



Panasonic

Combination VCR Operating Instructions

Model No. PV-C2541



- Initial Setup and Connection Procedures are on pages 8 to 13.
- SELF-DEMO Procedure is on page 4.



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.



VCR Plus+ and PlusCode are registered trademarks of Gemstar Development Corporation. The VCR Plus+ system is manufactured under license from Gemstar Development Corporation.

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.)

LSQT0339A

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

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.



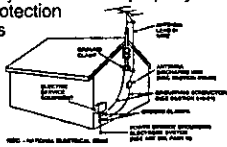
OUTDOOR ANTENNA INSTALLATION

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, ANS/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.

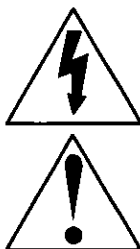
Attention : Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

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.

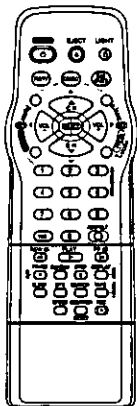
Before Using

Congratulations

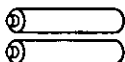
on your purchase of one of the most sophisticated and reliable products on the market today. Used properly, it will bring you and your family years of enjoyment. Please fill in the information below. The serial number is on the tag located on the back of your unit.

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

Accessories



Remote Control
LSSQ0277



Batteries
2 "AA"

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

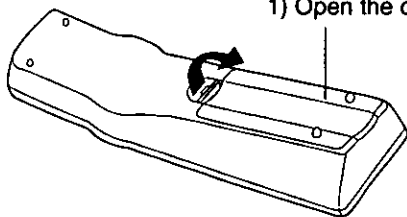
SELF-DEMO Mode

With Power ON, press **PLAY/REPEAT** on the unit for 7 seconds to deactivate the **SELF-DEMO Mode**.

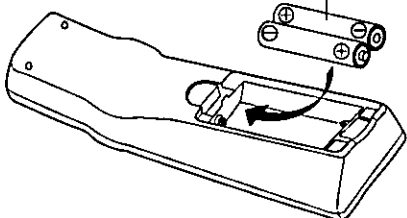
Repeat this to display demo screen.

Loading the Batteries

1) Open the cover.



2) Insert batteries as marked.



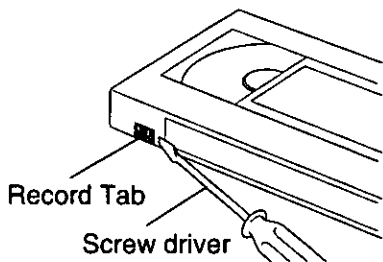
3) Close the cover.

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 protect.



To record again.

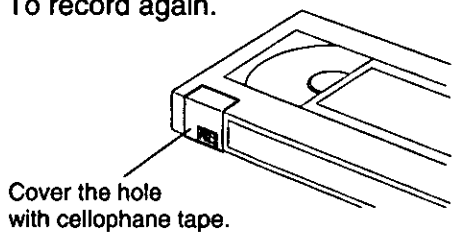


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Location of Controls

Remote Control Buttons

Light Tower™ Illuminated Remote Control

LIGHT button:

When LIGHT is pressed, available buttons in the selected mode light up and the selected mode button (COMBO or DSS CABLE) flashes for 5 seconds. If no button is pressed, light goes out in 5 seconds to conserve batteries. Also, by holding down a button, you can confirm the selected mode (mode button will flash) in the dark.

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

Page 6

POWER

Page 8

FM/TV

Page 21

MUTE

Page 16

CHANNEL UP/DOWN Pg. 16

SELECT UP/DOWN Pg. 13

ACTION

Page 12

NUMBER KEYS

Page 16

REWIND/SEARCH

Page 14

PAUSE/SLOW

Page 14

CM/ZERO

Page 30

SLEEP

Page 19

NITE

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SPEED

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COMBO

Page 26

LIGHT

Page 6

DSS CABLE

Page 26

RAPID TUNE

Page 16

VOLUME UP/DOWN Pg. 16

SET/BACKSPACE Pg. 13

PROGRAM Page 22

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TRACKING UP/DOWN

V-Lock Page 41

ADD/DELETE

Page 13

PLAY

Page 14

FAST FORWARD/SEARCH

Page 14

ENTER Page 26

DISPLAY Page 39

STOP

Page 14

TAPE POSITION

Page 29

REC

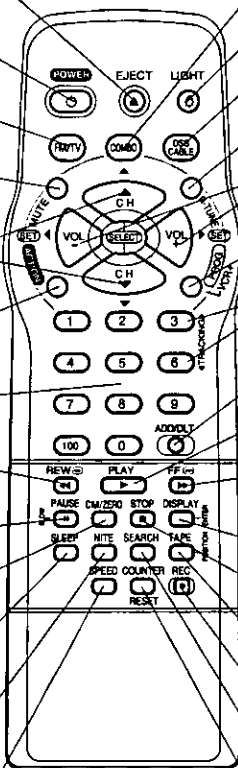
Page 14

SEARCH

Page 28

COUNTER RESET

Page 30



Front View of the unit and Indicators on the Front Panel

REWIND/SEARCH ACTION Page 14
Page 13

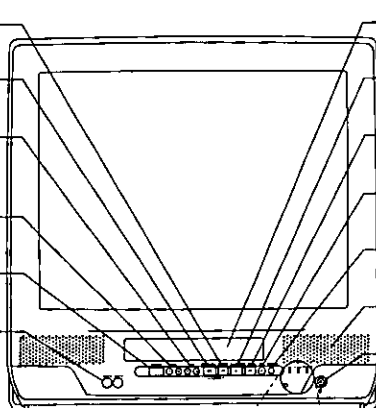
STOP/EJECT ACTION Page 14
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CHANNEL UP/DOWN TRACKING UP/DOWN SELECT UP/DOWN Page 16
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Page 13

VOLUME UP/DOWN SET/BACKSPACE Page 16
Page 13

POWER Page 8

Audio/Video In Jack Page 15



Cassette Compartment Page 14

PLAY/REPEAT Page 14

FAST FORWARD/SEARCH Page 14

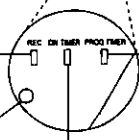
REC Page 14

TIMER/FM Pages 19, 21

Built-In Speaker

Phones Jack Page 16

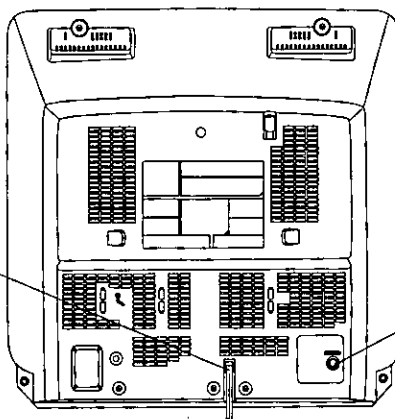
REC Indicator
Lights during recording. In Rec Pause or OTR Pause mode, the indicator flashes. Page 14



PROG TIMER Indicator
Lights when the unit is set for Timer Recording. It flashes when a Timer Recording has been set with no tape inserted, the clock is not set, or the tape is in motion. Page 22

Remote Sensor ON TIMER Indicator
Lights when the On Timer is set. Page 18

Rear View of the unit



AC Power Plug
When plugged into an AC outlet, this unit consumes 4.0 W of electric power in OFF condition.

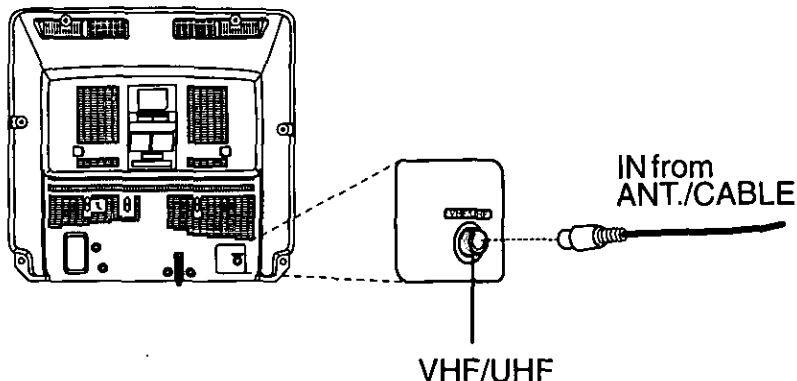
VHF/UHF Antenna Input Terminal
In from your Antenna or Cable. Pages 8, 10

Initial Setup for ANT. / Cable Connection

How to Connect

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

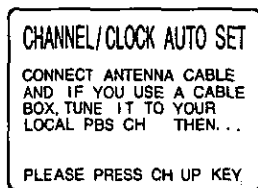
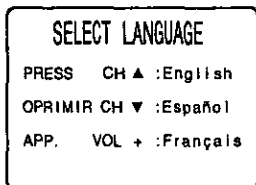
UNIT



How to do Initial Setup

Press **COMBO** for Combo mode.

- 1** Press **POWER*** on the remote or unit.
- 2** When the unit is turned on the first time, **SELECT LANGUAGE** screen appears.
- 3** Press **CH ▲** to select English.
OR
Press **CH ▼** to select Spanish (Español).
OR
Press **VOL +** to select French (Français).
CHANNEL/CLOCK AUTO SET screen appears.



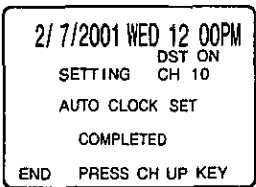
- If wrong language is set, complete "Reset all unit Memory Functions" steps page 9.

WARNING:

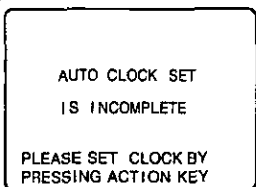
When using "Nut type" RF coaxial cables, tighten with fingers only. Overtightening may damage terminals.

Important: If a remote control button does not work when pressed, press the COMBO button on the remote and try the button again.

4 Press **CH ▲** Key to start **CHANNEL / CLOCK AUTO SET** operation. Settings are performed automatically. If the setup is completed, the following screen is displayed.



