

Panasonic

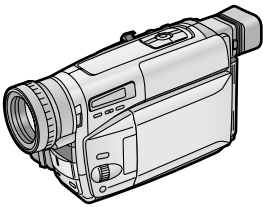
VHS-C Movie Camera

Model No.

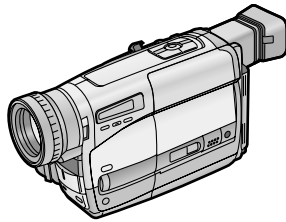
NV-VZ1PN/PNA

NV-RZ3PN/PNA

Operating Instructions



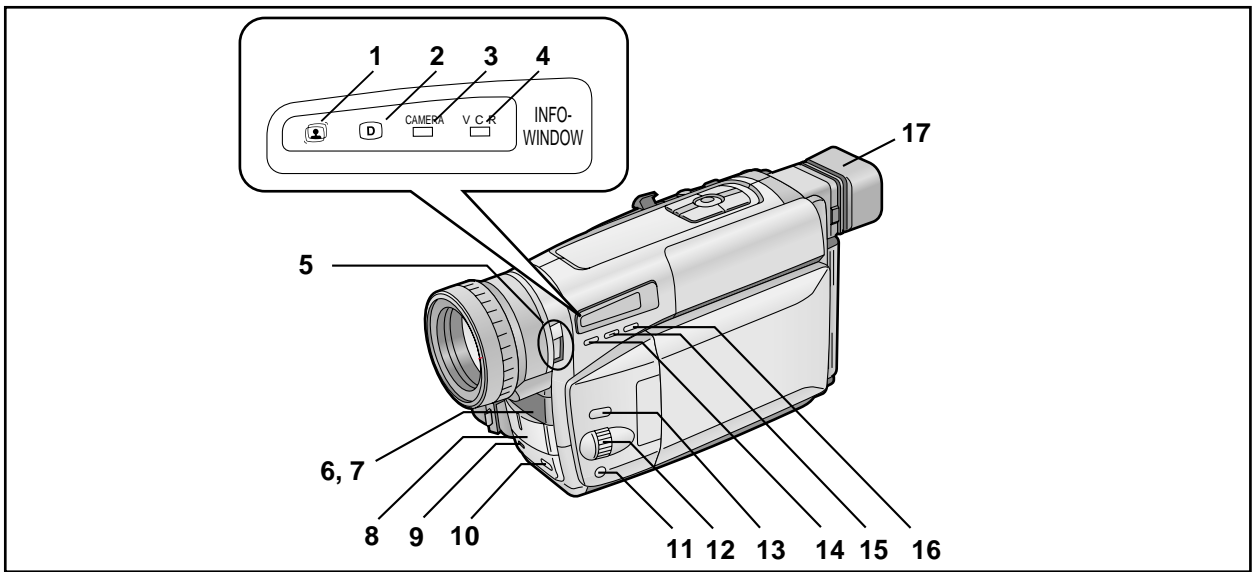
NV-VZ1PN/PNA




NV-RZ3PN/PNA

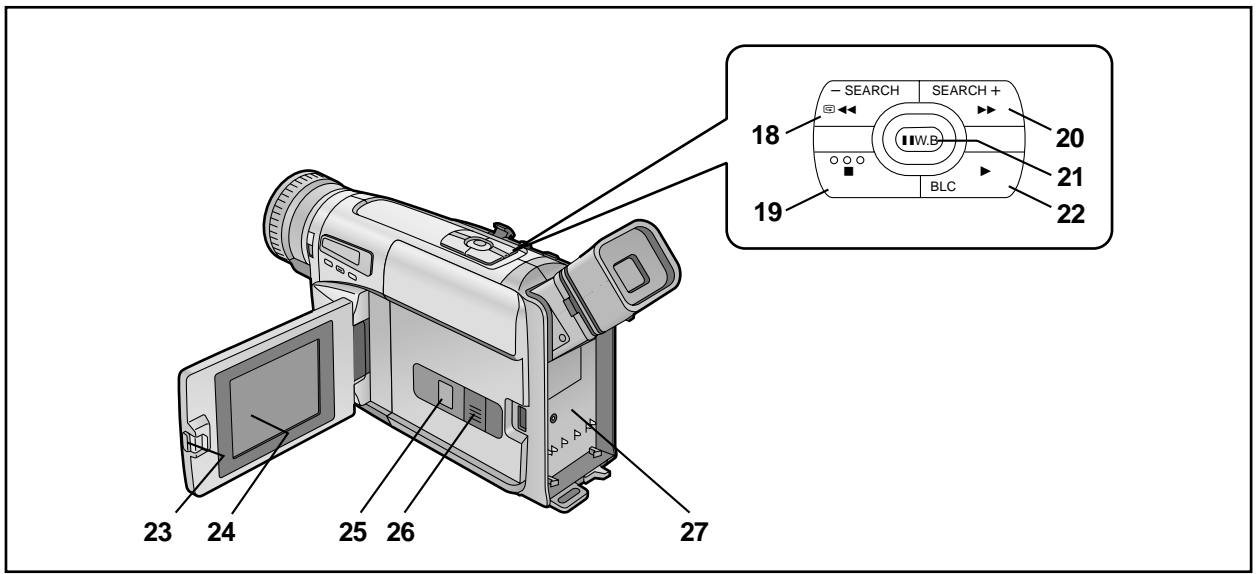


Before use, please read these instructions completely.



