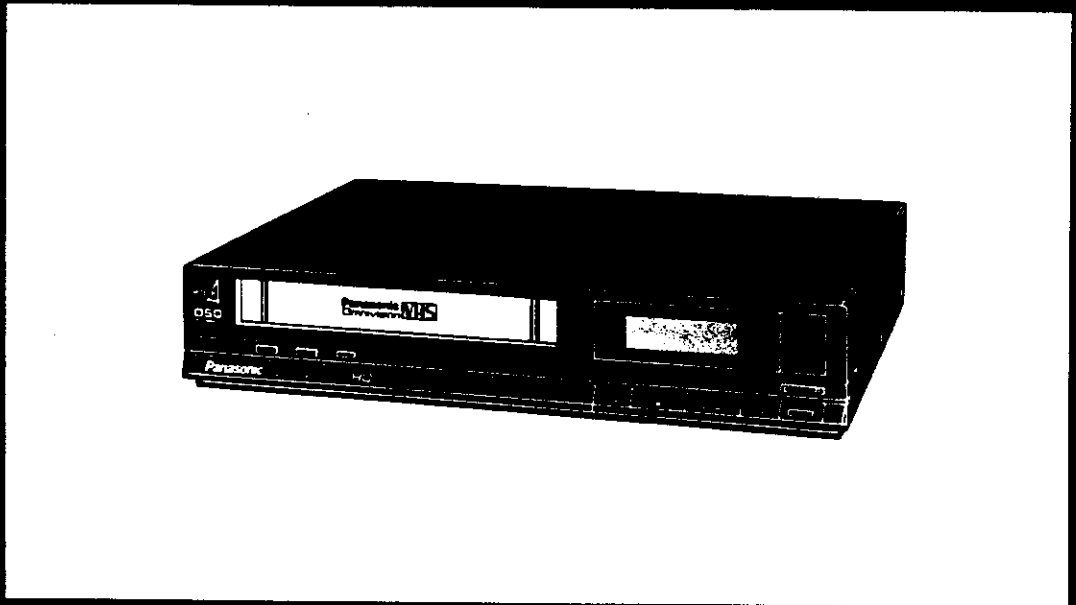


Operating Instructions

Panasonic
Omnivision **VHS**
PV-4820



Video Cassette Recorder

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

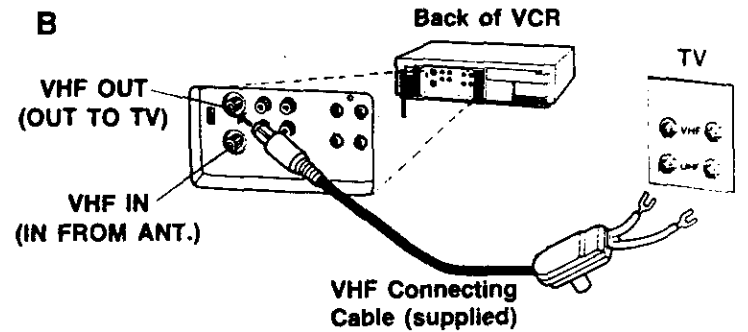
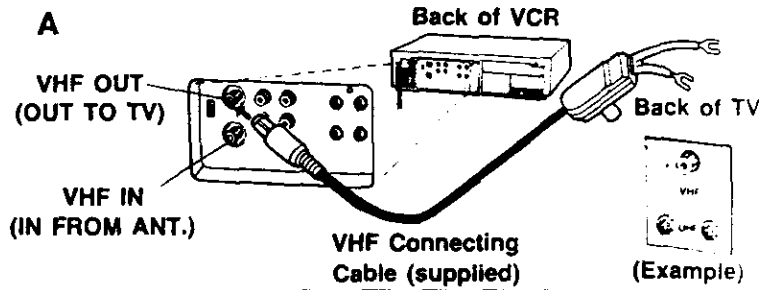
TO GET STARTED

Taking the steps shown on this page will prepare your VCR for playback of a pre-recorded tape. Steps 1 and 2 are one time system setup steps.

VCR TO TV SYSTEM CONNECTION

- Connect the supplied VHF Connecting Cable from the VCR to the TV as shown here.

Follow illustration A or B depending on the type of terminals available on the back of your TV.

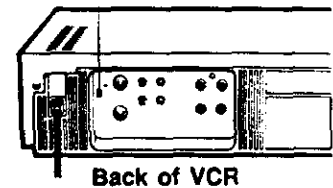


SELECT VCR CHANNEL (CHANNEL 3 OR 4)

- Your VCR must control one TV channel permanently just as a TV broadcast station does. To decide which channel to use, select either channel 3 or 4 with the Channel 3/4 switch on the back of the VCR. To avoid local interference, the channel 3/4 switch position you choose should match the number of the TV channel that is not normally broadcast in your area.

Now, tune your TV to the same channel that you selected for the channel 3 or 4 switch.

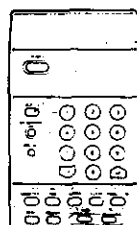
(VCR Monitor Channel)
CHANNEL 3/4 Switch



SELECT YOUR VCR OR TV FOR VIEWING

- Set the VCR/TV Selector to "VCR".

REMOTE CONTROL



VCR/TV Selector



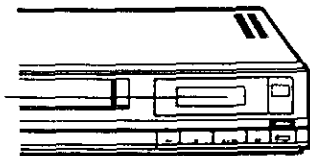
Press

once

or

twice

VCR Indicator



VCR Front Panel

ON: TO WATCH A VIDEO PLAYBACK OR TUNE CHANNELS AT VCR WITH THE CHANNEL UP/DOWN KEYS.

OFF: TO WATCH AND TUNE CHANNELS AT THE TV.

Refer to the separate Basic Guide For VCR Connections and select the section with details on the particular hookup you want to use.

TABLE OF CONTENTS

PV-4820

INTRODUCTION

We are pleased to introduce to you one of the most sophisticated viewing and entertainment products available today.

This manual is arranged to get you started easily so you can begin to enjoy the world of video as soon as possible. On the facing page you will find the basic steps described for setting up your VCR to view tapes on your TV and to record. Keep this manual handy to serve as a quick guide to the video features on your new VCR.

FEATURES

- HQ (High Quality) System
- Digital Quartz Tuning with Auto Set Feature
- On Screen Display Programming
- Multi Function Display
- Recorded Time Counter (Real Time)
- Special Effects Playback
 - Fast Search
 - Double Speed Playback
 - Field-Still
 - Field Frame Advance
 - Double Fine Slow
- One Touch Recording
- Unattended (Timer) Recording
- Auto Operation Functions
- Wireless Remote Control





TABLE OF CONTENTS

TO GET STARTED	1
TABLE OF CONTENTS	2
DESCRIPTION OF CONTROLS	3
CLOCK ADJUSTMENT	8
TO PLAYBACK	9
TO RECORD	11
CHANNEL MEMORY	13
ONE TOUCH RECORDING	15
TIMER RECORDING	17
HELPFUL HINTS	20
BEFORE REQUESTING SERVICE	23
SPECIFICATIONS	24
WARRANTY	25
ACCESSORIES	Back Cover

CAUTION: DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

This video recorder, equipped with the HQ System, is compatible with existing VHS equipment.

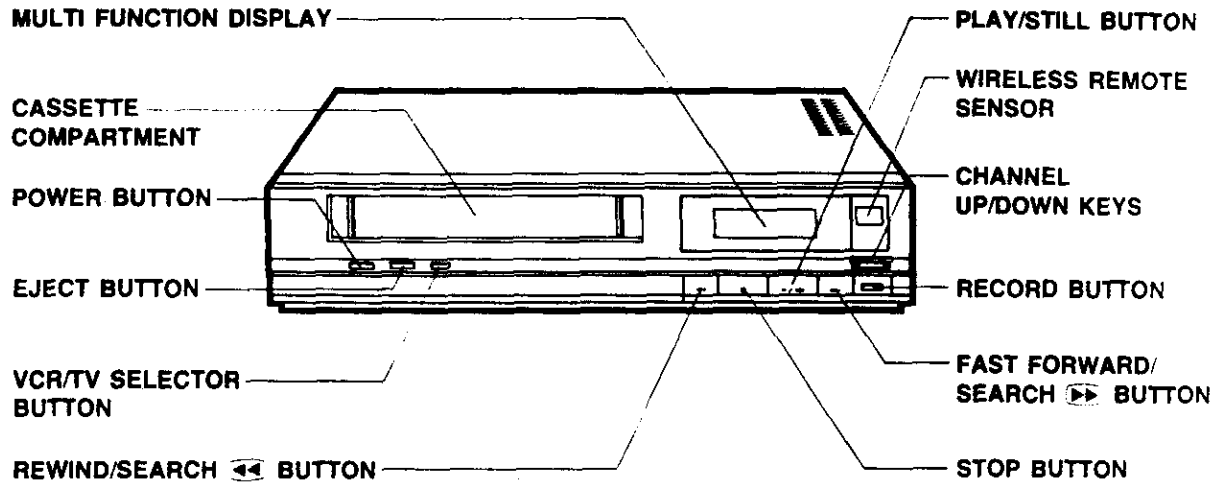
Only use those tapes with the **VHS** mark. It is recommended that only cassette tapes that have been tested and inspected for use in 2, 4, 6, and 8 hour VCR machines be used.

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

DESCRIPTION OF CONTROLS

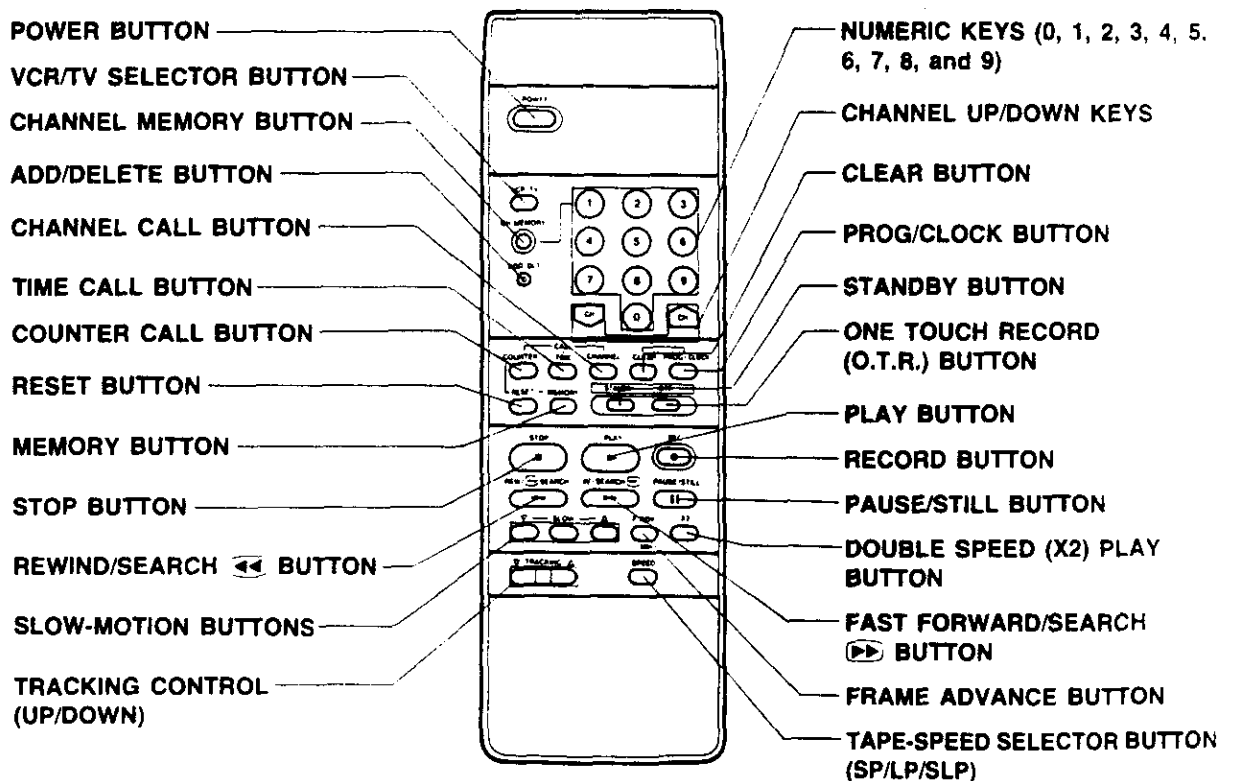
(See pages 5 and 6 for explanation of controls.)

FRONT



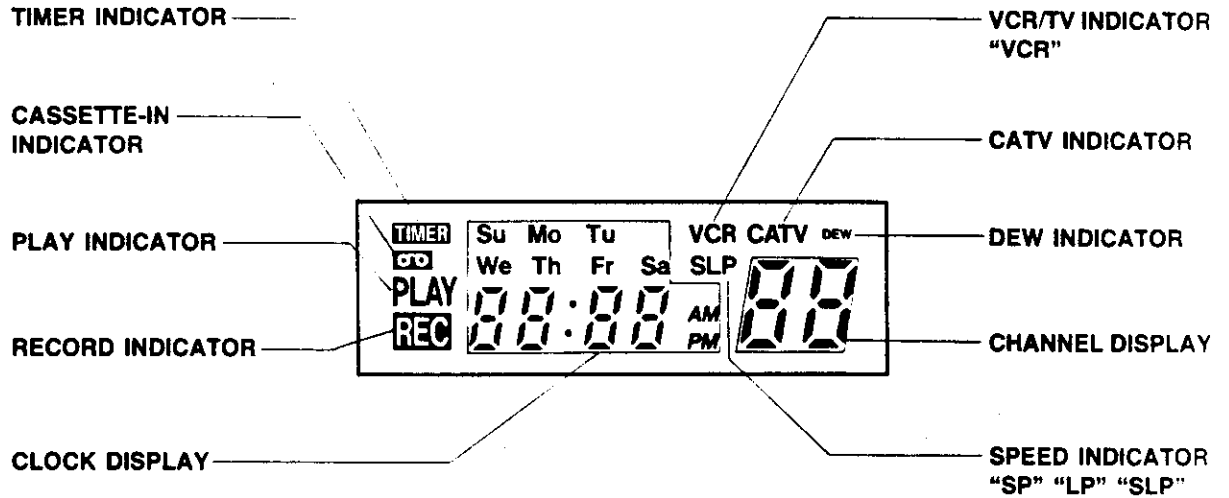
WIRELESS REMOTE CONTROL

Various VCR function controls are conveniently available with your Wireless Remote Control.

