

SANYO

INSTRUCTION MANUAL

VWM-677

Video Cassette Recorder



VHS Hi-Fi **VCRlight**

Only cassettes marked **VHS** can be used with this video cassette recorder.



As an Energy Star® Partner,
SANYO has determined that
this product or product model
meets the Energy Star®
guidelines for energy efficiency.

Please read this manual and accompanying "IMPORTANT SAFETY INSTRUCTIONS" sheet carefully before connecting your VCR and operating it for the first time.

Be sure to read carefully and follow all the PRECAUTIONS on page 2.

Keep the manual in a safe place for future reference.

PRECAUTIONS



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.

WARNING: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

CAUTION: To prevent electric shock, match wide blade of plug to wide slot of electrical outlet and insert fully.

CAUTION: Changes or modifications not expressly approved by the manufacturer may void the user's authority to operate this VCR.

Location

For safe operation and satisfactory performance of your VCR, keep the following in mind when selecting a place for its installation:

- Shield it from direct sunlight and keep it away from sources of intense heat.
- Avoid dusty or humid places.
- Avoid places with insufficient ventilation for proper heat dissipation. Do not block the ventilation holes of the VCR. Do not place the unit on a carpet because this will block the ventilation holes.
- Install the VCR in a horizontal position only.
- Avoid locations subject to strong vibrations.
- Avoid moving the VCR between cold and hot locations (see "Moisture Condensation Problems", this page).
- Do not place the VCR directly on top of the TV, as this may cause playback or recording problems.

Avoiding Electric Shock or Fire

- Do not handle the power cord with wet hands.
- Do not pull on the power cord when disconnecting it from an AC wall outlet. Grasp it by the plug.
- If any liquid is spilled on the VCR, unplug the power cord immediately and have the unit inspected at a factory-authorized service center.
- Do not place anything directly on top of the VCR.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

WARNING: Unauthorized recording or use of television broadcast, video tape, film or other copyrighted material may violate applicable copyright laws. The manufacturer assumes no responsibility for unauthorized duplication, use or other acts that infringe upon the rights of copyright owners.

Declaration of Conformity

Model Number : VWM-677
Trade Name : Sanyo
Responsible party : SANYO FISHER COMPANY
Address : 21605 Plummer Street,
Chatsworth, California 91311
Telephone No. : (818) 998-7322

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
 - (1) this device may not cause harmful interference, and
 - (2) this device must accept any interference received, including interference that may cause undesired operation.

Moisture Condensation Problems

Cause:

When the VCR is first installed, moved from a cold area to a warm area or placed in a location with high humidity, dew (moisture) may form inside the unit. If you operate the VCR with dew inside, damage may result.

Prevention:

- 1 Make all necessary connections.
- 2 Plug the power cord into a 120 V AC wall outlet.
- 3 Turn on the power.
- 4 Do not operate the VCR or insert a cassette for approximately 2 hours.

This allows the VCR to warm up to the temperature of the room where it will be used.

Technology licensed by **FAROUJJA** Laboratories Inc. This VCR has a Y/C filtering technique incorporated under license from Faroudja Laboratories Inc.

FEATURES

TIMER/CLOCK

- VCR Plus+ programming system
- Selectable standard/daylight saving time
- 1-year/8-event program timer with daily/weekly settings
- Smart Speed Record function
- Remaining tape duration display
- Quick timer recording (QTR)
- Off timer (up to 6 hours)

AUDIO/VIDEO

- VHS Hi-Fi stereo audio recording and playback
- MTS stereo/second audio program (SAP) recording and playback
- Digitally-adjusted clean playback

SPECIAL PLAYBACK/SEARCH

- AdJUMP™
- Recording contents on-screen list (Rec. List Super)
- Double-Azimuth 4-head video recording/playback system for clean special playback:
 - Forward/reverse search, double-speed playback, clean still image, frame advance, variable-speed slow motion
- High-speed fast forward/rewind
- Zero search
- Index search

AUTOMATIC FUNCTIONS

- Automatic clock setting and adjustment
- Endless playback
- Automatic digital tracking
- Automatic channel programming
- Full auto playback functions: power-on, rewind, eject, record auto cancel, power-off eject

GENERAL

- Multilanguage, multicolor on-screen menu
- Multibrand universal remote control with Moonlight™ buttons
- Vibration-suppressing mid-mount design
- Child lock

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ACCESSORIES

Make sure that all the accessories listed below have been included with your VCR.