Controls and Components

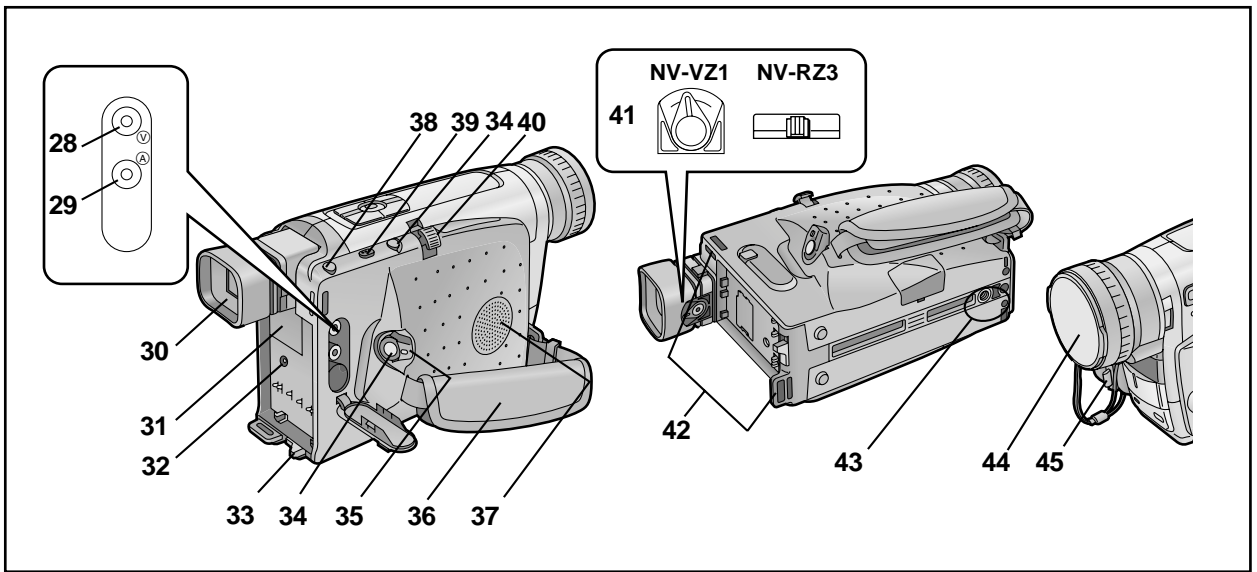
- 1 Super Image Stabilizer Indication Lamp []
(→ 44, 47)
- 2 Digital Effect Indication Lamp [] (→ 44, 48)
- 3 Camera Mode Lamp [CAMERA] (→ 30)
- 4 VCR Mode Lamp [VCR] (→ 35, 37)
- 5 0-Lux Recording Switch [0 LUX OFF/ON] (→ 51)
- 6 White Balance Sensor (→ 72)
- 7 Built-in Infra-red Beam Emitters (→ 51)
- 8 Microphone
- 9 Tally Lamp (→ 31)
- 10 Fade Button [FADE] (→ 42)
- 11 Focus Button [FOCUS] (→ 56)
Item Set Button [SET] (→ 16)
Tracking Button (→ 39)
- 12 Multi-Function Dial [▲▼/MF/TRACKING]
(→ 16, 39, 56)
- 13 Menu Button [MENU] (→ 16)
- 14 Auto Exposure Selector Button [PROG. AE]
(→ 30, 54, 56, 57)
- 15 Fade Mode Selector Button [FADE MODE] (→ 43)
- 16 Color Selector Button for Fade [COLOR] (→ 43)
- 17 Eyecup



- 18 Reverse Search Button [-SEARCH] (→ 32)**
Rewind/Review/High-Speed Rewind Button [◀◀]
 (→ 35, 39, 40)
Recording Check Button [Ⓞ] (→ 32)
- 19 Stop Button [■] (→ 35)**
- 20 Forward Search Button [SEARCH+] (→ 32)**
Fast Forward/Cue Button [▶▶] (→ 40)
- 21 White Balance Button [W.B] (→ 54)**
Pause Button [||] (→ 40)
- 22 Playback Button [▶] (→ 35)**
Backlight Button [BLC] (→ 59)
- 23 LCD Monitor Open Lever [▲OPEN] (→ 15)**
 (NV-VZ1 only)
- 24 LCD Monitor (→ 15, 21, 41) (NV-VZ1 only)**

Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the LCD Monitor screen. However, this is not a malfunction and does not affect the recorded picture.

- 25 Cassette Compartment Window (→ 22)**
- 26 Cassette Compartment Lock Button [LOCK] (→ 22)**
- 27 Battery Holder (→ 13)**



28 Video Output Jack [V] (→ 37, 68)

29 Audio Output Jack [A] (→ 37, 68)

30 Finder (→ 25, 41)

Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the Finder screen, the whole screen may have a slight color cast, and flickering may occur. However, this is not a malfunction and does not affect the recorded picture.

31 Cover of the Button-type Battery's Compartment [BACKUP BATTERY] (→ 27)

32 DC Input Jack [DC IN] (→ 10)

33 Battery Eject Lever [<BATTERY EJECT] (→ 13)

34 Recording Start/Stop Buttons (→ 29, 30)

Use either of these buttons depending on the recording angle.

35 Off/On Mode Selector Switch [CAMERA/OFF/VCR] (→ 13, 30, 35, 41)

36 Grip Belt (→ 25)

37 Speaker (→ 35) (NV-VZ1 only)

38 Cassette Eject Button [▲ EJECT] (→ 22)

39 Date/Time/Title Button [DATE/TITLE] (→ 29, 64)

40 Zoom Lever [W/T] (→ 33, 48)

Volume Adjustment Lever [-VOL+] (→ 35)
(NV-VZ1 only)

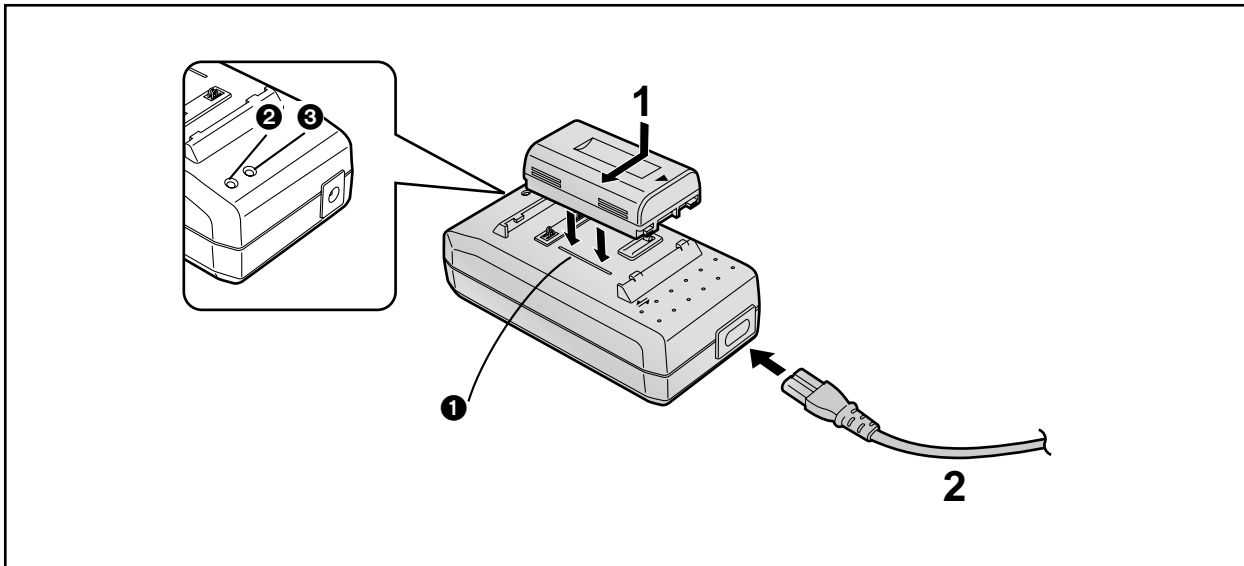
41 Eyepiece Corrector Lever (→ 25)

