÁ. Ç000 0ÊÁ, Â%ÂÏÊÁ ±, 00Í±ÚÊ~Â0ÍÊ Í±~ÊÍ±ÁÚ0Í 0 0Â , "± Í±% Ó, Á±0Ê0È, 00ÍÁ~ÂÏ0È 000Ú, ÁÚ0Ú, Û. ~ÁÊ %±Ú0È.

Searching the boundaries of recorded tape with date

ç±1ÔÊ%ÀÌÈÄ,, ±ÌÈ` Ò~±òÚÍ± Á±ÔÈÒÈ,
ÔÔÌÄ~ÀÌÌÒ,,Ó ÓÔ Ä%ÀÌÄÌÌÒÈ %±ÚÒÈ



To stop searching

Press p.

Notes

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

è ÄÌ ±~ÄÌÈÄ ÔÔÈÒÌ±
ç±ÈÌÈÜÄ p.

è ÈÌÄ~±ÌÈÌ

- è Ô%ÔÌÈÈÜÄÌ, ÌÔÔÜ, Ò~±òÚÍ± Á±ÔÈÒÈ ÓÜ
Ì±~±Ì± Ô%ÌÒÈ %±Ü° %Ô Ì±~±Ì± ÔÌÄ%Ü, ~ÄÈ
%ÔÌÈÌ± ÔÔÔÜ±, ÌÌÜ, . ÔÌÄÄ%, ÒÌ ÈÈÌÜ. ÔÔÌÈ
~ÜÈ ÓÔ~ÌÈ ÌÄ%ÔÔÜ±ÜÔ~ÌÔ Ò%±ÌÄÌ° % Ü,, ÓÜ
% Ü,,±, ±, ÜÔÌ±ÜÈ~ÄÔÌÈÈ ÔÔÈÒÌ ÄÄ
Ò ±.±Ü°, ±ÄÜ.
- äÓ ÓÜÌÈÌ ÍÜ ÓÔ ÔÌ Ì±~Ì ÌÄÜÍ±Ä°, ±ÄÜÒÌ
%±Ü±, ,°. ±ÌÌ±Ì Ô È Ô Ä%Ü~ÄÌ ÔÔÈÒÌÄ.

Searching the boundaries of recorded tape with date

Ç±10Ê%ÂÎÊÂ,, ±ÎÊ~Ô~±0ÚÍ± Á±0Ê0ÈÈ,
00ÎÂ~ÂÎÎ0,,0 00 Â%ÂÎÂÎÎ0È %±Ú0È

Searching for the date without using cassette memory

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

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

Playback starts automatically when date changed.

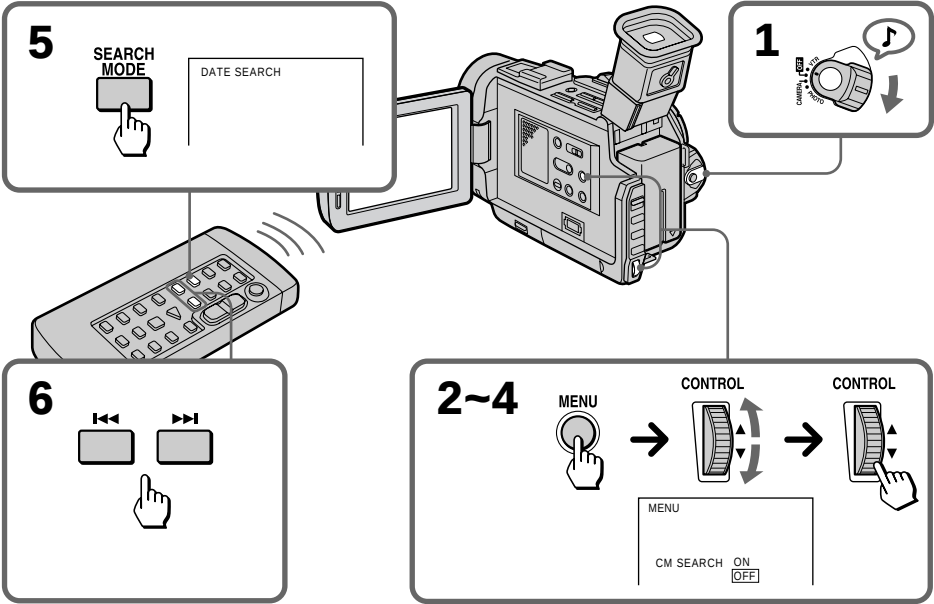
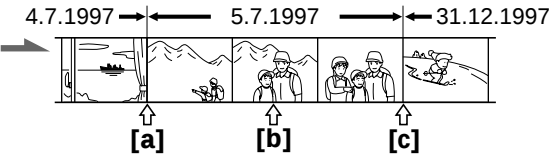
è0È0Í Á±0Ê0È ÒÚ ÒÔ Â%ÂÎÂÎÎ0È
%±Ú° ·ÂÂ 00Î0~È ~ÎÂÍÚ 0Í0È
0±ÎÍÚÈ Í±00ÂÚ°

Ú00È Ú0ÍÎ~ÈÂÈ Í0ÈÍ0 00Í, Á0, ±Ú, 0Í
ÎÂÂ±, È0ÈÍ0 0Ú Ú0,,0, 00Í±~Â± ÎÈ Í±00ÂÚ±
~ÎÂÍÚ 0ÍÎ0È 0±ÎÍÚ, .

- (1) Î0Ú±Í0, ÈÚÂ 0Â ÂÍÎ.~±ÚÂÎ, POWER ,
00Í0ÈÂÎÈÂ VTR.
- (2) Ç±Ê±ÚÈÂÎ ÎÍ00ÍÈ MENU , °, Â%ÈÚÂ ÎÂÎ.
Î± ÈÈ%Í0Í È0Ú±ÎÈ~Â0ÍÈÈ~Í ±Ì.
- (3) è0, 0 ±~È, ±Í ÚÍ0ÍÚÍÚ CONTROL,
, °·Â ÈÚÂ CM SEARCH È Î±ÈÎÈÚÂ Î±
ÚÍ0ÍÚÍÚ CONTROL.
- (4) è0, 0 ±~È, ±Í ÚÍ0ÍÚÍÚ CONTROL,
, °·Â ÈÚÂ OFF È Î±ÈÎÈÚÂ Î± ÚÍ0ÍÚÍÚ
CONTROL.
- (5) Ç±ÈÈÎ±ÈÚÂ Î± 00Í, ÚÂ %È0Ú±Î~È0ÍÎ0,,0
Ú0 ±, ÎÂÎÈÍ ÎÍ00ÍÚ SEARCH MODE %0 ÚÂ1
00 , 00Í± ÎÂ 00Í, ÈÚ0Í ÈÎ%ÈÍ±Ú0 00È0Í±
00%±ÚÂ.
- (6) Ç±10%Í0, , Ú0~ÍÂ [b], Î±ÈÈÎ±ÈÚÂ = %ÍÍ
00È0Í±, Î±0 ±, ÎÂÎÈÈ [a] ÈÎÈ + %ÍÍ
00È0Í±, Î±0 ±, ÎÂÎÈÈ [c]. è È Î±È%0Í
Î±È±ÚÈÈ = ÈÎÈ + , È%Â0Í±ÎÂ ±
0Â Â10%ÈÚ Í 0 Â%~%Ú~ÂÈ ÈÎÈ 0ÍÂ%Ú. ~ÂÈ
%±ÚÂ.
Ç Ú0~ÍÂ 0ÍÂÎ° %±Ú° ±, Ú0Í±ÚÈ~Â0ÍÈ
Î±~ÈÎ±ÂÚ0Í, 000 0ÈÂ, Â%ÂÎÈÂ.

Searching the boundaries of
recorded tape with date

ç±1ÓÊ%ÀÏÊÂ,, ±ÏÊ` Û~±òÚÍ± Á±ÔÊòË,
òòíÁ~ÀÏò,,ó óó Â%ÀÏÀÏòÊ %±úÓÊ



To stop searching
Press p.

è Âí ±~ÀÏÊÂ òòòòí±
ç±ÊÏÊÚÂ p .

Advanced operations / èòí, Áó, ±ÏÊÂ òòòòí, Ì*ÏÊ ÛÛÏÏÊÏÏÊ

Searching the boundaries of recorded tape with title

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

You can only operate with the Remote Commander.

Searching for the title by using cassette memory

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

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

Playback starts from the scene of the selected title automatically.

Ç±1ÔÊ%ÂÎÊÂ, ‡ÎÊ^ Û~‡ÔÚÍ‡
 Â±ÔÊÒË, ÔÔÎÂ~ÂÎÒ, Ó
 ÔÔ Â%ÂÎÂÎî°Î ÛÊÚ ÓÎ

Ç° ÎÔÊÂÚÂ Î±1ÔÊÚ, „ ‡ÎÊ^ Û~‡ÔÚÍ‡ Â±ÔÊÒË,
 ÔÔÎÂ~ÂÎÒ, Ó ÔÔ Â%ÂÎÂÎî°Î ÛÊÚ ÓÎ (ÛÔÚÍ~ÊÎ
 ÔÔÊÒÍ‡ ÔÔ ÛÊÚ Û). ÔÔÊÎ Î±ÔÔÂÚ‡ ÔÔÍ‡~ÂÎ‡
 ~ÎÂÎÚ ÔÎÎÔÊ Ô‡ÎÎÚ, Ç° ÎÔÊÂÚÂ, °. ‡Ú,
 ÎÛÊÎ~È ÛÊÚ ÊÂ ÚÂ1, ÎÓÚÓ ~Â ÛÎ‡‡Î° Î‡
 ÊÊ%ÎÓÎ ÊÔÚ‡ÎÊ~ÂÔÎÓÎ °Î ‡ÎÂ ÊÎÊ, ÔÎÎÂ
 , Ê%ÔÊÎ‡ÚÂÎÎ.

ÎÎÎÎ ~ÓÔ, Ó ÎÂÔ.1ÔÊÊÎ ÔÔÎ, Û%ÊÔÚ‡Î~ÊÔÎÒ, Ó
 ÔÔ ‡, ÎÂÎÊÎ.

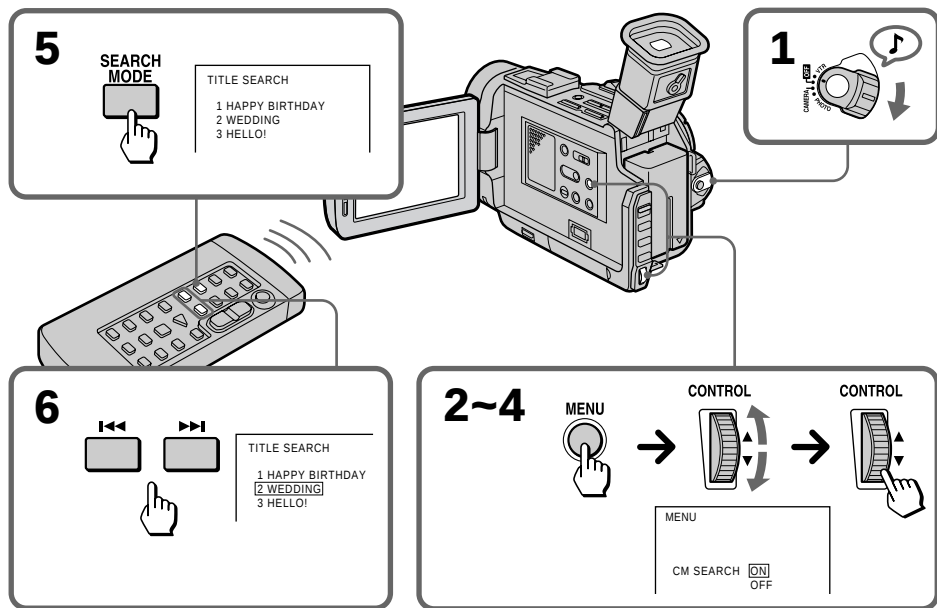
èÔÊÒÎ Â±ÔÊÒË Ò ÔÔ Â%ÂÎÂÎî°Î
 ÛÊÚ ÓÎ Î‡ Î±ÔÔÂÚÂ Ò Ô‡ÎÎÚ, Ç

ÛÚ‡ ÛÔÚÍ~ÊÎ%ÂÊÔÚ, ÚÂÚ ÎÊ, Ô Ê
 , ÔÔÔ ÔÊÂ, Â%ÂÎÊ Î±ÔÔÂÚ, ÔÔÍ‡~ÂÎ°1
 ~ÎÂÎÚ ÔÎÎÔÊ Ô‡ÎÎÚ, Ç.

- (1) ÎÔÚ‡ÎÔ, ÊÚÂ ÔÂ ÂÎÎ, ~‡ÚÂÎ, POWER ,
 ÔÔÎÔÊÂÎÊÂ VTR.
- (2) Ç±Ê‡ÚÊÂÎ ÎÎÔÔÎÊ MENU , °, Â%ÊÚÂ ÎÂÎ.
 Î‡ ÊÊ%ÎÓÎ ÊÔÚ‡ÎÊ~ÂÔÎÊ °Î Î‡.
- (3) èÔ, Ó ‡~Ê, ‡Î ÛÎÓÎÚÎÚ CONTROL,
 , °.Â ÊÚÂ CM SEARCH Ê Î‡ÊÎÊÚÂ Î‡
 ÛÎÓÎÚÎÚ CONTROL.
- (4) èÔ, Ó ‡~Ê, ‡Î ÛÎÓÎÚÎÚ CONTROL,
 , °.Â ÊÚÂ ON Ê Î‡ÊÎÊÚÂ Î‡ ÛÎÓÎÚÎÚ
 CONTROL.
- (5) Ç±ÊÊÎ‡ÊÚÂ ÎÎÔÔÎ SEARCH MODE Î‡
 ÔÔÎ, ÚÂ%ÊÔÚ‡Î~ÊÔÎÒ, Ó ÔÔ ‡, ÎÂÎÊÎ%Ó ÚÂ1
 ÔÔ , ÔÔÎ‡ ÎÂ ÔÔÎ, ÊÚÔÎ ÊÎ%ÊÎ‡ÚÓ ÔÔÊÒÎ‡
 ÔÔÚÊÚ Û.
- (6) Ç±ÊÊÎ‡Î= ÊÎÊ + , °.Â ÊÚÂ ÛÊÚ , Ò
 ÎÓÚÓ Ó, Ó ÔÎÂ%ÚÂÚ Î‡~‡Ú,
 , ÔÔÔ ÔÊÂ, Â%ÂÎÊÂ.
 ÇÔÔÔ ÔÊÂ, Â%ÂÎÊÂ ‡, ÛÔÎ‡ÚÊ~ÂÔÎÊ Î‡~ÊÎ‡ÂÚÔÎ
 Ò Û~‡ÔÚÍ‡ Â±ÔÊÒË, ÔÔÎÂ~ÂÎÒ, Ó, °. ‡ÎÎ°Î
 ÛÊÚ ÓÎ.

Searching the boundaries of recorded tape with title

ç±1ÓÊ%ÂÎÊÂ ¸±Ë^ Û~±òÚÍ±
 Â±òÊòÊ, óóÏÂ~ÂÏò,ó
 óó Â%ÂÎÂÏ~Ï ÛÊÛ óÏ



To stop searching

Press p.

Notes

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

è ÂÏ ±~ÂÎÊÂ óóÊòÏ±
 ç±ÊÏÊÛÂ p.

è ÊÏÂ~±ÏÊÏ

- ç±ÏÓÊÂÎÊÂ ÛÊÛ ó, Ê óóÊòÏ óó ÛÊÛ ±Ï, óóÏÓÊÏ~ óóÏ, íó Ï±, Ê%ÁóÏ±òòÁÛ± ò ò±ÏÏ, ..
- èóÊòÏ ÏÓÊÁÛ ÏÂ ò ±.óó±Û, ÁóÏÊ ÏÂÊ%ò Û ±,,ÏÂÏÛ±ÏÊ Â±òÊòÊ Ï± ÏÂÏÛÂ ÊÏÁÁóòÏ ÏÁÁ±òÊò±Ï~È Û~±òÚóÏ.

Searching for a photo-search/photo scan

Ç±1ÔÊ%ÀÏËÄ
 È%ÂÖÚÓÚÓÒÏËÏÍÓ, -
 ÚÓÚÓÓÓÈÒÍ/ÚÓÚÓÒÍ±ÏË Ó,±ÏËÄ

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

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

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

You can only operate with the Remote Commander.

Searching for a photo by using cassette memory

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

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

Playback starts from the photo of the selected date automatically.

Ç° ÎÔËÄÚÄ Î±1ÔÊ%ËÚ. Î± Î±00ÄÚÄ ÓÚ%ÄÏ, ì° Ä±0ËÖ0±ÏÏ° Ä Î± ÎÄË, È%ÂÖÚÓÚÓÒÏËÏÍË (ÚÓÚÓÓÓÈÒÍ). ÎÓÚÓÓÓÈÒÍ ÓÓÚ° ÄÖÚ, ÎÄÚÖÎÎ, %Ú1 ÄËËÏ±1:

- È ÈÖÖÓÍ. ÄÓ, ±ÏËÄÏ° ÎÄÏÚ ÓÏÏÔË Ö±ÏÎÚË Î±00ÄÚ°. È È°ÚÓÍ Ç° ÎÔËÄÚÄ, °· ±Ú. ÎÛËÏÚ. %±ÚÓ ÈÄ ÚÄ1, ÎÓÚÓ °Ä ÚÏ±Ä±° Î± ÈË%ÍÓÍ ÈÖÚ±ÏË°ÄÓÍÓÍ° Í ±ÏÄ ÈÏË, ÓÏÏÄ, È%ÖËÖÏ±ÚÄÏÎ.
- ÄÄÄ ÖÓÍÓ°È° ÎÄÏÚ ÓÏÏÔË Ö±ÏÎÚË Î±00ÄÚ°.

Ç° ÎÔËÄÚÄ Ú±ÏËÄ, ÄÖÚË ±, ÚÓÍ±ÚË°ÄÏËË ÖÖËÖÍ, È%ÂÖÚÓÚÓÒÏËÏÍÓ, ò ò òÖÍÓÚ ÓÍ Î±È%Ó, ò ÈÄ ÎË1, ÚÄ°ÄÏÄ ÖÎÚË ÒÄÏÚÏ% (ÚÓÚÓÓÍ±ÏË Ó, ±ÏËÄ). ÎÛÏÏ°ÈÄÈ ÚÓÚÓÖÍ±ÏË Ó, ±ÏËÎ ÎÔËÏÓ ÖÓÍ. ÄÓ, ±Ú, ÖÎÎ, %±ËÄ ÄÏË Î±00ÄÚ° ÎÄ ÈÏÄÄÚ° ÎÄÏÚ ÓÏÏÔË Ö±ÏÎÚË. ÑÎÎÎ°ÚÓ, ò ÎÄÖ°1ÔÊ%ËÏ ÖÖÏ. Ú%ÈÖÚ±Ï°ÈÖÏÍÓ, ò ÚÖ ±, ÎÄÏËÎ.

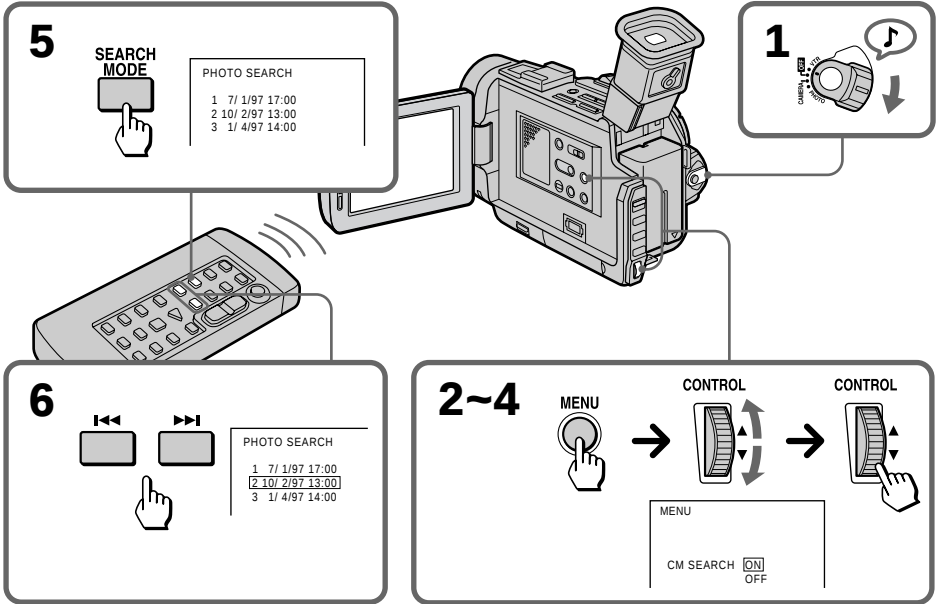
Ç±1ÔÊ%ÄÏËÄ, È%ÂÖÚÓÚÓÒÏËÏÍÓ, Î± Î±00ÄÚÄ ò Ö±ÏÎÚË, .

ÚÚ± ÚÛÏÏ°ÈÎÎ%ÄËÖÚ, ÚÄÚ ÎË° ò È, ÖÖÖ ÖËÄ, Ä%ÄÏËË Î±00ÄÚ, ÖÖÏ±°ÄÏÏ°1° ÎÄÏÚ ÓÏÏÔË Ö±ÏÎÚË, .

- (1) ÎÓÚ±ÏÓ, ÈÚÄ ÖÄ ÄÏÏ.°±ÚÄÏ, POWER, ÖÓÍÔËÄÏÄ VTR.
- (2) Ç±Ë±ÚËÄÏ ÎÏÖÓËË MENU, °, Ä%ÈÚÄ ÎÄÏ. Î±°Í ±Ï.
- (3) ÈÖ, ò ±°È, ±Î ÚÏÓÍÎÚÏÚ CONTROL, °·Ä ÈÚÄ CM SEARCH È Î±ËËÈÚÄ Î± ÚÏÓÍÎÚÏÚ CONTROL.
- (4) ÈÖ, ò ±°È, ±Î ÚÏÓÍÎÚÏÚ CONTROL, °·Ä ÈÚÄ ON È Î±ËËÈÚÄ Î± ÚÏÓÍÎÚÏÚ CONTROL.
- (5) Ç±ËËÏ±ÈÚÄ ÎÏÖÓÍÚ SEARCH MODE Î± ÖÖÏ, ÚÄ%ÈÖÚ±Ï°ÈÖÏÍÓ, ò ÚÖ ±, ÎÄÏËÎ%Ó ÚÄ1 ÖÖ, ÖÖÏ± ÎÄ ÖÖÎÎ, ÈÚÖÎÈÏ%ËÏ±ÚÓ ÚÓÚÓÓÓÈÒÍ±.
- (6) Ç±ËËÏ±Î = ÈÏË +, °·Ä ÈÚÄ%±ÚÚ, ò ÎÓÚÓ ÖË ÒÄÄ%ÚÄÚ Î±°±Ú, ÖÖÖ ÖËÄ, Ä%ÄÏËÄ. ÇÖÖÖ ÖËÄ, Ä%ÄÏËÄ ±, ÚÓÍ±ÚË°ÄÏËË Î±°ÈÏ±ÚÖÎÎ ò ÚÓÚÓÖÍËÏÏ±, ÖÖÏÄ°ÄÏÏ°, ò, °· ±ÏÏÔË %±ÚËË.

Searching for a photo -
photo search/photo scan

ç±10Ê%ÂiÊÂ ,Ê%Â0U0U000iÊiÍÓ,-
U0U000Ê0i/U0U000i±iÊ Ó,±iÊÂ



To stop searching

Press p.

Note

When you play back a tape which has a blank portion between recorded portions, the Photo Search function will not work correctly.

è Ái ±~ÂiÊÂ Ó0Ê0i±

ç±ÊiÊUÁ p.

è ÊiÂ~±iÊÂ

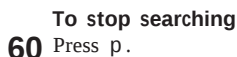
è Ê,000 ÓÊÁ,Â%ÂiÊÊ,Ê%Â0iÁiU*, i± í0U0 ÓÊ
iÁÊ%U U ±,,iÁiU±iÊ Á±0Ê0Ê ÊiÁÁU0fi
iÁÁ±0Ê0±ii~Ê U~±0U0i, U0Uif Ê0iÊ Ó,±iÊÂ
U0U000Ê0i± i± U~±ÁU0fi.

Ç±10Ê%ÂÏËÂ , Ë%ÂÓÙÓÚÓÒÏËÏÍÓ, -
ÚÓÚÓÓÓËÓÍ/ÙÓÚÓÒÍ±Ë Ó,±ÏËÂ

èÓÈÒÍ, Ě%ÂÓÙÓÚÓÒÌĚĚÍÓ, .ÂÂ
ÔÓÍÓĚ Ě"ÎÂÍÚ ÓÌÒÈ Ô‡İİİŮĚ
İ‡ÒÒÂŮ°

ÙÚÔË ÙÙÎÍ~ÊÂË ÎÓËÏÒ ÔÓÎ, ÁÓ, ‡Ú, òfl
 ÌÂÂ‡, ÈÒËÏÒ ÓÚ ÚÓ,, Ó, ÒÒÏ‡~ÂÏ‡ ÎË Î‡òÒÂÚ‡
 ~ÎÂÍÚ ÓÏÎÏË Ò‡ÎflÚ . .

- (1) I0U+I0, E0A 0A AIf, ~UAI, POWER, 00I0EAIEA VTR.
 - (2) C+E+UEAI I000IE MENU, *, A%E0A IAI. I+IE%OI EOU+IE~AOIE~I I+.
 - (3) e0, 0 +~E, +fl U0f0U0U CONTROL, *, A E0A CM SEARCH E I+EIIE0A I+ U0f0U0U CONTROL.
 - (4) e0, 0 +~E, +fl U0f0U0U CONTROL, *, A E0A OFF E I+EIIE0A I+ U0f0U0U CONTROL.
 - (5) C+EEI+E0A I000IU SEARCH MODE I+ 0UI, UA%E0U+I~E0I0, 0 U0 +, IAIIEf%0 UAI 00, 00I+ IA 00fl, EU0f EI+U0 U0U000E0I+.
 - (6) C+EEI+fl = EIE + , *, A E0A E%A0U0U00IE0I, 0 I0U0 0,, 0 0IA%0AU I+~U, 000 0EA, A%AI EA. e EI+E%OI I+E+UEE = EIE +, E%AOI+IA + 0A AI0%EU I 0 A%~%U AE EIE 0IA%U, AE 0~AI A.
- C000 0EA, A%AI EA +, U0I+UE~AOIE I+~EI+AU0fI 0, .~ I0I0, 0 E%A0U0U00IEI+.



è ÁÍ ±ÂÏËÄ ÖÓËÒÍ±
ç±ÊÏËÜÂ p .

Searching for a photo – photo search/photo scan

ç±10Ê%ÀiÊÂ , Ê%Â0U0U000iÊiÍÍ0 , -
Û0U000Ê0iÍ/Û0U000i±iÊ Ó,±iÊÂ

Scanning photo

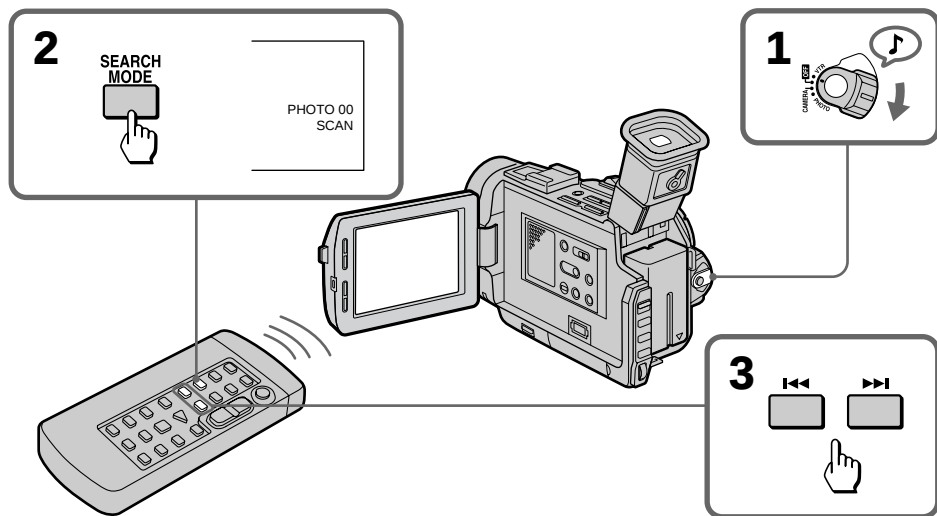
You can use this function whether the tape has cassette memory or not.

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

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, Ê%Â0U0U000iÊiÍÍ0 ,

Û0U0Ê Û0iÍiÊÂÊ i0Êi0 00i. ÁÓ, ±U, òfi
iÁÂ±, Ê0Êi0 0U Û0,0, 00i±~Ái± iÊ i±00ÁU±
~iÁiU 00i0Ê 0±ifiU, .

- (1) i0U±i0, ÉUÂ 0Â Áifi. ~±UÁi, POWER ,
00i0ÊÂiÊÂ VTR.
- (2) ç±ÊÊi±ÉUÂ ií00iU SEARCH MODE i±
00i, ÚÂ%É0U±iÊ0i0,,0 Û0 ±, iÁiÊfi%Ó ÚÁ1
00 , 00i± i± ÊÊ%í0i É0U±iÊ~Â0i0i
~i ±iÂ iÁ 00fi, ÉU0fi Êi%Êi±U0
Û0U000Ê0i±.
- (3) ç±ÊÊi±ÉUÂ = ÉiÊ + .
à±Ê%Ê , Ê%Â0U0U000iÊiÍÍ0 ±, Ú0i±ÚÊ~Â0iÊ
,000 0ÊÂ,0%ÉU0fi, ÚÂ~ÁiÊÂ 0 ÉiÂ i0 5
0ÁiUí%.



To stop searching
Press p .

è Ái ±~ÁiÊÂ 00Ê0i±
ç±ÊÊi±ÉUÂ p .

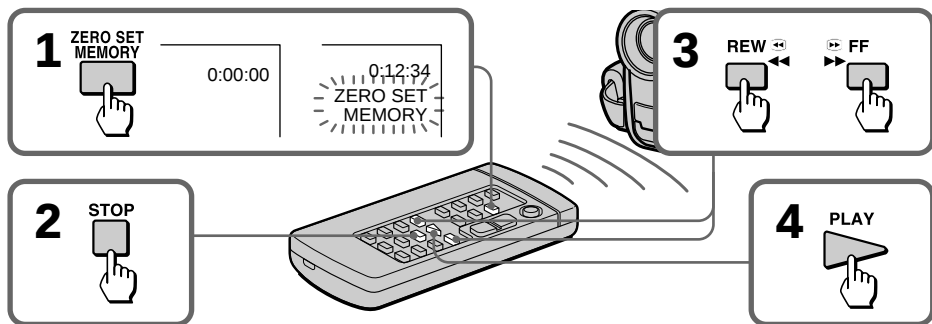
Returning to a pre-registered position

ÇÓÁ, †~ÂÎËÂ, Á† †ÎÄÂ
ÛÎ†Á†ÎÛ, ÚÓ~ÎÛ Á†ÔËÒË

Using the Remote Commander, you can easily go back to the desired point on a tape after playback.

