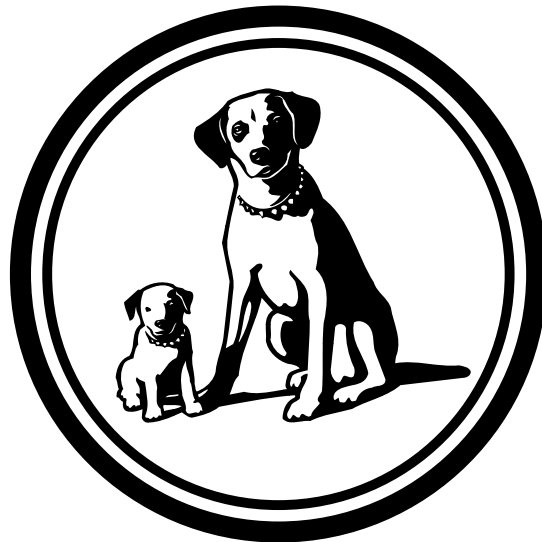


# **RCA**

## camcorder user's guide

ProV600



# Important Safety Information

Be sure to read all the safety information before you begin to use this product.

**WARNING:** To reduce the risk of fire or shock hazard, do not expose camcorder or AC adapter/charger to rain or moisture.

## CAUTION

RISK OF ELECTRIC SHOCK  
DO NOT OPEN



This symbol indicates “dangerous voltage” inside the product that presents a risk of electric shock or personal injury.

## ATTENTION

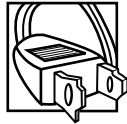
RISQUE DE CHOC ELECTRIQUE  
NE PAS OUVRIR



This symbol indicates important instructions accompanying the product.

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

## Cautions



**CAUTION:** To prevent electric shock, match wide blade of plug to wide slot, fully insert.

**ATTENTION:** Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

To reduce risk of injury, charge only rechargeable batteries recommended by the manufacturer for this camcorder. Other types of batteries may burst causing damage and personal injury.

FCC Regulations state that unauthorized changes or modifications to this equipment may void the user's authority to operate it.

## Product Registration

Please fill out the product registration card and return it immediately. Returning this card allows us to contact you if needed.

Keep your sales receipt for proof of purchase to obtain warranty parts and service and attach it here. Record the serial number and model numbers located on the bottom of the camcorder.

Model No: ProV600

Serial No: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

Purchased From: \_\_\_\_\_

## Assistance

We want to make sure you enjoy your new camcorder. If you have any questions, call:

**Camcorder Exchange Warranty.....800-283-6503 (pages 54-55)**

**Customer Service.....800-336-1900 (page 53)**

**Accessories..... 800-338-0376 (pages 42-47)**

## Table of Contents

**Safety Information..... i**

### First Time Operation

- Assistance ..... 3
- Unpack the Camcorder and Accessories ..... 3
- Attach Lens Cap Cord and Adjust Handstrap ..... 4
- Attach the Shoulder Strap ..... 4
- Attach the Adapter/Charger ..... 5
- Turn on the Camcorder ..... 6
- Insert a Cassette ..... 6
- Use the LCD Monitor or Viewfinder to View What You Are Recording ..... 7
- Start and Stop Recording ..... 8
- Play Back What you Have Recorded ..... 8
- Turn Off the Camcorder ..... 8
- Close the Monitor and Replace the Lens Cap ..... 8
- Review Camcorder's Operating Controls ..... 9-10

### Powering Your Camcorder

- Using the Adapter/Charger to Power Your Camcorder ..... 11
- Using the Battery to Power Your Camcorder
  - Attach and Remove the Battery ..... 12
  - Charge and Refresh the Battery ..... 13
  - Battery Level Indicator ..... 14
  - Battery Care and Storage ..... 14

### Remote Control

- Install Lithium Cell ..... 15
- Buttons ..... 16-17
- Sensor ..... 17

### Video Cassettes

- Erase Protection – Safety Tab ..... 18
- Recording Times ..... 18
- Insert or Remove a Cassette ..... 19
- Cassette Care and Storage ..... 19

## Table of Contents

### Recording

- Making a Recording ..... 20-21
  - Viewing What You are Recording
    - Using the Viewfinder or LCD Monitor
    - Using the Viewfinder ..... 22
    - Eyepiece Focus Control ..... 22
    - Using the LCD Monitor ..... 23
  - LCD Monitor and Viewfinder Displays ..... 24-25
  - Flying Erase Head ..... 26
  - Quick Review Feature ..... 26
  - Camera Edit Feature ..... 26
  - *DISPLAY* Button ..... 26
  - Microphone ..... 27
  - Automatic White Balance and Iris ..... 27
  - AE (Automatic Exposure) Shutter Speed Control ..... 27
  - Beep Feature ..... 27
  - Blank Search ..... 28
  - Tape-Remaining Display ..... 28
  - Zooming ..... 29
  - Focusing ..... 30
    - Using Focus Lock Feature ..... 30
  - Date/Time Display
    - Install and Remove Clock Lithium Cell ..... 31
    - Set the Time and Date ..... 32
    - Record Date or Date and Time ... 33
  - Time Counter ..... 34
- Recording Tips ..... 35**
- Traveling Tips ..... 35**

### Playback

- Using the LCD Monitor or Viewfinder ..... 36
- Playback Features
  - Visual Searching ..... 37
  - Stop-Action Pause ..... 37
  - Tape Positioning ..... 37
- Playback on TV (or VCR) with *AUDIO/VIDEO IN* Jacks ..... 38-39
- Playback on a TV without Audio/Video Inputs ..... 40-41

### Optional Accessories ..... 42-47

- Accessory Order Form ..... 45-47

### Care and Maintenance

- Cleaning the Camcorder ..... 48
  - Cleaning the Camcorder's Lens ..... 48
  - Cleaning the Camcorder's LCD Monitor ..... 48
  - Cleaning the Camcorder's Viewfinder ..... 48
- Proper Care and Storage ..... 49
- Things to Avoid ..... 49

### Trouble Checks ..... 50-52

### Customer Assistance ..... 53

### Limited Warranty ..... 54-55

### Specifications ..... 56

### Information to User ..... 56

### Index ..... 57-60

## First-Time Operation

This section describes only the basic steps necessary to set up your camcorder to record. Refer to the other sections for detailed operation and feature options.

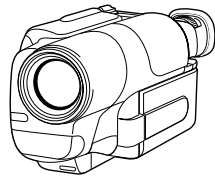
### Assistance

The toll-free numbers are available to help you with any problem you may encounter.

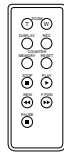
Camcorder Exchange Warranty.....	800-283-6503
Customer Service.....	800-336-1900
Accessories.....	800-338-0376

### 1. Unpack the camcorder and accessories.

- Save the packing materials and box in case you ever need to ship or store your camcorder.
- The items shown below are packed with your camcorder. If any are missing or appear damaged, contact your dealer immediately.

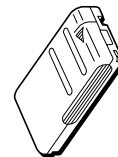


Model ProV600

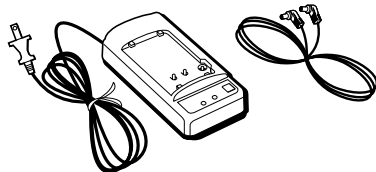


Remote Control  
Part No. 233195

**WARNING:**  
NICKEL CAD-  
MIUM BATTERY  
MUST BE  
RECYCLED OR  
DISPOSED OF  
PROPERLY.



Rechargeable Battery  
Part No AV55



AC Adapter/Charger  
and DC Cable      Part No. 238152  
Part No. DCC100

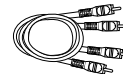
**Caution:** Do not use this adapter/charger for any purpose other than charging the AV55 battery pack or supplying power to the camcorder.



Lens Cap String  
Part No. 224176



Shoulder Strap  
Part No. 213004



Audio/Video Cable  
Part No. 217496

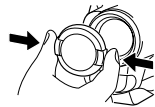


**Clock and Remote Cells**  
3-Volt Micro Lithium  
Cells--such as CR2025--  
available from most local  
drug stores and camera  
shops. Use of other cells  
present a risk of fire or  
explosion.

**CAUTIONS:** Lithium cells must be disposed of properly. Never handle punctured or leaking cells. May cause burns or personal injury. Keep out of the hands of children. Can cause death or injury if swallowed. If swallowed, consult a physician immediately for emergency treatment. The lithium cells used in this device may explode resulting in a fire or chemical burn if mistreated. Do not recharge, disassemble, heat above 212°F (100°C), or incinerate. Never use metallic tweezers to hold the cells, and never short circuit the + and - sides of the cell.

## First-Time Operation

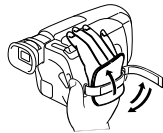
### 2. Attach lens cap cord and adjust handstrap.



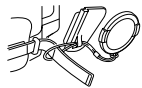
- Press in on the tabs on both sides of the lens cap to remove it.



- Attach the lens cap cord to the lens cap.

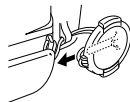


- Pull up the flap of the handstrap and open the strap.



- Run the cord from the lens cap through the audio/video terminal cover and over the end of the strap.
- Adjust the strap for comfort and close the flap.

**Note:** Make sure the end of the strap is positioned securely before closing the flap.

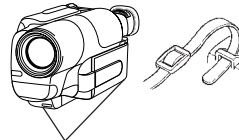


- Slide the lens cap onto the strap.

### 3. Attach the shoulder strap.



- Unfasten one end of the shoulder strap from the buckle. Make sure you leave the buckle on the strap.



#### Shoulder Strap Rings

- Thread one end of the shoulder strap through one of the shoulder strap rings.

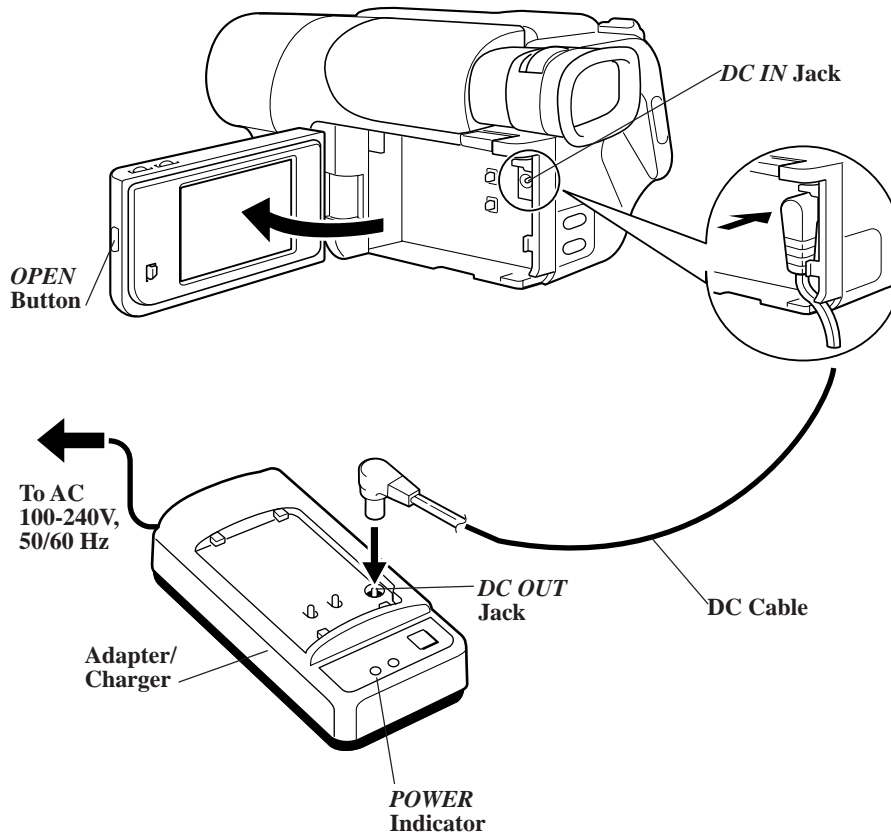


- Thread the strap back into the buckle *as shown*. Pull on the strap and make sure it is fastened securely before using it to support your camcorder.

**Cautions:** Make sure the shoulder strap is firmly attached before using it to carry the camcorder.

When carrying the camcorder with the shoulder strap, close the monitor and place the viewfinder down. This helps prevent possible damage to the monitor or viewfinder from bumping against your body as you move.

## First-Time Operation

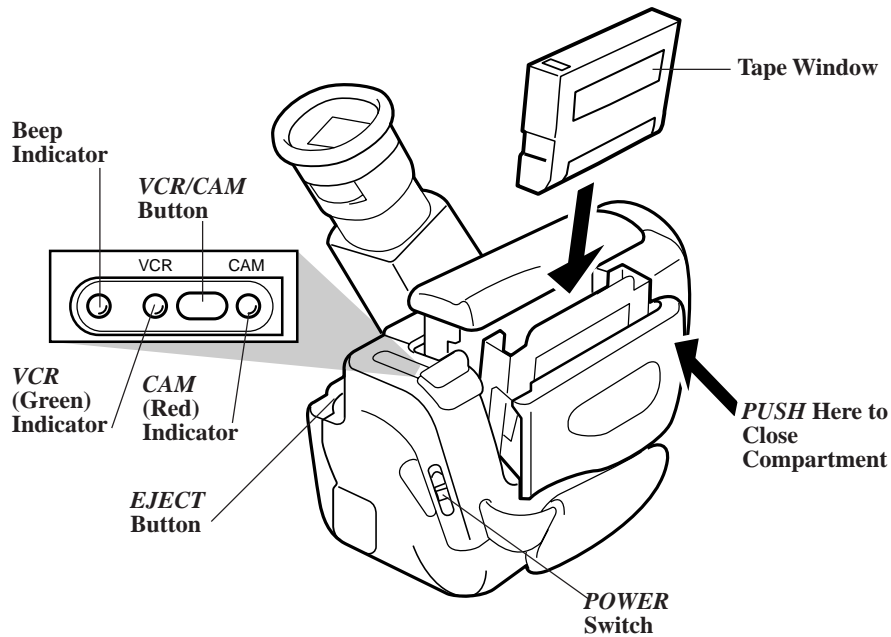


### 4. Attach the adapter/charger.

Since the battery must be charged before it can be used the first time, attach the adapter/charger to the camcorder.

- Connect one end of the DC cable to the *DC OUT* jack on the adapter/charger.
- Press the *OPEN* button and open the monitor.
- Connect the other end of the DC cable to the *DC IN* jack on the camcorder and run the cable through the cutout *as shown*.
- Plug the adapter/charger's plug into an operating outlet. The adapter/charger's *POWER* indicator will light.

## First-Time Operation



### 5. Turn on the camcorder.

- Slide the *POWER* switch upward to turn on the camcorder.
- The camcorder turns on in the *CAM* (camera) mode. The red *CAM* indicator beside the *VCR/CAM* button lights. If it does not, press the *VCR/CAM* button.

**Notes:** The *CAM* (red) or *VCR* (green) indicator lights to tell you what mode the camcorder is in.

A beep sounds for certain operations. The beep indicator flashes with the beep. *Details are on page 27.*

### 6. Insert a cassette.

- Press the *EJECT* button to open the cassette compartment.
- Insert the cassette so the safety tab is at the top and the tape window faces out.
- Gently close the cassette compartment by pressing on the area labeled *PUSH* until it clicks into place. The top closes automatically.

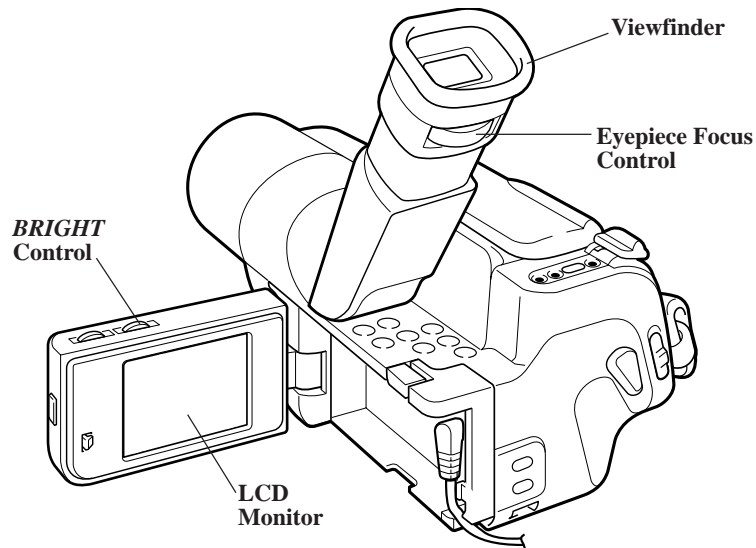
**Caution:** Do not press down on the top as it may damage the camcorder.



