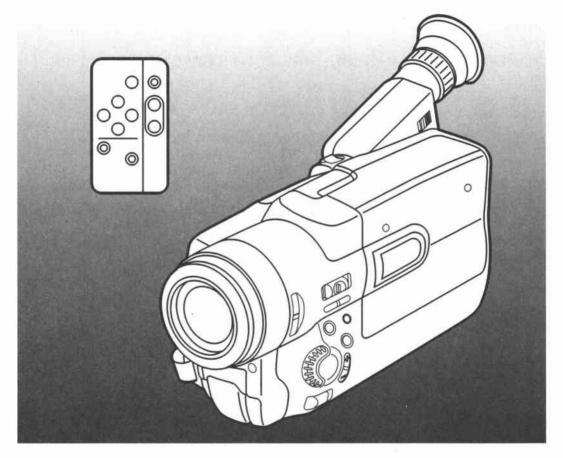
# 8mm VIDEO CAMCORDER Instruction Manual



Ca11011 UC1000 E (PAL) 8

# **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 PRODUCT TO RAIN OR MOISTURE.

## **CAUTION:**

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

#### **CAUTION:**

CUSTOMERS IN THE U.K. SHOULD READ THIS BEFORE USING THIS PRODUCT.

#### **CHANGING THE FUSE**

THE MAINS LEAD ON THIS PRODUCT IS FITTED WITH A NON-REWIREABLE (MOULDED) PLUG, INCORPORATING A 3 AMP FUSE. SHOULD THE FUSE NEED TO BE REPLACED AN ASTA OR BSI APPROVED BS1632 FUSE OF THE SAME RATING MUST BE USED.

ALWAYS REFIT THE FUSE COVER AFTER REPLACING THE FUSE. NEVER USE THE PLUG WITH THE FUSE COVER OMITTED.

#### **CHANGING THE PLUG**

IF THE FITTED PLUG IS NOT SUITABLE FOR YOUR SOCKET OUTLETS, IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED IN ITS PLACE. IF POSSIBLE FIT AN APPROPRIATE 3 AMP FUSE. IF THE NEW PLUG HAS NO FUSE, THEN FIT A 5 AMP FUSE AT THE DISTRIBUTION BOARD.

#### AC POWER CORD CONNECTION (CA-R300B only)

The wires in the mains lead of this apparatus are coloured in accordance with the following cord. (IMPORTANT)



As the colours of the wires in the mains lead may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows: The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured black. The wire which is marked with the letter L or coloured red. Neither Blue wire or Brown wire is to be connected to the Earth pin of a 3 pin plug.

THE SEVERED PLUG MUST BE DESTROYED IMMEDIATELY TO AVOID ANY POSSIBLE ELECTRIC SHOCK HAZARD.

# Thank you for choosing a Canon

First, we'd like to thank you for buying this Canon camcorder. Its advanced technology makes it very easy to use — you will soon be making high-quality home videos which will give you pleasure for years to come.

To get the most out of your new camcorder, you should read this manual thoroughly — there are many sophisticated features which will add to your recording enjoyment.

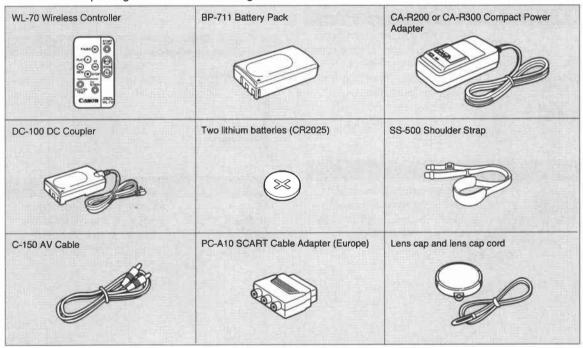
To get started, you will need to read these sections:

- "Basic Recording"
- "Power Sources"
- "Cassettes"
- "Preparing the Camera"

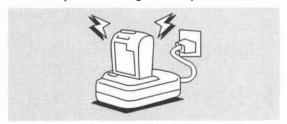
Then you can go on to find out about the more advanced features.

As well as using the alphabetical index, you can look up the different parts and functions in the sections called "Nomenclature" and "Viewfinder Displays." There's also a "Troubleshooting" section in case you run into any problems.

Check that this package contains the following accessories:



And while you are finding out how your camcorder works, remember:



The battery pack must be charged before it can power the camcorder.



If you leave the camera in record pause mode for more than about five minutes, it will turn itself off to prevent the video heads being damaged.

# **Introducing the UC1000**

## **Fully automatic**



Just turn the camera on and start shooting. Autofocus. auto exposure and auto white balance are activated immediately, leaving you free to concentrate on the action.

## 12× zoom



From wide-angle to 12× telephoto — the UC1000 makes it easy to get just the shot you want. Convenient viewfinder graphics keep you informed of the zoom position.

## **Exposure control**



The UC1000 puts advanced recording techniques at your fingertips with four auto exposure programs, designed for a variety of shooting situations.

#### Fade



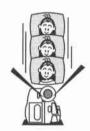
Add an atmospheric touch to your video productions with smooth fades, synchronised with the soundtrack.

## Remote control



The supplied wireless controller operates both recording and playback from as far away as 5 metres (16

## Easy editing



Record search and review let you check your recordings in the viewfinder. With the insert edit function, you can easily add extra scenes. You'll be able to produce smoothly edited recordings before the tape even leaves the camera.

## Date and time recording



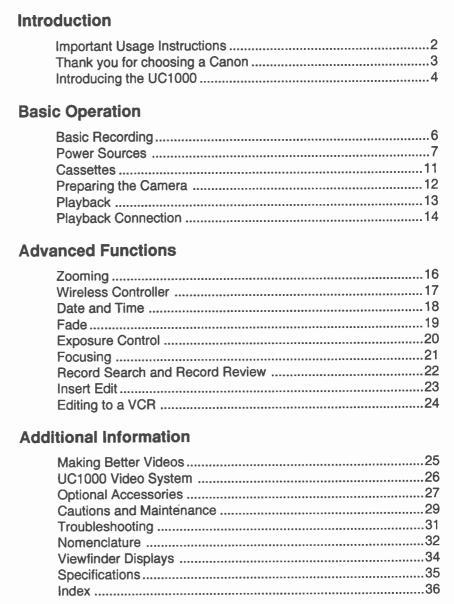
A choice of three date and time displays makes it easy to identify every scene you tape.

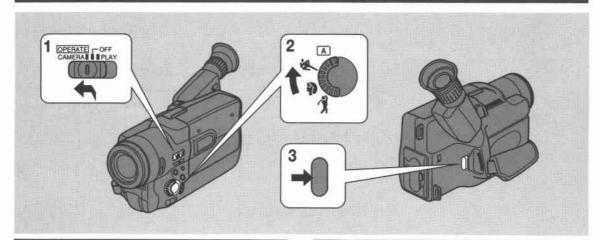
## Auto and manual focus



As well as full-range macro autofocus, the UC1000 also offers you the option of manual focusing, for added creative control.







## Before you start recording

Complete the following steps:

- Attach a power source (p. 7).
- · Load a cassette (p. 11).
- Adjust the viewfinder, fasten the grip belt and take off the lens cap (p. 12).

You may also want to install the backup battery (p. 10) in order to set the date and time display (p. 18).

## To record

#### Set the OPERATE switch to CAMERA.

- PAUSE appears in the viewfinder the camera is now in "record pause mode."
- 2. Turn the exposure program selector to

# 3. Press the start/stop button to begin recording.

 The tally lamp lights up and REC appears in the viewfinder.

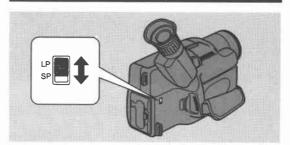
# 4. Press the start/stop button again to pause recording.

- The camera returns to record pause mode and PAUSE reappears in the viewfinder.
- You can stop and restart recording as often as you like by pressing the start/stop button.
- The camera will turn itself off if you leave it in record pause mode for more than about five minutes. To return to record pause mode, press the start/stop button, or set the OPERATE switch to OFF and then back to CAMERA.

