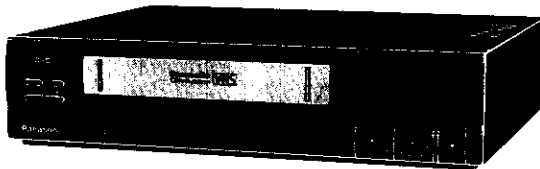


Operating Instructions

Panasonic
Omnivision **VHS**
PV-2905



Video Cassette Recorder

FEATURES

- HQ (High Quality) System
- Digital Quartz Tuning with Auto Set Feature
- On Screen Display Programming
- Special Effects Playback
 - Fast Search
 - Double Speed Playback
 - Still Picture
 - Slow-Motion
- One Touch Recording
- Unattended (Timer) Recording
- Auto Operation Functions
- Wireless Remote Control

TABLE OF CONTENTS

TO GET STARTED	1
TO PLAYBACK	2
USING THE VCR/TV SELECTOR	2
DESCRIPTION OF CONTROLS	3
CLOCK ADJUSTMENT	7
CHANNEL MEMORY	8
SPECIAL EFFECTS AND OPERATIONS	9
TO RECORD	10
ONE TOUCH RECORDING	11
TIMER RECORDING	13
HELPFUL HINTS	15
RE-RECORDING	
TAPE COUNTER CONTROL	
VIDEO CASSETTE	
NOTES ON OPERATIONS	
BEFORE REQUESTING SERVICE	18
ACCESSORIES	Back Cover
SPECIFICATIONS	Back Cover

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

1 To GET STARTED (ACCESSORIES INCLUDED IN THE CARTON) ARE SHOWN ON THE BACK COVER

INTRODUCTION

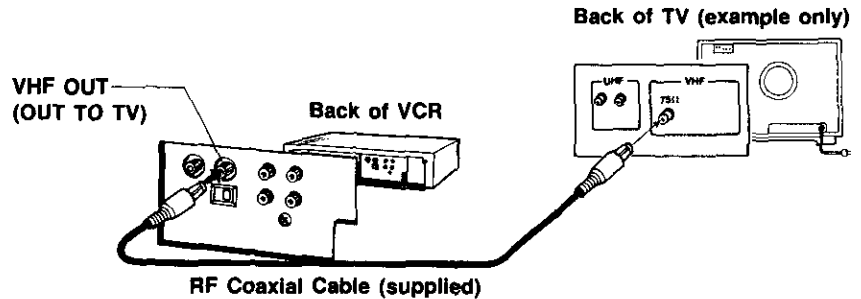
We are pleased to introduce you to one of the most sophisticated entertainment products available today. Shown below are the two steps necessary for playback. To watch TV and record, additional connections are needed; see the separate Connections Guide accompanying this manual. Keep this manual near your VCR for quick reference.

ONE TIME SET-UP STEPS

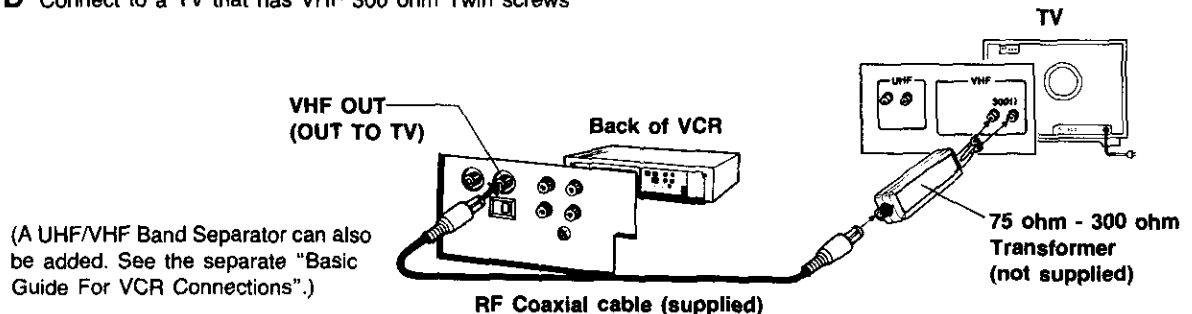
Setting the clock is not actually necessary for playback, but is necessary for all types of timer recording. Please refer to page 7 to set the clock.

1 VCR TO TV CONNECTION

A Connect to a TV that has a VHF 75 ohm Post



B Connect to a TV that has VHF 300 ohm Twin screws



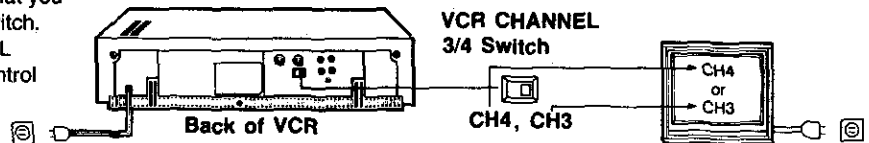
2 SELECT VCR CHANNEL (CHANNEL 3 OR 4)

Your VCR translates video and audio signals from the VCR into standard signals that your TV can receive on CH3 or CH4. This signal will be broadcast to the TV through the RF Coaxial Cable.

You decide which TV channel to use by selecting either channel 3 or 4 with the CHANNEL 3/4 Switch on the back of the VCR. The CHANNEL 3/4 Switch should be set to the channel that is not normally occupied by a TV broadcast in your area, to avoid local interference.

TO WATCH CHANNEL SELECTED AT THE VCR

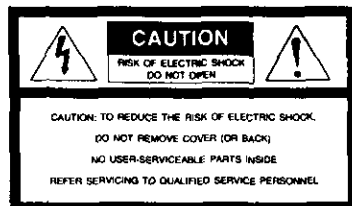
First connect the VCR and TV power plugs to AC outlets. Then tune your TV to the VCR CHANNEL, the same channel that you selected with the CHANNEL 3/4 Switch. Select channels using the CHANNEL UP/DOWN Keys or the Remote Control NUMERIC Keys (see page 3 or 4).



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

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

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





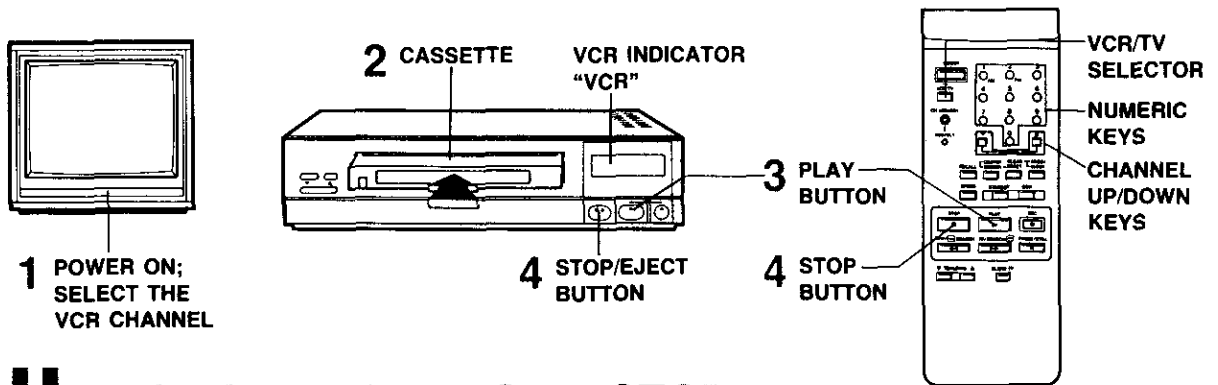
This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this unit.



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.

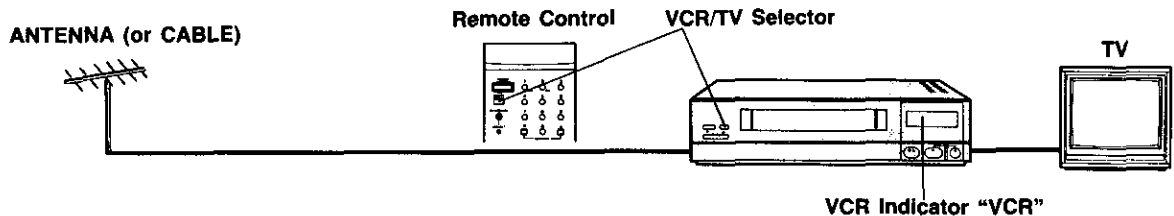
Be sure the PREPARATIONS on page 1 have been completed before proceeding to step 1 below.

