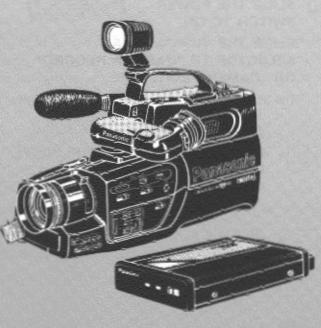
Operating

Instructions

Panasonic OmniMovie VHS PV-530

Consists of PV-530D/PV-A22MD



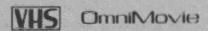
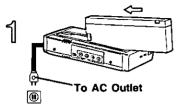


TABLE OF CONTENTS

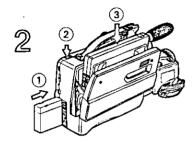
BASIC STEPS	1
MOVIE SYSTEM & FEATURES	3
DESCRIPTION OF CONTROLS	5
ADJUSTMENTS FOR EASY HANDLING	9
PREPARATIONS	11
CAMERA RECORDING	15
PLAYBACK	17
DIGITAL EFFECTS	18
USEFUL FEATURES	21
TO MONITOR YOUR RECORDINGS	28
RE-RECORDING (VIDEO/AUDIO DUBBING)	29
VIDEO DUBBING	31
AUDIO DUBBING	33
TO RECORD A TV PROGRAM	35
NOTES ON OPERATIONS	36
BEFORE REQUESTING SERVICE	38
SYSTEM CARRYING CASE	39
SPECIFICATIONS	40
WARRANTY	41
ACCESSORIES Back Co	ver

Before attempting to connect, operate or adjust this product, please read these instructions completely.

- BASIC RECORDING -



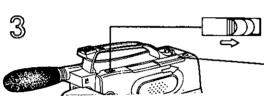
CHARGE THE BATTERY PACK (P.13)



1) INSERT THE BATTERY

(P.13)
(Other Power Supplies P.13)

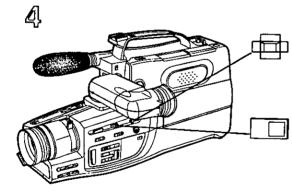
② ③ INSERT A CASSETTE (P.14)



SLIDE THE POWER SWITCH TO ON

SLIDE THE VCR/CAMERA SELECTOR TO "CAMERA RECORD" OR "CAMERA EDIT"

The Movie will go into the RECORD/PAUSE mode.

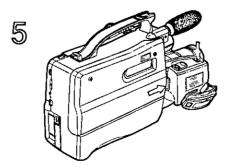


SELECT "AUTO" WITH THE WHITE BALANCE SWITCH

(For special color conditions see P.24

SET THE FOCUS SWITCH TO "AUTO"

(For manual focus see P.23



START RECORDING by pressing the RECORD/PAUSE Button.

Press again to pause the recording.

Special effects for Recording:

10W Color Enhancement Light . P.12

Record Review . P.16

Date/Time . P.21

Counter . P.22

Zooming . P.24

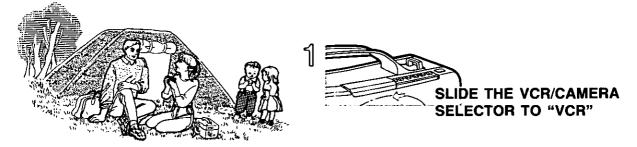
Macro . P.24

Fade In/Out . P.25

High Speed Shutter . P.25

Self Timer Recording P.26
Time Lapse Recording P.26

- TO WATCH PLAYBACK IN THE EVF -











WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

CAUTION:

TO PREVENT FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

Your Movie is designed to record and play back in SP mode only. Your Movie will not perform normal playback for programs pre-recorded in LP or SLP mode.

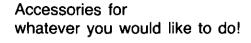
Only use those tapes with the WHS mark. It is recommended that only cassette tapes that have been tested and inspected for use in 2, 4, 6, and 8 hour VCR machines be used.





This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this unit.

This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it should be read carefully in order to avoid any problems.



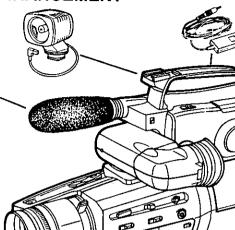
POWER SUPPLY

AC Adaptor





FOR COLOR FOR REMOTE CONTROL



FOR PROFESSIONAL-SPECIAL EFFECTS







Wide Angle Lens (optional)

Telephoto Lens (optional)

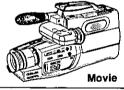
Filter Kit (optional)

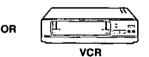
FOR VIDEO DUBBING AND RE-RECORDING (WITH VIDEO/AUDIO)











Digital Effects

Pages 18, 19, 20

GAIN UP FUNCTION

With the press of a button, you can shoot an extremely clear picture in very dim light conditions. DIGITAL WIPE FUNCTION

In addition to the conventional fade function, this camera offers the recording of scene-to-scene digital fades at the touch of a button.

PICTURE IMAGE MIX FUNCTION

With this function, your recording can include the image you are shooting along with pre-stored still frames in selected locations on the screen.

DIGITAL STROBE FUNCTION

This function gives you a camera recording with a strobing progression of still images.

10W Color Enhancement Light Page 12

The COLOR ENHANCEMENT LIGHT lets you brighten the scene for more life-like color contrasts in the recording.

High Speed Shutter

Page 25

You can record fast-paced action at 1/1000th or 1/500th of a second with the High Speed Shutter Switch ON. Later playback in still mode (or slow mode with a Panasonic TECH 3 or TECH 4 VCR) will reveal the fine points of every motion.

Power Zoom and Macro Function Page 24

The smooth power zoom will bring your subject up to 8 times closer, or with the Macro function you can focus on the miniature.

Flying Erase Head

The advanced Flying Erase Head technology included in your Movie produces exceptionally clean edits between recorded segments of your video production.

Self Timer Recording

Page 26

This feature gives you time to be part of the scene, by setting a 10 sec delay before recording starts.

Time Lapse Recording

Page 26

Records just 1 second of each passing minute.

Audio Dubbing

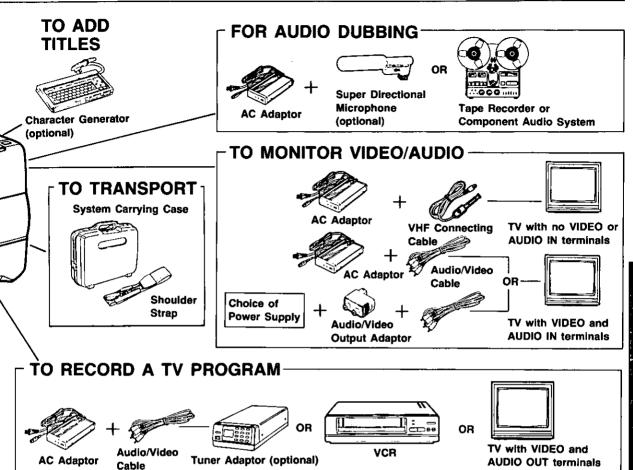
Page 33

With the Audio Dub feature, you can add comments or music to any segment of previously recorded tape.

Video Dubbing

Page 31

With the Video Dub feature, the advanced rotary flying erase head technology enables you to edit your video tapes by replacing an existing video segment with a new one.



Record A TV Program

Page 35

The Movie enables you to record a TV program through the AC Adaptor assembly if the TV has VIDEO OUT & AUDIO OUT Terminals.

Video Playback

Page 17

Immediately view your recordings in the Electronic View Finder (EVF) using any of the special effect playback functions.

VHS Index Search System

Page 27

Your Movie recordings are automatically indexed with Index Signals. VCRs with the VHS Index Search System use these signals for direct location of scenes on a tape.

Automatic/Manual Focusing

Page 23

The Auto focus system works via an infrared light beam aimed at objects positioned in the center of the lens.

Record Review

Page 16

In Record/Pause mode you may use the Record Review feature to check the last few seconds of recorded tape in the EVF.

Automatic White Balance

Page 24

Automatic Indoor/Outdoor light compensation and continuous Automatic White Balance insure optimum color balance.

CCD Image Sensor

The CCD (Charge Coupled Device) image sensor is a durable, vibration resistant chip which improves your color image and conveniently needs no warm up time.

HQ (High Quality) System

This Movie is equipped with the HQ System to provide excellent video pictures, and is compatible with standard VHS equipment.

3 Ways To Supply Power

up to a monitor or regular TV.

Page 13

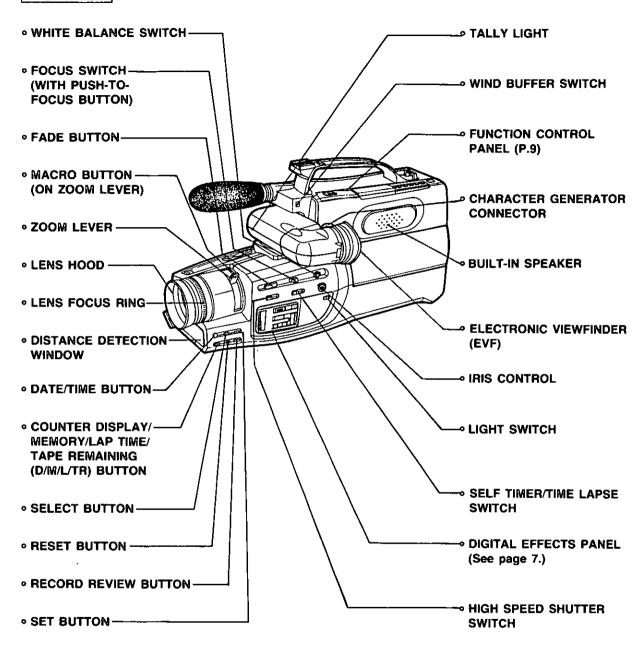
You can move your video production anywhere using one of the three available power supplies. INDOORS — The AC Adaptor gives you constant power to plug in the Movie and/or charge batteries. You can also use the supplied AC Adaptor to hook

OUTDOORS – With the Battery Pack connected to your Movie you have approximately 1 hour and 40 minutes of continuous daylight use.

IN YOUR VEHICLE - The Movie simply plugs into the cigarette lighter with a Car Battery Cord (optional).

Description of controls

FROM VIEW



FRONT VIEW

WHITE BALANCE SWITCH

The White Balance Switch in "AUTO" will automatically maintain the optimum color balance in either indoor or outdoor range lighting conditions.

• FOCUS SWITCH (WITH PUSH-TO-FOCUS BUTTON)

Use the "AUTO" position for constant auto focus. In the "MANUAL" position the focus remains fixed until you manually adjust the Focus Ring, or use the Push-To-Focus Button.

FADE BUTTON

When this button is pressed, the picture in the viewfinder and on the tape will fade out. When the button is released, the picture will automatically fade in.

MACRO BUTTON (ON ZOOM LEVER)

Used to unlock the Zoom Lever so it moves into the far left Macro position to get close-up images.

ZOOM LEVER

Use this lever to zoom in and out on your subject.

LENS HOOD

Shields the camera lens and accepts the lens cap. Remove this hood to attach optic filters.

LENS FOCUS RING

Rotate this ring to focus the picture manually.

DISTANCE DETECTION WINDOW

This window is used to detect subject-to-camera distance for Auto Focus.

DATE/TIME BUTTON

Used to display the date and time or the date only.

COUNTER DISPLAY/MEMORY/LAP TIME/TAPE REMAINING (D/M/L/TR) BUTTON

Used to display the Battery Charge status, Tape Counter, Lap Time Counter, Remaining Tape time and to clear these displays from the EVF.

