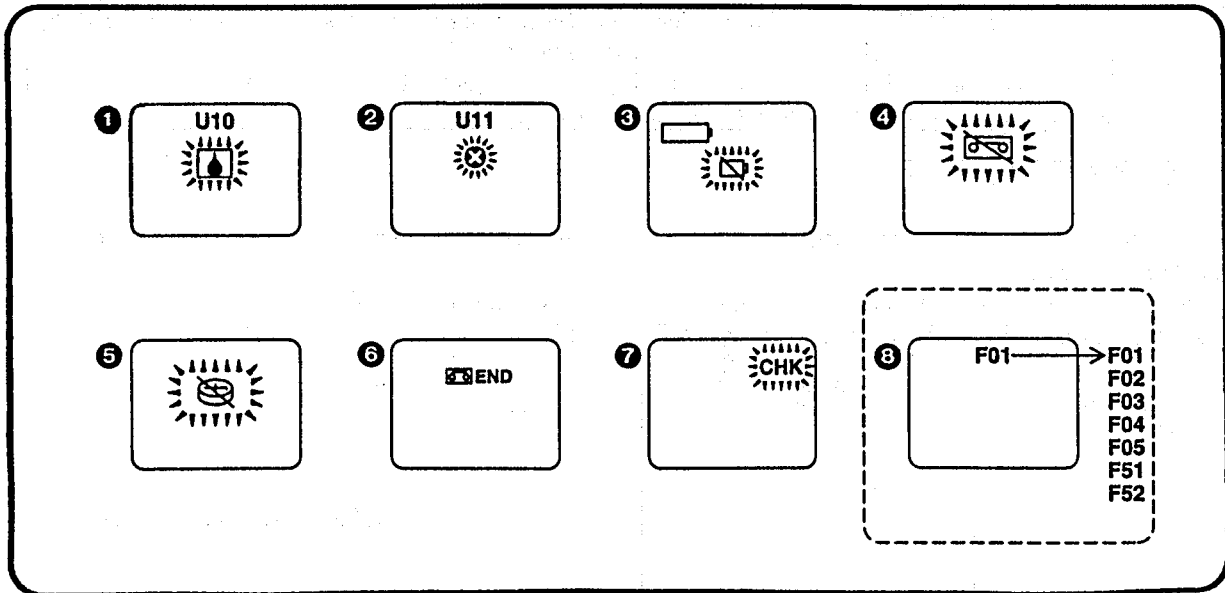


SECTION 1

GENERAL DESCRIPTIONS



Indications in the Finder

■ Warning/Alarm Indications

1 Condensation

2 Dirty Video Heads

3 Remaining Battery Power

When the last segment of this indication has disappeared, the Movie Camera automatically switches off. Replace the Battery with a fully charged one.

4 Cassette

No cassette is inserted. Or the tab of the inserted cassette is broken out. Insert a cassette with an intact tab.

5 Built-in Lithium Battery

The built-in Lithium Battery is exhausted. Charge it.

6 End of the Tape

When the tape has reached its end, this indication appears. Insert a new cassette.

7 Anti-Ground-Recording (NV-RX19/20 only)

8 Error Code

(Error codes are information for service personnel.)

- If the [F] Indication with a 2-digit number appears in the Finder, a malfunction has occurred.
- If the indicated error code is between [F01] and [F05], the Movie Camera will turn off automatically one minute after the [CAMERA] Lamp has started to flash.
- If the indication is [F51] or [F52], the Movie Camera will not turn off automatically.

F01: Locked Take Up-Reel

F02: Locked Supply-Reel

F03: Locked Unloading Mechanism

F04: Locked Loading Mechanism

F05: Locked Cylinder

F51: Locked Focus Motor

F52: Locked Zoom Motor

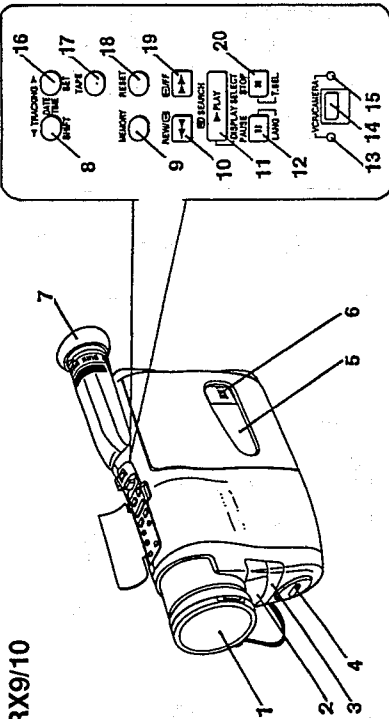
1. VW-VBS10E VW-VBH10E	2. VW-VBS20E VW-VBH20E	3. VW-KBC2E	4. VW-ACC2E	5. VW-RF7E /EG	6. VZ-LDCS13E
7. VW-SK9E	8. VW-LF43E	9. VZ-CT55E	10. VZ-CT75E	11. VW-TCA7E	12. VW-VT1E