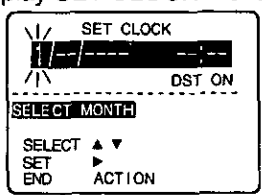
If **AUTO CLOCK SET IS INCOMPLETE** screen appears, set the clock using **MANUAL CLOCK SET** procedure as below.



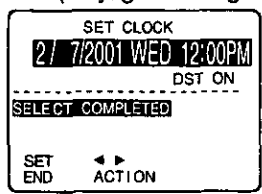
MANUAL CLOCK SET

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

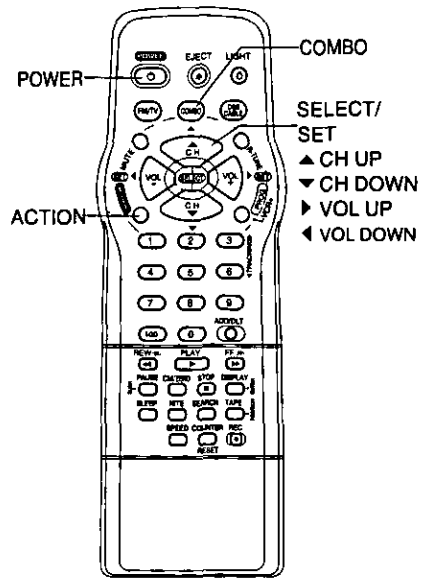
1 Press **ACTION** Key on the Remote to display **SET CLOCK** Menu screen.



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** Key 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.



- 1** Turn the unit Power on
- 2** Press and hold both **PLAY** and **FF** on the unit for more than 5 seconds.
 - The power will shut off
 - Please ignore "NO CASSETTE" warning
- 3** Do "Initial Setup" on page 8

Initial Setup

Initial Setup for DSS / Cable box Connection

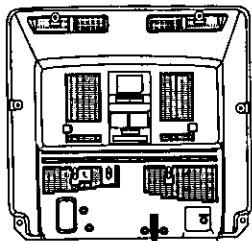
How to Connect

- Connect the OUT Jack on your cable box to the VHF/UHF terminal on unit with an RF cable.

Note to CABLE System Installer

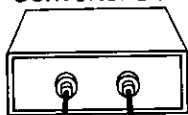
This reminder is provided to call the CABLE (Cable TV) System Installers attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

UNIT



VHF/UHF

Cable TV Converter Box



IN from ANT./CABLE

How to do Initial Setup

Press COMBO for Combo mode.

- 1 Press POWER* on the remote or unit.
- 2 When the unit is turned on the first time, SELECT LANGUAGE screen appears.

SELECT LANGUAGE

PRESS CH ▲ :English
OPRIMIR CH ▼ :Español
APP. VOL + :Français

- Turn on your cable box and set it to PBS(Public Broadcast Station) channel in your time zone. If you use DSS receiver, it must be turned off.

WARNING:

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

- 3 Press CH ▲ to select English.
OR
Press CH ▼ to select Spanish (Español).
OR
Press VOL + to select French (Français).
CHANNEL/CLOCK AUTO SET screen appears.

CHANNEL/CLOCK AUTO SET

CONNECT ANTENNA CABLE AND IF YOU USE A CABLE BOX, TUNE IT TO YOUR LOCAL PBS CH THEN...

PLEASE PRESS CH UP KEY

- If wrong language is set, complete "Reset all unit Memory Functions" steps page 9.

*Important: If a remote control button does not work when pressed, press the COMBO button on the remote and try the button again.

4 Press CH ▲ Key to start CHANNEL / CLOCK AUTO SET operation. Settings are performed automatically. If the setup is completed, the following screen is displayed.

```

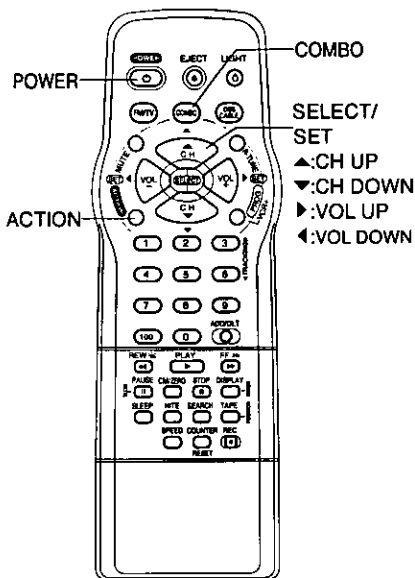
2/ 7/2001 WED 12:00PM
      DST:ON
  SETTING : CH 10
  AUTO CLOCK SET
  COMPLETED
END : PRESS CH UP KEY
  
```

If AUTO CLOCK SET IS INCOMPLETE screen appears, set the clock using MANUAL CLOCK SET procedure on page 9.

```

  AUTO CLOCK SET
  IS INCOMPLETE

PLEASE SET CLOCK BY
PRESSING ACTION KEY
  
```



Initial Setup

Cable Box Setup

- 1) Press ACTION.
- 2) Press ▲▼◀▶ to select "CH."

```

MAIN MENU
  TV      VCR     LANGUAGE
  CH      CLOCK  EXIT
SELECT : ▲ ▼ ◀ ▶
SET    : ACTION
  
```

- 3) Press ACTION.

```

SET UP CHANNEL
ANTENNA : CABLE
AUTO SET
CHANNEL CAPTION
WEAK SIGNAL DISPLAY:OFF
CABLE BOX SET UP
VCR Plus+ CH SET UP
SELECT : ▲ ▼
SET    : ▶
END   : ACTION
  
```

- 4) Press ▲▼ to select CABLE BOX SET UP and press ▶.

```

ARE YOU USING
A CABLE BOX?
  YES
  NO
  
```

- 5) Press ▲▼ to select "YES" or "NO" and press ▶.

- If you select...
 - "YES" → Step 6).
 - "NO" → Press ACTION three times to exit.

```

ENTER CABLE BOX OUTPUT
CHANNEL
  01
  
```

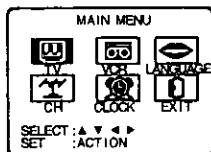
- 6) Press ▲▼ to select the same channel as your cable box or DSS receiver output channel, then press ▶.

- If necessary, refer to your cable box manual.
- If you are using Audio/Video jack connection for your cable box, select and set "VIDEO OUT" as the output channel.

- 7) Press ACTION three times to exit.

Reset Language, Channels, Clock,

1

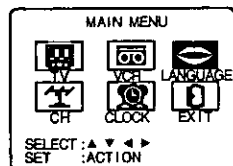


Press ACTION*
to display MAIN MENU.

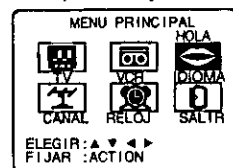
2

Language

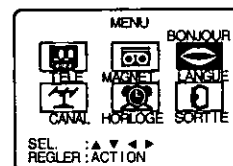
- 1) Press ▲▼◀▶ to select language icon.



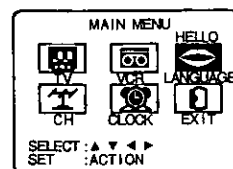
- 2) Press ACTION repeatedly.



For Spanish



For French

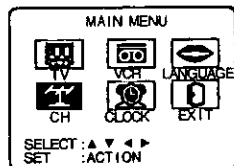


For English

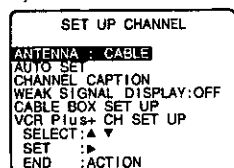
- 3) Press ▲▼◀▶ to select "EXIT."
Press ACTION to exit.

Channels

- 1) Press ▲▼◀▶ to select "CH."



- 2) Press ACTION.



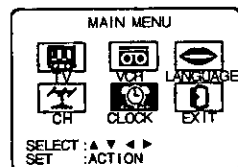
- 3) Press ▲▼ to select "ANTENNA," then press ▶ to set your antenna system ("TV" or "CABLE").

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

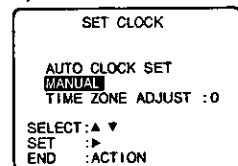
- After Channel Auto Set is finished, Clock Auto Set will be performed.

Clock

- 1) Press ▲▼◀▶ to select "CLOCK."



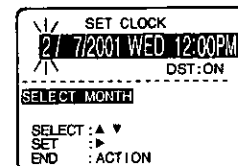
- 2) Press ACTION.



("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.

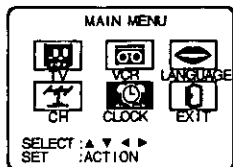
Time Zone Adjust

Important: if a remote control button does not work when pressed, press the COMBO button on the remote and try the button again.

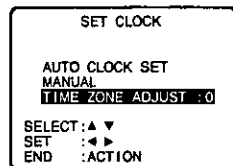
Time Zone Adjust

(Only when Auto Clock is set.)

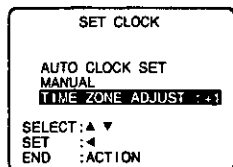
- 1) Press **▲▼◀▶** to select "CLOCK."



- 2) Press **ACTION**.

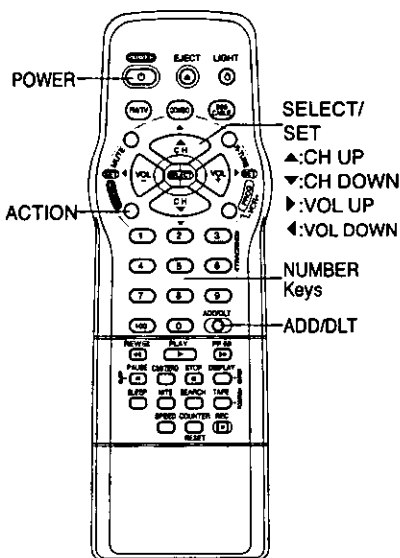


- 3) Press **▲▼** to select **TIME ZONE ADJUST** and press **◀** or **▶** to subtract or add hour(s) as necessary.



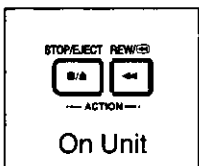
- 4) Press **ACTION** twice to exit.