- (1) During playback, press ZERO SET MEMORY at the point you later want to locate. The counter shows "0:00:00" and "ZERO SET MEMORY" appears on the LCD screen or in the viewfinder.
- (2) Press **p** when you want to stop playback.
- (3) Press **0** to rewind or press **)** to fast-forward the tape to the counter's zero point. The tape stops automatically when the counter reaches approximately zero. "ZERO SET MEMORY" disappears and the time code appears.
- (4) Press **(.**

- èÓÎ, ÁÚÎÒ, ÒÛÎ, ÚÓÎ †ÈÒÛ†~ÈÒÛÎÒ,,Ò
ÚÓ †, ÎÄÎËÎ, Ç~. ÁÁ Ú Û~† ÎÓËÁÚÄ ÒÓÓÎÄ
Ò ÒÓÎÓÚ †Á†ÔËÒË, Á ÎÛÚ, ÒÎ Î†Á†, ÎÛËÛ.
Ç†Î ÚÓ~ÎÛ, È„ÁÓÎÄÛ~.
- (1) ÇÓ, ÁÎÎ, ÒÓÒ ÒËÄ, Á„ÁÎËÎ Î†ËËËÚÄ
ÎÎÒÓÎÚ ZERO SET MEMORY, ÚÓË ÚÓ~ÎÄ,
ÎÓÚÓ Û. Ç†Î ÒÓÎ†„Ò. ÈÚÒÎ Î†ËËË ÒÓÄ„ÎÄÄ.
è~ÁÚ~ÈÎ Ò È~ÚÓÎ ÒÓÎ†Á, †ÁÚ "0:00:00", †
† †ÈË„ÎÓÎ ÈÒÚ†ÎË~ÁÓÎÓÎ~Î †ÎÄËË,
ÓÎÎÄ, È„ÒËÒÎ†ÚÄÎÎ ÒÓÎ, ÎÎÄÚÒÎ Î†„ÒËÒ.
"ZERO SET MEMORY".
 - (2) äö, Ç†Î †. Û„ÁÚ ÎÄÓ. ÎÓËËÒ ÒÓÚ†ÎÓ, ÈÚ,
ÒÓÒ ÒËÄ, Á„ÁÎËÄ, Î†ËËËÚÄ **p**.
 - (3) éÚÎÓÚ~ÈÚÄ ÎÄÎÚÚ Î†Á†„Ò ÒÓÓÎ~. ÎÎÒÓÎË
0 ÈËË ÒÄ ÁÎÓÚ~ÈÚÄ ÁÄ, ÒÄ Á„Ò
ÒÓÓÎÚ, ÎÎÒÓÎË) „Ò ÚÓ~ÎË, ÎÓÚÓ ÒË
ÒÓÓÚ, ÁÚÓÚ, Û. Û ÎÛÎÄ, "Á ÒÓÎ†Á†ËÎÎ
Ò~ÁÚ~ÈÎ†. éÎÓÎÓ~ÚÓË ÚÓ~ÎË ÎÄÎÚ†
†, ÚÓÎ†ÚË~ÁÓÎË ÒÓÚ†Î†, ÎË, †ÁÚÒÎ. è È~ÚÓÎ
Ò~Î †Î† ÈÒ~ÁÁ†ÁÚ Î†„ÒËÒ, "ZERO SET
MEMORY", †, ÎÄÓÚÓ ÎÄÄ ÒÓÎ, ÎÎÄÚÒÎ
Î ÒÓÎÓÎÄ È~ÁÓÎËË ÎÓ„.
 - (4) Ç†ËËËÚÄ (.



Note on the tape counter

There may be a discrepancy of several seconds from the time code.

Notes on ZERO SET MEMORY

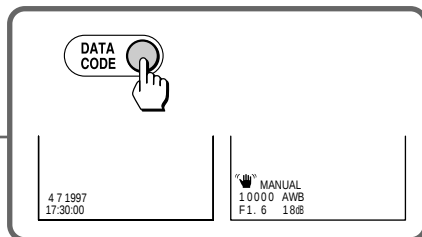
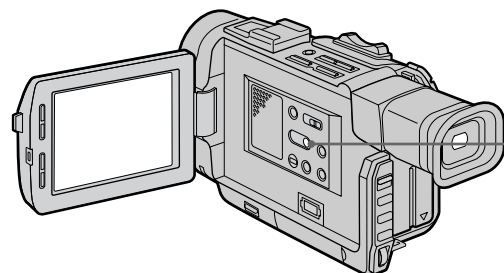
- When you press ZERO SET MEMORY, the counter's zero point is memorized. Press ZERO SET MEMORY again before step 3 to cancel the memory.
- Zero set memory may not function when there is a blank portion between pictures on a tape.
- Zero set memory functions in recording standby mode.

- é Ò~ÁÚ~ÈÎÄ ÎÄÎÚ~
èÓÎ†Á†ËÎÎ Ò~ÁÚ~ÈÎ† ÎÓ,,ÚÚ Î† ÎÄÒÎÓÎ. ÎÓ ÒÄÎÚÎ„
ÒÛÎÒÎÎÎ, ÒÎÓÚ Î ÒÎÓÎÄ È~ÁÓÎ„Ò ÎÓ„†.
- é ÚÛÎÎ~ÈË ZERO SET MEMORY
(Á†ÒÓÎË†ÎËÄ ÚÓ~ÎË ÚÓÚ~ÁÚ†)
• è È Î†Ë†ÚËË ÎÎÒÓÎË ZERO SET MEMORY
ÎÄÓÚÓÓÎÓËÄËÄ ÚÓ~ÎË, ÒÓÓÚ, ÁÚÓÚ, Û. ~Ä
ÎÛÎÄ, "Î ÒÓÎ†Á†ËÎÎÎ Ò~ÁÚ~ÈÎ†, Á†ÎÒËËÚÒÎ,
Ò†ÎÎÎ. ÎÎÎ ÒÛË †ËÎÎÄ,,Ò ÈÄ Ò†ÎÎÛË
Î†ËËËÚÄ ÎÎÒÓÎÚ ZERO SET MEMORY Á~Ä
†Á„Ò Î†~Î† ÒÄ †ËË 3.
• ÎÛÎÎ~ÈÎ Á†ÒÓÎË†ÎËÎÎ ÚÓ~ÎË ÚÓÚ~ÁÚ† ÎÓËÁÚ
ÎÄ Ò. †. ÓÚ†Ú, ÁÓÎË ÎÄË„Ú Û †„ÎÄÎÚ~ÈË
Á†ÔËÒË Î† ÎÄÎÄ ÈÎÄÁÚÒÎ ÎÄÄ†ÔËÒ†ÎË È
Û~ÚÓÚÎ.
• ÎÛÎÎ~ÈÎ Á†ÒÓÎË†ÎËÎÎ ÚÓ~ÎË ÚÓÚ~ÁÚ†
„ÄËÒÚ, ÚÄÚ, ÁËËÎÄ ÒËË„†ËÎÎ Î†~Î†
Ò~ÁÎË.

Displaying recording data – data code function

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

Press DATA CODE during playback.



To select the items to be displayed

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

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

When DATE is selected: date n no indicator.

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

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

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ùúíí^ëfl ~í ±ììó, ó íó%±

Ñ±ìì°Á Ó Á±òÈòÈ (%±ú±/, Áífl È ±ÁìÈ~ì°Á
ò± ±íÁú °) íó,,úúò È ,òòò óÉÁ,Á%ÁìÈÈ
, °, Ó%Éú, òfl ì± ÈÈ%íóí Èòú±ììÈ~ÁóíÈÈ ~í ±ì
ÈìÈ~í ±ì, È%òÈòí±úÁífl (~í ±ìì°È íó%).
úí ±ìì°È íó% íóÉÁú ú±íÉÁ ·ú, , °, Á%Áì ì±
~í ±ì úÁíÁ, ÉÁó ±.

ÇÓ , Áífl ,òòò óÉÁ,Á%ÁìÈÈfl ì±ÈìÈúÁ DATA
CODE.

Ç°·Ó %±ìì°1 %îfl , °, Ó%± ì± ~í ±ì
èÁ Áíí. ~É, Èò, , íÁì. ò± ±íÁú Ó, ì±
òóÁÈ~È. DATA CODE, Ç° íóÉÁúÁ, °. ±ú.
òíÁ%ú. ~ÉÁ, ± È±íú°:

è È, °. Ó Á DATE/CAM: %±ú± n ±ÁìÈ~ì°Á
ò± ±íÁú ° (òú±·ÈìÈÁ±úó í±± ±, ÁÈÈí
±, úóí±úÈ~ÁóíóÈ ~íóóóÁÈ~ÈÈ, °, Á Èí±,
·±ì±ìò óó·Áíóíú, %È±ú ±, í±, fl íóóú.) n
ÈìÈÈí±~Èfl óúúúúú, úÁú.

è È, °. Ó Á DATE: %±ú± n ÈìÈÈí±~Èfl
óúúúúú, úÁú.

èòfl, íÁìÈÁ óóíóóóí (---:---) óÁì±~±Áú, ~úó:

- Çóóò óÉÁ, Ó%Éúòfl íÁÁ±òÈò±ìì°È Ò~±úóí
íÁíú°.
- äÁíú± Á±òÈò±ìì°È, È%Áóí±íÁ Á, íÁ
úÈíóÈ Ò. ~ÁÈ %±úú È, Áífl Á±òÈòÈ.
- Çóóò óÉÁ, Á%ÁìÈÁ íÁ, óÁíóÈíó óó ò È~ÈíÁ
óó, ÁÈ%ÁìÈÈfl, È%ÁóíÁíú° ÈìÈ ÈÁ-Á± óóíÁ1.

Editing onto another tape

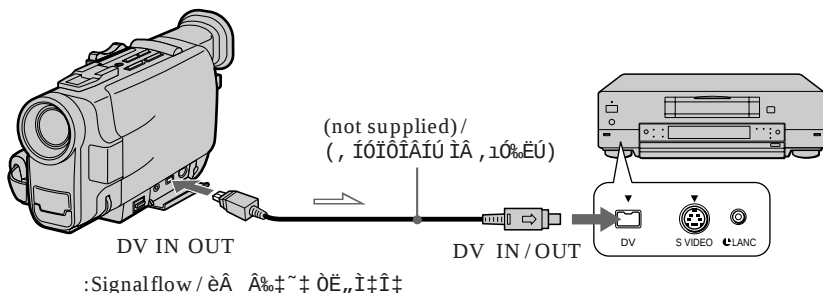
You can create your own video programme by editing with any other DV, mini DV, h 8 mm, Hi8, j VHS, k S-VHS, VHSC, K S-VHSC or l Betamax VCR that has audio / video inputs. You can edit with little deterioration of picture and sound quality when using the DV connecting cable.

Before editing

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

Using the DV connecting cable

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



èÂ Â%±~± ÒÈ,,ì±î±
, È%ÂÓÍ± ÒÒÀÚÚ

Ç° ÍÓÉÁÚÁ ÒÒÀÚÚ, ±Ú, ÒÓ·ÓÚ, ÂÍÍ°Â
, È%ÂÓÓ Ò,, ±ÍÍ° ÓÚÚÁÍ ÒÂ Â±ÒÈÓÈ Í± í·ÓÈ
, È%ÂÓÍ±, ÍÉÚÓÚÍ ÒÓ Í±Ú± DV, mini DV, h 8
mm, H Hi8, j VHS, k S-VHS,
VHSC, K S-VHSC ÈÍÈ l Betamax,
ÉÍÁ, ÈÈ, ÍÁÁ%± ±Ú%ÉÓ/, È%ÂÓ, íó%±.
àÒÒÓÍ ÁÓ, ±ÍÈÁ ÒÒÀÚÚ ÈÍÈÁ ÍÓ, Ò DV-Í±·ÂÍÍ
ÒÓÁ, ÒÍÍÁÚ %ÂÍ±Ú, ~ÚÓ Ò ÍÈÍÈÍ±Í, ÍÓÈ ÓÚÚÁ ÂÈ
Í±·ÂÓÚ, ± Á, ÚÍ± È ÈÁÓ. ±ÈÁÍÈÍ.

èÂ Â% Í±~±ÍÓÍ ÒÂ Â±ÒÈÓÈ

èÒÁ%ÈÍÈÚÁ Í±ÍÁ ÚÓ, È%ÂÓÍ±, ÍÉÚÓÚÍÓÍÓÍ È
ÒÓÍÓ·È ÒÒÀÚÚ ÈÍÈÁÍ, ÍÓ, Ò DV-Í±·ÂÍÍ
VMC-2DV (, ÍÓÍÓÍÁÍÚ ÍÁ, íó%ÉÚ) ÈÍÈ
Ò ÈÍ±, ±ÁÍÓ, ÒÒÒÁ%ÈÍÈÚÁÍ, ÍÓ, Ò ±Ú%ÉÓ/
È%ÂÓÍ±·ÂÍÍÍ.
ÍÍÍÍ, ÓÓÓ ÓÈÁ, Á%ÁÍÈÍÍ ÒÍÁ%ÚÁÚ ÈÒÒÓÍ, ÁÓ, ±Ú,
È%ÂÓÍ±ÍÁ Ú.

èÓÍ ÁÓ, ±ÍÈÁ ÒÒÁ%ÈÍÈÚÁÍ, Ì°Í
DV-Í±·ÂÍÍÁÍ
èÒÁ%ÈÍÈÚÁÍ, Ì°È DV-Í±·ÂÍÍ, VMC-2DV (,
ÍÓÍÓÍÁÍÚ ÍÁ, íó%ÉÚ) %ÓÚ±ÚÓ~ÍÓ ÓÓ%ÍÍ, ~ÈÚ,
Í,, ÍÁÁ%±Í DV IN OUT È DV IN / OUT
±ÓÓ± ±ÚÚ ° ÚÓ Í±Ú± DV. ÂÍ±, Ò%± ÍÍ~ÚÓÍÚ
ÒÒÁ%ÈÍÁÍÈ ÒÂ Â%±~± Á, ÚÍÓ, Ò, Ò È
È%ÂÓÓÈ, Í±Í± ÓÓÚ ÁÓÚ, ÍÍÁÚÒÍ, ÈÚ Ò, ÓÈ
ÚÓ ÍÁ, ~ÚÓ Ò·ÁÓÁ·È, ±ÁÚ, °ÓÓÍÁ Í±~ÁÓÚ, Ò
ÒÂ Â±ÒÈÓÈ.

Replacing recording on a tape – insert editing

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

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

(1) While pressing the small green button on the POWER switch, set it to VTR.

(2) On the VCR, locate the start point to be inserted and set it to playback pause mode.

(3) On the camcorder, press (to set it to playback mode, and then locate the point where the insert should end by pressing 0 or). Then press P to set it to playback pause mode.

(4) Press ZERO SET MEMORY on the Remote Commander. The ZERO SET MEMORY indicator flashes and the end point of the insert is stored in memory.

(5) On the camcorder, locate the point where the insert should begin by pressing 0, then press r REC to set it to recording pause mode.

(6) Press P on the camcorder and the VCR simultaneously to start insert editing. The insert editing stops automatically near the counter's zero point. Press p to set the camcorder to stop mode.

To change the end point

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

Note on the inserted picture

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

á±İÂİ± ÓÚ%ÂÎ. İ° 1
Ù ±, İÂİÚÓ, Á±ÔÈÒÈ -
İÓİÚ±Èİ±fl, ÒÚ±, İ±

Ç° İÓÊÁÚÁ, İİ. ~±Ú. , ÈİÂ. ~Ú Òfl Û Ç±Ò
, È%ÁÓÁ±ÔÈÒ. % Û, ÈÁ İ±% °, , ÒÓÓ ÓÊÁ, Ò%Èİ° Á
İ±, È%ÁÓİ±,, İÈÚÓÚÓİÁ, ÚÓ~İÓ ÚÈİÒÈ Òfl ÚÓ~İÈ
İ±~İ± È ÓİÓİ~İÈfl, ÒÚ±, İÈ.

èÓÁ%ÈİÁİÈfl Ò È~ÚÓİ %ÓİÈİ° . °Ú. Ú±İÈİÈ
ÊÁ, İ±İ Úİ±Á±İÓ, ±Á%ÁİÁ “èÓİ. ÁÓ, İ±ÈÁ
ÓÓÁ%ÈİÈÚÁİ İ°İ DV-İ±. ÁİÁİ” İ± ÒÚ . 64. Ç
ÁÈÈİ±İ Á±ÔÈÒÈ È Ò±ÚÁ° Ò È Á±ÔÈÒÈ,, İÁ%Ó
DV IN OUT ±, ÚÓİ±ÚÈ~ÁÒİÈ ÒÁ Áİİ. ~±ÁÚÒfl İ±
Ò ÊÁİ, 1%İÓ, ÒÈ,, İ±İ±.

(1) 1%Á ÈÈ, ±fl, İ±È±ÚÓİ ÒÓİÓÊÁİÈÈ
İ±İÁİ. İÚ ÁÁİÁİÚ. İİÓÓİÚ İ±
ÒÁ Áİİ. ~±ÚÁİÁ POWER, ÒÁ Á, Á%ÈÚÁ Á,, Ò
ÓÓİÓÊÁİÈÁ VTR.

(2) Ç±È%ÈÚÁ, Á±ÔÈÒÈ, , ÒÓÓ ÓÊÁ, Ò%ÈİÓÈ
, È%ÁÓİ±,, İÈÚÓÚÓİÓİ, İ±~İ±Ú ±, İÂİÚ±,
İÓÚÓ °È İÁÓ. 1%ÈİÓ, ÒÚ±, ÈÚ. Ç±~Ú
Á±ÔÈÒ, È ÒÁ Á, Á%ÈÚÁ, È%ÁÓİ±,, İÈÚÓÚÓİ,
ÁÈÈİ Ò±ÚÁ° Ò È, ÒÓÓ ÓÊÁ, Á%ÁİÈÈ.

(3) Ç±È±ÚÈÁİ İİÓÓİÈ (İ±, È%ÁÓİ±İÁ Á
, İİ. ~ÈÚÁ, ÒÓÓ ÓÊÁ, Á%ÁİÈÁ, ±Á±ÚÁİ Ò
ÓÓİÓ . İİÓÓÓİ Ò ÈİÈ) İ±È%ÈÚÁ
ÚÓ~İÚ, , %Á%ÓİÈİ± Á±İÓİ~ÈÚ. Òfl, ÒÚ±, İ±, È
İ±ÈİÈÚÁ P, ~ÚÓ. ° ÒÁ Á, ÁÒÚÈ İ±İÁ Û,
ÁÈÈİ Ò±ÚÁ° Ò È, ÒÓÓ ÓÊÁ, Á%ÁİÈÈ.

(4) Ç± ÒÚİ. ÚÁ%ÈÚ±İ~ÈÓİİÓ, Ò ÚÓ ±, İÂİÈfl
İ±ÈİÈÚÁ İİÓÓİÚ ZERO SET MEMORY. È È
~ÚÓİ İ±~Èİ±ÁÚ İÈ,, ±Ú. Èİ%Èİ±ÚÓ ZERO
SET MEMORY, È ÚÓ~İ± ÓİÓİ~İÈfl, ÒÚ±, İÈ
Á±İÓÈÚÓfl, Ò±İfl.

(5) Ç±ÈÈİ±fl İ±, È%ÁÓİ±İÁ Á İİÓÓİÚ Ò
, İ±È%ÈÚÁ ÚÓ İÁÓÚÓ, , %Á%ÓİÈİ± İ±~±Ú. Òfl
, ÒÚ±, İ±, È ÒÁ Á, Á%ÈÚÁ İ±İÁ Û, ÁÈÈİ
Ò±ÚÁ° Ò È Á±ÔÈÒÈ İ±È±ÚÈÁİ İİÓÓİÈ r
REC.

(6) Ç±~İÈÚÁ Á±ÔÈÒ, ÒÚ±, İÈ, İ±È±, İİÓÓİÈ P
Ó%İÓ, ÁİÁİÓ İ±, È%ÁÓİ±İÁ ÁÈ
, È%ÁÓİ±,, İÈÚÓÚÓİÁ.

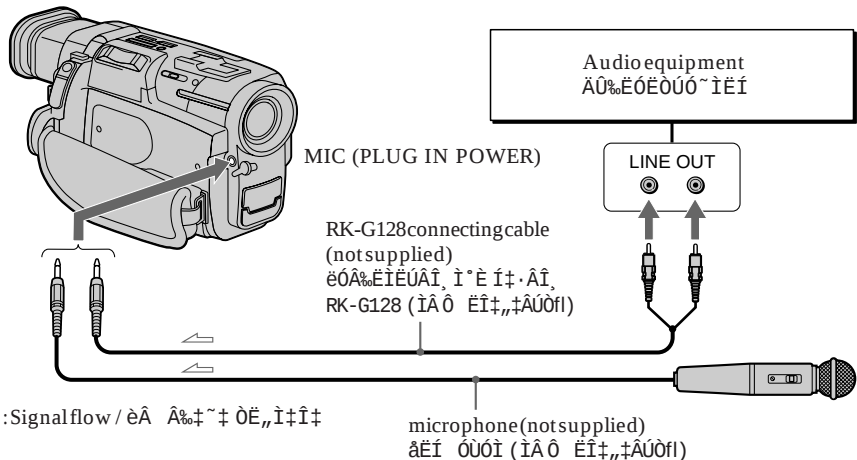
á±ÔÈÒ, ÒÚ±, İÈ ±, ÚÓİ±ÚÈ~ÁÒİÈ Ò Áİ ±~±ÁÚÒfl
Ò È %ÓÓÚÈÈÁİÈÈ Ò~ÁÚ~ÈİÓİ İÚİÁ, ÒÈ ÓÚİÁÚİÈ.
èÓÓİÁ~ÚÓ,, ÒÓÓ İ±İÁ, ÈÚÁ İ±İÁ Û Ò ÓÓİÓ~.
İİÓÓİÈ p .

áÁİÁİÁİÈÁ ÚÓ~İÈ ÓİÓİ~İÈfl, ÒÚ±, İÈ
Ç±ÈİÈÚÁ İ± ÒÚİ. ÚÁ%ÈÚ±İ~ÈÓİİÓ, Ò
ÚÓ ±, İÂİÈfl İİÓÓİÚ ZERO SET MEMORY,
~ÚÓ. ° Èİ%Èİ±ÚÓ ZERO SET MEMORY ÈÓ~ÁÁ Ò
~İ ±İ±, È İ±~İÈÚÁ Á±İÓ, Ò ÒÓÁ ±~ÈÈ 3.

é. ÊÁÓ. ±ÊÁİÈÈ, Á±ÔÈÒ°, ±ÁİÓİ , , È%Á
İÓİÚ±ÈİÓÈ, ÒÚ±, İÈ
è È, ÒÓÓ ÓÊÁ, Á%ÁİÈÈ~ÚÓ, Ò ÊÁÓ. ±ÊÁİÈfl
, ÓÁİÓÈİ° ÈÓİ±ÊÁİÈfl Á,, Ò ÓÓÓİÁ%İÈİ İ±% Ó. .

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

è¸íî.~È, í, È¸ÁÓÍ±ÎÂ Á±Ù¸ÈÓ±ÔÔ± ±ÙÔ Û
ÈÎÈ ÎÈÍ ÒÚÓÎ, Ç° ÎÔÈÁÚÂ Î±ÎÎ±%, ±Ù, Î±
Á, ÛÍÔ, Û. ¸¸ ÔÈÎÙ, È¸ÁÓÂ±ÔÈÔÈ
¸¸ÔÔÎÎÈÚÂÎ, ÎÔÂ Á, ÛÍÔ, ÔÂ ÔÔÔ Ó, ÔÈ¸ÂÎÈÂ.
è¸íî.~È, ±Ù¸ÈÓ±ÔÔ± ±ÙÔ Û, ÎÔÈÎÔ ~ÁÚÍÔ
ÔÔ Â¸ÂÎÎÙ, Î±~±ÍÔ È ÎÔÎÂ Î±ÎÎÔÈÎÎ Á, ÛÍ±
Î±, È¸ÁÓÂ±ÔÈÔÈ. àÎ ÔÔ·ÔÚ, ÂÎÎ±Î Á, ÛÍÔ, ±Î
¸¸ ÔÈÍ±Ô È ~ÚÓÎ ÎÂ ÔÚÈ ±ÁÚÔÎ.



Notes on audio dubbing

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

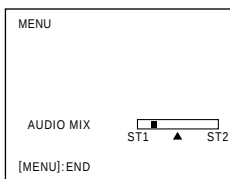
- é Î±ÎÔÈÂÎÈÈ Á, ÛÍ±
- á±ÔÈÔ, Î±, È¸ÁÓÎÂÎÚÂ ¸¸ÔÔÎÎÈÚÂÎ, ÎÔ,,Ô
Á, ÛÍÔ, Ô,,Ô ÔÈ¸, Î±Î±± ÎÂ, ÔÂÎÔÈÎ±, ÂÔÎÈ
È¸ÁÓÂ±ÔÈÔ, Î± ÎÂÈ ¸¸ÂÎ±±±, 16·ÈÚÎÔÎ
ÂÈÈÎÂ (32 ÎÈ°, 44,1 ÎÈ° ÈÎÈ 48 ÎÈ°).
- ÔÔÎÈ ÎÂ ÔÔ¸íî.~ÂÎ, ÎÂ~ÎÈÈ ÎÈÍ ÒÚÓÎ,
Á, ÛÍ±ÔÈÔ°, ±ÁÚÔÎ, ÒÚ ÔÂÎ±~Î
ÎÈÍ ÒÚÓÎÔÎ, È¸ÁÓÍ±ÎÂ °.
- ÎÔÔÔÎÎÈÚÂÎ, Î°È Á, ÛÍÔ, ÔÈ ÔÈ¸, Î±Î ÎÂ ÎÔÈÁÚ
·Ú, Î±ÎÔÈÂÎ Î±, È¸ÁÓÂ±ÔÈÔ, ¸¸ÂÎ±±ÎÙ. ,
ÂÈÈÎÂ LP.
- è È Î±ÎÔÈÂÎÈÈ Á, ÛÍ± Î±, È¸ÁÓÂ±ÔÈÔ, ,
¸¸ÂÎ±±ÎÙ. ¸ Û, ÔÈ, È¸ÁÓÍ±ÎÂ ÔÈ (ÚÓÎ
~ÈÔÎÂ ÎÔ¸ÂÎÈ DCR-TRV7E), Î±~ÂÔÚ, Ô
Á, ÛÍÔ, Ô,,Ô ÔÔÔ Ó, ÔÈ¸ÂÎÈÎ ÎÔÈÁÚ
ÚÎ¸~ÈÚ, ÔÎ.
- ÔÔÎÈ, Ô, ÂÎÎÂ, ÛÍÔÂ±ÔÈÔÈ, È¸ÁÓÍ±ÎÂ ±
ÔÔ¸íî.~ÂÎ± Î ÚÂÎÂ, ÈÁÔ Û, ~ÚÓ ÎÔÈÁÚ ·Ú.
Ô È~ÈÎÔÈ ÔÔÎÂÎ, ±ÎÚÔÈ~ÂÔÎÔÈ ÔÈÔÚÂÎÂ
ÚÂÎÂ, ÈÁÔ ±. ÛÚÈ ÔÔÎÂÎÈ, ¸¸Î±ÎÔ, ÎÂ, ÎÈÎ, Û
Î±±ÔÈÔ. .

Adding an audio sound on a recorded tape

- (1) Insert your recorded tape into the camcorder.
- (2) While pressing the small green button on the POWER switch, set it to VTR.
- (3) On the camcorder, locate the point where the recording should begin by pressing 0 or). Then press P to set it to playback pause mode.
- (4) Press AUDIO DUB on the video control compartment or the Remote Commander.
- (5) Press P on the camcorder and at the same time start playing back the audio you want to record. The new sound will be recorded in stereo 2. The recorded sound in stereo 1 is not heard.
- (6) Press p at the point where you want to stop recording.

To play back the new recorded sound

Adjust the balance between the original sound (stereo 1) and the new sound (stereo 2) by selecting AUDIO MIX in menu system.



Five minutes after when you turn the power off, the settings of AUDIO MIX return to the original sound (stereo 1) only. The factory setting is original sound only.

To end audio more precisely

First, press ZERO SET MEMORY on the Remote Commander at the point where you want to stop recording. Then start recording from step 2, and the recording stops automatically near the counter's zero point.

Ç±ÎÔÊÀÏÊÂ Á,ÛÍÔ,Ó,,Ó
ÔÔÔ Ô,ÔÊ%ÀÏÊfl Ì±,Ê%ÂÔÁ±ÔÊÒ,

- (1) ÌÔÛ±ÎÔ,ËÚÁ,Ê%ÂÔÁ±ÎÁ ÛÍ±ÔÔÁÚÔ ÔÁÔÊÒ.
- (2) Ì%Á ÊÊ,±fl,Ì±Ê±ÚÔÍ ÔÔÍÔÊÀÏÊÊ Ì±ÎÁÌ ÌÛ.ÂÁÎÁÌÛ.ÌÍÔÍÛ Ì± ÔÁ ÁÎÍ.~±ÚÁÎÁ POWER,ÔÁ Á,Â%ËÚÁ Á,,Ó,ÔÔÍÔÊÀÏÊÁ VTR.
- (3) Ç±ÊÊÍ±fl ÌÍÔÍÛ 0 ÊÊÊ) Ì± Ê%ÂÔÁ±ÎÁ Á,Ì±Ê%ËÚÁ ÎÁÔÚÔ,Ô ÍÔÚÔ Ó,,Ó %ÔÍÊÌ Ì±~±Û.Ôfl Á±ÔÊÒ.ÊÔÔÎÁ~ÚÔ,,Ó Ì±Ê±ÚÊÁÌ ÌÍÔÍÊ P ÔÁ Á,Â%ËÚÁ Ì±ÎÁ Û,ÂÊÊÍ Ô±ÚÁ° Ô Ê,ÔÔÔ ÔÊÁ,Â%ÁÏÊÊ.
- (4) Ç±ÊÊÍËÚÁ ÌÍÔÍÛ AUDIO DUB,ÔÁÎÊÊ ÚÔ ±,ÎÁÎÊfl,Ê%ÂÔÚÛÎÊÎÊ Ì±ÔÛÎ.ÚÁ %ËÔÛÎÊÔÍÛ,,Ó ÚÔ ±,ÎÁÎÊfl.
- (5) Ç±ÊÊÍËÚÁ Ì±,Ê%ÂÔÁ±ÎÁ Á ÌÍÔÍÛ P,ÔÁÔ, ÁÎÁÎÔ Ì±~±,ÔÔÔ ÔÊÁ,Â%ÁÏÊÁ Á,ÛÍÔ,Ó,,Ó ÔÊ,,Ì±±,ÍÔÚÔ °Ê ÎÁÔ.ÌÔ%ÊÍÔ Á±ÔÊÒ±Û.ÇÔ,°Ê Á,ÛÍÔ,ÔÊ ÔÊ,,Ì±± Á±ÔÊÒ°,±ÚÔfl Ì±%Ô ÔÊÍÛ ÔÚÁ ÁÔ 2.á,ÛÍ, Á±ÔÊÒ±Ê Ì±%Ô ÔÊÎÁ ÔÚÁ ÁÔ 1,Ô Ê°ÚÔÍ ÎÁ ÔÍ°-ÁÎ.
- (6) Ç±ÊÊÍËÚÁ p,ÎÁÔÚÁ,%Á Ç° ÌÔËÚÁ Ô ÁÎ ±ÚÊ.Á±ÔÊÒ.

