



Panasonic®

Combination VCR Operating Instructions

Omnivision **MHS**

Model No. **PV-C1322/PV-C1332W**
PV-C1342/PV-C1352W



- Initial Setup and Connection Procedures are on pages 8 and 9.



As an **ENERGY STAR®** Partner,
Matsushita Electric Corporation of America has
determined that this product or product model meets
the **ENERGY STAR®** guidelines for energy efficiency.



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.)

For assistance, please call : 1-800-211-PANA(7262) or send e-mail to : consumerproducts@panasonic.com

Initial Setup

Basic Operation

TV Operation

Timer Operation/Advanced Operation/For Your Information

LC5010516A

Important Safeguards and Precautions

READ AND RETAIN ALL SAFETY AND OPERATING INSTRUCTIONS. HEED ALL WARNINGS IN THE MANUAL AND ON UNIT

INSTALLATION

1 POWER SOURCE CAUTION

Operate only from power source indicated on unit or in this manual. If uncertain, have your Electric Utility Service Company or Video Products Dealer verify your home power source.

2 POWER CORD PLUG

For safety, this unit has a polarized type plug (one wide blade), or a three-wire grounding type plug. Always hold the plug firmly and make sure your hands are dry when plugging in or unplugging the AC power cord. Regularly remove dust, dirt, etc. on the plug.

POLARIZED PLUG CAUTION:

The plug fits into outlet one way. If it cannot be fully inserted, try reversing it. If it still will not fit, have an electrician install the proper wall outlet. Do not tamper with the plug.

GROUNDING PLUG CAUTION:

The plug requires a three-hole grounding outlet. If necessary, have an electrician install the proper outlet. Do not tamper with the plug.

3 POWER CORD

To avoid unit malfunction, and to protect against electrical shock, fire or personal injury:

- Keep power cord away from heating appliances and walking traffic. Do not rest heavy objects on, or roll such objects over the power cord.
- Do not tamper with the cord in any way.
- An extension cord should have the same type plug (polarized or grounding) and must be securely connected.
- Overloaded wall outlets or extension cords is a fire hazard.
- Frayed cords, damaged plugs, and damaged or cracked wire insulation are hazardous and should be replaced by a qualified electrician.

4 DO NOT BLOCK VENTILATION HOLES

Ventilation openings in the cabinet release heat generated during operation. If blocked, heat build-up may result in a fire hazard or heat damage to cassettes.

For your protection:

- Never cover ventilation slots while unit is ON, or operate unit while placed on a bed, sofa, rug, or other soft surface.
- Avoid built-in installation, such as a book case or rack, unless properly ventilated.

5 AVOID EXTREMELY HOT LOCATIONS OR SUDDEN TEMPERATURE CHANGES

Do not place unit over or near a heater or regulator, in direct sunlight, etc. If unit is suddenly moved from a cold place to a warm place, moisture may condense in unit and on the tape causing damage.

6 TO AVOID PERSONAL INJURY

- Never place unit on support or stand that is not firm, level, and adequately strong.

The unit could fall causing serious injury to a child or adult and damage to the unit.

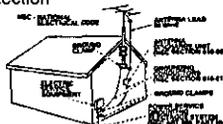
- Move any appliance and cart combination with care. Quick stops, excessive force, and uneven surfaces may cause objects to overturn.
- Carefully follow all operating instructions.



OUTDOOR ANTENNA INSTALLATION

1 SAFE ANTENNA AND CABLE CONNECTION

An outside antenna or cable system must be properly grounded to provide some protection against built up static charges and voltage. Section 810 of the National Electrical Code, ANSI/NFPA 70 (in Canada, part 1 of the Canadian Electrical Code) provides



information regarding proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

2 KEEP ANTENNA CLEAR OF HIGH VOLTAGE POWER LINES OR CIRCUITS

Locate an outside antenna system well away from power lines and electric light or power circuits so it will never touch these power sources should it ever fall. When installing antenna, absolutely never touch power lines, circuits or other power sources as this could be fatal.

USING THE UNIT

Before unit is brought out of storage or moved to a new location, refer again to the INSTALLATION section of these safeguards.

1 KEEP UNIT WELL AWAY FROM WATER OR MOISTURE, such as vases, sinks, tubs, etc.

2 IF EXPOSED TO RAIN, MOISTURE, OR STRONG IMPACT, unplug unit and have it inspected by a qualified service technician before use.

3 ELECTRICAL STORMS

During a lightning storm, or before leaving unit unused for extended periods of time, disconnect all equipment from the power source as well as the antenna and cable system.

4 WHEN UNIT IS PLUGGED IN

- DO NOT OPERATE IF:

- liquid has spilled into unit.
- unit was dropped or otherwise damaged.
- unit emits smoke, malodors, or noises.

Immediately unplug unit, and have it inspected by a service technician to avoid potential fire and shock hazards.

- Never drop or push any object through openings in unit. Touching internal parts may cause electric shock or fire hazard.
- Keep magnetic objects, such as speakers, away from unit to avoid electrical interference.

5 USING ACCESSORIES

Use only accessories recommended by the manufacturer to avoid risk of fire, shock, or other hazards.

6 CLEANING UNIT

Unplug unit. Use a clean, dry, chemically untreated cloth to gently remove dust or debris. DO NOT USE cleaning fluids, aerosols, or forced air that could over-spray, or seep into unit and cause electrical shock. 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 PRODUCT YOURSELF

If, after carefully following detailed operating instructions, the unit does not operate properly, do not attempt to open or remove covers, or make any adjustments not described in the manual. Unplug unit and contact a qualified service technician.

2 REPLACEMENT OF PARTS

Make sure the service technician uses only parts specified by the manufacturer, or have equal safety characteristics as original parts. The use of unauthorized substitutes may result in fire, electric shock, or other hazards.

3 SAFETY CHECK AFTER SERVICING

After unit is serviced or repaired, request that a thorough safety check be done as described in the manufacturer's service literature to insure video unit is in safe operating condition.

Safety Precautions/Mesures de sécurité

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

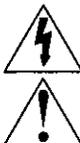
Caution : To prevent electric shock, match wide blade of plug to wide slot, fully insert.

Avertissement : Afin de prévenir tout risque d'incendie ou de chocs électriques, ne pas exposer cet appareil à la pluie ou à une humidité excessive.

Attention : Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

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. This television receiver provides display of television closed captioning in accordance with §15.119 of the FCC rules.

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



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

This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it should be read carefully in order to avoid any problems.

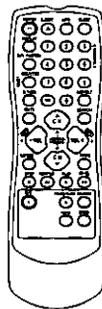
This product utilizes both a Cathode Ray Tube (CRT) and other components that contain lead. Disposal of these materials may be regulated in your community due to environmental considerations. For disposal or recycling information please contact your local authorities, or the Electronics Industries Alliance: <<http://www.eiaa.org>>

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 unit.

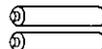
Date of Purchase _____
Dealer Purchased From _____
Dealer Address _____
Dealer Phone No. _____
Model No. _____
Serial No. _____

Accessories



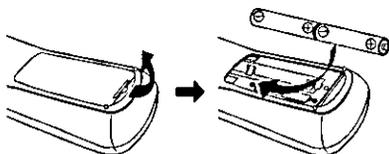
- Remote Control
LSSQ0281
(PV-C1322/PV-C1342)
LSSQ0282
(PV-C1332W/PV-C1352W)

- Batteries
2 "AA"



To order accessories,
call toll free 1-800-332-5368.

Loading the Batteries



Battery replacement caution

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

Prevent Accidental Tape Erasure

Break off the tab to prevent recording.

To record again.



Unit Information

Head Cleaning

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

Head Clog Sensor

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

VIDEO HEADS MAY
NEED CLEANING
PLEASE INSERT HEAD
CLEANING CASSETTE
OR REFER TO MANUAL

END:PLAY KEY

- Use "dry" type head cleaning cassette only. (Part No. NV-TCL30PT is recommended.)
- Follow cleaning tape directions carefully. Excessive use of head cleaning tape can shorten the video head life.
- If head clog symptoms persist, contact your nearest Factory Service Center or authorized Service Center. (See Page 34.)

Specifications

Display

Picture Tube: 13 inch measured diagonal 90° deflection Picture Tube

VCR

Video Recording System: 2 rotary heads helical scanning system (PV-C1322/PV-C1332W)
4 rotary heads helical scanning system (PV-C1342/PV-C1352W)
1 track

Audio Track:

Tuner

Broadcast Channels: VHF 2 ~ 13, UHF 14 ~ 69
CABLE Channels: Midband A through I (14 ~ 22)
Superband J through W (23 ~ 36)
Hyperband AA ~ EEE (37 ~ 64)
Lowband A-5 ~ A-1 (95 ~ 99)
Special CABLE channel 5A(01)
Ultraband 65 ~ 94, 100 ~ 125

FM Radio

Band Range: 87.5 - 108.1 Mhz

General

Power Source: 120 V AC, 60 Hz

Power Consumption:

Power On
Approx. 69 watts
Power Off
Approx. 2.5 watts

Television System:

EIA Standard NTSC color

Speaker:

1 piece

Operating Temperature: 5 °C ~ 40 °C (41 °F ~ 104 °F)

Operating Humidity:

10 % ~ 75 %

Weight:

12 Kg (26.4 lbs.)

Dimensions:

386 (W) X 385 (H) X 374 (D) mm
15-3/16" (W) X 15-3/16" (H)
X 14-3/4" (D)

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

Features for a Quality Picture

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. Press the 3 or 6 number key on the remote control or CH ▲▼ on the unit until the picture clears up. To return to Auto Tracking, press **POWER** off, then on again a few seconds later.

V-Lock Control

<For Model PV-C1342/PV-C1352W only>

In Still mode, the 3 or 6 number key on the remote control or CH ▲▼ on the unit operate as a V-lock control to reduce jitter.

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 Hour	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

DST (Daylight Saving Time)

Unit auto adjusts clock for DST (Daylight Saving Time.)

■ 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 unit for timer recordings.

Table of Contents

Important Safeguards and Precautions / Safety Precautions	2, 3
Before Using	4
Unit Information	4
Table of Contents	5
Location of Controls	6
Connections / Initial Setup (Ready to Play)	8, 9
<hr/>	
Reset Language, Channels, Clock, Time Zone Adjust	10, 11
Playback a Tape	12
Record On a Tape	12
Copy Your Tapes (Dubbing)	13
<hr/>	
TV Operation	14
Picture Adjustment	15
TV Timer Features	16, 17
Closed Caption System	18, 19
FM Radio	20, 21
<hr/>	
Timer Recording	22, 23
<hr/>	
Tape Operation	24 ~ 26
Special VCR Features	27, 28
V-Chip Control Feature	29 ~ 31
<hr/>	
On-Screen Display (OSD)	32
Before Requesting Service	33
Servicenter List	34
Limited Warranty	35
Spanish Quick Use Guide / Guía para rápida consulta	36, 37
Index	BC

Initial Setup

Basic Operation

TV Operation

Timer Operation

Advanced Operation

For Your Information

Location of Controls

Remote Control Buttons

EJECT button:

When EJECT is pressed, the tape is ejected from Cassette Compartment.
If EJECT is pressed during recording, the unit will not respond to the command.

EJECT

Ejects tape.

POWER

Turn on or off the unit.

DISPLAY

Displays the VCR status and clock.

TAPE POSITION

Finds out present tape position and amount of tape remaining.

COUNTER RESET

Resets to "0:00:00" at the desired position.

RAPID TUNE

Displays the last channel you were watching.

MUTE

Mutes the sound instantly.

VOLUME UP/DOWN

Adjusts volume.