<p>Power cord</p> 	<p>Multibrand universal remote control</p> 
<p>75-ohm coaxial cable</p> 	
<p>Two AA batteries (1.5 volt)</p> 	<p>Quick Start Guide</p> 
<p>Remote control code label</p> 	

VHS VIDEO CASSETTE TAPES

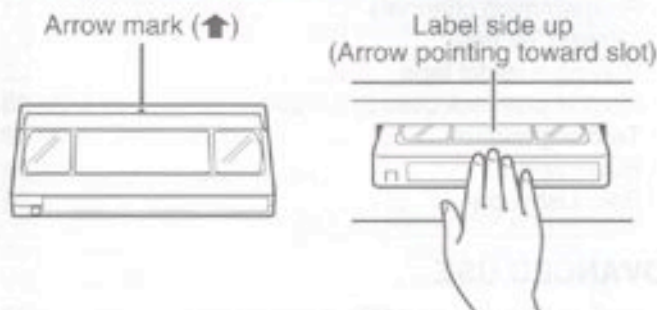
Record/Play Times

Tape Length	T-60	T-120	T-160	
Tape Speed	SP Mode 1 hour (60 minutes)	2 hours (120 minutes)	2-2/3 hours (160 minutes)	highest video quality
	LP Mode (playback only) 2 hours (120 minutes)	4 hours (240 minutes)	5-1/3 hours (320 minutes)	excellent video quality
	EP Mode 3 hours (180 minutes)	6 hours (360 minutes)	8 hours (480 minutes)	good video quality (longest recording time)

NOTE: This unit cannot record in LP mode.

When Handling Video Cassettes

- Do not expose video cassettes to extreme heat, high humidity or strong magnetic fields.
- Do not tamper with the cassette mechanism.
- Do not touch the tape with your fingers.
- Always store an unused cassette in its case.



Loading

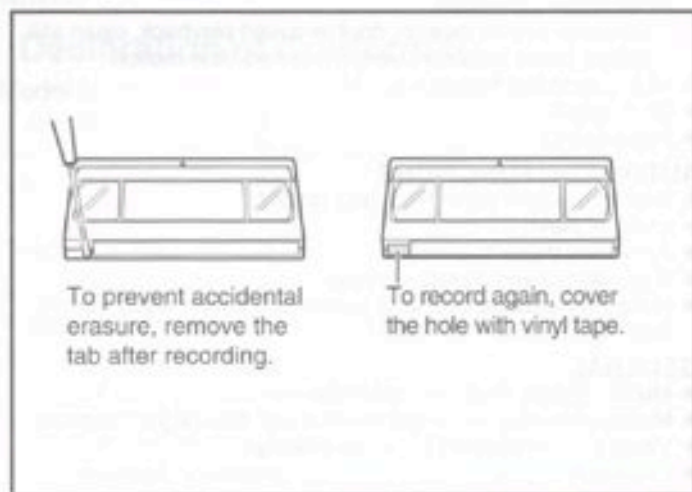
- 1 Gently push the center of the cassette until it is drawn in automatically.

NOTES:

- If the cassette is not inserted correctly, it will be ejected in approximately 3 seconds.
- Do not try to pull the cassette out once automatic loading starts.
- Do not force the cassette into the VCR.

CAUTION: To avoid possible injury or accident, keep children away from this unit. Do not put your hand or other objects into the cassette loading slot.