## First-Time Operation

### 7. Use the LCD monitor or viewfinder to view what you are recording.

You can watch what you are recording on the color LCD monitor or in the black-and-white viewfinder.



#### Use the LCD Monitor

- Rotate the monitor into a comfortable viewing position. The monitor can be rotated completely around.

**Note:** When the monitor is opened, the viewfinder is normally turned off. However, if the monitor is rotated 130°-180°, the viewfinder will remain on so the subject and the camcorder operator can both see what is being recorded.

- Adjust the brightness of the image in the monitor by rotating the *BRIGHT* control.

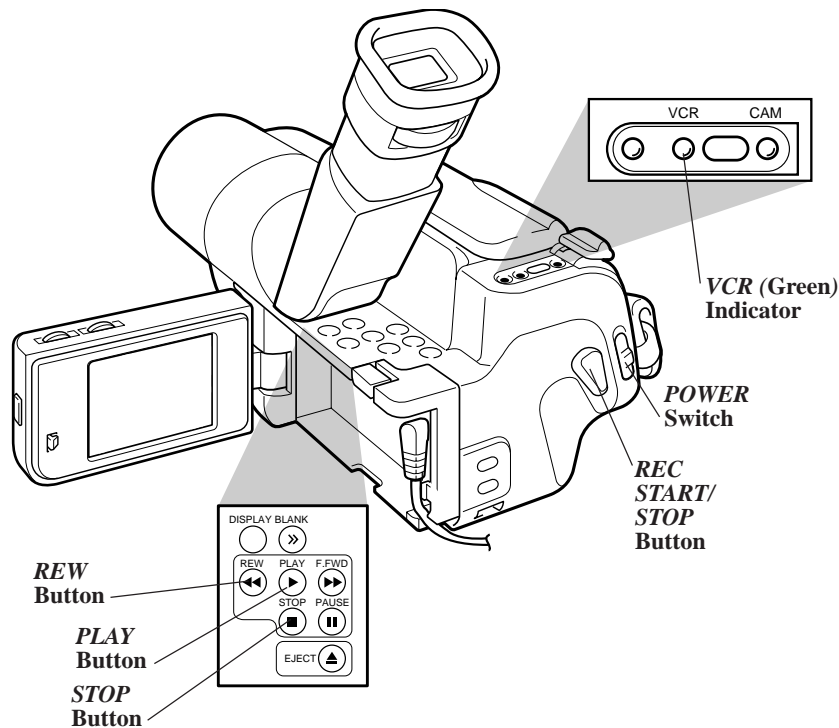
**Note:** When recording on a bright sunny day, the LCD monitor may be hard to see. Use the viewfinder.

#### Use the viewfinder.

- The monitor must be closed or rotated 130°-180° for the viewfinder to operate.
- Rotate the viewfinder into a comfortable operating position.
- Turn the eyepiece focus control to adjust the focus of the viewfinder for your vision.

(continued on next page)

## First-Time Operation



### 8. Start and stop recording.

- Press and release the *REC START/STOP* button (thumb trigger) to start recording. *REC* appears on the LCD monitor or in the viewfinder.
- Press and release the *REC START/STOP* button (thumb trigger) again to stop recording. *PAUSE* flashes on the LCD monitor or in the viewfinder.

### 9. Play back what you have recorded.

- Press the *VCR/CAM* button to light the green *VCR* indicator.

- Press *REW* to rewind the tape.
- Press *PLAY* to play back the tape on the LCD monitor or in the viewfinder.
- Press *STOP* when you are finished playing back the tape.
- *Details on LCD monitor and viewfinder playback are on page 36.*

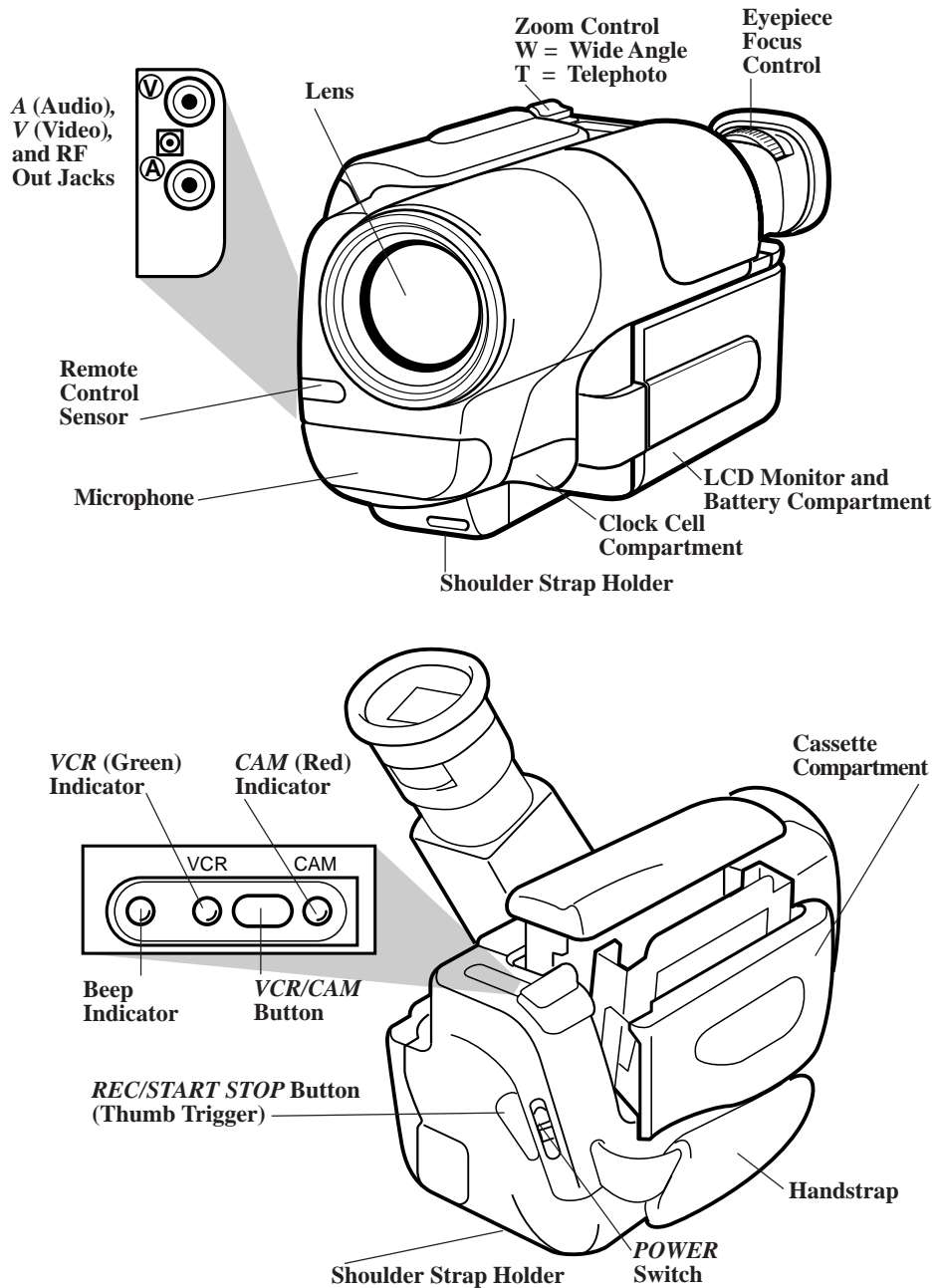
### 10. Turn off the camcorder.

Slide the *POWER* switch upward. The *VCR* (or *CAM*) indicator will turn off.

### 11. Close the monitor and replace the lens cap.

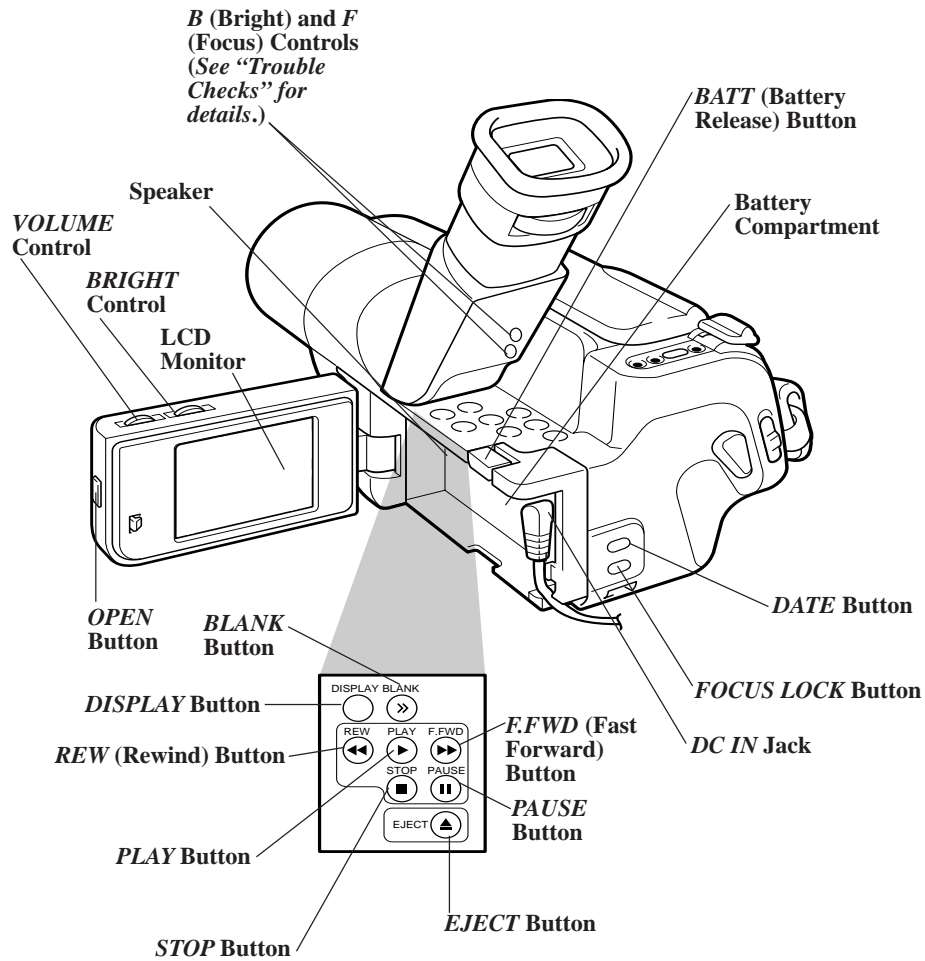
## First-Time Operation

### 11. Review camcorder's operating controls.



## First-Time Operation

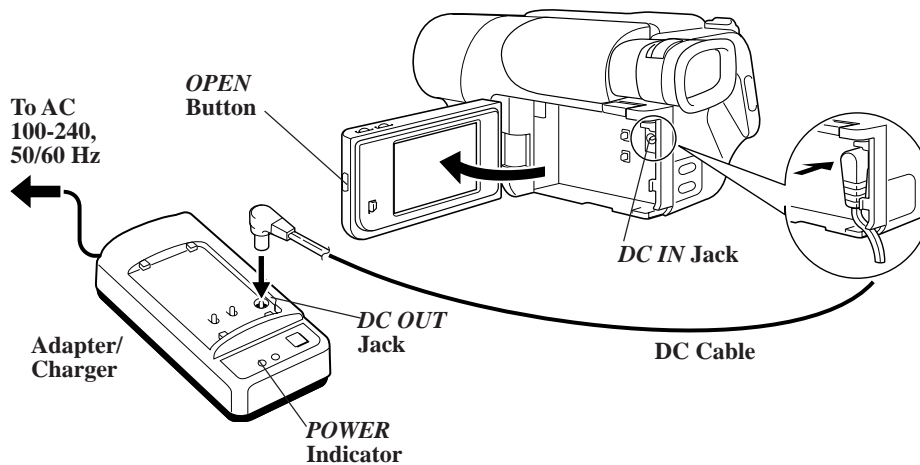
### 11. Review camcorder's operating controls.



## First-Time Operation

### Using the Adapter/Charger to Power Your Camcorder

The adapter/charger attaches to the camcorder and lets you power your camcorder directly from standard household power. The adapter/charger operates on 100-240 volts, 50/60 Hz, so it can be used virtually anywhere in the world to power the camcorder or recharge the battery.



#### Attach Adapter/Charger

1. Connect one end of the DC cable to the *DC OUT* jack on the adapter/charger.
2. Press the *OPEN* button and open the LCD monitor.
3. Connect the other end of the DC cable to the *DC IN* jack on the camcorder and run the cable through the cutout as shown.
4. If the adapter/charger is properly connected, its *POWER* indicator will light.

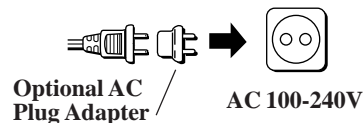
**Caution:** Do not use this adapter/charger for any other purpose other than charging the AV55 battery pack or supplying power to the camcorder.

#### Remove Adapter/Charger

1. Unplug the adapter/charger from the wall outlet.
2. Remove the DC cable from the adapter/charger and camcorder.
3. Close the LCD monitor and press on it gently until it locks into place.

#### Using an Optional Plug Adapter

An optional plug adapter may be required in some countries.



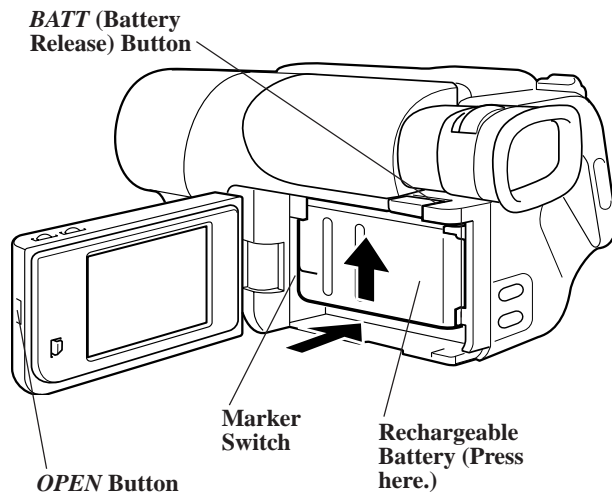
1. Plug the adapter/charger's plug into the AC plug adapter.
2. Plug the AC plug adapter into the AC outlet.

## First-Time Operation

### Using the Battery to Power Your Camcorder

The battery must be charged *as described on the next page* before it can be used the first time. Initial charging will take approximately 60 minutes. When fully charged, the battery should supply about 50 minutes of operating time (depending on how much you use zoom and pause). Conserve battery power by turning the camcorder off during recording breaks.

**Note:** The small marker switch on top of the battery is for use as a personal reminder to help you recharge the battery. It has no other function.



### Battery Safety Precautions

Do not short the battery's terminals.

Do not attempt to disassemble or modify the battery. There are no user-serviceable parts inside.

Use the battery only with specified adapter/chargers and camcorders.

Throwing the battery into a fire or exposing it to excessive heat – over 149°F (65°C) could be hazardous.

### Attach the Charged Battery

Remove the DC cable if attached.

1. Press the *OPEN* button to open the LCD monitor. Carefully open the monitor fully.
2. Insert the battery sideways aligning the marks on the battery compartment and battery. Press on the battery *where shown* while sliding it up and locking it into place.