SET/BACK SPACE

Sets a selected menu, or goes back to correct.

ACTION

Displays main menu.

STOP

Stops recording or playback.

REC

Records the program.

REWIND/SEARCH

Rewinds tape, and searches reverse scene.

FM/TV

Receives FM radio signal.

NITE

Color and picture intensity level are adjusted during night time use.

SLEEP

Turns off the unit automatically.

TRACKING UP/DOWN

Reduces picture noise during Playback and Slow Motion.

NUMBER keys

Selects a channel directly.

ADD/DELETE

Adds or deletes a channel.

SEARCH

Goes directly to the desired recording. Locates end point of recording.

CHANNEL UP/DOWN

Selects a channel.

SELECT UP/DOWN

Control the navigation around on-screen menu.

PROGRAM

Displays SET PROGRAM screen. You can set Timer Program and On-Timer.

FAST FORWARD/SEARCH

Fast forwards tape, and searches forward scene.

CM/ZERO

In Stop mode, goes to the counter "0:00:00." In Play mode, skips over 1 to 3 minutes of tape.

SPEED

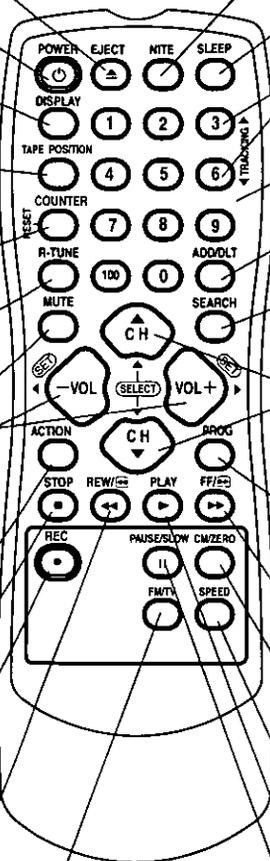
Selects recording speed.

PLAY

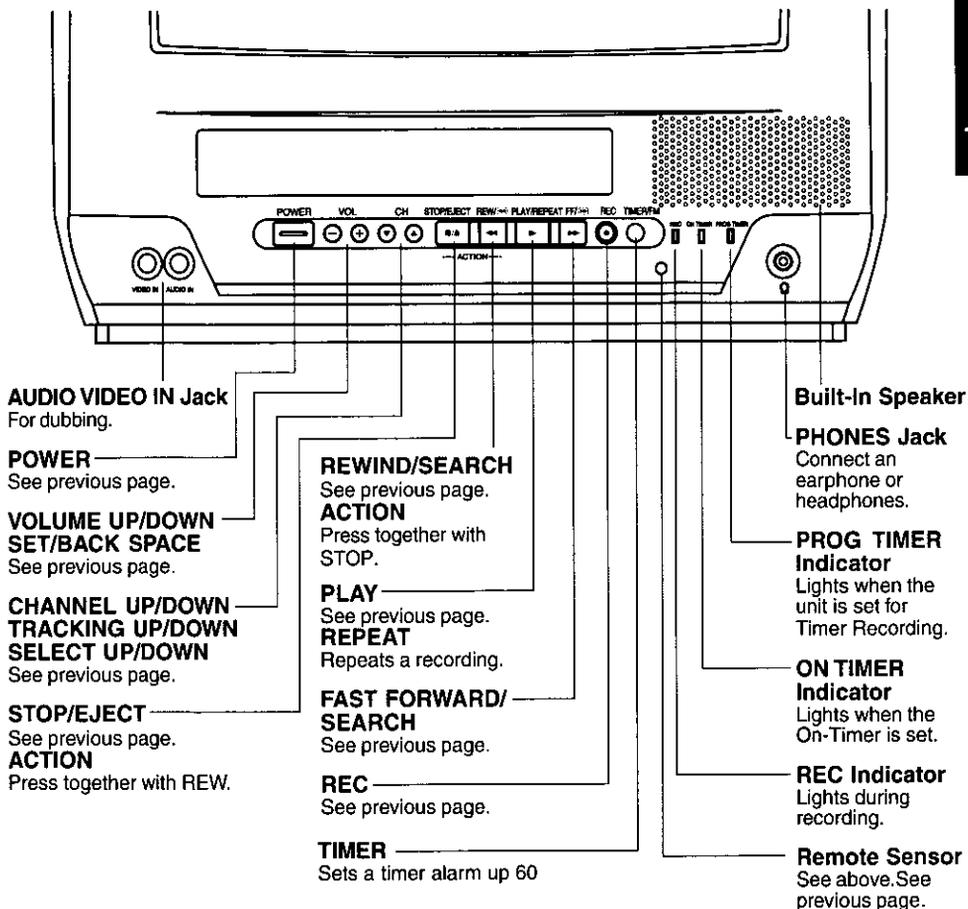
Begins playback.

PAUSE/SLOW

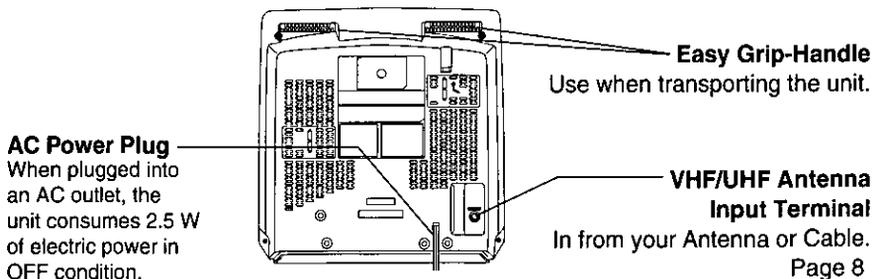
Pauses and slow motion and frame advance picture.



Front View of the unit and Indicators on the Front Panel



Rear View of the Unit



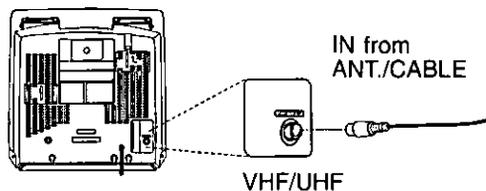
Connections/ Initial Setup (Ready to Play)

Please make all cable or antenna connections before powering on.

Connecting

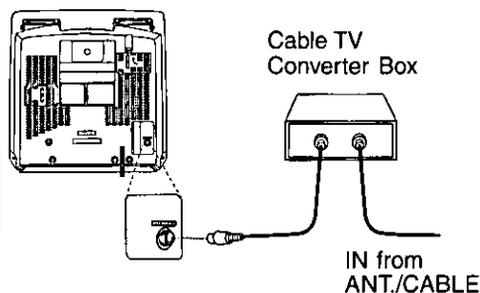
For ANT./Cable

Connect the cable from Antenna/Cable to the VHF/UHF terminal on the unit.



For DSS/Cable Box

Connect the OUT jack on your cable box to the VHF/UHF terminal on the unit with a RF cable.

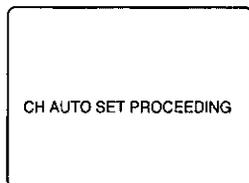


WARNING:

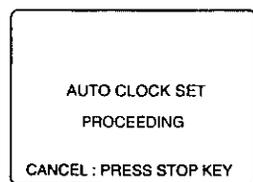
Overtightening "Nut type" RF coaxial cables may damage jacks. Finger tighten only.

Initial Setup (Ready to Play)

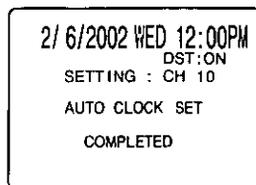
- 1 Plug the unit power cord into an AC wall outlet.
- 2 Press Power on the remote or unit. The unit comes on and auto channel and clock set starts.



- If you use a cable box, turn it on and set it to the Public Broadcasting Service (PBS) channel in your time zone. If you use a DSS receiver, it must be turned off.



- 3 Settings are made automatically. When setup is done, this screen appears.



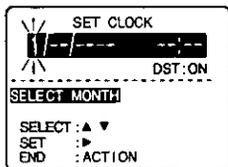
If AUTO CLOCK SET IS INCOMPLETE screen appears, set the clock using MANUAL CLOCK SET procedure as below.



Manual Clock Set

If AUTO CLOCK SET was incomplete, manually set the clock as follows.

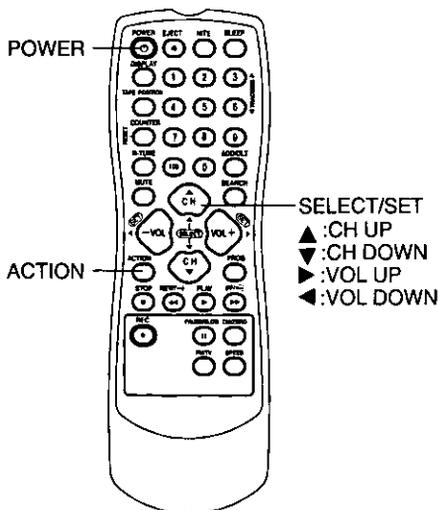
- 1 Press **ACTION** on the Remote to display SET CLOCK Menu screen.



- 2 Press ▲▼ to select the month and press ► to set. In the same manner, select and set the date, year, time, and DST. (Daylight Saving Time)



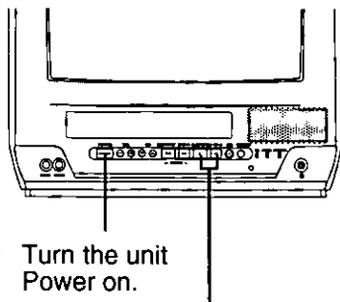
- 3 Press **ACTION** twice to start CLOCK and exit.



Reset all unit Memory Functions

When moving unit to a new location, or if a mistake was made in the Initial Setup section.

- Make sure a tape is not inserted in the unit.



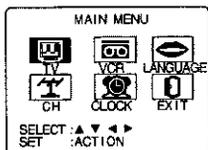
- 3 Do "Initial Setup" on page 8.

Note to CABLE System Installer

This reminder is provided to call the CABLE (Cable TV) System Installers attention to Article 820-40 of the NEC 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.

Reset Language, Channels, Clock,

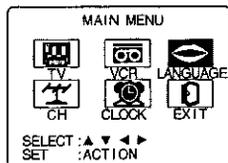
1



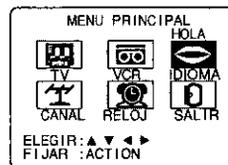
Press **ACTION** to display MAIN MENU.

2 Language

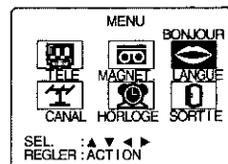
- 1) Press **▲▼◀▶** to select language icon.



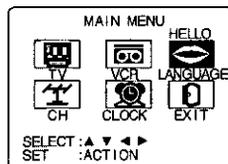
- 2) Press **ACTION** repeatedly.



For Spanish



For French

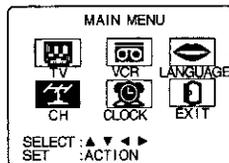


For English

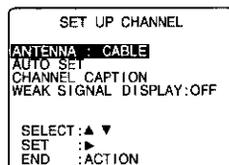
- 3) Press **▲▼◀▶** to select "EXIT." Press **ACTION** to exit.

Channels

- 1) Press **▲▼◀▶** to select "CH."



- 2) Press **ACTION**.



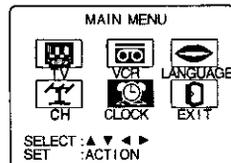
- 3) Press **▲▼** to select "ANTENNA," then press **▶** to set your antenna system ("TV" or "CABLE").

- 4) Press **▲▼** to select "AUTO SET," then press **▶**.