Optional Accessories

1. VW-VBS10E (Ni-Cd Battery)
VW-VBH10E (Ni-MH Battery)
2. VW-VBS20E (Ni-Cd Battery)
VW-VBH20E (Ni-MH Battery)
3. Car Battery Charger
4. Car Battery Cord
5. RF Adaptor
6. Video DC Light (requires the Shoe Adaptor for attaching to the Movie Camera)
7. Shoe Adaptor (for attaching the Video DC Light)
8. Filter Kit
9. Standard Tripod
10. Deluxe Tripod
11. Cassette Adaptor
12. Video Titler

• Some accessories are not available in some countries.

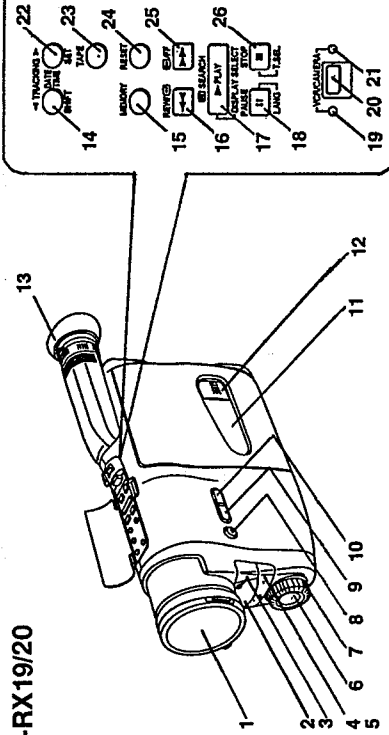
NV-RX9/10



Controls and Components

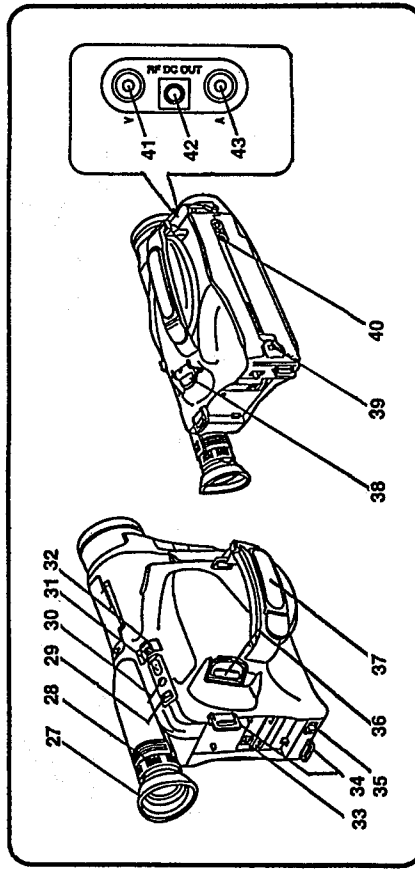
- 1 Lens Cap
- 2 Microphone
- 3 White Balance Sensor
- 4 [PROGRAMME AE] Button
([AE] means Automatic Exposure.)
- 5 Cassette Compartment
- 6 Cassette Compartment [LOCK] Button
- 7 Eyecup
- 8 [DATE/TIME/SHIFT • ◀ TRACKING] Button
- 9 [MEMORY] Button
- 10 [REW/⏮] Button
([REW] means Rewind.)
- 11 [PLAY/DISPLAY SELECT] Button
- 12 [PAUSE/LANG] Button
([LANG] means Language.)
- 13 [VCR] Lamp
- 14 [VCR/CAMERA] Button
- 15 [CAMERA] Lamp
- 16 [DATE/TIME/SET • TRACKING ▶] Button
- 17 [TAPE] Button
- 18 [RESET] Button
- 19 [⏻/FF] Button
([FF] means Fast Forward.)
- 20 [STOP/T.SEL.] Button
([T] means Title.)