42 Shoulder Strap Holders (→ 26)

43 Tripod Receptacle

44 Lens Cap (→ 25, 54)

45 Lens Cap Holder (→ 25)



Charging the Battery

Charge the Battery before using it.

1 Attach the Battery.

- Align the Battery with line ① and push it in the direction of the arrow while holding it down.

2 Securely connect the AC Power Cord to the AC Adaptor and an AC mains jack.

- The [POWER] Lamp ② lights and then the [CHARGE] Lamp ③ flashes and charging starts.
- If the [CHARGE] Lamp ③ does not flash even though the Battery is attached, remove the Battery and then re-attach it.




■ Charging Lamp [CHARGE]

Flashing:	During charging
Lit:	The Battery can already be used to operate the Movie Camera but it is not yet fully charged. (Approx. 30-minute battery charge)
Off:	The Battery is fully charged.

■ Removing the Battery

Slide it in the opposite direction of that indicated in step 1 above.

- Charge the Battery at a room temperature between 10°C and 30°C.
- When charging, do not connect the DC Input Lead to the AC Adaptor.
- During recording or charging, the Battery becomes warm. However, this is normal.
- If you charge the Battery when it is not yet discharged, the [CHARGE] Lamp ③ may flash briefly and then go out. This indicates that the Battery is fully charged. Therefore, this is not an indication of a malfunction.

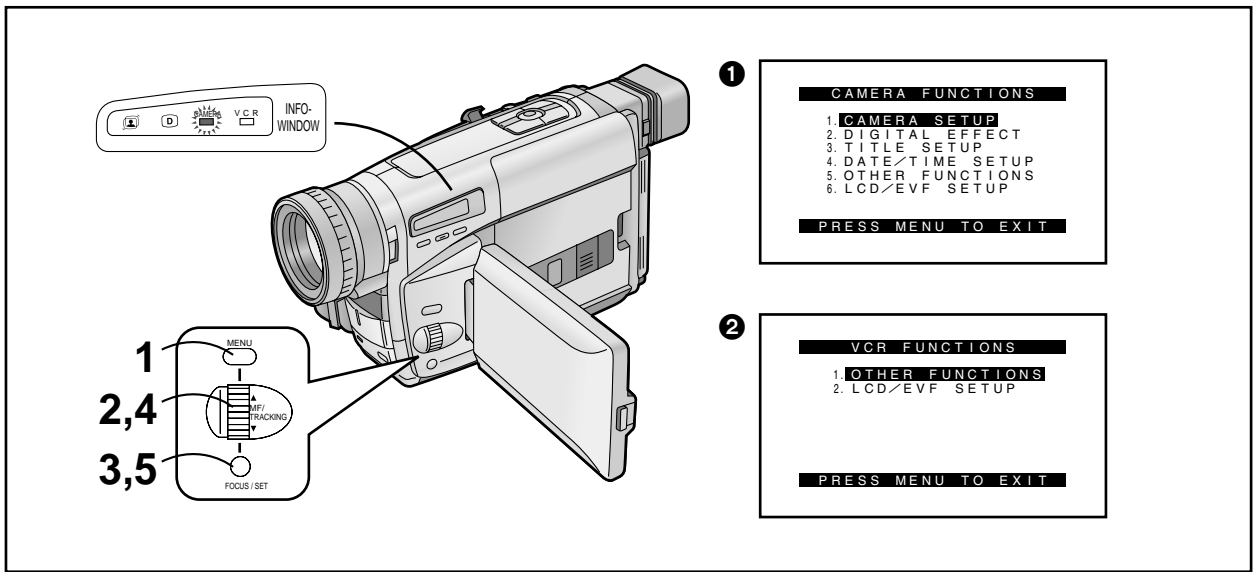
		NV-VZ1	NV-RZ3
CGR-V610 	(A)	80 min.	80 min.
	(B)	90 min. (70 min.)	90 min.
	(C)	40 min. (30 min.)	40 min.
CGR-V620 	(A)	145 min.	145 min.
	(B)	190 min. (140 min.)	180 min.
	(C)	40 min. (30 min.)	40 min.
CGR-V816 	(A)	310 min.	310 min.
	(B)	380 min. (280 min.)	360 min.
	(C)	40 min. (30 min.)	40 min.

■ **Charging Time and Maximum Continuous Recording Time in the Manual Recording Mode**

- (A) **Charging Time for a Full Charge**
- (B) **Maximum Continuous Recording Time**
- (C) **Maximum Continuous Recording Time for an Approx. 30-Minute Charge**

- “70 min.” stands for “70 minutes”.
 - The Battery Model CGR-V610 is supplied.
 - The times shown in the above chart are approximations. The figures in parentheses show the recording time when using the *LCD Monitor.
- *LCD Monitor: **NV-VZ1 only**

Maximum Continuous Recording Time means the duration of continuous recording performed at an ambient temperature of 25°C and 60% relative humidity. In actual recording, however, the use of the zoom and other functions increases the power consumption, and higher or lower temperatures reduce the Battery's ability to generate electricity. Therefore, the actual recording time per Battery may be approximately 30%–50% shorter than listed above.



Using the Menu

This Movie Camera displays the settings of various functions in menus to make it easy to select the desired functions and settings.

1 Press the [MENU] Button.

When you press this button while the [CAMERA] Lamp is lit in red, the Camera Mode Menu **1** appears. When you press this button while the [VCR] Lamp is lit in green, the VCR Mode Menu **2** appears.

2 Turn the [▲▼] Dial to select the desired sub-menu.

Turning the [▲▼] Dial changes the highlighted item.