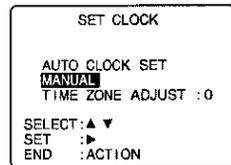
- After Channel Auto Set is finished, Clock Auto Set will be performed. (If clock is set manually, Clock Auto Set will not be performed.)

Clock

- 1) Press **▲▼◀▶** to select "CLOCK."



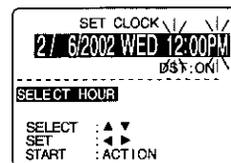
- 2) Press **ACTION**.



("TIME ZONE ADJUST" appears only when auto clock is set.)

- 3) Press **▲▼** to select "MANUAL" or "AUTO CLOCK SET" and press **▶**.

- For Auto Clock Set, select "AUTO CLOCK SET," then press **CH ▲**.



- 4) Press **▲▼** and press **◀▶** to select and set the month, date, year, time, and DST (Daylight Saving Time).

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

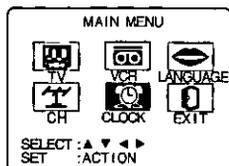
10

Time Zone Adjust

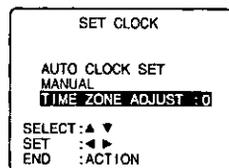
Time Zone Adjust

(Only when Auto Clock is set.)

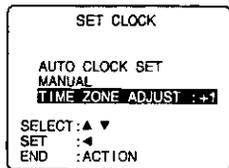
- 1) Press **▲▼◀▶** to select "CLOCK."



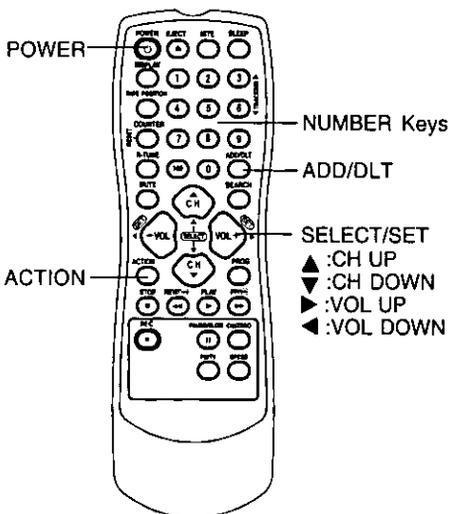
- 2) Press **ACTION**.



- 3) Press **▲▼** to select TIME ZONE ADJUST and press **◀** or **▶** to subtract or add hour(s) as necessary.



- 4) Press **ACTION** twice to exit.

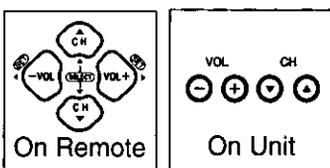


ACTION key on the unit



You can operate the menu screen using unit buttons. To display the menu, press STOP/EJECT and REW together with no tape inserted. To exit the menu, repeat above with or without tape inserted until normal screen appears.

Using ▲▼◀▶ keys

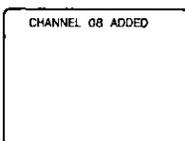


- ▲ : CH UP
- ▼ : CH DOWN
- ▶ : VOLUME UP
- ◀ : VOLUME DOWN

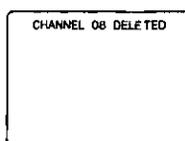
Whenever the menu or program screen is displayed, CHANNEL UP/DOWN function as ▲▼ and VOLUME UP/DOWN function as ◀▶ only.

Add or Delete a Channel

To add channel:
Select channel with number keys and press ADD/DLT.



To delete channel:
Select channel with CH ▲▼ or number keys and press ADD/DLT.



Basic Operation

Playback a Tape

Record On a Tape

✓ Ready Check List

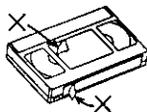
- All connections are made.
- Your unit is plugged in.



1 Insert a cassette.

- The unit power comes on automatically.

To prevent tape jam, remove loose or peeling labels from tapes.



2 Press PLAY.

- Playback begins if cassette has no record tab.

■ Forward/Reverse scene search

=> Press FF or REW

=> PLAY to release.

■ Still (Freeze) picture

=> Press PAUSE/SLOW

=> Press PLAY to release.

■ Slow Motion picture

=> Hold down PAUSE/SLOW in Still mode

=> Press PLAY to release.

■ Frame by Frame picture

=> Press PAUSE/SLOW in Still mode

=> Press PLAY to release.

Notes

- These features work best in SP or SLP mode (models PV-C1342/PV-C1352W) and SLP mode (models PV-C1322/PV-C1332W).
- After the unit is in Still or Slow mode for 3 minutes, it will switch to Stop mode automatically to protect the tape and the video head.

■ Stop => Press STOP

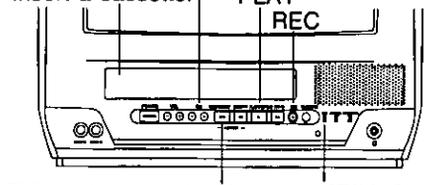
■ Rewind tape => Press REW in Stop mode

■ Fast forward tape => Press FF in Stop mode

■ Eject tape => Press EJECT on the remote or STOP/EJECT on the unit

You can operate on the unit

Insert a cassette. CH ▲▼ PLAY REC



■ Press to stop and/or eject tape. REC Indicator

1 Insert a cassette with record tab.

- The unit power comes on automatically.

2 Press CH ▲▼ or number keys to Select Channel.

- For "LINE" input, see bottom of next page.

3 Press SPEED to select recording speed (see page 4).

SP = Standard Play

LP = Long Play

SLP = Super Long Play

- Selected speed is displayed.

4 Press REC to start recording.

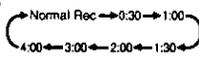
- To edit out unwanted portions, press PAUSE/SLOW to pause and resume recording.

- You cannot view another channel during recording.

■ Stop => Press STOP

■ One Touch Recording (OTR)

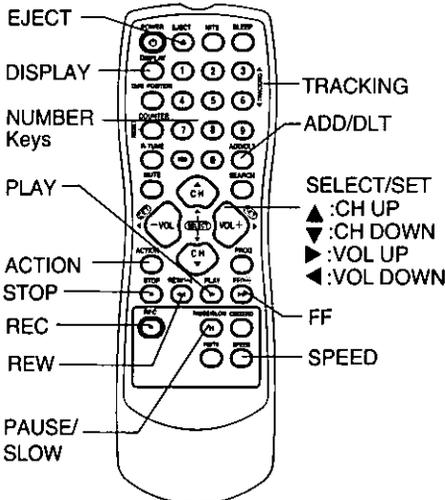
Press REC repeatedly to set the recording length (30 min - 4 hours).



- The unit stops recording at a preset time.
- PROG TIMER indicator lights on the unit.

Notes

- After the unit has been in Rec Pause mode for 5 minutes, it will stop automatically to protect the tape and the video head.
- The remaining recording time of an OTR can be displayed by pressing DISPLAY.

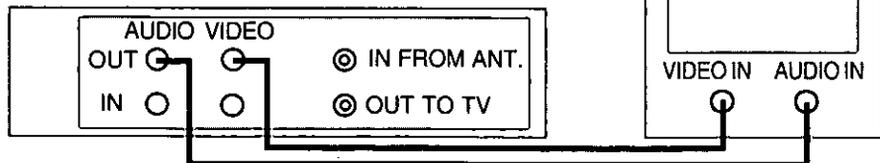


Copy Your Tapes (Dubbing)

Connections you'll need to make.

Recording (Editing) unit

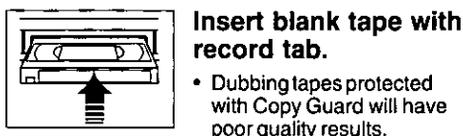
Playing (Source) VCR



Basic Operation

Playback (Source)

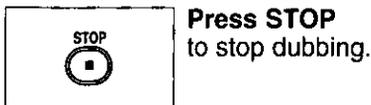
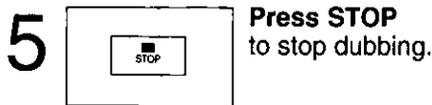
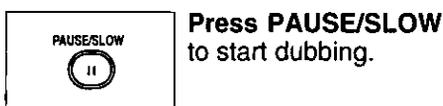
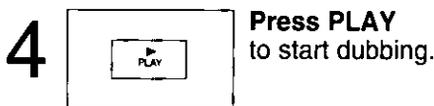
Recording (Editing) unit



Select "LINE" mode.
See "Selecting Input Mode" below.



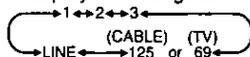
(Perform operation of steps 4 and 5 on both units at same time.)



Selecting Input Mode

Method 1:

Press CH ▲▼. The display will change as follows.



Method 2:

- Press **ACTION** for MAIN MENU.
- Press **▲▼** to select "TV", then press **ACTION** for SET UP TV screen.
- Press **▲▼** to select "INPUT SELECT," and then press **▶** to select "TUNER" or "LINE."
- Press **ACTION** twice to exit this mode.

Caution

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

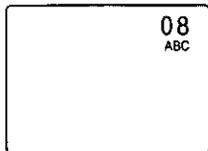
TV Operation

1 Press **POWER** on the remote or unit.

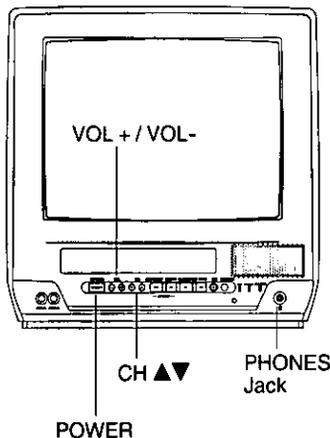
Ready Check List

- All connections are made.
- Your unit is plugged in.

2 Use **CH ▲▼** or **number keys** to select a channel.

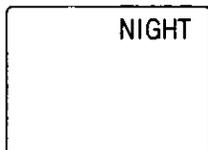


3 Press **VOL +** or **VOL -** to adjust volume.



NIGHT (NITE) Mode

Color and picture intensity levels are adjusted so the screen is easier on your eyes during night time use.



Press **NITE** to set **NIGHT** mode.

- NIGHT mode may be selected when watching TV or playing a tape.

Press **NITE** to cancel.

- Previous settings are restored.
- NIGHT mode is canceled when power is turned off or power failure occurs.

Using the 100 key

When selecting **CABLE** channels 100 to 125 with the number keys, first press the 100 key, and then enter the remaining two digits.

Rapid Tune

Press **R-TUNE** to display the last channel you were watching.

Audio Mute

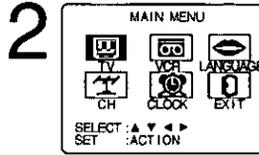
Press **MUTE** to instantly mute the sound. Press again to restore the previous sound level.

Phones

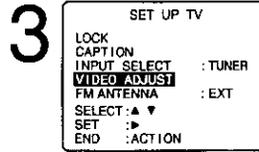
Connect an earphone (not supplied) or headphones (not supplied) to the **Phones Jack**.

Picture Adjustment

1 Press **ACTION** to display MAIN MENU.



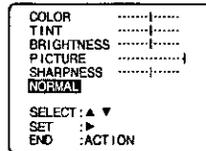
1) Press **▲▼◀▶** to select "TV."
2) Press **ACTION** to display SET UP TV screen.



