Panasonic®

Omnivision VHS

Combination VCR Operating Instructions

Model No. **PV-C2063A**

Initial Setup

Basic Operation

TV Operation

Timer Operation

Advanced Operation

For Your Information

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

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

READY TO PLAY!

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.)

LSQT0711A

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

5 AVOID EXTREMELY HOT LOCATIONS OR SUDDEN TEMPERATURE CHANGES
Do not place unit over or near a heater or regulator, in direct sunlight, etc. If unit is suddenly moved from a cold place to a warm place, moisture may condense in unit and on the tape causing damage.

6 TO AVOID PERSONAL INJURY
- Never place unit on support or stand that is not firm, level, and adequately strong. The unit could fall causing serious injury to a child or adult and damage to the unit.
- Move any appliance and cart combination with care. Quick stops, excessive force, and uneven surfaces may cause objects to overturn.
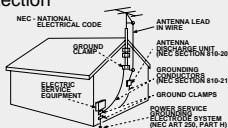- Carefully follow all operating instructions.

OUTDOOR ANTENNA INSTALLATION

1 SAFE ANTENNA AND CABLE CONNECTION
An outside antenna or cable system must be properly grounded to provide some protection against built up static charges and voltage. Section 810 of the National Electrical Code, ANSI/NFPA 70 (in Canada, part 1 of the Canadian Electrical Code) provides information regarding proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

NEC - NATIONAL ELECTRICAL CODE
ANTENNA LEAD IN WIRE
GROUND CLAMP
ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)
GROUNDING CONDUCTORS (NEC SECTION 810-21)
ELECTRIC SERVICE EQUIPMENT
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)

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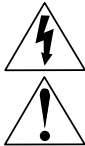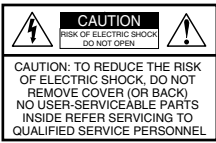
Caution : **To prevent electric shock, match wide blade of plug to wide slot, fully insert.**

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 $\boxed{\text{VHS}}$ 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.

⚡	CAUTION	⚠
	RISK OF ELECTRIC SHOCK DO NOT OPEN	

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL

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

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

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

Congratulations

on your purchase of one of the most sophisticated and reliable products on the market today. Used properly, it will bring you and your family years of enjoyment. Please fill in the information below. The serial number is on the tag located on the back of your unit.
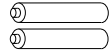
Date of Purchase ⎯⎯⎯⎯⎯⎯
Dealer Purchased From⎯⎯⎯⎯⎯
Dealer Address⎯⎯⎯⎯⎯⎯
Dealer Phone No.⎯⎯⎯⎯⎯⎯
Model No.⎯⎯⎯⎯ **PV-C2063A** ⎯⎯⎯
Serial No.⎯⎯⎯⎯⎯⎯⎯

Accessories
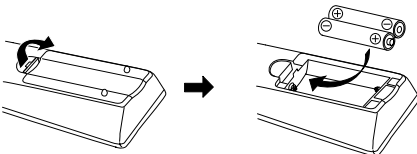

☐ Remote Control
LSSQ0319
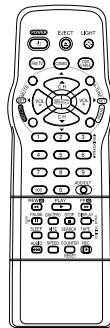
☐ Batteries
2 "AA"

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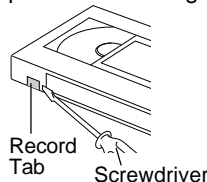
Loading the Batteries

Battery replacement caution
• Do not mix old and new batteries.
• Do not mix alkaline with manganese batteries.

Prevent Accidental Tape Erasure

Break off the tab to prevent recording.

To record again.

Record Tab
Screwdriver

Cover the hole with cellophane tape.

3

Unit Information

Head Cleaning

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

Head Clog Sensor

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

> VIDEO HEADS MAY
> NEED CLEANING
> PLEASE INSERT HEAD
> CLEANING CASSETTE
> OR REFER TO MANUAL
>
> END:PLAY KEY

- **Use "dry" type head cleaning cassette only.**
  (Part No. NV-TCL30PT is recommended.)
- Follow cleaning tape directions carefully. Excessive use of head cleaning tape can shorten the video head life.

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.

Specifications

Display
Picture Tube:	20 inch measured diagonal 90° deflection Picture Tube

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

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

FM Radio
Band Range:	87.5 ~ 108.1 MHz

General
Power Source:	120 V AC, 60 Hz
Power Consumption:	Approx. 110 watts (Power On) Approx. 2.5 watts (Power Off)
Television System:	EIA Standard NTSC color
Speaker:	1 piece
Operating Temperature:	5 °C ~ 40 °C (41 °F ~ 104 °F)
Operating Humidity:	10 % ~ 75 %
Weight:	23 Kg (50.6 lbs.)
Dimensions:	515 (W) X 505 (H) X 474 (D) mm 20-5/16" (W) X 19-7/8" (H) X 18-11/16" (D)

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

Record/Playback Time

Only use tapes with the VHS mark in this unit.

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

DST (Daylight Saving Time)

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

- **Spring (First Sunday in April)**
  DST : ON => Sets clock ahead one hour.

- **Autumn (Last Sunday in October)**
  DST : ON => Turns clock back one hour.

- If your area does not observe Daylight Saving Time, select DST:OFF.
- Keep these time changes in mind when programming the unit for timer recordings.

Table of Contents

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For Your Information

Location of Controls

Remote Control Buttons (Light Tower™ Illuminated Remote Control)

EJECT
Ejects tape.

POWER
Turns on or off.

FM/TV
Receives FM radio signal.

MUTE
Mutes the sound instantly.

CHANNEL UP/DOWN
Selects a channel.
SELECT UP/DOWN
Controls navigation around on-screen menu.

ACTION
Displays Main Menu.

NUMBER Keys
Selects a channel directly.

PLAY
Begins playback.

REWIND/SEARCH
Rewinds tape, and searches reverse scene.

PAUSE/SLOW
Pauses and slow motion and frame advance picture.

SLEEP
Turns off the unit automatically.

AUDIO
Selects the desired auio mode.

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

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

SPEED
Selects recording speed.

STOP
Stops recording or playback.

COMBO
Returns to COMBO mode.

LIGHT
See below.

DSS/CABLE
Sets the remote to control some basic DSS or Cable box functions.

RAPID TUNE
Displays the last channel you were watching.

VOLUME UP/DOWN
Adjusts volume.
SET/BACK SPACE
Sets a selected menu, or goes back to correct.

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

TRACKING UP/DOWN
Reduces picture noise during Playback and Slow Motion.

ADD/DELETE
Adds or deletes a channel.

FAST FORWARDS/ SEARCH
Fast forwards tape, and searches forward scene.

DISPLAY/ENTER
Displays the VCR status and clock.
In DSS or CABLE mode, it may be necessary after channel selection.

TAPE POSITION
Finds out present tape position and amount of tape remaining.

REC
Records the program.

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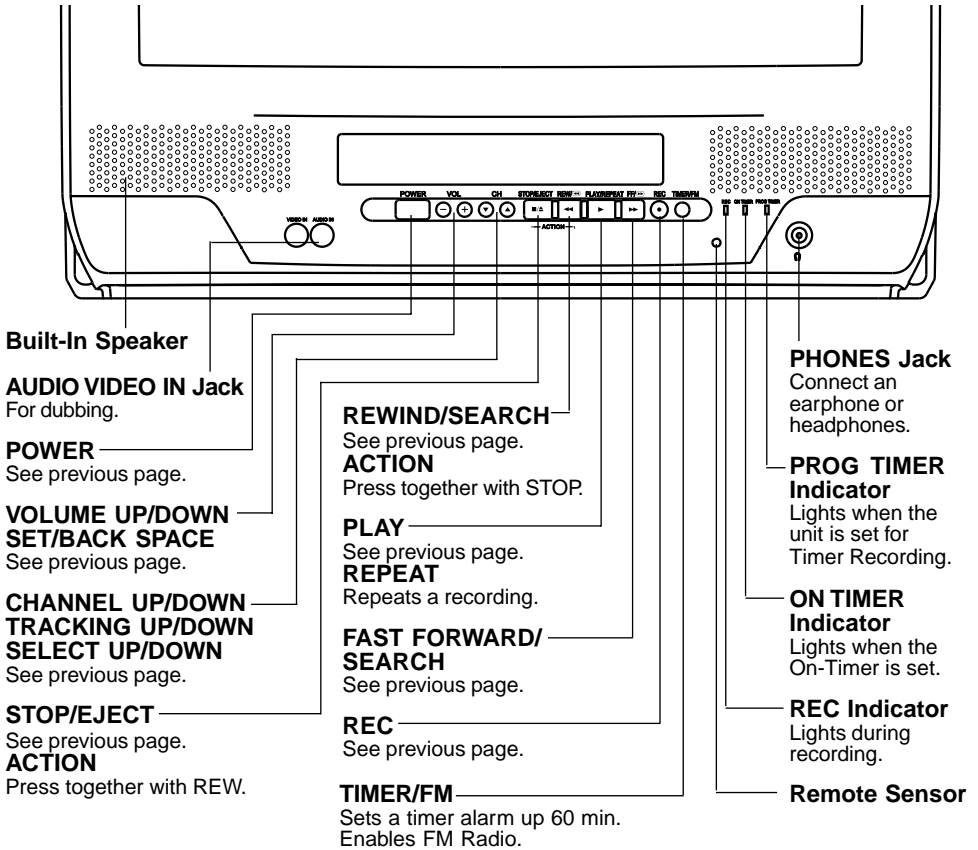Goes directly to the desired recording. Locates end point of recording.

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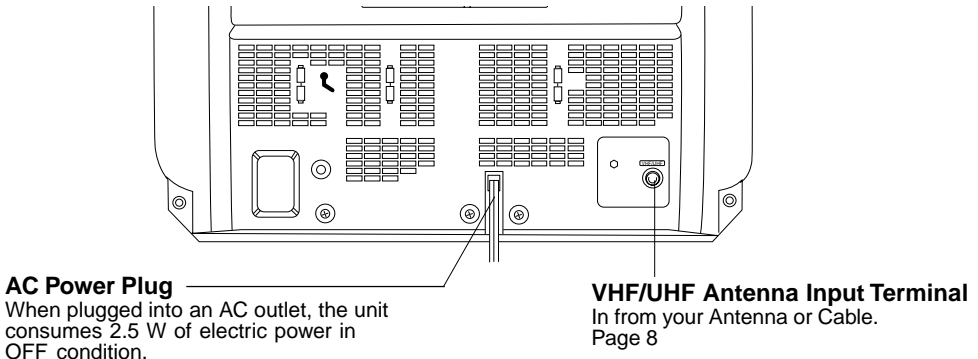Resets to "0:00:00" at the desired position.

Notes

• 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.
• 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.

Front View of the Unit and Indicators

Built-In Speaker

AUDIO VIDEO IN Jack
For dubbing.

POWER
See previous page.

**VOLUME UP/DOWN
SET/BACK SPACE**
See previous page.

**CHANNEL UP/DOWN
TRACKING UP/DOWN
SELECT UP/DOWN**
See previous page.

STOP/EJECT
See previous page.
ACTION
Press together with REW.

REWIND/SEARCH
See previous page.
ACTION
Press together with STOP.

PLAY
See previous page.
REPEAT
Repeats a recording.

**FAST FORWARD/
SEARCH**
See previous page.

REC
See previous page.

