HITACHI

DVD RECORDER

CR-D10

OPERATING INSTRUCTIONS

Please read this operating instructions carefully for proper operation,
and keep it for future reference.

Hitachi Kokusai Electric Inc.

SAFETY INSTRUCTIONS

Carafully read all safety messages in this manual and safety Instructions on your equipment.
Follow recommended precautions and safe operating practices.

SAFETY ALERT SYMBOL

⚠ This is the "Safety Alert Symbol." This symbol is used to call your attention to items or operations that could be dangerous to you or other persons using this equipment. Read these messages and follow these instructions carefully.

It is essential that you read the instructions and safety regulations before you attempt to assemble or use this equipment.

The definitions of signal words are as follows:

⚠ WARNING
WARNING: Personal danger
Warning notes indicate any condition or practice, which if not strictly observed, could result in personal injury or possible death.

⚠ CAUTION
CAUTION: Possible damage to equipment
Caution notes indicate any condition or practice, which if not strictly observed or remedied, could result in damage or destruction of the equipment.

NOTE
NOTE: Notes indicate an area or subject of special merit, emphasizing either the product's capabilities or common errors in operation or maintenance.

⚠WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS COLOR CAMERA TO RAIN OR MOISTURE.

AVERTISSEMENT

Afin d'éviter tout risque d'incendie ou d'électrocution, ne pas exposer
l'appareil á la pluie ou á l'humidité.
Afin d'écarter tout risque d'électrocution, garder le coffret fermé. Ne confier
l'entretien de l'appareil qu á un personnel qualifié.

VORSICHT

Um Feuergefahr und die Gefahr eines eiektrischen Schiages zu vermeiden,
darf das Gerät weder Regen noch Feuchtigkeit ausgesetzt werden.
Um einen elektrischen Schiag zu vermeiden, darf das Gehäuse richt geöffnet werden.
Überiassen Sie Wartungsarbeiten stets nur einem Fachmann.

Note: The model and serial numbers of your color camera are important for you to keep for your convenience and protection. These numbers appear on the nameplate located on the topframe of he color camera. Please record these numbers in the spaces provided below, and retain this manual for future reference.

Model No._____   Serial No._____

CONTENTS

SPECIFICATION

1. General
The CR-D10(P) is a DVD dockable type adaptor for Z3000,Z3000W,S3000,S3000W.
8cm DVD-RAM and DVD-R Recording Capability
High Quality MPEG2 Video Recording (DVD Video Recording Standard)

2. Principal features
2.1 DVD-RAM Recording
(1) Variable Bit Rate (VBR) and Constant Bit Rate (CBR) Recording Capability
(2) Min. 18 minutes Recording in Extra Fine Quality Mode
(single side, 704x480 (NTSC) , 704x576 (PAL) , 3~9Mbps VBR)
(3) Approx. 30 minutes Recording in Fine Quality Mode
(single side, 704x480 (NTSC) , 704x576 (PAL) , 6Mbps CBR)
2.2 DVD-R Recording
(1) Constant Bit Rate (CBR) Recording Capability
(2) Approx. 30 minutes Recording in Fine Quality Mode
(single side, 704x480 (NTSC) , 704x576 (PAL) , 6Mbps CBR)

3. Specification
(1) Color system   : Based on NTSC / PAL

(2) Record medium   : 8cmDVD-RAM, DVD-R

(3) Voice signal record : MPEG Audio layer-2 (fs=48KHz 2ch)

(4) Record time :
　　Approx. 18 minutes ~ 60 minutes (VBR method) : DVD-RAM
　　Approx. 30 minutes   (CBR method) : DVD-RAM / R

(5) Picture input (Multi-Pin connector from Camera)
　　Y : 1.0Vp-p, 1k
　　C : 0.286Vp-p,1k   (Burst , NTSC)
　　　　0.3Vp-p,1k   (Burst , PAL)

(6) ExternalPicture input
　　1) BNC connector : VBS 1.0Vp-p, 75
　　2) YC connector   : Y 1.0Vp-p, 75
　　　　　　　　　　　　　　C 0.286Vp-p, 75   (Burst , NTSC)
　　　　　　　　　　　　　　　0.3Vp-p,1k   (Burst , PAL)

(7) Audio input
　　1) Audio 1 input (Multi-Pin connector from Camera) :
　　　　　　　　　　　　　　　　　　　　LINE input (MIC1: about-20dBs)
　　2) Audio 1 input (XLR connector)   : MIC / LINE input
　　3) Audio 2 input (XLR connector)   : MIC / LINE input

(8) Power supply input (XLR connector)   : 12VDC

(9) Battery input (Autonbauer adaptor)   : 10.5V～17.0V

(10) Analogue video output

     1) BNC connector : VBS 1.0Vp-p,75

     2) YC connector   : Y 1.0Vp-p, 75

                     C 0.286Vp-p, 75 (Burst , NTSC)

                      0.3Vp-p, 75   (Burst PAL)

(11) Audio output   : RCA pin 2 system

(12) Digital output   : USB1.1

(13) DC output(5pin)   : 12VDC

(14) REMOTE(4pin)

(15) LCD : 2.5"color TFT LCD (NTSC : 120k picture elements)

                          (PAL : 60k picture elements)

(16) Surroundings temperature : 0°C ~ +40°C

(17) Rating input voltage   : 12VDC

       (Stability with the DC power supply of 10.5 ~ 17.0V)

(18) About consumption electric power : 7W (LCD monitor off)

(19) Measure :120 (width) x 200 (the height) x 285 (profundity) mm (with camera)

(20) Mass   : Approx. 2.3 kg (Camera,lens,viewfinder,battery are eliminated)

Setting Date and Time

Set the current date and the correctly so that the date and time you make a recording can be recorded correctly.
Setting the correct date and time will allow you to store the correct information on recording.
(The following procedure can also be used to correct the date and time you have already set.)

**1** Use the button to choose "Date Setup" and then "Date Set".

```
Date Setup

      Date Mode : M/D/Y
      Date Set




 ENTER  RETURN        RAM
```
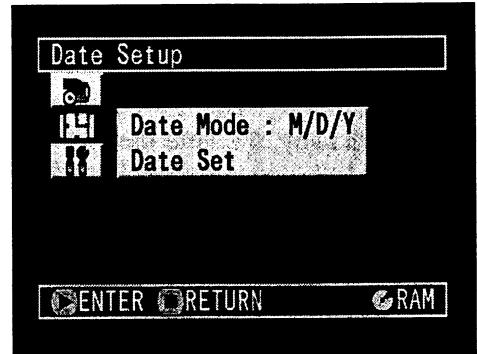
2 Press the ▶ button.

The figure for the month will be selected.
[The digit that is highlighted first depends on the date display format (set up in Date Mode): The digit on the left end of the date display will be first highlighted.]

Note: After setting the figure for the month, tilt the joystick to right to select the digit to be set. If you press the ▶ button after selecting the figure for the month, the screen for verifying the set date will appear instead of screen for setting day, year or time.

```
Date Setup

      Date Mode
      Date Set      1/ 1/2002
                      12:03AM


 ENTER  RETURN        RAM
```
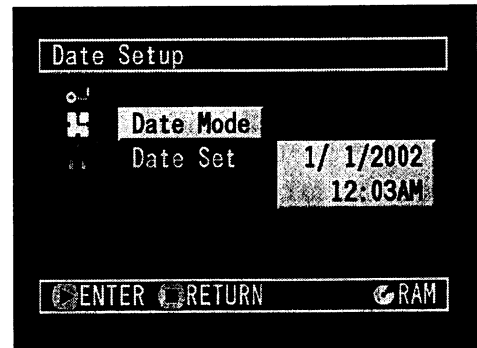
3 Tilt the button to left or right to select the digit you want to set in sequence.

Tilt the button up or down to select the number for current date/time, and then repeat step 3 to set the current date and time.

```
Date Setup




      Date Set      1/ 1/
                      4:15PM


 ENTER  RETURN        RAM
```
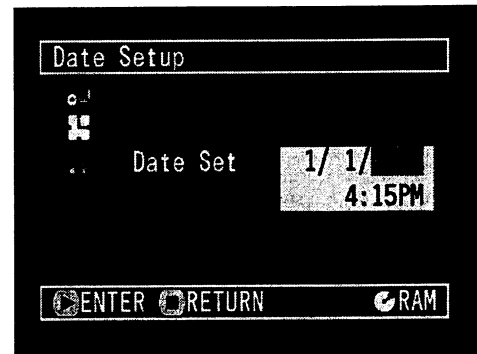
4 After setting the current date and time, press the ▶ button.

The screen for verifying the set date will appear.

```
Date Set


    1/ 1/2002  4:30PM
    Date set up?


      YES

 ENTER              RAM
```
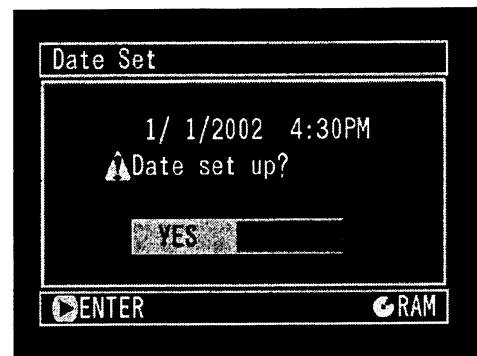
5 If the displayed date and time are correct, use the to choose "YES", and then press the ▶ button.

The date and time will be set, and the DVD video camera/recorder will enter the recording pause status. Choosing "NO" will restore the menu screen.

Note: This DVD video camera/recorder incorporates a rechargeable battery to store the date and time in memory. If this built-in battery is exhausted, the date and time will be reset. To prevent this, connect the AC adapter to DVD video camera/ recorder, and leave them for at least 24 hours with the DVD video camera/recorder turned off: The built-in battery will be charged.

Changing Display Format of Date and Time

You can select one of three date display formats: month/day/year, day/month/day. Associated with the selected date display, the time display format will also change as follows:

| Display format	Example of display
M/D/Y	5:30PM 5/25/2002
D/M/Y	17:30 25/5/2002
Y/M/D	PM5:30 2002/5/25

1 Press the MENU button
   The menu screen will appear.

2 Use the button to choose "Date Mode" on the "Date Setup" menu screen, and then press the ▶ button.

The options will appear on the right of "Date Mode": The ⬜ mark will be attached to the currently selected option.

3 Use the button to select the desired date display format, and then press the ▶ button.
The menu screen for setting date will be restored, and the "Date Mode" has been changed as you designated.
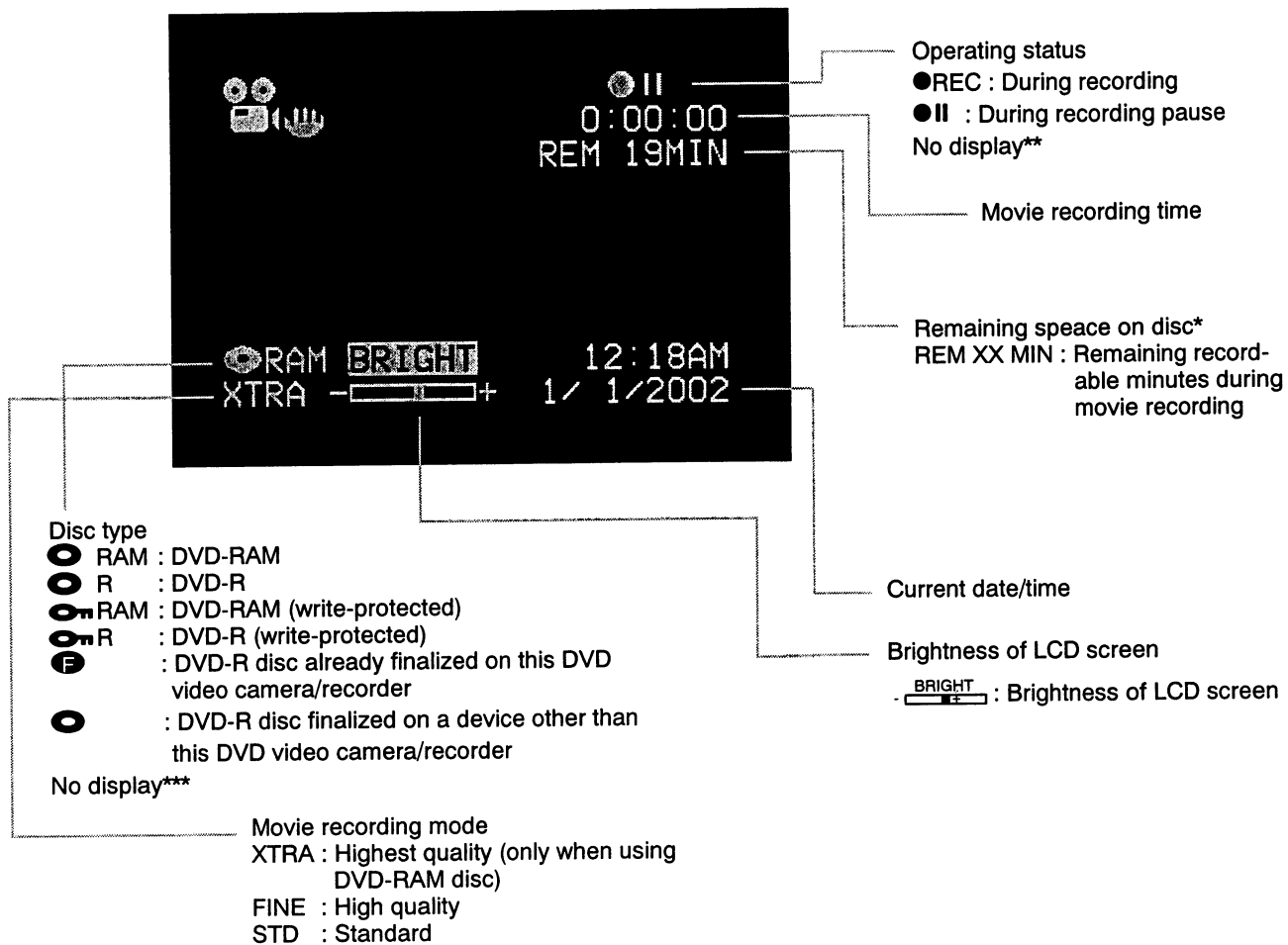
```
Date Setup

       Date Mode    M/D/Y
                    D/M/Y
                    Y/M/D


   ENTER  RETURN         RAM
```
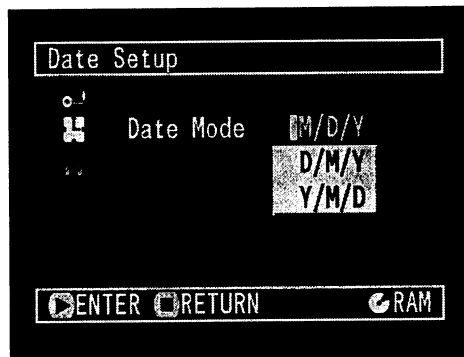
4 Press the MENU button to switch off the menu screen.

Note: If the date display format has been changed, the display format during playback as well as during recording will also be changed.

On-Screen Information

Various types of information will appear on the LCD screen during recording and playback.

Information Display During Recording

Operating status
●REC : During recording
●‖ : During recording pause
No display**

Movie recording time

Remaining speace on disc*
REM XX MIN : Remaining record-
able minutes during
movie recording

Current date/time

Brightness of LCD screen
BRIGHT : Brightness of LCD screen

Disc type
O RAM : DVD-RAM
O R : DVD-R
O⊓RAM : DVD-RAM (write-protected)
O⊓R : DVD-R (write-protected)
Ⓕ : DVD-R disc already finalized on this DVD
video camera/recorder
O : DVD-R disc finalized on a device other than
this DVD video camera/recorder
No display***

Movie recording mode
XTRA : Highest quality (only when using
DVD-RAM disc)
FINE : High quality
STD : Standard

*No remaining time will be displayed with write-protected disc or finalized DVD-R disc.
**When no disc is in the DVD video camera/recorder, or disc has not yet been initialized, write-protected
disc or disc with no remaining space has been inserted.
***Will not appear when a disc that cannot be used in this DVD video camera/recorder is inserted.

• Switching the information display mode

You can switch the display mode of on-screen information:

Press the DISPLAY button.

• Full display mode: All types of information will appear.
• Minimum display mode: Only the recording mode, status display and warning will appear.

  The full and minimum display modes will alternate.

