

Video Cassette Recorder Operating Instruction MODEL PV-9400/PV-9450

TENTATIVE

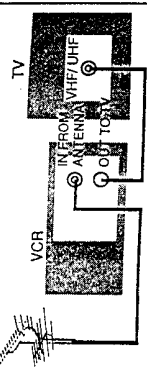
Please read these instructions carefully before attempting to connect, operate or adjust this product. Please save this manual.

Spanish Quick Use Guide is included. (Guía para rápida consulta en español está incluida.)

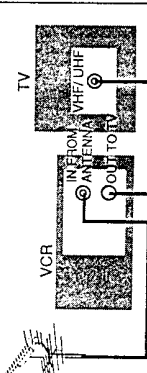
Quick Use Guide ins on the back cover.

EXHIBIT # 6
FIG NO.
FCC ID: A51927 L24H
MODEL NO. PV-9450
OUR REF. MKS 88-E016

Record on a tape

- 1 Make all connections (page 4).

- 2 Set VCR Channel on VCR Rear Panel.
Slide the VCR Channel selector switch to the channel number not used by local broadcast companies (CH3 or 4).
Back of Model PV-9450 VCR only
Tune your TV to the channel selected above (3 or 4) whenever you want to see the picture from the VCR on your TV screen.
- 3 Do "One Time Setup" on page 6.
In order for the VCR to properly interface with your equipment, some setup is necessary.
- 4 Record on a Tape.
Insert a tape with Record Tab
Press CH Up/Down. (Select Channel)
Press SPEED. (Select speed)
Press REC. (Start Recording)

Play back a tape

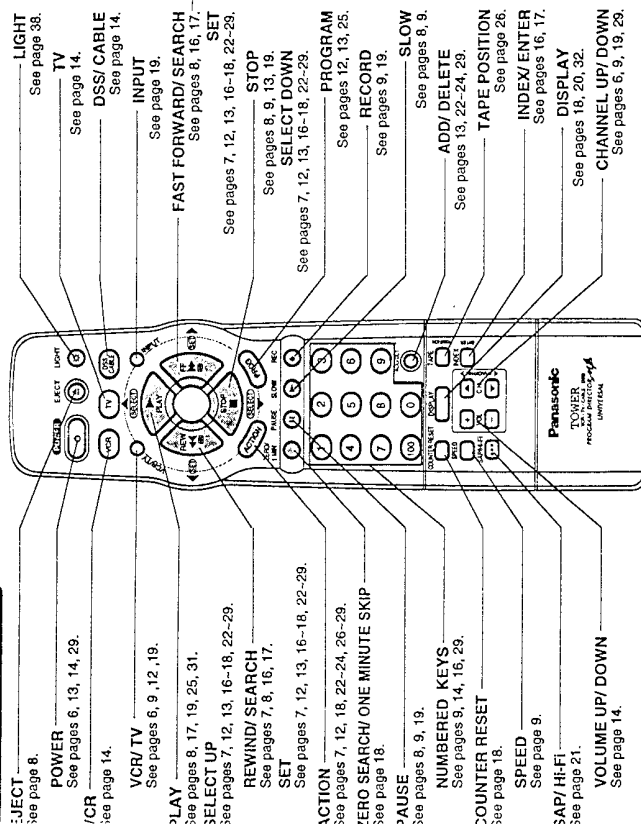
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Tune your TV to the channel selected above (3 or 4) whenever you want to see the picture from the VCR on your TV screen.
- 3 Play your Tape.
Insert a tape
Press PLAY (Start playback)

Panasonic Consumer Electronics Company, Division of Matsushita Electric Corporation of America
One Panasonic Way Secaucus, New Jersey 07094
Printed in Japan
VQTSS514 (A)

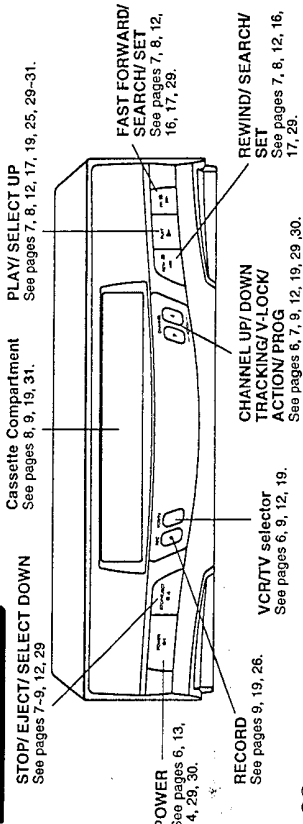
Panasonic Sales Company, Division of Matsushita Electric of America, Inc. (PSC)
Ave. 65 de Indiferencia, Km. 9.5
San Gabriel Industrial Park, Carolina, Puerto Rico 00985

P

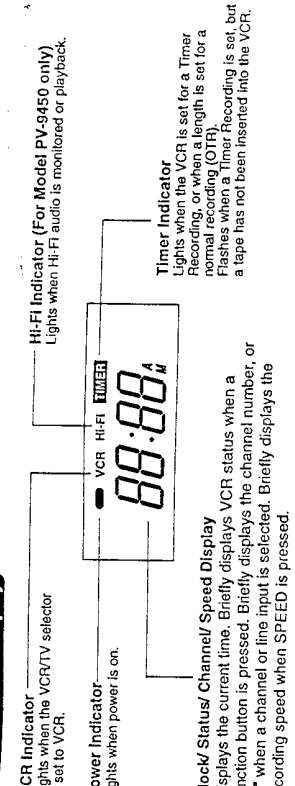
Remote control Buttons



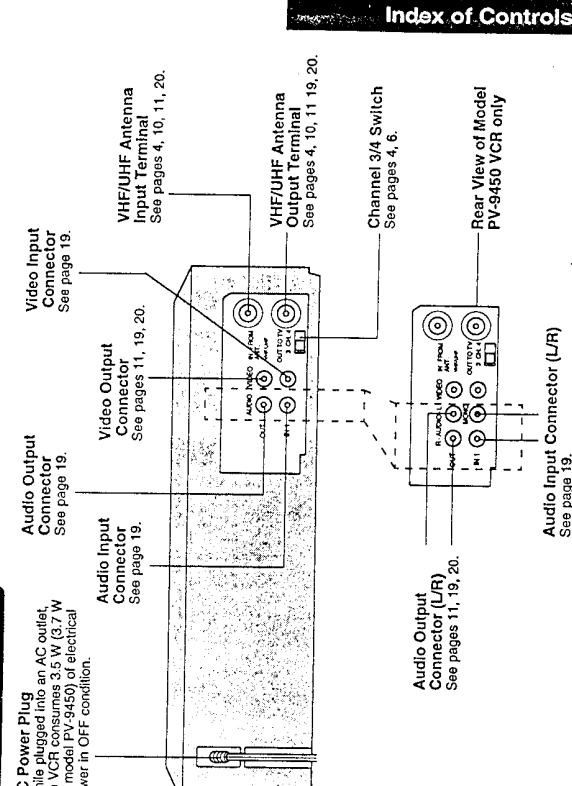
Front View of the VCR



Multi Function Display



Rear View of the VCR



For Product Information, Operating Assistance, Literature Request, Dealer Locations, and all Customer Service Inquiries please contact:
1-800-211-PANA (7262), Monday-Friday 9am-9pm Saturday-Sunday 9am-7pm, EST.

Web Site: <http://www.panasonic.com>
You can purchase parts, accessories or locate your nearest servicenter by visiting our Web Site.

Accessory Purchases:

Customer Orders Only 800-332-5368 (Customer Orders Only)
Panasonic Services Company 20421 84th Avenue South, Kent, WA 98032
(6 am to 5 pm Monday - Friday; 6 am to 10:30 am Saturday; PST)
(Visa, MasterCard, Discover Card, American Express, Check)

Factory Servicenters Locations

CALIFORNIA 6550 Katella Avenue Cypress, CA 90630	GEORGIA 8655 Roswell Road Suite 100 Atlanta, GA 30350	MICHIGAN 37048 Van Dyke Avenue Sterling Heights, MI 48312	TENNESSEE 3800 Ezell Road Suite 806 Nashville, TN 37203
800 Dubuque Avenue S. San Francisco, CA 94080	ILLINOIS 9060 Golf Road Niles, IL 60714	MINNESOTA 7850-12th Avenue South Airport Business Center Bloomington, MN 55425	TEXAS 7482 Harwin Drive Houston, TX 77036
20201 Sherman Way Suite 102 Canoga Park, CA 91306	1703 North Randall Road Elgin, IL 60123 (Pick-up / Drop-off only)	OHIO 2236 Waycross Road Civic Center Plaza Forest Park, OH 45240	13615 Welch Road Suite 101 Farmers Branch, TX 75244
3878 Ruffin Road Suite A San Diego, CA 92123	MARYLAND 62 Mountain Road Glen Burnie, MD 21061	PENNSYLVANIA 2221 Cabot Blvd. West Suite B Langhorne, PA 19047	WASHINGTON 20425-84th Avenue South Kent, WA 98032
COLORADO 1640 South Abilene Street Suite D Aurora, CO 80012	MASSACHUSETTS 60 Glacier Drive Suite G Westwood, MA 02090	HAWAII 99-859 Iwaiwa Street Aiea, Hawaii 96701 Phone (808)488-1996 Fax (808)486-4369	
FLORIDA 3700 North 29th Avenue Suite 102 Hollywood, FL 33020			

Service in Puerto Rico

Matsushita Electric of Puerto Rico, Inc. Panasonic Sales Company/ Factory Servicenter:
Ave. 65 de Infanteria, Km. 9.5, San Gabriel Industrial Park, Carolina, Puerto Rico 00985
Phone (787)750-4300 Fax (787)768-2910

As of April '98

For assistance, call 1-800-211-PANA(7262).