- **TIME ZONE ADJUST** returns to "0" if clock is set manually.



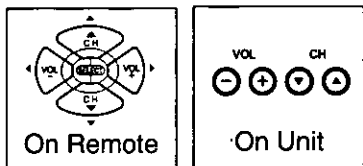
Basic Operation

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.



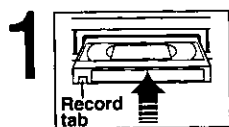
To delete channel:
Select channel with CH ▲▼ or number keys and press ADD/DLT.



Playback a Tape Record On a Tape

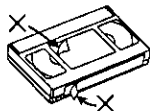
✓ Ready Check List

- 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
- Press again or 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.
- 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.

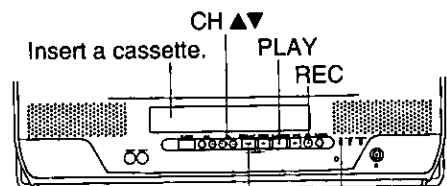
■ Stop → Press STOP

■ 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



- Press to stop and/or REW indicator eject tape.

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 41).

- 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.

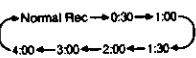
■ Stop → Press STOP

■ One Touch Recording (OTR)

Press REC repeatedly

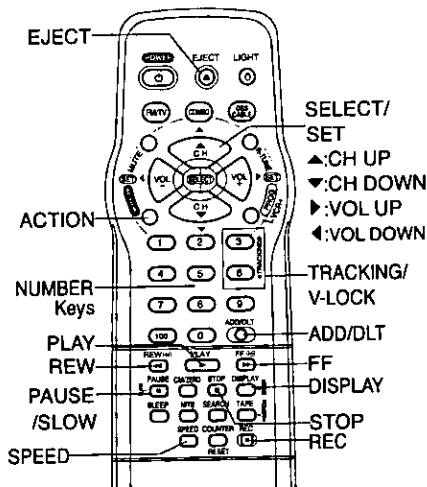
to set the recording length (30 min - 4 hours.)

- 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.

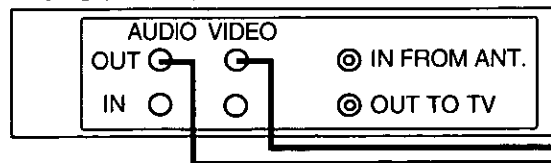


Copy Your Tapes (Dubbing)

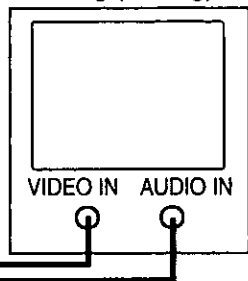
Important: if a remote control button does not work when pressed, press the COMBO button on the remote and try the button again.

Connections you'll need to make.

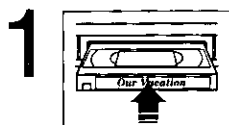
Playing (Source) VCR



Recording (Editing) unit

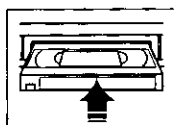


Playback (Source)



Insert pre-recorded tape.

Recording (Editing) unit



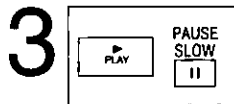
Insert blank tape with record tab.

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

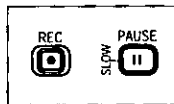
2 _____

Select "LINE" mode.

See "Selecting Input Mode" below.



Press **PLAY** then **PAUSE** at starting point to put in Standby mode.

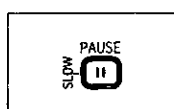


Press **REC**, then **PAUSE/SLOW** immediately to put in Standby mode.

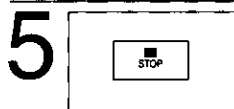
(Perform operation of steps 4 and 5 on both units at same time.)



Press **PLAY** to start dubbing.



Press **PAUSE/SLOW** to start dubbing.



Press **STOP** to stop dubbing.

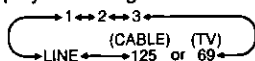


Press **STOP** to stop dubbing.

Selecting Input Mode

Method 1:

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



Method 2:

a Press **ACTION** for MAIN MENU.

b Press **▲▼◀▶** to select "TV", then press **ACTION** for SET UP TV screen.

c Press **▲▼** to select "INPUT SELECT," and then press **▶** to select "TUNER" or "LINE."

d Press **ACTION** twice to exit this mode.

Caution

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

TV Operation

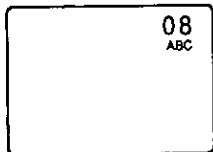
Important: if a remote control button does not work when pressed, press the COMBO button on the remote and try the button again.

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

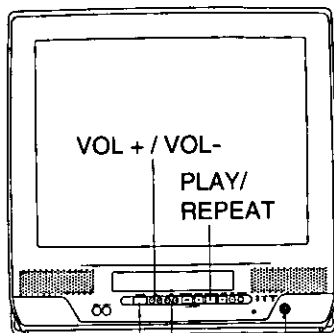
Ready Check List

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

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

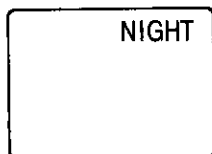


3 Press **VOL +** or **VOL -** to adjust volume.



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, playing a tape, or while in FM mode.

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

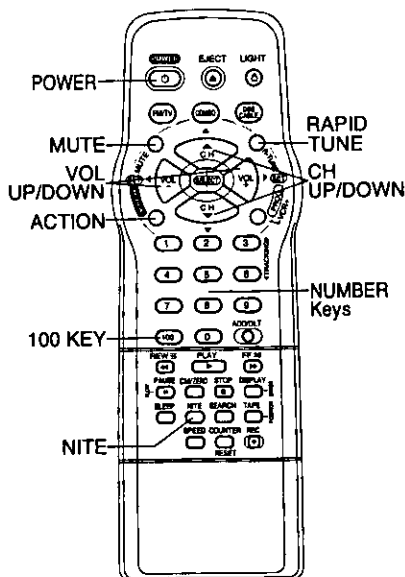
Press **R-TUNE** to display the last channel you were watching.

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**.



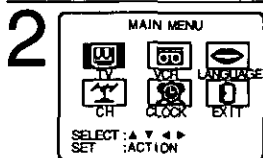
Closed Caption System

Closed Caption is ...

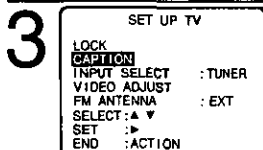
This multi-use system not only allows the hearing impaired to enjoy selected programs, but also makes useful information from TV stations available to everyone.

Closed Caption Mode Feature

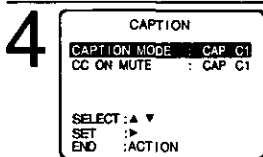
1 Press **ACTION** to display MAIN MENU.



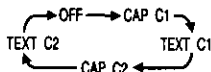
1) Press **▲▼◀▶** to select "TV."
2) Press **ACTION** to display SET UP TV screen.



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.

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.

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

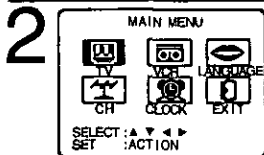
Closed Caption /Text narration will not be displayed.

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.

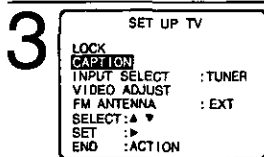
Caption On Mute Feature

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

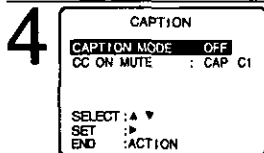
1 Press **ACTION** to display MAIN MENU.



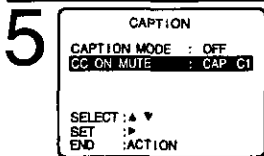
1) Press **▲▼◀▶** to select "TV."
2) Press **ACTION** to display SET UP TV screen.



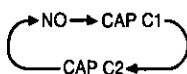
1) Press **▲▼** to select "CAPTION".
2) Press **▶** to display CAPTION screen.



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.

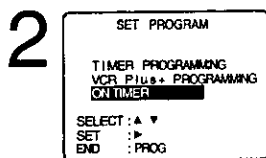
TV Timer Features

ON-TIMER with Alarm

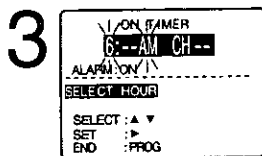
This unit can be set to automatically power on in one of 3 modes (TV, Playback, or FM radio.)

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

1 Press PROG/VCR+* button
to display SET PROGRAM screen.

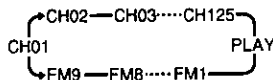


1) Press ▲▼ to select "ON TIMER."
2) Press ► to display ON TIMER screen.

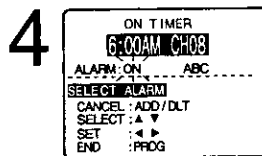


1) Press ▲▼ to select desired settings.
2) Press ► to set the ON-TIMER TIME or ON-TIMER mode.

• ON-TIMER mode selection order



• Make sure a tape is inserted if Playback mode is selected.
• See "FM Radio" on page 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/VCR+ button
to set ON TIMER.

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

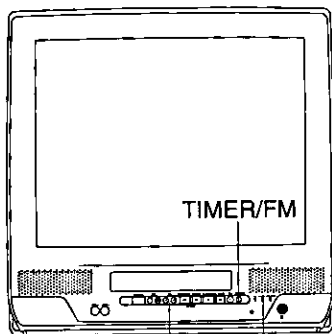
To Cancel ON-TIMER set,

Repeat steps 1 and 2. Then, press ADD/HLT to clear the time in step 3. Now, press PROG/VCR+ button to end.

"ON TIMER END" briefly appears on-screen.

✓ Ready Check List

- The clock is set to correct time.