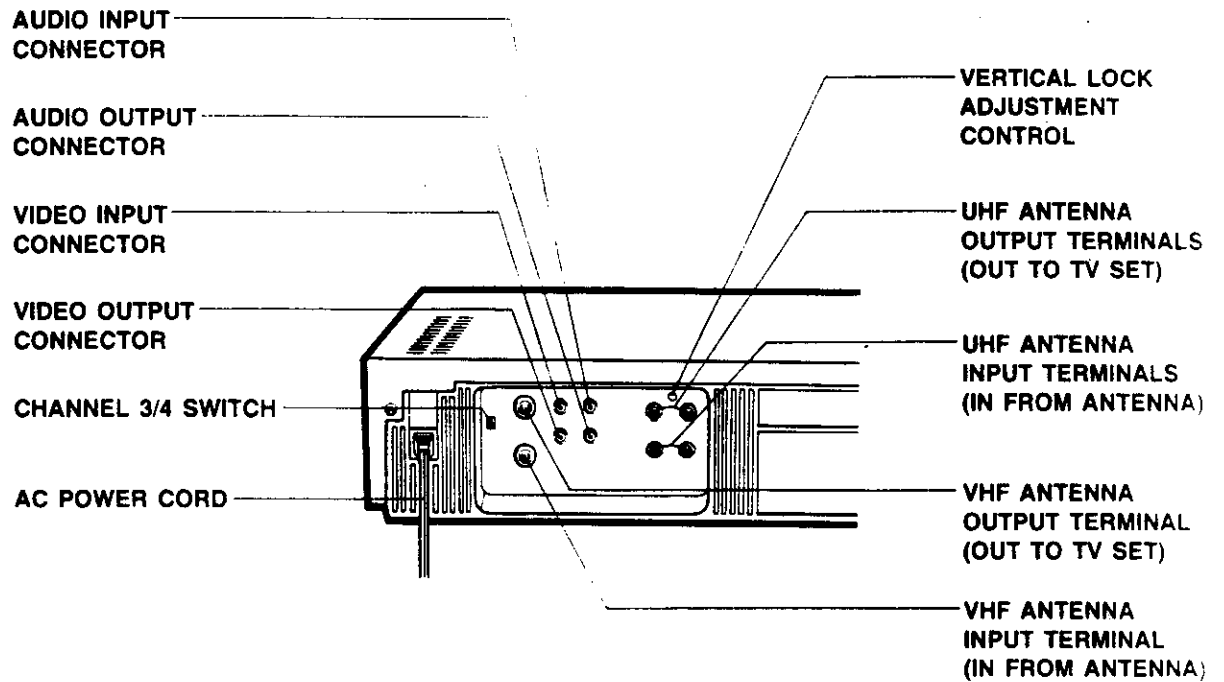


See page 7 for Battery Replacement Caution.

MULTI FUNCTION DISPLAY



REAR



DESCRIPTION OF CONTROLS (CONTINUED)

FRONT

- **POWER BUTTON**
 - To turn the VCR on and off.
 - To set the VCR for unattended recordings after timer settings have been completed.
- **VCR/TV SELECTOR BUTTON**
 - VCR position: To view playback or to monitor video recordings. "VCR" appears on the Multi Function Display.
 - TV position: To watch TV or to view one program while recording a different program. When this is set to TV, there is no indication on the Multi Function Display.
- **REWIND/SEARCH BUTTON**
 - To rewind tapes. Also, during playback press this button to view the picture in rapid reverse.
- **PLAY/STILL BUTTON**
 - To play back a tape. In SP or SLP playback, press this button once more to view a still picture.
- **FAST FORWARD/SEARCH BUTTON**
 - To rapidly advance the tape. Also, during playback press this button to do rapid forward visual search.

WIRELESS REMOTE CONTROL

- **VCR/TV SELECTOR BUTTON**
 - Same as the VCR/TV SELECTOR Button on the VCR.
- **CHANNEL MEMORY BUTTON**
 - This button is normally OFF. For CHANNEL MEMORY programming, hold this button down and press NUMERIC Key "1" to use the AUTO SET feature.
- **ADD/DELETE BUTTON**
 - Used to add or delete a selected CHANNEL.
- **CHANNEL CALL BUTTON**
 - When pressing this button, the number of the channel tuned will be displayed on the TV screen momentarily.
- **TIME CALL BUTTON**
 - Press the TIME CALL Button to display or clear the date and time from the TV screen.
- **COUNTER CALL BUTTON**
 - Press this button to display or clear the time counter and tape speed display.
- **RESET BUTTON**
 - Sets the Time Counter to "0:00.00".

WIRELESS REMOTE CONTROL

- **MEMORY BUTTON**
 - When this button is set to ON, the tape will rewind or fast forward to the "0:00.00" point then stop automatically.
- **REWIND/SEARCH BUTTON**
 - Same as the REWIND/SEARCH Button on the VCR.
- **SLOW-MOTION BUTTONS**
 - Press the SLOW Button while watching a tape to put action into slow motion for tapes recorded in SP and SLP speeds. DOWN and UP Buttons let you adjust slow motion speed from about 1/10 to about 1/60 of normal speed.
- **CLEAR BUTTON**
 - Press this button to clear the settings for the displayed program contents. While setting the clock or a program, each press of this button starts the digit to the left flashing for correction.
- **PROG/CLOCK BUTTON**
 - Press this button to display the MENU screen to select either clock adjustment or the Timer programming mode.
- **STANDBY BUTTON**
 - Used along with O.T.R. Button, to set a delayed (Standby) O.T.R..
- **ONE TOUCH RECORD (O.T.R.) BUTTON**
 - Select the channel and press the ONE TOUCH RECORD Button to start recording immediately for 30 minutes to 4 hours of recording, or until tape ends. In any case power shut off is automatic.
- **PAUSE/STILL BUTTON**
 - To temporarily stop the tape during recording or to view a still picture during playback.
- **DOUBLE SPEED (X2) PLAY BUTTON**
 - Press this button during playback of the tapes recorded in SP and SLP mode for rapid tape search at twice the normal speed.
- **FAST FORWARD/SEARCH BUTTON**
 - Same as the FAST FORWARD/SEARCH Button on the VCR.
- **FRAME ADVANCE BUTTON**
 - While viewing an SP or SLP still picture, press this button to advance the picture one frame at a time, or hold it down for a slow-motion picture.
- **TAPE SPEED SELECTOR (SP/LP/SLP) BUTTON**
 - Set this selector for the desired recording speed.

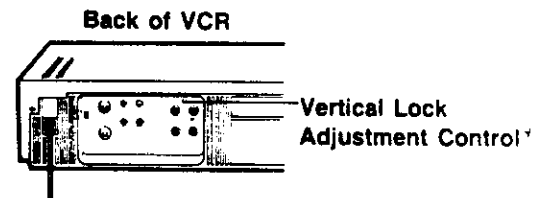
MULTI FUNCTION DISPLAY

- **TIMER INDICATOR "TIMER"**
Indicates the VCR is set for unattended recording.
- **CASSETTE-IN INDICATOR**
The three states of this indicator show the following conditions.
No " " displayed: There is no cassette in the unit.
" " displayed: There is a cassette in the unit and some interval to the end of the tape.
Flashing " " display: The Automatic Rewind took place at the end of the tape during playback, recording or fast forward. The indicator continues flashing until the next mode is selected.
Also flashes if you attempt any recording when the cassette record tab is missing.
- **PLAY INDICATOR**
Appears during playback.
Flashes in still mode.
- **RECORD INDICATOR**
Appears during recording.
Flashes in record/pause mode.
- **CLOCK DISPLAY**
Displays present day/time.
- **VCR/TV INDICATOR "VCR"**
Appears when the VCR/TV Selector is set to VCR.
- **CATV INDICATOR**
CATV indicates ANTENNA SYSTEM is set to the Cable TV mode.
- **DEW INDICATOR "DEW"**
When "DEW" flashes on the Multi Function Display, the unit will not operate due to excessive moisture within it. If this happens, let the VCR remain at room temperature either ON or OFF, until this indicator disappears.
If there is a cassette in the VCR, it will be ejected when "DEW" flashes.
- **CHANNEL DISPLAY " "**
The CHANNEL number selected is displayed.
An "L" will appear to let you know you are receiving a Line input.
- **SPEED INDICATOR "SP" "LP" "SLP"**
Shows the tape speed during recording and playback.

REAR

(See enclosed foldout "Basic Guide For VCR Connections.")

- **AUDIO INPUT CONNECTOR**
For connection from a portable video camera power supply, another VCR or other Audio Source's output connector.
- **AUDIO OUTPUT CONNECTOR**
For connection to an audio input connector on a monitor TV, another VCR or an audio tape recorder.
- **VIDEO INPUT CONNECTOR**
For video input connection from another VCR or a portable video camera power supply.
An "L" will appear on the Multi Function Display to let you know you are receiving a Line input.
- **VIDEO OUTPUT CONNECTOR**
For video output connection to a monitor TV or another VCR.
- **CHANNEL 3/4 SWITCH**
Set to channel 3 or 4 (whichever is not used for regular TV broadcasting in your area) to use your TV as a VCR program monitor.
See "TO GET STARTED" on page 1.
- **VERTICAL LOCK ADJUSTMENT CONTROL**
If necessary this control can be used to lock out vertical jitter in SP or SLP still mode. The adjustment can be made with the provided V-Lock Tool.



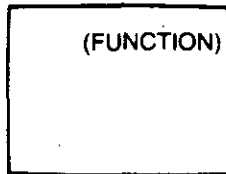
- * Do not use excessive force while adjusting this control.

DESCRIPTION OF CONTROL (CONTINUED)

OSD INDICATIONS

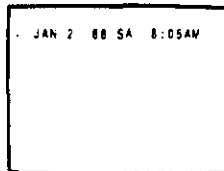
The following on-screen graphics will appear automatically for a few seconds when one of the main function buttons is pressed on the remote control or at the VCR. The channel currently tuned-in will be displayed automatically for a few seconds when the power is first turned on, whenever the channel is changed, or when the CHANNEL CALL Button is pressed thereafter.

STOP, EJECT, PLAY, REC, FF, REW, PAUSE, LINE, TIME, DATE, CHANNEL INDICATION, TIME COUNTER, TAPE SPEED, STANDBY SET (indicates the Standby O.T.R. mode is set), OTR (whenever Standby-OTR starts), DEW*



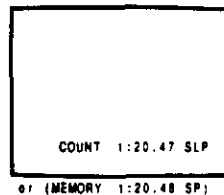
* When "DEW" appears on the TV screen, the unit will not operate due to excessive moisture within it. If this happens, let the VCR remain at room temperature, until this indicator disappears. If there is a cassette in the VCR, it will be ejected when "DEW" appears.

DATE INDICATOR



Press the TIME CALL Button to show or remove the date and time from the TV screen.

TIME COUNTER TAPE SPEED INDICATOR

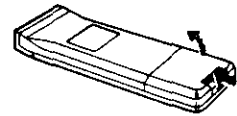
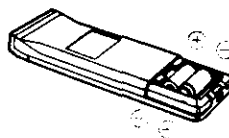
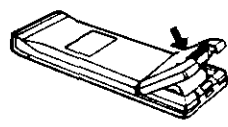


Press the COUNTER CALL Button to show or remove the time counter and tape speed display.

BLANK TAPE INDICATION

If a blank (unrecorded) section of tape is encountered while in the play mode, the TV screen will change to a solid blue field. The screen will remain blue until a recorded signal is again detected.

LOAD THE BATTERIES AS FOLLOWS:

<p>1 Lift off the lid after pressing in and up on the lid latch with your thumb nail or other narrow object.</p> 	<p>2 Install two batteries as indicated inside the Battery Compartment.</p> 	<p>3 Fit the lid's hinge piece into the indent on the case, and snap lid into place.</p> 
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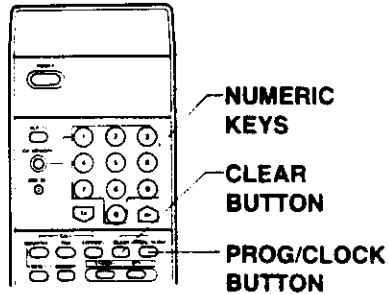
BATTERY REPLACEMENT CAUTION

• Do not mix old and new batteries. (Also never mix alkaline batteries with manganese batteries.)

CLOCK ADJUSTMENT

PV-4820

REMOTE CONTROL



Accurate clock time is a must for all types of timer recording. Your VCR will accurately maintain its calendar up to "Dec. 31, 2006, 11:59 PM" once you have set the present day and time.

TO SET THE CLOCK

VCR and TV must be ON. Press the "PROG" Button and the clock set guide will appear on the TV screen.

EXAMPLE: To set the clock for FEB 9, 1988, 10:30 AM, enter the following:

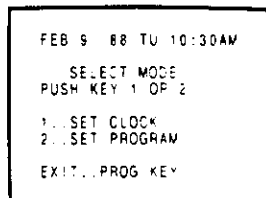
MONTH & DAY	YEAR	HOUR & MINUTE	AM/PM	TO START CLOCK
EXAMPLE FEB 9	1988	10 : 30	AM	—
PRESS (NUMERIC KEYS) ① ② ③ ④	⑧ ⑧	① ② ③ ④	①	PRESS PROG
MONTH DAY	YEAR	HOUR MINUTE	AM	
TV SCREEN DISPLAY				
MONTH 	YEAR 	HOUR 	AM/PM 	
DAY 		MINUTE 		Clock starts. The TV screen will return to the channel selected at the VCR.

- When in the clock adjustment mode, be sure to enter the first digit within 30 seconds, or VCR will automatically leave this mode.
- Be sure to enter "0" before single-digit numbers.

TO MAKE CORRECTIONS IN ON-SCREEN ENTRY

To make corrections after entering a number, press the CLEAR Button to move the flashing indication one space left. Enter the correct number. The flashing indicator will then move one space right.

TO RESET THE CLOCK



(MENU screen)

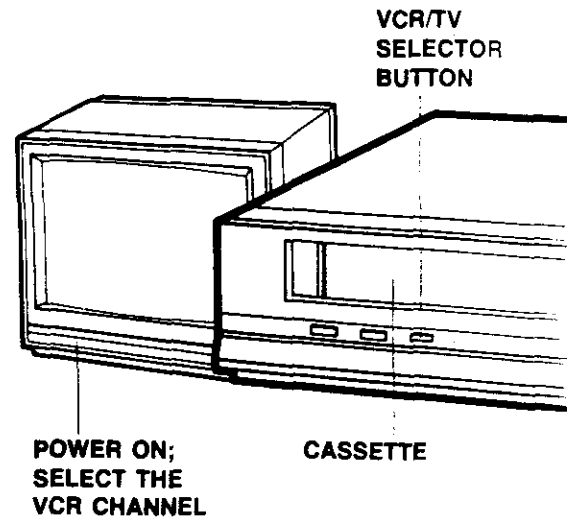
If you want to reset the clock at some later time, press the PROG/CLOCK Button while you are watching TV. The MENU screen shown at the left will appear; press key ① and follow the clock set guide to re-enter the new date and time.