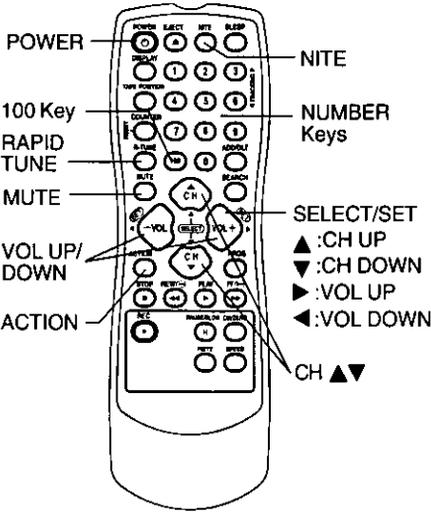
1) Press **▲▼** to select VIDEO ADJUST.
2) Press **▶** to display screen.



1) Press **▲▼** to select an adjustment item. (See below left.)
2) Press **◀▶** to adjust.



To Reset Picture Controls.
Press **▲▼** and **▶** to select and set "NORMAL."
All controls return to their factory settings.



Picture Adjustment

- **COLOR Control**
Adjust color intensity.
- **TINT Control**
Adjust for natural flesh tones.
- **BRIGHTNESS Control**
Adjust picture brightness.
- **PICTURE Control**
Adjust picture intensity by adjusting both contrast and color level in the proper balance.
- **SHARPNESS Control**
Adjust picture sharpness.

5 Press **ACTION** three times to exit.

TV Timer Features

ON-TIMER with Alarm

This unit can be set to automatically power on in one of 2 modes (TV, Playback, or FM radio).

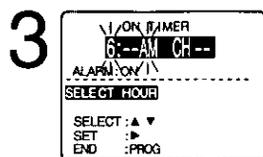
You can also combine the On-Timer with a one minute alarm that gradually increases in volume.

1 Press **PROG** to display SET PROGRAM screen.



1) Press **▲▼** to select "ON TIMER."

2) Press **►** to display ON TIMER screen.



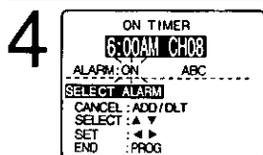
1) Press **▲▼** to select desired settings.

2) Press **►** to set the ON-TIMER TIME or ON-TIMER mode.

• ON-TIMER mode selection order

• Make sure a tape is inserted if Playback mode is selected.

• See "FM Radio" on pages 20 and 21 for instructions on how to preset FM stations.



Press **▲▼** to select ALARM "ON" or "OFF."

When "ON" is selected, an alarm will gradually increase in volume for one minute or until canceled by pressing any button (including VOL + -).

To Make Corrections, use **▲▼** and **◀▶** to move back and correct.

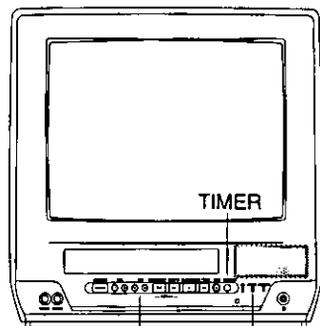
5 Press **PROG** to set ON TIMER.

- "ON TIMER SET" is displayed.
- ON TIMER Indicator lights on the unit.

To Cancel ON-TIMER set, Repeat steps 1 and 2. Then, press **ADD/DLT** to clear the time in step 3. Now, press **PROG** to end. "ON TIMER END" briefly appears on-screen.

Ready Check List

- The clock is set to correct time.

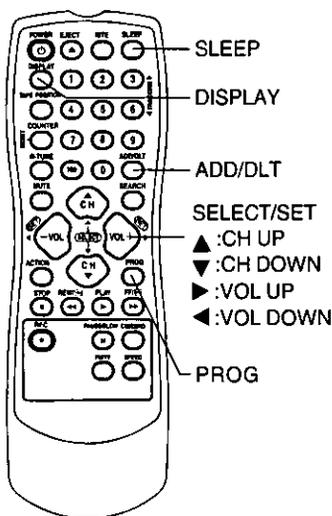


CH ▲▼

ON TIMER indicator

Note

- If no button on the remote or unit (including a button used to turn off the alarm) is pressed within 60 minutes after unit turns itself on, it will turn itself back off.



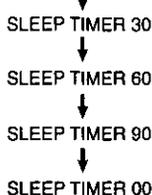
Sleep Timer

This unit can be set for auto power off.

Press SLEEP repeatedly to set SLEEP TIMER.

- Pressing **DISPLAY** with sleep timer set displays remaining time.

Press SLEEP repeatedly until "SLEEP TIMER 00" appears to cancel.

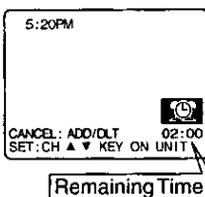


Instant Alarm

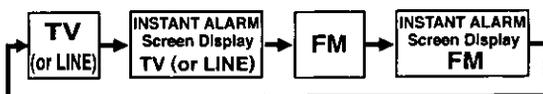
You can set a timer alarm up to 60 min. Useful when you are cooking, etc.

1 Press TIMER/FM on the unit to display the instant alarm CANCEL/SET screen.

2 **Press CH ▲▼ on the unit with CANCEL/SET screen displayed** to set alarm. (Time changes in the order shown left.)



- Pressing **TIMER/FM** repeatedly on the unit will change display as follows.

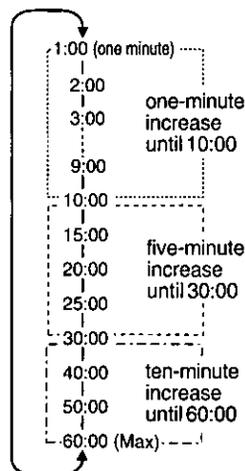


To cancel, press **TIMER/FM** then press **ADD/DLT** on the remote while **CANCEL/SET** screen is displayed.

To increase timer in progress, repeat step 2. Time will be rounded up to next 1, 5, or 10 minute interval. (See chart left.)

<Example>

- If current time remaining is 12:15, countdown will restart from 15:00.
- If current time remaining is 9:15, countdown will restart from 10:00.



Note

- While timer function is in progress, you can change channels on the unit with **CH ▲▼** while "CANCEL/SET" screen is not displayed.

3 Alarm will sound at 0: 00. Press any button to stop

- The volume of the alarm gradually increases for one minute and then continues to beep until any button is pressed.

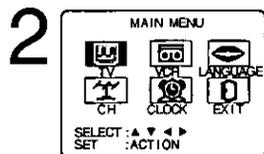
Closed Caption System

Closed Caption is ...

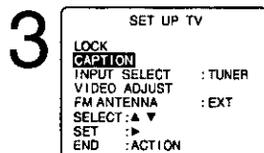
This multi-use system not only allows the hearing impaired to enjoy selected programs, but also makes useful information from TV stations available to everyone.

Closed Caption Mode Feature

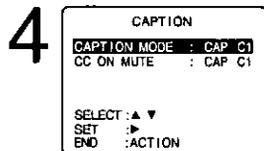
1 Press **ACTION** to display **MAIN MENU**.



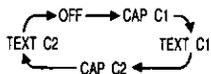
- 1) Press **▲▼◀▶** to select "TV."
- 2) Press **ACTION** to display **SET UP TV** screen.



- 1) Press **▲▼** to select "CAPTION".
- 2) Press **▶** to display **CAPTION** screen.



- 1) Press **▲▼** to select **CAPTION MODE**.
- 2) Press **▶** repeatedly to select mode. (See left.)



5 Press **ACTION** three times to return to the normal screen.

Closed Caption Mode Selections

Caption Mode: CAP C1 or C2
A narration of selected TV programs is displayed. Check TV program listings for CC(Closed Caption) broadcasts.

Caption Mode: TEXT C1 or C2

The lower half of the screen will be blocked out. When the TV station broadcasts information, such as program listings, it will appear in this space.

Caption Mode: OFF

Closed Caption / Text narration will not be displayed.

NOTE :

The closed caption or text signal may be broadcast over C1, C2, or both. Also, text contents can vary so you may wish to try different settings.

Recording and Playing Back a Closed Caption/Text Program

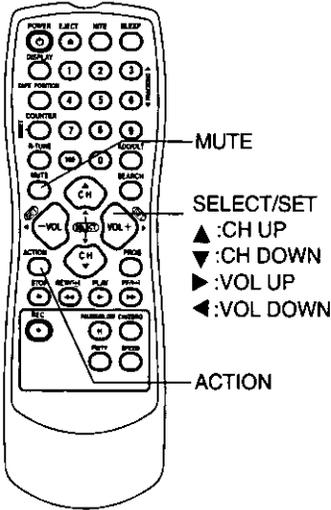
Record: Record normally.

Closed Caption/ Text signal, if present, is recorded automatically.

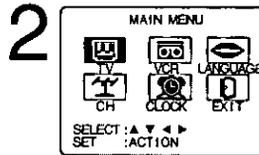
Playback: Start playback. Do above steps to select desired caption mode.

Caption On Mute Feature

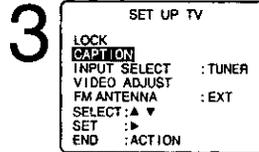
Closed Caption narration, if available, is displayed when MUTE button is pressed for silence.



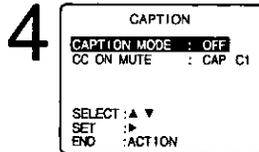
1 Press **ACTION** to display MAIN MENU.



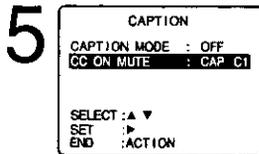
- 1) Press ▲▼◀▶ to select "TV."
- 2) Press **ACTION** to display SET UP TV screen.



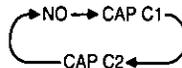
- 1) Press ▲▼ to select "CAPTION".
- 2) Press ▶ to display CAPTION screen.



- 1) Press ▲▼ to select CAPTION MODE.
- 2) Press ▶ repeatedly to select "OFF."



- 1) Press ▲▼ to select CC ON MUTE.
- 2) Press ▶ repeatedly to select desired mode.
 - Each press of ▶ will change the display as shown left.
 - The caption may be broadcast over CAP C1 or C2.



6 Press **ACTION** three times to return to the normal screen.

7 Press **MUTE** to mute the sound and display closed captioning.
• To cancel, press MUTE again.

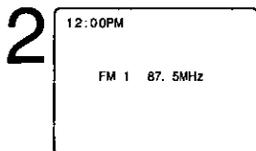
FM Radio

FM Radio is ...

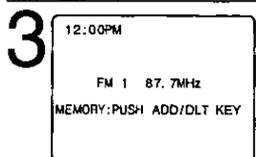
This unit has an FM radio with built-in antenna, 9 station preset, and a band range of 87.5 ~ 108.1 MHz. You can even set the On-Timer (page 16) to wake up to your favorite radio station.

FM Radio Setup

- 1** Press **FM/TV** on the remote or press **TIMER/FM** twice on the unit to display FM radio mode.



- Press a number key (1~9) to select the FM number.



- 1) Press CH ▲▼** to select the desired radio station. (Each press changes frequency 200 KHz.)

- 2) Press ADD/ DLT** to set the radio station.

Hold down CH ▲ or ▼ for a few seconds, then release to quickly scan for FM stations in your area.

- To cancel, press CH ▲ or ▼ while in search mode.

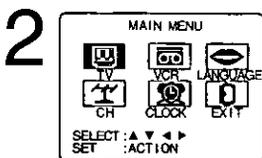
To Make Corrections, select station with a number key, then do step 3 again.

To exit FM mode, press **FM/TV** on the remote or **TIMER/FM** twice on the unit.

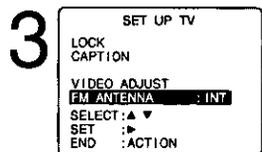
FM ANTENNA Setup

Make sure FM tuning is done correctly (see FM Radio Setup).

