SONY

3-858-958-**12** (1)

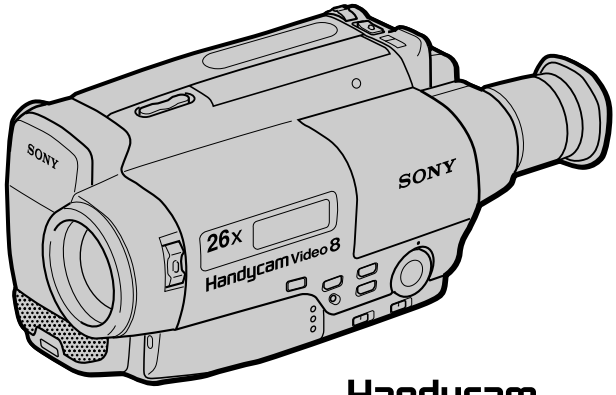
Video Camera Recorder

Operating Instructions

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

êÛÍÓ,Ó‰ÒÚ,Ó ÔÓ˝ÍÒÔÎÛ‡Ú‡ˆËË

èÂ Â‰Ì‡˜‡ÎÓÏ˝ÍÒÔÎÛ‡Ú‡ˆËË‰‡ÌÌÓ„Ó ‡ÔÔ‡ ‡Ú‡Ô ÓÒËÏ ,ÌËÏ‡ÚÂÎ¸ÌÓ Ô Ó˜ÂÒÚ¸ Ì‡ÒÚÓflˇÂÂ ÛÍÓ,Ó‰ÒÚ,Ó Ë ÓÒÚ‡,ËÚ¸ Â„Ó‰Îfl ·Û‰Û˜ËıÒÔ ‡,ÓÍ.



Handycam

CCD-TR402E

Video 8

CCD-TR401E/TR402E **8**

©1996 by Sony Corporation

English

Welcome !

Congratulations on your purchase of this Sony Handycam® camcorder. With your Handycam, you can capture life's precious moments with superior picture and sound quality. Your Handycam 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.

NOTICE ON THE SUPPLIED AC POWER ADAPTOR FOR CUSTOMERS IN THE UNITED KINGDOM

A moulded plug complying with BS1363 is fitted to this equipment for your safety and convenience.

Should the fuse in the plug supplied need to be replaced, a 5 AMP fuse approved by ASTA or BSI to BS1362 (i.e., marked with ⓐ or ♡ mark) must be used.

If the plug supplied with this equipment has a detachable fuse cover, be sure to attach the fuse cover after you change the fuse. Never use the plug without the fuse cover. If you should lose the fuse cover, please contact your nearest Sony service station.

êÛÒÒÍËÈ

ÑÓ· Ó ÔÓÊ‡ÎÓ‚‡Ú¸ !

èÓÁ‰ ‡‚ÎflÂÏ‚‡ÒÒÔ ËÓ· ÂÚÂÌËÂÏ ‰‡ÌÌÓÈ ‚Ë‰ÂÓÍ‡ÏÂ ˚ Handycam® ÙË ï˚ Sony. ë ÔÓÏÓ˘¸ Ç‡¯ÂÈ ‚Ë‰ÂÓÍ‡ÏÃ ˚ Handycam Ç˚ ÏÓÊÂÚÂ Á‡ÔÂ˜‡ÚÍÂÚ¸ ‰Ó Ó„ËÂ Ç‡Ï ‚„ÌÓ‚ÂËfl ÊËÁÌË Ò Ô Â‚ÓÒıÓ‰ì˚Ï Í‡˜ÂÒÚ‚ÓÏ ËÁÓ· ‡ÊÂÌËfl Ë Á‚ÚÍ‡. Ç‡¯‡ ‚Ë‰ÂÓÍ‡ÏÃ ‡ Handycam ÓÒÌ‡˘ÂÌ‡ ÛÒÓ‚Â ¯ÂÌÒÚ‚Ó‚‡ÌÌ˚ÏË ÙÛÌÍˆËfllË, ÌÓ ¸ ÚÓ ÊÂ ¸ ÃÏfl ÂÂ Ó˜ÂÌ¸ ÎÂ„ÍÓ ËÒÔÓÎ¸ÁÓ‚‡Ú¸Ç˚‚ÒÍÓ Â·Û‰ÂÚÂ ÒÓÁ‰‡‚Ú¸ÒÂÏÎÂÈ˚Â‚Ë‰ÂÓÁ‡ÔËÒË, ÍÓÚÓ ˚ÏË ÏÔÊÂÚÂ Ì‡ÒÌ‡Ê‰‡Ú¸Òfl , ÔÓÒÌÂ‰ÛÚ¸ ˘ËÂ„Ó‰˚.

èêÖÑìèêÖÜÑÖçàÖ

ÑÍfl Ô Â‰ÓÚ¸ ‡˘ÂÌËfl‚ÓÁ„Ó ‡ÌËfl ËÎÌË ÓÔ‡ÒÌÓÒÚÌ˚ÎÂÍÚ Ë˘ÂÒÍÓ„Ó‰‡ ‡ÌÂ ÔÓ‰„Â „‡Ú¸ ‡ÔÔ‡ ‡Ú‚ÓÁ‰ÂÒÚ‚Ë¸‰ÓÊ‰fl ËÎÌË ¸Î‡„Ë.
ÇÓ ËÁ·ÂÊ‡ÌËÂ ÔÓ ‡ÊÂÌËfl ˝ÎÂÍÚ Ë˘ÂÒÍÏ ÚÓÍÓÏ ÌÂ ÓÚÍ °‚‡Ú¸ ÍÓ ÔÛÒ. á‡ Ó·ÒÎÛÊË‚‡ÌËÂÏ Ó· ‡˘‡Ú¸Òfl ÚÓÎÌÓ Í Í‚‡ÎÎËÙËˆË Ó‚‡ÌÌÓÏÛ Ó·ÒÎÛÊË‚¸‡ ˘ÂÏÛ ÔÂÒÓÌ‡ÎÛ.

CCD-TR401E / TR402E 3-858-958-12(1).E,R

Table of Contents é„Î‡,ÎÂÌËÂ

Before You Begin
Using This Manual 4
Checking Supplied Accessories 6

Getting Started
Charging and Installing the Battery Pack 7
Inserting a Cassette 11

Basic Operations
Camera Recording 12
  Using the Zoom Feature 16
Hints for Better Shooting 17
Checking the Recorded Picture 19
Connections for Playback 20
Playing Back a Tape 22

Advanced Operations
Using Alternative Power Sources 24
Recording with the Date or Time 27
Using the PROGRAM AE Function 28
Shooting with Backlighting 30
Selecting the START / STOP Mode 31
Superimposing a Title 32
Using the Wide Mode Function – CCD-TR402E only 33
Changing the Mode Settings 34
Editing onto Another Tape 35

Additional Information
Changing the Lithium Battery in the Camcorder 36
Resetting the Date and Time 38
Playback Modes 39
Tips for Using the Battery Pack 40
Maintenance Information and Precautions 45
Using Your Camcorder Abroad 50
Trouble Check 51
Specifications 57
Identifying the Parts 59
Warning Indicators 67
Index ..... back cover

èÂ Â‰ Ì‡˜‡ÎÓÏ ‡·ÓÚ˚
àÒÔÓÎ¸ÁÓ,‡ÌËÂ‰‡ÌÌÓ„Ó ÛÍÓ,Ó‰ÒÙ,‡ 4
è Ó,Â Í‡ Ô ËÎ‡„‡ÂÎ˚ı Ô ËÌ‡‰ÎÂÊÌÓÒÙÂÈ ... 6

èÓ‰„ÓÚÓ,Í‡ Í Ì‡˜‡ÎÛ ‡·ÓÚ˚
á‡ fl‰Í‡ Ë ÛÒÚ‡ÌÓ,Í‡ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ 7
ÇÒÚ‡,Í‡ Í‡ÒÒÂÚ˚ 11

éÒÌÓ,Ì˚Â ÓÔÂ ‡ˆËË
á‡ÔËÒ¸ Ò ÔÓÍÏÓ˘¸ ,Ë‰ÂÓÍ‡ÏÂ ˚ 12
àÒÔÓÎ¸ÁÓ,‡ÌËÂ ÙÛÌÍˆËË Ì‡ÂÁ‰‡
  ,Ë‰ÂÓÍ‡ÏÂ ˚ 16
ëÓ,ÂÚ˚ ‰Îfl ÎÛ˜¯ÂÈ Ò˙ÂÏÍË..... 17
è Ó,Â Í‡Á‡ÔËÒ‡ÌÌÓ„Ó ËÁÓ· ‡ÊÂÌËfl 19
èÓ‰ÍÎ¸˜ÂÌËfl ‰Îfl ,ÓÒÔ ÓËÁ,Â‰ÂÌËfl 20
ÇÓÒÔ ÓËÁ,Â‰ÂÌËÂÎÂÌÚ˚ 22

ìÒÓ,Â ¯ÂÌÒÚ,Ó,‡Ìı Ó ÓÔÂ ‡ˆËË
àÒÔÓÎ¸ÁÓ,‡ÌËÂ ‡Î˙ÚÂ Ì‡ÚËˇ ËÒÙÓ˜ÌËÍÓ,
  ÔËÚ‡ÌËfl..... 24
á‡ÔËÒ¸ Ò‰‡ÚÓÈ ËÎÌË, ÂÏÂÌÂÏ 27
àÒÔÓÎ¸ÁÓ,‡ÌËÂ ÙÛÌÍˆËË PROGRAM AE..... 28
ë˙ÂÏÍ‡ Ò Á‡‰ÌÂÈ ÔÓ‰Ò,ÂÚÍÓÈ 30
Ç˚·Ó ÂÊËÏ‡ START/STOP 31
ç‡ÎÓÊÂÌËÂÌ‡‰ÔËÒËË 32
àÒÔÓÎ¸ÁÓ,‡ÌËÂ ÙÛÌÍˆËË ¯Ë ÓÍÓÙÒ Ï‡ÚÌÓ„Ó
  ÂÊËÏ‡ – ÍÓÎ¸ÍÓ CCD-TR402E 33
àÁÏÂÌÂÌËÂ ÂÊËÏÎı ÛÒÚ‡ÌÓ,ÓÍ 34
åÓÌÚ‡Ê Ì‡ ‰ Û„Û¸ ÎÂÌÚÛ 35

ÑÓÔÓÍÎËÚÂÎ¸Ì‡fl ËÌÙÓ Ï‡ˆËfl
á‡ÏÂÌ‡ ÎËÚËÂ,ÓÈ ·‡Ú‡ ÂÈÍÈ ,
  ,Ë‰ÂÓÍ‡ÏÂ Â 36
ìÒÚ‡ÌÓ,Í‡ ‰‡Ú˚ Ë , ÂÏÂÌË 38
êÂÊËÏ˚ ,ÓÒÔ ÓËÁ,Â‰ÂÌËfl 39
ëÓ,ÂÚ˚ ÔÓ ËÒÔÓÎ¸ÁÓ,‡ÌË¸
  ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ 40
àÌÙÓ Ï‡ˆËflÔÓÛıÓ‰ÛÁ‡‡ÔÔ‡ ‡ÚÓÏË
  ÔÂ‰ÓÒÙÓÊÊÓÒÚÈ 45
àÒÔÓÎ¸ÁÓ,‡ÌËÂ Ç‡¯ÂÈ ,Ë‰ÂÓÍ‡ÏÂ ˚ Á‡
  Û·ÂÊÓÏ 50
è Ó,Â Í‡ÌÂËÒÔ ‡,ÌÓÒÙÂÈ 54
íÂıÌË˜ÂÔÍËÂı‡ ‡ÍÚÂ ËÒÙËÍË 58
ç‡ËÏÂÌÓ,‡ÌËÂ ‰ÂÚ‡ÎÂÈ..... 59
è Â‰ÛÔ ÂÊ‰‡¸˘ËÂËì‰ËÍ‡ÚÓ ˚ 67
ìÍ‡Á‡ÚÂÎ¸ ..... Á‡‰Ìflfl Ó·ÎÓÊÍ‡

èÂ Â‰ Ì‡˜‡ÎÓÏ ‡·ÓÚ°

Before You Begin

Using This Manual

àÒÔÓÎ¸ÁÓ„‡ÌËÂ ‰‡ÌÌÓ„Ô ÛÍÓ‚Ó‰ÒÚ‚‡

The instructions in this manual are for two models listed below. Before you start reading and operating, check your model number by looking at the bottom of your camcorder. The CCD-TR402E is the model used for illustration purposes. Otherwise, the model name is indicated in the illustrations. Any differences in operation are clearly indicated in the text, for example, “For CCD-TR402E only”.
As you read through this manual, buttons and settings on the camcorder are shown in capital letters.
e.g. Set the POWER switch to CAMERA.
As indicated with ♪ in the illustrations, you can hear the beep sound to confirm your operation.

àÌÒÚ ÛÍ˜ËË ,‰‡ÌÌÓÏ ÛÍÓ‚Ó‰ÒÚ‚Â Ô Â‰Ì‡ÁÌ‡˜ÂÌ° ‰Îfl ‰,Ûı ÌËÊÂÔ Ë,Â‰ÂÌÌ°ı ÏÓ‰ÂÎÂÈ. èÂ Â‰ÚÂÏ,Í‡ÍÇ°Ô ËÒÚÛÔËÚÂÍ ˜ÚÂÌË¸Ë ‡·ÓÚÂ, Ô Ó,Â ¸ÚÂ ÌÓÏÂ Ç‡¯ÂÈ ÏÓ‰ÂÎË, ÔÓÒÌÓÚ Â, Ì‡ ÌËÊÌ,, Ô‡ÌÂÎ¸ Ç‡¯ÂÈ ,Ë‰ÂÓÍ‡ÏÂ °. åÓ‰ÂÎ¸ CCD-TR402E ËÒÔÓÎ¸ÁÓ,‡Ì‡ , ËÎÎ¸ÒÚ ‡ÚË,Ì°ı ˆÂÎflı. Ç ËÌ°ı ÒÎÛ˜‡flı Ì‡ËÏÂÌÓ,‡ÌËÂ ÏÓ‰ÂÎË ÛÍ‡Á°,‡ÂÚÒfl Ì‡ ËÒÛÌÍ‡ı. ã¸·°Â ‡ÁÎË˜Ëfl , ‡·ÓÚÂ ˜ÂÚÍÓ ÛÍ‡Á‡Ì° , ÚÂÍÒÚÂ, Í‡Í Ì‡Ô ËÏÂ “ÍÓÎ¸ÍÓ ‰Îfl ëëD-TR402E”.
äÓ„‰‡Ç°·Û‰ÂÚÂ˜ËÚ‡Ú¸‰‡ÌÌÓÂ ÛÍÓ,Ó‰ÒÚ,Ó, Û˜ËÚ°,‡ÈÚÂ, ˜ÚÓ ÎÌÓÔÓÍË Ë ÛÒÚ‡ÌÓ,ÍË Ì‡ ,Ë‰ÂÓÍ‡ÏÂ Â ÔÓÍ‡Á‡Ì° Á‡„Î‡,Ì°ÏË ·ÛÍ,‡ÏË. è ËÏ. ìÒÚ‡ÌÓ,ËÚÂ ,°ÍÎ¸˜‡ÚÂÎ¸ POWER , ÔÓÍÎÓÊÂÌËÂ CAMERA. ÖÒÌË Ì‡ ËÈÛÌÍ‡ı ÛÍ‡Á°,‡ÂÚÒfl ÁÌ‡Í ♪, ÚÓ Ç° ÏÓÊÂÚÂ ÒÎ¯‡Ú¸ ÁÛÏÍÂ Ì°È Á,ÛÍÓ,ÓÈ ÒË„Ì‡Î ‰Îfl ÔÓ‰Ú,Â Ê‰ÂÌËflÇ‡¯ÂÈ ‡·ÓÚ°.

Types of Differences íËÔ° ‡ÁÎË˜ËÈ

Model åÓ‰ÂÎ¸	Optical zoom éÔÚË˜ÂÒÍËÈÚ ‡ÌÒÙÓÍ‡ÚÓ	Digital zoom ñËÙ Ó,ÓÈÚ ‡ÌÒÙÓÍ‡ÚÓ	Wide Mode òË ÓÍÓÙÓ Ï‡ÚÍÌ° ÂÊËÏ
CCD-TR401E	13x	—	—
CCD-TR402E	13x	26x	●

Note on TV Colour Systems

TV colour systems are different depending on the countries. If you view the playback picture on a TV, you need a PAL system based TV or a SECAM system based TV with PAL-SECAM transcoder (as this is a PAL system based camcorder).

Precaution on Copyright

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

è ËÏÂ˜‡ÌËÂ ÔÓ ÒËÈÒÚÂÎ‡Ï ˆ‚ÂÚÍ„Ó ÚÂÎÂ,Ë‰ÂÌËfl

ëËÈÒÚÂÎ° ˆ‚ÂÚÍ„Ó ÚÂÎÂ,Ë‰ÂÌËfl ‡ÎÊ˜‡¸ÚÒfl ,Á‡,ËÒËÏÓÒÚÚË ÓÚÒÚ ‡Ì°. ÑÎfl Ô ÓÒÏÓÚ ‡ ,ÓÒÔ ÓËÁ,Ó‰ËÏÓ„ÓËÁÓ· ‡ÊÂÌËfl ÔÓ ÚÂÎÂ,ËÁÓ ÛÇ‡ÏÔÓÌ‡%Ó·ËÚÒfl ÚÂÎÂ,ËÁÓ , ÓÒÌÓ,‡ÌÌ°È Ì‡ ÒËÒÚÂÎÂ PAL, ËÎË ÚÂÎÂ,ËÁÓ , ÓÒÌÓ,‡ÌÌ°È Ì‡ ÒËÒÚÂÎÂ SECAM, Ò Ú ‡ÌÒÍÓ‰Â ÓÏ PAL-SECAM (Ú‡Í Í‡Í ˜ÚÓ ,Ë‰ÂÓÍ‡ÍÂ ‡, ÓÒÌÓ,‡ÌÌ‡fl Ì‡ ÒËÒÚÂÏÂ PAL).

è Â‰ÓÒÚÂ ÂÊÂÌËÂÓ·‡,ÚÓ ÒÍÓÏÔ ‡,Â

íÂÎÂ,ËÁËÓÌÌ°Â Ô Ó„ ‡ÏÏ°, ÍËÌÓÙËÎ¸Ï°, ,Ë‰ÂÓÍÎÂÌÚ° Ë ‰ Û„ËÂ Ï‡ÚÂ Ë‡Î° ÏÓ„ÙÚ ·°Ú¸ Á‡˜Ë˜ÂÌ° ‡,ÚÓ ÒÍËÏ Ô ‡,ÓÏ.
çÂÔ ‡,ÓÏÓ˜Ì‡fl Á‡ÔËÒ¸ Ú‡ÍÍËı Ï‡ÚÂ Ë‡ÎÓ, ÏÓÊÂÚÔ ÓÚË,Ó Â˜ËÚ¸ ÛÒÎÓ,ËflÏ Á‡ÍÓÌ‡ Ó· ‡,ÚÓ ÒÍÓÏÔ ‡,Â.

Precautions on Camcorder Care

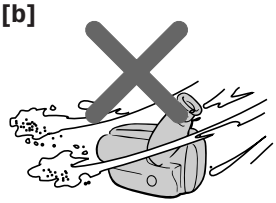
- **Do not let the camcorder get wet. Keep the camcorder away from rain or sea water. It may cause a malfunction and sometimes the malfunction cannot be repaired. [a]**
- **Do not let sand get into the camcorder. When you use the camcorder on a sandy beach or in a dusty place, protect it from the sand or dust. Sand or dust may cause the unit to malfunction, and sometimes this malfunction cannot be repaired. [b]**
- **Never leave the camcorder under temperatures above 60°C (140°F), such as in a car parked in the sun or under direct sunlight. [c]**

è Â‰ÓÒÚÓ ÓÊÌÓÒÚËÔÓÓÛıÓ‰ÛÁ‡ ,Ë‰ÂÓÍ‡ÏÂ ÓÈ

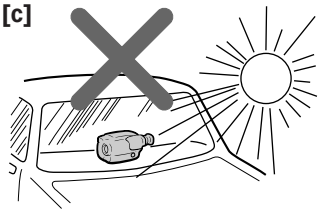
- çÂ ÔÓÁ,ÓÎflÈÚÂ ,Ë‰ÂÍ‡ÏÂ Â ‰ÂÎ‡Ú¸ÒfI ,Î‡ÊÌÓÈ. è Â‰Óı ‡ÌflÈÚÂ ,Ë‰ÂÓÍ‡ÏÂ Û ÓÚ ‰ÓÊ‰fI ËÎÏË ÏÓ ÒÍÓÈ ,Ó‰˚. ùÚÓ ÏÓÊÂÚ ,˚Á,‡Ú¸ ÌÂËÒÔ ‡,ÌÓÒÚ¸, Ë , ÌÂÍÓÚÓ ˚ı ÒÎÛ˜‡fIı ÌÂËÒÔ ‡,ÌÓÒÚ¸ ÌÂ ÔÓ‰ÎÂÊËÚ ÂÏÓÌÚÛ. **[a]**
- çÂ ÔÓÁ,ÓÎflÈÚÂ ÔÂÒÍÛ ÔÓÓ‡ÒÚ¸, ,Ë‰ÂÓÍ‡ÏÂ Û. ÖÒÎË Ç˚ ËÒÔÓÎ¸ÁÙÂÚÂ ,Ë‰ÂÓÍ‡ÏÂ Û Ì‡ ÔÂÒ˜‡ÌÓÏ ÔÎflÊÂ ËÎË , Ô˚Î¸ÌÓÏ ÏÂÒÚÂ, ÚÓ Ô Â‰Óı ‡ÌflÈÚÂ ÂÂ ÓÚ ÔÂÒÍ‡ ËÎË Ô˚ÎÏË. èÂÒÓÍ ËÎË Ô˚Î¸ ÏÓ„ÛÚ ,˚Á,‡Ú¸ ÌÂËÒÔ ‡,ÌÓÒÚ¸, Ë , ÌÂÍÓÚÓ ˚ı ÒÎÛ˜‡fIı ÌÂËÒÔ ‡,ÌÓÒÚ¸ ÌÂ ÔÓ‰ÎÂÊËÚ ÂÏÓÌÚÛ. **[b]**
- çËÍÓ„‰‡ ÌÂ ÓÒÚ‡,ÎflÈÚÂ ,Ë‰ÂÓÍ‡ÏÂ Û , ÏÂÒÚÂ Ò ÚÂÏÔÂ ‡ÚÛ ÓÈ Ò,°¯Â 60 °ë (140°F), Í‡Í Ì‡Ô ËÏÂ , , ‡,ÚÓÏ·ËÎÂ, ÓÒÚ‡ÌÓ,ÎÂÌÌÓÏ Ì‡ ÒÓÎÌˆÂ ËÎË ÔÓ‰ Ô fIÏ°ÏË ÒÓÎÌÂ˜Ì°ÏË ÎÛ˜‡ÏË. **[c]**

[a]

[b]



[c]

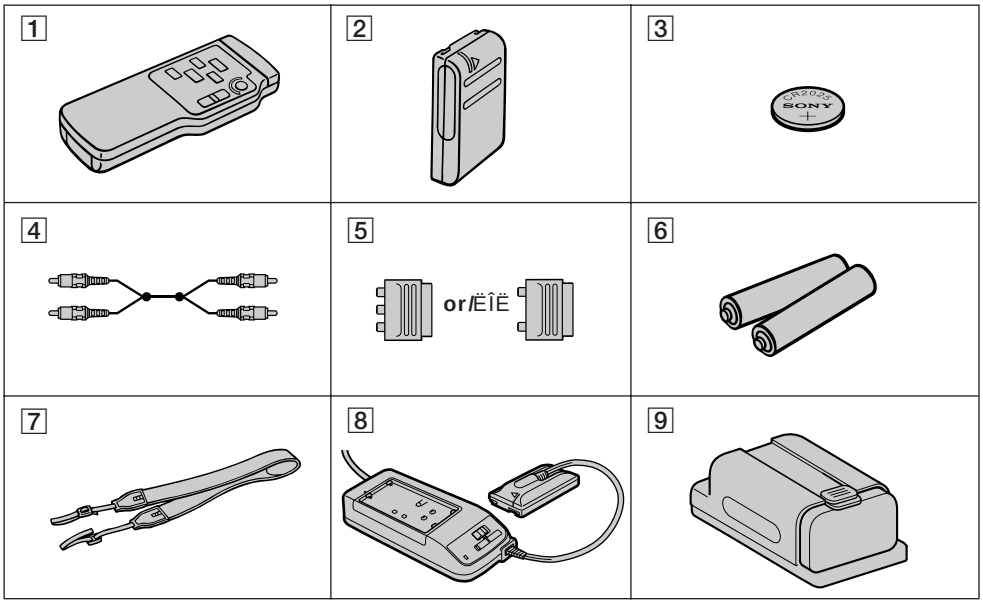


Checking Supplied Accessories

è Ó‚Â Í‡ Ô ËÎ‡„‡ÂÏ˚ı Ô ËÌ‡‰ÎÂÊÌÓÒÚÂÈ

Check that the following accessories are supplied with your camcorder.

è Ó‚Â ¸ÚÂ Ì‡ÎÏ¯ËÂ ÒÎÂ‰Û˛˘ËÌ Ô ËÌ‡‰ÎÂÊÌÓÒÚÂÈ, Ô ËÎ‡„‡ÂÏ˚ı Í Ç‡¯ÂÈ ‚Ë‰ÂÓÍ‡ÏÂ Â.



1 **Wireless Remote Commander (1) (p. 22, 62)**

2 **NP-33 Battery Pack (1) (p. 7)**

3 **CR2025 Lithium Battery (1) (p. 36)**
Already installed in the camcorder.

4 **A/V connecting cable (1) (p. 20)**

5 **21-pin adaptor (1) (p. 21)**

6 **R6 (size AA) battery for Remote Commander (2) (p. 63)**

7 **Shoulder strap (1) (p. 62)**

8 **AC-V16/V16A AC power adaptor (1) (p. 7, 25)**
AC-V16A is not available in the United Kingdom.

9 **Battery case (1) (p. 26)**

1 ÅÂÒÔ Ó‚Ó‰Ì˚È ÔÛÎ¸Ú ‰ËÒÚ‡ÌˆËÓÌÓ„Ó ÛÔ ‡‚ÌËfl (1) (ÒÚ . 22, 62)

2 Å‡Ú‡ ÂÈÌ˚È ·ÎÓÍ NP-33 (1) (ÒÚ . 7)

3 ãËÚËÂ‚‡fl ·‡Ú‡ ÂÈÍ‡ CR2025 (ÒÚ . 36) ìÊÂ ÛÒÚ‡ÌÓ‚ÎÂÌ‡ , ‚Ë‰ÂÓÍ‡ÏÂ Â.

4 ëÓÂ‰ËÌËÚÂÎ¸Ì˚È Í‡·Â¸ ‡Û‰ËÓ/‚Ë‰ÂÓ (1) (ÒÚ . 20)

5 21-¯Ú˚ ¸ÍÓ‚˚È ‡‰‡ÔÚÂ (1) (ÒÚ . 21)

6 Å‡Ú‡ ÂÈÍ‡ R6 (‡ÁÏÂ ÓÏ AA) ‰Îfl ÔÛÎ¸Ú‡ ‰ËÒÚ‡Ì˚ËÓÌÓ„Ó ÛÔ ‡‚ÌËfl (2) (ÒÚ . 63)

7 èÎÂ˜Â‚ÓÈ ÂÏÂÌ¸ (1) (ÒÚ . 62)

8 CÂÚÂ‚ÓÈ‡‰‡ÔÚÂ ÔÂ ÂÏ.ÚÓÍ‡ AC-V16/V16A (1) (ÒÚ .7, 25)
AC-V16A ÌÂ ËÒÔÓÍ¸ÁÛÂÚÒfl ‚ëÓÂ‰ËÌÂÌÌÓÏ äÓ ÓÎÂ‚ÒÚ‚Â

9 Å‡Ú‡ ÂÈÌ‡fl Í‡ÏÂ ‡ (1) (ÒÚ . 26)

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

CÓ‰Â ÊËÏÓÂ Á‡ÔËÒÈ ÌÂ ÏÓÊÂÚ·°Ú¸ ÓÚÍÓ ÂÍÚË Ó‚ÌÓ‚ÂÒÌËÁ‡ÔËÒ¸ ËÏË ‚ÓÒÔ ÓËÁ‚Â‰ÂÌÂ ÌÂ ¸ÔÓÍÎÌfl¸ ÚÒfl ËÁ-Á‡ ÌÂËÒÔ ‡‚ÌÓÒÚË ‚Ë‰ÂÓÍ‡ÏÂ °¸ ‚Ë‰ÂÓÍÂÌÚ° ËÚ‰.

Charging and Installing the Battery Pack

á‡ fl‰Í‡ Ë ÛÒÚ‡ÌÓ‚Í‡ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓ͇

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.

èÂ Â‰ ÔÓÎ ÁÓ‚‡ÌËÂÌ Ç‡¯ÂÈ ‚Ë‰ÂÓÍ‡ÏÂ ÓÈ Ç‡Ì ÒÎÂ‰ÛÈÚ ˜‡Î‡ Á‡ fl‰ËÚ¸ ËÚÒÚ‡ÌÓ‚Ë¸ ·‡Ú‡ ÂÈÌ˚È. ÑÎfl Á‡ fl‰ÍË ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓ͇ ‚ÒÒÔÎ‡ÁÚÈÚÂ, Ô ËÎ‡„‡ÎÌ˚ ÒÂÚÂ‚˚ ‡‰‡ÔÚÂ ÓÏÔÂ ÅÏ.ÚÓÍ‡.

Charging the Battery Pack

á‡ fl‰Í‡ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓ͇

Charge the battery pack on a flat place without vibration.

(1) Connect the AC power adaptor to the mains.

(2) Align the right side of the battery pack with the line on the AC power adaptor, then slide the battery pack in the direction of the arrow.

(3) Set the selector to CHARGE. The CHARGE lamp (orange) lights up. Charging begins.

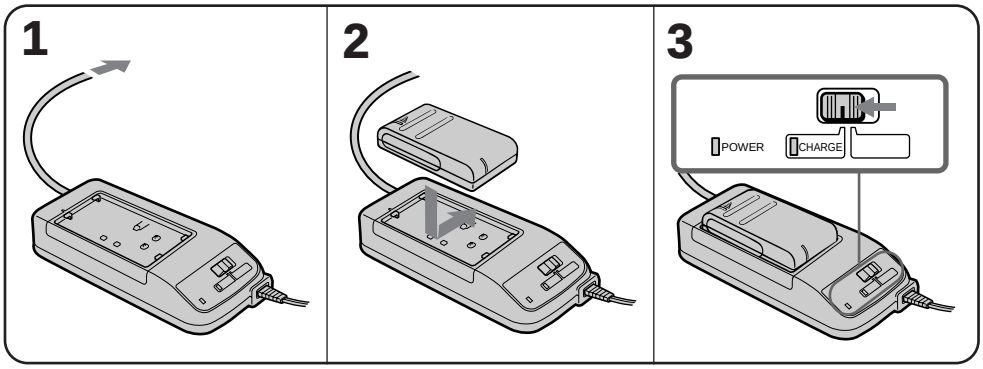
When charging is completed, the CHARGE lamp goes out. Unplug the unit from the mains, and then remove the battery pack and install it on the camcorder.

á‡ fl‰ÍÛ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓ͇ Ô ÓËÁ‚Ó‰ËÚÂÌ‡ Ô‚ÌÓÈ ÔÓ‚Â ıÍÒÚÛË, ÌÂ ÔÓ‰‚Â ÊÂÌÌÓÈ ‚Ë· ‡ˆËË.

(1) èÓ‰ÒÓÂ‰ËÌËÚÂ ÒÂÚ¸Ó‚Ó‰ ‡‰‡ÔÚÂ‡ ÔÂ ÂÏ.ÚÓÍ‡ Í ˆÂÔÍÂ Ë˜ÂÂÚ ÒÓ ÒÓÂ‰ËÌËÚÂÎ¸Ì˚Ï ‚˚ÒÚÛÔÓÏ.

(2) ìÒÚ‡ÌÓ‚ËÚÂ Ô ‚Û ÒÚÓ ÓÌÛ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓ͇. Ì‡ Ó‰ÌÓÏ ÛÓ‚ÌÂ ÔÂÌÂË Ò ÒÂÚ‡ÂÌ ÔÂ Â‰‚Ë ÚÂ ·‡Ú‡ ÂÈÌ˚È ·ÎÓ͇, Ì‡ÒÚ ‚‰‚Ë‰ÛÚ ‚ÒÂ ÌÂÓ·ıÓ‰ËÏÓ.

(3) ìÒÚ‡ÌÓ‚ËÚÂ ÒÂÎÂÍÚÓ ¸ÔÓÍÓÊÂÌËÂ CHARGE. á‡„Ó ËÚÒfl Î‡ÎÔÓ˜Í‡ CHARGE (Ó ‡ÌÊÂ‚‡fl). ç‡˜ÌÂÚÒfl Á‡ fl‰Í‡. äÓ„‡ Á‡ fl‰Í‡ Á‡„Â ¯ËÚÒfl, Î‡ÌÔÓ˜Í‡ CHARGE ÔÓ„‡ÒÌÂÚ. éÚÍÎ ˜ËÚÂ ‡ÔÓ‡ ‡Ú ÓÚ ˝ÎÂÍ Ë˜ÂÒÓÈ ÒÂÚË, ‡ Á‡ÚÂÏ ÒÌËÏËÚÂ ·‡Ú‡ ÂÈÌ˚È ·ÎÓ͇ Ë ÛÒÚ‡ÌÓ‚ËÚÂ Â„Ó Ì‡ ‚Ë‰ÂÓÍ‡ÏÂ Ú.



Charging Time

Battery pack	Charging time*
NP-33 (supplied)	60
NP-65 / 67	105
NP-66H / 68	125
NP-77H / 78	170
NP-90 / 90D / 98	215

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

Ç ÂÏfl Á‡ fl‰ÍË

Ä‡Ú‡ ÂÈÌ˚È ·ÎÓ͇	Ç ÂÏfl Á‡ fl‰ÍË *
NP-33 (ÔÓÒÚ‡ÎflÂÚÒfl)	60
65R	105
66R	125
77R	170
90R	215

* è Ë·ÎËÁËÚÂÎ¸ÌÓ ‚ ÏËÌÛÚ‡ı, ‰Îfl Á‡ fl‰ÍË ‡Á fl‰ÊÂÌÌÓ„Ó ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓ͇ Ò ÔÓÒÓÎ ÁÓ‚‡ÌËÂÌ Ô ËÎ‡„‡ÎÌ„Ó ÒÂÚ‡ÂÌ‡Ó„Ó ‡‰‡ÔÚÂ‡ ÂÎ. ÚÓÍ‡. (è ÌËÁÍËı ÚÂÌÔ ‡ÚÛ ‡ı, ÂÏfl Á‡ fl‰ÍÍË Û‰ÎËÎfl ÂÚÓfl.)

Charging and Installing the Battery Pack

á‡ fl‰Í‡ Ë ÛÒÚ‡ÌÓ‚Í‡ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡

Battery Life

CCD-TR401E

Battery pack	Typical recording time**	Continuous recording time***
NP-33 (supplied)	50	90
NP-65 / 67	85	155
NP-66H / 68	105	180
NP-77H / 78	135	235
NP-90 / 90D / 98	175	305

CCD-TR402E

Battery pack	Typical recording time**	Continuous recording time***
NP-33 (supplied)	45	85
NP-65 / 67	85	155
NP-66H / 68	100	175
NP-77H / 78	130	230
NP-90 / 90D / 98	170	300

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

*** Approximate continuous recording time indoors.

Important!

Use the battery completely before re-charging!

Before you recharge the battery, make sure the battery has been used up (discharged) completely.

Repeated charging while some capacity remains causes a lowering of battery capacity. However, the original battery capacity can be recovered if you use the battery completely and charge it fully again.

To use up the battery, remove the cassette and turn the POWER switch to CAMERA with the battery attached, and leave the camcorder until the ⇦ indicator and the red lamp flash rapidly in the viewfinder.

ë ÓÍ ÒÎÛÊ·° ·‡Ú‡ ÂÂÍ

CCD-TR401E

Å‡Ú‡ ÂÈÌ°È ·ÎÓÍ	Ç ÂÏfl ÚËÔË˜ÌÓÈ Á‡ÔËÒË**	Ç ÂÏfl ÌÂÔ Â °‚ÌÓÈ Á‡ÔËÒË***
NP-33(Ô ËÎ‡„‡ÂÚÒfl)	50	90
NP-65/67	85	155
NP-66H/68	105	180
NP-77H/78	135	235
NP-90/90D/98	175	305

CCD-TR402E

Å‡Ú‡ ÂÈÌ°È ·ÎÓÍ	Ç ÂÏfl ÚËÔË˜ÌÓÈ Á‡ÔËÒË**	Ç ÂÏfl ÌÂÔ Â °‚ÌÓÈ Á‡ÔËÒË***
NP-33(Ô ËÎ‡„‡ÂÚÒfl)	45	85
NP-65/67	85	155
NP-66H/68	100	175
NP-77H/78	130	230
NP-90/90D/98	170	300

** è Ë·ÎËÁËÚÂÎ¸ÌÓÂ ‚Ïfl ÌÂÔ Â °‚ÌÓÈ Á‡ÔËÒË‚ ÔÓÏÂ˜ÂÌËË.

*** è Ë·ÎËÁËÚÂÎ¸ÌÓÂ ‚Ïfl ÌÂÔ Â °‚ÌÓÈ Á‡ÔËÒË‚ ÔÓÏÂ˜ÂÌËË.

Ç‡ÊÌÓ!

åÒÔÓÎ¸ÁÛÈÚÂ Á‡ fl‰ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ ÔÓÍÌÓÓÚ‚ Ô ÂÊ‰Â, ˜ÂÏ Ô ËÒÚÚÛÔËÚ‚ Í Â„Ó Á‡ fl‰ÍÂ!

èÂ Â‰Á‡ fl‰ÍÓÈ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ Ú·Â‰ËÚÂÒ‚ ˜ÚÓÂ„Ó Á‡ fl‰ ÔÓÍÌÓÒÚ‚ ËÒÔÓÎ ÁÓ‚Ì (·ÎÓÍ ‡Á flËÂÎ).

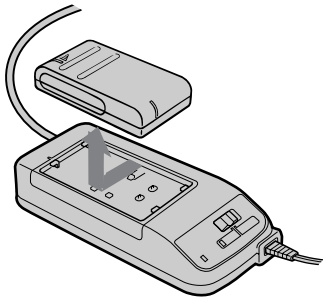
èÓ‚ÚÓ Ì‡fl Á‡ fl‰Í‡ ‚ÔÎÛ˜‡Â˜ÒÚËˆÌÓ ÓÒÚ‡‚˜ÂÈÒfl ÂÏÍÓÒÚËË Ô Ë‚Ó‰ËÚ Í ÒÌÈËÊÂÌË‚ ÂÏÍÓÒÚË. é‰Ì‡ÍÓ ÔÂ ‚ÓÌ‡˜‡Î‚fl ÂÏÍÓÒÚ‚ ·‡Ú‡ ÂË ÏÓÊÂÚ ·°Ú‚ ‚ÒÒÚ‡ÌÓ‚ÎÂÌ‡, ÂÒÏË Ç°ÔÓÎÌÓÒÚ‚ ËÒÔÓÎ‚ÁÛÂÚÂ Á‡ fl‰ ·‡Ú‡ ÂË ËÒÌÓ‚ ÂÂÔÖÎÌÓÒÚ‚ Á‡ fl‰ËÚÂ.

ÑÎfl ‡Á fl‰ÍÈË·‡Ú‡ ÂËÒÌËÏËÚÂÍ‡ÒÒÂÚÛË ÔÂ Â‰‚ÈÌ ÚÂ ÔÂ ÂÎÍ˜‡ÚÂÍ POWER ÔÓÍÓÊÂÌÌËÂÀCAMERAÒ ËÔÓ‰ÒÓÂ‰ËÀÌÍÓÈ ·‡Ú‡ ÂÂËÓÒÚ‡ ÚÂ‚Ë‰ÂÓÍ‡ÏÂ Û ‚ÍÍ ˜ÂÌÌÓË ‰Ó ÚÂ‚ ÓÒ ‚ ÔÓÍ‡‚ ‚Ë‰ÂÓÒÍÓÏÂ ÌÂ Ì‡˜ÌÚÚ ·°ÒÚ Ó ÏË„‡Ú‚ ËÌ‰ËÍ‡ÚÓ ⇦ Ë Í ‡ÒÌ‡fl Î‡ÏÔÓ˜Íª.

To Remove the Battery Pack

Slide the battery pack in the direction of the arrow.

CÌfIÚËÂ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ èÂ Â‰‚ËÌ¸ÚÂ ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ , Ì‡Ô ‡‚ÎÂËË ÒÚ ÂÎÍË.



Notes on charging the battery pack

- The POWER lamp will remain lit for a while even if the battery pack is removed and the mains lead is unplugged after charging the battery pack. This is normal.
- If the POWER lamp does not light, set the selector to VTR (DC OUT) and disconnect the mains lead. After about one minute, reconnect the mains lead cord and set the selector to CHARGE again.
- You cannot operate the camcorder using the AC power adaptor while charging the battery pack.

è ËÏÂ˜‡ÌËfl ÔÓ Á‡ fl‰ÍÂ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡

- ã‡ÏÔÓ˜Í‡POWERÛ‰ÂÛÂÍÓÚÓ ÓÂ ÃÏfl Ò‚ÂÚËÚ¸Òfl,‰‡ÊÂ,ÂÒÎË·‡Ú‡ ÂÈÌ°È·ÎÓÍ ÒÌfIÚËÒÂÚÂ,ÓÈ¯ÌÛÓÚÍÎ˜ÂÌÔÓÒÒÌÂ Á‡ fl‰ÍÏË ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡. ùÚÓ fl,ÎfIÂÚÒfl ÌÓ Ï‡Î¸Ì°Ï.
- ÖÒÎÏ‡ÏÔÓ˜Í‡POWERÌÃÁ‡„Ó ‡ÂÚÒfl, ÛÒÚ‡ÌÓ,ËÚÂÒÂÎÂÍÚÔÓÍÔÊÂÌËÂVTR(DC OUTÏËÚÚÓÂ‰ËÌËÚÃÔ Ó,Ó‰ ˝ÎÂÍÚ ÓÔËÚ‡ÌËfl.è ËÏÂ ÌÓ˜Â ÂÁÏËÛÚÛ ¸ÌÓ,, ÔÓ‰ÒÓÂ‰ËÌËÚÂ Ô Ó,Ó‰ ˝ÎÂÍÚ ÓÔËÚ‡ÌËfIËÓÔfIÚ¸ÛÒÚ‡ÌÓ,ËÚÂ ÒÂÎÂÍÚÔÓÍÔÊÂÌËÂCHARGE.
- Ç˚ÌÂÏËÊÂÚÂ ÛÔ ‡,ÎfIÚ¸,Ë‰ÂÓÍ‡ÏÂ ÓÈÒ ËÒÒÔÓÎ¸ÁÓ,‡ÌËÂÏ ÒÂÚÂ,Ó„Ó ‡‰‰ÂÚÂ ‡ ÔÂ ÂÏ.ÚÓÍ‡ ,Ó , ÂÏfl Á‡ fl‰ÍÏË ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡.

Charging and Installing the Battery Pack

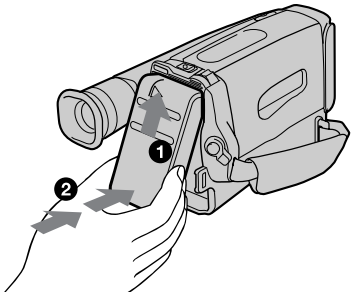
á‡ fl‰Í‡ Ë ÛÒÚ‡ÌÓ‚Í‡ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡

Installing the Battery Pack

ìÒÚ‡ÌÓ‚Í‡ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡

(1) Insert the top of the battery pack into the top of the battery mounting surface.
(2) Push the battery pack so that it attaches firmly. Make sure that you hear clicks twice.

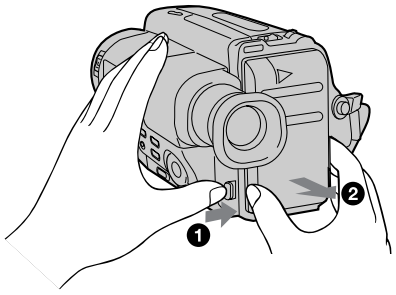
(1) ÇÒÚ‡¸ÚÂ ‚Â ıÌËÈ ÍÓÌÂˆ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ ‚ ıÌ¸˜‡ÒÚ¸ ·‡Ú‡ ÂÈÌÓÈ ÛÒÚ‡ÌÓ‚ÍË ÔÓ‚Â ıÓÒÚÛË.
(2) ç‡ÊÏËÚÂ ·‡Ú‡ ÂÈÌ˚È ·ÎÓÍ‚Ú‡Í‚˜ÚÓ·˚ ÓÌ ·˚Î‡‰ÂÊÌÓ ËÒÓÂ‰ËÌÂÌ.ì·Â‰ËÚÂÒ¸, ˜ÚÓÇ˚‰‚‡Ê‰˚ÛÒÎ˚¯‡ÎË˜ÂÎ˜ÓÍ.



To Remove the Battery Pack

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

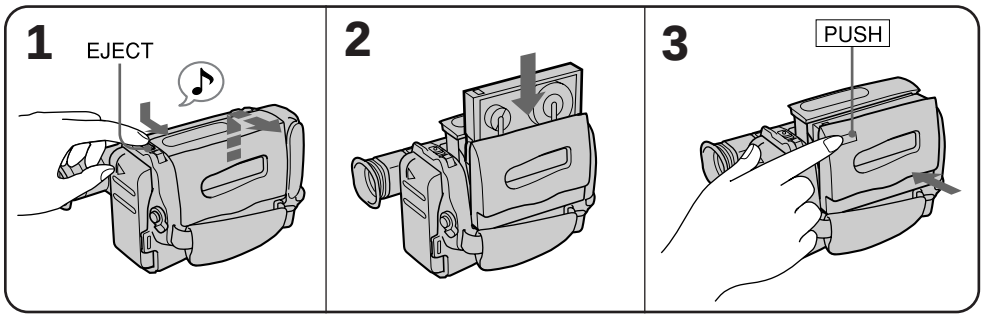
ëÌflÚËÂ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ ë‰Ë¸ÚÂBATT‡Á‡ÚÂÔÓÚflÌËÚÂÁ‡ ÌËÊÌ¸˜‡ÒÚ¸ ·‡Ú‡ ÂÌÓ„Ó ·ÎÓÍ‡.