Safety Tab



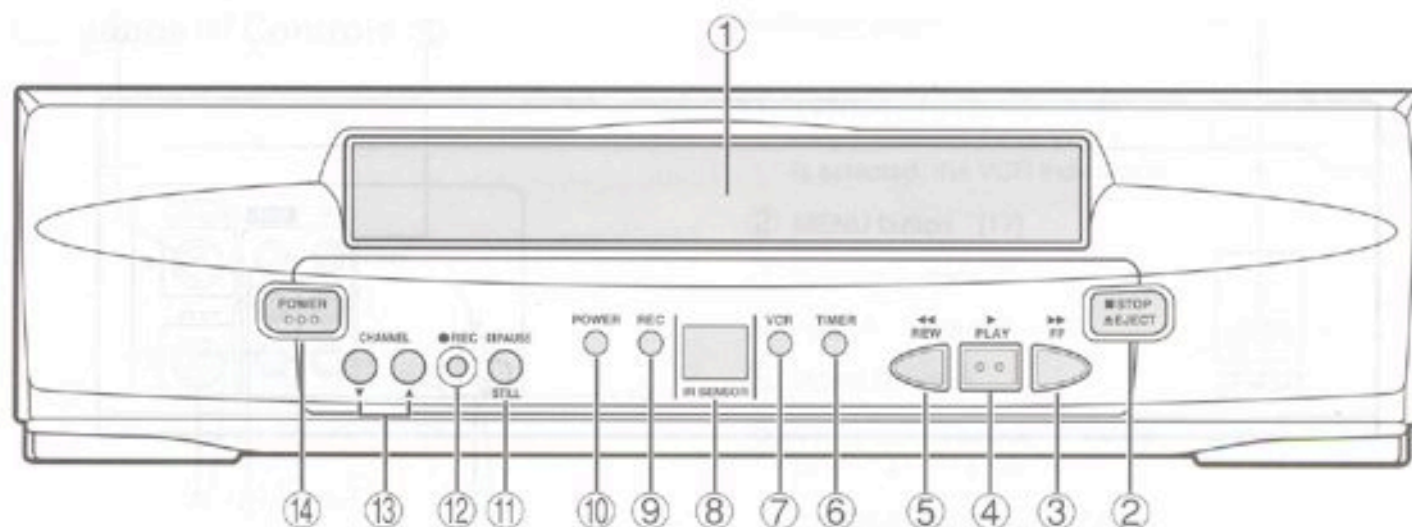
Unloading

- 1 When in the STOP mode, press the STOP/EJECT button on the front panel. In any other mode, press the button twice.
- 2 After the cassette appears in the loading slot, gently pull it out.

AUTO POWER-OFF/EJECT: The cassette is ejected when the STOP/EJECT button on the front panel is pressed, even if the VCR's power is off. (The power cord must be connected to an AC wall outlet.)

LOCATIONS OF CONTROLS AND INDICATORS

Front Panel

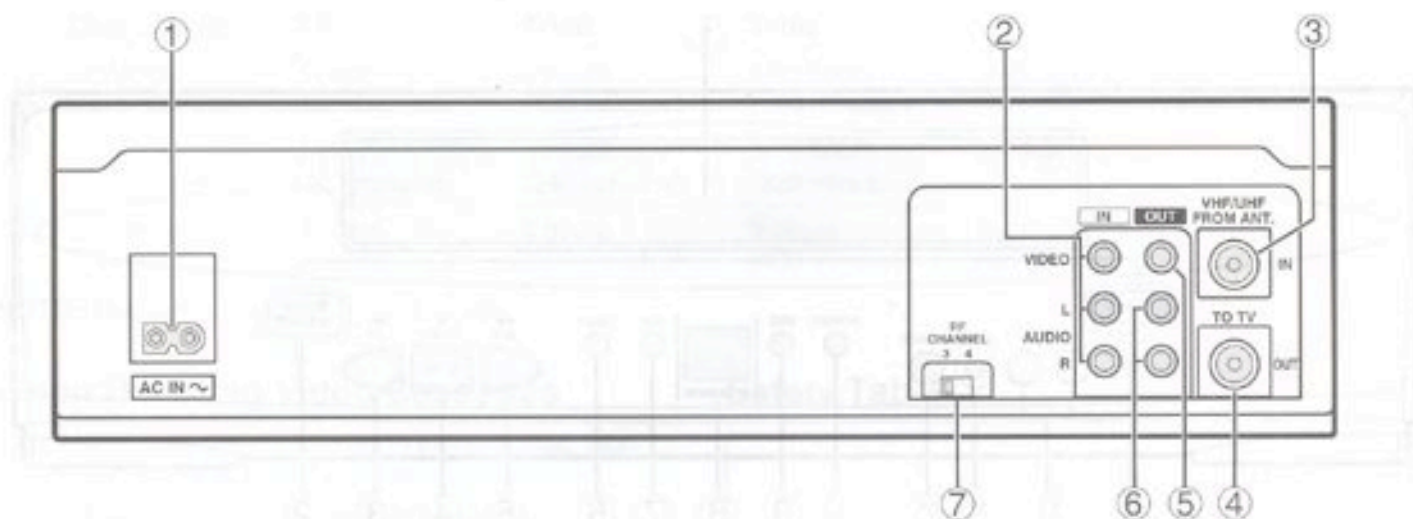


Reference pages are shown in square brackets.