AT THE TV	AT THE VCR	START PLAYBACK	STOP PLAYBACK
<p>1 Turn the TV ON and select its VCR channel.</p> <p>The TV's VCR Channel is either channel 3 or 4.</p>	<p>2 Insert a cassette.</p> <p>The Power will come ON automatically.</p> <p>If the Record Tab (page 16) is removed, playback will start automatically. (In this case skip step 3.)</p> <p>If a cassette is already in the VCR, just press the POWER Button ON.</p>	<p>3 Press the PLAY Button.</p>  <p>The VCR Indicator will light.</p> <p>This automatically sets the VCR mode (see below).</p> <p>For Special Effects see page 9.</p>	<p>4 Press the STOP Button.</p>  <p>■ Press the EJECT Button to remove the cassette.</p>



USING THE VCR/TV SELECTOR

After you have a cable system or antenna connected to your VCR and the "TO GET STARTED" connections on page 1 are complete, you can begin to watch TV broadcast channels using your VCR or TV tuner.



TO SELECT CHANNELS AT THE VCR FOR VIEWING OR RECORDING

It is necessary to place the VCR in the "VCR" mode. Be sure that the TV is tuned to the same channel which was selected for the VCR channel (CH3 or 4) above.

- 1) WHEN YOU TURN ON YOUR VCR**
The "VCR" mode is automatically selected, just turn the TV power ON and select the VCR CHANNEL.
- 2) WHEN THE VCR POWER IS ALREADY ON**
The VCR Indicator should show on the front panel.
If the VCR Indicator is not showing, select the "VCR" mode by pressing the VCR/TV SELECTOR Button once.

Select channels using the VCR REMOTE CONTROL CHANNEL UP/DOWN Keys or the NUMERIC Keys.

TO SELECT CHANNELS AT THE TV FOR VIEWING

In "TV" mode no "VCR" indicator shows on the front panel.

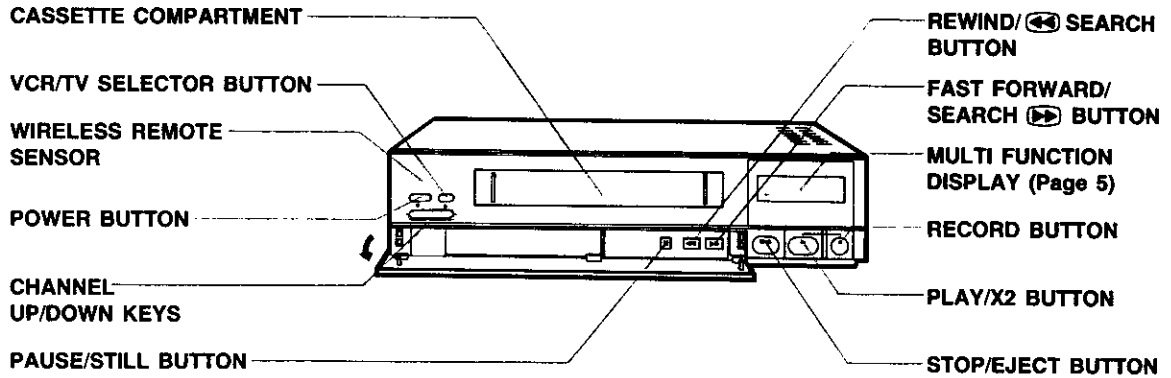
- 1) WHEN THE VCR IS TURNED OFF**
The "TV" mode is automatically selected, just turn the TV power ON.
- 2) WHEN THE VCR POWER IS ALREADY ON**
If the VCR Indicator is showing and the TV is already ON select the "TV" mode by pressing the VCR/TV SELECTOR Button once. The VCR Indicator should NOT show on the front panel.

Select channels using the TV channel controls.

TO GET STARTED/ TO PLAYBACK/ USING THE VCR/TV SELECTOR

3 DESCRIPTION OF CONTROLS

FRONT



POWER BUTTON

- To turn the VCR on and off.
- To set the VCR for unattended recordings after timer programming have been completed.

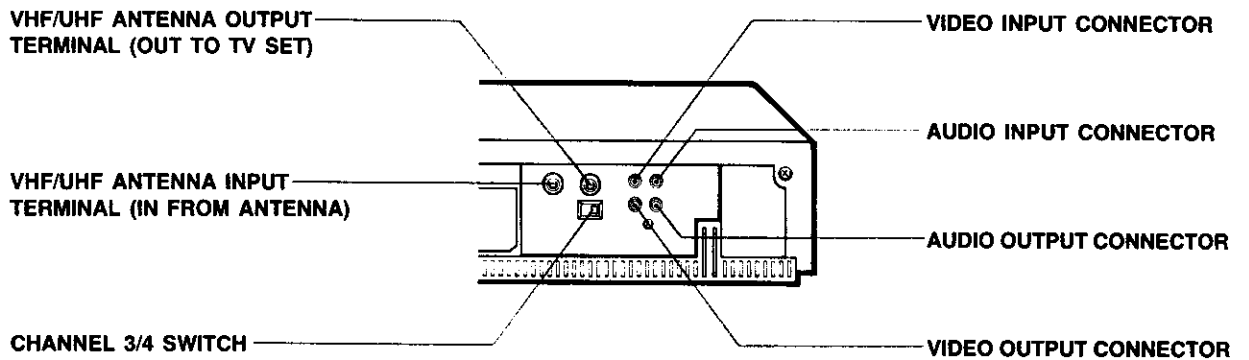
PLAY/X2 BUTTON

- To play back a tape.
- In SLP playback, tap this button once more for a rapid search at twice normal speed.

STOP/EJECT BUTTON

- To stop the tape. To remove a cassette in the stop mode.

REAR

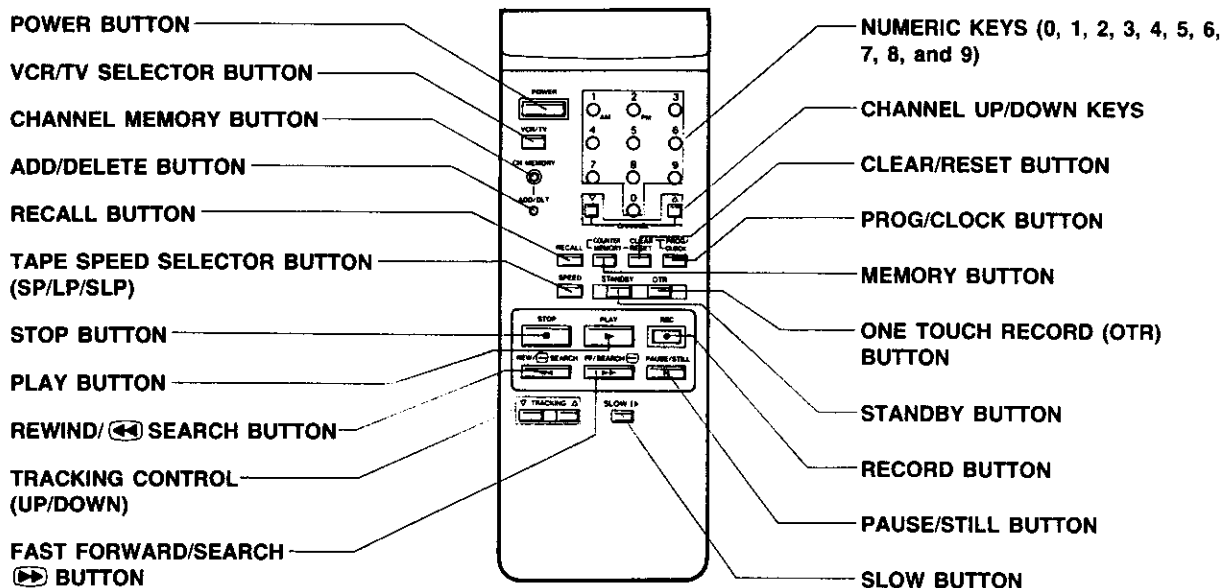


CHANNEL 3/4 SWITCH

- Set to channel 3 or 4 (whichever is not used for regular TV broadcasting in your area) to use your TV as a VCR program monitor.
- See "TO GET STARTED" on page 1.