SELECT BUTTON

Used to select the date or time when clock mode is selected.

• RESET BUTTON

Resets the Tape or Lap Time Counter.

RECORD REVIEW BUTTON

Press this button to review the last few seconds of your recording.

SET BUTTON

Used to set the date or time when clock mode is selected.

TALLY LIGHT

The red tally light aterts those being recorded that a recording is in progress.

WIND BUFFER SWITCH

Usually set to "NORMAL". Set to "WIND BUFFER" to reduce wind noise.

• CHARACTER GENERATOR CONNECTOR

For connecting the optional Character Generator.

• BUILT-IN SPEAKER

To monitor sound during playback or record place your ear next to the speaker. Check the volume level and adjust to a comfortable level.

• ELECTRONIC VIEWFINDER (EVF)

• IRIS CONTROL

This control can be used for manually adjusting the lens iris opening to compensate for unusual lighting conditions.

LIGHT SWITCH

Used to turn the COLOR ENHANCEMENT LIGHT on or off.

• SELF TIMER/TIME LAPSE SWITCH

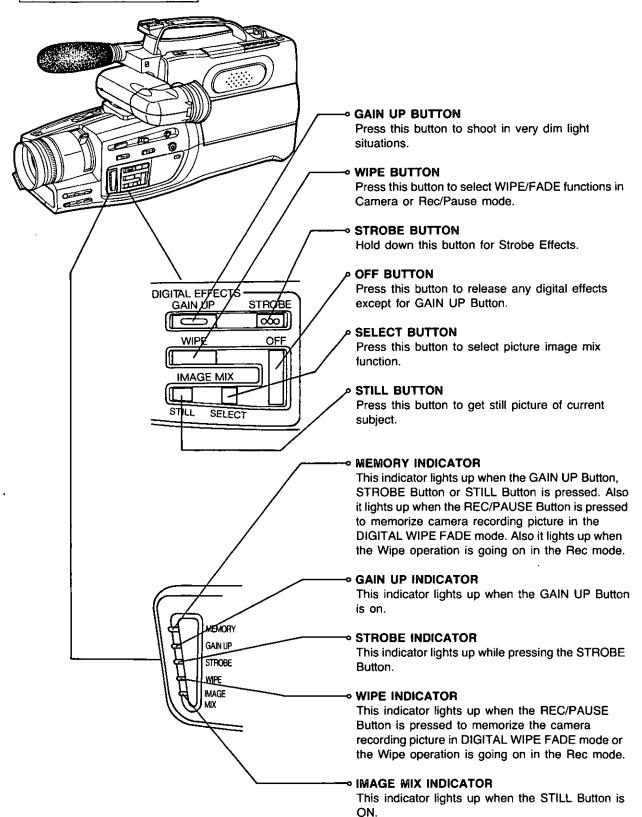
Selects a time delay before recording or selects a time lapse recording. See page 26 for details.

• HIGH SPEED SHUTTER SWITCH

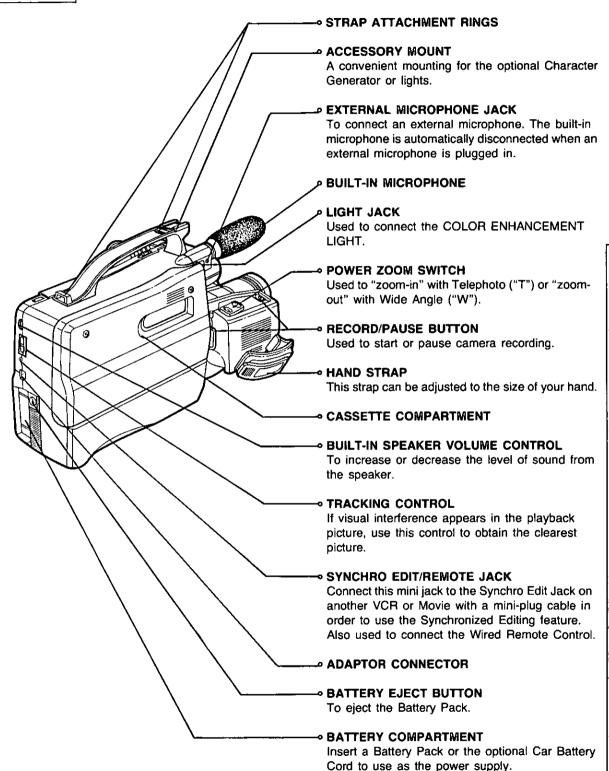
Capable of recording action at 1/500 or 1/1000 of a second for Still or Slow mode playback.

Description of controls (continued)

LEKAS STEETS LATEDIO

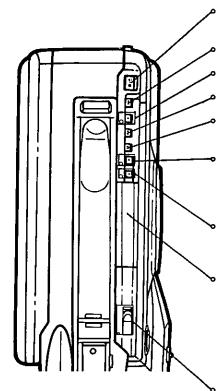


REAR VIEW



Description of controls (continued)

FUNCTION CONTROL PANEL



STOP/EJECT BUTTON

Use this button to stop the tape and to remove a cassette in the stop mode.

FAST FORWARD/SEARCH BUTTON

PLAY BUTTON AND INDICATOR

A REWIND/SEARCH BUTTON

PAUSE/STILL BUTTON

Use this button to pause in Play or VCR Recording mode.

RECORD BUTTON AND INDICATOR

Use to record TV programs through the AC Adaptor Video-in and Audio-in terminals. The RECORD and PLAY buttons are simultaneously pressed. See page 35 for details.

DUB BUTTON AND INDICATOR

Use this button when doing either Audio or Video Dubbing with the Movie. (See pages 31 and 33.)

VCR/CAMERA SELECTOR SLIDE

POSITIONS:

VCR PLAY/REC: Select this position to use the VCR functions.

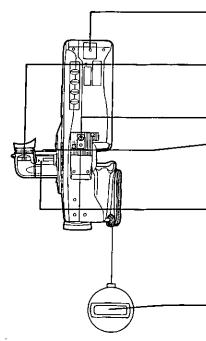
CAMERA EDIT: In this position you can record or hold down buttons to

play and search scenes.

CAMERA RECORD: Only the buttons for camera recording can be used

here.

POWER SWITCH AND INDICATOR



CLOCK BATTERY COMPARTMENT

Insert the battery into this holder. The battery must be inserted in order for the date and time to be kept in memory.

• EVF VISION ADJUSTMENT LEVER

Adjust to your eyesight to assure good focus. Be sure to adjust when shooting for the first time or after another person has used your Movie.

• TRIPOD MOUNTING HOLE

BRIGHTNESS CONTROL

This control adjusts the brightness of the viewfinder picture. If the picture is too dark or too bright, adjust this control to accommodate for surrounding light conditions.

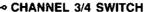
FOCUS CONTROL

This control adjusts the focus of the image on the viewfinder screen. **NOTE:** This control has been set at the factory. It is not necessary to adjust this control under normal circumstances. But, should it become necessary, be careful to make the focus adjustment with a small, slender screwdriver so as not to damage the miniature control.

→ LENS CAP

Can be attached to the hand grip with the built-in clip.

AC ADAPTOR



Set to channel 3 or 4, whichever is not used for TV broadcasting in your area, or provides the best picture during playback.

VIDEO OUTPUT CONNECTOR

For connection to a video input connector on a monitor TV or VCR.

AUDIO OUTPUT CONNECTOR

For connection to an audio input connector on a monitor TV, VCR, or an audio tape recorder.

INPUT SIGNAL SELECTOR

INPUT SIGNAL VCR/CAMERA SELECTOR SELECTOR		IN CAMERA POSITION	
IN VCR POSITION TO RECORD: VIDEO IMAGE	VIDEO-IN CONNECTION	NOT RECORDED	
AUDIO SOUND	AUDIO-IN CONNECTION	CAMERA MICROPHONE	
IN CAMERA POSITION TO RECORD	FOR BOTH INPUT SIGNAL SELECTOR POSITIONS Camera lens image and Camera Microphone Audio		

CHARGING INDICATOR LAMP

Lights while the Battery Pack is charging. After charging, this light will go off.

POWER INDICATOR LAMP

This indicator lights up when the AC Power Plug of the AC Adaptor is connected to an AC outlet.

• BATTERY CHARGING COMPARTMENT

For charging a Battery Pack.

AUDIO INPUT CONNECTOR

For connection from an audio output connector on another VCR, TV, or other audio source.

VIDEO INPUT CONNECTOR

For connection from a video output connector on another VCR, or TV, to record a TV program.

VHF ANTENNA INPUT TERMINAL

Connect the VHF antenna or cable TV cable to this terminal.

VHF ANTENNA OUTPUT TERMINAL

Connect this terminal to the VHF antenna terminal on the TV using the supplied VHF Connecting Cable.

ADAPTOR CABLE

AC POWER CORD

CAUTION: Operating at a voltage setting of 110/120/220/240V AC may require the use of a different AC plug. Please contact either a local or foreign electrical parts distributor for assistance in selecting an alternate AC plug. We recommend using the accessory Power Plug Adaptor (VJSS0070) in an area which has special AC outlets.

Adjustments for easy handling

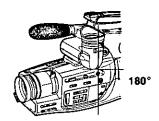
HOW TO ADJUST THE ELECTRONIC VIEWFINDER



1. The Electronic Viewfinder will slide forward on its mount and swing to the left to lock into a right-angled viewing position.



In the locked position you may extend or contract the EVF for comfortable left or right eye viewing.



3. The eyepiece may be tilted 180° up or down.

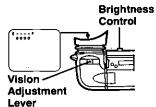
To store

In the locked viewing position extend the EVF out to clear the Microphone Mount. Then swing the EVF forward in line with the handle. Finally, fully contract the EVF back to its compact position.

VISION ADJUSTMENT LEVER

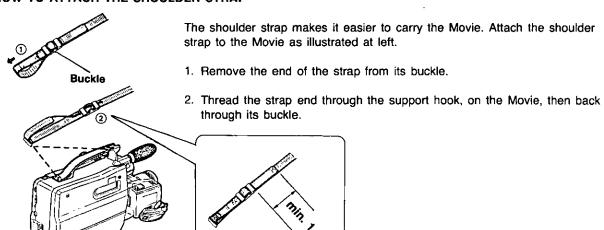


1. When Power is ON, look into the EVF eyepiece.

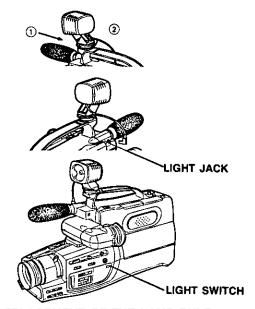


- 2. Locate the lever on the underside of eyepiece and slide it back and forth until you get a clear, focused view of the EVF screen display.
- BRIGHTNESS CONTROL is provided so that you can adjust the brightness of the EVF display.

HOW TO ATTACH THE SHOULDER STRAP



10W COLOR ENHANCEMENT LIGHT (SUPPLIED)

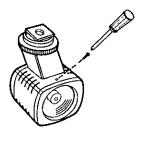


Using the COLOR ENHANCEMENT LIGHT, you can provide additional light to brighten the natural colors in a scene.

- Mount the Light on the Accessory Mount on the Movie and secure it in place with the thumbscrew.
- 2. Insert the Light Cord Plug into the LIGHT Jack.
- 3. Using the LIGHT Switch on your Movie, turn the Light ON.

CAUTION: This Light becomes hot during operation.