NV-RX19/20

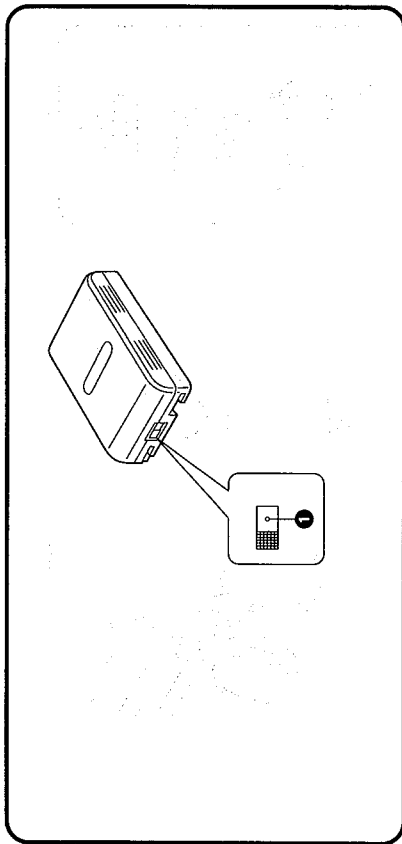


Controls and Components

- 1 Lens Cap
- 2 Microphone
- 3 Tally Lamp
- 4 White Balance Sensor
- 5 Remote Control Sensor
- 6 [FOCUS] Button
- 7 Focus Ring
- 8 [FADE] Button
- 9 [PROGRAMME AE] Button
([AE] means Automatic Exposure.)
- 10 [W.B] White Balance Button
([W.B] means White Balance.)
- 11 Cassette Compartment
- 12 Cassette Compartment [LOCK] Button
- 13 Eyecup
- 14 [DATE/TIME/SHIFT • ◀ TRACKING] Button
- 15 [MEMORY] Button
- 16 [REW/⏮] Button
([REW] means Rewind.)
- 17 [PLAY/DISPLAY SELECT] Button
- 18 [PAUSE/LANG] Button
([LANG] means Language.)
- 19 [VCR] Lamp
- 20 [VCR/CAMERA] Button
- 21 [CAMERA] Lamp
- 22 [DATE/TIME/SET • TRACKING ▶] Button
- 23 [TAPE] Button
- 24 [RESET] Button
- 25 [⏻/FF] Button
([FF] means Fast Forward.)
- 26 [STOP/T.SEL.] Button
([T] means Title.)



- 27 Finder
- 28 Eyepiece Corrector Ring
- 29 Cassette Eject [EJECT ▲] Lever
- 30 [DATE/TITLE] Button
- 31 [BACKLIGHT] Button
- 32 [W • T] Zoom Lever
([W] means Wide-angle and [T] means Telephoto.)
- 33 [DC IN] Socket
- 34 Shoulder Strap Holders
- 35 [BATTERY EJECT ▶] Lever
- 36 Start/Stop Button
- 37 Grip Belt
- 38 [POWER] Switch
- 39 [POWER SAVE] Switch
- 40 Tripod Receptacle
- 41 [VIDEO OUT] Socket
- 42 [RF DC OUT] Socket
([RF] means Radio Frequency.)
- 43 [AUDIO OUT] Socket



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

NV-RX9/10

Battery No.	Charging Time	Max. Continuous Recording Time
Supplied	60 min.	50 min.
VW-VBS10E	65 min.	55 min.
VW-VBS20E	130 min.	110 min.
VW-VBH10E	80 min.	65 min.
VW-VBH20E	160 min.	130 min.

NV-RX19/20

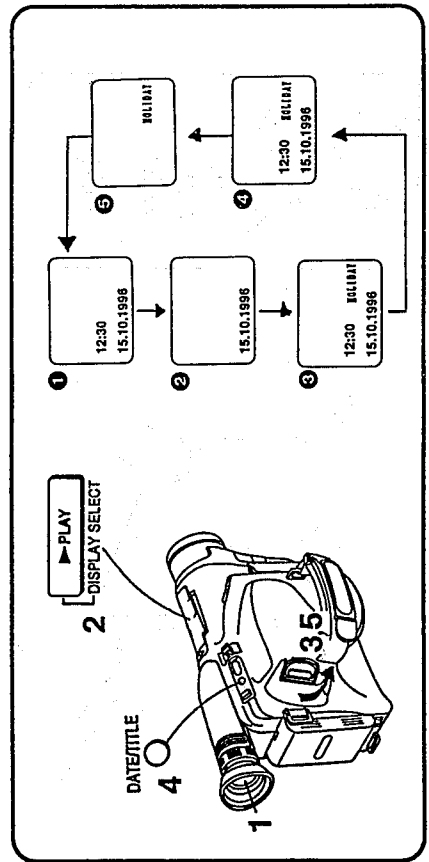
Battery No.	Charging Time	Max. Continuous Recording Time
Supplied	60 min.	35 min.
VW-VBS10E	65 min.	40 min.
VW-VBS20E	130 min.	80 min.
VW-VBH10E	80 min.	50 min.
VW-VBH20E	160 min.	100 min.