- 1** Press **ACTION** to display MAIN MENU.



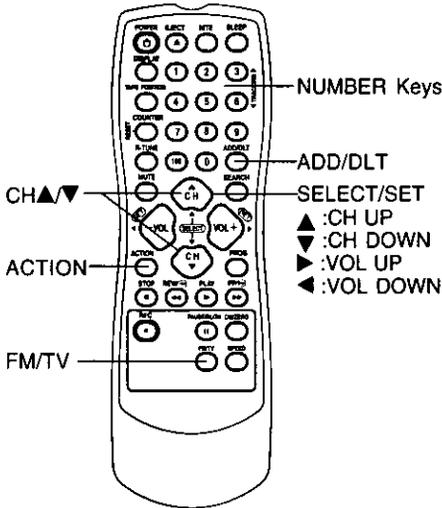
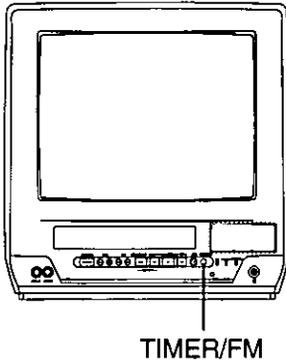
- 1) Press ▲▼◀▶** to select "TV."
2) Press ACTION to display SET UP TV screen.



- 1) Press ▲▼** to select FM ANTENNA.
2) Press ▶ to select "INT (INTERNAL)" or "EXT (EXTERNAL)" whichever sounds the best.

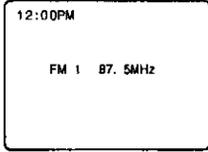
- For cable TV users => "INT"
- For antenna users => "EXT"

- 4** Press **ACTION** twice to end setup.



Using FM Radio

1 Press **FM/TV** on the remote or press **TIMER/FM** twice on the unit to display FM radio mode.

2  Press a **Number key (1~9)** to select a preset FM number (see steps 2 and 3 on this page).

To cancel, press **FM/TV** on the remote or **TIMER/FM** twice on the unit.

Notes

- FM radio cannot be recorded on a Video cassette.
- You may get better reception by repositioning the unit.
- You cannot select FM Radio mode during playback or record, or while a blue back screen (PROG, ACTION, MENU) is displayed.
- Once stations are set, the selected station and current time are displayed when FM Radio mode is entered. To remove time, press **DISPLAY**. If **DISPLAY** is pressed again, the unit status screen appears.

Timer Recording

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

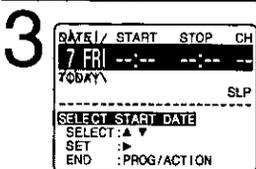
1 Press **PROG** to display SET PROGRAM screen.



1) Press **▲▼** to select **TIMER PROGRAMMING**.

2) Press **►** to display screen.

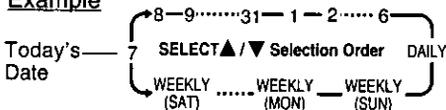
- If a program is already in memory, press **▲▼**, and **►** to select an unused program number.



Press **▲▼** to select and **►** or **◀** to set the recording DATE.

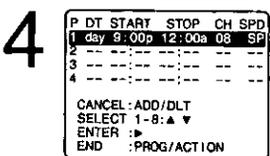
- 1-31 = One time
- DAILY = MON-FRI
- WEEKLY SUN-SAT = Same time once a week

Example



Repeat step 3 to set:

- start time, stop time
- Channel (or LINE for outside source)
- Speed (SP, LP, SLP)



Press **PROG** (or **ACTION**) to end the program.

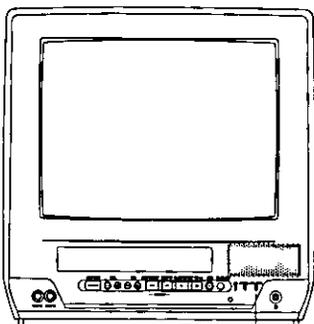
To enter More Programs, press **▲▼** to select and **►** to set a blank program number, and then repeat step 3.

5 Press **PROG** twice (or **ACTION**) to exit this mode.

- If you're using a cable box, make sure that it is tuned to the desired channel and the power is left on for timer recording.
- **PROG TIMER** indicator lights on the unit.

✓ Ready Check List

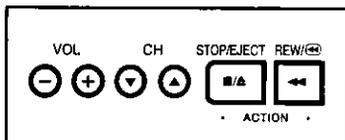
- All connections are made.
- Your unit is plugged in.
- The clock is set to correct time.
- The tape is long enough.
- The record tab is in place.



PROGRAM TIMER indicator

Timer Recording Using unit Buttons

You can set a Timer Recording using **ACTION** key on the unit. (See page 11.)



- 1 Press **STOP/EJECT** and **REW** together without a tape inserted to display **MAIN MENU**.
- 2 Press **▲▼** + **-** to select "VCR" and **STOP/EJECT** and **REW** together to display **SET UP VCR** screen.
- 3 Press **▲▼** to select "TIMER PROGRAM" and **+** to display the **TIMER PROGRAM** screen.
- 4 Repeat main steps 3 ~ 5.

Cancel a Timer Recording: (Recording is in progress)

Hold down STOP for a few seconds to cancel the Timer Recording.

- Any future daily or weekly recordings will be performed as programmed.

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

1 Repeat steps 1 and 2 on page 22.

2

P	DT	START	STOP	CH	SPD
1	day	9:00p	12:00a	08	SP
2	8	10:00a	12:00p	125	SP
3	10	8:00p	9:00p	10	SP
4	SU	9:00p	10:00p	L	LP

CANCEL: ADD/HLT
SELECT 1-8: ▲ ▼
ENTER : ▶
END : PROG/ACTION

Press ▲▼ to select the desired program.

3

To Replace program...

DATE	START	STOP	CH
8 SAT	9:00p	12:00a	08
TODAY			ABC
CATEGORY:	MOVIE		SP

SELECT START DATE
SELECT: ▲ ▼
SET : 4 #
END : PROG/ACTION

- 1) Press ▶ to display.
- 2) Press ▲▼ to select and press ◀ or ▶ to set new program contents.
- 3) Press PROG (or ACTION).

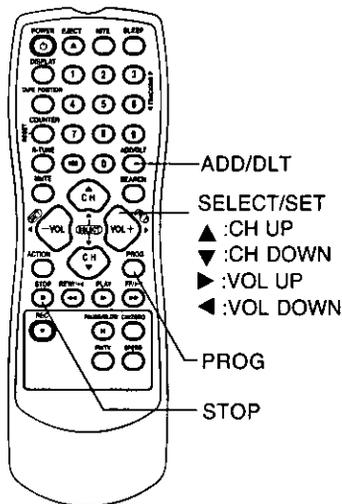
To Clear program...

P	DT	START	STOP	CH	SPD
1	---	---	---	---	---
2	8	10:00p	12:00a	125	SP
3	10	8:00p	9:00p	10	SP
4	SU	9:00p	10:00p	L	LP

SELECT 1-8: ▲ ▼
ENTER : ▶
END : PROG/ACTION

Press ADD/HLT.

4 Press PROG twice (or ACTION) to exit this mode.



Notes

- 2 minutes before Timer recording is performed, "PLEASE PREPARE FOR TIMER REC" appears and/or the PROG TIMER Indicator flashes. Be sure a cassette with record tab is loaded and the unit is in Stop mode.
- If the start times of two programs overlap, the lower numbered program will have priority.
- If the start time for a Timer Recording comes up during a normal recording or One Touch Recording (page 12), the Timer Recording will not be performed.
- If there is a power interruption of more than one minute, the recording may not be performed or continued.
- If "INCOMPLETE" appears after all items have been set, check all entries and make necessary corrections.

Tape Operation

Search System is ...

Each time a 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.

Index Search

Go directly to the desired recording.

1

INDEX SEARCH
 ENTER INDEX NUMBER: 1
 USING 1-9 KEYS

FORWARD SEARCH: FF
 REVERSE SEARCH: REW
 NEXT : SEARCH
 EXIT : STOP

Press **SEARCH*** in Playback or Stop mode to display INDEX SEARCH screen, and then press **NUMBER** Keys to select the recording number.

• To calculate number, see below.

Press **FF** or **REW** to start search.

2

INDEX SEARCH

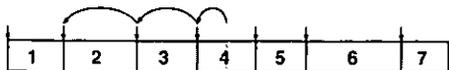
FORWARD SEARCH: FF
 REVERSE SEARCH: REW

Play begins at search end. To search forward or back 1 index, press **FF** or **REW** while screen left in displayed (10 sec.).

■ To calculate the Index Number

Example 1:

To go to rec. 2 from rec. 4, enter 3 and press REW.



Example 2:

To go to rec. 6 from rec. 2, enter 4 and press FF.



NOTE: ↓ indicates start points of each recording.

Notes

- Make each entry within 10 seconds, or the Index Search mode will be canceled.
- If Index Search is canceled very close to an index mark, that index mark may not be counted in the search.

Program End Search

Locates end point of recording for continuity.

1 Press **SEARCH** twice in Playback or Stop mode to display PROGRAM END SEARCH screen

2

PROGRAM END SEARCH

SEARCH START: FF

EXIT : SEARCH

Press **FF** to start search.

Example of Program End Search operation.

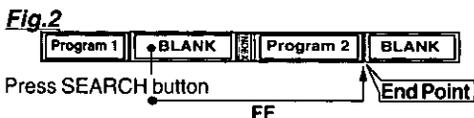
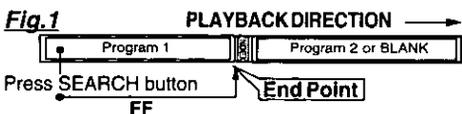
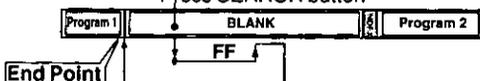
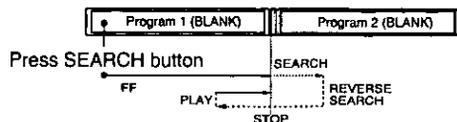


Fig.3 If search exceeds a few seconds in BLANK area. Press **SEARCH** button



Upon locating end point...

The unit searches slightly past end point, reverse searches, and plays the last few seconds of the program, then stops.



Notes

- If Program End Search is started very close to an index mark, that mark may be skipped over.
- To cancel, press PLAY or STOP.

Auto Operation Functions

■ Auto Shut Off

No broadcast signal in TV (Only when Weak Signal Display is set to OFF), blank tape is Played for 5 minutes
=> Power turns off

- This feature is canceled if any button is pressed during above mode.

■ Auto Playback

Insert a tape in Power off mode
=> Power turns on

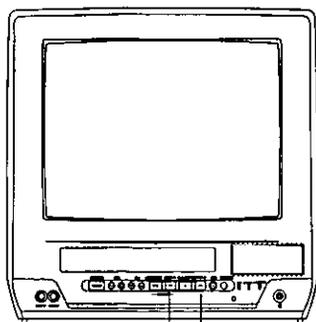
- Playback begins if tape has no record tab.

■ Auto Rewind

Tape reaches its end
=> Rewind => Stop

■ Playback Auto Eject (Repeat Play is "OFF")

Tape with no record tab reaches its end
Rewind => Stop => Eject



FF
REW

Tape Position Display

To find out present tape position and amount of tape remaining.

Tape position is displayed for VHS-C Cassettes type, tapes under 30 minutes, and some other tapes, but the position is not correct.

1 Press TAPE POSITION to detect current tape position.

DETECTING TAPE POSITION

- "DETECTING TAPE POSITION" is displayed only when a cassette is first inserted and it takes several seconds for correct tape position to appear.