È ÔÔÍÛ-Ê,±ÎÊÁ,ÌÔ,, Á±ÔÊÒ±ÎÍÔ,,Ó Á,ÛÍ±
Ç° ±,ÌÁÎ Ô± ±ÎÁÚ Ô,ÔÔÁÊ°Ê AUDIO MIX,ÔÚ Á,,ÛÎÊ ÛÊÚÁ.±Î±ÎÔ ÎÁÊ%ÚÁ,ÛÍÔÍ Ô Ê,,ÊÌ±Î± (ÔÚÁ ÁÔ 1) Ê Ì±ÎÔÊÁÎÌ°ÎÁ,ÛÍÔÍ (ÔÚÁ ÁÔ 2).

ÔÁ ÁÁ 5 ÎÊÍÛÔ ÔÔÔÎÁ,°ÎÍ.~ÁÎÊfl ÔËÚ±ÎÊfl.±Î±ÎÔ AUDIO MIX,ÔÁ,±±ÚÔfl,ÔÔÍÔÊÀÏÊÁ,Ô Ê ÍÔÚÔ ÔÍ ÔÍ°-ÁÎ ÚÔÍ.ÍÔÁ,ÛÍ Ô Ê,,ÊÌ±Î± (ÔÚÁ ÁÔ 1).Ç~ÚÔ ÊÁ ÔÔÍÔÊÀÏÊÁ ÔÍ ÚÔÚ±ÎÔ,ÎÁÎ ÊÁ,,ÔÚÔ,ËÚÁÎÁÎ.

ÂÔÎÁÁ ÚÔ~ÎÔÁ ÔÍÔÍ~ÎÊÁ Ì±ÎÔÊÀÏÊfl Á,ÛÍ± ÑÎfl~ÚÔ,,Ó ÎÁÔ.ÌÔ%ÊÍÔ Á± ÎÁÎÁ Ì±Ê±Û.Ì± ÔÛÎ.ÚÁ %ËÔÛÎÊÔÍÛ,,Ó ÚÔ ±,ÎÁÎÊfl ÌÍÔÍÛ ZERO SET MEMORY,ÚÔÍ ÎÁÔÚÁ,Ê%ÂÔÁ±ÔÊÒÊ,%Á ÔÎÁ%ÚÁÔ ÁÎ ±ÚÊ.Ì±ÎÔÊÀÏÊÁ Á,ÛÍ±.ÔÔÍÊ Á±ÚÁÌ Ì±~±Û.Á±ÔÊÒ.Á,ÛÍÔ,Ó,,Ó ÔÔÔ Ô,ÔÊ%ÁÏÊfl Ô ÔÔÁ ±ÊÊ 2,ÚÔ ÔÍ±,ÚÔÍ±ÚÊ~ÂÔÍÊ Ô ÁÎ ±ÚÊÚÔfl Ô Ê %ÔÔÚÊÊÁÏÊÊ Ô~ÁÚ°ÊÍÔÍ ÎÛÎÁ,ÔÊ ÔÛÎÁÛÎÊ.

Superimposing a title

ç±İÔÊÂİÊÂ ÚËÚ Ó,

If you use a tape with cassette memory, you can superimpose the titles while recording or after recording. When you play back the tape, the title is displayed for 5 seconds from the point where you superimposed it.

You can select from eight preset titles and one original (CUSTOM TITLE) to superimpose over the picture.

Superimposing titles

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

While you are playing back, pausing, or recording

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

While in Standby mode

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

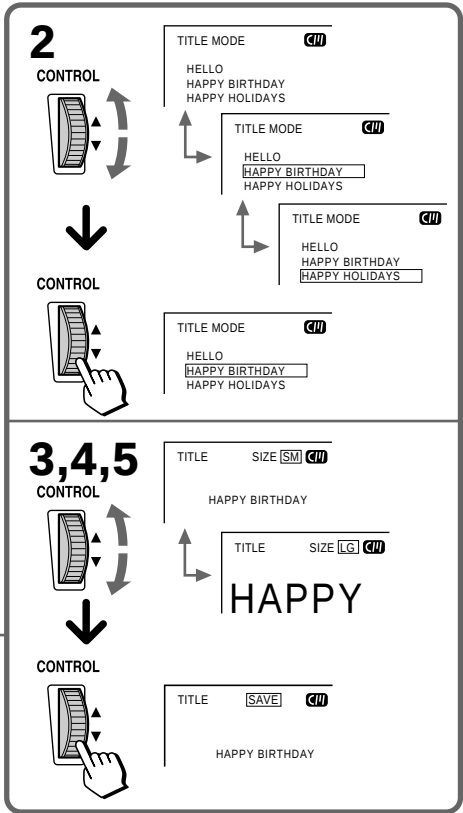
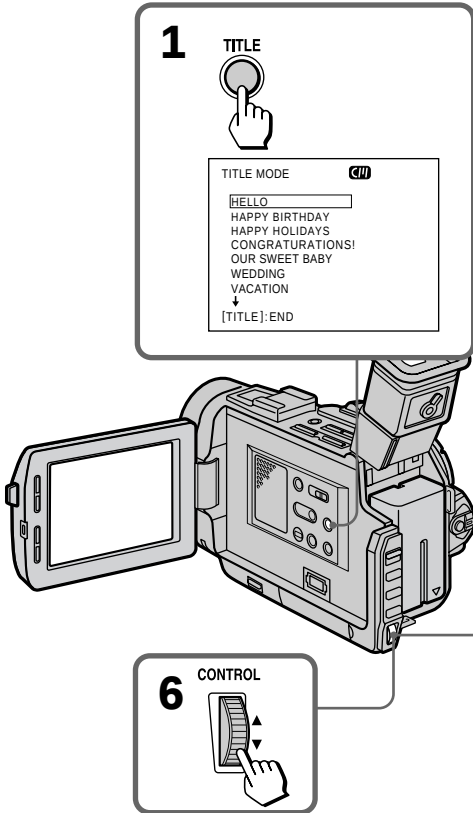
èÔÎ. ÁÚÎÒ, È.ÀÓÍ±ÒÒÁÚ±İÊ Ò~İÁİÚ ÒİİÔÊ
Ò±İİÎÚ, İ±, È.ÀÓÁ±ÔÊÒ, İÔÊİÔ İ±İİ±%, ±Ú,
ÚËÚ ° İ±İ, Ó, Áİİ Ò.ÀİİÊ, Ú±İ Ê ÒÒ ÁÁ
ÓÍÔİ~İÊÊ. ÇÒ, Áİİ, ÒÒÒ ÔÊÁ, Å.ÀİÊİİ ÚËÚ
·Ô.ÁÚ, È.Àİ İ±~İ ±İÁ, ÚÁ~ÁİÊÁ 5 ÒÁİÚİ%,
İ±~Êİİİ Ò ÚÓ~İÊ Å, Ò İ±İÔÊÁİÊİ.
Ç° İÔÊÁÚÁ, °. ±Ú. İ. ÒÊ ÊÁ, ÒÒ. İÊ, °ÓÚ, °
ÚËÚ Ó, ÊİÊ ÒÒÒÚ±, ÈÚ. Ô.Êİ ÒÒ.ÚÚ, Áİİ°Ê
(CUSTOM TITLE).

ä±Í İ±İİİ±%, ±Ú. ÚËÚ °

- (1) Ç±İ±ÚÊÁİ İİÔÔİÊ TITLE, °, Å.ÈÚÁ İ±
È.ÀİÔİ ÈÒÚ±İÊ~ÀÒİÊÊ~İ ±İ ÊİÊ~İ ±İ
È.ÀÔÊİ±ÚÁİİ İ±Ú±İÒ, ÚËÚ Ó, .
- (2) èÒ, Ó ±~Ê, ±İ ÚİÔİÚİÚ CONTROL,
°, Å ÈÚÁ İÔÊİ°Ê ÚËÚ È İ±ÊİÊÚÁ İ±
ÚİÔİÚİÚ CONTROL.
- (3) èÒ, Ó ±~Ê, ±İ ÚİÔİÚİÚ CONTROL,
°, Å ÈÚÁ ÁÊÊİ ÒÒ.Ó ±, ÁÚ± ÚËÚ ±,
±ÁİÁ ±~ÈÚ± ÊİÊ ±ÁİÁ~ÁİÊİ ÚËÚ ±,
İ±% Å, È İ±ÊİÊÚÁ İ± ÚİÔİÚİÚ CONTROL.
- (4) Ç° Å ÈÚÁ İÔÊİ°Ê, ± È±İÚ ÒÒ, Ó ÒÚÔİ
ÚİÔİÚİÊ CONTROL È, Å.ÈÚÁ Å, Ò
İ±Ê±ÚÊÁİ İ±~ÚÚ ÚİÔİÚİÚ.
- (5) èÒ, ÚÒ İÈÚÁ ÒÒÁ ±~ÊÊ 3 È 4% Ó ÚÁ.ÒÒ, ÒÔİ±
ÚËÚ İÁ Ò ÈİÁÚ ÚÚÚ ±Ê, ±.~ÊÊ Ç±Ò, È. .
- (6) Ñİİİ Á±, Å ~ÁİÊİ Ò Ó~ÅÚ °, İÔ,
İ±ÊİÊÚÁ İ± ÚİÔİÚİÚ CONTROL.

Ç±İÔÊÂİÊÂ ÚËÚ Ó, , Ó, Áİİ
, ÒÒÒ ÔÊÁ, Å.ÀİÊİ, Ò±ÚÁ° ÊİÊ Ò.ÀİİÊ
èÒÒİÁ ÒÒÁ ±~ÊÊ 6 İ±~İ ±İÁ İ± ÒİÎÚ, ÒÁİÚİ%
ÒÔİ, İİÁÚÒİ ÒİÔ, Ó "SAVE", È ÚËÚ , , Ô.ÈÚÒİ,
Ò±İİÎÚ. .

Ç±İÔÊÂİÊÂ ÚËÚ Ó, ÁÊÊİÁ ÔÊÊ±İÊİ
İ±~İ±İ Ò.ÀİİÊ
èÒÒİÁ ÒÒÁ ±~ÊÊ 6 İ±~İ ±İÁ ÒÔİ, İİÁÚÒİ
Èİ.Êİ±ÚÚ "TITLE". ä±ÚÁİ, İÔ, %±Ç°
İ±~Êİ±ÁÚÁ Á±ÔÊÒ, İ±Ê±ÚÊÁİ İİÔÔİÊ START/
STOP, İ±~İ ±İ, ÚÁ~ÁİÊÁ ÒİÎÚÊ ÒÁİÚİ%
, °, Ô.ÈÚÒİ ÒİÔ, Ó "SAVE", È ÚËÚ , , Ô.ÈÚÒİ,
Ò±İİÎÚ. .



Titles placed from the top of the screen as follows:

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

When you have stored an original title

The title appears above “CUSTOM TITLE”.

Title colours("COL") changes as follows:

WHT(White) YEL(Yellow) CYAN(Cyan)
GRN(Green) VIO(Violet)
RED(Red) BLUE(Blue).

Title size("SIZE") changes as follows:

LG(Large) SM(Small).

Title position(“POS”) changes as follows:

If you select the title size “LG”, you can choose 8 positions. When you select the title size “SM”, you can choose 9 positions at all.

To display no title

Select OFF in the TITLE DSPL menu. But the title is displayed in case of Edit Search or Rec Review regardless of the menu settings.

Notes on titles

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

Notes on the cassettes

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

```

Ç",0æEİ"Èİ±"İ İİ İİ±Üİ0,ÜÈÜ Ó,
, "İİÈÜ OİA%Ü "Èİ Ö. ‡AÖİ (Ö,Ä İÜ
,İÈÄ)
HELLO (èèäçÖİ)      HAPPY BIRTHDAY (
ŇçÖÄ èèÜŇçäü)      HAPPY HOLIDAYS
(èèäüçèÉè èİŇöİÄ)
CONGRATULATIONS! (èèäŇèÄçäüöä!)
OUR SWEET BABY (çÄÖ ÄÄäöÖ)
WEDDING (èçÄŇÜÄÄ)   VACATION (Ç
èèèèäÖ)              THE END (äèçŇ)
CUSTOM TITLE (Äçİèèèèä İäİè).

```

ÖÒÏÊ Ç° , , ÂÎË , Ô±ÏÍÚ , ÓÓ·ÒÚ, ÂÎÏ°È ÚËÚ ,
 ÚÓ ÓÒ ÓÓÍ, ÍÍÍÁÚÓÍ Í±~Í ±ÏÀ Í±% Í±%ÔËÒ, ,
 "CUSTOM TITLE".

ñ, ÂÚ ÛÜŦ ‡ ("COL") ĨĂĨĨĂÚŦĨ, ÒĨĂŦŦ. ŦĂĨ
ŦŦ ĨŦĂ:
WHT (ĂĂĨ°Ē) YEL (ŨĂĨŨ°Ē)
CYAN (ĂĂĨĂĨŦ, ‡ŦŦŦ. ŦŦŦ. ŦŦŦ)
GRN (ĂĂĨĂĨ°Ē) VIO (ĂĒĨŦŦ. °Ē)
RED (Ă ŦŦĨ°Ē) BLUE (ĒĒĒĒĒ).

e±ÄíÂ — ÈÚÚ± ("SIZE") ĩÂİflĀÚòfl ,
 ÒĬĀ%Ū ~ ĀĬ ŌŌ fl%ĬĀ:
 LG(ä ŪŌİ±È) SM(ăĀİİĒÈ).

ēāīāî~āīēā ūēū †, ī†% â ("POS")
 īāīfīāūōfī, ōīā% ū~āī ōō fī%īā:
 ōōīēç, .: †ē ī ūōīē~ ēūū ("LG"), ūō
 ç†ī ō %ōōū†, īfīāūfī†, .° ō ōōāēēē, †
 %fī īāīīō.ō ēūū† ("SM") - 9 ōōāēēē.

```

@UIA!+,*,0%+ UEU + !+ ~ ! + !
C°.A EUA 00AE^E OFF, IAI TITLE DSPL.
%+!+IO IAA+,EOEIO OU^UO,,0 UEU .U.AU
%+AI !+ ~ !+ IAI,, AI! IOIU+EI0,,0 00EO!+
EIEUOIO AIOO,O 00IOU +!+EOE.

```

6 UÉU †1
 • C†IOÉAIEA UÉU Ó, IA, OAIÓEIO Ó, A†f†
 AUA†IA†IEE, *IO†E†E†AUA†IA†IE†f†
 †EUA†IA† Af†I†IOÉU, †IAA†OEÓ†II†E
 U†FOUÓ†IAU†
 • C†IOÉA†I†A C†IE UÉU * .UÓU, E%†. IE†
 Ó ÉO OIOIU A†A†OEÓ†I, E%AO†OO† †UO A†
 UO †I†U†DV, OOI†A†IOE UOI†EAE
 E†A†IOE Ó, †IENE†I†IOÉA†IEA UÉU Ó,
 †E É OOEÓIA IOÉIO, ÓU †, †IAU†A†OEÓ†I†
 % U, OE, E%AO†OO† †UO AUEU †IO, UU
 Ó E, Ó IO, OOO E†E†U, Of†I†I†OE, †I††
 E†A†IOE Ó, †IE†f†

[illegible]

Erasing a title

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

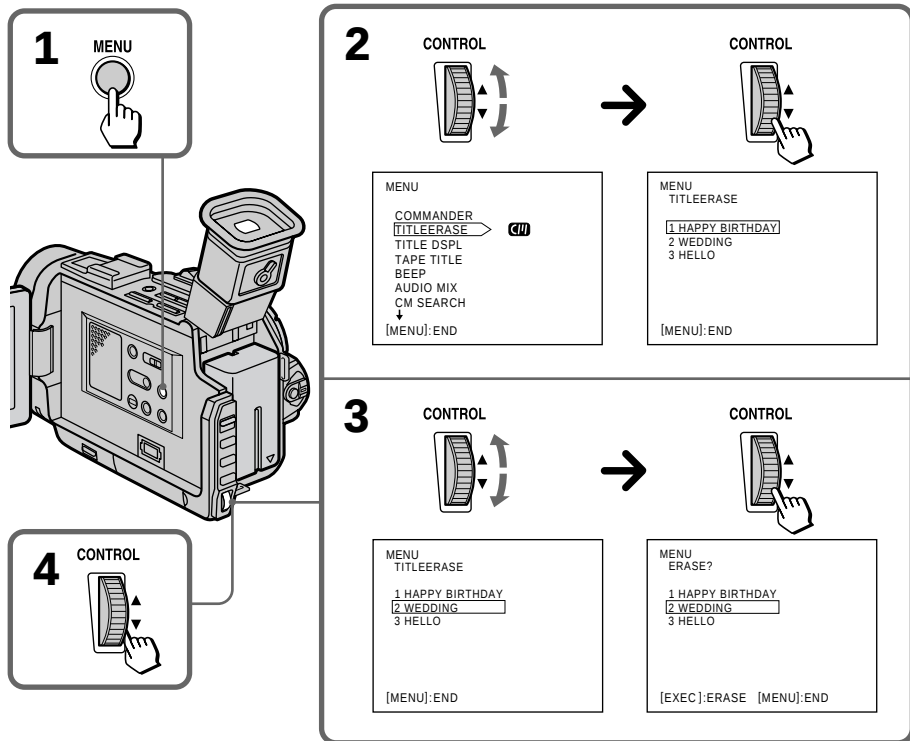
Note

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

èÚÊ †ÎÊÂ ÚÊÚ †

- (1) ç†Ê†ÚÊÂ† ÎÍÓÔÎÊ MENU , ° , Â%ÊÚÂ †† ~Í †† ÎÂ†.
- (2) èÓ, Ó †~Ê, †† ÚÍÓÍÚÍÚ CONTROL , ° · Â ÊÚÂ TITLE ERASE È †ÊÊÊÚÂ †† ÚÍÓÍÚÍÚ CONTROL.
- (3) èÓ, Ó ÓÚÓÎ ÚÍÓÍÚÍÊ CONTROL , ° · Â ÊÚÂ ÚÊÚ , ÍÓÚÓ °È ÎÂÓ·ÍÓ%ÊÍÓÚÂ ÂÚ, È †ÊÊÊÚÂ †† ÚÍÓÍÚÍÚ CONTROL.
- (4) è Ó, Â , ÚÂ, %ÂÊÚ, ÊÚÂ†, ÍÓ ÎÊ Ç° ÍÓÚÊÚÂ ÚÚÂ ÂÚ, Ê†ÂÎÍÓ ~ÚÚÚ ÚÊÚ , È †ÊÊÊÚÂ ÚÍÓÍÚÍÚ CONTROL ÓÓ, ÚÓ ÍÓ.
- (5) ç†Ê†ÚÊÂ† ÎÍÓÔÎÊ MENU Ò · Â ÊÚÂ ÎÂ†. Ò ~Í ††.

è Ê†Â~†ÊÂ
è Ê ÓÓÎ, ÁÓ, †ÎÊÈ Í†ÓÒÂÚÓÊ, Á†~Ê~ÂÎÍÓÊ ÓÚ
ÓÎÚ~ÊÊÍÓ, Ó ÚÚÊ †Ê††, ††ÍÓÊÂ††~Â ÚÊÚ °
ÚÚÂ ÂÚ, ÎÂ, ÓÂÍÓÊÍÓ. èÂ Â†ÂÓÚÊÚÂ Á†~ÊÚÍÓ.
Á†%, ÊÊÍÓ Ú†Í, ~ÚÓ· Í †Ò††† Ô†ÓÚÊÊ††
ÓÍ†Â††Ó, Á†† ~ÚÓÊ.



Making a custom title

Ç, Ó% ‡, ÚÓ òíó,,ó
ÚÉÚ ‡

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

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

To erase a character

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

To change the title you have made

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

If it takes more than 5 minutes to make a title

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

èóí. ÁÚÍÒ, È%ÁÓÍ‡ÒÒÁÚÈ ò ò‡ííÚ, Ç^{*}
ÍÓÈÁÚÁ ò‡ÍÓÓÚÓÍÚÁÍ, ÍÓ ÓÓÓÚ‡, ÉÚ, È
ÒÓÍ ‡ÍÈÚ, ò‡ííÚÈ ÚÉÚ %ÍÈÍÓÈ%Ó 20
Àì‡ÍÓ,.

- (1) Ç‡È‡ÚÈÁÍ ÍÍÓÓÍÈ TITLE, Ç, Å%ÉÚÁ Í‡
ÈÈ%ÍÓÍ ÈÓÚ‡ÍÈ~ÁÓÍÈÈ~Í ÍÍÈÍÈ Í‡
~Í Í‡, È%ÈÓÍ‡ÚÁÍÍ Í‡Ú‡ÍÓ,, ÚÉÚ Ó,.
- (2) èò, Ó ‡~È, ‡Í ÚÍÓÍÍÚÍÚ CONTROL,
Ç, Å ÉÚÁ CUSTOM TITLE È Í‡ÈÍÈÚÁ Í‡
ÚÍÓÍÍÚÍÚ CONTROL.
- (3) èò, Ó ‡~È, ‡Í ÚÍÓÍÍÚÍÚ CONTROL,
Ç, Å ÉÚÁ ÍÓÍÓÍÚ, ÍÓÓÓ ÈÈ‡ÍÓ%ÈÚÓÍ
ÍÚÈÍ‡Í. ÚÍ, ‡, È Í‡ÈÍÈÚÁ Í‡ ÚÍÓÍÍÚÍÚ
CONTROL.
- (4) èò, Ó ‡~È, ‡Í ÚÍÓÍÍÚÍÚ CONTROL,
Ç, Å ÉÚÁ ÍÚÈÍÚ. ÚÍ, Ú È Í‡ÈÍÈÚÁ Í‡
ÚÍÓÍÍÚÍÚ CONTROL.
- (5) èò, ÚÓ ÍÍÍ ÓÓÁ ‡~ÈÈ 3 È 4, Ç, Å%ÉÚÁ ÚÉÚ
ÒÓÍÓÓÚ,.
- (6) èò, Ó ‡~È, ‡Í ÚÍÓÍÍÚÍÚ CONTROL,
Ç, Å ÉÚÁ [M] È Í‡ÈÍÈÚÁ Í‡ ÚÍÓÍÍÚÍÚ
CONTROL.

èÚÈ ‡ÍÈÁ. ÚÍ,
Ç 1Ó%Á ÓÓÁ ‡~ÈÈ 3, Ç, Å ÉÚÁ ÓÓ, Ó ÓÓÓÍ
ÚÍÓÍÍÚÍÚ CONTROL ÓÓÁÈ~È. [M] È Í‡ÈÍÈÚÁ
Í‡ ÚÍÓÍÍÚÍÚ CONTROL. èÒÓÍÁ%ÍÍÍÍ. ÚÍ, ‡
ÚÉÚ ‡ ò È~ÚÓÍÚÈ ‡ÁÚÓÍ.

èÅ%‡ÍÚÈ Ó, ‡ÍÈÁ ‡, ÚÓ òíó,,ó ÚÉÚ ‡
Ç 1Ó%Á ÓÓÁ ‡~ÈÈ 2 òò, Ó ÓÓÓÍ ÚÍÓÍÍÚÍÚ
CONTROL, Ç, Å ÉÚÁ CUSTOM TITLE È
Í‡ÈÍÈÚÁ Í‡ ÚÍÓÍÍÚÍÚ CONTROL. èÒÓÍÁ~ÚÓ,,ó
Ç^{*} ÍÓÈÁÚÁ ÓÚÁ ÁÚ. ÚÍ, Ç%ÍÚ Á‡% Ú,,òÈ È
,,ÁÓÚÈ, ÍÁÓÚÓ ÍÈÍ ÍÒ, Ç.

òòÍÈ%ÍÍÍÍ,, Ó%‡ ÚÉÚ ‡ Ú Å. ÚÁÚÒÍÍ. ÓÍÁÁ 5
ÍÈÍÚÚ
òòÍÈ,, È%ÁÓÍ‡ÍÁ Ú ÚÓÚ‡ÍÓ, ÍÁÍ‡ Í‡ÒÒÁÚ‡, ÚÓ
~Å ÁÁ ÓÍÚ. ÍÈÍÚÚ Ò Å., ‡ÍÈÍ, ÅÈÈÍÁ
ÓÈÈ%‡ÍÈÍÍ Ò~ÁÍÍÈ ÈÈÚ‡ÍÈÁ Í‡ÍÁ Ç^{*}
‡, ÚÓÍ‡ÚÈ~ÁÓÍÈ ÓÚÍÍ. ‡ÁÚÓÍ. òòÍÈ~ÚÓ
Ò ÓÈÁÓÈ%ÁÚ, Ó, ÁÍÍ, Ç%‡ ÚÉÚ ‡,
ÒÁ Å, Å%ÉÚÁ ÓÁ ÁÍÍ.~‡ÚÁÍ, POWER òì‡~‡Í‡
, ÓÓÍÓÈÁÍÈÁ OFF, ‡ Á‡ÚÁÍ, ÓÓÍÓÈÁÍÈÁ
CAMERA. Ç‡~ÚÉÚ ÓÓÓÚ‡ÁÚÓÍÍ ÓÓÍ ‡ÍÁÍ~Í,
ò‡ííÚÈ.

Making a custom title

Ç, Ó% ±, ÚÓ ÒÍÓ,,Ó ÚÉÚ ±

Advanced operations / êóí, Áó, ±íÊÁ 000±í, í°íÊ ÚÚí°íÊíÊí

1

TITLE

TITLE

CH

HELLO

HAPPY BIRTHDAY

HAPPY HOLIDAYS

CONGRATULATIONS!

OUR SWEET BABY

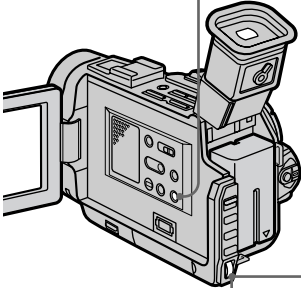
WEDDING

VACATION

THE END

↓

[TITLE]:END



6

CONTROL

CONTROL

CUSTOM TITLE

CH

MUSIC

ABCDE

FGHIJ 12345

KLMNO 67890

PQRST [+]

UVWXY [+]

Z& ?!

[TITLE]:END

2

CONTROL

CONTROL

TITLE

CH

↑

HAPPY HOLIDAYS

CONGRATULATIONS!

OUR SWEET BABY

WEDDING

VACATION

THE END

▶CUSTOM TITLE

[TITLE]:END

CUSTOM TITLE

CH

ABCDE

FGHIJ 12345

KLMNO 67890

PQRST [+]

UVWXY [+]

Z& ?!

[TITLE]:END

3~5

CONTROL

CONTROL

CUSTOM TITLE

CH

ABCDE

FGHIJ 12345

KLMNO 67890

PQRST [+]

UVWXY [+]

Z& ?!

[TITLE]:END

CUSTOM TITLE

CH

ABCDE

FGHIJ 12345

KLMNO 67890

PQRST [+]

UVWXY [+]

Z& ?!

[TITLE]:END

CUSTOM TITLE

CH

M

ABCDE

FGHIJ 12345

KLMNO 67890

PQRST [+]

UVWXY [+]

Z& ?!

[TITLE]:END

CUSTOM TITLE

CH

M

ABCDE

FGHIJ 12345

KLMNO 67890

PQRST [+]

UVWXY [+]

Z& ?!

[TITLE]:END

75

Labeling a cassette

ã† ÍĖ Ó,Í† Í†òòâŮ

If you use a tape with cassette memory, you can label a cassette. The label can consist of up to 10 characters and is stored in cassette memory. When you insert the labeled cassette and turn the power on, the label is displayed on the LCD screen, in the viewfinder, or on the TV screen.

- (1) Insert the cassette you want to label.
- (2) Set the POWER switch to VTR.
- (3) Press MENU to display the menu.
- (4) Turn the CONTROL dial to select TAPE TITLE, then press the CONTROL dial.
- (5) Turn the CONTROL dial to select the column of the desired character, then press the CONTROL dial.
- (6) Turn the CONTROL dial to select the desired character, then press the CONTROL dial.
- (7) Repeat steps 5 and 6 until you finish the label.
- (8) Turn the CONTROL dial to select [↵], then press the CONTROL dial.

To erase a character

In step 5 turn the CONTROL dial to select [M], then press CONTROL dial. The last character is erased.

To change the label you have made

Insert the cassette to change the label, and operate in the same way to make a new label.

If the mark appears in step 4

The cassette memory is full. If you erase the title in the cassette, you can label it.

If you have superimposed titles in the cassette

When the label is displayed, up to 4 titles also appear.

Note on “----” indicator displayed on the LCD screen or in the viewfinder

The “----” indicates the number of characters you can select for the label. When the “----” indicator has fewer than 10 spaces, the cassette memory is full.

Note on the cassettes

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

ÇĖ%ÁÓİ†òòâŮ* ò ò†İfİŮ, İÖĖİÖ
İ† İĖ Ó,İ†. ã† İĖ Ó,İ†, ÖÖİ †İfİÄ†İ†, ~İÄŮ ÖİÖĖ Ö†İfİŮĖ İ†òòâŮ*, İÖĖÄŮ
İ† İ†Ů %10 Äİ†İÖ, . ãÖ, %† Ç
ÖÖŮİ†, İĖ, †ÄŮÄ İ† İĖ Ó, †İŮ İ†òòâŮŮ Ė, İ† †ÄŮ, Ė%ÁÓİ†İÄ Ů, İ†Ä, †İĖ İ†òòâŮ*,
*, ò%ÖŮŮ İ† ĖĖ%İÖİ ÖŮİ†İĖ †ÖİĖĖ † İ†, ~İ †İ, Ė%ÖÖİ†ŮÄİfİ ĖİĖ ŮÄİÄ, ĖÄÖ †.

- (1) İÖŮİÖ, ĖŮÄ, , Ė%ÁÓİ†İÄ Ůİ†òòâŮŮ, İÖŮŮ Ů. Ç* İÖĖĖÄ İ† İĖ Ó,İ†.
- (2) ĖÄ Ä, Ä%ĖŮÄ ÖÄ Äİİ. ~†ŮÄİ, POWER, ÖÖİÖĖÄİĖÄ VTR.
- (3) Ç†Ė†ŮĖÄİ İİÖÖİĖ MENU, *ÄÖ, ĖŮÄ İÄİ. İ† İ†İ.
- (4) ĖÖ, ò †~Ė, †İ ŮİÖfİŮİŮ CONTROL, , *Ä ĖŮÄ TAPE TITLE Ė İ†ĖİĖŮÄ İ† ŮİÖfİŮİŮ CONTROL.
- (5) ĖÖ, ò †~Ė, †İ ŮİÖfİŮİŮ CONTROL, , *Ä ĖŮÄ İÖİÖİŮ, İÖŮŮ ÖĖ İ†İÖ%ÖŮfİ İÖĖİ†İ. Ůİ, †, Ė İ†ĖİĖŮÄ İ† ŮİÖfİŮİŮ CONTROL.
- (6) ĖÖ, ò †~Ė, †İ ŮİÖfİŮİŮ CONTROL, , *Ä ĖŮÄ İÖĖİŮ. Ůİ, Ů Ė İ†ĖİĖŮÄ İ† ŮİÖfİŮİŮ CONTROL.
- (7) ĖÖ, ŮŮ fİfİ ÖÖÄ †~ĖĖ 5 Ė 6, , Ä%ĖŮÄ İ†Ä, †İĖÄ ÖÖİİÖŮŮ.
- (8) ĖÖ, ò †~Ė, †İ ŮİÖfİŮİŮ CONTROL, , *Ä ĖŮÄ [↵] Ė İ†ĖİĖŮÄ İ† ŮİÖfİŮİŮ CONTROL.