- ① Cassette loading slot
- ② STOP/EJECT button [4, 23]
- ③ FF (fast forward) button [29]
This button is used both for fast forward and forward picture search.
- ④ PLAY button [23]
- ⑤ REW (rewind) button [29]
This button is used both for rewind and reverse picture search.
- ⑥ TIMER indicator
- ⑦ VCR indicator
- ⑧ Remote control sensor
- ⑨ REC (recording) indicator
- ⑩ POWER indicator
- ⑪ PAUSE/STILL button [24, 29]
 - Press this button in the record mode to temporarily stop a recording (PAUSE).
 - Press this button in the playback mode to view a still frame (STILL).
 - Press this button repeatedly in the still mode to advance the picture one frame at a time.
- ⑫ REC (record) button [24, 37]
- ⑬ CHANNEL selection buttons (▼ and ▲) [15, 23, 37]
- ⑭ POWER button

LOCATIONS OF CONTROLS AND INDICATORS

Back Panel



① AC power input

② Rear-panel AUDIO/VIDEO input jacks

Connect the audio and video outputs from an external unit (i.e. a video camera, second VCR) to these jacks. To record the signals coming from the external unit, press the **INPUT** button on the remote control to display "L1" instead of a channel number (see page 24). If only one audio jack is to be used, connect it to the L (left) jack.

③ VHF/UHF antenna input jack

④ VHF/UHF antenna output jack

⑤ VIDEO output jack (yellow)

⑥ AUDIO output jacks (Red for right and white for left)

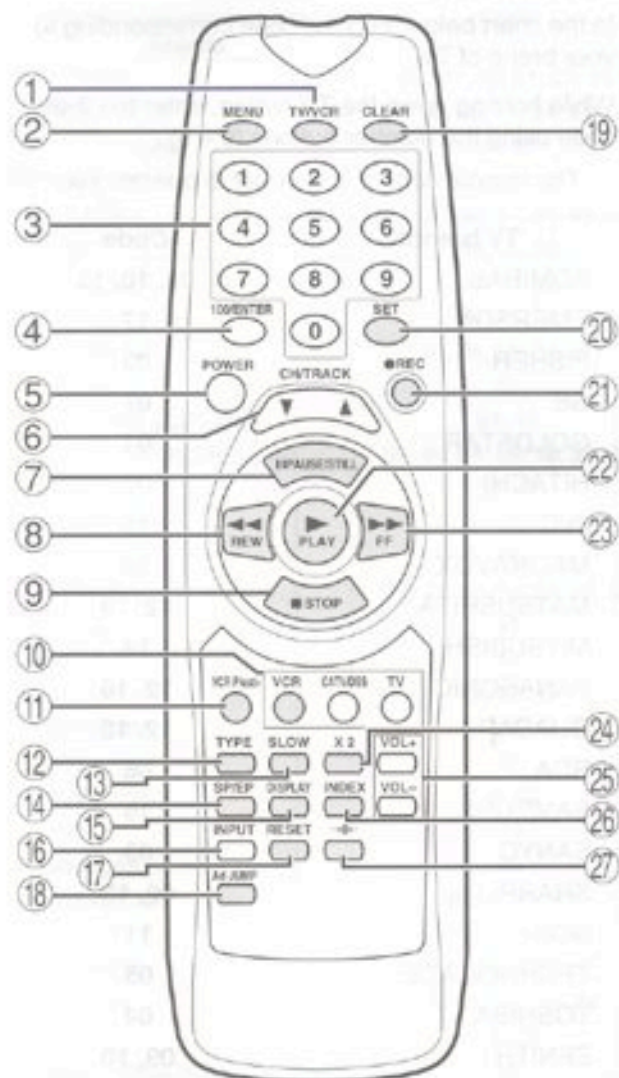
⑦ RF CHANNEL switch

MULTIBRAND UNIVERSAL REMOTE CONTROL

This universal remote control will operate the basic functions of TVs and cable (CATV) converters/decoders, when the brand matches one of those shown on pages 8 and 9.