WIRELESS REMOTE CONTROL

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



VCR/TV SELECTOR BUTTON

Selects the signal source that your TV receives.

VCR position: To view playback or to monitor video recordings. "VCR" appears on the Multi Function Display.

TV position: To watch TV or to view one program while recording a different program. When this is set to TV, there is no indication on the Multi Function Display.

CHANNEL MEMORY BUTTON

For CHANNEL MEMORY programming, press this button to use the AUTO SET feature.

ADD/DELETE BUTTON

Used to add or delete a selected CHANNEL.

RECALL BUTTON

Press this button to display or clear the tape counter, date, time, function and channel number.

TAPE SPEED SELECTOR (SP/LP/SLP) BUTTON

Set this selector for the desired recording speed.

REWIND/SEARCH BUTTON

To rewind tapes. Also, during playback press this button to view the picture in rapid reverse.

TRACKING CONTROL

Use this control during playback or double speed playback if the image is partially obscured by bands of noise.

FAST FORWARD/SEARCH BUTTON

To rapidly advance the tape. Also, during playback press this button to do rapid forward visual search.

CLEAR/RESET BUTTON CLEAR BUTTON

Press this button to clear the settings for the displayed program contents. While setting the clock or a program, each press of this button starts the digit to the left flashing for correction.

RESET BUTTON

Resets the Tape Counter when it is displayed.

PROG/CLOCK BUTTON

Used for setting the clock, programming the timer and displaying a calendar.

MEMORY BUTTON

Turns the Memory Stop feature on and off.

ONE TOUCH RECORD (OTR) BUTTON

Select the channel and press the ONE TOUCH RECORD Button to start recording immediately for 30 minutes to 4 hours, or until the tape ends. In any case, power shut off is automatic.

STANDBY BUTTON

Used along with the OTR Button to set delayed (Standby) OTR's.

PAUSE/STILL BUTTON

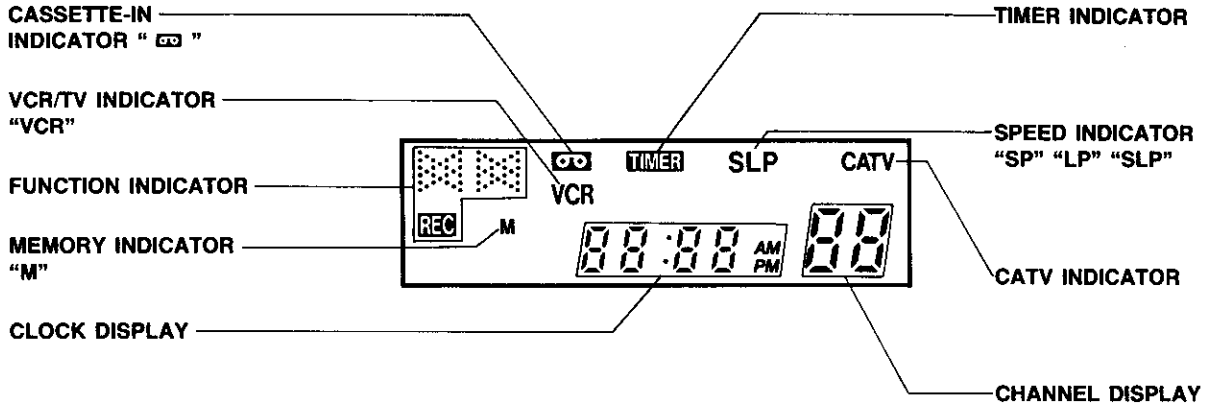
To temporarily stop the tape during recording or to view a still picture during playback.

SLOW BUTTON

Press the SLOW Button during playback for slow motion on tapes recorded in SLP speed.

5 DESCRIPTION OF CONTROLS (CONTINUED)

MULTI FUNCTION DISPLAY



CASSETTE-IN INDICATOR "CC"

The three variations in this indication show the following conditions.

No "CC" displayed: There is no cassette in the unit.

"CC" displayed: There is a cassette in the unit and some interval to the end of the tape.

Flashing "CC" display: The Automatic Rewind took place at the end of the tape during playback, recording or fast forward. The indicator continues flashing until the next mode is selected.

Also flashes if you attempt any recording when the cassette record tab is missing.

VCR/TV INDICATOR "VCR"

Appears when the VCR/TV Selector is set to VCR.

FUNCTION INDICATOR " [Symbol] "

Shows the operation mode of VCR (PLAY, DOUBLE SPEED PLAY, REW, REC, FF, PAUSE, STILL, SEARCH, SLOW etc.)

MEMORY INDICATOR "M"

Indicates Memory control in use.

CLOCK DISPLAY

Displays the current time.

TIMER INDICATOR "TIMER"

Indicates the VCR is set for unattended recording.

SPEED INDICATOR "SP" "LP" "SLP"

Shows the tape speed during recording and playback.

CATV INDICATOR

CATV indicates ANTENNA SYSTEM is set to the Cable TV mode.

CHANNEL DISPLAY "88"

The CHANNEL number selected is displayed.

An "L" will appear to let you know you have selected a Line input.

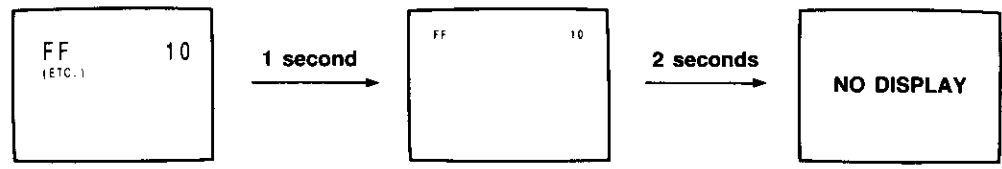
FUNCTION INDICATOR SYMBOLS

The following symbols will appear on the Multi Function Display to indicate the current mode or operation of the VCR. Some of these modes will also be momentarily displayed on the TV screen when you press the Operation Buttons (see page 6).

PLAY, DOUBLE SPEED PLAY	REW, REW SEARCH	FF, FF SEARCH	REC
REC PAUSE	STILL	SLOW	EJECT

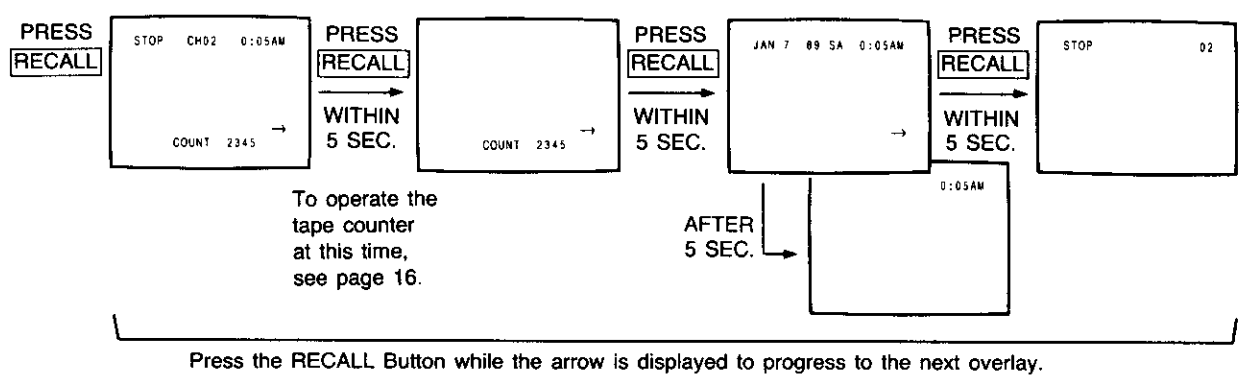
OSD INDICATIONS

Whenever you turn on the VCR with the TV on, when a function button (STOP, FF, etc.) is pressed, or when you change channels, a 3 second OSD appears. The function name and the channel number (if tuned) are displayed as a large overlay for 1 second, then again for 2 seconds in a smaller overlay.