Panasonic 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.
 AVE. 65 de Infanteria, Km. 9.5
 San Gabriel Industrial Park
 Carolina, Puerto Rico 00985

PANASONIC Video Products Limited Warranty

Panasonic Consumer Electronics Company or Panasonic Sales Company (collectively referred to as "the Warrantor") will repair this product with new or refurbished parts, free of charge, in the USA or Puerto Rico, in the event of a defect in materials or workmanship as follows (all time periods commence from the date of the original purchase):

PRODUCT	PARTS	EXCEPT CCD IMAGE SENSOR	LABOR
CAMCORDER	ONE (1) YEAR	CCD IMAGE SENSOR - SIX (6) MONTHS	NINETY (90) DAYS
VCR	ONE (1) YEAR		NINETY (90) DAYS
AV MIXER	ONE (1) YEAR		NINETY (90) DAYS
MONITOR-VCR	ONE (1) YEAR EXCEPT CRT		NINETY (90) DAYS
	CRT - TWO (2) YEARS		PAYS ALL LABOR CHARGES AFTER 90 DAYS

Monitor-VCR In-home or carry-in Service: 22" (diagonal) CRT / LCD and Larger
Monitor-VCR Carry-in Service: 21" (diagonal) CRT / LCD and smaller

Batteries: (If included) - New rechargeable batteries in exchange for defective rechargeable batteries for ten (10) days.
 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.

In-home, carry-in or mail-in service, as applicable, in the USA can be obtained during the warranty period by contacting a Panasonic Service Center (PASC) Factory Servicenter listed in the Service Directory. Or call toll free 1-800-211-PANA (7262), to locate an authorized PASC Servicenter. Carry-in or mail-in service in Puerto Rico can be obtained during the warranty period by calling the Panasonic Sales Company telephone number listed in the Servicenter Directory.

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

This warranty only covers failures due to defects in materials and workmanship which occur during normal use and does not cover normal maintenance, including, but not limited to, video and audio head cleaning. The warranty does not cover damage which occurs in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, modification, faulty installation, set-up adjustments, improper antenna, inadequate signal pickup, inadequate ventilation, use of non-approved power sources, power line surges, or use of non-approved accessories. The warranty does not cover damage caused by the use of the product for purposes other than those intended by the manufacturer, or damage that is attributable to acts of God.

LIMITS AND EXCLUSIONS

There are no express warranties except as listed above.

THE WARRANTOR SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGE TO TAPES) RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THE WARRANTY. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE. Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

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

If a problem with this product develops during or after the warranty period, you may contact your dealer or Servicenter. If the problem is not handled to your satisfaction, then write to the Customer Satisfaction Center at the Panasonic Consumer Electronics Company address above.

SERVICE CALLS WHICH DO NOT INVOLVE DEFECTIVE MATERIALS OR WORKMANSHIP AS DETERMINED BY THE WARRANTOR, IN ITS SOLE DISCRETION, ARE NOT COVERED. COSTS OF SUCH SERVICE CALLS ARE THE RESPONSIBILITY OF THE PURCHASER.

WPM 10/2097

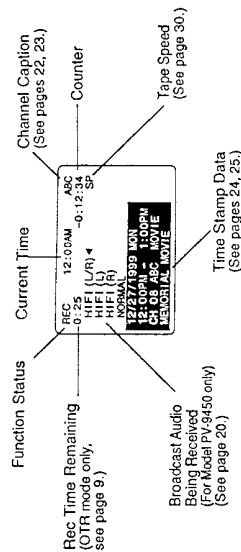
08
ABC

When a function button is pressed, e.g. PLAY, or you change channels, a 4 second display appears first in large and then small characters. (Some Station names may also appear.)

VCR Status & Clock Display

To display or remove the overlay.

Press DISPLAY.



Warning and Instruction Displays

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

OSD	Caution	Pg	OSD	Caution	Pg
NO CH FOUND PLEASE CHECK ANTENNA CABLE CONNECTION THEN PUSH VCR CH UP KEY AGAIN	If no active channels are found for CHANNEL MEMORY...	6	TO CANCEL TIMER REC PUSH POWER THEN STOP KEY	If you press POWER or STOP during a Timer Recording... (visible in VCR mode only)	13
PLEASE SET CLOCK BEFORE PROGRAMMING	If you attempt to set or review a Timer Recording and the Clock is not set...	6	VIDEO HEADS MAY NEED CLEANING PLEASE INSERT HEAD CLEANING CASSETTE ON REFER TO MANUAL END: PLAY KEY	If head cleaning becomes necessary while playing back a tape...	31
TURN VCR OFF FOR TIMER RECORDING	After a Timer Program has been set...	13	VCR LOCK ACTIVATED	If you press a function button other than STOP/ EJECT or POWER while the VCR is in VCR Lock mode...	20
CHECK CASSETTE RECORD TAB	If you press REC on the remote control or VCR, and a cassette is inserted with no record tab...	30	REMOTE CONTROL IS SET TO CABLE/DSS MODE USE VCR : VCR KEY USE TV : TV KEY	If you press POWER, ACTION, or PROG on the remote while in CABLE/DSS mode...	14 15
NO CASSETTE PLEASE INSERT A CASSETTE	If you press PLAY, FF, REW, or REC on the remote control or VCR without a cassette inserted...	8 9	REMOTE CONTROL IS SET TO TV MODE USE VCR : VCR KEY USE CABLE/DSS : CABLE/DSS	If you press POWER, ACTION, or PROG on the remote while in TV mode...	14 15

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For assistance, call 1-800-211-PANA(7262).

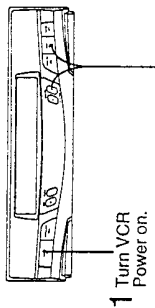
Check the following points once again if you are having trouble with your VCR:

Power	Correction
No power...	- Completely insert Power Plug into an AC outlet. - Set POWER button to ON. - Make sure power source is active.
Recording & Playback	Correction
TV program cannot be recorded...	- Check connections between VCR, external antenna, and TV. - Check hook up selection. (P.4-5) - Make sure antenna system (CABLE or TV) is correctly set (Channel #28) - Make sure cassette record tab is intact. (P.30)
Timer recording cannot be performed...	- Check clock is set to current time and date. - Make sure Cable/DSS box (if used) is left on and tuned to channel to be recorded. - Set recording start/stop times correctly. (P.12) - Make sure POWER button is set to OFF. (P.13) - Timer recording may not be performed or continued if a power input of more than 1 minute occurs before or during, a Timer Recording, even after power is restored.
There is no playback picture, or the playback picture is noisy or contains streaks...	- Select channel 3 or 4 on TV to MATCH Channel 3/4 switch on rear panel of VCR (P.4) or select LINE. - Set VCR/TV selector to "VCR." - Adjust TRACKING control in either direction. (P.31) - TV Head Cleaning. (P.31) - Set TV's Vertical Hold Control to "MANUAL" then adjust.
Special effects playback, picture may contain some vertical jitter when using a TV with an Automatic Vertical Hold Control...	
VCR cannot be controlled...	- Make sure VCR LOCK is set to off. (P.26) - Make sure remote is in proper mode. - Make sure unit is not in a Timer Record operation.
Remote Control	Correction
VCR cannot be remote controlled...	- Aim Remote Control directly at remote sensor on VCR. (P.39) - Avoid any object blocking signal path. - Inspect remote batteries. (P.4) - Make sure VCR LOCK is set to off. (P.26) - Exposing VCR remote sensor to direct fluorescent or outdoor light may cause signal interference. - Press VCR button for VCR mode. (P.14) - Check Batteries.
ACTION and PROG buttons cannot be used...	
Miscellaneous	Correction
Programs cannot be viewed on TV...	- Set VCR/TV selector to "TV." (P.9) - Make sure proper signal source is selected.
Video cassette cannot be inserted...	- Insert the cassette with window side up; record tab facing you. - Insure no other tape is inside unit.
Video cassette cannot be removed...	- Completely insert Power Plug into AC outlet. - Make sure cassette rec tab is intact. (P.30)
Video cassette ejects when a recording is started or the power is turned off for timer recording...	To enable Quick Play mechanism, the cylinder will rotate for about 5 minutes. This reduces response time from Stop to Play mode and from Play to Rewind Search mode.
In Stop mode, the motor (CYLINDER) continues to rotate...	Because VCR playback signal is not as stable as off-the-air TV signal, top of TV screen may be bent or unstable during playback. Slowly turn TV horizontal Hold control to correct. If your TV has no horizontal Hold control or adjusting control is ineffective, contact your nearest TV service center.
The top of the playback picture waves back and forth excessively...	

If you cannot resolve the problem, please call the Customer Satisfaction Center for product assistance at 201-348-9090.
To locate an authorized service center, please call toll free 1-800-211-PANA (7262).

Use when moving VCR to 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.

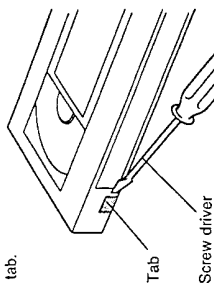


1 Turn VCR Power on.

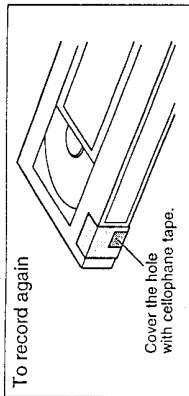
- 2 Press and hold both **PLAY** and **CHANNEL ▲** on the VCR for more than 5 seconds.
- The power will shut off.

3 Do "One Time VCR Setup" steps on page 6.

Break off the tab.



Tab
Screw driver



To record again

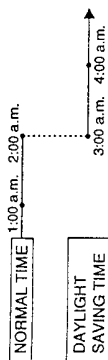
Cover the hole with cellophane tape.

DST (Daylight Saving Time)

VCR auto adjusts clock for DST. (Page 7.)

Spring (First Sunday In April)

DST-ON --> sets clock ahead one hour.



Autumn (Last Sunday In October)

DST-ON --> Turns clock back one hour.