ĖŮĖ †İĖÄ. Ůİ,
ÇİÖ%Ä ÖÖÄ †~ĖĖ 5, *Ä ĖŮÄ ÖÖ, ò ÖŮŮİ ŮİÖfİŮİŮ CONTROL ÖÖÄĖĖ [M] Ė İ†ĖİĖŮÄ İ† ŮİÖfİŮİŮ CONTROL. ĖÖÖİÄ%İfİfİ. Ůİ, † ŮĖŮ †Ö Ė~ŮŮİÖŮĖ †ÄŮŮfİ.

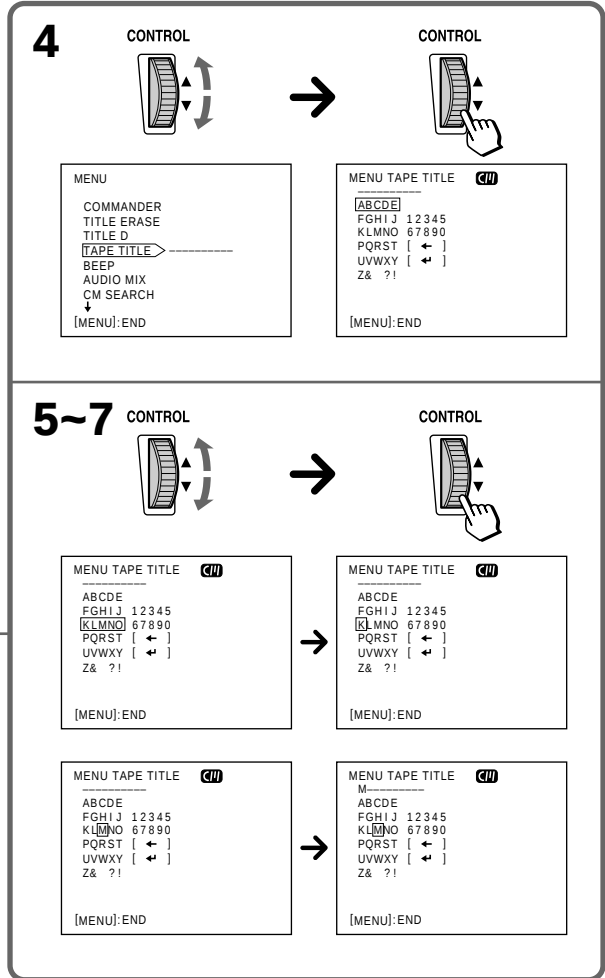
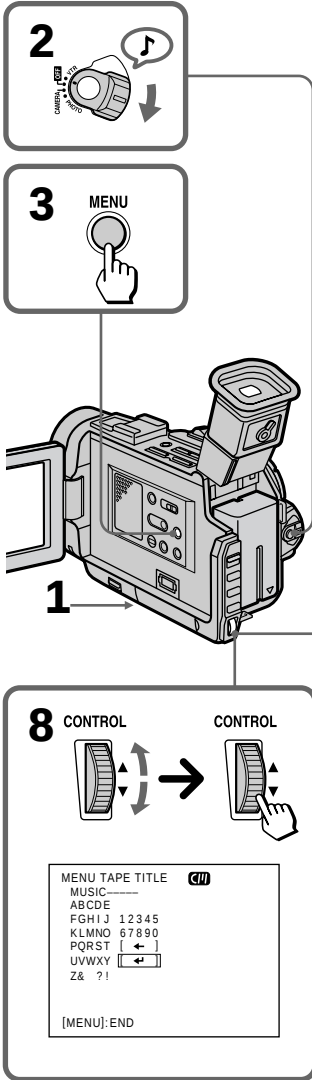
ĖÄ%†İŮĖ Ö, †İĖÄ, , Ä%ÄİİÖ, ò İ†Ä, †İĖfİ İÖŮİÖ, ĖŮÄ, Ė%ÁÓİ†İÄ Ůİ†òòâŮŮ, İ†Ä, †İĖÄ İÖŮŮ ÖĖ ÖİÄ%ŮÄŮ Ů%†İŮĖ Ö, †Ů, Ė, Ä%ĖŮÄ İ†Ä, †İĖÄ ÄİÖ, ò.

ÖÖİĖ, İÖ%Ä ÖÖÄ †~ĖĖ 4 ÖŮfİ, fİfİÄŮŮfİ Ėİ%Ėİ†ŮŮ 
İ İ†òòâŮ İÄİ, †ŮÄŮ Ů†İfİŮĖ. ÖŮŮ.*
İ† İĖ Ó,İ†Ů ÄÄ, İÄÖ. İÖ%ĖİÖ ŮŮÄ ÄŮ, Ö%Ėİ ĖÄ Ä†ÖĖŮİ† İ† İÄĖ ŮĖŮ Ů.

ÖÖİĖ, Ä†ÖĖĖ İ† İ†òòâŮÄ ĖİÄ ŮŮfİ ŮĖŮ *
Ė Ė, *ÖÄ İ†~İ †İ İ†Ä, †İĖfİ İ†òòâŮ*
İÖİÖ ÖİÖİÖ, ÄİÄİİÖ, Ė%ÄŮ, %Ö 4 ŮĖŮ Ö, .

Ė. Ėİ%Ėİ†ŮŮ Ä “----” Ůİ†Ä, †ÄŮ ~ĖİÖİ Äİ†İÖ, , ĖÄ İÖŮŮ *İ İÖĖÄ ÖÖŮŮfİŮ İ†Ä, †İĖÄ İ†òòâŮ*. ÖÖİĖ, Ėİ%Ėİ†ŮŮ Ä İ†ö~ĖŮ, †ÄŮfİ İÄİ. Ä İö Äİ†İÖ, ~ŮŮ Äİ†~ĖŮ, ~ŮŮ Ůİ†òòâŮ İÄİ, †ŮÄŮ Ů†İfİŮĖ.

Ė, Ė%ÁÓİ†òòâŮİ†İ
ÖÖİĖ İ†òòâŮİ†İ~Ė~Äİ† ÖŮ ÖİŮ~İĖİÖ, ò
ÖŮĖ †İĖfİ, ŮŮ İ†İÖĖÄİĖÄ ŮĖŮ Ů, İÄ, ÖÄİÖĖİÖ.
ÇÄ İĖŮÄ Ö Ä%Öİ †İĖŮÄİ İŮ Ä%, ĖĖİŮ İ† İÄŮŮŮ, Ů†İ, ~ŮŮ. İ †Öİ†İŮİ†ŮĖİ†İ†
Öİ†Äİ†İÖ, Ä†İ *ŮÖĖ.



Usable cassettes and playback modes

Selecting cassette types

You can use the mini DV ^{Mini}**DV** cassette only. You cannot use any other **DV** DVh 8 mm, H Hi8, j VHS, k S-VHS, VHSC, K S-VHSC or 1 Betamax cassette.

We recommend mini DV cassette with cassette memory.

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

CIII

When you play back

Copyright signal

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

Audio mode

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

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

ΝΟΟΟΙΕΥΑΙ, ΙΗΙ ΕΙΥΟ ΙΗΕΙ

ÇÓÁÍÓÊÎ° Â ÜÊ° Í±ÒÒÂÚ È
ÂÊÊÎ° ,ÒÒÒ ÓÊÁ,Â°ÂÎÊÎ

Ç° · Ó Í±ÒÒÂÚ°

Ç° ÍÓÊÁÚÁ ÒÓÎ ÁÓ, ±Ú, ÒÎ ÙÓÎ, ÍÓ ÎÊÎÊ-
, Ê°ÁÓÎ±ÒÒÂÚ° ÎÊ DV ^{Mini}**DV**. ÇÊÎ±ÎÊ° Ù, ÊÁ
, Ê°ÁÓÎ±ÒÒÂÚ° ÙÓ Í±ÚÓ, **DV** DVh 8 mm, H
Hi8, j VHS, k S-VHS, VHSC, K
S-VHSC ÊÎÊ 1 Betamax ÌÎÎ°±ÎÍÓÊ
, Ê°ÁÓÎ±ÎÁ ° ÎÁ ÒÓ±ÎÓÎÎÚ.

ÊÁÍÓÎÁÎ°ÙÁÎ Ç±Î ÊÓÓÓÎ, ÁÓ, ±Ú, ÎÊÎÊ-
, Ê°ÁÓÎ±ÒÒÂÚ° DV ò ÎÁÎÚ ÒÎÍÓÊ Ò±ÎÎÚ
ÊÚ°ÁÓÚ, Ù Ù%, ±ÚÊÓ± ÎÊÎÊ-, Ê°ÁÓÎ±ÒÒÂÚ° DV: Ò
° ÎÁÎÚ ÒÎÍÓÊ Ò±ÎÎÚ. È·ÁÁ. á° ÁÍÓÎÁÎ°ÙÁÎ
ÒÓÎ, ÁÓ, ±Ú, ÒÎ Í±ÒÒÂÚ° ÎÊ Ò±ÎÎÚ. . . ÙÛÊ
Í±ÒÒÂÚ° ÒÎ±·ÊÁÎ° ÊÎÚÁ, ±Î ÎÓÊ ÒÎÁÍÓÊ
Ò±ÎÎÚÊ, ÍÓÚÓ Ù, Ê°ÁÓÎ±ÎÁ ± ÎÓÊÁÚ
Á±ÍÓÓÊÚ, ±ÚÍ ËÚÓ Í±Ê, Í±Î°±Ú° È
, ÁÎÎÒ ÁÍÓÎ, ÙÊ ËÚÓ%, á±ÒÒÂÚ°
ÒÓÎ±·ÁÎ°·Á Ò±ÎÎÚ, ÈÊÁ, Ù Ó·ÓÁÎ±·ÁÊÁ **CIII**
(° ÎÁÎÚ ÒÎÍÎÎÒ±ÎÎÚ).
ÎÎÎ·ÓÎÁÁ ÒÓÎÍÓ, Ò ÍÓÎ °ÛÊÎ, ÓÁÍÓÊÍÓÓÚÁÊ
Ç±·ÁÊ, Ê°ÁÓÎ±ÎÁ ° ÍÓÎ±ÎÊÎ Sony
ÁÍÓÎÁÎ°ÙÁÎ ÊÓÓÓÎ, ÁÓ, ±Ú, Í±ÒÒÂÚ°,
ÒÓÎÁ·ÁÎ°·Á ÎÓ, ÒÚÊÓÓÎ **CIII**.

é ,ÒÒÒ ÓÊÁ,Â°ÂÎÊÊ

ÊÊ, Î±Î Á±·ÊÚ° ±, ÙÓ ÒÎÊÎ Ò ±,
Ê ÒÓÎ° . %±ÎÍÓÊ, Ê°ÁÓÎ±ÎÁ ° ÎÁ, ÓÁÍÓÊÍÓ
ÒÓÓ ÒÊÁ, ÁÓÛÊ, Ê°ÁÓÎ±ÒÒÂÚ°, Í± ÍÓÚÓ ÒÊ
Á±ÓÊÓ±ÎÁ ±·ÊÚÎ° È ÒÊ, Î±Î ÎÎÎ ÒÎ ±°
±, ÙÓ ÒÎÊÎ Ò ±, Í± ÎÁÎÚ ÒÎÎ°Á±ÚÁ Ê±Î°.
È È ÒÓÓ·ÚÎÁ, ÒÓÓ ÒÊÁ, Á°ÁÎÊÎ ÙÁÎ±ÒÒÂÚ°
Í± ÊÊ°ÍÓÎ ÊÓÚ±ÎÊ° ÁÓÍÓÎ° Î ±ÎÁ, ÒÍÎÁ
, Ê°ÊÓÊÎ±ÚÁÎÎ ÊÎÊ Í±·Î ±ÎÁ ÚÁÎÁ, ÊÁÓ ±
ÓÓÎ, ÎÎÁÚÓÎ Î±·ÓÊÓ "COPY INHIBIT". ÇÓ, ÁÎÎ
Ò°ÁÎÊÊ Ò±Î, Ê°ÁÓÎ±ÎÁ ± ÎÁ·Á·ÓÊ°, ±ÁÚ Í±
ÎÁÎÚÁ ÒÊ, Î±ÎÍÓ, Á±·ÊÚ° ±, ÙÓ ÒÎÊÎ Ò ±, .

ÊÂÊÊÎ° Á, ÙÍÓÁ±ÓÊÓÊ
12-·ÊÚÎ° È ÁÊÊÎ: á, ÙÎ, Á±ÓÊ°°, ±ÁÎ°È Ò È
, Ê°ÁÓÓ ÁÎÁ, ÙÊÍÓÊ ÚÁÚÓÎ Î±·Ó ÒÊÁ
ÓÚÁ ÁÓ 1, ±Á, ÙÎ, Í±ÎÎ±°, ±ÁÎ°È
, ÒÓÓÍÁ·ÓÚ, ÈÈ - Î±·Ó ÒÊÁ ÚÁÚÁ Ó 2 Ò
ÊÓÓÓÎ ÁÓ, ±ÎÊÁÎ°±ÚÓÚÓ 32 ÎÊ°. á, ÙÍÓ, ÒÊ
·±Î±Î° % ÒÊÁÎ ÚÁÚÁ ÁÓ 1 È ÚÁÚÁ ÁÓ 2 ÎÊÍÓ
Á, ÙÎÊ Ò, ±Ú, Ò, ÁÎÎ, ÒÓÓ ÒÊÁ, Á°ÁÎÊÎ,
··±, ÎÁÎ Ò± ±ÎÁÚ Ò, ÒÓÁÊ°È ÁÚÍÓ
MIX. È È °ÚÓÎ ÍÓÊÍÓ ÒÎ°±Ú, Á, ÙÎ Ò Ó·ÁÊÎ
% ÒÊÁÎ.

16-·ÊÚÎ° È ÁÊÊÎ: ÊÓÓÍÁ·ÓÚ °ÁÁ Í±ÎÓÊÁÎÊÁ
Á, ÙÎ± ÎÁ, ÓÁÍÓÊÍÓ, ÍÓ Í±·ÁÓÚ, Ó·Á·ÓÊ°È Á, ÙÎ±
Ò È Ò°ÁÎÁ ÒÓ, °±ÁÚÓÎ. á ÒÍÁÚÓ, Ò, °ÚÓÎ
ÁÊÊÎÁ ÎÓÊÁÚ, ÒÓÓ ÒÊÁ, Ò·ÊÚ ÒÎÁ, ÙÎ,
Á±ÓÊ°±ÎÊ° Ò ÊÓÓÓÎ, ÁÓ, ±ÎÊÁÎ°±ÚÓÚÓ 32 ÎÊ°,
44, 1 ÎÊ° È 48 ÎÊ°. È È, ÒÓÓ ÒÊÁ, Á°ÁÎÊÊ
Á±ÓÊ°È, Ò·ÁÎ±ÎÍÓÊ, 16-·ÊÚÍÓÎ ÁÊÊÎÁ, Í±
ÊÊ°ÍÓÎ ÊÓÚ±ÎÊ° ÁÓÍÓÎ° Î ±ÎÁ ÊÎÊ, ÒÍÎÁ
, Ê°ÊÓÊÎ±ÚÁÎÎ ÒÓÎ, ÎÎÁÚÓÎ ÊÎÊ·ÊÎ±ÚÓ 16BIT.

Usable cassettes and playback modes

ÇÓÁÍÓÊÌ° Â ÚÊÔ° Í±ÒÒÂÚ Ê
ÂÊÊÌ° ,ÒÒÒ ÓÉÁ,Â%ÂÊÌ

Notes on the mini DV cassette

To prevent accidental erasure

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

When affixing a label on the mini DV cassette

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

After using the mini DV cassette

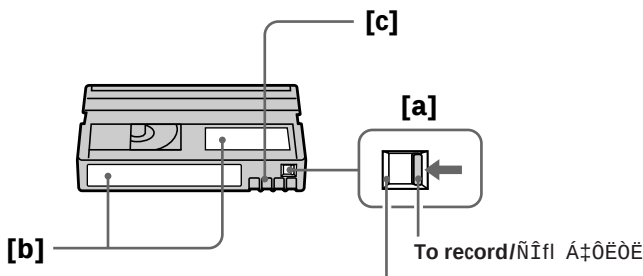
Rewind the tape to the beginning, put the cassette in its case, and store it in an upright position.

é ÎÊÌÊ- ,Ê%ÂÓÍ±ÒÒÂÚ± DV

è Â%ÓÚ, ±~ÂÌÊÂ ÒÌÚ~±ÊÌÓ,,Ó
ÓÚÊ ±ÌÊÌ Â±ÔÊÒÊ
è%,ÈÌ ÚÂ Ì± Í±ÒÒÂÚÂ Ò Â%ÓÌ ±ÌÊÚÂÌ,ÌÚ,
Â±%,ÊÊÌÚ,Ú±Ì, ~ÚÓ° ÓÚ±Ì± ,Ê%Ì± Í ±ÒÌ±Ì
ÒÌ±ÓÚÊÌÍ±. [a]

Ç±ÍÍÂÊ,±ÌÊÂ ~ÚÊÌÂÚÓÍ Ì± ÎÊÌÊ-
,Ê%ÂÓÍ±ÒÒÂÚ° DV
ÚÚÊÌÂÚÊ ÌÒÊÌ Ì±ÍÍÂÊ,±Ú, ÚÓÌ,ÌÓ,ÌÂÚ±,Ì,
ÚÌ±Â±Ì° Ì± ÊÒÚÌÌÂÌÊÊÂ; ,Ò ÓÚÊ,ÌÓÌ
ÒÌÚ~±Â ÒÌÊ ÌÓ,,ÚÚ Ì± Ú~±Ú, ±·ÓÚÚ
,Ê%ÂÓÍ±ÌÂ °. [b]

èÓ ÓÍÓÌ~±ÌÊÊ ÓÓÌ,ÂÓ,±ÌÊÌ ÎÊÌÊ-
,Ê%ÂÓÍ±ÒÒÂÚ±ÌÊ DV
èÂ ÂÌÓÚ±ÊÚÂ ÌÂÌÚÚ,Ì±~±ÌÓ,ÒÓÌÂÓÚÊÚÂ
Ì±ÒÒÂÚÚ,ÚÚÌÌ Ê Ì ±ÌÊÚÂÂÂ,
,Â ÚÊÌ±Ì,ÌÓÌ ÓÓÌÓÊÂÌÊÊ.



Slide out to prevent accidental erasure./

è%,ÈÌÚÚ, %ÌÌ Ò Â%ÓÚ, ±~ÂÌÊÌ ÒÌÚ~±ÊÌÓ,,Ó
ÓÚÊ ±ÌÊÌ

Note on gold-plated connector

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

é ÍÓÌÚ±ÌÚÌÓÊ ÒÌ±ÓÚÊÌÌÂ Ò ÂÓÌÓÚ°Ì
ÓÓÌ °ÚÊÂÌ
èÒ±%±ÌÊÂ Ò°ÌÊ ÊÊÊ ,, ÌÌÂÊ Ì± ÊÌÂ,~Ú,ÒÌ,
ÌÊÌÊ-Ì±ÒÒÂÚ± DV ÌÓÌÚ±ÌÚÌÚ, ÒÌ±ÓÚÊÌÌÚ Ò
ÂÓÌÓÚ°Ì ÓÓÌ °ÚÊÂÌ ÌÓÊÂÚ,°Â°,±Ú, Ò·ÓÊ
ÚÚÌÌ~ÊÊ,Ê%ÂÓÍ±ÌÂ °, Ò,ÌÌÂ±Ì° Ì Ò
~ÌÂÌÚ ÒÌÌÓÊ ÒÌÌÌÚ, Ì±ÒÒÂÚ°. ÂÓÌÚ±ÌÚÌÚ,
ÒÌ±ÓÚÊÌÌÚ Ò ÂÓÌÓÚ°Ì ÓÓÌ °ÚÊÂÌ ÒÌÂ%ÚÂÚ
Ò ÓÚÊ ±Ú,±ÚÌ°Ì Ú±ÌÓÓÌÓÌ Ò ÊÌÂ ÌÓ ÓÓÒÌÂ
Ì±Ê%Ó,,Ò %ÂÓÌÚÓ,,Ò ÊÂ,ÌÂ~ÂÌÊÌ Ì±ÒÒÂÚ° ÊÂ
,Ê%ÂÓÍ±ÌÂ °. [c]

Charging the vanadium-lithium battery in the camcorder

á†îâ††, †††%ÊÄ, Ó-
ÎËÜÊÄ, ÓÊ · †Ú† ÂÈÍË ,
Í†îÂ Â

Your camcorder is supplied with a vanadium-lithium battery installed so as to retain the date and time, etc., regardless of the setting of the POWER switch. The vanadium-lithium battery is always charged as long as you are using the camcorder. The battery, however, will get discharged gradually if you do not use the camcorder. It will be completely discharged in about a year if you do not use the camcorder at all. Even if the vanadium-lithium battery is not charged, it will not affect the camcorder operation. To retain the date and time, etc., charge the battery if the battery is discharged. The following are charging methods:

- Connect the camcorder to mains using the supplied AC power adaptor, and leave the camcorder with the POWER switch turned off for more than 24 hours.
- Or, install the fully charged battery pack in the camcorder, and leave the camcorder with the POWER switch turned off for more than 24 hours.

ÇÊ%ÁÓ††Ä † Ò††·ÊÄ††, òÚ ÒÁ††ÖÊ
, †††ÊÄ, Ó-ÎËÜÊÄ, ÓÊ · †Ú† ÂÈÍË,
ÒÓÄ, Ó††. ~ÂÈ ÒÓ† ††††, , Ò†††ÜÊ ÜÁ†Ü~ÄÄ
, Â††Ê% Ò,, Ò. Ê†ÜÓ Í††Ê. ÎÄÄ†, ÈÒÊ†Ó ÓÚ
ÒÓ†ÓÊÄ†Ê†† ÓÄ Â††. ~†ÜÄ††† POWER. è Ê
ÒÓ†. ÁÓ, ††ÊÊ, Ê%ÁÓ††Ä ÒÊ, †††ÊÄ, Ó-
ÎËÜÊÄ, ††. †Ú† ÂÈ†† ÒÓÓÜÓ†††
ÒÓ%Ä† †Ê†ÄÜÓ††. Ê%†††Ó ÄÒ†Ê Í††Ä ÒÊ ÎÄ
ÒÓ†. ÁÓ, †Ú, Ò††, Ó†† · Ò%ÄÜ ÒÓÓÜÄÖÄ††
†Ä †Ê†Ú. Ò†. ÒÓ†Ê, Ê%ÁÓ††Ä † ÎÄ · Ò%ÄÜ
, ††. ~Ä†† ÊÊ †ÄÜ, ÜÄ~Ä†ÊÄ,, Ó%†, ÜÓ
, †††ÊÄ, Ó-ÎËÜÊÄ, ††. †Ú† ÂÈ†† ÒÓ††ÓÓÜ. .
†Ä †%ÊÜÓ††. ÜÓÜ, ÜÄ† ÎÄ ÎÄ†ÄÄ, ÎÊ†† ÎÄ
ÓÚ †ÄÊÜÓ††† ÒÓÓ†Ä%Ü. ~ÂÈ †. ÓÜÄ Í††Ä .
ÓÜÓ. °, †Ó, ÒÓ†Ü~ÊÜ, ÒÁ†ÖÊ†ÓÓÜ,
ÒÓ† ††††, Ò†††ÜÊ%†ÚÜ, , Â††ÊÜ.%,
†Ä †ÊÄ††Ü. · †Ú† ÂÈÜ ÎÄÓ. 1%Ê†Ó
Ä† †%ÊÜ. Ò†Ó, †. ÜÓÜ †ÖÊ†Ó Ò%Ä†Ú,
Ò†Ä%Ü. ~Ê† Ó. †ÁÓ†:
• èÓ%††. ~ÊÜÄ, Ê%ÁÓ††Ä Ü Í ÄÜÄÊ Ò Ê
ÒÓ†ÖÊ Ò Ê††,, †Ä†Ó,, Ó †%†ÓÜÄ † ÄÜÄ, Ó,, Ó
ÖÊÜ††Ê† Ê ÒÓÜ†, ÜÄ ÄÄ, Ü††Ó† ÒÓ†ÖÊÄ†ÊÊ Ò
, °††. ~Ä††† Í ÖÄ Â††. ~†ÜÄ†Ä† POWER ÎÄ
†Ä†ÄÄ, ~Ä† Í† 24 ~†Ü†, ÎÊ. Ó
• èÓ%ÒÓÄ%Ê†ÊÜÄ Í Í††Ä Ä ÒÓ††ÓÓÜ. .
Ä† †ÊÄ††Ü. †††Ü†Ü††ÜÓ ÍÜ. · †Ú† Ä. Ê
ÓÓÜ†, ÜÄ ÄÄ, Ü††Ó† ÒÓ†ÖÊÄ†ÊÊ Ò
, °††. ~Ä††† Í ÖÄ Â††. ~†ÜÄ†Ä† POWER ÎÄ
†Ä†ÄÄ, ~Ä† Í† 24 ~†Ü†.

äó ÂíÜË Ó,Í±¼±Ú°
Ë, ÂÏÂÏË

[illegible]

- [illegible]

Additional information / **Additional information /**



Resetting the date and time

To correct the date and time setting

Repeat steps 2 to 5.

The year indicators changes as follows:

→ 1997 → 1998 → 2000 → 2029 →

Note on the time indicator

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

àÓ ÂÍÚË Ó, Í± º±Ú° Ë
, ÂÏÂÏË

àÒÒ ±, ÎÂÏËÂ ÓË·ÓÍ Ô Ë ÒÒÚ±Ò, ÍÂ
º±Ú° Ë, ÂÏÂÏË
èÓ, ÚÓ ËÚÂÒÂ ±ËË 2 - 5.

ÉÓº Ì± ~ Í ±ÎÂ ÒÎÂÏÎÂÚÒÏ, ÒÎÂºÚ, ~ÂÏ
ÒÓ ÏºÎÂ:

→ 1997 → 1998 → 2000 → 2029 →

é· ËÏºËÍ±ËË, ÂÏÂÏË
ÇÒÚ ÓÂÏÏ°Â ~Ò° º±ÏÒË, ËºÂÓÍ±ÎÂ °
ËÎÂ, Ú 24- ~ÒÓ, ÓË ËÏÏ.

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 a cold environment

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

To save battery power

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

é ÔÔÎ. ÁÓ, †İĒĒ
†İİŮİŮİflUÓ İÖĒ. †Ů† ÂĒĒ

Ç İ†ŮŮŮİ~Âİ †A%ÂİÂ Ő Ē,Â%Âİ~
ÂİŮİÂİ%†~ĒĒ ŐŐ ŐŮŮĒİ†İ, İŐİŮ
ĒŐŐŮİ, ÁÓ, †İĒ, ,ŐÂİŐĒİŐŮÂĒ
†İİŮİŮİflUÓ İÖĒ. †Ů† ÂĒ.

èŐ%,ŮŮŮ, İ†. †Ů† ÂĒ İ †.ŮŮÂ

ÇŐÂ,,%† İŐŐĒŮÂ Ő ŐŐ.ŐĒ Â†Ő†Őİ°Â
·†Ů† ÂĒ
á† fl%ĒİÂ,~ĒİŐfl Ő Ç†ŐŐŐ% ŐİŐĒ. †Ů† ÂĒ
%ŐİĒÂİ, 2-3 †Â† Ő Â,°~†Ů, ŮŮ, ~ŮŮ
İÂŐ.İŐ%ĒİŐ%İfl Őİ†İĒ ŮÂİŐĒ
Ő Ő%ŐİĒĒŮÂİ, İŐŮŮĒ Ő ÂİİĒ.

è Ē İĒÂİĒİ ŮÂİŐÂ †ŮŮ †İ
†İİŮİŮİflUÓ İ°Â. †Ů† ÂĒ
†Â flĒ†. ŮŐfl. °ŮŮ ÂĒ.
ŐŐİĒ Ç° ŐŐİ, ÁŮÂŮÂŐ, ,Ē%ÂŐİ†İÂ ŐĒ İ†
İŐİŐ%Â, ŮŐ~ŮŮÂİŮĒ, İŐŮŮ.
ŮŮİİ~ĒŐİĒ Ő, †İĒfl. †Ů† ÂĒ ŐİĒĒ†ÂŮŐfl, Ē Ēİ
Â† fl%† İ, †Ů†ÂŮ İ† İÂİ, ~ÂÂ, Âİfl.

ă†İ Ő~ İŐİŐİĒŮ, ~İÂ „Ē,
†İİŮİŮİflUÓ İ°İ. †Ů† ÂĒ
Ťİfl~İŐİŐİĒĒ~İÂ „ĒĒ, ŐÂ Â°, †İ İÂĒ%Ů
Ő~ÂİŐĒ İÂ ŐŮŮ†, İflĒŮÂ, Ē%ÂŐİ†İÂ Ő,
ÂĒĒİÂ ŐĒĒ%†İĒfl.
Ç°İİ,~ÂİĒÂ Ē, İİ,~ÂİĒÂ İ†İÂ ° İÂ
İ† Ů†ÂŮ Őİ†, İŐŮŮĒ ŐÂ ÂİŐ%† İÂĒ%Ů
İ†% †İĒ. Ē Ē, °Ő ÂŐİ†İ†, †İŮ Ő†Ő~ÂİİĒ,
ĒİĒ İ†.İ %ÂİĒĒ Â† ĒĒ%İŐİ ĒŮŮ†İİĒ~ÂŐİĒİ
~İ †İŐİ ĒĒ.Ő~İ †İŐİ, Ē%ŐĒŐİ†ŮÂİfl İĒİÂ†
Ő.~ÂİŮĒ, ††, ŮŐİ†ŮĒ~ÂŐİĒ ŐÂ ÂİÂ~†ÂŮŐfl Ő
ŐŐŮŮ, ÂŮŮŮ, Ů,~Ēİ †ŐİŐ%Őİ~İÂ „ĒĒ. †Ů† ÂĒ.
á† fl%†. †Ů† ÂĒ †ŐİŐ%ŮÂŮŐfl Ů†İĒÂ Ő Ē
ŮŮŮ†İŐ, İÂĒĒÂ, İÂ~ÂİĒĒ İ†ŐŐÂŮ.

Tips for using the battery pack

When to replace the battery pack

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

The remaining time in minutes also appears.



When the remaining battery indicator reaches the lowest point, the 1 indicator appears and starts flashing on the LCD screen or in the viewfinder. When the 1 indicator on the LCD screen or in the viewfinder changes from slow flashing to rapid flashing while you are recording, set the POWER switch to OFF on the camcorder and replace the battery pack. Leave the tape in the camcorder to obtain a smooth transition between scenes after the battery pack has been replaced.

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.

The battery pack heats up

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

Battery pack care

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

é ôôî áó, †îëë
†ííüîüîííüó îòë · †ú† ââë

äó, †îîâ%üâü á†îâíííü,
†ííüîüîííüó îü · †ú† â.

ç ô ó áòàá ôôî áó, †îëíí, ë%áóí†îä öë
úí†âüâí, í†ëë%íóí ëóú†ííë~áóíóí~í †îä
ëíë, óíîä, ë%öëí†üâííí öóí†â°, †âü
öóüâáóííóä úâíä, ^îëä öóú† · ^,, öóíí
á† íí† · †ú† äë [a].
è ë~úóí í†~í †í, °, ö%ëúóíí ú†íëä
öóú†, ^âáóíí, áííí †·óú· í†îä °, íëíüü†í.