  Note: The DVD video camera/recorder does not record the recording date/time as a part of image.
  However, this information when recording will be recorded with image as data which can be
  checked on Disc Navigation screen during playback.

• Display when recording an image of yourself

When recording with the LCD screen facing the same direction as the lens, only the operating status and
battery remaining level will appear, and the battery remain-ing level will appear only when the battery has
almost no remaining charge.

The following operating status indicator will blink to give warning message to user. The message can be
checked when returning the LCD monitor 180° to the original status from the status in which the LCD
screen was facing the same direction as the lens.
●   : The disc has almost no free space.
🔒⬤   : Write-protected disc is loaded.
No display :Disc that cannot be used has been loaded.
❚❚⬤   :The disc is full, or you are attempting to record a copy-guarded image.

  Note: If the LCD screen is set facing the same direction as the lens, the LCD screen will display a
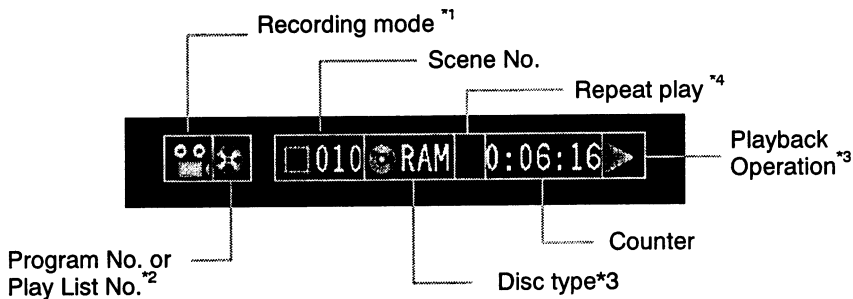 mirror image (left and right reversed).

Information Display During Playback

Various types of information on recording will be superimposed on playback image you are viewing in the viewfinder or on the LCD screen.

No display	Playback information display	Recording date/time
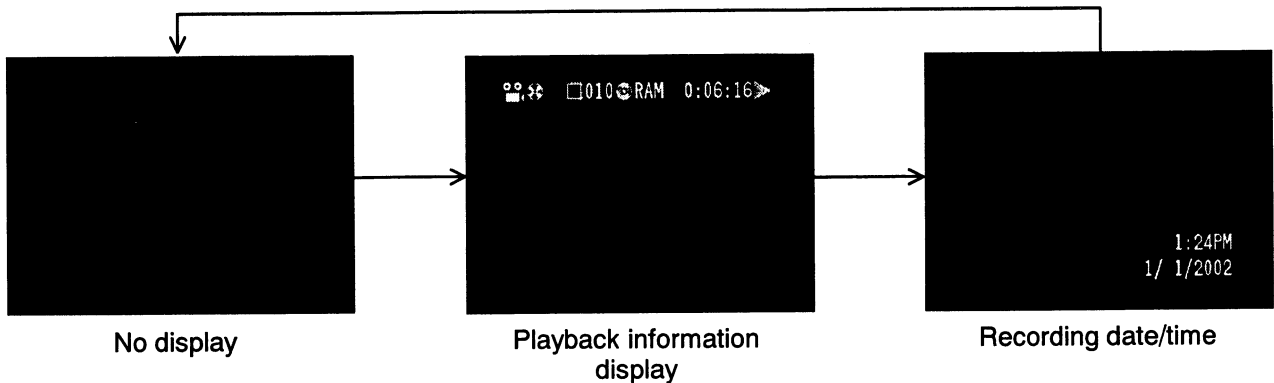
• Switching the information display mode

Press the DISPLAY button: You can switch the display mode of on-screen information.

- Recording mode *1
- Scene No.
- Repeat play *4
- Playback Operation *3
- Program No. or Play List No. *2
- Counter
- Disc type *3

*1 VIDEO or PHOTO
*2 Program or Play List
*3 Refer to "Disc type" on page 51.
*4 : Will appear when "Repeat play :On" is specified.
*5 ▶ : Standard playback
    ‖ : Playback pause
    ▶▶ : Forward search playback
    ◀◀ : Reverse search playback
    ▶▶| : Forward skip playback
    |◀◀ : Reverse skip playback
    ‖▶ : Forward frame advance
    ◀‖ : Reverse frame back
    Refer to "Playback" beginning on page 44 for how to operate.
    The "|◀" mark will appear on the first image on disc.
    The "▶|" mark will appear on the last image on disc.

·**Playback information display:** Shows the status of DVD video camera/recorder during playback.
·**Recording date/time display:** Shows the date/time when recording was started.
·**No display:** No information will appear. However, when the mode of playback operation is switched, the symbol will appear for approx. 3 seconds.

Setting UP Record Functions

Switching Movie Quality mode

Choose the movie quality from "XTRA" (only with DVD-RAM disc), "FINE"and "STD".

However, it is recommended that you record critical subjects in the "XTRA" or "FINE" mode when you are using a DVD-RAM disc, or in the "FINE" mode with a DVD-R disc.

1 Press the MENU button in the recording pause status.
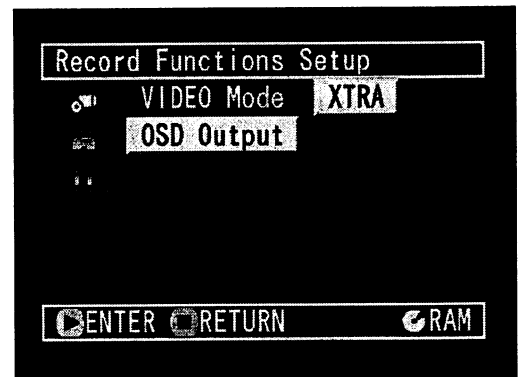
 The menu screen will appear.

2 Use the button to choose "VIDEO Mode" on the "Record Functions Setup" screen, and then press the ▶ button.

 Options will be displayed on the right of "VIDEO Mode"
 The ☐ mark will be attached to the currently selected option.

3 Use the to select the desired quality mode, and then press the ▶ button.

4 Press the MENU button.

 The menu screen will disappear.

Movie quality mode ─────

Note: The "VIDEO Mode" setting will not change even after the DVD video camera/recorder is turned off.

•Recordable times in each movie quality mode (on one side of disc)

Quality mode	Disc used	
	DVD-RAM	DVD-R
XTRA*	approx. 18~60min	—
FINE	approx. 30 min	approx. 30 min
STD	approx. 60 min	approx. 60 min

Note: when using DVD-R disc, you cannot switch the movie quality mode during recording on the disc: The DVD video camera/recorder will be automatically set to the quality mode first used with the disc for recording.

Note: The setting of movie quality mode is effective only during movie recording: switching the mode will not work during still recording.

Setting On-Screen Display Output On or Off

If you connect this DVD video camera/recorder to a TV and operate it while watching the TV screen, you can switch off the on-screen information (displayed on the LCD monitor) from the TV screen.

1 Press the MENU button.

The menu screen will appear.

2 Choose "OSD Output" on the "Record Functions Setup" menu screen, and then press the ▶ button.

The options will appear on the right of "OSD Output": The ☐ mark will be attached to the currently selected option.

3 Choose the desired option and press the ▶ button.

4 Press the MENU button.
The menu screen will disappear.

The "OSD Output" setting will not change even if the DVD video camera/ recorder is turned off.

Note: Even if "Off" is chosen, the on-screen information will appear during playback, for playback on-screen information display.
Note: Even after the on-screen information is removed from the TV/ screen, it will still appear on the LCD screen.

LCD screen

"On" setting   "Off" setting

TV screen   TV screen

Initial settings

Switching operating Sound On or Off

This DVD video camera/recorder will emit sound when the power switch is changed over, the REC button is pressed, or other operations are engaged. If you do not need operating sound, you can switch it off.
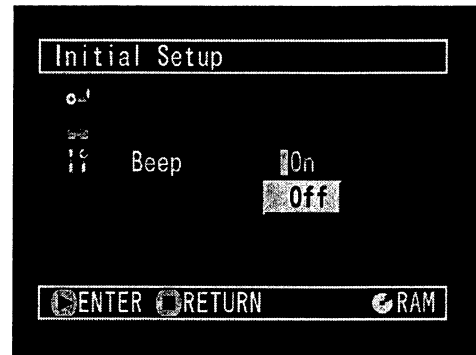
1 Press the MENU button.
   The menu screen will appear.

2 Use the button to choose "Beep" on the "Initial Setup" menu screen, and then press the ▶ button.

   The options will appear on the right of "Beep":
   The []mark will be attached to the currently selected option.

```
Initial Setup

 o⌐
 ⌐⊏
 ¦⌐     Beep         ▌On
 ¦¦                  ▌Off

 ⊙ENTER ⊙RETURN            ⊘RAM
```

3 Use the button to choose "On" or "Off" and then press the ▶ button.

4 Press the MENU button.

   The menu screen will disappear.

   Note: The "Beep" setting will not change even if the DVD video camera/recorder is turned off.
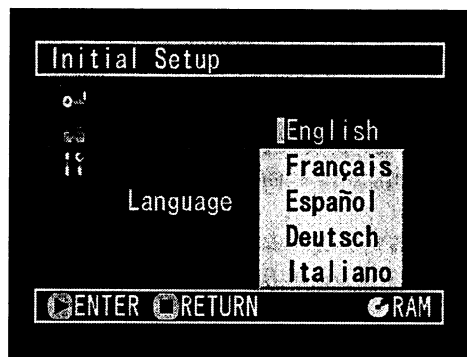
Changing Display Language

You can change the language used to display the menu and information.

1 Press the MENU button.

The menu screen will appear.

2 Use the button to choose "Language" on the "Initial Setup" menu screen, and then press the ▶ button.

The options will appear on the right of "Language": The ☐mark will be **2** attached to "English".

3 Use the button to choose "Language that wants to set up, and then press the ▶ button:

4 Press the MENU button.

The menu screen will disappear.

The language setting will not change even if the DVD video camera/ recorder is turned off.

Initializing All Settings to Defaults

You can restore all camera menu settings to defaults (initial settings at the factory). (The date and the will not be reset.)

1 Press the MENU button.
The menu screen will appear.

2 Use the joystick to choose "Reset" on the "Initial Setup" menu screen, and then press the ▶ button.

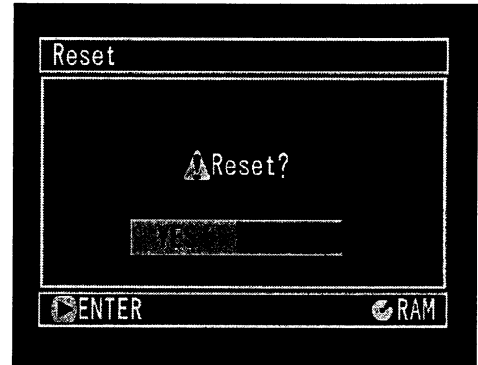The "Reset" verification screen will appear.

3 If you are sure that you wish to reset, use the joystick to choose "YES", and then press the ▶ button.

All the setting items have now been reset to defaults.

4 Press the MENU button.

The menu screen will disappear.

Note: To cancel resetting midway, choose "NO" on the screen for verification in step 2 or press the ■ button.

Disc Navigation

This section explains about how to edit recorded images using the Disc Navigation function.

Before using Disc Navigation

Disc Navigation is a tool for editing scenes recorded on this DVD video camera/recorder.
Here is an explanation on "scene" and "program", so that you will be able to make most use of Disc Navigation function.
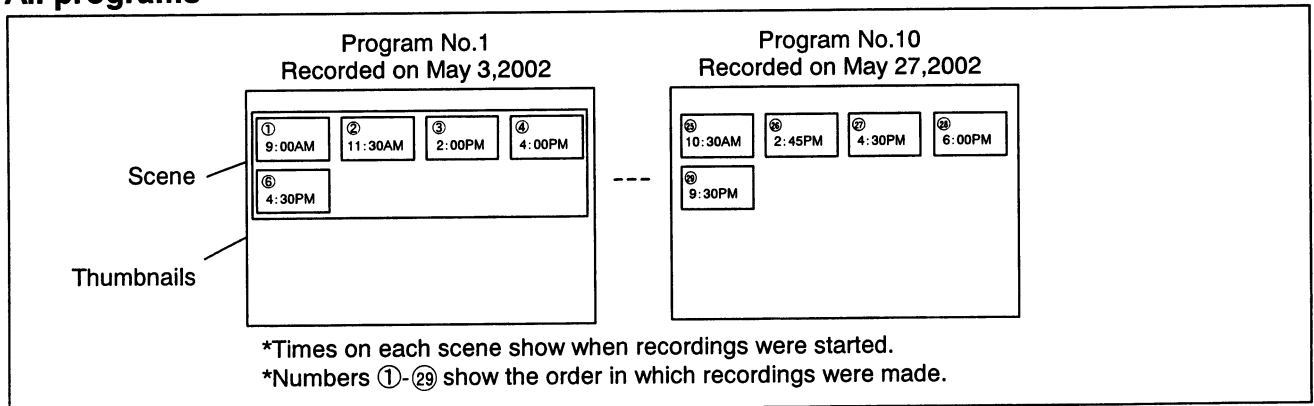
Structure of Data Recorded On This DVD Video Camera/Recorder

Video recorded using this DVD video camera/recorder will be stored on disc in units. of scene, in the order of recording.

·Movie: One scene refers to images recorded between each press of the REC button until recording is temporarily stopped by pressing REC again.
·Still: One scene refers to a still recorded by pressing REC button.

The recorded scenes are collected as "programs" on each recording date.

All programs

Program No.1
Recorded on May 3,2002

Program No.10
Recorded on May 27,2002

Scene

Thumbnails

*Times on each scene show when recordings were started.
*Numbers ①-㉙ show the order in which recordings were made.

Scenes of one program are lined up in the order of recording. Usually, when the ▶ button is pressed immediately after recording, the last scene of the last program on disc (scene ㉙ of program No. 10 in the above diagram) will be played back.
To view previously recorded scenes (scenes ①- ㉘) in the above diagram), you can use the skip and search playback functions to find any desired scene. By using the Disc Navigation function, you can easily find any desired scene, since you can specify a program or a scene.
You can also fade the image recorded on the DVD video camera/ recorder, and rearrange the order of scenes.

Note: Thumbnails (first images of recorded scenes) are displayed from the top left of screen, and up to 12 thumbnails can appear on one screen. If there are 13 scenes or more recorded, tilt down the joystick and hold it to display 13th and any later scenes as thumbnails.
Note: "Scene No." is not inherent to that scene, but is a serial number of thumbnails being displayed. Therefore, the Scene No. when all programs are displayed may be different from that for the same scene when a specific program is displayed.
Note: Disc Navigation thumbnail screen, skip and title attached to each scene, and special effects (fade) are original functions of this DVD video camera/recorder, They will not operate on devices other than this DVD video camera/recorder.
Note: Even though thumbnails may not appear, depending on the recording conditions, playback of the images may be possible.

Using Disc Navigation

Functions Available with Disc Navigation

Disc Navigation allows you to do the following:

- **Selecting scene(s) (Select)** [DVD-RAM] [DVD-R]

You can select a scene from all programs or a specific program and start playback from that scene.
You can also select adjacent multiple scenes and play back only the selected scenes.

- **Switching/playing back program** [DVD-RAM] [DVD-R]
  (Switch/Play)

You can select one program to be viewed from all
programs and play it back.

- **Changing title** [DVD-RAM]

You can change titles of programs and play lists.

- **Editing scene(s)** [DVD-RAM]

You can delete unnecessary scenes, skip scenes you do not want to play back, or arrange the order of
scenes for playback.
You can also divide a scene on play list or arrange scenes on play list.

- **Displaying information on scenes (Detail)** [DVD-RAM] [DVD-R]

You can get the information on movie quality mode,
recording time, etc. of a scene or adjacent multiple scenes.

- **Displaying remaining free space on disc (Capacity)** [DVD-RAM] [DVD-R]

You can display how much free space the disc being driven has.

- **Settings on disc** [DVD-RAM]

You can check the remaining free space of disc being used, and initialize an unformatted disc.
You can also update the control information of disc.

- **Finalizing disc** [DVD-R]

If you wish to view a DVD-R disc that was recorded with this DVD video camera/recorder on other devices
that are compatible with 8 cm DVD-R disc, the recorded DVD-R disc must be finalized.

- **Repeat playback** [DVD-R]

If "Repeat Play: On" is specified, all programs, or. any selected program or scene, will be repeatedly
played back.