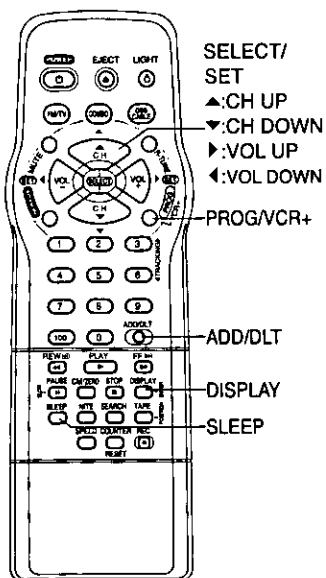


CH ▲▼ ON TIMER Indicator

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.

•Important: If a remote control button does not work when pressed, press the COMBO button on the remote and try the button again.



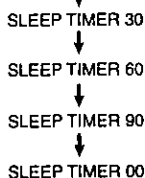
SLEEP TIMER

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.

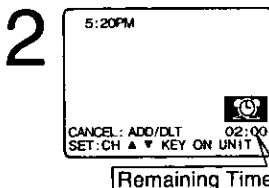
Press **SLEEP** repeatedly until "SLEEP TIMER 00" appears to cancel.



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.



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.

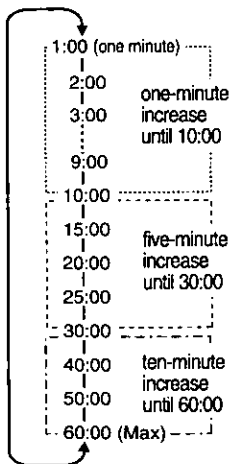


To cancel, press **TIMER/FM** then press **ADD/HLT** on the remote while CANCEL/SET screen is displayed.

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

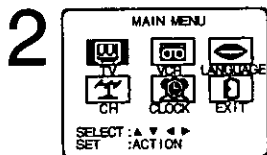
While timer function is in progress, you can change channels on the unit with **CH ▲▼** while "CANCEL/SET" screen is not displayed.

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

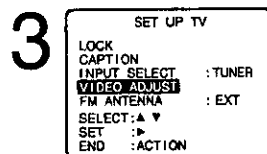
- The volume of the alarm gradually increases for one minute and then continues to beep until any button is pressed.

Picture Adjustment

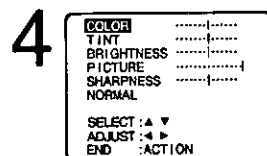
- 1** Press **ACTION*** to display MAIN MENU.



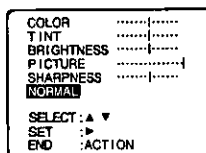
- 1) Press **▲▼◀▶** to select "TV."
- 2) Press **ACTION** to display SET UP TV screen.



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

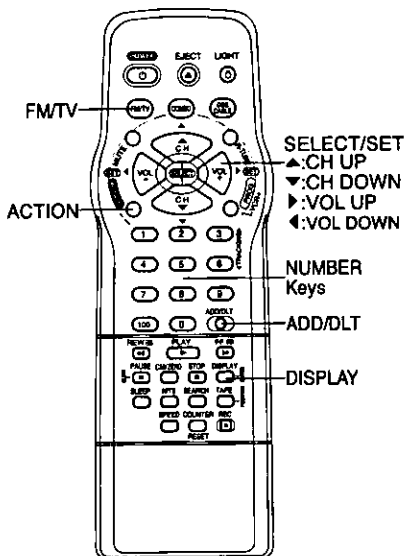


- 1) Press **▲▼** to select an adjustment item. (See below right.)
- 2) Press **◀▶** to adjust.



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

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



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.

FM Radio

•Important: if a remote control does not work when pressed, press the COMBO button on the remote and try the button again.

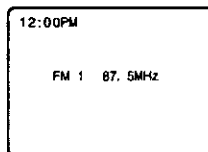
FM Radio is ...

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 18) to wake up to your favorite radio station.

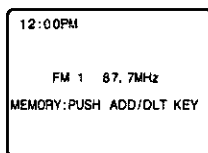
FM Radio Setup

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

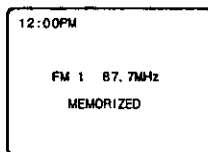
2 Press a number key (1~9) to select the FM number.



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



2) Press **ADD/HLT** 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.

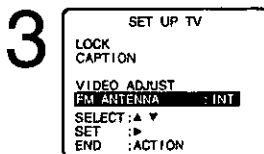
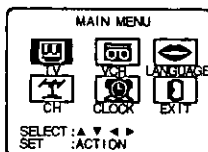
To exit FM mode, press **FM/TV** on the remote or **TIMER/FM** twice on the unit.

FM ANTENNA Setup

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

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

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



- For cable TV users → "INT"
- For antenna users → "EXT"

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

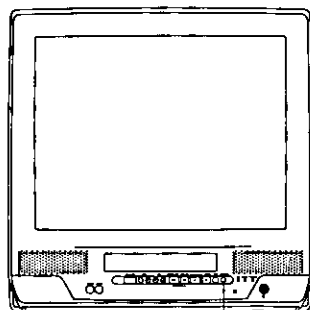
4 Press **ACTION** twice to end setup.

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.



TIMER/FM

Notes

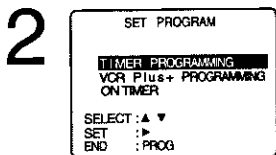
- FM radio cannot be recorded on a Video cassette.
- You may get better reception by repositioning the unit.
- You cannot select FM Radio mode during playback or record, or while a blue back screen (PROG/VCR+, ACTION, MENU) is displayed.
- Once stations are set, the selected station and current time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

TV Operation

Timer Recording

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

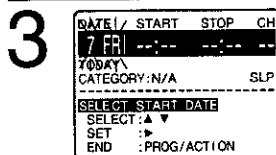
1 Press **PROG/VCR+*** button to display SET PROGRAM screen.



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

2) Press **▶** to display screen.

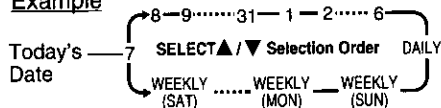
• If a program is already in memory, press **▲▼**, and **▶** to select an unused program number.



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

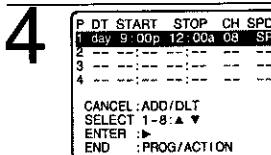
• 1-31 = One time
• DAILY = MON~FRI
• WEEKLY SUN~SAT = Same time once a week

Example



Repeat step 3 to set:

- start time, stop time
- Channel (or LINE for outside source)
- Category [N/A (not applicable), SPORTS, MOVIE, COMEDY, MUSIC, DRAMA]
- Speed (SP, LP, SLP)



Press **PROG/VCR+** button (or **ACTION**) to end the program.

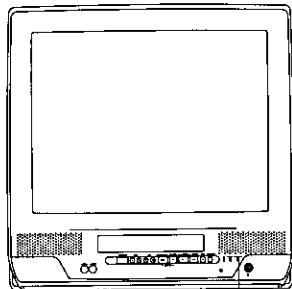
To Enter More Programs
Press **▲▼** to select and **▶** to set a blank program number, and then repeat step 3.

5 Press **PROG/VCR+** button 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

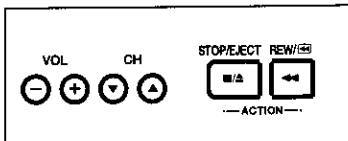
- All connections are made.
- Your unit is plugged in.
- The clock is set to correct time.
- The tape is long enough.
- The record tab is in place.



PROG TIMER Indicator

Timer Recording Using unit Buttons

You can set a Timer Recording using **ACTION** key on the unit. (See page 13.)



- 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.

•Important: if a remote control button does not work when pressed, press the COMBO button on the remote and try the button again.

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	00	04:00p	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/DLT
SELECT 1-8:▲▼
ENTER:▶
END:PROG/ACTION

Press ▲▼ to select the desired program.

3 To Replace program...

DATE /	START	STOP	CH
6 SAT	9:00P	12:00A	08
TODAY			ABC
CATEGORY:MOVIE			SP

SELECT:START DATE
SELECT:▲▼
SET:▶
END:PROG/ACTION

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

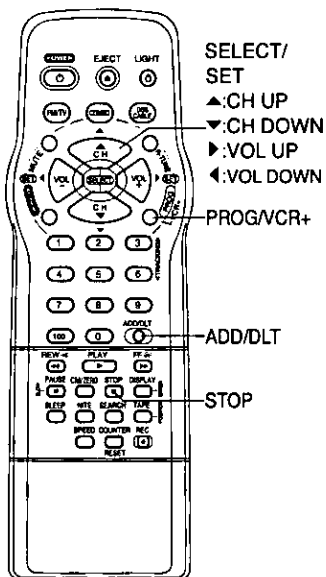
To Clear program...

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

SELECT 1-8:▲▼
ENTER:▶
END:PROG/ACTION

Press ADD/DLT.

4 Press PROG/VCR+ button 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 14), 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.

Timer Programming using VCR Plus+® System

VCR Plus+ System is...

This feature allows you to set most items of a Timer Recording by simply entering a special code number (PlusCode programming number) found in TV GUIDE and selected newspaper TV listings.

Initial Setup...

In order to do Timer Programming using VCR Plus+, the initial Setup (Clock and Channels) on page 8 to 11 must be done.

Channel Setup...

Since PlusCode numbers assigned to channels (found in TV Guide and selected newspapers) may differ from channels in your viewing area, you'll need to enter your local TV channel number for each corresponding Guide Channel. Once Channel Setup is done, the correct local channel will be selected when PlusCode numbers are used to program this unit.

Channel Setup Preparations

To complete step 4 right, make a local channel list (see example below).

You will need the following:

- A normal TV and/or Cable station line up and the channel numbers you receive them on.
- A list of Guide (VCR Plus+) channel numbers for stations you receive (see TV Guide and selected newspapers.)

1 Make a 3-column chart.

In the left column, write all station names you receive.

2 In the middle column, write each station's Guide (VCR Plus+) number (see TV Guide, etc.).

3 In the right column, write the channel number your TV receives the station on.

< EXAMPLE ONLY >

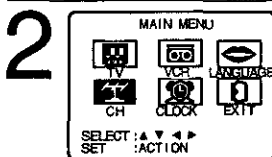
Broadcast or Cable Station Name	Assigned Guide (VCR Plus+) Channel no.	Channel no. your TV receives the station on
HBO	33	15
Nickelodeon	38	20
CBS	34	04
FOX	11	

VCR Plus+ Channel Setup

[For DSS / Cable Box connection only.]