ëöüîäüó,,ó, í†í úí†âüâí, öóú†, ^,, öóíí
á† íí† · †ú† äë %óíö%ëú %ó íëä äë úó~íë, ,
óíîä, ë%öëí†üâííí öóíí, íííäüóíí íë,,† · ëë
ëíëí†úó í.
äó,,† íä%îâííóä íë,,†íëä ëíëí†úó † í í†
ëë%íóí ëóú†ííë~áóíóí~í †îä ëíë, óíîä
ë%öëí†üâííí öä äë%ú, · °óú öä, úóú†íó, ëúä
öä áíí~†üâí, POWER, öóíöäíëä öff ë
á†îäíëüä †ííüîüîííüó îü · †ú† â. çä
ëä, íâí†ëüä ëä, ë%áóí†îä ° í†öäüü, ~úó·
öä áíö% öú öóóíä%îä,,ó öä ä%á†îäíöë · †ú† äë
í†% † í öíä%ü · áíü öóíü~ëíóíí öí†, í·í.

ë, ä%âîëíí ó · †ííüîüîííüó îòë
· †ú† ââ

çíëí†íëäí

çëíó,,† íä öóú†, íííëüä · †ú† â, íäóú†í, %â
öáíóëíó öó, ^îëä üâíöä †üü ° ö, ä í
60°C (140°F), í†ö ëíä, †, úóíó. ëíä,
á†ö† íó, †ííóí, öóíîä~íóí íäóüä, ëíë öó%
ö íí† íë íü~†íë öóíí†.

ç†,, ä, †íëä · †ú† äë

çó, áííí á† ííë†íëííëíë †·óú°
ë%áóí†îä ° · †ú† áííí,, ä, †âüóíí. úóó
íó †íí íöäíí, íâíëä, íóúó äó, íâ†íóö
°, %áíâíëäí~íâíü ó~íä „ëë ë íëíë~áóíëíë
ö ó~áóó†íë, íüü ë · †ú† äë, ë íâíí, íííäüóíí
öó, ö%óíí %íí · äöóóíöëóú, †.

ííó% á† †ííüîüîííüó îòë · †ú† ââë

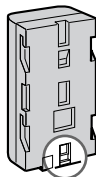
- ëó óíóí~†íëë öóíí áó, †îëíí · †ú† ââë
öú%áííëüä ää öú, ë%áóí†îä ° ë í †íëüä ,
ö öíí†íóí íäóüä. äó,,† · †ú† áíí
öó%öä%ëíâí† í í†îä ä, í†îä †öó,,íó~†âü
íä·óí~öä íóíë~áóú, ó~íâíü ó~íä „ëë,
%†ëä áóíë öä áíí~†üâí, POWER
í†íó%ëúóíí, öóíöäíëä öff, , áâíí, ú†üä
^,,ó · †ú† áíí †ä ííë†âüóíí.
• ë†ä ííë†íëä á† ííëäííöë · †ú† äë
ö öëóíö%ëú %†ëä úó,,%†, íó,,%† ä, íä
öóíí áü, úóíí. ëó~úóíü · †ú† ä, öíä%öâü
á† ííë†í. íäóóö ä%öú, áííó öä ä%í†~†íóí
ö áííë.

Tips for using the battery pack

The switch on the battery pack

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

[a]



The life of the battery pack

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

Charging temperature

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

é ÔÓÎ ÁÓ, †ÏËË
‡ÍÍÛÛÛÛÛÛÛ ÌÓË. †Ú‡ ÂÂË

èÂ ÁÍÎ. ~†ÚÂÎ. Ì‡ ÍÓ ÔÛÂÂ
‡ÍÍÛÛÛÛÛÛÛ ÌÓË. †Ú‡ ÂË
Ç‡Â†~ÂËÂ~ÚÓ,, ÓÔÂ ÁÍÎ. ~†ÚÂÎ† - ÔÓÍÓ~,
Ç‡Í ÔÛËË~ËÛ. Á‡ ÆÂÂ†~Â. †Ú‡ ÂË ÓÚ
ÏÂÂ‡ ÆÂÂ†~1. á‡ ÆËË, †Ú‡ Â, ÛÓÚ‡ÏÓ, ËÚÂ
ÔÂ ÁÍÎ. ~†ÚÂÎ. Ì‡ ÂÂÎÂÛ. ÔÛÎÂÛÛ. **[a]** (è Ë
ÔÛÂÂÎÂËË Á‡ ÆÂÂ†ÏË. †Ú‡ ÂË ÓÚ ‡‡ÔÚÂ †
ÔÂÚÂ, Ó,, Ó ÔËÛ‡Ë† ÔÂ ÁÍÎ. ~†ÚÂÎ.
‡, ÚÓ†‡ÛË~ÂÓËË ÛÓÚ‡Ï, ÏË, ‡ÂÛ† Ì‡ ÂÂÎÂÛ.
ÔÛÎÂÛÛ.)

è ÓÍ ÔÛËË. ° ‡ÍÍÛÛÛÛÛÛÛ ÌÓË
~†Ú‡ ÂË
ÔÛËË ò ‡ÂÛ ÔÓÔÏÂ, ÏÎ. ~ÂË†, ËÂÂÓÏ‡ÏÂ ° ò
ÔÓÏÏÓÛ. Á‡ ÆÂÂ†ÏË. †Ú‡ ÂÂË ËÏËË‡ÚÓ
Á‡ Æ‡† Ì‡~Ë†ÂÛ. °ÔÛ Ó ÏË, ‡Ú, ÂÂ ÔÏÂÔÂÚ
Á‡†ÂËÛ. Ì‡ ÌÓ, Û, Û‡ËÂ ÔÓÏÏÓÛ. ,
Á‡ ÆÂÂ†Û. †Ú‡ Â.

ÏÂÏÂ ‡ÚÛ ‡ Á‡ ÆË‡ËË†
ÂÛÛÛÛÛÛÛ Ì~Â. †Ú‡ ÂË ÔÏÂÔÂÚ Á‡ ÆË‡Ú,
Ô Ë ÚÂÏÂ ‡ÚÛ Â ÓÚ 10°C ~ 30°C (50°F -
86°F). è Ë. ÔÏÂÂ ÏËÂÏË ÛÂÏÂ ‡ÚÛ ‡
Ô ÔÓËËËËÂ†, ÌÓÛ, Á‡ ÆË‡ËË†
Û, ÂËË~Ë, ‡ÂÛ†.

Å±Ú± Â€ "InfoLITHIUM"

ÓÚÓ ÒÓ·ÓÈ Ô Â%ÔÚ‡, îfiÂÚ
 ‡ííÛîÛîfiúÓ ì‡fi·‡ú‡ Âfi
 "InfolITHIUM"

AþÚ‡ Äfl "InFoLITHIUM" - "ÚÓ IEÜÊÄ, ‡fl
 ‡flÍÜÜÍflÚÓ ì‡fl. ‡fl‡ Äfl, ÍÓÚÓ ‡flÍÓÊÄÜ
 Ó. ÌÄIE, ‡fl, Øfl ò Ø Èððððð. ÌÄÍÒÊ %fl "ÚÓ, ð
 , Ê‡Ä‡ðð‡ ‡ÜÜ ÓÊ %ìì ÌÊ ò ÓðÜÜÓflIEÊ Ê
 ‡ðlÓ‡, ‡IEÊ ò. ÄÄ, ÓÄ fl‡.

[illegible]

āī ī ōōō · īēīāūōī ōōō ā · īāīēā
 ~īā „ēē · ūū† āē
 āīūāīōē, īōōū, ò īōūō ōē, ēēāōī†īā †
 ōōū ā · īīāū ~īā „ē, ā†, ēōēū ōū āēēī†āā
 ~īōđīū†ū†ēē (ēōđōī, āō, †īēā
 ēēīē ēōū†īē ~āōīō, ō ~ī †††,
 †, ūōī†ūē ~āōīē ††, ōēīē †† āāīōōū. ē.ū.%)
 āī†īēāē ūī ōōōōīīēā, ēēāōī†īā †, †ū† āīī
 “InfoLITHIUM” ā†īā īāūōōū ā · īāīēā ~īā „ēē
 ē †ōđēū”, †āū, †† ī†īōā, āīīī, †ūēū
 ēīā, ~ā, ōōīī, īāē ā† īē†. ē ē āāīōī
 ēāīāīāīēē āēēī† · ō.ū. īīāī.
 ēīēē ē ūāī†ī, āīē ~ēī† ōōū†, ~ā, ōōīī
 , āīāīē †.ōū. īōēāū ò †āū, ōā †ōūē ēīē
 ōōī †ūēū, ōīī. ōīāā ~āī ī† 2 īēīūū.
 ç īāīōōō ° 1 ōīū ~īīī ēē, †. ēē ēīēī†ūō ī
 īōēāū ōōīī, ēū, ōīī † ēēēīōī ēōū†īē ~āōīōī
 ~ī ōīā ēīē, ōīāī, ēēōēōī†ūāīīī, †ēā āōīē
 ōō ūī†āīāīē ōōū† ~āōīī, āīīī †.ōū.
 ōōōū†, īīāū ā ~ā ōū 5% ō 10 īēīūū.

Notes on charging

A brand-new battery pack

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

Recharge the battery pack whenever you like

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

Notes on the terminals

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

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

Be sure to observe the following

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

â† flĖ†İĖĖ .†Ú† ÂĖ

çÓ,†fl †İİÜİŨİflUÓ İ†fl .†Ú† Âfl
ĂİİÜİŨİflUÓ İˆĖ .†Ú† ÂĖ Ő Ő%†.UŐfl
İĖĖ† flĖĖİİˆİĖ. ĖĖ Ė% ŐŐİ, ÁÓ,†İĖĖİ
.†Ú† ÂĖĖ ĖĖ İĖŐ.İŐİŐŐ ŐŐİİŐŐ,
Ė† flĖĖŨ.

ĖŐ%Ė† flĖ†Ú. .†Ú† Ė. İŐİŐŐ, İ. .ŐĖ
İŐİĖİŐ ŐŐ ç† ĖİŐ ŐŐİŐŐ ĖİĖ.
ĖĖ Ė%ˆŨĖİ ĖĖ İĖŐ.flĖĖİĖİ, İŐ †Ė flĖ†Ú,
ŐŐİİŐŐŐ. . ŐŐİĖ çˆ, ŐŐİİŐŐŐ, Ė† flĖĖ,
.†Ú† Ė., İĖ ŐŐİ, ĖŐĖĖĖ, Ė., ŨĖĖİĖĖ
%Őİ,,Ő,,Ő, ĖİĖİĖ, .†Ú† ÂflˆŐŨĖİŐ
†Ė flĖ†ĖŐfl. ç Ũ†İĖİ ŐİŐˆ†fl ŐĖ Ė% İ†ˆİŐİ
ŐŐİ, ÁÓ,†İĖİ ĖĖ ŐİĖ%ŐĖ ŐŐ%Ė† flĖĖŨ.

é İŐİŐ†İŐ†İ .†Ú† ÂĖ

ŐŐİĖ İŐİŐ†İŐˆ .†Ú† ÂĖ (İĖĖ†İĖˆĖİĖĖ
ˆŐŨĖ İ†,İŐŐ ĖİĖĖ ŐŐŐ ŐİĖ İŐ ŐŐŐ)
Ė†,, flĖĖİĖˆ, ŐŐ ĖĖ ĖİİŐŐŐ, ŐİĖİ.ˆ†ĖŐfl.
ç ŐİŐˆ†ĖĖ†, flĖĖİĖİİ İŐİŐ†İŐŐ, ĖİĖ,
ŐİŐˆ†Ė, ĖŐİĖ .†Ú† ÂĖĖ İĖ ŐŐİ, ÁÓ,†İĖŐ,
ŨĖĖĖĖ%ĖĖŨİ, İŐ,,Ő, ĖİĖİĖ, .†Ú† Ė.
ŐİĖ%ŐĖ Ő ĖŐŐ%ĖİĖŨ. İ İ†İĖ ĖĖ
ŐŐŐĖ%ĖİĖŨ, ŐŐ İĖĖ İĖŐİŐİ, İŐ †Ė ŐŐ% flĖ.
ŐŐŐ ŐŐİŐŐ,†ĖŐ ŐİŐˆŨ. ŐŐŐŐflĖĖ İŐİŐ†İŐŐ, .
ă ŐİĖŐŐ,,Ő, İŐİŐ†İŐˆ, Ő.ŐĖİ†ˆĖİĖˆ
ŐĖİ,Őİ†İĖ+, -ĖĖ, ŐİĖ%ŐĖ Ő ŐŐĖ ĖŐ,
İfl,,İŐĖ İ†ŐĖ ĖĖĖ ĖİĖ.Őİ†,,ŐĖ.

çĖ Ė†.ˆ,†ĖŨĖ Ő ŐİĖ%Ő.ˆĖİ İĖ †İ
Ő Ė%ŐŐŐŐ ŐĖİŐŐŐ:
• ĖĖ Ė,,ĖŨĖ .†Ú† Ė. ŐŐŐ,İfl.
• çĖ%ŐŐŐİ†ĖŨĖ İ†İŐİ†İĖİ.†Ú† ÂĖ.
• çĖ,Őİ ˆ,†ĖŨĖ İŐ ŐŐŐ.†Ú† ÂĖĖ İĖ
ŐˆŐ†ĖŨĖ. †Ė.Ė †Ő.ĖĖ.
• çĖ ŐŐ%,Ė,,†ĖŨĖ .†Ú† Ė. ĖĖİĖİ
İĖİ†İĖˆĖİĖİ,ŐĖ%ĖĖŐŐ,Ėİİ.

Maintenance information and precautions

êâïóíâï%±`ëë ôô ûïó%û ë
ïâ ° ô â%ôôúó óëïóóúë

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. Take the following precautions.

Inside the camcorder

If there is moisture inside the camcorder, the beep sounds and the { indicator flashes. If this happens, none of the function except cassette ejection will work. Open the cassette compartment, turn off the camcorder, and leave it about 1 hour. When 6 indicator flashes at the same time, the cassette is inserted in the camcorder. Eject the cassette, turn off the camcorder, and leave also the cassette about 1 hour.

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 1 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 1 hour).

äöï%âïò±`ëfl, î±,,ë

è ë ìäóóó â%óú, âïíóí óóó%±íëë
, ë%âóí±íâ ° ò ìóíó%±, úâóíóâ ìäóúó î± ââ
, ìúú âïëí%âú±ífl, î± óó, â ìíóóúë
î±,, ìëúíóë ìâíú° ë î± ìëíââ ó· âíúë, ± íóëâú
ò óëâóëúë íóí%âïò±`ëfl, î±,,ë. ç ââúí, ú±úâ
~úó,,ó, óâíóëíó ò ëíëò±íëâ ìâíú° í
· ± ±·îú, ë%âó,, óíó, óí ë ââ óó, âë%âíëâ, ±
ú±íëâ% ú,, ëâ ò·òë, ±·óúâ, ë%âóí±íâ °.
çó ëâ·âë±íëâ óó, âë%âíëë, °â, ±íí°1
óó%ó·í°íë ò ë`ëí±íë, î±íâ ±óóí±`âí±
%âúâíúó ±íë, î±íëíóóúë. è ë óóí, áó, ±íëë â,
ìâó·ìó%ëíó óó·í%±ú, óíâ%ú·`ëâ ìâ °
ò â%óóúó óëíóóúë.

çî±,,±, ìúú ë, ë%âóí±íâ °
è ë óóó%±íëë, î±,,ë, ìúú, ë%âóí±íâ °
óó%±âúóíí óë,, î±í·ëóâ ±ë óóí, íflâúóíí
íë,,±,`ëë ëí%ëí±úó {·è ë`úóí
óúíí~±·úóí, óâ úúíí`ëë í±íâ ° í óíâ
óúí °, ±íëí ì±óóâúó ëâíëí±ífl
ëâ, ìâ~âíëí ì±óóâú°. ëúí óëúâ
ì±óóâúóó ëâíëí, °íí~ëúâ ì±íâ ò ë
óóú±, úâ ââ, ú±íóí óóíóëâíëë ò ëíâ ìó ì±
ó%ëí~±ò. óóíë íë,,±âú ú±íëâ ëí%ëí±úó 6,
~úó âí±`ëú, ~úó, ë%âóí±íâ â ëíââúóíí
ì±óóâú±. ââ, ìâíëúâ ââ, °íí~ëúâ ì±íâ ò, ë
%±ëúâ ì±óóâúâ ú±íëâ ò óóóíìúú, úâ~âíëâ
ó%íó,,ó~±ò±.

çî±,,± ì± ìëíââ ó· âíúë, ±
äóí%âïò±`ëfl, î±,,ë ì± ìëíââ ó· âíúë, ± ìâ
ò ë, ó%ëú í óóí, ìâíë ì±íëí-íë·ó
ëí%ëí±úó ó,, ìó ëâó· ±ëâíëâ ò ë`úóí
óú±íó, ëúóíí ±óóí°, ~±ú°í. ç°íí~ëúâ
óëú±íëâ ë ìâ óóí, âúëúâó, ì±íâ óë, úâ~âíëâ
ò ëíâ ìó ó%íó,,ó~±ò±.

ä±í ò â%óú, ±úëú, íóí%âïò±`ë,
î±,,ë

è ë óâ âíâ~âíëë, ë%âóí±íâ ° ò ìóíó%±,
úâóíóâ ìäóúó óóíâ~±ëúâ ââ, óí±óúëíó, °ë
ò±íâú ë%±, ±ëúâ âë, âííí ±%±óúë ó, ±ú, óíí í
íóíí~úí°í úóíó, ëííí.

- (1) ëí±óúëíó, °ë ò±íâú ò ì±íâ óë
ó·íâ±úâí, ìó%óíëâí·ú, óíóúíó âíí °ú.
- (2) ââ, ìâí±ú, ì±íâ ò ëâ ò±íâú± òíâ%óâú
óóóíâ úó,,ó, í±í úâíóâ ±úú ±, ìúú ë ìâ,,ó
ò ±, íflâúóíí ò úâíóâ ±úú óë óí òë±,~â,,ó
, óâ%ú±± (ò ëíâ ìó~â ââ ó%ëí~±ò).

Video head cleaning

To ensure normal recording and clear pictures, clean the video heads.

The video heads may be dirty when:

- mosaic-pattern noise appears on the playback picture
- playback pictures do not move
- playback pictures are hardly visible
- playback pictures do not appear
- the V indicator and “ æ CLEANING CASSETTE” message appear one after another or the V indicator flashes on the LCD screen or in the viewfinder

é~ÈÒÚİ‡ , È%ĀÓ,,ÓİÔ,Óİ

Ŋİfl Ő. Ó. ÀÒĀ~ĀİÊfl %ÓİÊİÔ,,Ó İ‡~ĀÒÚ, ‡ Ò~ĀİİÊ
Ê ~ĀÚİÔÓÚÊ ĒĀÓ. ‡ÊĀİÊfl ,È%ĀÓ,,ÓİÔ,İÊ
İĀÓ.10%ÊİÔ , Āİfl ŐÚ , ĀİĀİÊ Ő~Ê~‡Ú.
è ÊĀİ‡İ‡İÊ Ā‡, flĀİĀİÊfl ,È%ĀÓ,,ÓİÔ,Óİ İÔ,,ŐÚ
~Ŭ :
• “İÔĀ‡Ê~İ~Ā” ŐÓİĀİÊ Ő Ê ,ŐŐ ŐĒĀ,Ā%ĀİÊÊ
~È%ĀÓĀŐÊŐÊ
• Ő.ŐÊ ,%,ÊÊĀİÊÊ ĒĀÓ. ‡ÊĀİÊfl
• ŐİÔİ‡fl ‡ĀİÊ~ÊİÔŐÚ ĒĀÓ. ‡ÊĀİÊfl
• ÈŐ~ĀĀİÔ,ĀİÊĀ ĒĀÓ. ‡ÊĀİÊfl
• ŐŐŐİĀ%Ő,‡ŬĀİ, İÔĀ ŐŐfl, İĀİÊĀ İ‡
ÊÊ%Őİ ŐÈŐ~İÊ~ĀŐİŐİ~İ ‡İĀ ÊİÊ ,ŐİİĀ
~È%ŐÊŐİ~ŬĀİfl Êİ%Êİ‡ŐŐ ‡v Ê ŐŐŐ.~ĀİÊfl
“æ CLEANING CASSETTE” İÊ.Ő İÊ,,‡İÊĀ
Êİ%Êİ‡ŐŐ ‡v .



or
ÊİÊ



If **[a]** or **[b]** happens, clean the video heads with the Sony DVM12CL cleaning cassette (not supplied). Check the picture and if the above problem persists, repeat the cleaning. (Do not repeat cleaning more than 5 times in one session.)

Note

If the DVM12CL cleaning cassette (not supplied) is not available in your area, consult your nearest Sony dealer.

Ç ŐİŬ~‡Ā **[a]** ÊİÊ **[b]** ,È%ĀÓ,,ÓİÔ,İÊ
İĀÓ.10%ÊİÔ Ő~ÈŐŬÊŬ. Ő Ê ŐŐİŐ~Ê ~ÈŐŬfl~ĀÊ
İ‡ŐŐĀŬ° Sony DVM12CL (, İŐİŐİĀİŬ İĀ
~10%ÊŬ). èŐŐİĀ~ŬŐ,ŐŐİĀ%ŬĀŬ Ő Ő,Ā ÊŬ.
İ‡~ĀÒÚ,ŐĒĀÓ. ‡ÊĀİÊfl Ê, ĀŐİÊ ŐİŐ İĀ
~ŐŐŐŬİŐ,ÊİŐŐ, ŐŐ,ŬŐ ÊŬ. ~ÈŐŬİŬ,,ŐİÔ,Őİ
(~ŬŐ Ő Ő~Ā%Ŭ Ŭ İĀ ŐİĀ%ŬĀŬ ŐŐ,ŬŐ flŬ. ~ŐİĀĀ
ŐflŬÊ ‡ĀŐŐ% fl%).

è ÊİĀ~‡İÊĀ
ŐŐİÊ ~ÈŐŬfl~Ŭ. İ‡ŐŐĀŬŬ DVM12CL (,
İŐİŐİĀİŬ İĀ,10%ÊŬ) İĀ,ŐĀİŐÊİŐ Ő ĒŐ. ĀŐŬÊ
Ŭ‡İ, %ĀÇ° ÊÊ,ĀŬĀ, Ő. ‡ŬÊŬĀŐ, İ
~İÊÊ‡Ê ĀİŬ %ÊİĀ Ŭ ŬÊ İ° Sony.

â ° ô Å º Ó Ò Ú Ó Ó È Ì Ó Ò Ú Ë

ùíòôîû±ú±^ëfl ,ë%áoí±ïâ °

- ÇÊÁÓÍÄÏÄ † †.ÓÚÄÚ ÓÚ ËÓÚ~ÏËÍÓ,
 ÓËÚÄÏËÍÓ Ì‡Ó ÏËÄÏËÄÍ 7,2 Ç
 (††ÍÚÍÚÍÚÓ †††.†‡† Ä††) ËÏË 8,4 Ç
 (†‡†ÓÄ ÆÄÚ,Ó ÓËÚÄÏËÍ).
- Ç ÓÍÚ~†Ä ÓÓ†‡.ÏËÍ,ÍÚÚ ÍÓ ÓÚÓ† Í†ÏËÍ-
 ÏË.Ó ÓÓÓÚÓ ÓÏÏËÍ Ó Ä.Ä.ÍÄÚÓ,ËÏË
 ËË.ÍÓÓÚÄË ÓÚÍÍ.~ËÚÄ,Ë.Ä.ÓÍÄÏÄ Ú ÓÚ ÓÄÏË
 È ÍÄ ÓÍ†.ÄÚËÚÄ Ä.Ä.Ó ÄÚÄ ÓÓ,ÓÓÍ† ÄÄÍÄ
 Ó Ó,Ä ËÚ.ËÏÄ ÚË Í. Sony.
- ÄÄ Ä.ËÚÄÏÄ Ú ÓÚ ÄÄÏËÍ ÓÓÚ ÏÄÄÏËË È
 Ú‡†.Ó. .ÓÓÓ.ÄÍÍÓ.Ä ÄËÍÓËÄ.ÚÄÚ
 ÓÚÍÓÓË,Ó† Í ÏËÄÄ.Ó. ÄËÚÄ,†.
- äö,‡† Ç. ÍÄ ÓÓ†.ÄÚÄÚÄ,Ë.Ä.ÓÍÄÏÄ ÓË,
 ÓÄ ÄÍÍ.~†ÄÍÄ. POWER.ÓÏËÄÍ ††.ÍÓ.ËÚ. Ó††
 ,ÓÓÍÓËÄÏË ÖFF.
- Ç Ä†,Ó †.Ë,†ËÚÄ,Ë.Ä.ÓÍÄÏÄ Ú,Ó ~ÚÓ-ÏË.Ó
 Ó È Ó.ÄÍÄ,ÓËÄ.ÄË†ÏËÄ ÄÄ ÓÄ Ä.,Ä,†.
- Ç Ä ÓÖ‡,Ä „†ËÚÄ ††Ä Ú,ÓÄÄ.ÄËÓÚ,Ë.
 ÓËÍ,Í† Í††.ÏËÚÍ.1 ÓÓÍÄË ËÏË ÍÄ†ÏË~ÄÓÍÓË
 È.†ËË.

é. ±~ÂÏËÂ Ò ,Ë%ÂÓÍ±ÒÒÂÚ±ÏË

- ÇÂ Ò ÒÓ, , ðËÙÀ ÒÓÓÚ ÒÌÈÌ Ò Æ&IÁÚÓ, ,
ÓÚ, Æ ÒÙÈÌ, ÈÌÀ, ÈÁÒÌ, ÍÓ ÒÓÒÀ
È&ÁÓÍÒÓÓÚ.
- ÇÀ, ÒÌ , ðËÙÀ ÍÓÈÚ, ÆÌ~È~ ðÈÈ
È&ÁÓÍÁÍÚ, ÈÌÀ Ò ÈÌÒËÙÁÓ, Í ÁÍÁÚÁ.
- èÙ ðËÙÁÓ, ÍÀ Ò ÈÌÒÙ, ÒÌ ÍÍ ÁÍÚ ÒÌÌÍ
ÍÓÍÚÍÚÍ, ÒÓ. ÍÀ ÒÓ, Æ&ÈÙ ÈÌ.
è~È ðËÙÁÓ, Á ÍÓÓÚ, ÍÓÍÚÍÚÚ, ÓÚ Ò ÈÈ
ÌÌ. ÍÓÈ ÍÚÁ ÈÆ.

110% Á† , È%ÂÓÍ†ÏÂ ÓÈ

- 00IE Ç , ÛÀ~ÀIEÀ%0I,0,0 , ÀIÀIE IÀ
00.É ±ÀUÀ0 00I,À0,±Ù 0FI I±IÀ 0E,
00II ~EÙÀ ÀÀ 0Ù È00Ù~IEI± ÒEÙ±IEFI È
ÈÀ,IAIEÙÀ,È%ÀOI±0ÀUÙ.Ç ÀIHI0Ù, ÀIÀIE
0IÀ%0ÀU,II,~±Ù 0EÙ±IEÀ, ÀEEI±I
,È%À00 ÀIIE È,000 0EÀ,À%ÀIEFI È
,000 0EÀ,0%ÈÙ, È%À0À±0E0, ÛÀ~ÀIEÀ
0 ÈIÀ IO3 IEIÙÙ.
- é~È ±EÙÀ IEIÀÙ 0. ÀIÙE,±Ù 0Ù 0~IE IFI,IOÈ
IE0Ù0~IOÈ. Ç 0IÙ~IÀ 00FI,IAIEFI I± IÀE
0Ù0À~IÙ0, 0±I, ÀÀ, 00Ù EÙÀ ÈI IFI,IOÈ
I±ÙÀ ÈÀE.
- à0 000,È%ÀOI±IÀ ° 0IÀ%0ÀU 0 0ÙE ±Ù
IÙ0IOI IFI,IOÈ I±ÙÀ ÈE, 00IÈI ÈIE 0IÀ,I±
0IO~ÀII~I 0I±.~I ±Ù0,0 0I IO ~À,0
0 À%0U,±.ÇÀ00I ÀEÙEÀ0, ±Ù0,0 ÈUÀIFIÈ,
00000. I~IE 00, À%ÈÙ, 00.À IÙ0Ù IO 000±.
- ÇÀ°0000I±IÀ 000±~IEFI 0ÀOI±, IÙÙ
,È%ÀOI±IÀ °. ÇÀ%FI 0~ ÀIIÙ I± 0IFIÈÀ ÈIE,
0EII IO À±0~IAII~I IÀU0±I, À À,ÈUÀ
I±IÀ 0Ù 0ÀOI± È 0~IE. èÀ00I ÈIE 0~I,
IO,ÙÙ, À,±Ù, 00IOI0Ù, È%ÀOI±IÀ °,
IOÙÙ IO IÀ.0À%±I±IÀUFI 0ÙÙ ±IEÙ.

Note on 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 case carefully before replacing the batteries.
- If you touch the liquid, wash it off with water.
- If the liquid get into your eyes, wash your eyes with a lot of water and then consult a doctor.

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

é ŌŪĬĒĬ .†Ū† ĀĒĬ†Ĭ

- ÇŌĒĀ.ĀĒ†ĬĒĀ ŌŌ, ĀĒ%ĀĬĒĒ, ĬŌŪŌ °Ā ĬŌ,,ŪŪ .°Ū,
°Ā,†Ĭ ĬŌ ŌĀĒĀĒĒĒ Ō ŌŪĀĬ†ĬĒĀĬ .†Ū† ĀĀĬ,
ŌŌĬĬĒĒĀ Ō ŌĬĀ%Ū .°ĀĬ.
- ĒĬĀ%ĒŪĀĀ† Ō †,ĒĬ, ĬŌŪŪ, ŌŪŪ†ĬŌ, ĬĒ .†Ū† ĀĀĬ.
 - ĒŪĬĒĀ .†Ū† ĀĒĬĒĒ ĬĀ †ŌŌ°ĒŪ†Ĭ Ĭ† ŌŌ%A† ĬĒ†ĬĒĒĀ.
 - ÇĀ ŌŌĬ, ĀŪĒŪĀŌ, Ō%ĬŌ, ĀĬĀĬŌ ŌŌ, °ĬĒĒ ŌŪ† °ĬĒ .†Ū† ĀĒĬ†ĬĒ.
 - ÇĀ ŪŪŪ†Ĭ†, ĬĒ, †ĒŪĀ, ĬĀŪĀ .†Ū† ĀĒĬĒ †ĀĬ°Ĭ ŪĒŌŌ, .
 - ŌŌĬĒ .†Ū† ĀĒĬ†ĬĒ ĬĀ ŌŌĬ, ĀŌ, †Ū, ŌĬ, ŌĬĒ ŌŌŪĀŌĀĬŌ †Ā ĬĒ†.ŪŌĬ.
 - ÇĀ ŌŌĬ, ĀŪĒŪĀŌ, .†Ū† ĀĒĬŌĒ, ĀŌĬĒ ŌĬ† Ō ŌŪĀĬ†ĀŪ.

