Operating Instructions

## Panasonic OmniMovie PV-530 Consists of PV-530D/PV-A22MD





OmniMovie

## 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
RE-RECORDING (VIDEO/AUDIO DUBBING)	29 31
VIDEO DUBBING	31
VIDEO DUBBING	31 33
VIDEO DUBBING	31 33 35
VIDEO DUBBING	31 33 35 36
VIDEO DUBBING AUDIO DUBBING TO RECORD A TV PROGRAM NOTES ON OPERATIONS BEFORE REQUESTING SERVICE	31 33 35 36 38
VIDEO DUBBING AUDIO DUBBING TO RECORD A TV PROGRAM NOTES ON OPERATIONS BEFORE REQUESTING SERVICE SYSTEM CARRYING CASE	31 33 35 36 38 39 40

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

Image: Charge The Battery PACK (P.13)         Image: Charge The Battery PACK (P.13)         Image: Charge The Battery (P.14)         Image: Charge The Poil (P.14)         Image: Charge The Poil (P.14)         Image: Charge The Poil (P.14)         Imag	- BASIC RECORDING -
Image: Supplex	To AC Outlet
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	1 (F.13) (Other Power Supplies P.13) 2 3 INSERT A CASSETTE
SELECT "AUTO" WITH THE WHITE BALANCE SWITCH (For special color conditions	SWITCH TO ON SLIDE THE VCR/CAMERA SELECTOR TO "CAMERA RECORD" OR "CAMERA EDIT"
Start RECORDING         by pressing the RECORD/         PAUSE Button.         Press again to pause the recording:         10W Color Enhancement Light P12         Record Review       P16         Date/Time       P21         Counter       P22         Zooming       P24         Macro       P24         High Speed Shutter       P25	
5 START RECORDING by pressing the RECORD/ PAUSE Button. Press again to pause the recording: 10W Color Enhancement Light . P.12 Record Review	BALANCE SWITCH (For special color conditions see P.24 SET THE FOCUS SWITCH TO "AUTO"
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	
Self Timer Recording P 26	by pressing the RECORD/ PAUSE Button. Press again to pause the recording. Special effects for Recording: 10W Color Enhancement Light P.12 Record Review

## – 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  $\underline{WHS}$  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.



DO NOT REMOVE COVER (OR BACK) NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED BERVICE PERSONNEL



This s conce has be carefu

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.

## Movie system & features



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.

with a Panasonic TECH 3 or TECH 4 VCR) will reveal

the fine points of every motion.



Review feature to check the last few seconds of recorded tape in the EVF.

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).

## FRONT 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.

DICITAL EFFECTS PANEL GAIN UP BUTTON Press this button to shoot in very dim light Ð situations. 16 050 WIPE BUTTON Press this button to select WIPE/FADE functions in Camera or Rec/Pause mode. STROBE BUTTON Hold down this button for Strobe Effects. OFF BUTTON Press this button to release any digital effects DIGITAL EFFECTS GAIN except for GAIN UP Button. STROBE 000 SELECT BUTTON WIP OFF Press this button to select picture image mix function. IMAGE MIX STILL BUTTON Press this button to get still picture of current STILL SELECT subject. MEMORY INDICATOR This indicator lights up when the GAIN UP Button, STROBE Button or STILL Button is pressed. Also it lights up when the REC/PAUSE Button is pressed to memorize camera recording picture in the DIGITAL WIPE FADE mode. Also it lights up when the Wipe operation is going on in the Rec mode. GAIN UP INDICATOR This indicator lights up when the GAIN UP Button is on. MEMORY • STROBE INDICATOR GAIN UP This indicator lights up while pressing the STROBE STROBE Button. WIPE IMAGE WIPE INDICATOR МΙΧ This indicator lights up when the REC/PAUSE Button is pressed to memorize the camera recording picture in DIGITAL WIPE FADE mode or the Wipe operation is going on in the Rec mode. IMAGE MIX INDICATOR This indicator lights up when the STILL Button is ON.



Description of Controls (Continued)

## FUNCTION CONTROL PANEL

ų.

#### 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

#### 

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.

#### 

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

ACADAPTOR	
CHANNEL 3/4 SWITCH Set to channel 3 or 4, whichever is not used for TV broadcasting in you 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	I
INPUT SIGNAL VCR/CAMERA SELECTOR IN LINE POSITION IN CAMERA POSITION	]
IN VCR POSITION TO RECORD: VIDEO IMAGE VIDEO-IN CONNECTION NOT RECORDED	]
AUDIO SOUND AUDIO-IN CONNECTION CAMERA MICROPHON	DE
IN CAMERA POSITION TO RECORD FOR BOTH INPUT SIGNAL SELECTOR POSITION Camera lens image and Camera Microphone Audio	SCRIP
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	, H
Connected to an AC outlet.	CONTROLS
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.