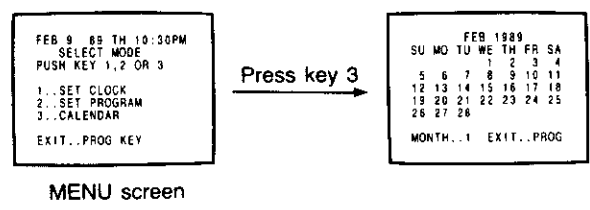
VCR STATUS DISPLAY

When the RECALL Button is pressed the sequence of overlays shown below will be displayed with what you have been viewing, as long as the arrow appears in the lower right (for about the first 5 seconds). After the arrow disappears, the overlay you have selected will remain on the screen until it is removed by the next press of the RECALL Button.



CALENDAR INDICATOR

To see the calendar for this month and next month, press the PROG Button (on the Remote Control) while you are watching TV. The MENU screen will appear; press key 3. The calendar for the current month appears. Press key 1 to change between this month and the next. Press the PROG Button to return to the screen.

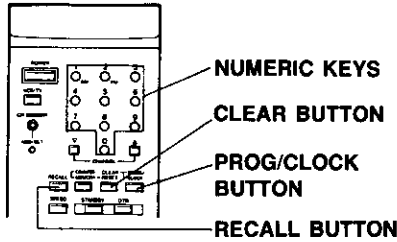


BLANK TAPE INDICATION

If a blank section of the 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.

7 CLOCK ADJUSTMENT

REMOTE CONTROL



Accurate clock time is a must for all types of timer recording. Your VCR will accurately maintain its calendar up to Dec. 31, 2007, 11:59 PM once you have set the present day and time.

TO SET THE CLOCK

When the VCR and TV are turned on for the first time, the clock set guide will appear on the TV screen.

If the guide disappears, press the PROG/CLOCK Button to recall it. Be sure that the VCR/TV Selector is set to the VCR position.

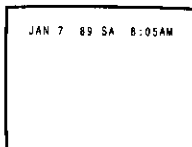
SELECT THE CLOCK SET MODE	SET THE MONTH & DAY	SET THE YEAR	SET THE HOUR & MINUTE AND AM OR PM	START THE CLOCK
<p>1 Press the PROG/CLOCK Button.</p> <p>The Clock Set Guide shown in step 2 appears.</p> <p>When setting the clock for the first time, entries that don't match the calendar will cause a "2" to appear.</p>	<p>2 Enter two digits for the month, and two digits for the day.</p> <p>For example, for Feb 9, press ① ② ① ⑨.</p>	<p>3 Enter two digits for the year.</p> <p>For example, for 1989, press ⑧ ⑨.</p>	<p>4 Enter two digits for the hour, two digits for the minute(s), and "1" for AM or "2" for PM.</p> <p>For example, for 10:30 PM, press ① ① ③ ① ② .</p>	<p>5 Press the PROG/CLOCK Button.</p> <p>Clock starts.</p> <p>The TV screen will return to the channel selected at the VCR.</p>
	<p>↓</p>	<p>↓</p>	<p>↓</p>	

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

TO MAKE CORRECTIONS IN ON-SCREEN ENTRIES

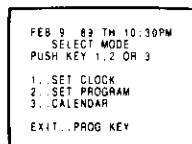
To make corrections after entering a number, press the CLEAR Button to move the flashing indication one space left. Enter the correct number. The flashing indicator will then move one space right.

TO DISPLAY THE DATE AND TIME



Press the RECALL Button three times to show the date and time overlay on the TV screen. See "VCR STATUS DISPLAY" on page 6 for details.

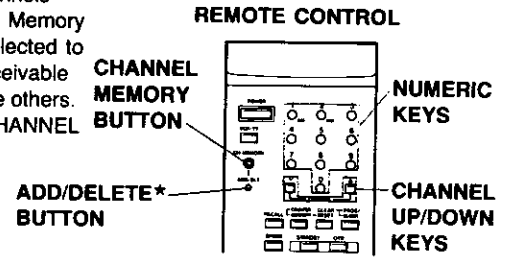
TO RESET THE CLOCK



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

CHANNEL MEMORY

The CHANNEL UP/DOWN Keys may be set to stop only on the available channels in your area assigned to them from the 155 Channel Memory. In Channel Memory mode you can select "CATV" to receive Cable channels or leave "TV" selected to receive Broadcast channels. The AUTO SET feature assigns channels receivable from either band in your area to the CHANNEL UP/DOWN Keys and skips the others. With the ADD/DELETE Button you can add or delete any channel from the CHANNEL UP/DOWN Keys operation in either band.



A AUTOMATIC SETTING

PREPARATIONS on page 1 and basic installation steps must be completed first.

SELECT CHANNEL MEMORY	SELECT THE ANTENNA SYSTEM		START AUTO SET
<p>1 Press the CHANNEL MEMORY Button.</p> <p>The Channel Memory Guide appears.</p> <div data-bbox="332 672 584 871" style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p>CH 02 (ADD) TV ANTENNA SYSTEM 1. SHIFT TV → CATV 2. NO CHANGE PUSH KEY 1 OR 2 EXIT...CH MEMORY KEY</p> </div> <p>(1. SHIFT CATV → TV)</p> <p>To exit from the Channel Memory mode press the CHANNEL MEMORY Button.</p>	<p>2 (A) TO CHANGE THE CURRENT BAND</p> <p>Press Key ① to change from "TV" to "CATV" or from "CATV" to "TV".</p> <p>"TV" Position – HOME ANTENNA SYSTEM</p> <p>"CATV" Position – CABLE TV SYSTEM</p> <p>Changing bands cancels previous channel memory assignments.</p> <p>After Key ① or ② is pressed the Auto Set Guide appears.</p> <div data-bbox="820 1029 1015 1176" style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p>CH 02 (ADD) TV AUTO SET PUSH KEY 1 FOR AUTO SET OR EXIT...CH MEMORY KEY</p> </div>	<p>(B) TO KEEP THE CURRENT BAND</p> <p>Press Key ②. Use when the band selected already matches your Antenna System.</p>	<p>3 Press Key ①.</p> <p>This starts the Auto Set Channel Scan in the selected band.</p> <div data-bbox="1291 703 1485 850" style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p>02 AUTO SET PROCEEDING</p> </div> <p>After Auto Set, the lowest numbered channel assigned to the CHANNEL UP/DOWN Keys will appear on screen.</p>

B USING THE ADD/DELETE BUTTON

SELECT A CHANNEL	ADD OR DELETE THE CHANNEL
<p>1 Select the channel to be added or deleted.</p> <p>The Channel can be selected with the CHANNEL UP/DOWN Keys or the NUMERIC Keys.</p> <div data-bbox="438 1491 633 1638" style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p>10</p> </div>	<p>2 Press the ADD/DELETE Button.</p> <p>This screen appears for a few seconds to indicate that the channel has been added or deleted.</p> <div data-bbox="901 1501 1096 1648" style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p>CH 10 (DLT) TV 01 (ADD) CATV</p> </div> <p>"(ADD)" indicates the channel has been added.</p> <p>"(DLT)" indicates the channel is deleted from CHANNEL UP/DOWN Key selection. The channel number will flash on the Multi Function Display just to indicate that this channel has been deleted. It also flashes when you select the deleted channel with the NUMERIC Keys.</p>

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




NOTE: After adding a channel, confirm its status by selecting it with the CHANNEL UP/DOWN Keys. After deleting a channel, the CHANNEL UP/DOWN Keys should skip it. To select a channel that has been deleted, use the NUMERIC Keys.