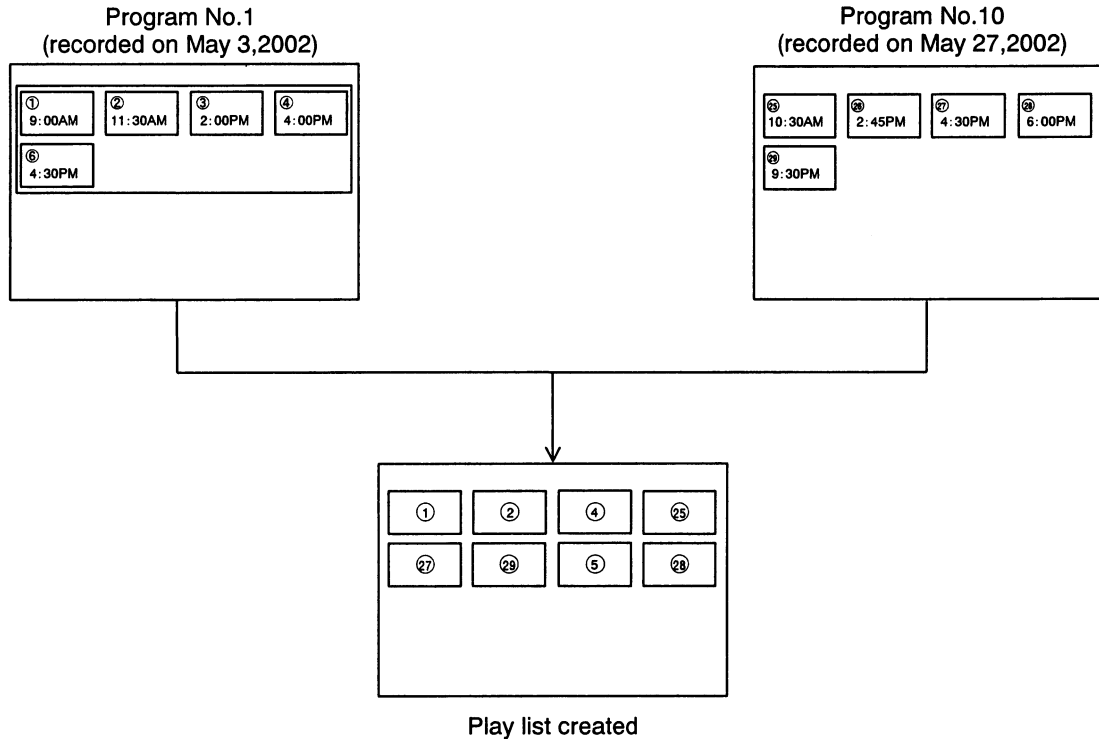## • Create and Edit Play List [DVD-RAM]

You can display all programs or a specific program, select scenes, and create up to 99 original stories (up to 999 scenes in 99 play lists).
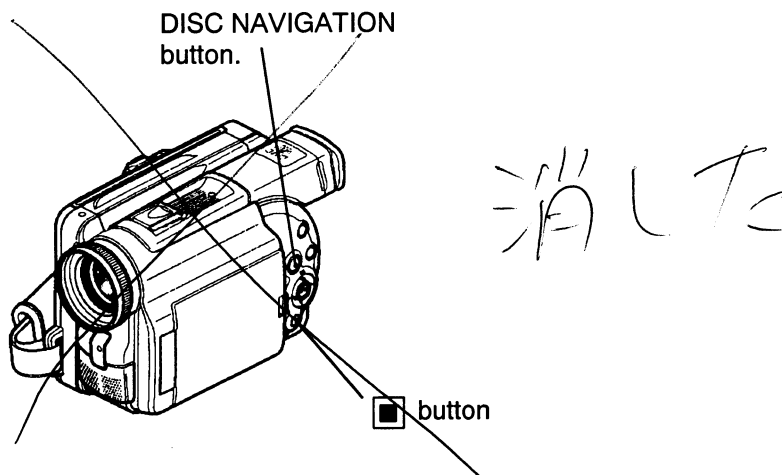Program various scenes in a play list to create your own original movie (play list, P.74).
Only the data will be stored in play list. If you create, edit or delete a play list, the original scenes will not be erased from the disc.
Since scenes are not duplicated, the disc capacity will not decrease.

Example: To select scenes from program No. 1
and program No.10 and create a play list

Program No.1
(recorded on May 3,2002)

① 9:00AM	② 11:30AM	③ 2:00PM	④ 4:00PM
⑥ 4:30PM			

Program No.10
(recorded on May 27,2002)

㉕ 10:30AM	㉖ 2:45PM	㉗ 4:30PM	㉘ 6:00PM
㉙ 9:30PM			

①	②	④	㉕
㉗	㉙	⑤	㉘

Play list created

Starting Disc Navigation and Interpreting Navigation Screen

DISC NAVIGATION button.

■ button

消した

Note: Do not proceed with a following step while the disc is being recognized or the CHARGE/AC-CESS indicator is blinking.

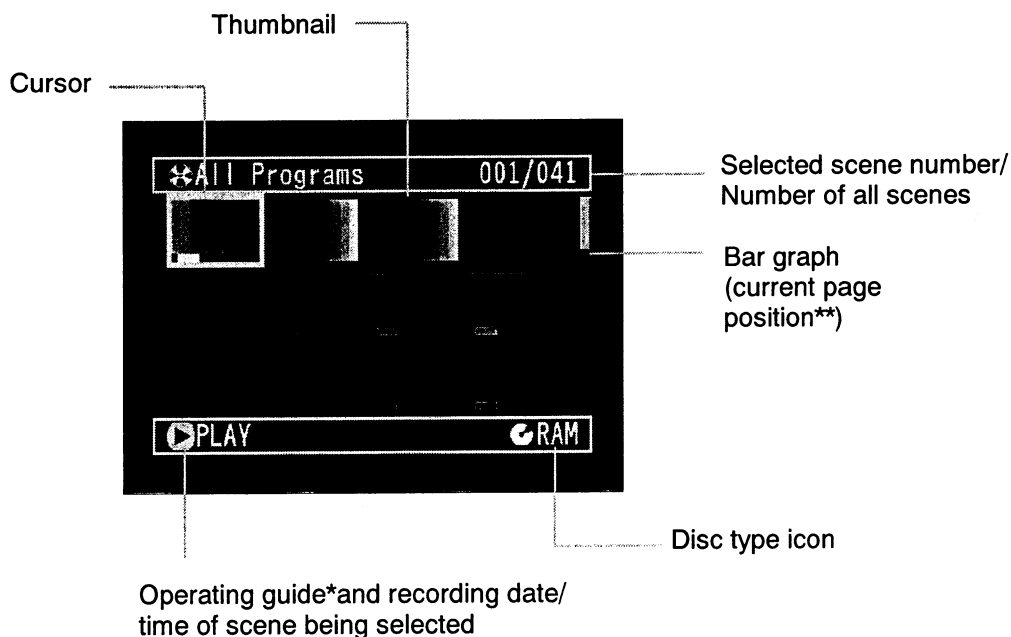**1** Press the DISC NAVIGATION button.

The thumbnails for all programs will appear.

Note: The DISC NAVIGATION button will not work without a disc inserted.

2 Press the DISC NAVIGATION button.

Disc Navigation will be terminated and the DVD video camera/recorder will enter the recording pause status.
You can also press the ■ button to end Disc Navigation.

Thumbnail

Cursor

```
✣All Programs        001/041
```

Selected scene number/
Number of all scenes

Bar graph
(current page
position**)

```
▶PLAY              ↻RAM
```

Disc type icon

Operating guide*and recording date/
time of scene being selected

* The operating guide will vary depending on the current status of DVD video camera/recorder.
** When there are two or more thumbnail display pages.

You can know the status of scenes from the colors of cursor and bar graph:

Cursor	Bar graph	Status of scenes
Yellow	Blue	Current cursor position
Blue	Blue	Range of scenes being
Red	Red	Scenes already selected

Tilt the joystick to right when the yellow cursor is in the scene at the bottom right corner of thumbnail display screen, or tilt down the joystick when the yellow cursor is in any scene on the bottom row: The following 12 thumbnails (following page) will appear.
Note that when the following pages cannot be displayed, you are on the last page.

Tilt the joystick to left when the yellow cursor is in the scene at the top left corner, or tilt up the joystick when the yellow cursor is in any scene on the top row: The preceding 12 thumbnails (preceding page) will appear.
Note that when the previous pages cannot be displayed, you are on the first page.

Note: Tilting up or down the joystick and holding it will continuously change the page in units of 12 thumbnails.
Note: Each time Disc Navigation is started with a DVD-R disc inserted, message "Creating Thumbnail..." will appear. After the message appears, the thumbnail display screen will appear.
Note: If the following discs are inserted, the Disc Navigation screen will appear or some message will be displayed:
- Write-protected disc
- Finalized DVD-R disc

Playing Back Scenes

1 Press the DISC NAVIGATION button.
  The thumnails for all programs will appear.

2 Use the joystick to select a scene.

  The selected scene will be framed. This is called a "cursor".

3 Press the ▶ button.
  Playback will start from the selected scene, and continue to the last scene on disc.

• When playback finishes:
The ▶❙ mark will appear in the last image on disc, and after approx. 5 minutes the thumbnail screen
will be restored.

• Playback of still images (with DVD-RAM disc only):

Still images will be displayed for approx. 3 seconds.

  Note: Press the ▶ button to temporarily stop, playback. Pressing ▶ again will start from that point.
  Note: If you press the button after playback of the last scene on disc finishes, playback will starts again
        from the first image of first scene on disc.
  Note: Pressing the ■ button will always restore the thumbnail screen.
  Note: You can select scenes randomly and play them back. See below for how to select scenes

Selecting Random Scenes

1 Use the joystick to select a scene.

2 Press the SELECT button once.

  The selected scene will be framed in red.

  Repeat steps 1 and 2 to randomly select multiple scenes.
  To cancel a selected scene, select the scene to be canceled, and
  then press the SELECT button.
  To cancel all selected scenes, press the ■ button.

  Note: Although scenes can be randomly selected, playback will
        always start from the lowest scene number.
  Note: To release all the selected scenes, press the ■ button.
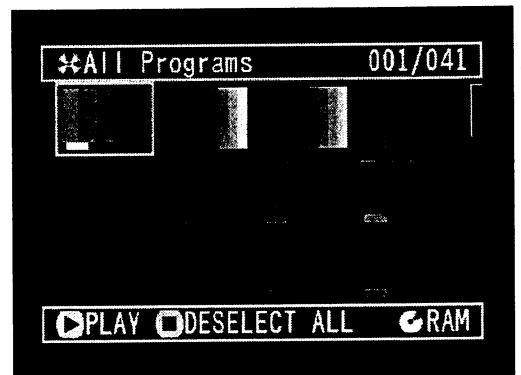
Selecting Consecutive Scenes Together

1 Use the joystick to select the first scene.

2 Hold down the SELECT button for at least one second.

The selected scene will be double-framed in yellow and blue.

3 Use the joystick to select the last scene in the range you want, and then press the ▶ button.

The scenes in the specified range will be framed in red, and then selected.

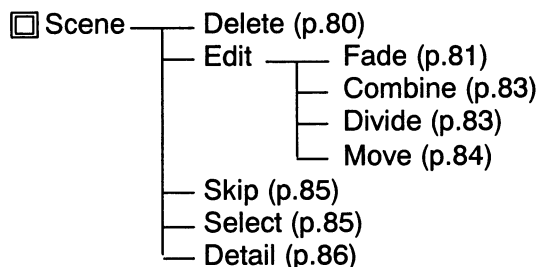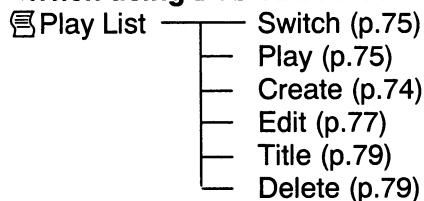**Note:** You can also select scenes in reverse from the last scene in the range.
Note: To release multiple selection, press the SELECT or ■ button after step 3.

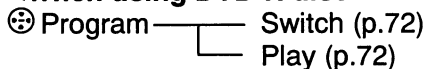# Uunderstanding Flow of Disc Navigation Menu

Press the DISC NAVIGATION button and then the MENU button: The menu screens for Disc Navigation and DISC management will appear.
For details on each menu item, see pages explaining each separate function.

\<When using DVD-RAM disc\>

閠 Play List ┬── Switch (p.75)
       ├── Play (p.75)
       ├── Create (p.74)
       ├── Edit (p.77)
       ├── Title (p.79)
       └── Delete (p.79)

▣ Scene ──┬── Delete (p.80)
      ├── Edit ──┬── Fade (p.81)
              ├── Combine (p.83)
              ├── Divide (p.83)
              └── Move (p.84)
      ├── Skip (p.85)
      ├── Select (p.85)
      └── Detail (p.86)

☺ Program ──┬── Switch (p.72)
          ├── Play (p.72)
          └── Title (p.73)

○ Disc ──┬── Capacity (p.87)
      ├── Format Disc (p.87)
      └── Update Control Info. (p.88)

ETC. Others ──── Repeat Play (p.89)

\<When using DVD-R disc\>

☺ Program ──┬── Switch (p.72)
          └── Play (p.72)

▣ Scene ──┬── Select (p.85)
      └── Detail (p.86)

○ Disc* ──┬── Capacity (p.87)
      └── Finalize Disc (p.89)

ETC. Others ──── Repeat Play (p.89)

*Will not appear when a finalized disc is loaded.

Program

## Switching to Thumbnail Display of Specific Date (selecting Program)

Since the scenes recorded on this video camera/recorder are collected as "programs" for each recording date, selecting a program will allow you to display only the scenes on a specific date.

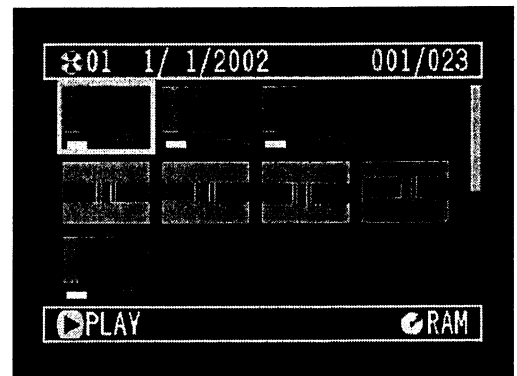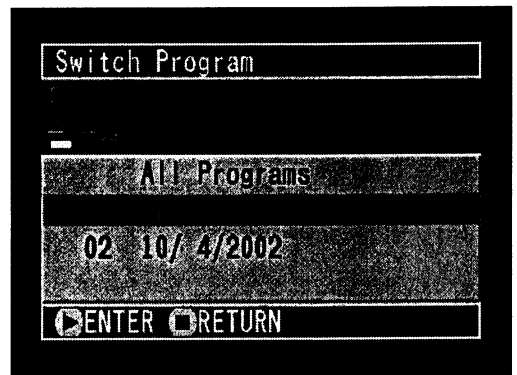**1** Press the DISC NAVIGATION button.

2 Press the MENU button.

The Disc Navigation menu screen will appear.

3 Use the joystick to choose "Switch" on the "Program" menu screen, and then press the ▶ button.
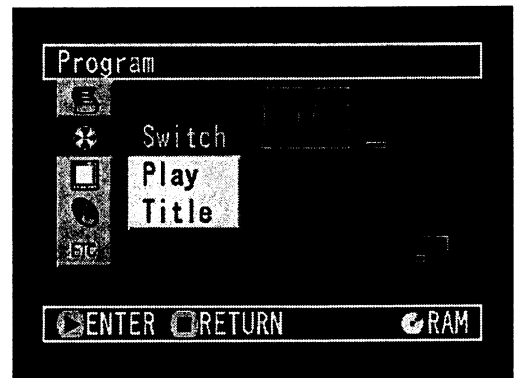
4 Use the joystick to select the program to be displayed, and then press the ▶ button.

The Disc Navigation screen will be restored, and the thumbnails of the selected program will appear.

Note: If you press the ■ button to stop program selection midway, the original screen (thumbnail select screen) will be restored.