Ç ŌĬŪ°†Ā Ō ŌŪĀĬ†ĬĒĒ .†Ū† ĀĀĬ

- Ē ĀĒ%A, °ĀĬĀ†ĬĀĒŪ .†Ū† ĀĒĬĒ, Ū°ĬĀĬ ĬŌ Ō ŌŪ ĒŪĀŌŪĀĬĀĒĀ, „%Ā ŌĬĒ .°ĬĒ ŪŪŪ†ĬŌ, ĬĀĬ”, °ŪŌ .° Ū%†ĬĒŪ, ŌĬĀ% .° ĬĀĬŪ ŌĬĒŪ†.
- Ē Ē ŌŌŌ†%†ĬĒĒ °ĬĀĬŪ ŌĬĒŪ† Ĭ† ĬŌĒŪ ŌĬŌĒĀĀ, Ō, Ō%ŌĒ.
- Ç ŌĬŪ°†Ā ŌŌŌ†%†ĬĒĒĒ °ĬĀĬŪ ŌĬĒŪ†, „Ĭ†Ā† Ō.ĒĬ, ĬŌ Ō ŌĬŌĒĀĒĬ, Ō%ŌĒ Ē Ō .†ŪĒŪĀŌ, Ĭ, †°Ū.

ŌŌĬĒ Ū Ç†Ō, ŌĀĬĬĬĒĒ Ĭ†ĬĒĀ-ĬĒ.ŌĀ†Ū Ū%ĬĀĬĒĒĒ,
ŌŪĬĬ.°ĒŪĀ †ŌŌ† †Ū ŪŪ ŌĀŪĒĒ Ē Ō .†ŪĒŪĀŌ, Ĭ
.ĬĒĒ†Ē ĀĬŪ%ĒĬĀ Ū ŪĒ Ĭ° Sony.

Using your camcorder abroad

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

Power sources

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

Difference in colour systems

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

Check the following list.

PAL system

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

PAL-M system

Brazil

PAL-N system

Argentina, Paraguay, Uruguay

NTSC system

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

SECAM system

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

èòî, áó, ìîë, ë%âóí±îâ òè
, á± ù·âëî° 1 öóâ%î±1

Ç ±âî° 1 òú ì±1ë, áó,, ìùë° àòíë 1 â, éóî±1
èòòòî, áú ùòî ìâíë° î° â âëëî° òâúâ, ó,, ó
~ îâíú òòëú±íëî ë ^, áúíò,, ó úâîâ, ë%âîëî.
è âë%â ° âî öúò ±, éú, òîî ò, ë%âóí±îâ òè ,
á± ù·âëîú. öóâ%îú, ó. ìùëúâð, í
ëíúò ì±° ëë, ò ë, â%âîíòë îëëâ.

àðúò~îëíë òëú±íëî

è ëî±,, ìâî° ë ì%±òúâ òâúâ, ó,, ó òëú±íëî
îòëîò èòòòî, áó, ìú, , î. òë öú ìâ ëíë
â,, éóîâ, ,, â î±ò îíëâîëâ° îâíú ë° àòíòë òâúë
òòúú±, ííâú óú 110 %ò 240 Ç ò ë ~ ìúúúâ 50/60
ë°.

ëëòúâî° ^, áúíò,, ó úâîâ, ë%âîëî

ñ±î±î, ë%âóí±îâ ± ±. óú±âú, òëòúâîâ
PAL. óúò. ° ò òòî±ú ë, ìú, öúòîíúòâ
éâó. ìëâîëâ ì± úâîâ, éâëòíòí° í ìâ, Ç±ì
òòî±%ò·ëúòî úâîâ, éâó òëòúâî° PAL.
é. ìùëúâð, í ò ë, â%âîíòíú îëëâ òâ â° î. .

ëëòúâî± PAL
â, òú ìîëî, â, òú ëî, ââî, ,, ëî,
Çâîëîó. ëú±íëî, éâ ì±íëî, éóîíòí,, ñ±íëî,
àòò±íëî, áú±íëî, âëú±ë, áú, âëú, â±íëâëî,
Çë%â ì±î° , Çó, ìî ââî±íëî, Çó , â, ëî,
èó úú,, ìîëî, ëëî,, ìòú , ì±ëî±ì,, ìëîííì%ëî,
ò, âë°± ëî, ò, â°ëî, ëíò, ì±ííí ëâòòú·îëí±,
òâ°òííí ëâòòú·îëí± ë% . öú ì±°

ëëòúâî± PAL-M
â ìâëíëî

ëëòúâî± PAL-N
â ,, âîúëî±, ë± ì,, ìë, ì ú,, ìë

ëëòúâî± NTSC
â±, ìîòíëâ èòú ó, ì, áóíë, ëî, Çâîâð° î±,
â±í±, áóîíú·ëî, áó âî, ââíòëí±, èâ ú,
èú ëî±î, èòâ, ì±ë, ìî, , ìëíëòòëî° ,
ñâîú ìî, ì±íâîâ ëí±, óëíë, úí, ì%ó ,
úí±ëí±, úòòíëî ë% . öú ì±°

ëëòúâî± SECAM
âóî, ì ëî, Çâî,, ëî, ë±ë±í±, â ìí, â ìí,
âóí±íò, èóî, ì±, èóòòëî, ìí ìëí±, ì ì±°ëî ë
% . öú ì±°

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. - Install the battery pack. (p. 7) - 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 Standby mode for more than 5 minutes. - Set the POWER switch to OFF, then to CAMERA. (p. 13) - The battery is dead. - Use a charged battery pack. (p. 7)
The battery pack is quickly discharged.	- The ambient temperature is too low. (p. 83) - 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. 27)

Operation

Symptom	Cause and/or corrective actions
START/STOP does not operate.	- The tape is stuck to the drum. - Eject the tape. (p. 11) - The tape has run out. - Rewind the tape or use a new one. (p. 23) - The POWER switch is set to VTR. - Set it to CAMERA. (p. 12) - The tab on the cassette is out (red). - Use a new tape or slide the tab. (p. 11)
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)
{ and 6 indicators flash and no function except for cassette ejection works.	- Moisture condensation has occurred. - Remove the cassette and leave the camcorder for at least 1 hour. (p. 89)
“CLOCK SET” appears when the camcorder is turned on.	Reset the date and time. (p. 81)
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 tape without cassette memory ejected after recording.

Continued to the next page

Trouble check

Operation

Symptom	Cause and/or corrective actions
The tape does not move when a tape transport button is pressed.	• The POWER switch is set to CAMERA or OFF. m Set it to VTR. (p. 23) • The tape has run out. m Rewind the tape or use a new one. (p. 23)
No sound or only a low sound is heard when playing back a tape.	• The volume is turned to the minimum. m Open the LCD panel and press VOLUME +. (p. 23) • AUDIO MIX is set to ST2 side in the menu system. m Adjust AUDIO MIX in the menu system (p. 69).
The new sound added to the recorded tape is not heard.	• AUDIO MIX is set to ST1 side in the menu system. m Adjust AUDIO MIX in the menu system (p. 69).
The SteadyShot function does not activate.	• STEADYSHOT is set to OFF in the menu system. m Set it to ON. (p. 29)
Recording stops at once.	• The POWER switch is set to PHOTO. m Set it to CAMERA. (p. 12)
Recording stops in a few seconds.	• The START/STOP MODE switch is set to 5SEC or  ANTI GROUND SHOOTING. m Set it to . (p. 16)
The autofocus function does not activate.	• Focus is set to the manual mode. m Set it to autofocus. (p. 44) • Shooting conditions are not suitable for autofocus. m Set focus to manual mode to focus manually. (p. 44)
The fader function does not work.	• The START/STOP MODE switch is set to 5SEC or  ANTI GROUND SHOOTING. m Set it to . (p. 16)
The title is not displayed.	• TITLE DSPL is set to OFF in the menu system. m Set it to ON in the menu system. (p. 29)
The title is not recorded.	• The tape has no cassette memory. m Use a tape with cassette memory. (p. 70) • The cassette memory is full. m Erase another title. (p. 73) • The tape is set to prevent accidental erasure. m Slide the protect tab so that red portion is not visible. (p. 72) • The fader function is working. m Wait until the fader function is finished. (p. 35) • Nothing is recorded in that position on the tape. m Superimpose the title to the recorded position. (p. 72)
The cassette label is not recorded.	• The tape has no cassette memory. m Use a tape with cassette memory. (p. 76) • The cassette memory is full. m Erase some titles. (p. 76) • The tape is set to prevent accidental erasure. m Slide the protect tab so that red portion is not visible. (p. 76)
Displaying the recorded date, date search function does not work.	• The tape has no cassette memory. m Use a tape with cassette memory. (p. 52) • CM SEARCH is set to OFF in the menu system. m Set it to ON. (p. 52)

Operation

Symptom	Cause and/or corrective actions
The title search function does not work.	• The tape has no cassette memory. - m Use a tape with cassette memory. (p. 57) • CM SEARCH is set to OFF in the menu system. - m Set it to ON. (p. 56) • There is no title in the tape. - m Superimpose the titles. (p. 70)
C/II indicator does not appear when using a tape with cassette memory.	• The gold-plated connector of the tape is dirty or dusty. - m Clean the gold-plated connector. (p. 79)

Picture

Symptom	Cause and/or corrective actions
The image on the viewfinder screen is not clear.	• The viewfinder lens is not adjusted. - m 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. - m Change locations.
The picture is “noisy” or does not appear.	• The video heads may be dirty. - m Clean the heads using the Sony DVM12CL (not supplied) cleaning cassette. (p. 90)
v indicator flashes on the LCD screen or in the viewfinder.	• The video heads may be dirty. - m Clean the heads using the Sony DVM12CL (not supplied) cleaning cassette. (p. 90)
The picture is too bright or too dark.	• LCD BRIGHT is not adjusted properly. - m Press + or – to obtain the brightness you want. (p. 17, 23)
A vertical band appears when shooting a very bright subject.	• The camcorder is not malfunctioning.
The picture does not appear on the LCD screen or in the viewfinder.	• Incorporated fluorescent tube is worn out. - m Please contact your nearest Sony dealer.
The picture does not appear in the viewfinder.	• If VF PW-SAVE is set to ON in the menu system, the picture disappears automatically when you turn your face away from the viewfinder. - m Bring your face close to the viewfinder within 1 cm (1/2 inch). Or, set VF PW-SAVE to OFF. (p. 31) • The LCD panel is open. - m Close the LCD panel.
The picture in the viewfinder does not disappear even VF PW-SAVE is set to OFF in the menu system.	• Sunlight or the incandescent lamp may prevent the viewfinder sensor from working correctly. This is not a malfunction.
An unknown picture is displayed in the viewfinder or on the LCD screen.	• If 10 minutes elapse after you set the POWER switch to CAMERA without inserting a cassette, the camcorder automatically starts the demonstration or DEMO is set to ON in the menu system. - m Insert the cassette and the demonstration stops. You can deactivate the demonstration. (p. 117)

Continued to the next page

Trouble check

Others

Symptom	Cause and/or corrective actions
While editing using the DV connecting cable, recording picture cannot be monitored.	Remove the DV connecting cable, and connect it again.
The camcorder becomes warm.	If the power of the camcorder is on for a long time, it becomes warm, which is not malfunction.
The supplied Remote Commander does not work.	- 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. 114) - The batteries are dead. - Insert new ones. (p. 114)
No function works though the power is on.	Disconnect the connection plug on the battery pack or on the AC power adaptor, then reconnect it in about 1 minute. Turn the power on. If the functions still do not work, open the LCD screen and press the RESET button above the FOCUS switch using a sharp-pointed object. (If you press the RESET button, all the settings including the date and time return to the default.) (p. 81)
The numbers or letters of 5 characters is displayed as a counter.	- Self-diagnosis function was activated. - See the table in page 100 and treat the camcorder appropriately.

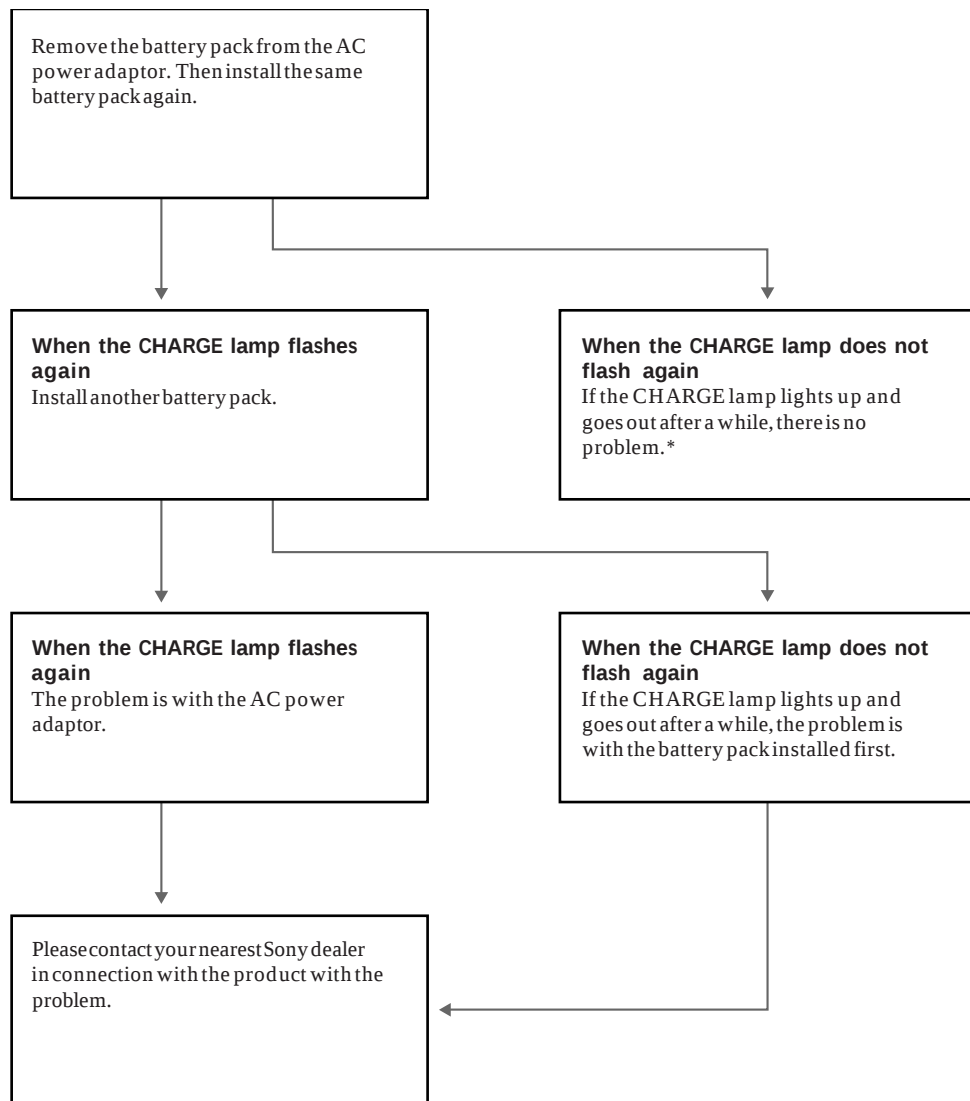
AC power adaptor

Symptom	Corrective actions
The VTR/CAMERA or CHARGE lamp does not light.	Disconnect the mains lead. After about 1 minute, reconnect the mains lead. (p. 7)
The CHARGE lamp flashes.	See the chart on the next page.

Trouble check

When the CHARGE lamp flashes

Check through the following chart.

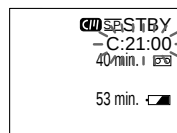


* If you use a battery pack which you have just bought or which has been left unused for a long time, the CHARGE lamp may flash at the first charging. This does not indicate a problem. Repeat again to charge with same battery pack.

Trouble check

Self-diagnosis function

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



First three digits	Cause and/or Corrective Action
C21	- Moisture condensation has occurred. - Remove the cassette and leave the camcorder for at least 1 hour. (p. 89)
C22	- The video heads are dirty. - Clean the heads using the Sony DVM12CL cleaning cassette (not supplied). (p. 90)
C23	- The camcorder does not operate when using a battery pack that is not an "InfoLITHIUM" battery pack. - Use an "InfoLITHIUM" battery pack. (p. 7)
C31	- To prevent the camcorder from malfunctioning, the self-diagnosis function has worked. - Remove the cassette and insert it again, then operate the camcorder. (p. 11)
C32	- To prevent the camcorder from operating malfunctioning, the self-diagnosis function has worked. - Disconnect the mains lead of the AC power adaptor or remove the battery pack. After reinstalling the power source, operate the camcorder.
E61	- To prevent the camcorder from malfunctioning, the self-diagnosis function has worked. - When you contact your Sony dealer or local authorized Sony service facility, inform the service number with five digits. (example: E:61:10)
E62	

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

ι00U ±IAIEA IA0OI±%OI

00IE U C±0, 0AIEIE I±IEA-IE 00 0·IAI° 0 E~I00IU±U±EE, E%AOI±IA°, 000OI AU0UA0 %IF, °FI, IAIIE E UOU ±IAIEFI E1 0 E~EI 0 E, A%AIIOE IE0A U±. IE~AE. 00IE A EU, 0 0·IAIU IA U%±AUOI, 0II, °EUA ±00± U± 0U 0AU E 0, FIEUA0, 0·IEE±E EI%EIA 0I UE I° Sony EIE 00A~E±IEA 0, ±IOE I±0UA 0IOE 00 AI0IU0 0 0%U±EE Sony.

CE%AOI±IA ±

εEU±IEA

εEIOUOI°	ε E~EI° E/EIE %AE0U, EFI 00 UOU ±IAIE.
CA, II, °±AUOI 0EU±IEA	- CA 00U±IO, IAI± IFIU0IFIU0 I±FI·U± AFI. m IU0±IO, EUA IFIU0IFIU0 IU. ·U± A. (OU . 7). - A±U± AFI ±A FIEAI±. m 000OI, AU0UA A± FIEAIU. ·U± A. (OU . 7). - A%±0UA 0AU, 0,, 0 EUU±IEFI IA 00%II °AI I 0AU. m e0%II, °EUA ±±0UA 0AU, 0,, 0 EUU±IEFI I 0AU (OU . 27).
εEU±IEA 0±IO 0EA, 0I, IO 0UI, °±AUOI	- e±·0U±FI, AEEIA CAMERA, E%AOI±IA ±·I± 00U±, IAI±, 000U0FIEE 0EE%±IEFI I±·I± A±0E0E·OI, A, °AI I± 5 IEIU0. m eA A, A%EUA 0A AII, °UAI, POWER, 00IOEAIIEA OFF, ± A±UAI, IO,, 00IOEAIIEA CAMERA (OU . 13). - A±U± AFI ±A FIEAI±. m 000OI, AU0UA A± FIEAIU. ·U± A. (OU . 7).
A±U± AFI ±A FIE±AUOI 0IE IOI °OU 0	- eIE IOI IEAI±FI UAI0A ±UU ±, 0A%U± (OU . 83). - A±U± AFI A± FIEAI± IA 00II00U. m eA AA± F%EUA·U± A. (OU . 7) - e OI 0IU E··U± AE A±IOI° EIOFI, E 0I±·OI, °A IA 00%A± FIE±AUOI. m 000OI, AU0UA% U,, U. ·U± A. (OU . 27).

U000IU±U±EF

εEIOUOI°	ε E~EI° E/EIE %AE0U, EFI 00 UOU ±IAIE.
CA ±·0U±AU IIOOI± START/STOP	- CE%AOI±IAU± 0 EIEOI± I·± ±·IU. m aA, IAI0UA I±00AU (OU . 11). - AIU±, I±00AU A±IOI° EIP. - m eA AI0U±EUA IAIU EIE U0U±IO, EUA IO, U. I±00AU (OU . 23). - eA AII, °UAI, POWER I±IO%EU0FI, 00IOEAIIEE VTR. m IU0±IO, EUA 0A AII, °UAI, 00IOEAIIEA CAMERA (OU . 12). - c± I±00AU 0%, EIU0± A± EUU±FI A±%, EEI± (E%I± I ±0I±FI 0I±0UEI±). - m 000OI, AU0UA% U,, U. I±00AU EIE 0A A%, EI, UA A±%, EEIU (OU . 11).
a±00AU± IA EA, IAI±AUOI EA I±00AU0 EAIIEI±	A±U± AFI ±A FIEAI±. m 000OI, AU0UA A± FIEAIU. ·U± A. EIE ±±0UA 0AU, 0,, 0 EUU±IEFI (OU . 7, 27).
AE, ±U EIE EI±UO { E 6, ±EA UUI°EE, E%AOI±IA ±·0U±AU 0OI, IO 0E0UAI± EA, IA~AIEFI I±00AU°	e 0EAO I± IOI%AI0±EF, I±, E. m aA, IAI0UA I±00AU E IA 0OI, AU0UA0, E%AOI±IA 0E, UA~AIEA 0 EIA IO 0%IO, 0°±0± (OU . 89).
e E, II, °AIIE, E%AOI±IA ° 0OFI, IFIAUOFI I±0E0, "CLOCK SET"	IU0±IO, EUA%±UU E, AIFIA±IO, 0 (OU . 81).
CA, II, °±AUOI UUI°EF 00E0I± IOI± A±0E0E	- e00IA 0·AIE I±00AU±·I± EA, IA~AI± EA, E%AOI±IA°. m e0E0I IOI± A±0E0E IA, II, °±AUOI %0 UA 00, 0OI± C° 000IA EA, IA~AIEFI I±00AU° IA 0%AI±AUA I± IAE IO, U. A±0E0. - a±00AU±, IA EIA, °FI IAIU 0IOE 0±FIUE, °I± EA, IA~AI± 000IA 0·AIE.

Additional information / No00IEUA I±FI EU0 I±EF

υιΟΟ†ΙΟΥ†‡~Ε†

εΕ†ΙΟΥΟ†	ε Ε~Ε† Ε/Ε†Ε %ΑΕΟΥ, Ε† ΟΟ ΟΟΥ †ΙΑΙΕ.
ε Ε†Ε†‡ΕΕ† Ι† ΙΙΟΟ†Ε ΟΟ †, ΙΑ†Ε† %ΕΕΑ†ΕΑ† ΙΑ† ΙΑ†‡ ΙΑ %, ΕΕΑΟΥ†	- εΑ Α†† ~†‡Α†, POWER Ι†‡ΙΟ%ΕΟΥ†, ΟΟ†ΟΕΑ†ΕΕ CAMERA Ε†Ε OFF. - m ΙΟΥ†ΙΟ, ΕΥΑ ΟΑ Α†† ~†‡Α†, ΟΟ†ΟΕΑ†ΕΑ VTR (ΟΟΥ . 23). - αΑ†‡, Ι†ΟΟΑΥΑ†‡ΙΟ† Ε†Ο. - m εΑ Α†ΟΥ‡ΕΥΑ ΙΑ†ΟΥ Ε†Ε ΟΟΥ†ΙΟ, ΕΥΑ% Ο, Ι†ΟΟΑΟΥ (ΟΟΥ . 23).
εΟΥΟΟΥ, ΟΑΥΑ, Ο† Ε†Ε ΙΑ%ΟΟΥ†‡~" Ο††ΟΟΥ, Α, Ο†‡ Ο Ε , ΟΟΟ ΟΕΑ, Α%Α†ΕΕ	- Ε Ο††ΟΟΥ Ο†Α† ~Α†‡ %Ο†Ε†Ε†ΟΥ†. - m ε†Ο† ΟΕΥΑ ΕΕ%ΙΟ† ΕΟΥ†††Ε~ΑΟ†ΟΥ Ο†‡Α†. Ε Ι†Ε†ΕΥΑ ΙΙΟΟ†ΟΥ VOLUME + (ΟΟΥ . 23). - ε† ‡Α† AUDIO MIX, ΙΑ†. Ο† ‡Α† Ο, ΟΟΥ†ΙΟ, ΙΑ†, ΟΟΑΕ~Ε. ST2. - m εΥ Α, Ο†Ε ΟΕΥΑ Ο† ‡Α† AUDIO MIX, ΙΑ†. Ο† ‡Α† Ο, (ΟΟΥ . 69).
‡Α Ο†~Α† Α, Ο†, Ι†ΙΟΕΑ††~Ε Ι† , Ε%ΑΟΑ†ΟΕ.	- ε† ‡Α† AUDIO MIX, ΙΑ†. Ο† ‡Α† Ο, ΟΟΥ†ΙΟ, ΙΑ†, ΟΟΑΕ~Ε. ST1. - m εΥ Α, Ο†Ε ΟΕΥΑ Ο† ‡Α† AUDIO MIX, ΙΑ†. Ο† ‡Α† Ο, (ΟΟΥ . 69).
‡Α ‡. ΟΟΥ†ΑΥ~ΙΑ† Ο††~Ε ΟΟΥ† Ε†ΕΑ†ΟΥ Ι†% ‡	- ε† ‡Α† STEADY SHOT, ΙΑ†. Ο† ‡Α† Ο, ΟΟΥ†ΙΟ, ΙΑ†, ΟΟΑΕ~Ε. OFF. - m εΑ Α, Α%ΕΥΑ Α, Ο, ΟΟΑΕ~Ε. ON. (ΟΟΥ . 29).
α†ΟΕΟ. ΟΟΥ†‡, ΙΕ, ‡ΑΟΥ† Ο ‡ΑΥ ΟΟΟ†Α, Ι†. ~Α†Ε†	- εΑ Α†† ~†‡Α†, POWER Ι†‡ΙΟ%ΕΟΥ†, ΟΟ†ΟΕΑ†ΕΕ PHOTO. - m ΙΟΥ†ΙΟ, ΕΥΑ Α, Ο, ΟΟ†ΟΕΑ†ΕΑ CAMERA. (ΟΟΥ . 12).
α†ΟΕΟ. ΟΟΥ†‡, ΙΕ, ‡ΑΟΥ† ~Α ΑΑ ΙΑΟ†Ο† ΙΟ ΟΑ†ΟΥ%ΟΟΟ†Α , Ι†. ~Α†Ε†	- εΑ Α†† ~†‡Α†, START/STOP MODE Ι†‡ΙΟ%ΕΟΥ†, ΟΟ†ΟΕΑ†ΕΕ 5SEC Ε†Ε ~ ANTI GROUND SHOOTING. - m ΙΟΥ†ΙΟ, ΕΥΑ Α, Ο, ΟΟ†ΟΕΑ†ΕΑ % (ΟΟΥ . 16).
‡Α ‡. ΟΟΥ†ΑΥ†, ΟΟ†‡‡Ε~ΑΟ††† †‡, Ο%††† ΑΑ†ΟΥ.	‡Ε%ΑΟ††Α ‡ ‡. ΟΟΥ†ΑΥ, ΑΕΕ†Α Ο~†ΟΕ Ο†ΟΟΕ Ο, ΙΕ. - m εΑ Α, Α%ΕΥΑ ΑΑ, ΑΕΕ† ‡, ΟΟ†‡‡Ε~ΑΟ†ΟΕ Ι†, Ο%†Ε Ι† ΑΑ†ΟΥ. (ΟΟΥ . 44). - ιΟ†Ο, Ε† Ο Α††Ε ΙΑ~†‡, ΟΟ Ε††† %††† ‡, ΟΟ†‡‡Ε~ΑΟ†ΟΕ Ι†, Ο%†Ε Ι† ΑΑ†ΟΥ. - m εΑ Α, Α%ΕΥΑ Ι†‡Α Ο, ΑΕΕ† Ο~†ΟΕ Ι†, Ο%†Ε Ι† ΑΑ†ΟΥ. Ε ΟΟΥ†ΟΕ ΟΕΥΑ ΕΑΟ. ‡ΕΑ†ΕΑ, Ο~†ΟΥ. (ΟΟΥ . 44).
‡Α ‡. ΟΟΥ†ΑΥ ΟΟΥ†~Ε† Α†‡Α††Α†Ε†	- εΑ Α†† ~†‡Α†, START/STOP MODE Ι†‡ΙΟ%ΕΟΥ†, ΟΟ†ΟΕΑ†ΕΕ 5SEC Ε†Ε ~ ANTI GROUND SHOOTING. - m ΙΟΥ†ΙΟ, ΕΥΑ Α, Ο, ΟΟ†ΟΕΑ†ΕΑ % (ΟΟΥ . 16).
‡Α, *, Ο%†‡‡ Ι†~† ‡† ΟΕΟΥ *	- ε† ‡Α† TITLE DSPL, ΙΑ†. Ο† ‡Α† Ο, ΟΟΥ†ΙΟ, ΙΑ†, ΟΟΑΕ~Ε. OFF. - m εΑ Α, Α%ΕΥΑ Α, Ο, ΟΟΑΕ~Ε. ON (ΟΟΥ . 29).
†ΕΟΥ * ΙΑ Α†ΟΕΟ*, ‡. Ο††	- α†ΟΟΑΥ† ΙΑ ΟΟ†~Α†~ΙΑ† Ο††ΟΕ Ο†††. - m αΟΟ†, ΑΟΥΑ Ι†ΟΟΑΟΥ Ο~ΙΑ† Ο††ΟΕ Ο†††. (ΟΟΥ . 70). - ι Ι†ΟΟΑΥ~ ΙΑ ‡, ‡‡ΑΥ Ο†††. - m εΟΥ ΕΥΑ Ο%†ΕΑ ΕΥ Ο, (ΟΟΥ . 73). - α†ΟΟΑΥ† Α†~Ε~Α† ΟΟΥ Ο†~Ε†Ο, Ο ΟΕ ‡†† Α†ΟΕΕ. - m εΑ Α%, Ε† ΥΑ Α†~Ε†Ο. Α%, ΕΕ† Ο††, ~‡Ο~ Α†† ~‡. Ι†‡ΟΥ. Ο†‡ΟΥΕ††ΟΥ (ΟΟΥ . 72). ‡†† ~Α† Α†‡Α†ΕΑ. - m ΝΟΕ%ΕΥΑΟ, Ο†Ο†~††† Α†‡Α†††† (ΟΟΥ . 35). ‡†%††† Ο~‡ΟΥ†Α ΙΑ†ΟΥ ΟΟΥΟΟΥ, ΟΑΥ Α†ΟΕΟ. - m ‡†ΟΕΕΥΑ ΕΥ Ι† Α†ΟΕΟ††~Ε Ο~‡ΟΥ† ΙΑ†ΟΥ (ΟΟΥ . 72).
‡Α, *, Ο%ΕΟΥ†, Ο†††, Ι† ‡Ε Ο, Ι† Ι†ΟΟΑΥ*	- α†ΟΟΑΥ† ΙΑ ΟΟ†~Α†~ΙΑ† Ο††ΟΕ Ο†††. - m αΟΟ†, ΑΟΥΑ Ι†ΟΟΑΟΥ Ο~ΙΑ† Ο††ΟΕ Ο†††. (ΟΟΥ . 76). - ι Ι†ΟΟΑΥ~ ΙΑ ‡, ‡‡ΑΥ Ο†††. - m εΟΥ ΕΥΑ ‡ΟΥ ΕΥ Ο, (ΟΟΥ . 76). - α†ΟΟΑΥ† Α†~Ε~Α† ΟΟΥ Ο†~Ε†Ο, Ο ΟΕ ‡†† Α†ΟΕΕ. - m εΑ Α%, Ε† ΥΑ Α†~Ε†Ο. Α%, ΕΕ† Ο††, ~‡Ο~ Α†† ~‡. Ι†‡ΟΥ. Ο†‡ΟΥΕ††ΟΥ (ΟΟΥ . 76).