- Irregular key entries will be ignored.




To PLAYBACK

Be sure the PREPARATIONS on page 1 have been completed before proceeding to step 1 below.

AT TV	AT VCR	START PLAYBACK	STOP PLAYBACK
<p>1 Turn TV on and select its VCR channel.</p> <p>The TV's VCR Channel is CH3 or CH4.</p>	<p>2 Insert cassette.</p> <p>The Power will come on automatically.</p> <p>When the record tab is missing, the cassette will be played back automatically. (In this case skip step 3.)</p> <p>If a cassette is already in the VCR, just press the POWER Button ON.</p>	<p>3 Press the PLAY Button.</p>	<p>4 Press the STOP Button.</p>



SPECIAL EFFECTS IN PLAYBACK MODE (BEST IN SP & SLP SPEED: SOUND IS MUTE)

<p>TO RAPIDLY LOCATE A PARTICULAR SEGMENT</p> <ul style="list-style-type: none"> ■ Press the SEARCH Button. <p>This starts a rapid forward or reverse visual search.</p>  <ul style="list-style-type: none"> ■ Press the SEARCH Button again or the PLAY Button to return to playback. <p>SEARCH SPEED</p> <table border="1"> <tr> <td>SP Search is about 7 times normal speed</td> </tr> <tr> <td>SLP Search is about 21 times normal speed</td> </tr> </table>	SP Search is about 7 times normal speed	SLP Search is about 21 times normal speed	<p>TO VIEW A DOUBLE SPEED PLAYBACK PICTURE</p> <ul style="list-style-type: none"> ■ During playback, press the X2 Button on the Remote Control.  <ul style="list-style-type: none"> ■ Press button once more to release the tape from a double speed playback. 	<p>TO VIEW AN INSTANT SEARCH</p> <ul style="list-style-type: none"> ■ During playback, press the FRAME ADVANCE Button. <p>This starts rapid forward search for several seconds and the playback continues automatically.</p> 
SP Search is about 7 times normal speed				
SLP Search is about 21 times normal speed				

These automatic features have been designed to simplify **PLAYBACK.**

AUTO OPERATION FUNCTIONS

Cassette with record tab (for recording and playback)
Refer to page 21.

AUTO POWER ON WITH CASSETTE INSERTION

Power comes on and VCR goes into stop mode.

AUTO REWIND AT TAPE END

Tape rewinds from end automatically after playback or during fast forward tape advance.

Cassette with record tab removed (for playback only)

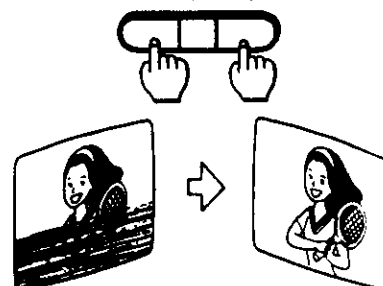
AUTO PLAY WITH CASSETTE INSERTION

With power ON or OFF, VCR begins playback.

AUTO REWIND AND EJECT AT TAPE END

Tape automatically rewinds from end and ejects, VCR goes into stop mode.

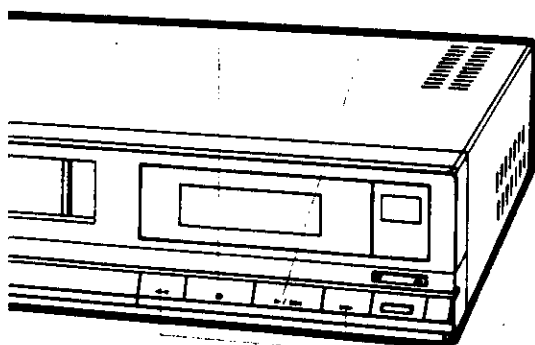
TRACKING CONTROL
▽TRACKING△



A certain amount of "noise" may appear in the picture when a VHS video tape recorded on one VCR is played back on a different one. You may adjust the **TRACKING CONTROL (UP/DOWN)** on your Remote Control to minimize this noise in normal playback, double speed playback and slow motion playback. The normal position is automatically set when a cassette tape is inserted.

**STOP
BUTTON**

**PLAY/STILL
BUTTON**



SEARCH BUTTONS

**VCR/TV
SELECTOR BUTTON**

PLAY BUTTON

STOP BUTTON

SEARCH BUTTONS

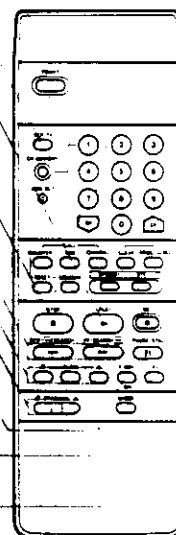
SLOW-MOTION BUTTONS

TRACKING CONTROL

FRAME ADVANCE BUTTON

PAUSE/STILL BUTTON

X2 BUTTON



**TO VIEW A STILL PICTURE
(DURING PLAYBACK)**

- Press the **PLAY/STILL Button** (or the **PAUSE/STILL Button** on the Remote Control).



A freeze frame picture of the playback image appears.

- Press the button once more to release the still . . . the playback continues.

TO ADVANCE A STILL PICTURE

- During still mode, press the **FRAME ADVANCE Button** on the Remote Control.

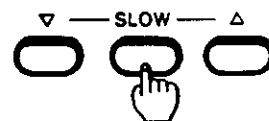


- Frame advance only operates while viewing a still picture.

- The picture will slowly advance frame by frame when this button is held down.

TO VIEW A SLOW PICTURE

- During playback, press the **SLOW Button** on the Remote Control.



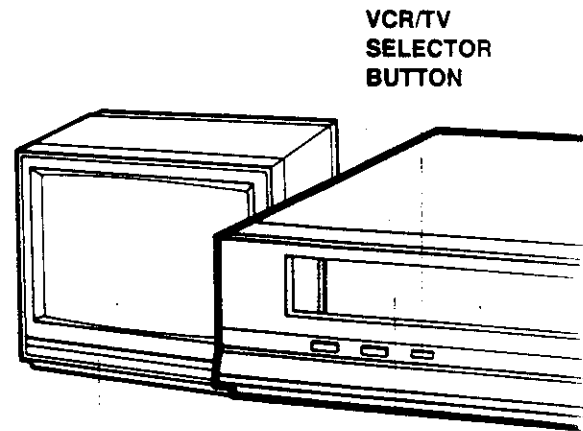
You can vary the speed of the slow motion picture by pressing the **SLOW UP/DOWN Buttons**.

- Press the **PLAY Button** to release slow.

To RECORD

PREPARATIONS on page 1 must be completed and an antenna system must be connected to the VCR. (See Basic Guide For VCR Connections.)

AT TV	AT VCR	SET TAPE SPEED
<p>1 Turn TV on and select its VCR Channel.</p> <p>The TV's VCR Channel is CH3 or CH4.</p>	<p>2 Insert cassette.</p> <p>Use a tape with the record tab in place.</p> <p>The Power will come on automatically.</p> <p>If a cassette is already in the VCR, just press the POWER Button ON.</p> <p>Be sure that the VCR/TV Selector is set to "VCR".</p>	<p>3 (a) Press the COUNTER CALL Button.</p> <p>Tape Speed Display appears.</p> <div data-bbox="1247 541 1523 751" style="border: 1px solid black; padding: 5px; text-align: center;"> <p>COUNT 0:00.00 SLP</p> </div> <p>(b) Press the TAPE SPEED SELECTOR Button.</p> <p>Select SP, LP or SLP. See table at bottom of this page.</p>

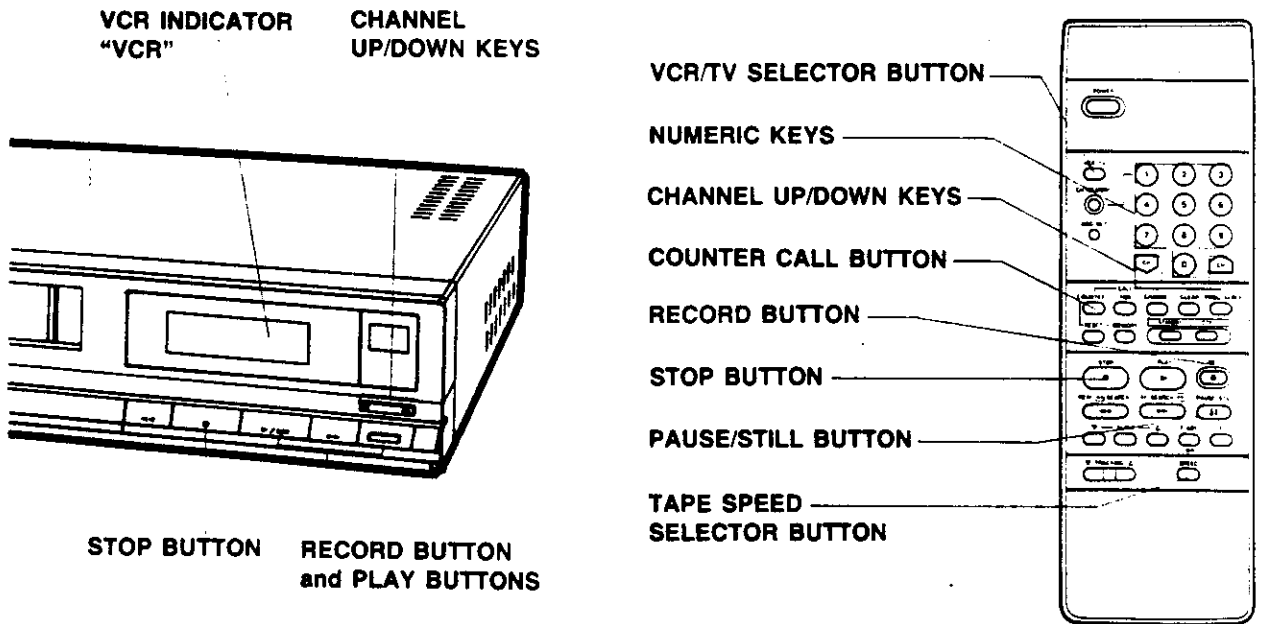


TYPES OF VIDEO CASSETTE

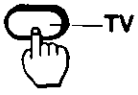
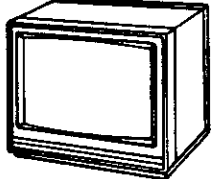
Use types with the **VHS** mark in this unit.

Tape Speed Selector Position	Maximum Record/Playback Time		
	T160	T120	T60
SP (Standard Play)	2 Hours 40 Minutes	2 Hours	1 Hour
LP (Long Play)	5 Hours 20 Minutes	4 Hours	2 Hours
SLP (Super Long Play)	8 Hours	6 Hours	3 Hours

CHOOSE PROGRAM	START RECORDING	PAUSE RECORDING	STOP RECORDING
<p>4 Select channel.</p> <p>Use the CHANNEL UP/DOWN Keys or NUMERIC Keys.</p>	<p>5 Hold the REC Button in and press the PLAY Button.</p> <p>Recording starts.</p> <p>Using the remote control, press the REC Button to start recording.</p>	<p>6 Press the PAUSE/STILL Button on the Remote Control.</p> <p>The recording stops temporarily.</p> <p>Press this button again to release pause.</p>	<p>7 Press the STOP Button.</p> <p>This stops the recording completely.</p>

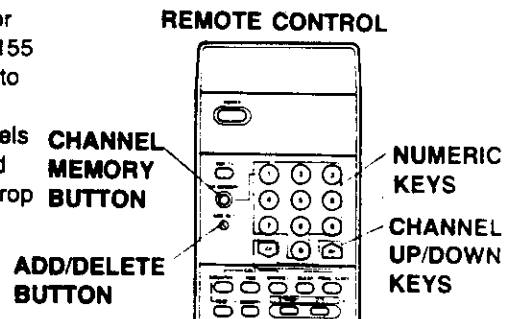


TO WATCH ANOTHER TV PROGRAM WHILE RECORDING

<p>1 Set VCR/TV SELECTOR to TV.</p> <ul style="list-style-type: none"> The "VCR" indicator and TV picture will disappear. 	<p>2 Select the CHANNEL to be viewed on the TV.</p> <p>Use the TV channel controls.</p> 
---	--

CHANNEL MEMORY

Channel Memory can be used to assign channels into memory for channel scanning. By following the steps below you can set the 155 channel memory to "CATV" (to receive Cable channels) or to "TV" (to receive Broadcast channels). "TV" channel reception was initially selected at the factory. The AUTO SET feature will assign channels which are received in your area into Channel Memory for either band selections. Any time a channel is selected for viewing you may drop or assign it for scanning with the ADD/DELETE Button.



A AUTOMATIC SETTING (PREPARATIONS on page 1 must be completed.)

SELECT CHANNEL MEMORY	SELECT ANTENNA SYSTEM	START AUTO SET
<p>1 Hold the CHANNEL MEMORY Button in and press key ①.</p> <p>CHANNEL MEMORY GUIDE</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p>CH 02(ADD) TV ANTENNA SYSTEM 4...SHIFT TV → CATV 5...NO CHANGE</p> </div> <p>OR</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p>PUSH KEY 4 OR 5 EXIT...CH MEMORY & 1</p> </div> <p>→ (4...SHIFT CATV → TV)</p>	<p>(A) TO CHANGE THE CURRENT BAND</p> <p>2 Press key ④ to change the band as follows.</p> <p style="text-align: center;">from "TV" — to "CATV"</p> <p style="text-align: center;">or</p> <p style="text-align: center;">from "CATV" — to "TV"</p> <p>Changing bands removes previous channel assignments and assigns all channels in the new band to the CHANNEL UP/DOWN Keys.</p> <p style="text-align: center;">OR</p> <p>(B) TO KEEP THE CURRENT BAND</p> <p>2 Press key ⑤.</p> <p>This selects "NO CHANGE".</p> <p>Use when the band selected already matches your Antenna System.</p>	<p>3 Press key ④.</p> <p style="text-align: center;">AUTO SET GUIDE</p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: fit-content;"> <p>CH 02(ADD) TV AUTO SET PUSH KEY 4 FOR AUTO SET OR EXIT...CH MEMORY & 1</p> </div> <p>This starts Auto Set Channel Scan in the selected band.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: fit-content;"> <p style="text-align: center; font-size: 24px;">02</p> <p style="text-align: center;">AUTO SET PROCEEDING</p> </div> <p>After Auto Set, the lowest numbered channel assigned to the CHANNEL UP/DOWN Keys will appear on screen.</p>

- Hold the CHANNEL MEMORY Button in and press key ① for release of CHANNEL MEMORY mode while setting the CHANNEL MEMORY.