Note: The dates displayed on the program select screen will be in the Date Mode used when the first scenes of programs were recorded, and the dote displays M/D/Y, D/M/Y and Y/M/D may be mixed.
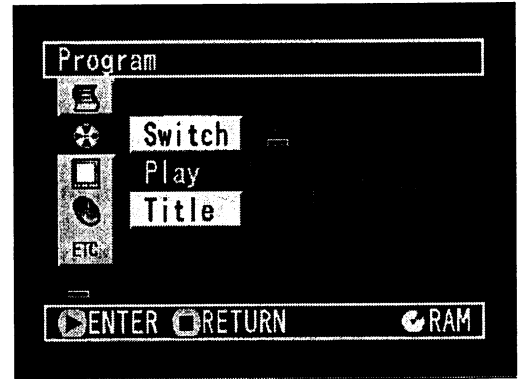
Playing Back Program
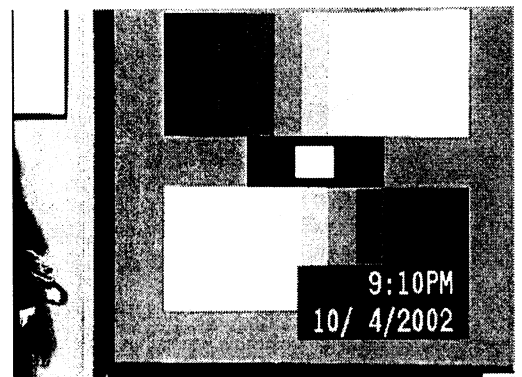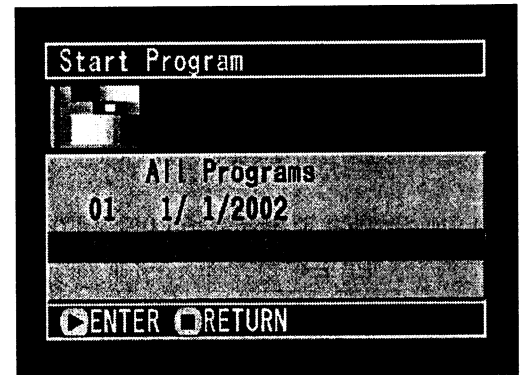
You can play back only the selected program.

1 Press the DISC NAVIGATION button and then the MENU button.

The Disc Navigation menu screen will appear.

2 Use the joystick to choose "Play" on the "Program" menu screen, and then press the ▶ button.

3 Use the joystick to select the program to be played back, and then press the ▶ button.
Playback will start from the first scene of the selected program.

Changing Title of program

The recording date/time has initially been attached to any program: You can change the recording date/time to any desired title.

1 Press the DISC NAVIGATION button and then the MENU button.
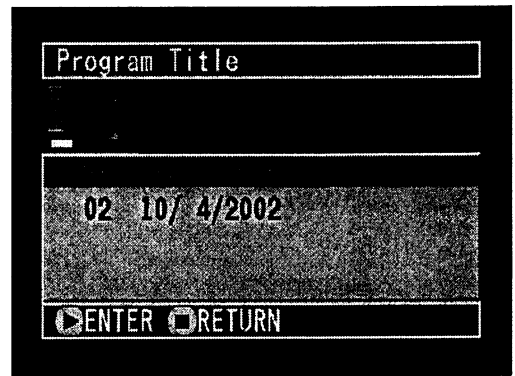The Disc Navigation menu screen will appear.

2 Use the joystick to choose "Title" on the "program" menu screen, and then press the ▶ button.
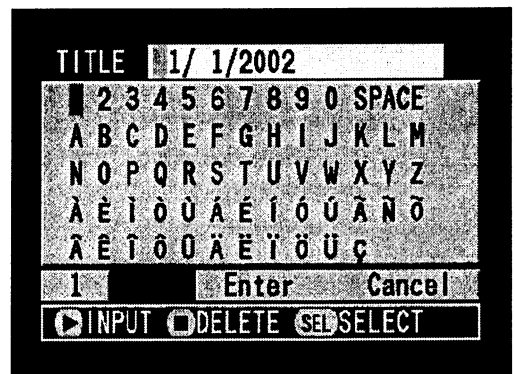
The "Program Title" screen will appear.
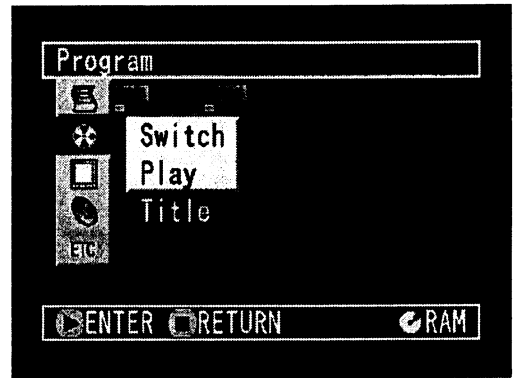
3 Use the joystick to select the program whose title you want to change, and then press the ▶ button.

The screen for entering a title will appear.

4 Use the joystick to select a letter and then press the ▶ button: The selected letter will be entered.


Repeat this procedure to create a title.

5 After entering the title, use the joystick to choose "Enter" and then press the ▶ button.
The screen for verifying the entered title will appear: Choose "YES" and then press the ▶ button.
After the following message appears, the thumbnail display screen of the program whose title was set will be restored. Choosing "NO" or pressing the ■ button will restore the screen for inputting a title.
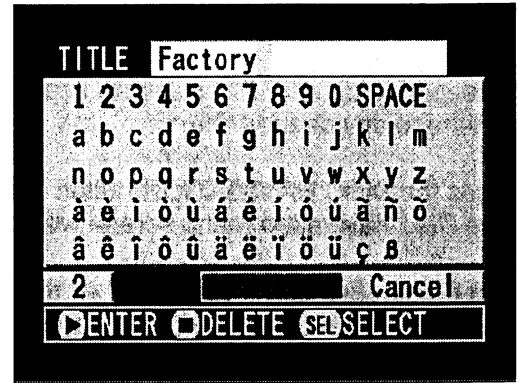
Note: If you wish to delete the letter for title, press the ■ button once: The input letter will be deleted. Holding down the stop button will delete all letters in the TITLE column. You can also use the DELETE button on remote control to delete any input letters.

Note: To cancel the setting of title, choose "NO" on the screen for verifying the entered title: The: screen for verifying cancellation of title setting will appear. To cancel title setting, choose "YES".

TITLE Factory

1 2 3 4 5 6 7 8 9 0 SPACE
a b c d e f g h i j k l m
n o p q r s t u v w x y z
à è ì ò ù á é í ó ú ã ñ õ
â ê î ô û ä ë ï ö ü ç ß

2   Cancel

▶ENTER ○DELETE (SEL)SELECT

⬇

TITLE Factory

▲▲Finish title setting?

YES
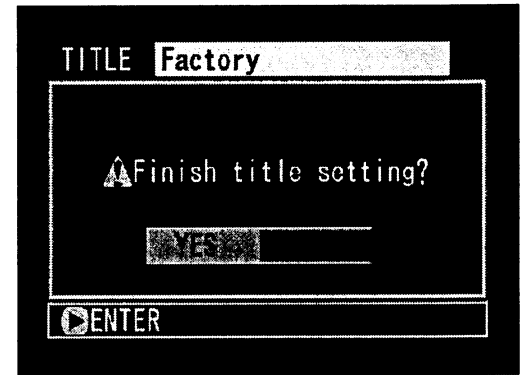
▶ENTER

• Characters available for entering title

You can select characters from the "capital letter", "small letter" and "symbol" input modes.
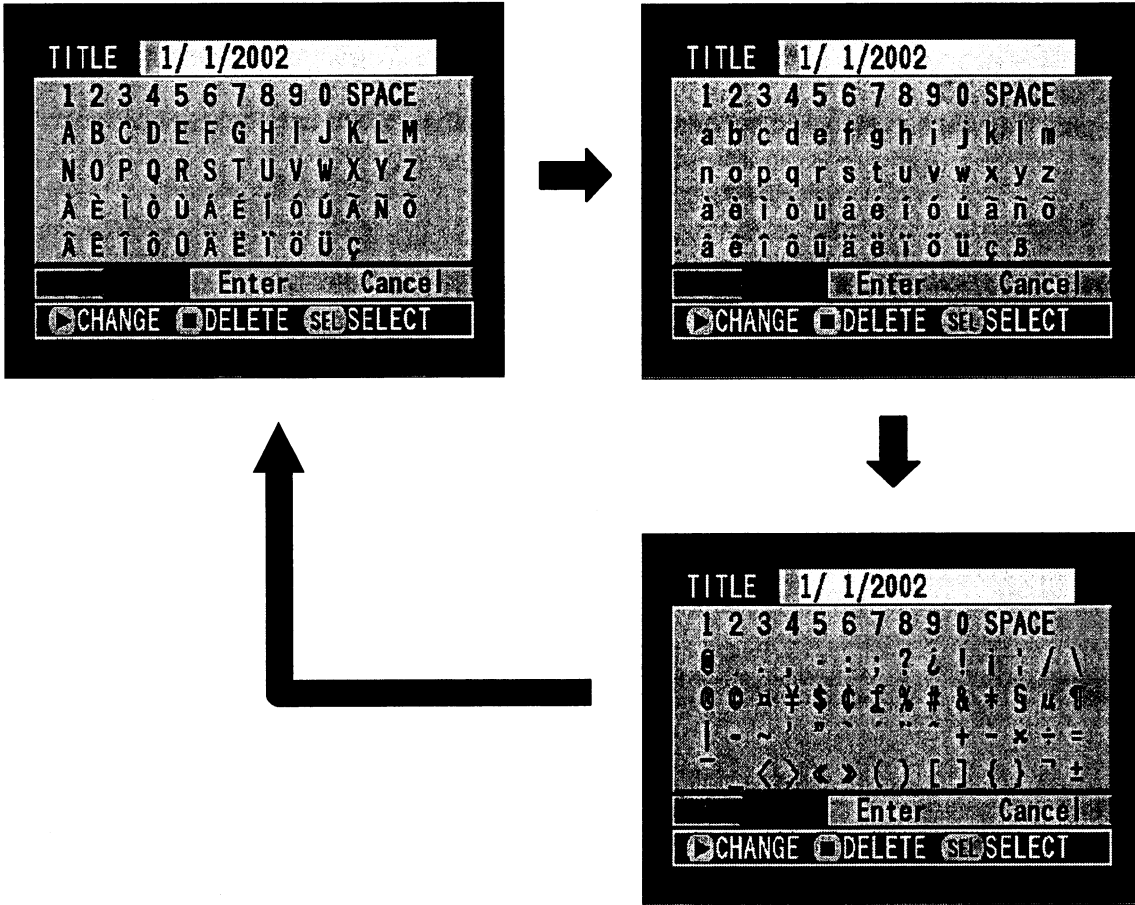With step 4, select the input mode and then press the ▶ button, of press the DISPLAY button on the DVD video camera/recorder.

Input mode

Play List

Creating New Play List

Use play list to edit recorded scenes.

1 Use the joystick to select a scene to be programmed in a play list.

When selecting multiple scenes, refer to "Selecting Consecutive Scenes Together "or "Selecting Random Scenes" on page 70.
With the created play list, you can also add scenes recorded on another day or unnecessary scenes afterwards.

2 Press the MENU button.

The Disc Navigation menu screen will appear.

3 Use the joystick to choose "Create" on the "Play List" menu screen, and then press the ▶ button.

The "Create Play List" screen will appear.
A new play list including the selected scenes will be created, and a thumbnail of the created play list will appear.
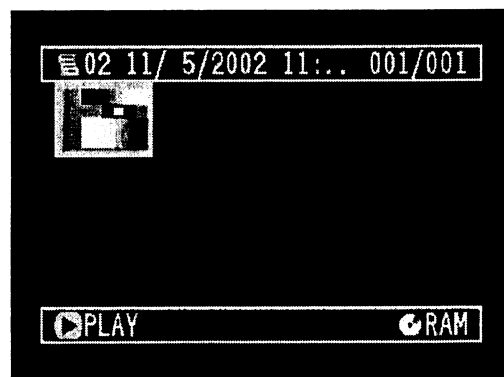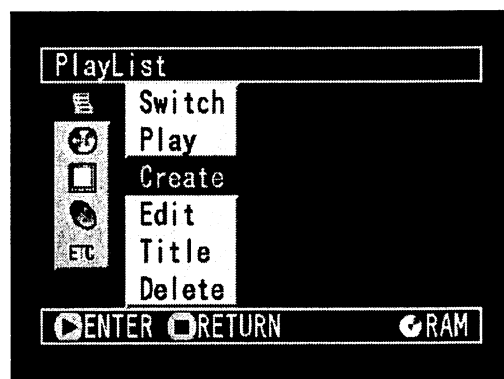
Note: If the scene added to play list had skip or fade setting, that information will also be added to the play list.
Note: The time when the play list was created will appear in the title bar.
Note: If you have selected multiple scenes, you can stop the creation of play list midway by pressing the ■ button. In this case, the play list will be created with the scenes up to the point where the ■ button was pressed.
Note: If free space available on disc is insufficient, creation of new play list may not be possible: Delete unnecessary scenes.

Switching Play List (Switching to Display of Each Play List)

If multiple play lists are stored on disc, you can switch the thumbnail display for each play list or switch to the thumbnail display of all programs.

1 Press the MENU button.

The Disc Navigation menu screen will appear.

2 Use the joystick to choose "Switch" on the "Play List" menu screen, and then press the ▶ button.
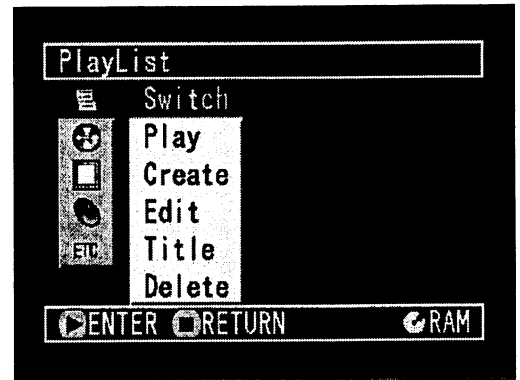
```
┌──────────────────────────────┐
│ PlayList                     │
│   ▤   Switch                 │
│  ⊗ ┌──────────┐             │
│  □ │ Play     │             │
│  ☻ │ Create   │             │
│  ETC│ Edit    │             │
│     │ Title    │            │
│     │ Delete   │            │
│ ⊘ENTER ○RETURN      ↻RAM    │
└──────────────────────────────┘
```

The "Switch Play List" screen will appear.

```
┌──────────────────────────────┐
│ Switch PlayList              │
│                              │
│     All Programs             │
│  01  11/ 5/2002 11:44AM      │
│                              │
│ ⊘ENTER ○RETURN              │
└──────────────────────────────┘
```

3 Select the play list you wish to display, and then press the ▶ button.

The thumbnail screen of the selected play list will appear.

Note: To display the thumbnails of all programs (all recorded scenes), choose "All Programs" on the "Switch Program" screen.

```
┌──────────────────────────────┐
│ ▤02 11/ 5/2002 11:..  001/001│
│                              │
│                              │
│ ⊘PLAY              ↻RAM      │
└──────────────────────────────┘
```
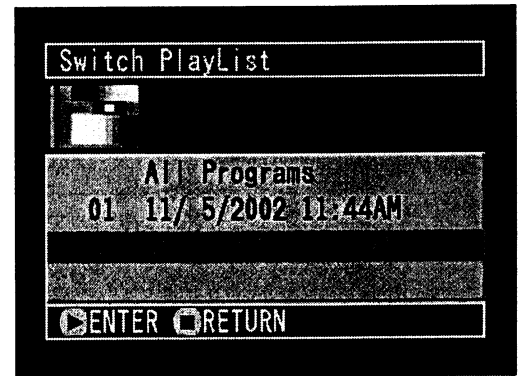
Playing Back A Play List

1 Press the MENU button.

The Disc Navigation menu screen will appear.