#### 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.
- 2. 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.

- 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

Buckle

Brightness

Control

.....

Vislon Adjustment Lever

The shoulder strap makes it easier to carry the Movie. Attach the shoulder strap to the Movie as illustrated at left.

- 1. Remove the end of the strap from its buckle.
- 2. Thread the strap end through the support hook, on the Movie, then back through its buckle.



## **10W COLOR ENHANCEMENT LIGHT (SUPPLIED)**



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

- 1. 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



1. 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.

## 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.
- 2. 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.
- 2. 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)



Power Indicator Lamp

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

## C. CAR BATTERY CORD (OPTIONAL)



Cigarette Lighter Plug

- 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 VIIS mark in this unit.

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

## TO INSERT OR REMOVE A CASSETTE

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

- **B. ERASE PROTECTION -**Cassettes have a record tab to ensure that recordings are not accidentally erased.
  - To prevent accidental erasure



+ To record again



Cover the hole with cellophane tape

Video Cassettes can only be

inserted with the window side

or backwards.

of cassette facing the cassette door, and the arrow pointing down. Do not attempt to insert a cassette which is upside down



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

again.

## **OPERATION MODE INDICATION**



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.

CAMERA RECORDING

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.
- A cassette is inserted.



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

tape is inserted.

#### 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.



## INDICATORS

## 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.

+ ON



- GAIN UP BUTTON-

1. Press the GAIN UP Button.



DIGITAL EFFECTS GAIN UP STROBE MEMORY COD GAIN UP WIPE OFF STROBE MIX WARE MAGE MIX STILL SELECT

- "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

OFF ←

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.



LAYBACK/ DIGITAL EFFECTS

18

## Operation



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

→WIPE 1 MODE →WIPE 2 MODE → FADE IN P-P (WIPE P-P) MODE ~



- 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.



- 1. 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. Press the STILL Button while recording.
  - The image is retained in memory.
  - The still picture is viewed.

the SELECT Button are!

2. Press the SELECT Button to select COMBINATION PICTURE Mode. The sequence of COMBINATION PICTURES obtained by pressing

# 2. 4. → IMAGE MIX → SPLIT SCREEN → CENTER STILL → CENTER CAMERA → STORED PICTURE (STILL) → LOWER RIGHT STILL → UPPER LEFT STILL →

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



## SPLIT SCREEN

CAMERA

PICTURE

STILL

STORED PICTURE (STILL)

PICTURE

#### **CENTER STILL**



## LOWER RIGHT STILL



## **CENTER CAMERA**



### 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

	J
PLEASE CHECK BATTERY	Í
	J

- 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

SE	LECT THE DISPLAY		SET TH	E DIS		AC.	TIVATE THE DISPLAY
1	Press the DATE/ TIME Button in Record/Pause mode or Stop mode.		Press the SELECT Button.	3	Press the SET Button until the desired setting appears.	4	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.	4	A portion of the DATE and TIME display wil flash.		<ul> <li>Press the SELECT Button to lock in that portion of the date and time.</li> <li>Repeat steps 2 and 3, as needed to change each portion of the date and time.</li> </ul>	-	This locks in the new Date and Time after setting all of contents you desired.
TOI	TE: • If the SET. Button held down, the displays will advar rapidly.		TO SET THE C     PRESS THE     SELECT BUTTON	HOU MINU' MONT	( ( ( ( ( ( ( ( ( ( ( ( ( (	► PM12 PM1 58-+55 + DEC 30+3	9

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



22

# 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.	2 Press and hold the "T" side of the POWER ZOOM Switch until the lens zooms to the maximum close-up setting.	3 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.)	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.

1. 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.

2. Perspective scene.







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

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



#### 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.



Zoom In-





Zoom Out-



#### AUTO WHITE BALANCE



IRIS CONTROL



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 " $\dot{\phi}$ " or "Q" as recommended, for better color reproduction in your recordings.

INDOOR " ? " : 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.

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.



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



and press the RECORD/PAUSE Button.

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.

Slide the switch to the right once to activate the		SELECT THE 1/1000th SHUTTER		
		Slide this switch to the right once more to select the 1/1000 shutter speed.		
This mode should be used for subjects moving fast enough to cause blurs.	1/500	This mode should be use extremely fast motions, lik 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.





SELECT "SELF-10S"	SELECT "SELF-END"	SELECT "T. LAPSE"	
Press the	I RECORD/PAUSE Button to	start the selected mode.	
$\uparrow$ $\downarrow$ $\downarrow$		Ţ	
You have a 10 second delay before recording starts. The Tally Light flashes intermittently during the standby period.		Your Movie will start to record at once. A one second frame of the scene will be recorded each minute. As shown in the diagram below, your recording will have continuous Time Lapse images of the scene.	
10 seco	nd later	1 min. 1 min. 1 min. (approx.) (approx.) (app	
Your Movie will record the scene for 10 seconds. The Tally Light will flash as during normal recording.	Your Movie will keep recording the scene up to the end of the tape. The Tally Light will flash as during normal recording.	59 SECOND PAUSE (approx.)	