B USING THE ADD/DELETE BUTTON

SELECT CHANNEL	DELETE OR ADD THE CHANNEL
<p>✓ Select the channel to be deleted or added.</p> <p>The channel can be selected with the CHANNEL UP/DOWN Keys or NUMERIC Keys.</p> <div data-bbox="529 617 813 831" style="border: 1px solid black; width: 175px; height: 102px; display: flex; align-items: center; justify-content: center; margin: 20px auto;"> 10 </div>	<p>2 Press the ADD/DELETE Button.</p> <p>This graphic appears for a few seconds to indicate the channel has been deleted or added.</p> <div data-bbox="1141 617 1425 831" style="border: 1px solid black; width: 175px; height: 102px; display: flex; align-items: center; justify-content: center; margin: 20px auto;"> <div style="text-align: center;"> <p>CH 10 (DLT) TV</p> <p>↑ or ↓</p> <p>(ADD) CATV</p> </div> </div> <p>A channel "(ADD)" indicates the channel has been assigned.</p> <p>A "(DLT)" indicates the channel is now unassigned to the CHANNEL UP/DOWN Keys. The channel number will flash on the Multi Function Display just to indicate that this channel has been deleted. It also flashes when you select the deleted channel with the NUMERIC Keys.</p>

CHANNEL UP/DOWN KEYS

Any time the CHANNEL MEMORY Button is OFF, you can select assigned channels sequentially using the CHANNEL UP/DOWN Keys. Unassigned channels will be skipped over in sequence.

ONE TOUCH RECORDING

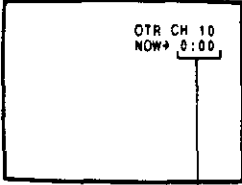
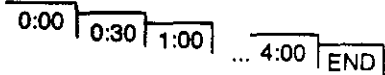
A few presses of the OTR Button on the Wireless Remote Control lets you instantly start recording the channel you are watching, or extend a recording-in-progress. The first press of this button allows you to check the OTR status with the On-Screen Display. Quick succeeding presses start a recording and set the length of the OTR with automatic power shut-off.

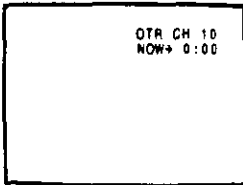
MAKE SURE THAT...

- the clock is set to the correct time.
- the desired tape speed (SP, LP or SLP) is selected.
- the record tab is not missing on the cassette.
- the tape is long enough to record the programs.

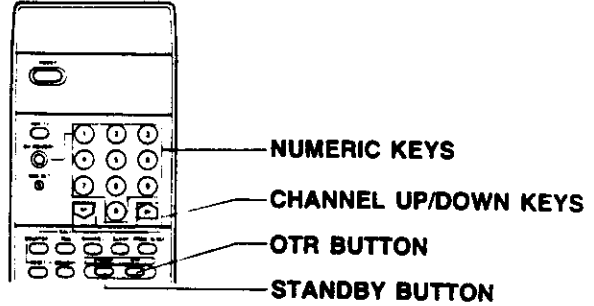
If each succeeding press of the OTR Button does not follow within 5 seconds, the current TV broadcast channel will return to the screen.

A INSTANT O.T.R. — To start recording instantly.
(PREPARATIONS on page 1 must be completed.)

CHOOSE PROGRAM	SELECT O.T.R. DISPLAY	SELECT RECORDING LENGTH
<p>1 Select channel.</p> <p>Use the CHANNEL UP/DOWN Keys or NUMERIC Keys.</p>	<p>2 Press the OTR Button once.</p> <p>This O.T.R. graphic appears.</p>  <p>O.T.R. LENGTH DISPLAY</p>	<p>3 Continue to press the OTR Button.</p> <p>Recording begins as you are setting the length. Each press adds 30 minutes of recording time up to 4 hours, or until "END" appears to indicate that your recording will continue up to the end of the tape.</p> 

CHANGING O.T.R. TIME	STOPPING O.T.R.
<p>TO CHANGE O.T.R. TIME DURING A RECORDING</p> <ol style="list-style-type: none"> 1. Press the OTR Button once. 2. Within 5 seconds, continue pressing the OTR Button until the desired new recording time is displayed on the screen. 	<p>TO STOP THE O.T.R. DURING A RECORDING</p> <ol style="list-style-type: none"> 1. Press the OTR Button twice. 2. TV screen displays  <ol style="list-style-type: none"> 3. About 5 seconds later O.T.R. will stop.

REMOTE CONTROL



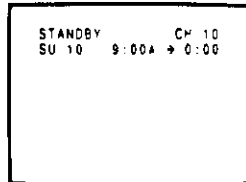
B STANDBY O.T.R. — To delay the start time.

It's often convenient to delay a recording. By pressing the STANDBY Button you can quickly set the VCR to start recording on the hour or half-hour up to 11:30 pm of the following day. Then the length of the recording can be set with the OTR Button. Once you do this, the VCR is on standby, until the recording starts. After the recording is complete, power off is automatic.

CHOOSE PROGRAM	SELECT STANDBY O.T.R.	SELECT START TIME	SELECT O.T.R. LENGTH
<p>1 Select channel.</p> <p>Use the CHANNEL UP/DOWN Keys or NUMERIC Keys.</p>	<p>2 Press the STANDBY Button.</p> <p>This O.T.R. graphic appears.</p> <div style="text-align: center;"> <p>START TIME</p> <p>DATE O.T.R. LENGTH</p> </div>	<p>3 Continue to press the STANDBY Button.</p> <p>This sets the time the recording is to begin.</p> <p>Each press advances the time to the next hour or half-hour, from the current time indicated, up to 11:30 PM of the next day.</p>	<p>4 Press the OTR Button.</p> <p>Press this button as many times as necessary to set the recording length of the Standby O.T.R..</p>

TO CANCEL STANDBY OTR

To cancel or stop a Standby OTR Program, press the OTR Button twice. The screen will display



About 5 seconds later the program will be erased.

TIMER RECORDING

Your VCR will begin 8 separate unattended recordings any time within one month of the time you set them. Whenever a program number is vacant you can schedule a recording for some day ahead or even a full series of recordings, with the time and channel you desire. A series recording starts everyday or on the same day of each week, automatically adding recording after recording up to the end of a tape.

MAKE SURE THAT...

- PREPARATIONS on page 1 have been completed.
 - the clock is set to the correct time.
 - the desired tape speed (SP, LP or SLP) is selected.
 - the record tab is not missing on the cassette.
 - the tape is long enough to record the programs.
- If no selections are entered within 30 seconds, the programming screen will return to the menu screen.

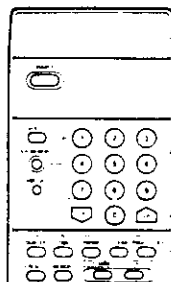
SELECT THE MENU SCREEN AND PROGRAM SET MODE	SELECT THE PROGRAM NUMBER	FOLLOW THE PROGRAM GUIDE ON TV SCREEN
<p>1 Press the PROG Button.</p> <p>2 Press key ②.</p> <div data-bbox="461 884 691 1058" style="border: 1px solid black; padding: 5px; text-align: center;"> <p>JAN 2 88 SA 8:05AM</p> <p>SELECT MODE PUSH KEY 1 OR 2</p> <p>1..SET CLOCK 2..SET PROGRAM</p> <p>EXIT..PROG KEY</p> </div> <p>(MENU screen)</p>	<p>3 Press key ①.</p> <div data-bbox="859 884 1089 1058" style="border: 1px solid black; padding: 5px; text-align: center;"> <p>1 --- --- --- ---</p> <p>2 --- --- --- ---</p> <p>3 --- --- --- ---</p> <p>4 --- --- --- ---</p> <p>5 --- --- --- ---</p> <p>6 --- --- --- ---</p> <p>7 --- --- --- ---</p> <p>8 --- --- --- ---</p> <p>SELECT PROG NO. 1</p> </div> <p>(PROGRAM screen)</p>	<p>4 Press the NUMERIC Keys.</p> <p>For each prompt enter the information desired with the NUMERIC Keys.</p> <p>See example on the following page.</p>

SET NEXT PROGRAM	SET THE TIMER
<p>Press key ② or press the PROG Button to return to the broadcast channel.</p> <div data-bbox="561 1304 786 1478" style="border: 1px solid black; padding: 5px; text-align: center;"> <p>1 3 9:30P10:00P 10</p> <p>2 --- --- --- ---</p> <p>3 --- --- --- ---</p> <p>4 --- --- --- ---</p> <p>5 --- --- --- ---</p> <p>6 --- --- --- ---</p> <p>7 --- --- --- ---</p> <p>8 --- --- --- ---</p> <p>EXIT..PROG KEY</p> </div>	<p>Press the POWER Button to OFF.</p> <ul style="list-style-type: none"> • TIMER indicator " TIMER " appears. • If the record tab is missing, tape will be ejected and the CASSETTE-IN Indicator " CC " and " TIMER " will flash to alert you.

AFTER THE TIMER RECORDING HAS TAKEN PLACE

- Press the POWER Button to ON to return your VCR to normal operation.

REMOTE CONTROL

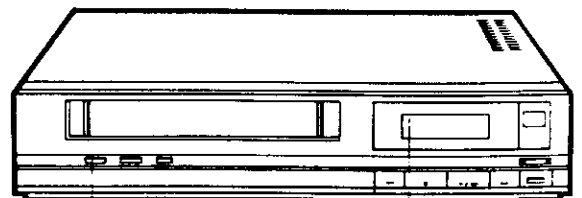


NUMERIC KEYS

CLEAR BUTTON

PROG BUTTON

VCR FRONT PANEL



POWER BUTTON

TIMER INDICATOR " **TIMER** "

EXAMPLE: To set program 1 to record on the 3rd day on the current month, from 9:30 PM to 10:00 PM on CH10, complete steps 1~3 then enter the following:

REC-ON DAY	REC-ON TIME	REC-OFF TIME	REC-ON CHANNEL
EXAMPLE JANUARY 3RD	9:30 PM	10:00 PM	CHANNEL 10
PRESS (NUMERIC KEYS)			
③ ③	⑨ ③ ③ ②	① ⑦ ⑦ ②	① ⑩
DAY OF MONTH	HOUR MINUTE PM	HOUR MINUTE PM	CHANNEL
TV SCREEN DISPLAY			
DAY	TIME ON	TIME OFF	CHANNEL
<pre> P ON → OFF CH 1 JAN 02 SA ----- SET REC-ON DAY OR SELECT DA..Y..4 WEEKLY..5 EXIT..PROG KEY </pre>	<pre> P ON → OFF CH 1 JAN 03 SU 09:05 → ---- SET REC-ON TIME EXIT..PROG KEY </pre>	<pre> P ON → OFF CH 1 JAN 03 SU 09:30 → 10:30P -- SET REC-OFF TIME EXIT..PROG KEY </pre>	<pre> P ON → OFF CH 1 JAN 03 SU 09:30P → 10:00P -- SET REC-ON CHANNEL EXIT..PROG KEY </pre>
	AM/PM	AM/PM	
	<pre> P ON → OFF CH 1 JAN 03 SU 09:30P → ---- SET AM/PM AM..1 PM..2 EXIT..PROG KEY </pre>	<pre> P ON → OFF CH 1 JAN 03 SU 09:30P → 10:00P -- SET AM/PM AM..1 PM..2 EXIT..PROG KEY </pre>	

TO MAKE CORRECTIONS IN ON-SCREEN ENTRY

To make corrections after entering a number, press the CLEAR Button to move the flashing indication one space to the left. Enter the correct number. The flashing indicator will then move one space to the right.

TIMER RECORDING (CONTINUED)

DAILY RECORDING: To record at the same time each day.

```

P   ON → OFF  CH
1  EVERYDAY   --
   10:00P → --- --

SET REC-ON TIME

EXIT..PROG KEY
    
```

1. Perform steps 1-3 on page 17.
2. After completing step 3 the display shown under "DAY" will appear for rec-on day.
3. Enter key ④ to select the Daily Recording mode. The screen shown at the left will appear.
4. Continue with the program guide shown on pages 17 and 18 to complete programming.

WEEKLY RECORDING: To record at the same time on the same day each week.

```

P   ON → OFF  CH
1  EVERYWEEK ON --
   -- -- -- -- -- --
   -- -- -- -- -- --
SU..1 MO..2 TU..3
WE..4 TH..5 FR..6
SA..7
EXIT..PROG KEY
    
```

```

P   ON → OFF  CH
1  EVERYWEEK ON SU
   10:00P → --- --

SET REC-ON TIME

EXIT..PROG KEY
    
```

1. Perform steps 1 - 3 on page 17.
2. After completing step 3 the display shown under "DAY" will appear for rec-on day.
3. Enter key ⑤ to select the Weekly Recording mode. The screen shown at far left will appear.
4. Select the rec-on day for each week by number.
5. Continue with the program guide shown on pages 17 and 18 to complete programming.

TO CHECK PROGRAMS

a) When a Timer Recording has been set but is not yet in-progress.
(VCR power is OFF, TIMER Indicator is lit.)

1. Press the POWER Button to release the Timer Set mode.
 2. Follow steps 1 and 2 on page 17 to check or re-enter the program contents.
- After checking, press the PROG Button twice to return to viewing channels.

b) When a Timer Recording has been set and is now in progress.

```

...
1  3  9:30P 10:00P 10
2  -- -- -- -- -- --
3  TU  8:30A  9:00A  08
4  DAY  8:00P  9:00P  12
5  -- -- -- -- -- --
6  -- -- -- -- -- --
7  23  4:00P  5:00P  22
8  -- -- -- -- -- --
PLEASE CHECK PROGRAM
    
```

1. Set the VCR/TV Selector to "VCR".
2. Press the PROG Button.

The screen at the left will appear, displaying all programs currently set for recording. The program-in-progress will be flashing.

The program being recorded will disappear after about 30 seconds. Or, immediately return to the program being recorded by pressing the PROG Button again.

TO CLEAR PROGRAMS: After programming is complete and Power is still ON.

```

P   ON → OFF  CH
   NONE
   -- -- -- -- -- --
   -- -- -- -- -- --

..PROG 1 CLEARED

EXIT..PROG KEY
    
```

1. Perform steps 1 and 2 on page 17 to display the program.
2. Enter the program number you want to clear.
3. Press the CLEAR Button.