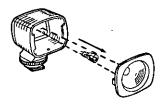
REPLACEMENT OF THE LAMP BULB



 Turn the screw on the underside of the reflector casing counterclockwise to loosen it.



Turn the reflector casing counterclockwise only as far as shown in the diagram and pull it completely off the bulb housing.



- 3. Pull the old bulb off the base and replace it.
- Reposition the reflector casing on the bulb housing as in step 2, and turn it clockwise to reattach. Replace and tighten the screw.

NOTE:

- Use only lamp bulbs (PART NO.VLLW0002) supplied by Panasonic for replacement. If you use a different lamp bulb, illumination, lamp life or battery life may change.
- Do not connect any light other than the standard light included. Use of a different light, modification to the light connector or light jack may cause severe battery drain and fire hazard.
- If using the Enhancement Light for an extended period of time, take note of the surrounding temperature. As
 a safety feature, if the surrounding temperature exceeds 104°F (40°C), the light will temporarily go out. It will
 resume normal operation when the temperature drops.
 Be sure to provide ventilation when using the light in a hot environment.
- Using the Enhancement Light when the Movie is powered by a car battery may shorten bulb life.
- Before replacing the lamp bulb wait for it to cool down.
 When replacing the bulb use a cloth or tissue to prevent getting finger oils on it as this will decrease bulb life.

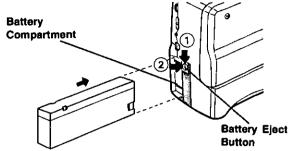
Preparations (continued)

POWER SUPPLIES

A. BATTERY PACK -- Outdoor Use

Be sure to fully charge the Battery Pack before operation.

Even a fully charged Battery Pack will discharge if left for a long time without a recharge.



HOW TO INSERT THE BATTERY PACK

Slide the Battery Pack into the Battery Compartment in the direction shown by the arrow.

HOW TO REMOVE THE BATTERY PACK

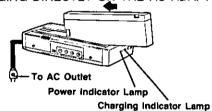
(Be sure that the POWER Switch is set to "OFF" before ejecting the Battery Pack.)

Press in and down on the BATTERY EJECT Button to release the safety catch (1), then press in a little further to eject the Battery Pack (2).

HOW TO CHARGE A BATTERY PACK

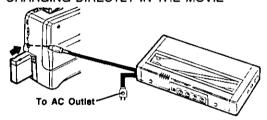
Your AC Adaptor can be used to charge one Battery Pack in either of the two ways shown below, or both methods can be used together to charge two Battery Packs at the same time.

CHARGING DIRECTLY ON THE AC ADAPTOR



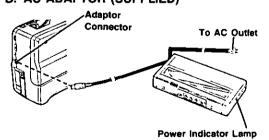
- Connect the AC Adaptor Power Plug to an AC outlet. Power Indicator lights up.
- Place the Battery Pack in the AC Adaptor as illustrated above.

CHARGING DIRECTLY IN THE MOVIE



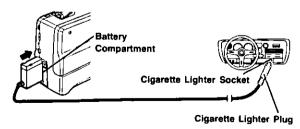
- Be sure to turn your Movie OFF.
 Battery Charging will not take place if your Movie is ON.
- Plug the AC Adaptor Cable into the Adaptor Connector on your Movie.
- Connect the AC Adaptor Power Plug to an AC outlet. Power Indicator lights up.
- 4. Insert the Battery Pack as illustrated above.
- The Charging Indicator will light during charging. When charging is finished, the Charging Indicator light will go out.
- A Battery Pack should charge in about 1 hour and 50 minutes.
- If you charge two Battery Packs at the same time, they should both charge in about 3 hours and 40 minutes.

B. AC ADAPTOR (SUPPLIED)



- 1. Before connecting, turn the Movie Power OFF.
- Plug the AC Adaptor Cable into the Adaptor Connector on your Movie.
- Connect the Plug to an AC outlet. Power Indicator lights up.

C. CAR BATTERY CORD (OPTIONAL)



- 1. Before connecting, turn the Movie Power OFF.
- 2. Plug the Car Battery Cord into the Battery Compartment on your Movie.
- 3. Take the lighter out of its socket.
- Start the car engine and insert the cigarette lighter plug of the Car Battery Cord into the socket. To replace the fuse in the plug, use the exact current rating (Amps).

A WORD ABOUT CASSETTES

A. TYPES OF VIDEO CASSETTE –
Use types with the **THS** mark in this unit.

Tone Cheed	Maximum Record/ Playback Time		
Tape Speed	T160	T120	T60
SP (Standard Play)	2 Hours 40 Minutes	2 Hours	1 Hour

B. ERASE PROTECTION -

Cassettes have a record tab to ensure that recordings are not accidentally erased.

 To prevent accidental erasure



Break off the tab with a screwdriver

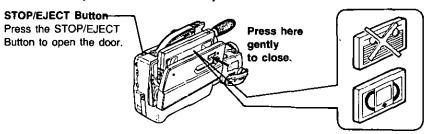


• To record again

Cover the hole with cellophane tape

TO INSERT OR REMOVE A CASSETTE

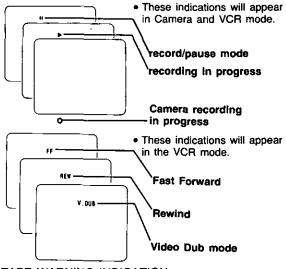
The Movie may be ON or OFF when you insert or remove a cassette.



Video Cassettes can only be inserted with the window side of cassette facing the cassette door, and the arrow pointing down. Do not attempt to insert a cassette which is upside down or backwards.

EVF INDICATIONS - These indications will not be recorded on the tape.

OPERATION MODE INDICATION



TAPE WARNING INDICATION



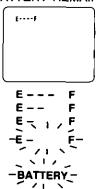
 If the record tab is missing, this indicator will flash and recording will not start.

DEW INDICATION



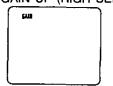
 If excessive moisture condenses in the unit, it will not operate. This indicator will flash for several seconds and the Movie will automatically turn OFF. In this case, wait until the indicator no longer flashes when your Movie is turned on again.

BATTERY REMAINING INDICATION



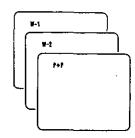
- When the Battery Pack is fully charged, "E - - - F" appears.
- As battery charge is consumed, the indicator changes: "E - F", "E - F",
- "E F" will flash for several minutes and then "BATTERY" will flash for several seconds prior to automatic power shut off. When this happens, a battery recharge is necessary.

GAIN UP (HIGH SENSITIVITY) INDICATION

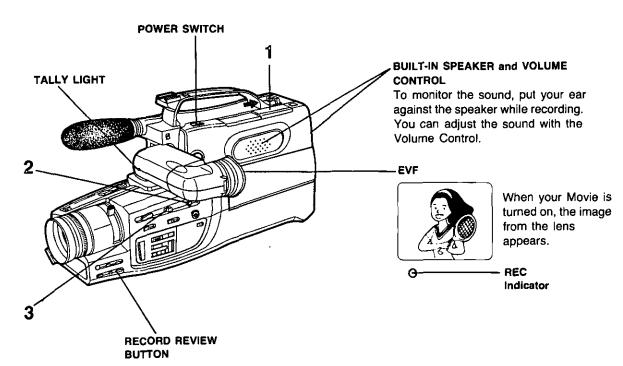


 This indicator will appear in GAIN UP Button ON.

DIGITAL FADE INDICATIONS



 These indicators will appear when pressing the WIPE Button to select 3 kinds of DIGITAL FADE functions. Try the simple trial here to become familiar with the operation of your Movie.



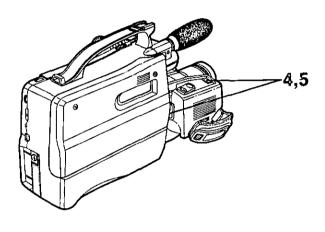
MAKE SURE THAT ...

- Your Movie is connected to a power source (Battery Pack, AC Adaptor, or Car Battery Cord).
- The Power is ON.
- · A cassette with a record tab is inserted.

SELECT THE CAMERA MODE	SET THE WHITE BALANCE	FOCUS
1 Place the VCR/CAMERA Selector Slide to the "CAMERA RECORD" position.	2 Set the WHITE BALANCE Switch to "AUTO" for normal indoor or outdoor lighting.	3 Set the FOCUS Switch to "AUTO".
This is the camera record only position. OR Place in the "CAMERA EDIT" position. Besides recording, here you can view or search scenes by holding down the PLAY, FF/SEARCH or REWIND/SEARCH Button.	"INDOOR" or "OUTDOOR" are for special color conditions (page 24).	With the power ON, the Auto Focus system will function continuously whenever the Camera mode is selected.

AUTOMATIC EASY EDIT STANDBY

If you stop recording, but plan to resume within 24 hours, you can leave the cassette in the Movie. Simply shut the Movie off at the Movie's power switch after your recording is completed. This allows the Easy Edit feature to make a smooth transition between one scene and the next. After 24 hours, the tape will retract into the cassette, making automatic editing impossible. For manual editing, see page 27 under "EASY EDITING".



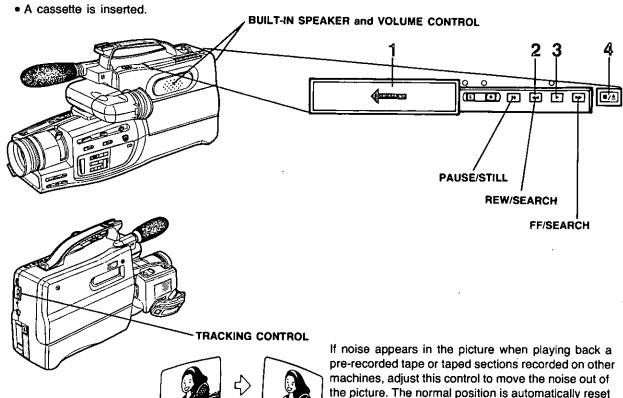
START RECORDING	PAUSE THE RECORDING	RECORD REVIEW
A Press the RECORD/PAUSE Button to start recording.	5 Press the RECORD/PAUSE Button again to pause.	Press the RECORD REVIEW Button in the Record/Pause mode.
The REC Indicator will appear and the Tally Light will flash while recording is in progress.	In Record/Pause, press the EJECT Button if you need to remove the cassette.	When you press the RECORD REVIEW Button while in Record/ Pause mode the last few seconds of your recording will play back on
Index marks will be placed on the tape automatically (page 27).	After 5 minutes, pause mode will automatically go into standby mode, to conserve battery power.	the viewfinder or monitor screen for review. Then you can start your recording from Record/Pause mode in synchronization with last segment recorded.

Playback

You can play back your Movie recordings immediately on the Viewfinder by following the steps given below. You may also play back your Movie recordings directly to a monitor or TV.

MAKE SURE THAT ...

- Your Movie is connected to a power source (Battery Pack, AC Adaptor, or Car Battery Cord).
- The Power is ON.



SELECT THE VCR MODE REWIND THE TAPE PLAYBACK THE TAPE STOP PLAYBACK 3 Press the PLAY Button 1 Place the VCR/ 2 Press the REWIND Button A Press the STOP Button CAMERA Selector to view the recorded to rewind the tape to when playback is picture. Slide to the "VCR" the desired location. finished. If viewing playback on position. the EVF, adjust the sound with the built-in Speaker Volume Control.