SLP
R 120 MIN
BEGIN END

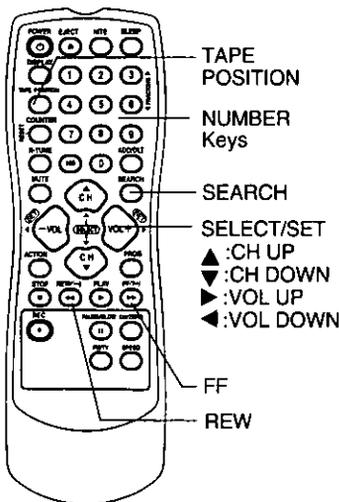
- The present tape position indication and amount of tape remaining (according to tape speed) is displayed.
- Tape remaining time display may not be precise.

Advanced Operation

2 Press TAPE POSITION (or wait 5 seconds) to return to normal screen.

Note

- This function cannot display exact amount of tape remaining for tapes 30 minutes or less, or for tapes over 120 minutes in length.



TAPE POSITION

NUMBER KEYS

SEARCH

SELECT/SET

▲ :CH UP
▼ :CH DOWN
▶ :VOL UP
◀ :VOL DOWN

FF

REW

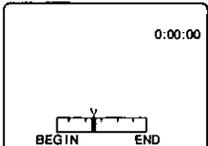
Tape Operation (continued)

Zero Search

To quickly return to a specific tape counter location.

1 Press **DISPLAY** during playback to display the Counter.

2

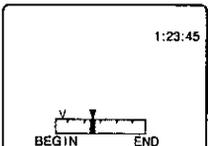


Press **COUNTER RESET** at the desired position to reset to "0:00:00."

3 Continue playback, rewind, or fast forward.

4 Press **STOP**.

5



Press **CM/ZERO** in stop mode to start **ZERO SEARCH**.

- **V**: Present position mark
- **∇**: Zero position mark

• Unit goes into FF or REW mode and stops at the last point the Counter was set to 0:00:00.

Note

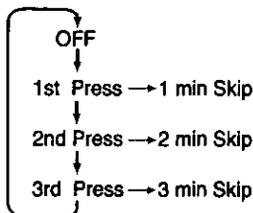
- If a blank portion exists on the tape, and depending on the position of the **V** mark, the **V** mark display may be out of position.

Commercial Skip

By pressing the **CM/ZERO** button in Playback mode you can skip over 1 to 3 minutes of recorded tape in just a few seconds.

1 Press **CM/ZERO** repeatedly to select skip time in Play mode.

- No indication appears.

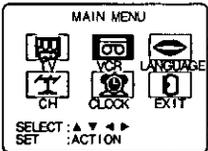


Repeat Play

Set to see a recording over and over.

1 Press **ACTION** to display **MAIN MENU**.

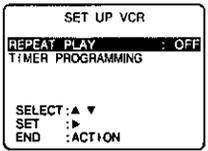
2



1) Press **▲▼◀▶** to select "VCR."

2) Press **ACTION** to display **SET UP VCR** screen.

3



1) Press **▲▼** to select "REPEAT PLAY."

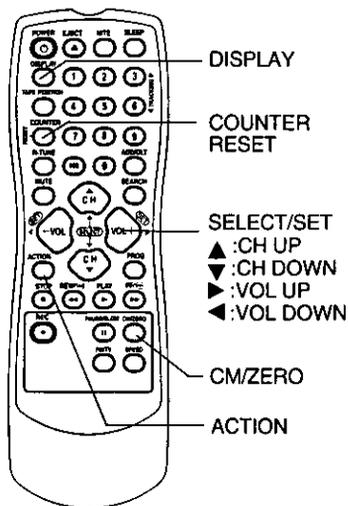
2) Press **▶** to set **REPEAT PLAY** "ON" or "OFF."

4 Press **ACTION** twice to end setup.

Notes

- Playback repeats when tape end is reached or unrecorded portion over 30 seconds is detected.
- During playback, you may also press **PLAY/REPEAT** repeatedly on the unit to select **REPEAT "ON"** or **"OFF"**.

Special VCR Features



Weak Signal Display ON/OFF

When "ON" is selected, the picture is displayed even when a broadcast signal is weak or non-existent.

1 Press **ACTION** to display MAIN MENU.

2

1) Press ▲▼◀▶ to select "CH."
2) Press **ACTION** to display SET UP CHANNEL screen.

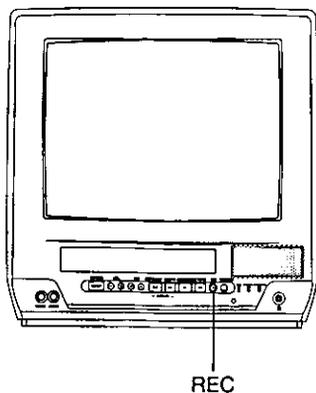
3

1) Press ▲▼ to select WEAK SIGNAL DISPLAY.
2) Press ▶ to set "ON" or "OFF."

Notes

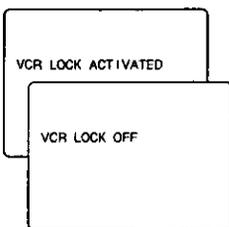
- "ON" = Picture is displayed regardless of signal condition, and may not always be clearly visible.
- "OFF" = Screen turns solid blue when signal is absent or weak.
- If unit is connected to equipment which has blue back feature, selecting "ON" will have no effect on the other equipment.

4 Press **ACTION** twice to return to the normal screen.



VCR Lock

All operations are prohibited except Timer recording and tape eject. "Auto power on" is not prohibited when VCR lock is activated. Useful for families with small children.



In stop mode, hold down **REC** on the unit without a cassette inserted for 7 seconds to turn "ON." Please ignore NO CASSETTE warning.

Repeat above with or without cassette to turn "OFF."

- VCR Lock is canceled automatically after about 24 hours if clock is set.
- "Auto Power On" is not prohibited when VCR Lock is activated.

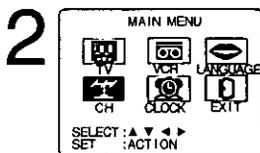
Special VCR Features (continued)

Channel Caption is ...

Station names, e.g. ABC, TNN, etc. are set so they will appear when a channel is selected. Choose 24 preset names.

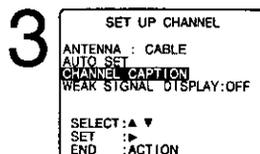
Channel Caption

1 Press **ACTION** to display MAIN MENU.



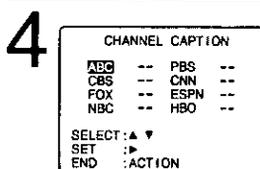
1) Press **▲▼◀▶** to select "CH."

2) Press **ACTION** to display SET UP CHANNEL screen.



1) Press **▲▼** to select CHANNEL CAPTION.

2) Press **►** to display screen.



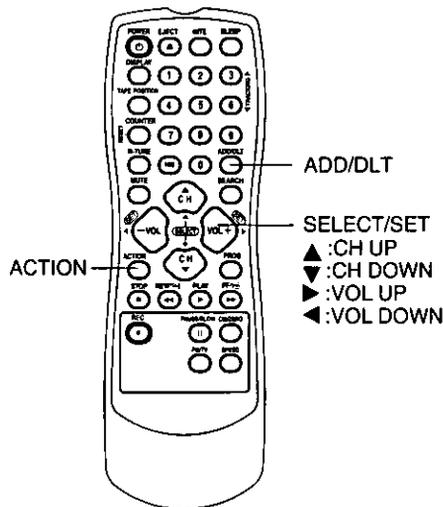
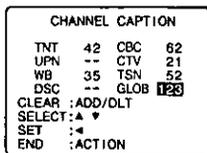
1) Press **▲▼** to select a station.

2) Press **►** to move cursor to the right.

3) Press **▲▼** to select channel number.

4) Press **◀** to set preset captions.

• Repeat step 4 until the Caption List is complete.



To Make Corrections

Press **▲▼**, then **►** to select channel number. Press **▲▼** to change, or **ADD/HLT** to delete.

5 Press **ACTION** four times to end setup.

V-Chip Control Feature

Process of V-Chip Control

Enter Code → **Setup** → **Blocking**

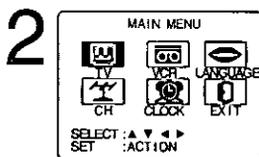
V-Chip Control Feature is...

This unit has a built-in V-Chip Control which allows you to block unwanted TV usage based on US MOVIES and US TV PROGRAMS Ratings.

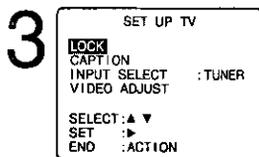
Enter Secret Code

A 4-digit code must be entered to view a blocked program or change rating settings.

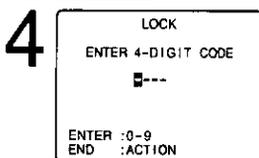
1 Press **ACTION** to display MAIN MENU.



- 1) Press **▲▼◀▶** to select "TV."
- 2) Press **ACTION** to display SET UP TV screen.



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



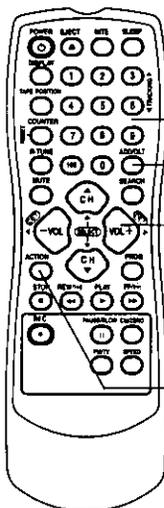
- 1) Press **number keys** to enter your secret code.
- 2) Enter **same code** again for confirmation.

To Make Corrections
Press **◀** repeatedly to move the cursor. Press **number keys** to make the correction.

- Step 2) not necessary when changing rating or secret code.
- Take care that you are not observed entering the secret code.



Press **▶** to display US Ratings menu (see page 30).
Or
Press **ACTION** three times to exit.



NUMBER Keys

ADD/HLT

SELECT/SET

▲:CH UP

▼:CH DOWN

▶:VOL UP

◀:VOL DOWN

ACTION

Changing your secret code

- You will need your current code. Do steps 1 ~ 4. In step 5, press **ADD/HLT** to clear current code. Repeat steps 4 and 5 to enter new code.

Notes

- DO NOT forget your secret code.
- Once ratings are set, restricted tapes or programs cannot be accessed unless the secret code is entered.

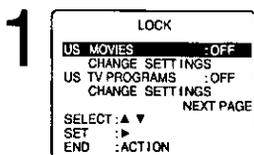
V-Chip Control Feature (continued)

If LOCK menu is not displayed, do "Enter Secret Code" steps on page 29.

Process of V-Chip Control Feature

Enter Code → Setup → Blocking

Setup US MOVIES Ratings



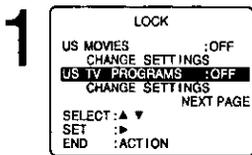
- 1) Press ▲▼ to select US MOVIES.
- 2) Press ► to set "ON" or "OFF."

- "ON" => V-Chip Control is activated.
- "OFF" => V-Chip Control is deactivated.

Note

- "NEXT PAGE" displays CANADIAN V-Chip setting menu. Not necessary except when viewing Canadian tapes or broadcasts.

Setup US TV PROGRAMS Ratings

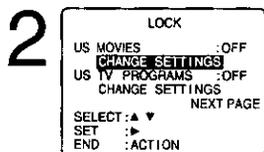


- 1) Press ▲▼ to select US TV PROGRAMS.
- 2) Press ► to set "ON" or "OFF."

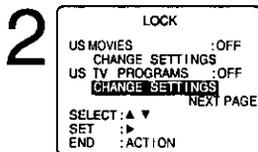
- "ON" => V-Chip Control is activated.
- "OFF" => V-Chip Control is deactivated.

