

Things You Should Know

Congratulations

on your purchase of one of the most sophisticated and reliable products on the market today. Used properly, we're sure it will bring you and your family years of enjoyment. Please take time to fill in the information at right. The serial number is on the tag located on the back of your VCR. You'll want to keep this manual handy as your convenient VCR information source.

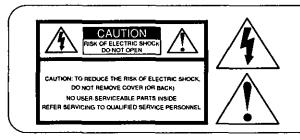
Safety Precautions

Date of Purchase	
Dealer Purchased From	
Dealer Address	
Dealer Phone No	
Model No	<u> </u>
Serial No	

Warning: To prevent fire or shock hazard, do not expose this equipment to rain or moisture. This video recorder, equipped with the HQ (High Quality) System, is compatible with existing VHS equipment.

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

FCC Warning: Any unauthorized changes or modifications to this equipment would void the user's authority to operate.



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.

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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 all 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 the manual, for easy maintenance, proper and trouble free operation 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. THE GROUNDED OR POLARIZED PLUG IS A SAFETY FEATURE 2
- 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

- З. POWER SUPPLY CORDS SHOULD BE PROTECTED and routed so that they are not likely to have anything rest on
- Δ them, roll over them, or be subject to walking traffic or 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

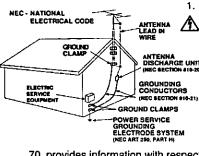
OVERLOADED WALL OUTLETS AND EXTENSION CORDS PRESENT DANGEROUS RISKS OF FIRE OR ELECTRICAL SHOCK.

- AVOID BLOCKING VENTILATION HOLES
- Your video unit has ventilation openings in its cabinet to
- release heat generated during operation. Blocking these opening can cause heat build-up inside the unit, causing failure 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.
- 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. TO AVOID INJURY TO A CHILD, ADULT;

- 6. OR COSTLY DAMAGE: Δ
 - a. Do not place unsecured equipment on a sloping surface or any heavy object or unit. (Use the unit in a horizontal position and do not place
 - anything heavy on it.) b. Support for the unit should be adequately firm, level, and strong. Replace any unstable cart, table or support. An appliance and cart combination should be moved with
 - care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn. c. Carefully follow all operating instructions and use the
 - manufacturer's recommended accessories when operating this unit or connecting it to any other equipment.

OUTSIDE ANTENNA, EQUIPMENT, AND POWERLINE EXPOSURE



INSURE SAFE ANTENNA AND CABLE CONNECTIONS If an outside antenna or cable system is connected to the equipment, be sure the ANTENNA OQUIPMENT, be sure the DISCHARGE UNIT antenna or cable system is (NEC SECTION 419-20) 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

70, 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.

- 2. ELIMINATE ANTENNA PROXIMITY TO HIGH VOLTAGE POWER
- SOURCES, OR CHANCE OF ACCIDENTAL CONTACT BY INSTALLER AN. 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 an 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 source. USE ACCESSORIES RECOMMENDED ONLY BY THE
- **∕∆** 3. 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 Δ
 - 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 4
- During a lightning storm, when indoors or outdoors, or before Δ
- leaving unit unused for extended periods of time, disconnect all equipment from power source, antenna and cable system. 5. UNPLUG ALL EQUIPMENT BEFORE CLEANING. After unit has
- been unplugged use a dry, clean, chemically untreated cloth. Use
- Δ 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 6.
- INSIDE NOR ANY OBJECTS INSIDE; AND NO MAGNETS OR
- ∕₳∖ ELECTRICAL INTERFERENCE NEARBY.
 - a. Never operate the unit if liquid has been spilled into it. Immediately unplug the unit, and have it inspected by a service technician. Fire and shock hazards can result from electrical shorts caused by liquid contact inside.
 - b. 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

- 1. 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 2. 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 3. HAVE TECHNICIAN PERFORM SAFETY CHECK described in ⚠
 - the manufacture's service literature, after any service or repairs, to determine that the Video unit is in safe operating order.

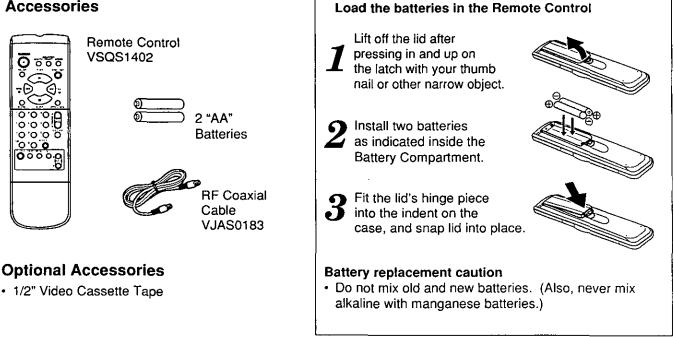


Unpacking Your VCR and Features

Unpacking Your VCR

The accessories shown below are provided to help you use or set up your VCR. Optional accessories are also listed.

Accessories



Product Features

All Channel Auto Set/ 181-CH TV/CATV Tuner	10
Auto Daylight Saving Time	
Auto Operation Functions (Auto Playback, Rewind, Tape Eject, Power off)	
Auto Repeat Function	16
Digital Auto Picture	13
Easy-to-Read English/Spanish/French On Screen Displays 10, 11, 18	8, 19
Front-mounted A/V In Terminals	17
MTS Broadcast System (For Model PV-4659 only)(Multi-channel Television Sound-Stereo, SAP, Mono)	22
One Minute Skip	16
One Month, 8 Program Timer Recording 18	8, 19
One Touch Recording (OTR)	
Quick Play Mechanism	24
Special Effects Playback	13
Special VCR Features (VCR Lock, Warning Beeper)	21
VHS Hi-Fi Stereo System (For Model PV-4659 only)	
Zero Search	16

VCR and Cassette Information

Erase Protection (Record Tab)

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

To prevent accidental erasure, break off the tab with a screwdriver.



To record again, cover the hole with cellophane tape.



Maximum Record/Playback Time

Only use tapes with the WHS mark in this unit.

Tape Speed	Type of Video Cassette				
Position	T60	T120	T160		
SP (Standard Play)	1 Hour	2 Hours	2 Hours 40 Minutes		
LP (Long Play)	2 Hours	4 Hours	5 Hours 20 Minutes		
SLP (Super Long Play)	3 Hours	6 Hours	8 Hours		

Cleaning Care for Video Heads



Blue Back (During playback c

Clogged Video Head Picture (During playback of pre-recorded tape) Blue Back

Screen

Clogged Video Heads

While your VCR will not normally require head cleaning, however the heads may become clogged when playing an old or damaged tape. If the image on your screen resembles the illustration on the left or the screen becomes solid blue when playing back a pre-recorded signal on the tape, the heads probably require cleaning.

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. Be sure to follow the cleaning instructions carefully. Excessive use of a cleaning cassette could shorten head life. Use this cassette only when symptoms occur.

Reset all VCR Memory Functions

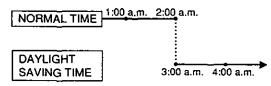
This operation is convenient when moving the VCR to a new location, or if a mistake was made in the One Time VCR Setup section. Make sure a tape is not inserted in the VCR.

- 1) Turn VCR Power on.
- 2) Press and hold both Play and Rewind buttons on the VCR for more than 5 seconds.
 The power will shut off.
- 3) Perform the One Time VCR Setup section on page 10.

D.S.T. (Daylight Saving Time)

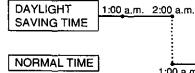
Spring:

First Sunday in April (DAYLIGHT SAVING TIME:AUTO) Automatically adds one hour and adjusts the clock.



Autumn:

Last Sunday in October (DAYLIGHT SAVING TIME: AUTO) Automatically turns back one hour and adjusts the clock.

