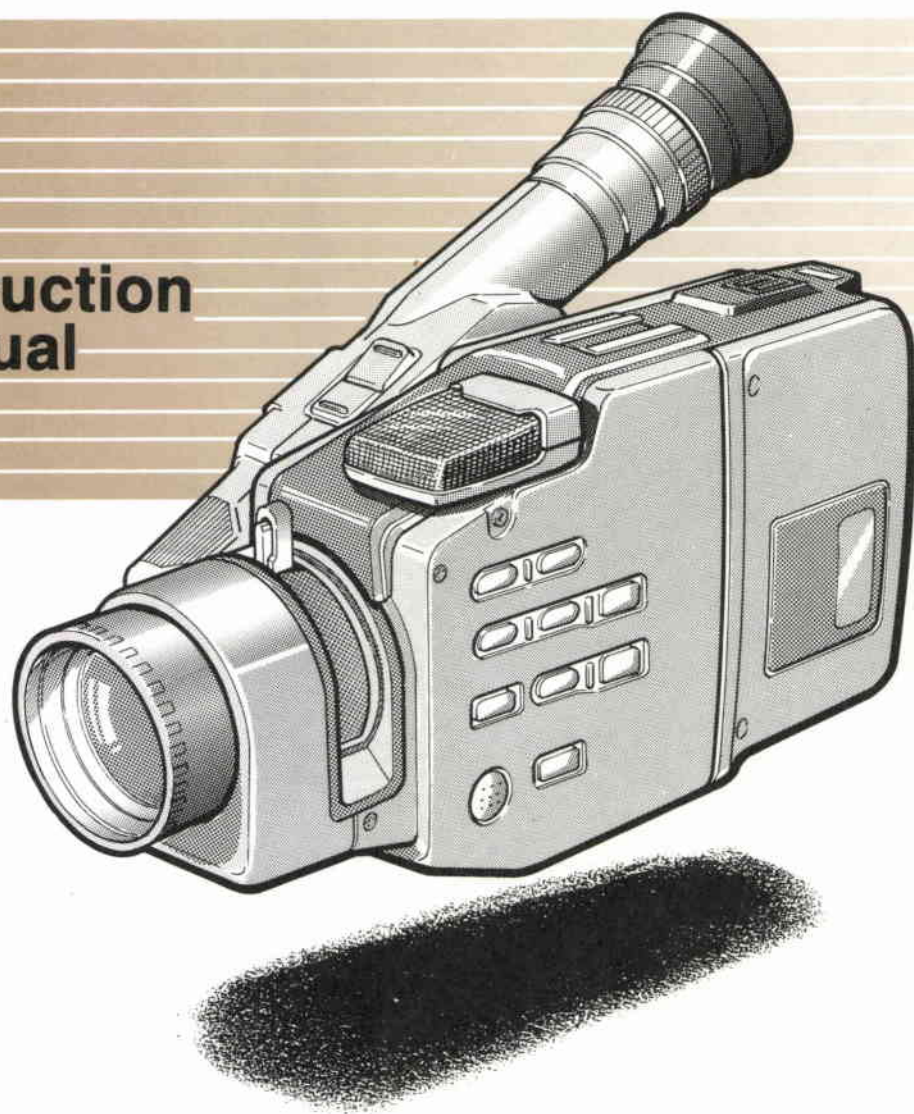


# Canovision **E800** Hi

## 8mm VIDEO CAMERA & RECORDER

**Instruction  
Manual**



INSTRUCTIONS

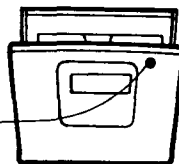


# CORRECTION

The correct location at which to press the video cassette compartment to close it is as shown below. Please make the necessary corrections on pages 4, 20, 21 and 30 of the operation manual and in the recording/playback basic operation chart.

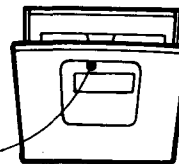
**Error**

Push.



**Correction**

Press at the  
**PUSH** mark.

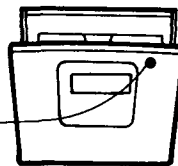


# CORRECTION

L'emplacement correct où il faut appuyer le logement de cassette pour le refermer est indiqué ci-dessous. Prière de faire les corrections nécessaires aux pages 4, 20, 21 et 34 du mode d'emploi et dans l'opération de base de tournage/lecture.

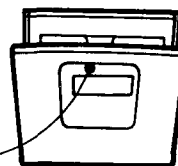
**Erreur**

Poussez.



**Correction**

Appuyer sur le  
repère  
**PUSH**.





# Playback

(For playback on TV, see pp.26 — 31.)

Be sure to press STOP button before starting playback.

1

STOP



**Press STOP button.**

2

REW



**Press REW button.**

- Rewind the tape to the desired position, then press STOP button.

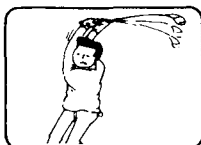
3

PLAY



**Press PLAY button.**

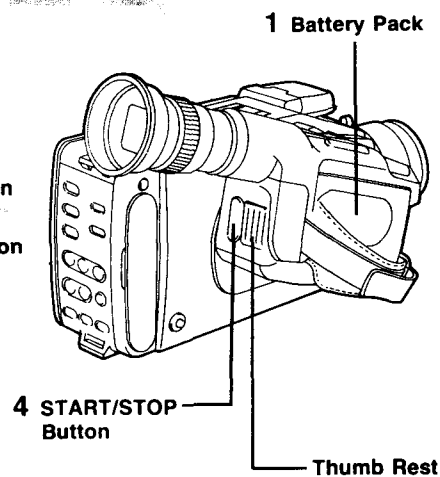
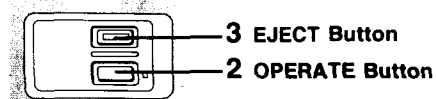
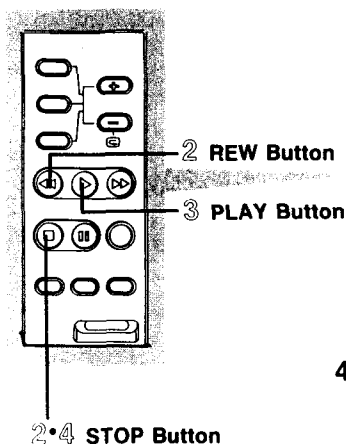
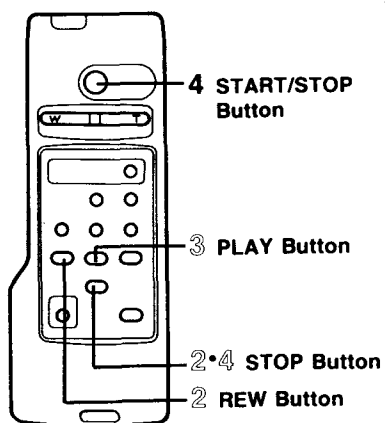
4



**Watch playback in viewfinder.**

- The picture in the viewfinder is black and white.
- Press STOP button to end playback.

Monitoring sound is only possible when camera is in record or record pause mode.



# Canon

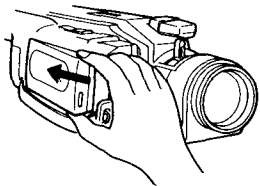


# Basic Operation

## Recording

(See recording procedure, pp.20 — 22, for details.)

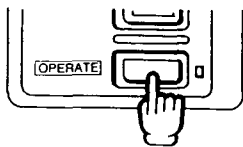
1



**Attach battery pack.**

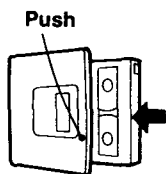
- Make sure battery pack is fully charged (see p.11).

2



**Press OPERATE button.**

3



**Load video cassette.**

4



**Press START/STOP button.**

- Press START/STOP button again to pause.

## One Point Advice About Shooting

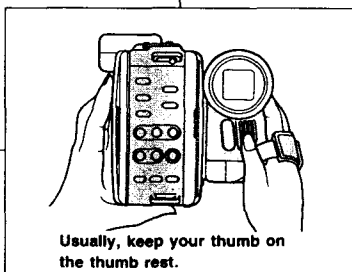
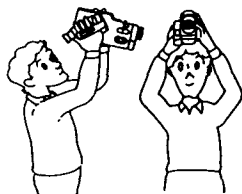
Standing shooting



Half-sitting shooting



High-angle shooting



Low-angle shooting







# Using Your Battery Packs Effectively

---

## Immediately After Purchase

---

- Newly purchased battery packs have not been charged, so charge completely before using.
- When charging brand new battery packs, charge until charge indicator lights, and disconnect. Then reconnect and charge a second time.

---

## General Use

---

- Battery packs can be charged when the ambient temperature is between 0°C—40°C. Best results are achieved between 10°C—30°C.
- After the battery pack has been fully charged, do not continue to try to recharge it. Repeatedly recharging a fully charged battery pack can cause it to become overcharged.
- Repeatedly recharging a battery pack before it is fully discharged will cause its electrical storage capacity to decrease (charge memory). In such cases, discharge the battery pack completely by waiting until the camera's OPERATE/CAUTION indicator goes out, or by using the battery video light until it grows dim. The indicator will go out about 10 minutes after it begins to flash (unless video light is attached), and the battery pack can then be removed.
- When using the battery pack with the battery video light, be sure to disconnect the battery pack when the light begins to grow dim. Continuing to use the battery pack in such a situation may cause it to be discharged below specified level.
- Immediately after use, the battery pack will be quite hot and it is best not to recharge it at this time. Make sure that the battery pack has cooled off before recharging.
- When a battery pack has been discharged below specified level, you may be unable to recharge it completely (the battery pack will not recharge fully even though the charge indicator lights). In such a case, charge and discharge the battery pack repeatedly (2—3 times) until it is recharged properly.

---

## Storage

---

- When the battery pack is connected to the camera, it will continue to discharge even when the power is turned off, and this may cause it to become discharged below specified level. Disconnect the battery pack from the camera when storing.
- When storing the battery pack for a long period of time, choose a cool, chemically stable location. Allow it to discharge completely by connecting it to the camera and waiting until the OPERATE/CAUTION indicator goes out (about 10 minutes after it begins to flash).
- If the battery pack has been stored for three months or longer, a single recharging will not be sufficient to restore it to full operability. In such a case, completely recharge and completely discharge the battery pack 2—5 times. This will restore it to its original capacity.

---

## Terminology

---

- Overcharging and discharging below specified level will cause the battery pack to function less effectively, and will shorten its life.
- Overcharging  
Charging a battery pack after it has already been fully charged.
- Discharging below specified level  
Continuing to discharge a battery pack after its voltage level has fallen below a specified level (5.0 V for the nickel-cadmium batteries used by Canon 8mm video cameras).
- Charge memory  
When a nickel-cadmium battery is discharged only partially (not long enough for the charge to cut off automatically), and then recharged and used again, the continuous recording time decreases. The battery pack will be temporarily incapable of discharging to final voltage level.





The E800Hi 8mm Video Camera & Recorder can be used for Hi8 video recording and playback.

## What is Hi8?

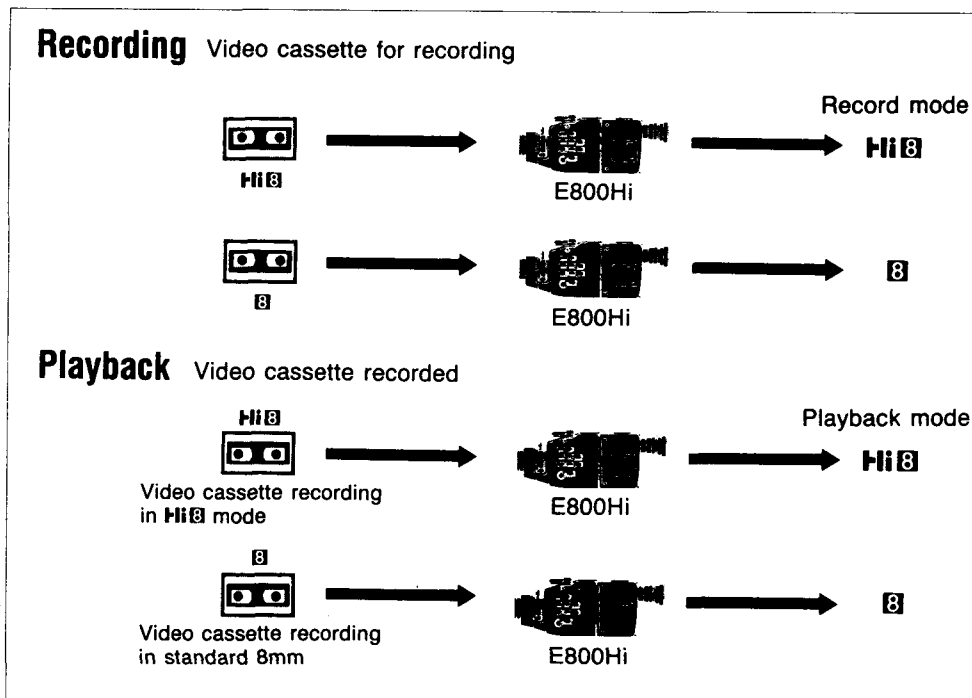
Hi8 is an optional standard for high-band recording. Compared with conventional 8mm, Hi8 provides a dramatically clear and high quality picture.

## Hi8 Video cassette

A special video cassette with the **Hi8** mark is required for Hi8 video recording. The Hi8 Metal-E cassettes are the metal-evaporated type, specially developed for the high recording quality of Hi8.

## Compatible with conventional 8mm video cassettes

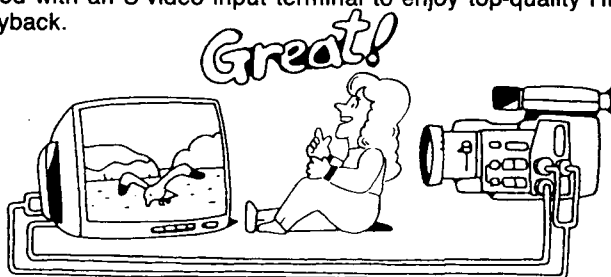
The compatibility of Hi8 and standard 8mm is shown in the figure below (in the E800Hi):



- Recording and playback in standard 8mm is possible on Hi8 units.
- Video cassettes recorded in Hi8 cannot be played back on standard 8mm units.
- With the E800Hi, it is impossible to record in standard mode with **Hi8** video cassette.

## Connecting TV

Use a television equipped with an S-video input terminal to enjoy top-quality Hi8 performance during playback.





Thank you for purchasing the Canon 8mm Video Camera & Recorder Canovision E800Hi.  
The E800Hi can record and play back standard 8mm or Hi8 video cassettes in full stereo.

- Use only video cassettes marked with the **Hi8** (E5 type) or **8** (P5 type).
- With the E800Hi, stereo recording is possible. However, tapes recorded in stereo will play back on monaural 8mm VTRs in monaural.

Please check that this package contains the following items:

E800Hi	Lens Cap	CR-E7K Charge Coupler
	Sports Finder	BP-E77K Battery Pack
	Microphone	CA-E7 Compact Power Adapter
	One Lithium Battery	RU-E3 RF Unit
	WL-200 Wireless Controller	SS-300 Shoulder Strap
	Two AAA Batteries	ST-150 Stereo Cable
	Lens Hood	C-150 AV Cable
		S-150 S-video Cable
		E5-15 HME 8mm Video Cassette

#### Optional Accessories

WS-20 Wrist Strap	Filter Set 46
CB-E7 Car Battery Adapter	Filter Set 46U
HC-800 System Case	VL-30 Battery Video Light
SC-800 Soft Carrying Case	VL-20 Battery Video Light
MM-200 Stereo Mixing Microphone	BP-E722 Battery Pack
RS-800 Rain Shield	Wide Attachment 46
MB-100 Microphone Boom	Multi-conversion Lens 46
TL-46 Tele-converter	PC-170ST Stereo SCART Cable
TL-55L3X Tele-converter	PC-270SST S-Stereo SCART Cable
WD-46 Wide Converter	

## Important Usage Instructions

### CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

### WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

### CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK AND TO REDUCE ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

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------------------------------------	---

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## **Additional Information**

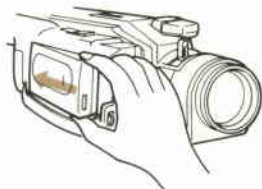
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# Basic Operation

## Recording

See recording procedure, pp.20 — 23, for details.

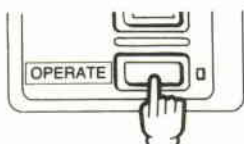
1



### Attach battery pack.

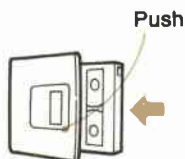
- Make sure battery pack is fully charged (see p.11).

2



### Press OPERATE button.

3



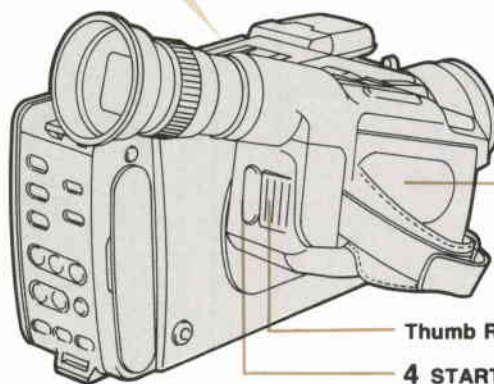
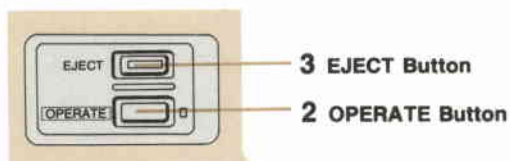
### Load video cassette.

4



### Press START/STOP button.

- Press START/STOP button again to pause.



1 Battery Pack

Thumb Rest

4 START/STOP Button



# Playback

For playback on TV, see pp.26 — 31.