- The screen at the left will appear for a few seconds. Then to enter a new program follow the program guide when the DAY screen appears.

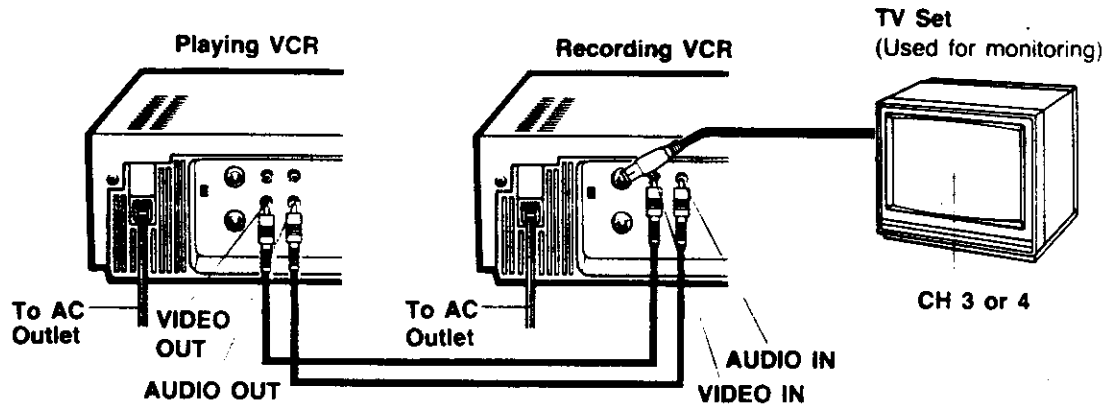
HELPFUL HINTS

PV-4820

A. RE-RECORDING (TAPE DUPLICATION)

It is becoming more popular for friends to exchange and/or copy some of their favorite camera recordings. Such dubbing from one recorder to another is simple and can be done as described below.
CAUTION: Unauthorized exchanging and/or copying of copyrighted recordings may be copyright infringement.

CONNECTION



OPERATION

1. Set up one VCR for playback.
2. Set up the other VCR for recording.
3. Press the **PLAY** Button on the playing VCR.
4. Press the **RECORD** Button and the **PLAY** Button together on the recording VCR.

NOTE: • Be sure steps 3 and 4 are done simultaneously to avoid missing any of the recording.

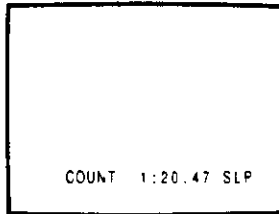
TO MONITOR THE RE-RECORDING PROCESS ON YOUR TV

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

HELPFUL HINTS (CONTINUED)

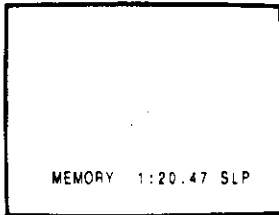
B TIME COUNTER CONTROLS

Time Counter Operation



1. Press the COUNTER CALL Button so that the Time Counter Display appears.
2. Press the REWIND or FAST FORWARD Button to wind the tape to the starting point you select.
3. Press the RESET Button to set the Time counter to "0:00.00".

Counter Memory Operation



1. Before starting a recording or playback, press the RESET Button so the time counter reads "0:00.00".
2. Press the MEMORY Button. "MEMORY" appears on the TV screen and the tape will rewind or fast forward to the approximately "0:00.00" point then stop automatically.

Recorded time counter

You can monitor the time counter on the TV screen by pressing the COUNTER CALL Button on the Wireless Remote Control, which displays the elapsed recording or playback time on the TV screen. Press again to clear the display.

- 0 : 00 . 00
Hour Minute Second

The minus (-) indication will appear when the tape is rewound further than the time counter position "0:00.00".

- If the figures on the Time Counter do not change during Fast Forward, Rewind or any of the playback functions, this means that nothing is recorded on that tape section.
- The Time Counter is automatically reset to "0:00.00" when the video cassette is inserted.

C ERASE PROTECTION



Record Tab

- Accidental erasure of recorded material can be prevented by breaking off the record tab on the rear of the cassette with a screwdriver or similar tool. This will cause the erasure prevention mechanism to function.
- If for any reason, you later want to record on a cassette which has been protected as described above, recordings can be made after covering the hole, where the tab was removed, with cellophane tape.

- To Prevent Accidental Erasure

Break off the tab
with a screwdriver



- To Record Again

Cover the hole with
cellophane tape



D NOTES ON OPERATIONS

TO GET STARTED

- With cable connections, numbers selected to receive specific channels may differ from those for antenna connections. Refer to the separate Basic Guide for VCR Connections (or your cable service information).
- If the reception on all VHF channels is unsatisfactory you may need to re-tune your TV set.

CLOCK ADJUSTMENT

- Enter the first digit to set the month within 30 seconds of the appearance of the clock set guide. Otherwise, the program you were watching will return to the screen. If this happens, press the PROG/CLOCK Button and start again.
- The letters for day of the week will automatically appear when you have entered both digits for the year.
- If the day digit entered does not match the calendar, it will advance to the first day of the next month (for example, "FEB 29 89" will advance to "MAR 01 89").
- If you press the PROG Button while the clock set guide "-- -- -- --:" appears, the TV screen will return to the program you were watching.

TO PLAYBACK

- During search playback, horizontal noise bars will appear on the TV screen.
- After the VCR is in the pause or slow mode for 5 minutes it will stop automatically for tape and video head protection.
- Special effects playback can be activated during playback of the tapes recorded in SP or SLP speed. Tapes recorded in LP mode can also be viewed in special effects playback, but the picture may be completely snowy.

TO RECORD

- With manual recordings, if the tape end is reached during recording, the VCR automatically rewinds and ejects the tape and then shuts itself OFF.
- It is possible to change the Tape Speed Selection while you are actually recording but there will be a momentary distortion when the tape is played back over the points where the tape speed change occurred.
- After the VCR has been in pause for 5 minutes it will stop automatically for tape and video head protection.

ONE TOUCH RECORDING

- During a One Touch Recording, press the OTR Button once to see the remaining recording time overlay.
- If the record tab is missing on the cassette, it will be ejected when you press the OTR Button or STANDBY Button.
- If the preset time for a Timer Recording comes up during a One Touch Recording, the One Touch Recording will take priority.

TIMER RECORDING

- Timer Recording may not be performed or continued if a power interruption of more than about 2 minutes occurs before or during Timer Recording, even if power resumes thereafter.
- If the start times of 2 preset programs overlap, the preset time of the lower numbered program will have priority.

RE-RECORDING

- For technical reasons, the quality of the dubbed tape will not be as good as the original.

E CLEANING CARE FOR VIDEO HEADS ...



Clogged Video Head

- (a) **Video Head Cleaning:** Your VCR 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.

BEFORE REQUESTING SERVICE

Check the following points once again.

	Trouble	Correction
POWER	No power ...	<ul style="list-style-type: none"> • Check that the Power Plug is completely connected to an AC Outlet. • Check that the POWER Button is set to "ON".
	No operation starts when operation buttons are pressed ...	<ul style="list-style-type: none"> • Check the DEW Indicator. If it is displayed, the unit will not operate. (p.6, 7)
RECORDING AND PLAYBACK	TV programs can't be recorded ...	<ul style="list-style-type: none"> • Check the connections between VCR, external antenna and your TV. • Check that the band selected is set to meet your antenna or cable TV system. (p.13) • Make sure that the record tab on the back of the cassette is still intact. (p.21)
	Timer Recording can't be performed ...	<ul style="list-style-type: none"> • Set the recording start/stop time correctly. (p.17-19) • Make sure that the POWER Button is set to "OFF". (p.17) • Timer Recording may not be performed or continued if a power interruption of more than 2 minutes occurs before or during Timer Recording, even if power resumes thereafter.
	There is no playback picture, or the playback picture is noisy or contains streaks ...	<ul style="list-style-type: none"> • Select the same channel on your TV as that of the CH 3/4 Switch on the VCR. (p.1) • Set the VCR/TV Selector to "VCR". (p.1) • Check that channel 3 or 4 of TV is properly adjusted. • Adjust the TRACKING CONTROL slowly in either direction. (p.10)
	During special effects playback, the picture may contain some vertical jitter when using a TV which has Automatic Vertical Hold Control Switch ...	<ul style="list-style-type: none"> • In that case, set the TV's Vertical Hold Control Switch to MANUAL position and then adjust vertical hold control.
	If the top of your playback picture waves back and forth excessively ...	<ul style="list-style-type: none"> • Because the VCR playback signal is not as stable as an off-the-air TV signal, you might experience the following symptom on your TV screen: "Top of TV screen is bent or unstable when VCR is played back." To solve this problem, turn the horizontal hold control on your TV slowly to correct the wavy picture. If your TV does not have the horizontal hold control or adjusting the control does not help, please contact your local TV service center.
REMOTE CONTROL	RECORDER cannot be remote controlled ...	<ul style="list-style-type: none"> • Aim the Wireless Remote Control directly at the remote sensor on the VCR. • Avoid all obstacles which may interfere with the signal path. • Replace or inspect the batteries. (p.7)
OTHERS	You can't view programs normally on TV ...	<ul style="list-style-type: none"> • Set the VCR/TV Selector to "TV". (p.1)
	Video cassette can't be inserted ...	<ul style="list-style-type: none"> • Insert the cassette with the window side up and the record tab facing you.
	Video cassette can't be removed ... Video cassette ejects when the OTR, STANDBY, REC and PLAY Buttons are pressed or the POWER Button is pressed OFF to set the Timer ...	<ul style="list-style-type: none"> • Check that the Power Plug is completely connected to an AC Outlet. • Check the cassette to be sure that the record tab on the back of the cassette is still intact. (p.21)

SPECIFICATIONS

PV-4820

Power Source:	120 V AC, 60 Hz
Power Consumption:	Approx. 20 watts
Video Signal:	EIA Standard NTSC color
Video Recording System:	4 rotary heads, helical scanning system
Audio Track:	1 track
Tuner:	
Broadcast Channels:	VHF 2~13, UHF 14~69
CATV Channels:	"A" (14)~"EEE" (64), "A-5" (95)~"A-1" (99), "5A" (01), 65~94*
	* If you receive the UHF Band through a CATV system, a UHF/VHF Band Separator may be necessary for proper reception.
Operating Temperature:	41°F~104°F (5°C~40°C)
Operating Humidity:	10%~75%
Weight:	9.5 lbs. (4.3 Kg)
Dimensions:	15-3/8"(W) × 3-1/4"(H) × 11-5/8"(D) 390 (W) × 82 (H) × 295 (D)mm

Designs and specifications are subject to change without notice.

WARRANTY

in the Continental U.S.A. MATSUSHITA SERVICES COMPANY DIVISION OF MATSUSHITA ELECTRIC CORP OF AMERICA (MSC)	in HAWAII PANASONIC HAWAII, INC (PHI)	in PUERTO RICO PANASONIC SALES COMPANY, DIVISION OF MATSUSHITA ELECTRIC OF PUERTO RICO, INC (PSC)
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Your product is designed and manufactured to ensure a minimum of maintenance. However, should your unit ever require service, a nationwide system of **FACTORY SERVICE CENTERS** and **AUTHORIZED INDEPENDENT SERVICE CENTERS** is maintained to support your product's warranty.

To locate an Authorized Service center in Your Area within the Continental

DIAL TOLL-FREE: 1-800-447-4700
 24 Hours a Day, 7 Days a Week

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

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

- | | | | | |
|---|---|--|---|---|
| <p>ALABAMA
 2523-5th Avenue,
 South Birmingham,
 AL 35233
 205-252-4195</p> <p>ARIZONA
 2121 Priest Drive, South
 Suite 107
 Tempe, AZ 85282
 602-968-8645</p> <p>CALIFORNIA
 6550 Katella Avenue
 Cypress, CA 90630
 714-895-7425</p> <p>930 South Mt. Vernon Drive
 Colton, CA 92324
 714-825-3110</p> <p>800 Dubuque Avenue
 So. San Francisco,
 CA 94080
 415-871-6373</p> <p>20201 Sherman Way
 Suite 102
 Canoga Park, CA 91306
 818-709-1775</p> <p>4830B Viewridge Avenue
 San Diego, CA 92123
 619-560-9200</p> | <p>COLORADO
 14401 E. 33rd Place
 Suite E
 Aurora, CO 80011
 303-371-6968</p> <p>FLORIDA
 16175 NW 52nd Avenue
 Miami, FL 33014
 305-624-6521</p> <p>4115 W. Kennedy
 Boulevard
 Tampa, FL 33609
 813-872-2686</p> <p>GEORGIA
 1575 Northside Dr.
 Suite 325
 Atlanta, GA 30318
 404-351-8978</p> <p>4245 International Blvd.
 Suite C
 Norcross, GA 30093
 404-925-6880</p> | <p>ILLINOIS
 425 E. Algonquin Road
 Arlington Heights, IL 60005
 312-981-4840</p> <p>MARYLAND
 Sulphur Spring Business Park
 1638 Sulphur Spring Road
 Baltimore, MD 21227
 301-242-2607</p> <p>MASSACHUSETTS
 101 University Avenue
 Westwood, MA 02090
 617-329-4280</p> <p>151 Andover Street
 Danvers, MA 01923
 617-774-4356</p> | <p>MINNESOTA
 7860-12th Avenue, South
 Airport Business Center
 Bloomington, MN 55420
 612-854-8624</p> <p>MISSOURI
 13711 Rider Trail North
 Earth City, MO 63045
 314-739-5301</p> <p>OHIO
 494 Northland Boulevard
 Cincinnati, OH 45240
 513-851-4180</p> <p>PENNSYLVANIA
 2250 Cabot Boulevard,
 West Langhorne, PA 19047
 215-741-0661</p> <p>4986 Library Road, Rt. 88
 Hillcrest Shopping Center
 Bethel Park, PA 15102
 412-343-0555</p> | <p>TENNESSEE
 925-8th Avenue, South
 Nashville, TN 37203
 615-244-4434</p> <p>TEXAS
 7420 Harwin Drive
 Houston, TX 77035
 713-781-1528</p> <p>1825 Walnut Hill Lane
 Irving, TX 75062
 214-659-1770</p> <p>WASHINGTON
 20425-84th Ave., South
 Kent, WA 98032
 206-872-7922</p> |
|---|---|--|---|---|

Requests for assistance in obtaining repairs or technical information . . . contact any one of the following Service Administration offices:

- | | | | |
|--|---|---|---|
| <p>EASTERN
 2250 Cabot Boulevard,
 West Langhorne, PA 19047
 215-741-0676</p> | <p>MIDWEST
 425 East Algonquin Road
 Arlington Heights, IL 60005
 312-981-4842</p> | <p>WESTERN
 6550 Katella Avenue
 Cypress, CA 90630
 714-895-7438</p> | <p>SOUTHERN
 1854 Shackelford Court,
 Norcross, GA 30093
 404-925-6860</p> |
|--|---|---|---|

Correspondence requesting product information should be sent to: Panasonic Consumer Affairs, Matsushita Services Company, Division of Matsushita Electric Corporation of America, 50 Meadowland Parkway, Secaucus, NJ 07094.