3 Press the [SET] Button to display the selected sub-menu.

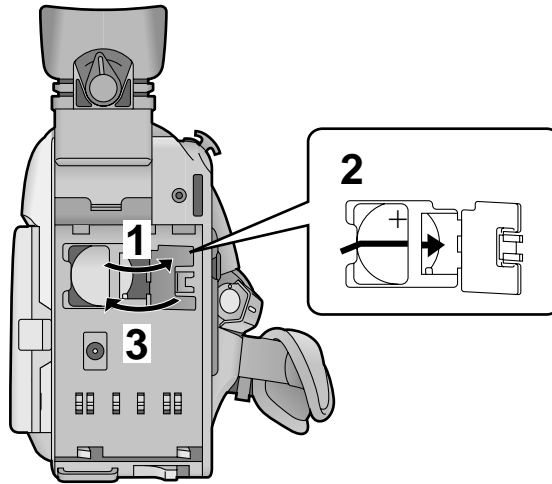
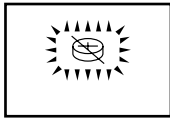
4 Turn the [▲▼] Dial to select the item to be set.

5 Press the [SET] Button to set the selected item to the desired mode.

Exiting the Menu

Press the [MENU] Button again.

- The method for making settings on the [DATE/TIME SETUP] Sub-Menu (→ 28) and [LCD/EVF SETUP] Sub-Menu (→ 21) differs slightly from that of other Sub-Menus.
- You can display the menu during playback, but not during recording. Also, it is possible to start playback while the menu is displayed, but if you start recording, the displayed menu disappears.
- The settings that you have selected on the menus are maintained when you turn the Movie Camera off. However, if you disconnect the power supply unit (Battery or AC Adaptor) from the Movie Camera before turning it off, the selected settings may not be maintained.



Inserting the Button-type Battery

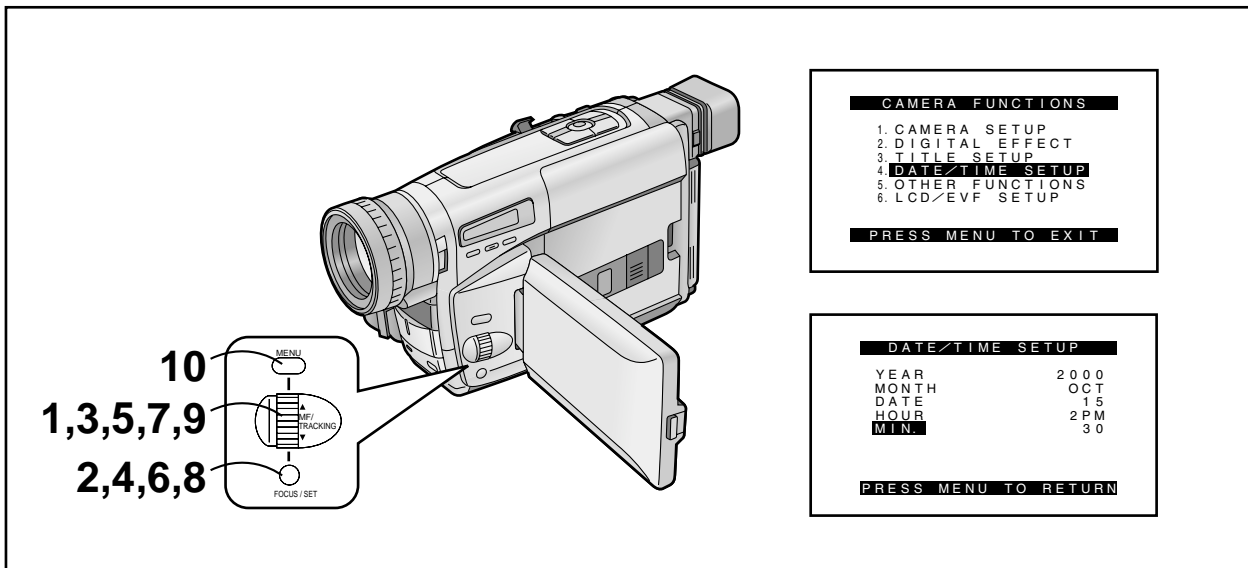
Before setting the date and time, insert the button-type battery (supplied).

- 1** Open the [BACKUP BATTERY] Cover.
- 2** Insert the button-type battery so that its (+) side is visible.
- 3** Close the [BACKUP BATTERY] Cover.

- Before inserting or removing the button-type battery, be sure to set the [CAMERA/OFF/VCR] Switch to [OFF].
- When the button-type battery is exhausted, the [🔊] Indication flashes. In this case, replace it with a new CR2025 battery.
(The life of the battery is about 3 year.)
- To make it easier to remove the button-type battery, use a pointed object.
- When you remove the button-type battery, be careful not to drop it.
- **Keep the button-type battery out of the reach of children.**
- Make sure you insert the battery with its poles correctly aligned.
- The internal clock works even when the Movie Camera is turned off, and it consumes power from the button-type battery.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.