## When you have finished recording

- · Replace the lens cap.
- · Unload the cassette.
- · Set the OPERATE switch to OFF.
- · Disconnect the power source.

## Selecting the tape speed



You have a choice of two recording speeds:

- · Standard Play (SP) for maximum quality
- · Long Play (LP) for double recording time

You can change the tape speed using the SP/LP switch (SP or LP is displayed in the viewfinder). You should change tape speed in record pause mode, as changing during recording will cause noise on the tape.

During playback, this switch is used as the EDIT ON/OFF switch, and it should normally be set to OFF. The camera automatically selects the appropriate speed for playback.

#### Note:

 You can show or hide the viewfinder displays using the ON-SCREEN button (see p. 34). Before operating your camera, you will need to use your power adapter to:

provide power from a mains outlet or charge a battery pack

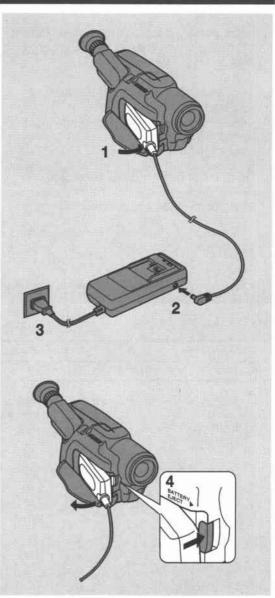
#### Notes:

- The power adapter converts current from a household power outlet (100–240 V AC, 50–60 Hz) to the DC current used by your camera.
- If the adapter is used next to a TV, it may cause the TV to emit noise — move the adapter away from the TV or the aerial cable.

## Connecting the camera to a mains outlet

Use the power adapter and the DC coupler to provide your camera with instant power from a mains outlet.

- 1. Insert the DC coupler in the camera's power source compartment.
  - Insert the rear end first, then press in the DC coupler until it clicks and locks into place.
- 2. Connect the DC coupler to the adapter.
- 3. Plug the adapter into a mains outlet.
- 4. Detach the DC coupler after use.
  - Press and hold the BATT EJECT lever while you pull the DC coupler outwards from the front.
  - Always turn the camera off before removing the power source.



## Charging and attaching the battery pack

You will have to charge the battery pack before you can use it. A brand new battery pack must be charged twice before use.

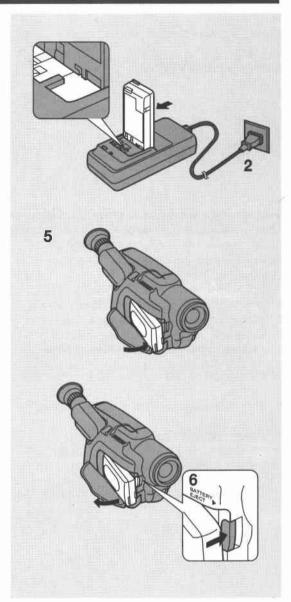
- Slide the battery pack onto the adapter as shown.
  - Make sure the DC coupler is not connected.
- 2. Plug the adapter into a mains outlet.
  - The CHARGE/REFRESH indicator flashes red to show that charging is in progress.
- 3. Wait until the battery pack is fully charged.
  - The indicator glows steadily red when the battery pack is fully charged.
- 4. If the battery pack is brand new, take it off the adapter, then slide it on again and charge it one more time.
- 5. Take the battery pack off the adapter and attach it to the camera.
  - Insert the end marked with a triangle first, then press in the battery pack until it clicks and locks into place.
- 6. Detach the battery pack after use.
  - Press and hold the BATT EJECT lever while you pull the battery pack outwards from the front.
  - Always turn the camera off before removing the power source.

## Charging and recording times

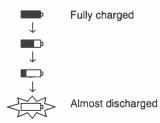
#### **BP-711 Battery Pack**

Charging time	70 minutes
Continuous recording time	45 minutes

 These times vary — the safest policy is always to have two or three times as many battery packs as you think you will need.



## How much power is left?



The indicator in the viewfinder shows you approximately how much charge the battery pack has left.

## **Battery pack notes**



## Charge the battery pack before you use it...

- You should charge a brand new battery pack twice before using it for the first time — a single charge may not be enough. Charge it completely (until the adapter's charge indicator glows steadily), then disconnect it and charge it again. Normally you should not "double charge" the battery pack in this way.
- The battery pack will naturally discharge itself over time. You should charge it the same day you plan to use it, or the day before.
- The battery pack becomes warm during use (and during charging). Wait for it to cool before charging or using it again.
- · See the adapter instructions for details.

## ...save power while you are recording...

- You will get more recording time from your battery pack if you turn the camera off between shots, instead of leaving it in record pause mode.
- Recording time will be shorter than usual at low temperatures. You can use the battery pack between 0° and 40°C (32°-104°F), but it works best between 10° and 30°C (50°-86°F).

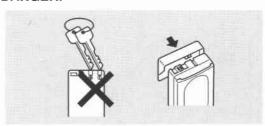
# ...and don't recharge it until it is exhausted.

 The camera flashes a warning when the charge has almost run out. After a few more minutes' use, the camera turns off automatically. You can now either recharge or store the battery pack.

# Disconnect the battery pack when you are not using it.

 Even when it is turned off, the camera will continue to slowly drain power from the battery pack. This means the battery pack will be discharged beyond the normal level if you leave it attached for a long time.

#### DANGER!



## Always attach the terminal cover.

 Do not allow any metal objects to touch the terminals. The battery pack contains a great deal of energy and short-circuiting it may cause a fire. Attach the terminal cover whenever you are not using the battery pack.

## Treat the battery pack with care.

- · Keep it away from fire (or it might explode).
- . Do not try to disassemble or modify it.
- · Do not drop or knock it.
- · Do not get it wet.

## Keep the terminals clean.

 The camera, adapter or battery pack will not work properly if the terminals are dirty. Check them before use, and wipe them with a dry cloth or tissue if necessary.

# Remember, it may start to give you less recording time...

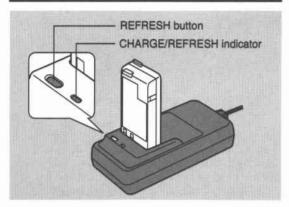
- If you recharge it without first completely discharging it.
- If you leave it attached to the camera (or a video light) for more than a week.
- · If you don't use it for three months or more.

#### ...but you should be able to "refresh" it.

- The power adapter has a refresher function which restores battery packs to full capacity (see p. 10).
- If this does not improve the battery pack's performance, it has reached the end of its life and must be replaced.

10

## Refreshing the battery pack



If the battery pack starts to give less recording time, use the adapter's refresher function to restore it to full capacity. The adapter will first discharge the battery pack, and then recharge it.

- 1. Attach the battery pack to the adapter and plug It into a mains outlet.
  - See p. 8.
- 2. Press the REFRESH button.
  - The CHARGE/REFRESH indicator flashes green to show that discharging is in progress.
     When the battery pack is discharged, the indicator begins to flash red and recharging begins.
- 3. Remove the battery pack when discharging/recharging has finished.
  - The indicator glows steadily red when recharging is completed.
  - If you only want to discharge the battery pack, there is no need to plug in the adapter. In this case, you can remove the battery pack when the CHARGE/REFRESH indicator stops flashing green.

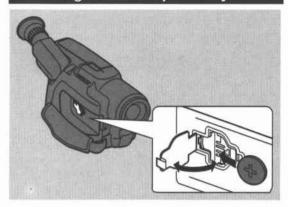
## Discharge and recharge times

#### **BP-711 Battery Pack**

Discharge	4 hr.
Recharge	1 hr. 10 min.
Total refresh charge	5 hr. 10 min.

These times are approximate.

## Installing the backup battery



You need to install the backup battery so the camera can remember the date and time. Its memory is powered by a CR2025 lithium battery with a life span of about a year.