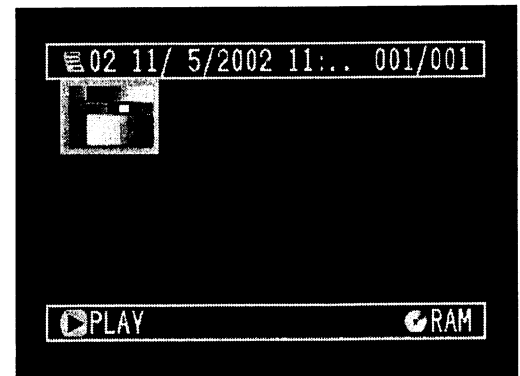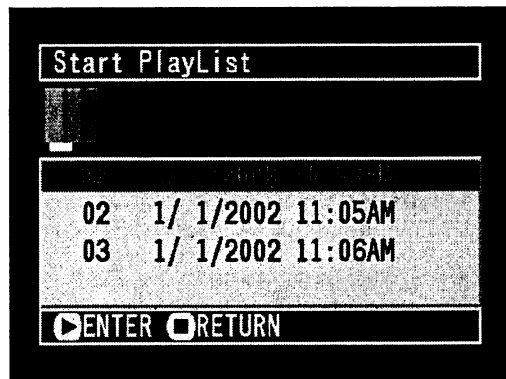**2** Use the joystick to choose "Play" on the "Play List" menu screen, and then press the ▶ button: The "Start Play List" screen will appear.

```
┌─────────────────────────────────────┐
│ Start PlayList                       │
│ ▓▓                                   │
│ ▓                                    │
│ ┌─────────────────────────────────┐ │
│ │                                 │ │
│ │  02   1/ 1/2002 11:05AM         │ │
│ │  03   1/ 1/2002 11:06AM         │ │
│ │                                 │ │
│ │ ▶ENTER ■RETURN                  │ │
│ └─────────────────────────────────┘ │
└─────────────────────────────────────┘
```

3 Use the joystick to select the play list, and then press the ▶ button.

The selected play list will be played back from the first scene. To cancel playback midway, press the ■ button: The thumbnail screen of the play list being played back will appear.

Note: If "Repeat Play On" is specified, the play list will be repeatedly played back (see page 89).

Adding Scenes to Play List

You can later add scenes to the created play list.

1 Display the thumbnails of scenes to be added to the play list, and then press the MENU button.

See "Switching to Thumbnail Display of Specific Data (Selecting Program)" on page 72 for how to display the thumbnails.
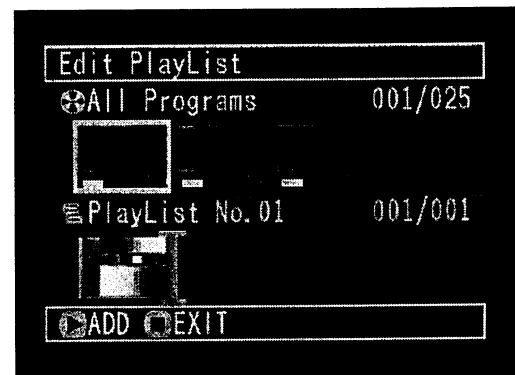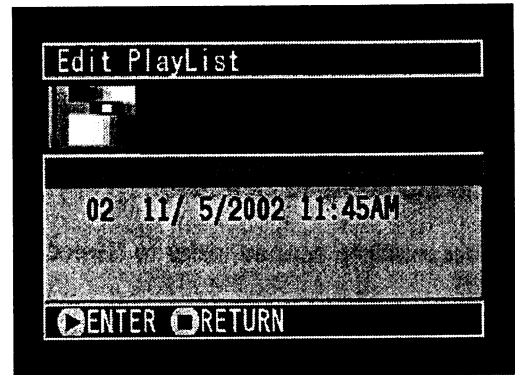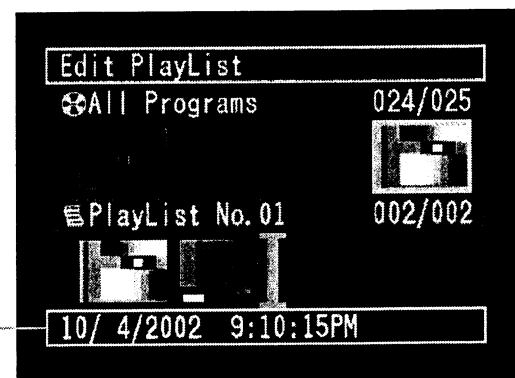The Disc Navigation menu screen will appear.

2 Use the joystick to choose "Edit" on the "Play List" menu screen, and then press the ▶ button:
The "Edit play List" screen will appear.

3 Use the joystick to select the play list to which you wish to add scenes and then press the ▶ button.

The thumbnails of the program that was displayed in step 1 will appear in the upper row, and the thumbnails of selected play list will appear in the lower row.

```
┌─────────────────────────────┐
│ Edit PlayList               │
│                             │
│  02  11/ 5/2002  11:45AM    │
│                             │
│ ▶ENTER ○RETURN              │
└─────────────────────────────┘
```

⬇

```
┌─────────────────────────────┐
│ Edit PlayList               │
│ ⊕All Programs      001/025  │
│                             │
│ ≡PlayList No.01    001/001  │
│                             │
│ ○ADD ○EXIT                  │
└─────────────────────────────┘
```

Note: If the DISPLAY button is pressed when the thumbnails are displayed, the recording date/time of the selected scene will appear across the bottom of I screen. Press DISPLAY to restore the previous screen.

Recording date/time ————

```
┌─────────────────────────────┐
│ Edit PlayList               │
│ ⊕All Programs      024/025  │
│                             │
│ ≡PlayList No.01    002/002  │
│                             │
│ 10/ 4/2002  9:10:15PM       │
└─────────────────────────────┘
```

4 Tilt the joystick down ☑ to move the cursor to the lower row, and tilt it to left ◁ or right ▷ to select the point where the scene is to be inserted.


```
┌─────────────────────────────────────┐
│ Edit PlayList                        │
│ ⊕All Programs            024/025    │
│                              ▓▓       │
│                                      │
│ ≣PlayList No.01          002/002    │
│   ▓▓  ▓▓  ▓                          │
│ ┌──────────────────────────────────┐ │
│ │ ▷ADD  ◯EXIT                      │ │
│ └──────────────────────────────────┘ │
└─────────────────────────────────────┘
```

Insertion position

Scene to be copied
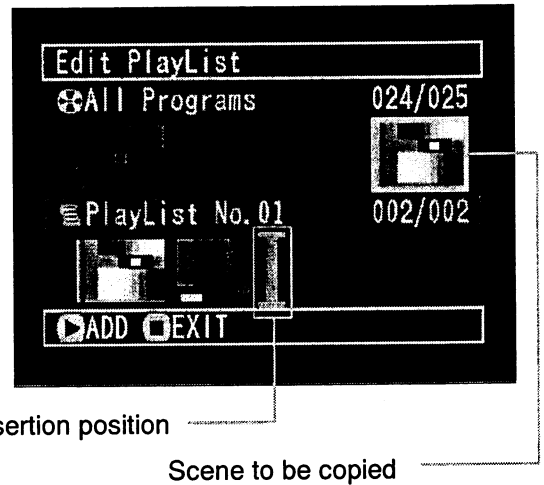
5 Tilt the joystick up △ to move the cursor to the upper row, and tilt it to left ◁ or right ▷ to point the cursor to the scene to be added.

To select multiple scenes, refer to "Selecting Consecutive Scenes" or "Selecting Random Scenes" on page 70.

6 Press the ▶ button to copy the scene: The screen showing that the scene is being copied will appear.

While multiple scenes are being copied, copying can be cancelled at any time by pressing the ■ button: The scenes up to the point where the ■ button was pressed will be added.
After adding scenes is completed, the edited play list of thumbnails will appear.

Note: Pressing ■ in steps 3-5 will display the screen for verifying an exit from "Edit Play List". Choose "YES" to exit the edition of play list. Choosing "NO" will restore the "Edit Play List" screen.
Note: Pressing the ■ button on the screen for verification will restore the thumbnail display screen.
Note: If you press the MENU button in step 5, the menu screen for editing play list will appear. You can also use this menu to add scenes. (See page77.)
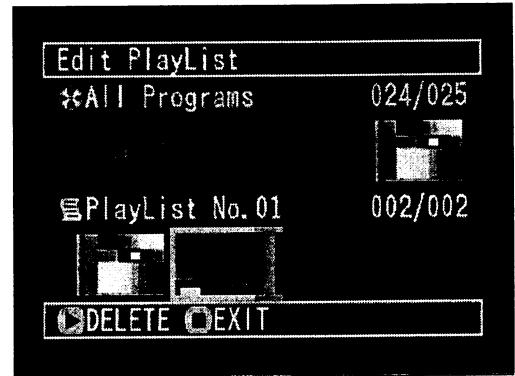
Deleting Scenes from Play List

1 Display the "Edit Play List" menu screen of the play list to
be edited.

Perform steps 1 - 3 on page 76.

```
Edit PlayList
✿All Programs          024/025


≣PlayList No. 01       002/002



◯ADD ◯EXIT
```
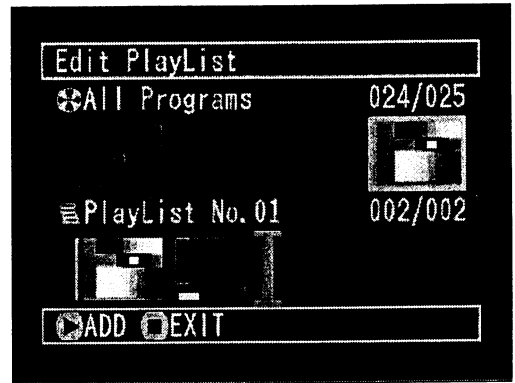
2 From the play list in lower row, point the cursor to the
scene you want to delete.

To select multiple scenes, refer to "Selecting Consecutive
scenes Together" or "Selecting Random Scenes on
page 70.

```
Edit PlayList
✿All Programs          024/025


≣PlayList No. 01       002/002



◯DELETE ◯EXIT
```

3 If you are sure that you wish to delete the scene, press the ▶ button:
The screen being deleted will appear.

When multiple scenes are being deleted, you can stop deletion midway: Press the ■ button.
The scenes up to the point where the ■ button was pressed will be deleted.

Note: Place the cursor on scene to be deleted, and then press the DELETE button on remote
control: You can also delete the scene.

Editing Play List (Adding Scenes using Menu)

You can use the menu screen to add scenes to a created play list.

1 Display the "Edit Play List" menu screen of the Play list to be edited.

Perform steps 1-3 on page 76.

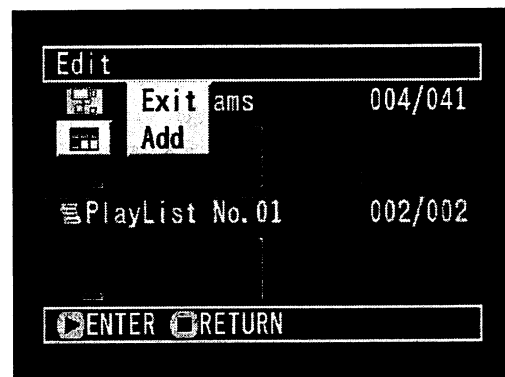**2** Select the scenes to be added from the upper row.

```
Edit PlayList
⊕All Programs          004/041



≦PlayList No. 01       002/002



▶ADD ⬤EXIT
```

Insertion position

Scene to be added

3 Press the MENU button.

The menu screen for editing play list will appear.

```
Edit
     Exit ams          004/041
     Add

≦PlayList No. 01       002/002



▶ENTER ⬤RETURN
```

4 Choose "Add", and then press the ▶ button.

The selected scenes will be added to the end of play list to be edited.
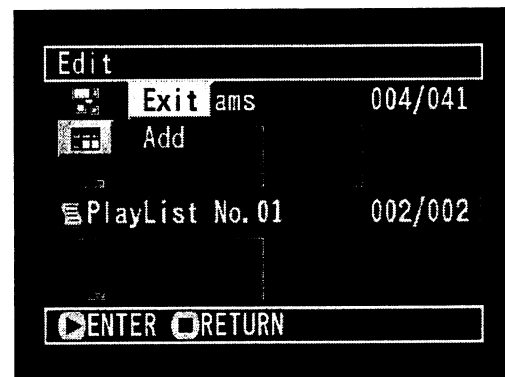
**Note:** The selected scenes will be added in the insertion position.

```
Edit
     Exit ams          004/041
     Add

≦PlayList No. 01       002/002



▶ENTER ⬤RETURN
```
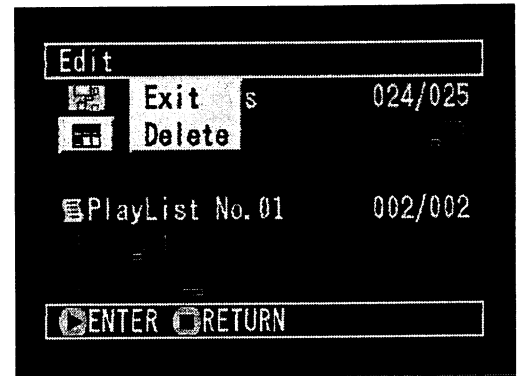
Editing Play List (Deleting Scenes using Menu)

If, by mistake, you insert undesired scenes to the play list to be edited in "Editing Play List (Adding Scenes using Menu)" on page 77, or if there are unnecessary scenes in the play list to be edited, you can delete the scenes without exiting the screen for editing play list.

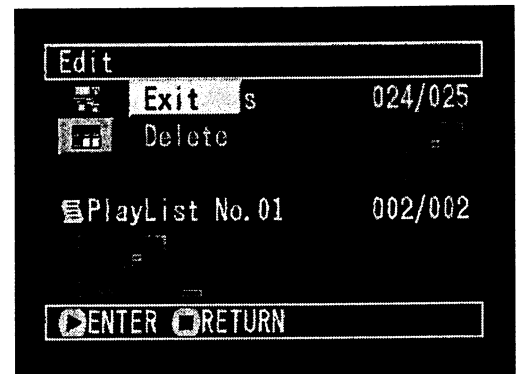**1** Display the "Edit Play List" menu screen of the play list to be edited. Perform steps 1-3 on page 76.

```
Edit PlayList
⊕All Programs          024/025

☰PlayList No. 01       002/002

◐ADD ◑EXIT
```
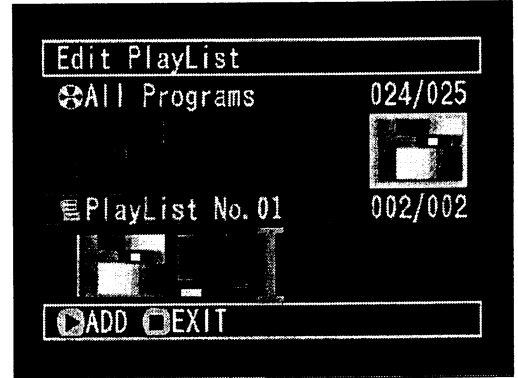
2 Move the cursor to the play list to be edited in lower row, and select the scene(s) to be deleted.

3 Press the MENU button.
   The menu screen for editing play list will appear.

```
Edit
    Exit   s          024/025
    Delete

☰PlayList No. 01       002/002

◐ENTER ◑RETURN
```

4 Choose "Delete" on the "Edit" menu screen, and then press the ▶ button.

The selected scene(s) will be deleted.

```
Edit
    Exit   s          024/025
    Delete

☰PlayList No. 01       002/002

◐ENTER ◑RETURN
```

Note: If all scenes on play list are deleted, the play list itself will also be deleted.