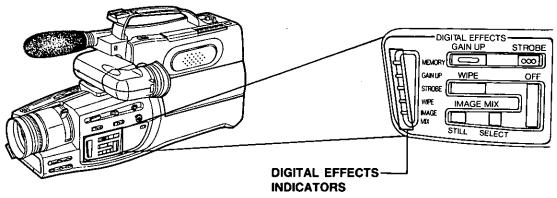
tape is inserted.

when both controls are pressed together or a cassette

SPECIAL EFFECTS IN PLAYBACK MODE (SOUND IS MUTED)

TO RAPIDLY LOCATE A PARTICULAR SEGMENT	TO VIEW A STILL PICTURE
Hold down the SEARCH Button.	Press the PAUSE/STILL Button.
A rapid forward or reverse visual search picture will continue as long as the button is held down.	A freeze frame picture from the current playback appears.
SEARCH SPEED	Press the button once more.
SP Search is about 3 times normal speed	This releases the still and playback continues.

Your Movie will add professional touches to enhance your recording through use of the GAIN UP, DIGITAL SCENE TRANSITION, COMBINATION PICTURE, and DIGITAL STROBE digital special effect features. All these modes can be activated during recording with the touch of a button while camera audio continues. Any digital special effect except for GAIN UP function along with its indications can be canceled with the OFF button.



GAIN UP (HIGH SENSITIVITY)

This is a digital feature that provides improved light sensitivity. It can be used to tape very dimly lit scenes giving a full color, high contrast image.

When SENSITIVITY HIGH is selected all other digital features are canceled.

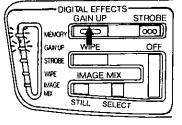




1. Press the GAIN UP Button.



OFF ← GAIN UP BUTTON → OF



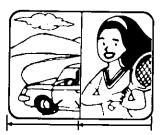
- "GAIN" will appear in the EVF.
- 2. Press the GAIN UP Button again to return to normal sensitivity.
- There is a slight tendency for strobing and after-image trailing.

WIPE (DIGITAL SCENE TRANSITION)

This feature allows you to produce beautiful transitions between shots by pressing the WIPE Button anytime you resume recording. You select among the three variations of professional digital scene transitions to move smoothly from scene to scene.

WIPE 1

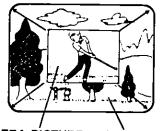
The camera (live) scene moves to the left to fill the screen.



STILL CAMERA PICTURE PICTURE

WIPE 2

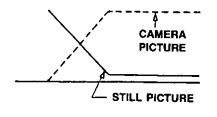
The camera (live) scene being recorded fills the screen from the center.



CAMERA PICTURE STILL PICTURE

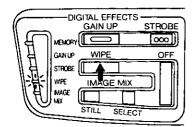
FADE IN P→P (WIPE P→P)

The Still fades out and the camera scene being recorded fades in.



Digital effects (continued)

Operation



1. Press the WIPE Button to select the WIPE Mode.

W-1, W-2, p--P in EVF

- 2. After recording a scene, press the REC/PAUSE Button.
 - A still shot of the camera image is transferred to digital memory.
 - The memory indicator lights up.
- 3. Press the REC/PAUSE Button again to record the next scene.
 - First the still picture is displayed, then the selected WIPE mode is performed.
- 4. Press the OFF Button to return to normal recording mode.

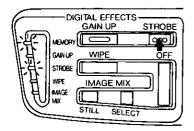
NOTE: • The memorized still picture will remain for a few seconds in memory after being completely wiped.

- If the Movie remains in Rec/Pause for more than 5 minutes, it will automatically switch to the STANDBY mode. This will cancel the still image in memory. Turn the POWER Switch ON for Rec/Pause mode.
- If the GAIN UP function is used in normal light, the picture may vary in brightness.

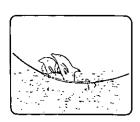
DIGITAL STROBE FUNCTION

To record a strobing progression of still images during camera recording, hold down the STROBE Button. (STROBE Indicator appears.)

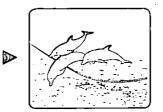
When the button is released, STROBE Function will stop.



- Press and hold the STROBE Button.
- 2. Release the STROBE Button to stop STROBE mode.







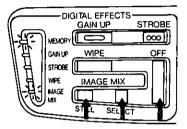


COMBINATION PICTURE

Your Movie retains the image you selected as a digital image that can be combined with your next recording. By pressing the STILL Button, your Movie will retain that scene in memory. This still picture may then be viewed with your current live scene in the six combinations of still and live images illustrated below.

First press the STILL Button to hold the scene in memory; the memory and image mix indicators will light. Then press the SELECT Button the indicated number of times to choose one of the six screen combinations as they appear in the sequence of choices shown below. Then when recording begins, both the still and the camera image will be recorded together as you see them in the EVF. Once you have chosen the combination desired, pressing the STILL Button again will update the STILL portion of your recording.

Operation



1. 2. 4.

- 1. Press the STILL Button while recording.
 - The image is retained in memory.
 - The still picture is viewed.
- Press the SELECT Button to select COMBINATION PICTURE Mode.

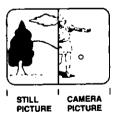
The sequence of COMBINATION PICTURES obtained by pressing the SELECT Button are!

- 3. Start recording.
- 4. Press the OFF Button to finish COMBINATION PICTURE mode.





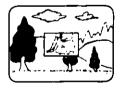
SPLIT SCREEN



CENTER STILL



CENTER CAMERA



STORED PICTURE (STILL)



LOWER RIGHT STILL



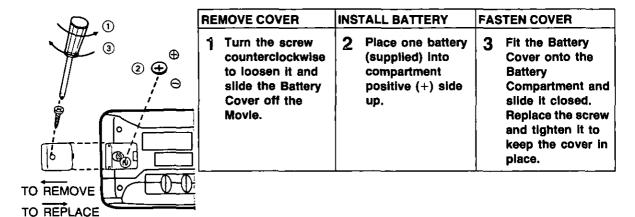
UPPER LEFT STILL



DATE/TIME DISPLAY AND SETTING

Your Movie has an automatic date function which calculates the date and time, including leap year, up to Dec. 31, 2086. This function is kept active by the battery even when the Movie power is OFF. The battery must be inserted before the date and time can be displayed.

INSTALLING THE BATTERY



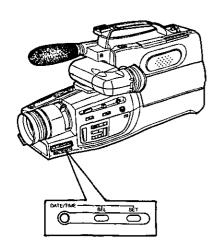


Bottom

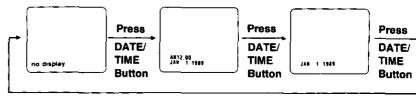
NOTE: • Make sure that your Movie power is off before replacing the battery.

- Keep the battery out of the reach of little children since swallowing it may be harmful. When replacing the battery, be sure to use the same type (LR1130) or its equivalent.
- When the battery is installed improperly, is discharged, or is missing, "PLEASE CHECK BATTERY" appears on the EVF.
 Battery life is approximately 1 year.

TO DISPLAY THE DATE AND TIME



Turn your Movie on and look into the EVF. Pressing the DATE/TIME Button will provide the following displays in order.

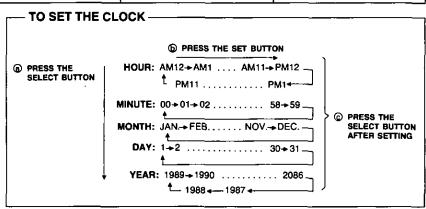


The selected DATE and TIME mode will be saved when the power is turned OFF.

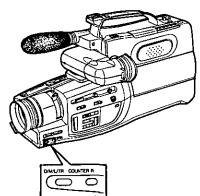
TO SET THE DATE AND TIME

SELECT THE DISPLAY	SET THE	DISPLAY	ACTIVATE THE DISPLAY
1 Press the DATE/ TIME Button in Record/Pause mode or Stop mode.	2 Press the SELECT Button.	3 Press the SET Button until the desired setting appears.	A Press the SELECT Button again.
"AM 12:00 JAN. 1 1989" appears. If "AM 12:00 JAN. 1 1989" appears this indicates the clock needs adjustment.	A portion of the DATE and TIME display will flash.	Press the SELECT Button to lock in that portion of the date and time. Repeat steps 2 and 3, as needed to change each portion of the date and time.	This locks in the new Date and Time after setting all of contents you desired.

NOTE: • If the SET. Button is held down, the displays will advance rapidly.



TAPE COUNTER ("0000")/COUNTER MEMORY/LAP TIME COUNTER ("0:00.00")/TAPE REMAINING ("0:00") (always accompanies the Battery indication)



The following displays for each Tape and Time Counter function can be selected to track your current position, or find a desired tape location. Press the D/M/L/TR Button repeatedly to get the desired display.

TAPE COUNTER: Displays a reading for any position on the tape.

Press the RESET Button to reset display to "0000". MEMORY COUNTER: When the Memory function is selected the Movie will

stop during Rewind or Fast Forward whenever it reaches the point where the tape counter was previously set to "0000".

LAP TIME COUNTER: The elapsed time during a recording is displayed by the Lap Time Counter.

TAPE REMAINING: This display shows the time remaining on the tape in 1 minute segments, during playback or recording.







First press D/M/L/TR











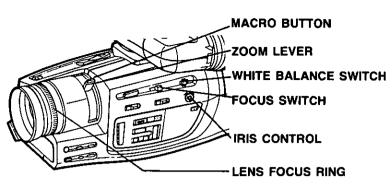


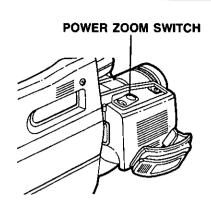


Fifth press

D/M/L/TR BUTTON

Useful features (continued)





FOCUS

PUSH TO FOCUS FOCUS — MANUAL AUTO

A. CONSTANT AUTO FOCUS

Set the FOCUS Switch to "AUTO" for normal use, and the lens will be automatically focused on the subject in the center of the EVF, even during a zoom.

PUSH TO FOCUS FOCUS — MANUAL AUTO B. FOCUSING BY HAND (MANUAL FOCUS)

Set the FOCUS Switch to "MANUAL", and then adjust the focus with the Lens Focus Ring.

CHOOSE THE SCENE	ZOOM-IN	FOCUS ON THE SCENE	ZOOM-OUT
1 Aim your Movie at the scene to be recorded.	Press and hold the "T" side of the POWER ZOOM Switch until the lens zooms to the maximum close-up setting.	Rotate the Lens Focus Ring for the sharpest picture at this setting. (It may be necessary to back away from the subject to focus the image properly.)	4 Press the "W" side of the POWER ZOOM Switch. The picture should stay in focus over the entire zoom range. Re-focusing may be required when your Movie is aimed at a new scene.

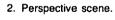
■ When you want to adjust the focus quickly in the "MANUAL" position, you can activate the Auto Focus. Leave the FOCUS Switch in "MANUAL", and then press and hold the FOCUS Switch. The picture automatically adjusts for focus as long as you continue pressing.

Under the following scene conditions, manual focusing is recommended.

 Scene with both close and distant objects in view.



4. Small objects. The Auto Focus system needs a reflecting area of a certain minimum size in order to operate. Objects more than 10 feet away should have a reflecting surface of approximately 4 inches in diameter.





 Distant objects. The Auto Focus system may not always focus clearly on objects that are over 40 feet away.



3. Non-reflective object such as a black curtain.



MACRO FOCUS FOR CLOSE-UP

Focusing on objects as close as 1 inch from the lens lets you fill your screen with the enlarged details of a miniature world. The Macro function is for close-up images and is used apart from normal camera recording.