TIMER/FM
Sets a timer alarm up 60 min.
Enables FM Radio.

PHONES Jack
Connect an
earphone or
headphones.

**PROG TIMER
Indicator**
Lights when the
unit is set for
Timer Recording.

**ON TIMER
Indicator**
Lights when the
On-Timer is set.

REC Indicator
Lights during
recording.

Remote Sensor

Rear View of the Unit

AC Power Plug
When plugged into an AC outlet, the unit
consumes 2.5 W of electric power in
OFF condition.

VHF/UHF Antenna Input Terminal
In from your Antenna or Cable.
Page 8

7

Connections/ Initial Setup (Ready to Play)

Please make all cable or antenna connections before powering on.
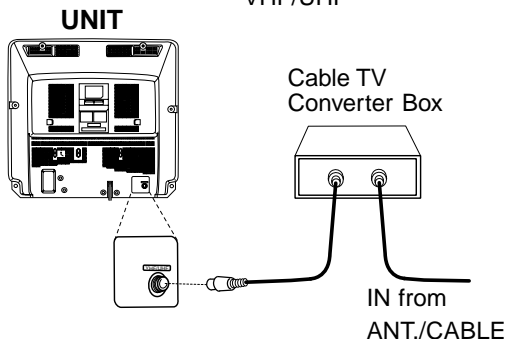
Connecting

For ANT./Cable
Connect the cable from Antenna/Cable to the VHF/UHF terminal on the unit.
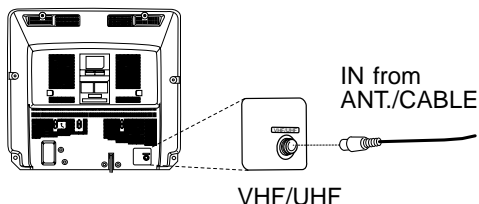
For DSS/Cable Box
**Connect the OUT jack on your cable box to the VHF/UHF terminal on the unit with a RF cable.**

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

IN from
ANT./CABLE

VHF/UHF

UNIT

Cable TV
Converter Box

IN from
ANT./CABLE

Initial Setup (Ready to Play)

Press Combo on the remote for Combo mode.

1 **Plug the unit power cord into an AC wall outlet.**

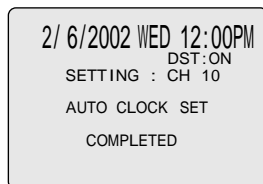2 **Press POWER* on the remote or unit. The unit comes on and auto channel and clock set starts.**

CH AUTO SET PROCEEDING
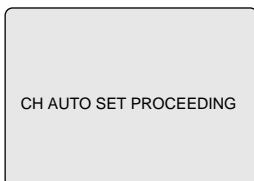
• If you use a cable box, turn it on and set it to the Public Broadcasting Service (PBS) channel in your time zone. If you use a DSS reciever, it must be turned off.

AUTO CLOCK SET
PROCEEDING
CANCEL : PRESS STOP KEY
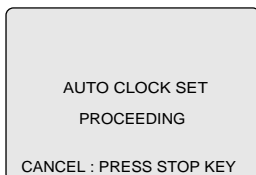
3 **Settings are made automatically. When setup is done, this screen appears.**

2/ 6/2002 WED 12:00PM
DST:ON
SETTING : CH 10
AUTO CLOCK SET
COMPLETED

If AUTO CLOCK SET IS INCOMPLETE screen appears, set the clock using MANUAL CLOCK SET procedure on next page.
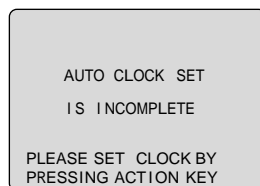
AUTO CLOCK SET
IS INCOMPLETE
PLEASE SET CLOCK BY
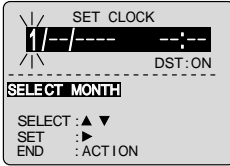PRESSING ACTION KEY

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

Manual Clock Set

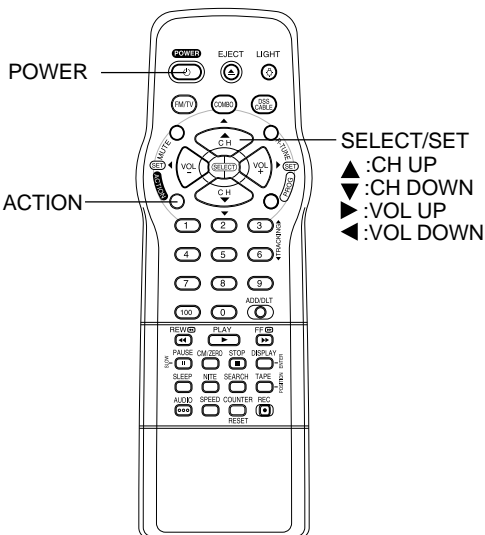If AUTO CLOCK SET was incomplete, manually set the clock as follows.

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

```
        \ | /    SET CLOCK
   1/--/----        --:--
        / | \              DST:ON
   - - - - - - - - - - - - - - - -
   SELECT MONTH

   SELECT : ▲ ▼
   SET    : ▶
   END    : ACTION
```

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)

```
            SET CLOCK
   2/ 6/2002 WED 12:00PM
                    DST:ON
   - - - - - - - - - - - - - - - -
   SET COMPLETED

   SET   : ◀▶
   START : ACTION
```
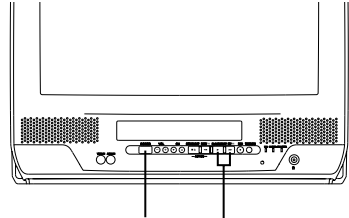
3 **Press ACTION** twice to start CLOCK and exit.

Reset all unit Memory Functions

When moving unit to a new location, or if a mistake was made in the Initial Setup section.
• Make sure a tape is not inserted in the unit.

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.

POWER

ACTION

SELECT/SET
▲:CH UP
▼:CH DOWN
▶:VOL UP
◀:VOL DOWN

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.
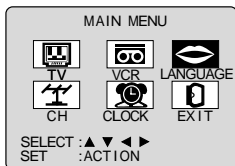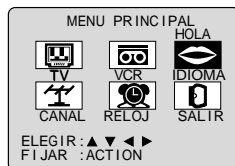
9

Reset Language, Channels, Clock,

1

```
MAIN MENU
[TV]    [VCR]   [LANGUAGE]
[CH]    [CLOCK] [EXIT]
SELECT : ▲ ▼ ◄ ►
SET    : ACTION
```
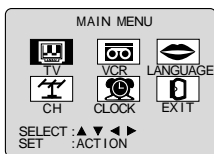
Press ACTION*
to display MAIN MENU.

2

■ Language

1) **Press ▲▼◄►** to select language icon.

```
MAIN MENU
[TV]    [VCR]   [LANGUAGE]
[CH]    [CLOCK] [EXIT]
SELECT : ▲ ▼ ◄ ►
SET    : ACTION
```

2) **Press ACTION** repeatedly.

```
MENU PRINCIPAL
                 HOLA
[TV]    [VCR]   [IDIOMA]
[CANAL] [RELOJ] [SALIR]
ELEGIR : ▲ ▼ ◄ ►
FIJAR  : ACTION
```

For Spanish

```
MENU
                 BONJOUR
[TELE]  [MAGNET.] [LANGUE]
[CANAL] [HORLOGE] [SORTIE]
SEL.    : ▲ ▼ ◄ ►
REGLER  : ACTION
```

For French

```
MAIN MENU
                 HELLO
[TV]    [VCR]   [LANGUAGE]
[CH]    [CLOCK] [EXIT]
SELECT : ▲ ▼ ◄ ►
SET    : ACTION
```
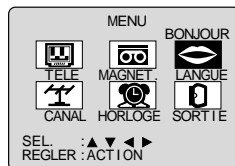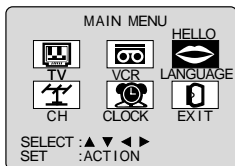
For English

3) **Press ▲▼◄►** to select "EXIT." **Press ACTION** to exit.

■ Channels

1) **Press ▲▼◄►** to select "CH."

```
MAIN MENU
[TV]    [VCR]   [LANGUAGE]
[CH]    [CLOCK] [EXIT]
SELECT : ▲ ▼ ◄ ►
SET    : ACTION
```

2) **Press ACTION.**
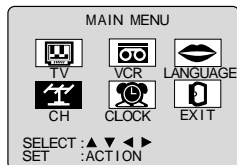
```
SET UP CHANNEL
ANTENNA : CABLE
AUTO SET
CHANNEL CAPTION
WEAK SIGNAL DISPLAY : OFF
SELECT : ▲ ▼
SET    : SET
END    : ACTION
```
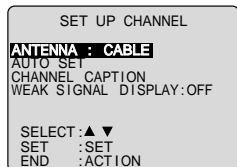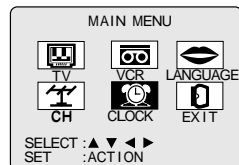
3) **Press ▲▼** to select "ANTENNA," then **press ►** to set your antenna system ("TV" or "CABLE").

4) **Press ▲▼** to select "AUTO SET," then **press ►**.
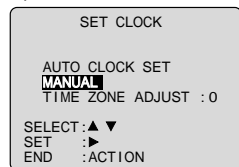
• After Channel Auto Set is finished, Clock Auto Set will be performed. (If clock is set manually, Clock Auto Set will not be performed.)

■ Clock

1) **Press ▲▼◄►** to select "CLOCK."

```
MAIN MENU
[TV]    [VCR]   [LANGUAGE]
[CH]    [CLOCK] [EXIT]
SELECT : ▲ ▼ ◄ ►
SET    : ACTION
```

2) **Press ACTION**.

```
SET CLOCK
AUTO CLOCK SET
MANUAL
TIME ZONE ADJUST : 0
SELECT : ▲ ▼
SET    : ►
END    : 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 ►.

```
SET CLOCK
2/ 6/2002 WED 12:00PM
                DST : ON
SELECT HOUR
SELECT : ▲ ▼
SET    : ◄ ►
START  : ACTION
```

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

5) **Press ACTION** twice to <u>start the clock</u> and exit this mode.
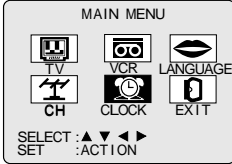
Time Zone Adjust

*Important:
If a remote control button does not work when pressed, press the COMBO button on the remote and try the button again.
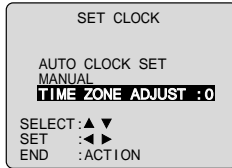
■Time Zone Adjust
(Only when Auto Clock is set.)
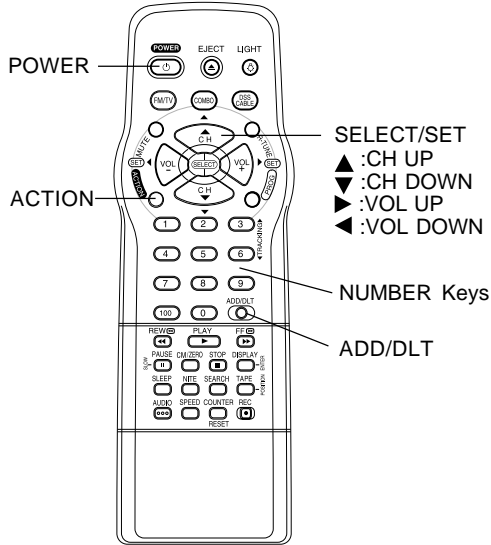
1) **Press ▲▼◄►** to select "CLOCK."