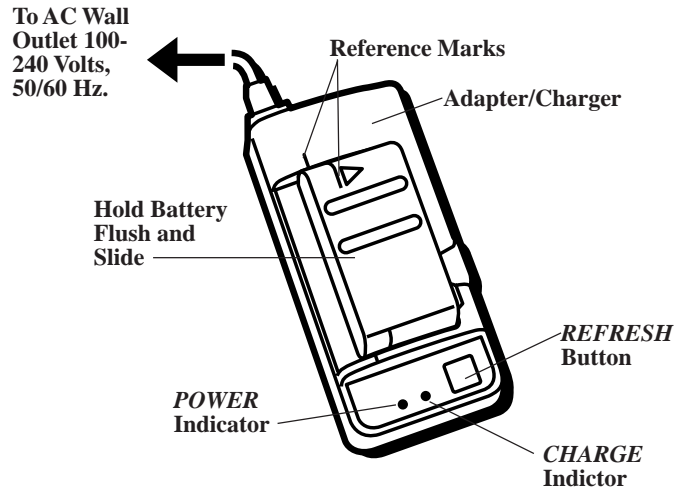
### Remove the Battery

1. Press the *OPEN* button to open the LCD monitor. Carefully open the monitor fully.
2. Press in the *BATT* (battery release) button, slide the battery down, and remove it.
3. Close the LCD monitor and press it gently until it locks into place.

**ATTENTION:** The RBRC seal on the battery used in your Thomson Consumer Electronics product indicates that we are participating in a program to collect and recycle Nickel Cadmium batteries throughout the United States. Please call 1-800-8-BATTERY for information or contact your local recycling center.



## First-Time Operation



**Caution:** When a battery is attached to the adapter/charger, do not turn them upside down. The battery may fall off and be damaged or cause injury.

### Charge the Battery

If the DC cable is attached to the *DC OUT* jack on the adapter/charger, remove its plug.

1. Plug adapter/charger into nearest AC outlet (100-240V, 50/60Hz). The *POWER* indicator lights.
2. Align reference marks on battery with marks on adapter/charger, and slide the battery in the direction of the arrow until it locks into place.
3. If the battery is properly connected, the adapter/charger's *CHARGE* indicator will light.

**Note:** The *CHARGE* indicator will flash rapidly if the battery is not installed properly. Remove the battery from the adapter/charger and attach it again. If the indicator still flashes, the battery cannot be charged.

4. When the *CHARGE* indicator turns off, remove the charged battery by sliding it off the adapter/charger.

5. Remove the power cord from the AC outlet.

### Refresh the Battery

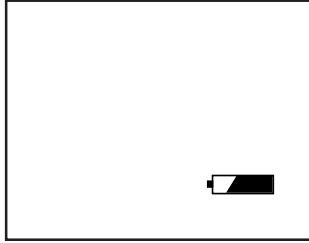
The battery will provide increased operation time if you "refresh" it before every charging. The refresh feature "refreshes" the battery by completely discharging it. Refreshing takes approximately 4 hours.

1. Plug in the adapter/charger and attach the battery.
2. Press *REFRESH*. The *CHARGE* indicator flashes slowly while the battery discharges.
3. When discharging is completed, the *CHARGE* indicator stops flashing. Then the battery begins charging.
4. After the battery is charged, the *CHARGE* indicator turn off.




## First-Time Operation


### Battery Level Indicator

The battery level indicator appears when approximately half the battery power is left. This indicator shows you the amount of power in the rechargeable battery.



Battery Level Indicator  
in Viewfinder or on LCD Monitor

- As the power is used , , and  appear.

- When there is approximately five minutes of battery power left in the battery,  appears. The camcorder will turn off automatically after a few seconds. Slide the *POWER* switch up and turn off the camcorder before replacing the battery.

The battery level indicator will not be recorded on the tape when it appears.

### Battery Care and Storage

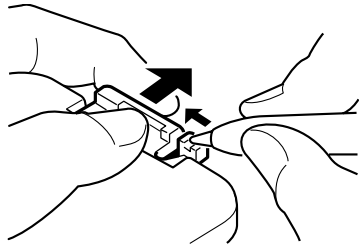
- Store the battery pack in a place that does not reach high temperatures.
- Remove the battery from the camcorder when it is not in use to prolong the battery life.
- The battery will provide increased operation time if you “refresh” it before every charging.
- Recharge the battery just before it is used. If the battery is recharged and not used, it will slowly lose its charge.
- Charge the battery within a temperature range of 50°F to 86°F (10°C to 30°C) to prevent damage.
- After repeated charging and use, operation time will gradually decrease. When operation time becomes too short to be useful, it is time to replace the battery.
- Let a hot battery cool down before attaching it to the AC adapter/charger. The battery operating time may be shorter than normal even after a full charge.
- If it is being used for the first time. The operating time is restored after the battery has been refreshed and recharged for two or three times.
- If it is used in low temperatures.
- If it is stored at temperatures above 104°F (40°C).
- If it is discharged completely and stored for a long period (more than three months).
- If the record-pause mode is used frequently.
- If cassette loading and unloading is excessive.
- Frequent zooming in and out.



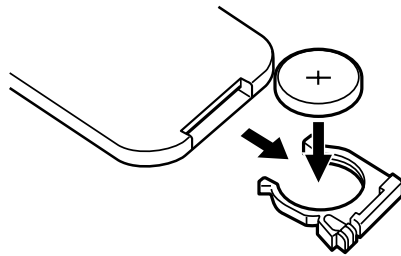
## Remote Control

### Install Remote's Lithium Cell

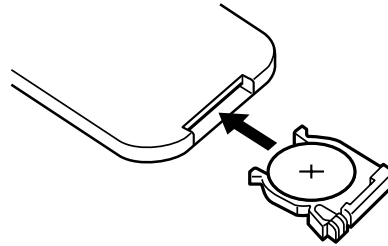
The remote's lithium cell is packed separately. Install it in the remote *as follows*:



1. Turn the remote over, insert a pencil or paper clip in the small hole, and slide the cell holder in the direction of the arrow to remove it.



2. Insert the cell in the cell holder so the positive (+) terminal faces up.



3. Replace the cell holder in remote by pressing in until it clicks into place.

**Notes:** Never place anything heavy on top of the remote control or lay it upside-down.

Replace cell when camcorder fails to respond to remote.

Remove cell from remote if it will not be used for a month or more. This will prevent possible damage from cell leakage. If leakage occurs, wipe up liquid inside compartment and replace cell.

**Cautions:** Lithium cell must be disposed of properly. Never handle punctured or leaking cell. May cause burns or personal injury.

Keep out of the hands of children.

Can cause death or injury if swallowed. If swallowed, consult a physician immediately for emergency treatment.

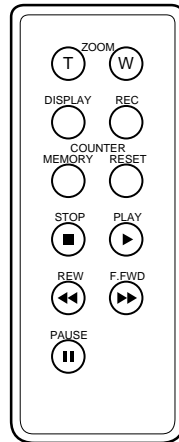
The lithium cell used in this device may explode resulting in a fire or chemical burn if mistreated. Do not recharge, disassemble, heat above 212°F (100°C), or incinerate.

Never use metallic tweezers to hold the cells, and never short circuit the + and - sides of the cell.

## Remote Control

### Remote Control Buttons

A brief description of the remote button's functions is given here. Many of the buttons perform the same function as the corresponding control on the camcorder. The battery must be installed *as shown on the previous page*.



#### **COUNTER MEMORY and RESET Buttons**

- These buttons are used with the time counter and memory-stop feature.
- *Details are on page 34.*

#### **DISPLAY Button**

- Press this button to have the camcorder's displays appear on a TV monitor connected to the camcorder.
- *Details are on page 26.*

#### **F.FWD (Fast Forward) Button**

##### **Camcorder in the CAM (Camera) Mode**

- When the camcorder is in record-pause, press and hold *F.FWD* to visually search the tape forward. Release *F.FWD* to return to record-pause.

##### **Camcorder in the VCR Mode**

- When the camcorder is stopped, press *F.FWD* to fast forward the tape. Press *STOP* to stop fast-forwarding the tape.
- When a tape is playing, press and hold *F.FWD* to visually search forward. Release *F.FWD* to return to normal playback.

#### **PAUSE Button**

- During playback, press *PAUSE* to produce a stop-action picture.

**Caution:** Pause is designed for momentary interruptions and should not be used for an extended period of time. If the camcorder remains in pause for more than three minutes, it will automatically enter the stop mode and then turn off.

## Remote Control

Press *PAUSE* or *PLAY* to return to normal playback.

### **PLAY Button**

- When the camcorder is in the *VCR* mode, press *PLAY* to begin playback.

### **REW (Rewind) Button**

#### **Camcorder in CAM (Camera) Mode**

- When the camcorder is in record-pause, press and release *REW* to review the last few seconds of your recording.
- When the camcorder is in record-pause, press and hold *REW* to visually search the tape in reverse. Release *REW* to return to record-pause.

#### **Camcorder in VCR Mode**

- When the camcorder is stopped, press *REW* to rewind the tape. Press *STOP* to stop rewinding the tape.
- When a tape is playing, press and hold *REW* to visually search in

reverse. Release *REW* to return to normal playback.

### **REC (Record) Button**

- When the camcorder is in the *CAM* (camera) mode, press *REC* to start and stop recording.

### **STOP Button**

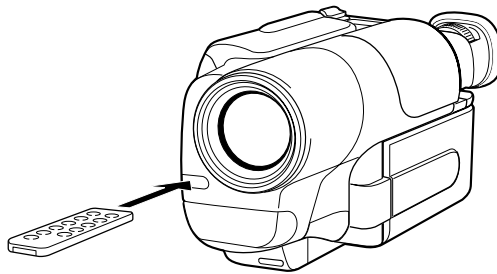
- When the camcorder is in the *VCR* mode, press *STOP* to stop playback, rewind, or fast-forward operation.

### **ZOOM Buttons (T and W)**

- When the camcorder is in the *CAM* (camera) mode:
  - Press *T* to move the lens in the telephoto (close-up) direction.
  - Press *W* to move the lens in the wide-angle direction.

## Remote Control Sensor

The remote operates the camcorder by infrared light, so it is protected from electrical and sound interference. However, the remote must be aimed directly at the camcorder's remote sensor. There cannot be any obstructions between them.



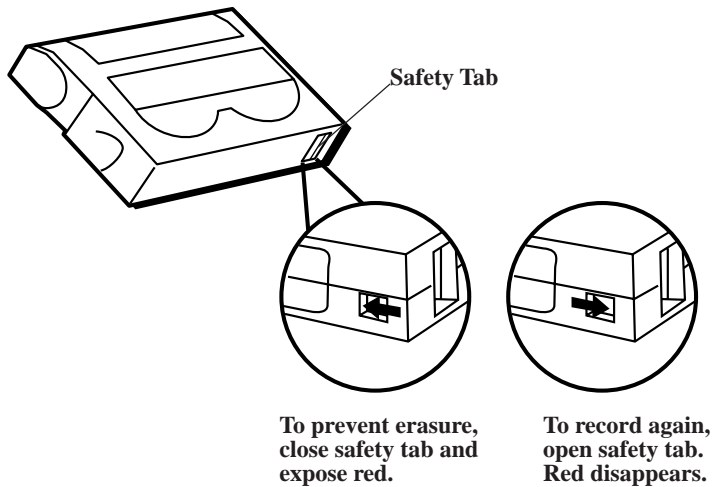
**Note:** The camcorder may not respond to the remote if the remote sensor is exposed to direct sunlight or strong artificial light.

## Video Cassettes

Make sure you select good quality tapes for your camcorder. Use of poor quality tapes or tapes that have been damaged or mishandled can contaminate the video heads, resulting in a snowy picture or no picture at all during playback. Because there is no control over the type of tape purchased or rented by consumers, head cleaning is not covered under warranty. It is considered normal maintenance.

### Erase Protection – Safety Tab

You can protect your video cassettes from being erased by closing the safety tab. To erase a previous recording, just record over it.



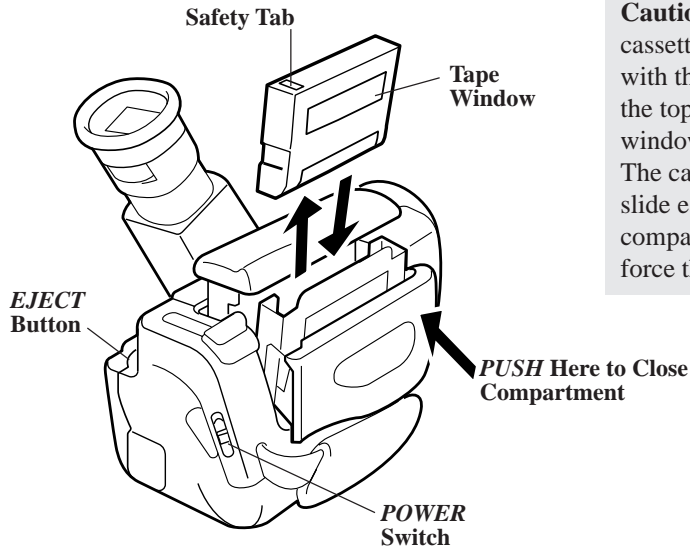
### Recording Times

The camcorder records and plays back in standard speed (SP). Maximum recording times for some 8mm cassettes using SP speed are listed.

Cassette	Recording Time
T6-15	15 Minutes
T6-20	20 Minutes
T6-45	45 Minutes
T6-60	60 Minutes
T6-90	90 Minutes
T6-120	120 Minutes
T6-150	150 Minutes

## Video Cassettes

### Insert or Remove a Cassette



**Caution:** Insert the cassette only one way with the safety tab at the top and the tape window facing out. The cassette should slide easily into the compartment. Do not force the cassette.

- Press the *EJECT* button to open the cassette compartment.
- When inserting the cassette, make sure the safety tab is at the top and the tape window is facing out.
- After inserting or removing the cassette, gently close the cassette

compartment by pressing on the area labeled *PUSH* until it clicks into place. The top closes automatically.

**Caution:** Do not press down on the top as it may damage the camcorder.

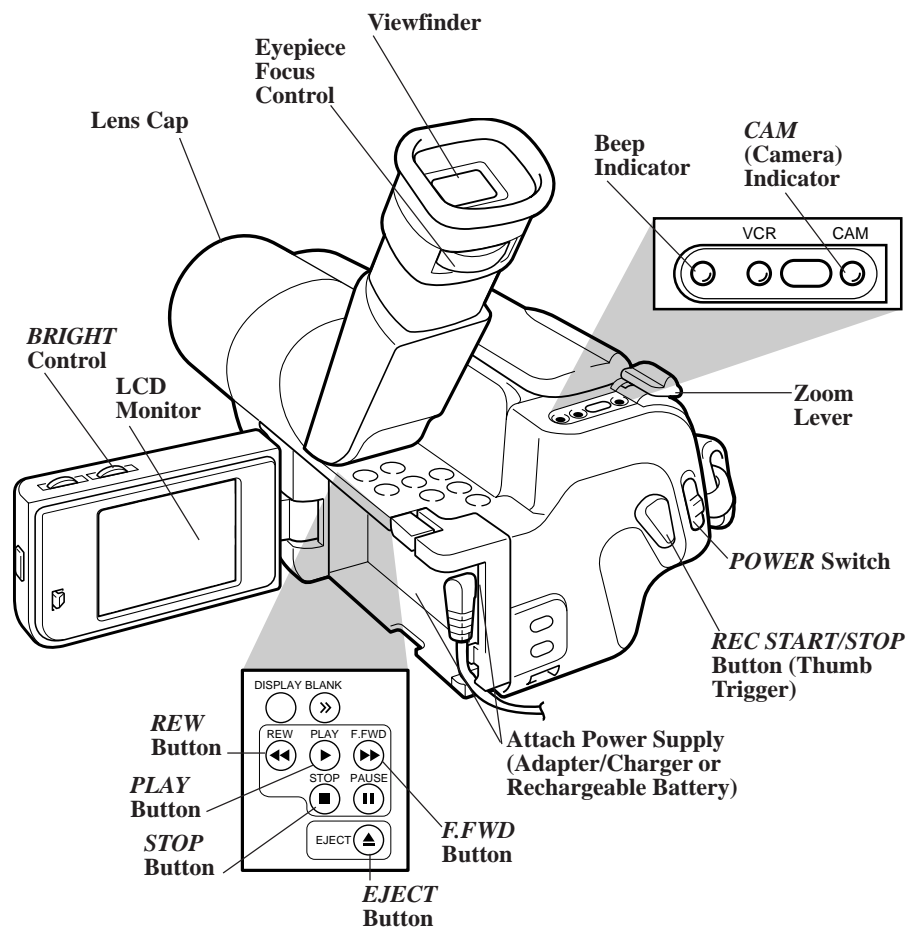
### Cassette Care and Storage

- When you are finished with a cassette, rewind it, remove it from the camcorder, and label it.
- Store cassettes vertically in their protective cases at normal room temperatures. Do not leave your camcorder or cassettes in a car or outdoors for an extended period. Excessive heat or cold may damage your cassettes.
- Keep cassettes away from strong magnetic fields such as electric motors and other devices.
- Keep dust from entering the cassette compartment. All dust is abrasive and will cause excessive wear on the tape and the camcorder's recording or playback heads.
- Do not use cassettes with damaged or spliced tape.
- Do not use a cassette if it has been damaged or exposed to moisture. The tape may jam and/or damage your camcorder.