PANASONIC
HAWAII, INC.
Ewa Beach 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")
Ave 65 De Infanteria, KM 9.7
Victoria Industrial Park
Carolina, Puerto Rico 00630

Panasonic Company, PHI or PSC 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 Service center listed in the Service center Directory. Or call 800-447-4700, toll free, to locate an Authorized MSC Service center. 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 Service center 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. It does not cover normal maintenance, including, but not limited to, video and audio head cleaning, or failures due to damage which occurs in shipment or failures which are caused by products not supplied by Panasonic Company, PHI or PSC, or failures which result from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, improper antenna, inadequate signal pick-up, adjustment of consumer controls, modification or commercial use of the product or service by anyone other than a factory Service center or authorized Service center or damage that is attributable to acts of God.

LIMITS AND EXCLUSIONS

There are no express warranties except as listed above. PANASONIC COMPANY, PHI AND PSC SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY INCLUDING WITHOUT LIMITATION DAMAGE TO TAPES, RECORDS OR DISCS. DURATION OF IMPLIED WARRANTIES, IF ANY, IS LIMITED TO ONE (1) YEAR. 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 your product develops during your warranty period, you may contact your dealer or Service center. 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 Service center
Calle Rosarito, Edif
D Ceramica Industrial Park
Carolina, Puerto Rico 00630
809-750-5135, 809-750-5235

Service in Hawaii

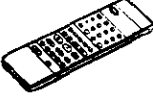



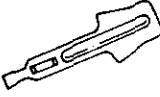
PANASONIC HAWAII, INC.
91-238 Kauhū Street, Ewa Beach
P.O. Box 774
Honolulu, Hawaii 96808-0774
808-682-1521

ACCESSORIES

Check to be sure the following items are packed with your VCR.

ACCESSORIES SUPPLIED

These accessories are provided to help you use or set up your VCR.

<p>1 pc. Wireless Remote Control and 2 "AA" batteries (VSQS0695)</p> 	<p>1 pc. VHF Connecting Cable 75 OHM (VSQS0217)</p> 	<p>1 pc. Twin-Lead Cable 300 OHM (VJA0102)</p> 	<p>1 pc. 300 ohm - 75 ohm Transformer (VSQS0513)</p> 
<p>1 pc. V-Lock Tool (VFKS0064)</p> 			

OPTIONAL ACCESSORIES

This additional accessory is available to you from Panasonic or your local Panasonic dealer.

- 1/2" Video Cassette Tape

FOR SAFETY'S SAKE: You have a legal description of your VCR when you record it's serial number in the space provided here. The serial number is on the tag located on the back of your VCR. Be sure to retain this manual as your convenient VCR information source.

Date of Purchase _____

Dealer Purchased From _____

Dealer Address _____

Dealer Phone No. _____

Model No. PV-4820

Serial No. _____

Panasonic®

Panasonic Company
Division of Matsushita Electric
Corporation of America
One Panasonic Way, Secaucus,
New Jersey 07094

Panasonic Hawaii, Inc.
91-238 Kauihi St. Ewa Beach
P.O. Box 774
Honolulu, Hawaii 96808-0774

Panasonic Sales Company,
Division of Matsushita Electric
of Puerto Rico, Inc.
Ave. 65 De Infantaria, KM 9.7
Victoria Industrial Park
Carolina, Puerto Rico 00630

BASIC GUIDE FOR VCR CONNECTIONS

IMPORTANT SAFEGUARDS AND PRECAUTIONS

CONNECTIONS TO MAKE BEFORE RECORDING

BASIC SIGNAL CONNECTIONS	[1]
CABLE CONNECTIONS	[2]~[5]
TV AUDIO/VIDEO CONNECTIONS	[6]

IMPORTANT SAFEGUARDS AND PRECAUTIONS

INTRODUCTION

Careful attention has been given to this Video product to assure a quality standard devoted to your safety and enjoyment. This quality standard together with your personal responsibility for the safety of yourself and others will contribute to your enjoyment. This Video product uses electrical energy and requires proper handling at a times.

CAUTION:

READ AND RETAIN THE SAFETY AND OPERATING INSTRUCTIONS

To make full use of the safeguards incorporated in this unit, read and follow this basic guide adopted in part from Underwriter's Laboratories Standard 1409, Second Edition, before operating this Video product. FOLLOW THE INSTRUCTIONS AND BE SURE TO HEED ALL WARNINGS on unit and in manual, for easy maintenance, confident operation and trouble free service of this Video product.

INSTALLATION

1. OPERATE FROM A POWER SOURCE INDICATED on this Video product, or in this Manual. Your Electric Utility Service Company or Video Products Dealer will be happy to verify the power source in your home.



2. THE GROUNDED OR POLARIZED PLUG IS A SAFETY FEATURE

This Video product may be equipped with either a polarized 2-wire AC line plug or a 3-wire grounding type plug.

The two wire polarized plug (having one blade wider than the other) will fit into the power outlet only one way. If it is a three wire grounding type plug (having a third pin), it will fit into a grounding type outlet.

DO NOT DEFEAT THE SAFETY PURPOSE OF THE GROUNDED OR POLARIZED PLUG by tampering with it.

If the plug does not fit fully into the socket, try reversing it. If you should still be unable to fully insert the plug into the socket, you may find that a proper outlet is needed to meet today's Electrical Standards. An electrician will replace your outlet safely.

3. POWER SUPPLY CORDS SHOULD BE PROTECTED and routed so that they are not likely to have anything rest on them, roll over them, or be subject to walking traffic abuse; particularly at plug-ins, convenience receptacles, or cord exit points from the unit. Where an extension is needed, use a grounded or polarized cord.



HAZARDOUS FRAYED CORDS OR DAMAGED PLUGS SHOULD BE REPLACED BY A QUALIFIED SERVICE TECHNICIAN.

OVERLOADED WALL OUTLETS AND EXTENSION CORDS PRESENT DANGEROUS RISKS OF FIRE OR ELECTRICAL SHOCK.

4. AVOID BLOCKING VENTILATION HOLES

Your video unit has ventilation openings in its cabinet to release heat generated during operation. Blocking these openings can cause heat build-up inside the unit, causing failures that may result in a fire hazard or heat damage to cassettes. For protection:

- a. Never cover the bottom ventilation slots or the unit with soft material, or operate the unit placed on a bed, sofa, rug, or soft accessory.
- b. Avoid built-in installations, such as a bookcase or rack, unless proper ventilation is provided.



5. AVOID EXTREMELY HOT LOCATIONS OR SUDDEN CHANGES IN TEMPERATURE, such as placing the unit near or over a radiator, in direct sunlight, closed vehicles, or transporting it suddenly between areas of extreme temperature variation.

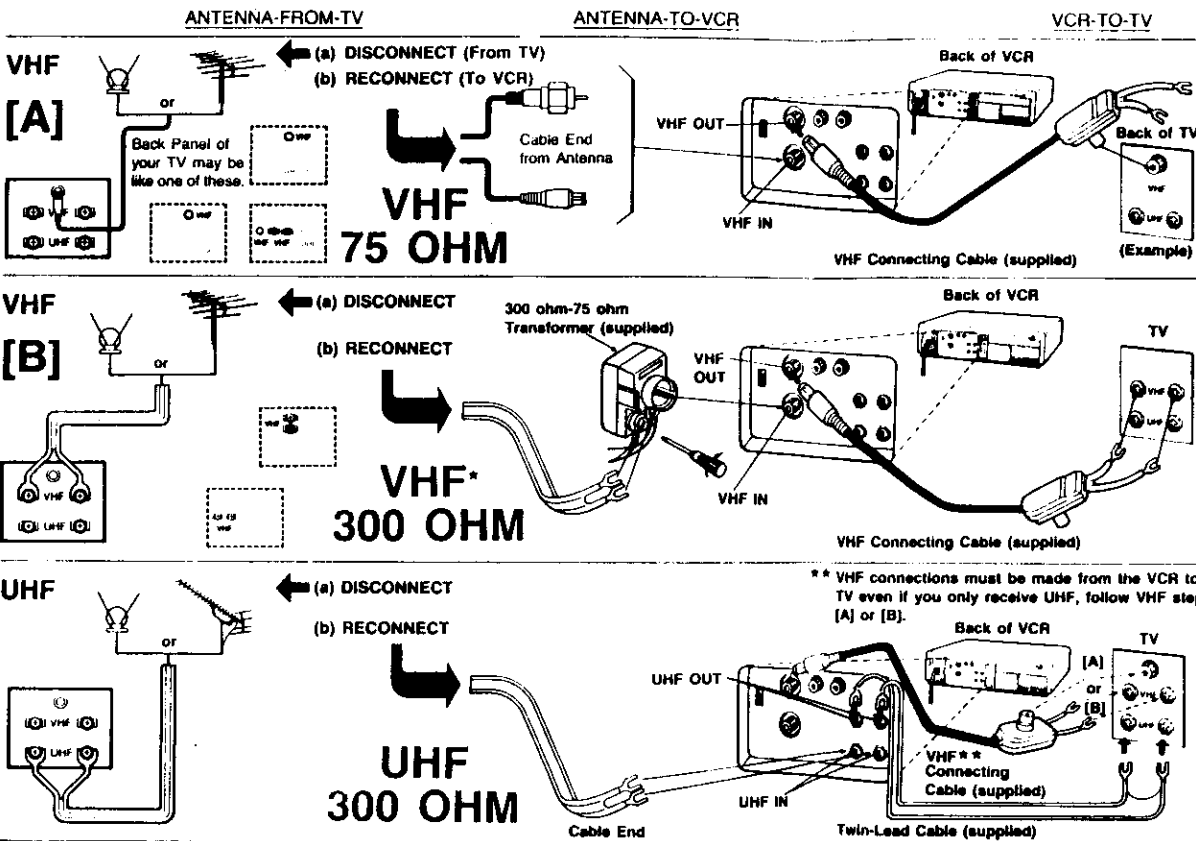
If the unit is suddenly moved from a cold place to a warm place, moisture may form on the tape and inside the unit. In this case, the DEW Indicator will appear and the unit will not operate.

6. TO AVOID INJURY TO A CHILD, ADULT; OR COSTLY DAMAGE:

- a. Do not place unsecured equipment on a sloping surface or any heavy object on unit. (Use the unit in a horizontal position and do not place anything heavy on it.)
- b. Support for VCR should be adequately firm, level, and strong. Replace any unstable cart, table or support.
- c. Carefully follow all operating instructions and use the manufacturer's recommended accessories when operating this unit or connecting it to any other equipment.

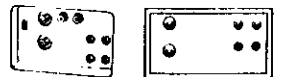
[1] BASIC SIGNAL CONNECTIONS

The type of VCR and TV terminals you have may be found among those shown on this page.



VCR Variation (s)

All Video Cassette Recorders (VCR) have VHF and UHF "In From Ant" and "Out To TV" terminals. The terminal placement may vary depending on which model VCR you own. See illustrations at right.



SOME ALTERNATE VCR TERMINAL PLACEMENTS

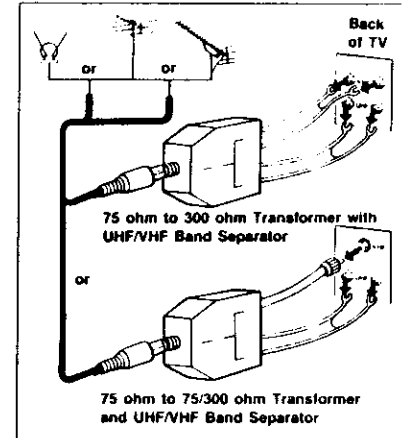
* If your TV has both types of VHF connection, the 75 ohm connection is the preferred choice to minimize signal loss.

BE SURE TO READ THE INSTRUCTIONS IN THE "RECORDING PREPARATIONS" SECTIONS OF YOUR OPERATING MANUAL BEFORE ATTEMPTING RECORDING.

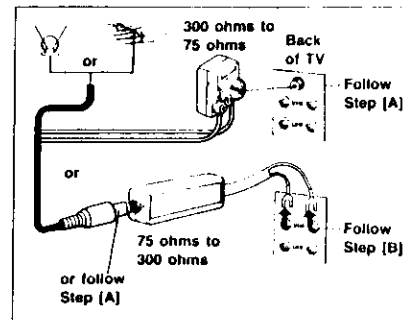
The following adaptor arrangements shown below are the ones most commonly used to separate the UHF and VHF signals from a single antenna source.

FIRST: Disconnect Separator or Transformer from antenna panel on back of TV.
THEN: Reconnect as shown in VHF [A] (b) or [B] (b)

FOR SEPARATORS



FOR VHF ANTENNA TRANSFORMERS



CONNECTIONS TO MAKE BEFORE RECORDING (C

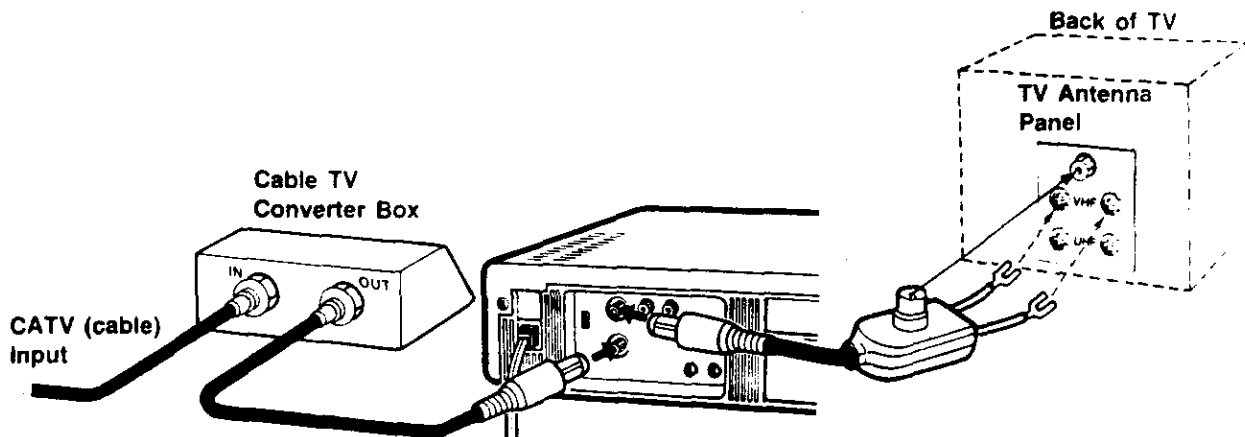
CABLE CONNECTIONS

[2]

BASIC CABLE CONNECTION.