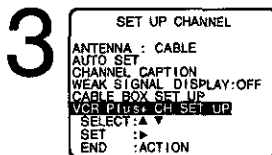
At first, do Channel Setup Preparations left.

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



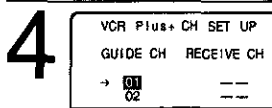
1) Press **▲▼◀▶** to select "CH."

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



1) Press **▲▼** to select VCR Plus+ CH SET UP.

2) Press **▶** to display screen.



1) Press **▲▼** to scroll up/down the GUIDE CH column.

2) Press **▶** to move cursor to right column.

3) Press **▲▼** to change the CABLE CH number.

4) Press **◀** to set VCR Plus+ channels.

• Repeat step 4 until list is complete.

To Make Corrections
Press **▲▼** and **▶** to move to error, then **▲▼** to change, or **ADD/HLT** to erase number.

5 Press **ACTION** three times to end the setup.

• Important: If a remote control button does not work when pressed, press the COMBO button on the remote and try the button again.

✓ Ready Check List

- The clock is set to correct time.
- VCR Plus+ System Setup is complete. (See page 24.)

Use normal Timer Recording steps if:

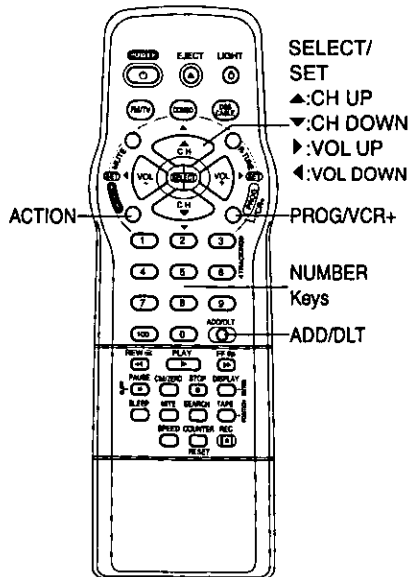
- a program PlusCode programming number is not listed.
- program, such as a sporting event, may run over scheduled stop time.

See page 23 to:

- cancel a timer recording in progress.
- replace program contents.
- review or clear program contents once set.

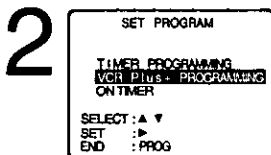
Notes

- You can obtain unlisted PlusCode programming numbers by calling 1-900-454-7587. Call costs approximately \$0.95 per minute.
- Avoid overlapping program times.
- 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.
- Timer programs memory capacity is 8. To add more programs, please first clear other programs. (See page 23.)
- Make each entry within 5 minutes or the unit will leave this mode.
- Once local channels have been programmed, they will stay in memory, even in the case of a power failure.

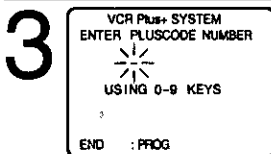


VCR Plus+ System Programming

1 Press **PROG/VCR+** button to display SET PROGRAM screen.



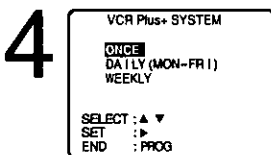
- 1) Press ▲▼ to select VCR Plus+ PROGRAMMING.
- 2) Press ▶ to display screen.



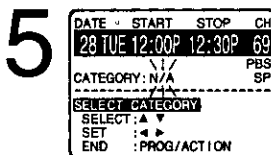
- 3) Press number keys to enter PlusCode programming number.
- 2) Press **PROG/VCR+** button when finished.

To Make Corrections

Press ◀ repeatedly to delete the PlusCode programming number.



- 4) Press ▲▼ to select and ▶ to set Record Frequency.



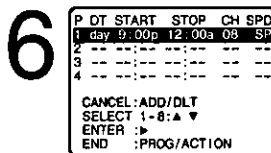
- 5) Press ▲▼ to select and ▶ to set Category and Record speed.

Selections:

- Categories → N/A (not applicable), SPORTS, MOVIE, COMEDY, MUSIC, or DRAMA
- Speed → SP, LP, or SLP

To Make Corrections

Press ◀▶ to move the cursor and ▲▼ to make the correction.



- 6) Press **PROG/VCR+** button (or **ACTION**.) to end programming.

7 Press **PROG/VCR+** button twice (or **ACTION**) to exit this mode.

- PROG TIMER indicator lights on the unit.

Cable Box Universal Remote Control Feature

Universal Remote Control is...

The Remote Control may be set up to control some basic DSS or Cable box functions.

The Universal Remote Control Setup

1 Find your DSS box or Cable box Brand Code Number from one of the charts on the next page.

2 Setup remote.

Hold down **DSS CABLE** and press number keys to enter code.

- For code 100 or greater, first press 100 key, then the remaining digits. E.g. for 102, press 100, then press 0, and then press 2.

3 Confirm code entry.

Press **POWER*** to turn selected unit ON or OFF.

- See below for controllable functions in each mode.

Notes

- Please repeat the Universal Remote Control Setup after replacing remote control batteries.
- The remote control will not operate all DSS receivers or Cable Boxes made by the manufactures listed. If you get no results, your particular brand cannot be controlled.

Using the Universal Remote Control

Once the remote control has been properly set up, you can select COMBO, DSS or CABLE mode depending on which functions you wish to control. (See below.)

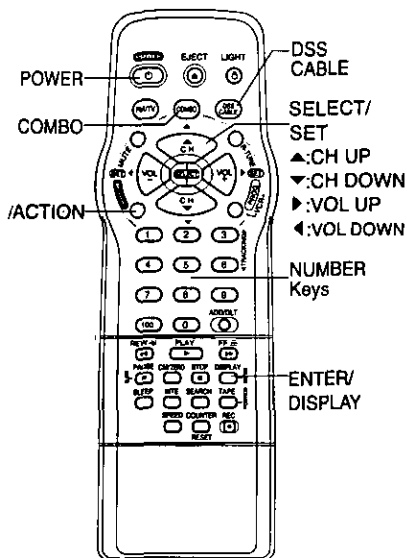
Press **COMBO** or **DSS CABLE** on the remote control to select the desired mode. (See below for buttons available in each mode.)

Set to COMBO:

- All TV and VCR functions.

Set to DSS CABLE:

- Basic VCR functions, e.g. PLAY, REC, etc.
- CABLE/DSS functions, e.g. POWER, ENTER, number keys (except 100 key), CH UP/DOWN.



DSS Brand Code Numbers

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

Cable Box Brand Code Numbers

Archer	05, 06, 01, 44, 63, 91, 126	Matsushita	16, 17, 97, 109	Sheritech	27
Cabletenna	01, 44, 63, 91, 126	Movietime	32, 39, 42, 44, 126, 38, 40	Signal	26, 112
Cableview	63, 44, 42, 30, 52, 04, 124, 126	NEC	38, 40, 32	SL Marx	32, 40, 42, 06, 43, 44, 52, 63, 126
Century ...	51, 44, 59, 75, 126	NOVAVISION	08, 09, 61, 53, 87	Sprucer	16, 17, 97, 109
Citizen	63, 44, 42, 30, 52, 04, 124, 126	NSC	38, 40, 32	Standard Components	32, 39, 42, 44, 126
Curtis	08, 09, 61, 53, 87	Oak	46, 11, 129	Stargate	32, 40, 63, 44, 42, 30, 52, 04, 06, 124, 126
Diamond .	01, 44, 63, 91, 126	Oak Sigma	46, 11, 129	Sylvania	19
Drake	67	Panasonic	16, 17, 97, 109	Teknika	74
Eagle	13, 22, 58, 62, 20, 40, 26, 107	Philips	07, 13, 20, 23, 24, 50, 128, 129	Telecaption	77, 127
Eastern	28, 130	Pioneer	05, 06	Televue	32, 40, 42, 06
GC Brand	63, 44, 42, 30, 52, 04, 124, 126	Pulsar	63, 44, 42, 30, 52, 04, 124, 126	Texscan	18, 19
Gemini	04, 124	Quest	05, 06	Tocom ..	33, 34, 01, 42, 66, 91
General Electric	57, 01	Radio Shack ...	51, 44, 59, 75, 126	Toshiba	36
General Instruments ...	01, 02, 03, 04, 34, 55, 83, 106, 65, 67, 68, 115, 117, 118	RCA	16, 17, 97, 109	Uniden Satellite	65
Hamlin	14, 15, 28, 41, 102, 103, 104, 108, 130	Realistic ...	51, 44, 59, 75, 126	Unika	01, 44, 63, 91, 126
Hitachi	31	Recoton ...	51, 44, 59, 75, 126	Universal ...	42, 43, 44, 52, 63, 126
Jasco	04, 124	Regal	14, 15, 28, 41, 102, 103, 104, 108, 130	Videoway	07, 23, 50, 129
Jerrold	01, 02, 03, 04, 34, 55, 83, 106, 65, 67, 68, 115, 117, 118	Regency	28, 130	Vid Tech	64
Macom	31	Rembrandt	01, 32, 39, 42, 44, 63, 126	Vidtek	64
Magnavox	26, 112	Salora	68	Viewstar	13, 22, 58, 62, 20, 40, 26, 107
		Samsung ...	05, 32, 40, 42, 06	Zenith	07, 23, 50, 129
		Scientific Atlanta	08, 09, 61, 53, 87		

Notes

- In DSS or CABLE mode, it may be necessary to press ENTER after pressing number keys for channel selection.
- In DSS or CABLE mode, POWER, CH Up/Down, number Keys, ACTION, PROG/VCR+, DISPLAY, SEARCH, R-TUNE, FM/TV, or ADD/HLT are not available. Press COMBO to use these functions.
- Depending on your DSS receiver or Cable box brand, some of the functions listed may not be remote controllable.
- Some DSS receiver or Cable box brands require you to turn on the power manually.
- Due to changes in infra-red commands used by manufacturers, some brands have several codes. If your unit does not respond to the first code, please try the next one.