- If your area does not observe Daylight Saving Time, select DST-OFF.

- Keep these time changes in mind when programming the VCR for timer recordings.

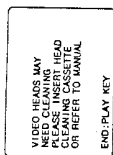
For assistance, call 1-800-211-PANA(7262).

Video Cleaning

Playing older or damaged tapes may eventually cause video heads to become clogged.

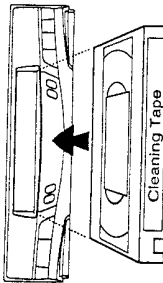
Video Head Clog Sensor

During playback this screen appears if clogging is detected. To remove screen, press **PLAY** on the remote or VCR.



VIDEO HEADS MAY NEED CLEANING. PLEASE INSERT HEAD AND PRESS PLAY ON REMOTE OR MANUAL END-PLAY KEY

- Use "dry" type head cleaning cassette only. (Part No. NV-TCL30PT is recommended.)



Cleaning Tape

- Follow cleaning tape instructions carefully. Excessive use of tape can shorten head life.
- If head clog symptoms persist, contact your nearest Factory Service Center or authorized Service Center. (See page 34)

Record/Playback Time

Only use tapes with the **VHS** mark in this unit.

Tape Speed Setting	Type of Video Cassette		
	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

Specifications

Power Source: 120V AC, 60 Hz
Power Consumption: Power On: Approx. 18 watts (PV-9400)
 Approx. 23 watts (PV-9450)
 Power Off: Approx. 3.5 watts (PV-9400)
 Approx. 3.7 watts (PV-9450)
Video Signal: EIA Standard NTSC color
Video Recording System: 4 rotary heads helical scanning system
Audio Track: 1 track (Normal)
 2 channel (Hi-Fi Audio Sound) (PV-9450)
Tuner: Broadcast Channels: VHF 2-13, UHF 14-69
 CABLE Channels: Midband A through J (14-22)
 Superband J through W (23-36)
 Hyperband AA-EEE (37-64)
 Lowband A-5-A-1 (65-99)
 Special CABLE channel 5A (01)
 Ultra band 65-94, 100-125
Operating Temperature: 41°F-104°F (5°C-40°C)
Operating Humidity: 10%-75%
Weight: 7.7 lbs. (3.5 kg) (PV-9450)
Dimensions: 14-15/16" (W) x 3-2/3" (H) x 12-3/16" (D)
 380 (W) x 93 (H) x 310 (D) mm

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

Features for a Quality Picture

Digital Auto Picture

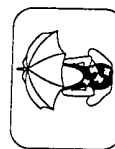
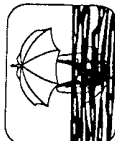
Automatically controls the video output signal for less noise depending on the tape condition.

Digital Auto Tracking

Continuously analyzes the signal and adjusts for optimum picture quality.

Manual Tracking Control (to reduce picture noise)

Use during Playback and Slow Motion mode to reduce picture noise. To return to Auto Tracking, press **POWER** off, then on again.



V-Lock Control (to reduce picture jitter)
 In Still mode, CH (TRACKING) **▲▼** operate as a V-Lock control.

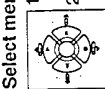
1

Display menu.
Press ACTION.*



2

Select menu item.



SET UP VCR
SET UP FEATURE
SET CLOCK
SET UP CHANNEL
ID/OM/LANGUAGE: ENGLISH
SELECT: $\blacktriangle$ $\blacktriangledown$ KEY
SET : $\blacktriangleright$ KEY
END : ACTION KEY

3

Language

- 1) Press $\blacktriangle$ to highlight language item.

SET UP VCR
SET UP FEATURE
SET CLOCK
SET UP CHANNEL
ID/OM/LANGUAGE: ENGLISH
SELECT: $\blacktriangle$ $\blacktriangledown$ KEY
SET : $\blacktriangleright$ KEY
END : ACTION KEY

- 2) Press $\blacktriangleright$ repeatedly.

SET UP VCR
SET UP FEATURE
SET CLOCK
SET UP CHANNEL
ID/OM/LANGUAGE: ENGLISH
SELECT: $\blacktriangle$ $\blacktriangledown$ KEY
SET : $\blacktriangleright$ KEY
END : ACTION KEY

For English

PREPARAR VCR
PREPARAR FUNCIÓNES
PREPARAR RELÓJ
PREPARAR CANAL
PREPARAR IDIOMA
PREPARAR LENGUAJE: ESPAÑOL
SELECCIONAR: $\blacktriangle$ $\blacktriangledown$ CLAVE
ESTABLECER: $\blacktriangleright$ CLAVE
TERMINAR: ACCIÓN

For Spanish

REGLAGE MAGNETOSCOPE
REGLAGE MAGNETO SUPPLEM
REGLAGE HORLOGE
REGLAGE CANAL
REGLAGE IDIOME
REGLAGE LANGUE: FRANÇAIS
SÉLECTIONNER: $\blacktriangle$ $\blacktriangledown$ CLAVIER
ÉTABLIR: $\blacktriangleright$ CLAVIER
FIN : ACTION

For French

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Clock

- 1) Press $\blacktriangle$ to select SET CLOCK.

SET UP VCR
SET UP FEATURE
SET CLOCK
SET UP CHANNEL
ID/OM/LANGUAGE: ENGLISH
SELECT: $\blacktriangle$ $\blacktriangledown$ KEY
SET : $\blacktriangleright$ KEY
END : ACTION KEY

- 2) Press $\blacktriangleright$.

SET CLOCK
AUTO CLOCK SET
MANUAL
TIME ZONE ADJUST : 0
SELECT: $\blacktriangle$ $\blacktriangledown$ KEY
SET : $\blacktriangleright$ KEY
END : ACTION KEY

- 3) Press $\blacktriangle$ to select MANUAL and press $\blacktriangleright$.
• For Auto Clock Set, select "AUTO CLOCK SET," then press CH $\blacktriangle$.

SET CLOCK
AUTO CLOCK SET
MANUAL
TIME ZONE ADJUST : 0
SELECT: $\blacktriangle$ $\blacktriangledown$ KEY
SET : $\blacktriangleright$ KEY
END : ACTION KEY

- 4) Press $\blacktriangle$ and $\blacktriangleleft$ to select and set the date, time, and DST (Daylight Saving Time).

- 5) Press ACTION twice to start the clock and exit this mode.

- 5) Press CH $\blacktriangle$.
• Clock Auto Set will be performed when channels are replaced in memory.

For assistance, call 1-800-211-PANA(7262).

Add or Delete a Channel

To add channel:
Select channel with CH $\blacktriangle$ / $\blacktriangledown$ keys and press ADD/DLT.

CHANNEL 06 ADDED

CHANNEL 06 DELETED

Clock (Time Zone Adjust)

- 1) Press $\blacktriangle$ to select SET CLOCK.

SET UP VCR
SET UP FEATURE
SET CLOCK
SET UP CHANNEL
ID/OM/LANGUAGE: ENGLISH
SELECT: $\blacktriangle$ $\blacktriangledown$ KEY
SET : $\blacktriangleright$ KEY
END : ACTION KEY

- 2) Press $\blacktriangleright$.

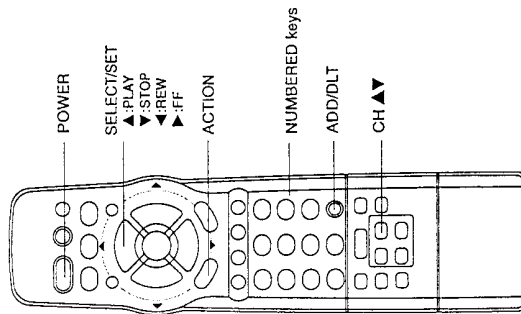
SET CLOCK
AUTO CLOCK SET
MANUAL
TIME ZONE ADJUST : 0
SELECT: $\blacktriangle$ $\blacktriangledown$ KEY
SET : $\blacktriangleright$ KEY
END : ACTION KEY

- 3) Press $\blacktriangle$ to select TIME ZONE ADJUST and press $\blacktriangleleft$ or $\blacktriangleright$ repeatedly to adjust.

SET CLOCK
AUTO CLOCK SET
MANUAL
TIME ZONE ADJUST : 0
SELECT: $\blacktriangle$ $\blacktriangledown$ KEY
SET : $\blacktriangleright$ KEY
END : ACTION KEY

- 4) Press ACTION twice.
5) Press POWER off to perform AUTO CLOCK SET.

- The numerical value set here is returned to "0" if clock is set manually.



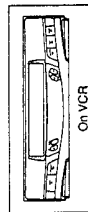
Model PV-9450 remote is shown here.

Using $\blacktriangle$ / $\blacktriangledown$ keys

You can also operate the menu screen using VCR buttons. If you use VCR buttons, press CH $\blacktriangle$ and CH $\blacktriangledown$ together to display the menu screen.



On Remote



On VCR

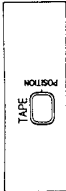
When menu screens are displayed, PLAY, STOP, REWIND, and FF buttons function as $\blacktriangle$ / $\blacktriangledown$ only.

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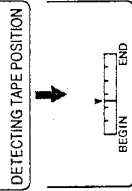
Tape Position Display Feature

To find out the present tape position.
Tape position cannot be found for C-Cassette type.

1 Display TAPE SELECT.
Press TAPE POSITION.



- It takes several seconds for correct indication to appear.
- Indication is standard.



2 Return to normal screen.
Press TAPE POSITION.



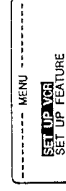
Remote Warning ON/OFF Feature

If Multi-brand feature is used (page 14), and this feature is set to on, a warning appears whenever an invalid key is pressed in TV, DSS, or Cable mode.

a Display menu.
Press ACTION.*

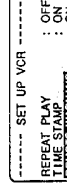


b Display SET UP VCR.