Pressing the RECORD/PAUSE Button again will cancel the recording in progress in all of above modes.

#### 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.

**JSEFUL FEATURES** 

#### 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:

RE	WIND, 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.	2 At the location where you wish to continue recording, press the PAUSE/STILL Button.	3 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. 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.



**USEFUL FEATURES/ TO MONITOR YOUR RECORDINGS** 

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

- 1. Insert the master tape into the Source VCR or Movie.
- 2. 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).
- 4. 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.	<ul> <li>3 Press the PLAY Button on the source unit. AND</li> <li>The RECORD and PLAY Buttons on the editing unit all at the same time.</li> <li>■ To finish dubbing, press the STOP Buttons on</li> </ul>
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".

# Video dubbing

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	LOCATE THE STARTING POINT ON THE EDITING MOVIE
<ul> <li>Press Power ON on both units and the AC Adaptor.</li> <li>At the Source VCR (or Movie):</li> <li>Insert the Master Cassette to be played. Put the Source VCR (or Movie) in PLAY/PAUSE mode at the desired starting point.</li> <li>At the Editing Movie:</li> <li>Insert a Cassette (with tab) to be recorded.</li> </ul>	<ul> <li>Place the VCR/ CAMERA Selector Slide on the EDITING Movie to the "VCR" position.</li> <li>Be sure the door clicks into the fully open position.</li> </ul>	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
<ul> <li>Turn the TV ON, and select CH 3 or 4, to monitor the dubbing, if desired.</li> </ul>	position.	To set Memory-Stop Editing, see step 5.

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



FOR EDITING	TO BEGIN EDITING	TO END EDITING
3 Hold down the DUB Button and press the REC Button on	4 – If neither Movie has a synchro Edit Jack –	5 Press the STOP Button on both units to stop Video
the Editing Movie only.	Release the PAUSE Buttons on both units simultaneously.	Dubbing.
This puts the Movie in the VIDEO DUB PAUSE mode.	This may require some practice beforehand.	MEMORY-STOP EDITING: Use the D/M/L/TR Button to automatically stop EDITING with
	– Using the SYNCHRO EDIT FEATURE –	the following preparations.
	On the Editing Movie, press PAUSE to begin video dubbing (both units begin operation).	<ul> <li>(a) In step 2 on the EDITING Movie tape, locate the end of portion to be edited, then</li> <li>set "M" and reset tape counter to 0000.</li> </ul>
	Press PAUSE on the Editing Movie at the end of the recorded sequence (both units go into PAUSE).	<ul> <li>(b) Rewind to the editing start point, and continue steps 2-4</li> <li>(c) The EDITING Movie tape will stop when it reaches "0000".</li> </ul>

32

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		
<ul> <li>Turn on the Movie, and the AC Adaptor.</li> <li>At the Editing Movie:</li> <li>Insert a cassette (with tab) to be recorded.</li> <li>Set the AC Adaptor Input Signal Selector to the desired position: Select CAMERA: The sound from the microphone will be recorded.</li> <li>Select LINE: The sound from whatever is connected to the AC Adaptor, through the Audio Input Connector.</li> <li>Turn the TV ON, and select CH3 or 4.</li> </ul>	<ol> <li>Place the VCR/CAMERA Selector Slide to the "VCR" position.</li> <li>Be sure the door clicks into the fully open position.</li> <li>Unit automatically goes into the stop mode.</li> <li>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.)</li> </ol>	2 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



34

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	SEI	ECT THE CHANNEL	ST	ART RECORDING	STO	OP RECORDING
1	Place the VCR/ CAMERA Selector Slide to the "VCR" position.	2	Turn the Source Unit on; select the channel to be recorded.	3	Press the RECORD Button and the PLAY Button together on your Movie.	4	Press the STOP Button.
			The selected channel will appear on the TV and in the EVF of your Movie.		During recording, be sure the Source unit power is on.		This ends the recording session. Use the PAUSE/STILL Button to pause recording.