Locations of Controls

Reference pages are shown in square brackets.



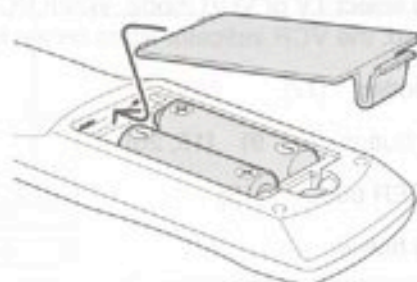
- ① TV/VCR mode button [14]
Lets you select TV or VCR mode. When VCR mode is selected, the VCR indicator lights on the front panel.
- ② MENU button [17]
- ③ Number buttons (0 - 9) [15, 20]
- ④ 100/ENTER button [15]
- ⑤ POWER button
- ⑥ CH (channel) selection/TRACK (tracking) buttons (▼ and ▲) [14, 15, 23, 37]
- ⑦ PAUSE/STILL button [24, 29]
- ⑧ REW (rewind) button [29]
- ⑨ STOP button [23]
- ⑩ VCR, CATV/DSS and TV remote control mode buttons [8, 9, 14]
Lets you select the unit to be operated (VCR, TV or cable converter/DSS receiver).
- ⑪ VCR Plus+ button [32]
- ⑫ TYPE button [26]
- ⑬ SLOW button [29]
- ⑭ SP/EP button [24]
- ⑮ DISPLAY button [16, 31]
- ⑯ INPUT button [24]
- ⑰ Tape counter RESET button [31]
- ⑱ Ad JUMP button [38]
- ⑲ CLEAR button [15, 20]
- ⑳ SET button [14, 15, 18]
- ㉑ REC (record) button [24, 37]
- ㉒ PLAY button [23]
- ㉓ FF (fast forward) button [29]
- ㉔ x2 button [29]
- ㉕ VOL (volume) buttons [8]
Increases (+) or decreases (-) TV volume.
- ㉖ INDEX button [31]
- ㉗ →0← (Zero Search) button [31]

NOTE: The shaded buttons are used for VCR operation only.

MULTIBRAND UNIVERSAL REMOTE CONTROL

Battery Installation and Operation

- 1 Install the two supplied **AA** batteries as shown.
- 2 Aim the remote control at the VCR and press the desired buttons to operate.



IMPORTANT NOTE:

SPENT OR DISCHARGED BATTERIES MUST BE RECYCLED OR DISPOSED OF IN A SAFE MANNER IN COMPLIANCE WITH ALL APPLICABLE LAWS.

FOR DETAILED INFORMATION, CONTACT YOUR LOCAL COUNTY SOLID WASTE AUTHORITY.

Using the remote control

- 1 Before using the remote control, press the **VCR**, **TV** or **CATV/DSS** button to select the device to be operated.
- 2 To switch the remote control mode (to operate a different device), be sure to press the **VCR**, **TV** or **CATV/DSS** button first.

NOTES:

- The remote control will not operate properly if something comes between the VCR and the remote control.
- The **POWER**, **0 - 9**, **100/ENTER**, **INPUT** and **CH/TRACK** \blacktriangledown and \blacktriangle buttons are used to operate the VCR, TV, cable box and DSS receiver.
- **VOL** buttons operate TV volume regardless of the remote control mode selected.

Setting the remote control code

The multibrand universal remote control can operate the basic functions of TVs and cable (CATV) converters/decoders made by the manufacturers listed below.

To enter the remote control code for your brand of TV or cable converter/decoder, follow the steps below.

For TV operation

- 1 In the chart below, find the code corresponding to your brand of TV.
- 2 While holding down the **TV** button, enter the 2-digit code using the number buttons (0 - 9).

The remote control is now set to operate your TV.