* Use a pen point to press the ADD/DELETE Button.

9 SPECIAL EFFECTS AND OPERATIONS

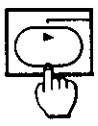
After your VCR is connected to your TV (see page 1, To Get Started) and you know how to play back a tape (see page 2, Playback), you are ready to enjoy the special effects on this page.

SPECIAL EFFECTS IN PLAYBACK MODE (BEST IN SLP SPEED: SOUND IS MUTED)

TO RAPIDLY LOCATE A PARTICULAR SEGMENT	TO VIEW A STILL PICTURE (DURING PLAYBACK)	TO VIEW A SLOW MOTION PICTURE
<p>■ Press the SEARCH Button.</p> <p>This starts a rapid forward or reverse visual search.</p>  <p>■ Press the SEARCH Button again or the PLAY Button to return to playback.</p> <p>SEARCH SPEED</p> <p>SLP Search is about 21 times normal speed</p>	<p>■ Press the PAUSE/STILL Button.</p> <p>A freeze frame picture of the playback image appears.</p>  <p>■ Press the button once more to release the still and continue playback.</p>	<p>■ During playback, press the SLOW Button on the Remote Control.</p>  <p>■ Press the PLAY Button to release SLOW.</p>

TO VIEW A DOUBLE SPEED PLAYBACK PICTURE

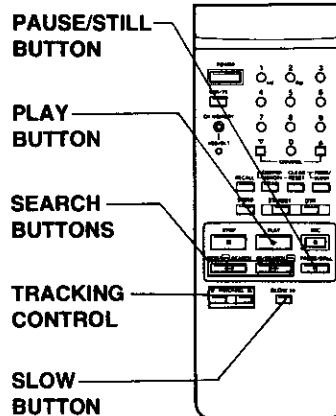
■ During playback, tap the PLAY Button again on the VCR.



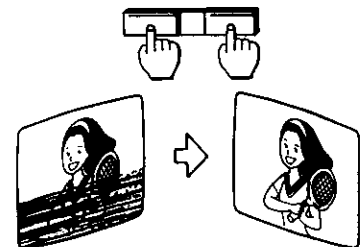
■ Press the button once more to release the tape from a double speed playback.

AUTO OPERATION FUNCTIONS

1. Auto Playback
 - Cassette insertion —
 - (Auto) Power On —
 - Auto Playback (without Record Tab*)
 2. Rec Auto Off
 - Manual Record to Tape end —
 - Auto Rewind — Eject —
 - Power Shut Off
 3. Playback Auto Stop
 - Playback to Tape end —
 - Auto Rewind —
 - Eject (without Record Tab*) —
 - Stop Mode
 4. Auto Rewind
 - Playback or Fast Forward to
 - Tape end — Auto Rewind —
 - Stop Mode
 5. Eject Cassette
 - with Power ON or OFF
- * For record tab information refer to page 16.

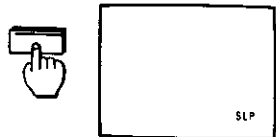



TRACKING CONTROL

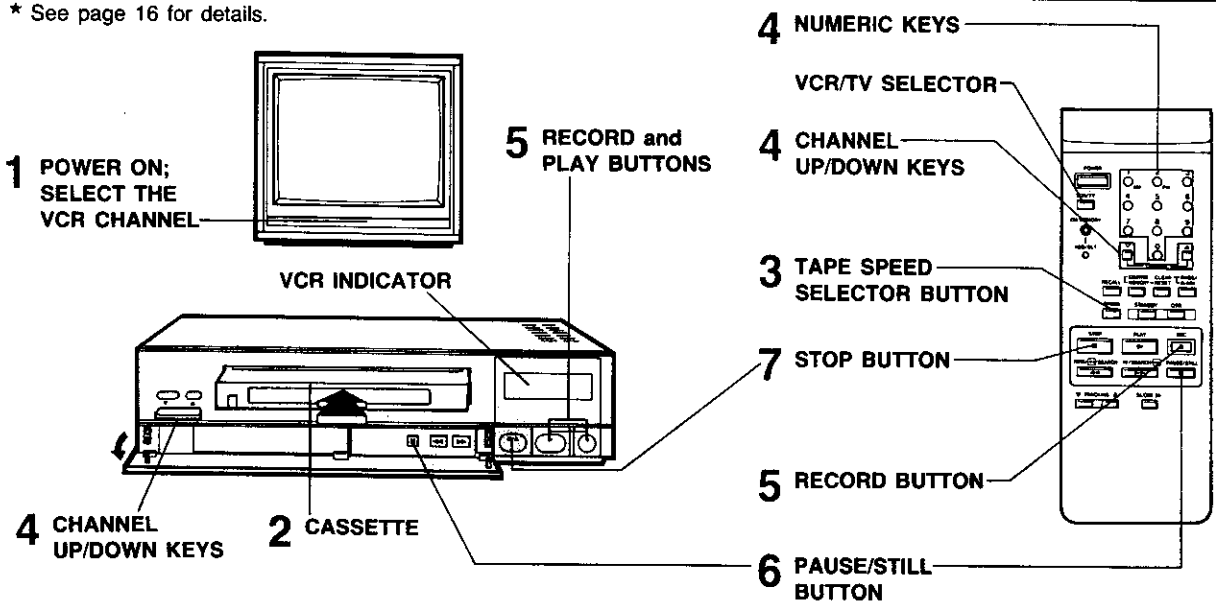





A certain amount of "noise" may appear in the picture when a VHS video tape recorded on one VCR is played back on a different one. You may adjust the TRACKING CONTROL (UP/DOWN) on your Remote Control to minimize this noise in normal playback, double speed playback and slow motion playback. The normal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

PREPARATIONS on page 1, steps 1 and 2, must be complete and an antenna (or cable) system must be connected to the VCR. (See the Basic Guide For VCR Connections.)

AT THE TV	AT THE VCR	SET THE TAPE SPEED
<p>1 Turn the TV on and select its VCR Channel.</p> <p>The TV's VCR Channel is CH 3 or CH 4.</p>	<p>2 Insert a cassette.</p> <p>Use a tape with the Record Tab* in place.</p> <p>The Power will come on automatically.</p> <p>If a cassette is already in the VCR, just press the POWER Button ON.</p> <p>Be sure that the VCR/TV Selector is set to "VCR".</p>	<p>3 (a) Press the TAPE SPEED SELECTOR Button.</p> <p>The currently selected Tape Speed appears.</p>  <p>(b) Continue to press the TAPE SPEED SELECTOR Button until the desired speed (SP, LP or SLP) appears.</p> 

* See page 16 for details.



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

TO WATCH ANOTHER TV PROGRAM WHILE RECORDING

You can record a channel from the VCR Tuner and watch channels from the TV Tuner.

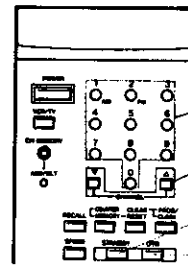
<p>1 Set the VCR/TV SELECTOR to TV.</p> <p>• The "VCR" Indicator and the TV broadcast being recorded will disappear.</p>	<p>2 Select the other CHANNEL to be viewed on the TV.</p> <p>Use the TV channel controls.</p>
---	--

The program selected with the TV channel controls will appear on the TV screen, and the one selected with the VCR channel controls will be recorded on the tape.

11 ONE TOUCH RECORDING

OTR is a very easy and convenient way to immediately start recording a TV program you happen to be watching (Instant OTR), or set up a delayed start time recording (STANDBY OTR), without programming the TIMER. When either type of OTR is complete, the VCR automatically shuts off.

REMOTE CONTROL



NUMERIC KEYS

CHANNEL UP/DOWN KEYS

STANDBY BUTTON

OTR BUTTON

OTR Preparations

MAKE SURE THAT....

- PREPARATIONS on page 1 have been completely done.
- the clock is set to the correct time.
- the desired tape speed (SP, LP or SLP) is selected.
- the record tab is not missing on the cassette.
- the tape is long enough to record the programs.