- 1) Press Δ to select.
- 2) Press $\triangleright$ to display.

c Set ON or OFF.



- 1) Press Δ to select.
- 2) Press $\triangleright$ to set.

* "OFF" --> remote warning will not appear even if invalid key is pressed.

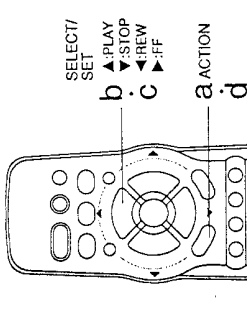
d Return to normal screen.
Press ACTION twice.



26

Check list before you begin.

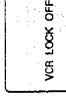
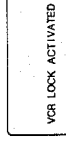
- ☐ All connections are made. (See pages 4-5.)
- ☐ VCR is plugged in.
- ☐ TV is turned on and set to the VCR channel (CH 3 or 4).



Model PV-9450
remote is shown here.

VCR Lock Feature

All operations are prohibited except timer recording and tape eject. Useful for families with small children.



- VCR Lock is canceled automatically after 24 hours if clock is set.

For assistance, call 1-800-211-PANA(7262).

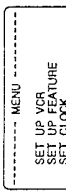
Weak Signal Display ON/OFF Feature

When "on" is selected, picture is displayed even when broadcast signal is weak or nonexistent.

1 Display menu.
Press ACTION.

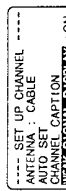


2 Display SET UP CHANNEL.



- 1) Press Δ to select.
- 2) Press $\triangleright$ to display.

3 Set ON or OFF.



- 1) Press Δ to select.
- 2) Press $\triangleright$ to set.

- ON --> Picture is displayed regardless of signal condition, and screen turns solid blue when signal is absent or weak.
- If VCR is connected to equipment which has blue back feature, selecting ON will have no effect on the other equipment.

4 Return to normal screen.
Press ACTION twice.

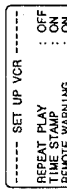


Auto Shut-Off Feature

When "ON" is selected, VCR shuts itself off when playback of a blank portion of tape continues or no signal is detected for over 5 minutes.

a Repeat step "a" and "b" on page 26 to display SET UP VCR.

b



- 1) Press Δ to select.
- 2) Press $\triangleright$ to set.

c



Return to normal screen.
Press ACTION twice.

27

Time Stamp Feature

The VCR writes program data (see example below) about the first 10 seconds of every recording. The information is then displayed the first 7 seconds of playback. To change the data, see "To Change Time Stamp Data" on page 25.

- Display menu.**
Press ACTION.
- Display SET UP VCR.**
1) Press Δ to select.
2) Press $\triangleright$ to display.
- Set ON or OFF.**
1) Press Δ to select.
2) Press $\triangleright$ to set.
• When "OFF" is selected, the program data is written on the tape, but will not be displayed.

Return to normal screen.
Press ACTION twice.

<Time Stamp Example>

One Touch Recording

12/27/1998 MON
12:00PM
CH 08 ABC
MEMORIAL MOVIE

Timer Recording

12/27/1998 MON
12:00PM
CH 08 ABC
MEMORIAL MOVIE

When Clock is not set.
---:--:--
CH 08 ABC

• If the tape speed is changed immediately after recording begins, the display may be incorrect.

Changing Time Stamp Data

You may change the Date, Time, Channel, Category, and Notes.

- Display Time Stamp Data.**
1) Insert cassette with record tab.
2) Press PLAY.
- Display TIME STAMP EDIT.**
Press PROG while the data is displayed.
- Change Time Stamp Data.**
1) Press Δ to select.
2) Press $\triangleright$ to enter and continue.
• Characters in NOTES will change in the following order.
A → B → C → ... → Z → BLANK → - → &
9 → 8 → ... → 2 → 1 → 0 → + → -
3) Repeat 1) and 2) as needed.
To make corrections, press Δ to move the incorrect entry, then press $\triangleright$ to make the correction.
- Write the new data.**
Press PROG.
• When data is written, VCR returns to Playback mode.

Model PV-9450 remote is shown here.

Channel Caption

When set, station name, e.g. ABC, CBS, and channel number appear on-screen. Set up to 24 preset captions, and/or 10 manually created captions.

□ You need a list of stations and the channel numbers you receive them on.

Preset Caption

1 Display menu.
Press ACTION.

2 Display SET UP CHANNEL.
1) Press Δ to select.
2) Press $\triangleright$ to display.



3 Display CHANNEL CAPTION.
1) Press Δ to select.
2) Press $\triangleright$ to display.



4 Display PRESET CAPTION.
1) Press Δ to select.
2) Press $\triangleright$ to display.

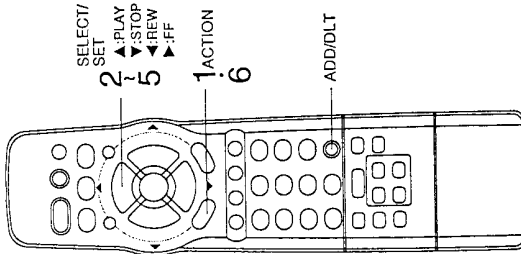


5 Assign preset captions.
1) Press Δ to highlight caption.
2) Press $\triangleright$ to move cursor to the right.
3) Press Δ to select CH number.
4) Press $\triangleleft$ to set.



To make corrections:
Press Δ and $\triangleright$ to select the channel number, then press Δ to change, or ADD/HLT to delete the number.

6 End setup.
Press ACTION four times.



Model PV-9450 remote is shown here.

Manual Caption

1 Do "Preset Caption" steps 1-3 on page 22.

2 Display MANUAL CAPTION.
1) Press Δ to select.
2) Press $\triangleright$ to display.



3 Select channel number.
1) Press Δ to select CH NUMBER.
2) Press $\triangleright$ to move cursor to the right.



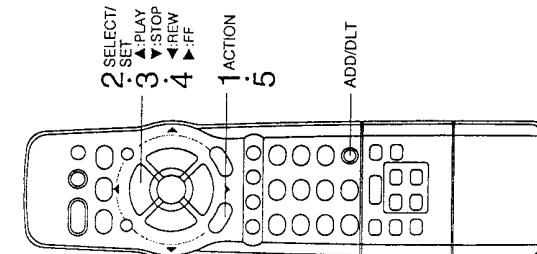
• Channels already set and channels deleted from Channel Memory are not displayed.
• You can set a total of ten channel captions.

4 Enter CAPTION.
1) Press Δ to select.
2) Press $\triangleright$ to enter.
• Characters change in following order:
A → B → C → ... → Z → BLANK → → & → 9 → ... → 2 → 1 → 0 → - → / →



To make corrections:
Press Δ and $\triangleright$ to select the channel number, then press Δ to change, or ADD/HLT to delete the number.

5 End input.
Press ACTION four times.



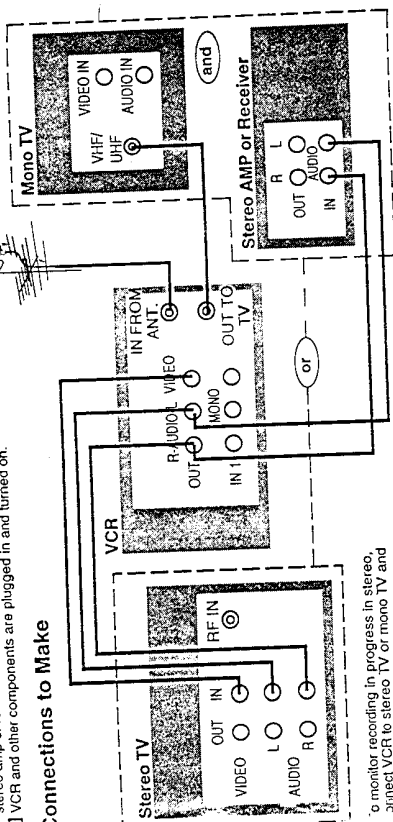
Model PV-9450 remote is shown here.

For assistance, call 1-800-211-PANA(7262).

For Model PV-9450 only

- ☒ Check list before you begin.
- ☐ VCR is connected to a stereo TV, or a mono TV and an external stereo amp or receiver with speakers.
- ☐ VCR and other components are plugged in and turned on.

Connections to Make



To monitor recording in progress in stereo, connect VCR to stereo TV or mono TV and stereo amp with speakers.

Receivable Broadcast Types

The following are possible audio broadcast types and on-screen displays. The signal being received is indicated with an "lg" mark while the selected audio mode is indicated with an arrow.

Display the broadcast signal being received. Press DISPLAY.



MTS Stereo and SAP broadcast

Multi-channel Television Sound Stereo (main language) and Secondary Audio Program (sub language) broadcasts are both being received simultaneously. Select STEREO or SAP audio mode.

MTS Stereo broadcast

Multi-channel Television Sound Stereo broadcast. Select STEREO audio mode. If stereo broadcasts are not displayed, select Hi-Fi audio mode for possibly better results.

SAP broadcast

Secondary Audio Program (sub language) broadcast. Select SAP audio mode for the sub language.

MONO broadcast

Normal monaural sound broadcast.

STOP	12:00AM	ABC	0:00:00	SP
STEREO	←			
SAP				
MONO				

STOP	12:00AM	ABC	0:00:00	SP
STEREO	←			
SAP				
MONO				

STOP	12:00AM	ABC	0:00:00	SP
STEREO	←			
SAP				
MONO				

Equipped with dbx™ TV Noise Reduction for true MTS reproduction. dbx™ TV Noise Reduction is required for good "dbx" separation and audio fidelity. dbx™ is a registered trademark, and is licensed by dbx™ Technology Licensing.

When set to proper audio mode VCR can:

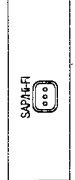
- 1) record/playback MTS stereo broadcasts (main language) in Hi-Fi stereo.
- 2) record/playback mono (main language) or SAP (sub language) broadcasts.
- 3) playback non Hi-Fi tapes in monaural.