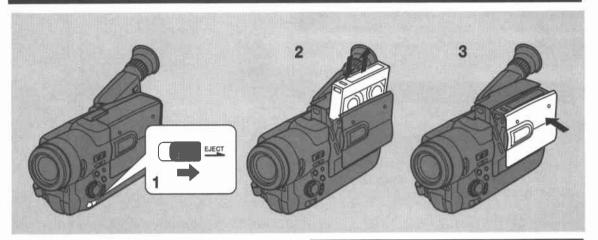
- 1. Open the cover of the backup battery compartment.
- Place the new battery in the compartment with the + side facing outwards.
  - Do not pick up the battery using tweezers or other metal tools — this will cause a short circuit.
  - Wipe the battery with a clean, dry cloth to ensure proper contact.
- 3. Click the cover back into place.
- 4. Reset the date and time.
  - See p. 18.

#### **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 (212°F) or incinerate. Replace the battery with a Panasonic CR2025, Sanyo CR2025, Sony 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 for safe disposal.

#### Cautions:

- Keep the battery out of reach of children if it is swallowed, contact a physician immediately.
- Do not disassemble, heat, or immerse the battery in water, to avoid the risk of explosion.



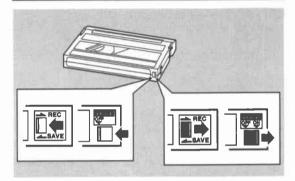
Use video cassettes with the 18 mark.

## Loading and unloading

Cassettes can be loaded and unloaded with the camera turned off, as long as a power source is attached.

- 1. Slide the EJECT switch and walt for the cassette compartment to open.
- 2. Load/unload the cassette.
  - Insert the cassette gently with the window facing out.
  - Remove the cassette by pulling it straight out.
- 3. Press the PUSH mark on the compartment until it clicks, and wait for it to close.
  - · Never push down the top of the compartment.

## Preventing accidental erasure



To protect your recordings from accidental erasure, slide the red switch on the cassette so that it covers the hole. (This switch position is usually labelled SAVE or ERASE OFF.)

When this cassette is loaded, TAPE will flash in the viewfinder if you set the OPERATE switch to CAMERA.

If you want to record on the cassette again, slide the red switch back so the hole is open. (This position is usually labelled REC or ERASE ON.)

- For best results, you should not use Hi8 tapes with this camera.
- Do not interfere with the compartment while it is opening or closing automatically.
- After loading a cassette, use record search (p. 22) to find the point where you want to start recording.
- Do not leave the cassette in the camera after use

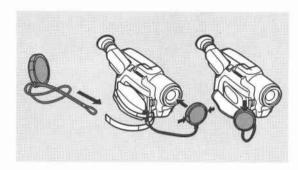
   return it to its case and store it in a cool, clean, dry place.
- The holes in the back of the cassette are used for transferring information — do not cover them.

# **Preparing the Camera**

You should already have attached a power source to the camera and loaded a cassette. When you have completed the following steps, you will be ready to start recording.

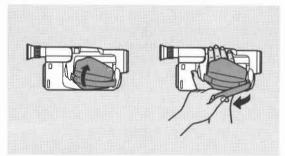
## Prepare the lens cap

- Attach the cord to the eyelet on the lens cap, as shown.
- Pass the end of the grip belt through the loop on the other end of the cord.
- Hook the lens cap onto the grip belt while you are recording, and place it over the lens when you have finished.



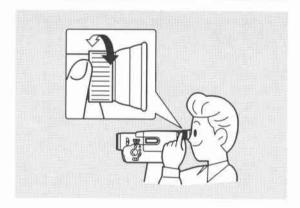
## Fasten the grip belt

 Release the Velcro fastening and hold the camera with your right hand while you adjust the belt with your left.



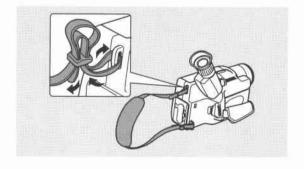
## Adjust the viewfinder

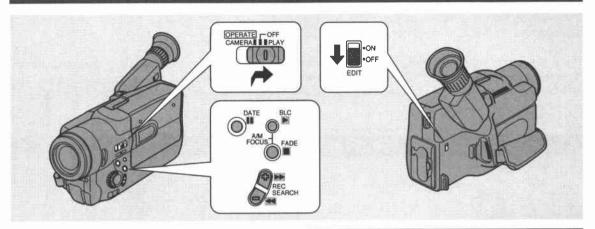
- Turn the camera on by setting the OPERATE switch to CAMERA.
- Make sure the viewfinder displays are visible. If they are hidden, press the ON-SCREEN button (see p. 32).
- Adjust the viewfinder to suit your eyesight by turning the viewfinder focusing ring until the viewfinder displays are clearly focused.
- The viewfinder rotates through 90° to give a choice of shooting positions.



## Attach the shoulder strap

- For extra security and portability, attach the shoulder strap before using the camera.
- Pass the ends through the attachment bars and adjust the length as shown.





You can use the viewfinder screen for instant, onthe-spot playback.

To play back your recordings on a TV, see p. 14. To use the wireless controller, see p. 17.

# 1. Attach a power source and set the OPERATE switch to PLAY.

# 2. Make sure the EDIT ON/OFF switch is set to OFF.

 This switch only controls tape speed during recording.

#### 3. Load the cassette.

#### 4. Press the ▶ button to start playback.

- To end playback, press the button.
- To wind the tape forwards, stop playback and press the ►► button.
- To wind the tape backwards, stop playback and press the ◀◀ button.

## Special playback

## Still playback

Press the ■ button. To resume normal playback, press it again, or press the button.

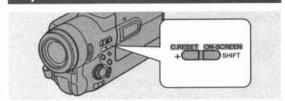
## Fast forward playback

Press and hold the **>>** button during normal playback or normal fast forward.

#### Rewind playback

Press and hold the ◀◀ button during normal playback or normal rewind.

## Tape return



Tape return allows you to return quickly to a scene you want to see again.

# 1. Press the C. RESET button at the beginning of the scene which you want to watch again later.

- The tape counter is reset to 0:00:00.
- If the counter is hidden, press the ON-SCREEN button to see it.

# 2. When you have ended playback, press the ON-SCREEN button.

 Make sure that MEM is flashing in the viewfinder.

#### 3. Press the ◀◀ button.

- The tape rewinds, and stops when the counter nears 0:00:00.
- You can also use the button, when you need to fast-forward the tape to 0:00:00 instead of rewinding it.
- You can cancel tape return by pressing the button.

#### 4. Start playback.

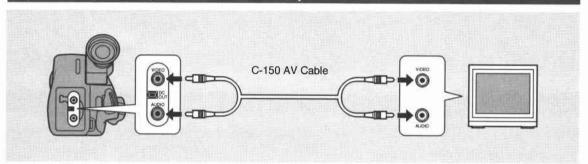
- Viewfinder displays are not shown during special playback. Noise bars appear on the screen and the soundtrack cannot be heard. The picture may not be displayed properly on certain TVs.
- During still playback, the picture flickers, and fast action scenes may appear blurred.
- The tape counter will stop counting during any blank sections on the tape.

## **Playback Connection**

You can connect the camera to a TV or VCR in order to play back your recordings. You will need to attach a power source to the camera (see p. 7).

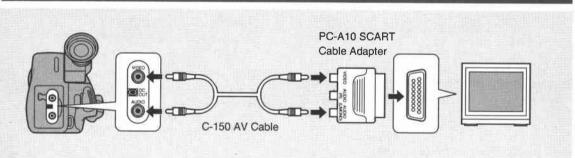
If you are going to use the TV as a monitor while you are shooting, remember to keep the TV volume turned down as long as the camera's AUDIO terminal is connected. If the sound from the TV speaker is picked up by the microphone, an unpleasant high-pitched squeal, called feedback, may be produced.

## If your TV (or VCR) has audio/video input terminals



- Connect the camera to the TV (or VCR).
  - Use the C-150 AV Cable. Connect the black or white plug to the white AUDIO terminal.
     Connect the yellow plug to the yellow VIDEO terminal.
- 2. Set the TV/VIDEO selector on the television to VIDEO.
- 3. If you are connecting the camera to a VCR, set the input selector on the VCR to LINE.
  - See your VCR instruction manual for details.