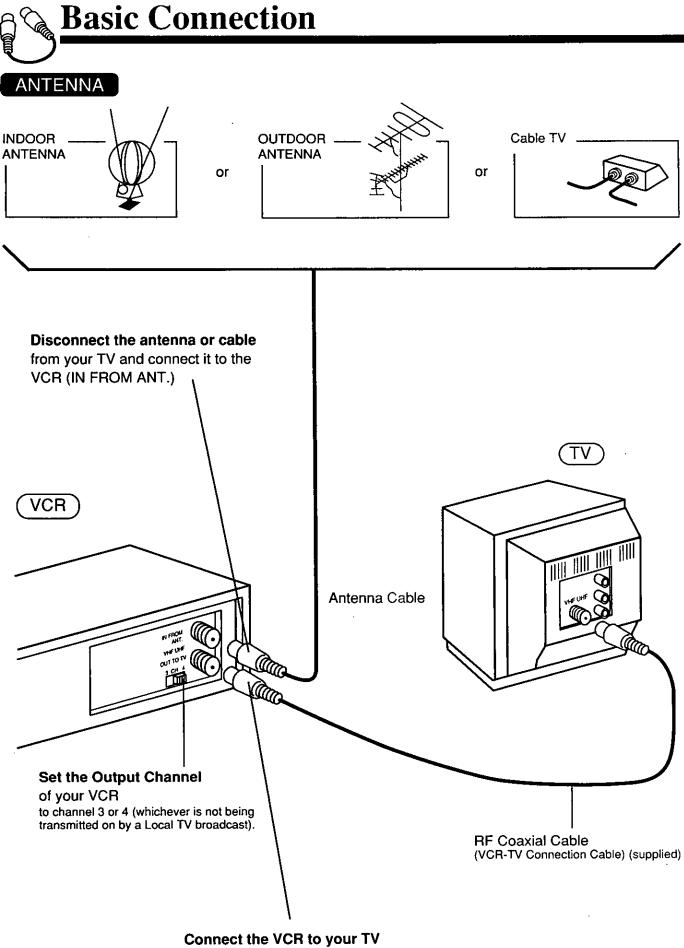


1:00 a.m. 2:00 a.m.

Product Specifications

Power Source: Power Consumption:	120V AC, 60 Hz Approx. 18 watts (Power On) (PV-4609) Approx. 23 watts (Power On) (PV-4659) Approx. 6 watts (Power Off) (PV-4609) Approx. 7 watts (Pwer Off) (PV-4659)
Video Signal:	EIA Standard NTSC color
Video Recording System:	
Audio Track:	1 track (Normal)
	2channel (Hi-Fi Audio Sound) (PV-4659)
Tuner:	
Broadcast Channels:	VHF 2~13, UHF 14~69
CATV Channels:	Midband A through I (14~22)
	Superband J through W (23~36)
	Hyperband AA~EEE (37~64)
	Lowband A-5~A-1 (95~99)
	Special CATV channel 5A (01)
	Ultraband 65~94, 100~125
Operating Temperature	: 41°F~104°F (5°C~40°C)
Operating Humidity:	10%~75%
Weight:	
morgine.	7.9 lbs. (3.6 Kg) (PV-4609)
Dimensions:	8.2 lbs. (3.7 Kg) (PV-4659)
Dimensions:	14-3/16" (W) X 3-1/2" (H) X 11-1/4" (D)
	360 (W) X 89 (H) X 285 (D) mm

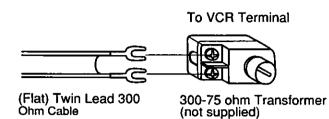
Note: Designs and specifications are subject to change without notice.



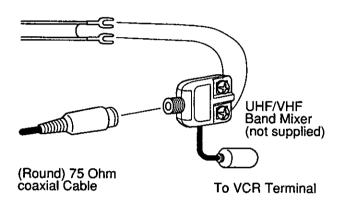
with the RF Coaxial Cable (OUT TO TV).

Between Antenna and VCR

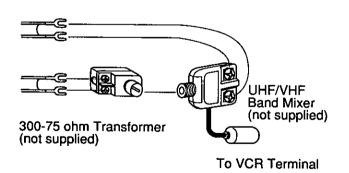
Case 1: Twin Lead Cable Only



Case 2: Twin Lead & Coaxial Cables



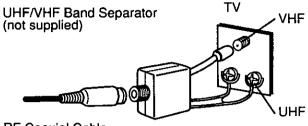
Case 3: Two Twin Lead Cables



 If your TV has both post and screw-type VHF terminals, using the post connection is recommended to minimize signal loss.

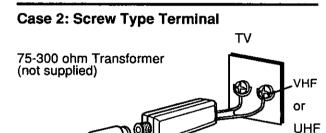
Between VCR and TV

Case 1: Screw & Plug Type Terminal

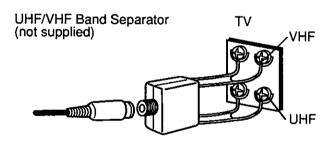


RF Coaxial Cable

M

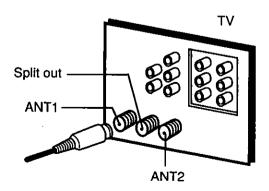


Case 3: Double Screw Type Terminal



Case 4: Complex TV Terminal

TERMINALS ON BACK OF TV SET

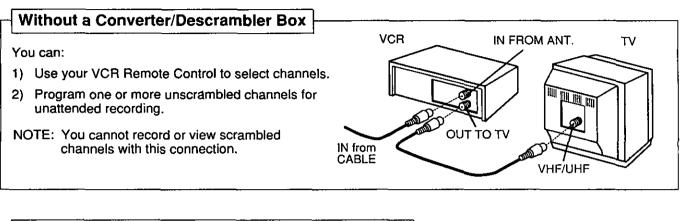


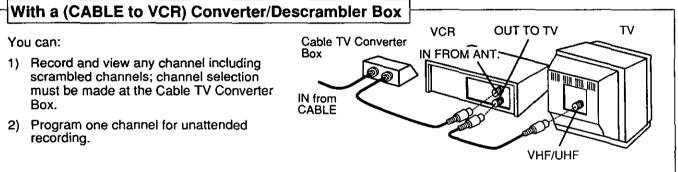
• Connect to one of the ANT terminals and select the same antenna number on the TV.

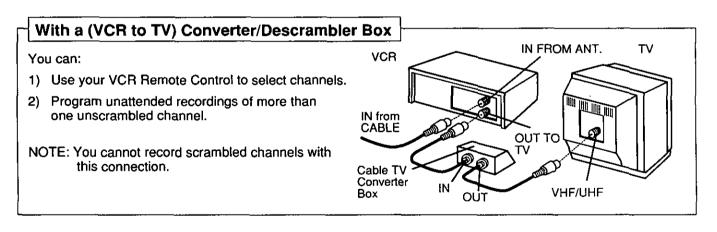
Additional Connections

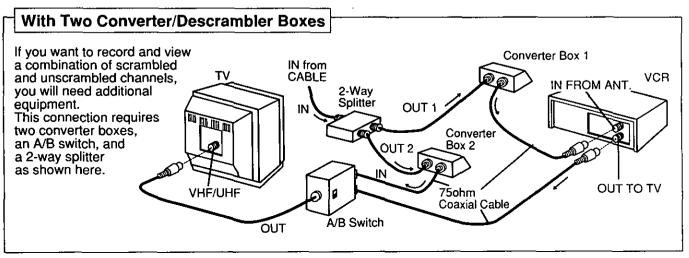
CATV(Cable) Connections

All connections on this page are made with 75 Ohm coaxial cables.