- The selected broadcast sound is always recorded on left and right Hi-Fi track as well as the normal monaural track. This means tapes can be played back on Hi-Fi and non-Hi-Fi VCRs.

Audio Mode for Recording

1 Display audio mode.

Press SAP/Hi-Fi.

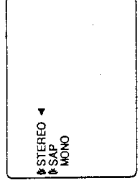


2 Select desired mode.

Press SAP/Hi-Fi repeatedly (each press within 5 seconds).



- The arrow indicates your selection.
- Refer to the "Receivable Broadcast Types" on page 20.



3 Do a recording.

See page 9.

Audio Mode for Playback

a Start playback.

See page 8.

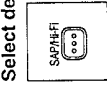
b Display audio mode.

Press SAP/Hi-Fi.

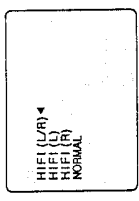


c Select desired mode.

Press SAP/Hi-Fi repeatedly (each press within 5 seconds).

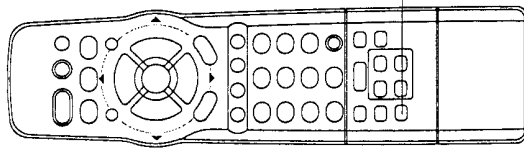


- Select "Hi-Fi(L/R)" or "Hi-Fi(L)" or "Hi-Fi(R)" to listen to stereo recordings in stereo sound. Select "NORMAL" for monaural sound.
- The arrow indicates your selection.



Notes

- Only tapes recorded in Hi-Fi stereo may be played in Hi-Fi stereo. Stereo tapes will play back in monaural sound.
- To listen to Hi-Fi stereo playback, the VCR AUDIO (L/R) jacks must be connected to a stereo TV or an external stereo amp and speakers. (See page 20.)
- If tracking is adjusted during playback, Hi-Fi audio may revert to normal audio.
- Hi-Fi and normal audio playback volume level may differ.



Repeat Play

Set to see a recording over and over.



Display menu.

Press ACTION.

Display SET UP VCR.

- 1) Press **▲** to select.
- 2) Press **▶** to display.



Set ON or OFF.

- 1) Press **▲** to select "REPEAT PLAY".
- 2) Press **▶** to set.



• Playback repeats when tape end is reached or unrecorded portion over 30 seconds is detected.

Return to normal screen.

Press ACTION twice.



Zero Search

To quickly return to specific tape counter location.

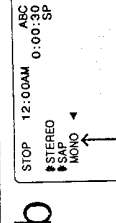
Display Counter.

Press DISPLAY during playback.



Reset to "0:00:00."

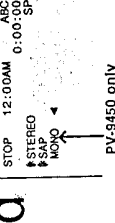
Press COUNTER RESET at the desired position.



Continue playback, rewind, or fast forward.

Return to "0:00:00."

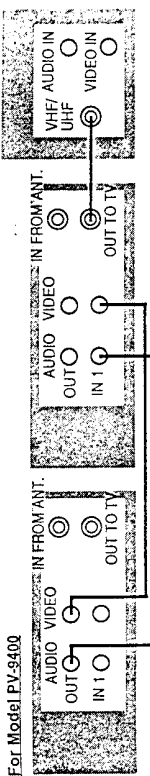
Press ZERO/1MIN.



18

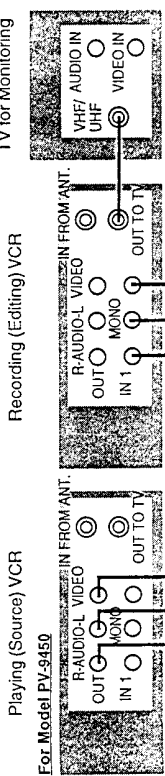
For assistance, call 1-800-211-PANA(7262).

For Model PV-9400



Playing (Source) VCR

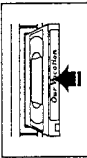
Recording (Editing) VCR



For Model PV-9450

Playing (Source) VCR

1 Insert pre-recorded tape.



Recording (Editing) VCR

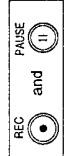
Insert blank tape with record tab.



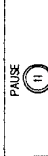
2 Select LINE mode. Press INPUT. (See "Selecting Input Mode" below.)



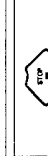
3 Put In Standby mode. Press PLAY, then PAUSE at starting point.



4 Start dubbing. Press PAUSE.



5 Stop dubbing. Press STOP.



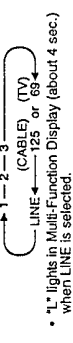
To Monitor Dubbing on Your TV

- 1 Turn your TV on and tune to the Recording VCR channel (CH3 or CH4).
- 2 Set the VCR/TV Selector on the Recording VCR to "VCR."

Note Dubbing tapes protected with Copy Guard will have poor quality results.

Selecting the Input Mode

- Method 1: Press INPUT. Channel Number <-> LINE
Method 2: Press CH. Display will change as below.



• "L" lights in Multi-Function Display (about 4 sec.) when LINE is selected.

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

19

VHS Index Search System

Each time recording is made, an invisible index mark is placed on the tape. When timer recordings are made, program index and information are also included. These index marks can be used to access or scan recordings.

Direct Access (For normal and/or timer recordings)

Go directly to desired recording.

- 1 **Display SELECT SEARCH MODE:**
Press INDEX.
• If there are no timer recordings on the Program Index List, go to step 3.

- 2 **Display INDEX:**
1) Press $\blacktriangle$ to select.
2) Press $\blacktriangleright$ to display.
• This screen appears only if there are timer recordings.

- 3 **Select the recording number:**
Press NUMBERED key.
• To calculate number, see below

- 4 **Start search.**
Press FF or REW.
• When search is finished, playback begins.

To calculate Index Number

Example 1:
If you are watching recording 4 and you want to watch recording 2, enter 3 in step "3" and press REW.



Example 2:
If you are watching recording 2 and you want to watch recording 6, enter 4 in step "3" and press FF.



NOTE: ↑ indicates start points of each recording.

For assistance, call 1-800-211-PANA(7262).

Index Scan (For normal and/or timer recordings)

Choose a timer recorded program from a Program Index List. When the tape is ejected or normal recording is started, all program index data are deleted.

- 1 **Display SELECT SEARCH MODE:**
Press INDEX.

- 2 **Display PROGRAM INDEX:**
1) Press $\blacktriangle$ to select.
2) Press $\blacktriangleright$ to display.

- 3 **Select the desired recorded program.**
1) Press $\blacktriangle$ to select.
2) Press $\blacktriangleright$ to start the forward or rewind search.
• When search is finished, playback begins.

Index Scan (For normal and/or timer recordings)

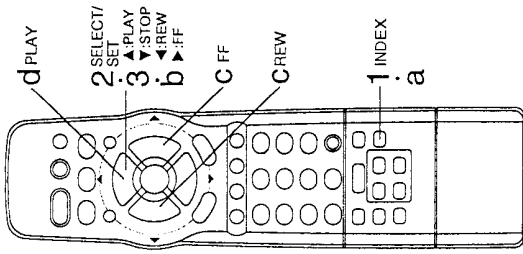
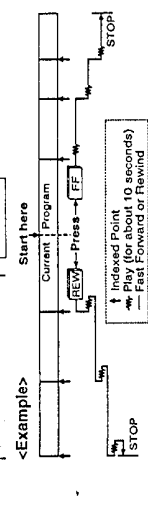
In Play mode, the first 10 seconds of each recording can be scanned (forward or reverse).

- a **Display SELECT SEARCH MODE:**
Press INDEX.
• If there are no timer recordings on the Program Index List, go to step c.

- b **Display INDEX:**
1) Press $\blacktriangle$ to select.
2) Press $\blacktriangleright$ to display.

- c **Start scan.**
Press FF or REW.

- d **Cancel scan, start playback.**
Press PLAY.
• To stop, press STOP.



Model PV-9450 remote is shown here.

Auto Operation Functions

- **Auto Playback**
Tape insert $\rightarrow$ Power turn on $\rightarrow$ Start playback if record tab (see page 30) is removed.
- **Auto Rewind**
Playback Manual Record $\rightarrow$ Tape end $\rightarrow$ Fast Forward $\rightarrow$ Rewind (Auto)
- **Playback Auto Eject**
(Repeat Play is "OFF")
Playback $\rightarrow$ Rewind $\rightarrow$ Tape eject (Without record tab)
- **Memory Rewind Off**
Rewind $\rightarrow$ Press POWER $\rightarrow$ Turn off after complete

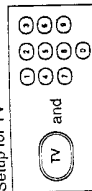
The Remote Control may be set up to control some TV or Cable/DSS Box functions.

Multi-Brand Control Setup

1 Find your TV, Cable or DSS Receiver Brand Code Number on following page.

Setup for TV

Hold down TV and enter code with NUMBERED keys.*



Setup for Cable or DSS

Hold down DSS/CABLE and enter code with NUMBERED keys.

* For code 100 or greater, press the DSS key first, then remaining digit. For 102 press 100, then press 0, and then press 2.

Confirm code entry.

Press POWER to turn selected unit ON or OFF.

* See table below for list of controllable functions in each mode.

- Please repeat Multi-Brand Control setup after replacing remote control batteries.
- The remote control will not operate all TVs, Cable Boxes, and DSS receivers made by manufacturers listed. If you get no results, your particular brand cannot be controlled.

Using the Multi-Brand Control

After remote control is setup, you can select VCR, TV, or DSS/CABLE for the desired function.

Press VCR or TV or DSS/CABLE on the remote control. This table shows which buttons are available for each mode.