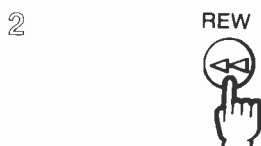
Be sure to press STOP button before starting playback.

**Press STOP button.**



**Press REW button.**

- Rewind the tape to the desired position, then press STOP button.



**Press PLAY button.**



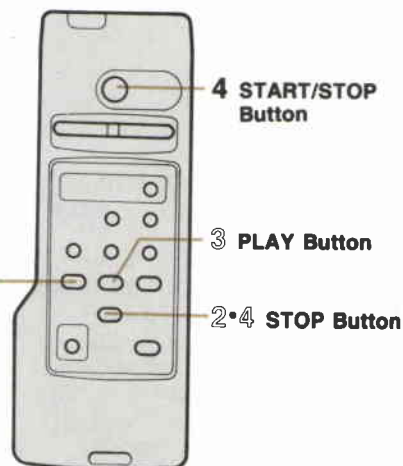
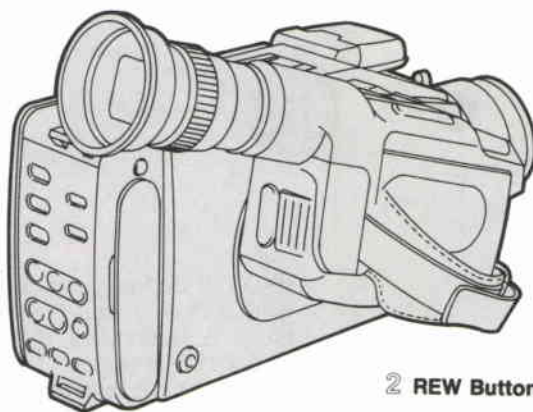
**Watch playback in viewfinder.**

- The picture in the viewfinder is black and white.
- Press STOP button to end playback.



Monitoring sound is only possible when camera is in record or record pause mode.

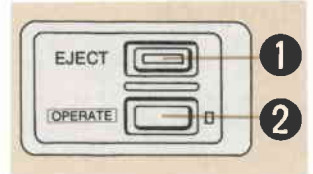
2 REW Button



# Camera Parts and Functions

## OPERATE/CAUTION Indicator

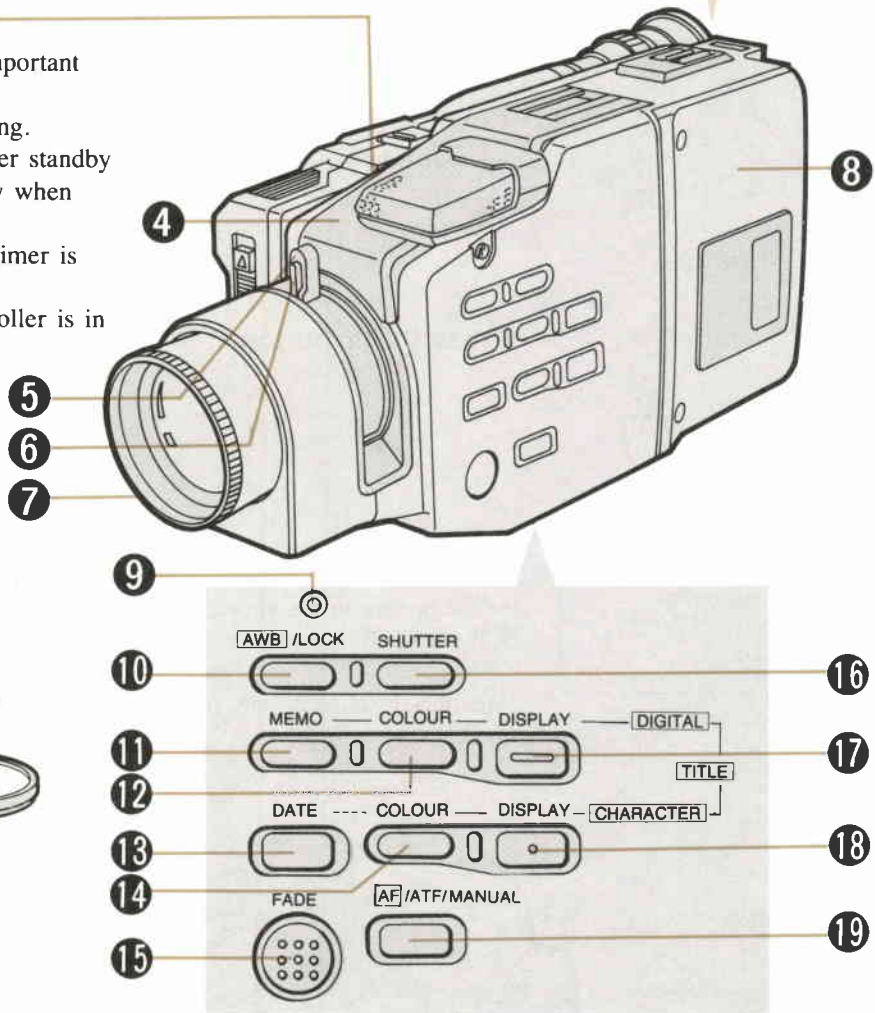
This indicator lights when the camera is turned on. It flashes to warn that there is internal condensation or to indicate that the battery pack needs to be recharged.



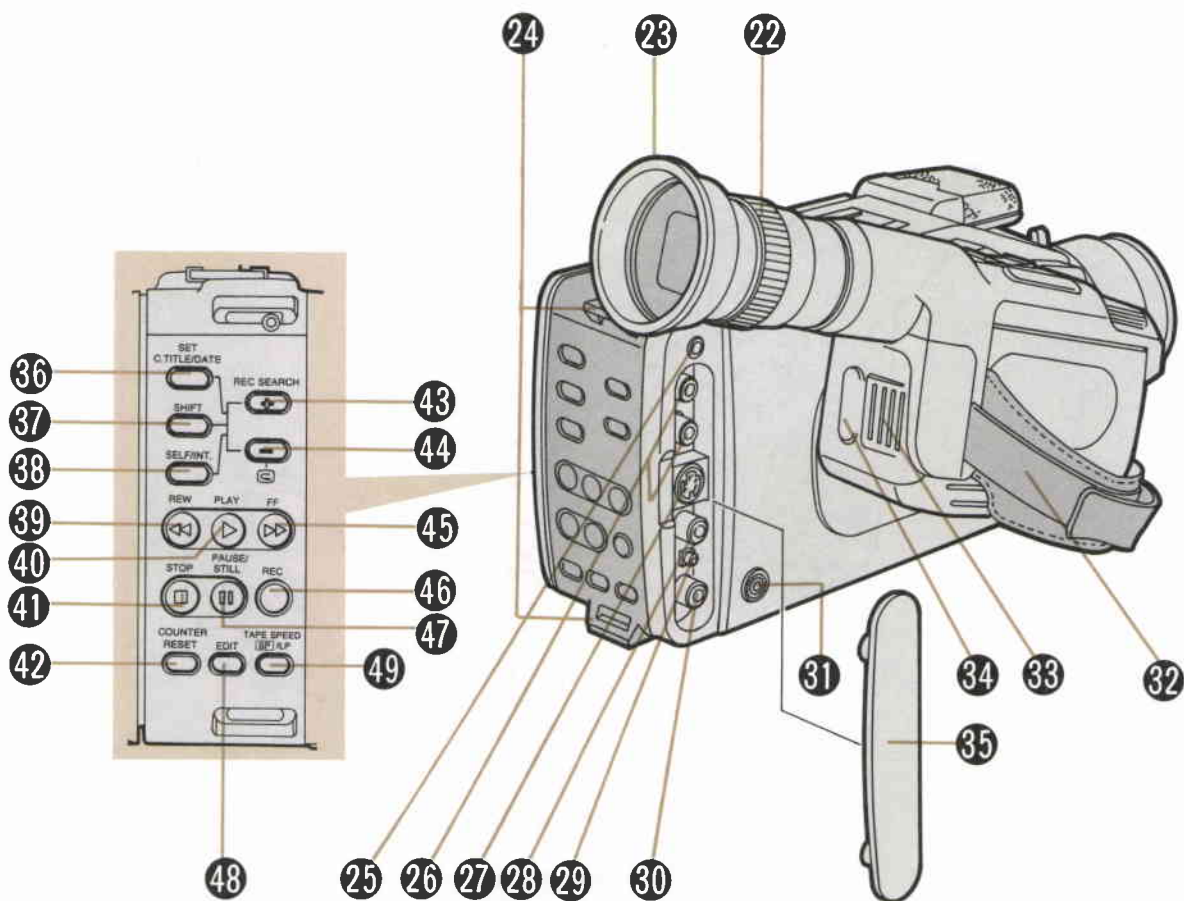
## Tally Lamp ③

The tally lamp performs four important functions:

- Flashes rapidly during recording.
- Flashes slowly during self timer standby and then starts flashing rapidly when recording starts.
- Flashes slowly when interval timer is set.
- Lights up when wireless controller is in use.

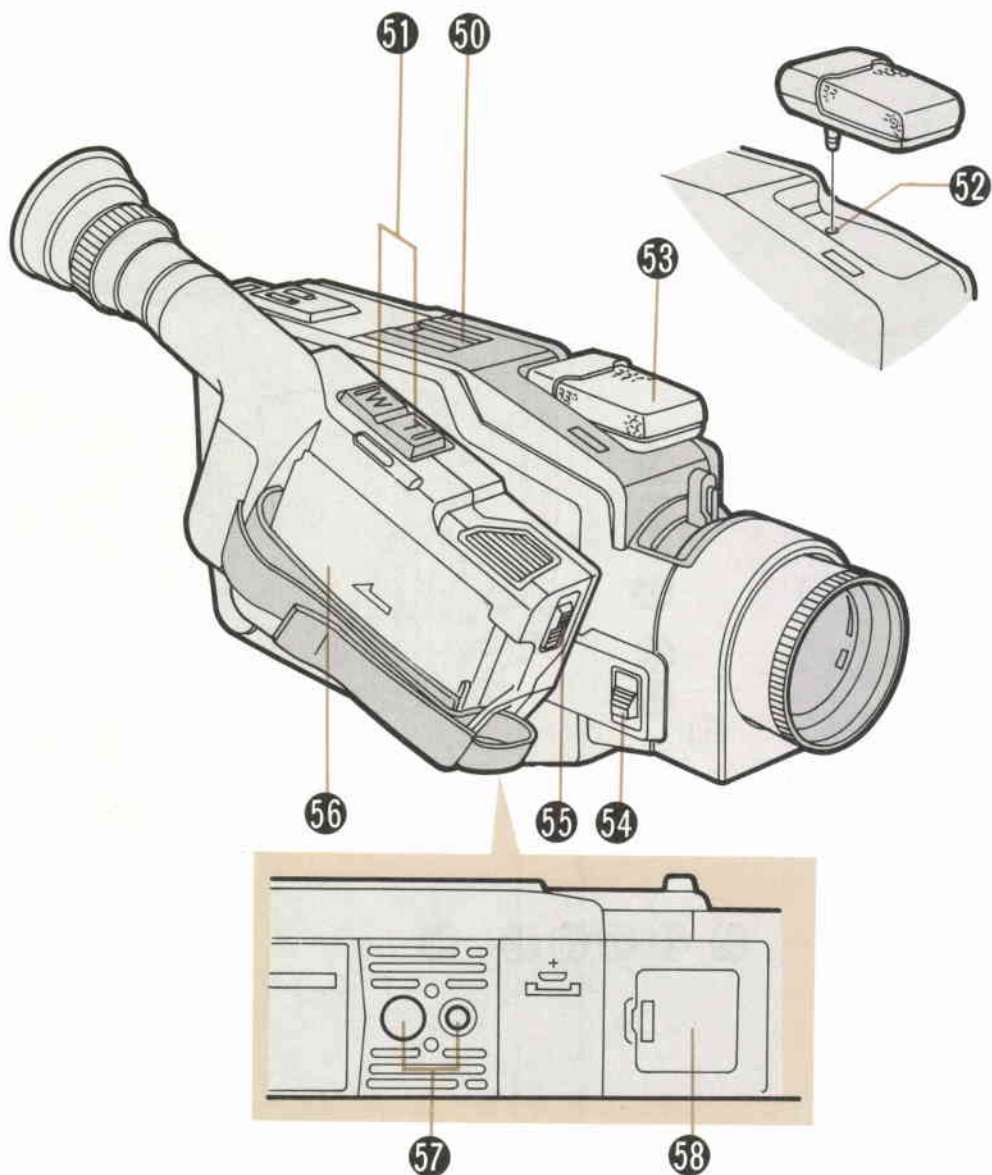










- |   |  |
|---|--|
| ① EJECT Button ( p.20)                  | ⑬ DATE Button ( p.54)                      |
| ② OPERATE Button ( p.20)                | ⑭ COLOUR Button [character title] ( p.51)  |
| ③ Tally Lamp                            | ⑮ FADE Button ( p.46)                      |
| ④ Remote Sensor ( p.9)                  | ⑯ SHUTTER Button ( p.45)                   |
| ⑤ Zooming Lever ( pp.42, 43, 44)        | ⑰ DISPLAY Button [digital title] ( p.53)   |
| ⑥ Macro Button ( p.44)                  | ⑱ DISPLAY Button [character title] ( p.53) |
| ⑦ Focusing Ring ( p.38)                 | ⑲ FOCUS Button ( pp.40, 42)                |
| ⑧ Video Cassette Compartment ( p.20)    | ⑳ Lens Cap ( p.19)                         |
| ⑨ DC OUT Terminal ( p.55)               | ㉑ Lens Hood ( p.19)                        |
| ⑩ AWB/LOCK Button ( p.37)               |  |
| ⑪ MEMO Button ( p.52)                   |  |
| ⑫ COLOUR Button [digital title] ( p.52) |  |



- 22 Diopter Adjustment Ring ( p.18)
- 23 Eyecup
- 24 Strap Attachment Bars ( p.19)
- 25 REMOTE Terminal ( p.57)
- 26 Stereo Audio Output Terminals  
( pp.26, 27, 56)
- 27 S-VIDEO Output Terminal ( pp.26, 27, 56)
- 28 Audio Output Terminal ( pp.26, 27)
- 29 RF Unit DC Output
- 30 Video Output Terminal ( pp.26, 27)
- 31 HEADPHONES Terminal ( p.55)
- 32 Grip Belt ( p.19)
- 33 Thumb Rest  
Place your thumb here when you are recording or carrying the camera.
- 34 START/STOP Button ( p.20)
- 35 Audio/Video Compartment Cap
- 36 SET C.TITLE/DATE Button ( pp.16, 50)

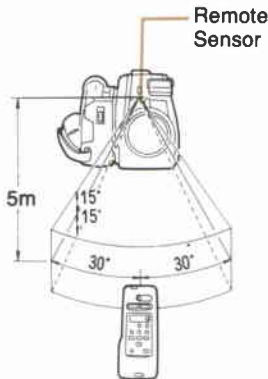
- 37 SHIFT Button ( pp.16, 50)
- 38 SELF/INT. Button ( p.48)
- 39 REW Button ( pp.30, 32)
- 40 PLAY Button ( p.30)
- 41 STOP Button ( p.30)
- 42 COUNTER RESET Button ( p.34)
- 43 REC SEARCH [+]) Button  
( pp.16, 17, 24, 48, 51)
- 44 REC SEARCH [-]) Button  
( pp.16, 17, 24, 25, 48, 51)
- 45 FF Button ( pp.30, 32)
- 46 REC Button ( p.21)
- 47 PAUSE/STILL Button ( p.32)
- 48 EDIT Button ( p.56)
- 49 TAPE SPEED Button ( p.20)



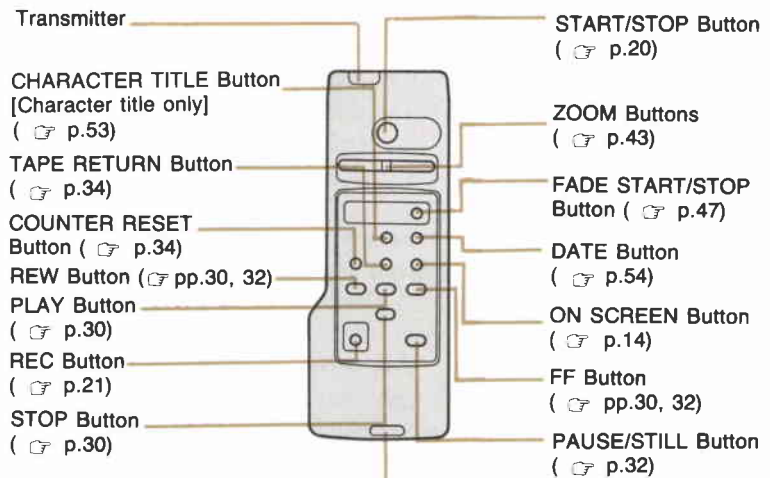
- 50 Accessory Shoe (  p.55)
- 51 Power Zoom Buttons (  p.43)
- 52 STEREO MIC Terminal (  p.55)
- 53 Microphone (  p.55)
- 54 GRIP UNLOCK Switch (  p.18)
- 55 BATT EJECT Switch (  p.10)
- 56 Power Source Compartment (  p.10, 12)
- 57 Tripod Sockets
- 58 Lithium Battery Compartment (  p.13)

# WL-200 Wireless Controller

## Using Wireless Controller from a distance



Wireless controller buttons perform the same functions as the camera buttons.



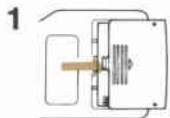
The WS-20 Wrist Strap can be attached.

## Operation

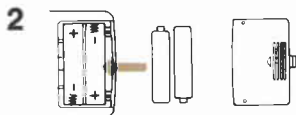
- Aim wireless controller at camera remote sensor and press control buttons to operate. The tally lamp located above lens lights up when remote sensor receives a signal.
- Operate wireless controller within 30° angle on either side and 15° angle above and below the camera remote sensor, up to a distance of five metres.
- If you are too close to camera when operating wireless controller, camera may not respond to wireless controller's signal.