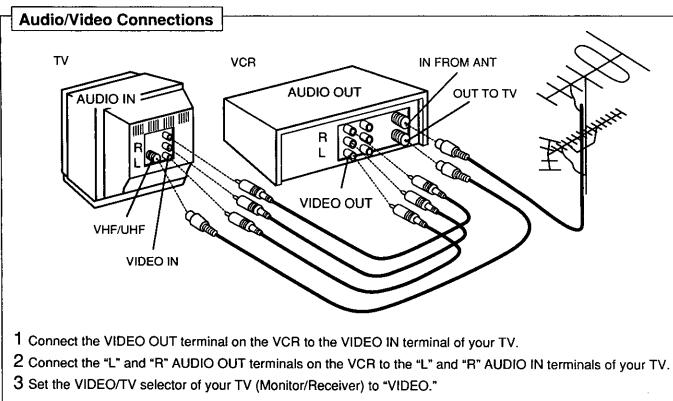




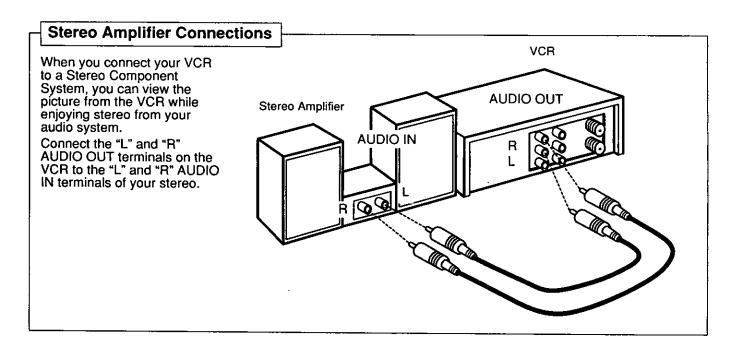


Audio/Video Connections

If your TV has AUDIO IN and VIDEO IN terminals, you can connect your VCR to them to receive a higher quality picture and sound. The antenna-VCR and VCR-TV connection is as shown.



NOTE: To use your TV as a VCR monitor, set the VIDEO/TV selector on the TV (Monitor/Receiver) to "VIDEO."



Note to CATV system installer:

This reminder is provided to call the CATV system installer's attention to Article 820-40 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.



@000**0**

When the VCR power is first turned on, the language select and channel auto set screen appear automatically followed by a prompt to set the clock.

Check list before you begin.

POWER

0

 \bigcirc

(See pages 6~9.)

To Set Language, Channel and Clock



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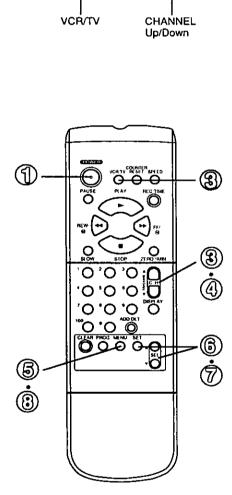
5

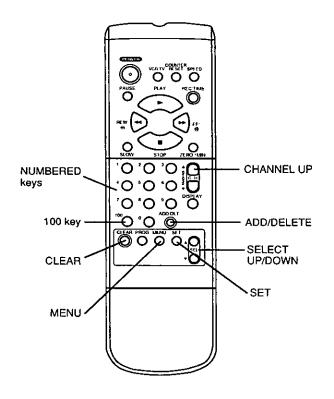
Turn TV on and VCR on.

TV is set to VCR channel (the Same one you set on the back of the VCR CH3 or CH4). (See page 6.) Push CH
for English SELECT LANGUAGE SHO H on-screen displays. PUSH VCR CH A: ENGLISH PULSE VOR CH V: ESPAÑOL or APP. VCB/TV : FRANÇAIS Push CH ▼ for Spanish on-screen displays. If you set the wrong language, see the "Reset all VCR Memory Functions" or Push VCR/TV for VCR/TV section on page 5. French on-screen displays. You can also set by using the same buttons on the VCR. Make sure the VCR is connected to antenna or cable. If you use a cable box, it must be left on for auto channel set. Push CH ▲ to start Channel Auto Set. CH • The following on-screen displays appear in sequence: "CH AUTO SET COMPLETED" "PLEASE SET CLOCK BY PUSHING MENU KEY" Push MENU to display -- SET CLOCK ---MENU the SET CLOCK screen. 1/--/----까 DST:ON Make entries within 5 <u>SELECT MONTH</u> BY SELECT ▲/▼ KEY minutes, or the VCR exits the Set Clock screen. PUSH SET: TO END PUSH MENU KEY Push SELECT UP/ 17-- SET CLOCK ----DOWN to select the 2/--/---SEL MONTH and push DST:ON SELECT MONTH BY SELECT ▲/▼ KEY SET to enter it. PUSH SET : TO END PUSH MENU KEY Remaining items Push SELECT UP/DOWN to be set: and SET to set Date remaining items at right. Year • The day of the week Time D.S.T. automatically appears. SET (Daylight Saving Time) • See page 5 for more on D.S.T. Push MENU twice ----- SET CLOCK -----MENU to start the clock 2/ 2/1996 FRI 1:30PM DST:ON and exit this mode. SET COMPLETED

TO CORRECT

PUSH SET OR CLEAR KEY TO START PUSH MENU KEY





To Change On Screen Display Language

- 1 Push MENU to display the menu.
- Push the SELECT Up/Down to select the language selection item. (English: LANGUAGE, Spanish: IDIOMA, French: LANGUE).

	MEL	10	
SET SET	UP VCF CLOCK UP CHA		ISH
SELECT	: PUSH : PUSH	SELECT	, * /*

3 Push the SET button to change the language.
• Each Push will change the language in the order shown.

English Spanis	sh> French
SET UP VCR SET CLOCK SET CLOCK SET CLOCK SET UP CHANNEL IDIOMAYLANGUE:EN SELECT : PUSH SELEC SET : PUSH SELEC END : PUSH MENU END : PUSH MENU END : PUSH MENU END : PUSH SET K END : PUSH MENU END : PUSH SET K END : PUSH SET K END : PUSH SET K FIJAR : PULSE SE FIJAR : PULSE SE	REGLAGE HONLOGE REGLAGE CANAL LECT LANGUAGET TOTOMA: FRANCA IS

4 Push MENU to exit this mode.

To Replace Channels in Memory

Example, if you have cable installed, etc.

- 1 Push MENU to display the menu.
- 2 Push the SELECT Up/Down and SET to select SET UP CHANNEL from menu, and then push to set your antenna system (TV or CATV).
- **3** Push the SELECT Up/Down and SET to select AUTO SET.
 • If you use a cable box, it must be left on for auto channel set.
- 4 Push CH ▲ to start Channel Auto Set.
 - · To exit this mode, push MENU twice.

To Set or Reset the Clock

In case the clock is wrong, or a power failure occurred.

- 1 Push MENU to display the menu.
- 2 Push the SELECT Up/Down and SET to select SET CLOCK from menu, and then to set the time and date.
- **3** Push MENU twice to <u>start the</u> <u>clock</u> and exit this mode.



----- MENU -----

---- MENU -----

SET CLOCK SET UP CHANNEL ID IOMA/LANGUE: ENGLISH

SELECT : PUSH SELECT ▲/ SET : PUSH SET KEY END : PUSH MENU KEY

--- SET UP CHANNEL ---

ANTIENNA SYSTEM : CATV AUTO SET

> PUSH SELECT A/T PUSH SET KEY PUSH MENU KEY

SET UP VCB

←PUSH CLEAR::PUSH SET → TO START PUSH MENU KEY

CHANNEL 08 DELETED

Îor

ADDED

To Add or Delete a Channel

- 1 Select a channel using the NUMBERED keys.
- 2 Push ADD/DLT to add or delete the channel.
 - To select a deleted channel, use the NUMBERED keys on the remote control. Deleted channels will flash in the Multi Function Display on the VCR when selected.

When Using the 100 key

When selecting CATV channels 100 to 125 with the NUMBERED keys, first push the 100 key and then enter the remaining two digits. For example, to select channel 125: Push NUMBERED keys 100, then 2, then 5.



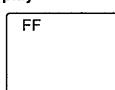
This VCR will accurately maintain its calendar up to Dec. 31, 2014, 11:59PM.

Normal TV or Cable channels are automatically selected and placed in memory depending on how your VCR is hooked up. By pushing the SET or CLEAR button repeatedly, you can skip forward or backward over correct entries and go directly to a specific item.

On Screen Displays (OSD)

Function & Channel Display

Whenever a function button is pushed (PLAY, FF, etc.) or the channel is changed, a 4 second OSD will appear first in large and then small characters.



---- MENŲ -----

SET UP VCR SET CLOCK SET UP CHANNEL IDIOMA/LANGUE:ENGLISH

PUSH SELECT A PUSH SET KEY PUSH MENU KEY

SELECT : SET : END

Warning and Instruction Displays

These displays will alert you to a missed operation or provide further instructions.