SET THE FOCUS	ZOOM-IN	SELECT MACRO
1 Set the FOCUS Switch to "MANUAL".	2 Turn the Zoom Ring Lever to the extreme left position.	3 Press the MACRO (green) Button on the Zoom Ring Lever and use the Zoom Ring Lever for Macro Focusing.

When using the Macro function, it may be helpful to steady your Movie by mounting it on a tripod.

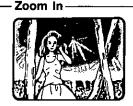
ZOOM



Your Movie has a 2-speed power zoom lens that gently and smoothly changes the viewing angle. Zoom slowly by using light pressure on the T or W side of the Power Zoom Switch. Zoom quickly by using more pressure. The power zoom switch is conveniently located at your finger tips on the hand grip so you can control it with one hand while focusing with the other.



INDOOR " 😭 "

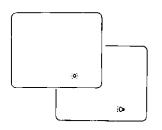




Zoom Out



AUTO WHITE BALANCE



With the WHITE BALANCE Switch, select "AUTO" for continuous color balance in both indoor and outdoor lighting situations. Under the following conditions set the WHITE BALANCE Switch to " ; or " Q " as recommended, for better color reproduction in your recordings.

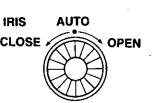
OUTDOOR " 🔆 " : When recording an outdoor scene from indoors, or recording an

outdoor scene using an amber filter.

: When recording an indoor scene from outside, or recording an indoor scene using a blue filter.

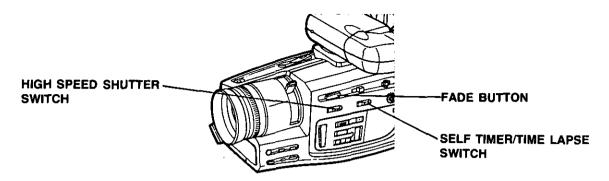
White Balance is affected by Color Temperature. See the chart on page 37.

IRIS CONTROL

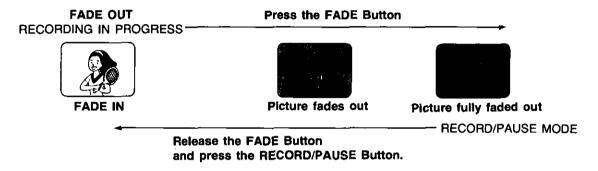


The Movie features an Iris Control that lets you override the auto iris which is normally adjusted automatically according to the amount of light entering the lens. Under special conditions, for example, when a subject is backlit or when the picture is too bright, it is possible to adjust the iris manually. For normal lighting conditions, this control should be set to the center click position for automatic adjustment. When a subject is backlit, turn through the "OPEN" settings. Be careful that the lens is not aimed at any extremely bright light during this adjustment. When the picture is too bright, turn through the "CLOSE" settings. If the iris is fully closed, the EVF display will be black.

Useful features (continued)



FADE IN/OUT - VIDEO ONLY; AUDIO IS NOT AFFECTED BY FADE CONTROL



Use the FADE Button to activate the fade feature. The picture will fade out when the FADE Button is held down. When the button is released, the picture will fade in, eliminating sudden scene changes.

Before starting a recording segment, hold down the FADE Button until the picture fades out. Then press the RECORD/PAUSE Button to start the recording, as you release the FADE Button. The new scene will fade in.

To fade out at the end of a recording segment, hold down the FADE Button. When the picture has faded out, press the RECORD/PAUSE Button to pause the recording.

HIGH SPEED SHUTTER

This switch may be used to record a clear, sharp image of high speed motion for fine point replay in still or slow mode, when watching the tape on a Panasonic TECH 3 or TECH 4 VCR (3 or 4 head VCR). There are 2 Shutter speeds available.

SELECT THE 1/500th SHUTTER	SELECT THE 1/1000th SHUTTER
Slide the switch to the right once to activate High Speed Shutter during recording.	Slide this switch to the right once more to selethe 1/1000 shutter speed.
This mode should be used for subjects moving fast enough to cause blurs.	This mode should be used for extremely fast motions, like a golf swing.

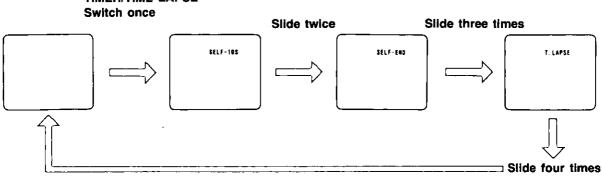
NOTE:

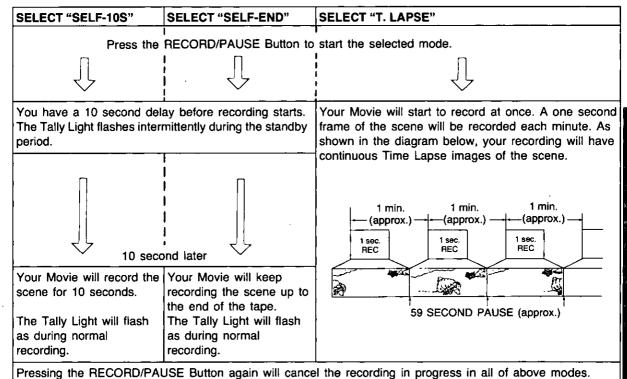
• The High Speed Shutter indicator flashes when the light level is inadequate. More light should be provided to achieve better picture quality and color. See page 36 for more information.

SELF TIMER/TIME LAPSE RECORDING

The SELF TIMER/TIME LAPSE Switch slides to the right to select one of three recording overlays. Pressing the RECORD/PAUSE Button activates the selected mode. When recording stops, the Movie will return to Record/Pause mode.

In the RECORD/PAUSE mode slide SELF TIMER/TIME LAPSE Switch once





NOTE:

This camera is not designed for industrial use of the Time Lapse Feature. Please keep the following points in mind.

- Avoid using the unit solely for Time Lapse recording. A ten hour duration of Time Lapse recording will record
 10 minutes of the Time Lapse special effect.
- · After this period, the unit will automatically turn itself off.
- The battery pack is not designed for continuous Time Lapse use. For extended periods of time lapse recording, it is recommended that an alternate power source be used.
- The SELF TIMER/TIME LAPSE Switch has no effect if pressed during normal recording.
- Digital Effects and Self Timer are compatible and may be used together. However selecting Digital Effects will cancel a Time Lapse recording.

Useful features (continued)

VHS INDEX SEARCH SYSTEM



An index mark is automatically placed on the tape at the beginning of each recording (the INDEX indicator will flash), but not where a recording resumes after the Movie has been put into pause. You can enjoy automatic review and playback of indexed tapes using VCR models which feature the VHS Index Search System.

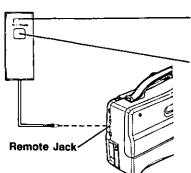
EASY EDITING

To obtain proper continuity when taping from the Stop mode, or after charging the Battery Pack:

REWIND, THEN PLAY	SELECT THE EDIT POSITION	START EDITING
1 Rewind the tape for a short distance (about 5 digits on the Tape Counter) by pressing the REWIND Button. Then press the PLAY Button and view the picture on the viewfinder.	tance (about 5 digits on Tape Counter) by ssing the REWIND Button. In press the PLAY Button I view the picture on the	A. For CAMERA recording: Place the VCR/CAMERA Selector Slide to the "CAMERA" position; your Movie will go into the Record/Pause mode. Then press the RECORD/ PAUSE Button to continue recording.
		B. For VCR recording (of TV programs, etc.). Press the RECORD Button and the PLAY Button together, and then press the PAUSE/STILL Button again. Your Movie will begin recording.

REMOTE CONTROL (SUPPLIED)

This control allows you to record from a remote position without disturbing your Movie or the subject.

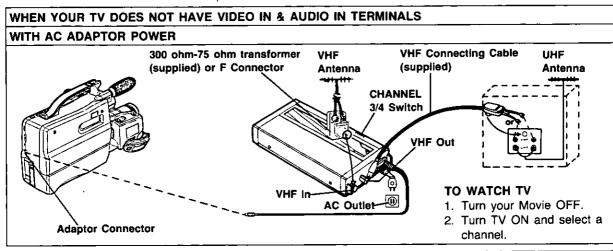


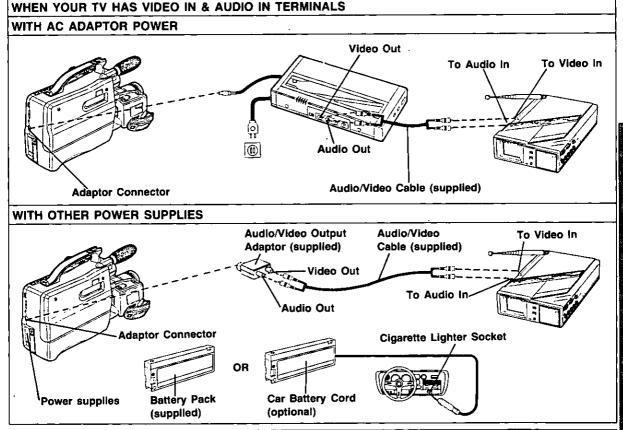
RECORDING INDICATOR —— This indicator lights when your Movie is in REC mode.

- REMOTE PAUSE BUTTON —— Pressing this button starts a recording when your Movie is in Record/Pause mode. When you press it again, it resets your Movie to Record/Pause mode.

To monitor your recordings

Your Movie may be connected to a TV to play back tapes or to monitor what you are recording. Follow the illustration below for hook-up.





PLUG IN THE AC ADAPTOR

1 Connect the AC Adaptor to an AC Outlet.

 When you use the supplied Audio/Video Output Adaptor instead of the AC Adaptor, be sure to connect your Movie to a power source (Battery Pack, or Car Battery Cord).

TURN ON MOVIE AND TV

- 7 Turn your Movie and the TV ON.
 - If your TV has no VIDEO IN or AUDIO IN terminals, select CH 3 or 4 on TV to match the CH 3/4 Switch on the AC Adaptor, when using the VHF Connecting Cable (see top diagram above).

Re-recording (video/audio dubbing)

With only the PAUSE Button on the Editing Movie, you can control two Movies, a Movie and one table-type VCR or a combination of these, when you use their Synchro Edit jacks to copy a tape. The SYNCHRO EDIT feature starts and stops both the source and editing units together with the press of one button.

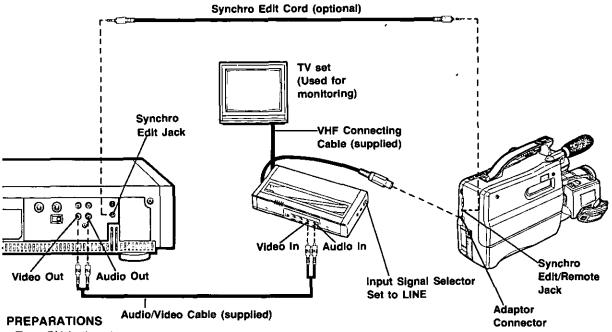
CAUTION: Unauthorized exchanging and/or copying of copyrighted recordings may be copyright infringement.

CONNECTIONS

SET UP AND CONNECT THE UNITS AS ILLUSTRATED.

SOURCE: VCR or Movie

EDITING: Movie or VCR



- Turn ON both units.
- Set the AC Adaptor Input Signal Selector on the Editing Movie to "LINE". (Or set the editing VCR's Input Signal Selector to "LINE".)
- Place the VCR/CAMERA Selector Slide on the Movie to the "VCR" position.

OPERATIONS

On The Source Unit

- Insert the master tape into the Source VCR or Movie.
- Press PLAY to review the tape.
 Press PAUSE/STILL where you want to start the playback of the master recording to copy it.
 The source unit is now in PLAY/PAUSE.