WITH A (CABLE TO VCR) CONVERTER/DESCRAMBLER BOX

If your cable service supplies you with a converter box, you can use the basic connection shown here. If your cable system is different, refer to "ALTERNATE CABLE CONNECTIONS" on the following pages.



With this connection, you can record and view any channel including scrambled channels. However, channel selection must be made at the cable company converter box. Therefore, the VCR's remote channel control feature cannot be used, unattended recording is limited to one channel at a time, and you cannot view another channel other than the one you are recording.

TO RECORD AND VIEW A SCRAMBLED/UNSCRAMBLED CHANNEL

1. Set the VCR-TV selector located on the front of VCR to "VCR".
2. Set TV channel selector to the output channel of the VCR.
3. Set VCR channel selector to the output channel of the Cable Converter Box. (e.g. CH 3).
4. Select channel to be recorded at the Cable Converter Box.

TO WATCH TV (WITH THE VCR OFF)

1. Set TV channel selector to the output channel of the Cable Converter Box.
2. Select the desired channel on cable converter channel selector.

Note to CATV system installer:

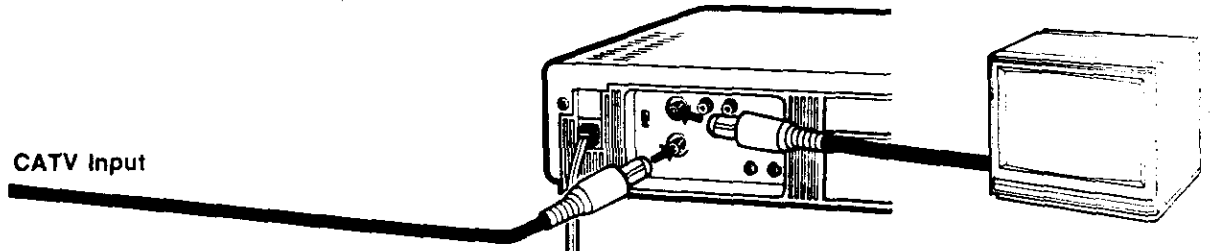
This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC in USA (and to the Canadian Electrical code in Canada) that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

[3]

ALTERNATE CABLE **A CONNECTION**

WITHOUT A CONVERTER/DESCRAMBLER BOX

Use this connection if your cable system connects directly to your TV without a converter box.



The following features will operate with this connection.

- a) All VCR remote channel functions.
- b) Full programmability of unscrambled channels for unattended recording.
- c) Viewing a different channel than the one being recorded.

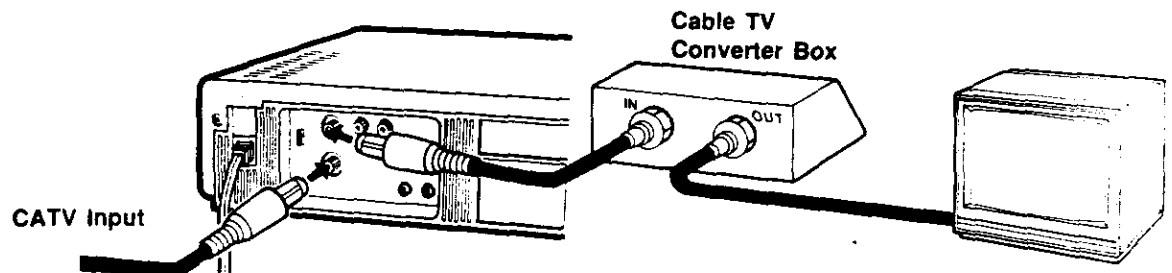
NOTE: • Use the VCR CHANNEL UP/DOWN Keys to select the desired channel.
• You cannot record or view scrambled channels with this connection.

[4]

ALTERNATE CABLE **B CONNECTION**

WITH A (VCR TO TV) CONVERTER/DESCRAMBLER BOX

If your cable system uses a converter box, you may use this connection instead of the basic cable connection shown on the previous page. Consult your local cable company if necessary.



With this connection, you regain:

- a) Full programmability of unscrambled channels for unattended recording.
- b) Viewing a different channel than the one being recorded.

NOTE: • Use the VCR CHANNEL UP/DOWN Keys to select the desired channel.
• You cannot record scrambled channels with this connection.

Settings for Recording of One Channel and TV Viewing of Another Channel

1. Select channel to be recorded with the VCR CHANNEL UP/DOWN Keys.
2. On the VCR set the VCR/TV selector to TV.
3. Set the channel selector on the TV to the output channel for Converter Box.
4. Select channel to be viewed on Converter Box.

Settings for Tape Playback

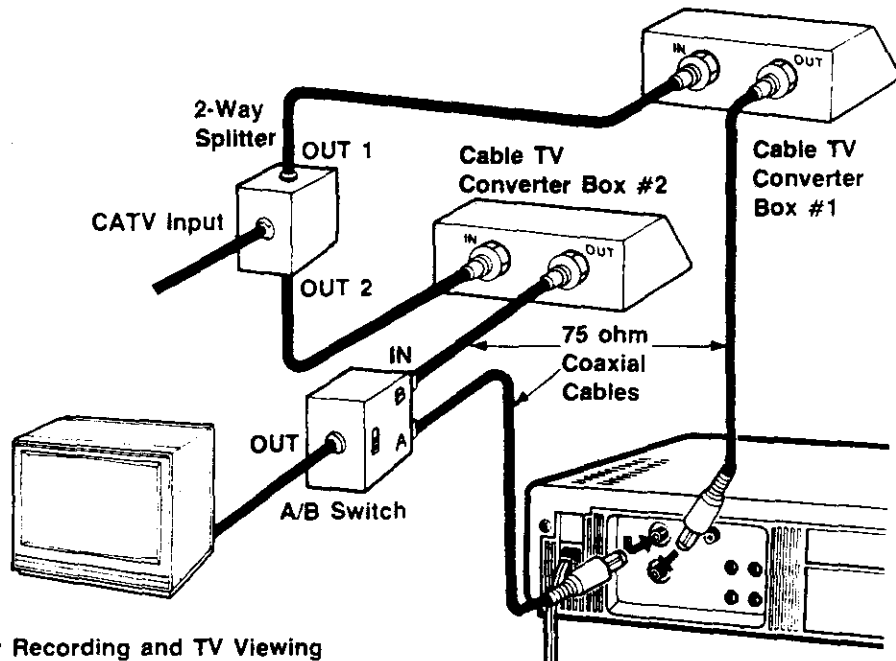
1. Set VCR/TV selector to VCR.
2. Set TV channel selector to the output channel of Converter Box.
3. Set Converter Box channel selector to VCR output channel (channel 3 or 4).

[5]

ALTERNATE CABLE CONNECTION

WITH TWO CONVERTER/DESCRAMBLER BOXES

If you want to record and view combinations of scrambled/unscrambled channels, you will need additional equipment. A typical connection using two converter boxes, an A/B Switch, and a 2-Way Splitter is shown here.



Settings for Recording and TV Viewing

1. Set VCR channel selector to the output channel of Converter #1.
2. Select channel to be recorded on Converter #1.

To view the channel being recorded:

- Set VCR/TV selector to VCR.
- Set A/B Switch to position A.
- Set TV channel selector to VCR output channel (channel 3 or 4).

NOTE:

- These settings are also used to view playback of a tape.
- Converter Boxes, Splitters and Cables shown are not supplied.

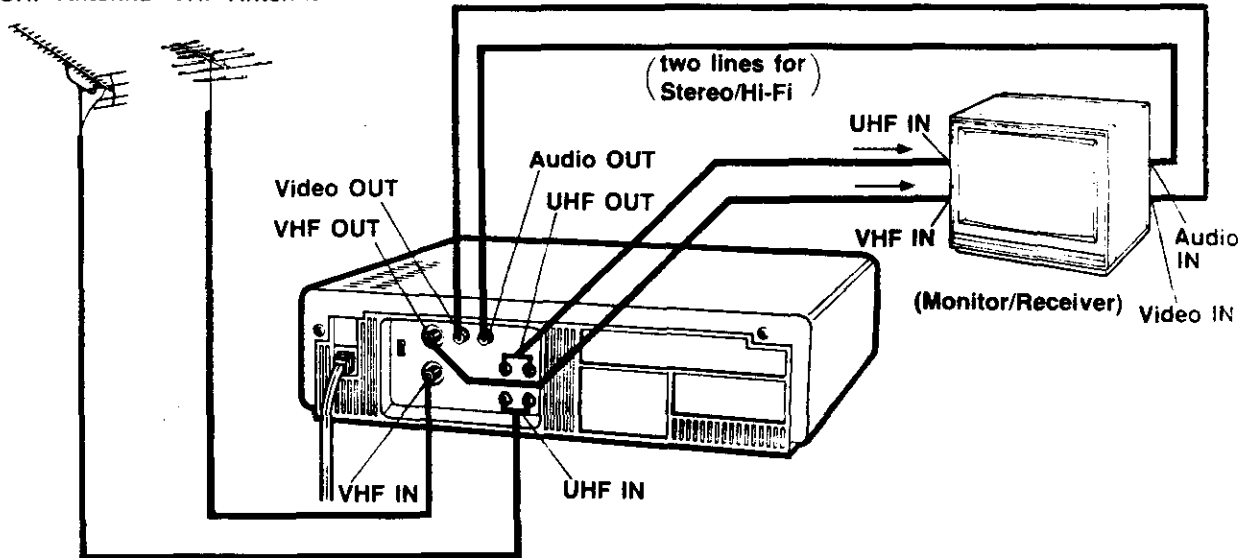
To view a different channel:

- Set A/B Switch to position B.
- Set TV channel selector to output channel of Converter #2.
- Select channel to be viewed on converter #2.

[6] TV AUDIO/VIDEO CONNECTIONS

If your TV has AUDIO IN and VIDEO IN terminals, you can also connect the AUDIO OUT and VIDEO OUT connectors of your VCR to these terminals on your TV to receive a higher quality picture and sound.

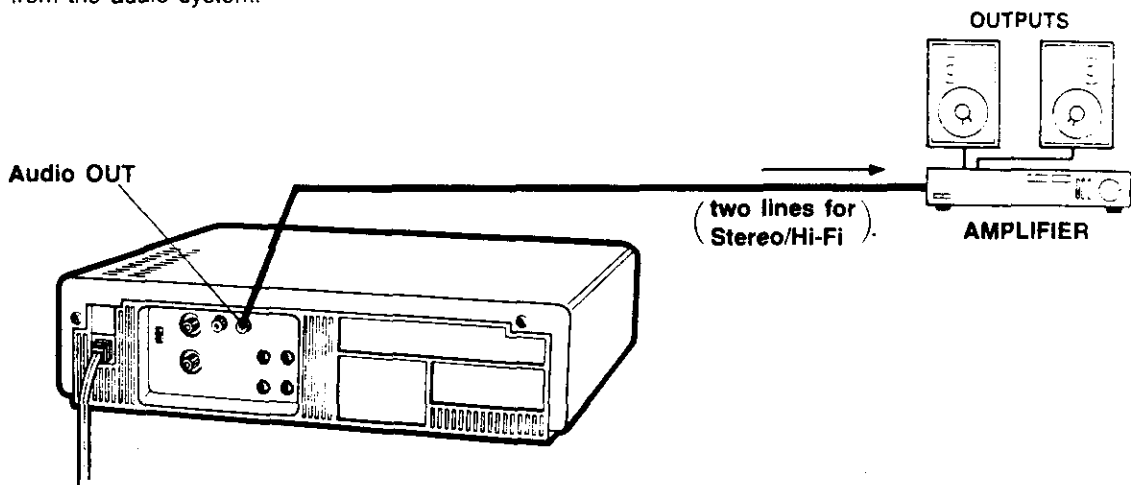
UHF Antenna VHF Antenna



NOTE:

- For viewing the program from the VCR, set the VIDEO/TV selector on the TV (Monitor/Receiver) to the "VIDEO" mode.

If you connect the VCR to a component stereo audio system, you can view the VCR picture on TV with sound from the audio system.



OUTSIDE ANTENNA, EQUIPMENT, AND POWERLINE EXPOSURE

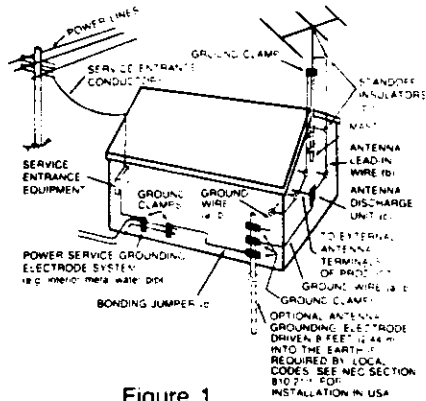


Figure 1

1. INSURE SAFE ANTENNA AND CABLE CONNECTIONS

If an outside antenna or cable system is connected to the equipment, be sure the antenna or cable system is grounded so as to provide some protection against built up static charges and voltage surges. Part 1 of the Canadian Electrical Code, in USA Section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes and requirements for the grounding electrode. See figure 1 for items a-d below.

- Use No. 10 AWG (5.3 mm²) copper, No. 8 AWG (8.4 mm²) aluminum, No. 17 AWG (1.0 mm²) copper-clad steel or bronze wire, or larger, for ground wire.
- Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4 feet (1.22 m) to 6 feet (1.83 m) apart.
- Mount antenna discharge unit as close as possible to where lead-in enters house.
- Use jumper wire not smaller than No. 6 AWG (13.3 mm²) copper, or the equivalent, when a separate antenna-grounding electrode is used. See NEC Section 810-21(j) for installation in USA.

2. ELIMINATE ANTENNA PROXIMITY TO HIGH VOLTAGE POWER SOURCES, OR CHANCE OF ACCIDENTAL CONTACT BY INSTALLER

An outside antenna system should be located where it will never be reached by power lines, electric light or power circuits and where it will never contact these power sources if it falls. Installer should use extreme care to avoid possible fatal contact by touching power lines, circuits or other power sources when installing outside antenna.