A. INSTANT OTR


Recording starts instantly and the VCR will shut off when the recording is complete. You can set the recording length in 30 minute periods up to 4 hours total, or to the end of the tape.

Occasions for Use:

- For normal recording of TV programs.
- When an unexpected guest or call is received.
- When you are unexpectedly called away from home.

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

A. INSTANT OTR

CHOOSE A TV PROGRAM	SET A RECORDING LENGTH
<p>1 Select a channel.</p> <p>Use the CHANNEL UP/DOWN Keys or the NUMERIC Keys.</p>	<p>2 Press the OTR Button.</p> <p>At the first press, this screen appears.</p> <div style="text-align: center;">  </div> <p>Continue to press the OTR Button until the desired length appears. Recording will start when 0:30 is displayed.</p> <p>OTR LENGTH DISPLAY Each press of the OTR Button adds 30 minutes. 0:00 → 0:30 → 1:00 --- 4:00 → END</p> <p>Selecting "END" means recording will continue to the end of the tape.</p>

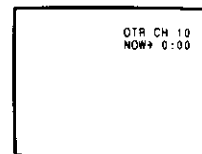
TO CHANGE THE RECORDING LENGTH

1. Press the OTR Button twice.
The OTR Length Display will change to 0:00.
2. Continue to press the button until the desired length appears.

The VCR will record for the new length you have entered.

TO CANCEL AN OTR

1. Press the OTR Button twice.



The screen at left will appear. About 5 seconds later, the OTR will stop and the VCR will shut off.

NOTE:

An INSTANT OTR can be initiated at the VCR by holding down the RECORD Button and pressing the CHANNEL UP Button. Continue pressing the CHANNEL UP Button until the desired time is obtained.

B. STANDBY OTR

This is an OTR which is set to start any time up to 11:30 pm of the following day. The recording can start on the hour or half hour.

Occasions for use:

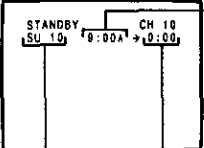
- When a program you want to watch is going to be broadcast while you are asleep, out, or otherwise engaged.

In addition:

If you have started a recording using the RECORD Button (page 10), you can still use the OTR Button to select or extend the recording length.

The VCR will shut off automatically when the recording is finished, making it unnecessary to use the STOP Button.

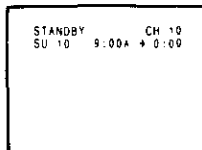
B. STANDBY OTR

CHOOSE A TV PROGRAM	SELECT A START TIME	SELECT A RECORDING LENGTH
<p>1 Select a channel.</p> <p>Use the CHANNEL UP/DOWN Keys or the NUMERIC Keys.</p>	<p>2 Press the STANDBY Button.</p> <p>Press the STANDBY Button once to display the screen below. → Continue to press this button until the desired time appears.</p> <p>Go to the next step within 5 seconds.</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>START TIME DISPLAY</p> <p>Each press advances the time to the next hour or half-hour from the current time indicated, up to 11:30 PM of the next day.</p> </div> </div> <p style="text-align: center;">DATE OTR LENGTH</p>	<p>3 Set the recording length with the OTR Button.</p> <p>Press this button until the recording length you want is displayed.</p> <p>With a Standby OTR set, you can watch playback, or change TV channels to watch another program. The VCR will automatically switch back to the Standby OTR channel to be recorded when the Standby OTR start time comes up. Any tape in the VCR with a record tab will be recorded on when the OTR start time is reached.</p>

TO CANCEL A STANDBY OTR

You can cancel a Standby OTR after one has been set, or is in progress.

1. Press the OTR Button twice.



The display at left will appear. About 5 seconds later, the Standby OTR will be canceled (when this stops a recording the VCR will shut off).

NOTE:

- If the preset time for a Timer Recording comes up during a One Touch Recording, the One Touch Recording will take priority.
- A STANDBY OTR can be initiated at the VCR by holding down the RECORD Button and pressing the CHANNEL DOWN Button. Continue pressing the CHANNEL DOWN Button until the desired time is obtained. The recording length is set by holding down the RECORD Button and pressing the CHANNEL UP Button repeatedly.

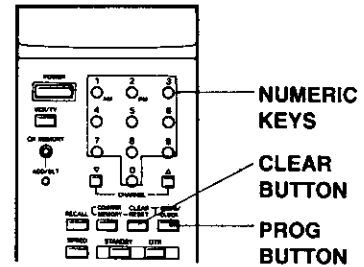
13 TIMER RECORDING

The TIMER feature lets you set the VCR with the REMOTE CONTROL to do unattended recording(s). For each program you set, the VCR will turn itself on at the scheduled time, do the recording, and turn off automatically. The types of Timer Recordings you can do are described in the box below. Instructions for each step appear on the TV screen after you select the program mode.

YOU CAN PROGRAM THE TIMER TO:

- Record a program on any day you choose up to one month away (One Time recording).
- Record once a week at the same time, length and day of each week (Weekly recording).
- Record everyday at the same time and length (Daily recording).

REMOTE CONTROL



MAKE SURE THAT.....

- PREPARATIONS on page 1 have been completed.
- the VCR/TV Selector is set to "VCR".
- the clock is set to the correct time.
- the desired tape speed (SP, LP or SLP) is selected.
- the record tab is not missing on the cassette.
- the tape is long enough to record the programs.

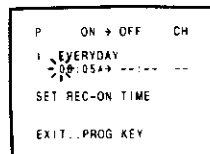
Enter program selections within 30 seconds of each other or the display will return to the menu screen.

Follow the Program Guide on the TV screen.
Use the Remote Control Buttons and NUMERIC Keys.

SELECT THE MENU SCREEN	SELECT THE PROGRAM MODE	SELECT THE PROGRAM NUMBER TO BE SET	SET THE REC-ON DAY	SET THE REC-ON TIME
<p>1 Press the PROG Button.</p> <p>The screen shown in step 2 will appear.</p> <p>(MENU screen)</p>	<p>2 Press Key ②.</p> <p>Use the NUMERIC Keys to make the selections for steps 2-8.</p> <p>(PROGRAM screen)</p>	<p>3 Select Program Number 1 - 4.</p> <p>If all program numbers are full, the program on the number you choose will be changed.</p> <p>(PROGRAM screen)</p>	<p>4 ONE TIME RECORDING</p> <p>Enter two digits for the day of the month. If today is JAN 8th, to make a recording on Feb. 3rd press ① ③.</p> <p>DAY</p> <p>FOR DAILY AND WEEKLY RECORDINGS SEE BELOW</p>	<p>5 Enter two digits for the hour, two digits for the minute, and "1" for AM or "2" for PM.</p> <p>For example, for 9:30PM press ① ⑨ ③ ① ②.</p> <p>HOUR MIN. REC-ON TIME</p>

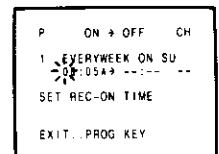
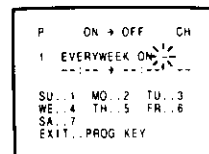
DAILY RECORDING

With the REC-ON DAY flashing press Key ④.

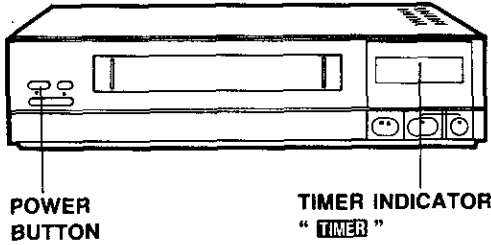


WEEKLY RECORDING

With the REC-ON DAY flashing press Key ⑤, then press the number for the day. For Sunday press Key ①, for Monday Key ②, for Tuesday Key ③, and so on.



VCR FRONT PANEL



TO MAKE CORRECTIONS IN ON-SCREEN ENTRIES

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

NOTE: • You can use OTR along with Timer Recording but be sure to check your recording times carefully – Timer Recording is preempted while the VCR Power is ON or during either OTR or Standby OTR recording. To use Timer Recording, be sure to turn the Power OFF after a Tape Rewind, Playback or other operation or after you set a Standby OTR.