Inserting a Cassette ÇÒÚ‡,Í‡ Í‡ÒÒÂÚ°

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

ì·Â‰ËÚÂÒ¸˜ÚÓËÒÚÓ˜ÌËÍÎÔËÚ‡ÌËflÛÒÚ‡ÌÓ,ÎÂÌ.
(1)ç‡ÊËÏ‡flÏ‡ÎÂÌ¸ÍÛ¸ÒËÌ¸¸ÎÌÓÔÍÛ,
Ò‰ËÌ¸ÚÆEJECT‡Ô ‡,ÎÂÌËËÒÚ ÂÎÍË.
ÓÚÒÂÍ Í‡ÒÒÂÚ° ‡,ÚÓÏ‡ÚË˜ÂÒÍË
ÓÚÍ °,‡ÂÚÒfl.
(2)ÇÒÚ‡¸ÚÂÍ‡ÒÒÂÚÛ(ÌÂÔ ËÎ‡¸„‡ÂÚÒfl)
ÓÍÓ¯ÍÓÏ, Ó· ‡˜ÂÌÌ°Ì ‡ ÛÊÛ.
(3)¸‡ÊÎËÚÆÂÂÚÍÛPUSH‡ÓÚÒÂÍÃ‡ÒÒÂÚ°
‰‰ÎflÂ„ÓÁ‡Í °ÚËfl.éÚÒÂÍÍ‡ÒÒÂÚ°
‡,ÚÓÏ‡ÚË˜ÂÒÍË Á‡Í °,‡ÂÚÒfl.

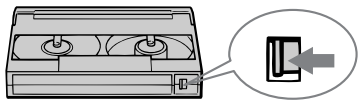


To Eject the Cassette
While pressing the small blue button, slide EJECT in the direction of the arrow.

To Prevent Accidental Erasure
Slide the tab on the cassette to expose the red mark. If you insert the cassette with the red mark exposed and close the cassette compartment, the beeps sound for a while. If you try to record with the red mark exposed, the 📼 and ⏏ indicators flash in the viewfinder, and you cannot record. To re-record on this tape, slide the tab back out covering the red mark.

ÑÎfl ,°Ú‡ÎÍË,‡ÌËfl Í‡ÒÒÂÚ°
ç‡ÊËÏ‡fl Ï‡ÎÂÌ¸ÍÛ¸ ÒËÌ¸¸ ÎÌÓÔÍÛ,
Ò‰ËÌ¸ÚÆEJECT‡Ô ‡,ÎÂÌËËÒÚ ÂÎÍË.

ÑÎfl Ô Â‰ÓÚ, ‡˜ÂÌËfl ÒÎÛ˜‡ÈÌÓ„Ó ÒÚËË ‡ÌËfl
èÂ Â‰,ËÌ¸ÚÂÎÂÔÂÒÒÚÓÍÌ‡ Í‡ÒÒÂÚÂ, ˜ÚÓ·° ÔÓfl,ËÎ‡Ò¸ Í ‡ÒÌ‡fl ÏÂÚÍ‡.
ÖÒÎË Ç°,ÒÚ‡,ËÚÂÍ‡ÒÒÂÚÛ Ô Ë,°ÒÚ‡,ÎÂÌÌÓÈ Í ‡ÒÌÓËÏÂÚÍÆÁ‡Í ÓÂÚÂÓÚÒÂÎÍ‡ÒÒÂÚ°,ÚÓ Á‡Á,Û˜ËÚ ÁÛÏÏÂ Ì°È ÒË„Ì‡Î.
ÖÒÎË Ç° ÔÓÔ°Ú‡ÂÚÂÒ¸ Á‡ÔËÒ°,‡Ú¸ Ô Ë ,°ÒÚ‡,ÎÂÌÌÓÈ Í ‡ÒÌÓÈ ÏÂÚÍÛ, ,Ë‰ÓËÒÌ‡ÚÂÎÂ·Û‰ÛÚÏË„‡Ú¸ ËÌ‰ËÍ‡ÚÓ° 📼 Ë⏏,Ë Ç°ÌÂÒÏÓÊÂÚÂ Ô ÓËÁ,ÂÒÚËÁ‡ÔËÒ¸. ÑÎfl ÔÂ ÂÁ‡ÔËÒÈ Ì‡ ‰‡ÌÌÛ¸ ÎÂÌÚÛ ÔÂ Â‰,ËÌ¸ÚÂÎÂÔÂÒÒÚÓÍÌ‡Á‡‰, ˜ÚÓ·° Á‡Í °Ú¸ Í ‡ÒÌÛ¸ ÏÂÚÍÛ.



Camera Recording

éÒÌÓ,Ì°Â ÓÔÂ ‡^ËË

á‡ÔËÒ¸ Ò ÔÓÏÓ˘¸, ‚Ë‰ÂÓÍ‡ÏÂ °

Make sure that a power source and a cassette is inserted.
When you use the camcorder for the first time, power on it and reset the date and time to your time (p. 38) before you start recording. When you reset the date and time, the date is automatically recorded for 10 seconds after you start recording (**AUTO DATE feature**). This feature works only once a day.
Before you record one-time events, you may want to make a trial recording to make sure that you are using the camcorder correctly.

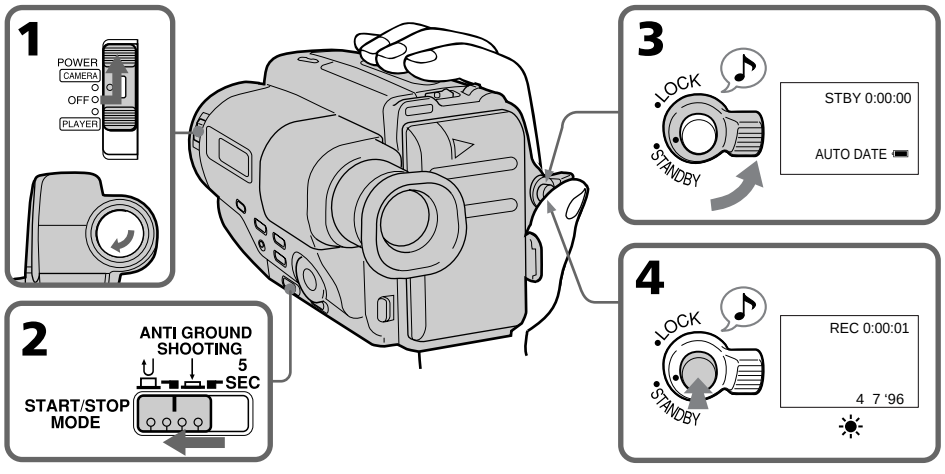
(1) While pressing the small green button on the POWER switch, slide it to CAMERA.
(2) Slide START / STOP MODE to ⏏ .
(3) Turn STANDBY up. The “STBY” indicator appears in the viewfinder.
(4) Press START / STOP (red button). The camcorder starts recording and the “STBY” indicator changes to the “REC” indicator.

You can also select Recording mode, SP (standard play) mode or LP (long play) mode. Set REC MODE (p. 34) according to the length of your planned recording before you start.

ì·Â‰ËÚÂÒ¸,˜ÚÓ ËÒÙÚÓ˜ÌËÍÎÔËÚ‡ÌËflË Í‡ÒÒÂÚ‡ ,ÒÚ‡,ÎÂÌ°.
ÖÒÌÎË Ç˚ ËÒÔÓÎ¸ÁÚÂÚÂ ,Ë‰ÂÓÍ‡ÏÂ Û ,ÔÂ ,˚È ‡Á,ÚÓ ,ÍÎ˛˜ËÚÂ ÂÂ ÔËÚ‡ÌËÂ Ë ÛÒÚ‡ÌÓ,ËÚÂ ‰‡ÚÛË , ÂÏflÌ‡ Ç‡¯Â, ÂÏfl(ÒÚ . 38) ÔÂ Â‰ ÚÁÏ, Í‡Í Ç˚ Ì‡˜ÌÂÚÂ Á‡ÔËÒ¸. äÓ„‰‡ Ç˚ ÛÒÚ‡ÌÓ,ËÚÂ‰‡ÚÛË, ÂÏfl,‰‡Ú‡ ‡,ÚÓÏ‡ÚË˜ÂÒÍÎË ·Û‰ÂÚ Á‡ÔËÒ˚,‡Ú¸Òfl, ÚÂ˜ÂÌËÂ 10 ÒÂÍÚÌ‰ ÔÓÒÔÂÌ‡˜‡Î‡ Á‡ÔËÒË (ÙÛÌÍˆÌËfl AUTO DATE). ÙÚ‡ ÙÚÌÍˆËfl ‡·ÓÚ‡ÂÚ ÚÓÍ¸ÍÓ Ó‰ËÌ ‡Á,‰ÂÌ¸. èÂ Â‰ ÚÂÏ, Í‡Í Ç˚ Ì‡˜ÌÂÚÂ Á‡ÔËÒ¸ Ó‰ÌÓ ‡ÁÓ,˚ı ÒÓ·˚ÚËÈ, Ç˚ ÏÓÊÂÚÂ Á‡ıÓÚÂÚ¸ Ò‰ÂÎ‡Ú¸Ô Ó·Û‰Îfl ÔÓ‰Ú,Â Ê‰ÂÌËfl,˜ÚÓ Ç˚ ËÒÔÓÎ¸ÁÛÂÚÂ,Ë‰ÂÓÍ‡ÏÂ ÛÔ ‡,ËÎ¸ÍÓ.

(1) ç‡ÊËÏ‡fl Ï‡ÎÂÌ¸ÍÛ¸ ÁÂÎÂÌÛ¸ ÎÌÓÔÍÛ Ì‡ ,˚ÍÎ¸˜‡ÚÂÎÂ POWER, Ò‰,ËÌ¸ÚÂ Â„Ó , ÔÓÍÎÓÊÂÌËÊ CAMERA.
(2) ë‰,ËÌ¸ÚÂ ÔÂ ÂÍÎ¸˜‡ÚÂÎ¸ START/STOP MODE , ÔÓÍÎÓÊÂÌËÂ ⏏ .
(3) èÓ,Â ÌËÚÂ STANDBY „Â ı. àÌ‰ËÍ‡ÚÓ “STBY” ÔÓfl,ËÚÒfl ,Ë‰ÓËÒÌ‡ÚÂÎÂ.
(4) ç‡ËÏËÚÂ START/STOP (Í ‡ÒÌ‡fl ÍÌÓÔÍ‡). ÇË‰ÂÓÍ‡ÏÂ ‡Ì‡˜ËÌ‡ÚÂ Á‡ÔËÒ¸, Ë ËÌ‰ËÍ‡ÚÓ “STBY” ËÁÏÂÌËÚÒfl Ì‡ ËÌ‰ËÍ‡ÚÓ “REC”

Ç˚ Ú‡ÍÊÂ ÏÓÊÂÚÂ ,˚· ‡Ú¸ ÂÊËÏ Á‡ÔËÒÈ, ÂÊËÏSP(ÒÚ‡Ì‰‡ ÚÌÓÂ,ÓÒÔ ÓËÁ,Â‰ÂÌËÂ) ËÎÏË ÂÊËÏLP(Û‰ÎËÌÂÌÓÂ,ÓÒÒ ÓËÁ,Â‰ÂÌËÂ). ìÒÚ‡ÌÓ,ËÚÂ REC MODE , ÒËÒÚÂÏÃ ÏÂÌ¸ (ÒÚ . 34) ,ÒÓÓÚ,ÂÚÒÚ,ËË Ò‰ÎËÚÂÎ¸ÌÓÒÚ¸, ÔÎ‡ÌË ÛÂÏÓÈ Ç‡ÏËÁ‡ÔËÒÈ ÔÂ Â‰Ì‡˜‡ÎÓÏ.



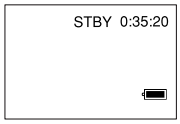
To Stop Recording Momentarily [a]

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

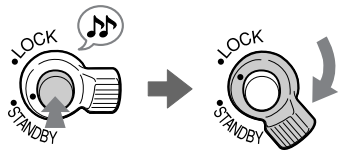
To Finish Recording [b]

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

[a]



[b]

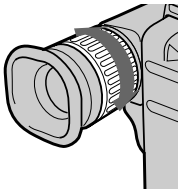


Note on Standby mode

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

To Focus the Viewfinder Lens

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



Note on the indicators in the viewfinder
The indicators appear in CAMERA mode only. They do not appear in PLAYER mode.

è ËÏÂ˜‡ÌËÂ Í ËÌ‰ËÍ‡ÚÓ ‡Ï , ‚Ë‰ÓËÒÍ‡ÚÂÎÂ àÌ‰ËÍ‡ÚÓ ˚ ÔÓfl,Îfl¸ÚÒfl ÚÓÎ¸ÍÓ , ÂÊËÏÂ CAMERA. ÓÌË ÌÂ ÔÓfl,Îfl¸ÚÒfl , ÂÊËÏÂ PLAYER.

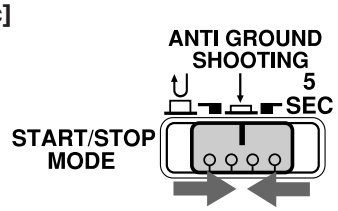
Recording with the START/STOP button depressed
You can also make recording while pressing down the START/STOP button. To make the START/STOP button work this way, set START/STOP MODE to ⏚ . **[c]**

á‡ÔËÒ¸ Ô Ë Ì‡Ê‡ÚÓÈ ÎÌÓÔÍÂ START/STOP Ç˚ ÏÓÊÂÚÂ Ú‡ÍÊÂ ‚˚ÔÓÎÌËÚ¸ Á‡ÔËÒ¸ Ô Ë Ì‡Ê‡ÚÓÈ ÎÌÓÔÍÂ START/STOP. ÑÎfl ÚÓ„Ó, ˜ÚÓ·˚ ÎÌÓÔÍ‡ START/STOP ‡·ÓÚ‡Î‡ Ú‡ÍËÏ Ó· ‡ÁÓÏ, ÛÒÚ‡ÌÓ‚ËÚ¸ ÔÂ ÂÍÎ¸˜‡ÚÂÎ¸ START/STOP MODE , ÔÓÎÓÊÂÌËÂ ⏚ . **[c]**

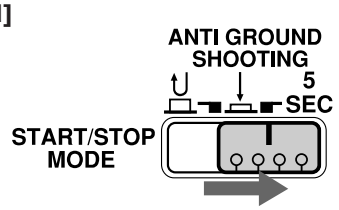
Shooting scenery in several short takes
You can automatically make recording for about 5 seconds with the 5 SEC (p. 31). To make the START/STOP button work this way, set START/STOP MODE to 5 SEC. **[d]**

ë˙ÂÏÍ‡ ÔÂÈÁ‡Ê‡ Á‡ ÌÂÒÍÓÎ¸ÍÓ ÍÓ ÓÚÍËı Ô ËÂÏÓ, Ç˚ÏÓÊÂÚÂ Ô ÓËÁ‚Ó‰ËÚ¸ ‡,ÚÓÏ‡ÚË˜ÂÒÍÎÛ¸ Á‡ÔËÒ¸ Ô Ë·ÎËÁËÚÂÎ¸ÌÓ ‚ÚÂ˜ÂÌËÂ 5 ÒÂÍÚÌ‰ Ò ÔÓÏÓ˘¸ ÙÛÌÍˆËË 5 SEC (ÒÚ . 31). ÑÎfl ÚÓ„Ó, ˜ÚÓ·˚ ÎÌÓÔÍ‡ START/STOP ‡·ÓÚ‡Î‡ Ú‡ÍËÏ Ó· ‡ÁÓÏ, ÛÒÚ‡ÌÓ‚ËÚ¸ ÔÂ ÂÍÎ¸˜‡ÚÂÎ¸ START/STOP MODE , ÔÓÎÓÊÂÌËÂ 5 SEC. **[d]**

[c]



[d]



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

è ËÏÂ˜‡ÌËÂ Í Ô Ó^ÂÒÒÛ Á‡ÔËÒË ÖÒÌËÈ˚Ô ÓËÁ‚Ó‰ËÚÂ Á‡ÔËÒ¸ Ò Ò‡ÏÓ„Ó Ì‡˜‡Î ÎÂÀÚ˚, ‰‡ÈÚÂ ‚ÓÁÏÓÊÌÒÒÚ¸ ÎÂÀÚÂ ÔÂ ÂÏÂÒÚËÚ¸Òfl ÓÍÓÎÓ 15 ÒÂÍÚÌ‰‰Ó Ì‡˜‡Î‡ Á‡ÔËÒË.ÙÚÓÔÂ‰ÓÚ‚ËÚ¸Òfl ÔÓÎÛ˜ÂÌËfl, ÂÊËÏÂ LP ·Û‰ÂÚ ÌÂ Ú‡ÍËÏ ıÓ Ó¯ËÏ, Í‡Í , ÂÊËÏÂ SP.

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

è ËÏÂ˜‡ÌËÂ Í ÂÊËÏÛ Á‡ÔËÒË
- Ñ‡ÌÌ‡fl ‚Ë‰ÂÓÍ‡ÏÂ ‡ Á‡ÔËÒ˚‚ÂÚ Ë ‚ÓÒÔ ÓËÁ‚Ó‰ËÚ, ÂÊËÏÂ SP (ÒÚ‡Ì‰‡ ÚÌÓ„Ó ‚ÓÒÔ ÓËÁ‚Â‰ÂÌËfl) ËÎÈË , ÂÊËÏÂ LP (Ù‰ÎÈÂÌÌÓ„Ó ‚ÓÒÔ ÓËÁ‚‰ÂÌËfl) é‰ì‡ÍÓ, Í‡˜ÂÒÚ‚Ó ‚ÓÒÔ ÓËÁ‚Â‰ÂÌËfl, ÂÊËÏÂ LP ·Û‰ÂÚ ÌÂ Ú‡ÍËÏ ıÓ Ó¯ËÏ, Í‡Í , ÂÊËÏÂ SP.
- ÖÒÌËÈ ÎÂÌÚ‡ ·°Î‡ Á‡ÔËÒ‡Ì‡ , ÂÊËÏÂ LP Ì‡ ‰‡ÌÌÓÈ‚Ë‰ÂÓÍ‡ÏÂ ÂË‚ÓÒÔ ÓËÁ‚Ó‰ËÚÒfl‡ ‰ Ù„Ëı ÚËÔ‡ı 8 ÏÏ ‚Ë‰ÂÓÍ‡ÏÂ ËÎÈË Ì‡ äÇå, Í‡˜ÂÒÚ‚Ó ‚ÓÒÔ ÓËÁ‚‰ÂÌËfl ÏÓÊÂÚ ·°Ú¸ ÌÂ Ú‡ÍËÏ ıÓ Ó¯ËÏ, Í‡Í Ô Ë ‚ÓÒÔ ÓËÁ‚‰ÂÌËË Ì‡ ‰‡ÌÌÓÈ ‚Ë‰ÂÓÍ‡ÏÂ Â.

Notes on the tape counter

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

Note on beep sound

As indicated with ♪ in the illustrations, a beep sounds when you turn the power on or when you start recording and two beeps sound when you stop recording, confirming the operation. Several beeps also sound as a warning of any unusual condition of the camcorder (p. 67). Note that the beep sound is not recorded on the tape. If you do not want to hear the beep sound, set BEEP to "OFF" (p. 34).

Note on the AUTO DATE feature

The clock is set to London for the United Kingdom models and Paris for other European models at the factory. You can reset the clock (p. 38).
The AUTO DATE feature shows the date automatically once a day. However, the date may automatically appear more than once a day when:
– you reset the date and time.
– you eject and insert the tape again.
– you stop recording within 10 seconds.

When moving from indoors to outdoors (or vice versa)

Turn STANDBY up and point the camcorder at a white object for about 15 seconds so that the white balance is properly adjusted.

è ËÏÂ˜‡ÌËfl Í Ò˜ÂÚ˜ËÍÛ ÎÂÌÚ°

- ë˜ÂÚ˜ËÍ ÎÂÌÚ° ÛÍ‡Á°,‡ÂÚ , ÂÏfl Á‡ÔËÒËË. àÒÔÓÎ¸ÁÛÈÚÂ„Ó,Í‡˜ÂÒÚ,Â ÛÍÓ,Ó‰ÒÙ,‡. í‡Ï ·Û‰ÂÚ ÓÚÒÙ‡,‡ÌËÂ ÔÓ , ÂÏÂÌË Ì‡ ÌÂÒÍÓÎ¸ÍÓ ÒÂÍÛÌ‰ ÓÚ Ù‡ÍÚË˜ÂÒÍÓ„Ó , ÂÏÂÌË. ÑÎfl ÛÒÙ‡ÌÓ,ÍË Ò˜ÂÚ˜ËÍ‡ Ì‡ ÌÛÎ¸ Ì‡ÊÏËÚÂ ÎÌÓÔÍÛ COUNTER RESET.
- ÖÒÎË ÎÂÌÚ‡ Á‡ÔËÒ‡Ì‡ , Ó·ÓËı ÂÊËÏ‡ı SP Ë LP, Ò˜ÂÚ˜ËÍ ÎÂÌÚ° ·Û‰ÂÚ ÔÓÍ‡Á°,‡Ú¸ ÌÂÔ ‡,ËÎ¸ÌÓÂ , ÂÏfl. ÖÒÎË ,° Ì‡ÏÂ Â,‡ÂÚÂÒ¸ Ô ÓËÁ,ÂÒÚËÏÌÓÌÚ‡Ê ÎÂÌÚ° Ò ËÒÔÓÎ¸ÁÓ,‡ÌËÂÏ Ò˜ÂÚ˜ËÍ‡ ÎÂÌÚ° , Í‡˜ÂÒÚ,Â ÛÍÓ,Ó‰ÒÚ,‡,Ô ÓËÁ,Ó‰ËÚÂÁ‡ÔËÒ¸ , ÚÓÏ ÊÂ ÂÊËÏÂ (SP ËÎË LP).

è ËÏÂ˜‡ÌËÂ Í ÁÛÏÏÂ ÌÓÏÛ Á,ÛÍÓ,ÓÏÛ ÒË„Ì‡ÎÛ
ä‡Í ÛÍ‡Á‡ÌÓ Ò ÔÓÍÓ˜¸¸ ♪ Ì‡ ËÒÒÛÌÍ‡ı, Ó‰ËÌ ÁÛÏÏÂ Ì°È ÒË„Ì‡Î Á,Û˜ËÚ, ÍÓ„‰‡ Ç° Ì‡˜ËÌ‡ÂÚÂ Á‡ÔËÒ¸, Ë ‰,‡ ÁÛÏÏÂ Ì°ı ÒË„Ì‡Î‡ Á,Û˜‡Ú, ÍÓ„‰‡ Ç° Á‡Í‡Ì˜Ë,‡ÂÚÂ Á‡ÔËÒ¸, ÔÓ‰Ú,Â Ê‰‡fl ÚÂÏ Ò‡Ï˜Ï ‡·ÓÚÛ. çÂÒÍÓÎ¸ÍÓ ÁÛÏÏÂ Ì°ı ÒË„Ì‡ÎÓ, Ú‡ÍÊÂ Á,Û˜ËÚ , Í‡˜ÂÒÚ,Â Ô ‰ÛÔ ÂÊ‰ÂÌËfl Í‡ÍÓ„Ó-ÎË·Ó ÌÂÌÓ ï‡Î¸ÌÓ„Ó ÒÓÒÚÓÓflÌËfl ,Ë‰ÂÓÍ‡ÏÂ °(ÒÚ . 67). á‡ÎÂÚ¸ÚÂ, ˜ÚÓ ÁÛÏÏÂ Ì°È Á,ÛÍÓ,ÓÈ ÒË„Ì‡Î ÌÂ Á‡ÔËÒ°,‡ÂÚÒfl Ì‡ ÎÂÌÚÛ. ÖÒÎË ,° ÌÂ ıÓÚËÚÂ ÒÎ°¯‡Ú¸ ÁÛÏÏÂ Ì°È ÒË„Ì‡Î, ÚÓ ÛÒÚ‡ÌÓ,ËÚÂ "BEEP", ÔÓÍÓÊÂÌËÂ "OFF" (ÒÚ . 34).

è ËÏÂ˜‡ÌËÂ Í ÙÛÌÍˆËË AUTO DATE
ó‡Ò° ÛÒÚ‡ÌÓ,ÎÂÌ° Á‡,Ó‰ÓÏ-ËÁ„ÓÚÓ,ËÚÂÎÂÏ ÔÓ ÎÓÌ‰ÓÌÒÍÓÏÛ , ÂÏÂÌË ‰Îfl ÏÓ‰ÂÎÂÈ ëÓÂ‰ËÌÂÌÓ„Ó äÓ ÓÎÂ,ÒÚ,‡ ËÔÓÔ‡ ËÊÒÍÍÓÏÛ , ÂÏÂÌË ‰Îfl‰ Û„Ëı Â, ÓÔÂÈÓÍËı ÏÓ‰ÂÎÂÈ. Ç° ÏÓÊÂÚÂ ,°ÔÓÍÌËÚ¸ ÔÓ,ÚÓ ÌÛ¸ ÙÒÚ‡ÌÓ,ÍÛ ˜‡ÒÓ,(ÒÚ .38).
îÛÌÍˆËfl AUTO DATE ‡,ÚÓÏ‡ÚË˜ÂÒÍË ÔÓÍ‡Á°,‡ÂÚ‰‡ÚÛ Ó‰ËÌ ‡Á,‰Â¸. é‰Ì‡ÍÓ,‰‡Ú‡ ÏÓÊÂÂÚ ÔÓfl,ËÚ¸Òfl ‡,ÚÓÏ‡ÚË˜ÂÒÍË·ÓÎÂÂ Ó‰ÌÓ„Ó ‡Á‡,‰Â¸, ÂÒÎË:
– Ç° Ò· ÓÒËÚÂ‰‡ÚÛË, ÂÏfl.
– Ç° ,°ÚÓÎÎÂÚÂ Í‡ÒÒÂÚÛ Ë ,ÒÚ‡,ËÚÂ ÂÂ ÒÌÓ,‡.
– Ç° ÓÒÚ‡ÌÓ,ËÚÂ Á‡ÔËÒ¸,Ô Â‰ÂÎ‡ı 10 ÒÂÍÛÌ‰.

è Ë ,°ıÓ‰Â ËÁ ÔÓÏÂ˜ÂÌËfl Ì‡ ÛÎËˆÛ (ËÎË Ì‡Ó·Ó ÓÚ)
èÓ,Â ÌËÚÂ ÔÂ ÂÍÎ¸˜‡ÚÂ¸ STANDBY „Â ı Ë Ì‡,Â‰ËÚÂ ,Ë‰ÂÓÍ‡ÏÂ Û Ì‡ ·ÂÎ°È Ó·´ÂÍÚ Ô Ë·ÎËÁËÚÂÎ¸ÌÓ Ì‡ 15 ÒÂÍÚÌ‰ Ú‡Í, ˜ÚÓ·° ·ÂÎ°È ·‡Î‡ÌÒ ·°Î ÓÚ Â„ÛÎË Ó,‡Ì Ô ‡,ËÎ¸ÌÓ.

Using the Zoom Feature

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

T side: for telephoto (subject appears closer)

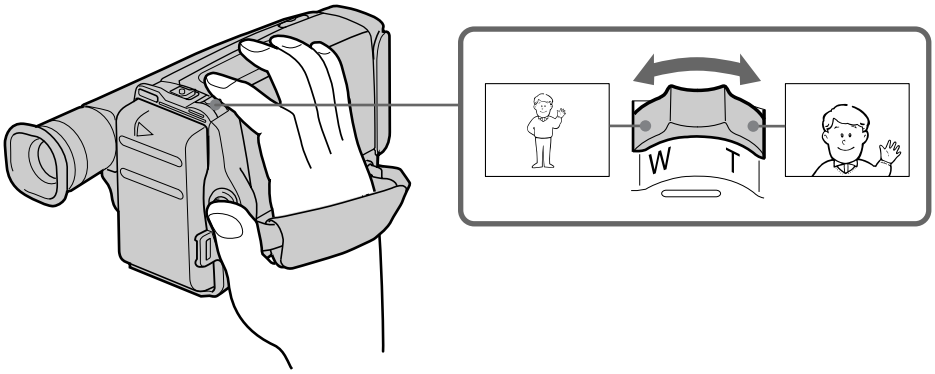
W side: for wide-angle (subject appears farther away)

àÒÔÓÎ¸ÁÓ‚‡ÌËÂ ÙÛÌÍˆËË Ì‡ÂÁ‰‡‚Ë‰ÂÓÍ‡ÏÂ ˚

ç‡ÂÁ‰ ‚Ë‰ÂÓÍ‡ÏÂ ˚ fl‚ÎflÂÚÒfl ÚÂıÌË˜ÂÒÍÏÏ Ô ËÂÏÓÏ Á‡ÔËÒË‚,ÍÓÚÓ ˚È ÔÓÁ‚ÓÍflÂÚ‚‡Ï ËÁÏÂÌflÚ¸ ‡ÁÏÂ Ó·˙ÂÍÚ‡ ‚ Í‡‰ Â. çÂ ÁÎÓÛÔÓÚ Â·ÎflÈÚÂ˝ÚËÏ Ô ËÂÏÓÏ‚ÀÒÎÌÓÚËÚÂ, ˜ÚÓ·˚ Ç‡¯Ë Á‡ÔËÒË ‚˚„Îfl‰ÂÏË ·ÓÎÂÂ Ô ÓÙÂÒÒËÓÌ‡Ì¸Ó.

ëÚÓ ÓÌ‡ í: ‰ÎflÚÂÎÂÙÓÚÓ (Ó·˙ÂÍÚ Ô Ë·ÎËÊ‡ÂÚÒfl)

ëÚÓ ÓÌ‡W: ‰ÎflÊË ÓÍÓ„Ó Û„Î‡ Ò˙ÂÏÍË (Ó·˙ÂÍÚ Û‰‡ÎflÂÚÒfl)



Zooming Speed

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

When you shoot a subject using a telephoto zoom

If you cannot get a sharp focus while in extreme telephoto zoom, turn the power zoom lever towards the W side until the focus is sharp. You can shoot a subject that is at least about 80 cm (about 2 5/8 feet) away from the lens surface in the telephoto position, or about 1 cm (about 1/2 inch) in the wide-angle position.

ëÍÓ ÓÒÚ¸ Ì‡ÂÁ‰‡ ‚Ë‰ÂÓÍ‡ÏÂ ˚ èÓÎÌÓÒÚ¸˛ ÔÓ‚Â ÌËÚÂ ˚˜‡„ Ô Ë‚Ó‰ÌÓ„Ó Ú ‡ÌÒÙÓÍ‡ÚÓ ‡‰îfl·˚ÒÚ Ó„Ó Ì‡ÂÁ‰‡ ‚Ë‰ÂÓÍ‡ÏÂ ˚, ÔÓ‚Â ÌËÚÂ Â„Ó ÒÎÂ„Í‡ ‰Îfl ÏÂ‰ÎÂÌÌÓ„Ó Ì‡ÂÁ‰‡ ÚÂÎÂÍ‡ÏÂ ˚.

äÓ„‰‡ ‚˚ ÒÌËÏ‡ÂÚÂ Ó·˙ÂÍÚ, ËÒÔÓÎ¸ÁÛfl Ì‡ÂÁ‰ , ÂÊËÏÂ ÚÂÎÂÙÓÚÓ ÖÒÎË ‚˚ ÌÂ ÏÓÊÂÚÂ ÔÓÎÛ˜ËÚ¸ ˜ÂÚÍÓÈ ÙÓÍÛÒË Ó‚ÍË ‚ Â‚ÍÌfl Í ‡ÈÌÂ„Ó Ì‡ÂÁ‰‡ ‚ ÂÊËÏÂ ÚÂÎÂÙÓÚÓ, ÚÓ ÔÓ‚Ó ‡˜Ë‚ÈÚÂ ˚˜‡„ Ô Ë‚Ó‰ÌÓ„Ú ‡ÌÒÙÓÍ‡ÚÓ ‡,ÒÙÓ ÓÌÛW,‰Ó ÚÂı ÔÓ ‚ÔÓÍ‡ ÌÂ ÔÓÎÛ˜ËÚÂ˜ÂÚÍÓÈ ÙÓÍÛÒË Ó‚ÍË.

Ç˚ÏÓÊÂÚÂ Ô ÓËÁ‚ÂÒÚË Ò˙ÂÏÛÔ Â‰ıÌÂÚ‚, ÍÓÚÓ ˚È ÔÓ ÏÂÌ¸˜ÂË ÏÂ Â Ì‡ıÓ‰ËÚÒfl Ô Ë·ÎËÁËÚÂÎ¸Ì‡ ‡ÒÒÚÓflÌËË 80 ÒÏ ÓÚ ÔÓ‚Â ıÌÓÒÚË Ó·˙ÂÍÚË‚‡ , ÔÓÎÓÊÂÌËË ÚÂÎÂÙÓÚÓ, ËÎÏ 1 ÒÏ , ÔÓÎÓÊÂÌËË ¯Ë ÓÍÓ„Ó Û„Î‡.

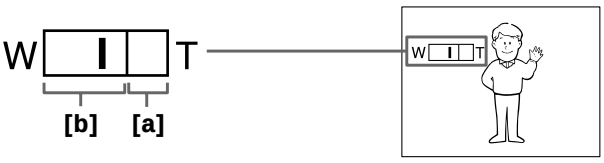
Notes on Digital Zoom –CCD-TR402E only

You can select 13 x (optical) or 26 x (digital) of zooming.

- More than 13 x 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 ZOOM function to x13 (p. 34).
- The right side **[a]** in the power zoom indicator shows the digital zooming zone, and the left side **[b]** shows the optical zooming zone. If you set the ZOOM function to x13, the **[a]** zone disappears.

è ËÏÂ˜‡ÌËfl ÔÓ ˆËÙ Ó‚ÓÏÛ Ú ‡ÌÒÙÓÍ‡ÚÓ Û – ÚÓÎ¸ÍÓ ‰Îfl ÏÓ‰ÂÎË CCD-TR402E Ç° ÏÓËÂÛÂ ,°· ‡Ú¸ Ú ‡ÌÒÙÓÍ‡ˆË¸ 13ı (ÓÔÚËˆÂÒÍÛ¸) ËÎË 26ı (ˆËÙ Ó‚Û¸).

- í ‡ÌÒÙÓÍ‡ˆËfl ·ÓÎÂÂ, ˜ÂÏ 13ı, Ô ÓËÁ‚Ó‰ËÚÒfl ˆËÙ Ó‚°ÏÒÔÓÒÒÓ·ÓÏ‚Ë Í‡˜ÂÒÚ‚Ó ËÁÓ· ‡ÊÂÌËfl ÛıÛ‰¯‡ÂÚÒfl ÔÓÏÂ Â ÔÂ ÂÏÂ˜ÂÌËfl , ÒÚÓ ÓÌÛ í. ÖÒÎË Ç° ÌÂ ıÓÚËÚÂ ËÒÔÓÎ¸ÁÓ‚‡Ú¸ ˆËÙ Ó‚ÓÈ Ú ‡ÌÒÙÓÍ‡ÚÓ , ÛÒÚ‡ÌÓ‚ËÚÂ ÙÛÎÍˆË¸ ZOOM , ÔÓÍÎÓÈÂÎÌËÂ ı13 (ÒÚ . 34)
- è ‡‚‡flÒÚÓ ÓÌ‡ **[a]**Ëì‰ËÍ‡ÚÓ ‡Ô Ë‚Ó‰ìÓ„Ó Ú ‡ÌÒÙÓÍ‡ÚÓ ‡ÔÓÍ‡Á˚‚ÂÚÁÓÌÛˆËÙ Ó‚ÓÈ Ú ‡ÌÒÙÓÍ‡ˆËË, ‡ÎÂ‚flÒÚÓ ÓÌ‡ **[b]** ÔÓÍ‡Á˚‚ÂÚÁÓÌÛ ÓÔÚËˆÂÒÍÓÈ Ú ‡ÌÒÙÓÍ‡ˆËË. ÖÒÎË Ç° ÛÒÚ‡ÌÓ‚ËÚ‚ ÙÛÎÍˆË¸ ZOOM Ì‡ ı13, ÚÓ ÁÓÌ‡ **[a]** ËÒ˜ÂÁÌÂÚ.



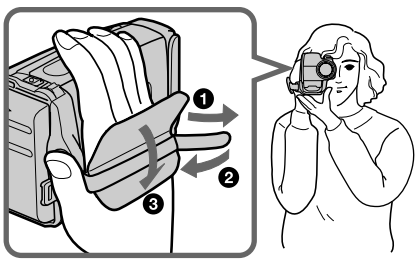
Hints for Better Shooting

ëÓ‚ÂÚ˚ ‰Îfl ÎÛ˜¯ÂÈ Ò˙ÂÏÍË

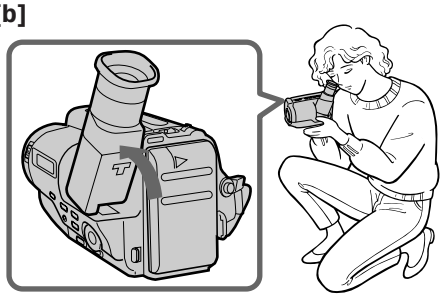
For hand-held shots, you'll get better results holding the camcorder according to the following suggestions:

Ñîfl Í‡‰ Ó‚Ô ËÔÓ‰‰Â ÊÍÂ ÛÍÓÈÇ° ÔÓÍÎÛ˜ËÚÂÎÛ¯ËÂ ÂÁÛÎ¸Ú‡Ú°, Û‰Â ÊË,‡fl ‚Ë‰ÂÓÍ‡ÌÂ Û ,ÒÓÓÚ‚ÂÚÒÙ,ËË ÒÓ ÔÎÂ‰Ù¸˜ËÏË ÛÍ‡Á‡ÌËflÏË.

[a]



[b]



- Hold the camcorder firmly and secure it with the grip strap so that you can easily manipulate the controls with your thumb. **[a]** (p. 17)
- Place your right elbow against your side.
- Place your left hand under the camcorder to support it. Do not cover the microphone with your fingers.
- Place your eye firmly against the viewfinder eyecup.
- Use the viewfinder frame as a guide to determine the horizontal plane.
- You can also record in a low position to get an interesting recording angle. Turn the viewfinder up for recording from a low position. **[b]** (p. 17)

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 the tripod screw is shorter than 6.5 mm (9/32 in.). Otherwise, the screw may damage the inner parts of the camcorder.

Cautions on the viewfinder

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

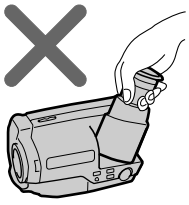
- ç‡‰ÂÊÌÓ‰Â ÊËÚÂ‚Ë‰ÂÓÍ‡ÏÂ ÛË Ô Â‰ÓÍ ‡ÎflÈÚÂ ÂÂ Ò ÔÓÏÓ˘¸ ÂÏÂÌÌÓ„Ó Á‡ı‚‡Ú‡ Ú‡Í, ˜ÚÓ Ç˚ ÒÏÓÊÂÚÂ ÎÂ„ÍÓ Ï‡ÌËÔÛÎË Ó‚‡Ú¸ Â„ÛÎflÚÓ ‡ÏË Ò ÔÓÏÓ˘¸, Ç‡¯Â„Ó ·ÓÎ¸¯Ó„Ó Ô‡Î¸˚. **[a]** (ÒÚ . 17)
- ê‡ÒÔÓÍÎÓÊËÚÂ Ç‡¯ Ô ‡,°È ÎÓÍÓÚ¸ Ì‡Ô ÓÚË, Ç‡¯Â„Ó ·ÓÍ‡.
- ê‡ÒÔÓÍÎÓÊËÚÂ Ç‡¯ÛÎÂ‚Û¸ ÛÍÎÛÔÓ‰ ‚Ë‰ÂÓÍ‡ÏÂ ÓÈ‰flÂÂÔÓ‰‰Â ÊÍË .çÂ Á‡Í ÓÈÚÂ ÏËÍ ÓÙÓÌ Ç‡¯ËÏË Ô‡Î¸˚‡ÏË .
- ê‡ÒÔÓÍÎÓÊËÚÂ Ç‡¯ „Î‡Á ÚÓ˜ÌÓ Ì‡Ô ÓÚË, ÓÍÚÛflÌ ‡,Ë‰ÓËÒÍÎ‡ÚÂÎfl.
- àÒÔÓÍ‚ÁÚÈÚÂ ‚ËÁË ÌÛ¸ ‡ÏÍÛ ‚Ë‰ÓËÒÈ‡ÚÂÎfl ‚Í‡˜ÂÒÚ‚Â ÛÍÓ‚Ó‰Ú‚‡‰flÓÔ Â‰ÂÎÂÌËfl „Ó ËÁÓÌÚ‡Î ÌÓ„Ó ÔÎ‡Ì‡.
- Ç˚ Ú‡ÍÊÂ ÏÓÊÂÚÂ ÓÒÛ˜ÂÒÚ‚ÎflÚ¸ Á‡ÔËÒ¸ ËÁ ÌËÊÊÌÂ„Ó ÔÓÍÎÓÊÂÌËfl ‰Îfl ÔÓÍÎÛ˜ÅÌËfl ËÌÚÂ ÂÒÌÓ„Ó Û„Î‡Á‡ÔËÒË.èÓ‚Â ÌËÚÂ ‚Ë‰ÓËÒÍ‡ÚÂÎ¸ ,,Â ı‰Îfl Á‡ÔËÒË ËÁ ÌËÊÌÂ„Ó ÔÓÍÎÓÊÂÌËfl.**[b]**(ÒÚ .17)

ê‡ÒÔÓÎ‡„‡ÈÚÂ ‚Ë‰ÂÓÍ‡ÏÂ Û Ì‡ ÔÎÓÒÒÍÓÈ ÔÓ‚Â ıÌÓÒÚË ËÎÌË ËÒÔÓÎ¸ÁÛÈÚÂ Ú ÂÌÓÊÌËÍ ëÚ‡ ‡ÈÚÂÒ¸ ‡ÒÔÓÎ‡„‡Ú¸ ‚Ë‰ÂÓÍ‡ÏÂ ÛÌ‡ ÒÚÓÎÂËÎË‰ Û„ÓÈÔÎÓÒÍÓÈÔÓ‚Â ıÌÓÒÚË ÔÓ‰ıÓ‰flˆÂÈ¸˚ÒÓÚ°. ÒÒÎËÛ Ç‡ÒÒËÏÂÚÒfl Ú ÂÌÓÊÌËÍ‰Îfl ÙÓÚÓ‡ÔÔ‡ ‡Ú‡, Ç˚ÏÓÊÂÚÂ ËÒÔÓÎ¸ÁÓ‚‡Ú¸ Â„Ó Ë ‰Îfl ‚Ë‰ÂÓÍ‡ÏÂ °. è Ë Ô ËÎ ÂÔÎÂÌËË Í Ú ÂÌÓÊÌËÍÚ¸ ÓÚÎËˆÌÓÏÛ ÓÚ ÙË Ï° Sony Û·Â‰ËÚÂÒ¸ ˜ÚÓ Í ÂÔÂÊÌ°È ‚ËÌÚ Ú ÂÌÓÊÌËÍ‡ ÍÓ Ó˜Â 6,5 ïï. Ç Ô ÓÚË,ÌÓÏ ÒÎÛ˜‡Â ‚ËÚ ÏÓÊÂÚ ÔÓ, Â‰ËÚ¸ ‚ÎÛÚ ÂÌÌËÂ ‰ÂÚ‡ÎË‰ÂÓÍ‡ÏÂ °.

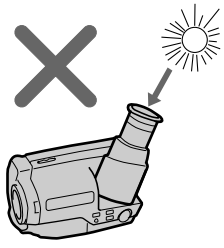
åÂ °Ô Â‰ÓÒÙÓ ÓÊÌÓÒÚËÔ Ë Ó· ‡˘ÂÌËË Ò ‚Ë‰ÓËÒÍ‡ÚÂÎÂÏ

- çÂÔÓ‰ìËÏ‡ÈÚÂ‚Ë‰ÂÓÍ‡ÏÂ Û‚‰Â Ê‡ÂÁ‡ ‚Ë‰ÓËÒÍ‡ÚÂÎ¸.**[c]**
- çÂ ‡ÒÔÓÎ‡„‡ÈÚÂ‚Ë‰ÂÓÍ‡ÏÂ ÛÚ‡ÍËÏ Ó· ‡ÁÓÏ, ˜ÚÓ·° ‚Ë‰ÓËÒÍ‡ÚÂÎ¸ ·°Î Ì‡Ô ‡,ÎÂÌ , ÒÚÓ ÓÌÛ ÒÓÎÌ˜‡. ùÚÓ ÏÓÊÂÚ Ô Ë‚ÂÒÚËÍ‰ÂÙ ÏÌÚ ÂÌÌËı˜‡ÒÚÂÈ ‚Ë‰ÓËÒÍ‡ÚÂÎfl.ÅÛ‰¸ÚÂ ÓÒÚÓ ÓÊÎ°, ÓÒÚ‡,Îflfl ‚Ë‰ÂÓÍ‡ÏÂ Û Ì‡ ÒÓÎÌˆÂ ËÎË ‚ÓÁÎÂ ÓÍÎ‡. **[d]**

[c]



[d]



Checking the Recorded Picture

è Ó‚Â Í‡ Á‡ÔËÒ‡ÌÌÓ„Ó ËÁÓ· ‡ÊÂÌËfl

Using 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, slide it to CAMERA.

(2) Turn STANDBY up.

(3) Press EDITSEARCH. Press the – (⏪) side 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**).