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.

2

INDEX SEARCH 3

INDEX SEARCH

Press **number keys** to select the recording number.
• To calculate number, see below.

3

INDEX SEARCH

FORWARD SEARCH:FF
REVERSE SEARCH:REW

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

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.

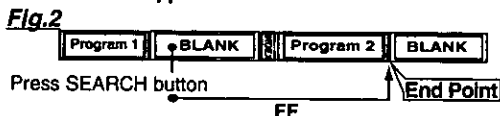
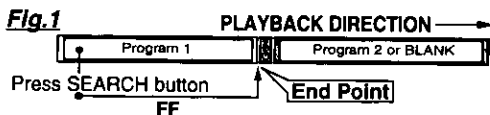
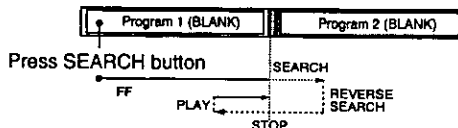


Fig.3 If search exceeds a few seconds in BLANK area. Press **SEARCH** button



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**.

To calculate the Index Number

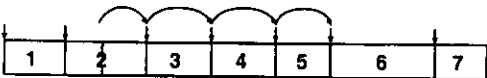
Example 1:

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**.

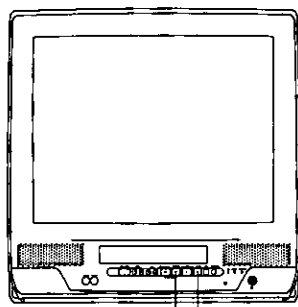


NOTE: † indicates start points of each recording.

Notes

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

Important: if a remote control button does not work when pressed, press the COMBO button on the remote and try the button again.



REW FF

Auto Operation Functions

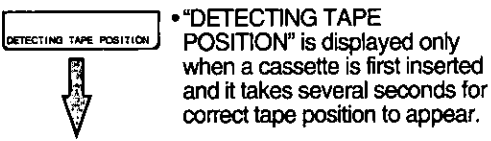
- **Auto Shut Off**
No broadcast signal in TV, blank tape is Played for 5 minutes
→ Power turns off
 - This feature is canceled if any button is pressed during above mode.
- **Auto Playback**
Insert a tape in Power off mode
→ Power turns on
 - Playback begins if tape has no record tab.
- **Auto Rewind**
Tape reaches its end
→ Rewind, → Stop
- **Playback Auto Eject (Repeat Play is "OFF")**
Tape with no record tab reaches its end
→ Rewind, → Stop, → Eject

Tape Position Display

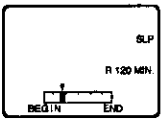
To find out present tape position and amount of tape remaining.

Tape position cannot be detected for C-Cassettes, tapes under 30 minutes, and some other tapes.

1 Press TAPE POSITION to detect current 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.

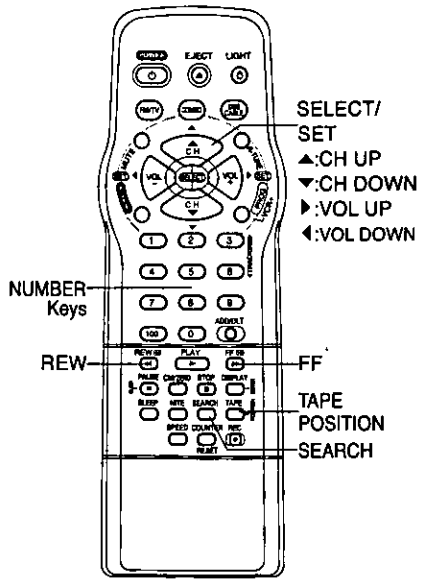


• The present tape position indication and amount of tape remaining (according to tape speed) is displayed.
• Tape remaining time display may not be precise.

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.



Advanced Operation

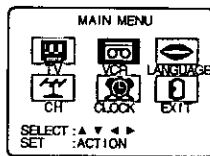
Tape Operation (continued)

Repeat Play

Set to see a recording over and over.

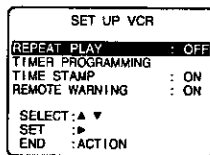
- 1 Press **ACTION*** to display MAIN MENU.

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."

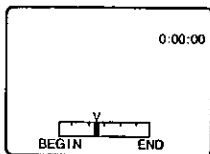
- 4 Press **ACTION** twice to end setup.

Zero Search

To quickly return to a specific tape counter location.

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

2

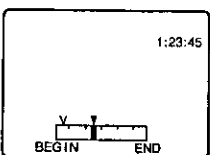


- Press **COUNTER RESET** at the desired position to reset to "0:00:00."

- 3 Continue playback, rewind, or fast forward.

- 4 Press **STOP**.

5



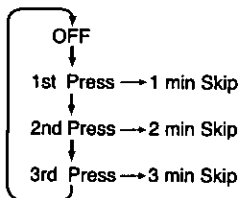
- Press **CM/ZERO** in stop mode to start ZERO SEARCH.

- **▼** : Present position mark
- **V** : Zero position mark
- Unit goes into FF or REW mode and stops at the last point the Counter was set to 0:00:00.

Commercial Skip

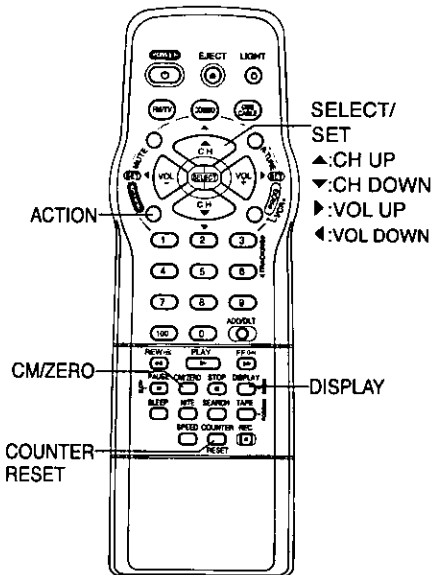
By pressing the CM/ZERO button in Playback mode you can skip over 1 to 3 minutes of recorded tape in just a few seconds.

- 1 Press **CM/ZERO** repeatedly to select skip time in Playback mode.
 - No indication appears.



Repeat Play 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."



Zero Search 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.

Special VCR Features

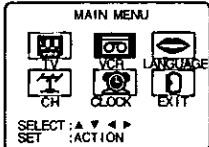
•Important: if a remote control button does not work when pressed, press the COMBO button on the remote and try the button again.

Remote Warning ON/OFF

When Universal Remote Control (page 26) is used, and this feature is set to "ON," a warning appears whenever an invalid key is pressed in DSS or Cable mode.

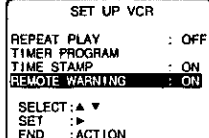
1 Press **ACTION** to display MAIN MENU.

2



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

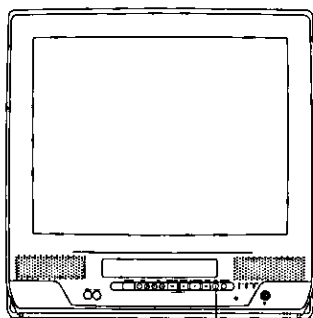
3



1) Press **▲▼** to select REMOTE WARNING.
2) Press **▶** to set "ON" or "OFF."

• "REMOTE WARNING : OFF"
→ Remote warning will not appear even if invalid key is pressed.

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



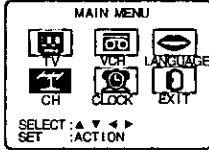
REC

Weak Signal Display ON/OFF

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

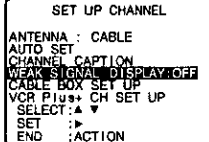
1 Press **ACTION** to display MAIN MENU.

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."

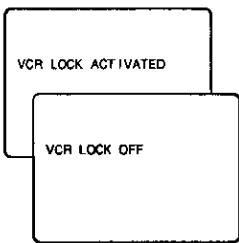
Notes

- "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. 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."

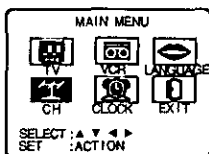
- VCR Lock is canceled automatically after about 24 hours if clock is set.

Special VCR Features (continued)

Preset Caption

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

2



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

Channel Caption is ...

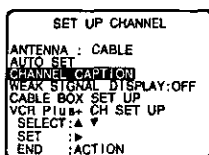
Station names, e.g. ABC, TNN, etc. are set so they will appear when a channel is selected. Choose 24 preset names (Preset Caption), or make up to 10 names of your own (Manual Caption).



Ready Check List

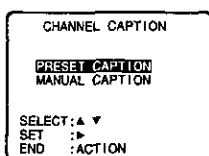
- You need a list of stations and the channel numbers you receive them on.

3



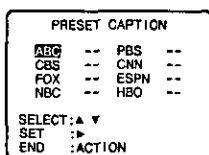
- 1) Press **▲▼** to select CHANNEL CAPTION.
- 2) Press **▶** to display screen.

4

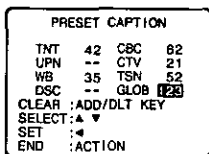


- 1) Press **▲▼** to select PRESET CAPTION.
 - 2) Press **▶** to display screen.
- To create your own captions, go to "Manual Caption" on page 33.

5



- 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 5 until the Caption List is complete.

To Make Corrections

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

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

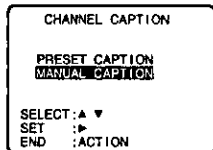
32

• Important: If a button does not work as expected, press the COMBO button on the remote and try the button again.

Manual Caption

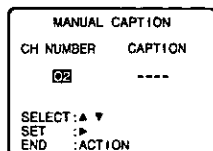
1 Do "Preset Caption" steps 1~3 (page 32).