ΥΙΟΟΪΟΥΪ~Εΐ

εΕΪΟΥΟΪ°	ε Ε~ΕΪ° Ε/ΕΪΕ ΞΑΕΟΥ, Εΐ ΟΟ ΟΟΥ ΞΙΑΞΕ.
çÀ, °, °%ΕΟΥΐ Ϊ~Ϊ Ϊ Ϊ%ΪΪ Ο ΞΙΞΕ Ε ΪΑ Ϊ. ΟΥΪΑΥ ΟΟΕΟΪ ΟΟ %ΪΑ	• αΪΟΟΑΥ ΪΑ ΟΟΪ~ΑΪ~ ΪΑΪ ΟΪΙΟΕ ΟΪΐΐΐ. m αΟΟΟΪ ΑΥΕΥΑ Ϊ~ΟΟΑΥ Ο ΪΑΪ ΟΪΙΟΕ ΟΪΐΐΐ. (ΟΪ . 52). • εΪ ΪΑΪ CM SEARCH, ΪΑΪ. ΟΪ ΪΑΪ Ο, ΟΟΥΪΟ, ΪΑΪ, ΟΟΑΕ~Ε. OFF. m εΑ Α, Α%ΕΥΑ Α, Ο, ΟΟΑΕ~Ε. ON. (ΟΪ . 52).
çÀ Ϊ. ΟΥΪΑΥ ΟΪΪ~Εΐ ΟΟΕΟΪ ΟΟ ΟΟΥ	• αΪΟΟΑΥ ΪΑ ΟΟΪ~ΑΪ~ ΪΑΪ ΟΪΙΟΕ ΟΪΐΐΐ. m αΟΟΟΪ ΑΥΕΥΑ Ϊ~ΟΟΑΥ Ο ΪΑΪ ΟΪΙΟΕ ΟΪΐΐΐ. (ΟΪ . 57). • εΪ ΪΑΪ CM SEARCH, ΪΑΪ. ΟΪ ΪΑΪ Ο, ΟΟΥΪΟ, ΪΑΪ, ΟΟΑΕ~Ε. OFF. m εΑ Α, Α%ΕΥΑ Α, Ο, ΟΟΑΕ~Ε. ON. (ΟΪ . 56). • çΪ, Ε%ΑΟΪ~ΟΟΑΥΑ ΪΑΥ ΟΟΥ Ο, . m çΪΟΕΕΥΑ ΟΟΥ ° (ΟΪ . 70).
ε Ε ΟΟΥΪΟ, ΪΑ Ϊ~ΟΟΑΥ~ Ο ΪΑΪ ΟΪΙΟΕ ΟΪΐΐΐ, ΪΑ ΟΟΐ, ΐΐΑΥΟΐ ΕΪ%ΕΪ~ΟΟ CII	• αΪΑ, ~ΐΐΟΐ Ϊ Ϊ~ΟΟΑΥΑ ΪΟΪΪΪΪΪΐ ΟΪ~ΟΟΥΕΐΪ~ Ο ΑΟΪΟΥ~Ϊ ΟΟΪ ° ΪΕΑΪ Α~Ο~ ΪΕΪ~Ο. ΕΪΕ Α, ΐΑΪΕΪ~Ο. m ε~ΕΟΥΕΥΑ ΪΟΪΪΪΪΪΐ, ΟΪ~ΟΟΥΕΐΪ (ΟΪ . 79).

αΑΟ. ΞΕΑΞΕΑ

εΕΪΟΥΟΪ°	ε Ε~ΕΪ° Ε/ΕΪΕ ΞΑΕΟΥ, Εΐ ΟΟ ΟΟΥ ΞΙΑΞΕ.
çÀ~ΑΥΟΪΑ ΕΑΟ. ΞΕΑΞΕΑ, ΟΪΑ , Ε%ΟΕΟΪ~ΟΑΐΐ	• çΑΟΥ Α, ΟΪΕ Ο, Ϊ ΟΪΟΐΐ, Ε%ΟΕΟΪ~ΟΑΐΐ. m εΥ Α, ΟΪΕ ΟΕΥΑ ΟΪΟΐΐ (ΟΪ . 13).
ε Ε~Ο~ΑΪΑ ΕΟΥΟ~ΪΕΐ, Ο, ΑΥΪ (Ϊ~ΪΟ, Ο, Α~Ε) Ϊ~ΕΑΟ. ΞΕΑΞΕ ΟΟΐ, ΐΐΑΥΟΐ, Α ΟΕΪ~Ϊ, Ϊ~ΐ ΟΟΪΟΪ	• εΪΕ~ΐΟΪ, ΑΪΕΐ ΪΟΪ ΪΟΥ ΪΑΕ%Ο. ΑΪΟΪ~Ο~ΑΪΞΕ Ε ΟΪΟΪ. αΪΑ Ϊ ΟΪΪΪ~ΕΟΪΕ ΟΑΥ ΪΟ Ϊ~Ϊ, ΪΟ. m αΑΪΑΞΕΥΑ Ϊ~Ϊ Ο.
αΑΟ. ΞΕΑΞΕΑ ΟΟΥΟΟΥ, ΟΑΥ ΕΪΕ Ϊ ΪΑΪ ΕΪΑ, ΟΟΐ ΟΟΪΑΪ	• çΟΑΪΟΕΐΟ, Α, ΐ, ΐΑΪΑΪ°, Ε%ΑΟ, ΟΪΟ, ΪΕ. m ε~ΕΟΥΕΥΑ „ΟΪΟ, ΪΕ Ο Ε ΟΪΟΪ~Ε~ΕΟΥΐ~ΑΕ Ϊ~ΟΟΑΥ° Sony DVM12CL (, ΪΟΪΟΪΑΪΪ ΪΑ, ΪΟ%ΕΥ) (ΟΪ . 90).
ç Ϊ Ε%ΪΟΪ ΕΟΥ~ΪΞΕ~ΑΟΪΟΪ~Ϊ ΪΑ ΕΪΕ, ΟΪΑ, Ε%ΟΕΟΪ~ΟΑΐΐ ΪΕ, ΪΑΥ ΕΪ%ΕΪ~ΟΟ v	• çΟΑΪΟΕΐΟ, Α, ΐ, ΐΑΪΑΪ°, Ε%ΑΟ, ΟΪΟ, ΪΕ. m ε~ΕΟΥΕΥΑ „ΟΪΟ, ΪΕ Ο Ε ΟΪΟΪ~Ε~ΕΟΥΐ~ΑΕ Ϊ~ΟΟΑΥ° Sony DVM12CL (, ΪΟΪΟΪΑΪΪ ΪΑ, ΪΟ%ΕΥ) (ΟΪ . 90).
αΑΟ. ΞΕΑΞΕΑ ΟΪΕ~ΪΟΪ ΐ ΪΟΑ ΕΪΕ ΟΪΕ ΪΟΪ ΟΑΪΟΑ	• çΑΟ Ϊ, ΕΪ, ΪΟ ΟΪ Α, ΟΪΕ Ο, Ϊ ΟΪ ΪΑΪ LCD BRIGHT. m εΥ Α, ΟΪΕ ΟΕΥΑ ΐ ΪΟΪ, ΪΟΪΟΪ~Ε~Ε~ΕΪΕ - (ΟΪ . 17, 23).
ε Ε~Ο~ΑΪΑ ΐ ΪΟ ΟΟ, Α~ΑΪ~Ϊ Ο Α%ΑΥΟ, ΟΟΐ, ΐΐΑΥΟΐ , Α ΟΕΪ~Ϊ, Ϊ~ΐ ΟΟΪΟΪ	• αΪΑ Ϊ ΟΪΪΪ~ΕΟΪΕ ΟΑΥ ΪΟ Ϊ~Ϊ, ΪΟ.
çΑΥ ΕΑΟ. ΞΕΑΞΕΐ Ϊ Ε%ΪΟΪ ΕΟΥ~ΪΞΕ~ΑΟΪΟΪ~Ϊ ΪΑ ΕΪΕ, ΟΪΑ, Ε%ΟΕΟΪ~ΟΑΐΐ	• αΪΪΟΪ~ΕΐΟΐ Ο ΪΪ ΟΪΟΕ. °, ΟΪ ΟΑΪΟΕ ΪΪ. Ο ΑΟ~Ε Ϊ. ~ΑΕ Ϊ Ϊ. ΪΕ. m ε ΟΟ. Ϊ~Ο, ΐΑΪΪ, Οΐ Ο. ΪΕΕ~Ε~ΕΪ%ΕΪΑ ΟΪ ΪΕ Ϊ° Sony.
çΑΥ ΕΑΟ. ΞΕΑΞΕΐ, ΟΪΑ , Ε%ΟΕΟΪ~ΟΑΐΐ	• ΟΪΕ ΟΪ ΪΑΪ VF PW-SAVE, ΪΑΪ. ΟΪ ΪΑΪ Ο, ΟΟΥΪΟ, ΪΑΪ, ΟΟΪΟΕΑΞΕΑ ON, ΟΪ Ο Ε ΟΥ%ΪΑΞΕ , Ε%ΟΕΟΪ~ΟΑΐΐ ΟΪ, ΪΑ ΕΑΟ. ΞΕΑΞΕΑ, ΪΑ Ϊ, ΟΪΪ~Ε~ΑΟΪΕ ΕΟ~ΑΑΪΑ. m ε Ε. ΪΕΑ ΥΑ, Ε%ΟΕΟΪ~ΟΑΐΐ Ϊ ΪΕ~Ϊ Ϊ Ϊ ΟΟΥΪΟΕΑ ΪΑ. ΟΪΑΑ 1 ΟΪ ΕΪΕ ΟΟΥΪΟ, ΕΥΑ ΟΪ ΪΑΪ VF PW-SAVE, ΟΟΑΕ~Ε. OFF (ΟΪ . 31). • ΪΕ%ΪΟΪ ΕΟΥ~ΪΞΕ~ΑΟΪΐ~ΟΪΑΪ, ΪΑ ΑΪ Ϊ~Ϊ. m αΪ Ϊ ΟΕΥΑ Ε%ΪΟΪ ΕΟΥ~ΪΞΕ~ΑΟΪΟ, ΟΪΑΪ.

ε Ο%ΟΪΕΑΞΕΑ Ϊ~ΟΪΑ%Ϊ~ΑΕ ΟΪ ΪΞΕ~Α

è ò~ΑΑ

εΕΙΟΥΟΙ°	è È~ΕΙ° È/ΕΙΕ %ΑΕΟΥ,ΕΙ ΟΟ ΟΟΥ †ΙΑΙΕ.
αΑΟ. †ΕΑΙΕΑ, ΟΙΑ, Ε%ΟΕΟ†‡ΥΑΙΦ ΙΑ ΕΟ~ΑΑ†ΑΥ %‡ΕΑ ΟΟΟΙΑ Ο, Ι†Ι Ο‡ †ΙΑΥ VF PW-SAVE, ΙΑΙ Ο‡ †ΙΑΥ Ο, ΟΟΥ†ΙΟ, ΙΑΙ, ΟΟΑΕ~Ε. OFF	• ε, ΑΥ ΟΟΙ†~‡ ΕΙΕ Ι†ΙΟ° Ι†Ι†ΙΕ, †ΙΕΙ ΙΟΕΑΥ, °Α°, †Υ. ò.ΟΕ , †.ΟΥΑ~Υ, ΟΥ, ΕΥΑΙ ΙΟ, ò~ ΙΑΙΑΥ†, Ε%ΟΕΟ†‡ΥΑΙΦ. ΟΟΥ ΙΑ Φ, ΦΙΑΟΥΦ ΕΑΙ†ΙΟΙ ΙΑΕΟΟ †, ΙΟΟΕ.
Ç ΟΙΑ, Ε%ΟΕΟ†‡ΥΑΙΦ ΕΙΕ Ι† ΕΕ%ΙΟΙ ΕΟΥ†ΙΕ~ΑΟΙΟ†~Ι †ΙΑ ΟΟΦ, ΦΙΑΟΥΦ ΙΑΑ†‡ΙΟ†Φ Ι† ΥΕΙ†	• ΟΟΙΕ, ΥΑ~ΑΙΕΑ ΙΕ ΙΕΙΟΥ ΟΟΟΙΑ ΟΑ Α, Ο%† ΟΑ Αΐΐ.~‡ΥΑΐΦ POWER, ΟΟΙΟΕΑΙΕΑ CAMERA, Ε%ΑΟ†‡ΙΑ Υ ΙΑ ΟΥΟΥ†ΙΟ, ΙΑ† Ι†ΟΑΥ†, †ΟΟ† †Υ†, ΟΟ†‡ΥΕ~ΑΟΙΕ ΟΑ ΑΙΟ%ΕΥ, %ΑΙΟΙΟΥ †~ΕΟΙ†~Ε ΑΕΕΙ (ΙΟ, %† Ο‡ †ΙΑΥ DEMO, ΙΑΐ. Ο‡ †ΙΑΥ Ο, Ι†ΙΟ%ΕΥΟΦ, ΟΟΑΕ~ΕΕ ON). m ΙΟΥ†ΙΟ, ΕΥΑ Ι†ΟΑΥΟ, Ε%ΑΙΟΙΟΥ †~Εΐ ò Αΐ †ΥΕΥΟΦ. Ç° ΙΟΕΑΥΑ Υ†ΙΕΑ ΟΥΐΐ.~ΕΥ, %ΑΙΟΙΟΥ †~ΕΟ†~Ε ΑΕΕΙ (ΟΥ . 117).
ÇΑ Ο%†ΑΥΟΦ Υ, Ε%ΑΥ. Α†ΟΕΟ°, †ΑΙΟΑ ΕΑΟ. †ΕΑΙΕΑ, ò Ó~ΑΟΑ ΟΑ ΑΑ†ΟΕΟΕ~Α ΑΑ ΟΟΑ%ΕΙΕΥΑΐ, Ι°Ε Ι†.Αΐ, DV	• ΕΥΐΐ.~ΕΥΑ ΟΟΑ%ΕΙΕΥΑΐ, Ι°Ε Ι†.Αΐ, DV È ΟΟ%ΐΐ.~ΕΥΑ Α,, ò ΟΙΟ, †.
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ÇΑ †.ΟΥ†ΑΥ ò Ε†,, †Αΐ~Ε ΟΥΐ, Υ %ΕΟΥ†Ι~ΕΟ†ΙΟ, ò ΟΟ †, ΙΑΙΕΦ	• Ç† ΟΟΥΕ ΕΥ †† †Ο†~Ι òΕ,, Ι†ΙΟ, ΕΐΑΥΟΦ ò ΑΟΦΟΥ, ΕΑ. m ΙΟΥ †ΙΕΥΑ ò ΑΟΦΟΥ, ΕΑ. • è È ΟΟΥ†ΙΟ, ΙΕ.~‡† ΑΕΙΕ Ι† Υ~Α†~ΟΟΐΦ ΙΟΟΥ. m ΙΟΥ†ΙΟ, ΕΥΑ.~‡† ΑΕΙΟΥ, ò.ΐ.%†Φ òΟΐΦ ΙΟΟΥ. (ΟΥ . 114). • Α†‡ ΑΕΙΕ ΟΑΙΕ. m ΙΟΥ†ΙΟ, ΕΥΑ ΙΟ, °Α.~‡† ΑΕΙΕ (ΟΥ . 114).
εΕΥ†ΙΕΑ, ΐΐ.~ΑΙΟ, ΙΟ ΙΕ Ο%†‡ ΟΥΐ~ΕΦ Ι†ΙΑ ° ΙΑ †.ΟΥ†ΑΥ	• ΕΥΟΟΑ%ΕΙΕΥΑ †ΐΐΟΥΐΦΟΥ ÌÜ.~‡† Α. ΕΙΕ †%†ΟΥΑ ΟΑΥΑ, ò,, ò ΕΟΥ†ΙΕΦ Ε, ΙΟ,, òΟ%ΟΟΑ%ΕΙΕΥΑ ΕΙ ΟΟΥΟΦ ò ΕΐΑ ΙΟ Ο%ΙΟΥ ΙΕΙΟΥ. Çΐΐ.~ΕΥΑ ΕΟΥ†ΙΕΑ. ΟΟΙΕ ΟΥΐΐ~ΕΕ Ε%ΑΟ†‡ΙΑ ° òΟ-ò ΑΕΙΑΙΟΥ ΙΑ %ΑΕΟΥ, ΟΥ, Ι†ΕΙΕΥΑ Ι†Εΐ- ΙΕ.ò Α†ΟΟΥ Αΐΐ~Ι ò Α%ΙΑΥΟΐ ΙΙΟΟΙΟΥ RESET Ι†, ΙΟΥ ΑΐΑΕ ΟΥΟ ΟΙΑ Ι ° ΙΕ Ι†ΟΑΥΟ ΕΑΐΕ†. (è È Ι†Ε†ΥΕΕ ΙΙΟΟΙΕ RESET, òΑ,, Α%Αΐ~Α †ΙΑΑ ΟΟΥ†ΙΟ, ΙΕ,, ΐΐ.~‡Φ %†ΥΟ È , ΑΐΦ, ,ΟΑ, †~‡.ΥΟΦ ΙΕ òΙΟ%†~Ι Α†~ΑΐΕΦ) (ΟΥ . 81).
ÇΙΑΟΥ ò~ΑΥ~Ε†‡ ΙΑΐΥ° Ι†~Ι †ΙΑ , Ε%† ° ΟΦΥΕΑ†~†~Α òΟ~ΑΥ†ΙΕΦ ~ΕΥ È.Οΐ,	• Çΐΐ.~Α†‡ ΟΥΐΐ~ΕΦ †, ΥΟ%Ε†, ΙΟΟΥΕΐΕ. m è, Α. ΥΑΟ, ò Υ†.ΙΕ~ΑΕ Ι† ΟΥ . 106 È ò ΕΐΕΥΑ òΟΟΥ, ΑΥΟΥ, ò.~ΕΑ ΙΑ °.

Α%†ΟΥΑ òΑΥΑ, ò, ò ΕΕΥ†ΙΕΦ

εΕΙΟΥΟΙ°	ΝΑΕΟΥ, ΕΙ ΟΟ ΟΟΥ †ΙΑΙΕ.
ÇΑ Α†, ò †ΑΥΟΦ Ι†ΙΟΟ~† VTR/ CAMERA ΕΙΕ Ι†ΙΟΟ~† CHARGE	• ΕΥΐΐ.~ΕΥΑ ò ò, òΟ%ΕΟΥ†ΙΕΦ ΙΟ ΟΑΥΕ È, ΙΟ,, ΐΐ.~ΕΥΑ Α,, ò, òΑΥ, òΟΟΥΦ ò ΕΐΑ ΙΟ Ο%ΙΟΥ ΙΕΙΟΥ (ΟΥ . 7).
α†ΙΟΟ~† CHARGE ΐΕ,, †ΑΥ.	• Èΐ. Υ†.ΙΕ~Ü Ι† òΙΑ%Ü.~ΑΕ òΥ †ΙΕ~Α.

ÒÒÌÈ ÌÈ,,†ÀÚ Ì†ÌÔÓ~Í† CHARGE,
Ó· ¢ÚÈÚÀÓ, Í Ô È,,À%ÀìÒÈ ÌÈÈÀ Ú†·ÌÈ~À.

εÚ%ÀìÈÚÀ ‡ÍÌÒÌÒÌñÌÓ ÌÚ,·†Ú† À,
ÓÚ ¢%†ÔÚÀ ‡ÔÀÚÀ,Ó,,Ó ÔÈÚ†ÌÈñ, ‡
Α†ÚΑì,ÌÓ,, ÚÒÚ†ÌÓ,ÈÚΑ Ì† ÌΑ,,Ó ÚÒ
ÈÀ·†Ú† À.

ÒÒÌÈ Ì†ÌÔÓ~Í† CHARGE ÌÈ,,†ÀÚ
ÒÌÓ,†,
γÒÚ†ÌÓ,ÈÚΑ% Ò,,Ú, ‡ÍÌÒÌÒÌñÌÓ ÌÚ,
·†Ú† À.

ÒÒÌÈ Ì†ÌÔÓ~Í† CHARGE
Ô Ó%ÓÌÈ†ÀÚ ÌÈ,,†Ú, ,
ÚÓ Ì† Û~Àì† ¢·ÓÚ† ¢%†ÔÚÀ ‡
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εò ÓÓ,Ó%Ú, ÓΑìÈì~ÀÈ
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·ÌÈÈ†È~ÀìÒ %ÈìÀ Û ÛÈ Ì° Sony.

ã†ÌÔÓ~Í† CHARGE ÔÀ ÀÒÚ†ÀÚ
ÌÈ,,†Ú :
ÒÒÌÈ Ì†ÌÔÓ~Í† CHARGE*
À†,Ó ¢ÀÚÒñÌÈ~À ΑΑ ÌΑìÓÚÓ ÓÀ
, Αìñì,,†ÒìÀÚ, ÚÓ ‡ÔÒ† ¢ÚÚ ‡
‡·ÓÚ†ÀÚ ÌÓ Ì†ì, ÌÓ.

ã†ÌÔÓ~Í† CHARGE ÔÀ ÀÒÚ†ÀÚ
ÌÈ,,†Ú :
ÒÒÌÈ Ì†ÌÔÓ~Í† CHARGE*
À†,Ó ¢ÀÚÒñÌÈ~À ΑΑ ÌΑìÓÚÓ ÓÀ, Αìñì
,,†ÒìÀÚ, ÚÓ Ì† Û~Àì† ¢·ÓÚ†
‡ÍÌÒÌÒÌñÌÓ ÌÓÈ·†Ú† ΑÈ, ÌÓÚÓ ‡ñì
·°ì† ÚÒÚ†ÌÓ, ÌΑì†, Ì†~†ìÀ.

* ε È ÒΑ, Óì Α† ñÈÈ~ÈÈ, ÌÓ,, Ô ÈÓ· ΑÚÀìÒÈ ‡ÍÌÒÌÒÌñÌÓ ÌÓÈ·†Ú† ΑÈÈÈÈ·†Ú† ΑÈ, ÌÓÚÓ ÓÈ ÌΑ
ÓÓì, ΑÓ, ‡ìÈÒ, %Óì,,ÓÀ, Αìñì, Ì†ÌÔÓ~Í† CHARGE ÌÓÈÀÚ Ì†~†Ú, ÌÈ,,†Ú. ÛÓ ÌΑ ñì, ññΑÚÒñì Ò ÈΑì†ìÓì
ìÀÈÒÒ ‡, ÌÓÓÚÈ. εò, ÚÓ ÈÚΑ Èìñì Α† ñ%ìÈ Û†ìÓÈ ‡ÍÌÒÌÒÌñÌÓ ÌÓÈ·†Ú† ΑÈ.

Specifications

Video camera recorder

System

Video recording system

Two rotary heads, Helical scanning system

Audio recording system

Rotary heads, PCM system

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

Video signal

PAL colour, CCIR standards

Usable cassette

Mini DV cassette with logo printed

Tape speed

SP: Approx. 18.83 mm/s

LP: Approx. 12.57 mm/s

Recording/playback time

SP mode: 1 hour (DVM60)

LP mode: 1.5 hours (DVM60)

Fastforward/rewind time

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

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

Image device

CCD (Charge Coupled Device 1/3")

Viewfinder

Electric viewfinder (colour)

Lens

Combined power zoom lens, 120x (Digital), 10x (Optical)

Focal distance

f = 4.0 to 40 mm

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

F 1.8 – 2.6

TTL autofocus system inner focus wide macro system

Colour temperature

Auto

Minimum illumination

3 lux at F 1.8

Illumination range

3 to 100,000 lux

Recommended illumination

More than 100 lux

LCD screen

Picture

4 inches measured diagonally

80.7 x 58.9 mm

On-screen display

TN LCD/TFT active matrix method

Total dot number

112,086 (479 x 234)

Input and output connectors

S video output

4-pin mini DIN

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

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

Audio/Video output

Special minijack, 1 Vp-p, 75 ohms, unbalanced, sync negative

327 mV, (at output impedance more than 47 kilohms)

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

DV input/output

4-pin special connector

Headphones jack

Stereo mini jack (ø 3.5 mm)

MC input

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

Input impedance 6.8 kilohms

1 LANC jack

Stereo miniminijack (ø 2.5 mm)

Speaker

Dynamic-speaker

LASER LINK

Video/audio

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

Audio carrier wave

Lch : 4.3MHz

Rch : 4.8MHz

General

Power requirements

7.2 V (battery insertion input)

Average power consumption

4.4 W during camera recording using viewfinder

5.8 W during camera recording using LCD screen

Operating temperature

0°C to 40°C (32°F to 104°F)

Storage temperature

-20°C to 60°C (-4°F to 140°F)

Dimensions

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

Mass

Approx.840g excluding the battery pack and the cassette

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

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

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

Microphone

Electret condenser microphone,

Stereo type

Supplied accessories

See page 6.

AC power adaptor

Power requirements

110 to 240 V AC, 50/60 Hz

Power consumption

25 W

Output voltage

DC OUT: 8.4 V, 1.8 A in operating mode

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

Application

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

Operating temperature

0°C to 40°C (32°F to 104°F)

Storage temperature

-20°C to 60°C (-4°F to 140°F)

Dimensions (Approx.)

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

Mass (Approx.)

190 g

Design and specifications are subject to change without notice.

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εΑΙΙΑ ΕΑ0·ιΕΑΙΕfl
4%,Ειι 00%Ειι,0ΙιΙΕ
80,7x58,9 ΙΙ
0Ι ιΙ~Ε %Ε00ΙΑΕ
TN LCD/TFT (ιΙ0Ε,ιΙfl ιιΑ Ε~)
ε·ΑΑ~Ε0Ι0 00~Α~ιι
~ΙΑΙΑΙ00,
112 086 (479x234)

ÇΙ0%ι·Α Ε,°Ι0%ι·Α

~ΙΑΑ0ι
Ç~Ι0% S-,Ε%Α0
4~0·Ι0,~ΕΙΕΙΕ ιΑ~ΑΙ DIN
Ε~,ιΙfl Ι000Ε: 1 Vp-p, 75 εΙ,
ΙΑ0·ιΙιΙ0Ε 0,ιΙ~Ε,
0Ειι 0ΙΑ,ιΙΕ,ιΙ~Ε
εΕ,ιΙι,ΑΙ000Ε: 0,3 Vp-p,
75 εΙ, ΙΑ0·ιΙιΙ0Ε 0,ιΙ~Ε
Α00Ε0/,Ε%Α0,~Ι0%
ε0Α~Ειι Ι0Α ΙΕΙΕ,ΙΑΑ0, 1 Vp-p,
75 εΙ, ΙΑ0·ιΙιΙ0Ε 0,ιΙ~Ε,
0Ειι 0ΙΑ,ιΙΕ,ιΙ~Ε
327 ΙÇ (0 Ε,~Ι0%Ι0Ι
000 00Ε,ΙΑΙΕΕ 0,~Α 47 ΙεΙ)
Ç~Ι0%Ι0Α 000 00Ε,ΙΑΙΕΑ ΙΑΙΑΑ
2,2 ΙεΙ/00Α Α0 ΙΕΙΕ,ΙΑΑ00
(0 3,5 ΙΙ)
ÇΙ0%/,~Ι0% DV
ε0Α~Ειι,ιΙ~Ε 4~0·Ι0,~Ε
ιΑ~ΑΙ
ΕΙΑΑ0%fl ιιΙ0~ΙΕΙ0,
ε0Α Α0 ΙΕΙΕ,ΙΑΑ0 (0 3,5 ΙΙ)
ÇΙ0% MIC
ε0Α Α0 ΙΕΙΕ,ΙΑΑ0 (0 3,5 ΙΙ):
0,388 ΙΒ, 2,5 Ç 0000flΙ0,0 00ιι,
ÇΙ0%Ι0Α 000 00Ε,ΙΑΙΕΑ 6,8 ΙεΙ
ÇΙ0% 1 LANC
ε0Α Α0 ΙΕΙΕ,ΙΑΑ0 (0 2,5 ΙΙ)
ΑΙ000Ε~Α0Ιιfl 0Ε00Αιι
ΝΕιιΙΕ~Α0ΙΕΕ, 0ΙΙ0,0,0 Ε0ΑΙ,

LASER LINK

ÇΕ%Α0/ι0%Ε0
ΑΙ0 ιι ι0ιιfl 0Α Α%~ιΙ
0Ε00Αιι%fl Αιι ~0ι
00ΙΑ ΑΙΕΕ, 0000,Α000,0·fl
00ιι%~ 0ιι 000Ι0Ι0Ε
ι000~Ε~Ε~ΙΑΙ0 0ΙΙ0Ε
0 0Ι~ΙΑΙ000Ε (ΕΙΑ)
ÇΑ00~fl ~0000ι ι0%Ε00Ε,ιιιι
ΑΑ,~Ειιιιι: 4,3 ΑΕ~
ε ι,~Ειιιιι: 4,8 Α,~

ε·ΕΑ %ιΙ~Α

ε·0~ΑΑ ιι0 flΕΑΙΕΑ
7,2 Ç (0 Ε0Ε0ιΙΕΕ 00
ιΙ0Ι0ΙflΙ00 Ι0Ε·ιΑι ΑΕ)

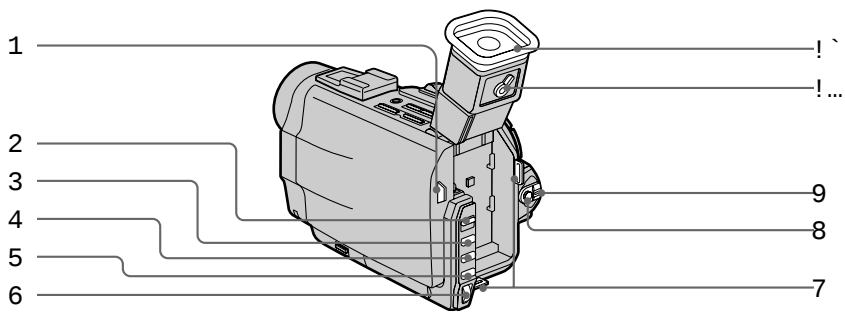
ε Α%flfl 000 Α·flflΑιιfl
Ι0~Ι000,
4,4 Ç0 0 Ε,Ε%Α00~ΑΙΙΑ 0
Ε000Ι,Α0,ιΙΕΑΙ,Ε%0Ε0ιι0Αιιfl
5,8 Ç0 0 Ε,Ε%Α00~ΑΙΙΑ 0
Ε000Ι,Α0,ιΙΕΑΙ
Ε%~Ι0Ι Ε00ιΙΕ~Α0Ι0,0~ι ιι
ΙΑΙ0Α ι00 ~~Ι00Ι0ι0~ΕΕ
00 0°C %0 40°C (32°F - 104°F)
ΙΑΙ0Α ι00 ιι ΙΑΙΕfl
00~-20°C %0 60°C (-4°F - 140°F)
Ει·ι Ε0 (0 Ε·ΙΕΑΕ0ΑΙ,Ι0)
96x109x183 ΙΙ

(%/~)
Αι00ι
εΙ0Ι0 840,~ΑΑ ιιΙ0Ι0ΙflΙ00 Ι0Ε
·ιΑι ΑΕ Ε,Ε%Α0ιι00Α0
εΙ0Ι0 960,~0 ιιΙ0Ι0ΙflΙ00 Ι0Ε
·ιΑι ΑΑΕ NP-F530, ΙΕ0ΕΑ,0Ε
·ιΑι ΑΕΙ0Ε Ε,Ε%Α0ιι00Α00Ε
DVM60
εΙ0Ι0 1,ιΙ,~0 ιιΙ0Ι0ΙflΙ00 Ι0Ε
·ιΑι ΑΑΕ NP-F730, ΙΕ0ΕΑ,0Ε
·ιΑι ΑΕΙ0Ε Ε,Ε%Α0ιι00Α00Ε
DVM60
εΙ0Ι0 1,2 Ι,~0 ιιΙ0Ι0ΙflΙ00 Ι0Ε
·ιΑι ΑΑΕ NP-F930, ΙΕ0ΕΑ,0Ε
·ιΑι ΑΕΙ0Ε Ε,Ε%Α0ιι00Α00Ε
DVM60
ΑΕΙ 000Ι
0ΙΑΙ0 ΑΙ0~ΕΙ0%ΑΙ0ι00 Ι~Ε
00Α Α0ΙΕΙ 000Ι
Α0Ι0ΙΑΙ0ι~Εfl
εΙ.00 .6.