```
         MAIN MENU
   [TV]      [VCR]   [LANGUAGE]
    TV       VCR     LANGUAGE
   [CH]    [CLOCK]    [EXIT]
    CH      CLOCK      EXIT

SELECT :▲ ▼ ◄ ►
SET    :ACTION
```

2) **Press ACTION**.

```
        SET CLOCK

 AUTO CLOCK SET
 MANUAL
 TIME ZONE ADJUST : 0

SELECT :▲ ▼
SET    :◄ ►
END    :ACTION
```

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

```
        SET CLOCK

 AUTO CLOCK SET
 MANUAL
 TIME ZONE ADJUST : +1

SELECT :▲ ▼
SET    :◄
END    :ACTION
```
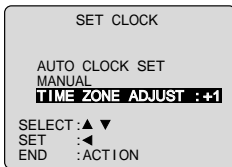
4) **Press ACTION** twice to exit.

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

POWER

ACTION

SELECT/SET
▲ :CH UP
▼ :CH DOWN
► :VOL UP
◄ :VOL DOWN

NUMBER Keys

ADD/DLT

ACTION key on the unit

```
  STOP/EJECT  REW/◄◄
    ■▲        ◄◄
   ─── ACTION ───
```
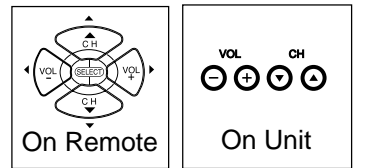
On Unit
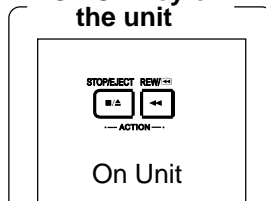
You can operate the menu screen using unit buttons. To display the menu, press STOP/EJECT and REW together with no tape inserted. To exit the menu, repeat above with or without tape inserted until normal screen appears.
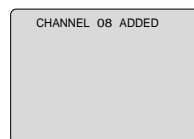
Using ▲▼◄► keys

On Remote   On Unit

▲ : CH UP
▼ : CH DOWN
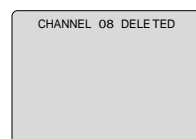**► : VOLUME UP**
◄ : VOLUME DOWN

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.

```
 CHANNEL 08 ADDED
```

To delete channel:
Select channel with CH ▲▼ or number keys and press ADD/DLT.
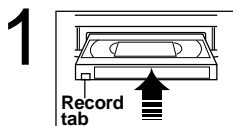
```
 CHANNEL 08 DELETED
```
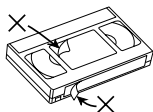
Playback a Tape   Record On a Tape

✓ Ready Check List
☐ All connections are made.
☐ Your unit is plugged in.

1
Insert a cassette.
• The unit power comes on automatically.

Record tab

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 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

CH▲▼
Insert a cassette.   PLAY
REC
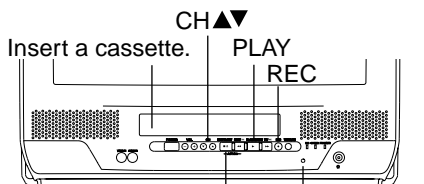
■ Press to stop and/or eject tape   REC Indicator

1
Insert a cassette with record tab.
• The unit power comes on automatically.

2
Press CH ▲▼ or number keys to select a channel.
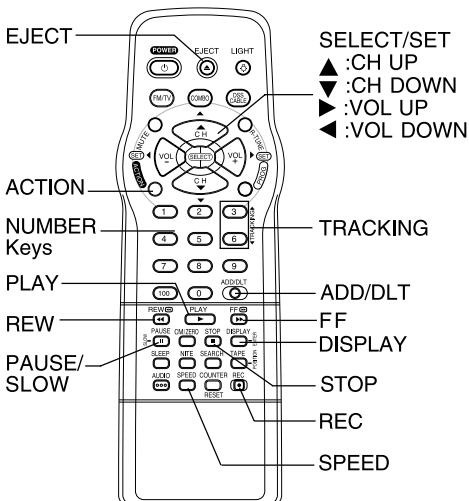• For "LINE" input, see bottom of next page.

3
Press SPEED to select recording speed (see page 4).
SP = Standard Play
LP = Long Play
SLP = Super Long Play
• Selected speed is displayed.

4
Press REC to start recording.
• To edit out unwanted portions, **press PAUSE/SLOW** to pause and resume recording.
• You cannot view another channel during recording.

■ **Stop** => **Press STOP**
■ **One Touch Recording (OTR)**
Press REC repeatedly to set the recording length (30 min - 4 hours).

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

• 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.

EJECT
SELECT/SET
▲ :CH UP
▼ :CH DOWN
► :VOL UP
◄ :VOL DOWN
ACTION
NUMBER Keys
TRACKING
PLAY
ADD/DLT
REW
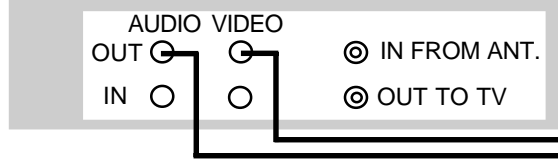FF
PAUSE/SLOW
DISPLAY
STOP
REC
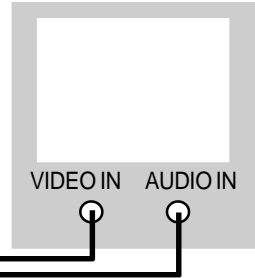SPEED

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.
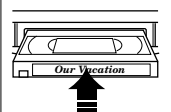
Connections you'll need to make.

Recording (Editing) unit

Playing (Source) VCR

AUDIO VIDEO
OUT ◉━ ◉┐   ◎ IN FROM ANT.
IN ○   ○   ◎ OUT TO TV

VIDEO IN   AUDIO IN
    ◉   ◉

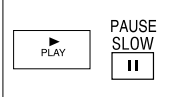| **Playback (Source)**	**Recording (Editing) unit**

1 — Insert pre-recorded tape.
Our Vacation

Insert blank tape with record tab.
• Dubbing tapes protected with Copy Guard will have poor quality results.

2 — | Select "LINE" mode.
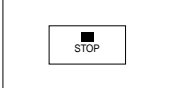See "Selecting Input Mode" below.

3
PAUSE SLOW / PLAY
Press PLAY then **PAUSE** at starting point to put in Standby mode.

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

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

4
PLAY
Press PLAY to start dubbing.

SLOW PAUSE
Press PAUSE/SLOW to start dubbing.

5
STOP
Press STOP to stop dubbing.

REC
Press STOP to stop dubbing.

Selecting Input Mode

Method 1:
Press CH ▲▼. The display will change as follows.

```
    →1↔2↔3←
         (CABLE)  (TV)
   →LINE←  →125  or  69←
```
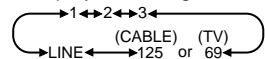
Method 2:
a Press ACTION for MAIN MENU.
b Press ▲▼◄► to select "TV", then **press ACTION** for SET UP TV screen.
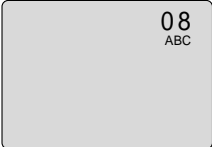**c Press ▲▼** to select "INPUT SELECT," and then press ► to select "TUNER" or "LINE."
d Press ACTION twice to exit this mode.

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

13

TV Operation

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

✓ **Ready Check List**

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

2
```
08
ABC
```
Use CH ▲▼ or number keys to select a channel.

3
```
24 ||||||||||| ⋯⋯⋯⋯⋯⋯
```
Press VOL + or VOL - to adjust volume.

VOL + / VOL-

NIGHT (NITE) Mode

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

```
NIGHT
```

Press NITE to set NIGHT mode.
• NIGHT mode may be selected when watching TV or 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.

CH ▲▼   PHONES Jack

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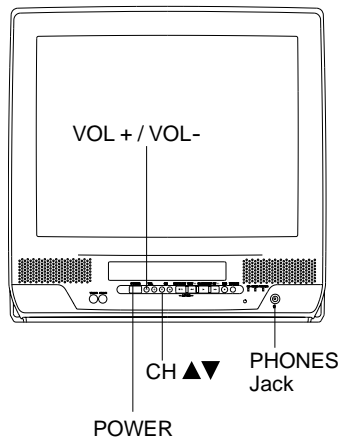
■ **Using the 100 key**
When selecting CABLE channels 100 to 125 with the number keys, first press the 100 key, and then enter the remaining two digits.

■ **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.

MTS Broadcast/TV Stereo System

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

Receivable Broadcast Types

The following are possible audio broadcast types and on-screen displays. The signal being received is indicated with an " (" mark while the selected 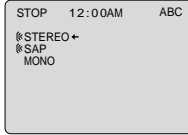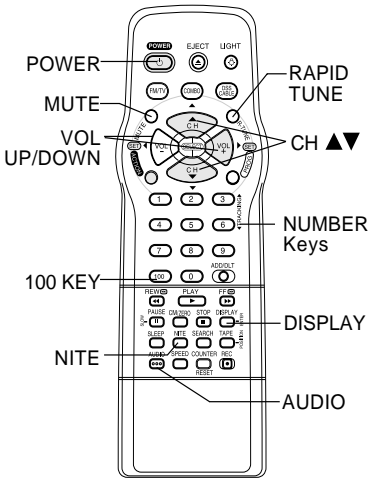audio mode is indicated with an arrow. To change the audio mode for these broadcasts, see the "Select Audio Mode for TV Viewing" section (below.)

Press DISPLAY to display
the broadcast signal being received.

```
STOP    12:00AM      ABC
( STEREO ←
( SAP
  MONO
```

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

```
STOP    12:00AM      ABC
                  0:00:00
( STEREO ←            SP
  SAP
  MONO
```
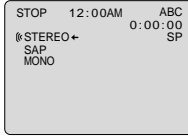
MTS Stereo broadcast
Multi-channel Television Sound Stereo broadcast. Select STEREO audio mode.
• If stereo broadcast is weak and the display flickers, select MONO audio mode for possibly better results.

```
STOP    12:00AM      ABC
  STEREO
( SAP     ←
  MONO
```
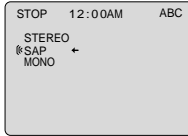
SAP broadcast
Secondary Audio Program (sub language).
Select SAP audio mode for the sub language.