On The Editing Unit

- 3. Insert a blank tape (or one you want to record over) into the Editing Movie (or VCR).
- Press PLAY to review the tape.
 Press PAUSE/STILL where you want recording to begin to make the copy of the master tape.
 The editing unit is now in PLAY/PAUSE.
- 5. Press the PLAY and REC Buttons together. The unit is now in RECORD/PAUSE.

The SYNCHRO EDIT feature simultaneously releases the Pause mode on both units, so playback and recording begin at the same time.

TO SYNCHRO EDIT

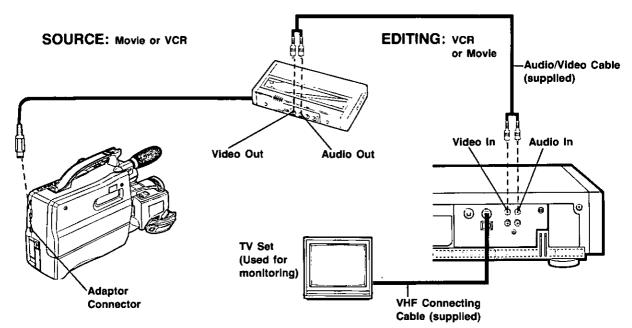
- 6. On the Editing unit, press PAUSE to begin the re-recording (both units begin operation).
- 7. Press PAUSE at the end of the recorded sequence (the source unit goes into PLAY/PAUSE).
- 8. Press the STOP Buttons on both units to stop Dubbing after completion.

IF EITHER VCR DOES NOT HAVE A SYNCHRO EDIT JACK

It is simple to dub tapes using two Movies, or a Movie and another VCR, as described below.

CONNECTIONS

SET UP AND CONNECT THE UNITS AS ILLUSTRATED.



(Be sure to connect the AC Power Plug of the AC Adaptor to an AC Outlet.)

PREPARATIONS

- Turn ON both units.
- Set the Input Signal Selector on the Editing unit to "LINE".
- Place the VCR/CAMERA Selector Slide on the Movie to the "VCR" position.

OPERATION

AT THE SOURCE UNIT	AT THE EDITING UNIT	TO PLAY THE MASTER AND RECORD A COPY
1 Insert a pre-recorded tape.	2 Insert a blank tape, or one you want to record over.	3 Press the PLAY Button on the source unit. AND The RECORD and PLAY Buttons on the editing unit all at the same time. ■ To finish dubbing, press the STOP Buttons on
Be sure to locate the desired point on the tape.		both units.

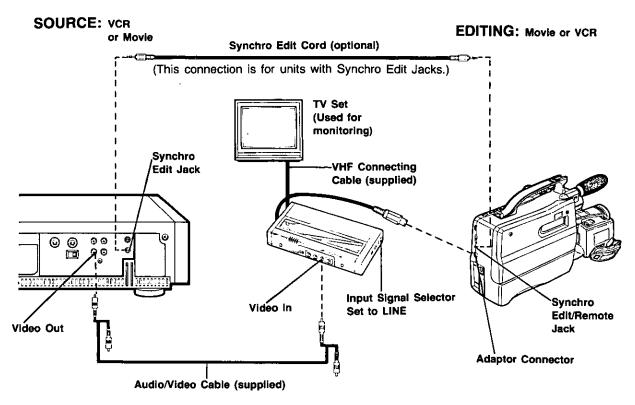
TO MONITOR THE RE-RECORDING PROCESS ON YOUR TV

- Turn the TV ON and select its VCR channel (either CH3 or CH4).
- Set the VCR/TV SELECTOR on the Editing VCR to "VCR".

Your Movie uses advanced Flying Erase Head technology to produce exceptionally clean edits. With your Movie you can replace existing video segments with new video segments (the original audio segments will remain). Use two Movies, or use a VCR for the source and your Movie for the editing unit as described below.

CONNECTIONS

SET UP AND CONNECT THE MOVIE (OR VCR) AS ILLUSTRATED.

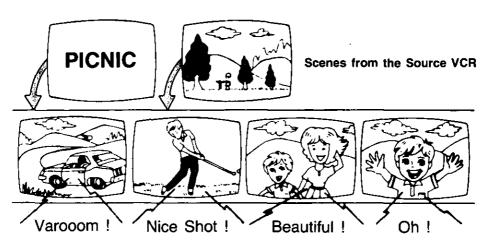


(Be sure to connect the AC Power Plug of the AC Adaptor to an AC Outlet.)

PREPARATION	PREPARE THE MOVIE FOR EDITING	ON THE EDITING MOVIE
 Press Power ON on both units and the AC Adaptor. At the Source VCR (or Movie): Insert the Master Cassette to be played. Put the Source VCR (or Movie) in PLAY/PAUSE mode at the desired starting point. At the Editing Movie: Insert a Cassette (with tab) to be recorded. Set the AC Adaptor Input Signal Selector to "LINE". Turn the TV ON, and select CH 3 or 4, to monitor the dubbing, if desired. 	Place the VCR/ CAMERA Selector Slide on the EDITING Movie to the "VCR" position. Be sure the door clicks into the fully open position.	2 Press the PLAY Button on the EDITING Movie to locate the starting point of editing. Press the PAUSE/ STILL Button where you want dubbing to begin. To set Memory-Stop Editing, see step 5.

والتقاسة وقالله

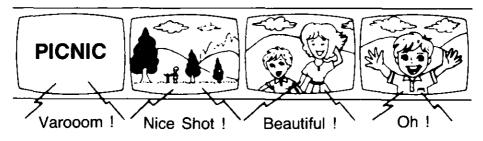
USE THE DUB AND REC BUTTONS TO EDIT YOUR ORIGINAL TAPE WITH A NEW VIDEO SCENE



Program Segment to be Dubbed



New Dubbed Program Segment



FOR EDITING TO BEGIN EDITING TO END EDITING 3 Hold down the DUB Button ▲ - If neither Movie has a synchro 5 Press the STOP Button on and press the REC Button on Edit Jack -both units to stop Video the Editing Movie only. Release the PAUSE Buttons Dubbina. on both units simultaneously. MEMORY-STOP EDITING: This puts the Movie in the This may require some practice Use the D/M/L/TR Button to VIDEO DUB PAUSE mode. beforehand. automatically stop EDITING with - Using the SYNCHRO EDIT the following preparations. FEATURE -(a) In step 2 on the EDITING On the Editing Movie, press Movie tape, locate the end PAUSE to begin video of portion to be edited, then dubbing (both units begin set "M" and reset tape operation). counter to 0000.

Press PAUSE on the Editing Movie at the end of the recorded

sequence (both units go into

PAUSE).

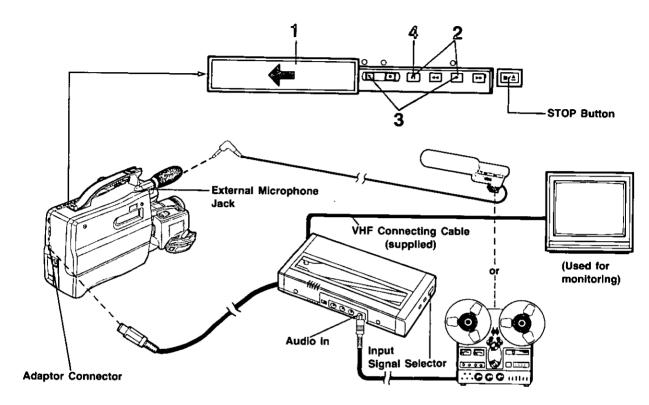
(b) Rewind to the editing start

(c) The EDITING Movie tape will

point, and continue steps 2-4.

stop when it reaches "0000".

Your own soundtrack may be substituted onto a tape which is recorded in SP mode using a microphone, a tape recorder, or your own component audio system.

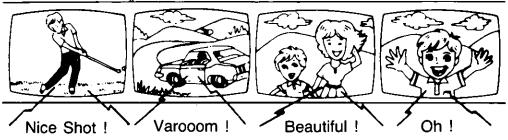


(Be sure to connect the AC Adaptor Power plug to an AC Outlet.)

PREPARATION	PREPARE THE MOVIE FOR EDITING	LOCATE STARTING POINT ON THE EDITING MOVIE
 Turn on the Movie, and the AC Adaptor. At the Editing Movie: Insert a cassette (with tab) to be recorded. Set the AC Adaptor Input Signal Selector to the desired position: Select CAMERA: The sound from the microphone will be recorded. Select LINE: The sound from whatever is connected to the AC Adaptor, through the Audio Input Connector. Turn the TV ON, and select CH3 or 4. 	Place the VCR/CAMERA Selector Slide to the "VCR" position. Be sure the door clicks into the fully open position. Unit automatically goes into the stop mode. NOTE: A rolling white pattern may appear if you have made a D/M/L/TR Button selection without a video input to the unit. (See page 36.)	Press the PLAY Button on the Editing Movie. Press the PAUSE/STILL Button where you want dubbing to begin.

USE THE DUB AND PLAY BUTTONS TO EDIT YOUR ORIGINAL TAPE WITH A NEW AUDIO BACKGROUND

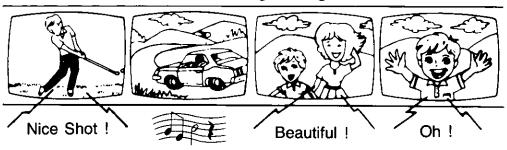




Program Segment to be Dubbed



Final Dubbed Program Segment



BACKGROUND MUSIC

FOR	EDITING
-----	----------------

- 3 Press the DUB Button together with the PLAY Button to put the Movie in the AUDIO DUB PAUSE mode.
 - The sound can be heard through the TV if it is connected to the Movie.
 - Prepare the audio source to start playback at the desired point.

TO BEGIN AND END EDITING

- Start playback at the Audio Source, and press PAUSE/STILL Button on the Movie at the same time, to start Audio Dubbing.
 - Press the STOP Button to stop Audio Dubbing.

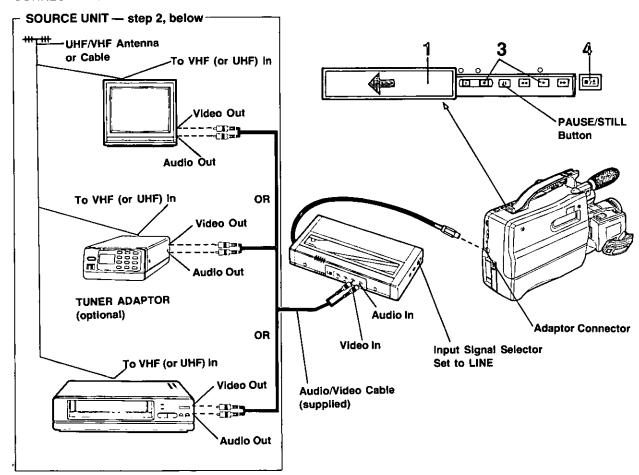
NOTE

When a microphone is used for dubbing, do not place it near the speaker of your TV while dubbing is being done. A howling noise (feedback) may occur.

To record a tv program

Your Movie enables you to record a TV program through the AC Adaptor from a tuner source unit. Connect the AC Adaptor with the AUDIO/VIDEO Cable to one of these tuner sources 1) a TV which has VIDEO OUT and AUDIO OUT Terminals, 2) the optional TUNER ADAPTOR, or 3) another VCR.

CONNECTIONS



PREPARATIONS

- · Connect your Movie to the AC Adaptor.
- Turn the Power ON.
- Insert a cassette with a Record Tab.
- Slide the INPUT SIGNAL Selector on the AC Adaptor to "LINE".