Α%ι00Α 0Α0Α,0,0 0Ε0ιιΙΕfl

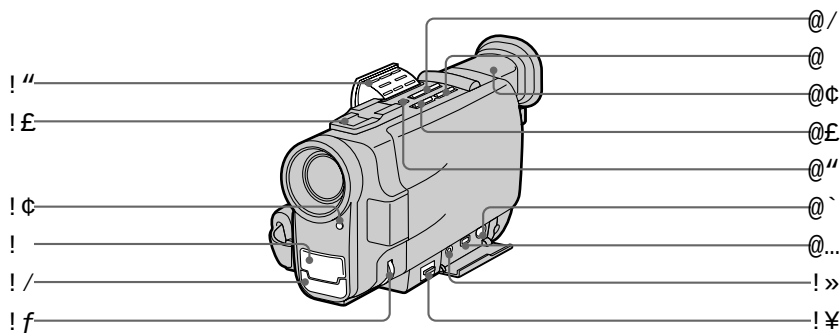
ει·0~ΑΑ ιι0 flΕΑΙΕΑ
110-240 Ç 0Α ΑΙΑΙ0,0 00ιι,
50/60 Ε~
ε00 Α·flflΑιιfl Ι0~Ι000,
25 Ç
Ç~Ι0%Ι0Α ιι0 flΕΑΙΕΑ
DC OUT: 8,4 Ç, 1,8 Α, ι·0~ΑΙ
ΑΕΕΙΑ
Αι fl%Ι0Α000 0Ε00,0: 8,4 Ç, 1,4 Α,
ΑΕΕΙΑ Αι flΕΙfl
Αι flΕΑΙ~Α·ιΑι ΑΕ
Α0ΙΙ0-ΙΕ0ΕΑ,~Α ιιΙ0Ι0ΙflΙ00 ι~Α
·ιΑι ΑΕ Sony NP-F530, NP-F730 Ε
NP-F930
ΙΑΙ0Α ι00 ~~Ι00Ι0ι0~ΕΕ
00 0°C %0 40°C (32°F - 104°F)
ΙΑΙ0Α ι00 ιι ΙΑΙΕfl
00~-20°C %0 60°C (-4°F - 140°F)
Ει·ι Ε0 (0 Ε·ΙΕΑΕ0ΑΙ,Ι0)
57x44x107 ΙΙ (%/~)
Αι00ι (0 Ε·ΙΕΑΕ0ΑΙ,Ι0)
190,,

Α0Ι00 0Ι~Εfl Ε0ΑΙΕ~Α0ΙΕΑ
ιι ιΑ0Α Ε00ΕΙΕ Ι0,00·0,
ΕΑΙΙΑΙΑι·ΑΑ 000,Α~ΑΙΕfl.



- | | | | |
|----|--|----|---------------------------------------|
| 1 | PUSH/OPEN button (p. 17) | 1 | äîôôí± PUSH/OPEN (òú . 17) |
| 2 | AUTO LOCK switch (p. 43, 47) | 2 | äîôôí± AUTO LOCK (òú . 43, 47) |
| 3 | EXPOSURE button (p. 47) | 3 | äîôôí± EXPOSURE (òú . 47) |
| 4 | PROGRAM AE button (p. 43) | 4 | äîôôí± PROGRAM AE (òú . 43) |
| 5 | PICTURE EFFECT button (p. 40) | 5 | äîôôí± PICTURE EFFECT (òú . 40) |
| 6 | CONTROL dial (p. 29) | 6 | êûíóíúí± CONTROL (òú . 29) |
| 7 | Hook for shoulder strap (p. 115) | 7 | ì¬íó %îíî ôîâ~â,ó,,ó Âîîí (òú . 115) |
| 8 | START/STOP button (p. 12) | 8 | äîôôí± START/STOP (òú . 12) |
| 9 | POWER switch (p. 12, 23) | 9 | èâ Âîîî,~úâî, POWER (òú . 12, 23) |
| 0 | Viewfinder lens adjustment lever (p. 13) | 0 | è~±êóíî ôó%òú óèíê óíúîíí ± (òú . 13) |
| !` | Eyecup (p. 21)                           | !` | ç±ò±%î± óíúîíí ± (òú . 21) |

Additional information / Noöôíêüâí, í±íî êíúó í±~êíî



! " Tape transport buttons (p. 23)

- p STOP (stop)
- θ REW (rewind)
- (PLAY (playback)
-) FF (fastforward)
- P PAUSE (pause)
- r REC (record)
- AUDIO DUB

! £ Intelligent Accessory shoe

! ¢ Recording lamp

! ∞ Microphone

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

! f Focus dial (p. 45)

! ¥ FOCUS switch (p. 45)

! » AUDIO/VIDEO OUT jack (p. 50, 65)

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

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

@ " LASER LINK button (p. 51)

@ £ FADER button (p. 34)

@ ¢ Viewfinder (p. 13)

@ ∞ BACKLIGHT button (p. 36)

@ / EDITSEARCH button (p. 22)

! " äiöôïé ùò ¢, îâïëfl ¢, ëëâïëâï îâïú` (òú . 23)

- p STOP (òúúþiö, íþ)
- θ REW (ôâ äiöúíþ íþâþ%)
- (PLAY (, òòò óëâ, â%âïëâ)
-) FF (ôâ äiöúíþ, ôâ â%)
- P PAUSE (ôþúâþ)
- r REC (Áþöëð,)
- AUDIO DUB

! £ äöiúþiúíþfl ¢íþ %ífl óó%ífl, ~âïëfl ôâ ëüâ ëëi`1 úòú óëúú,

! ¢ ëë,,iþî, îþfl îþiöó~íþ Áþöëðë

! ∞ äëí òúóî

! / ëâïðó %ëðúþi`ëóîiö,,ó úò þîâïëfl (òú . 23) / ëiú þí þòî`ëëâiú~þúâî, (òú . 51)

! f ëúíóflúíþ íþ, ó%íë íþ äâiöúú, (òú . 45)

! ¥ ëâ äîí, ~þúâî, FOCUS (òú . 45)

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

@... ëîââ%ó DV OUT (òú . 64)

@ ` ëîââ%ó S VIDEO (òú . 38, 50, 65)

@ " äiöóíþ LASER LINK (òú . 51)

@ £ äiöóíþ FADER (òú . 34)

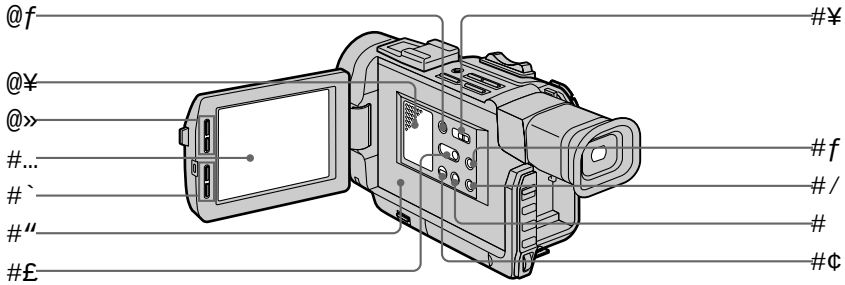
@ ¢ Çë%öëðíþúâî, (òú . 13)

@ ∞ äiöóíþ BACKLIGHT (òú . 36)

@ / äiöóíþ EDITSEARCH (òú . 22)

Identifying the parts

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.



@f **DISPLAY button** (p. 24)

@¥ **Speaker**

@» **LCD BRIGHT button** (p. 17, 23)

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

#` **VOLUME button** (p. 23)

#'' **RESET button** (p. 98)

#£ **DATA CODE button** (p. 63)

#£ **16:9 WIDE button** (p. 41)

#∞ **END SEARCH button** (p. 22)

#/ **TITLE button** (p. 70, 74)

#f **MENU button** (p. 29)

#¥ **START/STOP MODE switch** (p. 16)

@f äïôî† DISPLAY (òú . 24)

@¥ É óíó,,ó,ó Éúâî,

@» äïôî† LCD BRIGHT (òú . 17, 23)

#... ÜË%íóí Èòú†îîË~ÂòíËÈ ~ í †ì
(òú . 17, 23)

#` äïôî† VOLUME (òú . 23)

#'' äïôî† RESET (òú . 104)

#£ äïôî† DATA CODE (òú . 63)

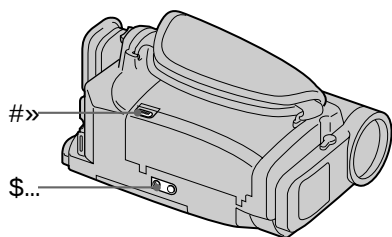
#£ äïôî† 16:9 WIDE (òú . 41)

#∞ äïôî† END SEARCH (òú . 22)

#/ äïôî† TITLE (òú . 70, 74)

#f äïôî† MENU (òú . 29)

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



#» **OPEN/EJECT lever** (p. 11)

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

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

\$` **Zoom lever** (p. 15)

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

\$£ **LANC 1 control jack**

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

\$¢ 2 **headphones jack** (p. 24)

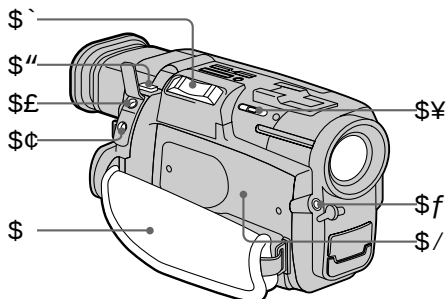
\$∞ **Grip strap** (p. 20)

\$/ **Cassette compartment** (p. 11)

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

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

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



#» ê`~#ÊÓÍ OPEN/EJECT (ÒÙ . 11)

\$... ä ÂÔÎÄÏÄÄ`Ú±ÜÊ,± (ÒÙ . 21)
ÊÎÄ%ÊÜÄ Ä± ÜÄÎ, ~ÜÓ.° %ÊÎ± Í ÄÔÄÊÎÓ,,Ó
ÊÎÜ± .°Í± ÎÄÎÄÄ 6, 5 ÎÎ. Ç Ò ÓÚÊ,ÍÓÍ
ÓÎÜ~Ä Í ÄÔÎÄÏÄÄ .Ü%ÄÜ ÎÄÎ±ÄÊÎ°Í, ±
,ÊÎÜ ÍÓÊÄÜ ÓÓ, Ä%ÊÜ, Ê%ÄÓÍ±Ä Ü.

\$` ê`~#ÊÓÍ ÜÓ ±,ÎÄÎÏÎ Ü ±ÎÜÓÓÍ±ÜÓ ÓÍ
(ÒÙ .15)

\$" äÍÖÓÍ± BATT RELEASE (ÓÜÖÓÄ%ÊÎÄÏÄÄ
±ÍÍÜÍÜÍÜÜ ÍÖÊ .±Ü± ÄÊ) (ÒÙ .10)

\$£ ÊÎÄÄ%Ó ÜÓ ,ÎÄÎÏÎ LANC 1
1 ÍÓ,,ÓÚÊÓ ÊÊÜÜÄÎ° ÜÓ ±,ÎÄÎÏÎ
ÔÄ ÊÜÄ ÊÊÎ°ÎÊ ÜÜÜ ÓÊÜ,,±ÎÊ (Local
Application Control Bus System). ÊÎÄÄ%Ó1
ÊÖÖÓÍ, ÄÜÄÜÓÎ%ÎÍ ÜÓ ±,ÎÄÎÏÎ%,ÊÊÄÏÄÏ
ÎÄÎÜ°, Ê%ÄÓ±ÖÖ± ±ÜÜ ÄÊ ±.ÓÚÖÊ
ÓÓ%ÎÍ.~ÄÎÎ°1 Í ÎÄÊ %ÓÓÓÎÎÊÜÄÎ, Î°1
ÜÜÜ ÓÊÜÜ, . Ö,,Ó ÜÜÎÎ°ÊÊ ±±ÍÓ,,Ê°Í°
ÜÜÎÎ°ÊÎÎ,,ÎÄÄ%±, Ó.ÓÄÎ±~ÄÎÎÓ,,Ó
CONTROL L ÊÎÊ REMOTE.

\$¢ 2 ÊÎÄÄ%Ó %ÎÍ ÖÓ%ÎÍ.~ÄÎÏÎ Î±Ü~ÎÊÍÓ,
(ÒÙ .24)

\$∞ ÊÜ~ÍÖÊ ÄÎÄÎ, (ÒÙ . 20)

\$/ ä±ÖÖÄÜÖÓ ÊÄÎÏÎ (ÒÙ . 11)

\$f ÊÎÄÄ%Ó %ÎÍ ÖÓ%ÎÍ.~ÄÎÏÎ ÎÊÍ ÖÜÓÍ±
MIC (PLUG IN POWER) (ÒÙ . 68)
ä~ÜÓÍÜ,,ÎÄÄ%Ü ÖÓ%ÎÍ.~ÄÜÓÎ,ÎÄ~ÎÊÊ
ÎÊÍ ÖÜÓÍ (, ÍÓÍÖÎÄÎÜ ÎÄ,ÍÖ%ÊÜ). Ñ±ÎÎÖÄ
,,ÎÄÄ%Ó Ü±ÎÊÄ ÍÓÊÄÜ ÖÎÜÊÊÜ, %ÎÍ
ÖÓ%ÎÍ.~ÄÎÏÎ ±ÍÜÊ,ÍÓ,,Ó ÎÊÍ ÖÜÓÍ±.

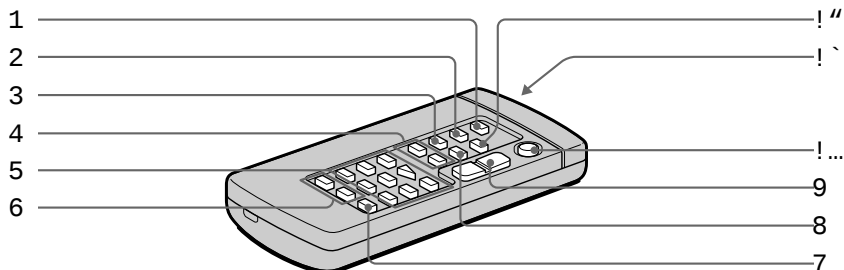
\$¥ ê`~#ÊÓÍ OPENC %ÎÍ ,%,ÊÊÄÏÎÏ
.ÍÓÍ± ÜÓ ±,ÎÄÎÏÎ,Ê%ÄÓ ÖÓÍÜÜ ÓÍ
(ÒÙ .23)

Remote Commander

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

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



1 **PHOTO button** (p. 37)

2 **DISPLAY button** (p. 24)

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

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

5 **Tape transport buttons** (p. 23)

6 **REC button** (p. 67)

7 **AUDIO DUB button** (p. 68)

8 **DATA CODE button** (p. 63)

9 **Power zoom button** (p. 15)

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

!` **Transmitter**

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

!“ **ZERO SET MEMORY button** (p. 62)

1 **äiôôíþ PHOTO** (öú . 37)

2 **äiôôíþ DISPLAY** (öú . 24)

3 **äiôôíþ SEARCH MODE** (öú . 52, 56, 58)

4 **äiôôíþ = /+** (öú . 52, 56, 58)

5 **äiôôíþ Üò þ, îâîëfi % , ëëâîëâî îâîü°** (öú . 23)

6 **äiôôíþ REC** (öú . 67)

7 **äiôôíþ AUDIO DUB** (öú . 68)

8 **äiôôíþ DATA CODE** (öú . 63)

9 **äiôôíþ Üò þ, îâîëfi ü þîðùóíþúó óî** (öú . 15)

!... **äiôôíþ START/STOP** (öú . 12)

!` **èâ Æ%þ, ~ââ üðü óëðü, ó**
Ñîfi Üò þ, îâîëfi , ëëâîëâî òë , îî ~ëüâ
ââ ë îþ þ, , üâ ôâ Æ%þ, ~ââ üðü óëðü, ó ,
üüó óîüëëüþî~ëóîîó, ó òâîðó þ.

!“ **äiôôíþ ZERO SET MEMORY** (öú . 62)

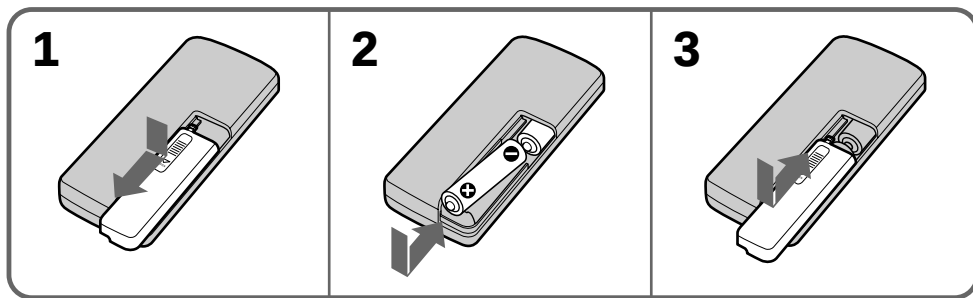
To prepare the Remote Commander

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

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

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

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



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.

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

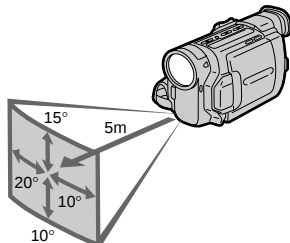
Remove the batteries when you will not use the Remote Commander for a long time.

Identifying the parts

Remote control direction

Aim the Remote Commander to the remote sensor.

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



Notes on the Remote Commander

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

Attaching the shoulder strap

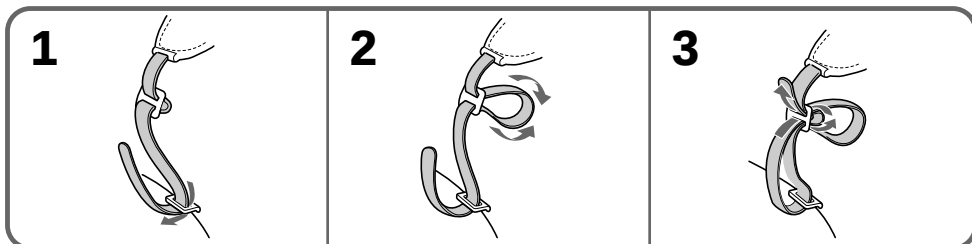
Attach the supplied shoulder strap to the hooks for the shoulder strap.

ÀÀÍ ÔÔÎ, ÁÓ, ±Ú, ÒÎ ÔÔÎ, ÚÓÎ
%ÈÖÖ±Î~ÈÖÎÎÖ,,Ó ÚÖ ±, ÎÄÎÈÎ
èÖÎ, Ú%ÈÖÖ±Î~ÈÖÎÎÖ,,Ó ÚÖ ±, ÎÄÎÈÎ %ÔÎÈÄÎ ·Ú,
Î±Ô ±, ÎÄÎ, ÓÚÖ ÔÎÖ%ÈÖÖ±Î~ÈÖÎÎÖ,,Ó ÔÄÎÖÖ ±.
ÎÈÖÖ±Î~ÈÖÎÎÖÄ ÚÖ ±, ÎÄÎÈÄ, Ä±Í ·ÚÓÎ
ÔÔÎÄ~ÄÎÈÈ Ö·ÄÖÄ~È, ±ÄÖÖÎ Î± ±ÖÖÖÎÎÈÈÈ %Ö 5
ÎÄÚ Ö·. Ö,,Ó~ÚÄÄÎÈÈ, ÎÖÖÖ, Ä±, ÈÖÖÖ ÖÚ Û,,Î±, ÖÖ%,
ÎÖÖÖ ·Î ÈÈ,,Î±Î Ö ÈÈÈ±ÄÖÖÎ, È%ÄÖÎ±ÎÄ ÖÈ.

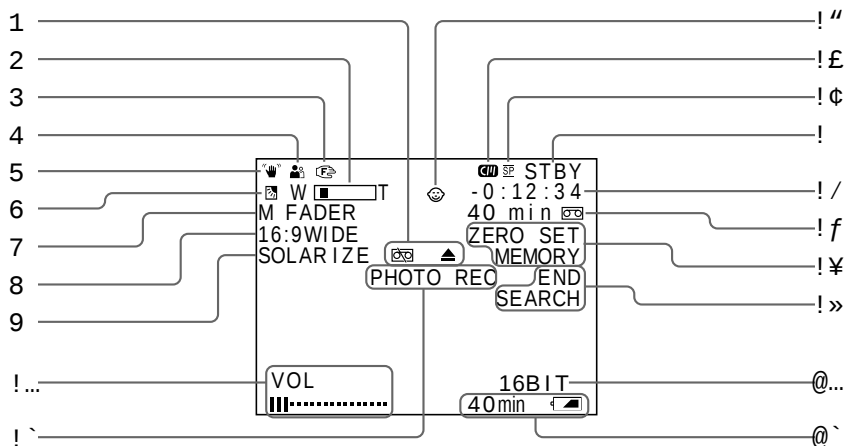
é ÖÖÎ, ÚÄ %ÈÖÖ±Î~ÈÖÎÎÖ,,Ó ÚÖ ±, ÎÄÎÈÎ
·ÎÄ ÈÈÖÄ ÖÖÎ, Ú%ÈÖÖ±Î~ÈÖÎÎÖ,,Ó ÚÖ ±, ÎÄÎÈÎ
%,ÎÈÈ ÖÚ ÈÈÎ, Î·Î ÈÖÖÖ~ÎÈÖ, Ö, ÄÚ± (Ö ÎÎ·Ä
ÔÔÎÎÄ~ÎÄ ÎÖ~È, ÎÎ ÈÈÄ Î±ÎÖ). Ç Ö ÖÚÈ, ÎÖÎ
ÔÎÖ~±Ä~ÚÄÄÎÈÈ, ÎÖÖÖ, %ÈÖÖ±Î~ÈÖÎÎÖ,,Ó
ÚÖ ±, ÎÄÎÈÎ ÎÈÖÄÚ ·Ú, Î± ÚÄÎ±.
·ÈÎÄÈÖÄ Ä± ÚÄÎ, ~ÚÖ· ÎÄÈÖÖ ÖÖÎ, ÚÓÎ È
%ÈÖÖ±Î~ÈÖÎÎÖ~ÎÖ ÔÄÎÖÖ ÔÎ, È%ÄÖÎ±ÎÄ ·ÎÄ
·ÎÖ ÎÈÈ±ÈÈ Ö ÄÖÎÖÖÖ, ÈÈ.
·ÇÈ%ÄÖÎ±ÎÄ ± ±·ÖÚÄÚ, ÄÈÈÎÄ
%ÈÖÖ±Î~ÈÖÎÎÖ,,Ó ÚÖ ±, ÎÄÎÈÎ VTR 2. È±ÄÎÈ~ÎÄ
ÄÈÈÎ·%ÈÖÖ±Î~ÈÖÎÎÖ,,Ó ÚÖ ±, ÎÄÎÈÎ (1, 2 È 3)
ÈÖÖÖÎ, ÄÚ, ÚÖÎÎ·ÎÎ ÚÓ,,Ó, ~ÚÖ· ÖÚÈÈ~±Ú
ÎÖÎ±Î·, Ö Ä%Î±Î±~ÄÎÎ·ÄÎÎ, È%ÄÖÎ±ÎÄ ·,
ÖÚ ÎÖÎ±Î· ÚÖ ±, ÎÄÎÈÎ % Ú,,ÖÈ
È%ÄÖ±ÖÖ± ±ÚÖ ÖÈ Sony, ÈÄ·Ä,,±Î ÚÄÎ Ô±Î·Î
Ö·ÖÄ, ±·ÖÜÄ%ÈÖÖ±Î~ÈÖÎÎÖ,,Ó ÚÖ ±, ÎÄÎÈÎ.
ÔÖÎÈ Ö ÇÔ ÖÈÄ ÄÖÚ, È%ÄÖÎ±Î, ÎÈÖÖÖÖÎ Sony,
±·ÖÚ± ~ÈÈ, ÄÈÈÎÄ VTR 2, ÚÖ ÄÎÖÎÄÎ%ÖÄÎ
ÖÄ ÄÖ Ö,, ±ÎÈÈ Ö,±Ú, Ä,,Ö Î±% Ú,,ÖÈ ÄÈÈÎ ÈÈÈ
Ä±Í ·Ú, %ÈÖÖ±Î~ÈÖÎÎÖ~ÈÖ ÔÄÎÖÖ
È%ÄÖÎ±Î, ÎÈÖÖÖÖÎ±~Ä ÎÖÈ·ÖÎ±,,ÖÈ.

è ÈÖÖÄ%ÈÈÄÎÈÄ ÔÎÄ~Ä, Ó,,Ó ÄÎÎÎ

è ÈÖÖÄ%ÈÈÈÖÄ Ö ÈÎ±,,±ÄÎ·È ÔÎÄ~Ä, ÖÈ ÄÎÄÎ, ÈÖÖÖÎ, ÄÖÖÎ Ö Ä%Î±Î±~ÄÎÎ·ÄÎÎ ÎÄ,,Ö ÚÎÈÈ.



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- 116

Warning indicators

è Â%ÔÔ ÂÊ%†, ~ÊÄ
ËÌ%ËÍ†ÚÓ

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

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

ÒÒÌÈ Ì† ÈÊ%ÍÓÍ ÈÒÚ†ÌÈ~ÀÒÍÓÍ~Í †ÌÄÈÌÈ, ÓÍÌÄ, È%ÔÈÒÍ†ÚÄÍfl ÓÓfl, Ífl ÚÓfl ÌÈ,,†. ~ÊÄ ÈÌ%ÈÍ†ÚÓ ~ÈÌÈ Ò Â%ÚÓ ÄÊ%† ~ÊÄ ÓÓÓ.~ÄÌÈfl, , ÓÓÓÓÍ, ÁÚÈÚÄÓ, ÌÈÄÄÓÌÄ%Ú. ~ÈÌÈ ÓÓflÒÍÄÌÈÌÈÈ.

♪: ÓÒÌÈ Ò† †ÌÄÚ BEEP, ÍÄÌ, Ò† †ÌÄÚ Ó, Í†lÓ%ÈÚÓfl, ÓÓÍÓÈÄÌÈÈ ON, Ç° ÒÍ° ÈÚÄ Ä, ÚÍÓ, ÒÈ ÒÈ,,Í†Í.

| | | |
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| 1
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| 7
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| ! ...
 | !`
 | |

1 The battery is weak or dead.

Slow flashing: The battery is weak.

Fast flashing: The battery is dead.

Depending on conditions, the 1 indicator may flash, even if there are 5 to 10 minutes remaining.

2 The tape is near the end.

The flashing is slow.

3 The tape has run out.

The flashing becomes rapid.

1 Ä†Ú† Äfl Ò†%ÈÚÓfl ÈÌÈ †Ä flÈÄÌ† ÓÓÍÍÓÓÚ. .

ÄÄ%ÌÄÌÍÓÄ ÌÈ,,†ÌÈÄ: †Ú† Äfl Ò†%ÈÚÓfl.

Ä°ÓÚ ÓÄ ÌÈ,,†ÌÈÄ: †Ú† Äfl ÓÓÍÍÓÓÚ. .

†Ä flÈÄÌ†.

Ç Ä†, ÈÒÈÍÓÓÚÈ ÓÚ ÚÒÍÓ, ÈÈ~ ÍÓÓÍÓÚ†~ÈÈ

ÈÌ%ÈÍ†ÚÓ Ì ÍÓÈÄÚ Ì†~†Ú, ÌÈ,,†Ú, %†ÈÄ

ÍÓ,,%† ÒÓÚ†, ~Ä,,ÓÓfl Ä† fl%† Ì, †Ú†ÄÚ Ä~Ä Ì†

5-10 ÌÈÍÓÚ †.ÓÚ°.

2 äÄÌÚ† Ò È.ÌÈÈ†ÄÚÓfl Í ÍÓÍ~Ú.

äÌ%ÈÍ†ÚÓ ÌÈ,,†ÄÚ ÌÄ%ÌÄÌÍÓ.

3 äÄÌÚ† Ä†ÍÓÍ~ÈÍ†Ò,

äÈ,,†ÌÈÄ ÓÚ†ÍÓ, ÈÚÓfl ~†ÓÚ°Ì.

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

- 4 Ç ,Ê%ÃÓÍ±ÎÂ Â ÎÂÚ Í±ÒÒÂÚ° .
- 5 á±~ÉÚÍ±fl Á±%,ÊÊÍ± Î± Í±ÒÒÂÚÂ
Ò%,ËÌÚÚ± (,Ê%Î± Í ±ÒÍ±fl ÔÎ±ÓÚÊËÍ±)
- 6 è ÓÊÁÓ~Î± ÍÓÎ%ÂÎÒ±~Êfl,Î±,,Ê (ÒÚ . 87)
- 7 ÇÓÁÍÓÊËÓ, Á±,, flÁÎÂÎ° ,Ê%ÃÓ,,ÓÍÓ,ÍÊ
(ÒÚ .88).
- 8 çÂ ÚÒÚ±ÎÓ,ÎÂÎÓ , ÂÎfl Î± ~±Ò±1.
ÒÒÎÊ %±ÎÎÓÂ ÓÓÓ~ÂÎÊÂ ÎÂ ÊÒ~ÂÂ±ÂÚ %±ÊÂ
ÓÓÒÎÂ ÚÒÚ±ÎÓ,ÍÊ Ç±ÎÊ %±Ú° Ê , ÂÎÂÎÊ, ~ÚÓ
ÂÎ±~ÉÚ, ~ÚÓ ±Â flÊÂÎ±,±Î±ÊÂ,Ó-
ÎÊÚÊÂ,fl ±Ú± ÂÊÍ±. á± fl%ÉÚÂ
,±Î±ÊÂ,Ó-ÎÊÚÊÂ,Ú ±Ú± ÂÊÍÚ (ÒÚ . 80).
- 9 è Ó~ÊÂ ÎÂÒÓÎ±ÎÊ.
éÚÎÎ,~ÉÚÂ ÔÊÚ±ÎÊÂ Ê Ò,flÊÊÚÂÒ, Ò
·ÎÊÊ±Ê~ÊÎ %ÊÎÂ ÓÎ Sony ÊÎÊ ·ÎÊÊ±Ê~ÂÊ
ÒÒÂ~Ê±ÎÊÂÊ Ó,±ÎÎÓÊ Î±ÒÚÂ ÒÎÓÊ.
- ! ìÒÚ±ÎÓ,ÎÂÎ± ±Ú± Âfl, ÎÂ ÓÚÎÓÒÎ~±flÒfl Í
ÚÊÓÚ "InfoLITHIUM".
- ! `á±ÒÒÂÚ± ÎÂ ÊÎÂÂÚ~ÎÂÍÚ ÓÎÎÓÊ Ô±ÎflÚÊ
(ÒÚ .4)