## Recording

### Making a Recording

These steps tell you how to make a recording and suggest using some of the recording features. Each feature is described in detail on the following pages.



## Recording

### 1. Attach a power supply.

Attach the adapter/charger or charged battery.

### 2. Remove the lens cap and attach it to the handstrap.

### 3. Slide the *POWER* switch upward to turn on camcorder.

The *CAM* indicator will light and the camcorder will enter record-pause. *PAUSE* appears in the viewfinder or on the LCD monitor.

### 4. Insert a tape.

- Press *EJECT* to open the cassette compartment.
- Insert the cassette with the safety tab facing up and the tape window facing out.

### 5. Adjust the position of the LCD monitor or viewfinder for comfortable viewing.

- If you are using the LCD monitor, use the *BRIGHT* control to adjust the brightness of the monitor.
- If you are using the viewfinder, adjust the eyepiece focus control for your vision.

### 6. Start and stop recording.

- Press and release the *REC START/STOP* button (thumb trigger) to start recording. *REC* appears on the LCD monitor or in the viewfinder.
- Press and release the thumb trigger again to stop recording. The camcorder is now in record-pause. *PAUSE* appears in the viewfinder or on the LCD monitor.

- The camcorder will automatically turn off if it remains in record-pause for three minutes. Slide the *POWER* switch upward to turn the camcorder back on.

- The camcorder has a beeper that beeps for certain functions. The beep indicator flashes with the beeps. To turn off the beeper, press and hold *STOP* and *PLAY* together until *BEEP OFF* appears on the monitor or in the viewfinder.

*Details on page 27.*

### 7. Zoom in and out.

- Zoom in and out using the *T* and *W* zoom lever.

### 8. Review what you have recorded.

- Press and quickly release *REW* to review the last few seconds of your recording.
- Press and hold *REW* or *F.FWD* to visually see what you have recorded. Release the button to begin recording at that point.

### 9. When you are finished, slide the *POWER* switch upward to turn off the camcorder, close the monitor, and replace the lens cap.

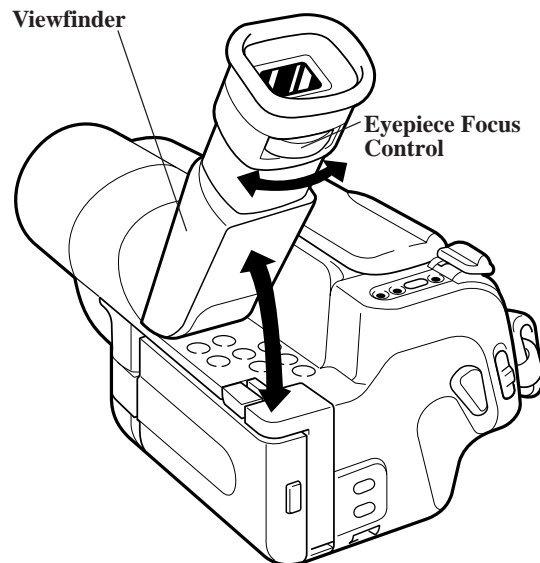
## Recording

### Viewing What You Are Recording Using the Viewfinder or LCD Monitor

You can watch what you are recording in the black-and-white viewfinder or on the color LCD monitor. Opening the monitor turns off the viewfinder unless the monitor is rotated 130° or more.

#### Using the Viewfinder

The camcorder's viewfinder is a miniature black-and-white monitor that displays the picture seen by the camcorder when recording. For convenient viewing, you can rotate the viewfinder up and down.



**Cautions:** Do not force the viewfinder to rotate completely around. This will damage the viewfinder and/or the camcorder.

When carrying the camcorder with the shoulder strap, place the viewfinder down. This helps prevent possible damage to the viewfinder from bumping against your body as you move.

Do not direct the viewfinder toward the sun or key parts in the cavity may burn.

#### Eyepiece Focus Control

The eyepiece focus control lets you set the focus of the viewfinder for your vision. If you wear eyeglasses, you probably can operate the camcorder without them.

It is easiest to set the correct focus by focusing on one of the viewfinder's on-screen displays. Look through the viewfinder and adjust the eyepiece focus control for your vision.

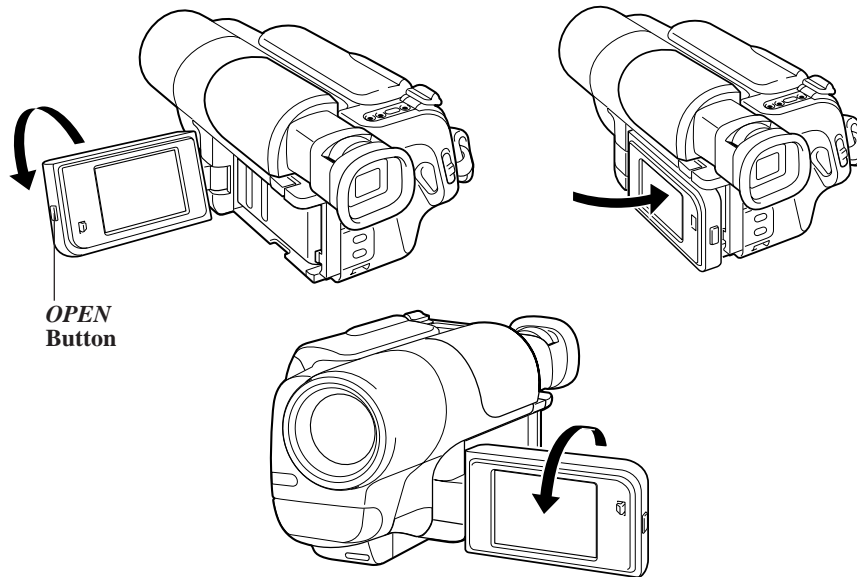
The eyepiece focus control does not affect the focus of the picture actually recorded by the camcorder.



## Recording

### Using the LCD Monitor

The camcorder's LCD monitor is a miniature color monitor that displays the picture seen by the camcorder when recording.



1. Press the *OPEN* button to open the LCD monitor.
2. Rotate the monitor into a comfortable viewing position. The monitor can be rotated 180° and pushed back against the camcorder.
  - Tilt the monitor down to record from a high angle, such as over a crowd.
  - Tilt the monitor up to record from a low angle, such as when you are kneeling.
  - Rotate the monitor 180° so the subject being recorded can view the monitor.

**Note:** When the monitor is opened, the viewfinder is normally turned off. However, if the monitor is rotated 130° to 180°, the viewfinder will remain on so the subject and the camcorder operator can both see what is being recorded.

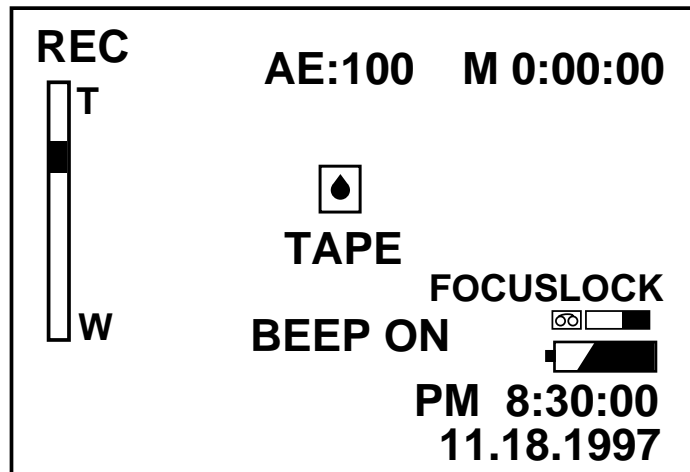
- Adjust the brightness of the image in the monitor by rotating the *BRIGHT* control.

**Note:** When recording on a bright sunny day, the LCD monitor may be hard to see. Use the viewfinder.

3. When you are finished recording, rotate the LCD monitor toward the camcorder, close the monitor, and press it gently until it locks into place.

## Recording

### LCD Monitor and Viewfinder Displays



Displays in LCD Monitor or Viewfinder

#### Auto Exposure Higher Shutter Speed Indicator (*AE:100*, *AE150*, or *AE:250*)

- A shutter speed (1/60, 1/100, 1/150, or 1/250 second) is automatically selected by the camcorder.
- No indicator appears for the 1/60 second shutter speed.
- *AE:100*, *AE150*, or *AE:250* will appear when one of the shutter speeds has been selected by the camcorder.

#### Battery Level Indicator ( )

- This indicator shows how much power is left in the rechargeable battery.
- *Details are on page 14.*

#### *BEEP ON* Indicator

- *BEEP ON* or *BEEP OFF* appears when you turn the beep function on or off.
- *Details are on page 27.*


#### Date Display (*AUTO DATE*, *Date*, *Date and Time*, or *88:88*)

- *AUTO DATE*, the date, or the date and time appears in this area of the viewfinder when you press the *DATE* button.
- These displays will be recorded on the tape when they appear.
- *Details are on page 33.*

## Recording

- 88:88 appears when the clock's lithium cell has not been installed or needs to be replaced.
- *Details are on page 31.*

### Focus Indicators (**FOCUSLOCK** and )

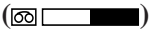
- **FOCUSLOCK** appears briefly when you lock the focus with the **FOCUS LOCK** button. Then  remains during focus lock.
- *Details are on page 30.*

### Status Displays

Several status displays appear to let you know what the camcorder is doing.

- **FF** appears during fast-forward operation.
- **PAUSE** appears during record-pause.
- **REC** appears during recording.
- **REW** appears during rewind.
- **STOP** appears during stop-action pause.

### Tape-Remaining Display





- The tape-remaining display shows the approximate amount of tape remaining in the cassette.
- *Details are on page 28.*

### Time Counter (**M 0:00:00**)

- The time counter appears during recording and playback. It is not recorded.
- An “**M**” appears in front of the time counter when memory-stop feature is on.
- *Details are on page 34.*

### Warnings and Information

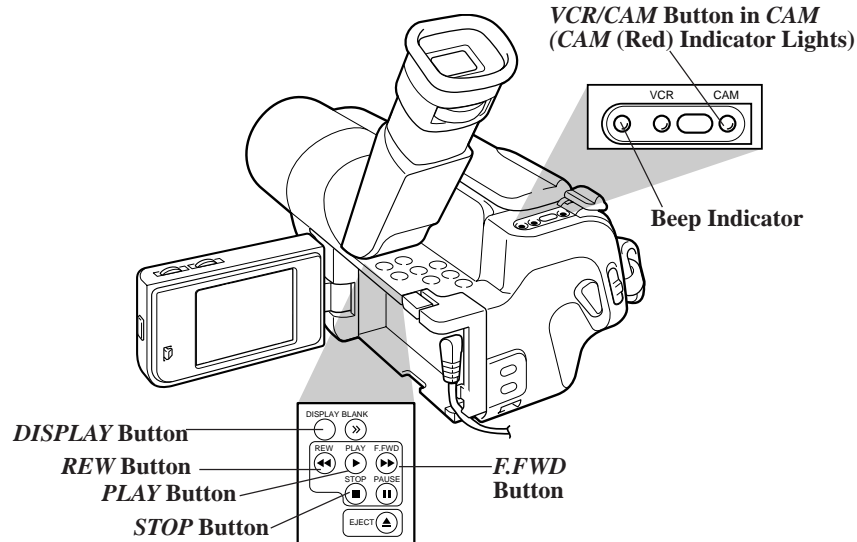
The following warnings with the exception of the **TAPE** indicator cause the camcorder to beep ten times.

- **TAPE** appears during recording when there is approximately five minutes of recording time left on the tape.
- **TAPE END** appears during recording when the tape is at its end or when a cassette is inserted with its tape already at the end.
-  appears when the safety tab on the cassette has been closed, there is no cassette in the camcorder, or condensation has formed inside the cassette or camcorder.
-  appears when moisture (condensation) has formed inside the cassette or camcorder. The camcorder will not operate. Place the camcorder or cassette in a warm, dry area until the indicator disappears.

### Zoom Indicator ()

- The zoom indicator appears here when you use the zoom lever.
- *Details are on page 29.*

## Recording



### Flying Erase Head

A separate erase head is mounted on the spinning headwheel (hence the term “flying”). This allows you to make clean edits without the “glitches” or “rainbow noise” that may occur at the beginning or the end of recordings.

### Quick Review Feature

Press and release *REW* when the camcorder is in record-pause to review the last few seconds of a recording. Make sure the camcorder is in the *CAM* mode.

The camcorder will play back the last few seconds of the recording, return the tape to its previous position, and return to record pause.

### Camera Edit Feature

The camera edit feature allows you to position the tape when the camcorder is

in record-pause. Make sure the camcorder is in the *CAM* mode.

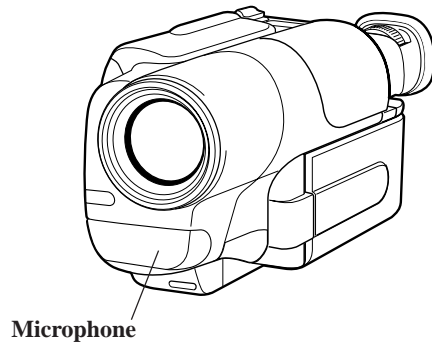
- Press and hold *REW* to visually search the recorded tape in reverse.
- Press and hold *F.FWD* to visually search forward on the recorded tape.

Release the button to return the camcorder to record-pause at that point on the tape. Press the thumb trigger (*REC* on remote) to start recording at this point.

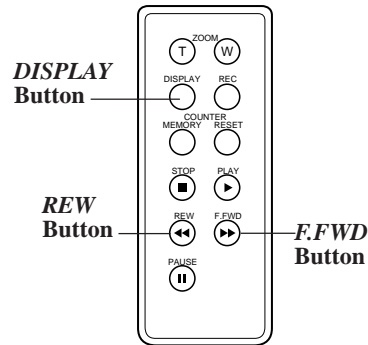
### DISPLAY Button

- Press the *DISPLAY* button when the camcorder is connected to a TV monitor to have the viewfinder or LCD monitor displays appear on the TV screen.
- These displays will be recorded during tape copying if they appear.
- Press *DISPLAY* again to remove the displays from the TV screen.

## Recording



Microphone



### Microphone

The microphone picks up the sound during a recording. It is more sensitive to sounds coming from the direction the lens is pointed.

### Automatic White Balance and Iris

The camcorder automatically adjusts white balance and the iris for the current conditions to give you the best recording.



### AE (Automatic Exposure) Shutter Speed Control

The camcorder automatically adjusts the shutter speed (1/60, 1/100, 1/150, or 1/250) according to the lighting conditions.

- The 1/60 second speed is selected for normal recording. No indicator appears for 1/60 second.
- When recording in bright light, a higher shutter speed is selected. The indicator (*AE:100*, *AE:150*, or *AE:250*) for the speed selected will appear.

### Beep Feature

The camcorder has a beep feature that operates as follows. The beep can be turned on or off.

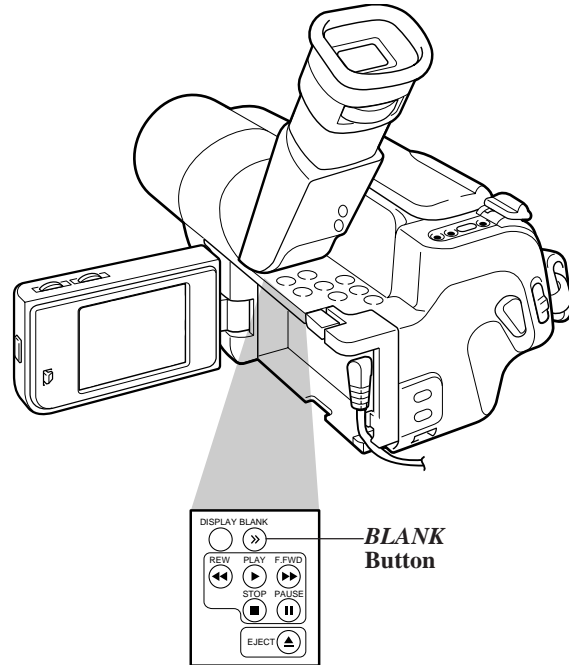
- One beep for a standard function (turning power on, starting recording or playback, ejecting a tape, etc.).
- Two beeps for stopping a recording.
- Ten beeps for a warning such as *TAPE END*, no cassette (  ), or dew (  ).
- The beep indicator flashes during beep operation.