2



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

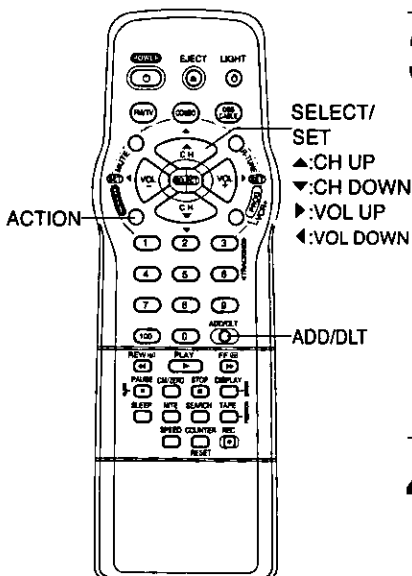
3



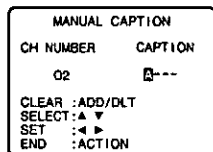
- 1) Press ▲▼ to select **CH NUMBER**.

- 2) Press ▶ to move cursor to the right.

- Channels already set and channels deleted from Channel Memory are not displayed.
- You can set a total of ten channel captions with up to four characters each.



4



- 1) Press ▲▼ to select and ▶ to enter your caption.

- Characters change in the following order.

→ A-B-C.....Z- BLANK- - - & ←
 → 9.....2-1-0-/-! ←

- Press ◀ repeatedly to move the cursor to "CH NUMBER." Repeat steps 3 and 4 as desired..

To Make Corrections

Press ▲▼, then ▶ to select channel number.

Press ▲▼ to change, or ADD/DEL to delete.

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

Special VCR Features (continued)

Time Stamp Feature

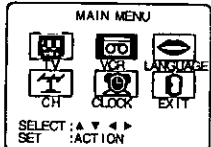
This unit writes program data (see example below) for about the first 10 seconds of every recording. The information is then displayed about 10 seconds after playback begins.

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

Ready Check List

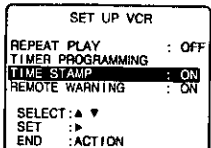
- The clock is set to correct time.
- The record tab is in place.

2



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

3



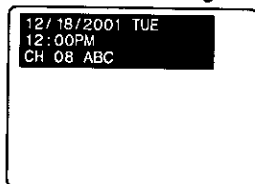
1) Press **▲▼** to select TIME STAMP.
2) Press **▶** to set "ON" or "OFF."

- When "OFF" is selected, the program data is written on the tape, but will not be displayed.

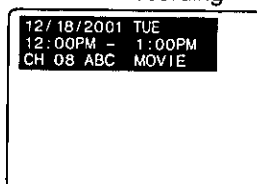
4 Press **ACTION** twice to return to normal screen.

<Time Stamp Example >

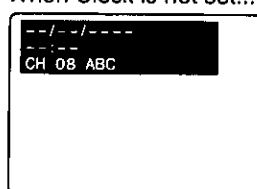
Normal/ One
Touch Recording



Timer Recording



When Clock is not set...



V-Chip Control Feature

Important: If a remote control button does not work when pressed, press the COMBO button on the remote and try the button again.

Process of V-Chip Control Feature



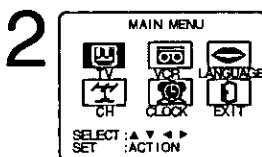
V-Chip Control Feature is...

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.

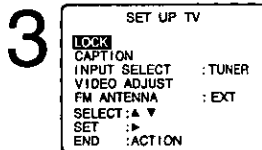
Enter Secret Code

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

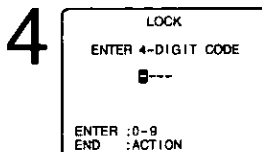
1 Press **ACTION** to display MAIN MENU.



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



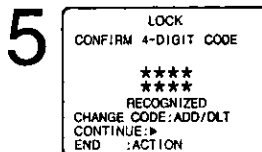
- 1) Press **▲▼** to select LOCK.
- 2) Press **▶** to display screen.



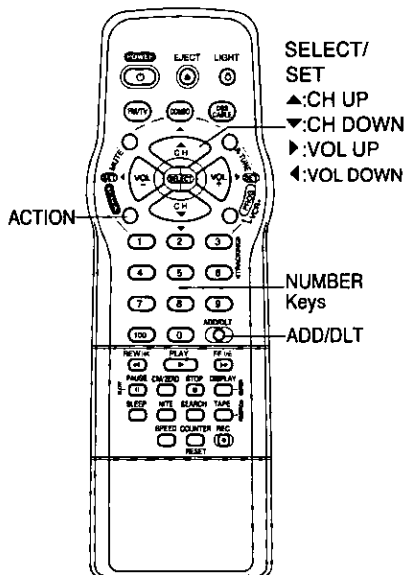
- 1) Press number keys to enter your secret code.
- 2) Enter same code again for confirmation.

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 36).
Or
Press **ACTION** three times to exit.



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 35.

Process of V-Chip Control Feature



Setup US MOVIES Ratings

1

LOCK	
US MOVIES	:OFF
CHANGE SETTINGS	
US TV PROGRAMS	:OFF
CHANGE SETTINGS	
NEXT PAGE	
SELECT:▲▼	
SET :▶	
END :ACTION	

- 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.

2

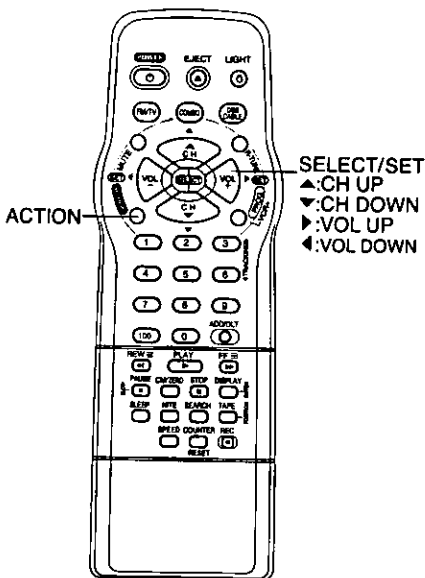
LOCK	
US MOVIES	:OFF
CHANGE SETTINGS	
US TV PROGRAMS	:OFF
CHANGE SETTINGS	
NEXT PAGE	
SELECT:▲▼	
SET :▶	
END :ACTION	

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

3

VIEW NR PROGRAMS? : YES	
G	UNLOCKED
PG	
PG-13	
R	
NC-17	
X	
CONTAINS NO RATING	
SELECT:▲▼	SET:▶
END :ACTION	

- 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.

4

VIEW NR PROGRAMS? : YES	
G	UNLOCKED
PG	
PG-13	
R	
NC-17	
X	
GENERAL AUDIENCE	
SELECT:▲▼	SET:▶
END :ACTION	

- Press ▲▼ to select and ▶ to set ratings to be blocked. (See ratings chart right.)

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:

- 5** Press ACTION to redisplay LOCK menu and continue with US TV PROGRAMS Ratings Setup (next page). Or, press ACTION four times to exit.

• Important: if a remote control button does not work when pressed, press the COMBO button on the remote and try the button again.

If LOCK menu is not displayed, do "Enter Secret Code" steps on page 35.

Setup US TV PROGRAMS Ratings

1

LOCK	
US MOVIES	:OFF
CHANGE SETTINGS	
US TV PROGRAMS	:OFF
CHANGE SETTINGS	
SELECT: ▲ ▼	NEXT PAGE
SET: ►	
END	:ACTION

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.

2

LOCK	
US MOVIES	:OFF
CHANGE SETTINGS	
US TV PROGRAMS	:OFF
CHANGE SETTINGS	
SELECT: ▲ ▼	NEXT PAGE
SET: ►	
END	:ACTION

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

3

VIEW NR PROGRAMS? : YES	
TV-Y	UNLOCKED
TV-Y7	FV
TV-G	
TV-PG	V S L D
TV-14	V S L D
TV-MA	V S L
CONTAINS NO RATING	
SELECT: ▲ ▼	SET: ►
END	:ACTION

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

NR (Not Rated) PROGRAMS

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

4

VIEW NR PROGRAMS? : YES	
TV-Y	UNLOCKED
TV-Y7	FV
TV-G	
TV-PG	V S L D
TV-14	V S L D
TV-MA	V S L
FOR ALL CHILDREN	
SELECT: ▲ ▼	SET: ►
END	:ACTION

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

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 four times to exit this mode.

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.

US TV PROGRAMS RATINGS:

Chart 2

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

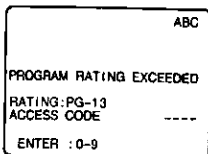
V-Chip Control Feature (continued)

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

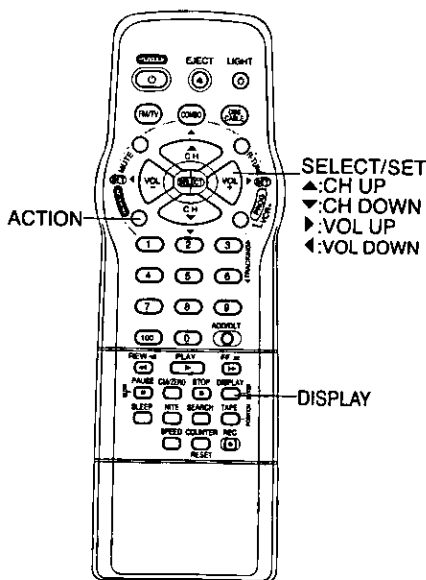
[Temporarily Deactivate V-Chip Control]

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 35). Then, set US MOVIES and/or US TV PROGRAMS to "OFF" using ▲▼* and ► keys. (Ratings set on pages 36, 37 are retained and will be in effect when V-Chip Control is activated again.)