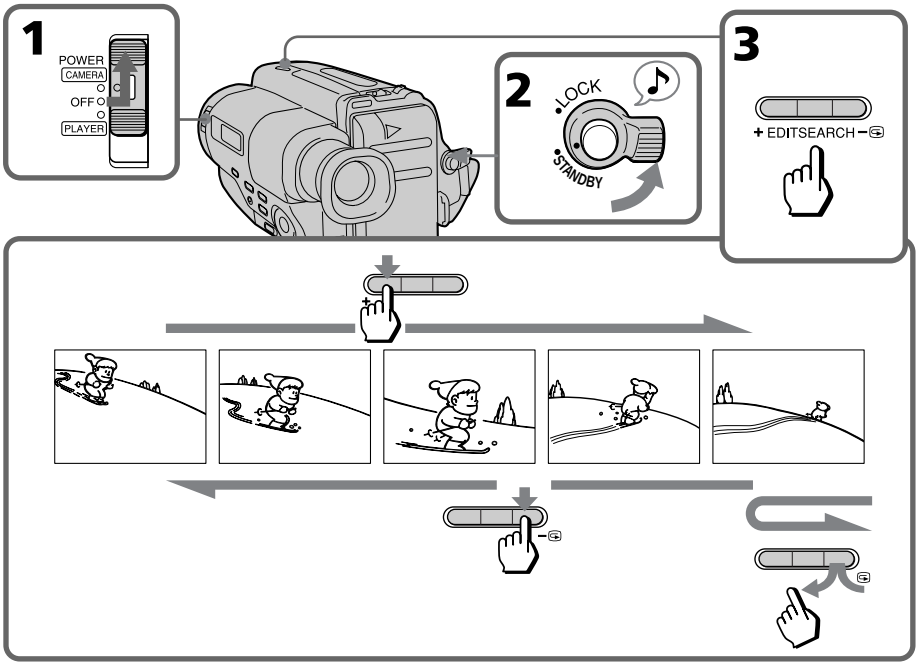
àÒÔÓÎ‚ÁÛfl EDITSEARCH, Ç˚ ÏÓÊÂÚÂ Ô ÓÒÏÓÚ ÂÚ¸ ÔÓÒÌÂ‰Ì¸ Á‡ÔËÒ‡ÌÌÛ¸ ÒˆÂÌÛ ËÎÏË Ô Ó‚Â ËÚ¸ Á‡ÔËÒ‡ÌÌÓÂ ËÁÓ· ‡ÊÂÌËÂ, ‚Ë‰ÓËÒÍ‡ÚÂÎÂ.

(1) ç‡ÊËÏ‡fl Ï‡ÎÂÌ¸ÍÛ¸ ÁÂÎÂÌÛ¸ ÍÌÓÔÍÛ Ì‡ ˚ÍÍ˜‡ÚÂÎÂ POWER, ÔÓ‚Â ÌËÚÂ Â„Ó , ÔÓÍÎÓÊÂÎÌËÂ CAMERA.

(2) èÓ‚Â ÌËÚÂ STANDBY „Â ı.

(3) ç‡ÊËËÚÂ EDITSEARCH. ç‡ËËÚÂ ÒÚÓ ÓÌÛ – (⏪) Ì‡ , ÂÏfl, Ë ÔÓÒÒÂ‰ÌËÂ ÌÂÒÍÓÎ¸ÍÓ ÒÂÍÚÌ‰Á‡ÔËÒ‡ÌÌÓÉ˜‡ÒÚÉ·Û‰ÛÚ ‚ÓÒÔ ÓËÁ‚‰Âİ˚(Ô ÓÒÏÓÚ Á‡ÔËÒË).

ÑÂ ÊËÚÂÌ‡Ê‡ÚÓÈ ÒÚÓ ÓÌÛ–EDITSEARCH‰Ó ÚÂıÔÓ ‚ÔÓÍ‡‚Ë‰ÂÓÍ‡ÏÂ ‡ÌÂ‰ÓÈ‰ÂÚ‰Ó ÊÂÎ‡ÂÏÓÈ Ò˚Âİ˚. èÓÒÌÂ‰ıflfl Á‡ÔËÒ‡ÌÌ‡fl ˜‡ÒÚ¸ ·Û‰ÂÚ‚ÓÒÔ ÓËÁ‚‰Âİ .ÑÎfl Ô Ó‰‚ËÊÂÌËfl‚Â Â‰ı‡ËËÚÂÒÚÓ ÓÌÛ+ (ïÓÌÚ‡ÊÌ˚È ÔÓËÒÍ).



To Stop Playback

Release EDITSEARCH.

ÑÎfl ÓÒÙ‡ÌÍ‚ ‚ÓÒÔ ÓËÁ‚‰Âİ˚ éÚÔÛÒÚËÚÂ EDITSEARCH.

To Begin Re-recording

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

ÑÎfl Ì‡˜‡Î‡ ÔÂ ÂÁ‡ÔËÒÈ

ç‡ÊËËÚÂ ÎÍÓÔÍÛ START/STOP. èÂ ÂÁ‡ÔËÒ¸ Ì‡˜ËÌ‡ÂÚÒfl ÓÚ ÚÓ˜ÍË, „‰Â Ç˚ ÓÚÔÛÒÚËÎÈ ÎÍÓÔÍÛ EDITSEARCH. ÔÓÎÈ Ç˚ ÌÂ ¸ÚÓÍÎÍËÚÂ Í‡ÒÒÂÚÛ, ÔÂ ÂıÓ‰ ïÂÊ‰Û ÔÓÒÌÂ‰ÌÈÂ Ò˚Âİ˚, ÍÓÚÓ Û Ç˚ Á‡ÔËÒ‡ÎÈ, Ë ÒÎÂ‰Û ˇÂ Ò˚Âİ˚, ÍÓÚÓ Û¸ Ç˚ Á‡ÔËÒ˚‚‡ÚÂ, ·Û‰Âİ ÔÎ‡Ì˚È.

Connections for Playback

èÓ‰ÍÎ˛˜ÂÌËfl ‰Îfl ,ÓÒÔ ÓËÁ,Â‰ÂÌËfl

Connect the camcorder to your VCR or TV to watch the playback picture on the TV screen. It is recommended to use the mains as the power source (p. 25).

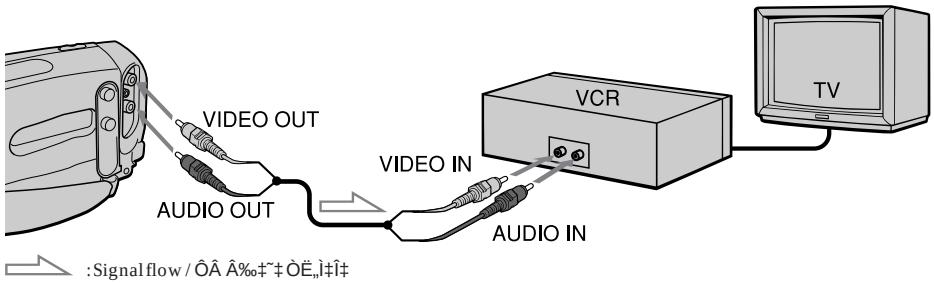
èÓ‰ÒÓÂ‰ËÌËÚÂ,Ë‰ÂÓÍ‡ÏÂ ÛÍÇ‡¯ÂÏÛ äÇå ËÎËÚÂÎÂ,ËÁÓ Û‰ÎflÔ ÓÒÏÓÚ ‡ ,ÓÒÔ ÓËÁ,Ó‰ËÏÓ„Ó ËÁÓ· ‡ÊÂÌËflÌ‡ ÚÂÎÂ,ËÁËÓÌÌÓÏ ˝Í ‡ÌÂ. êÂÍÓÏÂÌ‰ÛÂÚÒfl ËÒÔÓÎ˛ÁÓ,‡Ú¸ ˝ÎÂÍÚ Ë˜ÂÒÍÛ¸ ÒÂÚ¸ , Í‡˜ÂÒÚ,Â ËÒÙÓ˜ÌËÍ‡ ÔËÚ‡ÌËfl (ÒÚ . 25).

If a VCR is connected to a TV

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

ÖÒÎË äÇå ÔÓ‰ÒÓÂ‰ËÌÂÌ ÚÚÂÎÂ,ËÁÓ Û

éÚÍ ÓÈÚÂ Í °¯ÍÛ „ÌÂÁ‰‡ Ë ÔÓ‰ÍÎ˛˜ËÚÂ ,Ë‰ÂÓÍ‡ÏÂ Û LINE IN Ì‡ KBM, ËÒÔÓÎ˛ÁÛfl Ô ËÎ‡„‡ÃÏ˚È ÒÓÂ‰ËÌËÚÂÎ˛Ì°È Í‡·ÂÎ˛ ‡Û‰ËÓ/ ,Ë‰ÂÓ. ìÒÚ‡ÌÓ,ËÚÂ ,ıÓ‰ÌÓÈ ÒÂÎÂÍÚÓ Ì‡ Í,Ï ,ÔÓÍÓÊÂÌËÂ LINE. ìÒÚ‡ÌÓ,ËÚÂ ÒÂÎÂÍÚÓ TV/VCR , ÔÓÍÓÊÂÌËÂ VCR Ì‡ ÚÂÎÂ,ËÁÓ Â.

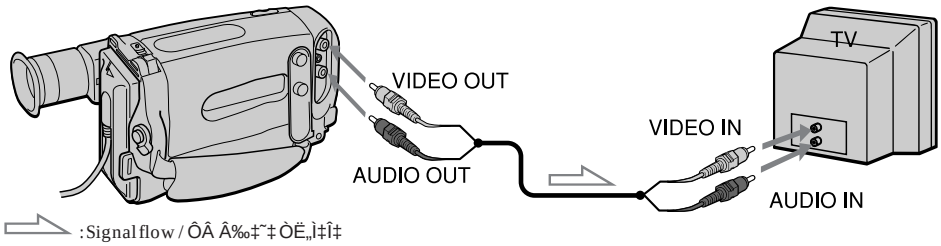


Connecting Directly to a TV

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

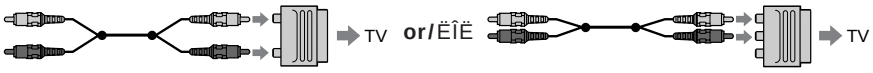
èÓ‰ÍÎ˛˜ÂÌËÂ ÌÂÔÓÒ Â‰ÒÚ,ÂÌÌÓ Í ÚÂÎÂ,ËÁÓ Û

éÚÍ ÓÈÚÂÍ °¯ÍÛ„ÌÂÁ‰‡ËÔÓ‰ÒÓÂ‰ËÌËÚÂ ,Ë‰ÂÓÍ‡ÏÂ Û Í ,‡¯ÂÏÛ ÚÂÎÂ,ËÁÓ Û, ËÒÔÓÎ˛ÁÛfl Ô ËÎ‡„‡ÃÏ˚È ÒÓÂ‰ËÌËÚÂÎ˛Ì°È Í‡·ÂÎ˛ ‡Û‰ËÓ/,Ë‰ÂÓ. ìÒÚ‡ÌÓ,ËÚÂ ÒÂÎÂÍÚÓ TV/VCR , ÔÓÍÓÊÂÌËÂ VCR Ì‡ ÚÂÎÂ,ËÁÓ Â.



If Your TV/VCR has a 21-pin Connector (EUROCONNECTOR)
Use the supplied 21-pin adaptor.

ÖÒÎË Ç‡¯ ÚÂÎÂ‚ËÁÓ /äÇå ËÏÎÂÚ 21-¯Ú˚ ¸ÍÓ‚˚È ÒÓÂ‰ËÌËÚÂÎ¸ (EUROCONNECTOR)
àÒÔÓÎ¸ÁÛÈÚÂ Ô ËÎ‡„‡ÂÏ˚È 21-¯Ú˚ ¸ÍÓ‚˚È ‡‰‡ÔÚÂ.



To connect a TV or a VCR without Video/ Audio input jacks
Use an RFU adaptor (not supplied).

ÑÎfl ÔÓ‰ÍÎ¸˜ÂÌËfl Í ÚÂÎÂ‚ËÁÓ Û ËÎÏ äÇå ·ÂÁ ¸ıÓ‰Ì˚ı/¸ıÓ‰Ì˚ı „ÌÂÁ‰ ¸Ë‰ÂÓ/‡Ú‰ËÓ
Ç˚ÔÓÎÌËÚÂ ÔÓ‰ÍÎ¸˜ÂÌËÂ Ò ËÒÔÓÎ¸ÁÓ‚‡ÌËÂÏ ‡‰‡ÔÚÂ ‡RFU(ÌÂÔ ËÎ‡„‡ÚÒfl).

Playing Back a Tape

ÇÓÒÒÔ ÓËÁ‚Â‰ÀÌËÂ ÎÂÀÌÚ˚

You can monitor the playback picture in the viewfinder. You can also monitor on the TV screen, after connecting the camcorder to the TV/VCR (p. 20).
You can control playback using the supplied Remote Commander.

(1) While pressing the small green button on the POWER switch, slide it to PLAYER.
The tape transport buttons light up.

(2) Insert the recorded tape with the window facing out.

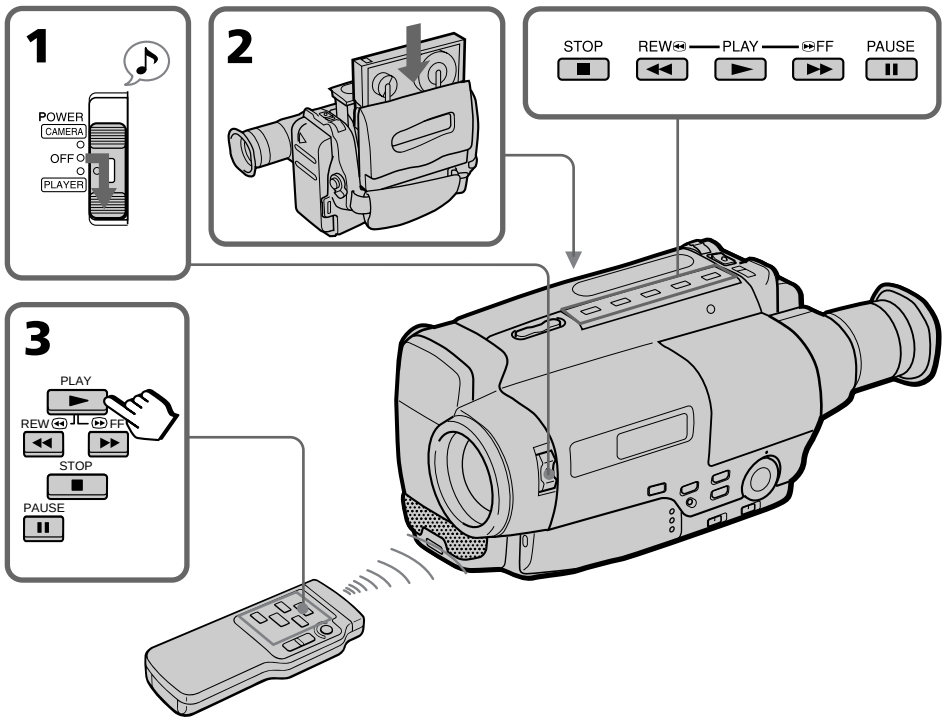
(3) Press ►. Playback starts.

Ç˚ ÏÓÊÂÚÂ ‚˚ÔÓÍÌËÚ¸ ÍÓÌÚ ÓÎ¸Ì˚È Ô ÓÒÏÓÚ ‚ÓÒÔ ÓËÁ‚Ó‰ËÏÓ„ÓËÁÓ· ‡ÊÂÌËfl, ‚Ë‰ÓËÒÍ‡ÚÂÎÂ. Ç˚ Ú‡ÍÊÂ ÏÓÊÂÚÂ ‚˚ÔÓÍÌËÚ¸ Ô ÓÒÏÓÚ Ì‡˝ Í ‡ÌÂÚÂÌ‚ËÁÓ ‡ÔÓÒÎÂ ÔÓ‰ÍÎ¸˜ÂÌËfl ‚Ë‰ÂÓÍ‡ÏÂ ˚ Í ÚÂÎ‚ËÁÓ Û/äÇå(ÒÚ. 20).
Ç˚ ÏÓÊÂÚÂ ÍÓÌÚ ÓÎË Ó‚‡Ú¸ ‚ÓÒÔ ÓËÁ‚Â‰ÀÒÈÒÔÒÓÎ¸ÁÓ‚‡ÌËÂÏ ÔÓ Ë‡„‡ÏÓ ÔÛÎ¸Ú‰ËÒÌÓ„ÓÛÔ ‡-ÎÂÌËfl.

(1) ç‡ÊËË‡fl Ï‡ÎÂÌ¸ÍÛ¸ ÁÂÎÂÌÛ¸ ÍÌÓÔÍÛ Ì‡ ˚˚ÎÍÂ POWER, ÔÂ Â‰‚ËÌ¸ÚÂ Â„Ó ˚ ÔÓÍÎÓÊÂÌËÊ PLAYER.
á‡„Ó ‡¸ÚÒfl ÍÌÓÔÍË ÔÂ ÂÏÂ˜ÂÌËfl ÎÂÌÚ˚.

(2) ÇÒÚ‡¸ÚÂ Á‡ÔËÒ‡ÌÌÛ¸ ÎÂÌÚÛ ÓÍÓ¯ÍÓÏ, Ó· ‡˜ÂÌ˚ Ì‡ ÛÊÛ.

(3) ç‡ÊËËÚÂ►. ç‡˜ÌÂÚÒfl ‚ÓÒÔ ÓËÁ‚Â‰ÀÌËÂ.



To stop playback, press ■.
To rewind the tape, press ◄◄.
To fast-forward the tape, press ►►.

ÑÎfl ÓÒÚ‡ÌÓ‚ÍË ‚ÓÒÔ ÓËÁ‚Â‰ÀÌËfl Ì‡ÊËËÚÂ ■.
ÑÎfl ÛÒÍÓ ÂÌÌÓÈ ÔÂ ÂÏÓÚÍË ÎÂÌÚ˚ Ì‡Á‡‰Ë Ì‡ÊËËÚÂ ◄◄.
ÑÎfl ÛÒÍÓ ÂÌÌÓÈ ÔÂ ÂÏÓÚÍË ÎÂÌÚ˚ ‚ÔÂ Â‰ Ì‡ÊËËÚÂ ►►.

Using the Remote Commander

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

Note on the lens cover

The lens cover does not open when the POWER switch is set to PLAYER. Do not open the lens cover manually. It may cause malfunction.

Various Playback Modes

To view a still picture (playback pause)

Press ❚❚ during playback. To resume playback, press ❚❚ or ►.

To locate a scene (Picture Search)

Keep pressing ◄◄ or ►► during playback. To resume normal playback, release the button.

To monitor the high-speed picture during fastforward or rewind (Skip Scan)

Keep pressing ◄◄ while rewinding or ►► while advancing the tape. To resume normal playback, press ►.

Notes on playback

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

àÒÔÓÎ¸ÁÓ,‡ÌËÂ ÔÛÎ¸Ú‡ ‰ËÒÚ‡Ì˜ËÓÌÌÓ„Ó ÛÔ ‡,ÎÂÌËfl
Ç˚ÏÓÊÂÚÂ ÛÔ ‡,ÎfflÚ¸ ,ÓÒÔ ÓËÁ,Â‰ÂÌËÂÏ Ò ËÒÔÓÎ¸ÁÓ,‡ÌËÂÏ Ô ËÎ‡„‡ÂÏÓ„Ó ÔÛÎ¸Ú‡ ‰ËÒÚ‡Ì˜ËÓÌÌÓ„Ó ÛÔ ‡,ÎÂÌËfl. èÂ Â‰Ì‡˜‡ÎÓÏ ËÒÔÓÎ¸ÁÓ,‡ÌËfl ÔÛÎ¸Ú‡‰ËÒÚ‡Ì˜ËÓÌÌÓ„Ó ÛÔ ‡,ÎÂÌËfl ,ÒÚ‡,¸ÚÂ ·‡Ú‡ ÂÈÍË R6 (‡ÁÏÂ ÓÏÄÄ).

è ËÏÂ˜‡ÌËÂ Í Í °¯ÍÂ Ó·˙ÂÍÚË,‡ ä °¯Í‡ Ó·˙ÂÍÚË,‡ ÌÂ ÓÚÍ °,‡ÂÚÒfl, ÂÒÎË ,˚ÍÎ¸˜‡ÚÂÎ¸ POWER ÛÒÚ‡ÌÓ,ÎÂÌ , ÔÓÍÎÓÊÂÌËÂ PLAYER. çÂ ÓÚÍ °,‡ÈÚÂ Í °¯ÍÛ Ó·˙ÂÍÚË,‡ , ÛˆÌÛ¸. ùÚÓ ÏÓÊÂÚ Ô Ë,ÂÒÚË Í ÌÂËÒÔ ‡,ÌÓÒÚË.

ê‡ÁÎË˜Ì˚Â ÂÊËÏ˚ ,ÓÒÔ ÓËÁ,Â-‰ÂÌËfl‰Îfl Ô ÓÒÏÓÚ ‡ÌÂÔÓ‰,ËÊÌÓ„Ó

àÁÓ· ‡ÊÂÌËfl (Ô‡ÛÁ‡ ,ÓÒÔ ÓËÁ,Â‰ÂÌËfl) ç‡ÊÏËÚÂ ÎÌÓÔÍÛ ❚❚ ,Ó , ÂÏfl ,ÓÒÔ ÓËÁ,Â‰ÂÌËfl. ÑÎfl ,ÓÁÓ·ÌÓ,ÎÂÌËfl ,ÓÒÔ ÓËÁ,Â‰ÂÌËfl Ì‡ÊÏËÚÂ ÎÌÓÔÍÛ ❚❚ ËÎË ►.

ÑÎfl ÓÚ˚Ò‡ÌËfl ÊÂÎ‡ÂÏÓ„Ó Ù ‡,„ÏÂÌÚ‡ (ÔÓËÒÌ ËÁÓ· ‡ÊÂÌËfl)
ÑÂ Ê‡Ú¸ Ì‡Ê‡ÚÓÈ ÎÌÓÔÍÛ ◄◄ ËÎË ►► ,Ó , ÂÏfl ,ÓÒÔ ÓËÁ,Â‰ÂÌËfl. ÑÎfl ,ÓÁÓ·ÌÓ,ÎÂÌËfl ÌÓ ï‡Î¸ÌÓ„Ó,ÓÒÔ ÓËÁ,Â‰ÂÌËflÓÚÔÛÒÚËÚ¸ ÎÌÓÔÎÙ.

ÑÎfl ÍÓÌÚ ÓÎfl ËÁÓ· ‡ÊÂÌËfl Ì‡ ,˚ÒÓÍÓÈ ÒÎÓ ÓÒÚË ,Ó , ÂÏfl ÛÒÍÓ ÂÌÌÓÈ ÔÂ ÂÏÓÚÍË ÇÔÂ Â‰ ËÎË Ì‡Á‡‰ (ÔÓËÒÌÍÂÚÓ‰ÓÏ Ô Ó„ÓÌ‡)
ÑÂ Ê‡Ú¸ Ì‡Ê‡ÚÓÈ ÎÌÓÔÍÛ ◄◄ ,Ó , ÂÏfl ÔÂ ÂÏÓÚÍË ÎÂÌÚ˚ Ì‡Á‡‰ ËÎË ÎÌÓÔÍÛ ►► ,Ó , ÂÏfl ÔÂ ÄÏÓÚÍË ÎÂÌÚ˚ ,ÔÂ Â‰. ÑÎfl ,ÓÁÓ·ÌÓ,ÎÂÌËfl ÌÓ ï‡Î¸ÌÓ„Ó ,ÓÒÔ ÓËÁ,Â‰ÂÌËfl Ì‡Ê‡Ú¸ ÎÌÓÔÍÛ ►.

è ËÏÂ˜‡ÌËfl Í ,ÓÒÔ ÓËÁ,Â‰ÂÌË.
- Ç ‡ÁÎË˜Î˚ ÂÊËÏ‡ı ,ÓÒÔ ÓËÁ,Â‰ÂÌËfl Ì‡ ˝Í ‡ÌÂ ÏÓ„ÛÚ ÔÓfl,ËÚ¸Òfl ÔÓÎÓÒ˚ Ë Á,ÛÍ ·Ù‰ÂÚÔ Ë„ÎÙ¯ÂÌ.
- ÖÒÎË ÂÊËÏÌÂÔÓ‰,ËÊÌÓ„Ó ËÁÓ· ‡ÊÂÌËfl Ô Ó‰ÓÎÊ‡ÂÚÒfl ÓÍÓÎÓ 5 ÏËÌÚÚ ËÎË ·ÓÎ¸¯Â, ,Ë‰ÂÓÍ‡ÏÂ ‡‡,ÚÓÏ‡ÚË˜ÂÒÍËÔÂ ÂıÓ‰ËÙ, ÂÊËÏ ÓÒÚ‡ÌÓ,ÍË.

Using Alternative Power Sources

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

Place	Power source	Accessory to be used
Indoors	Mains	Supplied AC power adaptor
Outdoor	Battery pack	Battery pack NP-33 (supplied), NP-65/67, NP-66H/68, NP-77H/78, NP-90/90D, NP-98
	LR6 (size AA) Sony alkaline battery	Battery case
In the car	12 V or 24 V car battery	Sony DC pack DCP-77

Note on power sources

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

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

ìÒÓ,Â ¯ÂÌÒÚ,Ó,‡ÌÌ°Â ÓÔÂ ‡^ËË

àOOOI AO,‡IEA ‡I¸UA I‡-ÚË,Ì°ı ÈÒÙÓ˜ÌËÍÓ¸ ÔËÚ‡ÌËfl

Ç° ÏÓÊÂÚÂ ,°·Ë ‡Ú¸ Î¸·ÓÈ ËÁ ÒÌÂ‰Û¸˘Ëı ÈÒÙÓ˜ÌËÍÓ, ÔËÚ‡ÌËfl ‰Îfl Ç‡¯ÂÈ ,Ë‰ÂÓÍ‡ÏÂ °: ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ, ˝ÎÂÍÚ Ë˜ÂÒÍÛ¸ ÒÂÚ¸ ˘ÂÎÓ˜ÌÛ¸ ·‡Ú‡ ÂÈÍÛ Ë ‡,ÚÓÏÓ·ËÎ¸Ì°È ‡ÍÍÛÌÙÍflÚÓ 12/24 Ç. Ç°·Ë ‡ÈÚÂ Ì‡‰ÎÂ‡˘ËÈ ËÒÙÓ˜ÌËÍ ÔËÚ‡ÌËfl , Á‡,ËÒÈÏÓÒÚËÓÚÚÓ„Ó,„‰ÂÇ°ıÓÚËÚÂ ËÒÒÔÓÎ¸ÁÓ,‡Ú¸ Ç‡¯Û ,Ë‰ÂÓÍ‡ÏÂ Û.

åÂÒÚÓ	àÒÚÓ˜ÌËÍ ÔËÚ‡ÌËfl	àÒÔÓÎ¸ÁÛÂÏ°Â Ô ËÌ‡‰ÎÂÊÌÓÒÙË
ÇÔÓÏÂ˘ÂÌËË	ùÎÂÍÚ Ë˜Â·ÒÍ‡flÒÂÚ¸	è ËÎ‡„‡ÂÏ°È ÒÂÚÂ,ÓÈ ‡‰‡ÔÚÂ ÔÂÂÏ.ÚÓÍ‡
ÇÌÂ ÔÓÏÂ˘ÂÌËfl	Å‡Ú‡ÂÈÌ°È ·ÎÓÍ	Å‡Ú‡ ÂÈÌ°È ·ÎÓÍ NP-33(Ô ËÎ‡„‡ÂÚÒfl), NP-65/67, NP-66H/68, NP-77H/78, NP-90/90D, NP-98
	ôÂÎÓ˜Ì‡fl ·‡Ú‡ ÂÈÍ‡ Sony LR6 (‡ÁÍÂ ÓÏ AA)	Å‡Ú‡ ÂÈÌ‡fl Í‡ÏÂ ‡
Ç‡,ÚÓ-ÏÓ·ËÎÂ	Ä¸ÚÓ-Ï Ó·Ë¸Î°È ‡ÍÍÛÏÛÎflÚÓ 12 Ç ËÎË 24 Ç	ÅÎÓÍÔÓÒÙ.ÚÓÍ‡ DCP-77 Sony

è ËÏÂ˜‡ÌËfl Í ËÒÙÓ˜ÌËÍ‡Ï ÔËÚ‡ÌËfl éÚÒÓÂ‰ËÌÂÌËÂ ËÒÙÓ˜ÌËÍ‡ ÔËÚ‡ÌËfl ËÎËË ÒÌflÚËÂ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ ,Ó , ÂÏfl Á‡ÔËÒË ËÎË ,ÓÒÔ ÓËÁ‚Â‰ÂÌËflÏÓÊÂÚÔÓ, Â‰ËÚ¸ÎÂÌÚÛ. ÖÒÎËÚ‡ÍÓÂÒÎÛ˜ËÚÒfl,Ò ‡ÁÛÊÂ,ÓÒÒÚ‡ÌÓ,ËÚÂ ËÒÙÓ˜ÌËÍÔËÚ‡ÌËfl.

ç‡ÒÚÓfl˜ËÈ ÁÌ‡Í ÛÍ‡Á°,‡ÂÚ, ˜ÚÓ‰‡ÌÌ‡flÔ Ó‰ÛÍ˝Ëfl fl,ÎflÂÚÒfl ÔÓ‰ÎËÌÍÓÈ Ô ËÌ‡‰ÎÂÊÌÓÒÚ¸, ,Ë‰ÂÓÔ Ó‰ÛÍ˝ËË Sony.ÖÒÎË Ç° ÍÛÔËÎË ,Ë‰ÂÓÔ Ó‰ÛÍ˝Ë¸ Sony, ÚÓ Ï° ÂÍÓÏÂÌ‰ÛÂÏ, ˜ÚÓ·° Ç° ÔÓÍÛÔ‡ÎË Ô ËÌ‡‰ÎÂÊÌÓÒÚÉ, ÓÚÏÂ˜ÂÌÌ°Â ÁÌ‡ÍÓÏ “GENUINE VIDEO ACCESSORIES”.

Using the Mains

To use the supplied AC power adaptor:

(1) Connect the mains lead to the mains. Insert the top of the connecting plate of the AC power adaptor into the top of the battery mounting surface. Push the connecting plate so that it attaches firmly. Make sure that you hear clicks twice.

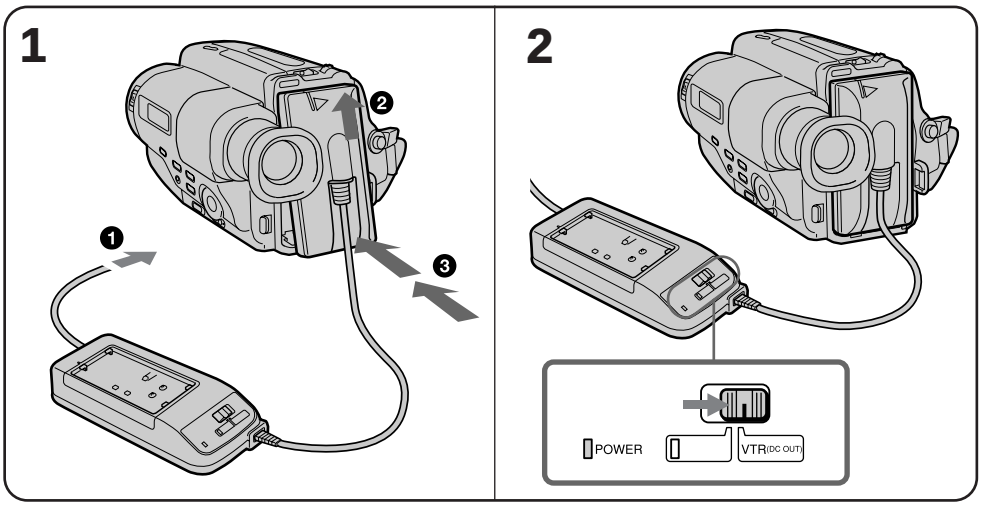
(2) Set the selector to VTR (DC OUT).

àÒÔÓÎ¸ÁÓ,‡ÌËÂ ˝ÎÂÍÚ Ë˜ÂÒÍÓÈ ÒÂÚË

ÑÎflË ÈÒÔÓÎ¸ÁÓ,‡Ì ËflÔ ËÎ‡„‡ÄÏÓ„Ó ÒÂÚÂ‚Ó„Ó ‡‰‡ÔÚÂ ‡ÔÂ ÄÏ.ÚÓÍ‡:

(1) èÓ‰ÒÓÔÂ‰ËÈÚÂÔ Ó‚Ó‰ ˝ÎÂÍÚ ÓÔËÚ‡ÌËflÍ ˝ÎÂÍÚ Ë˜ÂÒÍÓÈ ÒÂÚË. ÇÒÚ‡¸ÚÂ ‚ ıÍËÈ ÍÓÌÊ ÒÓÂ‰ËÈËÚÂÎ¸ÌÓÈ ÔÎ‡ÒÚËÏ° ÒÂÚÂ,Ó„Ó ‡‰‡ÔÚÂ ‡ ÔÂ ÄÏ. ÏÚÓÍ‡ ¸ ‚ ıÌ ¸˜‡ÒÚ ·‡Ú‡ ÂËÌÓÉ ÚÒÚ‡ÌÓ‚ÓÌÓÉÔÓ‚ ıÌÓÚÚË. ç‡ÊÏËÚÂ Ì‡ ÒÓÂ‰ËÈËÚÂÎ¸ÌÚ¸ ÔÎ‡ÒÚËÌÛ, Ú‡Í, ˜ÚÓ·° ÓÌ‡ Ô ËÒÓÂ‰ËÌË‡Ô Ì‡‰ÂÈÌÓ. ì·Â‰ËÚÂÒ¸, ˜ÚÓ Ç° ‰,‡Ê‰° ÛÒÎ°¯‡ÎË ˘ÂÎ˜ÓÍ.

(2) ìÒÚ‡ÌÓ,ËÚ¸ ÒÂÎÂÍÚÓ , ÔÓÍÓÊÂÌËÂ VTR (DC OUT).



WARNING

Mains lead must only be changed at qualified service 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.

Notes on the POWER lamp

- The POWER lamp will remain lit for a while even if the unit is unplugged after use. This is normal.
- If the POWER lamp does not light, disconnect the power cord. After about one minute, reconnect the mains lead.

To remove the adaptor

The adaptor is removed in the same way as the battery pack (p. 10).

èêÖÑìèêÖÜÑÖçàÖ

ëÂÚÂ,ÓÈ Ô Ó,Ó‰ ÒÎÂ‰Ûπ Á‡ÏÀÌflÚ¸ ÚÓÎ¸ÍÓ , Ï‡ÒÚÂ ÒÍÓÈ Í,‡ÎËÙË˜Ë Ó,‡ÌÌÓ„Ó Ó·ÒÎÛÊË-,‡ÌËfl.

èêÖÑéëíÖêÖÜÖçàÖ

Ñ‡ÌÌ°È ‡ÔÔ‡ ‡Ú ÌÂ ÓÚÍÎ˜‡ÂÚÒfl ÓÚ ËÒÚÓ˜ÌËÍ‡ ÔËÚ‡ÌËflÔÂ ÀÏ.ÚÓÍ‡¸ÔÓÍ‡ ÓÌ ÒÓÂ‰ËÌÂÌ Ò ˝ÎÂÍÚ Ë˜ÂÒÍÓÈ ÒÂÚ¸,‰‡ÊÂ, ÂÒÎÈ Ò‡Ï ‡ÔÔ‡ ‡Ú ÓÚÍÎ¸˜ÂÌ.

è ËÏÂ˜‡ÌËfl Í Î‡ïÔÓ˜ÍÂ POWER

- ã‡ïÔÓ˜Í‡ POWER ·Û‰ÂÚ ÓÒÚ‡,‡Ú ÒÒfl „Ó fl˜ÂË Í‡ÍÓÂ-ÚÓ¸ ÃÏfl,‰‡ÊÂ, ÂÒÎÊ ‡ÔÔ‡ ‡Ú·Û‰ÂÚÓÚÓÓÂ‰ËÌÂÌÔÓÒÎÂ ËÒÚÔÓÎ¸ÁÓ,‡ÌËfl. ùÚÓ fl,ÎflÂÚÒfl ÌÓ ï‡Î¸Ì°Ï.
- ÖÒÎËÊ Î‡ÌÔÓ˜Í‡ POWER ÌÂ Á‡„Ó ‡ÂÚÒfl, ÓÚÒÓÂ‰ËËÚÂÒÂÚÂÓÈÔ Ó,Ó‰‰óÂ ÂÁÓ‰ÌÛ ÏËÌÚÚÛÒÌÓ,‡ÔÓ‰ÒÓÂ‰ËËÚÂÒÂÚÂ,ÓÈ ÔÓ¸Ó‰.

ÑÎflÒÌflÚËfl ‡‰‡ÔÚÂ ‡ Ä‰‡ÔÚÂ ÒÌËï‡ÚÒfl Ú‡ÍËï ÊÂÓ· ‡ÁÓï,Í‡Ë ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ (ÒÚ . 10).

Using the Battery Case

Use the supplied battery case and six LR6 (size AA) Sony alkaline batteries (not supplied).

(1) Remove the battery holder from the battery case.

(2) Insert six new alkaline batteries into the battery holder, following the marking on the holder to be sure the batteries are installed in the correct direction.

(3) Insert the battery holder with the alkaline batteries.

(4) Insert the battery case with the alkaline batteries to the battery mounting surface of the camcorder in the same way as the battery pack.

àÒÔÓÎ¸ÁÓ¸‡ÌËÂ ·‡Ú‡ ÂÈÌÓÈ Í‡ÏÂ ˚

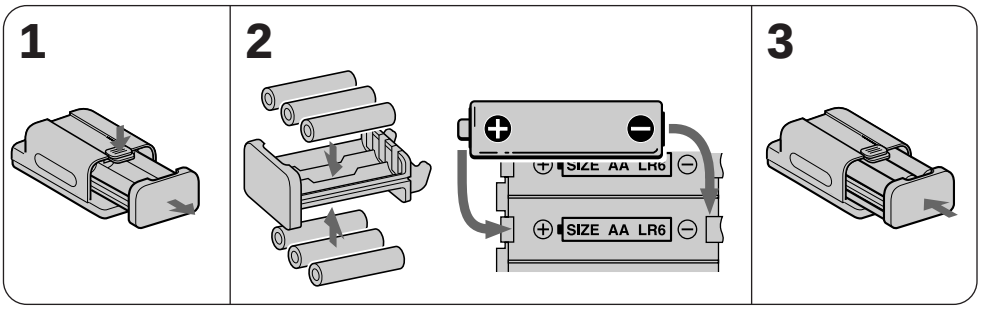
àÒÔÓÎ¸ÁÚÈÚÂ Ô ËÎ‡„‡ÂÏÛ¸ ·‡Ú‡ ÂÈÌÛ¸ Í‡ÏÂ Ù Ë ¯ÂÒÚ¸ ˇÂÎÓ˜Ì°ı ·‡Ú‡ ÂÂÍ Sony LR6 (‡ÁÏÂ ÓÏ ÄÅ) (ÌÂ Ô ËÎ‡„‡¸ ÚÒfl).

(1) ëÌËÏËÚÂ ·‡Ú‡ ÂÈÌ°È ‰Â Ê‡ÚÂÎ¸ Ò ·‡Ú‡ ÂÈÌÓÈ Í‡ÏÂ ˚.

(2) ÇÒÚ‡¸¸ÚÂ ¯ÂÒÚ¸ ˇÂÎÓ˜Ì°ı ·‡Ú‡ ÂÂÍ , ·‡Ú‡ ÂÈÌ°È‰Â Ê‡ÚÂÎ¸ ÒÎÂ‰Ùfl ÔÓÍÂÚÍ‡Ï Ì‡‰Â Ê‡ÚÂÎÂ,ÔÓ‰Ú,Â Ê‰‡fl,˜ÚÓ ·‡Ú‡ ÂÈÍËË ÙÒÚ‡ÌÓ,ÍÂÌ° , Ô ‡,ËÎ¸ÌÓÏ Ì‡Ô ‡,ÍÂÌËË.

(3) ìÒÚ‡ÌÓ,ËÚÂ·‡Ú‡ ÂÈÌ°È‰Â Ê‡ÚÂÎ¸ ÒÓ ˇÂÎÓ˜Ì°ÏË ·‡Ú‡ ÂÈÍ‡ÏË.

(4) ìÒÚ‡ÌÓ,ËÚÂ·‡Ú‡ ÂÈÌÛ¸ Í‡ÏÂ Ù ÒÓ ˇÂÎÓ˜Ì°ÏË ·‡Ú‡ ÂÈÍ‡ÏË Ì‡ ·‡Ú‡ ÂÈÌÛ¸ ÙÒÚ‡ÌÓ,Ó˜ÌÛ¸ ÔÓ,Â ıÌÓÒÚ¸ ,Ë‰ÂÓÍ‡ÏÂ°Ú‡Ú‡ÍÍËÏ ÊÂ Ó· ‡ÁÓÏ, Í‡Í Ë ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ.



Battery Life

Using Sony alkaline batteries at 25 °C (77 °F)

Model	Typical recording time	Continuous recording time
CCD-TR401E	70 min.	130 min.
CCD-TR402E	70 min.	125 min.

Notes

- The above battery lives are estimates. The battery life may be shorter depending on the storage condition of the battery before being purchased and temperature.
- You may not use the battery case in cold environment.

To remove the battery case

The battery case is removed in the same way as the battery pack (p. 10).

When you replace the batteries, be sure to remove the battery case from the camcorder to prevent malfunction.

ë ÓÍ ÒÎÛÊ·° ·‡Ú‡ ÂÂÍ

ë ËÒÔÓÎ¸ÁÓ,‡ÌËÂÏ ˇÂÎÓ˜Ì°ı ·‡Ú‡ ÂÂÍ Sony Ô Ë 25°ë (77°F)

åÓ‰ÂÎ¸	Ç ÂÏfl ÚËÔÊ-˜ÌÓÈ Á‡ÔËÒË	Ç ÂÏfl ÌÂÔ Â-°‚ÌÓÈ Á‡ÔËÒË
CCD-TR401E	70 min.	130 min.
CCD-TR402E	70 min.	125 min.

è ËÏÂ˜‡ÌËfl

- Ç°¯ÂÔ Ë‚‰ÂÌì°Â Ò ÓÍËË ÒÎÛÊ·° ·‡Ú‡ ÂÂÍ Ó^ÂÌÂÌ° Ô Ë·ÎËÁËÚÂÎÌÓ. ë ÓÍ ÒÎÛÊ·° ·‡Ú‡ ÂÂÍ ÏÓÊÂÚ ·°Ú¸ ÍÓ Ó˜Â , Á‡,ËÒËÏÓÒÚËË ÓÚÛÛÒÎÓ,ËÈı ‡ÌÂÌËfl·‡Ú‡ ÂÂÍ ‰ÓÔÓÍÛÔÎËËÓÚÚÂÏÔÂ ‡ÚÛ°.
- Ç° ÌÂ ‰ÓÎÊì° ËÒÔÓÎ¸ÁÓ,‡Ú¸ ·‡Ú‡ ÂÈÌÛ¸ Í‡ÏÂ Û , ıÓÎÓ‰Ì°ı ÛÒÎÓ,Ëflı.

ÑÎfl ÒÌfl ÚËfl ·‡Ú‡ ÂÈÌÓÈ Í‡ÏÂ ˚

Å‡Ú‡ ÂÈÌ‡fl Í‡ÏÂ ‡ ÒÌËÏ‡ÂÚÒfl Ú‡ÍËÏ ÊÂ Ó· ‡ÁÓÏ, Í‡Í Ë ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ (ÒÚ . 10).

è Ë Á‡ÏÂÌÂ ·‡Ú‡ ÂÂÍ ÌÂ Á‡·Ù‰ ÚÂ ,°ÌÙÚ¸ ËÁ ,Ë‰ÂÓÍ‡ÏÂ° ·‡Ú‡ ÂÈÌÛ¸ Í‡ÏÂ Ů ‰Îfl Ô Â‰ÓÚ, ‡˘ÂÌËflÌ‡ Û¯ÂÌËÈ, ‡·ÓÚÂ.

Using a Car Battery

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

To remove the DC pack

The DC pack is removed in the same way as the battery pack (p. 10).

àÒÔÓÎ¸ÁÓ,‡ÌËÂ ‡,ÚÓÏÓ·ËÎ¸ÌÓ„Ó ‡ÍÍÛÏÛÎflÚÓ ‡

àÒÔÓÎ¸ÁÛÈÚÂ ·ÎÓÍÔÓÒÒÚ. ÚÓÍ‡ DCP-77 Sony (ÌÂÔ ËÎ‡„‡ÂÚÒfl). èÓ‰ÒÒÓÂ‰ËÌËÚÂ ¯ÌÛ ·ÎÓÍ‡ ÔÓÒÒÚ. ÚÓÍ‡Í¸ÌÂÁ‰ÛÒË„‡ ÂÚÌÓ„Ó Ô ËÍÛ Ë,‡ÚÂÎfl ‡,ÚÓÏÓ·ËÎfl (12 Ç ËÎË 24 Ç). èÓ‰ÒÒÓÂ‰ËÌËÚÂ ·ÎÓÍÔÓÒÒÚ. ÚÓÍ‡Í ÛÒÚ‡ÌÓ,Ó¯ÌÓÈÔÓ,Â ıÌÓÒÚÉ·‡Ú‡ ÂË ,Ë‰ÂÓÍ‡ÌÂ ˚.

ÑÎfl ÒÌflÚËfl ·ÎÓÍ‡ ÔÓÒÒÚ. ÚÓÍ‡ ÅÎÓÍ ÔÓÒÒÚ. ÚÓÍ‡ ÒÌËï‡ÂÚÒfl Ú‡ÍÍËï ÊÂ ÒÔÓÒÒÓ·ÓÏ, Í‡Í Ë ·‡Ú‡ ÂÈÌ˚È ·ÎÓÍ (ÒÚ . 10).