TV brands	Code
ADMIRAL	05, 10, 13
EMERSON	17
FISHER	03
GE	07
GOLDSTAR	01
HITACHI	02
JVC	15
MAGNAVOX	08
MATSUSHITA	12, 18
MITSUBISHI	14
PANASONIC	12, 18
QUASAR	12, 18
RCA	06
SAMSUNG	16
SANYO	03
SHARP	00, 13
SONY	11
TECHNOL ACE	05
TOSHIBA	04
ZENITH	09, 10

NOTE: There may be some older TV models that cannot be operated with this remote control. If this is the case, use the original remote control supplied with the TV.

MULTIBRAND UNIVERSAL REMOTE CONTROL

For cable (CATV) converter/decoder or DSS (Digital Satellite System) receiver operation

- In the chart, find the code corresponding to your brand of cable converter/decoder or DSS receiver.
- While holding down the **CATV/DSS** button, press 2 number buttons (0 – 9) to enter the code.

The remote control is now set to operate your converter/decoder or DSS receiver.

Cable converter/decoder brands	Code
ARCHER	00, 01, 06, 11, 23, 29
CABLEVIEW	00, 05, 11, 24, 29
CABLETENNA	00, 01
CENTURY	00
CITIZEN	00, 05, 11, 24, 29
CURTIS	19, 25, 32
DIAMOND	00, 01, 29
EAGLE	14, 15, 20
GC BRAND	00, 05, 11, 24, 29
GEMINI	05
GENERAL ELECTRIC	01, 18
GENERAL INSTRUMENT	01, 05, 07, 09, 16, 28, 33
HAMLIN	12, 17
HITACHI	13
JASCO	05
JERROLD	01, 05, 07, 09, 16, 28, 33
MACOM	13
MAGNAVOX	14
MATSUSHITA	08, 21, 41
MOVIE TIME	00, 11, 20
NEC	20
NOVAVISION	19, 32
NSC	20
OAK/OAK SIGMA	04
PANASONIC	06, 08, 21, 41
PHILIPS	02, 03, 14, 31
PIONEER	06, 23
PULSER	00, 05, 11, 24, 29
QUEST	06, 23
RADIO SHACK	00
RCA	06, 08, 21, 41
REALISTIC	00
RECOTON	00
REGAL	12, 14, 17
REMBRANDT	00, 01, 11
SAMSUNG	05, 06, 11, 20, 22, 23
SCIENTIFIC ATLANTA	19, 25, 32
SL MARX	00, 05, 06, 11, 20, 22, 24, 27
SPRUCER	06, 08, 21, 41
STANDARD COMPONENTS	00, 11

Cable converter/decoder brands	Code
STARGATE	00, 05, 06, 11, 20, 22, 24, 29
TEKNIKA	30
TELECAPTION	26
TELEVIEW	05, 06, 11, 20, 22
TOCOM	01, 11, 07, 10
UNIKA	00, 01, 11, 29
UNIVERSAL	00, 11, 24, 27
VIDEOWAY	02, 03, 14
VIEWSTAR	14, 15, 20
ZENITH	02, 03, 14

DSS receiver brands	Code
PANASONIC	43
RCA	41
SANYO	40
SONY	42

NOTES:

- Only remote-controlled products can be operated using this remote control. (Refer to the instruction manuals for your TV, CATV converter/decoder or DSS receiver instruction manual for more details.)
- There may be some TV, CATV converter/decoder or DSS receiver models that cannot be operated with this remote control. If this is the case, use the original remote control supplied with your equipment.
- Cable companies may charge an extra monthly fee to activate the remote control feature of a rented CATV converter/decoder. If this is the case, this remote control will not operate the cable converter/decoder unless such arrangements are made with the cable company.