## Inserting Batteries in Wireless Controller

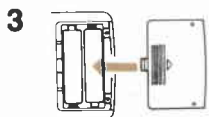
The wireless controller operates on two AAA batteries.



**Remove cover from back by pressing down and sliding in direction of arrow.**



**Insert two AAA batteries following + and - markings inside unit. Be careful not to reverse polarity of batteries.**



**Replace cover following guide grooves.**

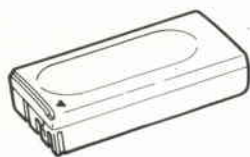
### Notes:

- Do not leave wireless controller exposed to direct sunlight or in hot or humid places.
- Wireless controller uses infrared beams to transmit signals, so sunlight or fluorescent light on the remote sensor may shorten operating distance.
- Wireless controller will not function if RS-800 Rain Shield is attached to the camera.



# Power Sources

## BP-E77K Battery Pack



BP-E77K



BP-E722 (Option)

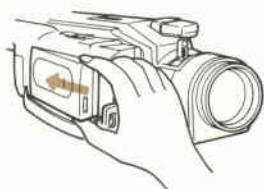
Make sure battery pack is fully charged before use.

Continuous recording time is approximately 40 minutes.

- Some camera modes consume more power than others, so actual recording time may be less than 40 minutes.
- The safest policy is to have enough batteries to cover two to three times the length of recording time scheduled.
- Using battery pack in cold temperature will shorten recording time.
- Battery pack normally becomes warm during use.
- Battery's + and - terminals may short circuit if they come in contact with any metal objects. Take care when handling battery pack, and keep it in plastic or other protective covering when carrying or storing.
- Power is slowly drained while the battery pack is attached to the camera, even when the camera is turned off. Remove the battery pack when you don't expect to use the camera for a long time.
- See battery pack instruction manual for further information regarding battery pack.
- Use the optional BP-E722 Battery Pack for lengthy recording (see p.60).

## Attaching Battery Pack

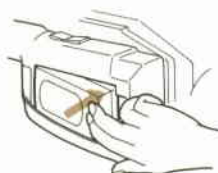
1



**Slide battery pack into power source compartment.**

- Insert the end marked with a triangle.
- Slightly loosen grip belt and press it down for easy battery loading.

2



**Press until it clicks and locks in place.**

## Removing Battery Pack

1

BATT EJECT



**Slide and hold BATT EJECT switch up.**

2



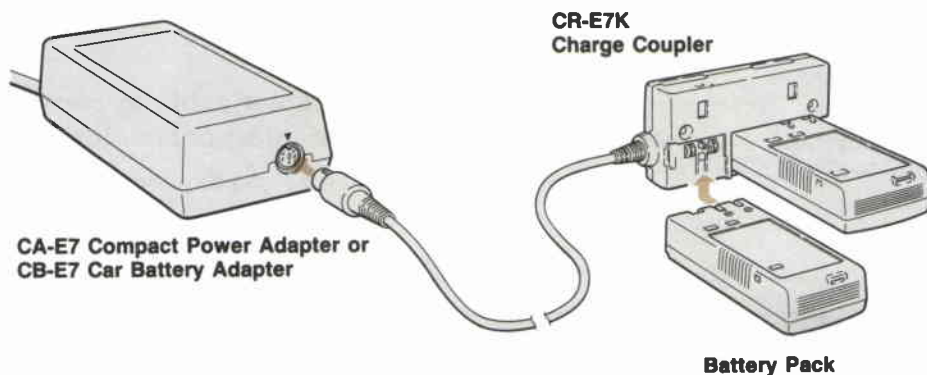
**Pull battery pack out as shown.**

- Do not remove battery pack during camera operation.

## Charging Battery Pack

Use the CR-E7K Charge Coupler to charge one or two battery packs. Connect the CA-E7 Compact Power Adapter (or optional CB-E7 Car Battery Adapter) and battery pack(s) to CR-E7K Charge Coupler as shown. Then plug into mains outlet (or car cigarette lighter socket).

- Charging time is shown in the table below. (Charging time varies according to ambient temperature and remaining charge in battery.)
- When charging battery pack, charge indicator on charge coupler blinks. When battery pack is charged, charge indicator lights.
- When charging a brand-new battery pack or one that has not been used for approx. three months, charge completely once (until charge indicator lights). Then disconnect and reconnect battery pack to charge coupler and charge once more.
- It is possible to charge battery pack when ambient temperature range is between 0°—40°C. For best results, charge battery pack when ambient temperature is between 10°—30°C. Use of battery pack under extremely high temperatures (above 40°C) may activate safety circuit, making operation impossible.
- When you don't expect to use the battery pack for a long time (three months or more), store in a discharged condition. Storing in a charged condition will shorten the life of the battery pack.
- Immediately after use, the battery pack will be quite hot and it is best not to recharge it at this time. Make sure that the battery pack has cooled off before recharging.
- For further information, see charge coupler instruction manual.



Battery Pack	Continuous recording time	Charging time
BP-E77K	about 40 minutes	about 80 minutes
BP-E722	about 85 minutes	about 140 minutes

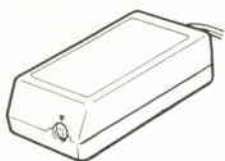
### Battery Warning



When battery charge is nearly exhausted, "BATT" flashes in camera viewfinder and the OPERATE/CAUTION indicator also flashes. Replace or recharge battery pack immediately (be sure to turn camera off before removing the battery pack).

- If the camera is turned on with an exhausted battery pack attached, it may turn off immediately, without a "BATT" warning.

## CA-E7 Compact Power Adapter



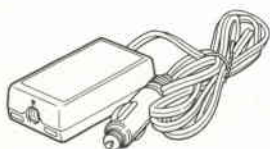
### Using AC Power

Plug into a mains outlet.

Input voltage: 100—240V AC, 50/60Hz.

- Use together with the CR-E7K Charge Coupler.
- Refer to CA-E7 instruction manual for further details.

## CB-E7 Car Battery Adapter (Option)



### Using Car Battery

Plug into cigarette lighter socket.

For use only with 12 or 24V DC negative-ground car battery.

- Use together with the CR-E7K Charge Coupler.
- When using car battery adapter, car engine must be running.
- Refer to CB-E7 instruction manual for further details.

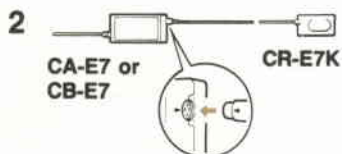
## Connection Procedure

To use the compact power adapter or car battery adapter:



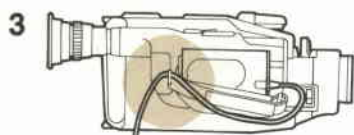
### Insert charge coupler into power source compartment.

- Insert and remove in the same way as the battery pack (see p.10).



### Attach charge coupler cable to compact power adapter (or car battery adapter) connector.

- Align triangular marks on cable and connector.



### Attach charge coupler cable to grip belt as shown.

### Caution:

Using the compact power adapter near the TV may cause the TV to emit noise. If this occurs, move the compact power adapter further away from the TV or aerial cable.



## Inserting New Lithium Battery

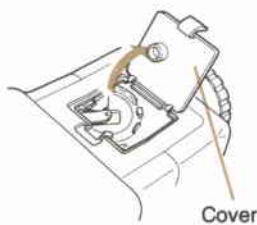


The CR2025 type lithium battery provides your camera with enough power to store character and digital titles, date and time settings, even when the camera is turned off.

One lithium battery will last approximately one year. When lithium battery is not in place or is nearly exhausted, "DATE" flashes in viewfinder, indicating that the lithium battery needs to be replaced.

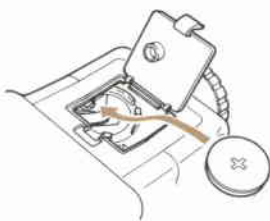
Be sure to connect the camera to a power source before changing the lithium battery, otherwise character and digital titles, date and time settings will be cleared from camera's memory and will have to be reset.

1



**Open the lithium battery compartment cover located at the bottom of the camera.**

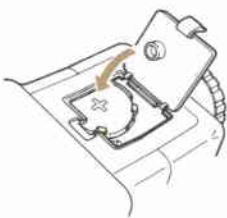
2



**Insert the lithium battery with the (+) side up.**

- Insert the lower section first, then push into place.
- Make sure the battery is secured in place under the hooks.

3



**Close the cover.**

- Make sure cover fastens properly (snaps into place).

### Warning:

The battery used in this device may present a fire or chemical burn hazard if mistreated. Do not recharge, disassemble, heat above 100°C or incinerate. Replace battery with Panasonic CR2025 or Duracell DL2025B. Use of another battery may present a risk of fire or explosion. The used battery should be handed back to the supplier.

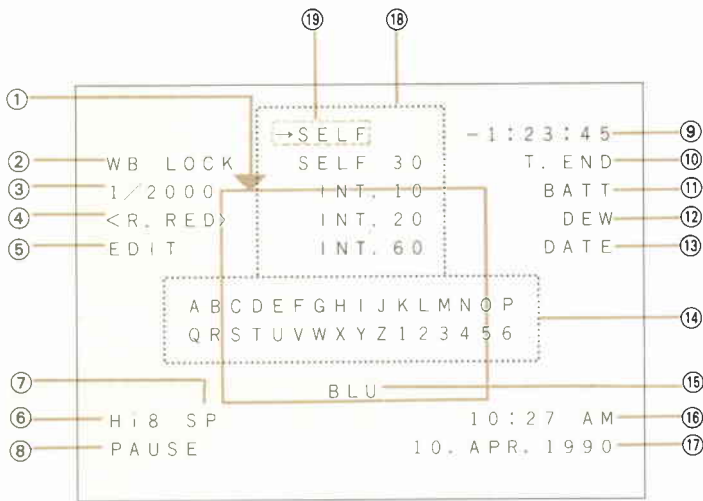
### Caution:

- Make sure plus (+) side is facing up in battery compartment.
- Keep battery out of children's reach. If swallowed, contact physician immediately.
- To ensure proper contact, wipe battery with clean, dry cloth before use.
- Do not pick up battery using tweezers or other metal tools which may cause short circuiting.
- Do not disassemble, heat or immerse in water, to avoid risk of explosion.

# Viewfinder Displays

Press the ON SCREEN button on the wireless controller to see viewfinder displays on a connected TV screen.

- Only character titles, digital titles, date and time are recorded with scenes.

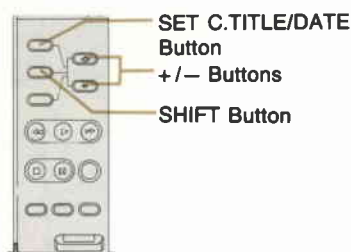


No.	Mode	Display	Description
①	Focus mode	(Focus zone)	When AF or Auto Tracking Focus mode is selected, the focus zone is displayed. In Auto Tracking Focus mode, the ATF zone changes in size according to focal depth of the subject.
		No display	The focus zone is not displayed in MANUAL mode.
②	White Balance	No display	Auto white balance
		WB LOCK	White balance lock
③	High Speed Shutter	No display	Normal shutter speed (1/50)
		1/250	1/250th of a second
		1/500	1/500th of a second
		1/1000	1/1000th of a second
		1/2000	1/2000th of a second
④	Digital Title Colour	WHT, RED, GRN, BLU, YEL, SKY, VIO, BLK	Digital title colours are displayed. For normal titles, abbreviated colour codes are displayed. Digital title colour selection; white, red, green, blue, yellow, sky blue, violet, black
		< WHT >	See-through colour (The same 8 colours can be selected.)
		R.WHT	Reverse colour (The same 8 colours can be selected.)
		< R.WHT >	Reverse see-through colour (The same 8 colours can be selected.)
⑤	EDIT Mode	EDIT	“EDIT” is not displayed in other modes. When the EDIT button is pressed, “EDIT” appears in viewfinder.
⑥	Hi8	No display	Standard 8mm mode
		Hi8	Hi8 mode

No.	Mode	Display	Description
⑦	Tape Speed	SP	Standard Play
		LP	Long Play
⑧	Operation	PAUSE	Record pause
		REC	Recording
		PLAY	Normal playback, fast forward playback (9X), or rewind playback (7X)
		STILL	Still playback
		STOP	Stop
		FF	Fast forward
		REW	Rewind
		EJECT	Eject function is operated.
		EJECT (flashes)	Safety mechanism functions
⑨	Tape Counter	– 9:59:59 to 9:59:59	Tape counter reading
⑩	Tape Status	TAPE (flashes)	No cassette loaded
		T.END	Tape reaches the end.
⑪	Battery Warning	BATT (flashes)	Battery charge is nearly exhausted.
⑫	Condensation	DEW (flashes)	Condensation is detected in camera (see p.64).
⑬	Lithium Battery Warning	DATE (flashes)	Lithium battery charge is low or no battery is inserted.
⑭	Character Title	2 lines × 16 characters	Alphabet: A to Z Special Characters and Accents: ÄÖÜØÀÆÑÇ Numerals: 0 to 9 Symbols: ,/_ ' '":;?!*&
⑮	Character Title Colour	WHT, RED, GRN, BLU, YEL, SKY, VIO, BLK	Character title and date/time colour codes are displayed. Character title and date/time colour selection: white, red, green, blue, yellow, sky blue, violet, black
⑯	Time	12:00 AM to 11:59 PM	Present time
⑰	Date	1. JAN. 1990 to 31. DEC. 2010	Current date
⑱	Timer Recording Menu	→SELF SELF 30 INT.10 INT.20 INT.60	→ Arrow indicates selected mode.
⑲	Timer Recording	OSEC—10SEC	Recording reminder
		SELF10—SELF1	Self timer countdown
		SELF30—SELF1	Self 30 recording
		INT.10	10 sec. interval recording
		INT.20	20 sec. interval recording
		INT.60	60 sec. interval recording

# Camera Preparations

## Setting Date and Time



Set date and time when you first begin using the camera or you change the lithium battery without back-up power. See p.54 for recording date and time.

Example: Setting date to 8 July, 1990 and time to 2:35 p.m.

Partial changes in date and time are not possible. To make any adjustments perform steps two through twelve.



**Press OPERATE button.**

- OPERATE/CAUTION indicator lights up.



**Press and hold SET C.TITLE/DATE button for approx. three seconds.**

- Date and time are displayed in viewfinder.
- Year display flashes in viewfinder.



**Press + and - buttons to scan year display.**

- Press once to scan one year at a time.
- Press and hold to scan years quickly.
- Press - button to scan display in reverse order.

→ 1990 ↔ 1991 ↔ ..... ↔ 2008 ↔ 2009 ↔ 2010 ←



**Press SHIFT button when correct year is shown.**

- Year is set and month display flashes.



**Press + and - buttons to scan month display.**

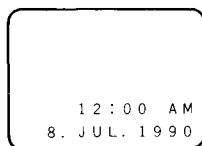
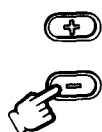
→ JAN ↔ FEB ↔ ..... ↔ OCT ↔ NOV ↔ DEC ←



**Press SHIFT button when correct month is shown.**

- Month is set and day display flashes.

7

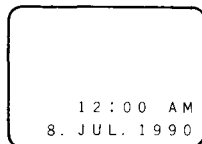


**Press + and – buttons to scan day display.**

- The camera knows the number of days in each month and which years are leap years.

→ 1 ↔ 2 ↔ 3 ↔ ..... ↔ 29 ↔ 30 ↔ 31 ←

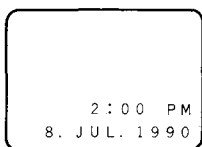
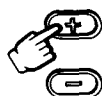
8



**Press SHIFT button when correct day is shown.**

- Date is set and hour display flashes.

9

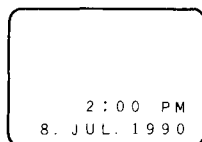


**Press + and – buttons to scan hour display.**

- Hour display rotates through 24 hours.

→ 12AM ↔ 1AM ↔ ..... ↔ 10PM ↔ 11PM ←

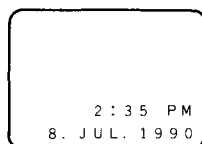
10



**Press SHIFT button when correct hour is shown.**

- Hour is set and minute display flashes.

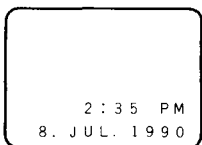
11



**Press + and – buttons to scan minute display.**

→ 00 ↔ 01 ↔ 02 ↔ ..... ↔ 58 ↔ 59 ←

12



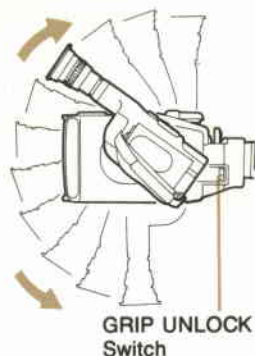
**Press SHIFT button when correct minute is shown.**

- Minute display stops flashing and auto date and time starts functioning.
- Press DATE button to make display disappear from viewfinder.

#### Notes:

- Date and time cannot be set during camera recording or playback.
- When you change or remove the lithium battery, be sure to connect the camera to another power source first, otherwise date and time will be cleared from memory.
- Reset date and time when you travel to a different time zone.
- Date and time have the same colour as the character title (see p.51).

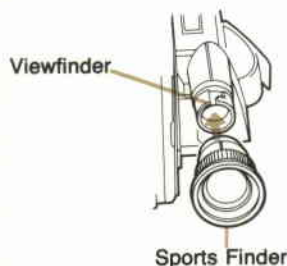
## Adjusting 180° FlexiGrip with Integral Electronic Viewfinder



The 180° FlexiGrip allows you to adjust the camera angle to 5 click-positions up or down (every 18°). Slide and hold GRIP UNLOCK switch to release the grip. Then rotate grip to desired position, until grip locks into place. Release GRIP UNLOCK switch.