Mode	Available Buttons	VCR	TV	DSS/CABLE
VCR	All Functions	VOL UP/DOWN		
TV	VCR/TV, PLAY, STOP, EJECT, SAPHI-FI (PV, 9450 only), DISPLAY, FF, REW, PAUSE, SLOW, REC/TIME, SPEED, ZERO/1MIN, COUNTER RESET	POWER, INPUT, NUMBERED keys, ENTER, CH UP/DOWN, VOL UP/DOWN		
DSS/CABLE	VCR/TV, PLAY, STOP, EJECT, SAPHI-FI (PV, 9450 only), DISPLAY, FF, REW, PAUSE, SLOW, REC/TIME, SPEED, ZERO/1MIN, COUNTER RESET	VOL UP/DOWN	POWER, ENTER, NUMBERED keys (except 100key), CH UP/DOWN	

Note In TV or DSS/CABLE mode, it may be necessary to press ENTER after pressing NUMBERED keys for channel selection.

TV Brand Code Numbers

Panasonic	01, 02	Sylvania	05	JVC	11
Quasar	01, 02	Sharp	06, 07	Hitachi	12
RCA	03	Sony	08	Mitsubishi	07, 13
GE	03	Toshiba	09	Samsung	14
Zenith	04	Sanyo	10	Gold Star	15, 16, 17
Magnavox	05	Fisher	10		

Cable Box Brand Code Numbers

Archer	01, 05, 06, 44, 63, 91, 126	Realistic/ Recoton	44, 51, 59, 75, 126
Cableview/ Citizen	04, 30, 42, 44, 52, 63, 124, 126	Rembran	01, 32, 39, 42, 44, 63, 126
Curtis/ Scientific Atlanta	08, 09, 53, 61, 87	Salora	05, 06, 32, 40, 42
Century	44, 51, 59, 75	Sanyo	05, 06, 32, 40, 42
Cabletenna/ Diamond/ Unika	01, 44, 63, 91, 126	Shenlech	06, 32, 40, 42, 43, 44, 52, 63, 126
Drake	13, 20, 22, 26, 40, 58, 62, 107	Standard Components	32, 39, 42, 44, 126
Eagle/ Viewstar	04, 30, 42, 44, 52, 63, 124, 126	Stargate	04, 06, 30, 42, 44, 52, 63, 124, 126
Eastlan/ Regency	28, 130	Sylvania	04, 06, 30, 42, 44, 52, 63, 124, 126
GC Brand	04, 30, 42, 44, 52, 63, 124, 126	Teknika	04, 124
Gemini	04, 124	Telecaption	77, 127
General Electric	01, 57	Televue	06, 32, 40, 42
General Instruments/ Jerrold	01, 02, 03, 04, 34, 55, 65, 67, 68, 83, 91, 115, 117, 118, 124	Texscan	01, 33, 34, 42, 66, 91
Hamlin/ Regal	14, 15, 28, 41, 102, 103, 104, 108, 130	Toshiba	42, 43, 44, 52, 63, 126
Hitachi	31	Uniden Satellite	65
Jasco	04, 124	Universal	07, 23, 50, 129
Macom	31	Videoway/ Zenith	07, 23, 50, 129
Magnavox/ Signal	26, 112	Vid Tech/ Vidler	64
Matsushita/ Panasonic/ RCA/ Spuicar	16, 17, 97, 109		
Movielime	32, 38, 39, 40, 42, 44, 126		
NSC/ NEC	32, 38, 40		
NOVA/ VISION	08, 09, 53, 61		
Oak/ Oak Sigma	11, 45, 129		
Philips	07, 13, 20, 23, 24, 50, 128, 129		
Pioneer/ Quest	05, 06		
Pulsar	04, 30, 42, 44, 52, 63, 124, 126		
Radio Shack	44, 51, 59, 75		

DSS Brand Code Number

Toshiba	92	Panasonic	96
Hitachi/ Hughes	93	RCA	97
Magnavox/ Uniden 1	94	Sony	98, 105
Magnavox/ Uniden 2	95		

Important Notes

- Please repeat Multi-Brand Control setup after replacing remote control batteries.
- Due to changes in infra-red commands used by manufacturers, some brands have several codes. If your unit does not respond to the first code, please try the next one.
- Some TV, Cable Box and DSS Box brands require you to turn on the power manually.
- Not all functions listed may be controlled by this remote control.

You can set up to 8 programs to be recorded while you are away.

1



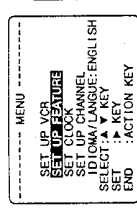
Display menu.
Press ACTION.



Display program screen.

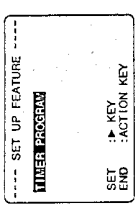
- 1) Press PROG.
 - 2) Go to step 4.
- If a program is already in memory, press **▲** and **▶** to select an unused program number.

2



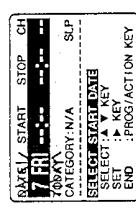
Display SET UP FEATURE.
1) Press **▲** to select.
2) Press **▶** to display.

3



Display TIMER PROGRAM.
1) Press **▶** to display.
• If a program is already in memory, press **▲** and **▶** to select an unused program number.

4



Set the recording DATE.
1) Press **▲** to select.
2) Press **▶** or **◀** to set.
• 1-31 = One time
• DAILY = MON-FRI
• WEEKLY = Same time once a week

Example: 8-9-31-1-2-6 Repeat step 3 to set start time, stop time, Channel (or LINE for outside source), Category*, tape speed (SP*, LP, SLP).

5



Make the notes.
• If not wanted, go to step 5.
1) Press **▲** to begin.
2) Press **▶** to select.
3) Press **▶** to set.
• Characters will change in the following order.
A → B → C → ... → Z → BLANK → ... → 0 → 1 → 2 → ... → 9 → ... → 2 → 1 → 0 → ... → 1 → 2 → ...

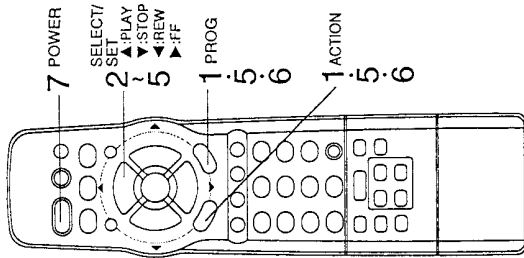
Continued on the next page.

Important notes when using a DSS receiver

- When recording programs via a DSS receiver, the DSS receiver must be left on.
- When recording programs via an antenna or cable, the DSS receiver must be turned off.

Check list before you begin.

- ☐ All connections are made.
- ☐ TV and VCR are plugged in and turned on.
- ☐ VCR/TV selector is set to "VCR".
- ☐ Clock is set to correct time.
- ☐ Record tab in place. (See page 30.)
- ☐ Remote in VCR mode.



Model PV-9450 remote is shown here.

*Category Items
N/A(not applicable), SPORTS,
MOVIE, COMEDY, MUSIC, DRAMA

Using **▲** and **▶** keys

You can also operate the menu screen using VCR buttons.

If you use VCR buttons, press CH **▲** and CH **▶** together to display the menu screen.

When menu screens are displayed, PLAY, STOP, REWIND, and FF buttons function as **▲**, **▶**, **◀**, and **▶** only.

To cancel Timer Recording (Recording is in progress)
Press POWER and then STOP within 10 seconds to cancel the timer recording. (The TIMER indicator goes out in the Multi Function Display.)

1) Press PROG (or ACTION).



To Enter More Programs
Press **▲** to select, and **▶** to display a blank program number. Then repeat steps 4 and 5.

2) Press PROG (or ACTION) again to exit.

Set the timer.



Press Power OFF.
• When recording programs, make sure the cable box is left ON and tuned to the desired channel.

Review, Replace or Clear Program Contents:
(Recording is not in progress)

a Repeat steps 1-3 on page 12.
• If necessary, press POWER ON.

Select program.



1) Press **▲** to select number.

To Replace program...



1) Press **▶** to display.
2) Press **▲** and **▶** to set new program contents.

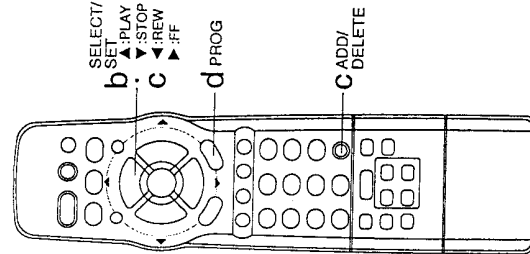
To Clear program...



1) Press ADD/DLT.

End the program.

- 1) Press PROG (or ACTION).
- If there are programs, press POWER OFF.



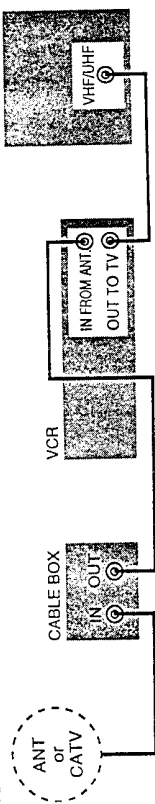
Model PV-9450 remote is shown here.

CATV Connection

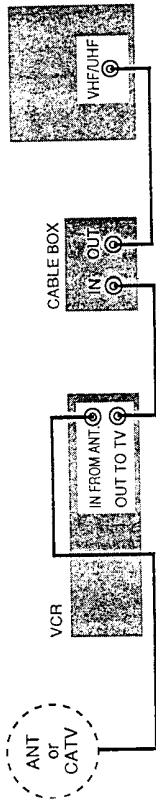
Make sure tune TV to VCR output channel the same one you set on back of VCR: CH3 or CH4

All connections on these pages are made with 75 Ohm coaxial cables.