## If your TV (or VCR) has a SCART terminal



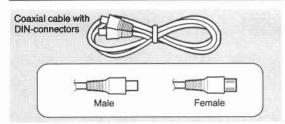
- Connect the PC-A10 SCART cable adapter to the TV or VCR's SCART terminal.
- 2. Connect the camera to the adapter.
  - Use the C-150 AV Cable. Connect the black or white plug to the white AUDIO terminal.
     Connect the yellow plug to the yellow VIDEO terminal.
- 3. If you are connecting the camera to a VCR, set the input selector on the VCR to LINE.
  - · See your VCR instruction manual for details.

## If your TV does not have audio/ video terminals

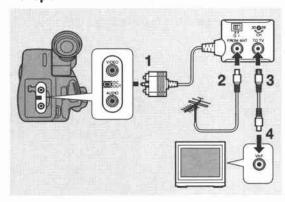
If your TV is already hooked up to a VCR, you can connect the camera to the VCR instead of the TV. Follow the instructions on p. 14.

To connect the camera directly to a TV which does not have audio/video terminals, you will need to use the optional RU-100 RF Unit. There are two different models, one for Australia, and one for Europe and other areas.

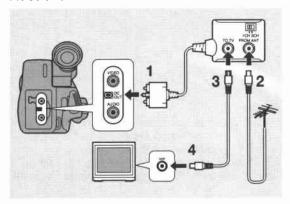
## Connecting the RF unit



## European model



#### Australian model



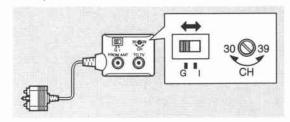
- 1. Connect the RF unit to the camera.
- 2. Connect the aerial cable to the FROM ANT. terminal on the RF unit.

- Connect the "female" DIN-connector on the coaxial cable to the TO TV terminal on the RF unit.
- 4. Connect the "male" connector to the aerial input on the TV.
- 5. Turn the TV on, and start playback on the camera.
  - · See p. 13 for playback.
- Set both the TV and the RF unit to the video channel.

## Selecting the video channel

The video channel is the channel which is not used by a broadcasting station in your area and can be used for cassette playback.

## **European model**



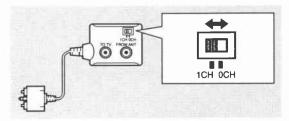
First set the G/I selector on the RF unit.

- In continental Europe, set it to G.
- In the UK, Hong Kong and South Africa, set it to I. If it is not set properly, you will be able to see the picture, but not hear the sound.

Next, set the TV and the CH selector on the RF unit to the video channel.

The selector is factory-set to channel 32. Adjust it by turning until the picture is clear.

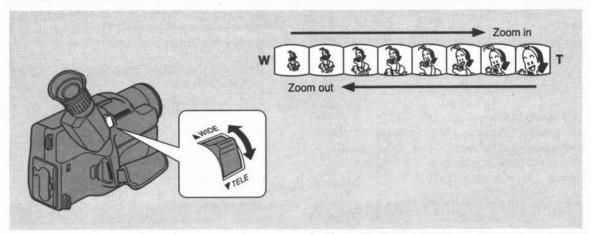
#### Australian model



Set the TV and the RF unit to channel 0 or 1.

#### Note:

 Turn the camera off or disconnect it from the RF unit when you want to watch a broadcast programme. If you leave the camera connected and turned on, the RF unit will automatically select the camera signal instead of the broadcast signal.



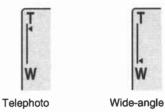
The camera's 12x zoom lens allows you to choose the best picture angle for each scene:

- Turn it towards ▼ TELE to zoom in to telephoto.

You can also use the ZOOM buttons on the wireless controller:

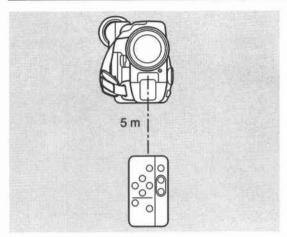
- · Press WIDE to zoom out to wide-angle.
- · Press TELE to zoom in to telephoto.

## Viewfinder display



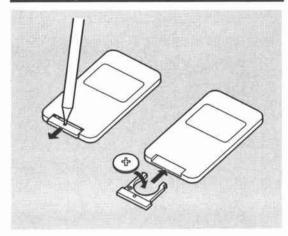
The display appears in the viewfinder when you use the zoom.

- Overuse of the zoom may make recordings seem too busy. It is generally better to use it sparingly, or in order to reframe between shots.
- Even slight hand movements will be noticeable during telephoto recording. Use a tripod for better results.
- When you want to get as close as possible to your subject, keep the zoom at the wide-angle position. You can focus on a subject as close as 10 cm (4 in).



The wireless controller can operate the camera from a distance of up to 5 m (16 ft). Point it at the camera's remote sensor while you press the buttons.

## Inserting the battery



The controller uses a CR2025 lithium battery with a life span of about a year.

## 1. Remove the battery holder.

· Pull it out using a ball-point pen.

# 2. Insert the battery with the + side facing outwards.

- Do not pick up the battery using tweezers or other metal tools — this may cause a short circuit.
- Wipe the battery with a clean, dry cloth to ensure proper contact.
- 3. Slide the battery holder back into place.

#### **WARNING!**

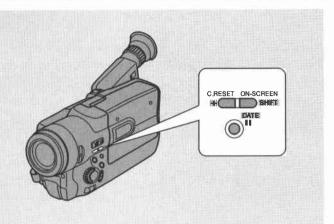
The battery used in this device may present a fire or chemical burn hazard if mistreated. Do not recharge, disassemble, heat above 100°C (212°F) or incinerate. Replace the battery with a Panasonic CR2025, Sanyo CR2025, Sony CR2025 or Duracell DL2025B. Use of another battery may present a risk of fire or explosion. The used battery should be handed back to the supplier for safe disposal.

#### Cautions:

- Keep the battery out of reach of children if it is swallowed, contact a physician immediately.
- Do not disassemble, heat, or immerse the battery in water, to avoid the risk of explosion.

- Sunlight or fluorescent light falling on the sensor may shorten the controller's operating distance by interfering with its infrared signals.
- The camera may have difficulty picking up the remote control signals at extremely close range.
- Do not leave the controller exposed to direct sunlight, or in hot or humid places.





You can add the date and/or time to the scene you are recording.

The date and time display changes as shown each time you press the DATE button. The display which you can see in the viewfinder will be superimposed on the scene when you start recording.

# No display → 12:34 AM 22. AUG. 1995 ← ←

If you have not set the date and time, it flashes in the viewfinder when you press the DATE button. It also flashes a few times when you turn the camera on. It cannot be recorded.

12:34 AM

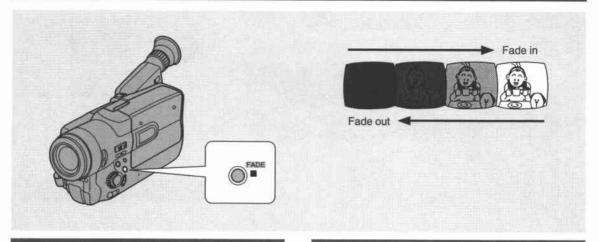
22. AUG. 1995

## Setting the date and time

Set the date and time display when you first start using your camera. As long as you have installed the backup battery (p. 10), the camera's clock will continue to work even when the main power source is removed.

- 1. Set the OPERATE switch to CAMERA.
- 2. Press and hold the DATE button.
  - After three seconds, only the year display flashes.
- Press the + button to scan the year display, then press the SHIFT button to set it.
  - This + button is also marked C. RESET. (Do not use the + button which is marked REC SEARCH.)
  - Press the + button once to scan a year at a time. Press and hold to scan quickly.
  - As soon as the year display is set, the month display starts flashing.
- Use the + and SHIFT buttons to set the months, days, hours, minutes and AM/ PM in the same way.

- The camera will remember which display style you have selected even when it is turned off.
- The display can be set to any year between 1990 and 2050.



## Fade in

To make the scene gradually appear from a blank screen:

- 1. Make sure the camera is in record pause mode.
- 2. Press and hold the FADE button until the scene disappears completely from the viewfinder.
- 3. Press the start/stop button to begin recording.
- 4. Release the FADE button.
  - The scene gradually reappears in the viewfinder.