- The grip cannot be rotated when the optional RS-800 Rain Shield is used. Use the camera with the grip set horizontally.

## Sports Finder



The Sports Finder allows you to monitor the viewfinder from as much as an arm's length from the camera.

To remove:

Align the triangular marks on grip and finder.  
Gently slide finder off.

To Attach:

Slide finder onto grip to align triangular marks.  
Turn finder to the right to lock in place.

## Adjusting Diopter

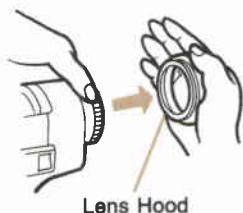


Adjust the diopter to individual eyesight correction when using the camera for the first time, when changing camera operators, or when changing eye distance from the finder.

To adjust diopter:

Turn the camera on and turn diopter adjustment ring until viewfinder displays are clearly visible.

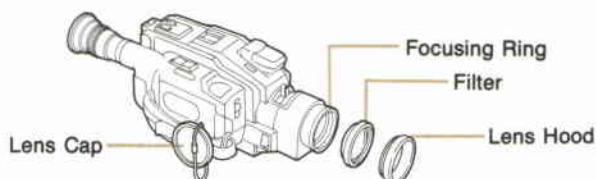
## Attaching and Removing Lens Cap and Lens Hood



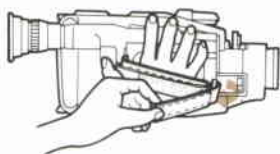
Remove lens cap before recording and hook it onto grip belt using clip on lens cap. Replace lens cap again when you stop recording or turn the camera off.

When using a filter, attach the lens hood (as pictured below), so lens cap can be replaced.

- To remove the lens hood, hold focusing ring and filter with one hand and loosen the lens hood using the flat palm of your other hand (not your fingers).



## Adjusting Grip Belt

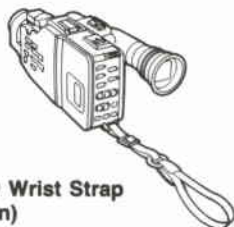


Tighten or loosen grip belt as necessary for a comfortable fit while holding grip with your right hand.

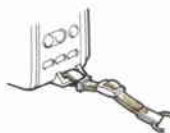
## Attaching Strap



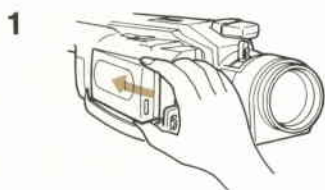
Attach shoulder strap to the strap attachment bars, and adjust it to the most comfortable length.



The optional wrist strap can only be attached to the lower strap attachment bar.

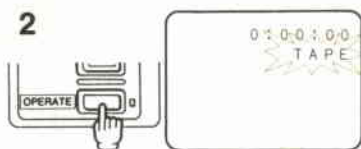


# Camera Recording



## Attach power source.

- When using a battery pack, make sure it is fully charged (see p.11).



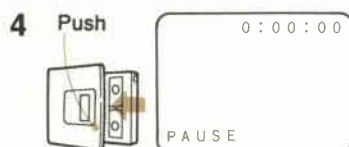
## Press OPERATE button.

- OPERATE/CAUTION indicator lights up.



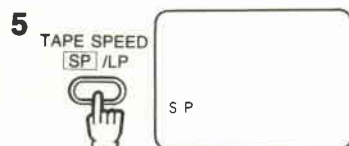
## Press EJECT button.

- Video cassette compartment opens.



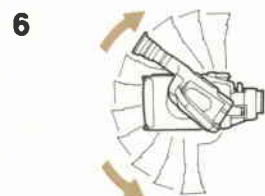
## Load video cassette and close video cassette compartment.

- Insert with window facing out.
- Camera goes into record pause mode.
- Camera goes into stop mode if the erasure prevention switch on the video cassette is ON (see p.23).



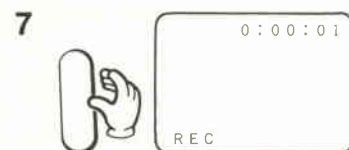
## Press TAPE SPEED button to select tape speed.

- For best picture quality, select SP.
- For double recording time, select LP.



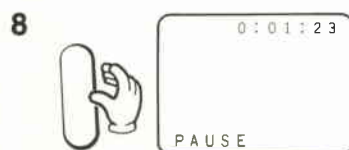
## Turn grip for easy handling.

- See p.18 for adjusting grip.



## Press START/STOP button.

- Recording starts.
- Tally lamp flashes rapidly and "REC" appears in viewfinder.
- See Advanced Functions section for information on making your recordings more effective (pp.36–57).



## Press START/STOP button again to temporarily pause recording.

- Press START/STOP button once again to resume recording.
- See "Record Review" (p.25) to check your recording.



Use video cassettes marked with the **Hi8** (E5 type) or **8** (P5 type).

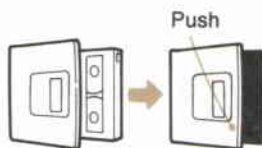
9



**When recording has ended, press EJECT button.**

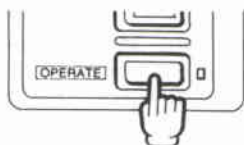
- Video cassette compartment opens.

10



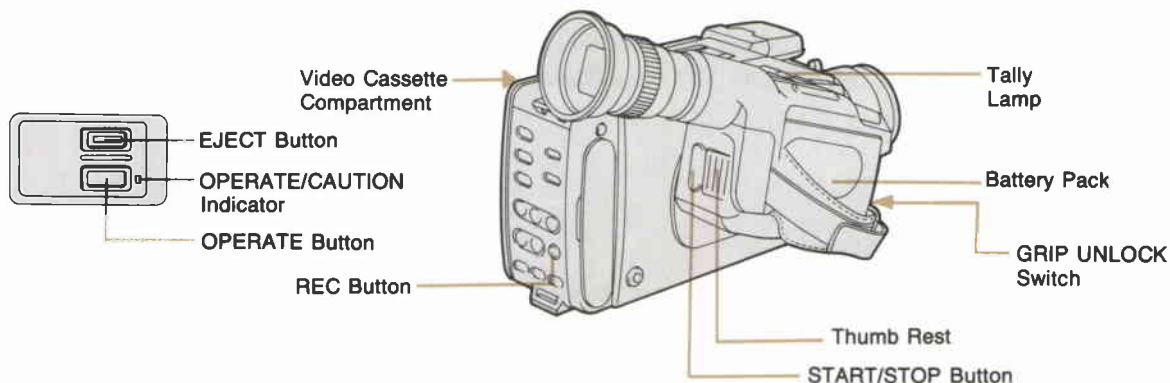
**Remove video cassette and close video cassette compartment again.**

11



**Press OPERATE button.**

- OPERATE/CAUTION indicator goes off.



- A standard 8mm video cassette cannot be recorded in Hi8 mode.
- It is impossible to record in standard mode with **Hi8** video cassette.

#### Hint:



Press REC button to begin recording from the stop mode.

- The camera enters record pause mode.
- Use the normal recording procedure for recording.

#### Notes:

- The tape counter will be reset to 0:00:00 when a video cassette is loaded.
- The camera automatically turns off if record pause mode lasts more than approximately seven minutes. To resume recording turn camera on and press START/STOP button.
- Check the viewfinder display for correct mode during shooting for security. (For details, see p.14 and 15.)
- Avoid pressing START/STOP button repeatedly. Put a sufficiently long interval in between, otherwise trouble may result.
- Avoid recording near sources of electric or magnetic fields, such as a TV tower, which can cause noise in the picture or a camera malfunction.
- If tape speed is changed during recording, the tape will contain noise at that point.
- When recording in dark places; if a bright object, such as a candle flame enters the picture, a luminous bar may appear vertically on the screen.

## Tape Counter

During recording, the tape counter in the viewfinder indicates how long you have recorded.



**You have recorded for approx. 35 minutes and 40 seconds (in SP mode).**

- The tape counter also appears during playback and record search, so you can use it to verify how long the tape has run.
- Tape counter time and actual recording length may be slightly different. Use the tape counter only as an approximate guide.
- When recording in LP mode, actual recording length is approximately twice the tape counter time.

## Recording Reminder



When you start to record, the camera counts off the first 10 seconds of your recording and displays 0 SEC through 10 SEC in the viewfinder. This function is designed to help you make sure your scenes aren't too short, for easy viewing and editing.

Try to record for at least the full 10 seconds.

- Recording reminder time and actual recording length may be slightly different. Use recording reminder only as an approximate guide.

## Video Cassette Warning



- "T.END" appears in viewfinder when tape is completely used up.



- "TAPE" flashes in viewfinder if camera is turned on and a video cassette is not loaded.

## Battery Pack Warning



- "BATT" flashes in viewfinder when battery pack charge is nearly exhausted.
- If the camera is turned on with an exhausted battery pack attached, it may turn off immediately, without a "BATT" warning.

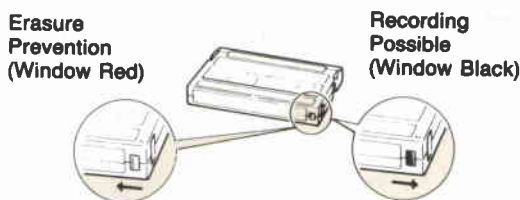
## Video Cassette Notes

- Do not leave video cassette in camera after use, especially when the camera will not be in use for a long time.
- There are several holes on the video cassette back, which are used for transferring information. Do not cover them with adhesive tape, or other materials.
- Do not use video cassettes with damaged or spliced tape or ones that do not meet standards.

## Video cassette erasure prevention switch

To prevent accidental erasure of recorded material, slide switch at bottom of video cassette as shown. If switch is returned to its original position, recording is possible once again.

This applies to Canon 8mm Video Cassettes only. For other makers' video cassettes, refer to their instruction manual for erasure prevention.



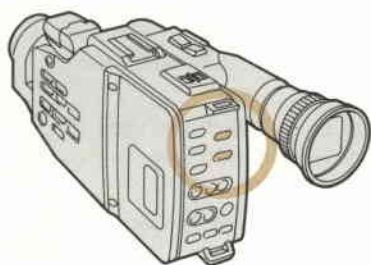
## About Backlighting



Backlighting, caused for example by the sun or an open window behind the subject, can cause the subject to appear dark and lacking in detail. This camera, using a centre-weighted average metering system and a backlight compensation circuit, can adjust exposure for backlighting to some extent.

However, if the subject continues to appear dark in the viewfinder (as pictured at left), approach the subject or use the camera's zoom function to zoom in on the subject. This will reduce backlight in the picture and allow more accurate exposure.

# Record Search (Assembly Editing)



Use the record search function to locate the desired point to resume recording. Record search can also be used to eliminate noise between recorded scenes. Use this function when you make additional recordings on a previously used video cassette — there will be no noise between previously recorded scene and newly recorded scene.

1



**Place camera in record pause mode.**

2

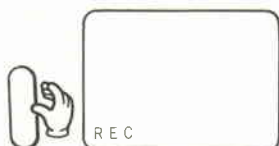
REC SEARCH



**Press REC.SEARCH (+) or (-) buttons to scroll forward or backward to locate recording start position.**

- Press and hold the + button to play back the recording forward.
- Press and hold the - button to play back the recording backward.
- Camera returns to record pause mode when you release the buttons.

3

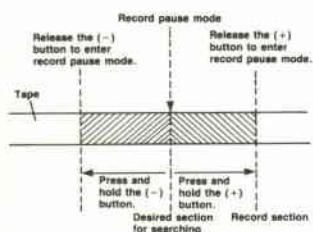


**Press START/STOP button.**

- Recording starts.
- Tally lamp flashes rapidly.

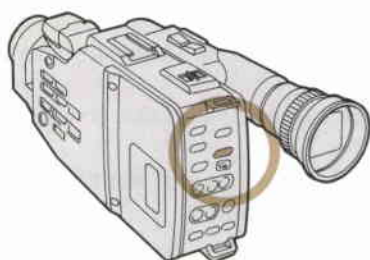
## Explanation:


### Record search (to resume recording)



Searches the desired section to start recording, while in record pause mode.

# Record Review



Press REC. SEARCH  button during record pause mode to play back the last segment of recorded scene (approximately three seconds) in the viewfinder.

1



**Place camera in record pause mode.**

2

REC. SEARCH



**Press REC. SEARCH  button.**

- Scene plays back in viewfinder.



3

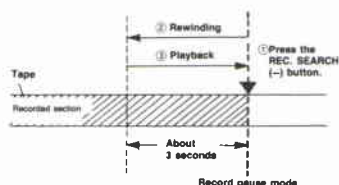


**Press START/STOP button to resume recording.**

- Recording starts again from where it left off.

## Explanation:

## Record review



Plays back your recording in the order ① to ③ as shown left, after record pause mode is entered. The camera returns to record pause mode after playback has ended.

## Notes:



Noise bar



Skew  
(distorted picture)

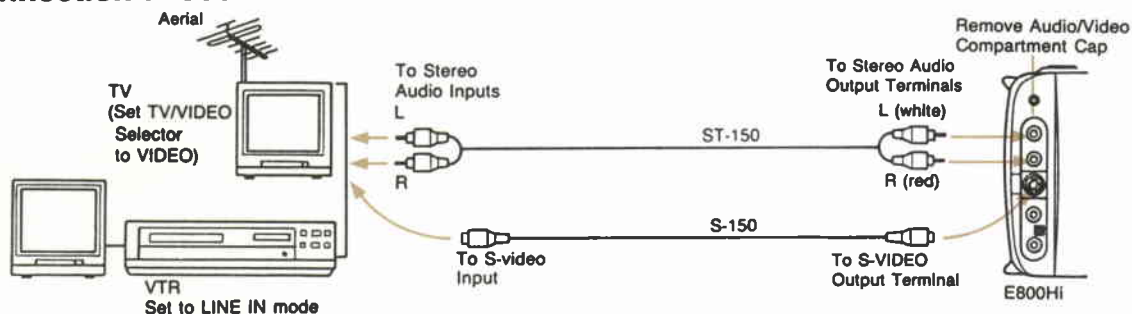
- Noise or skew may appear on the screen during record search mode or record review mode. This is not a malfunction.
- Tape rewinds approximately 0.3 second for each record review, so each time you use record review the last 0.3 second of the recorded scene is lost. Avoid record reviewing the same section of tape over and over.

# Playback Connection Procedure

You can use the CR-E7K Charge Coupler together with the CA-E7 Compact Power Adapter (or the optional CB-E7 Car Battery Adapter) or the BP-E77K Battery Pack as a power source.

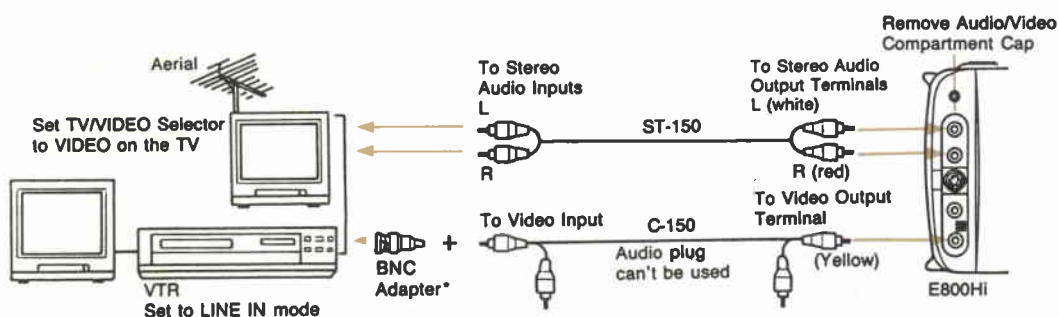
- See p.12 for details on how to connect up the charge coupler and compact power adapter (or car battery adapter).
- The connection procedure for playback depends on whether or not the TV is equipped with Audio/Video inputs or a SCART terminal.

## Using TV/VTR with S-video Input **STEREO** Connection Procedure



## Using TV/VTR with Audio/Video Inputs **STEREO** Connection Procedure

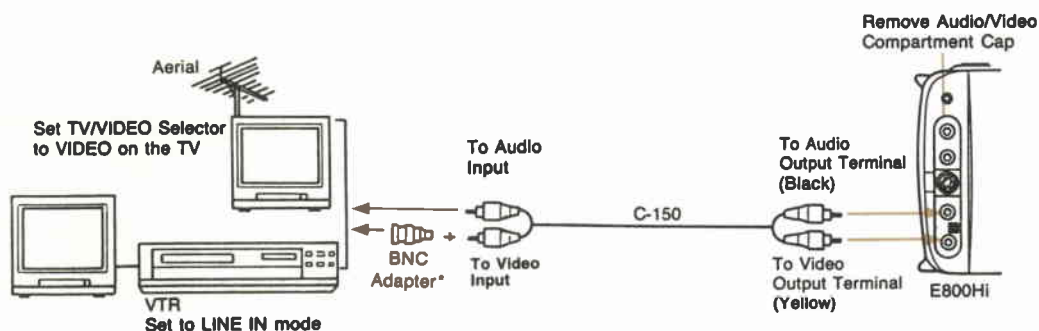
- You need the C-150 AV Cable and a power source for playback on a TV that has Audio/Video inputs.



\* For TV or VTR which has a BNC-type video input, use a commercially available BNC plug adapter for connection.

## Using TV/VTR with Audio/Video Inputs **MONAURAL** Connection Procedure

- You need C-150 AV Cable and a power source for playback on a TV that has Audio/Video inputs.