SE	LECT THE VCR MODE	SELECT THE CHA	ANNEL ST	ART RECORDING	STO	OP RECORDING
1	Place the VCR/ CAMERA Selector Slide to the "VCR" position.	Turn the Sour on; select the channel to be recorded.	e	Press the RECORD Button and the PLAY Button together on your Movie.	4	Press the STOP Button.
		The selected will appear on and in the EVF Movie.	the TV	During recording, be sure the Source unit power is on.		This ends the recording session. Use the PAUSE/STILL Button to pause recording.

MOVER ON OPERATIONS **

機門學

CHARGING THE BATTERY PACK (P.13)

- The useful operation time of the Battery will gradually decrease after repeated use and recharging. The Battery is no longer serviceable if the operation time is too short even after a sufficient charge.
- To preserve the life of your Battery, please be sure to remove the Battery Pack from the Movie for storage after every use, storing it fully recharged. When recharging, should the charging indicator on the AC Adaptor go out in a short time and the Battery cannot be fully charged, please leave the Battery on the AC Adaptor for approx. 24 hours even after the charging indicator goes off. Use this battery in the Movie, then repeat this procedure one more time. This procedure should restore the Battery to normal operation.

A WORD ABOUT THE BATTERY PACK (P.13)

- Store the Battery Pack in a cool, dry, dark place.
- Do not drop it or subject it to strong jolts.
- Always charge the Battery Pack soon after full use.
 Discharging for a long time may make its life shorter and recharging impossible.
- Be careful not to put the Battery Pack near fire because this may cause a short-circuit.
- Batteries should never be disposed of in fire.
- · Do not use any other chargers than specified.
- Do not use the Battery Pack for appliances other than specified.
- Do not use it below 32°F (0°C) or above 104°F (40°C).
- Do not use an insufficiently charged or worn out Battery Pack.

CAR BATTERY CORD (P.13)

- Be sure to start the car engine before inserting the cigarette lighter plug of the Car Battery Cord into the cigarette lighter socket; otherwise, the cigarette lighter plug fuse may burn out when you start the engine.
- The car engine should be running while your Movie is in operation. Make sure your car is in an open, well ventilated area.
- Disconnect the cigarette lighter plug when your Movie is not being used.

SPECIAL EFFECTS PLAYBACK (P.17)

- During search playback, horizontal noise bars will appear and there will be no audio.
- To protect the tape and Video Heads, your Movie's operating modes will automatically revert as follows:

STILL ----- STOP after 5 minutes.

STOP ———— POWER OFF after 5 minutes when using a Battery Pack or Car Battery Cord.

 When the tape reaches its end during playback, or fast forward, the tape will rewind automatically.

TAPE REMAINING (P.22)

- The lap time counter only functions in the REC mode.
- The remaining tape indicator "0:00" will continue flashing during the last 5 minutes as a final warning that the tape is about to end.
- The remaining tape time is being calculated when the indicator "-:-" flashes (up to 30 seconds) in the EVF.

HIGH SPEED SHUTTER (P.25)

- For proper color reproduction it is recommended that you use this feature outdoors. For indoor High Speed Shutter recording, the supplied COLOR ENHANCEMENT LIGHT, or additional halogen or tungsten light should be provided. Fluorescent light will degrade the picture quality.
- For effective operation, this feature requires ample light. More light is required for the fastest shutter speed.
- The Auto Focus system may not operate properly under insufficient light when you are using the High Speed Shutter.

RE-RECORDING (P.29)

- Source tapes recorded on other VCRs must be prerecorded in SP mode for Movie playback.
- For technical reasons, dubbing a tape may reduce its quality.

TO RECORD A TV PROGRAM (P.35)

- To pause recording, press the PAUSE/STILL Button. Press the PAUSE/STILL Button again to return to recording within 5 minutes. After 5 minutes, Pause mode will automatically go into Stop mode.
- When you place the VCR/CAMERA Selector Slide to the "VCR" position, a rolling white pattern may appear if the Tape Counter, Time Counter and Battery Display has not been cleared while in VCR mode with the AC Adaptor in "LINE" and the VIDEO IN Terminal disconnected.

CCD WARNING

When your Movie is aimed at a scene which contains an excessively bright object such as the sun or other bright lighting, a vertical bar may appear in the picture. This is a characteristic of the CCD pick-up device and is normal when using your Movie. Try to avoid aiming the camera directly at extremely bright objects.

CATV SYSTEM INSTALLER

This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC in USA (and to the Canadian Electrical code in Canada) 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.

ROUGH VALUES OF BRIGHTNESS

Your Movie has been designed for normal scene illumination of 150 footcandles (1500 lux). However, the camera may be used at F1.2, if illumination is more than 0.3 footcandles (3 lux). The table below shows the approximate values of brightness for reference.

MOVIE SETTINGS	NATURAL LIGHT CONDITIONS	KELVIN COLOR TEMPERATURE	ARTIFICIAL LIGHT SOURCE	COLOR TINT MIXTURE
(Amber Filter Range)	Fair weather, blue sky	10,000	Color television	Bluish
	Slightly cloudy sky	- 8,000		
1	Cloudy or rainy sky	7,000		
		- 6,500	• Fluorescent lamp (Daylight)	`
"OUTDOOR"	Sunlight in clear weather at midday	- 6,000 - 5,500	Camera flash bulb	
	Average sunlight in clear weather	5,000	Blue lamp for photography	
"AUTO"	Sunlight 2 hours after sunrise and before sunset	- 4,500 - 4,000	Fluorescent lamp (White) Normal flash bulb	Whitish
		- 3,500	Fluorescent lamp (Off-white) Tungsten lamp for photography	
- _T -"INDOOR"	Sunlight 40 min. after sunrise	- 3,200		
	and before sunset		Halogen lamp lodine lamp	
-	Sunlight 30 min. after sunrise	- 2,800		ł
(Blue Filter	and before sunset		Tungsten lamp	Yellowish
Range)	Sunlight 20 min. after sunrise]	Acetylene lamp	
	and before sunset		Kerosene lamp	
	,	- 2,000	Candlelight	Reddish

SPECIAL EFFECTS PHOTOGRAPH

You can fit the Movie Lens Hood with any compensator or "special effects" photographic lens or filter, that is 49 mm in diameter. Refer to the "OPTIONAL ACCESSORY" section on the back cover for an illustration of the accessories below.

WIDE ANGLE LENS

Expands the Movie's field of view to permit wide panoramas without panning.

TELEPHOTO LENS

Increases the Movie's magnification throughout its zoom range.

FILTER KIT

Helps you create professional special effects with star, clear, neutral density and polarizing filters.

TO REMOVE THE LENS HOOD:

Facing the Lens, turn the Lens Hood counterclockwise to its limit. Cover the Lens Hood with the palm of your hand, and lightly press and squeeze the Lens Hood Ring, supplying equal pressure around the ring. Turn the Ring counterclockwise a little more, to loosen and remove it.

This equipment has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications set forth in Subpart J of Part 15 of the FCC Rules. If this equipment does cause interference to radio or television reception which can be determined by turning the equipment on and off, use the equipment in another location and/or utilize an electrical outlet different from that used by the receiver.

Before requesting service

If you have a problem with your Movie, it may be a minor one that you can correct yourself. Use the chart below in case your problem is listed, and then follow the recommendations.

Troubles	Corrections	Page
No power	Make sure the Power Source is connected.	
	Make sure the POWER Switch is ON.	15
	Check the DEW Indicator.	14
	Make sure the battery is fully charged.	13
	Make sure all necessary cables are connected correctly and firmly.	28
	Make sure the Lens Cap is OFF.	9
Video cassette can't be inserted	Make sure the Power Source is connected.	13
	 Insert the cassette with the window side facing out and the record tab facing up. 	14
Video cassette can't be removed	Make sure the Power Source is connected.	13
No operation starts when operation buttons are pressed	Check the DEW Indicator.	14
Recording does not operate	Make sure the record tab is still intact.	14
	Check the Battery Indicator.	14
	Check the DEW Indicator.	14
Auto Focus does not operate	Make sure the FOCUS Switch is set to "AUTO".	23
	Make sure the unit is ON, with the VCR/CAMERA SELECTOR SLIDE to "CAMERA RECORD" or "CAMERA EDIT".	15
The sound from microphone can't be monitored	Make sure the unit is set to REC or Record/Pause mode.	/
Camera picture is too dark	Make sure the High Speed Shutter Switch is OFF.	25
No playback picture, or the playback picture is noisy or contains streaks	Press the TRACKING CONTROL Button.	17
During playback, the picture indicates motion or blurred action	 Portions of the still picture where the normal speed motion was particularly rapid may produce this effect. This is normal. 	
If the top of your playback picture waves back and forth excessively	• Because the playback signal is not as stable as an off the air TV signal, the top of your TV screen may be bent or unstable when the tape is played back. This symptom is more noticeable when a pre-recorded tape, recorded on another VCR, is played back. To solve this problem, locate the horizontal hold control on your TV. Turn it slowly to correct the wavy picture. If your TV does not have the horizontal hold control or adjusting the control does not help, some modifications may have to be made to the TV set. Technically this is called "Horizontal AFC time constant change." If such a problem is noticed, please contact your local TV service center. (Some nominal service charges are required.)	

CLEANING CARE FOR VIDEO HEADS



Clogged Video Head

- (a) Video Head Cleaning: Your Movie will not normally require head cleaning; however, it is possible that the heads may become clogged when playing an old or damaged tape. If the image on your screen resembles the photograph on the left, while playing back a tape, the heads may require cleaning.
- (b) Cleaning the Heads: It is recommended that head cleaning be performed by a qualified service technician. Please contact your nearest Panasonic Service Center. An alternate solution is to obtain a head cleaning cassette. There are many types of cleaning cassettes, so be sure to follow the cleaning instructions carefully. Excessive use of the cleaning cassette could shorten head life. Use this cassette only when a head clogging symptom occurs.

Refer servicing to qualified service personnel.

System carrying case

For organizing, carrying and storing the Movie system and optional accessories.

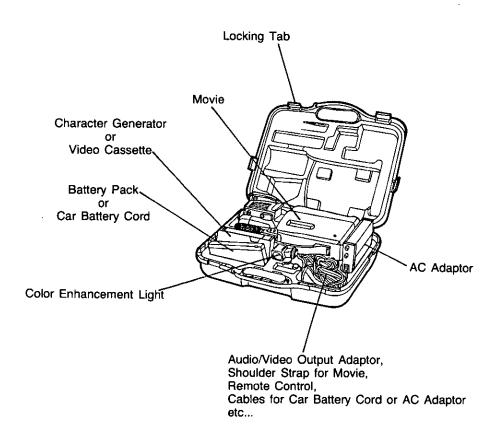
TO OPEN THE CASE Locking Tab

Lay case right side up. Unsnap the 4 locking tabs (on front and sides). Raise lid.

PRECAUTIONS FOR HANDLING

- This case will not withstand strong impact, nor protect your Movie from strong vibrations and shocks.
- This case has been designed for comfortable carriage and easy access; sitting, stepping or placing heavy objects on the case may cause permanent damage to its structure or contents.