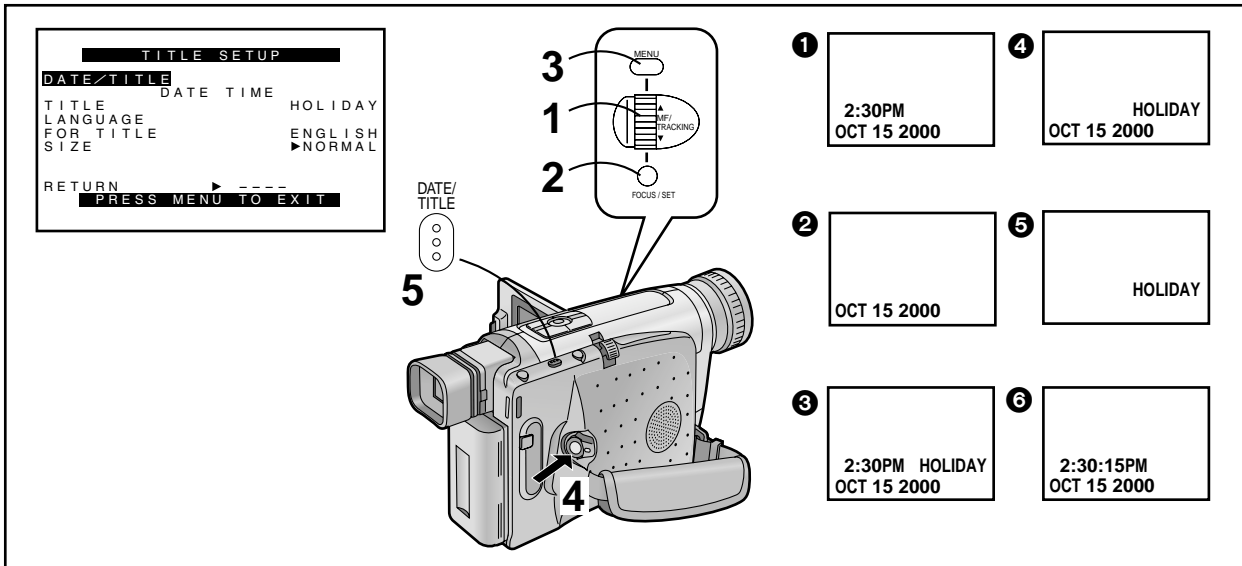
Setting the Date and Time

If you select the [DATE/TIME SETUP] Sub-Menu of the [CAMERA FUNCTIONS] Main-Menu, the menu shown above appears.

The initial setting of date and time is 12:00AM, 1st January, 2000.

For example: To set the clock to 15th October 2000, 2:30PM.

- 1 Turn the [▲▼] Dial to set to [2000].**
The years change in the following order:
...1990...1991...2000...2089...1990...
 - 2 Press the [SET] Button to select [MONTH].**
 - 3 Turn the [▲▼] Dial to set to [OCT].**
The months change in the following order:
[JAN] (January) → [FEB] (February) → [MAR] (March) → [APR] (April) → [MAY] (May) → [JUN] (June) → [JUL] (July) → [AUG] (August) → [SEP] (September) → [OCT] (October) → [NOV] (November) → [DEC] (December) → [JAN] (January) →
 - 4 Press the [SET] Button to select [DATE].**
 - 5 Turn the [▲▼] Dial to set to [15].**
 - 6 Press the [SET] Button to select [HOUR].**
 - 7 Turn the [▲▼] Dial to set to [2PM].**
 - 8 Press the [SET] Button to select [MIN.].**
 - 9 Turn the [▲▼] Dial to set to [30].**
 - 10 Press the [MENU] Button to finish the date and time setting.**
The operation of the clock starts from [00] seconds. Pressing the button one more time makes the menu disappear.
- If you select the [DATE/TIME SETUP] Sub-Menu when the button-type battery is not inserted into the Movie Camera or is exhausted, the Main-Menu disappears and the [🔋] Indication flashes instead. Insert a new button-type battery (→ 27) and then set the date and time again.
 - As the Movie Camera's built-in clock is subject to slight imprecision, be sure to check the indicated time before recording.

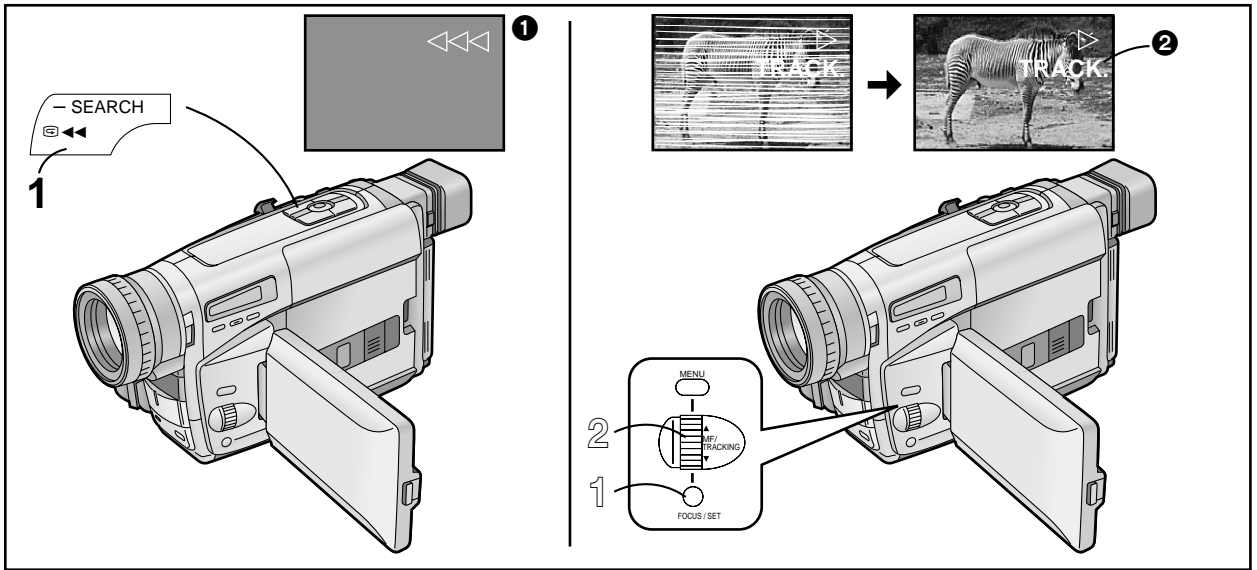


Recording with the Time and/or Date Superimposed in the Picture

After displaying the [TITLE SETUP] Sub-Menu...
(→ 16)

- 1** Turn the [**▲▼**] Dial to select [DATE/TITLE].
- 2** Press the [SET] Button to select the desired indication.
 - The indications change in the order **1** to **6**.
 - 1** Date and Time → **2** Date →
 - 3** Date, Time and Title → **4** Date and Title →
 - 5** Title → **6** Date and Time with seconds →
 - If the button-type battery for the built-in clock is not inserted into the Movie Camera or is exhausted, only the title is displayed. (→ 27)
- 3** Press the [MENU] Button to exit the menu.
 - The selected Date/Time/Title Indication appears.
- 4** Press the Recording Start/Stop Button to start recording.
- **Deleting the Date/Time/Title Indication**
- 5** During recording or when the Movie Camera is in the Recording Pause Mode, press the [DATE/TITLE] Button to make the Date/Time/Title Indication disappear.

- After turning the Movie Camera off and then on again, the previously selected Date/Time/Title Indication is no longer displayed. To make it appear again, press the [DATE/TITLE] Button once.
- Be sure to turn the Movie Camera off before removing the Battery or disconnecting the AC Adaptor. Disconnecting the power supply while the Movie Camera is on erases the Date/Time/Title Indication (→ 62) stored in memory.