If no active channels are	
found for CHANNEL	
MEMORY	

NO CH FOUND PLEASE CHECK ANTENNA CABLE CONNECTION THEN PUSH VCR CH UP KEY AGAIN

If you attempt to set or review a Timer Recording and the Clock is not set...

PLEASE SET CLOCK BEFORE PROGRAMMING

If a Timer Program was not completed before exiting the Program mode... PROGRAM IS INCOMPLETE

After a Timer Program has been set...

If you push REC on the

remote control or REC

and PLAY on the VCR.

with no record tab ...

and a cassette is inserted

TURN VCR OFF FOR TIMER RECORDING

CHECK CASSETTE RECORD TAB

If you push PLAY, FF, REW, or REC on the remote control or if you push REC and PLAY, PLAY, FF, REW, or REC on the VCR without a cassette inserted...

NO CASSETTE PLEASE INSERT & CASSETTE

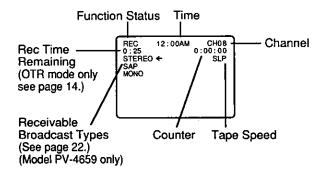
If you push POWER or STOP during a Timer Recording... (visible in VCR mode only) TO CANCEL TIMER REC PUSH POWER THEN STOP KEY

Menu Screen

- 1 Push MENU to display the menu.
- 2 Push the SELECT Up/Down and SET to make your selection.
 - To get the most from each feature, it is recommended that you read the Operation Manual before attempting any operation.

VCR Status & Clock Display

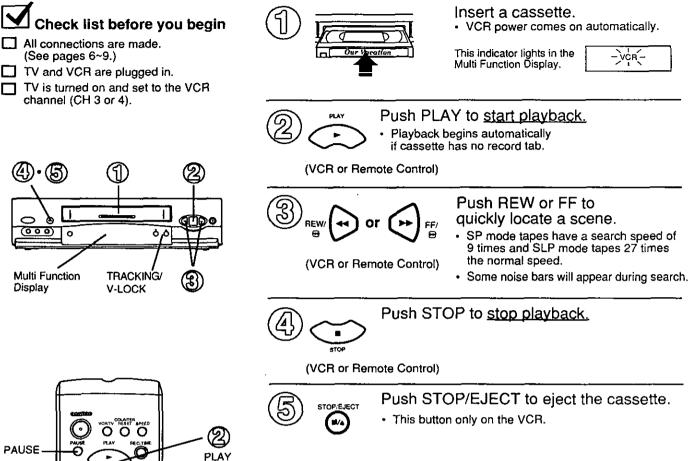
Push DISPLAY to display and remove the overlay shown below.



Blank Tape and will be Blue Screen

If a blank section of tape is encountered in the Play mode or the channel you select has no broadcast, the TV screen will change to a solid blue field. The screen will remain blue until a recorded signal is again detected or an active channel is selected.





Special Effects During Playback

These features work best in SP or SLP mode. The sound will be muted. (After the VCR is in the Still or Slow mode for 3 minutes, it will go into the Stop mode automatically to protect the tape and video head.)

Slow Motion Playback

Push SLOW to start and PLAY or SLOW to release the Slow mode.

Still (Freeze) Frame Picture

Push PAUSE to freeze and release the picture.

Place the VCR in Slow motion mode. Use CH (TRACKING) ▲/▼ to clear up the picture, then Push PAUSE.

Frame by Frame Advance

While in Still mode, hold down the SLOW button to advance the still picture one frame at a time. Push PAUSE to release.

Feature for a Quality picture

Digital Auto Picture

This feature automatically controls the video output signal for less noise depending on the tape condition.

Digital Auto Tracking

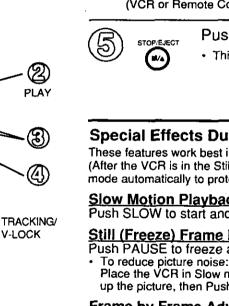
This feature continuously analyzes the signal and adjusts for optimum picture quality.

Manual Tracking Control

Use during Playback and Slow Motion mode to reduce picture noise. Push CH (TRACKING) \blacktriangle / Ψ buttons until the picture clears up. To return to Auto Tracking mode, push POWER off and then on again.

<u>V-Lock Control</u>

In Still mode, the CH (TRACKING) ▲/▼ buttons operate as a V-Lock control to reduce jitter. Push \blacktriangle / \lor until the picture is stabilized.



Caution:

Please inspect your cassette tape for any loose or peeling labels as it may become jammed in your unit.

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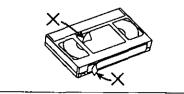
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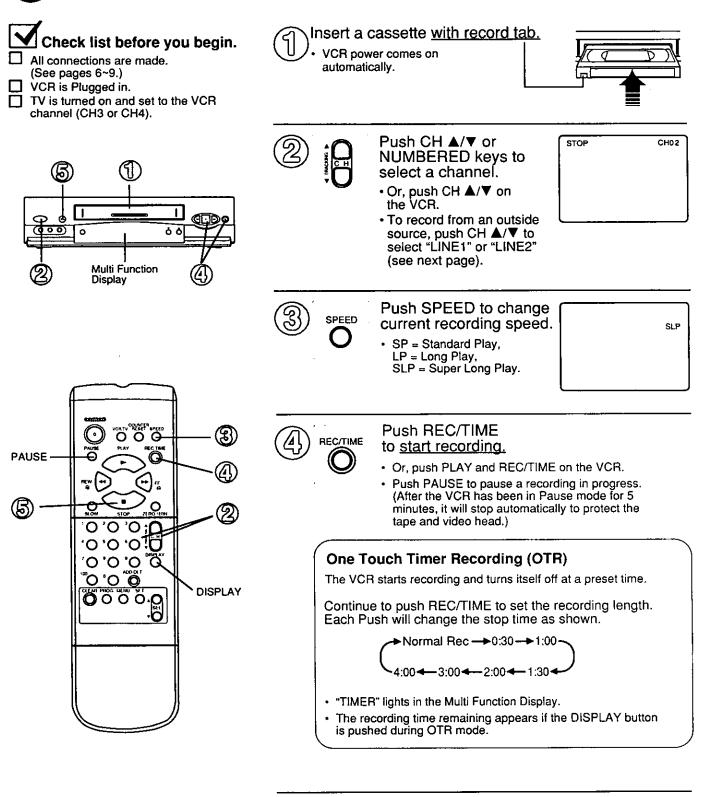
0000

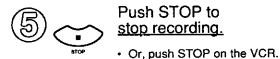
SLOW

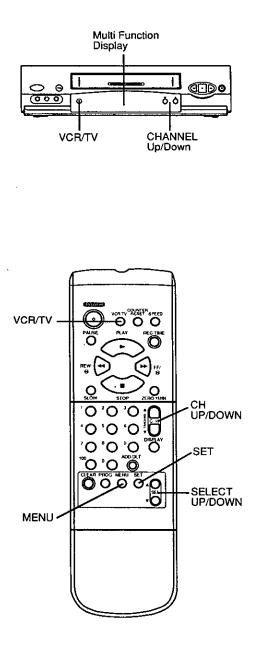


Basic Operation









Selecting the Input Mode

- Push the MENU button to display the menu.
- 2 Push the SELECT Up/Down and SET buttons to select "SET UP VCR."
- 3 Push the SELECT Up/Down to select "INPUT SELECT" and then, push to the SET button to choose TUNER or LINE (LINE1 or LINE2).

LINE1: For rear audio/video connection. LINE2: For front audio/video connection.

• You can also select "LINE1" or "LINE2" using the CH ▲/▼ buttons. The numbers will change in the order shown.

SET UP VCR SET CLOCK SET UP CHANNEL ID IOMA/LANGUE:ENGLISH SELECT : PUSH SELECT ▲/▼ SET : PUSH SET KEY END : PUSH MENU KEY



(Model PV-4659 only)

 When LINE is selected, "L1" or "L2" is displayed in the Multi Function Display.

Watching Another TV Program

- **1** Push the VCR/TV button while recording is in progress to turn off the VCR indicator in the Multi Function Display.
- 2 Use the TV channel controls to select a program. The VCR will continue to record your program while you watch any channel you choose.
 - Switch back and forth between the recording and viewing channel with the VCR/TV selector.