```
STOP    12:00AM      ABC
  STEREO
  SAP
  MONO    ←
```
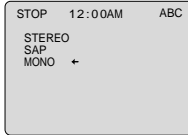
MONO broadcast
Normal monaural sound broadcast.

POWER
MUTE
VOL UP/DOWN
100 KEY
NITE

RAPID TUNE
CH ▲▼
NUMBER Keys
DISPLAY
AUDIO

TV Operation

Select Audio Mode for TV Viewing

Press AUDIO to select the desired audio mode as described above.
(Arrow shows selection.)
• Each press of AUDIO will change the audio mode as shown below.
• "SAP" is selected with first press of AUDIO.

< Example >

Press AUDIO

```
STOP    12:00AM      ABC
  STEREO
( SAP     ←
  MONO
```

Press AUDIO →

```
STOP    12:00AM      ABC
  STEREO
  SAP
  MONO    ←
```

Press AUDIO →

```
STOP    12:00AM      ABC
                  0:00:00
( STEREO ←            SP
  SAP
  MONO
```
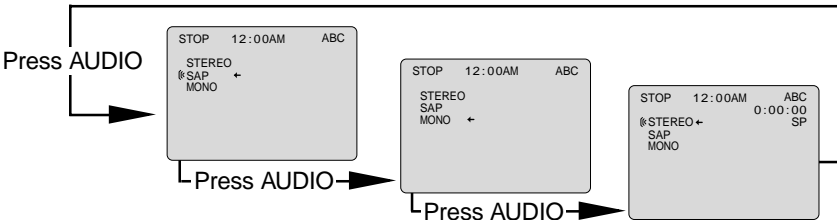
IMPORTANT NOTE:
• This stereo system is designed for TV viewing only. Recording and playback will always be in monaural.

15

TV Timer Features

ON-TIMER with Alarm

This unit can be set to automatically power on in one of 2 modes (TV, Playback, or FM radio).
You can also combine the On-Timer with a one minute alarm that gradually increases in volume.

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

2
```
        SET TIMER
ON TIMER
SLEEP  TIMER : 00


SELECT : ▲ ▼
SET      : SET
END      : TIMER
```
1) **Press ▲▼** to select "ON TIMER."
2) **Press ►** to display ON TIMER screen.

3
```
     \ | / ON TIMER
   6:--AM  CH --
ALARM : ON / | \
- - - - - - - - - - - -
SELECT HOUR

SELECT : ▲ ▼
SET      : ►
END      : PROG
```
1) **Press ▲▼** to select desired settings.
2) **Press ►** to set the ON-TIMER TIME or ON-TIMER mode.

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

• ON-TIMER mode selection order

```
  ┌─CH02──CH03·····CH125─┐
CH01                    PLAY
  └─FM9──FM8·····FM1─────┘
```
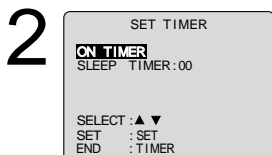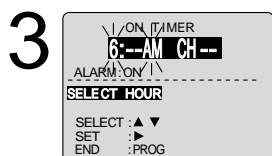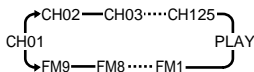
• See "FM Radio" on page 20 for instructions on how to preset FM stations.
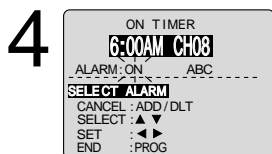
4
```
     ON TIMER
   6:00AM CH08
ALARM : ON          ABC
- - - - - - - - - - - -
SELECT ALARM
CANCEL : ADD / DLT
SELECT : ▲ ▼
SET      : ◄ ►
END      : PROG
```
Press ▲▼ to select ALARM "ON" or "OFF."

When "ON" is selected,
an alarm will gradually increase in volume for one minute or until canceled by pressing any button (including VOL + -).
To Make Corrections,
use ▲▼ and ◄ ► to move back and correct.

5 **Press PROG** to set ON TIMER.
• "ON TIMER SET" is displayed.
• ON TIMER Indicator lights on the unit.

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

☑ Ready Check List

☐ The clock is set to the correct time.

TIMER/FM
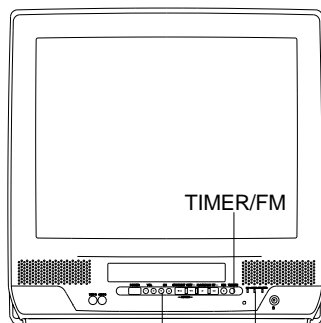
CH ▲▼   ON TIMER indicator

(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.

SELECT/SET
▲ :CH UP
▼ :CH DOWN
▶ :VOL UP
◀ :VOL DOWN

PROG

ADD/DLT
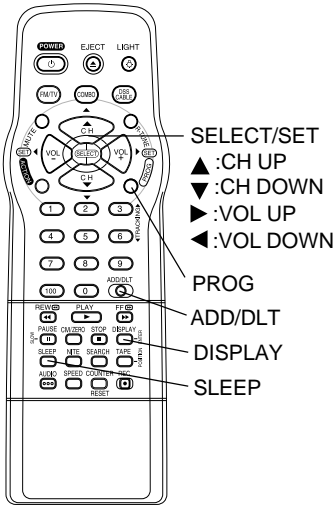
DISPLAY

SLEEP

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.

SLEEP TIMER 30
↓
SLEEP TIMER 60
↓
SLEEP TIMER 90
↓
SLEEP TIMER 00

Instant Alarm

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

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

2

5:20PM

CANCEL : ADD/DLT   02:00
SET : CH ▲ ▼ KEY ON UNIT

Remaining Time

Press CH ▲▼ on the unit with CANCEL/SET screen displayed to set alarm. (Time changes in the order shown left.)
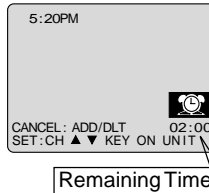
• **Pressing TIMER/FM repeatedly on the unit will change display as follows.**

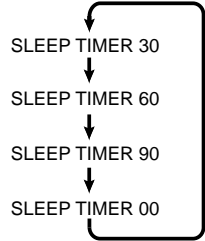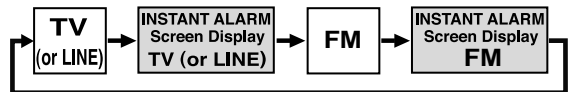**To cancel,** press TIMER/FM then press ADD/DLT on the remote while CANCEL/SET screen is displayed.

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

<Example>
• If current time remaining is 12:15, countdown will restart from 15:00.
• If current time remaining is 9:15, countdown will restart from 10:00.

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.

1:00 (one minute)
2:00
3:00   one-minute
            increase
            until 10:00
9:00
10:00
15:00
20:00   five-minute
            increase
25:00   until 30:00
30:00
40:00   ten-minute
50:00   increase
            until 60:00
60:00 (Max)
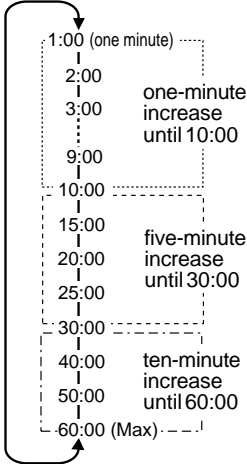
Note

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

TV Operation

17

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.

2
```
          MAIN MENU
    [TV]    [VCR]   [LANGUAGE]
     TV      VCR     LANGUAGE
    [CH]    [CLOCK]  [EXIT]
     CH     CLOCK    EXIT
    SELECT :▲ ▼ ◄ ►
    SET    :ACTION
```
1) **Press ▲▼◄►** to select "TV."
2) **Press ACTION** to display SET UP TV screen.

3
```
         SET UP TV
    LOCK
    CAPTION
    INPUT SELECT   : TUNER
    VIDEO ADJUST
    FM ANTENNA     : EXT
    SELECT :▲ ▼
    SET    :►
    END    :ACTION
```
1) **Press ▲▼** to select "CAPTION".
2) **Press ►** to display CAPTION screen.
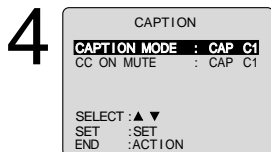
4
```
          CAPTION
    CAPTION MODE  : CAP C1
    CC ON MUTE    : CAP C1

    SELECT :▲ ▼
    SET    :SET
    END    :ACTION
```
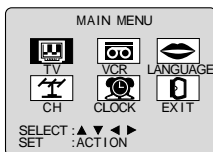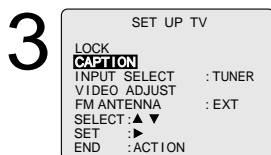1) **Press ▲▼** to select CAPTION MODE.
2) **Press ►** repeatedly to select mode. (See left.)

```
       ┌→ OFF ──→ CAP C1 ─┐
  TEXT C2                TEXT C1
       └─── CAP C2 ◄──────┘
```

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

Closed Caption Mode Selections

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

Caption Mode: TEXT C1 or C2
The lower half of the screen will be blocked out. When the TV station broadcasts information, such as program listings, it will appear in this space.

Caption Mode: OFF
Closed Caption / Text narration will not be displayed.

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

Recording and Playing Back a Closed Caption/Text Program
Record: Record normally.
Closed Caption/ Text signal, if present, is recorded automatically.
Playback: Start playback. Do above steps to select desired caption mode.

Caption On Mute Feature

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

MUTE

SELECT/SET
▲:CH UP
▼:CH DOWN
▶:VOL UP
◀:VOL DOWN

ACTION

TV Operation

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

2
```
          MAIN MENU

   🖥          📼        ◆
              VCR      LANGUAGE
   📺          🕐        📱
   CH        CLOCK      EXIT

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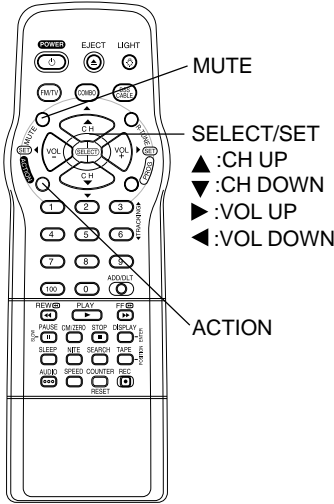1) **Press ▲▼◀ ▶** to select "TV."
2) **Press ACTION** to display SET UP TV screen.

3
```
        SET UP TV
LOCK
CAPTION
INPUT SELECT      : TUNER
VIDEO ADJUST
FM ANTENNA        : EXT
SELECT:▲ ▼
SET    :▶
END    :ACTION
```
1) **Press ▲▼** to select "CAPTION".
2) **Press ▶** to display CAPTION screen.

4
```
        CAPTION

CAPTION MODE   : OFF
CC ON MUTE     : CAP C1


SELECT :▲ ▼
SET    :SET
END    :ACTION
```
1) **Press ▲▼** to select CAPTION MODE.
2) **Press ▶** repeatedly to select "OFF."

5
```
        CAPTION

CAPTION MODE   : OFF
CC ON MUTE     : CAP C1


SELECT :▲ ▼
SET    :SET
END    :ACTION
```
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.

NO → CAP C1 → CAP C2 → (loops back to NO)

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

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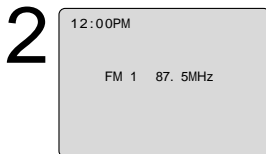• To cancel, **press MUTE** again.

19

FM Radio

Important: If a remote control button does not work when pressed, press the COMBO button on the remote and try the button again.
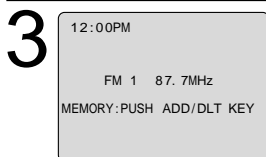
FM Radio is ... This unit has an FM radio with built-in antenna, 9 station preset, and a band range of 87.5 ~ 108.1 MHz. You can even set the On-Timer (page 16) to wake up to your favorite radio station.

FM Radio Setup

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

2
```
12:00PM

  FM 1   87. 5MHz
```
Press a number key (1~9) to select the FM number.

3
```
12:00PM

  FM 1   87. 7MHz
MEMORY:PUSH ADD/DLT KEY
```

```
12:00PM

  FM 1   87. 7MHz
    MEMORIZED
```

1) **Press CH ▲▼** to select the desired radio station. (Each press changes frequency 200 KHz.)
2) **Press ADD/ DLT** to set the radio station.