High-Speed Rewinding

1 Press the [◀◀] Button for more than 1 second in the Stop Mode.

- The [◀◀] Indication ❶ appears.
- During High-Speed Rewinding, the tape winding sound is louder.
- When rewinding the tape to the beginning, the Movie Camera automatically changes over from the High-Speed Rewinding Mode to the Rewinding Mode near the beginning of the tape, and it switches over to the Stop Mode at the beginning of the tape.
- If you press the [■] Button during High-Speed Rewinding, it takes several seconds before the tape is stopped, in order to protect the tape from damage.
- During High-Speed Rewinding, the Tape Counter shows [0:00.00].

Eliminating Picture Distortions (Manual Tracking Adjustment)

This Movie Camera adjusts the tracking automatically. With certain cassettes, however, the tracking adjustment may not be precise. In this case, adjust the tracking manually.

1 Press the [FOCUS/SET] Button briefly during playback.

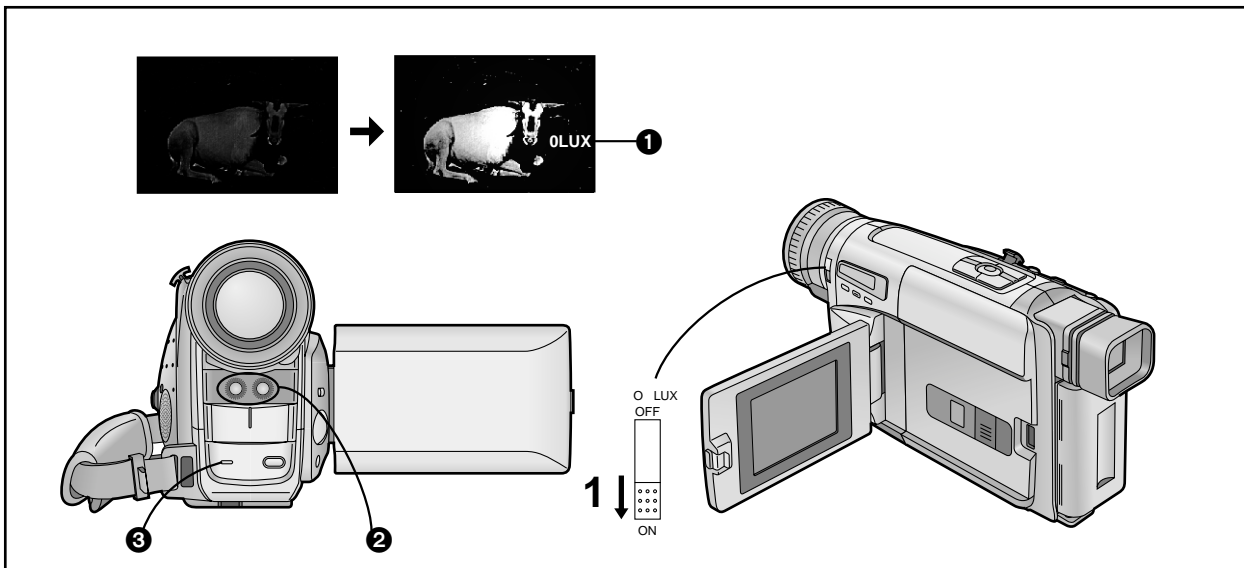
- The [TRACK.] Indication ❷ appears.

2 Turn the [TRACKING] Dial to adjust the tracking.

- The Tracking Adjustment Function is automatically cancelled when the [TRACKING] Dial is not turned for 5 seconds.
- It may not be possible to remove the noise bars completely.
- It is not possible to adjust the tracking when a menu is displayed.
- If you eject the cassette after adjusting the tracking, the adjusted setting is cancelled.

Returning to the Auto Tracking Mode

Press [FOCUS/SET] Button for more than 2 seconds during playback.



Recording in Dark Places Without Any Illumination

(0 Lux Night View Function)

This function is convenient when you want to record at night in places without any illumination, for example for observing the behavior of nocturnal animals, etc. In this mode, the Movie Camera emits infrared rays which makes it possible to record subjects that are invisible to the naked eye.

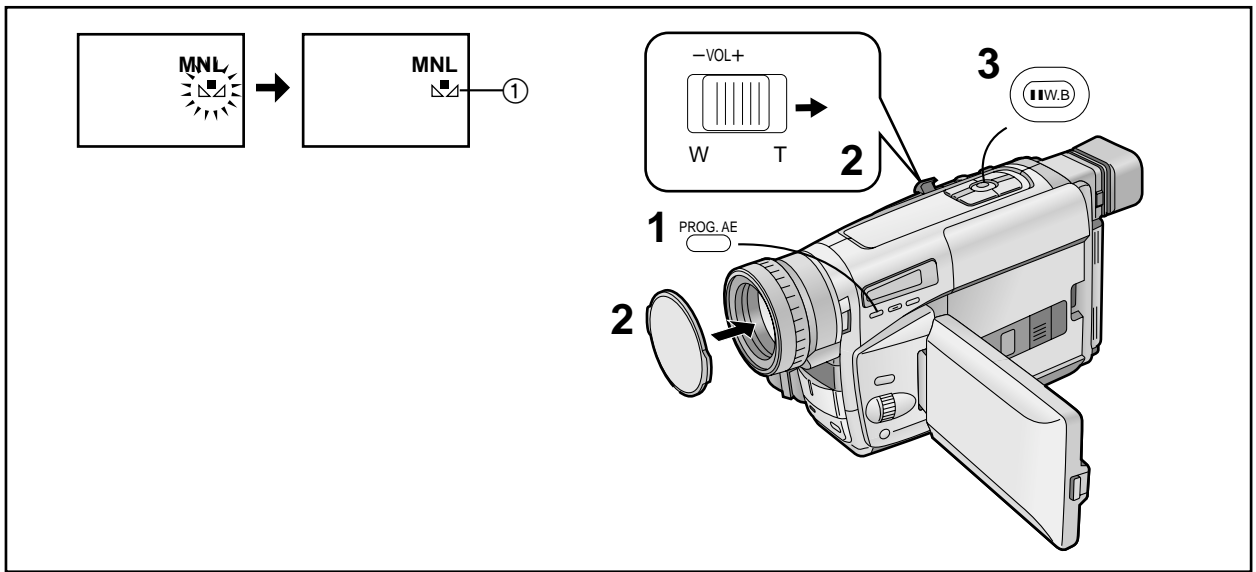
1 Set the [0 LUX OFF/ON] Switch to [ON] to make the [0LUX] Indication **1** appear.