Selecting Channels at the VCR

1 Turn TV on.

VÇR(-

Multi Function Display

If indicator doesn't light, push the VCR/TV button to turn it on.

- 2 Use the CH ▲/▼ buttons to select channels for viewing or recording.
 - To resume TV control channel selection, push VCR/TV to turn VCR indicator off, or simply turn VCR off.

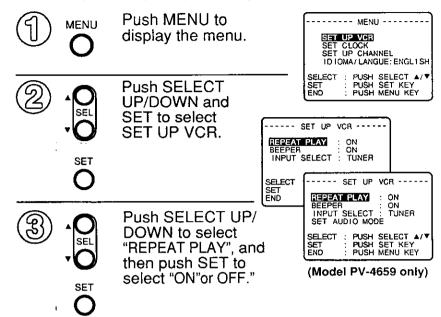


Your VCR is equipped with several time saving features as well as convenient automatic functions which make tape operation easier than ever.

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Repeat Play

You can set your VCR up to play a recording over and over.



The VCR plays to the end of a tape, or until a blank portion of 30 seconds or more is reached. (Erased portions of tape are not considered blank.) The tape is then automatically rewound and played again and again until Repeat Play is cancelled. All function buttons (REW, FF, etc.) are operational during Repeat Play.

Push MENU twice to leave this screen.

Auto Operation Functions

Auto Playback

When a tape is inserted, the power comes on (Auto). If the record tab* is removed, playback begins (Auto).

Auto Rewind

After a tape reaches its end during playback, fast forward or manual record, the VCR will rewind and go into Stop mode.

Playback Auto Eject

After a tape without a record tab* is played to its end, the VCR will rewind and then eject the tape.

Memory Rewind Off

When the POWER button is pushed during rewind, the VCR will turn off after rewind is complete.

Eject Cassette

A cassette may be ejected with power on or off.

* For record tab information, see page 5.

One Minute Skip

MENU

4

With this feature, you can skip over commercials recorded on a tape.

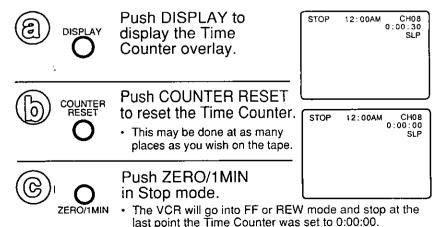


Push ZERO/1MIN in Play mode.

 The VCR will go into FF search mode and skip over 60 seconds of recorded time. Then, normal playback will resume.

Zero Search

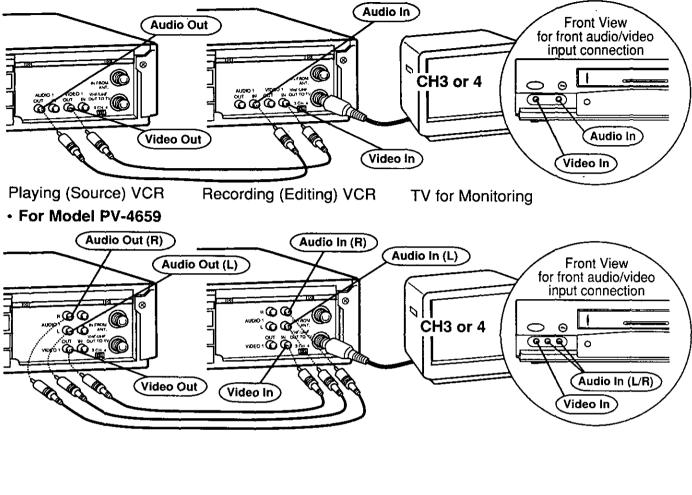
You can reset the Time Counter to zero and then return to that point.



Copying Your Tapes (Dubbing)

Connections you'll need to make. (Choose front or rear connection.)

For Model PV-4609





Insert a pre-recorded tape into the Playing (Source) VCR.



2

Insert a blank tape with record tab into the Recording (Editing) VCR.



Select Input "LINE" on the Recording (Editing) VCR. (See "Selecting the Input Mode" on page 15.)



Push PLAY on Playing VCR. Push PAUSE at the point you want to start copying.

To Monitor the Re-Recording

- 1 Turn the TV on and select its VCR channel (CH3 or CH4) on the Recording VCR.
- 2 Set the VCR/TV selector on the Recording VCR to the "VCR" position.

5 Push REC and PLAY <u>at the</u> <u>same time</u> on Recording VCR. **Push PAUSE** immediately.



Push PAUSE on both VCRs (at the same time), to begin copying.

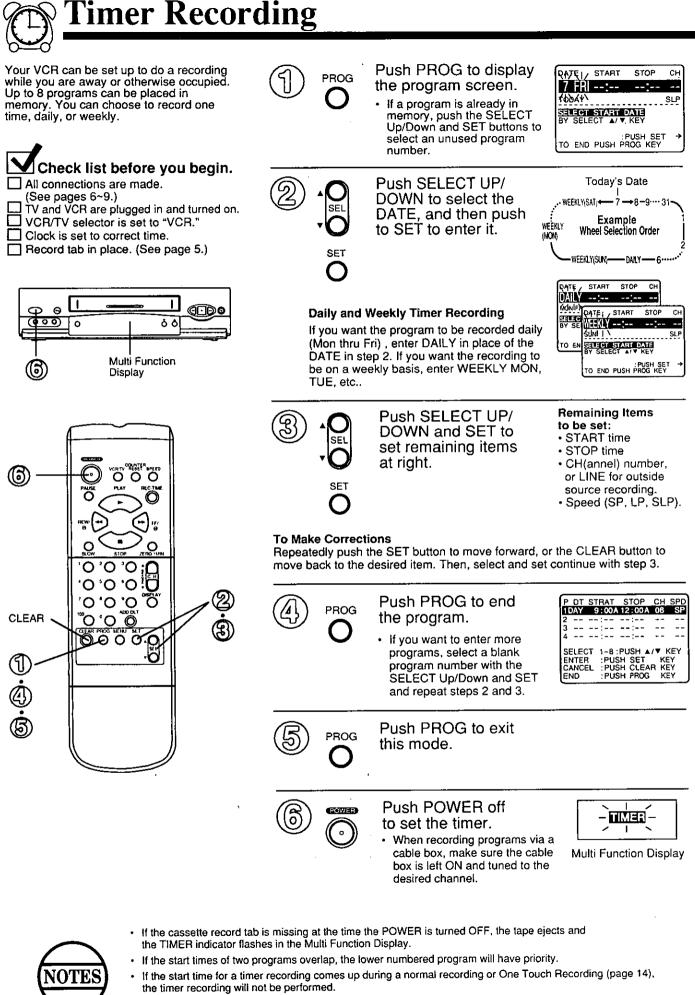
Edit Out Unwanted Parts

of the original recording by using the PAUSE button (on the Recording unit) while copying is in progress.

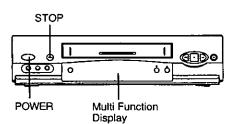
Push STOP on both VCRs to <u>stop copying.</u>

Caution:

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



- If there is a power interruption of more than one minute, the recording will not be performed or continue.
- If "PROGRAM IS INCOMPLETE" appears on-screen in step 4, check all entries and make necessary corrections.



Cancel a Timer Recording: Recording <u>is</u> in progress

- Push the POWER button to release the VCR from timer mode.
- Push the STOP button within 10 seconds of pushing the POWER button to cancel the recording.
 The TIMER indicator goes out in the Multi Function Display.

Replace Program Contents: Recording <u>is not</u> in progress

- Push the PROG button to display all currently set programs.
- 2 Push the SELECT Up/Down and SET buttons to select and enter the desired timer recording. (See page 18.)
- **3** Push the SELECT Up/Down and SET buttons to select and enter replacement information.
- **4** Push the PROG button to exit this mode and return to the normal TV screen.