Editing Play List (Selecting Scenes Using Menu)

You can specify the range of scenes when adding or deleting consecutive multiple scenes to/from play list. This "Select" menu item is useful when selecting consecutive multiple scenes in items for adding or deleting scenes using menu on page 77.
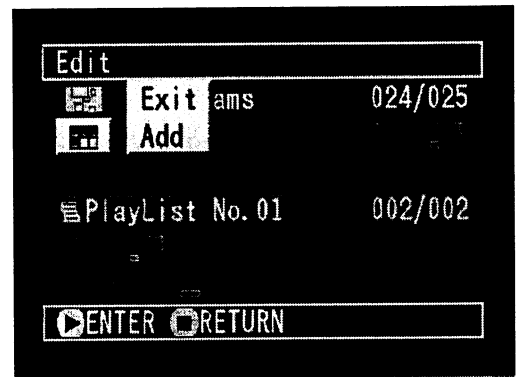
1 Display the "Edit Play List" menu screen of the play list to be edited.
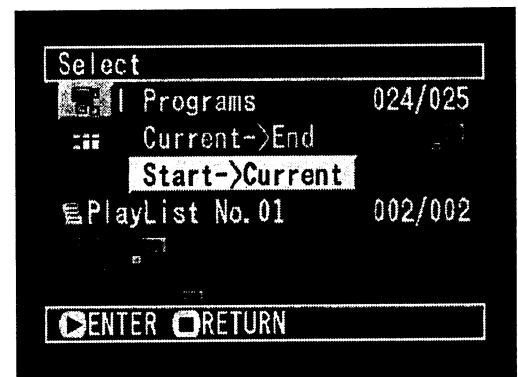
  Perform steps 1-3 on page 76.

```
┌─────────────────────────────────┐
│ Edit PlayList                   │
│ ⊕All Programs          024/025  │
│                          [▨]    │
│                                 │
│ ⧈PlayList No. 01       002/002  │
│  [▨  ▨        I]                │
│                                 │
│ ◉ADD ◯EXIT                      │
└─────────────────────────────────┘
```

2 Specify the first scene of those you wish to select, and then press the MENU button.

  The menu screen for editing play list will appear.

```
┌─────────────────────────────────┐
│ Edit                            │
│ [▦]  Exit ams          024/025  │
│ [▦]  Add                        │
│                                 │
│ ⧈PlayList No. 01       002/002  │
│                                 │
│ ◉ENTER ◯RETURN                  │
└─────────────────────────────────┘
```

3 Choose "Current → End" or "Start → Current" on the "Select" menu screen, and then press the ▶ button.

```
┌─────────────────────────────────┐
│ Select                          │
│ [▦] l Programs         024/025  │
│  ⣿   Current->End               │
│     [Start->Current]            │
│ ⧈PlayList No. 01       002/002  │
│                                 │
│ ◉ENTER ◯RETURN                  │
└─────────────────────────────────┘
```
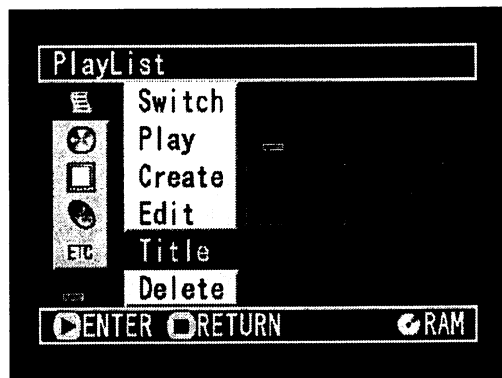
Changing Title of Play List

The play lists have serial numbers in the order you have created them. At any time you can change the title of play list, which was the recording date/time set on this DVD video camera/recorder.
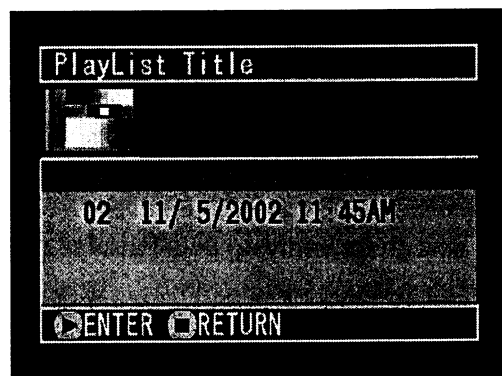
1 Press the MENU button.

The Disc Navigation menu screen will appear.

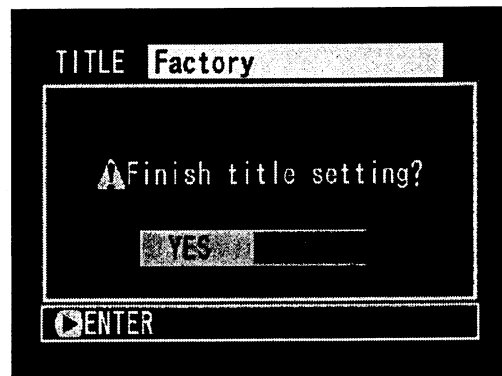**2** Use the joystick to choose "Title" on the "Play List" menu screen, and then press the ▶ button.

The "Play List Title" screen will appear.
See "Changing Title of Program" on page 73 for how to enter a title.

3 After entering the title, use the joystick to choose "Enter", and then press the ▶ button.

The screen for verifying registration of title will appear.

Note: The registered title can be changed at any time using the same procedure.
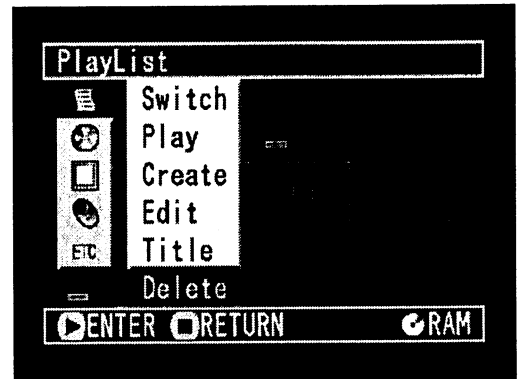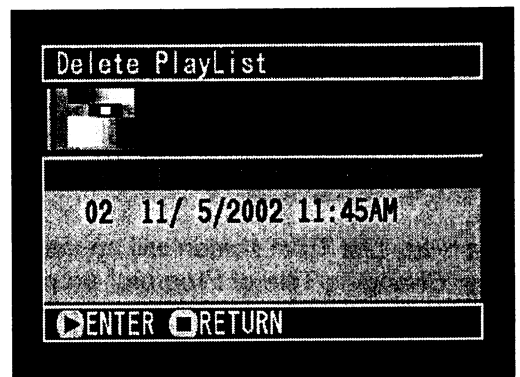
Deleting Play List

1 Press the MENU button.
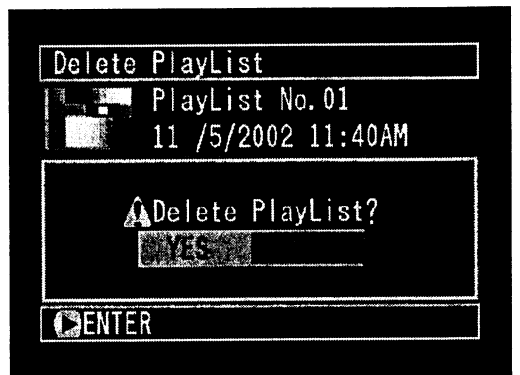
The Disc Navigation menu screen will appear.

2 Use the joystick to choose "Delete" on the "Play List" menu screen, and then press the ▶ button: The "Delete Play List" screen will appear.

```
┌─────────────────────────────┐
│ PlayList                    │
│  📋   Switch                 │
│  🎦   Play      ⎯⎯           │
│  □    Create                │
│  ☻    Edit                  │
│ ETC.  Title                 │
│  ⎯    Delete                │
│ ⏵ENTER ◯RETURN      ↻RAM    │
└─────────────────────────────┘
```

3 Use the joystick to select the play list you wish to delete, and then press the ▶ button.

```
┌─────────────────────────────┐
│ Delete PlayList             │
│ ▪▫▪                         │
│  02  11/ 5/2002 11:45AM     │
│ ⏵ENTER ◯RETURN             │
└─────────────────────────────┘
```

The screen for verifying deletion of play list will appear.

```
┌─────────────────────────────┐
│ Delete PlayList             │
│ ▪▫   PlayList No. 01        │
│ ▪    11 /5/2002 11:40AM     │
│      ⚠Delete PlayList?      │
│         YES                 │
│ ⏵ENTER                      │
└─────────────────────────────┘
```

4 If you are sure that you wish to delete the play list, use the joystick to choose "YES", and then press the ▶ button.

The selected play list will be deleted, and the original screen will be restored.

Note: If you choose "NO" on the screen for verifying deletion of play list, deletion will be canceled, and the original screen will be restored.

Note: Pressing the ■ button the screen for verification will restore the thumbnail display screen.

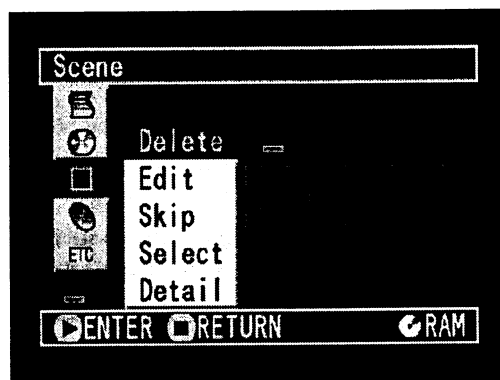**Note:** Even if you delete a play list, the original scenes stored on disc will not be deleted.
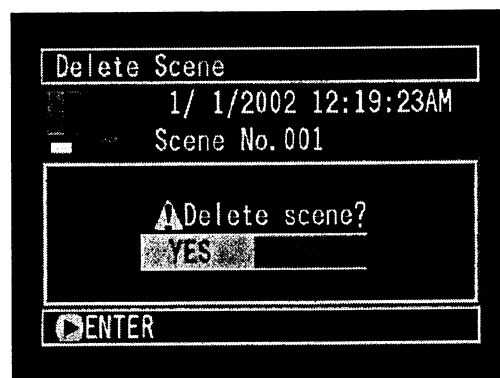
Scene

Deleting Scenes

1 Use the joystick to select the scene to be deleted, and then press the MENU button.

The Disc Navigation menu screen will appear.

2 Use the joystick to choose "Delete" on the "Scene" menu screen, and then press the [▶] button.

```
┌─────────────────────────────┐
│ Scene                       │
│ ▤                           │
│ ⊕    Delete   ⊏⊐            │
│ ▢    Edit                   │
│ ●    Skip                   │
│ ETC  Select                 │
│ ⊏⊐   Detail                 │
│ ◉ENTER ○RETURN      ↻RAM     │
└─────────────────────────────┘
```

The screen for verifying deletion will appear.

```
┌─────────────────────────────┐
│ Delete Scene                │
│        1/ 1/2002 12:19:23AM │
│        Scene No. 001        │
│                             │
│      ⚠Delete scene?         │
│      YES                    │
│                             │
│ ◉ENTER                      │
└─────────────────────────────┘
```

3 Use the joystick to choose "YES", and then press the [▶] button.

The message "Deleting..." → "Finished" will appear and the selected scene will be deleted,
after which the thumbnail display screen will be restored.
To cancel deletion, choose "NO", and then press the [▶] button while the screen for verification
is being displayed.

Note: Pressing the [■] button on the screen for verification will restore the thumbnail display screen.
Note: If you wish to delete multiple scenes, select them referring to "Selecting Consecutive Scenes
Together" or "Selecting Random Scenes" on page 70.
Note: If you delete all data on disc, initializing the disc will be recommended (see p. 87).
Note: If even one play list has been created, message "Same scenes on Play List will be deleted.
Delete scenes?" will appear before deleting scene(s).
This message will appear even if the scene(s) to be deleted is not used in the corresponding play
list. In this case, choose "YES" and then press the [▶] button to delete the scene(s).
Note: If the time of deleted scenes (stills) is quite short, the remaining free space of disc may not
increase in the time remaining indicator.

Adding Special Effects (Fade)

When switching scenes, you can add fading to the beginning and/or end of scene. There are three types of special effects:
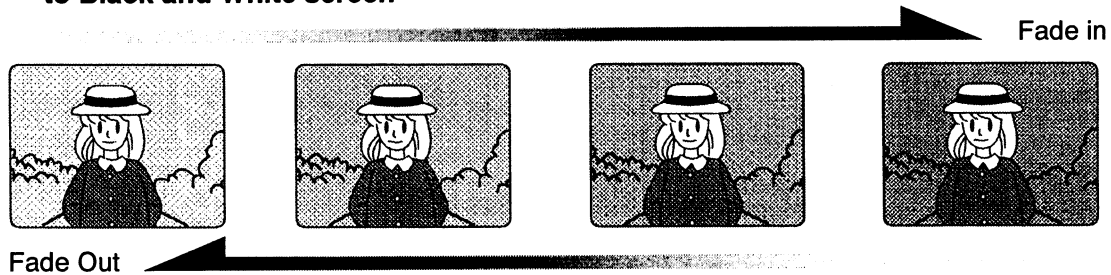
White: Fades in from white screen, fades out to white screen

Fade in

Fade Out
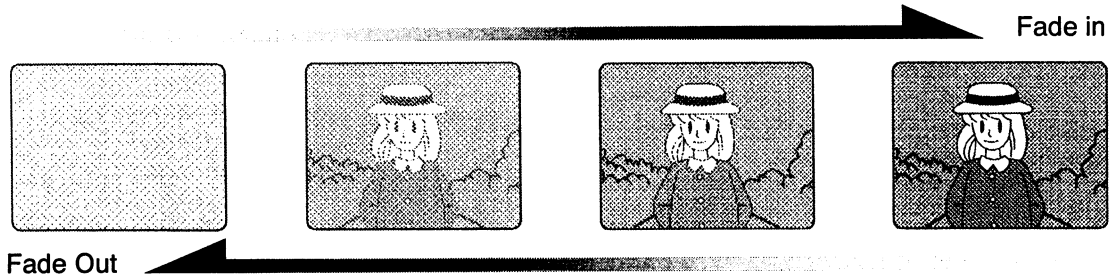
Wipe: Fades in from black screen to vertical direction of screen, Fades out from vertical direction of screen to black screen

Fade in

Fade Out
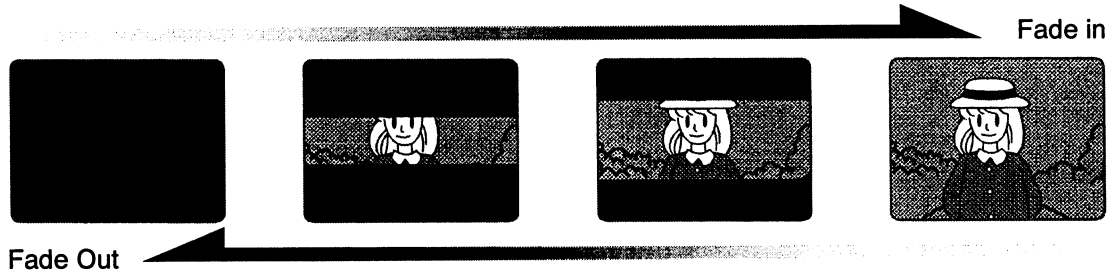
B/W: Fades in from Black and White screen to color screen, Fades out from color screen to Black and White screen
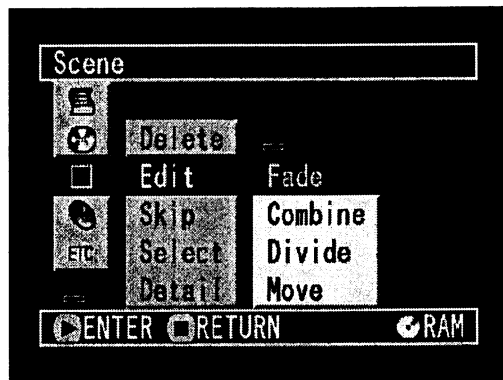
Fade in

Fade Out

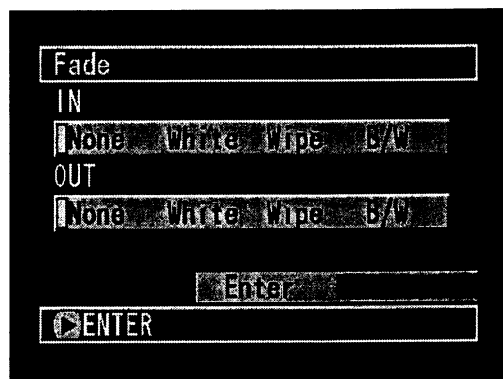**1** Select the scene for adding special effects and press the MENU button.

The Disc Navigation menu screen will appear.

2 Use the joystick to choose, "Scene", "Edit", "Fade", and then press the ▶ button.
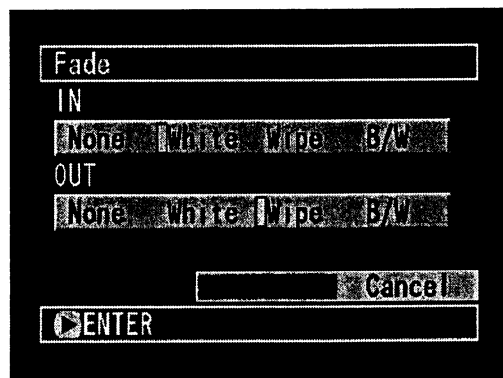The fade setting screen will appear.

```
Scene
  ▤
  ⊗  Delete
  ☐    Edit      Fade
  ◔   Skip     Combine
 ETC. Select    Divide
      Detail     Move
 ❿ENTER ◉RETURN        ◈RAM
```

⬇

The options will appear under IN and OUT: The ☐ mark will be attached to the currently selected option.

```
Fade
IN
 None  White  Wipe  B/W
OUT
 None  White  Wipe  B/W

          Enter
 ❿ENTER
```

3 Use the joystick to select the special effects for "IN" and "OUT", choose "Enter", and then press the ▶ button.

```
Fade
IN
 None  White  Wipe  B/W
OUT
 None  White  Wipe  B/W

                Cancel
 ❿ENTER
```

After the proceeding message appears, the thumbnail display screen will be restored.
The scenes for which special effects have been set will be attached with marks"▲ ", " ◣".