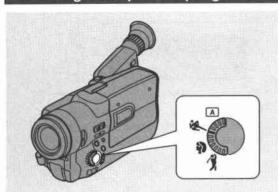
## Fade out

To make the scene gradually disappear:

- 1. Press and hold the FADE button during recording.
- 2. When the scene has completely disappeared, press the start/stop button to end recording.
- 3. Release the FADE button.

- · The sound fades together with the image.
- · The date and time display does not fade.

## Choosing an exposure program



In normal recording conditions, you can leave the exposure program selector set to A (auto). However, the camera also has three special exposure programs, designed to give the best possible pictures in different situations.

Rotate the selector to choose the appropriate program before you start recording. Reset it to A when you have finished.

## **Sports**





This program is useful for recording high-speed sports scenes in brightly lit conditions. Normal playback will be slightly jerky, but you will get clear images which can be analysed frame by frame during slow or still playback on a VCR.

You can also use it to obtain clear, sharp pictures in places such as on the beach or at a ski resort, where the light is very strong. A neutral density filter is also effective in such situations (see p. 27).





## **Portrait**





Use this program outdoors to make the subject stand out from a softened foreground and background. It works well for still-lifes and close-ups. The effect is most noticeable when the zoom position is between the middle range and the telephoto end.

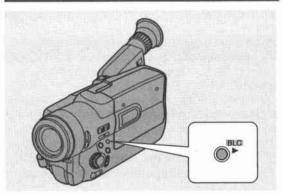
## **High-speed shutter**

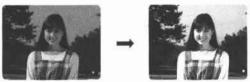




This program is similar to the Sports program, but the shutter speed is set even higher, so you can freeze very fast-moving subjects. It also requires brighter lighting.

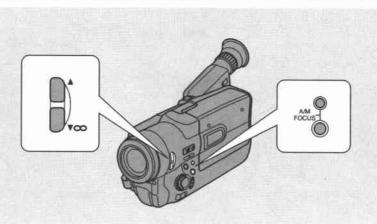
## Backlight compensation





If the subject is brightly lit from behind, it may appear underexposed and lacking in detail. To compensate for this backlighting effect, press and hold the BLC button. Monitor the exposure in the viewfinder, and release the button when the compensation is no longer needed.

- Avoid changing programs during recording, as the brightness of the image may change suddenly.
- Smear or flicker may occur when using these programs in some types of lighting.



The camera has two different ways of focusing: autofocus and manual focus.

## Autofocus

The easiest way to focus is to allow the camera to do it for you automatically. You can rely on autofocus to give you good results in normal recording conditions.

All you have to do is point the camera, and whatever is in the centre of the viewfinder will usually be in sharp focus.

## Manual focus

Sometimes you will get better results by turning off autofocus and using manual focus instead.

- 1. Use the zoom control to set the picture angle.
  - If you use the zoom after manual focusing, the picture may go out of focus.
- 2. Press the two A/M FOCUS buttons to switch from auto to manual focus.
  - · M. FOCUS appears in the viewfinder.
  - The focus remains locked at the point set by autofocus.
- 3. Use the manual focus buttons to set the focus.
  - Press the ▼ ∞ button to move the focus further away. Press the ▲ button to bring the focus nearer.
- 4. To return to autofocus, press the A/M FOCUS buttons again.

Manual focus will probably work better than autofocus when shooting:



Subjects not in the centre of the viewfinder



Several subjects in the viewfinder at different distances



Subjects behind glass



Rapidly moving subjects



Slanted subjects



Subjects with horizontal stripes



Subjects without much contrast (such as a white wall)



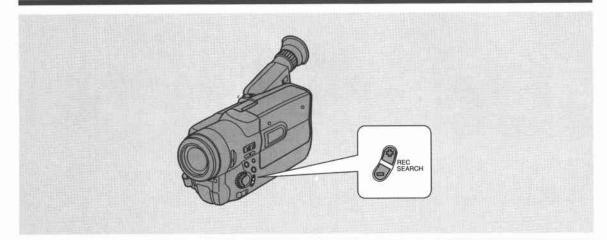
Subjects which reflect too much light (such as shiny car exteriors)



Dark subjects



Night scenes



## Record search

When the camera is in record pause mode, you can use record search to play the tape forwards or backwards to find the point where you want to start or restart recording. This is useful when you want to add a new scene to a previously used cassette. By using record search, you can ensure a smooth, noise-free join between the new scene and the old one.

- Make sure the camera is in record pause mode.
- 2. Press and hold the REC SEARCH + or button while you check the picture in the viewfinder.
  - The + button plays the recording forwards and the button plays it backwards.
- 3. Release the button when you find the point where you want to start recording.
  - The record search picture pauses briefly and then the camera returns to record pause mode.

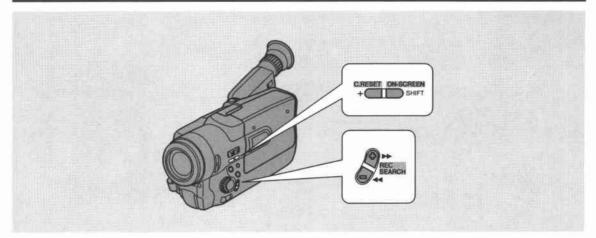
## **Record review**

When the camera is in record pause mode, you can use record review to play back the last few seconds of your recording and then return automatically to record pause mode. You can quickly make sure that a scene has recorded properly and then go on to shoot the next scene, without producing any noise in the picture.

- 1. Make sure the camera is in record pause mode.
- 2. Press and release the REC SEARCH button while you check the picture in the viewfinder.
  - The camera rewinds the tape and plays back the last few seconds.
  - The camera returns to record pause mode at the point where you pressed the button.

#### Note:

 Noise or skew (picture distortion) may appear on the screen during record search and record review.

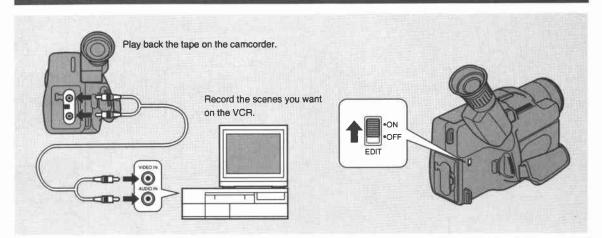


When you want to add a new scene to an existing recording, you can set the length of the new scene before you begin. The camera will stop recording automatically, so you don't accidentally tape over scenes that you want to keep. Also, the beginning and end of the new scene will be cleanly recorded and free from picture noise.

- 1. Make sure the camera is in record pause mode, and that the tape counter is displayed in the viewfinder.
  - · If the counter is hidden, press the ON-SCREEN button to see it.
- 2. Use the REC SEARCH buttons to locate the point on the tape where you want your new scene to end.
  - The + button plays the recording forwards and the - button plays it backwards.
- 3. Press the C. RESET button.
  - The tape counter is set to 0:00:00. This will be the end point of the new scene.
- 4. Use the REC SEARCH button to locate the point where you want to start recording.
- 5. Press the ON-SCREEN button.
  - · Make sure that MEM is flashing in the viewfinder.
- 6. Start recording.
  - · Recording stops automatically when the counter nears 0:00:00.
  - · You can prevent recording from stopping automatically by pressing the ON-SCREEN button again before the counter reaches 0:00:00.

#### Note:

· The tape counter will stop counting during any blank sections on the tape.

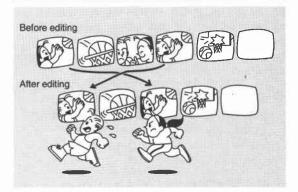


By connecting the camera to another VCR, you can edit your recordings in order to remove unwanted scenes — or combine different shots to create your own video production.

## **Preparations**

- 1. Connect the camera to the VCR.
  - · See "Playback Connection" on p. 14.
- 2. Turn the TV on.
  - Be sure to set it to the video channel, or set the TV/VIDEO selector to VIDEO.
- 3. Turn on the VCR and load a blank cassette.
  - See your VCR instruction manual for details.
- 4. Set the VCR's input selector to LINE, and put it in record pause mode.
- 5. Set the camera's OPERATE switch to PLAY, and load your recorded cassette.
- 6. Set the EDIT ON/OFF switch to ON.
  - Remember to reset it to OFF when you have finished editing.
- 7. Press the ON-SCREEN button to hide the viewfinder displays.
  - If they appear in the viewfinder, they will be recorded onto your edited cassette.