P	DT	STRAT	STOP	СН	SPD
1		:	:		
- 2	8		P12:00		SLP
3	10		P 9:00F		SP
4	SU	9:00	P 10 : 00 P	י נ	SLP
Ē	ELE(NTEI ANCI ND	R :PÙ EL :PÙ	:PUSH A SH SET SH CLEA SH PROC	AR KI	Υ

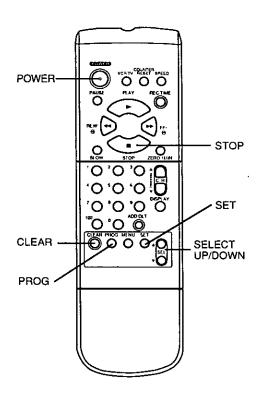
761, START STOP CH SAT 10:00P 12:00P 125 SELECT START DATE BY SELECT ▲/▼ KEY PUSH CLEAR : PUSH SET

Review or Clear Program Contents: Recording is not in progress

- **1** Push the PROG button to display all currently set programs.
- 2 Push the SELECT Up/Down buttons to select the desired program number.
- **3** Push the CLEAR button to clear the program.
- **4** Push the PROG button to exit this mode and return to the normal TV screen.

P	DT	STRAT			PD
11	AY	9:00A	12:00A	08 5	SP
2	8		12:00P	125 St	P
3	10				SP)
4	\$Ų	9:00P	10:00P	LSC	P
En C/		EL :PUS		KEY R KEY	Y
(E)	٩D	:PUS	H PROG	KEY	J

1	Р	DT	ST	RAT	s	TOP	Сн	SPD
	1			:				
	2 3	8	10	:001	P 12	:001	P 125	SLP
	Э	10	8	:001	2 9	:: 00 F	P 10	SP
	4	SŪ	9	:001	• 10	:001	ΡĹ	SLP
	s	ELEC	т	1-8	:PU	SH 2	./*	KEY
	Ē	VTE	i.	:PŪ	SH	SET	ĸ	
	EJ	ND		:PU	SH	PROC	зκ	EY





A timer recording can be set up using the buttons on the VCR. If necessary, the clock can also be set.

Θ

Multi

Function

PLAY

FF

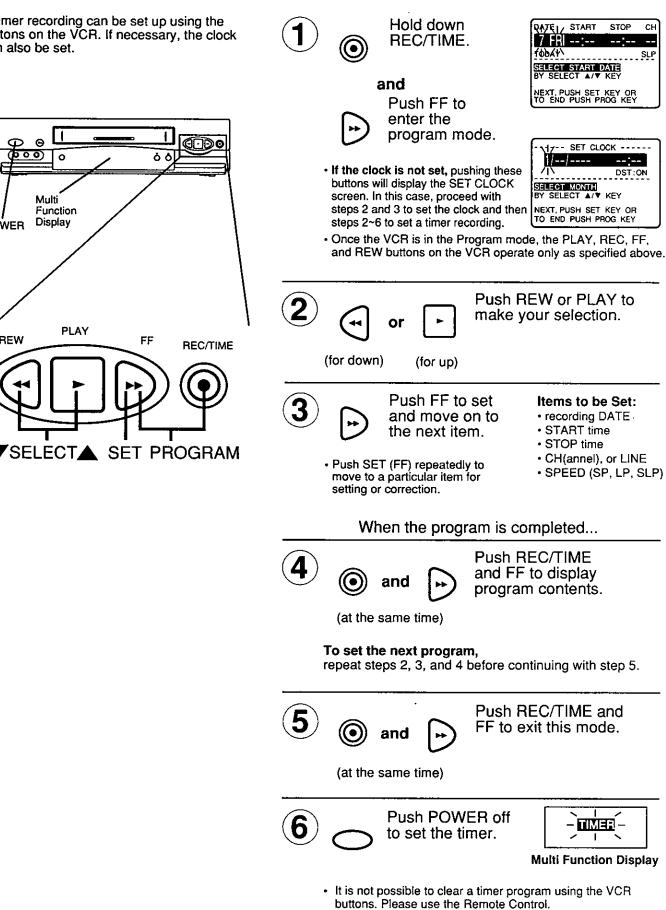
Display

0

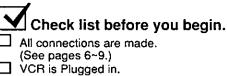
 $(\mathbf{b} \circ \mathbf{0})$

POWER

REW



 When recording programs via a cable box, make sure the cable box is left on and tuned to the desired channel.



TV is turned on and set to the VCR channel (CH3 or CH4).

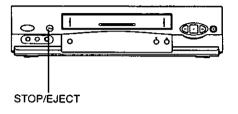
VCR Lock Feature

When activated, this feature prohibits all operations except for timer recording, and tape eject. This is useful to prevent misoperation and protect your VCR from curious children.



Hold down STOP/EJECT on the VCR for 7 seconds during Stop, or Power OFF mode.

VCR LOCK ACTIVATED

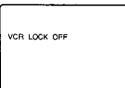


To Cancel the VCR Lock feature,



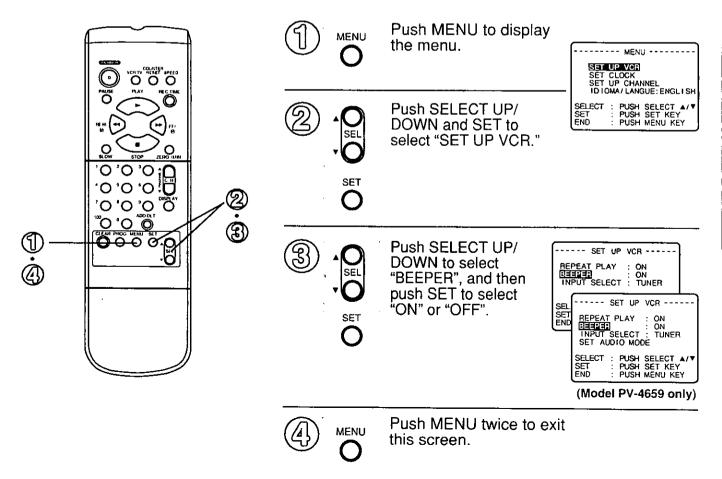
Hold down STOP/EJECT on the VCR for 7 seconds again during Stop, or Power OFF mode.

• VCR Lock mode is cancelled automatically after 24 hours when the clock is set.



Warning Beeper Feature

When you select BEEPER ON as described below, a short warning will sound each time an invalid entry or operation is made and a timer program is set.

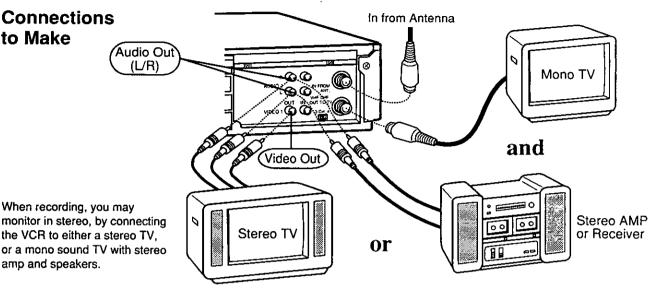


More You Can Do

MTS Broadcast/ VHS Hi-Fi Stereo System (For Model PV-4659 only)

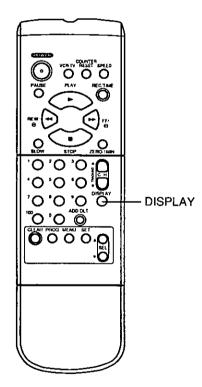
Check list before you begin

The VCR is connected to a stereo TV, or a mono TV and stereo amp or receiver with speakers.
 The VCR and other components are plugged in and turned on.



Receivable Broadcast Types

The following are possible broadcast types with their accompanying on-screen displays. The signal(s) not being received is enclosed in parenthesis. The currently selected audio mode is indicated with an arrow. To change the audio mode for listening to, or recording these broadcasts, follow the steps on page 23.



Equipped with **dbx**[®] -TV Noise Reduction for true MTS reproduction. **dbx**[®] -TV Noise Reduction is required for good stereo separation and audio fidelity. **dbx**[®] is a registered trademark, and is licensed by **dbx**[®] Technology Licensing.

Push DISPLAY to display the broadcast signal currently being received on-screen.