Note

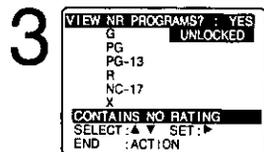
- "NEXT PAGE" displays CANADIAN V-Chip setting menu. Not necessary except when viewing Canadian tapes or broadcasts.



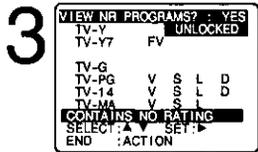
- 1) Press ▲▼ to select CHANGE SETTINGS.
- 2) Press ► to display screen.



- 1) Press ▲▼ to select CHANGE SETTINGS.
- 2) Press ► to display screen.



- 1) Press ▲▼ to select VIEW NR PROGRAMS?.
- 2) Press ► to set "YES" or "NO."



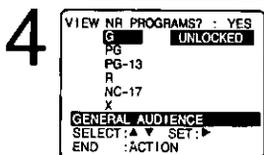
- 1) Press ▲▼ to select VIEW NR PROGRAMS?.
- 2) Press ► to set "YES" or "NO."

NR (Not Rated) PROGRAMS

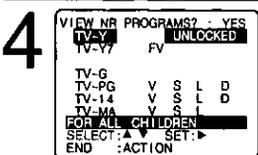
Some movies, such as old movies or foreign movies usually have no ratings.

NR (Not Rated) PROGRAMS

Some TV shows, such as news, sports, weather, bulletins, emergency information usually have no ratings.



- Press ▲▼ to select and ► to set ratings to be blocked. (See ratings chart next page.)



- Press ▲▼ to select and ► to set ratings to be blocked. (See ratings charts next page.)

Note

- You may select from standard TV ratings (chart 1), or customize to a specific content rating (chart 2).

- Ratings highlighted in Green will be blocked. Ratings in white letters will not be blocked.

- 5 Press ACTION to redisplay LOCK menu and continue with US TV PROGRAMS Ratings Setup (this page).

Or, press ACTION four times to exit.

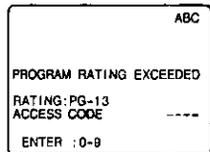
- 5 Press ACTION four times to exit this mode.

Process of V-Chip Control Feature

Enter Code → Setup → Blocking

Blocking Message

<When V-Chip Control is activated>



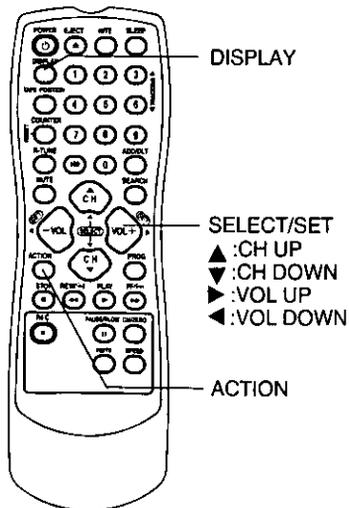
• If a program or movie exceeds the ratings you have set, a message will appear on a black background and sound is muted.

To View a Blocked Program / Movie
[Temporarily Deactivate V-Chip Control]
 Enter your secret code (ACCESS CODE) in the Blocking Message screen.

• V-Chip Control is reactivated when power is turned off or power failure occurs.

[Deactivate V-Chip Control]

Enter your secret code (steps 1-4 page 29). Then, set **US MOVIES** and/or **US TV PROGRAMS** to "OFF" using ▲▼ and ► keys. (Ratings set on page 30 is retained and will be in effect when V-Chip Control is activated again.)



US MOVIES RATINGS

G	GENERAL AUDIENCE: All ages admitted.
PG	PARENTAL GUIDANCE: Some material may not be suitable for children.
PG-13	PARENTS CAUTIONED: Some material may be inappropriate for children under 13.
R	RESTRICTED: Children under 17 must be accompanied by a parent or adult.
NC-17	OVER AGE 17 ONLY: No one 17 and under admitted.
X	ADULTS ONLY:

US TV PROGRAMS RATINGS: Chart 1

TV-Y	FOR ALL CHILDREN: Content specifically geared to young viewers ages 2-6.
TV-Y7	FOR AGE 7 AND OLDER: May contain mild physical or comedic violence which may frighten children under 7.
TV-G	GENERAL AUDIENCE: Contains little or no violence, strong language, or sexual dialogue or situations.
TV-PG	PARENTAL GUIDANCE: May contain infrequent coarse language, limited violence, some suggestive sexual dialogue and situations.
TV-14	PARENTS CAUTIONED: May contain sophisticated themes, sexual situations, strong language, and more intense violence.
TV-MA	MATURE AUDIENCE: May contain mature themes, profane language, graphic violence, and sexual situations.

Advanced Operation

US TV PROGRAMS RATINGS: Chart 2

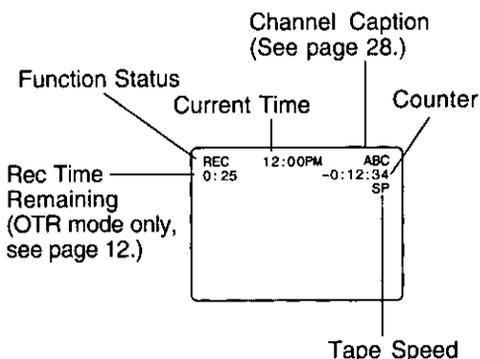
FV	Fantasy Violence
V	Violence
S	Sexual Situations
L	Adult Language
D	Sexually Suggestive Dialogue

On-Screen Display (OSD)

VCR Status & Clock Display

Press **DISPLAY**

to display or remove the overlay.

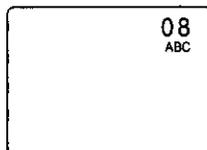


Blue Screen Display

Whenever a blank section of a tape comes up in Play mode, or when the selected channel has no broadcast signal with the Weak Signal Display set to "OFF" (see page 27), the screen will turn solid blue.

Channel & Function Display

When a function button is pressed (PLAY, FF, etc.) or you change channels, the unit mode or channel number will be displayed. (Some station names may also appear if Channel Caption is set. See page 28.)



Warning and Instruction Displays

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

OSD	Caution	Page
PLEASE SET CLOCK BEFORE PROGRAMMING	• If you attempt to set or review a Timer Recording, or set the On-Timer and the Clock is not set...	8 - 11
CHECK CASSETTE RECORD TAB	• If you press REC, and a cassette is inserted with no record tab...	3, 12
TO CANCEL TIMER REC HOLD DOWN STOP KEY FOR APPROX 3 SEC	• If you press STOP during a Timer Recording...	23
NO CASSETTE PLEASE INSERT A CASSETTE	• If you press PLAY, FF, REW, or REC without a cassette inserted...	12
PLEASE PREPARE FOR TIMER REC	• If the unit is not in Stop mode or a cassette with record tab is not inserted two minutes before a Timer Recording is about to begin...	22, 23
VIDEO HEADS MAY NEED CLEANING PLEASE INSERT HEAD CLEANING CASSETTE OR REFER TO MANUAL END: PLAY KEY	• If head cleaning becomes necessary while playing back a tape...	4
VCR LOCK ACTIVATED	• If you press a function button other than STOP/EJECT or POWER while the unit is in VCR Lock mode...	27

Before Requesting Service

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

Power	Correction
No power...	<ul style="list-style-type: none">• Completely insert Power Plug into an AC outlet.• Set POWER button to ON.
Monitor	Correction
No picture or sound...	<ul style="list-style-type: none">• Make sure your antenna system (TV or CABLE), is correctly set. (P. 8)• Completely insert Power Plug into an AC outlet.• Set POWER button to ON.
Poor picture with normal sound...	<ul style="list-style-type: none">• Adjust BRIGHTNESS, SHARPNESS, and PICTURE controls in the SET UP TV menu. (P. 15)
Poor sound with normal picture...	<ul style="list-style-type: none">• Adjust VOLUME control. (P. 14)
Poor TV reception...	<ul style="list-style-type: none">• Adjust SHARPNESS and PICTURE controls in the SET UP TV menu. (P. 15)
No color or poor color...	<ul style="list-style-type: none">• Adjust TINT and COLOR controls in the SET UP TV menu. (P. 15)
Ghost (multiple) images...	<ul style="list-style-type: none">• Install a directional antenna.
TV programs cannot be watched...	<ul style="list-style-type: none">• Make sure the selected channel is in unit's memory. (P. 10, 11)
Channel cannot be selected...	<ul style="list-style-type: none">• Only the channel being recorded can be viewed on this unit.
VCR	Correction
TV program cannot be recorded...	<ul style="list-style-type: none">• Make sure your antenna system (TV or CABLE), is correctly set. (P. 8)• Make sure cassette record tab is intact. (P.3)• Check that clock is set to current time and date.
Timer recording cannot be performed...	<ul style="list-style-type: none">• Make sure DSS/CABLE box (if used) is left on and tuned to channel to be recorded.• Set recording Start/Stop times correctly. (P. 22-23)• Timer recording may not be performed or continued if a power interruption of more than 1 minute occurs before or during a Timer recording even after power is restored.
No playback picture, or the playback picture is noisy or contains streaks... VCR cannot be controlled...	<ul style="list-style-type: none">• Adjust TRACKING control in either direction. (P. 4)• Try Head Cleaning. (P. 4)• Make sure VCR LOCK is set to off. (P. 27)• Make sure unit is not in a Timer Record operation.
Remote Control	Correction
Unit cannot be controlled...	<ul style="list-style-type: none">• Aim remote at remote sensor on unit (P. 7) so that signal is unobstructed.• Inspect the remote batteries. (P. 3)• Make sure VCR LOCK is set to off. (P. 27)• Exposing unit remote sensor to direct fluorescent or outdoor light may cause signal interference.• Check remote batteries.
ACTION, PROG and FM/TV buttons cannot be selected...	
Miscellaneous	Correction
Video cassette cannot be inserted... Video cassette cannot be removed... Tape cannot be ejected or inserted...	<ul style="list-style-type: none">• Insert the cassette window side up; record tab facing you.• Completely insert Power Plug into an AC outlet.• Try ejecting or inserting the tape again after turning POWER off, then back on.• Make sure cassette record tab is intact. (P. 3)
Video cassette ejects when a recording is started, or the power is turned off for timer recording... In Stop mode, the VCR motor (CYLINDER) continues to rotate...	<ul style="list-style-type: none">• To enable Quick Play mechanism, the VCR cylinder will rotate for about 3 minutes. This reduces response time from Stop to Play mode and from Play to Rewind Search mode.
VCR cannot be controlled...	<ul style="list-style-type: none">• Make sure VCR LOCK is set to off. (P. 27)

If you cannot resolve the problem, please call the Customer Satisfaction Center for product assistance at 1-800-211-PANA(7262).

To locate an authorized servicenter call toll free 1-800-211-PANA(7262)

or send e-mail to : consumerproducts@panasonic.com.

Servicenter List

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.
or send e-mail : consumerproducts@panasonic.com

Web Site: <http://www.panasonic.com>

You can purchase parts, accessories or locate your nearest servicenter by visiting our Web Site.