Hold down CH ▲ or ▼ for a few seconds, then release to quickly scan for FM stations in your area.
• To cancel, press CH ▲ or ▼ while in search mode.

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

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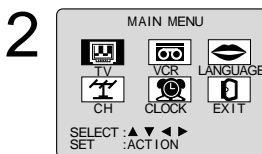press FM/TV on the remote or TIMER/FM twice on the unit.

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

FM ANTENNA Setup

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

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

2
```
        MAIN MENU

   📺         📼        👄
   TV        VCR     LANGUAGE
   📡         🕐        🔲
   CH       CLOCK      EXIT

SELECT :▲ ▼ ◄ ►
SET    :ACTION
```
1) **Press ▲▼◄►** to select "TV."
2) **Press ACTION** to display SET UP TV screen.
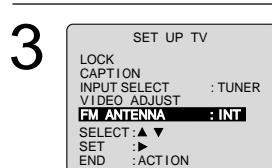
3
```
       SET UP TV

LOCK
CAPTION
INPUT SELECT    : TUNER
VIDEO ADJUST
FM ANTENNA      : INT
SELECT:▲ ▼
SET   :►
END   :ACTION
```
1) **Press ▲▼** to select FM ANTENNA.
2) **Press ►** to select "INT (INTERNAL)" or "EXT (EXTERNAL)" whichever sounds the best.

■ **For cable TV users => "INT"**
■ **For antenna users => "EXT"**

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

How to use the FM radio

1 **Press FM/TV** on the remote or **press TIMER/FM** twice on the unit to display FM radio mode.
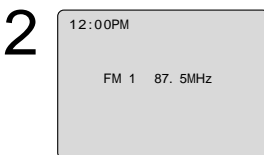
2
```
12:00PM

  FM 1   87. 5MHz
```
Press a Number key (1~9) to select a preset FM number (see steps **2** and **3** of FM Radio Setup on this page).

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

To select Audio Mode for FM Radio
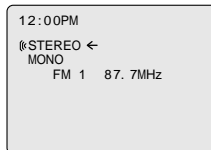
```
12:00PM
《STEREO ←
  MONO
    FM 1   87. 7MHz
```
Press **AUDIO** repeatedly to select "STEREO" or "MONO" in FM Radio mode.
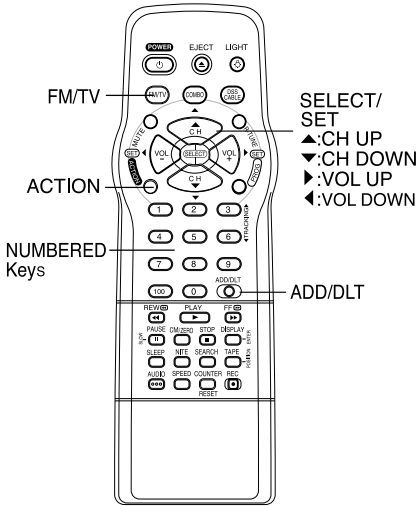
20 For assistance, please call : 1-800-211-PANA(7262) or send e-mail to : consumerproducts@panasonic.com

Picture Adjustment

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

2

```
┌─────────────────────────────┐
│  [TV]      [VCR]   [LANGUAGE]│
│   TV        VCR    LANGUAGE  │
│  [CH]     [CLOCK]   [EXIT]   │
│   CH       CLOCK     EXIT    │
│ SELECT :▲ ▼ ◄ ►             │
│ SET    :ACTION              │
└─────────────────────────────┘
```

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

3

```
┌─────────────────────────────┐
│         SET UP TV           │
│                             │
│ LOCK                        │
│ CAPTION                     │
│ INPUT SELECT      : TUNER   │
│ VIDEO ADJUST                │
│ FM ANTENNA        : EXT     │
│ SELECT :▲ ▼                 │
│ SET    :►                   │
│ END    :ACTION              │
└─────────────────────────────┘
```
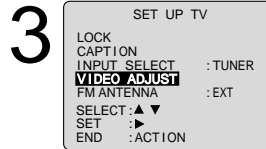
1) **Press ▲▼** to select VIDEO ADJUST.
2) **Press ►** to display screen.

4

```
┌─────────────────────────────┐
│ COLOR        ·······|······ │
│ TINT         ·······|······ │
│ BRIGHTNESS   ·······|······ │
│ PICTURE      ············━| │
│ SHARPNESS    ·······|······ │
│ NORMAL                      │
│                             │
│ SELECT :▲ ▼                 │
│ ADJUST :◄ ►                 │
│ END    :ACTION              │
└─────────────────────────────┘
```
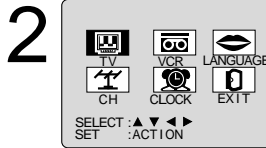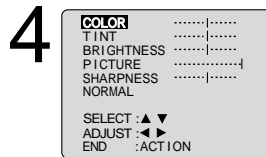
1) **Press ▲▼** to select an adjustment item. (See below left.)
2) **Press ◄ ►** to adjust.

```
┌─────────────────────────────┐
│ COLOR        ·······|······ │
│ TINT         ·······|······ │
│ BRIGHTNESS   ·······|······ │
│ PICTURE      ············━| │
│ SHARPNESS    ·······|······ │
│ NORMAL                      │
│                             │
│ SELECT :▲ ▼                 │
│ SET    :►                   │
│ END    :ACTION              │
└─────────────────────────────┘
```
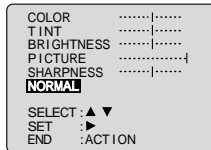
To Reset Picture Controls.
Press ▲▼ and ► to select and set "NORMAL."
All controls return to their factory settings.

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

Remote Control Labels

FM/TV

SELECT/SET
▲:CH UP
▼:CH DOWN
►:VOL UP
◄:VOL DOWN

ACTION

NUMBERED Keys

ADD/DLT

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.

Timer Recording

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

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

2
```
         SET  PROGRAM

   TIMER  PROGRAMMING
   ON TIMER


   SELECT :▲ ▼
   SET    :▶
   END    : PROG
```
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.
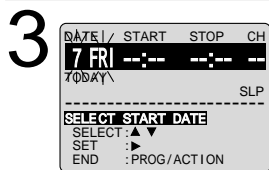
3
```
 DATE / START   STOP   CH
 7 FRI --:--   --:-- --
 TODAY
                      SLP
 ----------------------------
 SELECT START DATE
 SELECT:▲ ▼
 SET   :▶
 END   : PROG / ACTION
```
Press ▲▼ to select and ▶ or ◀ to set the recording DATE.
- 1~31 = One time
- DAILY = MON~FRI
- WEEKLY SUN~SAT = Same time once a week

Example

Today's Date → 7
8 — 9 ⋯⋯ 31 — 1 — 2 ⋯⋯ 6 — DAILY
SELECT▲ / ▼ Selection Order
WEEKLY (SAT) ⋯⋯ WEEKLY (MON) — WEEKLY (SUN)
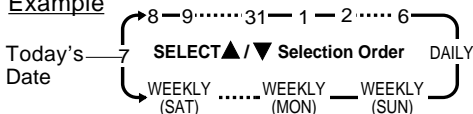
Repeat step 3 to set:
- start time, stop time
- Channel (or LINE for outside source)
- Speed (SP, LP, SLP)
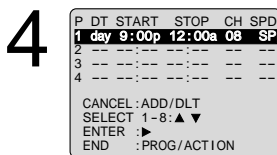
4
```
 P DT START  STOP  CH SPD
 1 day 9:00p 12:00a 08  SP
 2 -- --:-- --:-- -- --
 3 -- --:-- --:-- -- --
 4 -- --:-- --:-- -- --

 CANCEL : ADD / DLT
 SELECT 1 - 8:▲ ▼
 ENTER  :▶
 END    : PROG / ACTION
```
**Press PROG** (or **ACTION**) to end the program.

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

5 **Press PROG** twice (or **ACTION**) to exit this mode.
- If you're using a cable box, make sure that it is tuned to the desired channel and the power is left on for timer recording.
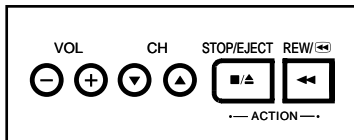- PROG TIMER indicator lights on the unit.

Ready Check List

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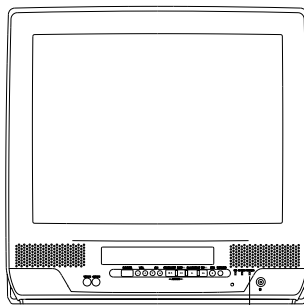
PROG TIMER indicator

Timer Recording Using unit Buttons

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

```
  VOL      CH   STOP/EJECT REW/◀◀
  ⊖  ⊕   ⊙  ⊙     ■/▲       ◀◀
        ←——— ACTION ———→
```

1 Press STOP/EJECT and REW together without a tape inserted to display MAIN MENU.

2 Press ▲▼ + - to select "VCR" and STOP/EJECT and REW together to display SET UP VCR screen.

3 Press ▲▼ to select "TIMER PROGRAM" and + to display the TIMER PROGRAM screen.

4 Repeat main steps 3 ~ 5.

Cancel a Timer Recording: (Recording is in progress)

Hold down STOP for a few seconds to cancel the Timer Recording.
• Any future daily or weekly recordings will be performed as programmed.

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

1 **Repeat steps 1 and 2 on page 22.**

2
```
P DT START   STOP  CH SPD
1 day  9:00p12:00a 08  SP
2  8  10:00a12:00p125  SP
3 10  8:00p 9:00p 10  SP
4 SU  9:00p10:00p  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
8 SAT  9:00P 12:00A  08
TODAY\                 ABC
                       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.
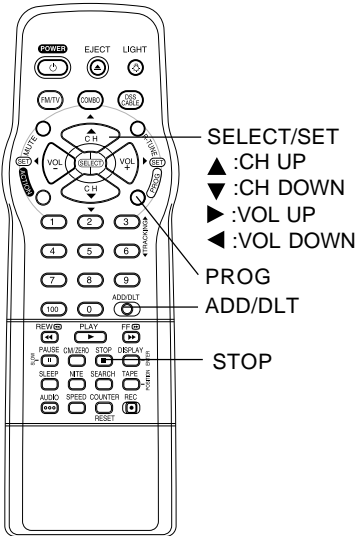3) **Press PROG** (or **ACTION**).

To Clear program...
```
P DT START   STOP   CH SPD
1 --- --:--- --:-- -- --
2  8  10:00p12:00a125  SP
3 10  8:00p 9:00p 10  SP
4 SU  9:00p10:00p  L  LP

 SELECT 1-8:▲ ▼
 ENTER  :▶
 END    :PROG/ACTION
```
Press ADD/DLT.

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

SELECT/SET
▲ :CH UP
▼ :CH DOWN
▶ :VOL UP
◄ :VOL DOWN
PROG
ADD/DLT
STOP

Timer Operation

Notes

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

23

Tape Operation

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

Index Search

Go directly to the desired recording.

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

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

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

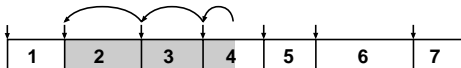**Press FF** or **REW** to start search.

2
```
INDEX SEARCH