SET THE REC-OFF TIME	SET THE REC-ON CHANNEL	SET THE NEXT PROGRAM OR RETURN TO WATCHING TV	SET THE TIMER
<p>6 Enter two digits for the hour, two digits for the minute(s), and "1" for AM or "2" for PM.</p> <p>For example, for 10:00PM press ① ① ① ① ② .</p> <p>HOUR MIN.</p> <p>REC-OFF TIME</p> <pre> P ON → OFF CH 1 FEB 03 FR 09:30P → 10:00P -- SET REC-OFF TIME EXIT...PROG KEY </pre>	<p>7 Enter two digits for the channel.</p> <p>For example, for Channel 10 press ① ① .</p> <p>CHANNEL</p> <pre> P ON → OFF CH 1 FEB 03 FR 09:30P → 10:00P -- SET REC-ON CHANNEL EXIT...PROG KEY </pre>	<p>8 Press a NUMERIC Key to select the next program.</p> <p>Repeat steps 4-7 or press the PROG Button to exit from the program mode.</p> <p>If you want to play back or watch TV before the Timer Recording starts, use the VCR controls. Then proceed to Step 9.</p> <pre> 1 3 9:30P 10:00P 10 2 - - - - - - - 3 - - - - - - - 4 - - - - - - - EXIT...PROG KEY </pre>	<p>9 Press the POWER Button OFF.</p> <p>This sets the Timer ON. TIMER Indicator "TIMER" appears.</p> <p>The TV controls can be used to select channels for viewing.</p>

AFTER THE TIMER RECORDING HAS TAKEN PLACE

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

NOTE:

- If the record tab is missing, tape will be ejected and the CASSETTE-IN Indicator "C" and "TIMER" will flash to alert you.

15 TIMER RECORDING (CONTINUED)

TO CHECK OR RE-ENTER TIMER PROGRAMS

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

1. Press the POWER ON to release the Timer Set mode.
2. Follow steps 1 – 3 on page 13.
In step 3, check the program contents for each program number. Make corrections and continue with steps 4 to 8.
3. After you are sure that the programs in step 8 are all set correctly, press the PROG Button to return to watching TV.
4. Press the POWER Button OFF to set the TIMER mode ON.

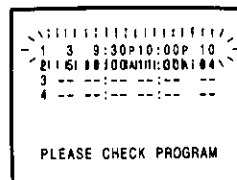
B) When a Timer Recording is in progress.

1. Set the VCR/TV Selector to "VCR".
2. Press the PROG Button. The screen at right will appear.

All programs can be checked at this stage.

The display will disappear after about 30 seconds.

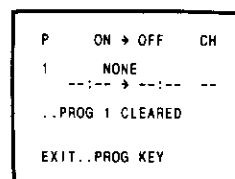
To immediately return to the program being recorded, press the PROG Button.



All currently set programs will be shown. The program in progress will be flashing.

TO CLEAR PROGRAMS: after programming is complete and the POWER is still ON

1. Follow steps 1 – 3 on page 13.
In step 3, enter the program number you wish to clear.
2. Press the CLEAR Button. The screen at right will appear for a few seconds.
3. To enter a replacement program, follow the program guide from the "SET REC-ON DAY" instructions on page 13.



TO STOP A TIMER RECORDING IN PROGRESS

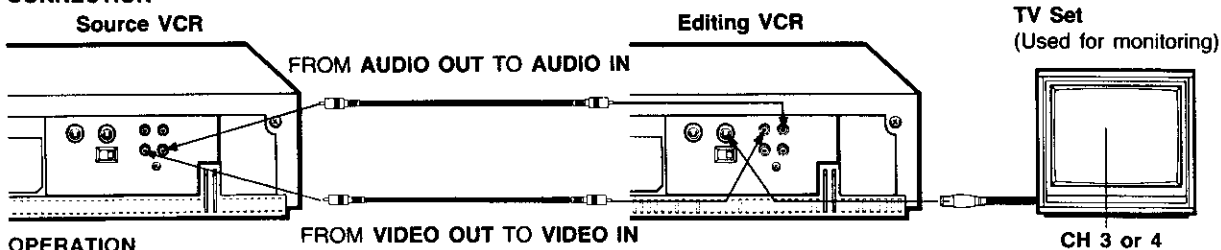
1. Press the POWER Button, then press the STOP Button within 10 seconds.
2. Press the POWER Button again to turn the VCR OFF.
This erases the program in progress from the timer's memory, and cancels today's recording only of a DAILY or WEEKLY series. Future DAILY and WEEKLY recordings will be performed as programmed.

HELPFUL HINTS

A RE-RECORDING (TAPE DUPLICATION)

It is becoming more popular for friends to exchange and/or copy some of their favorite camera recordings. Such dubbing from one recorder to another is simple and can be done as described below.

CONNECTION



OPERATION

AT THE SOURCE VCR	AT THE EDITING VCR	PLAY BACK THE TAPE	RECORD (COPY) THE TAPE
1 Insert a pre-recorded tape.	2 Insert a blank tape.	3 Press the PLAY Button on the source VCR.	4 Press the RECORD and PLAY Buttons together on the editing VCR.

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

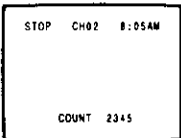
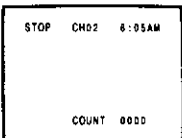
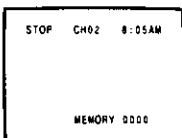
NOTE: Be sure the buttons in steps 3 and 4 are pressed simultaneously to avoid missing any of the recording.

TO MONITOR THE RE-RECORDING PROCESS ON YOUR TV

- Turn TV ON and select its VCR channel (either CH 3 or CH 4).
- Set the VCR/TV Selector on the editing VCR to "VCR".

B TAPE COUNTER CONTROL

If you reset the Tape Counter when the tape is fully rewound you can make an index of tape locations. Then you can use the Tape Counter reading to find a tape location, and use the Memory function to return to that location for a repeat playback. Be sure the Tape Counter overlay is displayed when you use the Tape Counter. To remove an overlay, press the RECALL Button again. (See "VCR STATUS DISPLAY" on page 6 for more information.)

SELECT THE TAPE COUNTER OVERLAY	RESET THE TAPE COUNTER	SELECT THE MEMORY FUNCTION	START THE MEMORY FUNCTION
<p>1 Press the RECALL Button once or twice.</p> <p>The Tape Counter Display appears on the TV screen.</p> 	<p>2 Press the RESET Button.</p> <p>Reset the counter to zero at whatever point you choose on the tape.</p> 	<p>3 Press the MEMORY Button.</p> <p>Select MEMORY during any operation with the Tape Counter Overlay showing.</p> 	<p>4 Press the REWIND or FAST FORWARD Button (In STOP mode).</p> <p>The tape will stop automatically wherever "0000" was set.</p>

C TYPES OF VIDEO CASSETTE

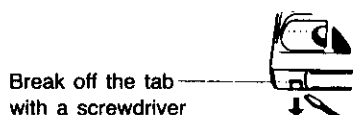
Use types with the **VHS** mark in this unit.

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

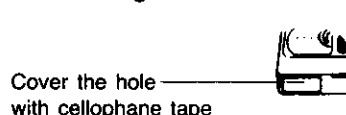
D ERASE PROTECTION

Cassettes have a Record Tab to ensure that recordings are not accidentally erased.