### Turning the Beep On or Off

- Place the camcorder in record-pause.
- Press and hold the *STOP* and *PLAY* button together for a few seconds.
- *BEEP OFF* or *BEEP ON* appears in the viewfinder or on the LCD monitor.

**Note:** The beep feature remains on until you turn it off or the lithium cell is changed.

## Recording



### Blank Search

The camcorder will advance through the tape and look for a blank section. This helps you locate the end of the last recorded section.

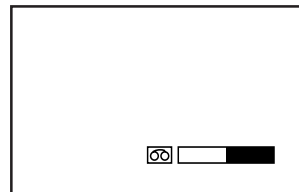
1. Place the camcorder in record-pause in the *CAM* mode or stop in the *VCR* mode to blank search.
2. Press the *BLANK* button. The camcorder will fast-forward or rewind the tape to the end of the recorded section and enter record-pause or stop.


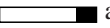

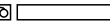
**Notes:** Make sure the camcorder has stopped at the point where you want to begin recording. If there are blank sections of tape between recordings that are 60 seconds long, the camcorder may stop at this point.

### Tape-Remaining Display

The camcorder will automatically calculate the amount of recording time left on the tape in the camcorder during recording or playback.

- The tape-remaining indicator will appear in the viewfinder or LCD monitor when you reach the halfway point of the tape.

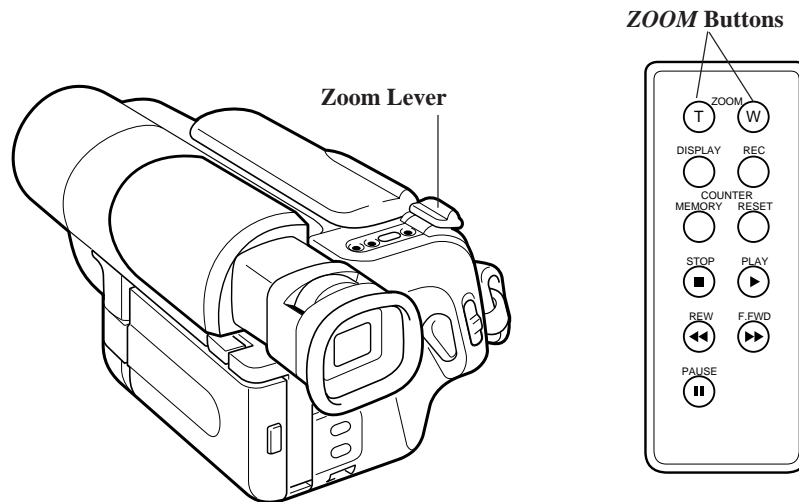


-   and   appear as you near the end of the tape. *TAPE END* flashes when you reach the end of the tape.

## Recording

### Zooming

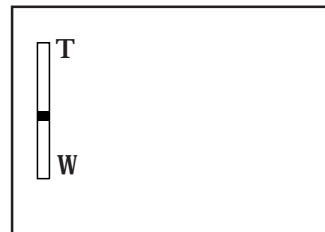
You can zoom in and out for close ups or wide-angle shots just by sliding the zoom lever on the camcorder. The camcorder can automatically focus when you zoom at most distances.



### Using the Zoom Lever

1. To zoom in or out, slide the zoom lever on the camcorder or press *ZOOM T* or *W* on the remote.
  - To move the lens in the telephoto (close-up) direction, slide the zoom lever toward *T* (press *ZOOM T* on remote).
  - To move the lens in the wide angle direction, slide the zoom lever toward *W* (press *ZOOM W* on remote).

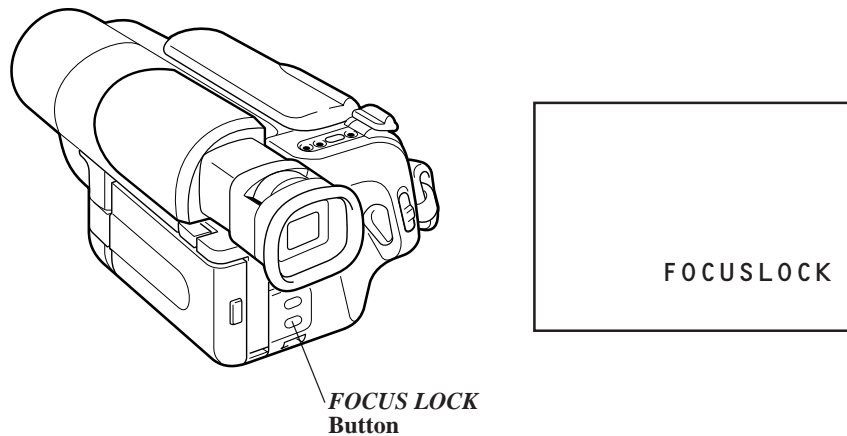
The zoom level indicator appears in the viewfinder or on the LCD monitor.



## Recording

### Focusing

Under normal conditions, the camcorder can adjust focus automatically on the object located in the center area of the viewfinder. Under certain conditions, you may want to use the focus lock feature.



### Using Focus Lock

The focus lock feature is useful when objects pass between your subject and the camcorder or your main subject is not located in the center of the scene you are recording.

1. Center the main subject in the scene you want to record.
2. Press the *FOCUS LOCK* button to turn on the focus lock feature. *FOCUSLOCK* appears briefly in the viewfinder or LCD monitor and the  $\Psi$  indicator remains when the focus lock feature is turned on.
3. Press the *FOCUS LOCK* button again to turn off the focus lock feature. The  $\Psi$  indicator disappears.

**Note:** When zooming in to record a subject in the distance, auto focus might

not function properly because of picture instability. Using a tripod helps stabilize the focus.

### Conditions Requiring Focus Lock

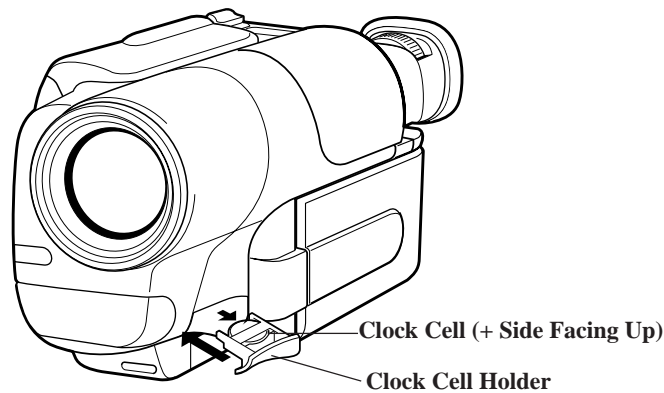
- When recording a subject through a dirty window.
- When recording two subjects at different distances that overlap in the same scene.
- When recording a horizontally or vertically striped subject.
- When the subject is not in the center of the scene you are recording.
- When recording very bright subjects.
- When recording a subject without contrast, such as a white wall.



## Recording

### Date/Time Display — Clock Lithium Cell

The clock cell indicator 88:88 will flash for a few seconds in the viewfinder when you turn on the camcorder if the clock lithium cell has not been installed or needs to be replaced.



#### Install the Clock Lithium Cell

1. Make sure camcorder is turned off, and remove any power supply attached to the camcorder.
2. Pull out the clock cell holder.
3. Insert the clock cell with the “+” terminal facing up in the cell holder.

4. Slide the clock cell holder with the cell into the camcorder until it clicks into place.

#### Remove the Cell

1. Slide the cell holder out of the camcorder.
2. Remove the cell from the cell holder.

**Cautions:** Lithium cell battery. Replace only with 3-volt lithium cell – such as CR2025. Use of other cell presents a risk of fire or explosion. Must be disposed of properly. Never handle punctured or leaking cell. May cause burns or personal injury.

Keep out of the hands of children. Can cause death or injury if swallowed. If swallowed, consult a physician immediately for emergency treatment.

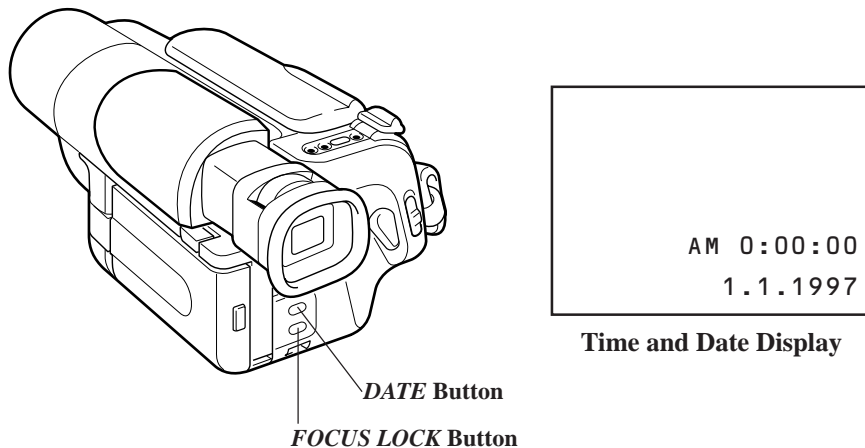
The lithium cell used in this device may explode resulting in a fire or chemical burn if mistreated. Do not recharge, disassemble, heat above 212°F (100°C), or incinerate.

Never use metallic tweezers to hold the cell, and never short the + and – sides of the cell.

## Recording

### Date/Time Display — Setting the Time and Date

The correct date and time must be set before it can be displayed and recorded on your tapes. The clock cell must be installed *as shown on the previous page* before the date can be set and recorded.



#### Set the Time and Date

1. Make sure the camcorder is in the record-pause mode.
2. Press and hold the **DATE** and **FOCUS LOCK** buttons together until the reset time and date appear.  
A flashing cursor lets you know which part of the display you are setting.
3. Repeatedly press the **DATE** button until the correct month appears.
4. Then press the **FOCUS LOCK** button to move the flashing cursor to the next part of the display.
5. Repeat steps 3 and 4 until you have entered the correct month, day, year, hour with AM or PM, and minutes.

6. After you set the minutes, press the **FOCUS LOCK** button to start the clock and remove the flashing cursor from the display.

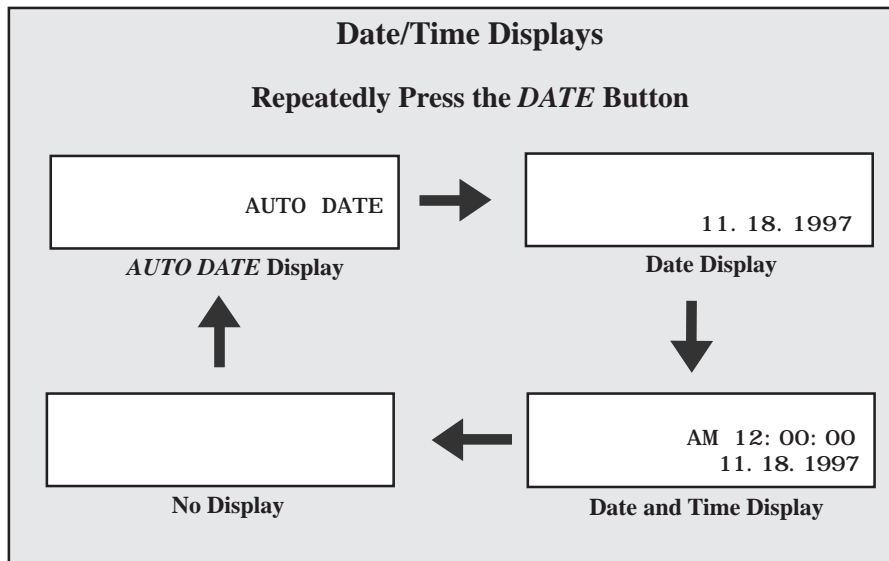
#### Correct the Time and Date

1. Make sure the camcorder is in the record-pause mode.
2. Press and hold the **DATE** and **FOCUS LOCK** buttons together until the reset time and date appear.
3. Correct the time and/or date using the **DATE** and **FOCUS LOCK** buttons.

## Recording

### To Record the Date or Date and Time on Your Tape

The date or date and time can be recorded on your tape. Whenever one of the displays appears, it will be recorded. The camcorder also has an *AUTO DATE* feature that will record the date at the beginning of the first recording of the day. The clock cell must be installed and the clock set to record the correct date or time.



### Select the Date or Time and Date to Record

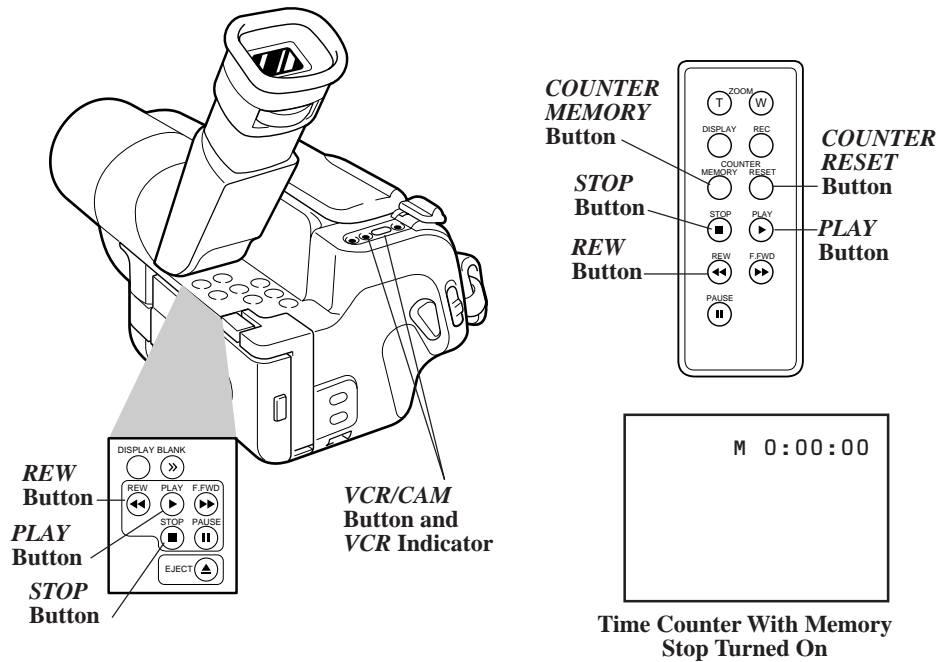
1. Repeatedly press the *DATE* button to select the display you want to record.
  - Select *AUTO DATE* to automatically record the date for 15 seconds at the beginning of the first recording of the day.

**Note:** *AUTO DATE* will remain selected even when the camcorder's power is turned off.
  - Select date only to continuously record the date.
  - Select date and time to continuously record the time and date.
  - Select no display if you do not want to record the date or date and time on your tape.

## Recording

### Time Counter

The time-counter display shows the actual time elapsed when recording or playing back a segment of tape. During playback, the memory-stop feature helps locate a certain point on the tape. When memory stop is on, the tape will stop automatically during rewind or fast-forward when the time counter reaches *M 0:00:00*.



### To Use the Memory-Stop Feature

1. Locate the place on the tape you want to return to, press the *VCR/CAM* button to light the *VCR* indicator, and press *PLAY*.
2. Press the *COUNTER RESET* button on the remote to reset the time counter to *0:00:00*.
3. Press the *COUNTER MEMORY* button on the remote control to turn memory stop on. An *M* appears in front of the time counter when memory stop is on.
4. Continue to play the tape. When you want to return to the place you marked, press the *STOP* button.
5. Press the *REW* button. The tape will rewind to the time counter reading of *M 0:00:00*.

**Notes:** During rewind, the tape might not stop exactly at the *M 0:00:00* point.

A minus (-) will appear in front of the time counter if the tape is rewound farther back than a time counter reading of *0:00:00*.