ACCESSORY STORAGE SUGGESTIONS:



Specifications

Power Source: VHS Movie: DC 12V

AC Adaptor: 110/120/220/240V AC, 50/60 Hz

Power Consumption: VHS Movie: 12V DC 14 W (Max. 24 W)

AC Adaptor: 40 W

Video Signal: EIA Standard (525 lines, 60 fields) NTSC color signal

Video Recording System: 4 rotary heads, helical scanning system

Audio Track: 1 track

Pick-Up System: Sequential color difference, field reverse system
Pick-Up Device: One integral color filter Charge Coupled Device (CCD)

8:1 zoom lens, f1.2 with auto/manual iris control

Focal length: 8.5mm – 68mm

Power zoom and macro functions

Lens filter diameter: 49mm

2/3 inch Electronic Viewfinder

Viewfinder: 2/3 inch Ele Minimum Illumination Required: 1 Lux (F1.2)

Imm Illumination Required: 1 Lux (F1.2) 0.1 of a footcandle (in the GAIN UP mode)

External Microphone

Lens:

Input Level: -70 dB, 4.7K ohms unbalanced, M3 connector

Operating Temperature: 32°F~104°F (0°C~40°C)

Operating Humidity: 10%~75%

Weight: VHS Movie: 5.7 lbs.

AC Adaptor: 1.9 lbs.

Dimensions: VHS Movie: 15-9/16" (W) \times 8-3/8" (H) \times 4-3/4" (D)

395 (W) \times 213 (H) \times 120 (D) mm

AC Adaptor: 7-7/8" (W) \times 1-7/16" (H) \times 4-1/8" (D)

200 (W) \times 36 (H) \times 105 (D) mm

Weight and dimensions shown are approximate.

Designs and specifications are subject to change without notice.

in the Continental

MATSUSHITA SERVICES COMPANY DIVISION OF MATSUSHITA ELECTRIC CORP OF AMERICA (MSC)

PANASONIC HAWAII, INC. (PHI)

PANASONIC SALES COMPANY, DIVISION OF MATSUSHITA ELECTRIC OF PUERTO RICO, INC. (PSC)

Your product is designed and manufactured to ensure a minimum of maintenance. However, should your unit ever require service, a nationwide system of FACTORY SERVICENTERS and AUTHORIZED INDEPENDENT SERVICENTERS is maintained to support your product's warranty.

To locate an Authorized Servicenter in your area with the Continental U.S.A.

DIAL TOLL FREE: 1-800-447-4700

24 Hours a Day, 7 Days a Week

Service in the Continental U.S.A.... Factory Servicenters

ALABAMA

2523-5th Avenue. South Birmingham, AL 35233 205-252-4195

ARIZONA

9332 North 95th Way Suite 101 Scottsdale, AZ 85258 602-860-6777

CALIFORNIA 6550 Katella Avenue Cypress, CA 90630 714-373-7426

930 South Mt. Vernon Drive

Colton, CA 92324 714-825-3110

800 Dubuque Avenue So. San Francisco, CA 94080 415-871-6373

20201 Sherman Way Suite 102 Canoga Park, CA 91306 818-709-1775

3878 Ruffin Road Suite A San Diego, CA 92123 619-560-9200

COLORADO

14401 E. 33rd Place Suite E Aurora, CO 80011 303-371-6968

FI ORIDA

16175 NW 52nd Avenue Miami, FL 33014 305-624-6521

4115 W. Kennedy Boulevard Tampa, FL 33609 813-289-9726

GEORGIA 1575 Northside Dr.

Suite 325, Atlanta, GA 30318 404-351-8978

4245 International Blvd. Suite C Norcross, GA 30093 404-925-6880

MATSUSHITA SERVICES COMPANY

Division of Matsushita Electric Corporation of America 50 Meadowland Parkway, Secaucus, New Jersey 07094

ILLINOIS

425 E. Algonquin Road Arlington Heights, IL 60005 312-981-4840

MARYLAND

Sulphur Spring Business Park MISSOURI 1638 Sulphur Spring Road Baltimore, MD 21227 301-242-2607

MASSACHUSETTS

383 University Avenue Westwood, MA 02090 617-329-4280

MINNESOTA

7850-12th Avenue, South Airport Business Center Bloomington, MN 55420 612-854-8624

13711 Rider Trail North Earth City, MO 63045 314-739-5301

494 Northland Boulevard Cincinnati, OH 45240 513-851-4180

PENNSYLVANIA

2250 Cabot Blvd., West Langhorne, PA 19047 215-741-0661

4986 Library Road, Rt. 88 Hillcrest Shopping Center Bethel Park, PA 15102 412-343-0555

TENNESSEE

925-8th Avenue, South Nashville, TN 37203 615-244-4434

7420 Harwin Drive Houston, TX 77036 713-781-1528

4500 Amon Carter Blvd. Fort Worth, TX 76155 817-685-1060

WASHINGTON

20425-84th Ave., South Kent, WA 98032 206-872-7922

As of Jan '89

Consumers requiring assistance with service matters should contact the appropriate Regional Administration Office:

EASTERN

2250 Cabot Blvd., West Langhorne, PA 19047 (215) 741-0676

Covers:

CT, DE, ME, MD, MA, NH, NJ, NY, PA, RI, VT, VA, DC, WV

MIDWEST

425 East Algonquin Road Arlington Heights, IL 60005 (312) 981-4842

Covers:

IL, IN, IA, KS, KY, MI, MN, MO, NE, ND, SD, OH, WI

WESTERN

6550 Katella Avenue Cypress, CA 90630 (714) 373-7438

AK, AZ, CA, CO, ID, MT, NV, NM, OR, UT,

Covers:

SOUTHERN

1854 Shackleford Court. Suite 105 Norcross, GA 30093 (404) 925-6860

Covers: AL, AR, FL, GA, LA MS, NC, SC, TN, TX, OK

Consumers requiring product information or operating assistance with a consumer product should contact: CONSUMER AFFAIRS DEPARTMENT 2F-3

50 Meadowland Parkway Secaucus, N.J. 07094 (201) 348-9090

PANASONIC HAWAII, INC. 99-859 Iwaiwa Street P.O.Box 774 Honolulu, Hawaii 96808-0774 PANASONIC COMPANY, DIVISION OF MATSUSHITA ELECTRIC CORPORATION OF AMERICA ("PANASONIC COMPANY") 1 Panasonic Way Secaucus, New Jersey 07094 PANASONIC SALES COMPANY, DIVISION OF MATSUSHITA ELECTRIC OF PUERTO RICO, INC. ("PSC")
San Gabriel Industrial Park
65th Infantry Avenue KM 9.5
Carolina, Puerto Rico 00630

PANASONIC Video Equipment Limited Warranty

Panasonic Company, Panasonic Hawaii, Inc. or Panasonic Sales Company (collectively referred to as "Panasonic") will repair this product, free of charge in the U.S.A. or Puerto Rico in the event of a defect in materials or workmanship as follows:

Parts (Except camera pick-up tube/CCD Image Sensor) New or rebuilt parts in exchange for defective parts for one (1) year from the date of original purchase.

Camera Pick-Up Tube/CCD Image Sensor

New pick-up tube/CCD Image Sensor in exchange for defective pick-up tube/CCD Image Sensor for six (6) months from the date of original purchase.

Batteries (If included)

New rechargeable batteries in exchange for defective rechargeable batteries for ten (10) days from the date of original purchase. Non-rechargeable batteries are not warranted.

Tape (if included)

New video cassette tape in exchange for a defective video cassette tape for five (5) days from the date of original purchase.

Labor

Carry-in or mail-in service for ninety (90) days from the date of original purchase. After the labor warranty period is over, purchaser pays for all labor charges for removal and installation of parts and camera pick-up tube/CCD Image Sensor.

Carry-in or mail-in service in the continental U.S.A. can be obtained during the warranty period from a Matsushita Services Company (MSC) Factory Servicenter listed in the Servicenter Directory. Or call 800-447-4700, toll free, to locate an Authorized MSC Servicenter. Carry-in or mail-in service in Puerto Rico or Hawaii can be obtained during the warranty period by calling the telephone numbers listed in the Servicenter Directory.

This warranty is extended only to the original purchaser. A purchase receipt or other proof of date of original purchase will be required before warranty performance is rendered.

This warranty only covers failures due to defects in materials or workmanship which occur during normal use and does not cover normal maintenance, including, but not limited to, video and audio head cleaning. It does not cover damage which occurs in shipment or failures which are caused by products not supplied by Panasonic or failures which result from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, improper antenna, inadequate signal pick-up, maladjustment of consumer controls, line power surge, modification or commercial use, such as hotel, office, restaurant, or other business or rental use of the product or service by anyone other than an MSC Factory Servicenter or Authorized MSC Servicenter or damage that is attributable to acts of God.

LIMITS AND EXCLUSIONS

There are no express warranties except as listed above. PANASONIC SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGE TO TAPES, RECORDS, OR DISCS) RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE. Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. If a problem with this product develops during or after the warranty period, you may contact your dealer or Servicenter. If the problem is not handled to your satisfaction, then write to the Consumer Affairs Division at the company address

indicated above.

If you ship the product

Carefully pack and send it prepaid, adequately insured and preferably in the original carton. Attach a postage-affixed letter, detailing the complaint, to the outside of the carton.

DO NOT send the product to the Executive or Regional Sales offices. They are NOT equipped to make repairs.

Service in Puerto Rico

MATSUSHITA ELECTRIC OF PUERTO RICO, INC. Panasonic Sales Company/Factory Servicenter

San Gabriel Industrial Park 65th Infantry Avenue KM 9.5 Carolina, Puerto Rico 00630 (809) 750-5135

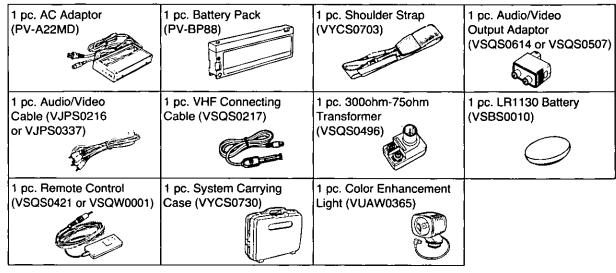
Service in Hawaii

PANASONIC HAWAII, INC.

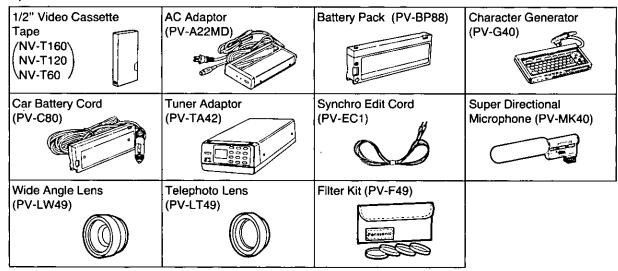
99-859 Iwaiwa Street P.O. Box 774 Honolulu, Hawaii 96808-0774 (808) 488-1996

Accessories

Accessories packed with your Movie



Optional Accessories



The serial number of these products may be found on the bottom of the Movie and on the surface of the AC Adaptor. No others have the same serial number as yours. You should record the number and other vital information here and retain this book as a permanent record of your purchase to aid identification in case of theft.

Date of Purchase

Dealer Purchased From

Dealer Address

Dealer Phone No.

Model No. PV-530D/PV-A22MD

Serial No.

Panasonic₆

Panasonic Company Division of Matsushits Electric Corporation of America One Panasonic Way, Secaucus, New Jersey 07094 Panasonic Hawaii, Inc. 99-859 Iwaiwa Street P.O.Box 774 Honolulu, Hawaii 96808-0774

Panasonic Sales Company, Division of Matsushita Electric of Puerto Rico, Inc. San Gabriel Industrial Park 65th Infantry Avenue KM 9.5 Carolina, Puerto Rico 00630