•The built-in Infra-red Beam Emitters **2** light. Be careful not to cover them with your hand when recording.

- Do not use the 0 Lux Night View Function in brightly lit places and never aim the Movie Camera against the sun, as this could cause irreparable damage.
- The playback picture of scenes recorded with the 0 Lux Night View Function will be in black and white.
- If you change the setting of the [0 LUX OFF/ON] Switch during recording, a switching noise is also recorded.
- When recording with the 0 Lux Night View Function, it is not possible to adjust the white balance manually or to cancel the manually adjusted white balance setting.
- It is not possible to use any of the Program AE Modes when the 0 Lux Night View Mode is activated.
- When using the 0 Lux Night View Function, the subject should be within 3 metres from the Movie Camera.
- When the automatic focusing is not precise, adjust the focus manually.
- If you do not want the Tally Lamp **3** to light during recording using the 0 Lux Night View Function, set [TALLY LAMP] on the [CAMERA SETUP] Sub-Menu to [OFF].
- As the iris is fully opened in the 0 Lux Night View Mode, subjects in white or other light colors may be recorded whitish, blurred and with weak contrast.

Cancelling the 0 Lux Night View Function

Set the [0 LUX OFF/ON] Switch to [OFF] to make the [0LUX] Indication disappear.



Recording with Manual White Balance Adjustment

With this Movie Camera, you can also adjust the white balance manually.

Use this mode for special subjects and recording conditions, such as listed (→ 53), for which the Full Auto Mode is not suitable, and for light sources outside the range ① (→ 55).

Use it also when you want to manually adjust the white balance for each new scene as professionals do.

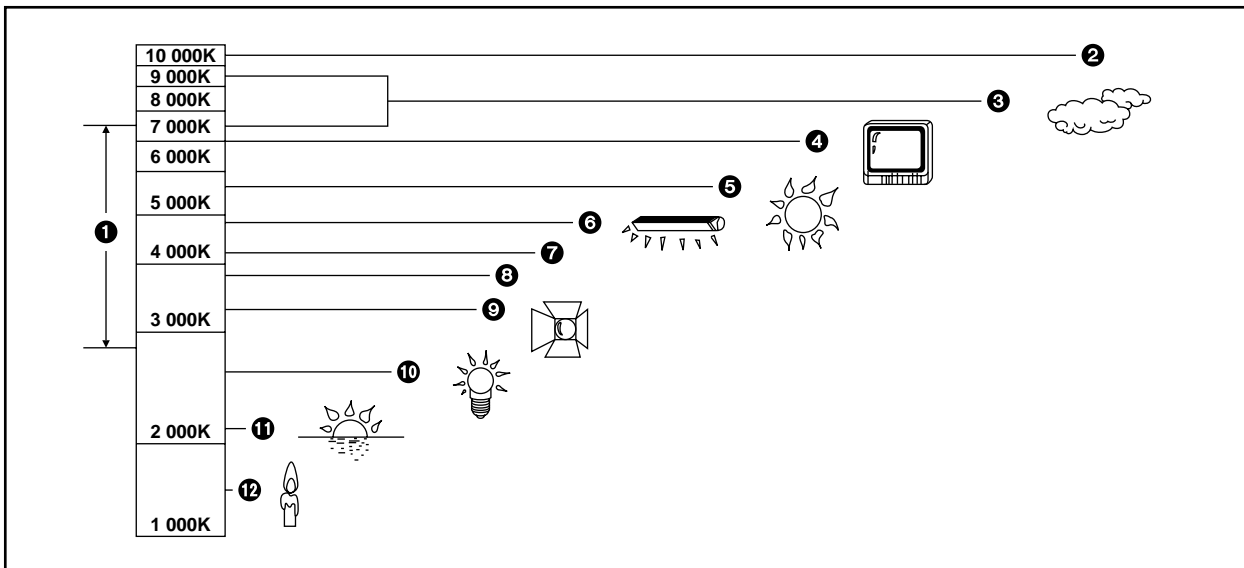
- 1** Press the [PROG. AE] Button repeatedly until an indication other than [AUTO] appears.
- 2** Attach the White Lens Cap and zoom in until the entire screen is white.
- 3** Aim the Movie Camera at the subject that you want to record and then keep the [W.B] Button pressed until the [MNL] Indication ① stops flashing and remains lit.
 - When the Sepia, Black & White, Yellow, Red, Blue, Green Mode or 0 Lux Night View Function is used, it is not possible to manually adjust the white balance or to cancel the manually adjusted white balance setting.

In the following cases, the [MNL] Indication flashes:

- During manual adjustment of the white balance. (If the surroundings are dark and the white balance cannot be adjusted, the [MNL] Indication keeps flashing.)
- When the previously set white balance setting is maintained.
- When you are trying to adjust the white balance in the digital zoom range (23×–250×). In this case, first adjust the white balance in the optical zoom range (1×–22×) and then zoom back to within the Digital Zoom Mode.

Cancelling the Manual White Balance Mode

Press the [W.B] Button once. Or, press the [PROG. AE] Button repeatedly until the [AUTO] Indication appears.