## **Basic editing**



- Find a point on your recorded cassette slightly ahead of the section you want to copy.
- 2. Start to play it back while you monitor the picture on the TV.
- Start recording on the VCR as soon as the section you want to copy appears on the screen.
- Pause the VCR at the end of the section you want to copy, then stop playback on the camera.
- Repeat steps 1 to 4 until your edited recording is complete.

#### Note:

• The quality of the edited tape will be slightly lower than that of the original.

# **Making Better Videos**

## Holding the camera



For maximum stability, place your right hand through the grip belt and keep your right elbow pressed against your body. Rest your left hand lightly on the side of the camera. With practice, you will be able to operate the controls by touch, without taking your eye off the action.

## Using a tripod



To prevent any unwanted movement, you can mount the camera on a tripod, and operate it with the wireless controller.

## Composition



The most important element in the scene does not have to be in the centre. For a more interesting picture, try to position your subject so it is slightly to one side. Leave some space on the side of the frame that the subject is facing or moving towards.



Don't cut off the top of the subject's head, and don't cut people off at the neck, hips or knees (move a little bit above or below).



Watch out for distracting objects in the background.

## Picture angle

Long shot



Medium shot



Close-up



Instead of zooming while recording, try to choose your picture angle before you begin. A good way to tell a story with video is to begin with a long shot that establishes the situation, and then move in with medium shots and close-ups to show the details. Remember to change your viewpoint for each shot.

#### Camera moves

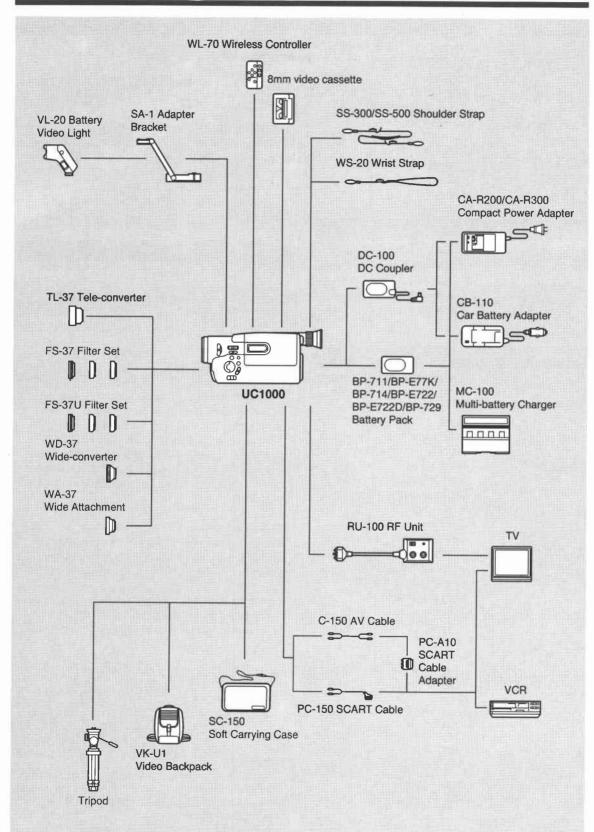


Use pans to record a landscape or follow a moving subject. Decide the area you want to cover and stand facing the end of your panning angle. Without moving your feet, turn your waist to the starting position. Start recording, and after a few seconds begin to turn slowly from the waist. Hold the final image for a few seconds before you stop recording.

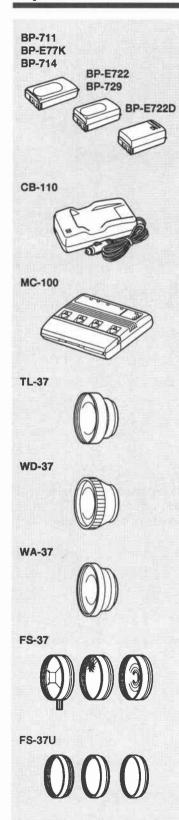
Tilt the camera up to exaggerate the height of the subject. Tilt down from the top of a building, for example, as an introduction to subjects at the bottom.

Remember that any camera movement, or change in picture angle, should have a definite purpose. Avoid unnecessary or half-hearted movements.

- When you are using a tripod, be careful not to leave the viewfinder exposed to bright sunlight or it will melt. (The light is concentrated by the viewfinder lens.)
- Make sure that the fastening screw of the tripod is no longer than 6.5 mm (1/4 in), or it will damage the camera.



# **Optional Accessories**



## **Battery packs**

As well as the BP-711 supplied with your camera, a whole range of optional battery packs is available.

Recording times are as follows:

BP-711/BP-E77K45	min.
BP-71455	min.
BP-E722/BP-E722D90	min.
BP-729115	min.

The BP-E722D has a five-LED display which lets you know just how much charge you have left.

## **CB-110 Car Battery Adapter**

Power your camera, or recharge battery packs on the move. The car battery adapter plugs into your car's cigarette lighter socket and runs off a 12–24 V DC negative ground battery.

## MC-100 Multi-battery Charger

The microprocessor-controlled MC-100 takes up to four battery packs at a time and dramatically cuts recharge times (it can charge the BP-711 or BP-E77K in just 45 minutes). It also performs an automatic charge/discharge/recharge cycle which refreshes battery packs, restoring them to full capacity.

#### TL-37 Tele-converter

This tele-converter lens increases the focal length of the camera lens by a factor of 1.4. The zoom and autofocus operate as usual, so you can take full advantage of the extra range.

#### **WD-37 Wide-converter**

Decreases focal length by a factor of 0.7, giving you a wide perspective for panoramic views — or just to get everyone in the picture. And you can still use both zoom and autofocus.

#### **WA-37 Wide Attachment**

Another way to get a wider viewpoint, the WA-37 decreases focal length  $0.7\times$  when the zoom is at the wide-angle end.

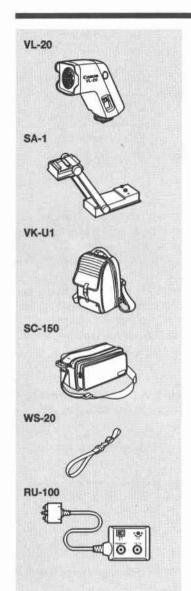
## FS-37 Filter Set

Three special effects filters to add a creative touch to your recordings: multiple-image, R-cross and zoom-spot.

Focus manually when using special effects filters.

#### FS-37U Filter Set

Ultraviolet, neutral density and circular polarising filters to help you take control of difficult lighting conditions.



## **VL-20 Battery Video Light**

This compact yet powerful video light can be used for both indoor and outdoor shooting. There are no cables — a BP-711 or BP-E77K Battery Pack fits neatly inside, powering it for up to 15 minutes. For longer recordings, the BP-E722/BP-E722D and BP-729 give about 35 and 50 minutes' use respectively.

#### **SA-1 Adapter Bracket**

Attaches the VL-20 Video Light securely to the camera.

## VK-U1 Video Backpack

With this rugged, go-anywhere backpack, you'll never have to leave your camera behind. It has a full-length zip to give you instant access to the camera and accessories.

## SC-150 Soft Carrying Case

This lightweight bag keeps the camera within easy reach without weighing you down or getting in the way.

#### WS-20 Wrist Strap

Provides an extra measure of protection for active shooting.

#### **RU-100 RF Unit**

This optional converter allows the camera to be connected to the aerial terminal of any TV. It can be a useful accessory while travelling, as you may need it if you want to connect the camera to a TV in your hotel room.



## **Cautions**

# Avoid high temperatures and high humidity.

- Do not leave the camera inside a car in hot weather, for example.
- · Do not take the camera into a humid room.

## Avoid sudden changes in temperature.

 If you take the camera from a cold place to a warm place, condensation may form on the lens and internal parts (see p. 30).

# Do not point the lens at strong light sources.

- Never point it at the sun, and do not leave it aimed at a bright subject.
- Be especially careful when leaving the camera on a tripod.