"In" effect

"Out" effect
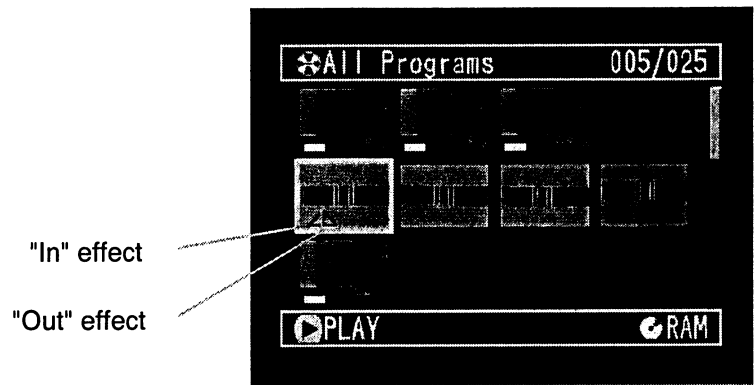
Note: Setting fade will also fade the sound.
Note: Fading can also be set to either "IN" or "OUT".
Note: Any registered fade can be changed at any time using the same procedure as above.
Note: Fade can also be added to on-screen information displayed during playback.
Note: If the playback time of scene is short, fade will cut off midway.
Note: If you set fade-in and fade-out to a still image or a movie with recording time of no more than 3 seconds, only fade-in will be valid.
Note: No fade effect will operate if you start playback in the recording pause status.
Note: If you locate the start of a scene by skipping, the image at the start of the scene will appear for a moment, and then fade will operate.
Note: The fade effect will not function during frame advance, frame back, slow Playback or search playback.
Note: Pressing the ▣ button on the screen for verification will restore the thumbnail display

Combining Multiple Scenes

You can combine multiple scenes into one.
Be sure to select consecutive multiple scenes when combining.

1 Use the joystick to select the scenes to be combined, referring to "Selecting Consecutive
Scenes Together" on page 70, and then press the MENU button.

The Disc Navigation menu screen will appear.

2 Use the joystick to choose, "Scene", "Edit", "Combine",
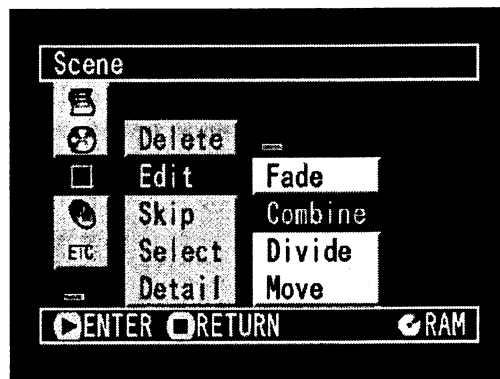and then press the ▶ button.

The screen for verifying combination of scenes
will appear.

```
┌────────────────────────────┐
│ Scene                      │
│  🖪                        │
│  ⊗  Delete   ▭            │
│  ▢  Edit    │ Fade    │    │
│  ◉  Skip    │ Combine │    │
│  ETC Select │ Divide  │    │
│  ▭  Detail  │ Move    │    │
│ ▶ENTER ◯RETURN      ↻RAM  │
└────────────────────────────┘
```

3 If you are sure that you wish to combine the scenes, use the joystick to choose "YES",
and then press the ▶ button.

The selected movies will be combined into one, and the thumbnail display screen will be restored:
The first scene before combination will appear as a thumbnail.

Note: Still images cannot be combined.
Note: If you choose "NO" on the screen for verifying combination, combination will be canceled.
Note: To restore the separated status of a combined scene, divide it.
Note: With special effects, the "in" effect of the first scene in the selected range and the "out"
effect of the last scene will be chosen.
Note: If you combine scenes from different programs (different recording dates), a message that
prompts you to update the control information will appear each time Disc Navigation is started.
Even if you have chosen "YES" and updated the control information, the same message will
appear when Disc Navigation is started next time. To prevent this, when combining scenes
from different programs, create a new play list and then combine the scenes on it.
Note: Pressing the ■ button on the screen for verification will restore the thumbnail display screen.
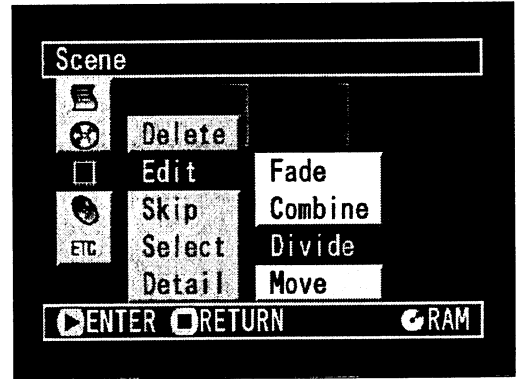
Dividing Movies

You can divide a scene into two parts. To delete unnecessary portion of scene, first divide the scene, and then delete the unnecessary portion. You can also cut out a part of scene and use it in the play list.

1 Use the joystick to select the scene to be divided, and then press the MENU button.

The Disc Navigation menu screen will appear.

2 Use the joystick to choose, "Scene", "Edit", "Divide", and then press the ▶ button.

The "Select Division Point" screen will appear, and playback of the selected scene will start.

```
Scene
  ▤
  ⊛   Delete
  □    Edit     Fade
  ●    Skip     Combine
 ETC   Select   Divide
       Detail   Move
 ◗ENTER ◯RETURN        ↺RAM
```

3 When you reach the point where you want to divide the scene, press the SELECT button.

The screen for verifying division of scene will appear.

```
Select Division Point
 ▣ ⋇  □004 ☼RAM  0:00:12▷
 ⦿ENTER ◯CANCEL
```
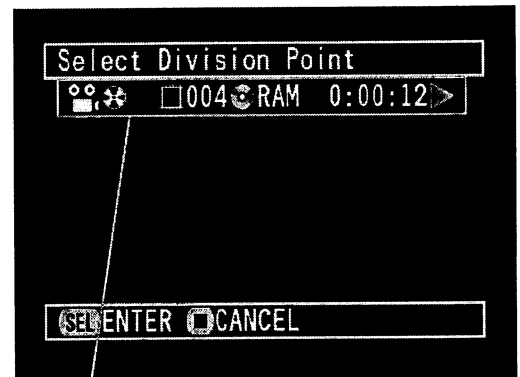
Status bar of scene being played back

4 If you are sure that you wish to divide the scene, use the joystick to chose "YES", and then press the ▶ button.

Divide Scene

Divide Scene?

YES

⊙ENTER
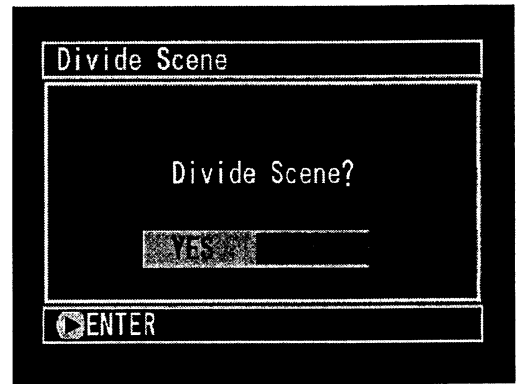
The scene will be divided at the specified point, and the thumbnail display screen will be restored, with the divided thumbnails, appearing side by side.

Note: The status bar of scene being played back can be switched off or on by pressing the DISPLAY button.

Note: If you choose "NO" on the screen for verifying division in step 4, division will be canceled.

Note: Search and frame advance are useful when designating division points.

Note: If you press the MENU button while the scene to be divided is being played back in step 2, the DVD video camera/recorder will enter the playback pause status, and the "Go To" menu will appear. You can jump to the first image, end image or any specified point of the scene. (See "Searching for Scene You Wish to View by specifying It (Go To)" for details on "Go To".) You can divide the scene at the point you have jumped to.

Note: If a special effect has been added to the original scene, the "In" effect will be added to the first half of scene, and the "Out" effect, to the latter half.

Note: The division point may drift before or after the designated point by approximately 0.5 seconds.

Note: Since a scene with a skip set cannot be played back, no division point can be specified; Release the skip for the scene before dividing it.

Note: If the division point is at a still, a message will appear, but no division will be mode.

Note: If the division point is at the start or end of a scene, a message will appear, but no division will be mode.

Note: A scene of 0.5 seconds or less cannot be divided.

Note: If free space available on disc is insufficient, division will not be possible: Delete unnecessary scenes.

Note: Pressing the ■ button on the screen for verification will restore the thumbnail display screen.
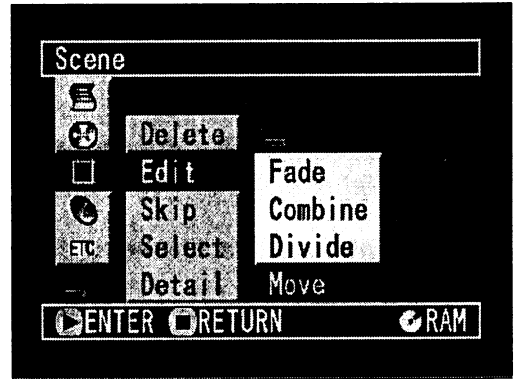
Arranging Order of Scenes (Move)

You can move scenes within a play list to arrange the order as you want.

1 Select the scene to be moved, and then press the MENU button.

   The Disc Navigation menu screen will appear.

2 Use the joystick to choose "Scene", "Edit", "Move", and then press the ▶ button.

```
Scene
  ⊟
  ☺    Delete
  ☐    Edit     Fade
  ◑    Skip     Combine
 ETC   Select   Divide
       Detail   Move
  ▶ENTER ●RETURN        ●RAM
```

   The "Select Insert Point" screen will appear, and the "I" mark will appear.

3 Move the "I" mark to the position where you wish to move the scene, and then press the ▶ button.

   The screen for verifying movement of scene will appear.

4 If you are sure that you wish to movie the scene, choose "YES", and then press the ▶ button.

   The message for movement will appear, and then the thumbnail display screen will be restored.

   Note: To move consecutive multiple scenes together, select scenes referring to selecting Consecutive Scenes Together" or "Selecting Random Scenes" on page 70.
   Note: Choosing "NO" on the screen for verifying movement in step 4 will cancel movement.
   Note: Still images can also be moved.
   Note: Pressing the ■ button the screen for verification will restore the thumbnail display screen.

Playing Back by skipping Scenes (Skip)

You can specify "Skip" for scenes you do not want to play back: The selected scenes will be skipped.

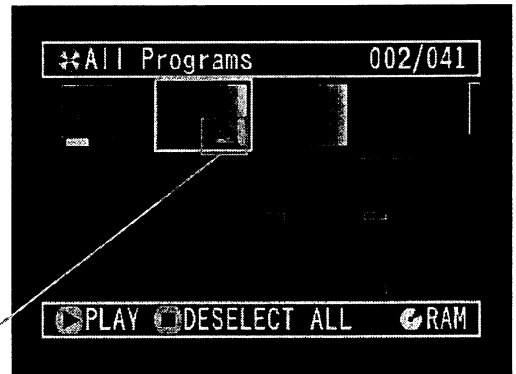**1** Use the joystick to select a scene to be skipped, and then press the MENU button.

The Disc Navigation menu screen will appear.

2 Use the joystick to choose "Scene", "Skip", "Set", and then press the ▶ button.

The message showing that skip is being set will appear, and the thumbnail display screen will be restored.
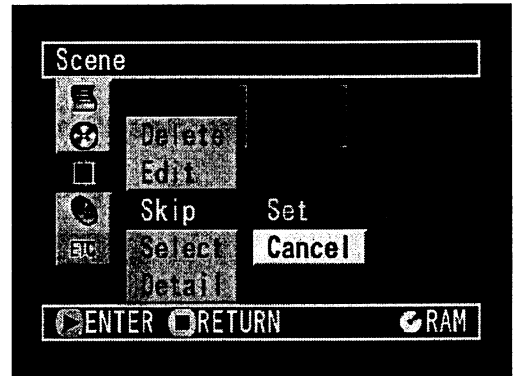
A skip mark " ◢◣ " will be attached to the scene for which skip ping has been set.

Skip mark

•Releasing Skip

Select the scene set to be skipped, and choose "Cancel" in step 2: The skip mark will disappear and skipping of the scene will be released.

Note: If you wish to release skipping for multiple scenes, select them referring to "Selecting Consecutive Scenes Together" or "Selecting Random Scenes" on page 70.

Selecting Scenes using Menu Screen

Using the Disc Navigation menu screen, you can simultaneously select consecutive scenes: This function is useful when there are numerous scenes.
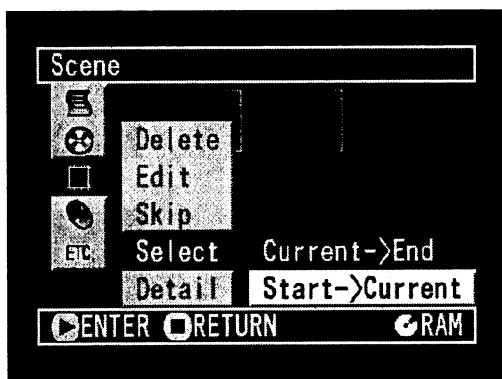
1 Use the joystick to select the first scene to be selected.

2 Press the MENU button.

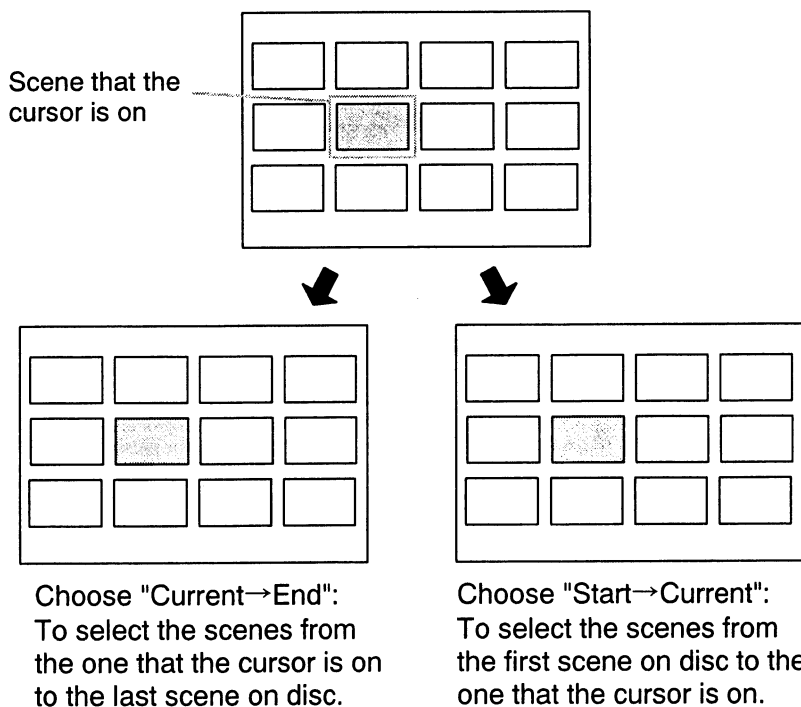The Disc Navigation menu screen will appear.

3 Use the joystick to choose "Select" on, the "Scene" menu screen, and then press the ▶ button.

4 Use the joystick to choose "Current→End", and then press the ▶ button.

The scenes from the one specified to the last scene on disc will be selected.

Note: If you select "Start→Current" in step 4, the scenes from the first scene on disc to the one specified will be selected.

Choose "Current→End":
To select the scenes from the one that the cursor is on to the last scene on disc.

Choose "Start→Current":
To select the scenes from the first scene on disc to the one that the cursor is on.

Displaying information using Menu Screen

Yon can display various information for a scene: the recording mode, recording date/time and length, special effects and movie quality mode.

1 Use the joystick to select the scene whose information you wish to know, and then press the MENU button: The Disc Navigation menu screen will appear.