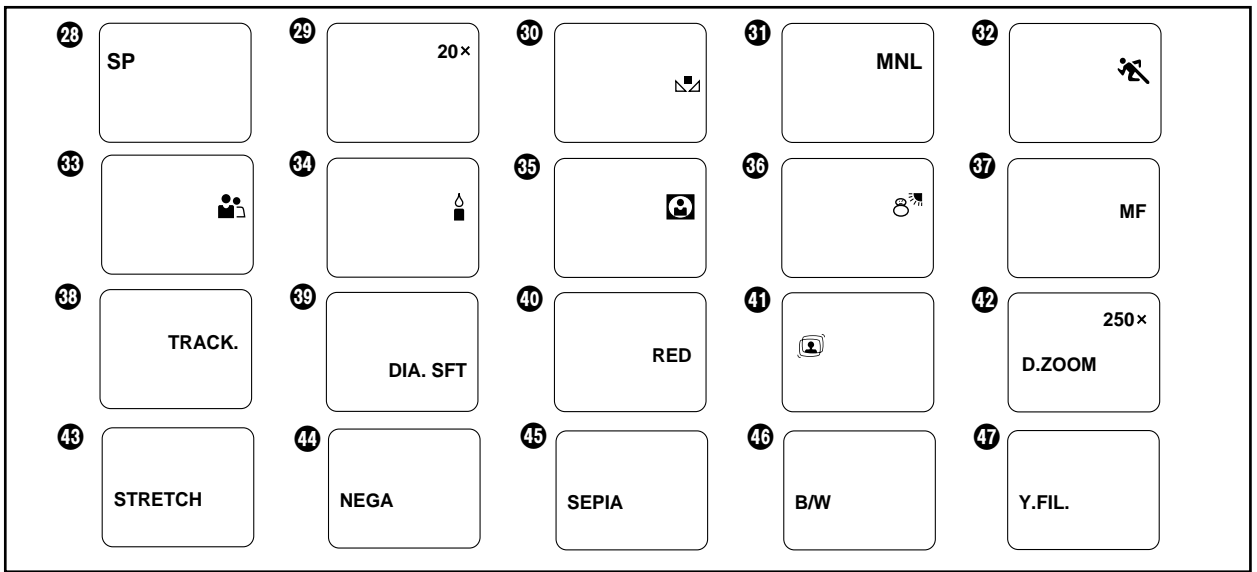


Color Temperature and White Balance Adjustment

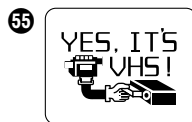
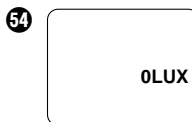
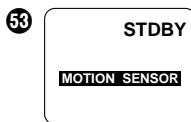
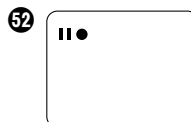
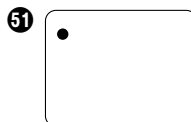
Every light source has its own color temperature measured in Kelvin (K). The higher the Kelvin value, the more bluish the light; the lower the value, the more reddish the light. The Kelvin value is related to the tint of the light, but not directly to its brightness.

The range **1** indicated in the illustration above shows the light sources for which this Movie Camera can provide precise white balance adjustment and, therefore, natural colors in the recorded pictures, when using the Full Auto Mode. For light sources outside this range, adjust the white balance manually. (→ 54) Also, additional lighting may be necessary.

- 1** Control range of this Movie Camera's Auto White Balance Adjustment Mode
- 2** Blue sky
- 3** Cloudy sky (Rain)
- 4** TV screen
- 5** Sunlight
- 6** White fluorescent lamp
- 7** 2 hours after sunrise or before sunset
- 8** 1 hour after sunrise or before sunset
- 9** Halogen light bulb
- 10** Incandescent light bulb
- 11** Sunrise or sunset
- 12** Candlelight



- 28** Recording Speed Mode (→ 23)
- 29** Zoom Magnification (→ 33)
- 30** Manual White Balance Mode (→ 54)
- 31** Manual Recording Mode (→ 54, 56)
- 32** Sports Mode (→ 57)
- 33** Portrait Mode (→ 57)
- 34** Low Light Mode (→ 57)
- 35** Spotlight Mode (→ 57)
- 36** Surf & Snow Mode (→ 57)
- 37** Manual Focus Mode (→ 56)
- 38** Tracking Adjustment Mode (→ 39)
- 39** Fade Effect Mode (→ 43)
- 40** Color Indication for Fade (→ 42, 43)
- 41** Super Image Stabilizer Mode (→ 47)
- 42** Digital Zoom Mode (→ 48)
- 43** Stretch Mode (→ 45)
- 44** Negative Mode (→ 46)
- 45** Sepia Mode (→ 46)
- 46** Black & White Mode (→ 46)
- 47** Yellow Mode (→ 46)



48 Red Mode (→ 46)

49 Blue Mode (→ 46)

50 Green Mode (→ 46)

51 Recording Mode (→ 61) (NV-VZ1 only)

52 Recording Pause Mode (→ 61) (NV-VZ1 only)

• The above indications **51** and **52** are only displayed when recording in the Mirror Mode (→ 61).

53 Motion-Sensor-Controlled Recording Function Stand-by Mode (→ 49)



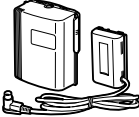


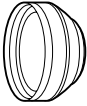
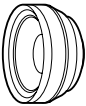

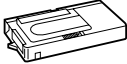


54 0 Lux Night View Mode (→ 51)

55 Demonstration Mode

Demonstration Mode

When the Movie Camera is turned on and in the Camera Mode without any cassette inserted, and you leave it for 10 minutes without activating any function, it automatically switches over to the Demonstration Mode which demonstrates its many functions.

- You can also start the Demonstration Mode by setting [DEMO MODE] on the [OTHER FUNCTIONS] Sub-Menu of the [CAMERA FUNCTIONS] Main-Menu to [ON] and then exiting the menu.
- Pressing a button or displaying a menu temporarily suspends the Demonstration Mode. However, if you leave the Movie Camera in this condition without activating any function for more than approximately 10 minutes, the Demonstration Mode resumes.
- If you do not want the Demonstration Mode to be activated, set [DEMO MODE] on the menu to [OFF].
- If you set the [CAMERA/OFF/VCR] Switch to [CAMERA] while pressing the [▶] Button, [DEMO MODE] on the menu is automatically set to [ON] and the Demonstration Mode starts immediately.
- If you set the [CAMERA/OFF/VCR] Switch to [CAMERA] while pressing the [■] Button, [DEMO MODE] is automatically set to [OFF].

1. CGR-V610 	2. CGR-V620 	3. CGR-V816 	4. VW-KBC7E 	5. VW-LF43WE 	6. VW-LT4314WE 
7. VW-LW4307WE 	8. VZ-CT55E 	9. VW-TCA7E 	10. VZ-LDR10E 	11. VW-SK11E 	

Optional Accessories

1. Battery Pack (Lithium-Ion)
2. Battery Pack (Lithium-Ion)
3. Battery Pack (Lithium-Ion)
4. Car Battery Charger
5. Filter Kit
6. Tele Conversion Lens
7. Wide Conversion Lens
8. Tripod
9. Cassette Adaptor
10. IR/Video DC Light (Halogen & Infra-red)
(It requires the Shoe Adaptor for attaching to the Movie Camera.)
11. Shoe Adaptor (for attaching the IR/Video DC Light)

Some accessories are not available in some countries.