## Avoid magnetic or electric fields.

 Do not use the camera close to TV transmitters, portable communication devices or other sources of electric or magnetic radiation. They may cause picture interference, or permanently damage the camera.

## Do not expose the camera to water.

- Cover the camera when you are recording in light rain or mist.
- There is a risk of electric shock if water gets inside the camera — contact qualified service personnel as soon as possible.

#### Protect the lens.

 Sand and dust can damage the lens — be especially careful on windy days.

#### Handle the camera gently.

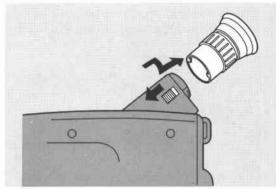
- · Vibration or shock can cause damage.
- · Do not use the viewfinder as a carrying handle.

## Do not disassemble the camera.

 This is very dangerous as there is a risk of electric shock — if the camera does not function properly, take it to qualified service personnel.

#### Maintenance

#### Viewfinder



- To clean the viewfinder screen, use a commercially available blower brush. First remove the eyepiece. Slide the RELEASE switch and turn the eyepiece anti-clockwise as far as it will go, then pull it off. To reattach it, align one of the lines on the eyepiece with the mark on the viewfinder. Push the eyepiece on and turn it clockwise as far as it will go.
- The brightness of the viewfinder picture can be adjusted when necessary by turning the screw on the side of the viewfinder with a small screwdriver.

#### Camera body and lens

 Use a soft, dry cloth to clean the camera body or lens. Never use chemically treated cloth or volatile solvents such as paint thinner.

#### Video heads

- If CLEANING appears in the viewfinder (or if your recordings do not play back smoothly), clean the video heads immediately, preferably using Canon's CC-8 Video Head Cleaning Cassette.
- Do not use a wet-type cleaning cassette, as this can cause damage.

## Storage

If you do not intend to use the camera for some time, store it in an area which is free of dust and moisture, and where the temperature is no higher than 30°C (86°F).

After storage, check each part and function of your camera to make sure everything is still working properly.

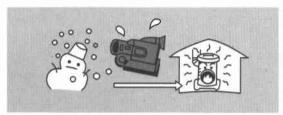
## Note:

 These cautions also apply to accessories such as battery packs and cassettes.

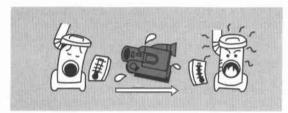
## Condensation

Condensation may form on the camera when it is moved from a cold place to a warm place. Using the camera while condensation is present can damage both the tape and the camera.

Condensation may become a problem:



When you bring the camera from a cold place to a warm room



When a cold room is heated rapidly



When the camera is left in a humid room



When the camera is taken from an air-conditioned room to a warm, humid place

#### Protecting the camera from condensation

 Before you bring the camera to a warm or humid place where condensation is likely to be a problem, unload the cassette and put the camera in a plastic bag. Wait until the camera reaches room temperature before you take it out of the bag.

# What happens when condensation is detected

- DEW flashes in the viewfinder. If there is a cassette in the camera, it stops automatically.
- The camera may not detect the condensation immediately — the condensation warning may not start flashing for 10 to 15 minutes.
- You cannot load a cassette when condensation is detected.

## What you should do

- Remove the cassette, leave the cassette compartment open, and turn the camera off.
- Leave it in a dry place until the condensation evaporates. After the condensation warning stops flashing, wait at least another hour before trying to use the camera.

## Using the camera abroad

#### **Power sources**

 You can use the compact power adapter to operate your camera and charge battery packs in any country where the electricity supply is between 100 and 240 V AC, 50–60 Hz. Contact your Canon dealer for information about plug adapters for overseas use.

## TV playback

 Although you can always play back your recordings in the viewfinder, your camera can only be connected to TVs which use its PAL system. This TV system is used in the following countries:

Algeria, Australia, Austria, Bangladesh, Belgium, Brunei, China, Denmark, Finland, Germany, Hong Kong, Iceland, India, Indonesia, Ireland, Italy, Jordan, Kenya, Kuwait, Liberia, Malaysia, Malta, Mozambique, the Netherlands, New Zealand, North Korea, Norway, Oman, Pakistan, Portugal, Qatar, Sierra Leone, Singapore, South Africa, Spain, Sri Lanka, Swaziland, Sweden, Switzerland, Tanzania, Thailand, Turkey, Uganda, United Arab Emirates, United Kingdom, Yemen, former Yugoslavia, Zambia



Refer to this checklist first if you have any problems with your camera. Possible explanations are given below each problem on the list - turn to the page numbers in brackets for more information.

Make sure that the camera is properly connected if you are using it with a TV or VCR.

Consult your dealer or service outlet if problems persist.

## 2 Nothing happens when I press the buttons.

- · You haven't turned the camera on (p. 6, 13).
- · You haven't loaded a cassette, or it is set for erasure prevention (p. 11).
- · The tape has reached the end.
- · The battery pack is exhausted, or not properly attached (p. 8, 9).

#### The camera turned itself off.

- · You left it in record pause mode for more than about five minutes (p. 8).
- The battery pack is exhausted (p. 8, 9).

## The start/stop button doesn't work.

- The OPERATE switch isn't set to CAMERA (p. 6).
- · You haven't loaded a cassette, or it is set for erasure prevention (p. 11).
- · The tape has reached the end.

## ☑ The ► (play) button doesn't work.

- The OPERATE switch isn't set to PLAY (p. 13).
- You haven't loaded a cassette (p. 11).
- The tape has reached the end.

## The camera won't focus.

- The subject isn't suitable for autofocus (p. 21).
- The viewfinder lens needs adjusting (p. 12).
- The lens is dirty (p. 29).

## There's no picture in the viewfinder.

- · You haven't taken the lens cap off (p. 12).
- The OPERATE switch isn't set to CAMERA (p. 6).

## There's a bright stripe on the screen.



· When you are recording in dark places, a bright light in the scene may cause a vertical bar, called smear, to appear on the screen.

## The playback picture is rough.



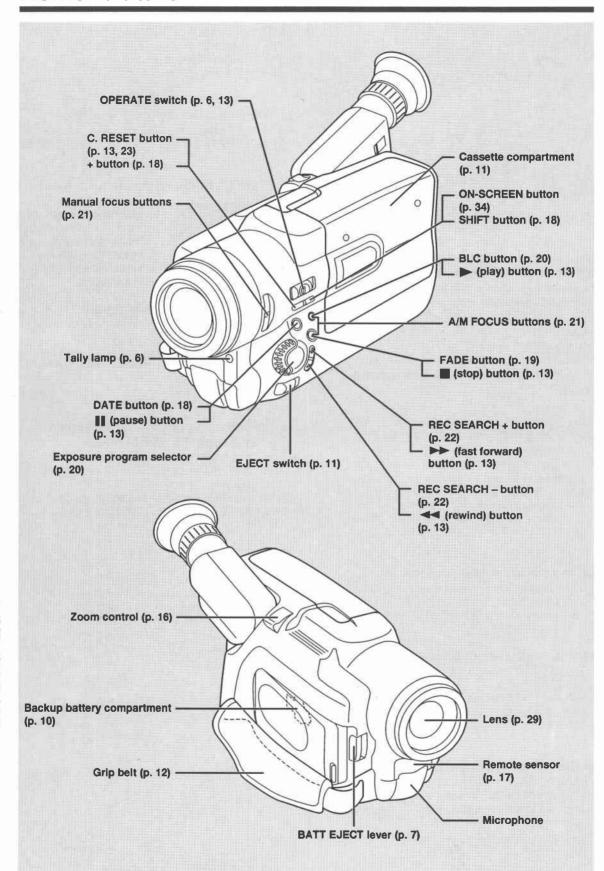
· If your recordings do not play back smoothly, clean the video heads (p. 29).