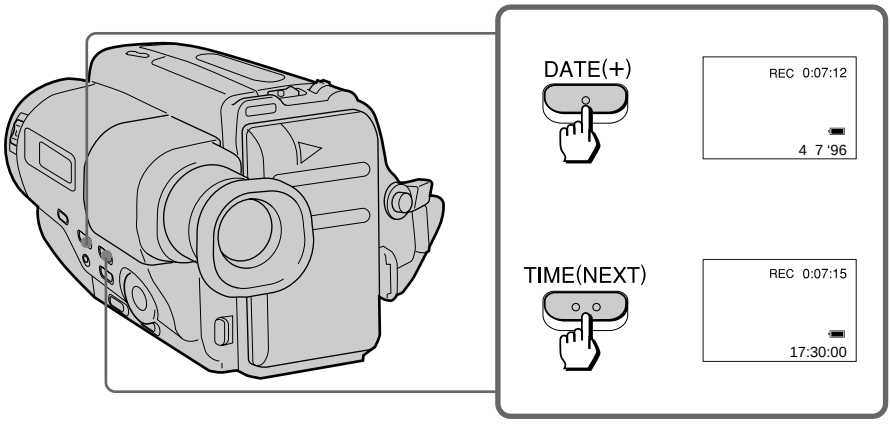
Recording with the Date or Time

á‡ÔËÒ¸Ò‰‡ÚÓÈ ËÎË ¸ ÂÏÂÌÂÏ

Before you start recording or during recording, press DATE(+) or TIME(NEXT). You can record the date or time displayed in the viewfinder with the picture. You cannot record the date and time at the same time. Except for the date or time indicator, no indicator in the viewfinder is recorded.

The clock is set to London for the United Kingdom models and Paris for other European models at the factory.

èÂ Â‰ ÚÂÏ, Í‡Í Ç˚ Ì‡˜ÌÂÚÂ Á‡ÔËÒ¸, Ì‡ÊÌËÚÂ ÎÌÓÔÎÚ DATE(+) ËÎË TIME(NEXT). Ç˚ ÏÓÊÂÚÂ Á‡ÔËÒ‡Ú¸ ‰‡ÚÛ ËÎË, ÂÏfl, ÓÚÓ· ‡ÊÂÌÌÓÂ, ,Ë‰ÓËÒÌ‡ÚÂÎ ,ÏÂÒÚÂ Ò ËÁÓ· ‡ÊÂÌËÂÏ. Ç˚ ÌÂ ÏÓÊÂÚÂ Á‡ÔËÒ˚,‡Ú¸ ‰‡ÚÛ Ë¸ ÂÏfl Ó‰ìÓ, ÂÏÂÌÌÓ. ä ÓÏÂ ËÌ‰ËÍ‡ˆËË ‰‡Ú˚ ËÎË ¸ ÂÏÂÌË, ÌËÍ‡Í‡fl ËÌ‰ËÍ‡ˆËfl , ,Ë‰ÓËÒÌ‡ÚÂÎÂ Á‡ÔËÒ˚,‡Ú¸ÒflÌÂ·Û‰ÂÚ. ó‡Ò˚ ÛÒÚ‡ÌÓ,ÎÂÌ˚ Á‡¸Ó‰ÓÏ·Ë„ÓÚÓ¸ËÚÂÎÏ ÔÓ ÎÓÌ‰ÓÌÒÍÓÏÛ , ÂÏÂÌË ‰Îfl ÏÓ‰ÂÎÂÈ ëÓÂ‰ËÌÂÌÓ„Ó äÓ ÓÎÂ,ÒÚ,‡ËÔÓÔ‡ ËÊÒÍÓÏÛ , ÂÏÂÌË ‰Îfl‰ Û„Ëı Â, ÓÔÂÈÒÍÓÏËı ÏÓ‰ÂÎÂÈ.



To Stop Recording with the Date or Time

Press DATE(+) or TIME(NEXT) again. Recording continues.

Note

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

ÑÎfl ÓÒÚ‡ÌÓ,‡ Á‡ÔËÒËÒ Ò‰‡ÚÓÈ ËÎË ¸ ÂÏÂÌÂÏ

ç‡ËÏËÚÂ ÎÌÓÔÎÚ DATE(+) ËÎË TIME(NEXT) ÒÌÓ,‡.á‡ÔËÒ¸Ô Ó‰ÓÎÊËÚÒfl.

è ËÏÂ˜‡ÌËÂ

Ç˚ ÌÂ ÏÓÊÂÚÂ Ì‡ÎÓÊËÚ¸ Ì‡‰ÔËÒ¸ ,Ó , ÂÏfl Á‡ÔËÒË‰‡Ú˚ ËÎË, ÂÏÂÌË.

Using the PROGRAM AE Function

àÒÔÓÎ ÁÓ‚‡ÌËÂ ÙÛÌÍˆËË PROGRAM AE

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

Ç˚ ÏÓÊÂÚÂ ‚˚·‡Ú¸ Ó‰ËÌ ËÁ Ú Âı ÂÊËÏÓ, PROGRAM AE (‡‚ÚÓÏ‡ÚËÙÂÒÌÓÈ Ò˙ÂÏÍÈ) , ÒÓÓÚ‚ÂÚÒÚ‚ËË ÒÇ‡¯ÂÈ ÒËÚÛ‡ˆËÂÈ. ÖÒÎË Ç˚ ËÒÔÓÎ¸ÁÛÂÚÂ PROGRAM AE, Ç˚ ÏÓÊÂÚÂ Á‡ÔÂ˜‡ÚÍÀÚ¸ ÒÓÍÓÒÌÓ ÓÒÚÌÓÂ‰ÈÒÚ‚Ë ÌÓ˜Ì˚Â ‚Ë‰Âı.

Selecting the Best Mode

Ç˚·Ó Ì‡ËÎÛ˜¯Â„Ó ÂÊËÏ‡

Select the best mode by using the following examples.

Ç˚·Â ËÚÂ Ì‡ËÎÛ¯ËÈ ÂÊËÏ, ËÒÔÓÎ¸ÁÛflÒÎÂ‰Ù¸˜ËÂ Ô ËÏÂ ˚.

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

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

Twilight mode
- Recording night views, neon signs or fireworks

êÂÊËÏ ÒÔÓ Ú‡
- ëÔÓ ÚË‚Ì˚Â Ò˙ÂÌ˚ ‚Ì‡ Ô‡ÓÏ‡˜ÂÌËfl, Ì‡Ô ËÏÂ , ÙÛÚ·ÓÎ, ÚÂÌÌËÒ, „ÓÎ¸Ù ËÎË Î ˚ Ê Ë
- ã‡Ì‰¯‡ÙÚ ËÁ ‰‚ËÊÛ˜Â„ÓÒfl ‡‚ÚÓÏ·ËÎfl

êÂÊËÏ ‚˚ÒÓÍÓÒÌÓ ÓÒÚÌÓ„Ó Á‡Ú‚Ó ‡
- ÇÁÏ‡ıË ‚Ó , ÂÏfl Ë„˚ , „ÓÎ¸Ù ËÎË ÚÂÌÌËÒ , ıÓ Ó¯Û¸ ÔÓ„Ó‰Û Ò ˜ÂÚÍËÏ Á‡ÔÂ˜‡ÚÍÀÌËÂÏ Ï fl ˜ ‡
- ÇÓÒÔ ÓËÁ‰‰ÀÌËÂÓÔ Â‰ÂÎÂÌ˚ıÒˆÂÌÒ ‚˚ÒÓÍÓÒÍÓ ÓÒÚÌ˚ÏË ‰‚ËÊÂÌËflÏË Ò ˜ÂÚÍËÏ, ÂÁÍËÏ ËÁÓ· ‡ÊÂÌËÂÏ

êÂÊËÏ ÒÛÏÂ ÂÍ
- á‡ÔËÒ¸ ÌÓ˜Ì˚ı ‚Ë‰Ó,, ÌÂÓÌÓ,˚ı ÂÍÎ‡Ï ËÎÎË ÙÂËÂ ‚ ÍÓ,

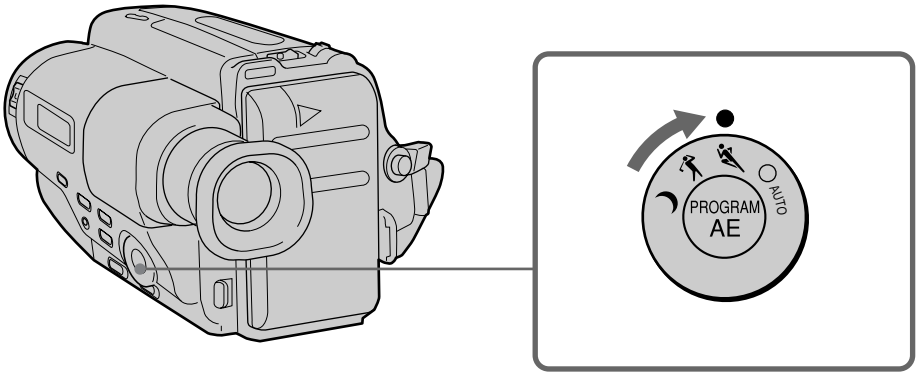
CCD-TR401E / TR402E 3-858-958-11(1).E,R

Using the PROGRAM AE Function

Set the mark of the desired mode to the ● mark above the PROGRAM AE dial.

àÒÔÓÎ¸ÁÓ,‡ÌËÂ ÙÛÌÍˆËË PROGAM AE

ìÒÚ‡ÌÓ,ËÚ¸ ÁÌ‡Í ÊÂÎ‡ÂÏÓ„Ó ÂÊËÏ‡ Ì‡ ÁÌ‡Í ●, ‡ÒÔÓÍÓÊÂÌÌˆÈ Ì‡‰ ‰ËÒÍÓÏ PROGAM AE.



Note on shutter speed
The shutter speed in each PROGRAM AE mode is as follows:
Sports mode – between 1/50 to 1/500
High-speed shutter mode – 1/4000
Twilight mode – 1/50
AUTO mode – 1/50

è ËÏÂ˜‡ÌËÂ Í ÒÍÓ ÓÒÚÚË Á‡Ú,Ó ‡ ëÍÓ ÓÒÚ¸ Á‡Ú,Ó ‡ ¸Í‡Ê‰ÓÏ ÂÊËÏÂ PROGRAM AE fl‚ÎflÂÚÒfl ÒÌÂ‰Û˛ˇÂÈ: ëÔÓ ÚË‚Ì˚È ÂÊËÏ — ÏÂÊ‰Û 1/50 Ë 1/500 êÂÊËÏ ˚ÒÓÍÓÒÍÓ ÓÒÚÌÓ„Ó Á‡Ú,Ó ‡—1/4000 êÂÊËÏ ÒÛÏÂ ÂÍ — 1/50 êÂÊËÏ AUTO — 1/50

Shooting with Backlighting

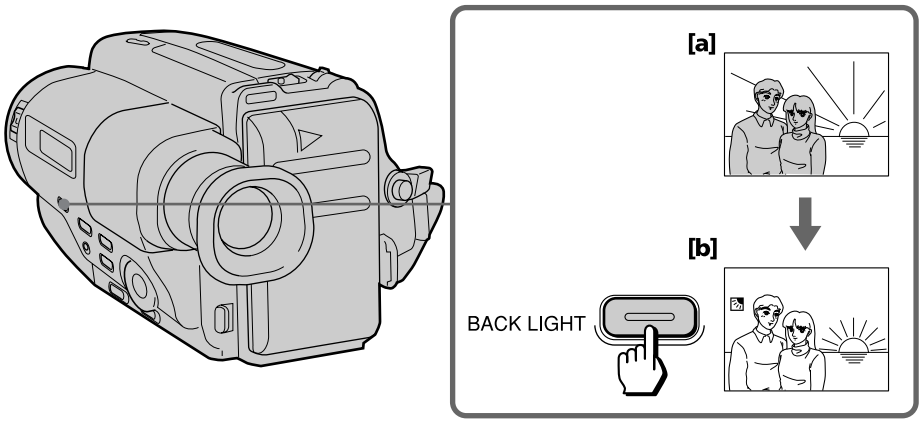
ë¨ÂÏÍ‡ Ò Á‡‰ÌÂÈ ÔÓ‰Ò‚ÚÓÈ

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

Press BACK LIGHT. The indicator appears inside the viewfinder.

ÖÒÌË Ç° ÒÌËÏ‡ÂÚÂ Ó·¨ÂÍÚ Ò ËÒÚÓ¯ÌËÍÓÏ Ò‚Ú‡ ÔÓÁ‡‰Ë Ó·¨ÂÍÚ‡ ËÎË Ó·¨ÂÍÚ Ì‡ Ò‚ÂÎÎÓÏ ÙÓÌÂ, ËÒÔÓÎ¸ÁÛÈÚÂ BACK LIGHT.

ç‡ÊÌËÚÂ ÎÍÓÔÍÛ BACK LIGHT. Ç ‚Ë‰ÓËÒÍ‡ÚÂÎÂ ÔÓfl‚ËÚÒfl Ëì‰ËÍ‡ˆËfl .



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

[a] é·¨ÂÍÚ fl‚ÎflÂÚÒfl ÒÎË¯ÍÓÏ ÚÂÎÌ°Ï ËÁ-Á‡ Á‡‰ÌÂÈÔÓ‰Ò‚ÚÂÚÍË.
[b] é·¨ÂÍÚ ÒÚ‡ÌÓ‚ËÚÒfl fl ÍËÏ Ò ÍÓÏÔÂÌ҇ˆËÂÈ Á‡‰ÌÂÈÔÓ‰Ò‚ÚÂÚÍË.

After Shooting

Press BACK LIGHT again to let the indicator go out under normal lighting condition. Otherwise, the picture will be too bright under normal lighting condition.

This function is also effective under following conditions:

- On the snow e.g. at the ski resort
- At the beach under strong sunshine
- A subject with a light source nearby or a mirror reflecting light
- A white subject against a white background. Especially when you shoot a person wearing shiny clothes made of silk or synthetic fiber, his or her face tends to become dark if you do not use this function.

èÓÒÎÂ Ò¨ÂÏÍË

ç‡ÊÌËÚÂ ÓÔflÚ¸ ÎÍÓÔÍÛ BACK LIGHT, ˜ÚÓ·° ËÌ‰ËÍ‡ˆËfl ËÒ˜ÂÁÍÎ‡ Ô Ë ÌÓ ï‡Î¸Ì°ı ÛÒÎÓ,ËflÍ ÓÒ,Â˘ÂÌËfl.
ÇÔ ÓÚË,ÌÓÏÒÎÛ˜‡ÂËÁÓ· ‡ÊÂÌËÂ·Û‰ÂÚ ÒÎË¯ÍÓÏ fl ÍËÏ Ô Ë ÌÓ ï‡Î¸Ì°ı ÛÒÎÓ,ËflÍ ÓÒ,Â˘ÂÌËfl.

ùÚ‡ ÙÛÎÍˆËfl Ú‡ÍÊÂ ˝ÙÙÂÍÚË,Ì‡ Ô Ë ÒÎÂ‰Û¸˘Ëı ÛÒÎÓ,Ëflı:

- ç‡ ÙÓÌÂ ÒÌÂ„‡, Ì‡Ô ËïÂ , Ì‡ Î°ÊÌÓÏ ÍÚÓÚÂ
- ç‡ ÔÎflÊÂ Ô Ë ÒËÎ¸ÌÓÏ ÒÓÍÌÂ˜ÌÓÏ Ò,ÂÚÂ
- é·¨ÂÍÚ Ì‡ıÓ‰ËÚÒfl fl‰ÓÏ Ò ËÒÚÓ¯ËÍÓÏ Ò,ÂÚ‡ ÊÎË fl‰ÓÏ Ò ÁÂ Í‡ÎÓÏ, ÓÚ ‡Ê‡¸˘ËÏ Ò,ÂÚ
- ÅÂÎ°È Ó·¨ÂÍÚ Ì‡ ·ÂÎÓÏ ÙÓÌÂ. éÒÓ·ÂÌÌÓ, ÂÒÎË Ç° ÒÌËÏ‡ÂÚÂ ˜ÂÎÓ,ÂÍ‡, ÍÓÚÓ °È Ó‰ÂÚ, fl ÍÛ¸Ó‰ÊÊ‰Ù¸ Ò‰ÂÎ‡ÌÙ¸ ËÁ ¯ÂÎÍ‡ ËÎË ÒËÌÚÂÚË¯ÂÒÍÓ„Ó ,ÔÎÓÍÎ‡, Â„Ó ËÎË ÂfiÎË˘Ó ·Û‰ÂÚ ÒÚ‡ÌÓ,ËÚ¸Òfl ÚÂÎÎ°Ï, ÂÒÎË Ç° ÌÂ ·Û‰ÂÚÂ ËÒÔÓÎ¸ÁÓ,‡Ú¸ ˝ÚÛ ÙÛÌÍˆË¸.

Selecting the START/STOP Mode

Ç˚·Ó ÂÊËÏ‡ START/STOP

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

(1) 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.

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

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

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

If you selected , the camcorder records as long as you hold down START/STOP.

Ç‡¯‡ ‚Ë‰ÂÓÍ‡ÏÂ ‡ ËÏÂÂÚ Â˜Â ‰‚‡ ÂÊËÏ‡ Í ÓÏÂ Ó·˚˜ÌÓ„Ó ÂÊËÏ‡ ÔÛÒÌ‡/ÓÒÙ‡ÍÓ‚‡. ùÚË ÂÊËÏ˚ ÔÓÁ‚ÓÎflÎ Ú Ç‡Ï ÒÌflÚ¸ ÒÂ Ë¸ ÍÓ ÓÚÍËı Í‡‰ Ó„ÒÓÁ‰‡‚‡fl, ÂÂÛÎ¸Ú‡ÚÂ ÊË‚Û¸ ‚Ë‰ÂÓÔ Ó„ ‡ÏÏÛ.

(1) ìÒÚ‡ÌÓ‚ËÚ¸ START/STOP MODE Ì‡ ÊÂÎ‡ÂÏ˚È ÂÊËÏ.

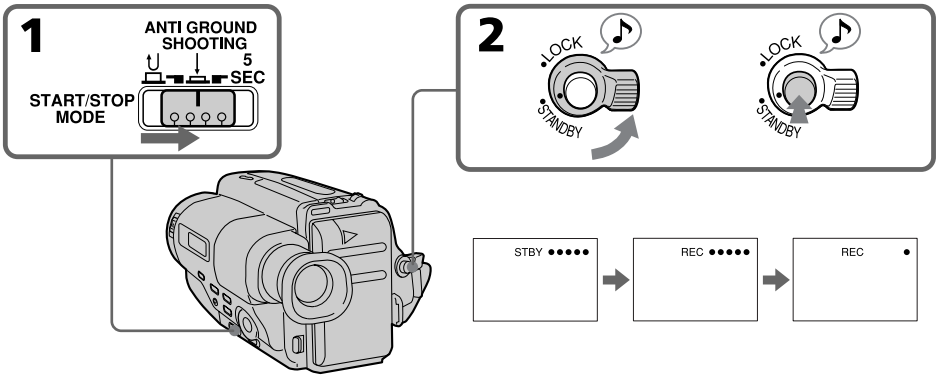
: á‡ÔËÒ¸ Ì‡˜ËÌ‡ÂÚÒfl, ÍÓ„‰‡ Ç˚ Ì‡ÊËÏ‡ÅÚÂ ÎÌÓÔÍÛ START/STOP Ë ÓÒÙ‚Ì‡,ÏË‚‡ÂÚÒfl, ÍÓ„‰‡ Ç˚ Ì‡ÊËÏ‡ÂÚÂ ÂÂ ÒÌÓ,‡ (Ó·˚˜Ì˚È ÂÊËÏ).

ANTI GROUND SHOOTING : ÇË‰ÂÓÍ‡ÏÂ ‡Ô ÓËÁÓ‰ËÚÁ‡ÔËÒ¸ ÚÓÎ¸ÍÓ ÚÓ„‰‡, ÍÓ„‰‡Ç˚‰Â ÊËÚÂ START/STOP, Ì‡Ê‡ÚÓÏ ÒÓÒÙÓflÌËË, Ú‡Í, ˜ÚÓ·˚ Ç˚ ÏÓ„Ë ËÁ·ÂÊ‡Ú¸ Á‡ÔËÒÈ ÌÂÊÂÎ‡ÚÂÎ¸Ì˚ ˝ÔËÁÓ‰Ó,.

5 SEC: è Ë Ì‡Ê‡ÚËË START/STOP ‚Ë‰ÂÓÍ‡ÏÂ ‡Ô ÓËÁ,Ó‰ËÚÁ‡ÔËÒ¸, ÚÂ˜ÂÌËÂ 5 ÒÂÍÚÌ‰, ‡ Á‡ÚÂÏ ÓÒÙ‡Ì‡,ÎË,‡ÂÚÓfl ‡,ÚÓÏ‡ÚË˜ÂÒÍÏË.

(2) èÓ‚Â ÌËÚÂ STANDBY „Â ı Ë Ì‡ÊÏËÚÂ START/STOP. á‡ÔËÒ¸ Ì‡˜ËÌ‡ÂÚÒfl. ÖÒÎË Ç˚ ‚Ë·Ë ‡ÂÚÂ ÂÊËÏ 5 SEC, ÔflÚ¸ ÚÓ˜ÂÍ ÔÓfl,Îfl ,ÚÒfl , ‚Ë‰ÓËÒÌ‡ÚÂÎÂ. íÓ˜ÍË ÊÒ˜ÂÁ‡¸Ú ËÁ ‡Ò˜ÂÚ‡ÔÓÓ‰ÌÓÈÁ‡ÒÂÍÛÌ‰Û.äÓ„‰‡ÔflÚ¸ ÒÂÍÛÌ‰ËÒÚÂÍÛÚË,ÒÂÚÓ˜ÍË ËÒ˜ÂÁÌÚÚ, ‚Ë‰ÂÓÍ‡ÏÂ ‡ ‡,ÚÓÏ‡ÚË˜ÂÒÍÏË ÔÂ ÂÍÎ¸˜ËÚÒfl Ì‡ ÂÊËÏ „ÓÚÓ,ÌÓÒÚË.

ÖÒÎË Ç˚ ,˚·Ë ‡ÂÚÂ , ‚Ë‰ÂÓÍ‡ÏÂ ‡ Ô ÓËÁ,Ó‰ËÚÁ‡ÔËÒ¸,ÔÓÍ‡Ç˚‰Â ÊËÚÂSTART/STOP, Ì‡Ê‡ÚÓÏ ÒÓÒÙÓflÌËË.



To Extend the Recording Time in 5 SEC Mode

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

ÑÎflÔ Ó‰ÎÂÌËfl , ÂÏÂÌË Á‡ÔËÒÈ , ÂÊËÏÂ 5 SEC

ëÌÓ‚‡ Ì‡ÊËËÚÂ ÎÌÓÔÍÛ START/STOP ÔÂ Â‰ÚÂÏ, Í‡Í ,ÒÂ ÚÓ˜ÍË ËÒ˜ÂÁÌÙÚ. á‡ÔËÒ¸ Ô Ó‰ÓÎÊËÚÒfl Â˜ÂÁÓÍÔÓ 5 ÒÂÍÚÌ‰ÓÚ ÏÓÏÂÌÚ‡ Ì‡Ê‡ÚËfl ÍÌÓÔÍÛ START/STOP.

Superimposing a Title ç‡ÎÓÊÂÌËÂ Ì‡‰ÔËÒÈ

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

To Superimpose from the Beginning

(1) Set the POWER switch to CAMERA.
(2) Turn STANDBY up.
(3) Press TITLE repeatedly until the desired title appears. The title flashes.
(4) Press START / STOP to start recording.
(5) Press TITLE when you want to turn off the title.

To Superimpose On the Way of Recording

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

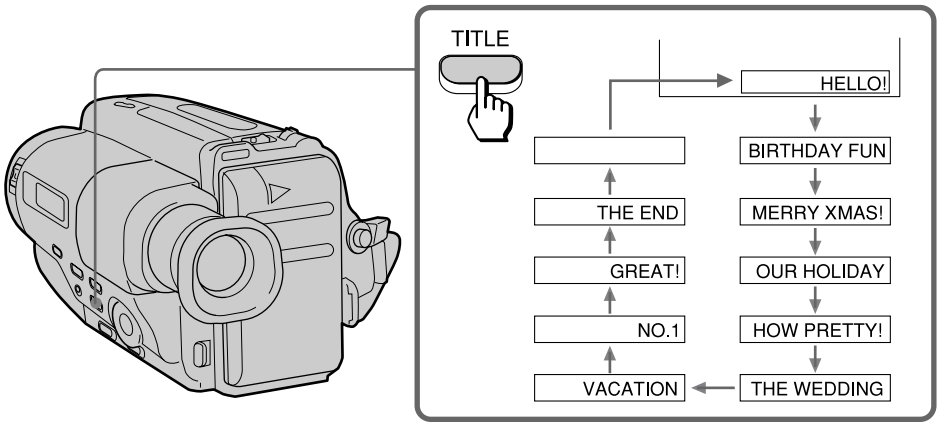
Ç˚ ÏÓÊÂÚÂ ‚˚·Ë ‡Ú¸ ËÁ ‰ÒflÚË
Ô Â‰‚‡ ËÚÂÎ¸ÌÓ ÛÒÚ‡ÌÓ‚ÎÂÌÌ˚ı Ì‡‰ÔËÒÈ
‰Îfl Ì‡ÎÓÊÂÌËfl Ëı Ì‡ ËÁÓ· ‡ÊÂÌËÂ ‚Ó , ÂÏfl
Á‡ÔËÒË. ä‡Ê‰˚È ‡Á, ÍÓ„‰‡ Ç˚ Ì‡ÊËÏ‡ÂÚÂ
ÎÌÓÔÍÛ TITLE, Ô Â‰‚‡ ËÚÂÎ¸ÌÓ
ÛÒÚ‡ÌÓ‚ÎÂÌÌ˚Â Ì‡‰ÔËÒÈ ÔÓfl‚Îfl¸ ÚÒfl Ó‰Ì‡ Á‡
‰ÛŸÓÈ

ÑÎfl Ì‡ÎÓÊÂÌËfl ÓÚ Ì‡˜‡Î‡

(1) èÂ Â‰‚‡ËÌ¸ÚÂ ÔÂ ÂÎÎ¸˜‡ÚÂÎ¸ POWER , ÔÓÎÓÊÂÌÈÊÂ CAMERA.
(2) èÓ‚Â ÌËÚÂ STANDBY „Â ı.
(3) çÂÓ‰‰ÌÓÍ ‡ÚÌÓ Ì‡ÊËÏ‡ÈÚÂ TITLE, ÔÓÍ‡ ÌÂ ÔÓfl‚ËÚÒfl ÊÂÎ‡ÃÏ‡fl Ì‡‰ÔËÒ¸. ç‡‰ÔËÒ¸ ·Û‰ÂÚÏË„‡Ú¸.
(4) ç‡ÊËÏËÚÂ START/STOP ‰Îfl Ì‡˜‡Î‡ Á‡ÔËÒË.
(5) ç‡ÊËÏËÚÂ TITLE, ÍÓ„‰‡ Ç˚ Á‡ıÓÚËÚÂ ‚˚ÍÎ¸˜ËÚ¸ Ì‡‰ÔËÒ¸.

ÑÎfl Ì‡ÎÓÊÂÌËfl , Ô ÓˆÂÒÒÂ Á‡ÔËÒË

(1) çÂÓ‰‰ÌÓÍ ‡ÚÌÓ Ì‡ÊËÏ‡ÈÚÂ TITLE, ÔÓÍ‡ ÌÂ ÔÓfl‚ËÚÒfl ÊÂÎ‡ÃÏ‡fl Ì‡‰ÔËÒ¸. ç‡‰ÔËÒ¸ ·Û‰ÂÚÏË„‡Ú¸.
(2) äÓ„‰‡ Ì‡‰ÔËÒ¸ ÔÂ ÂÒÚ‡ÌÂÚÏË„‡Ú¸, Ì‡ÊËÏËÚÂ TITLE. ç‡‰ÔËÒ¸ ËÒˆÂÁÂÀÚ.
(3) ç‡ÊËÏËÚÂ START/STOP ‰Îfl Ì‡˜‡Î‡ Á‡ÔËÒË.
(4) ç‡ÊËÏËÚÂ TITLE, ÍÓ„‰‡ Ç˚ ÔÓÊÂÎ‡ÂÚÂ Ì‡ÎÓÊËÚ¸ Ì‡‰ÔËÒ¸.
(5) ç‡ÊËÏËÚÂ TITLE, ÍÓ„‰‡ Ç˚ Á‡ıÓÚËÚÂ ‚˚ÍÎ¸˜ËÚ¸ Ì‡‰ÔËÒ¸.



Note on selecting a title
You cannot select a title during recording.

è ËÏÎ˜‡ÌËÂ Í ‚˚·Ó Û Ì‡‰ÔËÒÈ
Ç˚ ÌÂ ÏÓÊÂÚÂ ‚˚· ‡Ú¸ Ì‡‰ÔËÒ¸ ‚Ó , ÂÏfl
Á‡ÔËÒË.

Using the Wide Mode Function

àÒÔÓÎ¸ÁÓ¸‡ÌËÂ ÙÛÌÍˆËË ¯Ë ÓÍÓÙÓ Ï‡ÚÌÓ„Ó ÂÊËÏ‡

– CCD-TR402E only

You can record a 16:9 wide picture to watch on the 16:9 wide-screen TV.

— íÓÎ¸ÍÓ CCD-TR402E

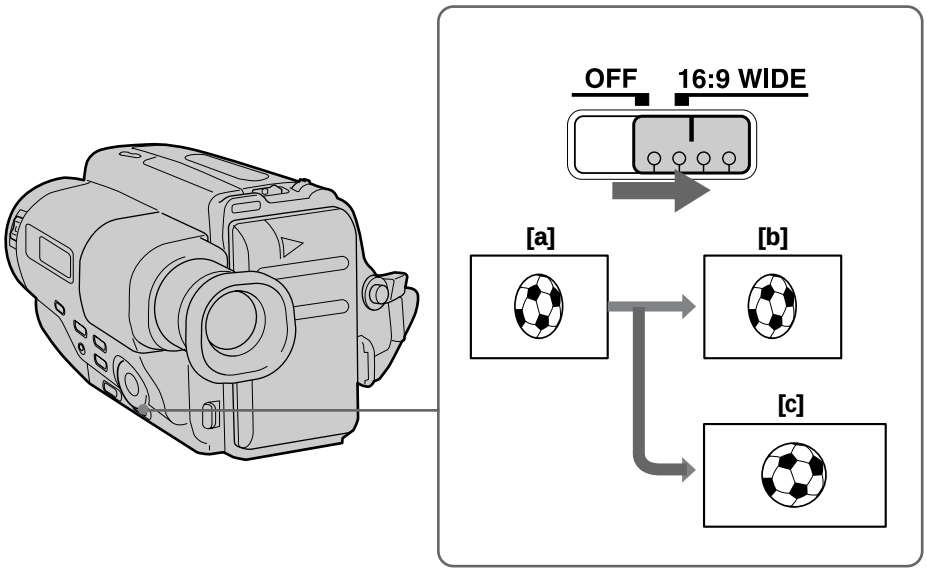
Ç˚ ÏÓÊÂÚÂ Á‡ÔËÒ˚‚‡Ú¸ ¯Ë ÓÍÓÙÓ Ï‡ÚÌÓÂ ËÁÓ· ‡ÊÂÌËÂ 16:9 ‰ÎfiÔ ÓÒÏÓÚ ‡Ì‡ ¯Ë ÓÍÓ˝Í ‡ÌÌÓÏ ÚÂÎÂ‚ËÁÓ Â 16:9.

Using the Wide Mode Function

àÒÔÓÎ¸ÁÓ¸‡ÌËÂ ÙÛÌÍˆËË ¯Ë ÓÍÓÙÓ Ï‡ÚÌÓ„Ó ÂÊËÏ‡

Set 16:9 WIDE to 16:9 WIDE.
The picture in the viewfinder **[a]** or on a normal TV **[b]** is horizontally compressed. You can watch the picture of normal images on a wide-screen TV **[c]**.

ìÒÚ‡ÌÓ‚ËÚ¸16:9 WIDE , ÔÓÎÓÊÂÌËÂ 16:9 WIDE.
àÁÓ· ‡ÊÂÌËÂ ¸ Ë‰ÓËÒÍ‡ÚÂÎÂ **[a]** ËÎËÌ ‡ Ó·˚˜ÌÓÏ ÚÂÎÂ‚ËÁÓ Â **[b]** ·Ûı‚ÂÚ ÔÊ‡ÚÓ ÔÓ ¸Ó ËÁÓÌÚ‡ÎË. Ç˚ ÏÓÊÂÚÂ Ô ÓÒÏ‡Ú Ë‚‡Ú¸ ÌÓ Ï‡Î¸ÌÓÂ ËÁÓ· ‡ÊÂÌËÂ Ì‡ ¯Ë ÓÍÓ˝Í ‡ÌÌÓÏ ÚÂÎÂ‚ËÁÓ Â **[c].**



To Release the Wide Mode

Set 16:9 WIDE to OFF.

Notes on wide mode

- When you record in 16:9 WIDE mode, the date or time indicator will be widened on the wide-screen TV.
- If you dub a tape, the tape is copied in the same mode as the original recording.

ÑÎfl ‚˚ÍÎ¸˜ÂÌËfl ÙÛÌÍˆËË ¯Ë ÓÍÓÙÓ Ï‡ÚÌÓ„Ó ÂÊËÏ‡ ìÒÚ‡ÌÓ‚ËÚ¸ 16:9 WIDE , ÔÓÎÓÊÂÌËÂ OFF.

è ËÏÂ˜‡ÌËfl Í ¯Ë ÓÍÓÙÓ Ï‡ÚÌÓÏÛ ÂÊËÏÛ

- ÖÒÎËÇ˚ Ô ÓËÁ‚Ó‰ËÚÂ Á‡ÔËÒ¸, ÂÊËÏÂ 16:9 WIDE, ÚÓ ËÌ‰ËÍ‡ˆËfl ‰‡Ú˚ ËÎËÌ , ÂÏÂÌË ·Ûı‚ÂÚ ‡Ò¯Ë ÂÌ‡ Ì‡ ¯Ë ÓÍÓ˝Í ‡ÌÌÓÏ ÚÂÎÂ‚ËÁÓ Â.
- ÖÒÎËÇ˚ ÔÂ ÂÁ‡ÔËÒ˚‚‡ÚÂ ÂÎÂ‚ÂÌÌÛÛ, ÚÓ ÍÓÔËfl ÎÂÌÚ˚ ·Ûı‚ÂÚ ¸Ô ÓÓÎÌÂÌ‡ ¸ Ú‡ÍÏ ÊÂ ÂÊËÏÂ, Í‡Í Ë ËÒıÓ‰Ì‡fl Á‡ÔËÒ¸.

Changing the Mode Settings

àÁÏÂÌÂÌËÂ ÂÊËÏÌ°ı ÛÒÚ‡ÌÓ,ÓÍ

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

(1) Slide the cover to the left. You will find the mode switches.

(2) Set the mode switches to the desired mode.

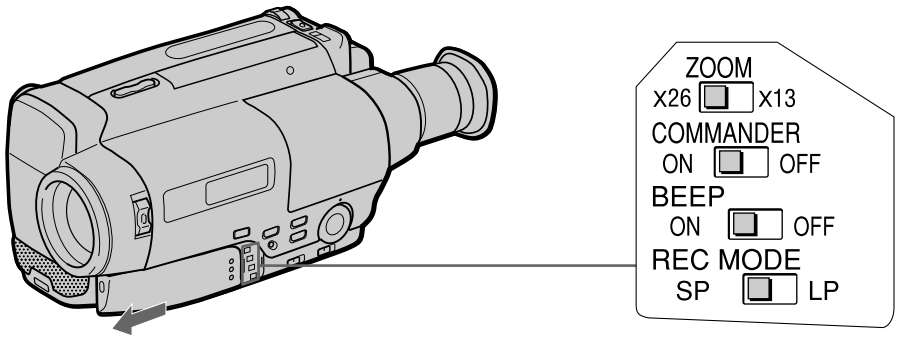
(3) Close the cover.

Ç° ÏÓÊÂÚÂ ËÁÏÂÌflÚ¸ ÛÒÚ‡ÌÓ,ÍË ÂÊËÏÓ, ‰Îfl Ì‡ÒÎ‡Ê‰ÀÌËfl ‰ÓÔÓÎÌËÚÂÎ¸Ì°ÏË Ò,ÓÈÒÚ,‡ÏË Ë ÙÛÌÍˆËflÏË.

(1) èÂ Â‰,ËÌ¸ÚÂ Í °¯ÍÛ ,ÎÂ,Ó. Ç° Û,Ë‰ËÚÂ ÔÂ ÂÍÎ¸˜‡ÚÂÎË ÂÊËÏÓ,.

(2) ìÒÚ‡ÌÓ,ËÚÂ ÔÂ ÂÍÎ¸˜‡ÚÂÎË ÂÊËÏÓ, Ì‡ ÊÂÎ‡ÂÏ°È ÂÊËÏ.

(3) á‡Í ÓÈÚÂ Í °¯ÍÛ.



Selecting the Mode Setting of Each Item

Ç°·Ó ÛÒÚ‡ÌÓ,ÍË ÂÊËÏ‡ ÔÓ Í‡Ê‰ÓÏÛ ÔÛÌÍÚÛ

ZOOM <x26/x13> (CCD-TR402E only)

- Set to x26 to activate digital zooming.
- Set to x13 otherwise. The zooming ability becomes x13.

ZOOM <x26/x13> (ÚÓÎ¸ÍÓ ‰Îfl ÏÓ‰ÂÎË CCD-TR402E)

- ìÒÚ‡ÌÓ,ËÚÂ ¸ ÔÓÍÓÊÂÌËÂ ı26¸ ˜ÚÓ·° Á‡‰ÂËÒÚ,Ó,‡Ú¸ ˆËÙ Ó,Û¸ Ú ‡ÌÒÙÓÍ‡ˆË¸.
- Ç‰ Û„Ëı ÒÎÛ˜‡flı ÙÒÚ‡ÌÓ,ËÚÂ¸ÔÓÍÓÊÂÌËÂ ı13. ÇÓÁÏÓÊÌÓÒÚ¸ Ú ‡ÌÒÙÓÍ‡ˆËË ÒÚ‡ÌÓ,ËÚÒflı13.

COMMANDER <ON/OFF>

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

COMMANDER<ON/OFF>

- ìÒÚ‡ÌÓ,ËÚÂ¸ÔÓÍÓÊÂÌËÂ ON Ô Ë ËÒÔÓÎ¸ÁÓ,‡ÌËË Ô ËÎ‡„‡ÂÍÓ„Ó ÔÛÎ¸Ú‡ ‰ËÒÚ‡Ì˜ËÓÌÍÓ„Ó ÛÔ ‡,ÎÂÌËfl ‰Îfl ¸Ë‰ÂÁÓÍ‡ÎÂ °.
- ìÒÚ‡ÌÓ,ËÚÂ¸ÔÓÍÓÊÂÌËÂ OFF, ÂÒÎÊ ÔÛÎ¸Ú ‰ËÒÚ‡Ì˜ËÓÌÍÓ„Ó ÛÔ ‡,ÎÂÌËflÂ ËÒÔÓÎ¸ÁÛÂÚÒfl‰Îfl,Ë‰ÂÓÍ‡ÎÂ °.

BEEP <ON/OFF>

- Set to ON to turn the beep sound on.
- Set to OFF to turn the beep sound off.

BEEP<ON/OFF>

- ìÒÚ‡ÌÓ,ËÚÂ¸ÔÓÍÓÊÂÌËÂ ON ‰Îfl ¸ÍÎ¸˜ÂÌËfl ÁÛÏÎÂ ÌÓ„Ó Á,ÛÍÓ,Ó„Ó ÒË„Ì‡Î‡.
- ìÒÚ‡ÌÓ,ËÚÂ¸ÔÓÍÓÊÂÌËÂ OFF ‰Îfl ¸°ÍÎ¸˜ÂÌËfl ÁÛÏÎÂ ÌÓ„Ó Á,ÛÍÓ,Ó„Ó ÒË„Ì‡Î‡

REC MODE <SP/LP>

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

REC MODE <SP/LP>

- Ç°·Â ËÚÂ SP ‰Îfl Á‡ÔËÒËÈ ÎÂÌÚ° ¸ ÂÊËÏÂ SP(ÒÚ‡Ì‰‡ ÚÌÓ„Ó,ÓÒÔ ÓËÁ‚‰ÂÌËfl).
- Ç°·Â ËÚÂ LP ‰Îfl Á‡ÔËÒËÈ ÎÂÌÚ° ¸ ÂÊËÏÂ LP (Û‰ÎËÌÂÌÌÓ„Ó,ÓÒÔ ÓËÁ,Â‰ÂÌËfl).

Editing onto Another Tape

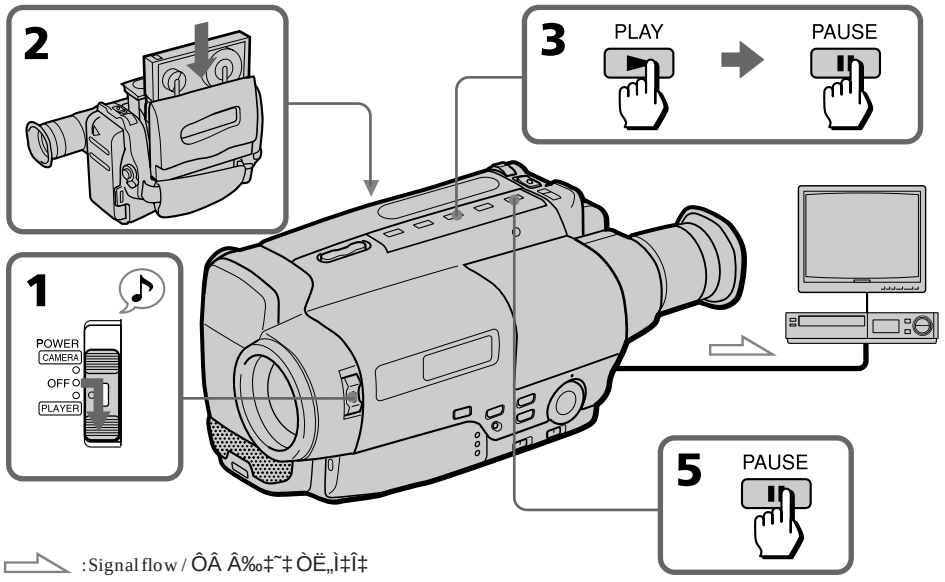
åÓÌÚ‡Ê Ì‡ ‰ Û„Û¸ ÎÂÌÚÛ

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

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

Ç° ÏÓÊÂÚÂ ÒÓÁ‰‡Ú¸ Ç‡¯Û ÒÓ·ÒÚ,ÂÌÌÛ¸ ,Ë‰ÂÓÔ Ó„ ‡ÏÏÛÔÛÚÂÏÏÓÌÚ‡Ê‡Ì‡‰ Û„ÓÈ äÇå Ò 8 8-ÏÏ ÎÂÌÚÓÈ, Hi8 Hi8, ÎÂÌÚÓÈ VHS VHS, SVHS S-VHS , VHSC VHSC, SVHSC S-VHSC ËÏË ÎÂÌÚÓÈ B Betamax, ÍÓÚÓ °È ËÏÂÂÚ,ıÓ‰°,Ë‰ÂÓ/‡Û‰ËÓ.

èÓÒÎÂ ÔÓ‰ÒÓÂ‰ËÌÂÌËfl,Ë‰ÂÓÍ‡ÏÂ °Íäçå.
(1) èÂ Â‰,ËÌ¸ÚÂ ÔÂ ÂÍÎ˜‡ÚÂÎ¸ POWER , ÔÓÍÎÓÊÂÌËÂ PLAYER.
(2) ÇÒÚ‡¸ÚÂ ÌÁÁ‡ÔËÒ‡ÌÌÛ¸ ÎÂÌÚÛ (ËÎË ÎÂÌÚÛ, Ì‡ÍÓÚÓ Û¸ Ç°ıÓÚËÚÂ Ô ÓËÁ,ÂÒÚÈ Á‡ÔËÒ¸) , Á‡ÔËÒ°‚‡˜ËÈ äÇå. á‡ÚÂÏ ,ÒÚ‡¸,ÚÂ Ç‡¯Û Á‡ÔËÒ‡ÌÌÛ¸ ÎÂÌÚÛ , ,Ë‰ÂÓÍ‡ÏÂ Û.
(3) ÇÓÒÔ ÓËÁ,Ó‰ËÚÂÁ‡ÔËÒ‡ÌÌÛ ÎÂÌÚÛÌ‡ ,Ë‰ÂÓÍ‡ÏÂ Â, ÔÓÍ‡ ÌÂÓÚ˜ÂÚÂÌÂÒÚÓ, „‰Â Ç° ıÓÚËÚÂ Ì‡˜‡Ú¸ ÏÓÌÚ‡Ê. á‡ÚÂÏ Ì‡ÊËÚÂ II ‰Îfl ÛÒÚ‡ÌÓ,ÍË ,Ë‰ÂÓÍ‡ÏÂ °, ÂÊËÏ Ô‡ÛÁ°.
(4) ìÒÚ‡ÌÓ,ËÚÂ Á‡ÔËÒ°,‡¸˜ËÈ äÇå , ÂÊËÏ Ô‡ÛÁ°Á‡ÔËÒË.
(5) ç‡ÊÏËÚÂ II Ì‡ ,Ë‰ÂÓÍ‡ÏÂ Â, ‡ Á‡ÚÂÏ Ì‡ äÇå ‰Îfl Ì‡˜‡Î‡ ÏÓÌÚ‡Ê‡.



: Signal flow / ÔÂ Â‰‡˜‡ ÒË„Ì‡Î

To Edit More Scenes
Repeat steps 3 to 5.

To Stop Editing
Press ■ on the camcorder and VCR.

ÑÎfl ÏÓÌÚ‡Ê‡ ·ÓÎ¸¯Â„Ó ÍÓÎËÈ˜ÂÒÚ‚Ê‡ Ò ÊÂÚÓ,
èÓ,ÚÓ ËÚÂÔÛÌÍÚ Ò3ÔÓ5.

ÑÎfl ÓÒÚ‡ÌÓ,ÍË ÏÓÌÚ‡Ê‡
ç‡ÊËÏÂÚÂ ÍÌÓÔÍÛ ■ Ì‡ ,Ë‰ÂÓÍ‡ÏÂ Â Ë äÇå.