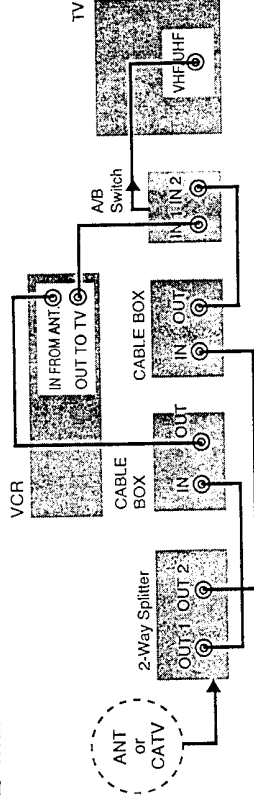
■ With a Cable Box (Cable Box VCR)



■ With a Cable Box (VCR Cable Box)

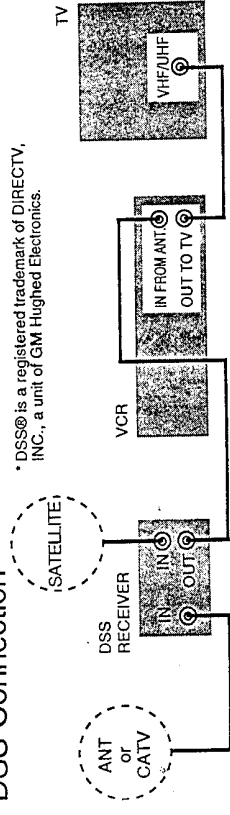


■ With Two Cable Boxes



DSS Connection

* DSS® is a registered trademark of DIRECTV, INC., a unit of GM Hughes Electronics.



You Can

- record or view any (including scrambled) channel.
- use VCR Remote Control to select channels using Multi-brand control feature.

You Cannot

- view channel other than the one selected for any type of recording.
- do a Timer recording of a channel unless you select it at the cable box.

- view any (including scrambled) channel.

- use VCR Remote Control to select channels without using Multi-brand control feature.

- record and view both scrambled and unscrambled channels if additional equipment is added. This connection requires: two converter boxes, an A/B switch, and a 2-way splitter.

- view channel other than the one selected for any type of recording.
- do a Timer recording of a channel unless you select it at the cable box.

- record and view any (including scrambled) channel.

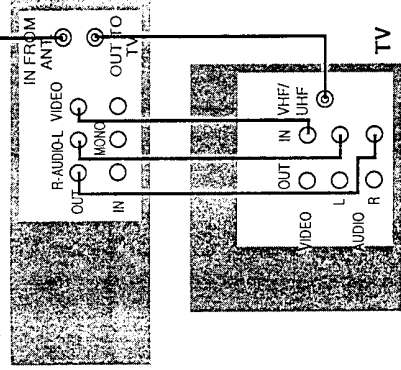
- use your VCR Remote Control to select channels using Multi-brand control feature.

NOTE: DSS receiver must be turned off to view cable box or antenna programs.

Audio/Video Connections

If your TV has AUDIO and VIDEO IN terminals, connect them to VCR for higher quality picture and sound. You can enjoy stereo sound even if your TV is not stereo by connecting a stereo amplifier to the VCR.

VCR



NOTE:

To use your TV as a VCR monitor, set the VIDEO/TV selector on the TV (Monitor/Receiver) to "VIDEO." For model PV-9450, use the L Audio IN jack for proper sound reduction when connecting to a monaural TV.

Note to CABLE system installer:

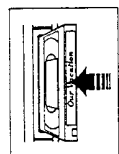
This reminder is provided to call the CABLE system installer's attention to Article 820-40 of the NEC in USA (and to the Canadian Electrical Code in Canada) that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

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

This video recorder, equipped with the HQ (High Quality) 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.

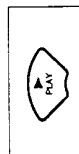
Check list before you begin.

- ☐ All connections are made.
- ☐ TV and VCR are plugged in.
- ☐ TV is turned on and set to the VCR channel (CH 3 or 4).
- ☐ Remote is in VCR mode.



1 Insert a cassette.

- VCR power comes on and VCR appears on display.



2 Press PLAY.

- Playback begins if cassette has no record tab.

- To Find a Particular Scene
Forward Search --> Press FF
Reverse Search --> Press REW
- For Slow Motion --> Press SLOW
- For Still (Freeze) picture --> Press PAUSE
- For Frame by Frame picture --> Press SLOW in Still mode.

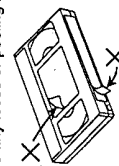
Notes After the VCR is in Still or Slow mode for 3 minutes, it will switch to Stop mode automatically to protect the tape and the video head.

- To stop --> Press STOP
- To rewind tape --> Press REW
- To eject tape --> Press EJECT on the remote or STOP/EJECT on the VCR.

Model PV-9450 remote is shown here.

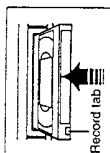
Note

- To prevent tape jam
inspect your cassette tapes and remove any loose or peeling labels.



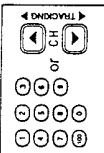
Check list before you begin.

- ☐ All connections are made.
- ☐ TV is turned on and set to the VCR channel (CH 3 or 4).
- ☐ Cassette with record tab in place.
- ☐ Remote in VCR mode.



1 Insert a cassette.

- VCR power comes on automatically.



2 Select Channel.

- Press CH ▲▼ or NUMBERED keys.
- To select "LINE", see page 19.
- To select channels over 100, first press 100 key, then enter remaining two digits.



3 Select Recording speed.

- Press SPEED.
- SP = Standard Play
- LP = Long Play
- SLP = Super Long Play
- Selected speed is displayed on TV screen.



4 Start Recording.

- Press REC.
- To edit out unwanted portions, press PAUSE to pause and resume recording.

To stop --> Press STOP

One Touch Recording

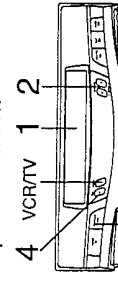
- Press REC repeatedly to set the recording length (30 min. - 4 hours).
- The VCR turns itself off at a preset time.

Normal Rec → 0:30 → 1:00
4:00 → 3:00 → 2:00 → 1:30

- Record One Program While Watching Another
Press VCR/TV --> "VCR" disappears on VCR display --> Select Channel at the TV.

- Selecting Channel at the VCR
Press VCR/TV --> "VCR" appears on VCR display --> Select Channel at the VCR.

You can operate on the VCR



- Press to stop.

Note

- After the VCR has been in Pause mode for 5 minutes, it will stop automatically to protect the tape and video head.

hen VCR is turned on the first time, up mode is entered automatically.

Process of Setup

Language Channel Clock

Turn the TV and VCR on.
Press POWER.*

Tune to VCR output channel.
Tune TV to CH3 or CH4.
(Same as back of VCR).
• Always tune TV to this channel to monitor the VCR.
• If you used audio/video jack connection, tune the TV to its video input.

CH3 or CH4

Select the language.

SELECT LANGUAGE
PUSH VCR CH ▲: ENGLISH
OPTIMIZ VCR CH ▼: ESPAÑOL (SPANOL)
APP. VCR/TV : FRANÇAIS (FRANÇAIS)

(TV Screen)

Model PV-9450 remote is shown here.

Start Channel Auto Set and Clock Auto Set.

Press CH▲

CH AUTO SET PROCEEDING

AUTO CLOCK SET PROCEEDING

Case 1 (Setup completed)

1/4/2000 TUE 12:00PM
DST: ON
SETTING : CH 02
AUTO CLOCK SET COMPLETED
END : PUSH CH UP KEY

Case 2 (Setup incomplete)

AUTO CLOCK SET IS INCOMPLETE
PUSH ACTION TO SET CLOCK

See next page.

For assistance, call 1-800-211-PANA(7262).

Case 2 Clock Setup incomplete.

Set the clock manually.

1) Press ACTION.

2) Press ▲ to select month.

3) Press ► to set.

• Likewise, set date, year, time, DST (Daylight Saving Time).

To Make Corrections, repeatedly press ◀▶ to move to error, then correct.

4) Press ACTION. (Clock starts.)
• For exit this mode, press ACTION again.

Notes

- VCR calendar is accurately maintained to Dec. 31, 2097 11:59PM.
- Channel auto set selects normal TV or Cable channels depending on your VCR hookup.

Model PV-9450 remote is shown here.

IMPORTANT NOTE FOR AUTO CLOCK SET

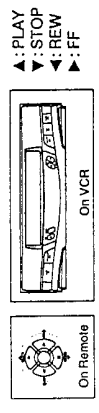
- Auto clock set is performed the first time the VCR is turned off each day. If used, a cable box must be left on and tuned to the PBS channel at the time VCR power is turned off if you want auto clock set to be done.
- If used, a DSS receiver must be turned off for auto clock set.
- If Cable Box or DSS receiver is connected to VCR via Audio/Video jacks, an RF coaxial cable must also be connected for auto clock set and channel auto set features.

Using ▲◀▶▶ keys

You can also operate the menu screen using VCR buttons.

If you use VCR buttons, press CH ▲ and CH ▼ together to display the menu screen.

When menu screens are displayed, PLAY, STOP, REWIND, and FF buttons function as ▲◀▶▶ only.



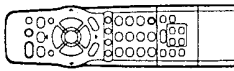
Congratulations

on your purchase of one of the most sophisticated and reliable products on the market today. Used properly, it will bring you and your family years of enjoyment. Please fill in the information below. The serial number is on the tag located on the back of your VCR.

- Date of Purchase _____
- Dealer Purchased From _____
- Dealer Address _____
- Dealer Phone No. _____
- Model No. _____
- Serial No. _____

Accessories

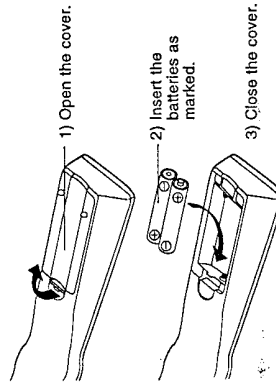
- ☐ Remote Control ☐ Batteries 2 "AA"
VSQSXXXX (PV-9400)
VSQST596 (PV-9450)
- ☐ RF Coaxial Cable
VJAS0196



Model PV-9450
remote is
shown here.

To order accessories, call toll free
1-800-211-PANA (7262).