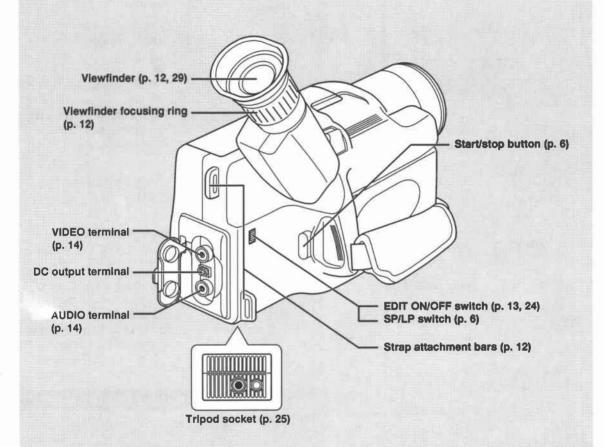
## There's no picture on the TV screen, even though the tape is moving.

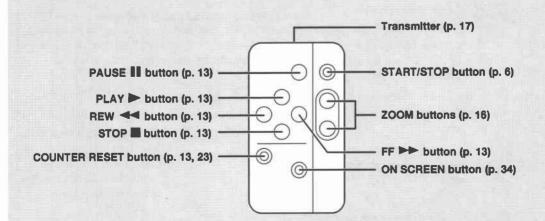
- · The video heads need cleaning (p. 29).
- The TV/VIDEO selector on the TV isn't set to VIDEO (p. 14).
- If the camera is connected using the optional RF unit, you haven't selected the video channel (p. 15).

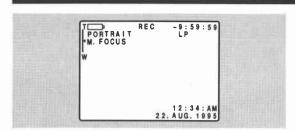
#### Malfunction

 External interference may cause the camera's microprocessor to malfunction temporarily. If random letters appear in the viewfinder or if normal operation is interrupted, remove and then replace the power source (and if necessary, the backup battery).



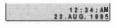








indicates a flashing display.



Date and time (p. 18)



The date and time needs to be set (p. 18). The backup battery may be exhausted (p. 9)



Record pause mode (p. 6)



Recording (p. 6)



See "Showing and hiding the displays" on this page.



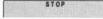
Playback (p. 13)



Fast forward (p. 13)



Rewind (p. 13)



Playback is stopped (p. 13).



Tape speed (p. 6)



No cassette is loaded, or the cassette is set for erasure prevention (p. 11).



The tape has reached the end.



Shows how much battery power remains (p. 9).



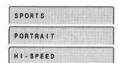
The battery pack is nearly exhausted (p. 9).



Zoom display (p. 16)

M. FOCUS

Manual focus (p. 21)



Exposure programs (p. 20)

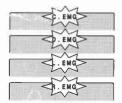
Tape counter — indicates the approximate running time of the tape (p. 13, 23).



Condensation warning (p. 30)

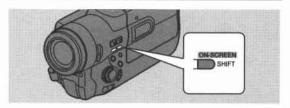


The video heads need cleaning (p. 29)

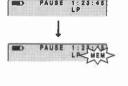


The safety mechanism is acticated. Unload the cassette and turn the camera off. Turn it on again and reload the cassette.

## Showing and hiding the displays



To display the date and time, press the DATE button. You can show or hide the other viewfinder displays using the ON-SCREEN button. Each time you press it, the screen changes as follows:



Displays visible

This shows that tape return (p. 13) or insert edit (p. 23) can be used. This step is skipped if the tape counter is at 0:00:00.



No displays

The REC display cannot be hidden.



## UC1000

Power supply (rated):

Power consumption:

ply (rated):

Television system: Video recording system:

6 V DC

6.8 W (autofocus recording)

CCIR standard (625 lines, 50 fields) PAL colour signal

2 rotary heads, helical scanning system Luminance signal: FM azimuth recording

Chrominance signal: Converted subcarrier phase shift

recording (8mm video standard)

Audio recording system:

Frequency multiplexing with the video signal by 2 rotary

heads (1 channel)

Image sensor:

1/3-inch CCD (charge-coupled device), 320,000 pixels

(300,000 effective pixels)

Tape format:

8mm video cassette, metal particle

Tape speed:

SP: 20.05 mm/s LP: 10.03 mm/s

Maximum recording time: Fast forward/rewind time:

Fast forward/rewind time: Lens:

Focusing system:

Minimum focusing distance:

nce.

Approx. 8 minutes (with a P5-90 cassette) f/1.8–2.8, 12× power zoom, 5.2–62.4 mm TTL autofocus, manual focusing possible

3 hours (with a P5-90 cassette, in LP mode)

Wide-angle end: 10 cm (4 in) Telephoto end: 110 cm (3 ft 8 in)

Shutter speed:

Auto: 1/50 sec Sports: 1/50 – 1/250 sec

Portrait: 1/50-1/1000 sec High-speed shutter: 1/250-1/1000 sec

Minimum illumination:

**Recommended illumination:** 

Filter diameter:

**Electronic viewfinder:** 

Microphone: Output level: More than 100 lux 37 mm

2 lux

1/2-inch monochrome CRT

Non directional electret condenser microphone Video terminal: 1 Vp-p/75 ohms, unbalanced

Audio terminal: -10 dBV, less than 3 kohms, unbalanced

**Operating temperature range:** 

Dimensions:

0°-40°C (32°-104°F) 243 × 108 × 94 mm (9°/16 × 4¹/4 × 3¹¹/16 in)

Weight:

720 g (1 lb 9<sup>3</sup>/<sub>8</sub> oz)

## **BP-711 Battery Pack**

Battery type: Rated voltage:

Operating temperature:

Dimensions: Weight:

Rechargeable nickel cadmium battery

6 V DC

0°-40°C (32°-104°F)

 $22.5 \times 47 \times 90 \text{ mm} (\frac{7}{8} \times \frac{17}{8} \times \frac{35}{8} \text{ in})$ 

150 g (5<sup>1</sup>/<sub>4</sub> oz )

Weight and dimensions are approximate

Errors and omissions excepted. Subject to change without notice.

- A Abroad, Using the Camera, 30 Accessories, 3, 27 Adapter, AC, 7, 10 Audio/Video Terminals, 14 Autofocus, 21
- Backlight Compensation, 20 Backup Battery, 10 Basic Recording, 6 Battery Pack, 8–10
- Cables, 3, 14–15
  Cassettes, 11
  Cautions and Maintenance, 29
  Charging the Battery Pack, 8–9
  Cleaning the Camera, 29
  Compact Power Adapter, 7, 10
  Condensation, 30
  Connection to TV or VCR, 14
- Date and Time Display, 18
  DC Coupler, 7
  Discharging the Battery Pack, 10
- E Editing, 22–24 Erasure Prevention, 11 Exposure Control, 20
- Fade, 19
  Fast Forward/Fast Forward Playback, 13
  Feedback, 14
  Focusing, 21
- G Grip Belt, 12
- Head Cleaning, 29 High-Speed Shutter, 20
- Introducing the UC1000, 4 Insert Edit, 23
- Lens Cap, 12
  Lithium Batteries, 10, 17
  Loading Cassettes, 11
  LP Mode, 6
- Maintenance, 29
  Making Better Videos, 25
  Manual Focus, 21
- Nomenclature, 32

- On-screen Displays, 34 Optional Accessories, 27
- Pause, Record, 6
  Playback, 13
  Playback Connection, 14
  Portrait, 20
  Power Sources, 7
  Preparing the Camera, 12
  Problems, 31
- Recharging the Battery Pack, 8–10
  Recording, 6
  Record Pause Mode, 6
  Record Review, 22
  Record Search, 22
  Refreshing the Battery Pack, 10
  Remote Control, 17
  Rewind/Rewind Playback, 13
- SCART, 14
  Shoulder Strap, 12
  Specifications, 35
  SP Mode, 6
  Sports, 20
  Still Playback, 13
  Storage, 29
- Tally Lamp, 6
  Tape Counter, 13, 23
  Tape Return, 13
  Telephoto, 16
  Temperature, 9, 29
  Time Display, 18
  Tripod, 25
  Troubleshooting, 31
  TV, 14
- UC1000 Video System, 26 Using the Camera Abroad, 30
- VCR, 14, 24
  Video Cassettes, 11
  Video Channel, 15
  Viewfinder, 12, 29
  Viewfinder Displays, 34
- W Wide-angle, 16 Wireless Controller, 17
- Z Zooming, 16

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