STOP

SAP MONO

STOP

MONO

STOP

MONO

STOP

(SAP) MONO

STEREO

STEREO)

STEREO +

STEREO

12:00AM

12:00AM

12:00AM

12:00AM

WNET

SLP

WNET 0:00:00 SLP

WNET 0:00:00 SLP

WNET 0:00:00

SLF

0.00.00

MTS Stereo and SAP broadcast

Multi-channel Television Sound Stereo (main language) and Second Audio Program (second language) broadcasts are being received simultaneously. Select the STEREO or SAP audio mode as desired.

<u>MTS Stereo broadcast</u>

Multi-channel Television Sound Stereo broadcast is being received.

SAP broadcast

Second Audio Program (second language) broadcast is being received. Select SAP audio mode for the second language.

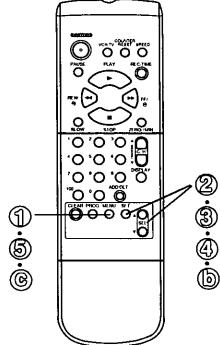
MONO broadcast

Normal monaural sound broadcast is being received.

- If a stereo broadcast is weak and the display flickers, you may want to select the MONO audio mode for better results.
- When recording, the currently selected broadcast sound is always recorded on the left and right Hi-Fi tracks as well as the normal monaural track. This means your tapes can be played back on Hi-Fi as well as non-Hi-Fi VCRs.

With the proper audio mode setting, your VCR can:

- 1) record and playback an MTS stereo broadcast (main language) in stereo Hi-Fi.
- record and playback a monaural broadcast (main language) or Second Audio Program (second language) on the Hi-Fi tracks for better quality monaural sound.
- playback non Hi-Fi tapes in monaural.



When purchasing or renting prerecorded

tapes, remember that

only those recorded in

Hi-Fi stereo will play

back with true stereo

sound. Standard stereo

tapes will play back with monaural sound.

0

OTE

This is normal.

Selecting the Audio Mode for Recording

Select the type of broadcast and sound track you wish to record.

- Push MENU to display MENU the menu. ----- MENU -----SET UP VCR SET CLOUR SET UP CHANNEL 1DTOMA/LANGUE:ENGLISH Push SELECT UP/ SET PUSH SELECT A/ PUSH SET KEY PUSH MENU KEY SELECT DOWN and SET to END select SET UP VCR. Push SELECT UP/ SET UP VCR ----SET DOWN and SET to REPEAT PLAY ÷ ON SEL select SET AUDIO AUDIO MODE MODE. PUSH SELECT A PUSH SET KEY PUSH MENU KEY SELECT SET Push SELECT UP/DOWN --- SET AUDIO MODE -to select AUDIO MODE, and AUDIO MODE : STEREO PLAY AUDIO : HIFI then push SET to select the desired audio mode PUSH SELECT A/ PUSH SET KEY PUSH MENU KEY SELECT (STEREO/SAP/MONO). SET Please refer to "Receivable Broadcast Types" section on previous page. Push MENU three times MENU õ to exit this mode. Do a recording. (ຄີ See the "Record On a Tape" section on page 14. Selecting the Audio Mode for Playback Select the type of sound track you desire for playback. Do steps 1, 2, and 3 above. C Push SELECT UP/DOWN -- SET AUDIO MODE ----0 to select PLAY AUDIO, AUDIO MODE : STEREO PLAY AUDIO : HIFI and then push SET to select the desired audio SELECT SET END PUSH SELECT A/ PUSH SET KEY PUSH MENU KEY mode (HIFI/NORMAL). ÷ SET · Please select HIFI to listen to your stereo recordings with stereo sound or MONO for monaural sound. Push MENU three times MENU C to exit this mode.
- between Hi-Fi and normal audio playback.
 If you select "HIFI", the Hi-Fi indicator lights in the Display Panel.

There may be a difference in audio level

In order to listen to Hi-Fi stereo playback,

connected to a stereo TV or stereo amp

the VCR AUDIO (L/R) jacks must be

and speakers. (See previous page.)When adjusting the tracking during

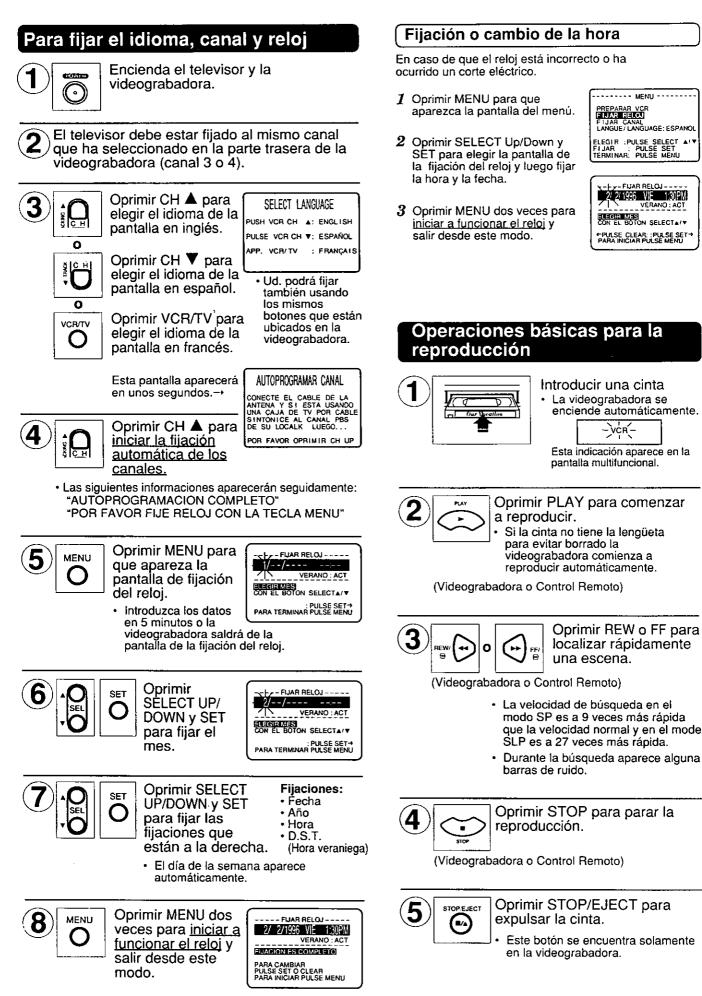
playback, the Hi-Fi audio sound may

revert to normal audio sound.

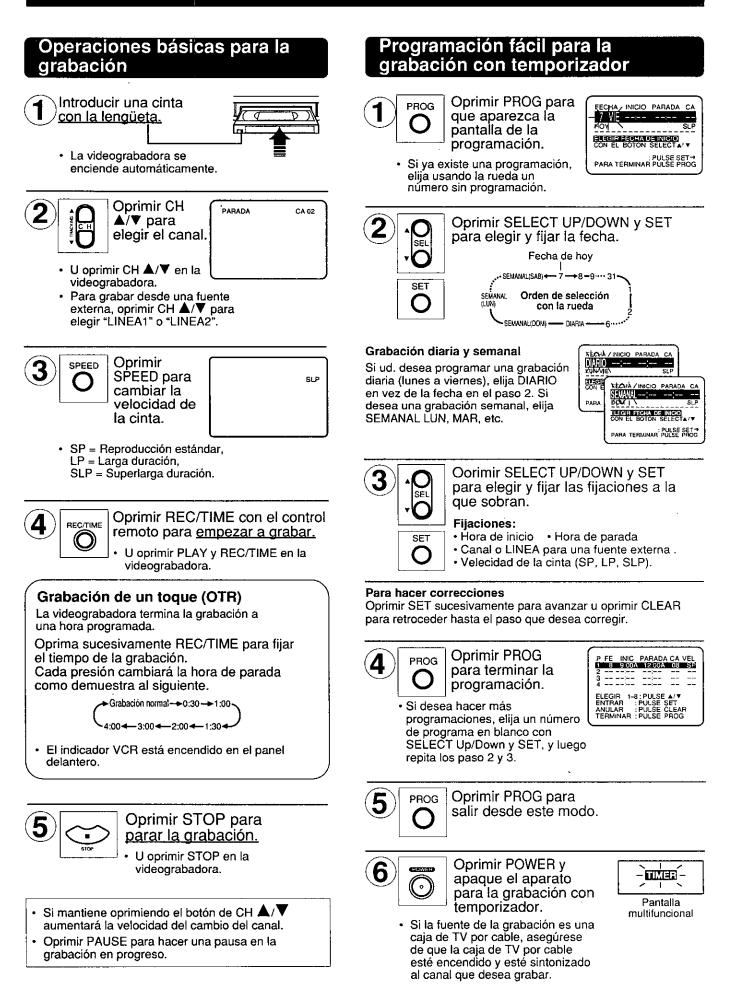
Playback the tape. See the "Playback a Tape" section on page 13. **Before Requesting Service**