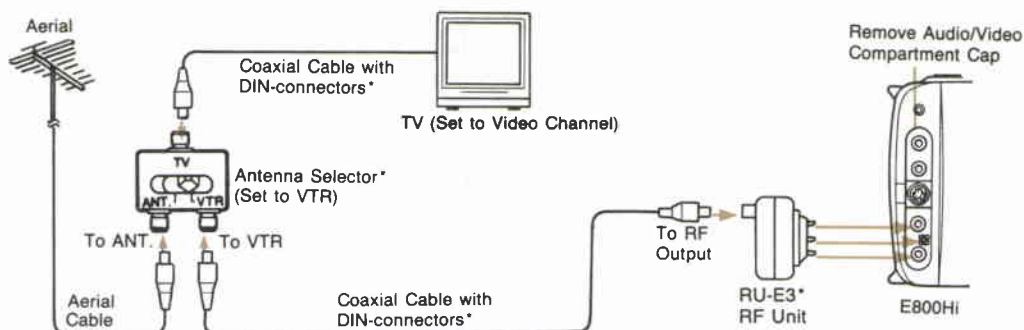


\* For TV or VTR which has a BNC-type video input, use a commercially available BNC plug adapter for connection.

## Using TV/VTR without Audio/Video Inputs **MONAURAL**

### Connection Procedure

- You need the RU-E3 RF Unit and a power source for playback on a TV that does not have Audio/Video inputs.
- Refer to the RU-E3 RF Unit instructions on p.28.

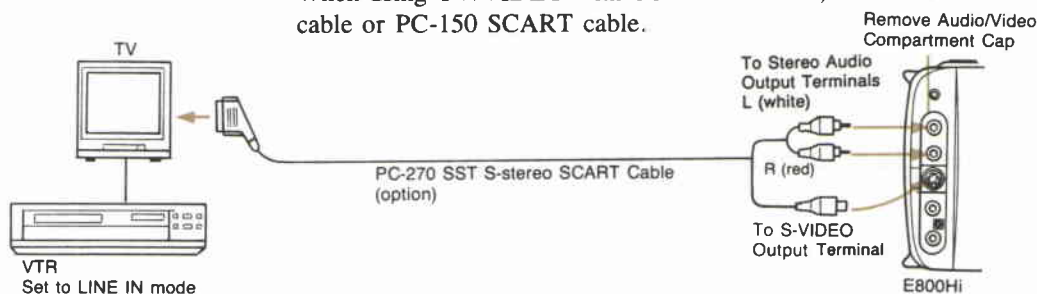


\* All components of the supplied RU-E3 RF Unit.

## Using TV/VTR with S-video compatible SCART terminal **STEREO**

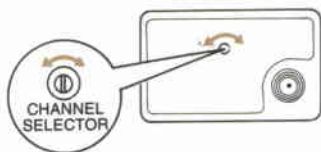
### Connection Procedure

- You need the optional PC-270 SST S-stereo SCART Cable and a power source for playback on a TV that has a SCART terminal.
- When using TV/VIDEO with SCART terminal, use PC-170 ST SCART cable or PC-150 SCART cable.

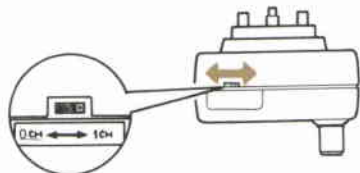


## Selecting Video Channel

### European model



### Australian model



The video channel is the channel in your area not occupied by a broadcasting station, that may be used for playback and monitoring. (channel 30—39 selectable, European model; channel 0 or 1 selectable, Australian model).

If you are using a TV without audio/video inputs, set both the TV and the RF Unit to the video channel for playback. To set the video channel on the RU-E3, use a small flat-edge screwdriver.

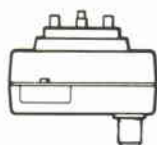


## RU-E3 RF Unit

### Parts Included with RF Unit

For connection of RU-E3, make sure the following are at hand:

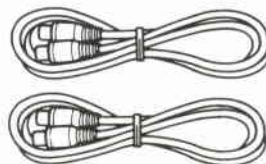
**RU-E3 RF Unit**



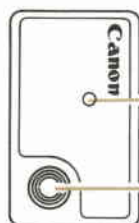
**Antenna Selector**



**Coaxial Cable with DIN-connectors (2)**



#### European Model



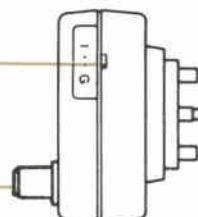
**I/G Selector**

Set according to TV system.

**Video Channel Selector**

Set to channel reserved for video in your area (channel 30—39 selectable).

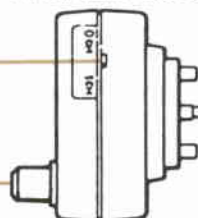
**RF Output**



#### Australian Model

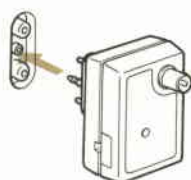
**Video Channel Selector**

**RF Output**



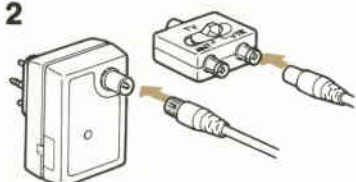
### Connections (See connection chart on p.27)

1



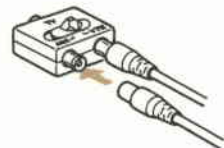
Attach power source and RU-E3 RF Unit to camera. Leave camera off.

2



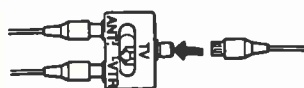
Connect RF output to VTR terminal of antenna selector using provided coaxial cable with DIN-connectors.

3



Remove aerial cable from TV and connect it to ANT. terminal of antenna selector.

4



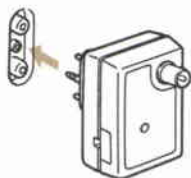
Connect TV terminal of antenna selector to aerial input of TV using provided coaxial cable with DIN-connectors.



## Setting the Video Channel (European model)

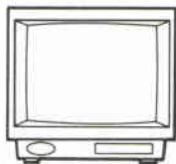
The RU-E3 is shipped from the factory with the video channel selector set to channel 32.

1



**Connect RU-E3 to camera and TV.**

2



**Turn TV on.**

3



**Turn camera on, and start playback.**

4



**Set I/G selector.**

- I is for U.K., South Africa, Hong Kong;  
G is for Continental European countries.
- If the I/G selector is not set correctly, the video picture will appear but the audio portion cannot be heard.

5



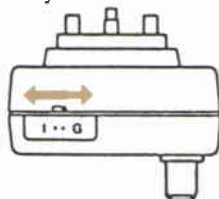
**Tune TV to channel 32 and adjust it until playback picture appears clearly on screen.**

To set video channel to a position other than 32 (30—39 selectable), position 36 in U.K. for example. Follow steps 1—5 above. Tune TV to channel 36. Turn RU-E3's video channel selector with a flat-edge screwdriver until playback picture appears clearly on screen again.

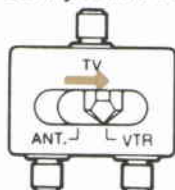
## Switch Settings RU-E3

### European model

I/G selector:  
Set according to  
TV system

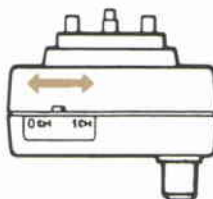


For Playback: VTR

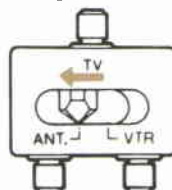


### Australian model

Video channel selector:  
To video channel

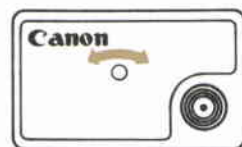


For Regular TV Viewing: ANT.



### European model

Video channel selector  
(see above)



## Antenna Selector

# Playback Procedure

Before playback, make sure that all connection procedures are completed (pp.26—29).

## 1 Press OPERATE button.

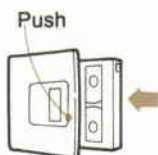


## 2 Press EJECT button.



- Video cassette compartment opens.

## 3 Load video cassette in camera and close video cassette compartment.



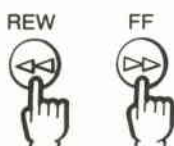
- Camera goes into record pause mode.
- Camera goes into stop mode if the erasure prevention switch on the video cassette is ON (see p.23).

## 4 Press STOP button.



- You must complete step 4 to commence playback.
- Playback functions will not operate if you haven't pressed STOP button.

## 5 Locate playback start point.



- Use FF or REW buttons to locate start point or use high-speed search (see p.32).

## 6 Press PLAY button to start playback.

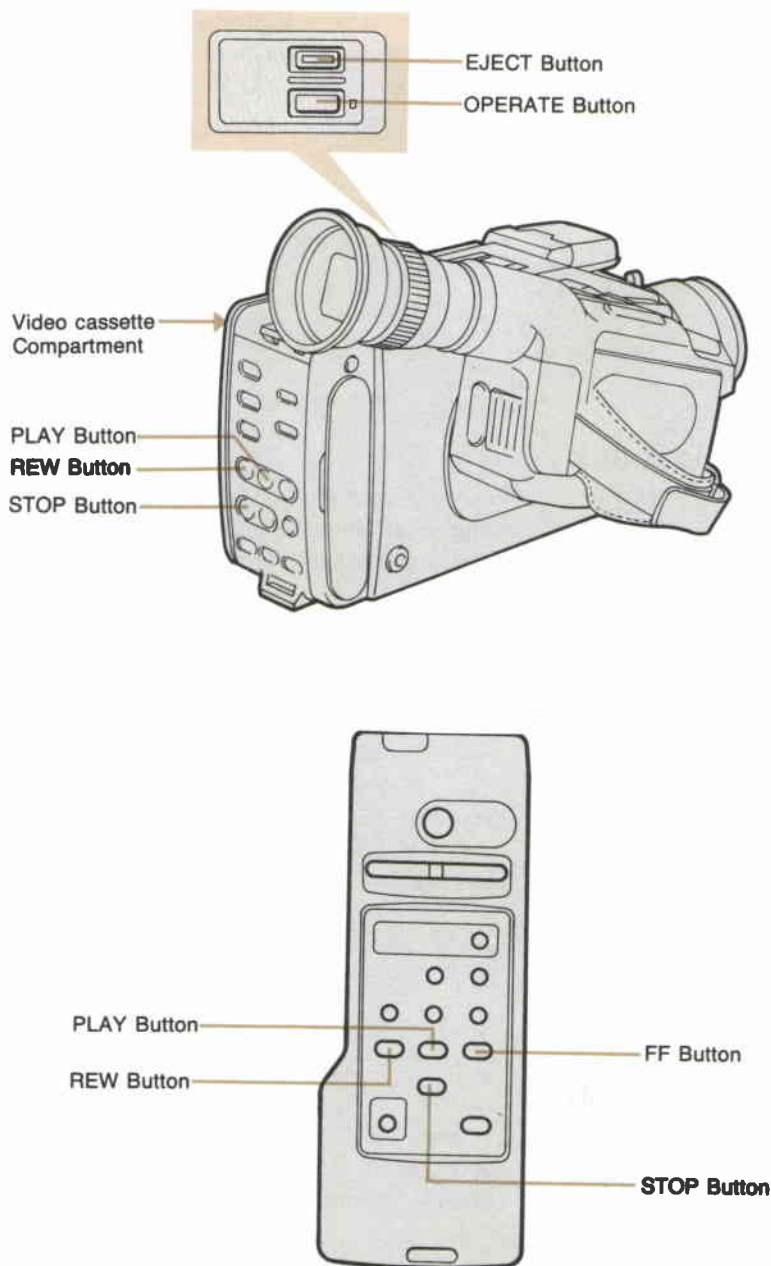


- You can also monitor playback in viewfinder.
- Tape speed is selected automatically.

## 7 Press STOP button to end playback.



- The tape rewinds automatically if it is played to the end (automatic rewind function).



## High Frequency Feedback

- High frequency feedback may occur if camera microphone is too close to the TV speaker (only during record or record pause mode). Lower TV volume or place camera in stop mode.
- With the E800Hi, monitoring sound is possible only during record or record pause mode, so howling will not occur.

# Special Playback Methods

In addition to normal playback, your camera also has fast forward, rewind and still playback. Playback is controlled by pressing buttons on the camera or by using the WL-200 Wireless Controller.

## Fast Forward Playback



Press and hold FF button during normal playback for playback at about nine times normal speed.

- Release the button to resume normal playback.

## Rewind Playback



Press and hold REW button during normal playback for reverse playback at about seven times normal speed.

- Release the button to resume normal playback.

## Still Playback



Press PAUSE/STILL button during normal playback to pause the picture. Press PAUSE/STILL button again or PLAY button to resume normal playback.

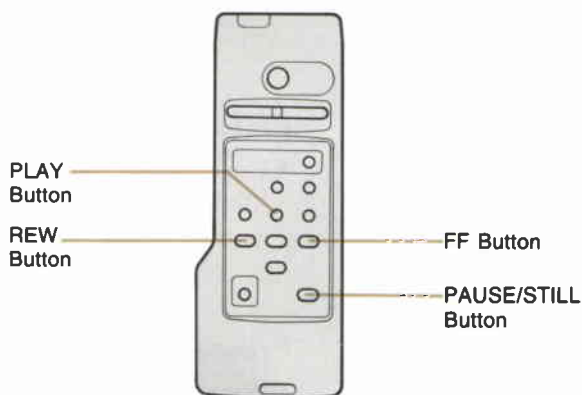
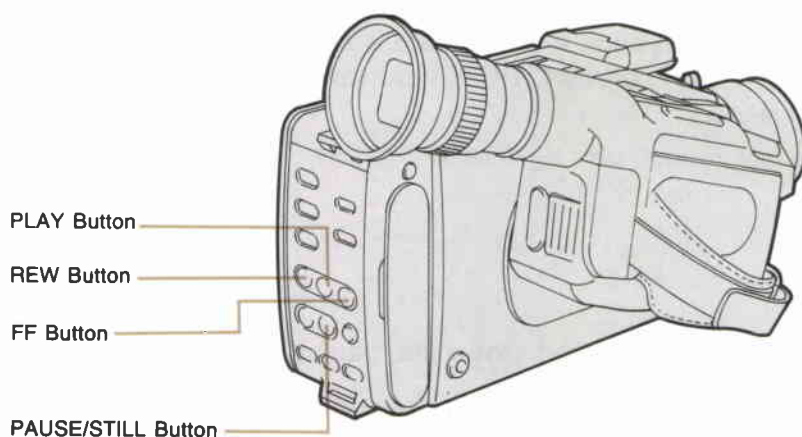
## High-speed Search



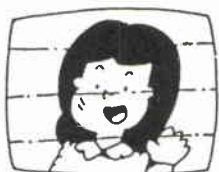
Press and hold the FF button during fast forward mode to view scenes at approximately 15 times (SP) or 30 times (LP) normal speed. Release the button to resume normal fast forward.



Press and hold the REW button during rewind mode to view scenes in reverse at approximately 15 times (SP) or 30 times (LP) normal speed. Release the button to resume normal rewind.



## Notes:



During fast forward and rewind playback modes



During still playback

- The camera automatically goes into stop mode after more than seven minutes of continuous still playback.
- Audio portion of tape cannot be heard during special playback.
- Several noise bars appear during fast forward or rewind playback.
- The picture flickers a little during still playback.
- When fast action scenes are shown during still playback, the picture may blur.
- Certain TVs may show the special playback picture in black-and-white, or the picture may roll or divide.
- Notes about special playback of tapes recorded in SP:
  - (1) The still playback picture will contain much more noise than for a tape recorded in LP.
  - (2) During fast forward or rewind playback, noise bars will be much wider than for a tape recorded in LP.
- The high-speed search picture might not appear on some TVs.

# Tape Return

TAPE RETURN button on the WL-200 Wireless Controller allows you to quickly locate a desired scene on the video cassette.

- Camera does not have a TAPE RETURN button. Use the wireless controller to operate tape return.

1



**During playback if you locate a scene you want to watch again later, press C.RESET button (COUNTER RESET on Wireless Controller.)**

- Tape counter resets to "0:00:00".

2

STOP



**Press STOP button when playback finishes.**

3

TAPE  
RETURN



**Press TAPE RETURN button.**

- Tape rewinds and stops automatically when counter reading reaches near "0:00:00".

4

PLAY



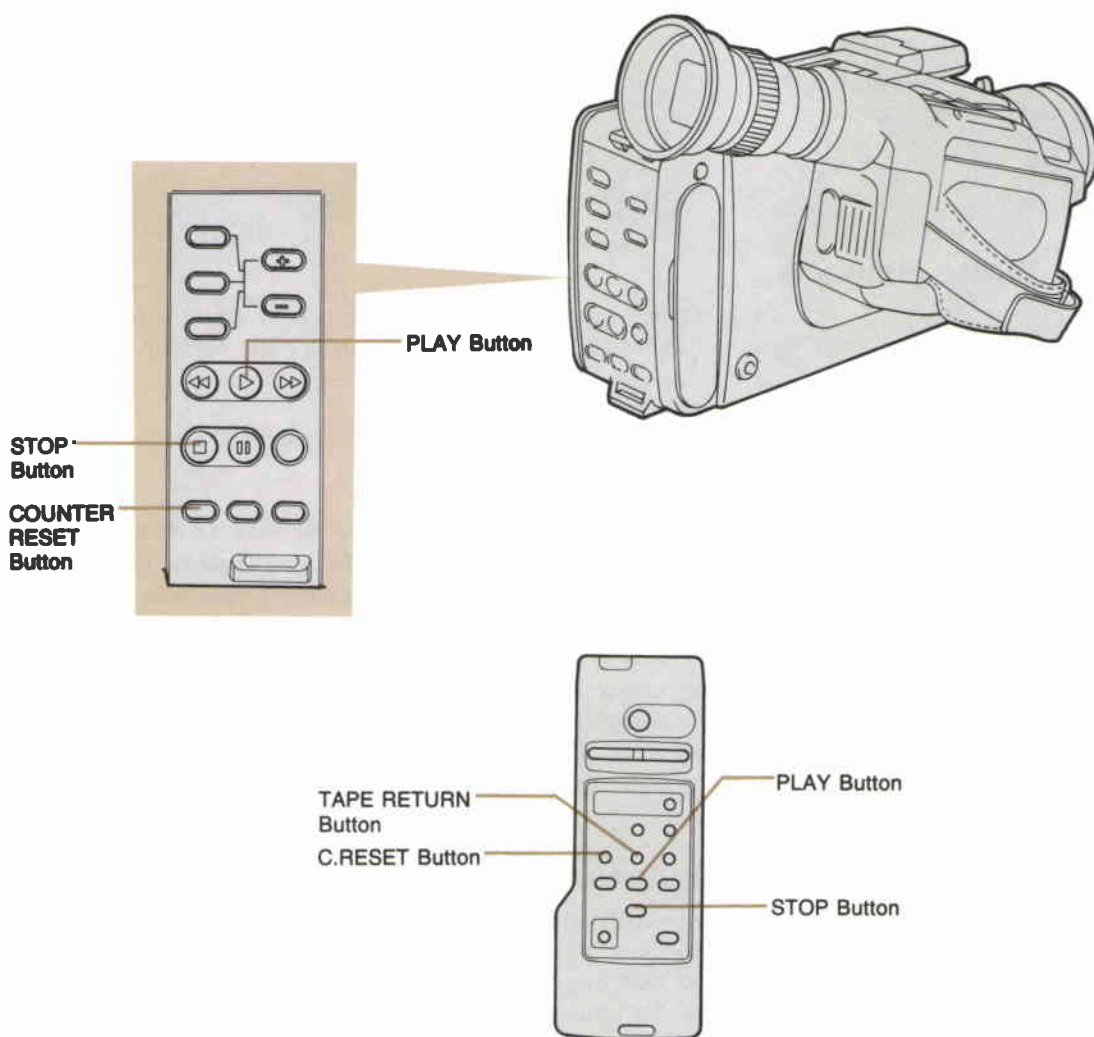
**Press PLAY button.**

- Playback starts at the spot where you pressed C.RESET button.