## Recording

### Recording Tips

- In case of fire or theft, make a video recording of your home and contents to store in a safe place.
- Try to make sure indoor scenes are well-lit.
- Do not move the camcorder rapidly from side-to-side while recording. A steady, gradual “pan” avoids blurring and “jitter”.
- Use the viewfinder or LCD monitor to make sure the camcorder is level while recording or your scenes will appear “tilted”.
- Do not bump or tap the camcorder’s microphone while recording because this sound will be recorded.
- Include close-ups of individuals when taping family outings or group functions.
- Be aware of video and audio backgrounds. Background details barely noticed while you are taping may show up as visual “clutter” on your recording. Background noises (especially TV sets, radios, household appliances, traffic sounds, etc.) can detract from the sound you want to record.
- Avoid long “still” shots of landmarks and scenic attractions. Recordings are more interesting if they include people and details. “Local color” will give travel videos lasting appeal. Consider recording a familiar or landmark scene from an unfamiliar vantage point.

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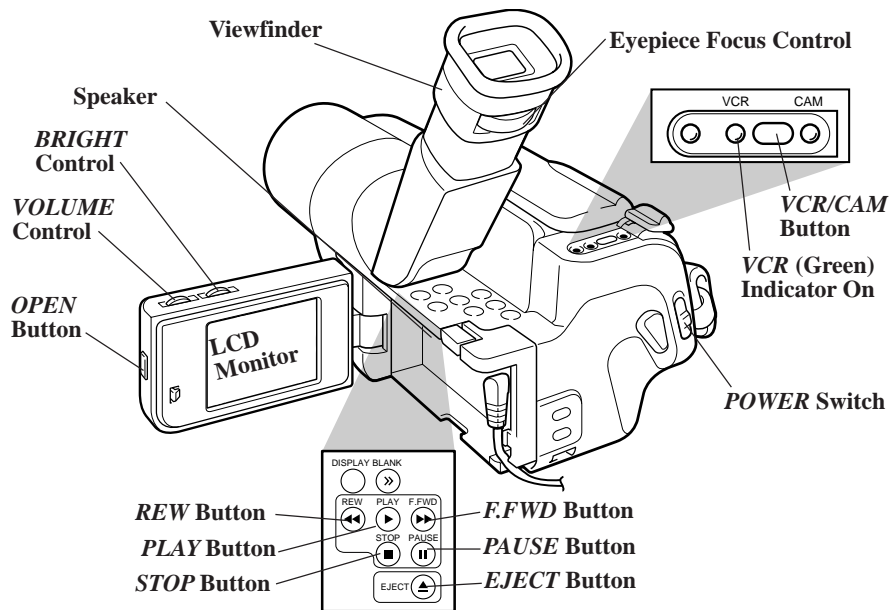
### Traveling Tips

- Write down your camcorder’s serial number and keep it separate from the camcorder when traveling. If your camcorder is lost or stolen, you will be able to identify it.
- Use extra care to avoid damage to your camcorder and accessories when operating them at a beach or pool. Spray, sand, and dust should be avoided. If your lens has been exposed to the elements, clean it only with proper lens cleaning supplies.
- Make sure you have any plug adapters that you may need before taking your camcorder to other countries. Consult your dealer for advice.
- Carry your camcorder in a carrying case when traveling. *See page 42* for a case designed especially for this camcorder. An ordinary suitcase or carry bag does not offer the protection your camcorder needs. Treat your camcorder as carry-on luggage to protect it from rough handling.

## Playback

### Playback Using the LCD Monitor or Viewfinder

You can view tapes in color using the LCD monitor or in black-and-white using the viewfinder. The viewfinder will be turned off when you open the monitor. You can hear the sound from the tapes on the built-in speaker when you use the monitor.



### To Play Back a Tape

1. Attach a power supply, and slide the **POWER** switch up to turn on the camcorder.
2. Press the **VCR/CAM** button to light the **VCR** (green) indicator.
3. Press **EJECT** to open the cassette compartment and insert the cassette you want to play back. Close the cassette compartment.
4. Use the LCD monitor or viewfinder to view what you are playing back.
5. Press **PLAY** to begin playback. During playback, use the playback features described on the next page.
6. Press **STOP** when you are finished.

#### Use LCD monitor

- Press the **OPEN** button and open the monitor. Adjust the monitor for convenient viewing.

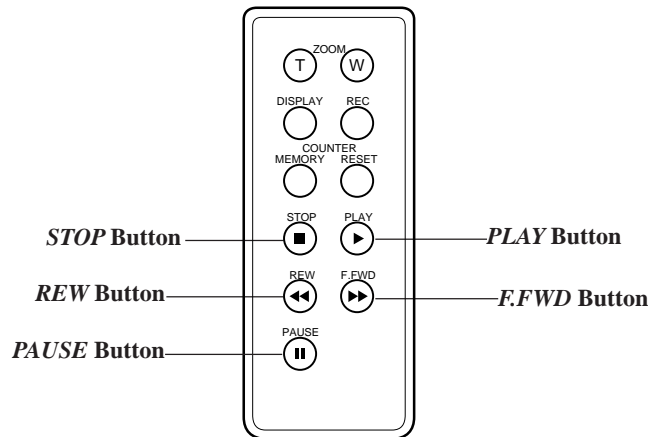
- Adjust brightness with the **BRIGHT** control.
- Adjust the volume of the speaker with the **VOLUME** control.

#### Use the Viewfinder

- Adjust the viewfinder for convenient viewing.
- Adjust the eyepiece focus control for your vision.

## Playback

### Playback Features



### Visual Searching

1. During playback or play-pause, press and release *F.FWD* or *REW* if you want to search the tape visually in forward or reverse.
2. Release the button to return to normal playback.

### Tape Positioning

1. Slide the *POWER* switch up to turn on the camcorder.
2. Press the *VCR/CAM* button to light the *VCR* indicator on the camcorder.
3. Press and quickly release *REW* or *F.FWD* to rewind or fast-forward the tape.
4. Press *STOP* to stop the tape.

### Stop-Action Pause

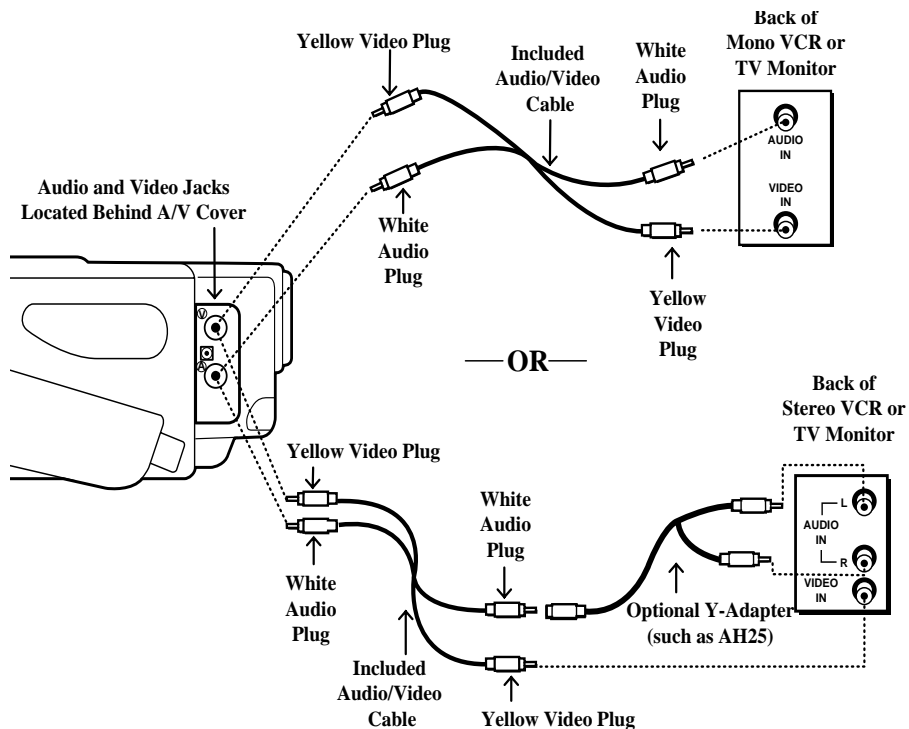
1. During playback, press *PAUSE* to “stop the action” and view one frame of the tape.
2. Press *PLAY* or *PAUSE* to return to normal playback.

**Caution:** Pause is designed for momentary interruptions and should not be used for an extended period of time. If the camcorder remains in pause for more than five minutes, it will automatically enter the stop mode and then turn off to prevent excessive tape wear.

## Playback

### Playback on TV (or VCR) with *AUDIO/VIDEO IN* Jacks

To connect your camcorder to a TV monitor (or VCR) with *AUDIO/VIDEO IN* jacks, you will need the audio/video cable that came packed with your camcorder. If your TV is already connected to a VCR, you can attach the camcorder to the VCR and watch what the camcorder is recording or playing on the TV.



### Installation

1. Attach the white plug on one end of the included audio/video cable to the *AUDIO IN* jack on the TV (or VCR).  
**Notes:** If your TV (or VCR) has stereo *AUDIO IN* jacks, attach the plug to the one labeled *MONO*. If one is not labeled *MONO*, you may need a Y-adapter, such as AH25, shown on page 43 to hear both channels.
2. Attach the yellow plug to the *VIDEO IN* jack on the TV (or VCR).
3. Attach the white plug on the other end of the audio/video cable to the *A* (audio) jack (located under the small cover) on the side of the camcorder.
4. Attach the yellow plug to the yellow *V* (video) jack on the camcorder.



## Playback

### Playback Operation and How to Copy Tapes on the VCR

- Camcorder connected directly to TV: Turn on the TV and tune it to the video input channel.
  - Camcorder connected to VCR that is already connected to TV: Turn on VCR and place it in the “line” or “camera mode”. (If your VCR does not have a “line” or “camera mode”, consult the VCR owner’s manual.) Operate the TV as you normally do to see the signal coming from the VCR.
- Slide the *POWER* switch up to turn on the camcorder.
- Press the *VCR/CAM* button to place the camcorder in the play mode. The green *VCR* indicator will light.
- Press the *PLAY* button.
  - During playback, use the playback features *on page 37*.
- To copy what the camcorder is playing, place a blank cassette in the VCR, and press the VCR’s *RECORD* button.

**Note:** Make sure the memory-stop feature is turned off (press *COUNTER MEMORY*) or the camcorder will enter play pause when the counter reaches *M 0:00:00*.
- Press *STOP* when you are finished.

**Caution:** The unauthorized recording of copyrighted material may infringe the rights of others.

### Viewing What the Camcorder is Seeing (or Recording)

- Camcorder connected directly to TV: Turn on the TV, and tune it to the video input channel.
  - Camcorder connected to VCR that is already connected to TV: Turn on VCR and place it in the “line” or “camera mode”. (If your VCR does not have a “line” or “camera mode”, consult the VCR owner’s manual.) Operate the TV as you normally do to see the signal coming from the VCR.
- Slide the *POWER* switch up to turn on the camcorder. The red *CAM* indicator will light.

**Note:** When the camcorder is used as a camera, turn the TV’s volume down to prevent a high-pitched squeal caused by feedback.
- Press the *REC START/STOP* button (thumb trigger) to begin recording. You can watch what the camcorder is seeing (or recording) on the TV screen.

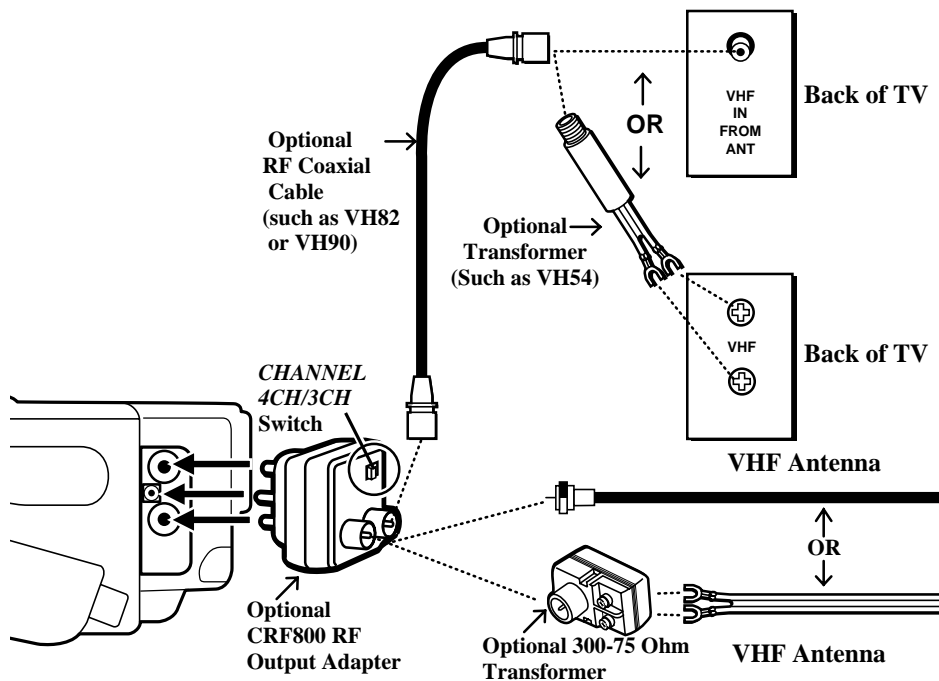
**Notes:** The remote will also operate the camcorder.

Press the *DISPLAY* button to have the camcorder’s displays appear on the TV screen. During tape copying, these displays will be recorded when they appear on the TV screen.

## Playback

### Playback on a TV without Audio/Video Inputs

To connect your camcorder to a TV without audio/video inputs, you will need an optional CRF800 output adapter and an optional coaxial RF cable, such as VH82 or VH90 shown on page 43. If your TV has *AUDIO* and *VIDEO IN* jacks (or is connected to a VCR), refer to pages 38-39.



### Installation

1. Disconnect the VHF antenna from your TV. Connect the antenna to the connector on the RF output adapter *as shown above* if you are going to leave the adapter connected to the TV.

**Note:** If your VHF antenna is the flat twin-lead type attached by two screws, you will also need an optional 300/75 ohm transformer.

2. Attach one end of the optional coaxial RF cable to the other connector on

the adapter, and attach the other end to the VHF input on your TV *as shown*.

**Note:** If your TV has 300 ohm screw terminals, you will need a 75/300 ohm transformer, such as VH54, *shown on page 43*.

3. Attach the RF output adapter's plug to the *A*, *RF OUT*, and *V* jacks located under the small cover on the side of the camcorder.

## Playback

### Playback Operation

1. Set the *CHANNEL 4CH/3CH* switch on the RF output adapter to *CHANNEL 4CH* or *3CH*.
2. Turn on the TV, and tune it to the same channel you selected with the RF output adapter's *CHANNEL* switch.
3. Slide the *POWER* switch up to turn on the camcorder.
4. Press the *VCR/CAM* button to place the camcorder in the play mode. The green *VCR* indicator will light.
5. Press the *PLAY* button.
  - During playback, use the playback features *on page 37*.
6. Press *STOP* on the camcorder when you are finished.

### Viewing What the Camcorder Is Recording

1. Turn on the TV and tune it to channel 3 or 4. When the camcorder is used as a camera, turn the TV's volume down to prevent a high-pitched squeal caused by feedback.
2. Set the *CHANNEL 4CH/3CH* switch on the RF output adapter to the same channel you selected on the TV.
3. Slide the *POWER* switch up to turn on the camcorder. The red *CAM* indicator will light.
4. Press the *REC START/STOP* button (thumb trigger) to begin recording. You can watch what the camcorder is seeing (or recording) on the TV screen.

**Note:** When the camcorder is used as a camera, turn the TV's volume down to prevent a high-pitched squeal caused by feedback.

### Normal TV Viewing

For normal TV viewing, you may leave the RF output adapter hooked up to the TV. Disconnect the adapter's plug from the camcorder or turn off the camcorder.

**Note:** The remote will also operate the camcorder.

Press the *DISPLAY* button to have the camcorder's displays appear on the TV screen. During tape copying, these displays will be recorded when they appear on the TV screen.