## 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)	<ul> <li>Fair weather, blue sky</li> </ul>	- 10,000	Color television	Bluish
	<ul> <li>Slightly cloudy sky</li> </ul>	- 8,000		
	<ul> <li>Cloudy or rainy sky</li> </ul>	7,000		
		- 6,500	• Fluorescent lamp (Daylight)	]
	• Sunlight in clear weather at midday	- 6,000	Camera flash bulb	
		- 5,500		
	Average sunlight in clear weather	- 5,000	<ul> <li>Blue lamp for photography</li> </ul>	
	Sunlight 2 hours after sunrise	- 4,500	• Fluorescent lamp (White)	Whitish
"AUTO"	and before sunset	4,000	Normal flash bulb	
		- 3,500	<ul> <li>Fluorescent lamp (Off-white)</li> </ul>	
		1	• Tungsten lamp for photography	
- <sub>T</sub> - "INDOOR"	Sunlight 40 min. after sunrise	- 3,200		
	and before sunset		Halogen lamp	
		Ì	Iodine tamp	
<b>_</b> <u>*</u>	<ul> <li>Sunlight 30 min. after sunrise</li> </ul>	- 2,800		
(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
				<u> </u>

#### 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.

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.	13
	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
	<ul> <li>Insert the cassette with the window side facing out and the record tab facing up.</li> </ul>	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
	<ul> <li>Make sure the unit is ON, with the VCR/CAMERA SELECTOR SLIDE to "CAMERA RECORD" or "CAMERA EDIT".</li> </ul>	15
The sound from microphone can't be monitored	Make sure the unit is set to REC or Record/Pause mode.	$\square$
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	<ul> <li>Portions of the still picture where the normal speed motion was particularly rapid may produce this effect. This is normal.</li> </ul>	
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 a 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.

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

#### TO OPEN THE CASE



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

#### ACCESSORY STORAGE SUGGESTIONS:

#### 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.



## 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)
Lens:	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
Viewfinder:	2/3 inch Electronic Viewfinder
Minimum Illumination Required:	1 Lux (F1.2) 0.1 of a footcandle (in the GAIN UP mode)
External Microphone	
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) $ imes$ 8-3/8" (H) $ imes$ 4-3/4" (D)
	395 (W) $ imes$ 213 (H) $ imes$ 120 (D) mm
	AC Adaptor: 7-7/8" (W) $ imes$ 1-7/16" (H) $ imes$ 4-1/8" (D)
	200 (W) $ imes$ 36 (H) $ imes$ 105 (D) mm

Weight and dimensions shown are approximate.

Designs and specifications are subject to change without notice.



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 **FLORIDA** 

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

50 Meadowland Parkway, Secaucus, New Jersey 07094

**ILLINOIS** MINNESOTA 425 E. Algonquin Road Arlington Heights, IL 60005 312-981-4840 7850-12th Avenue, South Airport Business Center Bloomington, MN 55420 612-854-8624

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

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

MATSUSHITA SERVICES COMPANY

Division of Matsushita Electric Corporation of America

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

PENNSYLVANIA 2250 Cabot Blvd., West Langhome, 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

TEXAS

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

Covers: AK, AZ, CA, CO, ID, MT, NV, NM, OR, UT, WA. WY

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

1854 Shackleford Court.

Suite 105 Norcross, GA 30093

SOUTHERN

(404) 925-6860

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.

#### 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. 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 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 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.

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

## CCESSORIES

#### Accessories packed with your Movie

1 pc. AC Adaptor (PV-A22MD)	1 pc. Battery Pack (PV-BP88)	1 pc. Shoulder Strap (VYCS0703)	1 pc. Audio/Video Output Adaptor (VSQS0614 or VSQS0507)
1 pc. Audio/Video Cable (VJPS0216 or VJPS0337)	1 pc. VHF Connecting Cable (VSQS0217)	1 pc. 300ohm-75ohm Transformer (VSQS0496)	1 pc. LR1130 Battery (VSBS0010)
1 pc. Remote Control (VSQS0421 or VSQW0001)	1 pc. System Carrying Case (VYCS0730)	1 pc. Color Enhancement Light (VUAW0365)	

#### **Optional Accessories**

1/2" Video Cassette Tape (NV-T160 NV-T120 NV-T60	AC Adaptor (PV-A22MD)	Battery Pack (PV-BP88)	Character Generator (PV-G40)
Car Battery Cord (PV-C80)	Tuner Adaptor (PV-TA42)	Synchro Edit Cord (PV-EC1)	Super Directional Microphone (PV-MK40)
Wide Angle Lens (PV-LW49)	Telephoto Lens (PV-LT49)	Filter Kit (PV-F49)	

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 Purcl	nase
<b>Dealer Purch</b>	ased From
Dealer Addre	\$\$
Dealer Phone	No.
Model No.	PV-530D/PV-A22MD
Serial No.	

## **Panasonic**®

Panasonic Company Division of Matsushita Electric **Corporation of America** One Panasonic Way, Secaucus, Honolulu, Hawaii 96808-0774 New Jersey 07094

Panasonic Hawaii, Inc. 99-859 Iwaiwa Street P.O.Box 774

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