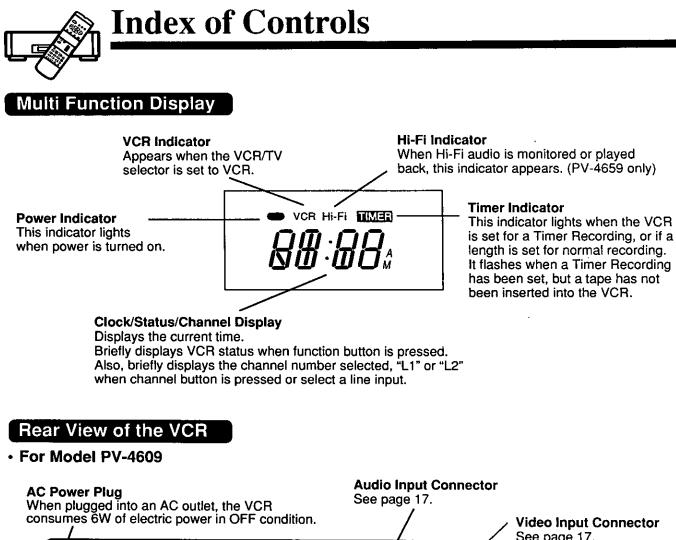
Check the following points once again if you are having some trouble with your VCR.

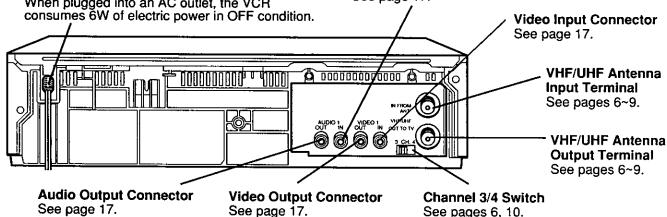
Power	Correction
No power	 Check that the Power Plug is completely inserted to an AC outlet. Check that the POWER button is set to on.
Recording & Playback	Correction
TV program can't be recorded	 Check the connections between the VCR, the external antenna, and your TV. Check that the band selected matches your antenna or cable TV system. (P.11) Make sure that the record tab on the back of the cassette is still intact. (P.5)
Timer recording can't be performed	 Set the recording start/stop times correctly. (P.18) Make sure that the POWER button is set to off. (P.18) Timer recording may not be performed or continued if a power interruption of more than 1 minute 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	 Select the same channel on your TV as that of the Channel 3/4 switch located on the rear panel of the VCR. (P.6) Set the VCR/TV selector to "VCR". (P.13) Check that channel 3 or 4 of the TV is properly adjusted. Adjust the TRACKING control slowly in either direction. (P.13)
During special effects playback, the picture may contain some vertical jitter when using a TV which has an Automatic Vertical Hold Control	 Set the TV's Vertical Hold Control to "MANUAL" and then adjust it.
If the top of your playback picture waves back and forth excessively	• Because the VCR playback signal is not as stable as an off-the-air TV signal, the top of your TV screen may be bent or unstable during playback. To solve this problem, slowly turn the horizontal hold control on your TV to correct the wavy picture. If your TV does not have a horizontal hold control or adjusting the control does not help, please contact your local TV service center.
VCR can't be controlled	Make sure that VCR LOCK is set to off. (P. 21)
Remote Control	Correction
VCR can't be remote controlled	 Aim the Remote Control directly at the remote sensor on the VCR. (Refer to Back Cover.) Avoid all obstacles which may interfere with the signal path. Inspect or replace the batteries (P.4). Make sure that VCR LOCK is set to off. (P. 21) Exposing the VCR remote sensor to direct fluorescent or outdoor light may cause signal interference.
Miscellaneous	Correction
You can't view programs normally on TV	Set the VCR/TV selector to "TV". (P.15)
Video cassette can't be inserted	 Insert the cassette with the window side up and the record tab facing you.
Video cassette can't be removed	Check that the power plug is completely connected to an AC outlet.
Video cassette ejects when the REC and PLAY buttons are pushed or when the POWER button is pushed off to set the Timer	 Make sure the record tab on the back of the cassette is still intact. (P.5)
In the stop mode, the motor (CYLINDER) continues to rotate	 To enable the quick play mechanism, the cylinder will rotate for about 5 minutes. The quick play mechanism reduces response time from stop to PLAY mode from PLAY to REWIND search mode.
VCR can't be controlled	Make sure that VCR LOCK is set to off. (P. 21)



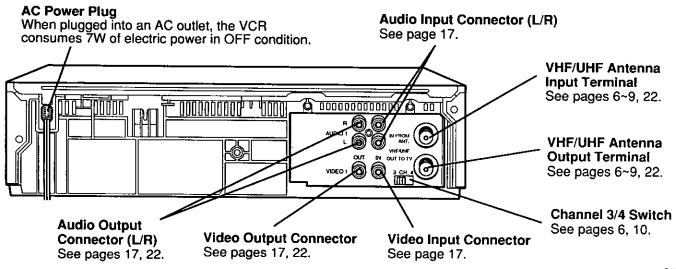
Spanish Quick Use Guide/Guía para rápida consulta



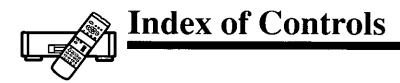




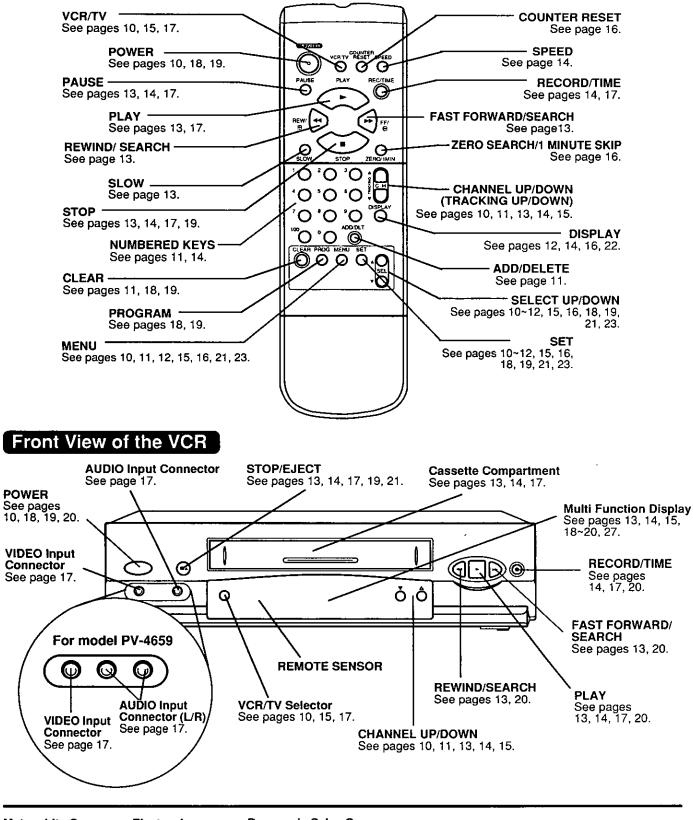
For Model PV-4659



Other Information



Remote Control Button



Matsushita Consumer Electronics Company, Division of Matsushita Electric Corporation of America One Panasonic Way Secaucus, New Jersey 07094 Panasonic Sales Company, Division of Matsushita Electric of Puerto Rico, Inc. ("PSC") Ave. 65 de Infanteria. Km. 9.5 San Gabriel Industrial Park, Carolina, Puerto Rico 00985

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