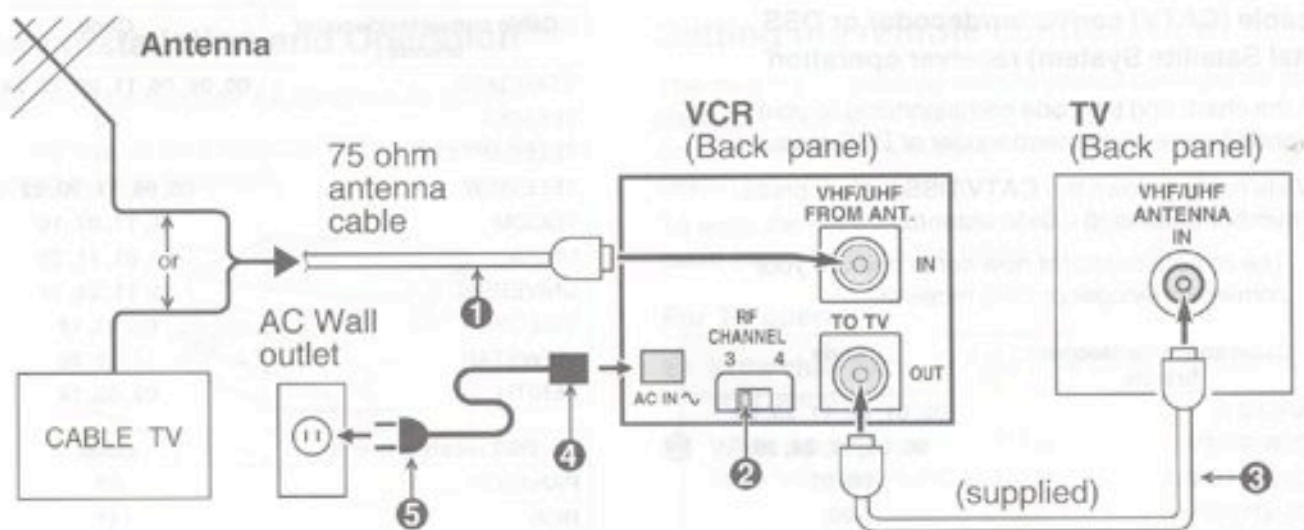
IMPORTANT NOTE: If the batteries in the remote control are replaced, the codes for the TV, CATV converter/decoder and DSS receiver must be reset.

Write your code numbers below for future reference.

TV: _____ CATV: _____ DSS: _____

Place the supplied label on the back of the remote control.

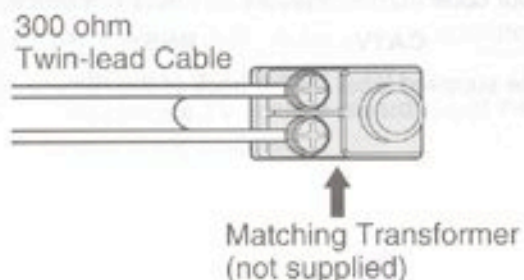
BASIC ANTENNA/CABLE CONNECTIONS



- ❶ Connect an antenna (or a cable TV system) to the VCR.
- ❷ Set the **RF CHANNEL** switch on the back of the VCR to 3 or 4.
- ❸ Connect the VCR to the TV with the 75 ohm coaxial cable (supplied).
- ❹ Plug the power cord (supplied) into the AC power input (AC IN ~) on the VCR back panel. Insert the plug firmly.
- ❺ Insert the plug end of this power cord into a wall outlet.

NOTES:

- If you have a cable converter connected to your TV, see "ALTERNATIVE CABLE TV CONNECTIONS", next page.
- If your antenna has a twin-lead cable or your TV has screw-type antenna terminals, use a matching transformer (not supplied).



Channel Switch Setting

Set your TV to either channel 3 or channel 4. Then set the VCR's **RF CHANNEL** switch to channel 3 or 4 to match the channel selected on the TV. This is your VCR channel. The TV must be set to this channel whenever the VCR is used for playing a tape or watching a TV program. If in doubt, check with your local cable company.

ALTERNATIVE CABLE TV CONNECTIONS

Your VCR can receive all unscrambled cable channels without the use of an external converter. If you wish to view and record scrambled cable channels, you must connect a converter/decoder as described below.