Additional Information

Changing the Lithium Battery in the Camcorder

ÑÓÔÓÎÌËÚÂÎ¸Ì‡fl ËÌÙÓ Ï‡ˆËfl

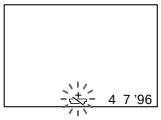
á‡ÏÂÌ‡ ÎËÚËÂ,ÓÈ ·‡Ú‡ ÂÈÍË , ,Ë‰ÂÓÍ‡ÏÂ Â

Your camcorder is supplied with a lithium battery installed. When the battery becomes weak or dead, the ⚠ indicator flashes in the viewfinder for about 5 seconds when you set the POWER switch to CAMERA. In this case, **replace the battery with a Sony CR2025 lithium battery. Use of any other battery may present a risk of fire or explosion.**

The lithium battery for the camcorder lasts for about 1 year under normal operation. (The lithium battery that comes installed at the factory may not last 1 year.)

Ç‡¯‡ ,Ë‰ÂÓÍ‡ÏÂ ‡ ÒÌ‡·ÊÂÌ‡ ÛÒÚ‡ÌÓ,ÎÂÌÌÓÈ ÎËÚËÂ,ÓÈ ·‡Ú‡ ÂÈÍÓÈ.ÖÒÎË ·‡Ú‡ ÂÈÍ‡ÒÚ‡ÌÂÚ ÒÎ‡·ÓÈ ËÎÎË ÔÓÎÌÓÒÚ¸ ‡Á fl˚ÂÌÌÓÈ, Ë‰ËÍ‡ÚÓ ⚠·Û‰ÂÚ„‡Ú¸ ,,Ë‰ÓËÒÌ‡ÚÂÎÂ, ÚÂ˜ÂÌËÂ 5 ÒÂÍÚÙ‰, ÍÓ„‰‡ Ç˚ÛÒÚ‡ÌÓ,ËÚÂ ,˚ÍÎ¸˜‡ÚÂÎ¸ POWER , ÔÓÎÎÓÊÂÌËÂ CAMERA. Ç Ú‡ÍÓÏ ÒÎÛ˜‡Â Á‡ÏÂÌËÚÂ ·‡Ú‡ ÂÈÍÛ Ì‡ ÎËÚËÂ,Û¸ ·‡Ú‡ ÂÈÍÛ Sony CR2025. àÒÔÓÎ¸ÁÓ,‡ÌËÂ‰ Û„ÓÈ ·‡Ú‡ ÂÈÍË ÏÓÊÂÚ Ô Ë,ÂÒÚËÍ Í ËÒÍÛ ,ÓÒÔÎ‡ÌÏÌÈfl ËÎÎË ,Á ˚,‡.

ãËÚËÂ,‡fl ·‡Ú‡ ÂÈÍ‡ ‰Îfl ,Ë‰ÂÓÍ‡ÏÂ ˚ ‡·ÓÚ‡ÂÚ Ô Ë·ÎËÁËÚÂÎ¸ÍÓ,ÚÂ˜ÂÌËÂ 1„Ó‰‡ Ô Ë ÌÓ Ï‡Î¸Ì˚ı ÛÒÎÓ,Ëfl ı ˝ÍÔÔÎÛ‡Ú‡˜ËË. (ãËÚËÂ,ÓÊ ·‡Ú‡ ÂÈÍË, ÍÓÚÓ ‡fl ·˚Î‡ ÛÒÚ‡ÌÓ,ÎÂÌ‡ Ì‡ Á‡,Ó‰Â, ÏÓÊÂÚ ÌÂ ı,‡ÚËÚ¸ Ì‡ 1„Ó‰.)

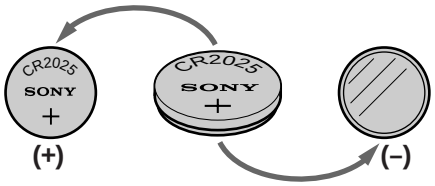


Notes on Lithium Battery

- **Keep the lithium battery out of the reach of children. Should the battery be swallowed, immediately consult a doctor.**
- Wipe the battery with a dry cloth to assure a good contact.
- Do not hold the battery with metallic tweezers, otherwise a short-circuit may occur.
- Note that the lithium battery has a positive (+) and a negative (–) terminals as illustrated. **Be sure to install the lithium battery so that terminals on the battery match the terminals on the camcorder.**

è ËÏÂ˜‡ÌËÂ ÔÓ ÎËÚËÂ,ÓÈ ·‡Ú‡ ÂÈÍÂ

- ï ‡ÌËÚÂ ÎËÚËÂ,Û¸ ·‡Ú‡ ÂÈÍÛ , ÏÂÒÚÂ, ÌÂ ‰ÓÒÚÛÔÎÓÏ‰Îfl ‰ÂÚÂÈ.ÇÒÎÛ˜‡Â Ô Ó„Î‡Ú°,‡ÌËfl ·‡Ú‡ ÂÈÍË ÌÂÏ‰ÂÌÌÓ Ó· ‡ÚËÚÂÒ¸ Í , ‡˜Û.
- è ÓÚ ËÚÂ·‡Ú‡ ÂÈÍÛ ÒÛı ÓÈ ÚÍ‡¸ ‰Îfl ÚÓ„Ó, ˜ÚÓ·° Ó·ÂÒÔÂ˜ËÚ¸ ıÓ Ó¯ËÈ ÍÓÏÚ‡ÍÚ.
- çÂ‰Â ÊËÚÂ ·‡Ú‡ ÂÈÍÛ Ò ÔÓËÓ˘¸, ÏÂÚ‡ÎÎË˜ÂÒÍÓ„Ó ÔËÌˆÂÚ‡, ËÌ‡˜Â ¸ÍÓÊÂÚ Ô ÓËÁÓÈÚËÍÓ ÓÚÍÓÂÁ‡Ì˚Í‡ÌËÊÂ.
- é· ‡ÚËÚÂ ,ÌËÏ‡ÌËÂ, ˜ÚÓ ÎËÚËÂ,‡fl ·‡Ú‡ ÂÈÍ‡ ËÏÂÂÚ ÔÓÎÓÊËÚÂÎ¸Ì˚È (+) Ë ÓÚ Ë˚‡ÚÂÎ¸Ì˚È (–) ÔÓÎ¸Ò˚, Í‡Í ÔÓÍ‡Á‡ÌÓ Ì‡ ÈÒÛÌÍÂ. çÂ Á‡·Û‰¸ÚÂ ÛÒÚ‡ÌÓ,ËÚ¸ ÎËÚËÂ,Û¸ ·‡Ú‡ ÂÈÍÛ Ú‡Í, ˜ÚÓ·° ÔÓÎ¸Ò˚ Ì‡ ·‡Ú‡ ÂÈÍÂ ÒÓÓÚ,ÂÚÒÚ,Ó,‡ÎË ÔÓÎ¸Ò˚ Ì‡ ,Ë‰ÂÓÍ‡ÏÂ.



WARNING

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

èêÖÑìèêÖÜÑÖçàÖ

ÖÒÎË Ò ·‡Ú‡ ÂÈÍÓÈ ÌÂÔ ‡,ËÎ¸ÌÓ Ó· ‡˜‡Ú¸Òfl, ÓÌ‡ÏÖÊÂÚ¸,ÁÓ ,‡Ú¸Òfl. çÂÔÂ ÂÁ‡ flÊ‡Ú¸, ÌÂ ‡Á·Ë ‡Ú¸ Ë ÌÂ · ÓÒ‡Ú¸ ·‡Ú‡ ÂÈÍÛ , Ó„Ò¸.

Changing the Lithium Battery

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

(1) Slide the cover and align the mark of the cover to that of the body. Press down the cover.

(2) Push the battery in once and pull it out from the holder.

(3) Install the lithium battery with the positive (+) side facing out.

(4) Align the mark of the cover to that of the body. Press the cover until it clicks and slide the cover.

á‡ÏÂÌ‡ ÎËÚËÂÂ‚ÓÈ ·‡Ú‡ ÂÈÍË

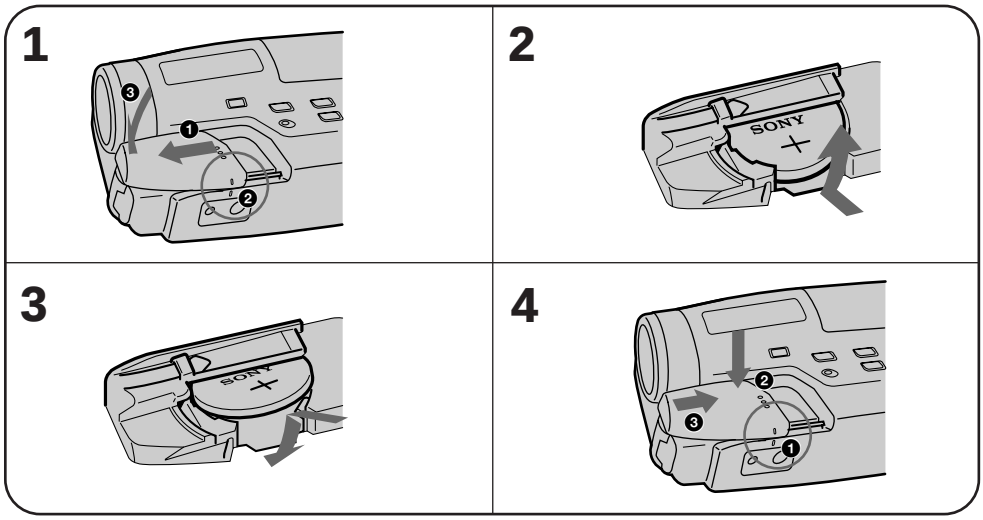
è ËÁ‡ÏÂÌÂÎËÚËÂÂ‚ÓÈ ·‡Ú‡ ÂÈÍË‰Â ÊËÚÂ ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ ËÎË‰ Û„ÓÈ ËÒÚÓÓ˜ÌËÍ ÔËÚ‡ÌËfl Ô ËÒÓÁ‰ËÌÂÌÌ°Ï. àÌ‡˜Â Ç‡Ï Ô Ë‰ÂÚÒfl ÔÂ ÂÛÒÚ‡Ì‡,ÎË‚‡Ú¸‰‡ÚÛË, ÂÏfl.

(1) ë‰‚ËÌ¸ÚÂ Í °¯ÍÛ Ë ÒÓ,ÏÂÒÚËÚÂ ÏÂÚÍÛ Í °¯ÍË Ò ÏÂÚÍÓÈ ÍÓ ÔÛÒ‡. ç‡Ê‡Ú¸ Í °¯ÍÛ ,ÌËÁ.

(2) ç‡ÊËËÚÂ ·‡Ú‡ ÂÈÍÛ Ó‰ËÌ ‡Á Ë ,°Ì¸ÚÂ ÂÂ ËÁ‰Â Ê‡ÚÂÎfl.

(3) ìÒÚ‡ÌÓ,ËÚÂ ÎËÚËÂÂ‚Û¸ ·‡Ú‡ ÂÈÍÛ ÔÓÍÓÊËÚÂÎ¸ÌÓÈ (+) ÒÚÓÓ ÓÌÓÈÌ‡ ÛÊÛ.

(4) ëÓ,ÏÂÒÚËÚÂ ÏÂÚÍÛ Í °¯ÍË Ò ÏÂÚÍÓÈ ÍÓ ÔÛÒ‡. ç‡ÊËËÚÂ Í °¯ÍÛ, ÔÓÍ‡ ÓÌ‡ ÌÂ Á‡˘ÃÎÍÌÂÚÒfl Ë Ò‰,ËÌ¸ÚÂ Í °¯ÍÛ.



Resetting the Date and Time

ìÒÚ‡ÌÓ¸Í‡ ‰‡Ú˚ Ë ¸ ÂÏÂÌË

Resetthedateandtimeusing theDATE(+)and TIME(NEXT)buttons.

(1) Slide the POWER switch to CAMERA.

(2) Turn STANDBY up.

(3) Press DATE(+) and TIME(NEXT) simultaneously until the year indicator flashes in the viewfinder.

(4) Set year, month, day, time, minute by pressing DATE(+) and TIME(NEXT). Note that when you keep DATE(+) pressed, the digits advance faster.

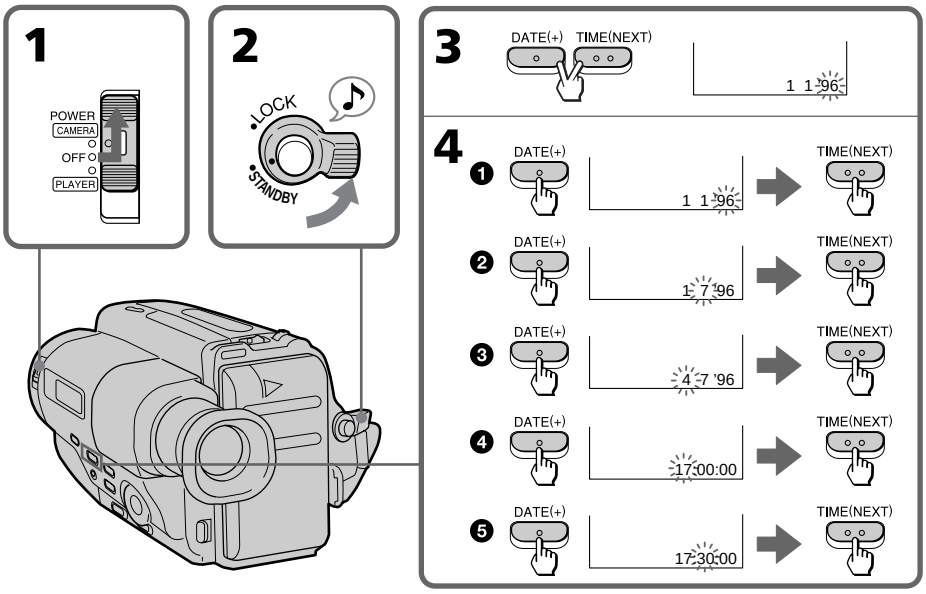
ìÒÚ‡ÌÓ,ËÚÂ ,ÌÓ,¸ ‰‡ÚÛ Ë ¸ ÂÏfl, ËÒÔÓÎ¸ÁÛfl ÎÌÓÔÍË DATE(+) Ë TIME(NEXT).

(1) èÂ Â‰,ËÌ¸ÚÂ ÔÂ ÂÍÎ˛˜‡ÚÂÍ¸ POWER , ÔÓÍÎÓÊÂÌËÂ CAMERA.

(2) èÓ,Â ÌËÚÂ STANDBY „Â ı.

(3) é‰ÌÓ, ÂÏÂÌÌÓ ì‡ÊËÏ‡ÈÚÂ DATE(+) TIME(NEXT) ‰ÓÚÂı ÔÓ ,ÔÓÍ‡Ëì‰ËÍ‡ÚÓ „Ó‰‡ ÌÂ·Û‰ÂÚ ÏË„‚¸ ,,Ë‰ÓËÒÌ‡ÚÂÎÂ.

(4) ìÒÚ‡ÌÓ,ËÚÂ „Ó‰, ÏÂÒfl˜, ‰ÂÌ¸, ˜‡Ò° ÏËÌÛÚ° ÔÛÚÂÏ Ì‡Ê‡ÚËfl DATE(+) Ë TIME(NEXT). é· ‡ÚËÚÂ ,ÌËÏ‡ÌËÂ, ˜ÚÓ ÂÒÎÈ Ç°‰Â ÊËÚÂ ÎÌÓÔÍÛ DATE(+) Ì‡Ê‡ÚÓÈ, ÚÓ ˆËÙ ° ,ÓÁ ‡ÒÚ‡¸Ú ·°ÒÚ ÂÀ.



To Correct the Date and Time Setting

Repeat steps 3 and 4.

To Check the Date and Time

Press DATE(+) to display the date indicator in the viewfinder. Press TIME(NEXT) to display the time indicator. When you press the same button again, the indicator goes out.

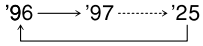
ÑÎfl ÍÓ ÂÍÚË Ó‚ÍË ÛÒÚ‡ÌÓ‚ÍË ‰‡Ú° Ë ¸ ÂÏÂÌË

èÓ‚ÚÓ ËÚÂ ÔÛÌÍÚ° Ò 3 ÔÓ 4.

ÑÎfl Ô Ó‚Â ÍË ‰‡Ú° Ë ¸ ÂÏÂÌË

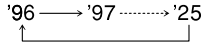
ç‡ÊËËÚÂ ÎÍÓÔÍÛ DATE(+) ‰ÎfI ÓÚÓ· ‡ÊÂÌËfl Ëì‰ËÍ‡ˆËË ‰‡Ú° ¸ ,Ë‰ÓËÒÌ‡ÚÂÎ. ç‡ÊËËÚÂ TIME(NEXT) ‰ÎfI ÓÚÓ· ‡ÊÂÌËfl Ëì‰ËÍ‡ˆËË ¸ ÂÏÂÌË. ÖÒÎË ÒÌÓ‚‡ Ì‡ÊËÂÚÂ ÚÛ ÊÂ ÍÎÓÔÍÛ, Ëì‰ËÍ‡ˆËfl ÔÓ„‡ÒÚÂ.

The year indicator changes as follows:



Note on the time indicator
The internal clock of the camcorder operates on a 24-hour cycle.

àÌ‰ËÍ‡ˆËfl „Ó‰‡ ËÁÏÂÌflÂÚÒfl ÒÎÂ‰Û¸ˇËÏ Ó· ‡ÁÓÏ:



ëËÁ‡ÌËÂ‰ÌÚÓÙÂÈ
ÇÒÚ ÓÂÌÌˆÂ ˆ‡ÒˆÂ ‚Ë‰ÂÓÍ‡ÏÂ ˚ ‡·ÓÚ‡¸Ú ‚ 24-ˆ‡ÒÓ‚ÓÏ ˆËÍÎÂ.

Playback Modes

êÂÊËÏ ,ÓÒÔÓ ÓËÁ‚Â‰ÂÌËfl

The playback mode is selected automatically according to the recording system (SP / LP mode) in which the tape was recorded.

Foreign 8 mm video
You cannot play back tapes recorded on a different TV colour system. Because the TV colour systems differ from country to country, you may not be able to play back foreign pre-recorded tapes. Refer to the list of "Using Your Camcorder Abroad" to check the TV colour system of foreign countries.

êÂÊËÏ ,ÓÒÔÓ ÓËÁ‚Â‰ÂÌËfl ,˚·Ë ‡ÂÚÒfl ‡ ,ÚÓÏ‡ÚÈ ÂÒÍÍËÒÓ,Î‡ÒÌÓÒËÙÚÂÏÂÁ‡ÔËÒË (ÂÊËÏ SP/LP), , ÍÓÚÓ ÓË ·˚Î‡ Á‡ÔËÒ‡Ì‡ ÎÂÌÚ‡.

àÌÓÒÚ ‡ÌÌ˚Â ,Ë‰ÂÓÍÎÂÌÚ˚ 8 ÏÏ Ç˚ ÌÂ ÒÏÓÊÂÚÂ ,ÓÒÔ ÓËÁ,Ó‰ËÚ¸ ÎÂÌÚ˚, Á‡ÔËÒ‡ÌÌ˚Â , ‡ÁÌ˚ı ÒËÒÚÂÏ‡ ˆ‚ÂÚÓ„Ó ÚÂÎÂ,Ë‰ÂÌËfl. èÓÒÍÓÎ¸ÍÛ ÒËÒÚÂÏ˚ ˆ‚ÂÚÓ„Ó ÚÂÎÂ,Ë‰ÂÌËfl ËÁÏÂÌfl¸ÚÒfl ,Á‡,ËÒËÏÓÒÚËÓÚ ‡Ì˚, Ç˚ ÏÓÊÂÚ ÌÂ ÒÏÓÊÂÚÂ ,ÓÒÔ ÓËÁ,Ó‰ËÚ¸ ËÌÓÚ ‡ÌÌ˚Â Ô Â‰‚‡ ËÚÂÎ ÌÓ Á‡ÔËÒ‡ÌÌ˚Â ÎÂÌÚ˚ ëÏÓÚ ËÚÂ ÒÔËÒÓÍ, ‡Á‰ÂÎÂ "àÒÔÓÎ¸ÁÓ‚‡ÌÈÊ Ç‡¯ÂÈ ‚Ë‰ÂÓÍ‡ÏÂ ˚ Á‡ Û·ÊÓÏ" ‰Îfl Ô Ó‚Â ÍË ÒËÒÚÂÏ˚ ˆ‚ÂÚÓ„Ó ÚÂÎÂ,Ë‰ÂÌËfl ËÌÓÚ ‡ÌÌ˚ı „ÓÒÛ‰‡ ÒÚ,.

Tips for Using the Battery Pack

ëÓ‚ÂÚ˚ ÔÓ ËÒÔÓÎ¸ÁÓ‚‡ÌË ·‡Ú‡ ÂÈÌ„Ó ·ÎÓ͇

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

Ç ‰‡ÌÌÓÏ ‡Á‰ÂÎ ÔÓÍ‡Á‡ÌÓ, Í‡Í Ç˚ ÏÓÊÂÚÂ ËÒÔÓÎ¸ÁÓ‚‡Ú¸ Ì‡ËÎÛ˜¯ËÏ Ó· ‡ÁÓÏ Ç‡¯ ·‡Ú‡ ÂÈÌ˚È ·ÎÓÍ.

Preparing the Battery Pack

èÓ‰„ÓÚÓ‚Í‡ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡

Always Carry Additional Batteries

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

ÇÒÂ„‰‡ÌÓÒËÚÂÒÒÓ·ÓÈ ‰ÓÔÓÎÌËÚÂÎ¸Ì˚Â ·ÎÓÍË àÏÂÈÚÂ‰ÓÒÙ‡ÚÓ˜ÌÓÂÍÓÎË¯ÂÒÚ¸ÓÁ‡ fl‰‡, ·‡Ú‡ ÂÈÌ˚ ·ÎÓÍ‡ı, ˜ÚÓ·˚ ËÏÂÎ¸ ‚ÓÁÏÓÊÌÓÒÚ¸ ,°ÔÓÍÌËÚ¸ Ò˙ÄÏÍÛ ÓÚ 2 ‰Ó 3 ‡Á.

Battery Life is Shorter in Cold Environment

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

ë ÓÍ ÒÎÛÊ·° ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ fl‚ÎflÂÚÒfl ·ÓÎÂÂ ÍÓ ÓÚÍËÏ , ıÓÎÓ‰ì° ÛÒÎÓ‚ËflÍ.

To Save Battery Power

Turn STANDBY down when not recording to save battery power.

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

ÙÙÙÂÍÚË‚ÌÓÒÚ¸ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ ÒÌËÊ‡ÂÚÒflËÁ‡ fl‰·Û‰ÂÚËÁ ‡ÒıÓ‰Ó‚Ó‚Ì ·°ÒÚ ÂÂ‚ÂÒÎË Ç˚ Ô ÓËÁ‚Ó‰ËÚÂÁ‡ÔËÒ¸, ıÓÎÓ‰ì° ÛÒÎÓ‚ËflÍ.

When to Replace the Battery

ÑÎfl ÒÓı ‡ÌÂÌËfl Á‡ fl‰‡ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡

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

äÓ„‰‡Á‡ÔËÒ¸ ÌÂÔ ÓËÁ‚Ó‰ËÚÒfl‚ÔÓ‚Â ÌËÚÂ ÔÂ ÂÍÎ˜‡ÚÂÎ¸ STANDBY ,ÌËÁ ‰Îfl ÒÓı ‡ÌÂÌËflÁ‡ fl‰‡·‡Ú‡ ÂÈÌÓ„Ó·ÎÓÍ‡. åÂÊ‰Û ÒˆÂÌ‡ÏË ÏÓÊÂÚ ·°Ú¸ Ò‰ÂÎ‡Ì ÔÎ‡,Ì°È ÔÂ ÂıÓ‰,‰‡ÊÂ,ÂÒÎËÁ‡ÔËÒ¸ÒÚÙ‡ÌÓ‚‡Ì‡Ë Ì‡˜‡Ú‡ ÓÔflÚ¸. ÇÓ , ÂÎfl ÔÓÁÂ˜ËÓÏË Ó,‡ÌËfl Ó·˙ÂÍÚ‡, ,°·Ó ‡ Ù„Î‡ ËÎËÊ Ô ÓÒÏÓÚ ‡˜Â ÂÁ Ó·˙ÂÍÚË, ,Ë‰ÓËÒÌ‡ÚÂÎfl, Ó·˙ÂÍÚË, ÔÂ Â‰,Ë„‡ÂÒÌfl‡,ÚÓÏ‡ÚË˜ÂÒÍËË·‡Ú‡ ÂÈÌ°È ·ÎÓÍ ËÒÔÓÎ¸ÁÛÂÚÒfl. Å‡Ú‡ ÂÈÌ°È ·ÎÓÍ Ú‡ÍÊÂ ËÒÔÓÎ¸ÁÛÂÚÒfl,ÍÓ„‰‡,ÒÚ‡,ÎflÂÚÒfl ,°ÌËÏ‡ÂÙÒfl Í‡ÒÒÂÚ‡.

äÓ„‰‡ ÒÎÂ‰ÛÂÚ Á‡ÏÂÌflÚ¸ ·‡Ú‡ Â¸

ÇÓ , ÂÏfl ËÒÔÓÎ¸ÁÓ‚‡ÌËfl Ç‡¯ÂÈ ,Ë‰ÂÓÍ‡ÏÊ ° , ÂÊËÏÂ CAMERA Ël‰ËÍ‡ÚÓ ÓÒÚ‡¸¯Â„ÓflÁ‡ fl‰‡·‡Ú‡ ÂËÔÓÒÙÚÂÔÂÌÌÓ ÛÏÂÌ¸¯‡ÂÚÒfl ÔÓÏÂ Â ‡ÒıÓ‰Ó,‡ÌËflÁ‡ fl‰‡.

When the remaining battery indicator reaches the lowest point, the ⇦ indicator appears and starts flashing in the viewfinder.
When the ⇦ indicator in the viewfinder disappears and the battery lamp flashes rapidly, turn the POWER switch to OFF on the camcorder and replace the battery pack. Leave the tape in the camcorder to obtain smooth transition between scenes after the battery pack has been replaced.

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

Notes on the Rechargeable Battery Pack

Caution
Never leave the battery pack in temperatures above 60°C (140°F), such as in a car parked in the sun or under direct sunlight.

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

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

ÖÒÎËËÌ‰ËÍ‡ÚÓ ÓÒÚ‡¸¯Â„ÓÒfl Á‡ fl‰‡·‡Ú‡ ÂË ‰ÓÒÚÚËÈ„‡ÂÚÌËÁ¯ÂÈÚÓ˜ÍË, ,,Ë‰ÓËÒÌ‡ÚÁÎÂÔÓfl,ÎflÂÚÒfl Ë Ì‡˜ËÌ‡ÂÚ ÏË„‡Ú¸ ËÌ‰ËÍ‡ÚÓ ⇦. ÖÒÎËËÌ‰ËÍ‡ÚÓ ⇦ËÒ˜ÂÁÌÂÚËÁ,Ë‰ÓËÒÌ‡ÚÁÎÎfl Ë Î‡ÏÔÓ˜Í‡ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ ·Û‰ÂÚ ·°ÒÚ Ó ÏË„‡Ú¸, ÔÓ,Â ÌËÚÁ ,°ÍÎ˛˜‡ÚÂÎ¸ POWER , ÔÓÎÓÉÂÌËÂ OFF Ì‡ ,Ë‰ÂÓÍ‡ÏÂ Â Ë Á‡ÏÂÌËÚÁ ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ. éÒÚ‡¸,¸ÚÁ ÎÂÌÚÛ , ,Ë‰ÂÓÍ‡ÏÂ Â ‰Îfl ÔÓÎÛ˜ÂÌËfl ÔÎ‡,ÌÓ„Ó ÔÂ ÂıÓ‰‡ ÏÂÊ‰Û ÒˆÂÌ‡ÏË ÔÓÒÒÎÂ Á‡ÏÂÌ° ·‡Ú‡ ÂË.

è ËÏÂ˜‡ÌËÂ ÓÚÌÓÒËÚÂÎ¸ÌÓ ËÌ‰ËÍ‡ÚÓ ‡ ÓÒÒÚ‡¸¯Â„ÓÒfl Á‡ fl‰‡·‡Ú‡ ÂË àÌ‰ËÍ‡ÚÓ ÓÒÚ‡¸¯Â„ÓÒfl Á‡ fl‰‡·‡Ú‡ ÂË ,Ë‰ÂÓÍ‡ÏÂ ° ÏÓÊÂÚ ÔÓÍ‡Á°,‡Ú¸ ÓÒÚ‡¸¯Û¸Òfl ÂÏÍÓÒÚ¸ Á‡ fl‰‡, ÌÂÒÍÓÎ¸ÍÓ ÓÚÎÊ˜‡¸˜Û¸Òfl ÓÚ ÚÓÈ, ˜ÚÓ ÔÓÍ‡Á°,‡ÂÚ ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ Ò ËÌ‰ËÍ‡ÚÓ ÓÏ ÓÒÚ‡¸¯Â„ÓÒfl Á‡ fl‰‡·‡Ú‡ ÂË (ÌÂÔ ËÎ‡„‡ÂÚÒfl). àÌ‰ËÍ‡ÚÓ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ fl,ÎflÂÚÒfl ·ÓÍÂÂ ÚÓ˜Ì°Ï.

è ËÏÂ˜‡ÌËfl ÓÚÌÓÒËÚÂÎ¸ÌÓ ÔÂ ÂÁ‡ flÊ‡ÂÏÓ„Ó ·‡Ú‡ ÅÈÌÓ„Ó ·ÎÓÍ‡

è Â‰ÓÒÚÂ ÂÊÂÌËÂ
çËÍÓ„‰‡ ÌÂ ÓÒÚ‡,ÎflÈÚÂ ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ Ô Ë ÚÂÏÔÂ ‡ÚÛ ÂÓÍÓÏÓ 60°C (140°F), Í‡Í Ì‡Ô ËÏÂ , ‡,ÚÓÏÓ·ËÏÂ, Ô ËÔ‡ ÍÓ,‡ÌÌÓÏ Ì‡ ÒÓÍÎˆÂ ÊÎË ÔÓ‰ Ô fllÏ°ÏË ÒÓÍÎÂ˜Ì°ÏË ÎÛ˜‡ÏË.

Å‡Ú‡ ÂÈÌ°È ·ÎÓÍ Ì‡„ Â,‡ÂÚÒfl
ÇÓ¸ ÂÎfl Á‡ fl‰ÍË ËÎÏË Á‡ÔËÒÈ ·‡Ú‡ ÂÈÌ°È ·ÎÓÍÌ‡„ Â,‡ÂÚÒfl. ùÚÓ Ô ÓËÒıÓ‰ËÚ ,ÒÎÂ‰ÒÚ,ËÂ„ÂÌÂ Ë ÛÂÌÓÈ˜ÎÂ „ËË ËıËÏ˜ÂÒÍËı ËÁÏÂÌÂÌËÈ, ÍÓÚÓ ˚Â Ô ÓËÒıÓ‰flÚ ,ÌÛÚ Ë ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡. ùÚÓ ÌÂ fl,ÎflÂÚÒfl Ô Ë˜ËÌÓÈ‰Îfl·ÂÒÔÓÍÈÒÚ,‡.

ìıÓ‰ Á‡ ·‡Ú‡ ÂÂÈÌ°Ï ·ÎÓÍÓÏ
- ëÌËÏËÚÂ ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ Ò ,Ë‰ÂÓÍ‡ÏÂ ° ÔÓÒÒÎÂ ÔÓÍ¸ÁÓ,‡ÌËfl Ë ı ‡ÌËÚÂ Â„Ó¸, Ô Óıî‡‰ÌÓÏ¸ ÏÂÒÚÂ. ÖÒÎËÈ ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ Ô ËÒÓÂ‰ËÌÂÌ Í ,Ë‰ÂÓÍ‡ÏÂ Â, ÌÂ·ÓÎ¸¯ÓÂ ÍÓÎËˆ˜ÂÒÚ,Ó˝ÎÂÍÚ Ë˜ÂÒÍÓ„Ó ÚÓÍ‡ ·Û‰ÂÚ ÔÓÒÚÚÛÔ‡Ú¸Ì‡,Ë‰ÂÓÍ‡ÏÂ Û¸‰‡ÊÂ,ÂÒÍËË ,°ÍÎ˛˜‡ÚÂÎ¸ POWER ÛÒÚ‡ÌÓ¸ÎÂÌ , ÔÓÎÓÉÂÌËÂ OFF. ùÚÓ ÒÓÍ ‡˜‡ÂÚÒ ÓÍ ÒÎÛÊ·° ·‡Ú‡ ÂË.
- Å‡Ú‡ ÂÈÌ°È ·ÎÓÍ¸ÒÂ„‰‡ ‡Á flÊ‡ÂÚÒfl, ‰‡ÊÂ,ÂÒÎËÓÌÌÂËÒÒÎ¸ÁÛÂÚÒfl ÔÓÓÒÎÂ Á‡ fl‰ÍË. èÓ˝ÚÓÏÛÇ‡ÏÒÎÂ‰ÛÂÚ‡ fl‰ËÚ¸ ·‡Ú‡ ÂÈÌ°È ·ÎÓÍÌÂÔÓÒ Â‰ÒÙ,ÂÌÌÓÔÂ Â‰ ËÒÔÓÎ¸ÁÓ,‡ÌËÃÏ ,Ë‰ÂÓÍ‡ÏÂ °.

Tips for Using the Battery Pack

ëÓ¸ÂÚ° ÔÓ ËÒÔÓÎ¸ÁÓ¸‡ÌË¸ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡

How to Use the Switch on the Battery Pack

When the switch is supplied with the battery pack(**[a]** on p.43) you can use it to find whether the battery pack is charged or not. Set the switch to the "no mark" position when charging is completed. Set the switch to the "red mark" position when the battery is used up (or in whichever direction you want to remind yourself).

ä‡Í ËÒÔÓÎ¸ÁÓ¸‡Ú¸ ÔÂ ÂÍÎ˛˜‡ÚÂÎ¸ Ì‡ ·‡Ú‡ ÂÈÌÓÏ ·ÎÓÍ‡

ÖÒÌË ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ ÓÒÌ‡˜Âì ÔÂ ÂÍÎ˛˜‡ÚÂÎÂÏ (**[a]** Ì‡ ÒÚ. 43), ÚÓ Ç° ÎÓÊÂÚÂ ËÒÔÓÎ¸ÁÓ¸‡Ú¸ Â„Ó‰ÎflÓÔ Â‰ÂÎËfl¸ Á‡ flÊÂÌ ÎË ·‡Ú‡ ÂÈÌ°Ë ·ÎÓÍ ÉÎË ÌÂÚ. ÌÒÚ‡ÎÓ¸ËÚÂ ÔÂ ÂÍÎ˛˜‡ÚÂÎ¸ , ÔÓÁÊˆË “·ÁÁ ÏÂÚÍË, ÂÒÎË ·‡Ú‡ ÃÈÌ°È ·ÎÓÍ ÔÓÎÎÓÒÚ¸‘ Á‡ flÊÂÌ. ÌÒÚ‡ÌÓ¸ËÚÂ ÔÂ ÂÍÎ˛˜‡ÚÂÎ¸ , ÔÓÁÊˆË “Í ‡ÒÌÓÊÏÃÚÍË”, ÂÒÎË Á‡ fl‰·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ ËÁ ‡Ò¡Ó‰Ó„‡Ì (ËÎÎË ÊÂ¸ Í‡ÍÓÂ-ÎË·Ó‰ Ú„ÓÂ ÔÓÎÓÊÂÌËÂ‰ÎflÌ‡ÔÓËÌ‡ÌËfl).

The Life of the Battery Pack

If the battery lamp 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.

ë ÓÍ ÒÎÛÊ·° ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ ÒÒÎË Î‡ÏÔÓ˜Í‡ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ ·°ÒÚ Ó ÏË„‡ÂÚ Ò ‡ÁÚ ÔÓÒÌÎÓÒÚ¸ ÍÎ˜ÂÌËfl ¸Ë‰‰ÂÓÍ‡ÏÂ ° Ò ÔÓÎÌÓÒÚ¸ Á‡ flÊÂÌÌ°Ì ·‡Ú‡ ÂÈÌ°Ì ·ÎÓÍÓÏ¸ ÚÓ ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ ÒÎÂ‰ÛÂÚ Á‡ÏÂ-ÌËÚ¸ Ì‡ ÌÓ‚°È, ÔÓÎÌÓÒÚ¸ Á‡ flÊÂÌÌ°È.

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.

íÂÏÔÂ ‡ÚÛ ‡Á‡ fl‰ÍË

Ç‡Ï ÒÎÂ‰ÛÂÚ Á‡ flÊ‡Ú¸ ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ Ô Ë ÚÂÏÔ ‡ÚÛ ÂÚÓ10°ë‰Ó30°ë(ÓÚ50°F‰Ó 86°F). è Ë ·ÓÎÂÂ ÌËÁÍÓÈ ÚÂÏÔ ‡ÚÛ Â Ú Â·ÛÂÚÒfl ·ÓÎÂÂ‰ÎËÚÂÌ¸ÌÓÂ, ÂÏfl Á‡ fl‰ÍË.

Notes on Charging

è ËÏÂ˜‡ÌËÂ ÔÓ Á‡ fl‰ÍÂ

A Brand-new Battery

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

çÓ¸°È ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ ÌÂ Á‡ flÊÂÌ. èÂ Â‰ ËÔÔÓÎ¸ÁÓ¸‡ÌËÂÏ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ ÔÓÎÌÓÒÚ¸‘ Á‡ fl‰ËÚÂÂ„Ó.

Before Recharging a Used Battery Pack

- Make sure to use up the battery before recharging.
- If recording is completed before the ☇ indicator appears in the viewfinder, you should remove the tape, turn the POWER switch to CAMERA, turn STANDBY up, and leave the camcorder until the ☇ indicator flashes rapidly.
- **Charging the usable battery causes a lowering of battery capacity. Battery capacity can be recovered if you fully discharge and charge the battery again.**

èÂ Â‰ÔÂ ÂÁ‡ fl‰ÍÓÈ

ËÒÔÓÎ¸ÁÓ¸‡ÌÌÓ„Ó ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡

- ì·Â‰ËÚÂÒ¸ÔÂ Â‰ÔÂ ÂÁ‡ fl‰ÍÓÈ¸˜ÚÓÁ‡ fl‰ ·‡Ú‡ ÃÈÌÓ„Ó ·ÎÓÍ‡ ËÁ ‡Ò¡Ó‰Ó„‡Ì.
- ÖÒÌË Á‡ÔËÒ¸ Á‡¸Â ¯ÂÌ‡ ‰Ó ÚÓ„Ó, Í‡Í ,Ë‰ÓËÒÍ‡ÚÂÎÂÔÓÍ‡ÊÂÚÒfl Ë‰ËÊ‡ÚÓ ☇, Ç‡Ï ÓÍÂ‰ÛÂÚ¸°ÌÙÚ¸ Í‡ÒÒÂÚÚ¸ ÔÓ¸Â ÌÙÚ¸ ,°ÍÎ˛˜‡ÚÂÎ¸ POWER , ÔÓÍÎÓÊÂÌËÂ CAMERA, ÔÓ¸Â ÌÙÚ¸ ,°ÍÎ˛˜‡ÚÂÎ¸ STANDBY „Â ı Ë ÓÒÚ‡,ËÚ¸ ,Ë‰ÂÓÍ‡ÏÂ Û, ÔÓÍ‡ ÌÂÒÚ‡ÌÂÚ·°ÒÚ ÓÏË„‡Ú¸ Ëì‰ËÊ‡ÚÓ ☇.
- á‡ fl‰Í‡ Â˜ÂÔ Ë„Ó‰ÌÓ„Ó·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ Ô Ë¸Ó‰ËÚ Í ÒÌËÊÂÌË ÂÏÍÒÒÚË ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡. ÒÏÍÓÒÚ¸ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ ÏÓÊÂÁÚ ¸°Ú¸ ,ÓÒÒÚ‡ÌÓ,ÎÂì‡, ÂÒÎË Ç° ÔÓÎÌÓÒÚ¸‘ ‡Á fl‰ËÚÂÂ,ÌÓ¸ Á‡ fl‰ËÚÂÂ„Ó.

After Long Storage

Recharge the battery pack after a long period of storage. If the battery pack is charged fully but not used for a long time (about 1 year), it becomes discharged. Charge it again, but in this case the battery life will be shorter than normal. After several charging and discharging cycles, the battery life will recover its original capacity.

èÓÒÎÂ %ÎËÚÂÎ¸ÌÓ„Ó ı ‡ÌÂÌËfl

èÂ ÂÁ‡ fl‰ËÚÂ·‡Ú‡ ÂÈÌ°È·ÎÓÍ ÔÓÒÌÂ ‰ÎËÚÂÎ¸ÌÓ„Ó ÔÂ ËÓ‰‡ı ‡ÌÂÌËfl. ÖÒÌË ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ ·°Î ÔÓÍÎÌÓÒÚ¸ Á‡ flÊÂÌ, ÌÓ ÌÂ ËÒÔÓÎ¸ÁÓ¸‡ÌÒfl ‰ÎËÚÂÎ¸ÎÔÂ , ÂÏfl (ÓÍÓÍÓ1„Ó‰‡),ÓÌ ‡Á fl‰ËÚÒfl.á‡ fl‰ËÚÂÂ„Ó ÒÌÓ‚‡ Ó‰Ì‡ÍÓ , ´ÚÓÏ ÒÎÛ˜‡Â Ò ÓÍ ÒÎÛÊ·° ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ ·Ù‰ÂÚ ÍÓ Ó˜Â, ˜ÂÏ Ó·°˜ÌÓ. èÒÒÎÂ ÌÂÒÍÓÎ¸ÍËı ˆËÍÓ, Á‡ fl‰ÍË Ë ‡Á fl‰ÍË, Ò ÓÍ ÒÎÛÊ·° ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ ,ÓÒÒÚ‡ÌÓ,ËÚÒfl,ÒÓÓÚ,ÂÚÒÚ,ËËÒÒÒ,ÓÂÈ ÔÂ ,ÓÌ‡˜‡Î¸ÌÓË ÃÏÍÓÒÚ¸.

Notes on the Terminals

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

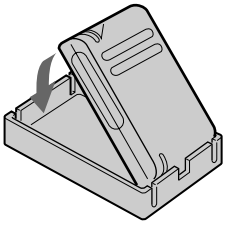
When the terminals are not clean or when the battery pack has not been used for a long time, repeatedly install and remove the battery pack a few times. This improves the contact condition. Also, wipe the + and – terminals with a soft cloth or paper.

Be Sure to Observe the Following

- **To prevent an accident caused by a short circuit, do not allow metal objects such as a necklace to touch the battery terminals. Carry the battery pack attaching to the terminal cover. [b]**
- 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.

[a]

[b]



Notes on the Battery Case

- **Use only with alkaline batteries. You cannot use the battery case with manganese batteries or R6 (size AA) rechargeable NiCd batteries.**
- **Using with Sony alkaline batteries is preferable.**
- Battery life is remarkably shorter in a cold environment (lower than 10 °C / 50 °F).
- Keep the metal part clean. If it gets dirty, wipe it with a soft cloth.
- Do not disassemble or convert the battery case.
- Do not expose the battery case to any mechanical shock.
- During recording, the battery case heats up. This is not cause for concern.
- Prevent the electrode in the battery case from coming in contact with a metal object.
- If you will not use the battery case for a long time, detach the battery case from the camcorder and remove the batteries from the battery case.

CCD-TR401E / TR402E3-858-958-11(1).E,R

Notes on Alkaline Batteries

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

- Be sure to insert the batteries in the correct direction.
- Alkaline 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.

è ËÏÂ˜‡ÌËfl ÓÚÌÓÒËÚÂÎ¸ÌÓ ˇÂÎÓ˜Ì°ı ·‡Ú‡ ÂÂÍ

ÇÓ ËÁ·ÂÊ‡ÌËÂ ,ÓÁÏÓÊÌÓ„Ó ÔÓ, ÂÊ‰ÂÌËfl ,ÒÎÂ‰ÒÙ,ËÂÛÚÂ˜ÍË ËÁ·‡Ú‡ ÂÂÍËÎËÍÓ ÓÁËË, ÒÓ·Î¸‰‡ÈÚÂ ÒÎÂ‰Û¸ˇÂÂ.

- é·flÁ‡ÚÂÎ¸ÌÓ ,ÒÚ‡¸ÚÂ ·‡Ú‡ ÂÈÍË , Ô ‡,ËÎ¸ÌÓÏ Ì‡Ô ‡,ÎÂÌËË.
- ôÂÎÓ˜Ì°Â ·‡Ú‡ ÂÈÍË ÌÂ fl,Îfl¸ÚÒfl ÔÂ ÂÁ‡ flÊ‡ÃÏ°ÏË.
- çÂ ËÒÔÓÎ¸ÁÛÈÚÂ ÍÓÏ·ËÌ‡ˆË¸ ËÁ ÌÓ,°ı Ë ÔÚ‡ °ı ·‡Ú‡ ÂÂÍ.
- çÂ ËÒÔÓÎ¸ÁÛÈÚÂ ‡ÁÎË˜Ì°Â ÚËÔ° ·‡Ú‡ ÂÂÍ.
- Å‡Ú‡ ÂÈÍËÊ ÒÎÂ„Í‡ ‡Á flÊ‡¸ÚÒfl, ÍÓ„‰‡ÓÌË ÌÂ ËÒÔÓÎ¸ÁÛ¸ÚÒfl.
- çÂ ËÒÔÓÎ¸ÁÛÈÚÂ ·Ú‡ ÂÈÍÛ, ÍÓÚÓ ‡fl ÔÓÚÂÍ‡ÂÚ.

ÖÒÎË ÒÎÛ˜ËÚÒfl ÛÚÂ˜Í‡ ËÁ ·Ú‡ ÂÂÍ

- Í˜‡ÚÂÎ¸ÌÓ ¸°Ú ËÚÂ ÊË‰ÍÓÒÚ¸ , ·Ú‡ ÂÈÌÓÈÍ‡ïÂ ÂÔÂ Â‰Á‡ÏÂÌÔÈ ·Ú‡ ÂÂÍ.
- ÖÒÎËÇ°Ú Ó„‡ÎËÊ‰ÍÓÒÚ¸, ÚÓÒÏÓÈÚÂÂÂ ,Ó‰ÓËÊ.
- ÖÒÎËÊ‰ÍÓÒÚ¸ ÔÓÔ‡Î‡, Ç‡¯Ë„Î‡Á‡, ÚÓ Ô ÓÏÓÈÚÂ Ç‡¯Ê „Î‡Á‡ ·ÓÎ¸¯ËÏ ÍÓÎË˜ÂÒÚ,ÓÏ ,Ó‰°, ‡ Á‡ÚÂÏ Ó· ‡ÚËÚÂÒ¸ Í , ‡˜Û.