FORWARD SEARCH:FF
REVERSE SEARCH:REW
```

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

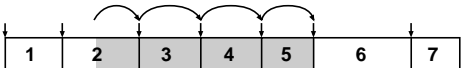### ■ To calculate the Index Number
Example 1:
To go to rec. 2 from rec. 4, enter 3 and press REW.

1	2	3	4	5	6	7

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

1	2	3	4	5	6	7

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.

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.1   **PLAYBACK DIRECTION** ⟶

Press SEARCH button   **End Point**
FF
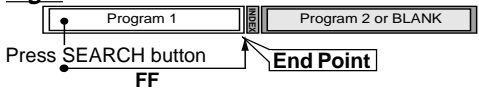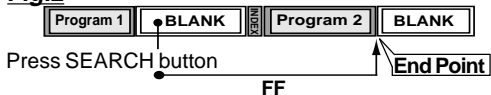
Fig.2

Press SEARCH button   **End Point**
FF

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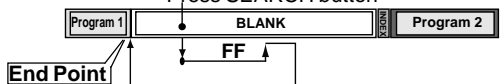
End Point   **FF**

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

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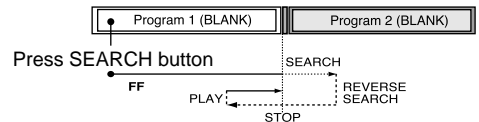
Notes
- If Program End Search is started very close to an index mark, that mark may be skipped over.
- To cancel, press PLAY or STOP.

FF

REW

Auto Operation Functions

■ **Auto Shut Off**
No broadcast signal in TV (Only when Weak Signal Display is set to OFF), blank tape is Played for 5 minutes => Power turns off
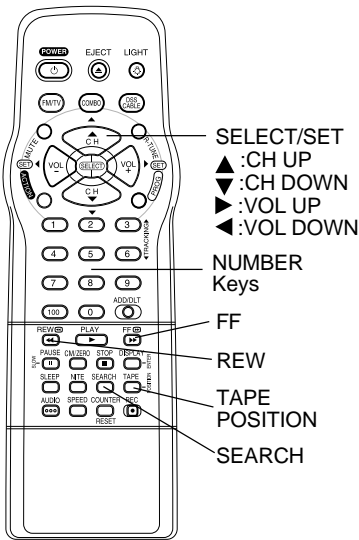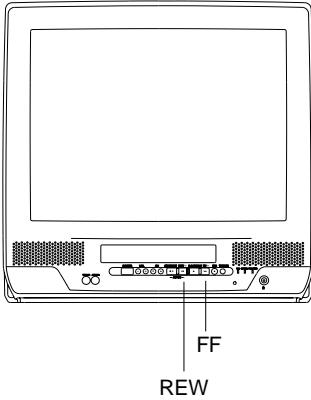• This feature is canceled if any button is pressed during above mode.

■ **Auto Playback**
Insert a tape in Power off mode => Power turns on
• Playback begins if tape has no record tab.

■ **Auto Rewind** (except for Recording)
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 is displayed for VHS-C Cassettes type, tapes under 30 minutes, and some other tapes, but the position is not correct.

1 **Press TAPE POSITION** to detect current tape position.

DETECTING TAPE POSITION

SLP

R 120 MIN.

BEGIN   END

• "DETECTING TAPE POSITION" is displayed only when a cassette is first inserted and it takes several seconds for correct tape position to appear.
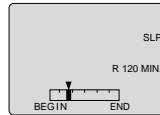
• The present tape position indication and amount of tape remaining (according to tape speed) is displayed.

• Tape remaining time display may not be precise.

SELECT/SET
▲ :CH UP
▼ :CH DOWN
► :VOL UP
◄ :VOL DOWN

NUMBER Keys

FF

REW

TAPE POSITION

SEARCH

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.

25

Tape Operation (continued)

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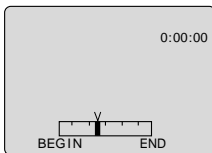
Zero Search

To quickly return to a specific tape counter location.

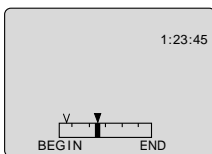**1** **Press DISPLAY*** during playback to display the Counter.

2 0:00:00

BEGIN ⌄ END

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

3 **Continue playback, rewind, or fast forward.**

4 **Press STOP.**

5 1:23:45

BEGIN ⌄ END

Press CM/ZERO in stop mode to start ZERO SEARCH.
• ▼: Present position mark
⌄: Zero position mark

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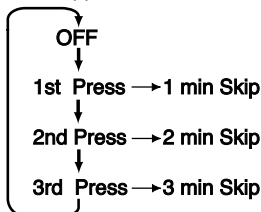
Note

• If a blank portion exists on the tape, and depending on the position of the ⌄ mark, the ⌄ mark display may be out of position.

Commercial Skip

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

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

• No indication appears.

```
        OFF
         ↓
1st  Press → 1 min Skip
         ↓
2nd Press → 2 min Skip
         ↓
3rd  Press → 3 min Skip
```

Repeat Play

Set to see a recording over and over.

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

2
```
        MAIN MENU
   TV      VCR     LANGUAGE
   CH     CLOCK      EXIT
SELECT :▲ ▼ ◄ ►
SET    :ACTION
```
1) **Press ▲▼◄►** to select "VCR."
2) **Press ACTION** to display SET UP VCR screen.
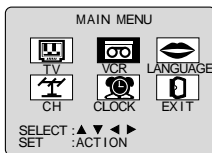
3
```
      SET UP VCR
REPEAT PLAY        : OFF
TIMER PROGRAM
REMOTE WARNING     : ON

SELECT :▲ ▼ KEY
SET    :► KEY
END    :ACTION KEY
```
1) **Press ▲▼** to select "REPEAT PLAY."
2) **Press ►** to set REPEAT PLAY "ON" or "OFF."
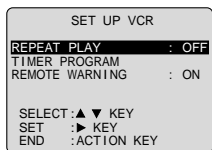
4 **Press ACTION** twice to end setup.

Notes

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

Special VCR Features

SELECT/SET
▲ :CH UP
▼ :CH DOWN
▶ :VOL UP
◀ :VOL DOWN

ACTION

CM/ZERO

DISPLAY

COUNTER
RESET

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

```
        MAIN MENU

    TV        VCR      LANGUAGE

    CH       CLOCK       EXIT

SELECT : ▲ ▼ ◀ ▶
SET     : ACTION
```

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

3

```
       SET UP CHANNEL

ANTENNA  : CABLE
AUTO SET
CHANNEL CAPTION
WEAK SIGNAL DISPLAY:OFF

SELECT : ▲ ▼
SET    : ▶
END    : ACTION
```
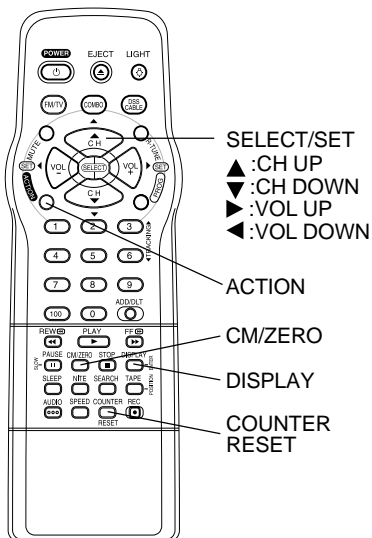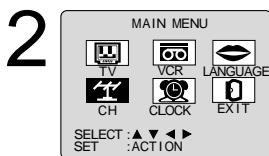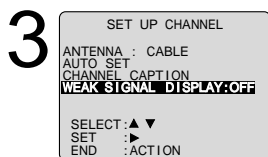
1) **Press ▲▼** to select WEAK SIGNAL DISPLAY .
2) **Press ▶** to set "ON" or "OFF."

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.
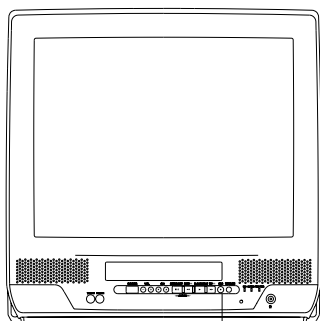
VCR Lock

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

VCR LOCK ACTIVATED

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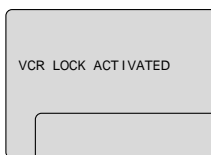
In stop mode, **hold down REC** on the unit without a cassette inserted for 7 seconds to turn "ON." Please ignore NO CASSETTE warning.

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

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

Advanced Operation

27

Special VCR Features (continued)

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

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

Channel Caption

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

2
```
         MAIN MENU

   TV      VCR    LANGUAGE

   CH     CLOCK    EXIT

SELECT :▲ ▼ ◄ ►
SET    :ACTION
```
1) **Press ▲▼◄►** to select "CH."
2) **Press ACTION** to display SET UP CHANNEL screen.

3
```
     SET UP CHANNEL

ANTENNA : CABLE
AUTO SET
CHANNEL CAPTION
WEAK SIGNAL DISPLAY:OFF

SELECT:▲ ▼
SET   :►
END   :ACTION
```
1) **Press ▲▼** to select CHANNEL CAPTION.
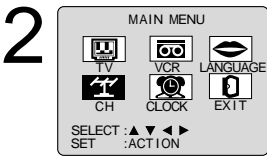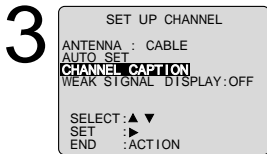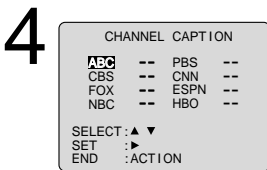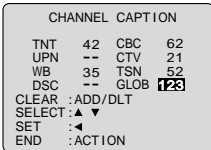2) **Press ►** to display screen.

4
```
     CHANNEL CAPTION

ABC   --  PBS   --
CBS   --  CNN   --
FOX   --  ESPN  --
NBC   --  HBO   --

SELECT:▲ ▼
SET   :►
END   :ACTION
```
```
     CHANNEL CAPTION

TNT   42  CBC   62
UPN   --  CTV   21
WB    35  TSN   52
DSC   --  GLOB 123
CLEAR :ADD/DLT
SELECT:▲ ▼
SET   :◄
END   :ACTION
```
1) **Press ▲▼** to select a station.
2) **Press ►** to move cursor to the right.
3) **Press ▲▼** to select channel number.
4) **Press ◄** to set preset captions.
• Repeat step **4** until the Caption List is complete.

To Make Corrections
Press ▲▼, then ► to select channel number.
Press ▲▼ to change, or ADD/DLT to delete.

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

Remote Warning ON/OFF

When Universal Remote Control (page 32) 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
```
         MAIN MENU

   TV      VCR    LANGUAGE

   CH     CLOCK    EXIT

SELECT :▲ ▼ ◄ ►
SET    :ACTION
```
1) **Press ▲▼◄►** to select "VCR."
2) **Press ACTION** to display SET UP VCR screen.
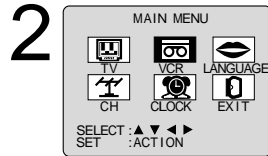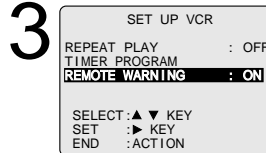
3
```
       SET UP VCR