USE

AFTER STORING OR WHEN MOVING THE UNIT, REFER TO THE INSTALLATION SECTION OF THE SAFEGUARDS

- DO NOT USE THIS VIDEO UNIT NEAR WATER** around bathtubs, sinks, laundry, wet basement, swimming pool or any water sources.
- USE ACCESSORIES RECOMMENDED ONLY BY THE MANUFACTURER** to avoid risk of fire, shock or other hazards.
- UNPLUG ALL EQUIPMENT EXPOSED TO RAIN, MOISTURE, OR STRONG IMPACT AND GET A QUALIFIED INSPECTION**
If your unit has been exposed to rain, water, excessive moisture, or subjected to strong impact, unplug it and have it inspected by a service technician before use.
- UNPLUG UNUSED UNIT, AND ALL EQUIPMENT DURING A STORM**
During a lightning storm, when indoors or outdoors, or before leaving unit unused for extended periods of time, disconnect all equipment from power source, antenna and cable system.
- UNPLUG ALL EQUIPMENT BEFORE CLEANING**, after unit has been unplugged use a dry, clean, chemically untreated, cloth. Use no cleaning fluids, aerosols, or forced air that could over-spray, or soak into the unit, and cause electrical shock. Any substance such as wax, adhesive tape, etc. may affect the cabinet surface. Exposure to greasy, humid, or dusty areas may affect internal parts.
- WHEN PLUGGED-IN: KEEP WATER AWAY; NO FINGERS INSIDE NOR ANY OBJECTS INSIDE; AND NO MAGNETS OR ELECTRICAL INTERFERENCE NEARBY**
 - Never operate the unit if liquid has been spilled into it. Immediately unplug the unit, have it inspected by a service technician. Fire and shock hazards can result from electrical shorts caused by liquid contact inside.
 - Caution the children about dropping or pushing objects into the unit. Some parts inside carry hazardous voltages and contact can cause electric shock. Objects dropped in electrical equipment can cause fire hazards.
 - Separate the unit from any interference causing appliances. Placing the unit directly above or below your TV set may cause electrical interference. Keep all magnets away from electronic equipment.

SERVICE

- DO NOT ATTEMPT TO SERVICE THIS PRODUCT YOURSELF**
If this Video product does not operate as described, when the detailed Operating Instructions are followed do not attempt to open or remove covers, or make any adjustments not described in the manual. Attempting to service this unit yourself may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
- CHECK ON REPLACEMENT PARTS REQUIRED**, be sure the service technician has used replacement parts specified by the manufacturer or having the same characteristics as the original part. Unauthorized substitutes may result in fire, electric shock or other hazards.
- HAVE TECHNICIAN PERFORM SAFETY CHECK** described in the manufacturer's service literature, after any service or repairs, to determine the Video unit's safe operating order.

PLACE
FIRST-CLASS
STAMP
HERE

Panasonic
P.O. Box 171066
Denver, Colorado 80217-1066

MARKET RESEARCH DEPARTMENT
Please do not send any products or correspondence to this address.

90M

Please fold here

(CONTINUE
HERE)

17 To help us understand our customers' lifestyles, please indicate the interests and activities in which you or your spouse enjoy participating on a regular basis:

- | | | |
|---|---|--|
| 1. <input type="checkbox"/> Bicycling Frequently | 20. <input type="checkbox"/> Automotive Work | 39. <input type="checkbox"/> Coin/Stamp Collecting |
| 2. <input type="checkbox"/> Golf | 21. <input type="checkbox"/> Electronics | 40. <input type="checkbox"/> Collectibles/Collections |
| 3. <input type="checkbox"/> Physical Fitness/Exercise | 22. <input type="checkbox"/> Home Workshop/Do It Yourself | 41. <input type="checkbox"/> Our Nation's Heritage |
| 4. <input type="checkbox"/> Running/Jogging | 23. <input type="checkbox"/> Motorcycles | 42. <input type="checkbox"/> Real Estate Investments |
| 5. <input type="checkbox"/> Snow Skiing Frequently | 24. <input type="checkbox"/> Recreational Vehicles | 43. <input type="checkbox"/> Stock/Bond Investments |
| 6. <input type="checkbox"/> Tennis Frequently | 25. <input type="checkbox"/> Stereo, Records/Tapes/Discs | 44. <input type="checkbox"/> Veterans Benefits |
| 7. <input type="checkbox"/> Bowling | 26. <input type="checkbox"/> Avid Book Reading | 45. <input type="checkbox"/> Entering Sweepstakes |
| 8. <input type="checkbox"/> Camping/Hiking | 27. <input type="checkbox"/> Bible/Devotional Reading | 46. <input type="checkbox"/> Home Video Games |
| 9. <input type="checkbox"/> Fishing Frequently | 28. <input type="checkbox"/> Current Affairs/Politics | 47. <input type="checkbox"/> Household Pets (dogs, cats, etc.) |
| 10. <input type="checkbox"/> Hunting/Shooting | 29. <input type="checkbox"/> Health Foods/Vitamins | 48. <input type="checkbox"/> Money Making Opportunities |
| 11. <input type="checkbox"/> Power Boating | 30. <input type="checkbox"/> House Plants | 49. <input type="checkbox"/> Science Fiction |
| 12. <input type="checkbox"/> Sailing | 31. <input type="checkbox"/> Photography | 50. <input type="checkbox"/> Wildlife/Environment Issues |
| 13. <input type="checkbox"/> Crafts | 32. <input type="checkbox"/> Attend Cultural/Arts Events | 51. <input type="checkbox"/> Career-Oriented Activities |
| 14. <input type="checkbox"/> Crossword Puzzles | 33. <input type="checkbox"/> Charities/Volunteer Activities | 52. <input type="checkbox"/> Personal/Home Computers |
| 15. <input type="checkbox"/> Grandchildren | 34. <input type="checkbox"/> Fashion Clothing | 53. <input type="checkbox"/> Science/New Technology |
| 16. <input type="checkbox"/> Needlework/Knitting | 35. <input type="checkbox"/> Fine Art/Antiques | 54. <input type="checkbox"/> Self Improvement |
| 17. <input type="checkbox"/> Outdoor Gardening | 36. <input type="checkbox"/> Foreign Travel | 55. <input type="checkbox"/> VCR Recording/Viewing |
| 18. <input type="checkbox"/> Sewing | 37. <input type="checkbox"/> Gourmet Cooking/Fine Foods | 56. <input type="checkbox"/> Watching Cable TV |
| 19. <input type="checkbox"/> Walking for Health | 38. <input type="checkbox"/> Wines | 57. <input type="checkbox"/> Watching Sports on TV |
| | | 58. <input type="checkbox"/> NONE OF THE ABOVE |

18 From the above list, please indicate the numbers representing the 3 most important activities for:

You Spouse

Thanks for taking the time to fill out this questionnaire. Your answers will be used for market research studies and reports — and will help us better serve you in the future. They will also allow you to receive important mailings and special offers from a number of fine companies whose products and services relate directly to the specific interests, hobbies, and other information indicated above. Through this selective program, you will be able to obtain more information about activities in which you are involved and less about those in which you are not. Please check here, if for some reason, you would prefer not to participate in this opportunity.

Send card here.

Panasonic VCR PURCHASE INFORMATION CARD

IMPORTANT! IMPORTANT!

Please fill out and return within the next 10 days.

Thank you for purchasing this Panasonic product. In order to serve you better in the future, we would appreciate your answering the following questions. Your assistance is greatly appreciated.

1. Mr. 2. Mrs. 3. Ms. 4. Miss

First Name: _____ Initial: _____ Last Name: _____

Street: _____ Apt. No.: _____

City: _____ State: _____

2. Date of Purchase: _____ (Month) _____ (Day) _____ (Year)

3. What is your model number? PV — _____ (Located in Operating Instructions Manual and Rear Panel of Product)

4. Type of store where purchased:

1. <input type="checkbox"/> Received as a Gift	7. <input type="checkbox"/> Supermarket
2. <input type="checkbox"/> Department Store	8. <input type="checkbox"/> Catalog Showroom
3. <input type="checkbox"/> Appliance/Radio/TV	9. <input type="checkbox"/> Membership Warehouse
4. <input type="checkbox"/> Discount Store/ Mass Merchandise	10. <input type="checkbox"/> Camera Store
5. <input type="checkbox"/> Video Specialty	11. <input type="checkbox"/> Computer Store
6. <input type="checkbox"/> Hi-Fi Store	12. <input type="checkbox"/> Catalog Mail Order
	13. <input type="checkbox"/> Other: _____

5. Date of birth of person whose name appears above:

_____ (Month) _____ (Year)

6. Marital Status:

1. <input type="checkbox"/> Married	3. <input type="checkbox"/> Widowed
2. <input type="checkbox"/> Divorced/Separated	4. <input type="checkbox"/> Single/Never Married

5. Who had the most influence in the decision to buy this product? (check one only)

1. <input type="checkbox"/> Your decision only	4. <input type="checkbox"/> Children
2. <input type="checkbox"/> Spouse	5. <input type="checkbox"/> Other: _____
3. <input type="checkbox"/> You and Your Spouse	

6. Occupation:

Homemaker	1. <input type="checkbox"/>	You	1. <input type="checkbox"/>
Professional/Technical	2. <input type="checkbox"/>	Your Spouse	2. <input type="checkbox"/>
Executive/Administrator	3. <input type="checkbox"/>		3. <input type="checkbox"/>
Middle Management	4. <input type="checkbox"/>		4. <input type="checkbox"/>
Sales/Marketing	5. <input type="checkbox"/>		5. <input type="checkbox"/>
Clerical or Service Worker	6. <input type="checkbox"/>		6. <input type="checkbox"/>
Tradesman/Machine Oper./ Laborer	7. <input type="checkbox"/>		7. <input type="checkbox"/>
Retired	8. <input type="checkbox"/>		8. <input type="checkbox"/>
Student	9. <input type="checkbox"/>		9. <input type="checkbox"/>
Self Employed/Business Owner	10. <input type="checkbox"/>		10. <input type="checkbox"/>

6. Check the two (2) most important factors influencing your selection of this product:

1. <input type="checkbox"/> Trust in Panasonic	7. <input type="checkbox"/> Ease of Operation
2. <input type="checkbox"/> Price	8. <input type="checkbox"/> Design
3. <input type="checkbox"/> Quality	9. <input type="checkbox"/> Size
4. <input type="checkbox"/> VHS Format	10. <input type="checkbox"/> Durability
5. <input type="checkbox"/> Features	11. <input type="checkbox"/> Portability
6. <input type="checkbox"/> Style/Appearance	12. <input type="checkbox"/> Other: _____

7. Is this VCR:

1. <input type="checkbox"/> First VCR owned
2. <input type="checkbox"/> Replacement for another VCR
3. <input type="checkbox"/> Additional VCR (own one other VCR)
4. <input type="checkbox"/> Additional VCR (own 2 or more other VCRs)

7. What are the ages of all children living at home?

<input type="checkbox"/> None	<input type="checkbox"/> 4 yrs.	<input type="checkbox"/> 9 yrs.	<input type="checkbox"/> 14 yrs.	<input type="checkbox"/> 19 -
<input type="checkbox"/> Under 1	<input type="checkbox"/> 5 yrs.	<input type="checkbox"/> 10 yrs.	<input type="checkbox"/> 15 yrs.	
<input type="checkbox"/> 1 yr.	<input type="checkbox"/> 6 yrs.	<input type="checkbox"/> 11 yrs.	<input type="checkbox"/> 16 yrs.	
<input type="checkbox"/> 2 yrs.	<input type="checkbox"/> 7 yrs.	<input type="checkbox"/> 12 yrs.	<input type="checkbox"/> 17 yrs.	
<input type="checkbox"/> 3 yrs.	<input type="checkbox"/> 8 yrs.	<input type="checkbox"/> 13 yrs.	<input type="checkbox"/> 18 yrs.	

8. Which of the following brands did you seriously consider before selecting Panasonic? (check all that apply)

1. <input type="checkbox"/> Considered no other brand	8. <input type="checkbox"/> Sanyo
2. <input type="checkbox"/> Magnavox	9. <input type="checkbox"/> G.E.
3. <input type="checkbox"/> Fisher	10. <input type="checkbox"/> JVC
4. <input type="checkbox"/> Sony	11. <input type="checkbox"/> Sharp
5. <input type="checkbox"/> Quasar	12. <input type="checkbox"/> Zenith
6. <input type="checkbox"/> RCA	13. <input type="checkbox"/> Toshiba
7. <input type="checkbox"/> Hitachi	14. <input type="checkbox"/> Other: _____

8. Which group describes your annual family income:

1. <input type="checkbox"/> Under \$14,999	7. <input type="checkbox"/> \$40,000-\$44,999
2. <input type="checkbox"/> \$15,000-\$19,999	8. <input type="checkbox"/> \$45,000-\$49,999
3. <input type="checkbox"/> \$20,000-\$24,999	9. <input type="checkbox"/> \$50,000-\$59,999
4. <input type="checkbox"/> \$25,000-\$29,999	10. <input type="checkbox"/> \$60,000-\$74,999
5. <input type="checkbox"/> \$30,000-\$34,999	11. <input type="checkbox"/> \$75,000-\$99,999
6. <input type="checkbox"/> \$35,000-\$39,999	12. <input type="checkbox"/> \$100,000 & over

9. Where is the product used and who is (are) the primary users? (check one from each column)

A. 1. <input type="checkbox"/> Living Room	B. 1. <input type="checkbox"/> Yourself
2. <input type="checkbox"/> Family Room/Den	2. <input type="checkbox"/> Spouse
3. <input type="checkbox"/> Bedroom	3. <input type="checkbox"/> You and Spouse
4. <input type="checkbox"/> School	4. <input type="checkbox"/> Children
5. <input type="checkbox"/> Office	5. <input type="checkbox"/> Other
6. <input type="checkbox"/> Outdoors	
7. <input type="checkbox"/> Other	

9. Which of the following do you use regularly?

1. <input type="checkbox"/> American Express, Diners Club, Carte Blanche
2. <input type="checkbox"/> Bank credit card (Master Card, Visa)
3. <input type="checkbox"/> Gas, Dept. store, etc. credit card(s)
4. <input type="checkbox"/> Airline club/frequent flyer program
5. <input type="checkbox"/> None of the above

10. For your primary residence, do you:

1. <input type="checkbox"/> Own a house?
2. <input type="checkbox"/> Rent a house?
3. <input type="checkbox"/> Rent an apartment?
4. <input type="checkbox"/> Own a townhouse or condominium?

PLEASE CONTINUE ON BACK! (OVER)