Loading the Batteries

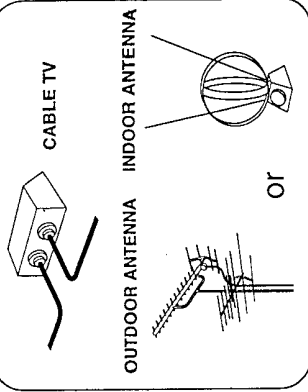


- ☐ Battery replacement caution

- Do not mix old and new batteries.
- Do not mix alkaline with manganese batteries.

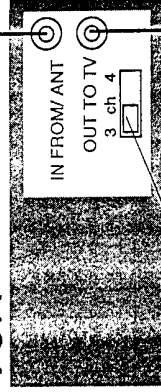
4

ANTENNA (See page 5)

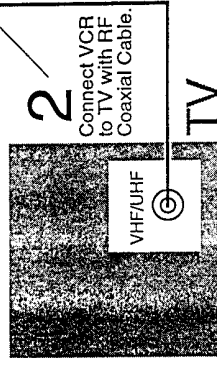


1 Disconnect antenna or cable from TV and connect to VCR.

VCR



3 Set VCR Output to channel 3 or 4 (not an active station).



Tune TV to VCR output channel the same one you set in step 3.

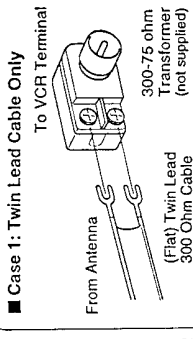
2 Connect VCR to TV with RF Coaxial Cable.

WARNING

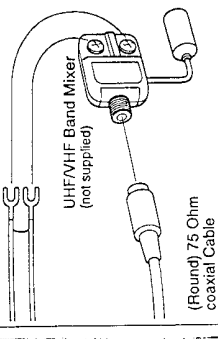
When using "Nut type" RF coaxial cables, tighten with fingers only. Overtightening may damage terminals.

For assistance, call 1-800-211-PANA(7262)

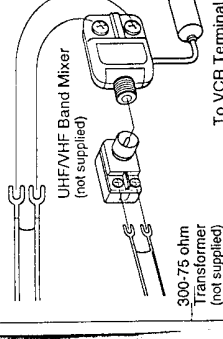
1 Between ANT. and TV



Case 1: Twin Lead Cable Only



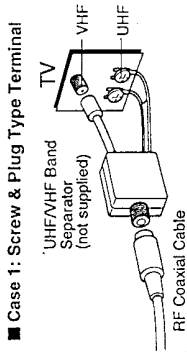
Case 2: Twin Lead & Coaxial Cables



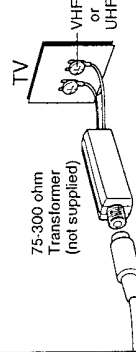
Case 3: Two Twin Lead Cables

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

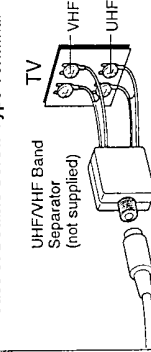
2 Between VCR and TV



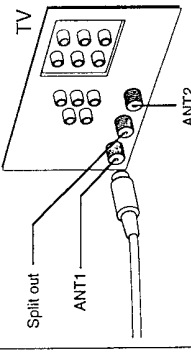
Case 1: Screw & Plug Type Terminal



Case 2: Screw Type Terminal



Case 3: Double Screw Type Terminal



Case 4: Complex TV Terminal

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

5

FOR YOUR SAFETY, READ AND FOLLOW ALL SAFETY PRECAUTIONS IN THE MANUAL AND ON THE UNIT

INSTALLATION

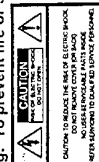
- 1 POWER SOURCE CAUTION**
Operate only from a power source indicated on the label. Do not use a power source other than the one specified by the manufacturer. If you are not sure of the power source, consult your Electric Utility Service Company or Video Products Dealer verify the power source in your home.
- 2 POLARIZED OR GROUNDING PLUG**
As a safety feature, this Video product comes with either a polarized power cord plug (one blade is wider than the other), or a three-wire grounding type plug.
2.1 POLARIZED PLUG CAUTION:
If the plug will only fit into an outlet one way, if you cannot insert it the other way, do not force it. If it does not fit, do not defeat the safety feature by tampering with the plug.
2.2 GROUNDING PLUG CAUTION:
If the plug will only fit into a three-hole grounding outlet, if necessary, have an electrician install the proper outlet. Do not defeat the safety feature by tampering with the plug.
- 3 POWER CORD**
Make sure power cords are routed so that they are not under any part of the unit, or are not run over them, or be in the way of walking traffic. If an extension cord is used, make sure it also has either a polarized or grounded plug and that it is in good condition. Frayed cords, damaged or cracked wire insulation are hazardous and should be replaced by a qualified service technician. Do not use power cords that have frayed insulation or are frayed and should be replaced.
- 4 DO NOT BLOCK VENTILATION HOLES**
Ventilation openings in the cabinet release heat generated during operation. If they are blocked, heat build-up inside the unit can cause failure that may result in a fire hazard or damage to the unit. Do not place any objects in front of the ventilation holes. Never cover ventilation slots or the unit while in use, or operate the unit when placed on a bed, sofa, rug, or other surface that could block or restrict proper ventilation is provided.
- 5 AVOID EXTREMELY HOT LOCATIONS OR SUDDEN TEMPERATURE CHANGES**
Do not place the unit over or near any kind of heater or radiator, in direct sunlight, inside a closed vehicle, etc. Do not move the unit suddenly from a cold place to a warm place to a warm place. If the unit is suddenly moved from a cold place to a warm place, moisture may condense in the unit and on the tape.
- 6 TO AVOID PERSONAL INJURY**
Do not place unsecured equipment on a sloping surface.
Do not place the unit on any support that is not sturdy enough to hold the unit safely. The unit could fall causing serious injury to a child or adult and damage to the unit.
Do not use the unit in combination with quick stops, excessive force, and uneven surfaces may cause the unit to tip over.
Do not use the unit in combination with the manufacturer's recommended accessories when operating this unit or connecting it to any other equipment.



Safety Precautions

Warning: To prevent fire or shock hazard, do not expose this equipment to rain or moisture.

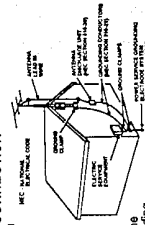
- This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this unit.
- This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it should be read carefully in order to avoid any problems.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK PANEL. ONLY QUALIFIED SERVICE PERSONNEL SHOULD REMOVE COVER OR BACK PANEL.

OUTDOOR ANTENNA INSTALLATION

- 1 SAFE ANTENNA AND CABLE CONNECTION**
If an outdoor antenna or cable system is connected to the unit, be sure the antenna or cable system is grounded so as to provide some protection against built up static electricity. In Canada, part 1 of the Canadian Electrical Code, ANS/NFPA 70, Section 610 of the National Electrical Code, requires that the antenna be grounded with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, grounding of antenna to the building's lightning ground system, and proper separation of the antenna from power lines.
- 2 KEEP ANTENNA CLEAR OF HIGH VOLTAGE POWER LINES OR CIRCUITS**
An outside antenna system should be located well away from power lines, electric light or power circuits and where it will never come into contact with these power sources if it should happen to fall. When installing an outside antenna, extreme care should be taken to avoid the hazards of the power lines involved. Antenna installation should be left to a professional.



USING THE VIDEO UNIT

- If the unit has been in storage or moved to a new location, read first to the INSTALLATION section of these instructions.
- 1 KEEP THIS VIDEO UNIT AWAY FROM WATER OR MOISTURE OF ANY KIND.**
 - 2 IF EQUIPMENT IS EXPOSED TO RAIN, MOISTURE, OR STRONG IMPACT**
Unplug the unit and have it inspected by a qualified service technician before use.
 - 3 DURING AN ELECTRICAL STORM**
During a lightning storm, whether indoors or outdoors, or before leaving the unit unused for extended periods of time, disconnect all equipment from the power source as well as the antenna and cable system.
 - 4 WHEN THE UNIT IS PLUGGED IN**
Never expose the unit to rain or water. Do not operate the unit if it has been exposed to rain or water. Do not touch the unit and have it inspected by a service technician. Fire and shock hazards can result from electrical shorts caused by liquid contact inside.
Never drop or push any object through openings in the unit. Some internal parts may be damaged or shorted out, which could result in a fire hazard.
Avoid placing the unit directly above or below your TV set as this may cause electrical interference. Keep all magnets away from electronic equipment.

USING ACCESSORIES

- Use only accessories recommended by the manufacturer to avoid risk of fire, shock, or other hazards.
- 6 CLEANING THE UNIT**
Unplug the unit. Then, use a clean, dry, chemically untreated cloth to gently wipe the unit. Do not use liquid cleaners, solvents, or other cleaning agents. Do not use abrasive materials. Do not use any substance such as wax, adhesive tape, etc. may mar the cabinet surface. Exposure to greasy, humid, or dusty areas may adversely affect internal parts.

SERVICE

- 1 DO NOT SERVICE THIS PRODUCT YOURSELF**
If, after carefully following the detailed operating instructions, this Video product does not operate properly, do not attempt to open or remove covers, or make any adjustments not described in the manual. Contact a qualified service technician.
- 2 IF REPLACEMENT PARTS ARE REQUIRED**
Replacement parts should be obtained from the manufacturer or a qualified service technician. Do not use parts that are not specified by the manufacturer, or those having the same safety characteristics as the original parts. The use of unauthorized substitutes may result in fire, electric shock, or other hazards.
- 3 HAVE THE SERVICE TECHNICIAN PERFORM A SAFETY CHECK**
After any service or repairs to the unit, request the service technician to conduct a thorough safety check as described in the manufacturer's service literature to insure that the video unit is in safe operating condition.

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