REPEAT PLAY        : OFF
TIMER PROGRAM
REMOTE WARNING     : ON

SELECT:▲ ▼ KEY
SET   :► KEY
END   :ACTION
```
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.
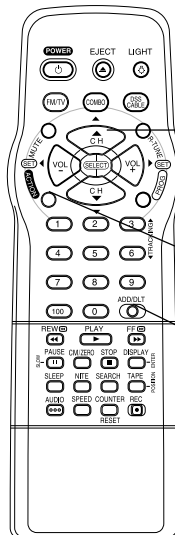
SELECT/SET
▲ :CH UP
▼ :CH DOWN
► :VOL UP
◄ :VOL DOWN

ACTION

ADD/DLT

V-Chip Control Feature

Process of V-Chip Control

Enter Code ➔ Setup ➔ Blocking

V-Chip Control Feature is...

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

Enter Secret Code

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

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

2

```
         MAIN MENU

    ┌──┐    ┌──┐    ┌──┐
    │TV│   │VCR│  │LANGUAGE│
    └──┘    └──┘    └──┘
   ┌──┐    ┌──┐    ┌──┐
   │CH│   │CLOCK│  │EXIT│
   └──┘    └──┘    └──┘

  SELECT :▲ ▼ ◄ ►
  SET    :ACTION
```

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

3

```
        SET UP TV

  [LOCK]
  CAPTION
  INPUT SELECT      : TUNER
  VIDEO ADJUST

  SELECT :▲ ▼
  SET    : ►
  END    : ACTION
```

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

4

```
          LOCK

  ENTER 4-DIGIT CODE

         ■---

  ENTER :0-9
  END    : ACTION
```
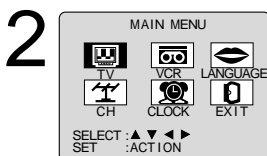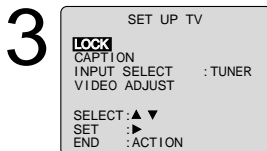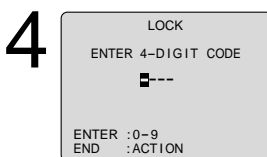
1) **Press NUMBER Keys** to enter your secret code.
2) **Enter same code** again for confirmation.

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.

5

```
          LOCK
  CONFIRM 4-DIGIT CODE

         ****
         ****
       RECOGNIZED
  CHANGE CODE : ADD/DLT
  CONTINUE : ►
  END    : ACTION
```
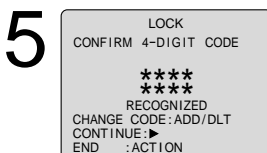
Press ► to display US Ratings menu (see page 30).

Or

Press ACTION three times to exit.
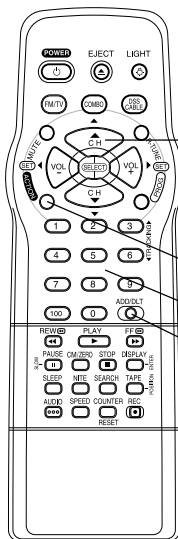
SELECT/SET
▲ :CH UP
▼ :CH DOWN
► :VOL UP
◄ :VOL DOWN

ACTION

NUMBER Keys

ADD/DLT

Changing your secret code
• You will need your current code. Do steps **1** ~ **4**. In step **5**, press ADD/DLT 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.

Advanced Operation

29

V-Chip Control Feature (continued)

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

Process of V-Chip Control Feature

Enter Code ➜ **Setup** ➜ Blocking

Setup US MOVIES Ratings

1
```
         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.
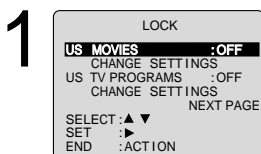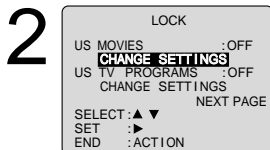
2
```
         LOCK
US MOVIES          :OFF
   CHANGE SETTINGS
US TV PROGRAMS     :OFF
   CHANGE SETTINGS
                NEXT PAGE
SELECT :▲ ▼
SET    :▶
END    :ACTION
```
1) **Press ▲▼** to select CHANGE SETTINGS.
2) **Press ▶** to display screen.

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 next page.)

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

Setup US TV PROGRAMS 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 TV PROGRAMS.
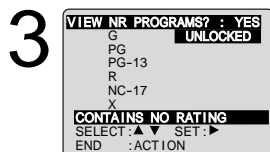2) **Press ▶** to set "ON" or "OFF."

■ **"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.
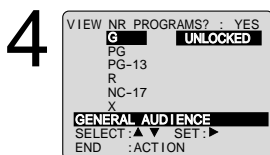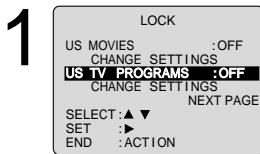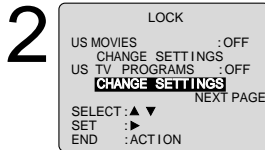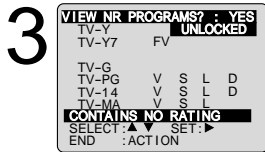
2
```
         LOCK
US MOVIES          :OFF
   CHANGE SETTINGS
US TV PROGRAMS     :OFF
   CHANGE SETTINGS
                NEXT PAGE
SELECT :▲ ▼
SET    :▶
END    :ACTION
```
1) **Press ▲▼** to select CHANGE SETTINGS.
2) **Press ▶** to display screen.

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, and emergency information usually have no ratings.
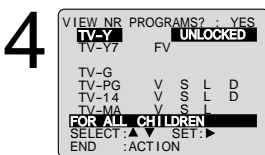
4
```
VIEW NR PROGRAMS? : YES
   TV-Y          UNLOCKED
   TV-Y7    FV

   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 next page.)

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

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

5 **Press ACTION** four times to exit this mode.

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

Process of V-Chip Control Feature

Enter Code ➜ Setup ➜ Blocking

Blocking Message

<When V-Chip Control is activated>

```
                          CH08


PROGRAM RATING EXCEEDED

RATING:PG–13
ACCESS CODE        ––––

  ENTER : 0–9
```

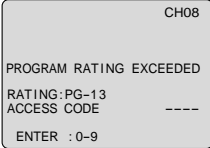• If a program or movie exceeds the ratings you have set, a message will appear on a black background and sound is muted.

To View a Blocked Program / Movie
**[Temporarily Deactivate V-Chip Control]**
Enter your secret code (ACCESS CODE) in the Blocking Message screen.
• V-Chip Control is reactivated when power is turned off or power failure occurs.

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

SELECT/SET
▲ :CH UP
▼ :CH DOWN
▶ :VOL UP
◀ :VOL DOWN

ACTION

DISPLAY
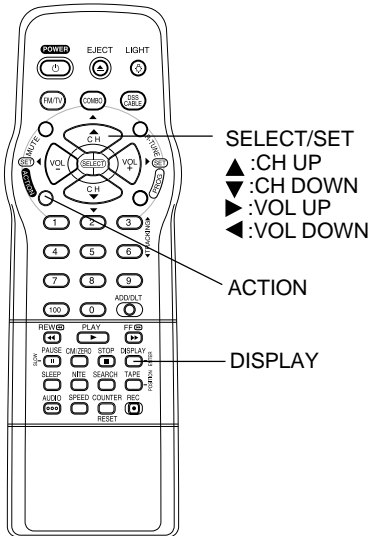
US MOVIES RATINGS

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

US TV PROGRAMS RATINGS:Chart 1

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

US TV PROGRAMS RATINGS: Chart 2

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

Advanced Operation

31

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.

POWER

COMBO

DSS/ CABLE

NUMBER Keys

ENTER
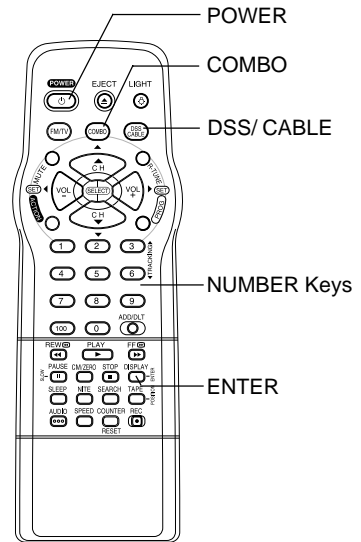
Using the Universal Remote Control

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

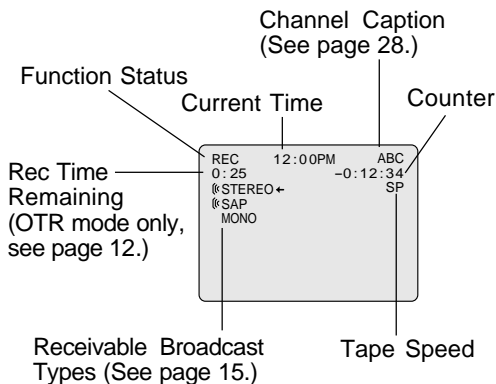|		
Archer 05, 06, 01, 44, 63, 91, 126	Matsushita 16, 17, 97, 109	Sheritech 27
Cabletenna ... 01, 44, 63, 91, 126	Movietime 32, 39, 42, 44, 126, 38, 40	Signal 26, 112
Cableview 63, 44, 42, 30, 52, 04, 124, 126	NEC 38, 40, 32	SL Marx 32, 40, 42, 06, 43, 44, 52, 63, 126
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	Recoton ... 51, 44, 59, 75, 126	Universal 42, 43, 44, 52, 63, 126
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	Samsung ... 05, 32, 40, 42, 06	Zenith 07, 23, 50, 129
Macom 31	Scientific Atlanta 08, 09, 61, 53, 87	
Magnavox 26, 112		

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, DISPLAY, SEARCH, R-TUNE, FM/TV, or ADD/DLT 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.

On-Screen Display (OSD)

VCR Status & Clock Display

Press DISPLAY
to display or remove the overlay.

Channel Caption
(See page 28.)

Function Status

Current Time   Counter

```
REC    12:00PM    ABC
0:25           −0:12:34
«STEREO←          SP
«SAP
 MONO
```

Rec Time
Remaining
(OTR mode only,
see page 12.)

Receivable Broadcast   Tape Speed
Types (See page 15.)

Blue Screen Display

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

Channel & Function Display

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