Moisture Condensation

äÓÌ‰ÂÌÒ‡ˆËfl ,Î‡„Ë

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 unit may not operate correctly. To prevent possible damage under these circumstances, the camcorder is furnished with moisture sensors. Please, take the following precautions.

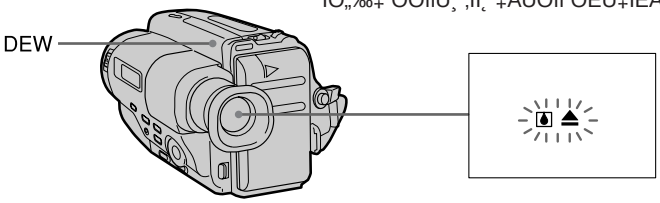
ÖÒÎË ,Ë‰ÂÓÍ‡Ï‡Â ‡ ,ÎÂÒÂÌ‡ ÌÂÔÓÒ Â‰ÒÚ,ÂÌÌÓ ËÁ ıÓÍÓ‰ıÓ„Ó ÏÎÂÒÚ‡ ,ÚÂÔÎÓÂ, ,ıÛÚ Ë ,Ë‰ÂÓÍ‡Ï‡Â ° ÏÓÊÂÙ ÍÓÌ‰ÂÌÒË Ó‚‡Ú,Òfl ,Î‡„‡, ‡ Ú‡ÍÊÂ Ì‡ ÔÓ‚Â ıÓÒÚÚË ÎÂÌÙ° ËÎË Ì‡ Ó·˙ÂÍÚË„Â. ÖÒÎË ˝ÚÓ Ô ÓËÁÓ¯ÍÓ, ÎÂÌÚ‡ ÏÓÊÂÙ Ô ËÎÊÔÌÙÚ¸ Í ·‡ ‡·‡ÌÙ „ÓÍÓ,ÍË Ë ·Û‰ÂÚÔÓ, ÂÊ‰ÂÌ‡ ËÎÎË ÊÂ,Ë‰ÂÓÍ‡Ï‡Â ‡ ÏÓÊÂÙ ‡·ÓÚ‡Ú¸ ÌÂÔ ‡,ËÎ,ÌÓ. ÑÎfl Ô Â‰ÓÚ, ‡˘ÂÌËfl,ÓÁÏÓÊÌÓ„Ó,Ô ÓÓ, ÂÊ‰ÂÌËfl „Ë‰Û Ú‡ÍÊı Ó·ÒÙÓflÚÂÎ¸ÒÚ, , ,Ë‰ÂÓÍ‡Ï‡Â Û ,ÒÚ ÓÂÌ° ‰‡Ú˝ËÍË ,Î‡„Ë. èÓÊ‡ÎÙÈÒÚ‡, ¸ÔÓÍÎflÈÚÂÒÌÂ‰Û˜ÊÂÔ Â‰ÓÒÚÓ ÓÊÌÓÒÚË.

Inside the Camcorder

If there is moisture inside the camcorder, the beep sounds and the DEW lamp or 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 the ⏏ 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. The comcorder can be used again if the indicator does not appear when the power is turned on again.

ÇÌÛÚ Ë ,Ë‰ÂÓÍ‡Ï‡Â °

ÖÒÎË ,ÎÛÚ Ë ,Ë‰ÂÓÍ‡Ï‡Â °Ô ÓËÁÓÈ‰ÂÚ ÍÓÌ‰ÂÌÒ‡˘Êfl ,Î‡„Ë, ÚÓ Á,Û˜ËÚ ÁÛÏÎÂ Ì° È ÒË„Ì‡Î Ë Î‡ÏÔÓ˜Í‡ DEW ËÎË Ëì‰ËÍ‡ÚÓ ·Û‰ÂÚ ÏË„‡Ú¸. ÒÒÔÎË ˝ÚÓ ÒÎÛ˜ËÚÒfl, ÚÓ ÌËÍ‡Í‡flÙÛÌÌ ˆËfl, Í ÓÎÂ ,°Ú‡ÎÍË,‡ÌËfl Í‡ÒÒÂÚ°, ‡·ÓÚ‡Ú¸ ÌÂ·Û‰ÂÚ.éÚÍ ÓÈÚÂÓÚÒÒÂÍÍ‡ÒÒÂÚ°, ,°ÍÎ˜ËÚÂ ,Ë‰ÂÓÍ‡Ï‡Â Û Ë ÓÒÙ‡¸ ÚÂ ÂÂ Ô Ë·ÎËÆËÚÂÎ ÌÓÌ‡1˜‡Ò. äÓ„‰‡ ËÌ‰ËÍ‡ÚÓ ⏏ ÏË„‡ÂÚ ÚÓ ÊÂ Ò‡ÏÓÂ ÂÎfl, Í‡ÒÒÂÚ‡ ,ÒÙ‡,ÎÂÌ‡ , ,Ë‰ÂÓÍ‡Ï‡Â Û. Ç°ÚÓÍÎÎÌËÚÂ Í‡ÒÒÂÚÛ¸ ,°ÍÎ ˜ËÚÂ ,Ë‰ÂÓÍ‡Ï‡Â Û Ë ÓÒÙ‡¸ ÚÂ Í‡ÒÒÂÚÛÙ Ú‡ÍÊÂ Ô Ë·ÎËÆËÚÂÎ ÌÓÌ‡1˜‡Ò. ÇË‰ÂÓÍ‡Ï‡Â ‡ ÏÓÊÂÚ ·°Ú¸ ÒÌÓ‚‡ ËÒÔÓÍÎ¸ÁÓÈÚÂ ,Ë‰ÂÓÍ‡Ï‡Â Û , ÚÂ˜ÂÌËÂ 1˜‡Ò‡.



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.

ç‡ Ó·˙ÂÍÚË,Â

ÖÒÎË ,Î‡„‡ ÒÍÓÌ‰ÂÌÒË ÛÂÚÒfl Ì‡ Ó·˙ÂÍÚË,Â, ÚÓ ÌËÍ‡ÍÓÈ ËÌ‰ËÍ‡ÚÓ ÔÓfl,ÎflÚ¸Òfl ÌÂ·Û‰ÂÚ, ÌÓ ËÁÓ· ‡ÊÂÌËÂ ÒÚ‡ÌÓ,ËÚÓfl ¸ÚÛÒÍÎ°Ï. éÚÍÎ˜ËÚÂ ÔËÚ‡ÌËÂ È ÌÂ ËÒÔÓÎ¸ÁÛÈÚÂ ,Ë‰ÂÓÍ‡Ï‡Â Û , ÚÂ˜ÂÌËÂ 1˜‡Ò‡.

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).

ä‡Í Ô Â‰ÓÚ, ‡ÚËÚ¸ ÍÓÌ‰ÂÌÒ‡ˆË„ Ë ,ÎÂÒÂÌËË ,Ë‰ÂÓÍ‡Ï‡Â ° Ò ıÓÍÓ‰ıÓ„Ó ÏÂÒÚ‡ ,ÚÂÔÎÓÂ ÔÓÍÎÓÊÊÚÂ ,Ë‰ÂÓÍ‡Ï‡Â Û, ÔÓÍÎË˝ÚËÎÂÌÓ,°È Ô‡ÍÂÚ Ë ‰‡ÈÚÂ ÂÈ ,ÓÁÏÓÊÌÓÒÚ¸ ‡‰‡ÔÚËÈ Ó,‡Ú,Òfl Í ÍÓÎÎ‡ÚÌ°Ï ÛÒÎÓ,ËflÏ,ÚÂ˜ÂÌËÂ ÓÔ Â‰ÂÎÂÌÒ„Ó ÔÂÓ‰‡ , ÂÌÂÌË.

(1) çÂ Á‡·Û‰ ÚÂ „Â ÏÂÚË˝ÌÓ Á‡,flÁ‡Ú¸ ÔÓÍÎË˝ÚËÎÂÌÓ,°È Ô‡ÍÂÚ, ÒÓ‰Â Ê‡˘ËÈ ,Ë‰ÂÓÍ‡Ï‡Â Û.

(2) ëÌËÏËÚÂ Ô‡ÍÂÚ, ÍÓ„‰‡ ÚÂÏÔÂ ‡ÚÛ ‡,ÌÛÚ Ë ÎÂ„Ó‰ÓÚÛË,ÌÂÚ ÚÂÏÔÂ ‡ÚÛ ° ÓÍ ÛÊ‡¸ ˘ÂÈ Ò Â‰°(Ô ËÏÂ ÌÓÒÔÛÒÚfl1˜‡Ò).

Video Head Cleaning

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

é˜ËÒÚÍ‡ „ÓÎÓ‚ÓÍ

ÑÎfl Ó·ÂÒÔÂ˜ÂÌËfl ÌÓ ï‡Î¸ÌÓÈ Á‡ÔËÒÒ Ë ˜ÂÚÍÓ„Ó ËÁÓ· ‡ÊÂÌËfl Ó˜Ë˜‡ÈÚÂ ‚Ë‰ÂÓ„ÓÎÓ‚ÍË. ÒÒÎËÈ ËÌ‰ËÍ‡ÚÓ ⊗ ÔÓfl‚ÎflÂÚÒfl , ‚Ë‰ÓËÒÍ‡ÚÂÎ , ÂÊËÏÂ CAMERA, ËÎÌË ‚ÒÒ Ó‚Á‚Ó‰ËÏÓÂ ËÁÓ· ‡ÊÂÌËÂfl‚ÎflÂÚÒfl "Á‡¯ÛÏÎÂÌÌ°Ì" ÈËÎË Ú Ù‰ìÓ Ô ÓÒÏ‡Ú Ë‚‡ÂÏ˚Ï, ÚÓ ‚Ë‰ÂÓ„ÓÎÓ‚ÍË ÏÓ„ÛÚ ·°Ú¸ Á‡„ flÌÂÌ°.

[a] → **[b]**

[a] Slightly contaminated
[b] Critically contaminated

[a] çÂÁÌ‡˜ËÚÂÎ¸ÌÓÂ Á‡„ flÁÌÂÌËÂ
[b] ä ËÚË˜ÂÒÍÓÂ Á‡„ flÁÌÂÌËÂ

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

ÖÒÌË˝ÚÓ Ô ÓËÁÓ¯ÎÓ, Ó˜ËÒÌËÚÂ‚Ë‰ÂÓ„ÓÎÓ‚ÍË Ò ÔÓÏÓ˘¸˛ Ó˜ËÒÌËÚÂÎ¸ÌÓÈ Í‡ÒÒÂÚ° V8-25CLH Sony (ìÂ Ô ËÎ‡„‡ÂÚfl). èÓÒÌÂ Ô Ó‚Â ÍË ËÁÓ· ‡ÊÂÌËfl, ÂÒÎË ÔÌÓ ‚Ofi Â˜fi "Á‡¯ÛÏÎÂÌÓ", ÔÓ‚ÚÓ ËÚÂ Ó˜ËÒÚÍÛ. (çÂ ÔÓ‚ÚÓ flÈÚÂÓ˜ËÒÚÍÛ·ÓÎÂÂÔflÚË ‡ÁÁ‡Ó‰ËÌ Ô ËÂÏ.)

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

è Â‰ÓÒÚÂ ÂÊÂÌËÂ
çÂ ËÒÔÓÎ¸ÁÛÈÚÂ ËÏÂ˛ ˜ËÂÒfl‚Ô Ó‰‡ÊÂ Ó˜ËÒÚËÚÂÎ¸Ì° ‚Î‡ÊÌÓ„Ó ÚËÔ‡. ùÚÓ ÏÓÊÂÚ ÔÓ‚Â‰ËÚ¸ ‚Ë‰ÂÓ„ÓÎÓ‚ÍË.

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

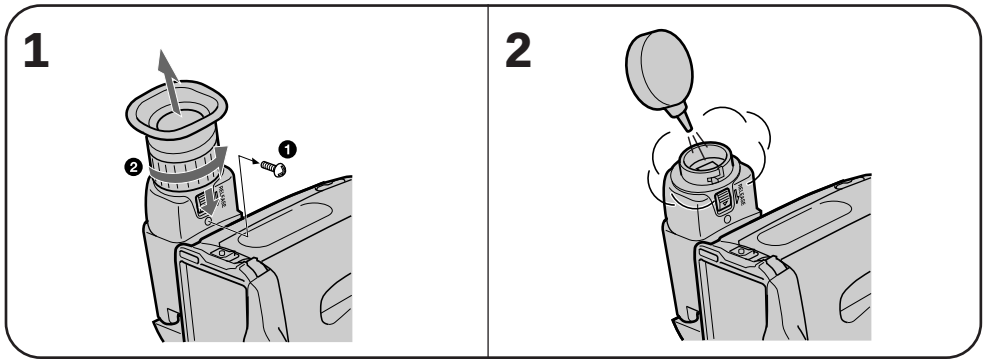
è ËÏÂ˜‡ÌËÂ
ÖÒÌË Ó˜ËÒÚËÚÂÎ¸ÌÓÈ Í‡ÒÒÂÚ° V8-25CLH ÌÂÚ, Ô Ó‰‡ÊÂ, Ç‡¯ÂÈ Ó·Î‡ÒÚË, Ó· ‡ÚËÚÂÒ¸, Ç‡¯Â ·ÎËÊ‡È¯ÂÂ ‡„ÂÌÒÚ‚Ó Sony.

Removing Dust from inside the Viewfinder

(1) Removethescrewwithascrewdriver(not supplied).Then,whilesliding theRELEASE knob,turntheeyecupinthedirectionofthe arrowandpullitout.
(2) Cleanthesurfacewithacommercially availableblower.

ì‰‡ÎÂÌËÂ Ô°ÎË ËÁÌÛÚ Ë ,Ë‰ÓËÒÍ‡ÚÂÎfl

(1) ëìËÏËÚÂ ,ËÌÚ Ò ÔÓÏÓ˘ ÓÚ,Â ÚÍË (ÌÂ Ô ËÎ‡„‡ÂÚÒfl). á‡ÚÂÏ, ÔÂ˙Â‰‡‰,Ë„‡fl ÍÌÓÔÍÛ RELEASE, ÔÓ,Â ÌËÚÂ ÓÍÚÎfl ¸ Ì‡Ô ‡,ÎÂÌËË ÒÚ ÂÍÍË Ë ÒÌËÏËÚÂ Â„Ó.
(2) é˜ËÒÚËÚÂ ÔÓ,Â ıÌÓÒÚ¸ Ô Ó‰Û,Ó˘Ì˚ ÛÒÚ ÓÈÒÚ,ÓÏ,Ô ËÓ· ÂÚÂÌÏ˚ ÍÓÏÏÂ ˜ÂÒÍËÏ ÒÔÓÒÓ·ÓÏ.

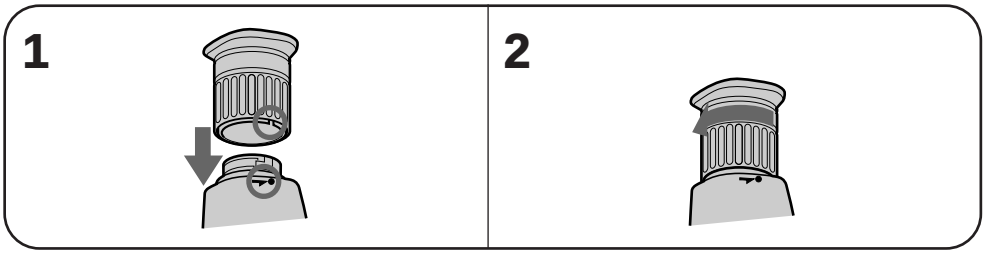


To Reattach the Eyecup

(1) Alignthegrooveontheeyecupwiththe • markonthebarrel.
(2) Turntheeyecupinthedirectionofthearrow. Then,replacethescrew.

ÑÎfl Ô ËÍ ÂÔÎÂÌËfl ÓÍÛÎfl ‡

(1) ëÓ,ÏÂÒÚËÚÂ Í‡Ì‡,ÍÛ Ì‡ ÓÍÛÎfl Â Ò ÏÂÚÍÓÈ •Ì‡ ÍÓ ÔÛÒÂ.
(2) èÓ,Â ÌËÚÂ ÓÍÛÎfl ¸ Ì‡Ô ‡,ÎÂÌËË ÒÚ ÂÍÍË. á‡ÚÂÏ ÛÒÚ‡ÌÓ,ËÚÂ ,ËÌÚ.



Caution
Donotremoveanyotherscrews.Youmay removeonlythescrewtoremovetheeyecup.

èÂ‰ÓÒÚÛÂ ÂÊÂÌËÂ
çÂ ÒÌËÏ‡ÈÚÂ Í‡ÍËı-ÎËÓ ‰ Û„Ëı ,ËÌÚÓ,. Ç˚ ÏÓÊÂÚÂ ÒÌflÚ¸ ÚÓÍ¸ÍÓ ,ËÌÚ ‰Îfl ÒÌflÚËfl ÓÍÛÎfl ‡.

Precautions

Camcorder Operation

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

On Handling Tapes

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

Camcorder Care

- When the camcorder is not to be used for a long time, disconnect the power source and remove the cassette. Periodically turn on the power, operate the camera and player sections and play back a tape for about 3 minutes.
- Clean the lens with a soft brush to remove dust. If there are fingerprints on the lens, remove them with a soft cloth.
- Clean the camcorder body with a soft dry cloth, or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of solvent which may damage the finish.

AC Power Adaptor

Charging

- Use only for the specified battery pack. This unit cannot be used to charge a lithium ion type battery.
- Attach the battery pack firmly.
- Place the battery pack on a flat surface without vibration during charging.

èÂ‰ÓÒÚÓ ÓÊÌÓÒÚË

ê‡·ÓÚ‡ Ò ,Ë‰ÂÓÍ‡ÏÂ ÓÈ

- ùÍÒÔÎÛ‡ÚË ÛÈÚÂ,Ë‰ÂÓÍ‡ÏÂ ÛËÒÒÓÎ,ÁÛfl 6,0 Ç (·‡Ú‡ ÂÈÌ˚Ë ·ÍÓÍ) ËÍË 7,5 Ç (ÒÂÚÂ,ÓÈ ‡‰‡ÔÙÂ ÔÂ ÂÏ.ÚÓÍ‡).
- ÑÎfl ‡·ÓÚ˚ ÓÚ ÔÓÒÒÚ. ËÍÏË ÔÂ ÂÏ. ÚÓÍ‡ ËÒÒÔÎ ÁÛÈÚÂ ÚÓÍ ,ÍÓ ÂÍÓÏÀÌ‰ÙÀÎ˚Â Ô ËÌ‡‰ÎÂÈÌÓÒÚË.
- Ç ÓÍÛˆ‡Â ÔÓÒ‡‰‡ÌËfl Í‡ÍËı-ÎË·Ó Ú,Â ‰˚ı Ó Â‰ÌÂÚÓ,ËÎËÊË‰ÍÓÒÚË ,ÌÛÚ ,ÍÓ ÔÙÒ‡ Í‡ÏÂ ˚, ÓÚÍÎ˜ËÚ ,Ë‰ÂÓÍ‡ÏÂ ˚Ù Ë Ô Ó,Â ËÚ, ÂÂ , ·ÎËÊ‡È¯ÂÏ ‡„ÂÌÚÒÚ,Â Sony ÔÂ Â‰‰‡Î ,ÌÂË¯ÂË˜ÍÒÔÎÛ‡Ú‡ˆËÃÈ.
- àÁ·Â„‡ÈÚÂ„ Û·Ó„Ó Ó· ‡˘ÂÌËfl O ,Ë‰ÂÓÍ‡ÏÂ ÓÈ ËÍË˙ÎÂı‡ÌË˜ÂÒÍÓ,Ó Û‰‡ ÌÓ„Ó ,ÓÁ‰ÂÈÒÚ,ËfI.ÂÙ‰,ÚÂÓÒÒ·ÂÌlÓÓÒÚÓ ÓÊÌ˚ Ò Ó·˙ÂÍÚË,ÓÏ.
- ÑÂ ÊËÚÂ ,˚ÍÍ˜‡ÚÂÎ POWER , ÔÓÍÎÔÊÂÌËË OFF, ÂÒÎË Í‡ÏÂ ‡ ÌÂ ËÒÔÔÓÎ,ÁÚÂÚÒfl.
- çÂ Á‡,Ó ‡˜Ë,‡ÈÚÂ,Ë‰ÂÓÍ‡ÏÂ Û Ë ÌÂ ‡·ÓÚ‡ÈÚÂ Ú‡ÍËÏÓ· ‡ÁÓÏ Ò ÌÂÈ, ÔÓÒÌÓÍÎ˚Í Û ,ÌÛÚ Ë Í‡ÏÂ ˚ ÏÓÊÂÚ ÔÓ‰ÌfIÚ˚ÒfI ÚÂÏÔÂ‡ÚÚ‡.
- ÑÂ ËÊÚÂ ,Ë‰ÂÓÍ‡ÏÂ Û ,‰‡ÎË ÓÚ ÒÈÎ˚Ì˚ ÏÂ‡,ÌËÚÌ˚ı ÔÓÎÈÂ ÊÎË ÏÂı‡ÌË˜ÂÒÍÉı ,Ë· ‡ˆËÈ.

éÚÌÓÒËÚÂÎ ÌÓ Ó· ‡˘ÂÌËfl Ò ÎÂÌÚ‡ÏË

çÂ ,ÒÚ‡,ÎfIÈÚÂ ÌËÍ‡ÍÉı Ô Â‰ÌÂÚÓ, , Ì‡ÎÂÌ ,ÍÉÂ ÓÚ,Â ÒÚËfl Ì‡ Á‡‰ıÂÈ ÒÚÓ ÓÌÂ Í‡ÒÒÂÚ˚. ùÚËÈ ÓÚ,Â ÒÚËfl ÈÒÔÓÎ ,ÁÛ ÚÓfl‰Îfl ÓÔ Â‰ÂÎÂÌËfl ÚËÔ‡ ÎÂÌÚ˚, ÚÓÎ˜ËÎ˚ ÎÂÌÚ˚ Ì‡ÎÈ˜ËfI ÎÂÔÂÒÚÍÍ‡.

ìıÓ‰ Á‡ ,Ë‰ÂÓÍ‡ÏÂ ÓÈ

- ÖÒÎÈ ,Ë‰ÂÓÍ‡ÏÂ ‡ÌÂ·Û‰ÂÚ ËÒÔÓÎ,ÁÓ,‡Ú ÒfI ‰ÎËÚÂÎ ,ÌÓÂ , ÂÏfl, ÓÚÍÎ ˜ËÚÂ ËÒÙÓ˜ÌËÍ ÔËÚ‡ÌËfl Ë ËÁ,ÎÂÍËÚÂ Í‡ÒÒÂÚÛ. èÂ ËÓ‰Ë˜ÂÒÍÉ ,ÍÎ ˜‡ÈÚÂ ÔËÚ‡ÌËÁ,Ô ÓËÁ,Ó‰ËÚÂÂÒÔÂ‡˜ËËÒ ,Ë‰ÂÓÍ‡ÏÂ ÓÈ Ë ÒÂÍˆËÂÈ ÔÎÂÈÛ. ,ÔÒÔ ÓËÁ,Ó‰ËÚÂÎÌÚÛÔÓ fl‰Í‡3ÏËÌÛ.
- é˜Ë˜‡ÈÚÂ ÎËÌÁÚ ÏfI„ÍÓÈ ÍÉÒÚÓ˜ÍÓÈ ‰Îfl Ú‰‡ÎÂÌfl Ô˚ÎÈ. ÖÒÎÈ Ì‡ ÔÓ,Â ıÍÓÒÚË ÎÈÍÁ˚ ËÏÂ,ÚÒfl ÓÚÔÂ˜‡ÚÍÈ Ô‡Î ˆÂ„, Ú‰‡ÏËÚÂ Ë ò ÔÓÍÏÓ˙ ÏfI„ÍÓÈ ÚÍÍ‡Ì˙ .
- é˜Ë˜‡ÈÚÂ ÍÓ ÔÚÒ ,Ë‰ÂÓÍ‡ÏÂ ˚ ÏfI„ÍÓÈ ÒÚıÓÈ ÚÍ‡Ì˙ ËÍÈ ÊÂ ÏfI„ÍÓÈ ÚÍ‡Ì˙ , ÒÎÂ„Í‡ ÒÏÍÎÓÈ , ÏfI„ÍÓÏ ‡ÒÚ,Ó Â ÏÓ ˜Â„Ó Ò Â‰ÒÚ,‡.çÂ ÈÒÔÓÎ,ÁÚÈÚÂ ÌËÍ‡ÍÉı ‡ÒÚ,Ó ËÚÂÁÌÂÈ, ÔÓÒÌÓÎ,ÍÛ˜ÚÓ ÏÓÊÂÚÔÓ, Â‰ËÚ,ÓÚ‰ÂÍÏÛ.

ëÂÚÂ,ÓÈ‡‰‡ÔÚÂ ÔÂ ÂÏ.ÚÓÍ‡

á‡ fl‰Í‡

- àÒÔÓÎ,ÁÛÈÚÂ ÚÓÎ,ÍÓ ÛÍ‡Á‡ÌÌ˚Â ·‡Ú‡ ÂÈÌ˚Â ·ÎÓÍË. Ñ‡ÌÌ˚È ‡ÔÔ‡ ÚÙÌÂ,ÁfI ËÒÔÓÎ,ÁÓ,‡Ú ‰ÎfIÁ‡ fl‰ÍËÎÈÚÚËÂ,Ó„Ó ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ ËÓÌÌÓ„Ó ÚËÔ‡.
- è ËÒÓÂ‰ËÌËÚÂÌ‡‰ÂÈÓ ·‡Ú‡ ÂÈÌ˚È ·ÎÓÍ.
- ê‡ÁÏÂˇÈÚÂ ·‡Ú‡ ÂÈÌ˚È ·ÎÓÍ Ì‡ ÔÎÓÒÓÍÓÈ ÔÓ,Â ıÍÓÒÚË ·ÂÁ,Ë· ‡ˆËË,Ó, ÂÏfl Á‡ fl‰ÍÉ.

Others

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

The battery charger for this camcorder is designed to charge Sony Ni-Cd batteries and should only be used for such purpose, or for the purpose of charging batteries that are compatible therewith and allow it to function safely. This battery charger should not be used with Ni-MH batteries as it may cause excessive rise in temperature of Ni-MH batteries. Sony does not warrant the compatibility or safety of this battery charger for use with batteries other than Sony Ni-Cd batteries. Before using this battery charger for charging batteries other than Sony Ni-Cd batteries, confirmation should be obtained from the battery manufacturers that such batteries are compatible with this charger and may be used safely therewith.

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

è Ó˜ÂÂ

- éÚÒÓÂ‰ËÌËÚÂ‡ÔÔ‡ ‡ÚÓÚÒÚÂÌÌÓÈ ÓÁÂÚÍË (˝ÎÂÍÚ ÓÒÂÚË), ÂÓÎË ÓÌÌÀ·Ù‰ÂÚ ËÒÔÔÎ˙ÁÓ,‡Ú˙Òfl ‰ÎËÚÂÎ˙ ÌÓÂ , ÂÎfl. ÑÎfl ÓÚÒÓÂ‰ËÌÂÌËfl ¯ÌÙ ‡ (ÒÂÚÂ˙Ó,ÓÔ Ó,Ó‰‡)ÔÓÚfllËÚÂÂ„ÓÁ‡ ¯ÚÂÎÂ . ÇËÍÓ„‰‡ ÌÂ ÚfllËÚÂ Á‡ ¯ÌÙ .
- çÂ˝ÍÓÔÎÙ‡ÚË ÙËÚÂ‡ÔÔ‡ ‡Ú Ò ÔÓ, ÂÊ‰ÂÌÌ˚Ï ¯ÌÙ ÓÏ ËÎÎË ÊÂ, ÂÒÎË ‡ÔÔ‡ ‡Ú ·˚Î Û ÓÌÂÌ ËÎÈË ÔÓ˙ÂÊ‰ÂÌ.
- çÂ Ò„Ë·‡ÈÚÂ ÒÂÚÂ˙ÓÈ¯ÌÙ ÔÂ ÂÏ.ÚÓÍ‡ (ÒÂÚÂ˙ÓÈ Ô Ó,Ó‰) Ë ÌÂÎÎ‡‰ËÚÂ ÚfllÊÂÎ˚Â Ò Â‰ïÂÚ˚Ì‡ ÌÂ„Ó. ùÚÓ ÏÓÊÂÚ ÔÓ, Â‰ËÚ, ÒÂÚÂ˙ÓÈ¯ÌÙ ËÏÓÊÂÚÔ Ë,ÂÒÙËÍÍÓÓÊ‡ Ů ËÎÈ ÔÓ ‡ÊÂÌË˛ ´ÎÂÍÚ Ë˜ÂÒÍÎËÏ ÚÓÍÓÏ.
- ëÎÂ‰ËÚÂ˙Á‡ ÚÂÌ˙ ˜ÚÓ·° ÌËÍ‡ÍÊÂ ÏÂÚ‡ÎÎË˜ÂÒÍÊÂ Ô Â‰ïÂÚ° ÌÂ Ô ËıÓ‰ËÎË , ÍÓÌÚ‡ÍÚ Ò ÎÂÚ‡ÎÎË˜ÂÒÍÊÏËË ‰ÂÚ‡ÍfllÏË ÒÒÓÂ‰ËÌËÚÂÎ˙ÍÓÈ ÔÎ‡ÒÚÓËÌ˚. ÖÒÎË˝ÚÓ Ô ÓËÁÓÊ‰ÂÚ,ÚÓÏÓÊÂÚ˙ÓÂÌËÎÌÚÚ˙ÍÓ ÓÚÍÓÂ Á‡Ï˚Í‡ÌËÂ Ë ‡ÔÔ‡ ‡Ú ÏÓÊÂÚ ·˚Ů, ÔÓ,ÂÊ‰ÂÌ.
- ÇÒÂ„‰‡ÔÓ‰‰Â ÊËˇ‡ÈÚÂÏÂÚ‡ÎÎË˜ÂÒÍÊÂ ÍÔÌÚ‡ÍÚ° ¸ ˜ÈÒÚÓÚÂ.
- çÂ ‡Á·Ë ‡ÈÚÂ‡ÔÔ‡ ‡Ú.
- çÂ ÔÓ‰,Â „‡ÈÚÂ‡ÔÔ‡ ‡Ú ÏÂı‡ÌË˜ÂÒÍÊÏ Ů‰‡ ‡ÌËÌÂ ÓÍfllÈÚÂ„Ó.
- ÖÒÎË ‡ÔÔ‡ ‡Ú Ì‡ıÓ‰ËÚÒfl ˝ÍÒÔÎÛ‡Ú‡ˆËË, ÓÔÓ·ÂÌÌÓ˙ ÂÊËÏÂ Á‡ fl‰ÍÏË, ı ‡ÌËÚÂ Â„Ó,‰‡ÎË ÓÚ ‡‰ËÊÓÔ ËÂÎÏËÍÓ,ÄåË,Ë‰ÂÔÓ·Ó Ù‰Ó,‡ÌËfl, ÔÓÚÓÓÏÛ˜ÚÓ ÓÌ ÍÓÊÂÚÌ‡ Û¯ËÚ˙ Ô ËÂÏ ÄåË ‡·ÓÚÛ,Ë‰ÂÓÔÔ‡ ‡ÚÛ°.
- ÄÔÔ‡ ‡Ú ÒÚ‡ÌÓ,ËÚÒfl ÚÂÔÎ˚Ï˙,Ó , ÂÏfl ËÒÔÔÎ˙ÁÓ,‡ÌËfl. ùÚÓ fl,ÎfIÂÚÒfl ÌÒ ï‡Î˙Ì˚Ï.
- çÂ ‡ÁÏÃ˜‡ÈÚÂ‡ÔÔ‡ ‡Ú ,ÏÂÒÚ‡ı, ÍÓÚÓ ˚Ã:
  — Í ‡ÈÌÂ „Ó fl¯ËÂ ËÎÈË ıÔÎÓ‰Ì˚Â
  — Ô˚Î Ì˚Â ËÎÈË „ flÁÌ˚Â
  — Ó˜ÂÌ ˛Î‡ÊÌ˚Ä
  — ÔÓ‰,Ä ÊÂÌ˚ ,Ë· ‡ˆËË

á‡ fl‰ÌÓÂ ÛÒÚ ÓÈÒÚ,Ó ‡ÍÍÛÏÛÎfllÚÓ Ì˚ı·‡Ú‡ ÂÂÍ ‰Îfl ‰‡ÌÌÓÈ ,Ë‰ÂÓÍ‡ÎÂ ˚Ô Â‰ì‡ÁÌ‡˜ÂÌÓ ‰Îfl Á‡ fl‰ÍËË ÌËÍÂÎ˙-Í‡‰ïËÊÂ,°ı ·‡Ú‡ ÂÂÍ Ni-Cd ÙËË Ï˚ Sony. Ë ‰ÓÍÎÊÌÓ ·˚Ú˛ ËÒÒÓÎ˙ÁÓ,‡ÌÓ ÚÓÎ˙ÍÓ , ˝ÚËı ˆÂÎfIı, ÊÌË , ˆÂÎfIı Á‡ fl‰ÍË ·‡Ú‡ ÂÂÍ˛ ÍÓÚÓ °Â fl,ÎfI ÚÒfl ÒÓ,ÏÂÒÚËÏ˝ÏË Ò ˛°¯ÙÔÓÏfllÙÚ˚ÏË Ë Ó·ÂÒÔÂ˜Ë˛‡ Ú ·ÂÁÓÔ‡ÒÌÓÂ ÙÚÌÍ˝ËÓÌË Ó,‡ÌËfl ÚÒÚ ÓÈÒÚ,‡. Ñ‡ÌÓÂÁ‡ fl‰ÍÓÂ ÙÒÚ ÓÈÒÚ,Ó ‡ÍÍÚÏÛÎfllÚÓ Ì˚ı·‡Ú‡ ÂÂÍ ÌÂ ÒÎÂ‰ÛÂÚËÒÔÓÎ˙ÁÓ,‡Ú,‰ÎfI Á‡ fl‰ÍÏË·‡Ú‡ ÂÂÍ Ni-MH, Ú‡Í Í‡Í ˝ÚÓ ÏÓÊÂÙ Ô Ë˛ÂÒÚË Í ˜ ÂÁÏÂ˙ ÌÓÏÏÚ ÔÓ,°¯ÂÌË˛ ÚÂÌÏÔ Ë˛ÂÒÚË ‡ÚÛ ° ·‡Ú‡ ÂÂÍ Ni-åç.

îË Ï‡ Sony ÌÂ„‡ ‡ÌÚËË ÛÂÚ ÒÓ,ÏÂÒÚËÏÓÒÚ˛ ËÎÈË ·ÂÁÓÔ‡ÒÌÓÒÚ˛‰‡ÌÌÓ„ÓÁ‡ fl‰ÌÓ„ÓÚÛÒÚ ÓÈÒÚ‡ ‡ÍÍÚÏÛÎfllÚÓ Ì˚ı·‡Ú‡ ÂÂÍ Ô Ë ËÒÔÔÎ˙ÁÓ,‡ÌËÈ Â„Ó Ò ·‡Ú‡ ÂÈÍ‡ÌË, ÓÚÍÎ˝Ì˚ÌË ÓÚ ˙ÌËÍÎ˙-Í‡‰ïËÊÂ,°ı ·‡Ú‡ ÂÂÍ Ni-Cd ÙËË Ï˚ Sony. èÂ Â‰ ËÒÔÔÎ˙ÁÓ,‡ÌËÂï‰‡ÌÌÓ„ÓÁ‡ fl‰ÌÓ„ÓÚÛÒÚ ÓÈÒÚ‡ ‡ÍÍÚÏÛÎfllÚÓ Ì˚ı·‡Ú‡ ÂÂÍ ‰Îfl Á‡ fl‰ÍËË ‰ Ů„Ë‹ ÓÚÍÎ˝Ì˚ı ÓÚ ÌËÍÎ˙-Í‡‰ïËÊÂ,°ı ·‡Ú‡ ÂÂÍ NI-Cd ÙËË Ï˚ Sony, ‰ÓÍÎÊÌÒ ·˚Ú˛ ÔÓÍÎÚ˜ÂÌÓ ÔÓ‰Ú,Â Ë‰ÂÌËÂÔÚËÁ„ÓÚÓ,ËÚÂÌÂÈ·‡Ú‡ ÂÂÍ,˜ÚÓ ·‡Ú‡ ÂÈÍÍË fl,ÎfI ÚÓfl ÒÓÏÂÒÙÚËÏ˚ÏË Ò ‰‡ÌÌ˚Ï Á‡ fl‰Ì˚ÏÛÒÚ ÓÈÒÚ,ÓÏ ËÏÚ„ÛÚ ÒÌËÍ·ÂÁÓÔ‡ÒÌÓ ËÒÔÔÎ˙ÁÓ,‡Ú˙Òfl.

ÇÒÎÛ˜‡ÂÚ Û‰ÀÒÒÚÂÈÓÚÒÓÂ‰ËÌËÚÂ‡ÔÔ‡ ‡ÚË Ô· ‡ÚËÚÂÒ˙ , Ç‡¯Â ·ÏËÊ‡È¯ÂÂ ‡„ÂÌÙÒÚ,Ó Sony.

Using Your Camcorder Abroad

àÒÔÓÎ ÁÓ‚‡ÌËÂ Ç‡¯ÂÈ ‚Ë‰ÂÓÍ‡ÏÂ ° Á‡ Ù·ÂÊÓÏ

Eachcountryorareahasitsownelectricityand TVcoloursystems.Beforeusingyourcamcorder abroad,checkthefollowingpoints:

ä‡Ê‰fl ÒÚ ‡Ì‡ ËÎÏË Ó·Î‡ÒÚ¸ ËÏÂÂÚ Ò,Ó¸ ÒÓ·ÒÚ,ÂÌÌÛ¸ ÒËÒÚÂÏÛ´ÎÂÍÚ Ë˜ÂÒÍÓÈ ÒÂÚËË ÒËÒÚÂÏÛˆ,ÂÚÌÓ„ÓÚÂÎ‰ËÎfl.èÂ Â‰ ËÒÔÓÎ¸ÁÓ‚‡ÌËÂÏ Ç‡¯ÂÈ ‚Ë‰ÂÓÍ‡ÏÂ ° Á‡ Û·ÂÊÓÏ Ô Ó‚Â ¸ÚÂ ÒÎÂ‰Û¸ ˘ËÂ ÔÛÌÍÚ°:

Power Sources

àÒÚÓ˜ÌËÍÍË ÔËÚ‡ÌËfl

Youcanuseyourcamcorderinanycountryor areawiththesuppliedACpoweradaptorwithin 110Vto240VAC,50/60Hz.

Ç° ÏÓÊÂÚÂ ËÒÔÓÎ¸ÁÓ‚‡Ú¸ Ç‡¯Û ‚Ë‰ÂÓÍ‡ÏÂ Û ¸Î·ÓÈ ÒÚ ‡ÌÂ ËÎÈ Ó·Î‡ÒÚË Ò Ô ËÎ‡„‡ÂÏ°Ï ÒÂÚÂ,°Ï ‡‰‡ÔÚÂ ÓÏ ÔÂ ÂÏ.ÚÓÍ‡¸Ô Â‰ÂÎ‡ı ÓÚ 110Ç‰Ó 240Ç ÔÂ ÂÏ.ÚÓÍ‡, 50/60É^.

Difference in Colour Systems

ê‡ÁÎË˜Ëfl ¸ ÒËÒÚÂÏ‡ı ^,ÂÚÌÓ„Ó ÚÂÎÂ,Ë‰ÂÌËfl

Thiscamcorderisa PALsystem-based camcorder.Ifyouwanttoviewtheplayback pictureonaTV,itmustbeaPALsystem-based TVoraSECAMsystem-basedTVwithPAL-SECAMtranscoder.Checkthefollowing alphabeticallist.

Ñ‡ÌÌ‡fl ‚Ë‰ÂÓÍ‡ÏÂ ‡ ÓÒÌÓ,‡Ì‡ Ì‡ ÒËÒÚÂÏÂ PAL.ÖÒÎË Ç° ıÓÚËÚÂ,ÓÒÔ ÓËÁ,Ó‰ËÚ¸ ËÁÓ· ‡ÊÂÌËÂ Ì‡ ÚÂÎÂ,ËÁÓ Â, ÓÌ ‰ÓÎÊÂÌ ·°Ú¸ ÓÒÌÓ,‡Ì Ì‡ ÒËÒÚÂÏÂ PAL ËÎË ÊÂ Ì‡ ÒËÒÚÂÏÂ SECAMÒÚ ‡ÌÒÍÓ‰Â ÓÏ PAL-SECAM. è Ó,Â ¸ÚÂÒÎÂ‰Û¸ ˘ËÈ ÒÔËÒÓÍ, ÒÓÒÚ‡,ÎÂÌ°È , ‡ÎÙ‡,ËÚÌÓÏ ÔÓ fl‰ÍÂ.

Power Sources

Youcanuseyourcamcorderinanycountryor areawiththesuppliedACpoweradaptorwithin 110Vto240VAC,50/60Hz.

Difference in Colour Systems

Thiscamcorderisa PALsystem-based camcorder.Ifyouwanttoviewtheplayback pictureonaTV,itmustbeaPALsystem-based TVoraSECAMsystem-basedTVwithPAL-SECAMtranscoder.Checkthefollowing alphabeticallist.

PAL system
Australia,Austria,Belgium,China,Denmark, Finland,Germany,GreatBritain,Holland,Hong Kong,Italy,Kuwait,Malaysia,NewZealand, Norway,Portugal,Singapore,Spain,Sweden, Switzerland,Thailand,etc.

PAL-M system
Brazil

PAL-N system
Argentina,Paraguay,Uruguay

NTSC system
BahamaIslands,Bolivia,Canada,Central America,Chile,Colombia,Ecuador,Jamaica, Japan,Korea,Mexico,Peru,Surinam,Taiwan,the Philippines,theU.S.A.,Venezuela,etc.

SECAM system
Bulgaria,CzechRepublic,France,Guyana, Hungary,Iran,Iraq,Monaco,Poland,Russia, SlovakRepublic,Ukraine,etc.

PAL system
Ä,ÒÚ ‡ÎËfl, Ä,ÒÚ Ëfl, ÅÂÎ„Ëfl, ÇÂÎËÍÓ· ËÚ‡ÌËfl, ÉÂ ï‡ÌËfl, ÉÓÍÎ‡ì‰Ëfl, ÉÓÌÍÓÌ„, Ñ‡ÌËfl, àÒÔ‡ÌËfl, àÚ‡ÎËfl, äËÚ‡È, äÛ,ÂÈÚ, å‡Î‡ÈÁËfl, çÓ,‡fl áÂÎ‡ì‰Ëfl, çÓ ,Â„Ëfl, èÓ ÚÛ„‡ÎËfl, ëËÌ„‡ÔÛ ,í‡ËÎ‡ì‰, îËÌÎflì‰Ëfl, ò,Â^Ëfl, ò,ÂÈ^‡ Ëfl, Ë ‰ .

PAL-M
Å ‡ÁËÎËfl

PAL-N
Ä „ÂÌÚËÌ‡, è‡ ‡„‡È, ì Û„‡È

NTSC
Å‡„‡ÌÒÍÍËÂ ÓÒÚ Ó,‡, ÅÓÍÎ,Ëfl, ÇÂÌÂÒÛ´Î‡, ä‡Ì‡‰‡, äÓÍÎÛÏ·Ëfl, äÓ Âfl, åÂÍÔËí‡, èÂ Û, ëÛ ËÌ‡Ï, ëòÄ, í‡È,‡Ì¸, îËÎËÔÔËÌ°, ñÂÌÚ ‡Î¸Ì‡fl ÄÏÂ ËÍ‡, óËÎÍË, ùÍ,‡‰Ó , üÏ‡ÈÍ‡, üÔÓÌËfl Ë ‰ .

SECAM
ÅÓÎ„‡ Ëfl, ÇÂÌ„ Ëfl, É‡È‡Ì‡, à ‡Í, à ‡Ì, åÓÌ‡ÍÓ, èÓÎ¸¯‡, êÓÒÒËfl, ëÎÓ,‡^Í‡fl êÂÒÔÛ·ÎËÍ‡, ìÍ ‡ËÌ‡, î ‡Ì^Ëfl, óÂ¯ÒÍ‡fl êÂÒÔÛ·ÎËÍ‡Ë‰ .

English

Trouble Check

If you run into any problem using the camcorder, use the following table to troubleshoot the problem. Should the difficulty persist, disconnect the power source and contact your Sony dealer or local authorized Sony service facility.