- To prevent accidental erasure



- To record again



17 HELPFUL HINTS (CONTINUED)

E NOTES ON OPERATIONS

TO GET STARTED

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

CLOCK ADJUSTMENT

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

CHANNEL MEMORY

CHANNEL CHART

TV BAND		
SELECTED CHANNEL INDICATION	CHANNEL BAND DESIGNATIONS	CHANNEL RECEIVED OFF THE AIR
02 ~ 13	VHF	2 ~ 13
14 ~ 69	UHF	14 ~ 69

CATV BAND		
SELECTED CHANNEL INDICATION	CHANNEL BAND DESIGNATIONS	CHANNEL RECEIVED OFF THE AIR
02 ~ 13	BROADCAST VHF	2 ~ 13
14 ~ 36	CATV MID/SUPER BANDS	A ~ W
37 ~ 64	CATV HYPER BAND	AA ~ EEE
95 ~ 99	CATV LOW BAND	A-5 ~ A-1
01	SPECIAL CATV CHANNEL	5A (between 4 and 5)
65 ~ 94	ULTRA BAND	65 ~ 94

SPECIAL EFFECTS PLAYBACK

- During search playback, horizontal noise bars will appear on the TV screen.
- After the VCR is in the pause or slow mode for 5 minutes it will stop automatically for tape and video head protection.
- In search, still or slow motion playback, some amount of noise may appear for tapes recorded in SLP mode. The picture may be completely snowy in search, still or slow motion mode for tapes recorded in SP or LP speed.

TO RECORD

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

ONE TOUCH RECORDING

- During a One Touch Recording, press the OTR Button once to see an overlay with the remaining recording time.
- If the record tab is missing on the cassette, it will be ejected when you press the OTR or STANDBY Button.
- Once the VCR has been programmed for a Standby OTR, you will be unable to program additional timer recordings. You will note when accessing the program mode, "STANDBY SET" will appear at the bottom of the numbered programs indicating a Standby OTR has been programmed.

TIMER RECORDING

- Timer Recording may not be performed or continued if a power interruption of more than about 1 minute occurs before or during Timer Recording, even if power resumes thereafter.
- If the start times of 2 preset programs overlap, the preset time of the lower numbered program will have priority.

RE-RECORDING

- Audio/Video input connections take priority over Antenna signals. Remember to remove the A/V inputs to resume TV reception/recording capability.

Check the following points once again.

POWER

Trouble	Correction
No power...	<ul style="list-style-type: none"> • Check that the Power Plug is completely connected to an AC Outlet. • Check that the POWER Button is set to "ON".

RECORDING AND PLAYBACK

Trouble	Correction
TV programs can't be recorded ...	<ul style="list-style-type: none"> • Check the connections between VCR, external antenna and your TV. • Check that the band selected is set to meet your antenna or cable TV system. (p.8) • Make sure that the record tab on the back of the cassette is still intact. (p.16)
Timer Recording can't be performed ...	<ul style="list-style-type: none"> • Set the recording start/stop time correctly. (p.13-14) • Make sure that the POWER Button is set to "OFF". (p.14) • 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 ...	<ul style="list-style-type: none"> • Select the same channel on your TV as that of the CH 3/4 Switch on the VCR. (p.1) • Set the VCR/TV Selector to "VCR". (p.2) • Check that channel 3 or 4 of TV is properly adjusted. • Adjust the TRACKING CONTROL slowly in either direction. (p.9)
During special effects playback, the picture may contain some vertical jitter when using a TV which has Automatic Vertical Hold Control Switch ...	<ul style="list-style-type: none"> • In that case, set the TV's Vertical Hold Control Switch to MANUAL position and then adjust vertical hold control.
If the top of your playback picture waves back and forth excessively ...	<ul style="list-style-type: none"> • Because the VCR playback signal is not as stable as an off-the-air TV signal, you might experience the following symptom on your TV screen: top of TV screen is bent or unstable when VCR is played back. To solve this problem, turn the horizontal hold control on your TV slowly to correct the wavy picture. If your TV does not have the horizontal hold control or adjusting the control does not help, please contact your local TV service center.

REMOTE CONTROL

Trouble	Correction
VCR cannot be remote controlled ...	<ul style="list-style-type: none"> • Aim the Wireless Remote Control directly at the remote sensor on the VCR. • Avoid all obstacles which may interfere with the signal path. • Replace or inspect the batteries. (Back Cover)

OTHERS

Trouble	Correction
You can't view programs normally on TV ...	<ul style="list-style-type: none"> • Set the VCR/TV Selector to "TV". (p.2)
Video cassette can't be inserted ...	<ul style="list-style-type: none"> • Insert the cassette with the window side up and the record tab facing you.
Video cassette can't be removed ...	<ul style="list-style-type: none"> • Check that the Power Plug is completely connected to an AC Outlet.
Video cassette ejects when the OTR, STANDBY, REC and PLAY Buttons are pressed or the POWER Button is pressed OFF to set the Timer ...	<ul style="list-style-type: none"> • Check the cassette to be sure that the record tab on the back of the cassette is still intact. (p.16)

CLEANING CARE FOR VIDEO HEADS ...



Clogged Video Head

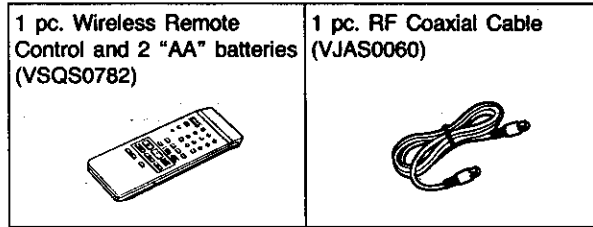
- (a) **Video Head Cleaning:** Your VCR will not normally require head cleaning; however, it is possible that the heads may become clogged when playing an old or damaged tape. If the image on your screen resembles the photograph on the left, while playing back a tape, the heads may require cleaning.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

ACCESSORIES

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

ACCESSORIES SUPPLIED

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



OPTIONAL ACCESSORIES

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

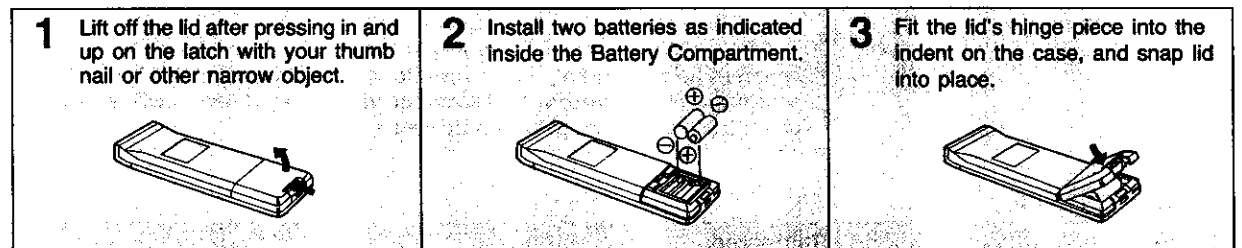
- 1/2" Video Cassette Tape

SPECIFICATIONS

Power Source:	120 V AC, 60 Hz
Power Consumption:	Approx. 19 watts
Video Signal:	EIA Standard NTSC color
Video Recording System:	2 rotary heads, helical scanning system
Audio Track:	1 track
Tuner:	
Broadcast Channels:	VHF 2~13, UHF 14~69
CATV Channels:	"A" (14)~"EEE" (64), "A-5" (95)~"A-1" (99), "5A" (01), 65~94
Operating Temperature:	41°F~104°F (5°C~40°C)
Operating Humidity:	10%~75%
Weight:	8.6 lbs. (3.9 Kg)
Dimensions:	14-3/16" (W) x 3-3/8" (H) x 11-5/8" (D) 360 (W) x 86 (H) x 295 (D) mm

Designs and specifications are subject to change without notice.

LOAD THE BATTERIES AS FOLLOWS:



BATTERY REPLACEMENT CAUTION

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

<p>FOR SAFETY'S SAKE: You have a legal description of your VCR when you record it's serial number in the space provided here. The serial number is on the tag located on the back of your VCR. Be sure to retain this manual as your convenient VCR information source.</p>	<p>Date of Purchase _____</p> <p>Dealer Purchased From _____</p> <p>Dealer Address _____</p> <p>Dealer Phone No. _____</p> <p>Model No. PV-2905 _____</p> <p>Serial No. _____</p>
---	---

Panasonic®

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

Panasonic Hawaii, Inc.
99-859 Iwaiwa Street
P.O.Box 774
Honolulu, Hawaii 96808-0774

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