(The times shown in the above chart are approximations.)

▼ Maximum Continuous Recording Time means the duration of continuous recording performed at an ambient temperature of 20°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 Charge Confirmation Marker
You can use this marker to easily distinguish between charged and discharged Batteries.
For example, slide the knob so that the red dot ❶ is visible after charging is completed.

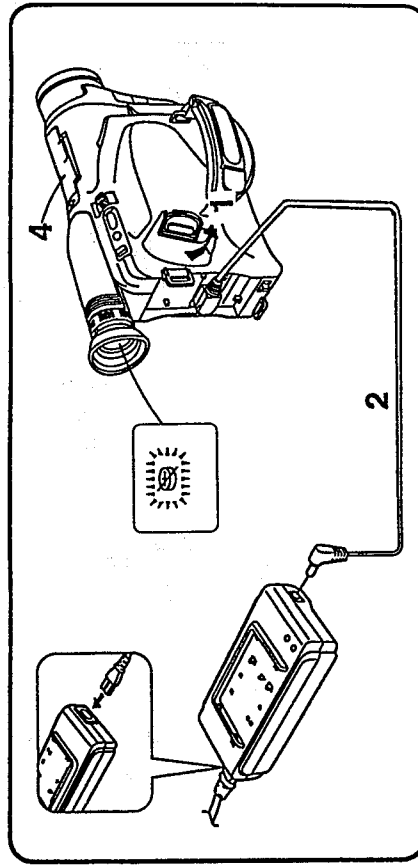
Contains a Nickel-Cadmium Battery. Must be recycled or disposed of properly.



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

- 1 Make sure that the Date/Time Indication is displayed in the Finder.
• If it is not displayed, press the [DATE/TITLE] Button to make it appear.
- 2 Press the [PLAY/DISPLAY SELECT] Button repeatedly until the desired Indication appears in the Finder.
• The Indications change in the order ❶ to ❾ shown above.
• After turning the Movie Camera off and then on again, the previously selected Date/Time Indication is no longer displayed in the Finder. To make it appear again, press the [DATE/TITLE] Button once.

- 3 Press the Start/Stop Button to start recording.
• The selected Indication is recorded in the picture.
- 4 Deleting the Date/Time Indication
During recording or when the Movie Camera is in the Recording Pause Mode, press the [DATE/TITLE] Button to make the Date/Time Indication disappear in the Finder.

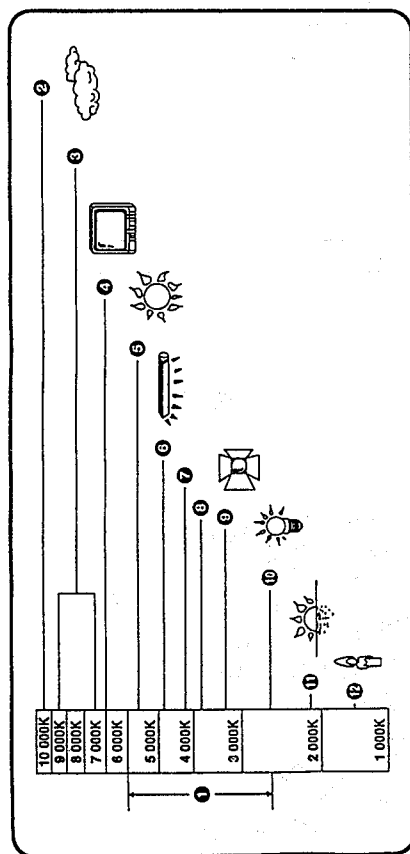


Charging the Built-in Lithium Battery

The internal clock works even when the Movie Camera is turned off, and it consumes power from the built-in lithium battery. When the Movie Camera is in operation, it automatically charges this battery. However, if the Movie Camera is not used for a very long time, the lithium battery can become discharged. The discharged battery can be charged in the following way:

- 1 Turn out the [POWER] Switch to turn the Movie Camera on.
• If the [BATT] Indication in the Finder flashes the built-in lithium battery is discharged.