Camcorder

Power

Symptom	Cause and/or Corrective Actions
The power is not on.	• The battery pack is not attached or not attached firmly. → Attach the battery pack firmly by pushing the lower part of the battery pack. (p. 10) • The battery is dead. → Use a charged battery pack. (p. 7) • The AC power adaptor is not connected to the mains. → Connect the AC power adaptor to the mains. (p. 25)
The power goes off.	• While being operated in CAMERA mode, the camcorder has been in the Standby mode for more than 5 minutes. → Turn STANDBY down once and turn it up again. (p. 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. 40) • 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. 24)

Operation

Symptom	Cause and/or Corrective Actions
START/STOP does not operate.	• The tape is stuck to the drum. → Eject the cassette. (p. 11) • The tape has run out. → Rewind the tape or use a new one. (p. 22) • The POWER switch is set to PLAYER. → Set to CAMERA. (p. 12) • The tab on the cassette is out (red). → Use a new cassette 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, 25)
No function except for cassette ejection works.	• Moisture condensation has occurred. → Remove the cassette and leave the camcorder for at least an hour. (p. 45)
The tape does not move when a tape transport button is pressed.	• The POWER switch is set to CAMERA or OFF. → Set it to PLAYER. (p. 22) • The tape has run out. → Rewind the tape or use a new one. (p. 22)

(to be continued)

CCD-TR401E/TR402E 3-858-958-11(1).E,R

Symptom	Cause and/or Corrective Actions
The date or time indicator is flashing.	• You pressed DATE(+) and TIME(NEXT) together for more than 2 seconds. → The camcorder is not malfunctioning. You may start recording. Flashing will stop soon.
The date or time indicator disappears.	→ Reset the date and time. (p. 38)
Recording stops in a few seconds.	• START / STOP MODE is set to ⏬ or 5 SEC. → Set it to ⏬. (p. 31)

Picture

Symptom	Cause and/or Corrective Actions
The image on the viewfinder screen is not clear.	• The viewfinder lens is not adjusted. → Adjust the viewfinder lens. (p. 13)
A vertical band appears when a subject such as lights or a candle flame is shot against a dark background.	• The contrast between the subject and background is too high. → The camcorder is not malfunctioning. Change locations.
The picture is “noisy”.	• The video heads may be dirty. → Clean the heads using the Sony V8-25CLH cleaning cassette. (p. 46)

Others

Symptom	Cause and/or Corrective Actions
The supplied Remote Commander does not work.	• COMMANDER is set to OFF. → Set it to ON. (p. 34) • 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. 63) • The batteries are dead. → Insert new ones. (p. 63)
There is dust in the viewfinder.	→ Detach the eyecup and clean the viewfinder lens. (p. 47)

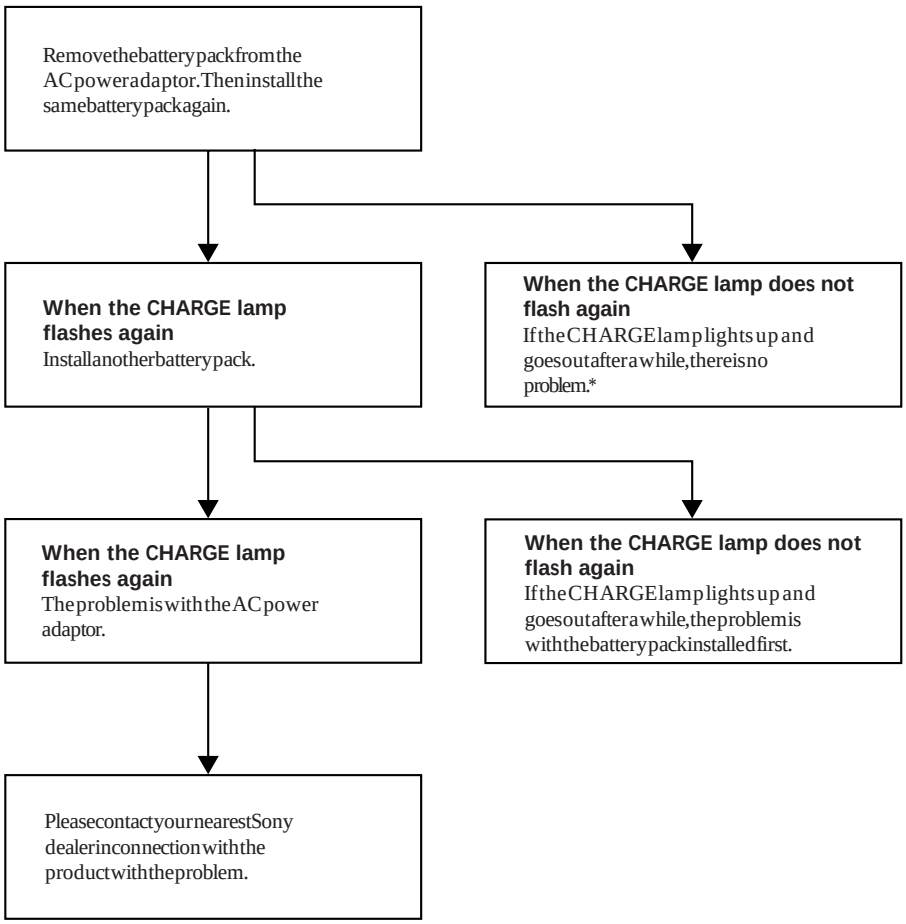
CCD-TR401E / TR402E3-858-958-11(1).E,R

AC Power Adaptor

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

When the CHARGE Lamp Flashes

Check through the following chart.



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

êÛÒÒÍËÈ

è Ó‚Â Í‡ÌÂËÒÔ ‡,ÌÓÒÚÂÈ

ÖÒÎÏ Ú‰ÌÓÒÚË,ÒÂ˜ÂÓÒÚ‡,ÚÒflÚÓ,ÓÚÒÓÂ‰ËÌËÚÂËÒÚÓ˜ÌËÍÔËÚ‡ÌËflËÓ· ‡ÚËÚÂÒ¸ÍÇ‡¯ÂÏÛ ‰ËÎÂ Û Sony ËÎË ,ÍÂÒÚÌÓÂ ÛÔÓÎÌÓÏÓ˜ÂÌÌÓÂ Ô Â‰Ô ËflÚËÂ ÔÓÓ·ÒÎÛÊÂ,‡ÌË Sony.

ÇË‰ÂÓÍ‡ÏÂ ‡

èËÚ‡ÌËÂ

è ËÁÌ‡Í	è Ë˜ËÌ‡ Ë /ËÎÏË ‰ÂÈÒÚ,ËflÔÓ ÛÒÚ ÌÌÂÌË¸.
çÂ ,ÍÎ¸˜‡ÂÚÒfl ÔËÚ‡ÌËÂ.	• çÂÔ ËÒÓÂ‰ËÌÂÌ·‡Ú‡ ÂÈÌ°È·ÎÓÍËÎËÔ ËÒÓÂ‰ËÌÂÌÌÂÌ‡‰ÂÈÌÓ. ➔ è ËÒÓÂ‰ËÌËÚÂ ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ Ì‡‰ÂÈÌÓ, Ì‡ÊËÏ‡fl Ì‡ ÌËËÊÌ¸ ˜‡ÒÚ¸ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡. (ÒÚ . 10) • ê‡Á fl‰ËÎÒfl ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ. ➔ àÒÔÓÎ¸ÁÛÈÚÂ Á‡ flÊÂÌÌ°È ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ. (ÒÚp. 7) • ëÃÚÂ‚ÓÈ‡‰ÛÚÂ ÔÂ ÂÏ.ÚÓÍ‡ÌÂÔÓ‰ÒÓÂ‰ËÌÂÍÎÒÚÂÌÌÓÈ ÓÁÂÚÍÂ. ➔èÓ‰ÒÓÂ‰ËÌËÚÂÒÂÚÂ‚ÓÈ‡‰ÛÚÂ ÔÂ ÂÏ.ÚÓÍ‡ÍÒÚÂÌÌÓÈ ÓÁÂÚÍÂ.(ÒÚp.25)
Ç°ÍÎ¸˜‡ÂÚÒfl ÔËÚ‡ÌËÂ.	• ÇÓ , ÂÏfl ˝ÍÒÔÎÛ‡Ú‡ˆËË , ÂÊËÏÂ CAMERA ,Ë‰ÂÓÍ‡ÏÂ ‡ ·°Î‡ , ÂÊËÏÂ „ÓÚÓ,ÌÓÒÚËË ·ÓÎÂÂ 5 ÏËÌÛÚ. ➔ èÓ‚Â ÌËÚÂ ÔÂ ÂÍÎ¸˜‡ÚÂÎ¸ STANDBY ,ÌËÁ Ó‰ËÌ ‡Á Ë ÔÓ‚Â ÌËÚÂ Â„Ó ÒÌÓ,‡ „Â ı. (ÒÚp. 13) • Å‡Ú‡ ÂÈÌ°È ·ÎÓÍ ‡Á fl‰ËÎÒfl. ➔ àÒÔÓÎ¸ÁÛÈÚÂ Á‡ flÊÂÌÌ°È ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ. (ÒÚp. 7)
Å‡Ú‡ ÂÈÌ°È ·ÎÓÍ ·°ÒÚ Ó ‡Áflʇ‡ÚÒfl.	• éí ÛÊ‡¸˜‡fl ÚÁÏÎÔÂ ‡ÚÛ ‡ ÒÎË¯ÍÓÏ ÌËÁÍ‡fl. (ÒÚp. 40) • Å‡Ú‡ ÂÈÌ°È ·ÎÓÍ ÌÂ ÔÓÎÌÓÒÚ¸ Á‡ flÊÂÌ. ➔ á‡ fl‰ËÚÂ ÒÌÓ,‡ ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ. (ÒÚp. 7) • Å‡Ú‡ ÂÈÌ°È ·ÎÓÍ ÔÓÎÌÓÒÚ¸ ‡Á fl‰ËÎÒfl Ë ÌÂ ÏÓÊÂÚ ·°Ú¸ ÔÂ ÂÁ‡ flÊÂÌ. ➔àÒÔÓÎ¸ÁÛÈÚÂ‰ Û„ÓÈ·‡Ú‡ ÂÈÌ°È·ÎÓÍ. (ÒÚp. 24)

ùÍÒÔÎÛ‡Ú‡ˆËfl

è ËÁÌ‡Í	è Ë˜ËÌ‡ /ËÎÏË ÑÂÈÒÚ,ËflÔÓ ÛÒÚ ‡ÌÂÌË¸
çÂ ÙÛÎÍˆËÓÌË ÛÂÚ ÍÌÓÓÍ‡ START/STOP.	• ãÂÌÚ‡ Ô ËÎËÔÎ‡ Í ·‡ ‡·‡ÌÛ. ➔Ç°ÚÓÍÎÌËÚÂÍ‡ÒÒÂÚÛ. (ÒÚp. 11) • ãÂÌÚ‡ Á‡ÍÓ˜ËÎ‡Ò¸. ➔èÂ ÂÏÓÚ‡ÈÚÂÎÂÌÚÛ ËÎË ËÒÔÓÎ¸ÁÛÈÚÂÌÓ,Û¸.(ÒÚ . 22) • èÂ ÂÍÎ¸˜‡ÚÂÎ¸ POWER ÛÒÚ‡ÌÓ,ÎÂÌ , ÔÓÍÓÊÂÌËÂ PLAYER. ➔ìÒÚ‡ÌÓ,ËÚÂ , ÔÓÍÓÊÂÌËÂ CAMERA. (ÒÚp. 12) • ç‡Í‡ÒÒÂÚÂÌÂÚÎÂÔÂÒÒÚÍ‡ (Í ‡ÒÌÓ„Ó). ➔àÒÔÓÎ¸ÁÛÈÚÂÌÓ,Û¸ Í‡ÒÒÂÚÛËÎË ÔÂ Â‰,ËÌ¸ÚÂÎÂÔÂÒÒÚÓÍ. (ÒÚp. 11)
ä‡ÒÒÂÚ‡ ÌÂ ÏÓÊÂÚ ·°Ú¸ ,ÌÎÚ‡ ËÁ ‰Â Ê‡ÚÂÎfl.	• Å‡Ú‡ ÂÈÌ°È·ÎÓÍ ‡Á fl‰ËÎÒfl. ➔ àÒÔÓÎ¸ÁÛÈÚÂ Á‡ flÊÂÌÌ°È ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ ËÎË ÒÂÚÂ‚ÓÈ ‡‰ÛÚÂ ÔÂ ÂÏ.ÚÓÍ‡ (ÒÚp.7,25)
çÂ ‡·ÓÚ‡ÂÚÌËÓ‰Ì‡ËÁ ÙÛÎÍˆËÈ, Í ÓÏÂ ,°Ú‡ÎÍË,‡ÌËfl Í‡ÒÒÂÚ°.	• è ÓËÁÓ¯Î‡ ÍÓÌ‰ÂÌÒ‡ˆËfl ,Î‡„Ë. ➔ Ç°Ì¸ÚÂÍ‡ÒÒÂÚÛË ÓÒÚ‡,¸ÚÂ‚Ë‰ÂÓÍ‡ÏÂ ÛÔÓÍ ‡ÈÌÂÈÏÂ Â Ì‡Ó‰ËÌ˜‡Ò. (ÒÚp. 45)
ãÂÌÚ‡ÌÂÔÂ ÂÏÂ˜‡ÂÚÒfl Ô Ë Ì‡Ê‡ÚËË ÎÌÓÔÍË ÔÂ ÂÏÂ˜ÂÌËfl ÎÂÌÚ°.	• èÂ ÂÍÎ¸˜‡ÚÂÎ¸ POWER ÛÒÚ‡ÌÓ,ÎÂÌ , ÔÓÍÓÊÂÌËÂ CAMERA ËÎË OFF. ➔ìÒÚ‡ÌÓ,ËÚÂ , ÔÓÍÓÊÂÌËÂ PLAYER. (ÒÚp. 22) • ãÂÌÚ‡ Á‡ÍÓ˜ËÎ‡Ò¸. ➔èÂ ÂÏÓÚ‡ÈÚÂÎÂÌÚÛ ËÎË ËÒÔÓÎ¸ÁÛÈÚÂÌÓ,Û¸. (ÒÚp. 22)

è ËÁÌ‡Í	è Ë˜ËÌ‡ Ë /ËÎÏË ‰ÂÈÒÚ,Ëfl ÔÓ ÛÒÚ ‡ÌÂÌË¿.
åË„‡ÂÚ ËÌ‰ËÍ‡ˆËfl ‰‡Ú˚ ËÎÏË , ÂÏÂÌË.	• Ç˚ Ì‡Ê‡ÎË ÍÌÓÔÓÍË DATE(+) Ë TIME(NEXT) ,ÏÂÒÚÂ ·ÓÎÂÂ, ˜ÂÏ Ì‡ 2 ÒÂÍÚÌ‰˚. →ÇË‰ÂÓÍ‡ÏÂ ‡,ËÒÔ ‡,ÌÓÒÚË. Ç˚ÏÓÊÂÚÂ Ì‡˜‡Ú¸ Á‡ÔËÒ¸.åË„‡ÌËÂ,ÒÍÓ Â Ô ÂÍ ‡ÚËÚÒfl.
àÔ˜ÂÁ‡ÂÚËÌ‰ËÍ‡ÚÓ ‰‡Ú˚ ËÎÏË , ÂÏÂÌË.	→ëÌÓ,‡ ÛÒÚ‡ÌÓ,ËÚÂ‰‡ÚÛ Ë , ÂÏfl. (ÒÚp. 38)
á‡ÕËÒ¸ ÔÒÚ‡Ì‡,ÎË,‡ÂÚÒfl ˜Â ÂÁÌÂÒÍÓÎ¸ÍÓ ÒÂÍÚÛÌ‰.	• èÂ ÂÍÎ¸˜‡ÚÂÎ¸ START/STOP MODE ¡ÛÒÚ‡ÌÓ,ÎÂÌ , ÔÓÎÓÊÂÌËÂ ⏏ ËÎË 5 SEC. →ÌÒÚ‡ÌÓ,ËÚÂ Â„Ó,ÔÓÍÓÊÂÌËÂ ⏏ . (ÒÚp. 31)

àÁÓ· ‡ÊÂÌËÂ

è ËÁÌ‡Í	è Ë˜ËÌ‡ Ë /ËÎÏË ‰ÂÈÒÚ,Ëfl ÔÓ ÛÒÚ ‡ÌÂÌË¿.
àÁÓ· ‡ÊÂÌËÂ Ì‡ ˝Í ‡ÌÂ ,Ë‰ÓËÒÍ‡ÚÂÎfl ÌÂ˜ÂÚÍÓÂ.	• çÂ ÓÚ Â„ÛÎË Ó,‡Ì Ó·˙ÂÍÚË, ,Ë‰ÓËÒÍ‡ÚÂÎfl. →éÚ Â„ÛÎË ÛÈÚÂ Ó·˙ÂÍÚË, ,Ë‰ÓËÒÍ‡ÚÂÎfl. (ÒÚp. 13)
èÓfl,ÎflÂÚÒfl ,Â ÚËÍ‡Î¸Ì‡fl ÔÓÎÎÓÒ‡, ÂÒÎË Ú‡ÍËÂ Ó·˙ÂÍÚ˚, Í‡Í Ò,ÂÚ ËÎË ÔÎ‡Ïfl Ò,Â˜Ë ÒÌËÏ‡¸ÚÒfl Ì‡ ÚÂÎÌÓÍ ÙÓÌÂ.	• ëÎË¯ÍÓÎ ·ÓÎ¸¯ÓÈ ÍÓÌÚ ‡ÒÚ ÏÂÊ‰Û Ó·˙ÂÍÚÓÏ Ë ÙÓÌÓÏ. → ÇË‰ÂÓÍ‡ÏÂ ‡ ‡·ÓÚ‡ÂÚ ÌÓ Ï‡Î¸ÌÓ. àÁÏÂÌËÚÂ ÔÓÁËˆË¿ Ò˙ÂÏÍË.
àÁÓ· ‡ÊÂÌËÂ “Á‡¯ÛÏÎÂÌÓ”.	• ÇÓÁÏÓÊÌÓ Á‡„ flÁÌÂÌ˚ ,Ë‰ÂÓ„ÓÎÓ,ÍË. → é˜ËÒÚËÚÂ„ÓÎÓ,ÍË, ËÒÔÓÎ¸ÁÛfl‰Îfl˝ÚÓ„Ó Ó˜ËÒÚËÚÂÎ¸ÌÛ¿ Í‡ÒÒÂÚÛV8-25CLH. (ÒÚp. 46)

è Ó˜ÂÂ

è ËÁÌ‡Í	è Ë˜ËÌ‡ Ë /ËÎÏË ‰ÂÈÒÚ,Ëfl ÔÓ ÛÒÚ ‡ÌÂÌË¿
è ËÎ‡„‡ÂÏ˚È ÔÛÎ¸Ú ‰ËÒÚ‡Ì˜ËÓÌÓ„Ó ÛÔ ‡,ÎÂÌËfl ÌÂ ‡·ÓÚ‡ÂÚ.	• COMMANDER ÛÒÚ‡ÌÓ,ÎÂÌ , ÔÓÎÓÊÂÌËÂ OFF. →ÌÒÚ‡ÌÓ,ËÚÂ Â„Ó, ÔÓÎÓÊÂÌËÂ ON. (ÒÚp. 34) • óÚÓ-ÚÓ Ô Â„ ‡Ê‰‡ÂÚ ÔÛÚ¸ ËÌÙ ‡Í ‡ÒÌ˚ÎÎÛ˜‡ï. →ÒÚ ‡ÌËÚÂÔ Â„ ‡‰Û. • Å‡Ú‡ ÂÈÍÍË ,ÒÚ‡,ÎÂÌ˚ Ò ÌÂÔ ‡,ËÎ¸ÍÈ ÔÓÎfl ÌÓÒÒÚ¸¿. → ÇÒÚ‡,¸ÚÃ ·‡Ú‡ ÂÈÍÍË, ÒÓ·Î¸‰‡fl Ô ‡,ËÎ¸ÌÛ¿ ÔÓÎfl ÌÓÒÒÚ¸. (ÒÚp. 63) • á‡ fl‰ ·‡Ú‡ ÂÂÍËÁ ‡ÒıÓ‰Ó,‡Ì. → ÇÒÚ‡,¸ÚÂ ÌÓ,˚Â ·‡Ú‡ ÂÈÍÍË. (ÒÚp. 63)
á‡Ô˚ÎËÎÒfl ,Ë‰ÓËÒÍ‡ÚÂÎ¸.	→ éÚÒÓÂ‰ËÈËÚÂÓÍÛÎfl ËÓ˜ËÒÚËÚÂÓ·˙ÂÍÚË, ,Ë‰ÓËÒÍ‡ÚÂÎfl. (ÒÚp. 47)

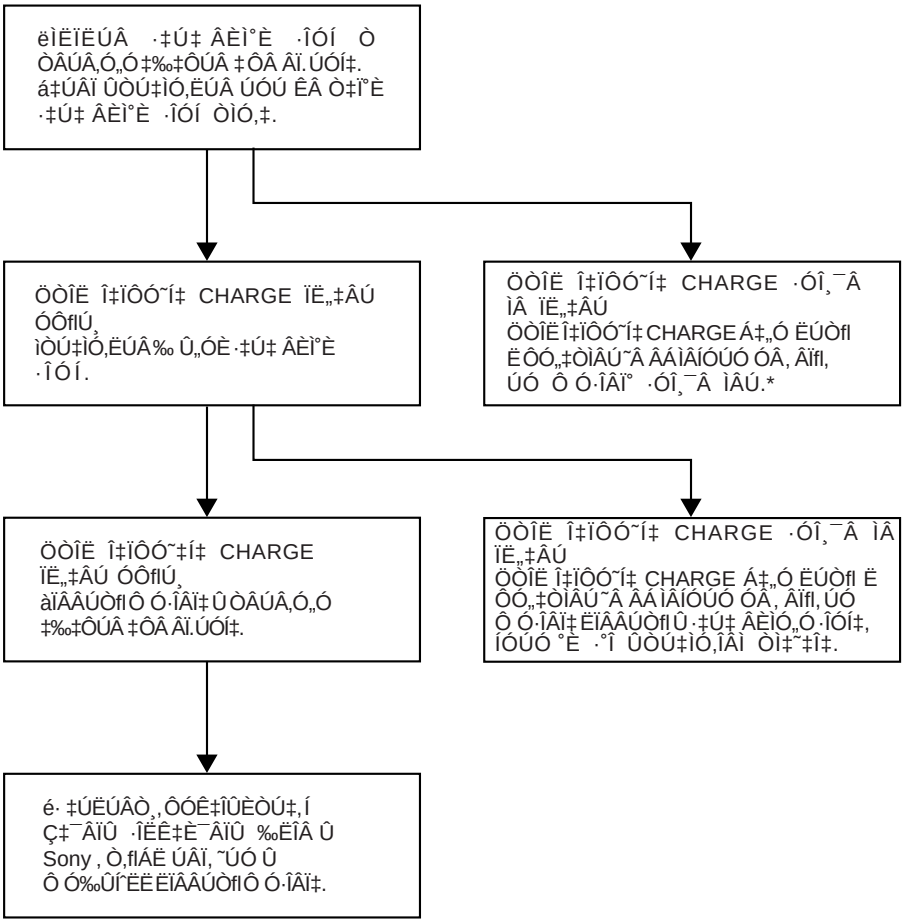
(Ô Ó‰ÓÍÎÊÂÌËÂÒÎÂ‰ÛÂÚ)

ëÂÚÂ,ÓÈ‡‰‡ÔÚÂ ÔÂ ÂÏÂÌÌÓ„Ó ÚÓÍ‡

è ËÁÌ‡Í	è Ë˜ËÌ‡ /ËÊÎË ‰ÂÈÒÚ,Ëfl ÔÓ ÛÒÚ ‡ÌÂÌË¸
ã‡ÏÔÓ˝Í‡ POWER ÌÂ„Ó ËÚ.	→ìÒÚ‡ÌÓ,ËÚÂÒÂÎÂÍÚÓ ,ÔÓÍÓÊÂÌËÂ VTR ËÓÚÒÓÂ‰ËÌËÚÂ Ô Ó,Ó‰˝ÎÂÍÚ ÓÔËÚ‡ÌËfl.óÂ ÂÁÓ‰ÌÛÏÌÚÚÛÔÓÓ Ó·ÛÈÚÂ ÒÌÓ,‡. (ÒÚp. 9)
åË„‡ÂÚ Î‡ÏÔÓ˝Í‡ CHARGE.	• ëÏÓÚ ËÚÂ ÒÎÂ‰Û¸˜Û¸ Ú‡·ÎË˜Û.

äÓ„‰‡ ÏË„‡ÂÚ Î‡ÏÔÓ˝Í‡ CHARGE

è Ó,Â ¸ÚÂ ÔÓ ÒÌÂ‰Û¸˝ÂÈ Ú‡·ÎË˜Â.



* ÖÒÎË Ç° ËÒÔÓÎ¸ÁÚÂÚÂ ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ, ÍÓÚÓ °È Ç° ÚÓÎ¸ÍÓ ˜ÚÓ ÍÛÔËÊÎË, ËÎË ÍÓÚÓ °È ·°Î ÓÒÚ‡,ÎÂÌ Ì‡ ‰ÏËÚÂÎ¸ÌÓÂ , ÂÏfl ÚÓ Î‡ÏÔÓ˝Í‡ CHARGE ÏÓÊÂÛ¸ ÏË„‡Ú¸ Ô Ë ÔÂ ,ÓÈ Á‡ fl‰ÍÂ. çÓ ˝ÚÓ ÌÂ fl,ÎfłÂÚÒfl Ô Ó·ÎÂÏÓÈ. èÓ,ÚÓ ËÚÂ ÒÌÓ,‡ Ô Ó˜Â‰Û Û Á‡ fl‰ÍË Ò ÚÂÏ ÊÂ Ò‡Ï°Ï ·‡Ú‡ ÂÈÌ°Ï ·ÎÓÍÓÏ.

English

Specifications

Video Camera Recorder

System

Video recording system
Two rotary heads, Helical scanning, FM system

Audio recording system
Rotary heads, FM system

Video signal
PAL colour, CCIR standards

Usable cassette
8 mm video format cassette (standard 8 mm)

Recording/Playback time
SP mode: 1 hour and 30 minutes (P5-90)
LP mode: 3 hours (P5-90)

Fastforward/rewind time
Approx. 5 min. (P5-90)

Image device
CCD (Charge Coupled Device)

Viewfinder
Electronic viewfinder (Black and white)

Lens
CCD-TR401E: 13x, combined power zoom lens, F1.8 – 2.8
CCD-TR402E: 13x (optical), 26x (digital), combined power zoom lens, F1.8 – 2.8

Focal distance
f = 5.3 – 68.9 mm (7/32 – 2 3/4 inches), 38 – 494 mm (1 1/2 – 19 1/2 inches) when converted to a 35 mm still camera

Colour temperature
Auto

Minimum illumination
0.5 lux at F 1.8

Illumination range
0.5 to 100,000 lux

Recommended illumination
More than 100 lux

Input and Output connectors

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

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

RFU DC OUT
Special minijack, DC 5 V

LANC jack
Stereo-mini-mini-jack (ø 2.5 mm)

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

General

Power requirements
On battery mounting surface 6.0 V (battery pack), 7.5 V (AC power adaptor)

Average power consumption
CCD-TR401E: 3.6 W
CCD-TR402E: 3.7 W

Operating temperature
0°C to 40°C (32°F to 104°F)

Storage temperature
–20°C to +60°C (–4°F to +140°F)

Dimensions
Approx . 115 x 103 x 207 mm (4 5/8 x 4 1/8 x 8 1/4 inches) (w / h / d)

Mass
Excluding the battery pack, lithium battery, cassette and shoulder strap
CCD-TR401E:
Approx. 720 g (1 lb 9 oz)
CCD-TR402E:
Approx. 730 g (1 lb 9 oz)
Including the battery pack NP-33, lithium battery CR2025, cassette P5-90 and shoulder strap
CCD-TR401E:
Approx. 940 g (2 lb 1 oz)
CCD-TR402E:
Approx. 950 g (2 lb 1 oz)

Microphone
Electret condenser microphone
Monaural type

Supplied accessories
See page 6.

AC power adaptor

Power requirements
110 – 240 V AC, 50 / 60Hz

Power consumption
AC-V16: 20 W
AC-V16A: 22 W

Output voltage
DC OUT in operation mode
7.5 V, 1.8 A
Battery charge terminal
10 V, 1.1 A in charge mode

Application
Sony battery pack
Ni-Cd type (6V):
NP-33 (800 mAh) (supplied),
NP-65 / 67 (1500 mAh),
NP-66H / 68 (1800 mAh),
NP-77H / 78 (2400 mAh),
NP-90 / 90D / 98 (3000 mAh)

Operating temperature
0°C to 40°C (32°F to 104°F)

Storage temperature
–20°C to +60°C (–4°F to +140°F)

Dimensions
Approx. 166 x 43 x 75 mm (6 5/8 x 1 11/16 x 3 inches) (w / h / d)
including projecting parts and controls

Mass
AC-V16: Approx. 420 g (15 oz)
AC-V16A: Approx. 450 g (16 oz)

Design and specifications are subject to change without notice.

CCD-TR401E / TR402E3-858-958-11(1).E,R

íÂıÌË˜ÂÒÍËÂ ı‡ ‡ÍÚÂ ËÒÚËÍË

ÇË‰ÂÓÍ‡ÏÂ ‡
ëËÒÚÂÏ‡
ëËÒÚÂÏ‡,Ë‰ÂÓÁ‡ÔËÒÈ
Ñ,Â ¸ ‡˜‡ ˜ËÂÒfl „ÓÎÓ,ÍË,
Ì‡ÍÎÓÌÌ‡fl ˙ ÏÂı‡ÌË˜ÂÒÍ‡fl
‡Á,Â ÚÍ‡, ÒËÒÚÂÏ‡ óå
ëËÒÚÂÏ‡ ‡Û‰ËÓÁ‡ÔËÒÈ
Ç ‡˜‡ ˜ËÂÒfl „ÓÎÓ,ÍË,
ÓËÒÚÂÏ‡ óå
ÇË‰ÂÓÒË„Ì‡Î
ñ,ÂÚÓ,ÓÈ ÒË„Ì‡Î PAL,
ÒÚ‡Ì‰‡ ÚÔÓåäâê
àÒÔÓÎ,ÁÛÂÏ°Â Í‡ÒÒÂÚ°
ä‡ÒÒÂÙ° 8-ÏÏ ,Ë‰ÂÓÙÓ Ï‡Ú‡
(ÒÚ‡Ì‰‡ Ú8ÏÏ)
Ç ÃÏflÁ‡ÔËÒË/
,ÓÒÔ ÓËÁ,Â‰ÂÌËfl
êÂÊËÏ SP: 1 ˜‡Ò Ë 30 ÏËÌÛÚ
(ê5-90)
èÂÊËÏ LP: 3 ˜‡Ò‡ (ê5-90)
Ç ÃÏflÔÂ ÃÏÓÚÍË,ÔÂ Â‰/
Ì‡Á‡‰
è Ë·ÍËÁ. 5 ÏËÌ. (ê5-90)
îÓ ÏË Ó,‡ÚÂÎ¸
ËÁÓ· ‡ÊÂÌËfl
ëëD(Ô Ë·Ó ÒÁ‡ fl‰Ó,ÓÈ
Ò¸flÁ¸)
ÇË‰ÓËÒÌ‡ÚÂÎ¸
ùÎÂÍÚ ÓÌ°È ,Ë‰ÓËÒÌ‡ÚÂÎ¸
óÂ ÌÓ-·ÂÎ°È
é·˙ ÂÍÚË¸
ëëD-TR401E: 13ı,
ÍÓÏ·ËÌË Ó,‡ÌÌ°È Ó·˙ÂÍÚË,
Ò Ô Ë,Ó‰Ì°Ï
Ú ‡ÌÒÙÓÍ‡ÚÓ ÓÏ,F1,8–2,8
ëëD-TR402E: 13ı
(ÓÔÚË˜ÂÒÍËÈ),26ı(˙ËÙ Ó,ÓÈ)
ÍÓÏ·ËÌË Ó,‡ÌÌ°È Ó·˙ÂÍÚË,
Ò Ô Ë,Ó‰Ì°Ï
Ú ‡ÌÒÙÓÍ‡ÚÓ ÓÏ,F1,8–2,8
îÓÍÛÒÌÓÂ ‡ÒÙÚÓflÌËÂ
f=5,3 – 68,9 ÏÏ, 38 – 494 ÏÏ
Ô Ë Ô ÂÓ· ‡ÁÓ,‡ÌËË , 35 ÏÏ
ÒÚÓÔ‡‰
ñ,ÂÚÓ,‡fl ÚÂÏÔÂ ‡ÚÛ ‡
Ä,ÚÓ
å Ë Ì Ë Ï ‡ Î ¸ Ì ‡ fl
ÓÒ,Â˜ÂÌÌÓÒÚ¸
0,5 Î ÍÒ Ô Ë F1,8
ÑË‡Ò‡ÁÓÌ ÓÒ,Â˜ÂÌËfl
ÓÚ 0,5 ‰Ó 100000 Î¸ÍÒ
êÂÍÓÏÂÌ‰ÛÂÏ‡fl
ÓÒ,Â˜ÂÌÌÓÒÚ¸
ÅÓÎÂÂ 100 Î¸ÍÒ

ÇıÓ‰Ì°Â Ë ,°ıÓ‰Ì°Â
‡Á˙ÂÏ°
ÇË‰Â,°ıÓ‰
îÓÌÓ„ÌÂÁ‰Ó,1ÇÔÓ‰,ÓÈÌÓÈ
‡ÏÔÎËÚÛ‰Â, 75 éÏ,
ÌÂÒËÏÎÂÚ Ë˜ÎÔÂ
ÄÛ‰ËÓ,°ıÓ‰
îÓÌÓ„ÌÂÁ‰Ó, 327 ÏÇ (Ô Ë
ÔÓÎÌÓÏÒÓÔ ÓÚËÎÂÌËË
Ì‡„ ÙÁÍË 47 ÍËÎÓÓÍ), ÔÓÎÌÓÂ
ÒÓÔ ÓÚËÎÂÌËÂ ÏÂÌÂÂ, ˜ÂÏ
2,2 ÍËÎÓÓÍ
RF DC OUT
ëÔÂˆË‡Î¸ÌÓÂ ÏËÌË-„ÌÂÁ‰Ó,
5ÇÔÓÒÚ.ÚÓÍ‡
ÉÌÂÁ‰ÓLANC
ëÚÂ ÂÓÙÓÌË˜ÂÒÍÓÂ ÏËÌË-
„ÌÁ‰Ó (ø 2,5 ÍÌ)
ÉÌÂÁ‰ÓMIC
åËÌË-„ÌÂÁ‰Ó, 0,388 ÏÇ,
ÌËÁÍÓÂ ÔÓÍÎÓÂ
ÒÓÔ ÓÚËˇÎÂÂ Ò,°ıÓ‰ÓÏÚÓ
2,5‰Ó3ÇÔÓÒÚ.ÚÓÍ‡,ÔÓÍÎÓÂ
ÒÓÔ ÓÚËˇÎÂÂ 6,8 ÍËÎÓÓÏ (ø
3,5 ÏÏ)

é·˙ÂÂ
í Â·Ó,‡ÌËfl Í ÔËÚ‡ÌË¸
ç‡·‡Ú‡ ÂÈÌÓÈÛÒÙ‡ÌÓ,Ó˜ÌÓÈ
ÔÓ,Â ıÌÓÒÚÚË6,0Ç
(·‡Ú‡ ÂÈÌ°È ·ÎÓÍ), 7,5 Ç
(ÒÂÚÂ,ÓÈ‡‰‡ÔÚÂ ÔÂ ÃÏ.
ÚÓÍ‡)
ë Â‰Ìflfl ÔÓÚÚ Â·ÎflÂÏfl
ÏÓ˜ÌÓÒÒÚ¸
ëëD-TR401E: 3,6 ÇÚ
ëëD-TR402E: 3,7 ÇÚ
ê‡·Ó˜‡fl ÚÂÏÔÂ ‡ÚÛ ‡
éÚ 0°ë‰Ó 40°ë
(ÓÚ 32°F‰Ó 104°F)
íÂÏÔÂ ‡ÚÛ ‡ ı ‡ÌÂÌËfl
éÚ –20°ë‰Ó ‚60°ë
(ÓÚ–4°F‰Ó‚140°F)
ê‡ÁÏÂ ˚
è Ë·ÎËÁ. 115 × 103 × 207 ÏÏ
(¯/‚/„)
å‡ÒÒ‡
çÂ ‚ÍÎ˜‡fl ·‡Ú‡ ÂÈÌÓ„Ó
·ÎÓÍ‡, ÌËÚÚËÂ,ÓÈ ·‡Ú‡ ÂÈÍÎË,
Í‡ÒÒÂÚ° Ë ÔÎÂ˜Â,Ó„Ó ÂÌÌfl
ëëD-TR401E: è Ë·ÎËÁ. 720 „
ëëD-TR402E: è Ë·ÎËÁ. 730 „
ÇÍÎ˜‡fl ·‡Ú‡ ÂÈÌ°È ·ÎÓÍ
NP-33, ÎËÚËÂ,Ú ·‡Ú‡ ÂÈÍÛ
ëR2025, Í‡ÒÒÂÚÛ ê5-90 Ë
ÔÎÂ˜Â,ÓÈ ÂÍÂÌ¸
ëëD-TR401E: è Ë·ÎËÁ: 940 „
ëëD-TR402E: è Ë·ÎËÁ: 950 „

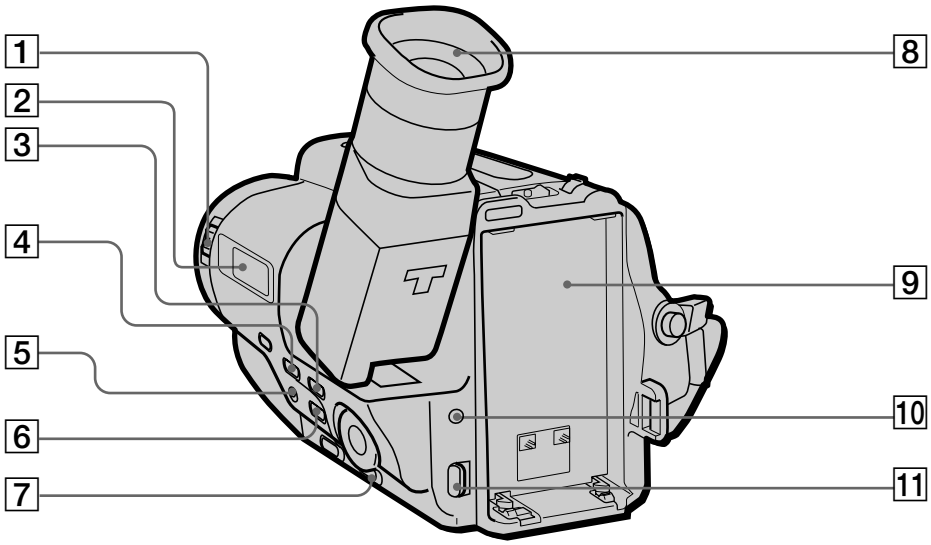
åËÍ ÓÙÓÌ
ùÎÂÍÚ˜ÂÒÍËÈ
ÍÓÌ‰ÂÌÒÒ‡ÚÓ Ì°È ÏËÍ ÓÙÓÌ
åÓÌÓÙÓÌË˜ÂÒÍËÈ ÚËÔ
è ËÎ‡„‡ÂÌ°Â
Ô Ë‡‰ÎÂÌÒÒÚÚË
ëÏ. ÒÚ 6.

ëÂÚÂ,ÓÈ‡‰‡ÔÚÂ
ÔÂ ÃÏÂÌÌÓ„Ó ÚÓÍ‡
í Â·Ó,‡ÌËfl Í ÔËÚ‡ÌË¸
110 – 240 Ç ÔÂ ÂÏ.ÚÓÍ‡, 50/60
É^
èÓÚ Â·ÎflÂÏ‡fl ÏÓ˜ÌÓÒÚ¸
Aë-V16: 20 ÇÚ
Aë-V16A: 22 ÇÚ
Ç°ıÓ‰ÌÓÂ Ì‡Ô flÊÂÌËÂ
DC OUT , ‡·Ó˜ÂÏ ÂÊËÏÂ
7,5 Ç, 1,8 Ä
Ç°ıÓ‰‰ÎflÁ‡ fl‰ÍË·‡Ú‡ ÂË
10 Ç, 1,1 Ä , ÂÊËÏÂ Á‡ fl‰ÍË
è ËÎÂÌÂÌËÂ
Å‡Ú‡ ÂÈÌ°È ·ÎÓÍ Sony
çËÍÂÎ¸-Í‡‰ÏËÂ,°È ÚËÕ (6Ç):
NP-33 (800 ÏÄ·˜)
(Ô ËÎ‡„‡ÀÚÒfl), NP-65/67
(1500 ÏÄ·˜), NP-66H/68 (1800
ÏÄ·˜), NP-77H/78 (2400 ÏÄ·˜),
NP-90/90D/98 (3000 ÏÄ·˜)
ê‡·Ó˜‡fl ÚÂÏÔÂ ‡ÚÛ ‡
éÚ 0°ë‰Ó 40°ë (ÓÚ 32°F‰Ó
104°F)
íÂÏÔÂ ‡ÚÛ ‡ ı ‡ÌÂÌËfl
éÚ –20°ë‰Ó +60°ë
(éÚ–4°F‰Ó+140°F)
ê‡ÁÏÂ ˚
è Ë·ÎËÁËÚ. 166 × 43 × 75 ÏÏ
(¯/‚/„), ¸ÍÎ˜‡fl
¸°ÒÚÚÔ‡˜ËÂ ˜‡ÒÚÚË
¸Â„ÛÎflÚÓ°
å‡ÒÒ‡
Aë-V16: è Ë·ÎËÁ. 420 „
Aë-V16A: è Ë·ÎËÁ. 450 „

äÓÌÒÚ ÛÍˆËflËÚÂıÌË˜ÂÒÍËÂ
ı‡ ‡ÍÚÂ ËÒÚÚËÍË ÏÓ„ÚÚ·°Ú¸
ËÁÏÂÌÂÌ° ·ÁÂ Û,Â‰ÓÏÎÂÌËfl.

Identifying the Parts

ç‡ËÏÂÌÓ‚‡ÌËÂ ‰ÂÚ‡ÎÈ



1 **POWER switch (p. 12, 22)**

2 **Display window (p. 66)**

3 **TIME(NEXT) button (p. 27, 38)**

4 **DATE(+) button (p. 27, 38)**

5 **COUNTER RESET button (p. 15)**

6 **TITLE button (p. 32)**

7 **16:9 WIDE mode switch (CCD-TR402E only) (p. 33)**

8 **Eyecup (p. 17, 47)**

9 **Battery mounting surface (p. 10)**

10 **LANC control jack**

Connect the LANC connecting cable to a wired remote control unit such as an editing controller. In this case, set the COMMANDER mode to OFF (p. 34). stands for Local Application Control Bus sytem. The control jack is used for controlling the tape transport of video equipment and peripherals connected to it. This jack has the same function as the connectors indicated as CONTROL L or REMOTE.

11 **BATT (battery) release knob (p. 10)**

1 Ç˚ÍÎ¸˜‡ÚÂÎ¸ POWER (ÒÚ . 12, 22)

2 éÍÓ¯ÍÓ ‰ËÒÔÎÂfl (ÒÚ . 66)

3 äÌÓÔÍ‡ TIME (NEXT) (ÒÚ . 27, 38)

4 äÌÓÔÍ‡ DATE (+) (ÒÚ . 27, 38)

5 äÌÓÔÍ‡ COUNTER RESET (ÒÚ . 15)

6 äÌÓÔÍ‡ TITLE (ÒÚ . 32)

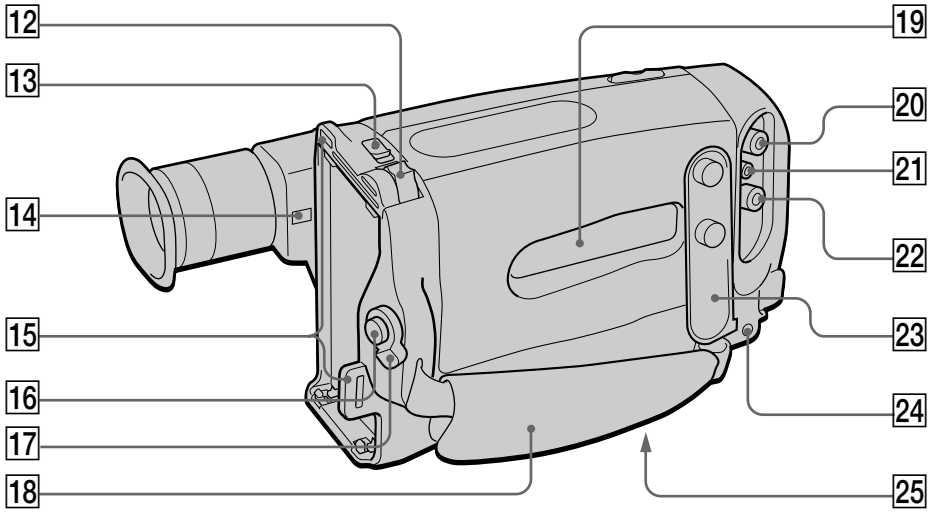
7 Ç˚ÍÎ¸˜‡ÚÂÎ¸ ¯Ë ÓÍÓÙÓ Ï‡ÚÌÓ„Ó ÂÊËÏ‡ 16:9 WIDE (ÍÓÎ¸ÍÓ ‰Îfl ÏÓ‰ÂÎË CCD-TR402E) (ÒÚ .33)

8 éÍÛÎfl (ÒÚ . 17, 47)

9 Å‡Ú‡ ÂÈÌ‡fl ÛÒÚ‡ÌÓ,Ó˜Ì‡fl ÔÓ,Â ıÌÓÒÚ¸ (ÒÚ .10)

10 ÉÌÂÁ‰Ó ÛÔ ‡,ÎÂÌËfl LANC èÓ‰ÎÎ¸˜ËÚÂ Í‡·ÂÎ¸ LANC Í ÔÛÎÚ ÚÛ Ô Ó,Ó‰ÌÓ„Ó‰ËÒÒÌ‡Ì˜ËÓÌÓ„Ó ÛÔ ‡„ÎÂÌËfl, ËÒÔÓÎ ÁÛÃÏÓ„Ó ,Í‡˜ÂÒÚ,Â ‰ÓÔÓÎÌËÚÂÎ ÌÓ„Ó Ó „‡Ì‡ ÛÔ ‡,ÎÂÌËfl. Ç ˝ÚÓÏ ÒÎÛ˜‡Â ÙÒÚ‡ÌÓ,ËÚÂ ÂÊËÏ COMMANDER ÔÓÎÓÊÂÌËÂ OFF (ÒÚ . 34). ÓÁÌ‡˜‡ÂÚ ÒËÒÚÂÏÛ Í‡Ì‡Î‡ ÏÂÒÙÌÓ„Ó ÛÔ ‡,ÎÂÌËfl. ÉÌÂÁ‰Ó ÛÔ ‡,ÎÂÌËfl ËÒÔÓÎ¸ÁÛÂÚÒfl‰ÎflÍÓÌÚ ÓÎflÁ‡ ÔÂ ÂÎÂ˜ÂÌËÂÌ ÎÂÌÚ° ,Ë‰ÂÓÓ·Ó Û‰,‡ÌËfl ËÔÂ ËÙÂ ËËÌ°ı ÛÒÚ ÓÈÒÚ„ ÔÓ‰ÍÎ¸˜ÂÌ°ı Í ÌÂÏÛ. Ñ‡ÌÌÓÂ „ÌÂÁ‰Ó ËÏÂÂÚ Ú‡ÍÛ¸ ÊÂ ÙÛÌÍˆÈ¸, Í‡Í Ë ‡Á˙ÂÏ°, Ó·ÓÁÌ‡˜ÂÌÌ°Â Í‡Í CONTROL L ËÎÏ REMOTE.