---

## Remark:

Every time you load a video cassette, the tape counter automatically resets to "0:00:00". This means that after recording you can use the tape return function to locate the recording start point.



#### Notes:

- Tape counter reading is only approximate. Use it as a guide.
- Tape return does not function when initial tape counter reading is near "0:00:00"
- Press STOP button to cancel tape return.

# White Balance



White balance is the adjustment made to make white subjects look white and to obtain a natural colour balance for recordings. The camera has two systems for white balance adjustment: auto and lock.

## Auto White Balance

Auto white balance is set automatically when camera is turned on, to make white balance adjustment for normal indoor and outdoor conditions.

## White Balance Lock

Use white balance lock when you shoot subjects not suitable for auto white balance. This function is most useful for special shots. For example, for best results when shooting sunsets and other scenes with red colouring, adjust the camera by pointing at a blue object and pressing AWB/LOCK button.

- White balance lock also works without using a white object. Set the zooming lever to wide-angle end and press AWB/LOCK button to adjust for the scene. However, this is not suitable for scenes with one dominant colour or for macro recording.

## Subjects Not Suitable for Auto White Balance



Auto white balance may not work well in the following instances, and white balance lock will probably give you better results:

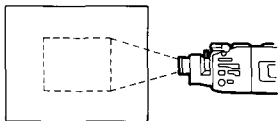
- Subject with one dominant colour, such as sky, sea or forest.
- Subject for a macro recording, such as a close-up of a flower.

Use white balance lock to allow for such conditions.



## White Balance Lock Procedure

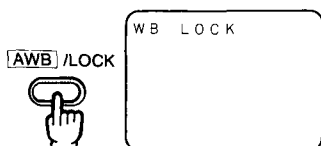
1



**Point camera lens at a white object (such as a sheet of paper) for 10 sec., so that it completely fills viewfinder.**

- Set zooming lever to telephoto end.
- Be sure sufficient lighting is available.
- There is no need for focusing.

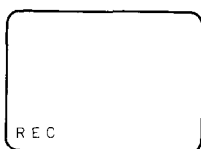
2



**Press AWB/LOCK button.**

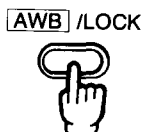
- “WB LOCK” appears in viewfinder.

3



**Make your recording.**

4



**Press AWB/LOCK button again to reset auto white balance.**

- “WB LOCK” display disappears from viewfinder.

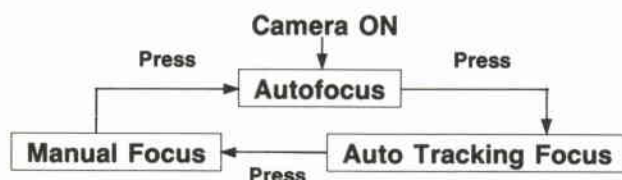
---

### Notes:

- White balance lock clears automatically when playback is activated or the camera is turned off.
- Reset white balance again if the light source changes during white balance lock.
- Use white balance lock even under normal lighting conditions to achieve a more precise colour balance.

# Focusing

The camera has three focus modes as shown below. Each time the FOCUS button is pressed, the selected mode changes as shown below.

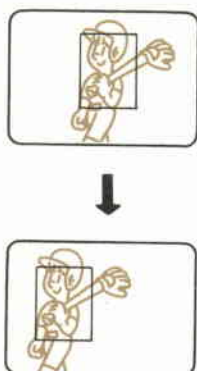


## Autofocus



When you turn the camera on, Autofocus mode is selected automatically. In Autofocus mode, the camera aligns the subject in the centre of the focus zone in the viewfinder. Autofocus is effective for a subject at least 0.6 m away from the camera.

## Auto Tracking Focus



The camera automatically keeps track of the subject in the centre of the Auto Tracking Focus zone (ATF zone) in the viewfinder. Auto Tracking Focus is effective for subjects at least 0.6 metres away from the camera.

## Manual Focus

Adjust the focusing ring to focus on the subject.

Use manual focus when you shoot subjects not suitable for autofocus.

- See page 42.

## Subjects Not Suitable for Autofocus

Autofocus may not work well in the following instances, and manual focus will probably give you better results:



Shiny subjects or subjects that reflect light



Horizontally striped subjects



More than one subject in viewfinder/  
different distances



Rapidly moving subjects



Slanted subjects



Subjects with little or no contrast (a white wall, for example)



Subjects behind glass (windows with water or dirt on them)



Dark subjects



Macro recording or when shooting using a tele-converter or wide converter



Night View

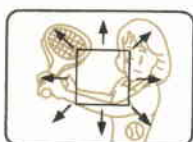
### Notes:

- Do not touch focusing ring during autofocus.
- Shooting subjects at a distance of less than 1 metre while using autofocus may result in poor picture quality. Be sure to use adequate lighting in this situation.
- Under the following conditions it will take longer for autofocusing;
  - When you are focused on a subject further than 1.2 metres, and quickly change to focus on a subject within the tele-macro range (0.6—1.2 metres).
  - When you are focused on a subject within the tele-macro range (0.6—1.2 metres), and quickly change to focus on a subject at a further distance.
  - When shooting rapidly moving subjects within the tele-macro range (0.6—1.2 metres).
- When the focused subject only occupies a small area within the autofocus zone, autofocusing may take longer. Change framing so the subject occupies a larger area within the autofocus zone.

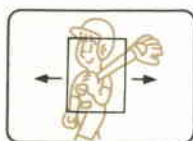
# Auto Tracking Focus

Use this function for best results when shooting a moving subject, or when you want to focus on a subject which is not in the centre of the viewfinder.

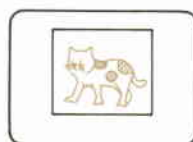
- Frame subject in the centre of autofocus zone using normal autofocus.
- Press FOCUS button and select Auto Tracking Focus mode. Auto Tracking Focus Zone (ATF zone) appears in the viewfinder. The subject with the highest contrast inside the ATF zone will be detected, and tracked so they are kept in the centre of the ATF zone. When subject has been focused properly, ATF zone will begin to flash rapidly.
- ATF zone will now follow subject's movements within the viewfinder screen.  
(This is an effective way to focus on a subject which is not in the centre of the viewfinder.)
- If subject leaves viewfinder screen, ATF zone will return to the centre of viewfinder and flash slowly.



When the focal depth of the subject is shallow, the ATF zone appears as a small box. The ATF zone can follow movements of the subject very freely.



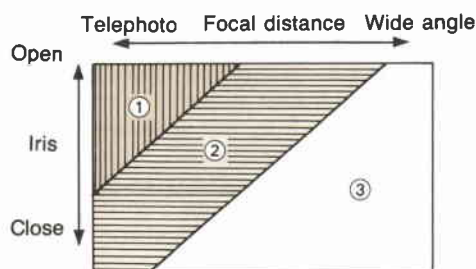
When the focal depth of the subject is of medium depth, the ATF zone appears as a medium sized box. The ATF zone can follow movements of the subject back and forth, but cannot follow movements up and down.



When the focal depth of the subject is deep, the ATF zone appears as a large box, and does not move.

- Depth of field is determined by focal distance and size of the shutter aperture.

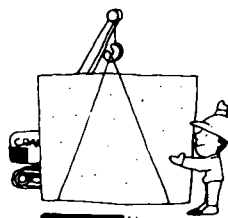
- ① **Shallow**
- ② **Medium Depth**
- ③ **Deep**



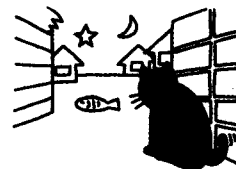
## Subjects Not Suitable for Auto Tracking Focus



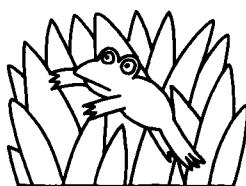
When there is an object with high contrast in the background (such as a bright, shiny object).



Subjects with little or no contrast (such as an object of the same colour).



Dark subjects



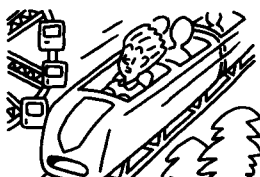
Subjects with little or no contrast to their background



Two subjects, one in front of the other at the same focal distance (especially if one subject has a stronger brightness).



Many moving subjects of roughly the same brightness in the viewfinder.



Rapidly moving subjects

### Hint:

- The camera follows the contrast of the subject; however if the subject is moving too quickly, or if the camera is moved suddenly (tilting, panning, etc.), the camera may be unable to track the subject (this tends to occur particularly when recording at close range using telephoto). When this happens, change framing to middle or wide angle then resume shooting.

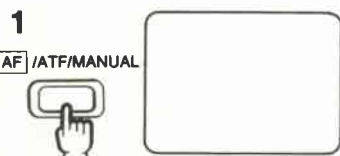
\* Zooming in on a person often causes their contrast to decrease suddenly. In such cases, reframe the subject as described above and resume shooting.

### Note:

- If the subject is not focused precisely, auto tracking focus may not track the subject correctly.

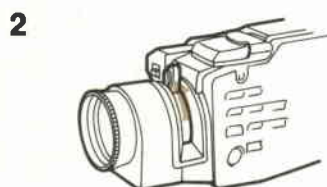
# Manual Focus

Use manual focus when you shoot subjects not suitable for autofocus.



**Press FOCUS button to select manual focus.**

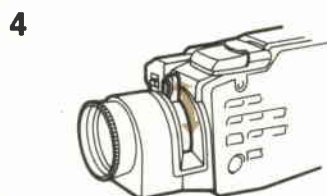
- Focus zone disappears from viewfinder.



**Rotate zooming lever to telephoto end.**



**Watch through viewfinder and rotate focusing ring to focus on subject.**



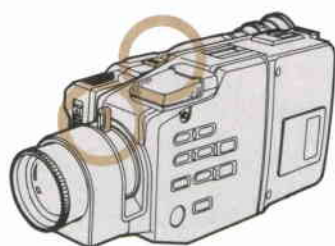
**Use zooming lever to frame subject properly.**

- Camera automatically returns to autofocus when camera is turned off or placed in playback mode.
- Press FOCUS button to stop manual focus and return to autofocus.

## Focus Lock

When the FOCUS button is pressed twice during autofocus, the subject is focused and locked, even if the subject moves to the right or left of centre. To focus on another subject, adjust with the focusing ring or press the FOCUS button again and adjust with autofocus.

# Zooming

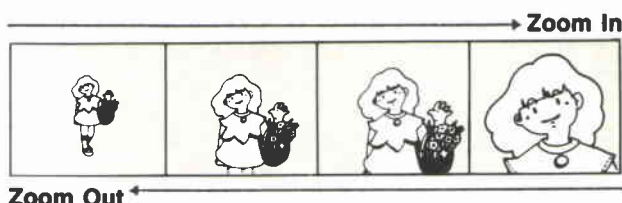


Zoom in on hard-to-catch subjects or add close-up personal touches to your recordings. Zoom out to reveal a breathtaking view. The camera has three zooming methods: power zoom, manual zoom and wireless zoom.

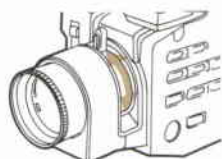


## Power Zoom

Press power zoom buttons on the grip.  
Press and hold T to gradually zoom in to telephoto.  
Press and hold W to gradually zoom out to wide angle.

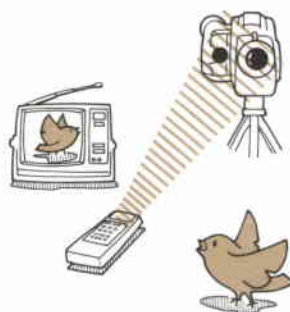


## Manual Zoom



Turn zooming lever to rotate zooming ring.

## Wireless Zoom



The wireless controller allows you to control zoom operation from a distance.

Press and hold ZOOM T button to gradually zoom in to telephoto.  
Press and hold ZOOM W button to gradually zoom out to wide angle.

- Mount camera on a tripod.
- Use a TV monitor during wireless zooming to view shots.

### Remarks:

- Even the slightest hand movement will appear in the recording when shooting in the telephoto range. Use a tripod for better results.
- Overuse of zooming may make recordings seem too busy. Selective use of zooming is more effective.

# Macro Recording



Macro recording allows you to record small subjects such as flowers and insects close-up, to full screen, and achieve extremely fine detail in your pictures.

You can approach a subject to as close as 4 mm, analyzing rich detail while enjoying a full-screen image and greater perspective.



**Press FOCUS button to select manual focus.**

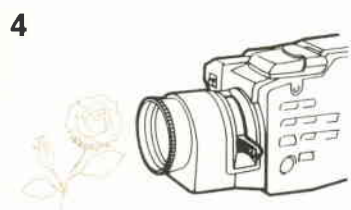
- Focus zone disappears from viewfinder.



**Rotate zooming lever to wide angle end.**

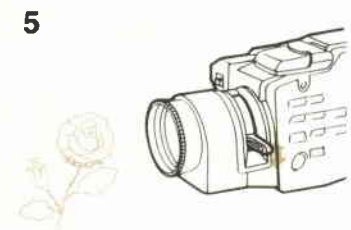


**Press and hold MACRO button on zooming lever and move lever into wide macro range.**



**Approach subject to desired size in viewfinder.**

- Be sure there is adequate lighting.
- You can approach the subject as close as 4 mm.



**Use zooming lever within macro range for fine focusing.**

- Focus within wide macro range.

## Notes:

- Move camera forward or backward slightly to change subject image size and then fine focus again.
- A tripod is recommended for better recording stability.

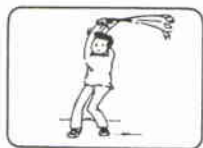


# High Speed Shutter



The high speed shutter allows you to capture sports and other fast action scenes clearly. The camera has four high speed shutter settings: 1/250th, 1/500th, 1/1000th and 1/2000th of a second. Select the correct shutter speed according to subject speed and brightness. Normal operating speed is 1/50th of a second.

1

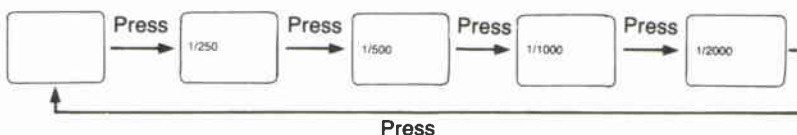


**Point camera at subject and compose scene in viewfinder.**

2



**Press SHUTTER button.**



3



**Make your recording.**

4



**Press SHUTTER button to return to normal shutter speed.**

## Notes:

- Use this function outdoors with bright light.
- Scenes shot with a high speed shutter will appear somewhat jerky during normal playback.
- A scene shot with the high speed shutter works best with special playback. Use a VTR capable of noise-free special playback for best results.
- If the camera is turned off and on again, shutter setting automatically returns to normal (1/50).

# Fade



Fade effect allows you to make scenes gradually appear or disappear in smooth transition.

## Fade In

1



Scene gradually appears from a blank white screen.

**Place camera in record pause mode.**

2



**Press and hold FADE button until scene disappears completely from viewfinder.**

3



**Press START/STOP button to start recording and then release FADE button.**

- Scene gradually fades in.

## Fade Out

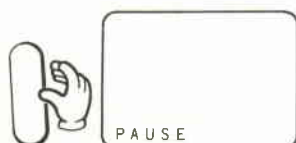
1



**Press and hold FADE button during recording.**

- Scene gradually fades out.

2



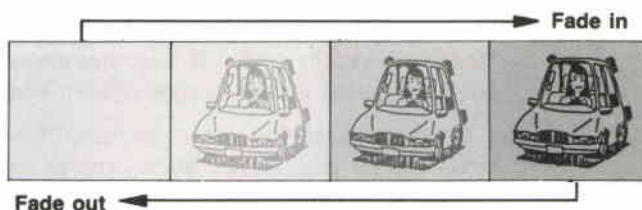
**Press START/STOP button when scene has disappeared completely.**

- Camera goes into record pause mode.

3



**Release FADE button.**



## Wireless Fade



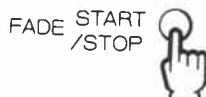
The FADE START/STOP button on the wireless controller lets you begin and end recording with a smooth fade in and fade out.