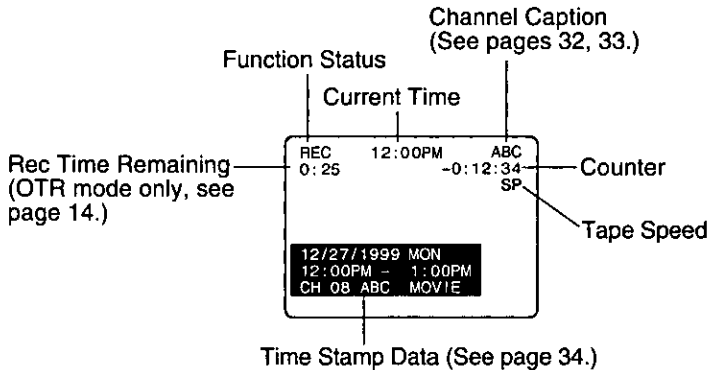
On-Screen Display (OSD)

Important: if a remote control button does not work when pressed, press the COMBO button on the remote and try the button again.

VCR Status & Clock Display

Press **DISPLAY**

to display or remove the overlay.

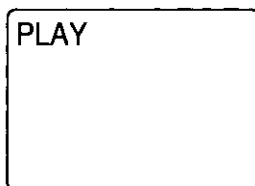
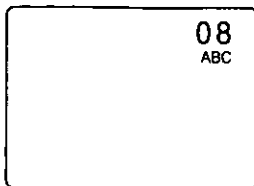


Blue Screen Display

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 31), 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 pages 32, 33.)



Warning and Instruction Displays

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

OSD	Caution	Page
NO CH FOUND PLEASE CHECK ANTENNA CABLE CONNECTION THEN PUSH CH UP KEY AGAIN	<ul style="list-style-type: none">• If no active channels are found for CHANNEL MEMORY...	8 - 11
PLEASE SET CLOCK BEFORE PROGRAMMING	<ul style="list-style-type: none">• If you attempt to set or review a Timer Recording, or set the On-Timer and the Clock is not set...	8 - 13
CHECK CASSETTE RECORD TAB	<ul style="list-style-type: none">• If you press REC, and a cassette is inserted with no record tab...	4, 14
TO CANCEL TIMER REC HOLD DOWN STOP KEY FOR APPROX 3 SEC	<ul style="list-style-type: none">• If you press STOP during a Timer Recording...	23
NO CASSETTE PLEASE INSERT A CASSETTE	<ul style="list-style-type: none">• If you press PLAY, FF, REW, or REC without a cassette inserted...	14
REMOTE CONTROL IS SET TO DSS/CABLE MODE USE COMBO : COMBO KEY	<ul style="list-style-type: none">• If you press POWER, ACTION, or PROG on the remote while in DSS or CABLE mode...	26, 27
VIDEO HEADS MAY NEED CLEANING PLEASE INSERT HEAD CLEANING CASSETTE OR REFER TO MANUAL END: PLAY KEY	<ul style="list-style-type: none">• If head cleaning becomes necessary while playing back a tape...	41
VCR LOCK ACTIVATED	<ul style="list-style-type: none">• If you press a function button other than STOP/EJECT or POWER while the unit is in VCR Lock mode...	31

Unit Information

• Important: if a remote control button does not work when pressed, press the COMBO button on the remote and try the button again.

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.

- 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 43.)

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

END:PLAY KEY

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.

Record/Playback Time

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

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

Specifications

Display

Picture Tube: 25 inch measured diagonal 110° deflection Picture Tube

VCR

Video Recording System: 4 rotary heads helical scanning system
1 track

Audio Track:

Tuner

Broadcast Channels: VHF 2 ~ 13, UHF 14 ~ 69
Midband A through I (14 ~ 22)
CABLE Channels: 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: Approx. 130 watts (Power on)
Approx. 4.0 watts (Power off)

Television System:

Speaker: 1 piece
Operating Temperature: 5°C ~ 40°C (41°F ~ 104°F)
Operating Humidity: 10% ~ 75%
Weight: 31 Kg (68.2 lbs.)
Dimensions: 634 (W) X 590 (H) X 464 (D) mm
24-15/16" (W) X 23-1/4" (H) X 18-1/4" (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

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.

PanaBlack™ Picture Tube

This unit uses a PanaBlack™ picture tube for better color reproduction and picture contrast.

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. 8-11)• 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. 20)
Poor sound with normal picture...	<ul style="list-style-type: none">• Adjust VOLUME control. (P. 16)
Poor TV reception...	<ul style="list-style-type: none">• Adjust SHARPNESS and PICTURE controls in the SET UP TV menu. (P. 20)
No color or poor color...	<ul style="list-style-type: none">• Adjust TINT and COLOR controls in the SET UP TV menu. (P. 20)
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. 12, 13)
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. 8-11)• Make sure cassette record tab is intact. (P.4)• 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. 41)• Try Head Cleaning. (P. 41)• Make sure VCR LOCK is set to off. (P. 31)• 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. 4)• Make sure VCR LOCK is set to off. (P. 31)• Exposing unit remote sensor to direct fluorescent or outdoor light may cause signal interference.
ACTION, PROG/VCR+ and FM/TV buttons cannot be selected...	<ul style="list-style-type: none">• Press COMBO button for COMBO mode. (P. 26)• Check remote batteries.
Miscellaneous	Correction
Video cassette cannot be inserted...	<ul style="list-style-type: none">• Insert the cassette window side up; record tab facing you.
Video cassette cannot be removed...	<ul style="list-style-type: none">• Completely insert Power Plug into an AC outlet.
Tape cannot be ejected or inserted...	<ul style="list-style-type: none">• Try ejecting or inserting the tape again after turning POWER off, then back on.
Video cassette ejects when a recording is started, or the power is turned off for timer recording...	<ul style="list-style-type: none">• Make sure cassette record tab is intact. (P. 4)
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. 31)

If you cannot resolve the problem, please call the Customer Satisfaction Center for product assistance at 201-348-9090.

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

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

Service Center List

For Product Information, Operating Assistance, Literature Request, Dealer Locations, and all Customer Service inquiries please contact: 1-800-211-PANA (7262), Monday-Friday 9 am-9 pm Saturday-Sunday 9 am-7 pm, EST. or send e-mail to : 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, MasterCard, Discover Card, American Express, Check)

Factory Servicenters Locations

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CA 94080

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Service in Puerto Rico

Matsushita Electric of Puerto Rico, Inc. Panasonic Sales Company/ Factory Servicenter:

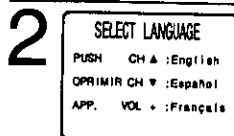
Ave. 65 de Infanteria, Km. 9.5, San Gabriel Industrial Park, Carolina, Puerto Rico 00985
Phone (787)750-4300 Fax (787)768-2910

As of January 2000

Spanish Quick Use Guide/Guía para rápida consulta

Como realizar la Configuración Inicial

1 Presione **POWER** en el control remoto o en la unidad.



Quando encienda el VCR por primera vez, aparecerá la pantalla **SELECT LANGUAGE**.

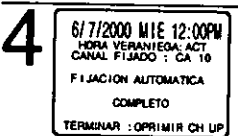
- Si ajusta el idioma incorrecto, realice los pasos de la página 9 "Reajuste de todas las Funciones de Memoria de la Unidad".
- Active la caja de cables y ajústela al canal PBS en su huso horario. Si usted utiliza receptor DSS, este debe estar apagado.



Presione **CH ▲** para seleccionar Inglés (English).

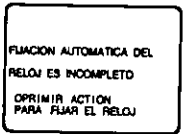
Presione **CH ▼** para seleccionar Español.

Presione **VOL +** para seleccionar Francés (Français). Aparecerá la pantalla **CHANNEL / CLOCK AUTO SET**.



Presione la tecla **CH ▲** para iniciar el funcionamiento de **CHANNEL / CLOCK AUTO SET**. El ajuste del **CHANNEL / CLOCK** se lleva a cabo automáticamente, si la configuración se ha terminado, se visualiza la pantalla siguiente.

Si aparece la pantalla "FIJACION AUTOMATICA DEL RELOJ INCOMPLETO", ajuste el reloj utilizando los procedimientos de "AJUSTE MANUAL DEL RELOJ" mostrados en la página 9.



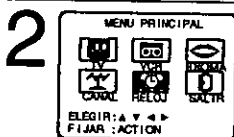
Ajuste Manual del Reloj

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

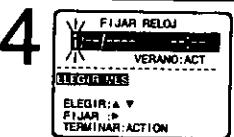
1 Presione **ACTION** para exhiba el menú.



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



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



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

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.**

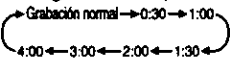
Presione SPEED.

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.)



Grabación con temporizador

- 1 Exhiba FIJAR PROGRAMACION.**

Presione PROG/VCR+.
- 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), categoría (N/O no aplicable), DEPORTE, CINE, COMEDIA, MUSICA, DRAMA), velocidad (SP, LP, SLP)

- 4 Termine el programa.**

Presione PROG/VCR+ (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/VCR+ 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.

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 Video Products Limited Warranty

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

PRODUCT	PARTS	LABOR	SERVICE	CONTACT NUMBER
CAMCORDER	ONE (1) YEAR, EXCEPT CCD IMAGE SENSOR	NINETY (90) DAYS	Carry-In or Mail In	1-800-211-PANA(7262)
	CCD IMAGE SENSOR - SIX (6) MONTHS	NINETY (90) DAYS		
VCR	ONE (1) YEAR	NINETY (90) DAYS	Carry-In or Mail In	1-800-211-PANA(7262)
A/V MIXER	ONE (1) YEAR	NINETY (90) DAYS	Carry-In or Mail In	1-800-211-PANA(7262)
MONITOR- VCR Combination	ONE (1) YEAR, EXCEPT CRT CRT - TWO (2) YEARS	NINETY (90) DAYS CRT - NINETY (90) DAYS	Carry-In: 21" CRT and Smaller	1-800-211-PANA(7262)
			In-home or carry-in: 22" CRT and Larger	

Batteries (if included) - New rechargeable batteries in exchange for defective rechargeable batteries for ten (10) days. Non-rechargeable batteries are not warranted.

Tape (if included) - New video cassette tape in exchange for a defective video cassette tape for five (5) days. In-home, carry-in or mail-in service, as applicable, in the USA can be obtained during the warranty period by contacting a Panasonic Services Company (PASC) Factory Servicenter listed in the Service 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.

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