```
           08
           ABC
```

Warning and Instruction Displays

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

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

Before Requesting Service

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

Power	Correction
No power…	• Completely insert Power Plug into an AC outlet. • Set POWER button to ON.

Monitor	Correction
No picture or sound...	• Make sure your antenna system (TV or CABLE), is correctly set. (P. 8) • Completely insert Power Plug into an AC outlet. • Set POWER button to ON.
Poor picture with normal sound...	• Adjust BRIGHTNESS, SHARPNESS, and PICTURE controls in the SET UP TV menu. (P. 21)
Poor sound with normal picture...	• Adjust VOLUME control. (P. 14)
Poor TV reception...	• Adjust SHARPNESS and PICTURE controls in the SET UP TV menu. (P. 21)
No color or poor color...	• Adjust TINT and COLOR controls in the SET UP TV menu. (P. 21)
Ghost (multiple) images...	• Install a directional antenna.
TV programs cannot be watched...	• Make sure the selected channel is in unit's memory. (P. 10, 11)
Channel cannot be selected...	• Only the channel being recorded can be viewed on this unit.

VCR	Correction
TV program cannot be recorded... Timer recording cannot be performed…	• Make sure your antenna system (TV or CABLE), is correctly set. (P. 8) • Make sure cassette record tab is intact. (P.3) • Check that clock is set to current time and date. • 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...	• Adjust TRACKING control in either direction. (P. 4) • Try Head Cleaning. (P. 4)
VCR cannot be controlled...	• Make sure VCR LOCK is set to off. (P. 27) • Make sure unit is not in a Timer Record operation.

Remote Control	Correction
Unit cannot be controlled...	• Aim remote at remote sensor on unit (P. 7) so that signal is unobstructed. • Inspect the remote batteries. (P. 3) • Make sure VCR LOCK is set to off. (P. 27) • Exposing unit remote sensor to direct fluorescent or outdoor light may cause signal interference.
ACTION, PROG and FM/TV buttons cannot be selected...	• Check remote batteries.

Miscellaneous	Correction
Video cassette cannot be inserted... Video cassette cannot be removed... Tape cannot be ejected or inserted...	• Insert the cassette window side up; record tab facing you. • Completely insert Power Plug into an AC outlet. • Try ejecting or inserting the tape again after turning POWER off, then back on.
Video cassette ejects when a recording is started, or the power is turned off for timer recording...	• Make sure cassette record tab is intact. (P. 3)
In Stop mode, the VCR motor (CYLINDER) continues to rotate...	• 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...	• Make sure VCR LOCK is set to off. (P. 27)

If you cannot resolve the problem, please call the Customer Satisfaction Center for product assistance at 1-800-211-PANA(7262).
To locate an authorized servicenter call toll free 1-800-211-PANA(7262)
or send e-mail to : consumerproducts@panasonic.com.

Limited Warranty

PANASONIC CONSUMER ELECTRONICS
COMPANY, DIVISION OF MATSUSHITA ELECTRIC
CORPORATION OF AMERICA
One Panasonic Way Secaucus, New Jersey 07094

PANASONIC SALES COMPANY, DIVISION OF
MATSUSHITA ELECTRIC OF PUERTO RICO, INC.,
AVE. 65 de Infantería, Km. 9.5 San Gabriel Industrial
Park, Carolina, Puerto Rico 00985

Panasonic/Quasar Video Products
Limited Warranty

Limited Warranty Coverage
If your product does not work properly because of a defect in materials or workmanship, Panasonic
Consumer Electronics Company or Panasonic Sales Company (collectively referred to as "the warrantor")
will, for the length of the period indicated on the chart below, which starts with the date of original
purchase ("warranty period"), at its option either (a) repair your product with new or refurbished parts, or
(b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the
warrantor.

Product	Parts	Labor	Service	Contact Number
Camcorder	One (1) Year (except CCD Image Sensor) CCD Image Sensor - 6 (Six) Months	Ninety (90) Days Ninety (90) Days	Carry-In or Mail-In	1-800-211-PANA(7262)
DVD/VCR Deck, A/V Mixer	One (1) Year	Ninety (90) Days	Carry-In or Mail-In	1-800-211-PANA(7262)
TV/VCR, TV/DVD, TV/DVD/VCR Combination	One (1) Year (except CRT) CRT - Two (2) Years	Ninety (90) Days Ninety (90) Days	Carry-In: 21″ CRT and Smaller In-Home or Carry-In: 22″ CRT and Larger	1-800-211-PANA(7262)
TV/HDR Combination	One (1) Year (except CRT) CRT - Two (2) Years	Ninety (90) Days Ninety (90) Days	In-Home or Carry-In	1-888-843-9788
Rechargeable Batteries (in exchange for defective item)	Ten (10) Days	Not Applicable	Carry-In or Mail-In	1-800-211-PANA(7262)
Tape (in exchange for defective item)	Five (5) Days	Not Applicable	Carry-In or Mail-In	1-800-211-PANA(7262)
Memory Cards (in exchange for defective item)	Ninety (90) Days	Not Applicable	Carry-In or Mail-In	1-800-211-PANA(7262)

During the "Labor" warranty period there will be no charge for labor. During the "Parts" warranty period,
there will be no charge for parts. You must carry-in or mail-in your product or arrange for in-home
service, as applicable, during the warranty period.
If non-rechargeable batteries are included, they are not warranted. This warranty only applies to
products purchased and serviced in the United States or Puerto Rico. This warranty is extended only to
the original purchaser of a new product which was not sold "as is." A purchase receipt or other proof of
the original purchase date is required for warranty service.

Carry-In, Mail-in or In-Home Service
For Carry-In, Mail-In or In-Home Service (as applicable) in the United States call toll free contact
number listed above or visit Panasonic Web Site: http://www.panasonic.com
For assistance in Puerto Rico call Panasonic Sales Company (787)-750-4300 or fax (787)-768-2910.
In-Home service, if applicable, requires clear, complete and easy access to the product by the
authorized servicer and does not include removal or re-installation of an installed product. It is possible
that certain in-home repairs will not be completed in-home, but will require that the product, or parts of
the product, be removed for shop diagnosis and/or repair and then returned.

Limited Warranty Limits And Exclusions

This warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage, nor does it cover markings or retained images on the picture tube resulting from viewing fixed images (including, among other things, letterbox pictures on standard 4:3 screen TV's, or non-expanded standard 4:3 pictures on wide screen TV's, or onscreen data in a stationary and fixed location). The warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or commercial use (such as in a hotel, office, restaurant, or other business), rental use of the product, service by anyone other than a Factory Servicenter or other Authorized Servicer, or damage that is attributable to acts of God.

THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE." THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, or travel to and from the servicer, loss of media or images, data or other memory or recorded content. The items listed are not exclusive, but are for illustration only.)

ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.

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 exclusions 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 warrantor's Consumer Affairs Department at the addresses listed for the warrantor.

PARTS AND SERVICE (INCLUDING COST OF AN IN-HOME SERVICE CALL, WHERE APPLICABLE) WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY ARE YOUR RESPONSIBILITY.

Customer Services Directory

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 : consumerproducts@panasonic.com
For hearing or speech impaired TTY users, TTY : 1-877-833-8855

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)
For hearing or speech impaired TTY users, TTY : 1-866-605-1277
Panasonic Services Company 20421 84th Avenue South, Kent, WA 98032
(Monday-Friday 6 am-5 pm; Saturday 6 am-10:30 am, PST)
(Visa, MasterCard, Discover Card, American Express, Check)

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

As of August 2002

For Your Information

Connexiones/Configuracion Inicial

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

Conectando

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

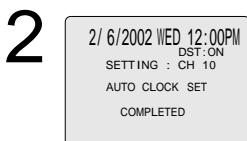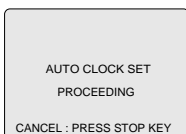**Para Sistema Digital de Satelite (DSS)/**
Convertidor de cable
Conecte la salida del convertidor de cable la "VHF/UHF" con el RF cable.

Realizando Configuracion Inicial

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

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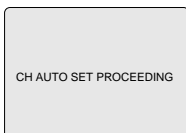
Si usa convertidor de cable, enciendala y seleccione el Servicio Publico de Canales de Television (PBS) en su horario de uso o tiempo de su zona. Si utiliza receptor DSS este debe de estar apagado.

AUTO CLOCK SET
PROCEEDING

CANCEL : PRESS STOP KEY

2 2/ 6/2002 WED 12:00PM
DST: ON
SETTING : CH 10
AUTO CLOCK SET
COMPLETED

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

AUTO CLOCK SET
IS INCOMPLETE

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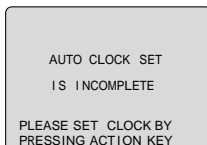
Si "AUTO CLOCK SET IS INCOMPLETE" aparece en pantalla, coloque el tiempo usando el procedimiento manual (MANUAL CLOCK SET), vealo enseguida.

Ajuste Manual del Reloj

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

1) Presione la tecla ACTION en el control remoto para visualizar la pantalla del menú RELOJ.

2) Presione ▲▼ para seleccionar el mes y ▶ para ajustar. De la misma forma, seleccione y ajuste la fecha, año, hora y DST (Hora de Verano).

3) Presione dos veces la tecla ACTION para poner el RELOJ en marcha y salir.
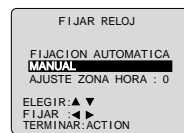
Ajustar de nuevo el reloj

1 Presione ACTION para exhiba el menú.

2 MENU PRINCIPAL
TV   VCR   IDIOMA
CANAL   RELOJ   SALIR
ELEGIR:▲ ▼ ◀ ▶
FIJAR : ACTION
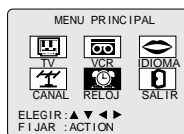
Presione ▲▼◀▶ para seleccionar "RELOJ". Presione ACTION.

3 FIJAR RELOJ

FIJACION AUTOMATICA
MANUAL
AJUSTE ZONA HORA : 0
ELEGIR:▲ ▼
FIJAR :◀ ▶
TERMINAR:ACTION

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

4 FIJAR RELOJ
--/--/---- --:--
VERANO:ACT
ELEGIR MES
ELEGIR:▲ ▼
FIJAR :▶
TERMINAR:ACTION

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.)
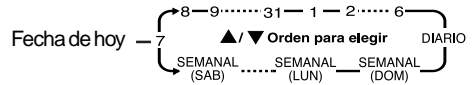   → Grabación normal → 0:30 → 1:00
   → 4:00 ← 3:00 ← 2:00 ← 1:30
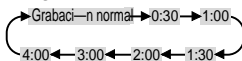
Grabación con temporizador

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

2
```
FIJAR  PROGRAMAC I ON

TEMPORIZADOR
ENCENDIDO AUTOMATICO

ELEGIR : ▲ ▼
FIJAR  : ▶
TERMINAR : PROG
```
 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
```
FECHA  INICIO  PARADA  CA
7 VIE  --:--  --:--  --
HOY/ \              SLP
--------------------------
ELEGIR FECHA DE INICIO
ELEGIR : ▲ ▼
FIJAR  : ▶
TERMINAR : PROG / ACTION
```
 Ajuste la fecha de grabación.
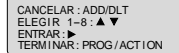 1) Presione ▲▼ para seleccionar.
 2) Presione ▶ o ◀ para ajustar.
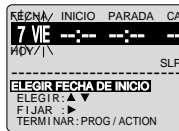
• 1 - 31 = Grabación única
• DIARIO = a la misma hora de lunes a viernes
• SEMANAL = a la misma hora una vez a la semana

Fecha de hoy — 7
```
       →8—9 ······ 31— 1 — 2 ······ 6—
                  ▲ / ▼ Orden para elegir      DIARIO
       SEMANAL ······ SEMANAL — SEMANAL
        (SAB)          (LUN)     (DOM)
```

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

4
```
P  FE  INIC  PARADA  CA  VEL
1  DI  9:00p 12:00a  08  SP
2  --  --:--  --:--  --  --
3  --  --:--  --:--  --  --
4  --  --:--  --:--  --  --
CANCELAR : ADD/DLT
ELEGIR  1–8 : ▲ ▼
ENTRAR : ▶
TERMINAR : PROG / ACTION
```
 Termine el programa.
 Presione PROG (o ACTION.)

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

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

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