1



**Place camera in record pause mode.**

2



**Press FADE START/STOP button.**

- Scene immediately disappears, camera recording begins within 1—2 seconds, and then picture gradually fades in.

3



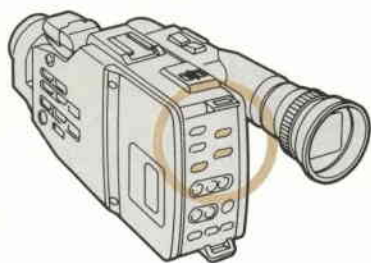
**When scene is recorded, press FADE START/STOP button again.**

- Scene gradually fades out, then camera enters record pause mode in about 5 seconds.

### Notes:

- Sound fades along with the image.
- Character and digital titles, date and time do not fade.
- Fade effects (except fade start/stop) can be used at any time during recording.

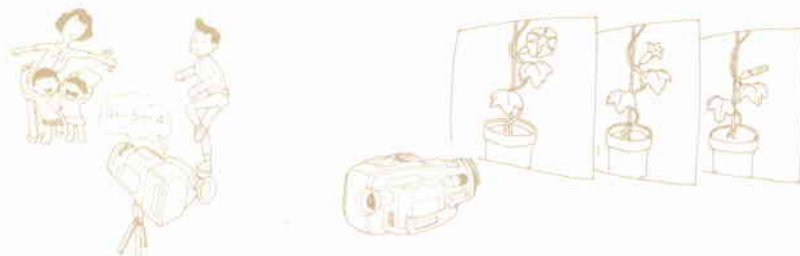
# Self and Interval Timer Recording



Set the self timer and the camera will automatically start recording after a 10-second standby period, letting you get in on the action. The camera can be set to record for 30 seconds or until you turn it off.

Interval timer sets the camera to record for about 0.5 seconds each time a fixed interval passes. This allows you to record the changes in scenes like flowers blooming, animal activities or even your own daily activities. You can choose from intervals of 10 seconds, 20 seconds or 60 seconds.

- You can record scenes without sound by removing the microphone (see p.55).

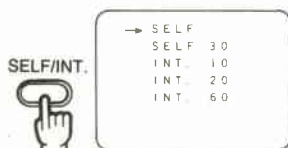


1



**Place camera in record pause mode.**

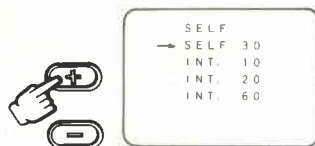
2



**Press SELF/INT. button.**

- Menu appears in viewfinder.

3



**Press + and – buttons to select desired mode.**

- + button moves the → mark down the list and – button moves the → mark up.

## Self Timer

**SELF** 10-second standby and then continuous recording

**SELF 30** 10-second standby, 30-second recording and then record pause mode

## Interval Timer

**INT.10** Recording at every 10 seconds

**INT.20** Recording at every 20 seconds

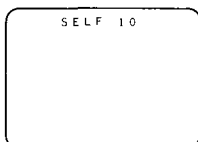
**INT.60** Recording at every 60 seconds

4



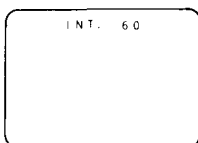
### Press START/STOP button to start recording.

- Selected mode appears in viewfinder.



#### For self timer recording:

- Countdown 10—1 appears, followed by: Continuous recording (SELF recording), or Countdown 30—1 display (SELF 30 recording).
- Tally lamp flashes slowly during standby and flashes rapidly when recording starts.
- Recording starts automatically after countdown.



#### For interval timer recording:

- After selected mode appears in viewfinder, standby and recording (about 0.5 seconds) are alternately performed.
- Tally lamp flashes slowly during interval timer recording.

5



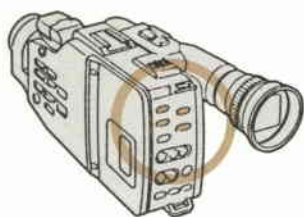
### Press START/STOP button again to stop recording.

- Camera goes into record pause mode.

#### Notes:

- Press the START/STOP button to cancel self timer recording during countdown.
- Maximum continuous recording time using a fully charged BP-E77K Battery Pack is about 40 minutes at room temperature. During interval recording, power consumption is the same whether in standby or actual recording. Hence, recording time with the battery pack will be extremely short. For best results in interval recording, use the CA-E7 Compact Power Adapter or the optional CB-E7 Car Battery Adapter.
- The camera will automatically turn off after about six hours of interval operation in order to protect camera parts from damage.
- Noise occasionally may occur at intervals.
- Use only SP mode for interval timer function.

# Add Titles to Recordings



The camera allows you to create and store character and digital titles, which can be superimposed on recordings together with the date and/or time.

## Creating Character Titles

Remember to create your title before you start recording.  
The title may be one or two lines of up to 16 characters each.


**1**



**Press OPERATE button.**

- OPERATE/CAUTION indicator lights up.

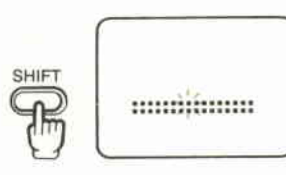
**2**



**Press SET C.TITLE/DATE button to display title lines in viewfinder.**

- A flashing dot or character indicates that the cursor is present.


**3**



**Press SHIFT button to move the cursor to position where you want to start the title.**

- Press once to move cursor one space right.
- Press and hold to move cursor continuously.
- Cursor does not move backwards.

**4**



**Use + and – buttons to scan list of title characters.**

- Press + button to scan forward through the list.
- Press – button to scan the list in reverse order.
- Press once to scan characters one at a time.
- Press and hold to scan characters quickly.

### Title Characters List

→ □ 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 Ä Ö Ü Ø Å Æ Ñ Ç È □ ←  
→ & \* ! ? ; : " ' - / . , 9 8 7 6 5 4 3 2 1 0 ←

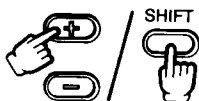
- If you select □, a flashing dot appears in the viewfinder, but a space will appear during actual recording and playback.
- Press both + and – buttons simultaneously to erase all characters at and to right of cursor.

5



**When the character you want is displayed, press SHIFT button again to move to next cursor position.**

6



**Follow steps four and five until your title is complete.**

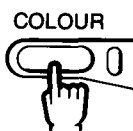
7



**When the title is finished, press SET C.TITLE/DATE button.**

- Title is saved in camera's memory.
- Press TITLE button to make title disappear from viewfinder.

8



**Press COLOUR (Character Title) button to select desired character colour.**

- Each time the COLOUR (Character Title) button is pressed, the colour display changes as shown below.

→ WHT → RED → GRN → BLU → YEL → SKY → VIO → BLK →

- When your desired colour code appears, leave the COLOUR (Character Title) button released for about three seconds to determine the colour. Then the colour code will disappear.

#### Notes:

- Because the viewfinder is black and white title changes contrast to the selected colour. If you select the same colour for titles and backgrounds, you may have troubles recognizing titles. Select bright titles for dark backgrounds and dark titles for bright backgrounds.
- Press DISPLAY (Character Title) button to make title disappear from viewfinder.
- When colour of character title is changed, the colour of auto date also changes.
- During playback all colour characters, except black and white, will have a slightly "fuzzy" edge.

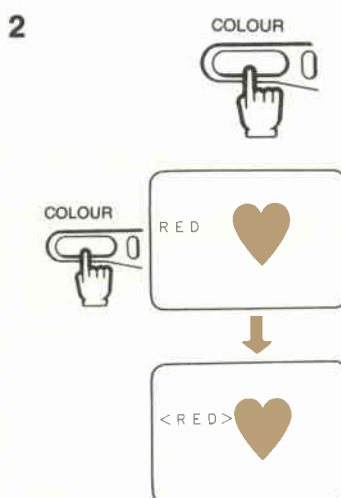
## Creating Digital Titles

Handwritten titles and illustrations can be memorized and superimposed on recordings, in a choice of 8 colours.



### Frame your image and press MEMO button.

- Everything within the frame will be memorized.
- You can adjust image density.

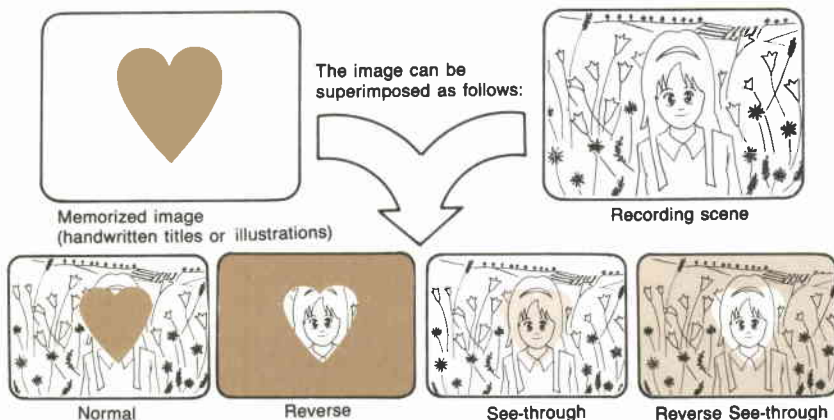


### Press COLOUR (Digital Title) button to select desired colour.

- Choose one of 8 colours in either normal mode (colour image) or reverse mode (clear image with colour background).
- Each time the COLOUR (Digital Title) button is pressed, the colour display changes as shown below.

→ WHT → RED → GRN → BLU → YEL → SKY → VIO → BLK  
 R. BLK ← R. VIO ← R. SKY ← R. YEL ← R. BLU ← R. GRN ← R. RED ← R. WHT ←

- If you press the button for more than three seconds, colour goes into “see-through” mode (the recorded scene is visible through the colour). Viewfinder display appears in brackets.
- Press COLOUR (Digital Title) button for three seconds or more to select normal mode.



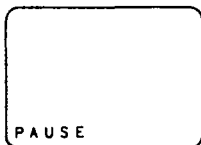
### Notes:

- Character titles can be superimposed over digital titles. If you use the same colour for character titles and digital titles, you may have troubles distinguishing titles.
- For digital titles, your image should be thick and bold, otherwise it will appear faint, especially when using light colours such as yellow or sky blue.



## Recording Titles

1



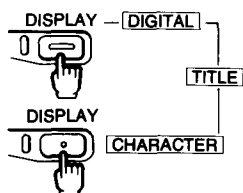
Place camera in record pause mode.

2



Press START/STOP button to start recording.

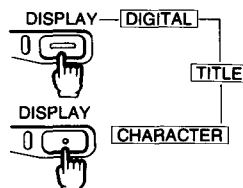
3



Press DISPLAY (Character Title) or DISPLAY (Digital Title) button.

- Press DISPLAY (Character Title) button for character title, and DISPLAY (Digital Title) button for digital title.
- Press CHARACTER TITLE button on wireless controller for character title.
- Title appears in viewfinder.
- Title will be recorded with scene.
- Reverse steps 2 and 3 if you want the title to appear right at the beginning of recording.

4



Press DISPLAY (Character Title) or DISPLAY (Digital Title) button again to end title recording.

- Title disappears from viewfinder and recording continues.

## Adjusting Image Density (Digital Title)

The camera may have difficulty memorizing images with thin lines or weak contrast. In this case, press and hold MEMO button for more than three seconds to adjust image density (16 levels). Levels change continuously as follows:

→Thinnest → 8 levels → Original Image → 8 levels → Thickest→

### Notes:

- Because the viewfinder is black and white title changes contrast to the selected colour. If you select the same colour for titles and backgrounds, you may have troubles recognizing titles. Select bright titles for dark backgrounds and dark titles for bright backgrounds.
- Titles cannot be created during recording.
- Titles cannot be created and superimposed in playback mode.
- The lithium battery allows the camera to store titles even when the camera is turned off. When you change or remove the lithium battery (lifetime is about one year), be sure to connect the camera to another power source first, otherwise title setting will be cleared from memory.
- Colour of titles can be changed during recording.

- For setting date and time, see p.16.
- Colour selection of date and time is the same as that for character title.

PAUSE

2



```

graph LR
    Start[ ] -- Press --> DateScreen["8 JUL 1990"]
    DateScreen -- Press --> Cancel1[ ]
    Cancel1 -- Press --> TimeScreen["2:35 PM"]
    TimeScreen -- Press --> Cancel2[ ]
    Cancel2 -- Press --> Start

```

The diagram illustrates the user flow for setting the date and time. It consists of five rectangular boxes representing screens, connected by arrows labeled "Press". The first box is an unlabeled start screen. An arrow labeled "Press" points from it to a second box containing "8 JUL 1990", which is labeled "date" underneath. Another arrow labeled "Press" points from the date screen to a third, unlabeled box labeled "cancel" underneath. A third arrow labeled "Press" points from the cancel box to a fourth box containing "2:35 PM", which is labeled "time" underneath. A fourth arrow labeled "Press" points from the time screen to a fifth, unlabeled box labeled "cancel" underneath. Finally, an arrow labeled "Press" points from this last cancel box back to the initial start screen. The label "date and time" is positioned below the bottom row of boxes.

3



4



- Date and/or time are recorded with scene.

- The date and time cannot be recorded in playback mode.
- When lithium battery is nearly or completely exhausted "DATE" flashes in viewfinder. Change battery (see p.13).
- When you change the lithium battery connect camera to another power source before removing the battery so that date and time settings are not cleared from memory.

# STEREO MIC & HEADPHONES Terminals

With the optional MM-200 Stereo Mixing Microphone (see p.60), you get audio mixing capability to add background music to your recordings.

## Connecting MM-200 Stereo Mixing Microphone

1



**Pull out the camera microphone.**

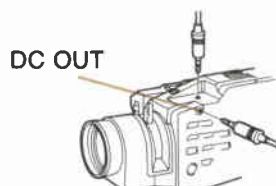
- Make sure the camera is turned off.
- Handle microphone by the base only and not by the foam tip.

2



**Attach MM-200 to accessory shoe on camera.**

3



**Insert MM-200 plug in camera STEREO MIC and DC OUT terminals.**

- For details, refer to MM-200 instructions.
- When using a commercially available microphone, be sure it is a stereo microphone.

## Connecting Headphones

Connect commercially available stereo headphones to the HEADPHONES terminal to monitor stereo sound.

- Monitoring is only possible when camera is in record or record pause mode.

## Recording Using a Tripod



Use a tripod especially in the following cases:

- Telephoto recording
- Macro recording
- Self timer recording
- Interval timer recording
- Recording during auto tracking focus
- Recording using wireless controller

### Note:

- Be sure to protect the viewfinder from direct sunlight, or melting of the viewfinder will occur.

# Editing to Another VTR

Your camera can also be used as a playback VTR to edit your recording with the help of a second VTR.

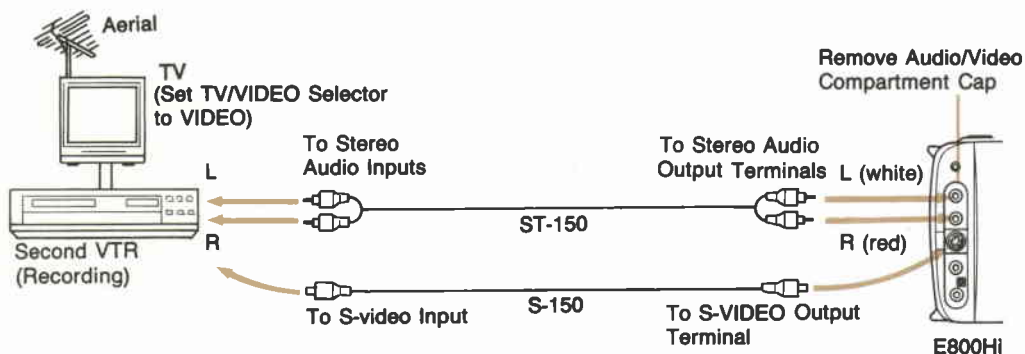
You need the CR-E7K Charge Coupler, CA-E7 Compact Power Adapter (or CB-E7 Car Battery Adapter) and optional C-150 AV Cable for connection.

- If the second VTR has a SCART terminal, use the optional PC-270 SST S-stereo SCART Cable for connection.

## Using VTR with S-video input **STEREO**

### Connection Procedure

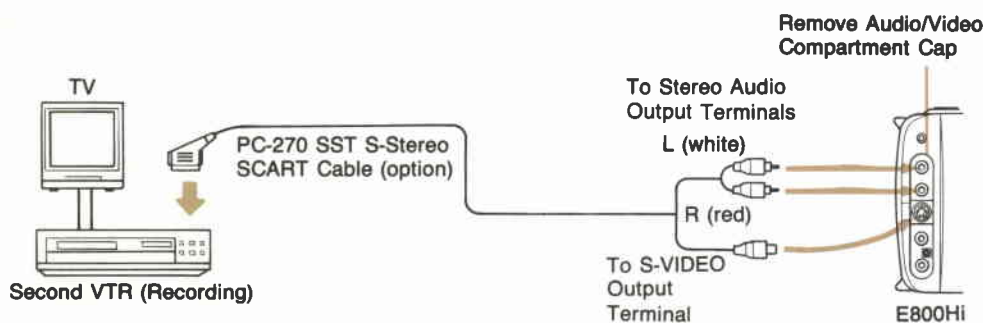
- See page 26.
- For a VTR with Audio/Video inputs, see the connection procedure on p.26.



## Using VTR with S-video compatible SCART terminal **STEREO**

### Connection Procedure

- See page 27.



## Preparations

### TV



Turn TV on and set TV to video channel or set TV/VIDEO selector to VIDEO.

### VTR



Turn on second VTR and load a recordable video cassette. See VTR instruction manual for details.

### Camera

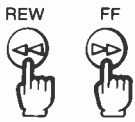


Turn camera on and load video cassette for playback. Press STOP button. Set EDIT button to ON.

- EDIT button will not operate if you haven't pressed STOP button.