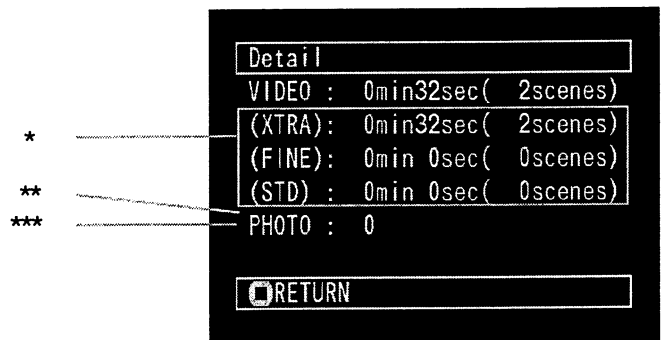**2** Use the joystick to choose "Scene", "Detail", and then press the ▶ button.

The detailed information on the scene will appear.
Pressing the ■ button will restore the thumbnail display screen.

Note: Tilting the joystick to right will display information on the following scene; tilting the joystick to left will display information on the preceding scene.
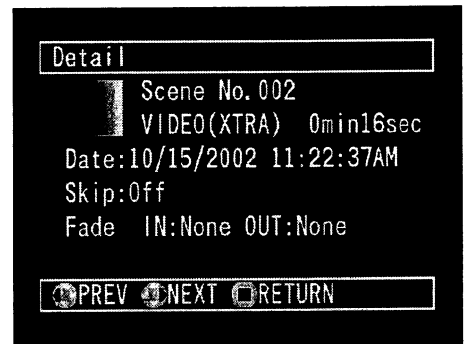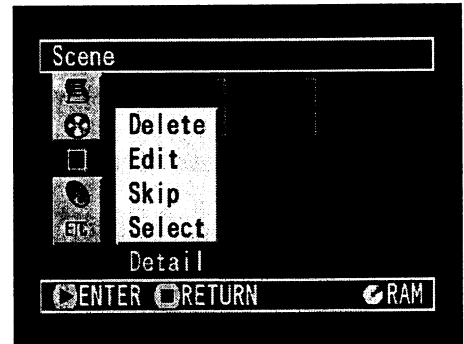
If you have selected multiple scenes, the information shown below will appear.
Pressing the ■ button will restore the thumbnail display screen.

```
┌─────────────────────────────┐
│ Scene                       │
│  ▣                          │
│  ⊗    Delete                │
│  ☐    Edit                  │
│  ◉    Skip                  │
│  ▣    Select                │
│         Detail              │
│ ◉ENTER ◉RETURN      ⟲RAM    │
└─────────────────────────────┘
```

⬇

```
┌─────────────────────────────┐
│ Detail                      │
│ ▌  Scene No. 002            │
│ ▌  VIDEO(XTRA)  0min16sec   │
│ Date:10/15/2002 11:22:37AM  │
│ Skip:Off                    │
│ Fade  IN:None OUT:None      │
│                             │
│ ◉PREV ◉NEXT ◉RETURN         │
└─────────────────────────────┘
```

```
┌───────────────────────────────┐
│ Detail                        │
│ VIDEO :  0min32sec(  2scenes) │
│ (XTRA):  0min32sec(  2scenes) │
│ (FINE):  0min 0sec(  0scenes) │
│ (STD) :  0min 0sec(  0scenes) │
│ PHOTO :  0                    │
│                               │
│ ◉RETURN                       │
└───────────────────────────────┘
```

*   — (XTRA)
**   — (STD)
*** — PHOTO

(When using DVD-RAM disc)

* With DVD-R disc, the quality mode (FINE, STD or LPCM) selected first will appear.
   The XTRA mode will appear only with the DZ-MV230A.
** (---): Number of scenes whose quality mode is unknown: This will appear when the disc has a scene recorded on a device other than this DVD video camera/recorder, only if the disc has a scene whose model is unknown.
   Also, this will hot appear when a DVD-R disc is used.
***This will not appear with DVD-R disc, since no still image can be recorded on it.

Note: If multiple scenes have been selected, the total recording time of the selected scenes will appear.

Disc Management
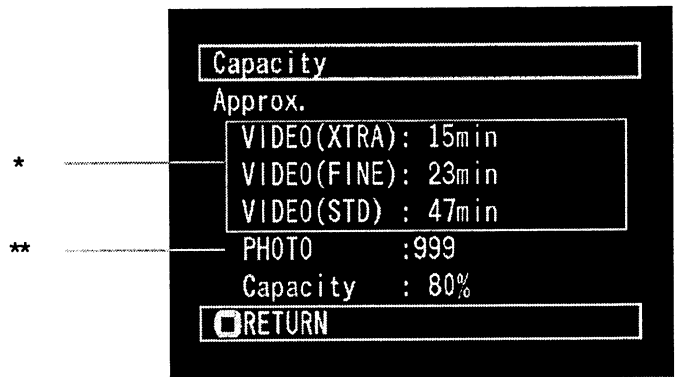
Verifying Remaining Free Space on Disc (Capacity)

You can find out how long you will be able to record on one side of disc.

1 Press the MENU button.

The Disc Navigation menu screen will appear.

2 Use the joystick to choose "Capacity" on the "Disc" menu screen, and then press the ▶ button.

The screen for checking "Capacity" will appear.

```
Capacity
Approx.
  VIDEO(XTRA): 15min
* VIDEO(FINE): 23min
  VIDEO(STD) : 47min
** PHOTO       :999
  Capacity   : 80%
 ▣RETURN
```

(When using DVD-RAM disc)

* With DVD-R disc: The quality mode first used for recording with disc will appear.
The XTRA mode will appear only with the DZ-MV230A,

** With DVD-R disc: This will not be displayed.

3 Press the ■ button.

The Disc Navigation screen will be restored.

Note: with a write-protected or finalized disc, the remaining space will always be displayed as "0".
Note: The displayed remaining free space is only for the side being currently recorded.

Initializing DVD-RAM Disc

If you want to erase all data on a recorded disc and reuse it, you can initialize it rather than deleting the data: Initialization is useful in this case since it takes less time than deleting all data.

1 Press the MENU button.

The Disc Navigation menu screen will appear.

2 Use the joystick to choose "Format Disc" on the "Disc" menu screen and then press the ▶ button.
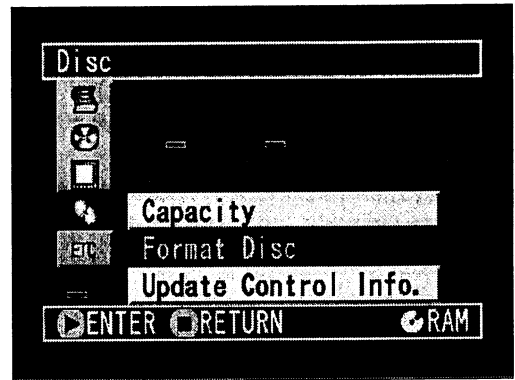
The screen for verifying "Format Disc" will appear.

3 If you are sure that you wish to format the disc, use the joystick to choose "YES", and then press the ▶ button.

When initializing one side of the disc is complete, the DVD video camera/recorder will return to the recording pause status.

Note: When initializing the other side of disc, turn it over and start again from step 1.
Note: Choosing "NO" in step 3 will cancel initialization.
Note: Initializing a disc will delete all the recorded contents on disc: Be careful not to delete data by mistake.
Note: Be sure to use the AC adapter when initializing disc so that the DVD video camera/recorder is not turned off midway. If initialization is interrupted by power off, the disc will not be initialized correctly, or it may be damaged.
Note: It may not be possible to initialize a disc with many scratches or dirt: Such a disc cannot be used.
Note: If you use a brand-new DVD-R disc, message "Disc is not formatted" will appear: Initialize the disc, following the subsequent messages (see page 99).
Note: Pressing the ■ button on the screen for verification will restore the thumbnail display screen.
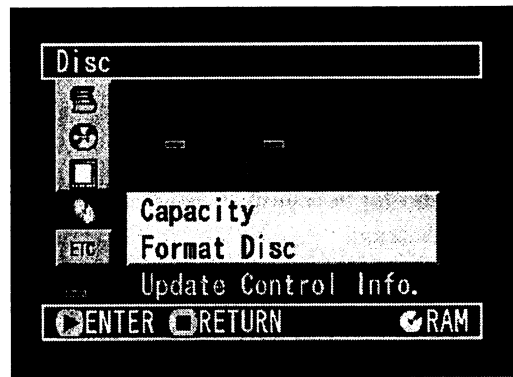
Updating Control Information

Disc Navigation in this DVD video camera/recorder manages information on scenes, such as skip, fade and thumbnails, in a specified manner. If you use another device to edit the video data recorded on this DVD video camera/recorder, and then use the data again with Disc recorder, the control information must be updated: It will be auto Disc Navigation in this video camera/recorder, the control information must be updated: It will be automatically updated each time the pages on the thumbnail display screen are turned. This is useful when you have edited many scenes using another device, since the control information can be updated all at once using Disc Navigation.
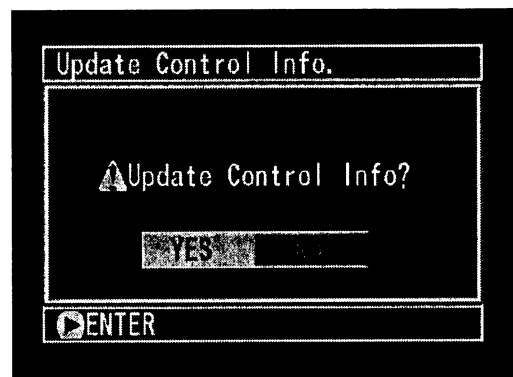
1 Press the MENU button.

The Disc Navigation menu screen will appear.

2 Use the joystick to choose "Update Control Info." on the "Disc" menu screen, and then press the ▶ button.

The screen for verifying "Update Control Info." will appear.

3 If you are sure that you wish to update the control information, use the joystick to choose "YES", and then press the ▶ button.

The message for proceeding will appear, and then the Disc Navigation menu screen will be restored.
A black screen may appear while the message for updating is displayed.
If you choose "NO" on the screen for verifying updating of control information, updating will be canceled.

Note: Be sure to use the AC adapter when updating the control information so that the DVD video camera/recorder is not turned off midway.
If updating of control information is interrupted by power off, the control information will not be updated correctly.
Note: Even if the control information on disc is updated, the disc may no longer be usable on this DVD video camera/recorder.
Note: It may take time to update the control information if the disc has many recorded scenes.
Note: Pressing the ■ button on the screen for verification will restore the thumbnail display screen.

Finalizing Disc

If you wish to play back the contents recorded on this DVD video camera/recorder using a DVD player, etc. that is compatible with 8 cm DVD-R disc, finalize the disc following the procedure below:

1 Press the MENU button.

The Disc Navigation menu screen will appear.

2 Use the joystick to choose "Finalize Disc" on the "Disc" menu screen, and then press the ▶ button.

The disc will be finalized.

3 If you are sure that you wish to finalize the disc, use the joystick to choose "YES" and then Press the ▶ button.

When finalizing the other side of disc, turn the disc over, and repeat the above procedure from step 2.

Note: You can play back a finalized DVD-R disc on a compatible DVD player by specifying "DVD video" (the program will be registered on the DVD menu as a title).
Note: No recording or editing can be done on any disc that has been finalized.
Note: If the disc in the DVD video camera/recorder has already been finalized, you cannot choose "Finalize Disc".
Note: Be sure to use the AC adapter when finalizing disc so that the DVD video camera/recorder is not turned off midway. Finalization cannot be executed using a battery pack. If finalization is interrupted by power off, the disc will not be finalized correctly, or it may be damaged.
Note: The time required to finalize disc that appears on the "Finalize Disc" screen is only for reference.
Note: The shorter the recording time on disc, the longer it will take to finalize it.
Note: Pressing the ■ button on the screen for verification will restore the thumbnail display screen.
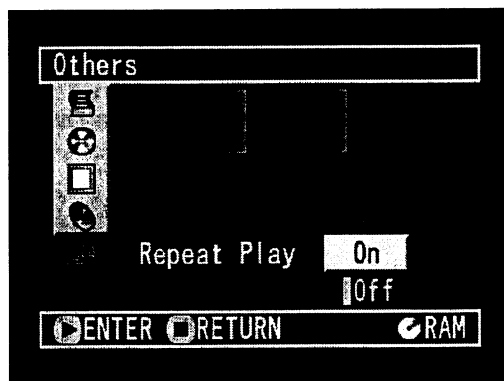
Playing Back Scenes Repeatedly (Repeat Play)

1 Press the MENU button.

The Disc Navigation menu screen will appear.

2 Use the joystick to choose "Repeat Play" on the "Others" menu screen, and then press the ▶ button.

The options will appear on the right of "Repeat Play ":
The [] mark will be attached to the currently selected option.

```
┌────────────────────────────────────┐
│ Others                             │
│  ▤                   ¦     ¦        │
│  ☻                   ¦     ¦        │
│  □                   ¦     ¦        │
│  ◖                                  │
│          Repeat Play    On          │
│                         Off         │
│  ◗ENTER ◯RETURN              ◶RAM   │
└────────────────────────────────────┘
```

3 Use the joystick to choose "On", and then press the ▶ button:

Repeat Play has now been set.
Choosing "Off" will cancel Repeat Play.

When Repeat Play is set:
If one scene has been selected: When playback of the last scene is finished, playback of all scenes will repeat from: the first scene.
If the range for playback has been specified: Playback of the scenes in that range will repeat.

Note: Press the ■ button to terminate playback. However, the Repeat Play setting will not be cancelled.
Note: Still images can also be played back repeatedly.
Note: The Repeat Play setting is cancelled whenever the DVD video camera/recorder is turned off or DISC EJECT button is pressed.
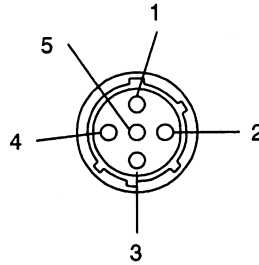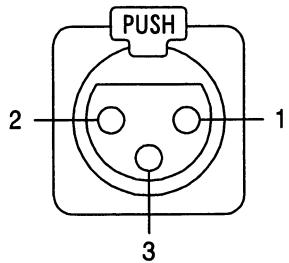
サービスマン用情報

DC IN (4 ピン XLR オス:HA16RA-4P)
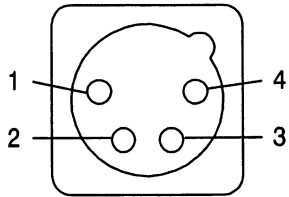
ピン	信号
1	GND
2	NC
3	NC
4	+12V input

DC 12V OUT (5 ピン メス:HR10A-7R-5SB(01))
適合コネクタ:HR10A-7P-5P

ピン	信号
1	DC 12V OUT
2	GND
3	NC
4	NC
5	NC

AUDIO IN (3 ピン XLR メス:HA16PRQ-3SE(05))

ピン	信号
1	MIC GND
2	MIC(H) IN
3	MIC(C) IN

REMOTE (6 ピン メス:HR10A-7R-6SB(01))
適合コネクタ:HR10A-7P-6P

ピン	信号
1	KEY1 CTL
2	KEY2 CTL
3	(+12V OUT)
4	GND
5	SHIFT CTL
6	GND

HR10A-7P-6P

ピン	信号
1	KEY1 CTL
2	KEY2 CTL
3	(+12V OUT)
4	GND
5	SHIFT CTL
6	GND

REC ON/OFF

REC ON/OFF コントロールボックス回路例
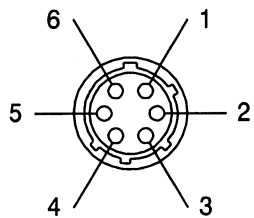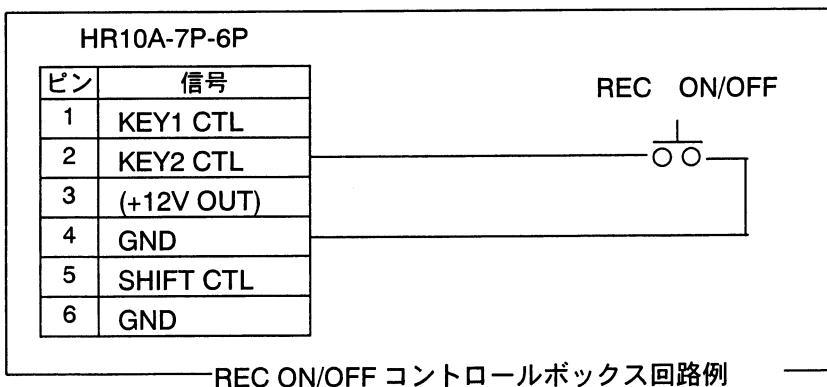
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