11 äÌÓÔÍ‡ ÓÒ,Ó·ÓÊ‰ÂÌËfl (·‡Ú‡ ÂË) BATT (ÒÚ .10)



12 **Power zoom lever (p. 16)**

13 **EJECT knob (p. 11)**

14 **Eyecup release knob (p. 47)**

15 **Hooks for shoulder strap (p. 62)**

16 **START/STOP button (p. 12)**

17 **STANDBY switch (p. 12)**

18 **Grip strap (p. 17)**

19 **Cassette compartment (p. 11)**

20 **VIDEO OUT jack (p. 20)**

21 **RFU DC OUT (RFU adaptor DC out) jack**

22 **AUDIO OUT jack (p. 20)**

23 **Jack cover**

24 **MIC (microphone) jack**
Connect an optional external microphone. This jack also accepts a “plug-in-power” microphone.

25 **Tripod receptacle (p. 18)**
Attach a tripod (not supplied) here.

12 ê°˜‡„Ô Ë‚Ó‰ÌÓ„Ó Ú ‡ÌÒÙÓÍ‡ÚÓ ‡ (ÒÚ . 16)

13 äÌÓÔÍ‡ EJECT (ÒÚ . 11)

14 äÌÓÔÍ‡ ÓÒ‚Ó·ÓÊ‰ÂÌËfl ÓÍÛÎfl ‡ (ÒÚ . 47)

15 ä ¸˜ÍË ‰Îfl ÔÎÂ˜Â‚Ó„Ó ÂÎfl (ÒÚ . 62)

16 äÌÓÔÍ‡ START/STOP (ÒÚ . 12)

17 èÂ ÂÍÎ¸˜‡ÚÂÎ¸ STANDBY (ÒÚ . 12)

18 êÂÏÎÌ¸ Á‡ı‚Ú‡ (ÒÚ . 17)

19 éÚÒÂÍÍ‡ÒÒÂÚ° (ÒÚ . 11)

20 ÉÌÂÁ‰Ó VIDEO OUT (ÒÚ . 20)

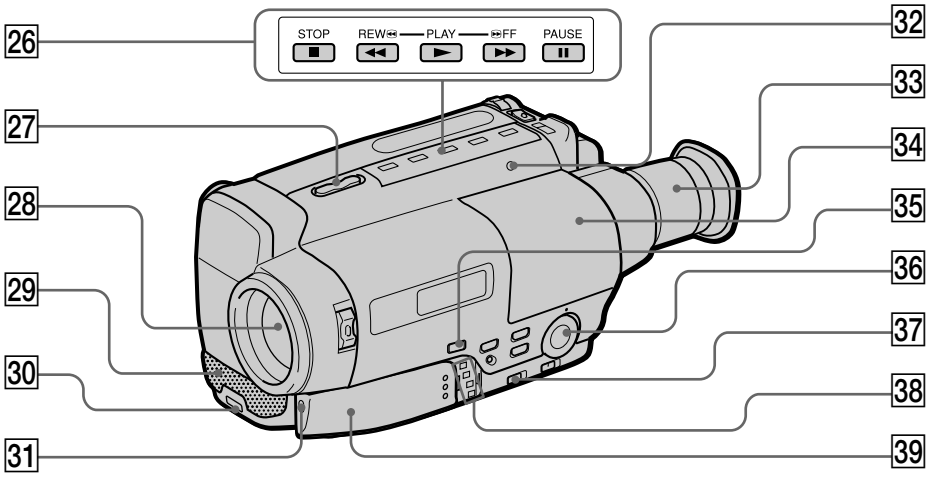
21 ÉÌÂÁ‰Ó RFU DC OUT (‚°ıÓ‰ ‡‰‡ÔÚÂ ‡ ÔÓÒÚ.ÚÓÍ‡ RFU)

22 ÉÌÂÁ‰Ó AUDIO OUT (ÒÚ . 20)

23 ä °¯Í‡ „ÌÂÁ‰‡

24 ÉÌÂÁ‰Ó MIC (ïËÍ ÓÙÓÌ‡) èÓ‰ÒÒÓÂ‰ËÌËÚÂ‰ÓÔÓÍÎÌËÚÂÎ¸Ì°È ‚ÌÂ¯ÌËÈ ïËÍ ÓÙÓÌ.ùÚÓ „ÌÂÁ‰ÓÚ‡ÍÎÊÂÔÓ‰ıÓ‰ËÚ ‰Îfl ÒÓ‰ıÎ¸˜ÂÌËfl ïËÍ ÓÙÓÌ‡ Ò “‚ÍÎ¸˜ÂÌËÂÏ ÔËÚ‡ÌËfl”.

25 ÑÂ Ê‡ÚÂÎ¸ Ú ÂÌÓÊÌÈÍ‡ (ÒÚ . 18) è ËÒÓÂ‰ÈÌËÚÂÚ ÂÌÓÊÌÈÍ (ÌÂ Ô ËÎ‡„‡ÚÒfl)Á‰ÂÒ¸.



26 **Tape transport buttons (p. 22, 23)**
■ STOP
◄◄ REW (rewind)
► PLAY (playback)
►► FF (fast forward)
❚❚ PAUSE
These buttons will function in PLAYER mode.

27 **EDITSEARCH button (p. 19)**

28 **Lens cover**

29 **Built-in microphone**

30 **Remote sensor (p. 64)**

31 **Camera recording/battery lamp**

32 **DEW lamp (p. 45)**

33 **Viewfinder adjustment ring (p. 13)**

34 **Viewfinder (p. 13)**

35 **BACK LIGHT button (p. 30)**

36 **PROGRAM AE dial (p. 28)**

37 **START/STOP MODE switch (p. 12, 14, 31)**

38 **Mode switches (p. 34)**

39 **Lithium battery compartment (p. 37)**

26 äÌÓÔÍË ÔÂ ÂÏÂ˜ÂÌËfl ÎÂÌÚ° (ÒÚ . 22, 23)
■ STOP (ÓÒÚ‡ÌÓ‚Í‡)
◄◄ REW (ÔÂ ÂÏÓÚÍ‡Ì‡Á‡‰)
►PLAY (‚ÓÒÔ ÓËÁ‚‰ÂÌËÂ)
►►FF (ÔÂ ÂÏÓÚÍ‡‚ÔÂ Â‰)
❚❚PAUSE (Ô‡ÛÁ‡)
ùÚË ÎÍÓÔÍË ·Û‰ÛÚ ÙÛÌÍˆËÓÌË Ó‚‡Ú¸ , ÂÊËÎÂ PLAYER.

27 äÌÓÔÍ‡ EDITSEARCH (ÒÚ . 19)

28 ä °¯Í‡ Ó·˙ ÂÍÚË‚‡

29 ÇÒÚ ÓÂÌÌ°È ÏËÍ ÓÙÓÌ

30 ÑËÒÚ‡Ì˜ËÓÌÌ°È ‰‡Ú˜ËÍ (ÒÚ . 64)

31 ã‡ÏÔÓ˜Í‡ Á‡ÔËÒË ‚Ë‰ÂÓÍ‡ÏÂ °/ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡

32 ã‡ÏÔÓ˜Í‡ **DEW** (ÒÚ . 45)

33 äÓÎ¸˜Ó Â„ÛÎË Ó‚ÍË ‚Ë‰ÓËÒÌ‡ÚÂÎfl (ÒÚ .13)

34 ÇË‰ÓËÒÌ‡ÚÂÎ¸ (ÒÚ .13)

35 äÌÓÔÍ‡ BACK LIGHT (ÒÚ . 30)

36 ÑËÒÍ PROGRAM AE (ÒÚ . 28)

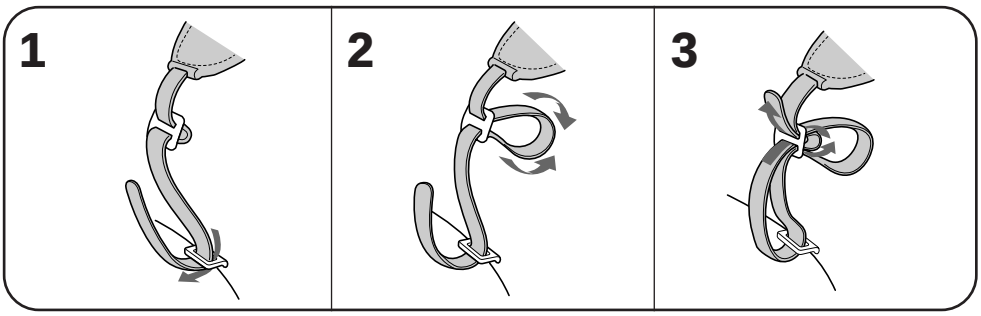
37 èÂ ÂÍÎ¸˜‡ÚÂÎ¸ START/STOP MODE (ÒÚ . 12, 14, 31)

38 èÂ ÂÍÎ¸˜‡ÚÂÎË ÂÊËÏÓ, (ÒÚ . 34)

39 éÚÒÂÍÎËÚËÂ‚ÓÈ ·‡Ú‡ ÂÈÍËË (ÒÚ . 37)

Attaching the shoulder strap
Attach the supplied shoulder strap to the hooks for the shoulder strap (15 on page 60).

è ËÍ ÂÔÎÂÌËÂ ÔÎÂ˜Â‚Ó„Ó ÂÏÌfl
è ËÍ ÂÔËÚÂ Ô ËÎ‡„‡ÂÏ˚È ÔÎÂ˜Â‚ÓÈ ÂÏÂÌ¸ Í
Í¸˜ÍÛ ‰Îfl ÔÎÂ˜Â‚Ó„Ó ÂÏÌfl (15 Ì‡ ÒÚ . 60).

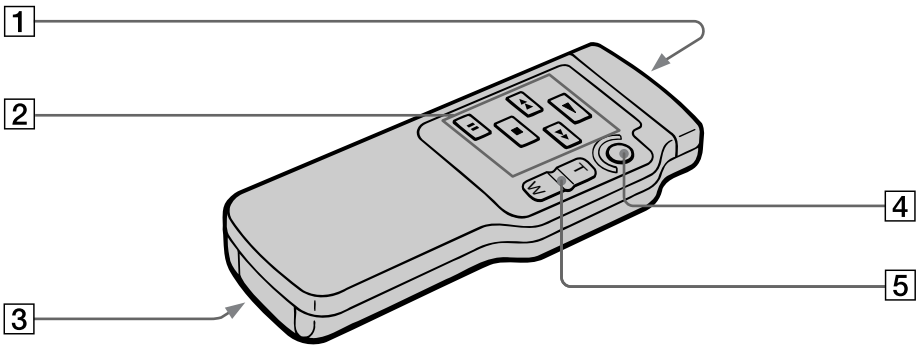


Remote Commander

èÛÎ¸Ú ‰ËÒÚ‡ÌˆËÓÌÌÓ„Ó ÛÔ ‡,ÎÂÌËfl

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

äÌÓÔÍË Ò Ó‰ËÌ‡ÍÓ,˚ÏË Ì‡Á,‡ÌËfl˚Ë Ì‡
ÔÛÎ¸ÚÂ‰ËÒÚ‡ÌˆËÓÌÌÓ„Ó ÛÔ ‡,ÎÂÌËfl Ë Ì‡
,Ë‰ÂÓÍ‡ÏÂ Â ÙÛÌÍˆËÓÌË Û¸Ú Ë‰ÂÌÚË˜ÌÓ.



1 **Transmitter**
Point toward the remote sensor to control the camcorder after turning on the POWER switch on the camcorder.

2 **Tape transport buttons (p. 22, 23)**

3 **R6 (size AA) battery holder (p. 63)**

4 **START/STOP button**

5 **Power zoom button**
The zooming speed is unchangeable on the Remote Commander.

1 èÂ Â‰‡Ú˝ËÍ
ç‡Ô ‡,¸ÚÂ Â„Ó Ì‡ ‰ËÒÚ‡ÌˆËÓÌ˚È ‰‡Ú˝ËÍ
‰Îfl ÙÔ ‡,ÎÂÌËfl,Ë‰ÂÓÍ‡ÏÂ ÓÈ ÔÓÒÒÎÂ
,ÍÎ¸˜ÂÌËfl ÔËÚ‡ÌËfl Ò ÔÓÏÓ˘¸‚
,˚ÍÎ¸˜‡ÚÂÎfl POWER Ì‡ ,Ë‰ÂÓÍ‡ÏÂ Â.

2 äÌÓÔÍË ÔÂ ÂÏÂ˜ÂÌËfl ÎÂÌÚ˚ (ÒÚ . 22, 23)

3 ÑÂ Ê‡ÚÂÎ¸ ·‡Ú‡ ÂÂÍ R6 (‡ÁÍÂ ÄÄ) (ÒÚ .63)

4 äÌÓÔÍ‡ START/STOP

5 äÌÓÔÍ‡ Ô Ë‚Ó‰ÌÓÈ Ú ‡ÌÒÙÓÍ‡ˆËË ëÍÓ ÓÒÚ¸Ú ‡ÌÒÙÓÍ‡ˆËËfl,ÎflÎÂÚÒfl ÌÂËÁÏÂÌÌÓÈ Ô Ë ÛÔ ‡,ÎÂÌËË Ò ÔÓÏÓ˘¸‚ ÔÛÎ¸Ú‡‰ËÒÚ‡ÌˆËÓÌÌÓ„Ó ÛÔ ‡,ÎÂÌËfl.

Preparing 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.

èÓ‰„ÓÚÓ‚Í‡ ÔÛÎ¸Ú‡ ‰ËÒÚ‡Ì˚ËÓÌÌÓ„Ó ÛÔ ‡,ÎÂÌËfl

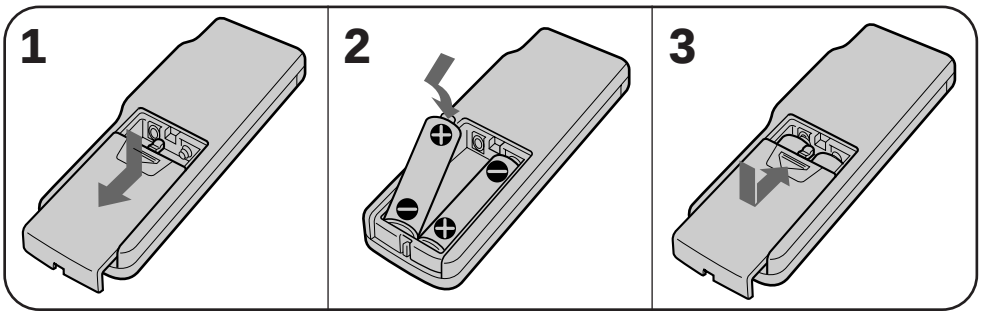
ÑÎfl ËÒÔÓÎ¸ÁÓ‚‡ÌËfl ÔÛÎ¸Ú‡‰ËÒÚ‡Ì˚ËÓÌÌÓ„Ó ÛÔ ‡,ÎÂÌËfl Ç˚ ‰ÓÍÊÌ˚ ¸ÒÚ‡,ËÚ¸ ‰„Â ·‡Ú‡ ÂÈÍË R6 (‡ÁÎÂ ÓÏ ÄÄ).

ÇÓÔÔÓÎ¸ÁÛÈÚÂÒ¸ Ô ÉÎ‡„‡ÂÌ˝ÏË ·‡Ú‡ ÂÈÍ‡ÏË R6 (‡ÁÎÂ ÓÏ ÄÄ).

(1) ëÌËÏËÚÂ Í ˚¯ÍÛ ÓÚÒÂÍ‡ ·‡Ú‡ ÂÂÍ Ò ÔÛÎ¸Ú‡‰ËÒÚ‡Ì˚ËÓÌÌÓ„Ó ÛÔ ‡,ÎÂÌËfl.

(2) ÇÒÚ‡¸ÚÂ Ó·Ã·‡Ú‡ ÂÈÍË R6 (‡ÁÎÂ ÓÏ ÄÄ) Ô Ô ‡,ÈÍ ÌÓÈ ÔÓÎfl ÌÓÒÚ¸.

(3) ìÒÚ‡ÌÓ¸ÊÚÂ Í ˚¯ÍÛ Ì‡ ÔÛÎ¸Ú ‰ËÒÚ‡Ì˚ËÓÌÌÓ„Ó ÛÔ ‡,ÎÂÌËfl.



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.

Using the Remote Commander

Make sure that the COMMANDER mode is set to ON (p. 34).

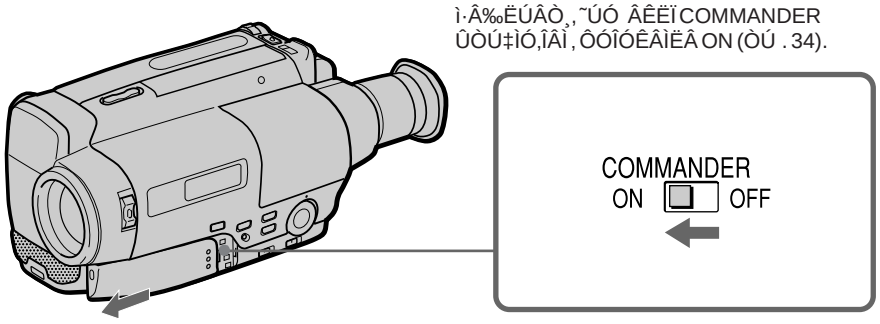
è ËÏÂ˜‡ÌËÂ ÓÚÌÓÒËÚÂÎ¸ÌÓ Ò ÓÍ‡ ÒÎÛÊ·° ·‡Ú‡ ÂÂÍ

Å‡Ú‡ ÃÂÍ‰Îfl ÔÛÎ¸Ú‡‰ËÒÚ‡Ì˚ËÓÌÌÓ„Ó ÛÔ ‡,ÎÂÌËfl ı,‡Ú‡ÂÚ Ô ËÏÂ ÌÓ Ì‡ 6 ÎÂÒfl ˆÂ, Ô ËÌÓ ï‡Î¸ÌÓÈ ˝ÍÒÔÎÛ‡Ú‡ˆËË. ÒÒÎË Á‡ fl‰ ·‡Ú‡ ÂÂÍ ÒÚ‡ÌÂÚ ÒÎ‡·˚ÏËÎË ËÁ ‡ÒıÓ‰ÛÂÚÒfl ÒÓ‚ÒÎÏ, ÔÛÎ¸Ú ‰ËÒÚ‡Ì˚ËÓÌÌÓ„Ó ÛÔ ‡,ÎÂÌËfl ÔÂ ÂÒÚ‡ÌÂÚ ÙÛÌ˚ËÓÌË Ó‚Ú¸.

ÇÓ ËÁ·ÂÊ‡ÌËÂ ÔÓ, ÂÊ‰ÂÌËfl ¸ÒÎÂ‰ÓÚ‚Ë‚ ¸ÓÁÏÓÊÈÓÈ ÛÚÂ˜ÍË ÒÓ‰Â ÊËÏÓ„Ó ·‡Ú‡ ÂÂÍ ì‰‡ÎËÚÂ ·‡Ú‡ ÂÈÍË, ÂÒÎË Ç˚ ÌÂ ·Û‰ÂÚÂ ËÒÔÓÎ¸ÁÓ‚‡Ú¸ ÔÛÎ¸Ú ‰ËÒÚ‡Ì˚ËÓÌÌÓ„Ó ÛÔ ‡,ÎÂÌËfl ‰ÌËÚÂÎ¸ÌÓÂ , ÂÏfl.

àÒÔÓÎ¸ÁÓ‚‡ÌËÂ ÔÛÎ¸Ú ‰ËÒÚ‡Ì˚ËÓÌÌÓ„Ó ÛÔ ‡,ÎÂÌËfl

ì·Â‰ËÚÂÒ¸ ˜ÚÓ ÂÊËÏ COMMANDER ÛÒÚ‡ÌÓ,ÎÂÌ¸ ÔÓÎÓÊÂÌÌÂÂ ON (ÒÚ . 34).

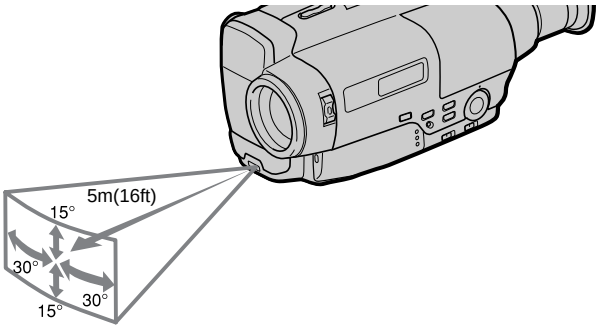


Remote Control Direction

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

ç‡Ô ‡‚ÎÂÌËÂ ÔÛÎ¸Ú‡ ‰ËÒÚ‡ÌˆËÓÌÓ„Ó ÙÔ ‡‚ÎÂÌËfl

ç‡Ô ‡‚¸ÚÂ ÔÛÎ¸Ú‰ËÒÚ‡ÌˆËÓÌÓ„Ó ÙÔ ‡‚ÎÂÌËfl Ì‡ ‰ËÒÚ‡ÌˆËÓÌ°È ‰‡Ú˜ËÍ , Ô Â‰ÂÎ‡ı ‰Ë‡Ô‡ÁÓÌ‡, ÔÓÍ‡Á‡ÌÌÓ„Ó ÌËÊÂ.



Notes on the Remote Commander

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

è ËÏÂ˜‡ÌËfl ÓÚÌÓÓÒËÚÂÎ¸ÌÓ ÔÛÎ¸Ú‡ ‰ËÒÚ‡ÌˆËÓÌÓ„Ó ÙÔ ‡‚ÎÂÌËfl

- ê‡ÒÔÓÍ‡„‡ÈÚÂ‰ËÒÚ‡ÌˆËÓÌ°È‰‡Ú˜ËÍ ‚‰‡ÎÈ ÓÚ ÒËÎ¸Ì°ı ËÒÚÓ˜ÌËÍÓ, Ò‚ÂÚ‡, Ú‡ÍËı, Í‡Í Ô flÏÓÈ ÒÓÎÌÂ˜Ì°È Ò‚ÚÚ ËÎÈ ËÎÎ¸ÏËÌ‡ˆËfl. Ç Ô ÓÚËÌÓÏ ÒÌÛ˜‡Â ‰ËÒÚ‡ÌˆËÓÌÓÂ ÛÔ ‡‚ÎÂÌËÂ ÏÓÊÂÚ ÌÂ Ò ‡·‡Ú°‚‡Ú¸.
- ì·Â‰ËÚÂÒ¸, ˜ÚÓ ÏÂÊ‰Û ‰ËÒÚ‡ÌˆËÓÌ°Ï ‰‡Ú˜ËÍÓÏ Ë ÔÛÎ¸ÚÓÏ ÛÔ ‡‚ÎÂÌËfl ÌÂÚ ÔÂÔflÚÒÚ‚Ëfl.
- Ñ‡ÌÌ‡fl ‚Ë‰ÂÓÍ‡ÏÏÂ ‡ ‡·ÓÚ‡ÂÚ , ÂÊËÏÂ ÔÛÎ¸Ú‡ ÛÔ ‡‚ÎÂÌËfl VTR 2 (äÇå 2). êÂÊËÏ° ÔÛÎ¸Ú‡ ÛÔ ‡‚ÎÂÌËfl (1, 2 Ë 3) ËÒÔÓÍ‡ÚÛ¸ÚÒfl ‰‡Îfl ÓÚÎË˜Ëfl ‰‡ÌÌÓÈ ‚Ë‰ÂÓÍ‡ÏÏÂ ° ÓÚ ‰ Û„Ëı äÇå ÙË Ï° Sony, ˜ÚÓ·° ËÁ·ÂÊ‡Ú¸ ÌÂÔ ‡‚Ë¸ÌÓ„Ó Ò ‡·‡Ú°‚‡ÌËfl Ô Ë ‰ËÒÚ‡ÌˆËÓÌÓÏ ÛÔ ‡‚ÎÂÌËÈ. ÒÒÎË Ç° ËÒÔÓÍ¸ÁÛÂÚÂ‰ Û„ËÂ äÇå ÙË° Sony, ÂÊËÏÂ ÔÛÎ¸Ú‡ ÛÔ ‡‚ÎÂÌËfl VTR 2 (äÇå 2), ÂÍÓÏÂÌ‰ÛÂÚÒfl ËÁÏÂÌËÚ¸ ÂÊËÏ Ì‡ ÔÛÎ¸ÚÂ ÛÔ ‡‚ÎÂÌËfl ËÎÎË Á‡Í °Ú¸ ‰ËÒÚ‡ÌˆËÓÌ°È ‰‡Ú˜ËÍ äÇå ˜Â ÌÓÈ ·ÛÍ‡„ÓÈ.

To Watch the Demonstration

You can watch a brief demonstration of pictures with titles.

If the demonstration appears when you turn on the camcorder for the first time, exit the Demo mode to use your camcorder.

To enter Demo mode

(1) Eject the cassette and slide the POWER switch to OFF.
(2) Turn STANDBY up.
(3) While holding down ►, slide the POWER switch to CAMERA. Demonstration starts. The demonstration stops when you insert the cassette.

Note that once you enter Demo mode, this mode is retained as long as the lithium battery is in place. Therefore, demonstration starts automatically 10 minutes later every time you slide the POWER switch to CAMERA, or after you eject the cassette.

To exit Demo mode

(1) Slide the POWER switch to OFF.
(2) Turn STANDBY up.
(3) While holding down ■, slide the POWER switch to CAMERA.

ÑÎfl Ô ÓÒÏÓÚ ‡‰ÂÏÓÌÒÚ ‡ˆËË
Ç˚ÏÓÊÂÚÂÔ ÓÒÏÓÚ ÂÚ¸ÍÓ ÓÚÍÛ¸
‰ÂÏÓÌÒÚ ‡ˆË¸ ËÁÓ· ‡ÊÂÌËÈ Ò Ì‡‰ÔËÒfllËë.
ÖÒÎË ‰ÂÏÓÌÒÚ ‡ˆËfl ÔÓfl,ÎflÂÚÒfl, ÍÓ„‰‡Ç˚
ËÒÔÓÎ¸ÁÛÂÚÂ,Ë‰ÂÓÍ‡ÏÃ Û,ÔÂ ,˚È ‡Á,ÚÓ
Ú Â·ÛÂÚÒfl,˚ÈÚËËÁ‰ÂÏÓÌÒÚ ‡ˆËÓÌÓ„Ó
ÂÊËÏ‡ ‰Îfl ËÒÔÓÎ¸ÁÓ,‡ÌËfl ,Ë‰ÂÓÍ‡ÏÂ ˚.

ÑÎfl ,ıÓ‰‡ , ‰ÂÏÓÌÒÚ ‡ˆËÓÌ˚È ÂÊËÏ
(1) Ç˚ÚÓÍÎÎËÚÂÍ‡ÒÒÂÚÛ ËÔÓ,Â ÌËÚÂ
,˚ÍÎ¸˜‡ÚÂÎ¸ POWER , ÔÓÎÓÊÂÀËÂ OFF.
(2) èÓ,Â ÌËÚÂ STANDBY „Â ı.
(3) ç‡ÊËÏ‡fl ►, ÔÂ Â‰,ËÌ¸ÚÂ ,˚ÍÎ¸˜‡ÚÂÎ¸
POWER , ÔÓÎÓÊÂÀËÂ CAMERA.
ÑÂÏÓÌÒÚ ‡ˆËfl Ì‡˜ËÌ‡ÂÚÒfl. ÑÂÏÓÌÒÚ ‡ˆËfl
Á‡Í‡Ì˜Ë,‡ÂÚÒfl, ÍÓ„‰‡ Ç˚ ,ÒÚ‡,ËÚÂ
Í‡ÒÒÂÚÛ.
é· ‡ÚËÚÂ ,ÌËÏ‡ÌËÂ, ˜ÚÓ ÂÒÎË Ç˚ „ÂÎË
‰ÂÏÓÌÒÚ ‡ˆËÓÌ˚È ÂÊËÏ, ÚÓ˝ÚÓÚ ÂÊËÏ
ÒÓı ‡ÎflÂÚÒfl‰Ó ÚÂı ÔÓ ,ÔÓÍ‡ÛÒÚ‡ÌÓ,ÎÂÌ‡
ÎËÚËÂ,‡fl ·‡Ú‡ ÂÈÍ‡. í‡ÍÍËÏ Ó· ‡ÁÓÏ,
‰ÂÏÓÌÒÚ ‡ˆËfl Í‡Ê‰˚È ‡Á‡,ÚÓÏ‡ÚËˆÂÒÍÍË
Ì‡˜ËÌ‡ÂÚÒfl˜Â ÂÁ 10 ÏËÌÛÚ ÔÓÒÌÎÂ ÚÓ„Ó, Í‡Í
Ç˚ ÔÓ,Â ÌÂÚÂ ,˚ÍÎ¸˜‡ÚÂÎ¸ POWER ,
ÔÓÎÓÊÂÀÌËÂ CAMERA ËÎÎË ÔÓÒÒÎÂ
,˚Ú‡ÎÍË,‡ÌËfl Í‡ÒÒÂÚ˚.

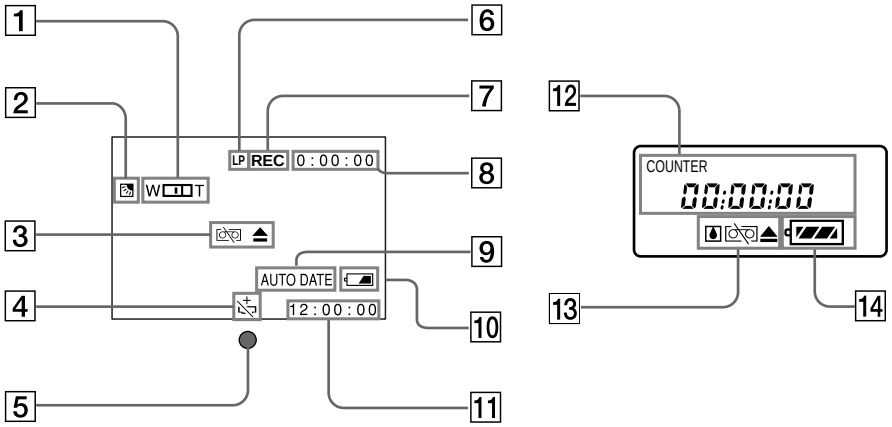
ÑÎfl ,˚ıÓ‰‡ ËÁ ‰ÂÏÓÌÒÚ ‡ˆËÓÌÓ„Ó
ÂÊËÏ‡
(1) èÂ Â‰,ËÌ¸ÚÂ ,˚ÍÎ¸˜‡ÚÂÎ¸ POWER ,
ÔÓÎÓÊÂÀÌËÂ OFF.
(2) èÓ,Â ÌËÚÂ STANDBY „Â ı.
(3) ç‡ÊËÏ‡fl ■, ÔÂ Â‰,ËÌ¸ÚÂ ,˚ÍÎ¸˜‡ÚÂÎ¸
POWER , ÔÓÎÓÊÂÀËÂ CAMERA.

Operation Indicators

The indicators in the display window appear in CAMERA mode only.

Ç,Ë‰ÓËÒÌ‡ÚÂÎÂ

àÌ‰ËÍ‡ÚÓ ° ÔÓfl,Îfl¸ÚÒfl ÚÓÎ¸ÍÓ , ÂÊËÏÂ CAMERA.



1 **Power zoom indicator (p. 17)**
CCD-TR402E only

2 **Backlight indicator (p. 30)**

3 **Warning indicator (p. 67)**

4 **Lithium battery indicator (p. 36)**

5 **Recording lamp/battery lamp (p. 12)**

6 **Recording in LP mode (p. 12)**

7 **Tape transport mode (p. 12)**

8 **Tape counter (p. 15)**

9 **AUTO DATE indicator (p. 12)**

10 **Remaining battery indicator (p. 40)**

11 **Date, Time or Title (p. 27, 32)**

12 **Tape counter (p. 15)**
Date or time indicator (p. 27)

13 **Warning indicator (p. 67)**

14 **Remaining battery indicator (p. 40)**

1 àÌ‰ËÍ‡ÚÓ Ô Ë‚Ó‰ÌÓ„Ó Ú ‡ÌÒÙÓÍ‡ÚÓ ‡ (ÒÚ .17)

íÓÎ¸ÍÓ ‰Îfl ÏÓ‰ÂÎÈ CCD-TR402E

2 àÌ‰ËÍ‡ÚÓ Á‡‰ÌÂÈÔÓ‰Ò‚ÚÍÏË (ÒÚ .30)

3 è Â‰ÛÔ ÂÊ‰‡¸˘ËÈËÌ‰ËÍ‡ÚÓ (ÒÚ .67)

4 àÌ‰ËÍ‡ÚÓ ÎËÚËÂ‚ÓÈ ·‡Ú‡ ÂÈÍÏË (ÒÚ .36)

5 ã‡ÏÔÓ˜Í‡ Á‡ÔËÒÈË/Î‡ÏÔÓ˜Í‡ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ (ÒÚ . 12)

6 á‡ÔËÒ¸ , ÂÊËÏÂ LP (ÒÚ . 12)

7 êÂÊËÏ ÔÂ ÂÏÂ˘ÂÌËfl ÎÂÌÚ° (ÒÚ . 12)

8 ë˜ÂÚ˜ËÍ ÎÂÌÚ° (ÒÚ . 15)

9 àÌ‰ËÍ‡ÚÓ AUTO DATE (ÒÚ .12)

10 àÌ‰ËÍ‡ÚÓ ÓÒÚ‡¸¯Â„ÓÒfl Á‡ fl‰‡ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ (ÒÚ . 40)

11 Ñ‡Ú‡, , ÂÏfl ËÎÎË Ì‡‰ÔËÒ¸ (ÒÚ . 27, 32)

12 ë˜ÂÚ˜ËÍ ÎÂÌÚ° (cÚp. 15)
àÌ‰ËÍ‡ÚÓ ‰‡Ú° ËÎË , ÂÏÂÌË (ÒÚp. 27)

13 è Â‰ÛÔ ÂÊ‰‡¸˘ËÈËÌ‰ËÍ‡ÚÓ (ÒÚp.67)

14 àÌ‰ËÍ‡ÚÓ ÓÒÚ‡¸¯Â„ÓÒfl Á‡ fl‰‡ ·‡Ú‡ ÂÈÌÓ„Ó ·ÎÓÍ‡ (ÒÚp. 40)

Warning Indicators

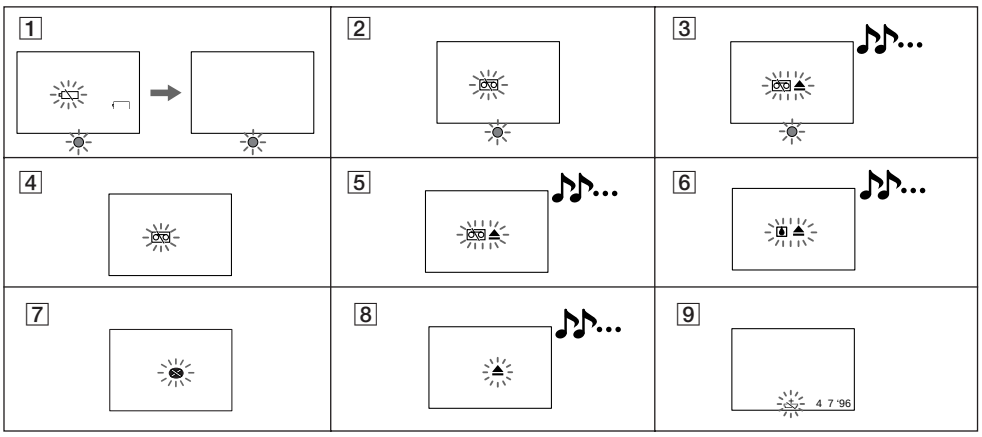
è Â‰ÛÔ ÂÊ‰‡¸˘ËÂ ËÌ‰ËÍ‡ÚÓ ˚

All indicators appear only when you use the camcorder in CAMERA mode.
If indicators flash in the viewfinder, or a caution lamp on the camcorder flashes, check the following:

♪: You can hear the beep sound when BEEP is set to ON (p. 34).

ÇÒÂ ËÌ‰ËÍ‡ÚÓ ˚ ÔÓfl‚ÎflÌ¸ÚÒfl ÚÓÎ¸ÍÓ ÚÓ„‰‡, ÍÓ„‰‡ Ç˚ ËÒÔÓÎ¸ÁÛÂÚÂ,Ë‰ÂÓÍ‡ÎÂ Û, ÂÊËÏÂ CAMERA.
ÖÒÌË , ,Ë‰ÓËÒÍ‡ÚÂÎÂ ÏË„‡¸Ú Ë‰ËÍ‡ÚÓ ˚ ËÎÊ Ì‡ ,Ë‰ÂÓÍ‡ÏÂ Â ÏË„‡ÂÚ ÒË„Ì‡Î¸Ì‡fl Î‡ÏÔÓ˜Í‡, Ô Ó,Â ¸ÚÂ ÒÎÂ‰Û˚ÂÂ:

♪: Ç˚ ÏÓÊÂÚÂ ÒÎ°¯‡Ú ÁÛÏÏÍÂ Ì˚È Á,ÛÍÓ,ÓÈ ÒË„Ì‡Î Ô Ë ÛÒÚ‡ÌÓ,ÍÂ BEEP , ÔÓÎÓÊÂÎËÂ ON (ÒÚ . 34).



1 Battery Remaining
Slow flashing: The battery is weak.
Fast flashing: The battery is dead.

2 The tape is near the end.

3 The tape has run out.

4 No tape has been inserted.

5 The tab on the tape is out (red) (p. 11).

6 Moisture condensation has occurred (p. 45).
⏏ indicator appears only when the cassette is inserted.

7 The video heads may be contaminated (p. 46).

8 Some other trouble has occurred.
Disconnect the power source and contact your Sony dealer or local authorized facility.

9 The lithium battery is weak or the lithium battery is not installed (p. 36).
This indicator flashes just only after powering on.

1 éÒÚ‡,¯ËÈÒfl Á‡ fl‰·‡Ú‡ ÂË åÂ‰ÎÂÌÌÓÂ ÏË„‡ÌÈÂ: Á‡ fl‰·‡Ú‡ ÂË ÒÎ‡·˚È. Å˚ÒÚ ÓÂÏË„‡ÌÈÂ: Á‡ fl‰·‡Ú‡ ÂË ËÁ‡ÒıÓ‰Ó‚‡Ì.

2 ãÂÌÚ‡ Ô Ë·ÎËÊ‡ÂÚÒfl Í ÍÓÌ˜Û.

3 ãÂÌÚ‡ Á‡ÍÓÌ˜ËÎ‡Ò¸.

4 çÂ ,ÒÚ‡,ÎÂÌ‡ Í‡ÒÒÂÚ‡.

5 ç‡Í‡ÒÒÂÚÂÓÚÒÛÒÚ,ÛÂÚÎÂÔÂÒÚÓÍ Ô Â‰Óı ‡ÌÂÌËflÁ‡ÔËÒËÓÚÒÚË ‡ÌËfl (Í ‡ÒÌ˚È) (ÒÚ . 11).

6 è ÓËÁÓ¯Î‡ ÍÓÌ‰ÂÌÒ‡ˆËfl ,Î‡„Ë (ÒÚ . 45). àì‰ËÍ‡ÚÓ ⏏ÔÓfl‚ÎflÂÚÒfl ÚÓÎ¸ÍÓ Ô Ë ,ÒÚ‡,ÎÂÌÌÓÈ Í‡ÒÒÂÚÂ.

7 ÇÓÄÏÓÊÌÓ Á‡„ flÁÌÂÌ˚ ,Ë‰ÂÓ„ÓÎÓ,ÍË (ÒÚ .46).

8 àÏÂ¸Ú ÏÂÒÚÓ‰ Û„ËÂ ÌÂËÒÒÔ ‡,ÌÓÒÚË. éÚÒÓÂ‰ËÌËÚÂËÒÚÓ˜ÌËÍÔËÚ‡ÌËflË Ó· ‡ÚËÚÂÒ¸ , Ç‡¯Â ‡„ÂÌÚÒÚ,Ó ÙË Ï˚ Sony ËÎÊ ÌÂÒÚÌÓÂ ÙÔÓÎÌÓÏ˜ÂÌÌÓÂ ÂÏÓÌÚÓÂÔ Â‰Ô ËflÚËÂ.

9 á‡ fl‰ ÎËÚËÂ,ÓÈ ·‡Ú‡ ÂÈÍÈ fl,ÎflÂÚÒfl ÒÎ‡·˚Ï ËÎÈË ÊÂ ÎËÚËÂ,‡fl ·‡Ú‡ ÂÈÍ‡ ÌÂ ÛÒÚ‡ÌÓ,ÎÂÌ‡ (ÒÚ . 36). ùÚÓÚ Ë‰ËÍ‡ÚÓ ÏË„‡ÂÚÚÓÎ¸ÍÓ ÔÓÒÒÌÂ ,ÍÎ¸˜ÂÌËfl ÔËÚ‡ÌËfl.

English

Index

A
Adjusting viewfinder 13
AUTO DATE 12
A / V connecting cable 20

B
BACK LIGHT 30
Battery 26, 63
Battery lamp 66
Battery pack 7
BEEP 15, 34

C
Camera recording 12
Car battery 27
Charging battery 7
Cleaning video heads 46
Connection 20
COUNTER RESET 15

D
DATE / TIME 27
DEMO 65
Digital zoom 17

E
Editing 35
EDITSEARCH 19
EJECT 11

F, G, H
Fast-forward 22
5 sec. recording 31
High-speed shutter mode 28

I, J, K, L
LANC 59
Lithium battery 36

M, N, O, P
MIC (microphone) jack 60
Playback on TV 22
Playback pause 23
Power sources 24
Power zoom 16
PROGRAM AE 28

Q, R
REC MODE 34
Rec. Review 19
Remote commander 62
Rewind 22

S
Shoulder strap 62
Sports mode 28
STANDBY 12
Standby mode 13
Supplied accessories 5

T, U, V, W, X, Y
Tape counter 15
Title 32
Tripod mounting 18
Trouble check 51
Twilight mode 27
Wide mode 33

Z
Zoom 16

êÛÒÒÍËÈ

ìÍ‡Á‡ÚÂÎ¸

Ä, Å
Ä¸ÚÓÏÓ·ËÎ¸Ì°È ‡ÍÍÚÏÛÎflÚÓ 27
Å‡Ú‡ ÂËÌ°È ·ÎÓÍ 7
Å‡Ú‡ ÂËÌ°È Ëï‰Ë‡ÚÓ 66
Å‡Ú‡ ÂËÍ‡ 26, 63

Ç-á
ÇÓÒÒÔÓËÁ‰ÂÌËÂÌ‡ ÚÂÎÂ‚ËÁÓ Â 22
ÉÌÂÁ‰Ó MIC (ÏËÍ ÓÙÓÌ‡) 60
ÑÂÏÓÌÒÚ ‡ˆËÓÌÌ°È ÂÊËÏ (DEMO) 65
ÑÂ Ê‡ÚÁÂ¸ Ú ÂÌÓÊÌËÍ‡ 18
á‡ÔËÒ¸ Ò ÔÓÏÓˇ¸ ‚Ë‰ÂÔÍ‡ÏÂ ° 12
á‡ fl‰Í‡·‡Ú‡ ÂËÌÓ„Ó ·ÎÓÍ‡ 7

à - å
àÒÚÓˆÌËÍËÊÔËÚ‡ÌËfl 24
ãËÚËÂ‚‡fl·Ú‡ ÂËÍ‡ 36
åÓÌÚ‡Ê 35

ç, é
ç‡‰ÔËÒ¸ 32
ç‡ÂÁ‰ ‚Ë‰ÂÓÍ‡ÏÂ ° 16
é˜ËÒÚÍ‡ ‚Ë‰Â„ÓÎÓ‚ÓÍ 46

è
è‡ÛÁ‡ˌÓÒÔ ÓËÁ‚‰ÂÌËfl 23
èÂ ÂÏÓÚÍ‡ ÎÂÌÚ° Ì‡Á‡‰ 22
èÎÂ˜Â‚ÓÈ ÂÏÂÌ¸ 62
èÓ‰ÍÎ¸˜ÂÌËfl 20
è Ë‚Ó‰ÌÒÈ Ú ‡ÌÒÙÓÍ‡ÚÓ 16
è ËÎ‡„‡ÂÎ°Â ÔËł‰ÎÂÌÓÒÒÚË 5
è Ó‚Â Í‡ ÌÂËÒÔ ‡¸ÍÓÒÚÂÈ 54
èÓÒÏÓÚÁ‡ÔËÒË 19
èÛÎ Ú‰ËÒÚ‡Ì¨ËÓÌÌÓ„Ó ÛÔ ‡¸ÎÂÌËfl 62
5-ÒÂÍÛÌ‰Ì‡fl Á‡ÔËÒ¸ 31

ê
êÂ„ÛÎË Ó¸Í‡ ¸Ë‰ÓËÒÌ‡ÚÂÎfl 13
êÂÊËÏ¸ÒÓÍÓÒÌÓ ÓÒÚÌÔ„Ó Á‡ÚÓ‡ 28
êÂÊËÏ„ÓÚÓ¸ÌÓÒÚË 13
êÂÊËÏÔÔÓ Ú‡ 28
êÂÊËÏ ÒÛÎÂ ÂÍ 27

ë - ò
ëÓÂ‰ËÌËÚÂÎ¸Ì°È Í‡·ÂÎ¸ ‡Û‰ËÓ¸Ë‰ÂÓ 20
ë˜ÂÚ˜ËÍ ÎÂÌÚ° 15
ìÒÍÓ ÂÌÌ‡fl ÔÂ ÂÏÓÚÍ‡ ÎÂÌÚ° ¸ÔÂÂ‰ 22
ñËÙ Ó¸ÓÈÚ ‡ÌÙÓÍ‡ÚÓ 17
òË ÓÍÓÙÔ Ì‡ÚÌ°È ÂÊËÏ 33

A, B, C
AUTO DATE 12
BACK LIGHT 30
BEEP 15, 34
COUNTER RESET 15

D, E
DATE/TIME 27
EDITSEARCH 19
EJECT 11

L
LANC 59

P
PROGRAM AE 28

R
REC MODE 34

S
STANDBY 12

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