## Editing Procedure

1



**Locate a point slightly ahead of editing start point on video cassette in camera.**

- EDIT button is functioned only in stop mode.

2



**Place second VTR in record pause mode.**

3



**Press camera PLAY button.**

- Check playback picture on TV screen.

4



**Release second VTR from record pause mode at editing start point.**

- Recording begins on second VTR.

5



**Press STOP buttons on camera and second VTR to end editing.**

## Remote Terminal

This terminal is provided to connect this camera to commercially available video camera recorders, video decks, or editing machines in order to perform functions such as assembly editing. The operation buttons of other manufacturers' equipment may differ from those on this camera. Refer to the other product's instruction manual for details.

## EDIT Button



To minimize loss of picture quality, press EDIT button only when camera is used as playback VTR during editing.

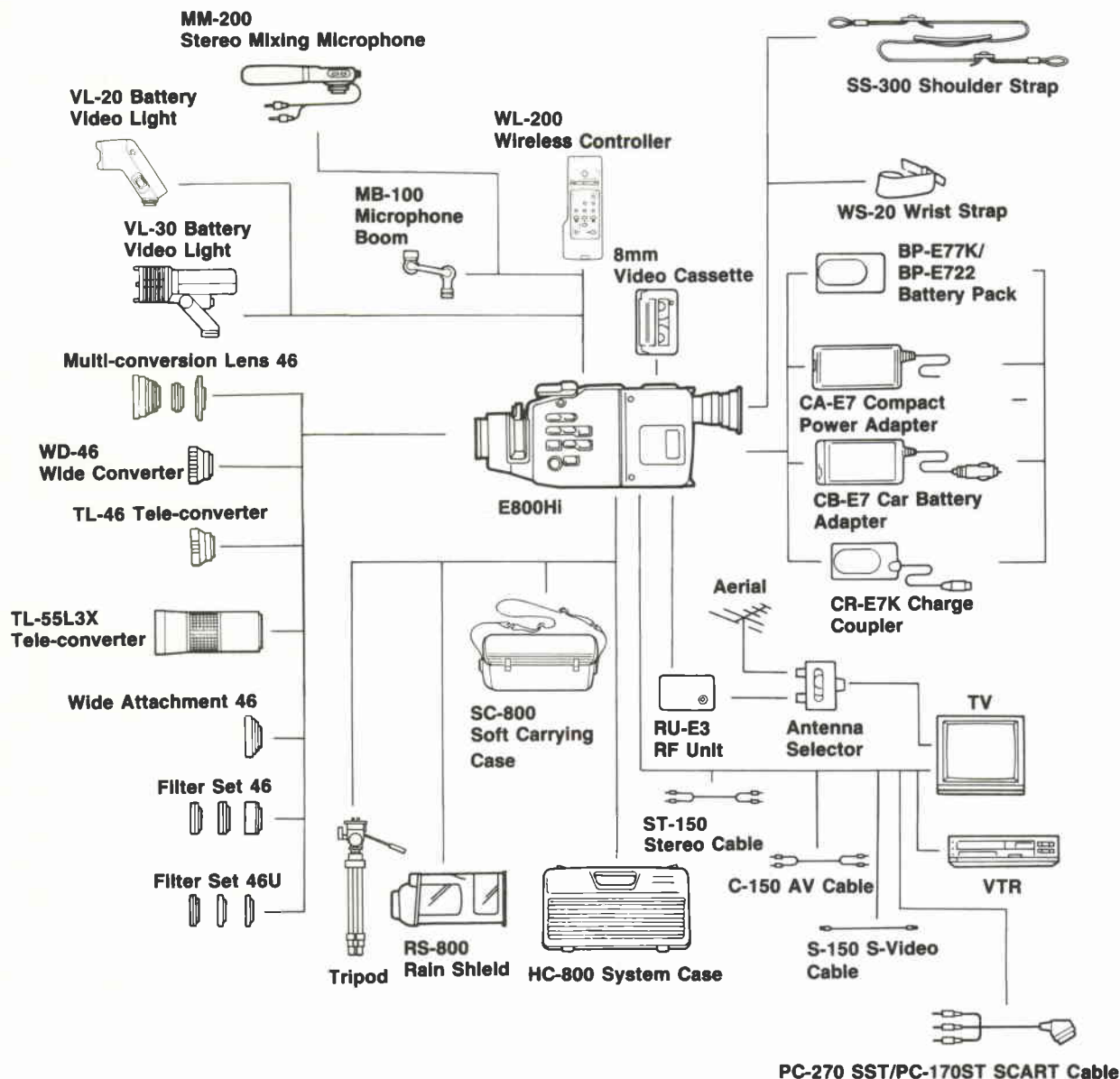
- "EDIT" should not be displayed normally.

---

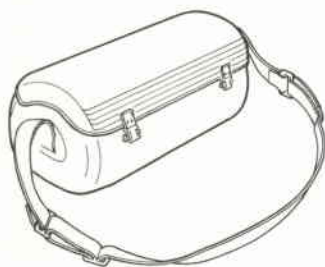
### Note:

- Both image and sound quality of edited tape will be somewhat less than that of the original.

# Canovision E800Hi Video System Chart



## SC-800 Soft Carrying Case



The optional SC-800 Soft Carrying Case provides lightweight protection for the camera.

The SC-800 can hold the following items:

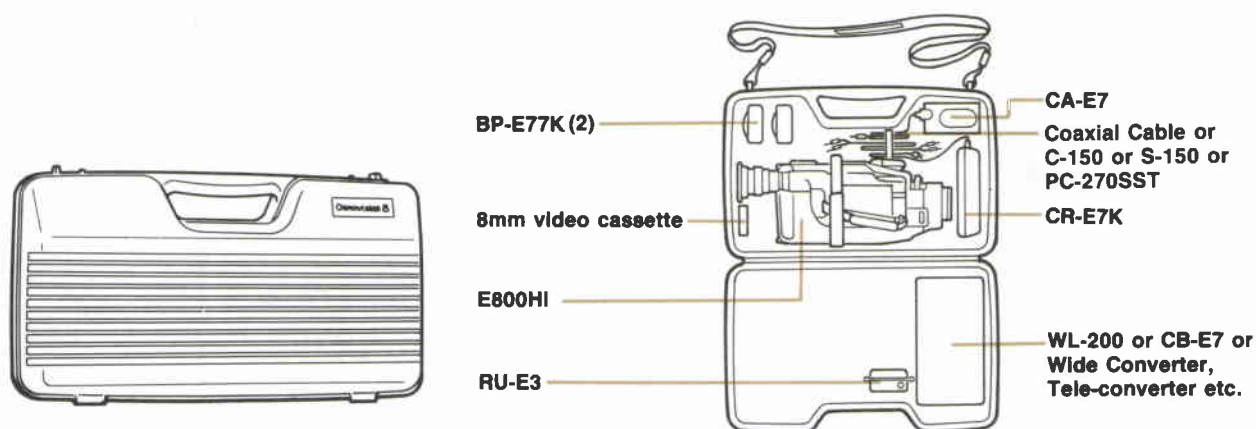
- Camera with video cassette, shoulder strap/wrist strap attached
- Two battery packs
- WL-200 Wireless Controller
- One additional 8mm video cassette

# HC-800 System Case

The optional HC-800 System Case safely stores and helps protect the camera and its accessories during transportation and storage.

## The HC-800 properly stores the following items:

- Camera with video cassette, shoulder strap/wrist strap attached
- Two battery packs
- CA-E7 Compact Power Adapter  
(or CB-E7 Car Battery Adapter)
- CR-E7K Charge Coupler
- One additional 8mm video cassette
- Coaxial cable or C-150 or S-150 or PC-270SST Cable
- RU-E3 RF Unit
- WL-200 Wireless Controller
- Wide Converter, Tele-converter etc.



## Opening the Case

Slide the latches on both sides of the case as illustrated to open.

- Open case with "UP" sticker pointing upward.



## Attaching Shoulder Strap

Attach shoulder strap to the strap attachment bars, and adjust it to the most comfortable length.



### Notes:

- Do not leave case in areas of extreme heat.
- Do not expose case to strong vibrations or shock.
- Do not place heavy objects on top of case.
- Two keys are provided with the HC-800 System Case.
- Power is slowly drained while the battery pack is attached to the camera, even when the camera is turned off. Remove the battery pack when you don't expect to use the camera for a long time.

# Optional Accessories

## CB-E7 Car Battery Adapter



For Recording Using Car Battery

Plug into cigarette lighter socket. For use only with 12 or 24V DC negative ground car battery.

## BP-E722 Battery Pack



Used for lengthy recording, its capacity is double the BP-E77K. Hold the camera with both hands when using this battery.

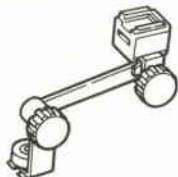
## External Microphones

### MM-200 Stereo Mixing Microphone



The optional mixing microphone lets you record background music and sound effects in stereo from a headphone stereo.

### MB-100 Microphone Boom



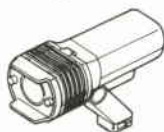
The optional microphone boom allows you to raise the microphone away from unwanted camera noise when recording at quiet locations.

### RS-800 Rain Shield



A vinyl cover to protect camera from light rain or mist.

### VL-30 Battery Video Light



The optional battery video light\* provides extra lighting for indoor shooting. Includes: VL-30 Video Light, BP-L30 Battery Pack, CHG-16 Battery Charger, WP-L30 Light Diffuser

### VL-20 Battery Video Light



This light, compact option uses the BP-E77K or BP-E722 Battery Pack and is ideal for indoor or outdoor shooting.



## Lenses and Filters

### TL-46 Tele-converter



The optional tele-converter is a magnification converter lens that increases the focal length of the camera lens by a factor of 1.4. You can use camera's zoom function with this lens attached.

### TL-55L3X Tele-converter



The optional tele-converter is a magnification converter lens that increases the focal length of the camera lens by a factor of 3.

### WD-46 Wide Converter



The optional wide converter decreases the focal length by a factor of 0.7. You can use camera's zoom function with this lens attached.

### Wide Attachment 46



The optional wide attachment decreases the focal length by a factor of approximately 0.7.

### Filter Set 46 and 46U



The optional Filter Set 46 contains three filters: multiple-image filter 5X, R-cross filter 6X and zoom-spot filter.

The optional Filter Set 46U contains three filters: UV, ND8 and circular PL.

### Multi-conversion Lens 46



Wide Attachment  
Lens



Close-up  
Lens



Attachment  
Ring

The optional multi-conversion lens set includes: a wide attachment lens, close-up lens and attachment ring.

# Problems and Trouble Shooting

Use the following checklist for trouble shooting when you have problems with your camera. Consult your local dealer or service outlet if problems persist.

Be sure all connections are properly made when using the camera with other units.

Problem	Cause	Remedy
Camera does not turn on.	Battery pack charge is low.	Replace with fully charged battery pack.
Camera turns off during operation (using battery pack)	Battery pack charge is low.	Replace with fully charged battery pack.
	Record pause mode has lasted for more than seven minutes.	Turn camera on again.
Video cassette compartment does not open.	Battery pack charge is low.	Replace with fully charged battery pack.
	Battery pack is not properly attached to the camera.	Attach battery pack securely to the camera (see p.10)
Camera does not function when an operation button is pressed.	Camera is turned off.	Turn camera on.
	Video cassette is not loaded.	Load a video cassette.
OPERATE/CAUTION indicator flashes, "BATT" flashes in viewfinder.	Battery pack charge is low.	Replace with fully charged battery pack.
OPERATE/CAUTION indicator flashes, "DEW" flashes in viewfinder.	Condensation (Dew) has formed inside unit.	Refer to Condensation (p.64).
OPERATE/CAUTION indicator flashes, "EJECT" flashes in viewfinder.	Safety mechanism is activated.	Unload and reload video cassette.
"DATE" flashes in viewfinder.	Lithium battery not in place properly or charge is low.	Insert new lithium battery (see p.13).
START/STOP button is pressed, but recording does not start.	Camera is turned off.	Turn camera on.
	Video cassette not loaded.	Load a video cassette.
	Tape has ended ("T. END" appears in viewfinder).	Rewind tape or use another video cassette.
	Erase prevention switch on the video cassette is set to prevent recording ("TAPE" flashes in viewfinder)	Use another video cassette or set switch to enable recording (see p.23).
No picture appears in viewfinder.	Camera is in stop mode.	Press REC button.
	Lens cap is attached.	Remove lens cap.

## Note:

This equipment contains a microprocessor. If external noise or interference occurs, random letters may appear in the viewfinder or normal operation may be interrupted. In this case, remove power source (and if necessary, remove the lithium battery) and then replace in the unit again.

Problem	Cause	Remedy
Cannot adjust focus.	Zooming lever is in macro range.	Move zooming lever into normal focusing range.
	Viewfinder diopter not properly adjusted.	Turn diopter adjustment ring until viewfinder display becomes clear (see p.18).
	Autofocus window is obscured.	Remove obstacle from autofocus window.
Playback doesn't start when PLAY button is pressed.	Camera is in record pause mode.	Press STOP button.
	Camera is turned off.	Turn camera on.
	Video cassette not loaded.	Load a video cassette.
	Tape has ended ("T. END" appears in viewfinder)	Rewind tape or use another video cassette.
Tape is moving, but no picture appears on TV monitor.	For TV without audio/video inputs: Video channel not set properly on both TV and RF Unit.	Set TV and RF Unit to appropriate video channel.
	For TV with audio/video inputs: TV/VIDEO selector on TV not set to VIDEO.	Set TV/VIDEO selector to VIDEO.

#### Explanation:



#### Smear

A luminous bar appears vertically on the screen where an excessively bright scene was recorded.

Smear is caused when:

- Illuminating search lights are directly recorded.
- Burning candles on a cake are recorded directly.
- Objects reflecting light, such as car bodies and traffic signs, are recorded directly.



#### Poor playback picture on TV monitor

Loss in video playback picture quality such as blurring, distortion or noise usually means that the video heads have become dirty. Use the optional Canon 8mm Video Head Cleaning Cassette CC-8 included in the Canon 8mm Video Cleaning Kit CK-E1. See CC-8 instruction manual for details.

# Condensation (DEW)

## What is condensation?

Condensation or dew means tiny droplets of water that occasionally form on the camera surface when it is moved from a cold place to a warm place. Using the camera when dew is present may damage both tape and camera.

## Preventing condensation

Remove video cassette and place the camera in a plastic bag prior to bringing it into a warm area where condensation is likely to occur. Wait until the camera reaches room temperature before removing it from the bag.

## When condensation is detected



When condensation is detected in the camera, the OPERATE/CAUTION indicator flashes, "DEW" flashes in the viewfinder, and the tape automatically stops. Immediately remove video cassette, leave video cassette compartment open and turn camera off. Leave the camera in a dry place until condensation evaporates.

- Sometimes "DEW" may not appear in the viewfinder until 10-15 minutes after dew has formed.

## To start using camera again

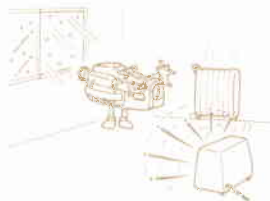
When "DEW" and the OPERATE/CAUTION indicator no longer flash when the camera is turned on, wait at least one more hour before attempting operation. The time required for condensation to clear varies with surrounding conditions; it can be as long as one hour.

### Condensation is likely to occur when:

- Camera is brought from a cold place to a warm place.



- A cold room is heated rapidly.



- Camera is placed in a humid room.



- Camera is taken from an air-conditioned room to a warm and humid place.



# Specifications

## E800Hi

<b>Power supply (rated):</b>	6 V DC
<b>Power consumption:</b>	8.0 W
<b>Television system:</b>	CCIR standard (625 lines, 50 fields) PAL colour signal
<b>Video recording system:</b>	2 rotary heads, helical scanning system Luminance signal: FM azimuth recording Colour signal: Converted subcarrier phase shift recording (8mm video standard)
<b>Audio recording system:</b>	Frequency multiplexing with the video signal by 2 rotary heads (2 channels)
<b>Image sensor:</b>	1/2-inch CCD (Charge Coupled Device)
<b>Tape format:</b>	8mm, metal evaporated/metal particle
<b>Tape speed:</b>	20.051 mm/s (SP) 10.026 mm/s (LP)
<b>Maximum recording time:</b>	3 hours with P5-90 video cassette in LP mode
<b>Lens:</b>	f/1.4, 8X power zoom, 8.5—68 mm focal length, macro (wide/tele)
<b>Focusing system:</b>	TTL autofocus, manual focusing possible
<b>Minimum focusing distance:</b>	0.6 m with AF macro, or 4 mm in wide macro
<b>Minimum illumination:</b>	5 lux
<b>Filter diameter:</b>	46 mm
<b>Electronic viewfinder:</b>	0.7-inch monochrome CRT
<b>Microphone:</b>	Stereo electret condenser microphone
<b>Input level:</b>	Audio: -64 dBV/600 ohms unbalanced (external mic)
<b>Output level:</b>	Video: 1 Vp-p/75 ohms, unbalanced (video output terminal), 1 Vp-p (Y signal)/0.286 Vp-p (C signal) (S-video output); Audio: -10 dBV/less than 3 kohms, unbalanced (audio output terminal/stereo audio outputs)
<b>Dimensions:</b>	115 × 295 × 123 mm
<b>(Width × Depth × Height)</b>	
<b>Weight:</b>	1.2 kg without battery pack

## RF Unit RU-E3

### European model

Power source:	5V DC
Power consumption:	40 mA (max.)
RF output:	30 — 39 selectable
Dimensions (W × D × H):	48 × 56 × 33.5 mm
Weight:	60g

### Australian model

Power source:	5V DC
Power consumption:	30 mA (max.)
RF output:	0CH/1CH selectable
Dimensions (W × D × H):	48 × 56 × 33.5 mm
Weight:	55g

Weight and dimensions are approximate.  
Errors and omissions excepted.  
Subject to change without notice.

# Canon

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