#### Note to Cable TV Installer

This reminder is provided to call your attention to Article 820-40 of the National Electrical Code (Section 54 of Canadian Electrical Code, Part I), that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

## Optional Accessories

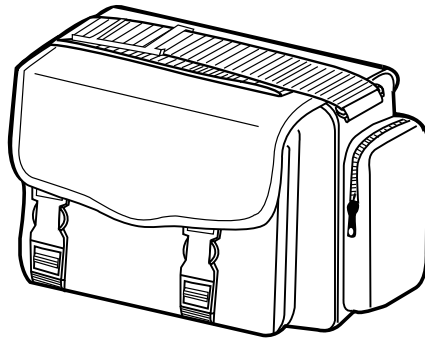
We invite you to take a look at some great ideas for sparking creativity and adding to the fun of using your compact 8mm camcorder. The following pages have a selection of accessories to help make your memorable moments look and sound even better.

These accessories are designed to make the process of recording and watching your videos more enjoyable.

**To order accessories, contact your local Dealer.**

If a dealer is not nearby, all accessories are available through toll-free ordering or by using the order form *on page 45*.

### AC201A Soft Carrying Case

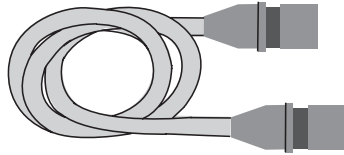


Custom compact soft case designed especially to provide protection and utility for your compact 8mm camcorder and most accessories. Rugged fabric lined

with soft non-abrasive material and generous padding. Has three outside pockets with storage for lens filters, adapters, batteries, and tapes.

## Optional Accessories

### Coaxial RF Cables

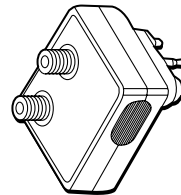


**VH82 (6-ft)**

**VH90 (12-ft)**

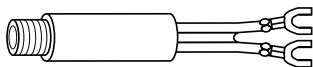
These RF cables are used with the RF output adapter to connect your camcorder to a standard TV (one without audio/video input jacks) for playback. If your TV has 300 ohm antenna screw terminals, you will need an optional 75-to-300 ohm transformer such as VH54. If your antenna cable is the flat twin-lead type attached by two screws, you will also need an optional 300-to-75 ohm transformer.

### CRF800 RF Output Adapter



This RF output adapter is used with a coaxial RF cable, such as VH82 or VH90, to connect your camcorder to a standard TV (one without audio/video inputs) for playback. If your antenna cable is the flat twin-lead type attached by two screws, you will also need a 300-to-75 ohm transformer. If your TV has 300 ohm antenna screw terminals, you will need an optional 75-to-300 ohm transformer such as VH54.

### VH54 Cable Transformer



This 75-to-300 ohm transformer is used to connect a standard 75-ohm antenna cable (such as VH82 or VH90) to the 300 ohm screw terminals on a TV.

### AH25 Y-Adapter



This Y-adapter allows you to connect your camcorder's mono audio cable to a stereo TV or VCR.

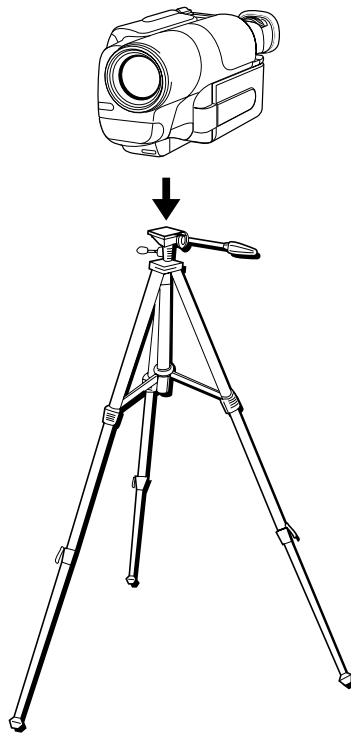
All specifications and descriptions of accessories are subject to change without notice.

## Optional Accessories

### Using the Optional AC088 Tripod

Mounting the camcorder on a tripod, such as AC088, will keep the camcorder steady and produce excellent video results.

This tripod's fluid-effect head provides smooth camera pan and tilt. The quick-release mount makes it easy to attach or remove the camcorder. The grooved, tubular 3-section leg design folds down to 26" when not in use. Rubber feet allow for sure footing.



**Cautions:** Before using a tripod, make sure it is stable enough to hold the camcorder without falling over. Do not transport the camcorder attached to the tripod.

When attaching your camcorder to a tripod, be careful not to force the tripod screw into the camcorder's tripod mounting hole.

The tripod screw should not protrude into the camcorder more than approximately three-eighth (3/8) inch. Forcing the screw could damage the mounting hole on the bottom of the camcorder.

## Accessory Order Form

<b>Order Form for Camcorder Model ProV600</b>				
Description	Part No.	Price	Qty.	Total
Super Lightweight Tripod	AC088	\$ 39.95		
Soft Camcorder Case	AC201A	\$ 39.95		
Y-Adapter	AH25	\$ 2.95		
Rechargeable Battery (Standard)	AV55	\$ 49.95		
RF Output Adapter	CRF800	\$ 59.95		
DC Cable	DCC100	\$ 12.95		
75-300 Cable Transformer	VH54	\$ 2.95		
Coaxial RF-Cable	VH82	\$ 6.95		
Audio/Video Cable	217496	\$ 5.95		
Coaxial RF-Cable	VH90	\$ 7.95		
Shoulder Strap	213004	\$ 12.95		
AC Adapter/Charger	238152	\$ 118.75		

Prices are subject to change without notice.

Total Merchandise ..... \$ \_\_\_\_\_

Sales Tax ..... \$ \_\_\_\_\_

We are required by law to collect the appropriate sales tax for each individual state, county, and locality to which the merchandise is being sent.

Shipping and Handling ..... \$ **5.00**

**Total Amount Enclosed** ..... \$ \_\_\_\_\_

Use VISA, MasterCard, or Discover.  
Money order or check must be in U.S. currency only. No COD or cash.

Detach Here

Please complete other side also


## Accessory Order Form

Charge your order on your VISA, MasterCard,  
or Discover Card by filling in below

**USE YOUR CREDIT CARD**


**IMPORTANT:** Copy complete account number from your VISA card

Expiration date:



**IMPORTANT:** Copy complete account number from your MasterCard

Expiration date:




Copy Number above your name on MasterCard

Expiration date:

**IMPORTANT:** Copy complete account number from your Discover Card

Expiration date:



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**AUTHORIZED SIGNATURE**

Prices are subject to change without notice.

Print or type your name and address clearly. This will be your mailing label.

A complete and correct order will save you days of waiting.

Name: \_\_\_\_\_

Street: \_\_\_\_\_

\_\_\_\_\_ Apt: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

**Please make sure that both sides of this form have been filled out completely.**

- Allow 4 weeks for delivery.
- All accessories are subject to availability.

Detach Here 



## Accessory Order Form

### **To order accessories, contact your local Dealer.**

If a dealer is not nearby, you can also follow the directions below to order by telephone or direct-by-mail.

### **United States and Canada Orders**

To place your order by phone, have your Visa, MasterCard, or Discover card ready and call the toll-free number listed below between 8AM and 8PM (EST) Monday through Friday or between 9AM and 5PM (EST) Saturday.

**Use this number only to place an order for accessory items listed on this order form.**

**1-800-338-0376**

To place your order by mail, detach and mail the completed order form with credit card information, money order, or check in U.S. currency (made payable to Thomson Consumer Electronics, Inc.) to the following address:

Video Accessories  
PO Box 8419  
Ronks, PA 17573

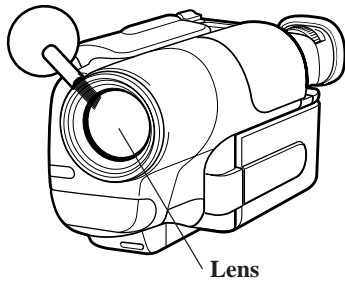
## Care and Maintenance

### Cleaning the Camcorder

To clean the camcorder's exterior, remove any power source connected to the camcorder and gently wipe it with a clean soft cloth.

**Caution:** Use of strong cleaning products, such as those containing alcohol or benzine, may damage the camcorder.

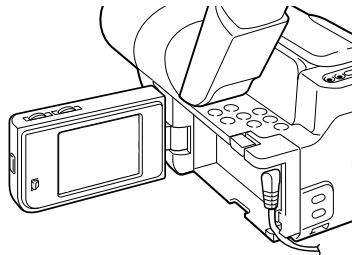
### Cleaning the Camcorder's Lens



To clean the camcorder's lens, blow it with a blower brush, and then gently wipe the lens with cleaning tissue and commercially prepared cleaning solution designed for use on camera lens. Improper cleaning may scratch the lens.

**Caution:** Do not touch the lens with your fingers. The oil from your skin can damage the lens.

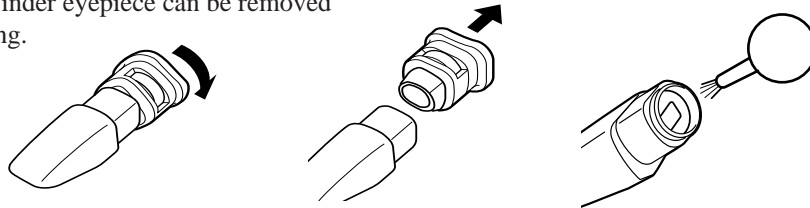
### Cleaning the Camcorder's LCD Monitor



To clean the camcorder's LCD monitor, use a clean, soft cloth to carefully wipe the monitor. Improper cleaning may scratch the monitor.

### Cleaning the Camcorder's Viewfinder

The viewfinder eyepiece can be removed for cleaning.



1. Turn the eyepiece counterclockwise and pull it out.
2. Remove dust using a blower brush.
3. Reattach the eyepiece by aligning the reference marks, and then turn the eyepiece clockwise until it clicks.

## Customer Assistance and Service

### Proper Care and Storage

- Keep dust and grit from entering the camcorder's cassette door. Dust and grit are abrasive and will cause excessive wear to both the camcorder's recording/playback heads and cassettes.
- Always replace the lens cap when the camcorder is not in use.
- Before handling your camcorder, make sure your hands and face are free from any chemical products such as suntan lotion, as it may damage the finish.
- The camcorder can be damaged by improper storage or handling. Do not subject the camcorder to swinging, shaking, or dropping.
- Do not carry the camcorder using the viewfinder or LCD monitor.
- Do not store the camcorder in temperatures below -22°F (-30°C) or above 149°F (65°C).
- When the camcorder is not in use, always remove the cassette and AC adapter/charger or battery.
- Retain the original carton for future storage or shipping purposes.

### Things to Avoid

- Do not attempt to disassemble your camcorder. There are no user-serviceable parts inside.
- Avoid operating your camcorder immediately after moving it from a cold location to a warm location. Give the camcorder 1-1/2 to 2 hours to reach a stable temperature before inserting a cassette. When the camcorder is moved from cold to warm, condensation may cause the tape to stick to the headwheel and damage the headwheel or tape.
- Do not aim your camcorder at the sun or other bright objects.
- Do not leave your camcorder in direct sunlight for extended periods of time. The resulting heat buildup could permanently damage the camcorder's internal parts.
- Do not operate the camcorder in extremely humid environments.
- Do not operate the camcorder near the ocean as salt water or salt water spray may damage the internal parts of the camcorder.
- Do not operate the camcorder for extended periods in temperatures below 40°F (4°C) or above 95°F (35°C).
- Do not expose the camcorder or adapter/charger to rain or moisture. If any component becomes wet, turn off the power and take the unit to an Authorized RCA Camcorder Service Center.
- Do not use an adapter/charger or batteries other than the ones specified for the camcorder. Use of the wrong accessories may cause damage to the camcorder.

## Trouble Checks


Troubles sometimes are caused by simple “faults” that you can easily correct without the help of a service technician by first checking a few basic remedies.

Before you call or take your camcorder to an Authorized RCA Camcorder Service Center, look below for the type of trouble you are experiencing. Then perform the simple checks and adjustments listed for that trouble.

If service should be necessary, the warranty information lists what your warranty covers and explains how to get service.

Trouble	Checks and Adjustments
No power	<ul style="list-style-type: none"> <li>• Slide the <i>POWER</i> switch upward to turn on the camcorder.</li> <li>• If using battery, it may need to be recharged.</li> <li>• If using AC adapter/charger, make sure it is plugged into a working outlet.</li> </ul>
Won't record or playback	<ul style="list-style-type: none"> <li>• If using AC adapter/charger, make sure it is plugged into a working outlet.</li> <li>• If the dew indicator (☒) flashes in the viewfinder, there is moisture in the camcorder. Wait until the dew indicator no longer appears before operating the camcorder.</li> <li>• Make sure <i>VCR/CAM</i> button is in correct position (<i>VCR</i> or <i>CAM</i>) for desired operation.</li> <li>• There may not be a cassette in the camcorder.</li> <li>• Try ejecting and reinserting the cassette.</li> <li>• The cassette tape may be broken, try another cassette.</li> <li>• You may have reached the end of the cassette, try rewinding it.</li> </ul>
Won't playback	<ul style="list-style-type: none"> <li>• <i>VCR/CAM</i> button must be in <i>VCR</i> mode.</li> </ul>
Won't record	<ul style="list-style-type: none"> <li>• Safety tab has been closed. (<i>See page 18.</i>)</li> <li>• <i>VCR/CAM</i> button must be in <i>CAM</i> (camera) mode.</li> </ul>
No picture	<ul style="list-style-type: none"> <li>• Remove lens cap.</li> </ul>
Camcorder turns itself off	<ul style="list-style-type: none"> <li>• Slide <i>POWER</i> switch upward to turn camcorder back on. If camcorder is left in record-pause or play-pause for several minutes, it will turn itself off to prevent tape wear.</li> </ul>

## Trouble Checks

Trouble	Checks and Adjustments
Tape stops during rewind or fast forward	<ul style="list-style-type: none"> <li>Time-counter memory may be on. Whenever an “M” appears with the time-counter display, the camcorder will stop rewinding (or fast forwarding) when counter reads <i>M 0:00:00</i>. Press <i>REW</i> or <i>F.FWD</i> again to continue rewinding or fast-forwarding, or press <i>COUNTER MEMORY</i> on the remote to turn off the memory-stop feature.</li> </ul>
Camcorder remains in pause mode	<ul style="list-style-type: none"> <li>Press <i>PLAY</i> or <i>PAUSE</i> to return to normal playback.</li> </ul>
Recorded sound is too low or distorted	<ul style="list-style-type: none"> <li>Subject was too far from camcorder.</li> </ul>
Dew indicator flashing in viewfinder	<ul style="list-style-type: none"> <li>If the dew indicator (  ) flashes in the viewfinder, there is moisture in the camcorder. Wait until this indicator no longer appears before operating the camcorder.</li> </ul>
Poor auto-focus operation	<ul style="list-style-type: none"> <li>Subject is not in center of viewfinder or two subjects are at different distances. Use the focus lock feature. <i>See page 30.</i></li> </ul>
Viewfinder displays are out of focus	<ul style="list-style-type: none"> <li>Lens is smudged and image appears unfocused.</li> <li>Eyepiece focus control is misadjusted.</li> <li>The small controls on the bottom of the viewfinder control the brightness and focus of the viewfinder. These controls are set at the factory and should require no adjustment. If the brightness or focus of the viewfinder ever does require adjustment, carefully use a plastic screwdriver. Make the adjustments with caution to prevent damaging the miniature controls.</li> </ul>
Image in LCD monitor is not bright enough.	<ul style="list-style-type: none"> <li>Adjust brightness of LCD monitor with <i>BRIGHT</i> control on top of the monitor.</li> </ul>
Sound too low when playing back tape using LCD monitor	<ul style="list-style-type: none"> <li>Adjust volume of built-in speaker using the <i>VOLUME</i> control on top of the monitor.</li> </ul>

## Trouble Checks

Trouble	Checks and Adjustments
Date and/or time were recorded on tape	<ul style="list-style-type: none"> <li>• Displays will be recorded on tape whenever they appear in the viewfinder. Remove them from viewfinder when recording. <i>See page 33.</i></li> <li>• When <i>AUTO DATE</i> is selected, the date will automatically be recorded when you begin recording or change the cassette. <i>See page 33.</i></li> </ul>
Date and/or time are incorrect	<ul style="list-style-type: none"> <li>• Clock lithium cell battery may need replacing. <i>See page 31.</i></li> <li>• Date or time may need to be set. <i>See page 32.</i></li> </ul>
Vertical white lines appear when shooting bright object	<ul style="list-style-type: none"> <li>• This may occur when background extremely contrasts with the subject.</li> </ul>
Rechargeable battery runs down sooner than expected	<ul style="list-style-type: none"> <li>• If battery has not been used for some time, completely drain the battery's power and then recharge it.</li> <li>• Battery run times are measured when the camcorder is recording continuously. You can check your battery by first fully charging it and then aiming the camcorder at a clock and recording the picture of the clock. When the recording stops, play the last recorded section and note the clock time. A one-hour battery should give you about 50 minutes of recording time using the LCD monitor. In practical use, you may not be able to record for the full time because the camera uses battery power when it is waiting between recordings (record-pause) and zooming.</li> </ul>

## Customer Assistance and Service

You can reach Thomson at the following number:

**800-283-6503**

(Toll free inside U.S.A.)