Accessory Purchases:

1-800-332-5368 (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, Master Card, Discover Card, American Express, Check)

Factory Servicenter Locations

CALIFORNIA

6550 Katella Avenue
Cypress, CA 90630

800 Dubuque Avenue
S. San Francisco,
CA 94080

3878 Ruffin Road
Suite A
San Diego, CA 92123

FLORIDA

3700 North 29th Avenue
Suite 102
Hollywood, FL 33020

GEORGIA

8655 Roswell Road
Suite 100
Atlanta, GA 30350

ILLINOIS

1709 North Randall Road
Elgin, IL 60123

MASSACHUSETTS

60 Glacier Drive,
Suite G
Westwood, MA 02090

MINNESOTA

7850-12th Avenue South
Airport Business Center
Bloomington, MN 55425

OHIO

2236 Waycross Road
Civic Center Plaza
Forest Park, OH 45240

PENNSYLVANIA

2221 Cabot Blvd. West
Suite B
Langhorne, PA 19047

TEXAS

13615 Welch Road
Suite 101
Farmers Branch,
TX 75244

WASHINGTON

20425-84th Avenue
South
Kent, WA 98032

HAWAII

99-859 Iwaiwa Street
Aiea, Hawaii 96701
Phone (808) 488-1996
Fax (808) 486-4369

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 June 2001

Limited Warranty

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 Infantería, Km. 9.5 San Gabriel
Industrial Park Carolina, Puerto Rico 00985

PANASONIC/QUASAR Video Products Limited Warranty

Panasonic Consumer Electronics Company or Panasonic Sales Company (collectively referred to as "the Warrantor") will repair or replace this product with new or refurbished parts or equivalent product, 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	LABOR	SERVICE	CONTACT NUMBER
CAMCORDER	ONE (1) YEAR, EXCEPT CCD IMAGE SENSOR CCD IMAGE SENSOR - SIX (6) MONTHS	NINETY (90) DAYS	Carry-In or Mail-In	1-800-211-PANA(7262)
DVD/VCR DECK	ONE (1) YEAR	NINETY (90) DAYS	Carry-In or Mail-In	1-800-211-PANA(7262)
DIGITAL STILL CAMERA	ONE (1) YEAR, EXCEPT CCD IMAGE SENSOR CCD IMAGE SENSOR - SIX (6) MONTHS	NINETY (90) DAYS NINETY (90) DAYS	Carry-In or Mail-In	1-800-272-7033
AV MIXER	ONE (1) YEAR	NINETY (90) DAYS	Carry-In or Mail-In	1-800-211-PANA(7262)
TV/VCR, TV/DVD, TV/DVD/VCR COMBINATION	ONE (1) YEAR, EXCEPT CRT CRT - TWO (2) YEARS	NINETY (90) DAYS NINETY (90) DAYS CRT - NINETY (90) DAYS	Carry-In: 21" CRT and Smaller In-Home or Carry-In: 22" CRT and Larger	1-800-211-PANA(7262)
TV/HDR COMBINATION	ONE (1) YEAR, EXCEPT CRT CRT - TWO (2) YEARS	NINETY (90) DAYS CRT - NINETY (90) DAYS	In-Home or Carry-In	1-888-843-9788

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.

Memory cards (if included) - Exchange defective item for new one for ninety (90) 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 Services Company (PASC) Factory Servicenter listed in the Servicenter Directory. Or call toll free contact number listed above, 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, maladjustment of consumer controls, improper operation, power line surge, improper voltage supply, lightning damage, commercial use such as hotel, office, restaurant, or other business or rental use of the product, or service by anyone other than a PASC Factory Servicenter or a PASC authorized Servicenter, 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 RECORDING MEDIA) RESULTING FROM THE USE OF THIS PRODUCTS, 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 Consumer Affairs Department 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.

warvid02/12/2001

Connexiones/Configuración Inicial

Conecte por favor todas las conexiones del cable o de la antena antes de turing potencia.

Conectando

Para Ant./Cable

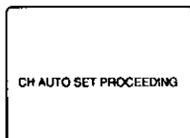
Conecte Ant./Cable a la entrada de antena de la TV (VHF/UHF).

Para Sistema Digital de Satelite (DSS)/ Convertidor de cable

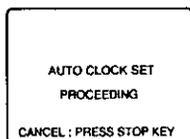
Conecte la salida del convertidor de cable la "VHF/UHF" con el RF cable.

Realizando Configuración Inicial

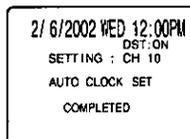
- 1** Tape el cable electrico de la unidad en el enchufe de pared de la CA. POWER de la prensa en el telecontrol o la unidad. La unidad se adelanta y comienzo auto del canal y del reloj.



Si usa convertidor de cable, enciendala y seleccione el Servicio Publico de Canales de Television (PBS) en su horario de uso o tiempo de su zona. Si utiliza receptor DSS este debe de estar apagado.



2



Selecciones se realizaran automaticamente cuando la configuracion termine, la pantalla siguiente aparecera.



Si "AUTO CLOCK SET IS INCOMPLETE" aparece en pantalla, coloque el tiempo usando el procedimiento manual (MANUAL CLOCK SET), vealo enseguida..

Ajuste Manual del Reloj

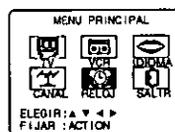
Si el ajuste automático del reloj no se ha completado, ajuste el reloj manualmente de la siguiente manera:

- 1) Presione la tecla ACTION en el control remoto para visualizar la pantalla del menú RELOJ.
- 2) Presione ▲▼ para seleccionar el mes y ► para ajustar. De la misma forma, seleccione y ajuste la fecha, año, hora y DST (Hora de Verano).
- 3) Presione dos veces la tecla ACTION para poner el RELOJ en marcha y salir.

Ajustar de nuevo el reloj

- 1** Presione ACTION para exhiba el menú.

2



Presione ▲▼◀▶ para seleccionar "RELOJ". Presione ACTION.

3



Presione ▲▼ para seleccionar "MANUAL" y luego presione ▶.

4



Presione ▲▼ y ◀▶ para seleccionar y ajustar la hora y la fecha.

5

Presione ACTION dos veces para que el reloj comience a funcionar y salir desde este modo.

Operaciones básicas para la reproducción

- 1 Inserte un casete.**
 - El videograbador combinado se enciende automáticamente.
- 2 Presione PLAY.**
 - La reproducción comienza automáticamente si el casete no tiene la lengüeta para prevención de grabación.
- Para encontrar una escena en particular
Búsqueda hacia adelante => Presione FF
Búsqueda hacia atrás => Presione REW
- Para ver una imagen fija (congelada) => Presione PAUSE/SLOW
- Para ver en cámara lenta => Mantenga pulsado el botón PAUSE/SLOW en el modo de imagen fija
- Para ver imágenes cuadro a cuadro => Presione PAUSE/SLOW en el modo de imagen fija
- Para parar => Presione STOP
- Para rebobinar la cinta => Presione REW
- Para hacer avanzar la cinta rápidamente => Presione FF
- Para expulsar la cinta => Presione EJECT en el control remoto o STOP/EJECT en el videograbador combinado

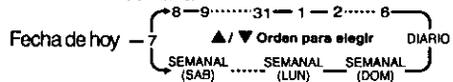
Grabación con temporizador

- 1 Exhiba FIJAR PROGRAMACION.**
Presione PROG.
- FIJAR PROGRAMACION

TEMPORIZADOR
ENCENDIDO AUTOMATICO

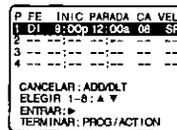
ELEGIR: ▲ ▼
FIJAR: ►
TERMINAR: PROG
- 2 Exhiba TEMPORIZADOR.**
 - 1) Presione ▲▼ para seleccionar.
 - 2) Presione ► para exhibir.
- Si ya existe un programa en la memoria, presione ▲▼ y ► para seleccionar un número de programa sin usar.

- 3 Ajuste la fecha de grabación.**
 - 1) Presione ▲▼ para seleccionar.
 - 2) Presione ► o ◀ para ajustar.
- 1 - 31 = Grabación única
 - DIARIO = a la misma hora de lunes a viernes
 - SEMANAL = a la misma hora una vez a la semana



Repita el paso 3 para ajustar: hora de comienzo, hora de parada, canal (o LINEA para una fuente exterior), velocidad (SP, LP, SLP)

- 4 Termine el programa.**
Presione PROG (o ACTION.)

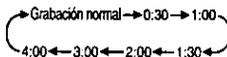


Para introducir más programas.
presione ▲▼ y ► para seleccionar y ajustar el número de programa en blanco, y luego repita los pasos 3 y 4.

- 5 Salga de este modo.**
Presione PROG dos veces (o ACTION.)
- Si está usando un decodificador de TV cable, asegúrese que se encuentra en el canal deseado y que la alimentación queda conectada para grabar con temporizador.
 - El indicador PROG TIMER se enciende en el videograbador combinado.

Operaciones básicas para la grabación

- 1 Inserte un casete con la lengüeta para prevención de grabado.**
 - El videograbador combinado se enciende automáticamente.
- 2 Seleccione el canal.**
Presione CH ▲▼ o las teclas numéricas correspondiente.
- 3 Seleccione la velocidad de grabación.**
Presione SPEED.
 - SP = reproducción normal
 - LP = reproducción larga
 - SLP = reproducción super larga
 - La velocidad seleccionada debe aparecer en la pantalla.
- 4 Comience la grabación.**
Presione REC.
 - Para editar partes no deseadas de una grabación, presione PAUSE/SLOW para hacer una pausa durante la grabación.
 - No podrá ver otro canal durante la grabación.
 - Para parar => Presione STOP.
 - El videograbador combinado deja de grabar a una hora prefijada. (Grabación de un toque)
Presione REC repetidamente para ajustar la hora de grabación (30 min - 4 horas.)



Notes

Notes

INDEX

A	Accessories	3	P	Phones	14
	Audio Mute	14		Playback	12
	Auto Operation Functions	25		Picture Adjustment	15
B	Batteries	3		Program End Search	24
	Before Requesting Service	33	Q	Quality Picture	4
	Blocking Message	31	R	Rapid Tune	14
	Blue Screen Display	32		Rec(ord)	12
C	Caption On Mute	18		Record/Playback Speed Settings	4
	Channel	10, 32		Remote Control Buttons	6
	Channel Caption	28		Repeat Play	26
	Clock	10		Reset Language, Channels, Clock	10
	Closed Caption	18		Reset unit	9
	Commercial Skip	26		Reverse Search	12
	Connections	8		Rewind	12
	Connections, DSS / Cable Box	8	S	Secret Code	29
	Connections, Antenna / Cable	8		Servicenter List	34
	Copy Your Tapes (Dubbing)	13		Sleep Timer	17
D	DST (Daylight Saving Time)	4		Slow Motion	12
E	Eject tape	12		Spanish Quick Use Guide	36, 37
F	Fast Forward	12		Special VCR Features	27, 28
	Forward Search	12		Specifications	4
	FM Radio	20, 21		Still Picture	12
	Frame by Frame Advance	12		STOP	12
	Front Panel Indicators	7	T	Tape Erasure Prevention	3
	Function Display	32		Tape Position Display	25
H	Head Cleaning	4		Time Zone Adjust	11
I	Important Safeguards and Precautions	2		Timer Program Review, Replace, Clear ..	23
	Index Search	24		Timer Recording	22
	Initial Setup	8		Timer Recording Cancellation	23
	Input Mode	13		TV Operation	14
	Instant Alarm	17		TV Timer Features	16, 17
L	Language	10	U	Unit, Front/Rear view	7
	Limited Warranty	35		US MOVIES/TV PROGRAMS Ratings ...	31
	Location of Controls	6 - 7	V	VCR Lock	27
N	NIGHT Mode	14		VCR Status & Clock Display	32
O	100 Key	14		V-Chip Control Feature	29 - 31
	One Touch Recording	12	W	Warning and Instruction Displays	32
	ON-TIMER with Alarm	16		Weak Signal Display ON/OFF	27
			Z	Zero Search	26

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

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



Printed in U.S.A
LSQT0516A
M0901-0