- 2 Connect the AC Adaptor to the Movie Camera.
- 3 Leave the Movie Camera in this condition for approximately 4 hours. Power is supplied for charging even with the [POWER] Switch turned in.
• The Charge Indications Lamps on the AC Adaptor do not flash or light. After charging for 4 hours, the built-in lithium battery can power the clock for approximately 3 months.
- 4 Set the clock to the current date and time.



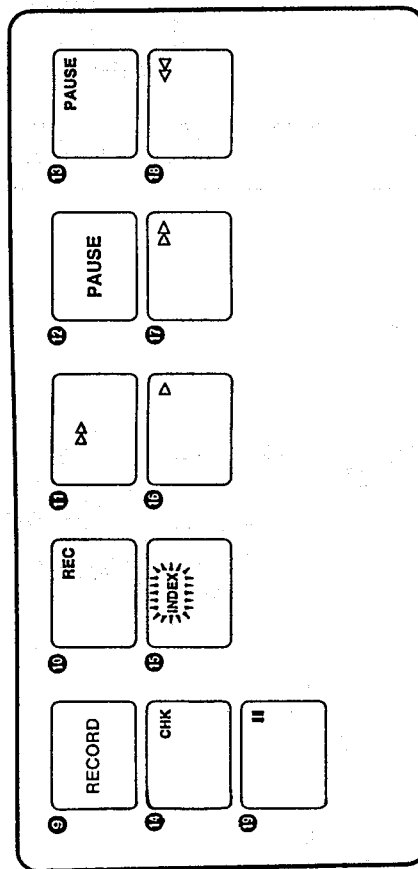
Colour Temperature and White Balance Adjustment

Every light source has its own colour 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 colours in the recorded pictures, when using the Full Auto Mode.

- 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



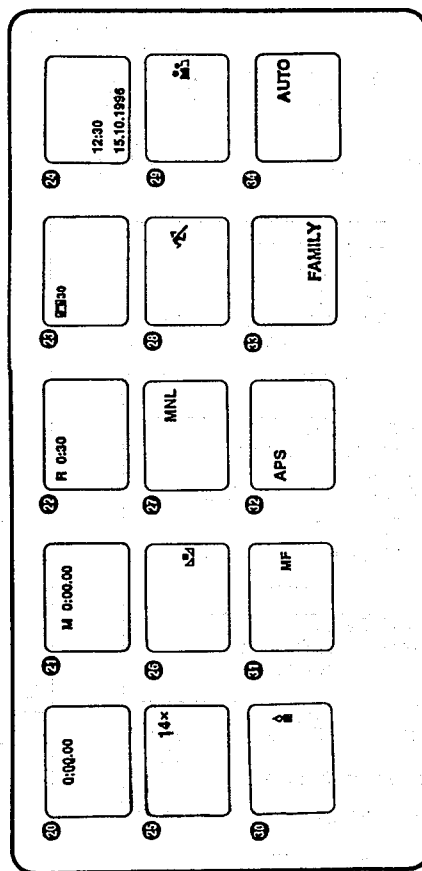
Recording and Playback Indications

- 9 Recording Mode (large indication)
- 10 Recording Mode (small indication)
- 11 Tape Run Mode
- 12 Recording Pause Mode (large indication)
- 13 Recording Pause Mode (small indication)
- 14 Recording Check Mode
- 15 Index Signal Recording Mode

An index signal is automatically recorded (and the [INDEX] indication flashes briefly in the Finder while it is being recorded) when you:

- Turn the Movie Camera on and start recording.
 - Start recording after inserting a cassette.
 - Press the [VCR/CAMERA] Button to change from the [VCR] to the [CAMERA] Mode or vice versa.
- The recording of index signals makes it possible to use the VHS Index Search or Intro Scan Function during playback on a VCR equipped with these functions.

(Refer to the operating instructions for your VCR.)



Elapsed Tape Time

When the tape is rewound further than the Elapsed Tape Time Position [0:00.00], the minus sign [-] appears in front of the Elapsed Tape Time Indication.

Elapsed Tape Time with activated Memory Stop Function

Remaining Tape Time

Tape Length

Date and Time

Zoom Magnification

Manual White Balance Mode (NV-RX19/20 only)

Manual Recording Mode (NV-RX19/20 only)

Sports Mode

Portrait Mode

Low Light Mode

Manual Focus Mode (NV-RX19/20 only)

Power Save Mode (NV-RX19/20 only)

Title

Automatic Recording Mode