Our toll-free Camcorder number operates from 8 a.m. to 5 p.m., CST Monday – Friday for U.S. customers only

Thomson provides a toll-free telephone number to help you with any problems you may encounter with your camcorder. Many can be diagnosed over the phone, and if necessary, repair or replacement will be arranged. Please have your camcorder model/serial number and date of purchase ready when you call. If your unit is out of warranty, we will quote the cost of a repair or replacement unit to you.

### Returning equipment to Thomson for repair or exchange

If we are unable to resolve your problem over the phone, we will gladly service your unit or exchange it for a new or refurbished camcorder. Refer to the limited warranty on the reverse side to learn about your specific rights and responsibilities.

*Always consult Thomson and get a Return Authorization number before returning anything! Obtain a Return Authorization (RA) number from the telephone representative before returning your equipment to avoid delays, accounting errors, or even loss of your unit.*

### Important information to customers who ship defective equipment to Thomson Consumer Electronics

The Thomson representative who authorized the return of your equipment will give you an RA number over the phone. They will also provide you with instructions on where and how to return your Camcorder. Write the number in large, clear characters on the outside of the box. To avoid confusion and misunderstandings, shipments without an RA number clearly visible on the outside of the box will be returned to you at your expense.

Include a brief note describing the problem and any conversations about the problem you have had with Thomson personnel.

Include your name, address and model/serial number of your Camcorder. These numbers

are located on the bottom of your unit.

If your Camcorder is within the warranty period, please provide a copy of the bill of sale to verify purchase date. Use the original box and packing material to protect the equipment from damage in shipment.

*For your protection, insure all shipments for full replacement value and use a reliable shipper. Thomson assumes no responsibility for warranty shipments from the customer to the factory if not shipped in the manner prescribed by Thomson.*

## Limited Warranty

### What your warranty covers:

- Any defect in materials or workmanship.

### For how long after your purchase:

- 90 days for labor charges.
- One year for parts.

The warranty period for rental units begins with the first rental or 45 days from date of shipment to the rental firm, whichever comes first.

### What we will do:

#### During the initial 90 days

- Exchange your camcorder with a new or refurbished unit, or repair your camcorder. The option will be ours. Parts will be provided at no charge, but you will be responsible for the cost of labor required for the repair.

#### After the 90 days and within one year

- Exchange your camcorder with a new or refurbished unit, or repair your camcorder. The option will be ours. Parts will be provided at no charge, but you will be responsible for the cost of labor required for the repair.

### How you get service:

- Call 1-800-283-6503 and have your unit's date of purchase and model/serial number ready. The model/serial number information is on the bottom of your camcorder.
- A representative will troubleshoot your problem over the phone. If the representative determines that you should receive a replacement unit, you will be provided with a Return Authorization (RA) number and the location of a nearby exchange point if one exists. No returns will be accepted without the RA number.

### To receive a replacement Camcorder before you return yours:

#### If you are located near an exchange point:

1. We will send a replacement unit to the

exchange point next business day delivery in the continental U.S.A.

2. The exchange location will notify you of its arrival.
3. Take your unit, excluding all accessories, and your evidence of purchase date, such as a bill of sale, to the exchange location and you will be provided the new or refurbished unit.
4. If the repairs were covered by your warranty, you will not be billed.

#### If you are *not* located near an exchange point:

1. Provide your Discover, MasterCard, or Visa account number and expiration date to our phone representative. This is for security purposes. If we receive your unit, excluding all accessories, within 14 days from the date you were provided the RA number, only items not covered by warranty will be charged to your account. **IF YOUR UNIT IS NOT RECEIVED WITHIN 14 DAYS, THE SUGGESTED RETAIL VALUE OF THE CAMCORDER WILL BE CHARGED TO YOUR CREDIT CARD.** This amount will be credited if the unit is subsequently received.
2. We will send you a replacement unit next business day delivery in the continental U.S.A.
3. You will receive an invoice packed with the replacement product, but will not be charged for the unit portion of the invoice amount if we receive your unit within 14 days from the date you were provided the RA number. Any labor and parts charges not covered by our warranty will be included and charged against your account.
4. Ship the unit back to us, excluding all accessories, using the replacement unit's carton. Shipping instructions will be included in the carton along with your RA number which will allow you to easily ship the unit back to us. **Make sure you**



## Limited Warranty

**insure your shipment in case of damage or loss.** Include with the shipment:

- Evidence of purchase date, such as a bill of sale, to verify your unit's warranty eligibility.
- A brief note describing your camcorder's problem.
- Your name, address and phone number.

Return transportation, storage, handling, and insurance costs are your sole responsibility. We accept no liability in case of damage or loss.

**To receive a replacement unit after we have received your unit:**

1. **Write the RA number on the outside of the carton used to return the unit. Make sure you insure your shipment in case of damage or loss.**
2. Carefully pack the unit, excluding all accessories, using the original box and packing material if possible.
3. Include with the shipment:
  - Evidence of purchase date, such as a bill of sale, to verify your unit's warranty eligibility.
  - A brief note describing your camcorder problem.
  - Your name, address and phone number.

Return transportation, storage, handling, and insurance costs are your responsibility. We accept no liability in case of damage or loss.

4. The representative will advise the address to mail a cashier's check or money order for payment if there are any out of warranty labor or parts charges and you elect not to use your credit card.
5. Upon receipt of your product, a new or refurbished unit will be shipped to you next business day delivery in the continental U.S.A.

**To have your Camcorder repaired by an Authorized RCA Camcorder Service Center:**

- Check with your dealer or call 1-800-336-1900 for the Authorized RCA Camcorder Service Center nearest you.
- Take your unit to the Authorized RCA Camcorder Service Center of your choice.
- Show the Authorized RCA Camcorder Service Center representative evidence of purchase date, such as a bill of sale.
- Pick up your camcorder when repairs are complete.

**What your warranty does not cover:**

- Adjustment of customer controls.
- Damage from misuse or neglect.
- A unit that has been modified or incorporated into other products or is used for institutional or other commercial purposes.
- Batteries for remote control and clock.
- Cleaning of video/audio heads.
- Camcorders purchased or serviced outside the U.S.A.
- Return transportation, storage and handling costs of your unit, including insurance for loss or damage.
- Acts of God, such as but not limited to lightning damage.

**Product Registration:**

- Please complete and mail the Product Registration Card packed with your camcorder. It will make it easier to contact you should it ever be necessary. The return of the card is not required for warranty coverage.

**How State Law relates to warranty:**

- This warranty gives you specific legal rights and you also may have other rights that vary from state to state.

**If you purchased your camcorder outside the United States:**

- This warranty does not apply. Contact your dealer for warranty information.

## Specifications

### General

Power requirement: 5.4 VDC  
Power consumption:  
Normal: 5.9 watts  
Weight: 1.8 lbs. (800g)

### Dimensions – Including Viewfinder:

8.6"(W) x 4.2"(H) x 4.2"(D)  
219.5 (W) x 106.5 (H) x 107.5 (D) mm

### Video Recorder Section

Format: 8mm  
Record/playback system:  
Rotating 2-head, helical-scan system  
One flying erase head  
Video Signal: EIA Standard  
NTSC color

### Viewfinder

.62 inch electronic B/W viewfinder

### LCD Monitor

2.5" measured diagonally LDC monitor

### Camera Section

Image sensor: CCD solid-state type  
(270,000 pixels)  
Lens: F1.4-2.8 (f=4 to 64mm)  
16:1 power zoom lens  
Filter diameter: 46 mm

### Tripod Mount

One 1/4" x 20 threaded hole

### AC Adapter/Charger

Power requirement: 100-240 V,  
50/60 Hz.  
Power consumption: 11 watts  
Weight: .22 lbs. (100g)  
Dimensions:  
2.8"(W) x 1.3"(H) x 2.2"(D)  
71 (W) x 34 (H) x 56 (D) mm

## Information to User

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Alterations or modifications carried out without appropriate authorization may invalidate the user's FCC right to operate the equipment.

This Class B digital apparatus meets all requirements of the Canadian Interference — Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

## Index

### A

- A (audio) and V (video) jacks 38, 40
- Accessories
  - included 3
  - optional 42
  - order form 45
- Adapter/charger
  - charging battery 13
  - using 5, 11, 21
- AE (automatic exposure) 24, 27
- Assistance 1, 3, 53
- Attach lens cap cord 4
- Audio/video cable 38

### B

- B (bright) control 10
- BATT (battery release) button 10, 12
- Battery
  - attaching and removing 12
  - care and storage 14
  - charging 13
  - level indicator 14
  - refreshing 13
  - safety precautions 12
  - using 12, 21
- Battery compartment 9, 10
- Battery level indicator 24
- Beep feature 6, 21, 27
- Beep indicator 6, 9, 21, 27
- BEEP ON or OFF indicator 21, 24, 27
- BLANK button 10, 28
- BLANK indicator 25, 28
- Blank search feature 28
- BRIGHT control 10, 23, 36

### C

- Cable TV installer note 41
- CAM (camera) indicator
  - 6, 9, 20, 21, 26, 39, 41
- CAM (camera) mode 16, 17, 26, 28
- Camcorder's operating controls 9
- Camera edit feature 26

- Care and maintenance
  - camcorder 49
  - cleaning the camcorder viewfinder 48
  - storage 49
  - things to avoid 49
- Care and storage
  - battery 14
  - cassette 19
- Cassette care and storage 19
- Cassette compartment 6, 9, 19, 21, 36
- Cassettes 18
  - inserting 6
  - inserting and removing 19
- Cell
  - install in remote 15
  - cautions 3
  - clock and remote 3
- Checks, trouble 50
- Cleaning the camcorder 48
- Cleaning the camcorder's lens 48
- Cleaning the camcorder's viewfinder 48
- Cleaning the camcorder's LCD monitor 48
- Clock cell
  - holder 31
  - install 31
  - remove 31
- Clock cell compartment 9
- Clock cell indicator 31
- Contents 1
- Copy tapes 39
- COUNTER MEMORY button 16, 39
- COUNTER RESET button 16
- Customer assistance and service 53

### D

- DATE button 10, 24, 32, 33
- Date/time display
  - correcting 32
  - in viewfinder or monitor 24
  - install and remove clock cell 31
  - record AUTO DATE 33
  - record the date 33
  - record the date and time 33
  - setting time and date 32

## Index

DC cable 5, 11, 13  
DC in jack 5, 10, 11  
Dew indicator 25  
DISPLAY button 10, 16, 26, 27, 41  
Displays  
    LCD monitor 24  
    status 25  
    viewfinder 24

## E

EJECT button 6, 10, 19, 20, 21, 36  
Erase protection 18  
Eyepiece, cleaning 48  
Eyepiece focus control 7, 9, 20, 21, 22, 36

## F

F (focus) control 10  
FF indicator 25  
F.FWD (fast forward) button  
    10, 16, 20, 21, 26, 27, 37  
First time operation 3  
Flying erase head 26  
FOCUS LOCK button 10, 30, 32  
Focus lock feature 30  
FOCUSLOCK indicator 25, 30  
Full auto mode feature 28

## H

Handstrap, adjust 4

## I

Indicator  
    AUTO DATE 24  
    battery level 14, 24  
    beep 6, 21, 27  
    BEEP OFF 21, 24, 27  
    BEEP ON 24, 27  
    BLANK 25, 28  
    CAM 6, 26, 39  
    clock cell 31  
    dew 25  
    FF 25

FOCUSLOCK 25, 30  
    no cassette 25  
PAUSE 8, 21, 25  
REC 8, 21, 25  
REW 25  
    shutter speed 24, 27  
STOP 25  
TAPE 25  
TAPE END 25, 28  
    time-remaining 25, 28  
VCR 6, 8, 36, 37, 39, 41  
    zoom level 25, 29

Information to user 56  
Inserting and removing cassettes 19  
Install clock cell 31  
Install remote's cell 15  
Iris 27

## L

LCD monitor 8, 9, 10, 12, 20, 21, 22, 26  
LCD monitor, displays 24  
LCD monitor, using 23  
Lens 9  
Lens cap 21  
Lens, cleaning 48  
Lens cover 20, 21  
Limited warranty 54

## M

Memory-stop feature 34  
Microphone 9, 27

## N

No cassette indicator 25

## O

OPEN button 5, 10, 11, 12, 23, 36  
Operating controls 9, 10  
Optional accessories 42  
Order form, accessories 45

## Index

### P

- PAUSE button 10, 16
- PAUSE indicator 8, 21, 25
- Pause, stop-action 37
- PLAY button 8, 10, 17, 21, 36, 39, 41
- Playback
  - features 37
  - first 8
  - viewfinder 36
- Playback features
  - stop-action pause 37
  - time counter 34
  - visual searching 37
- Playback on a TV without audio/video
  - inputs 40
- Playback on TV (or VCR) with audio/video in jacks 38
- Plug adapter, optional 11
- POWER switch
  - 6, 8, 9, 14, 20, 21, 26, 34, 36, 37, 39, 41
- Powering your camcorder
  - using adapter/charger 11
  - using battery 12
- Problem solving 50
- Product registration 2

### Q

- Quick review feature 26

### R

- REC (record) button 17, 26
- REC (record) mode 17
- REC indicator 8, 21, 25
- REC START/STOP button
  - 8, 9, 20, 21, 39, 41
- Record the date, date and time, or AUTO DATE 33
- Recording
  - making a 20
  - SP speed 18
  - times 18
- Recording tips 35
- Refresh the battery 13

- Registration 2
- Remote control
  - buttons 16
  - install cell 15
  - sensor 17
- Remote sensor 9
- Remove clock cell 31
- REW (rewind) button
  - 8, 10, 17, 20, 21, 26, 27, 37
- REW indicator 25
- RF jack 9, 40
- RF output adapter, optional 40, 41

### S

- Safety information 2
- Safety precautions, battery 12
- Safety tab 6, 18, 19
- Sensor, remote 9, 17
- SET button 20
- Setting the time and date 32
- Shoulder strap 9
  - attaching 4
  - rings 4, 9
- Shutter speed indicators 24, 27
- Shutter speeds 24, 27
- Solving problems 50
- SP speed 18
- Speaker 10
- Specifications 56
- Start and stop recording 8
- Status displays 25
- STOP button
  - 8, 10, 16, 17, 21, 34, 36, 37, 39, 41
- STOP indicator 25
- Stop-action pause 37

### T

- Table of contents 1
- Tape copying 39
- TAPE END indicator 25, 28
- TAPE indicator 25
- Tape, inserting 6, 21
- Tape time-remaining display 25, 28
- Tape window 19

## Index

Things to avoid 49  
Thumb trigger 8, 9, 20, 21, 26, 39, 41  
Time counter 34  
Time-remaining indicator 28  
Tips  
    recording 35  
    traveling 35  
Traveling tips 35  
Tripod, using 44  
Trouble checks 50  
Turn on the camcorder 6

## U

Unpack the camcorder and accessories 3

## V

VCR indicator 6, 8, 9, 36, 37, 39, 41  
VCR mode 16, 17, 28  
VCR/CAM button  
    6, 8, 9, 26, 36, 37, 39, 41  
Video cassettes 18  
Viewfinder 7, 8, 20, 21, 22, 26  
    cleaning 48  
    eyepiece focus control 22  
    playback 36  
    using 22  
Visual searching 37  
VOLUME control 10, 36

## W

Warranty, limited 54  
White balance 27

## Z

ZOOM buttons 17, 29  
Zoom level indicator 25, 29  
Zoom lever 9, 20, 21, 29, 32  
Zooming 29

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