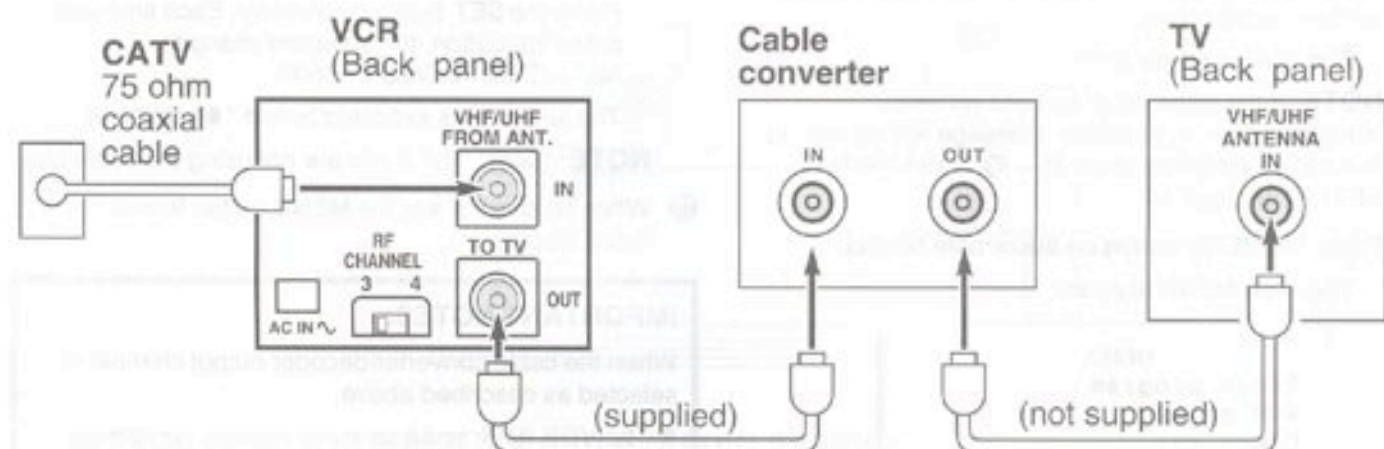
Your local cable TV company will advise you of the channels available in your area.

We recommend that you consult your cable TV company to make sure that the cable is properly connected.

When the TV does not have a built-in cable converter

Connect the cable TV converter between the VCR and the TV so that you can watch a cable TV program while recording another program.

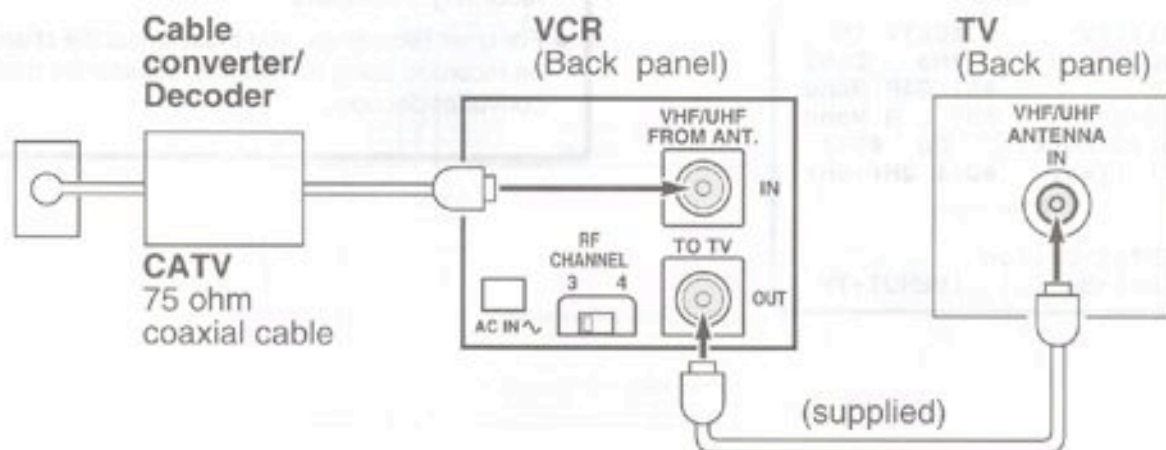
NOTE: Set the TV channel to the cable converter output channel (CH02 - 07).



When you have both cable and pay TV (scrambled channels)

NOTES:

- With this method the TV and VCR receive the same channel. Recording one program while watching another is not possible.
- Set the VCR channel to the cable converter/decoder output channel (CH 02 ~ 07).



NOTE TO CATV SYSTEM INSTALLER (USA only): This reminder is provided to call the CATV system installer's 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 practicable.

ALTERNATIVE CABLE TV CONNECTIONS

Cable converter/decoder output channel setup

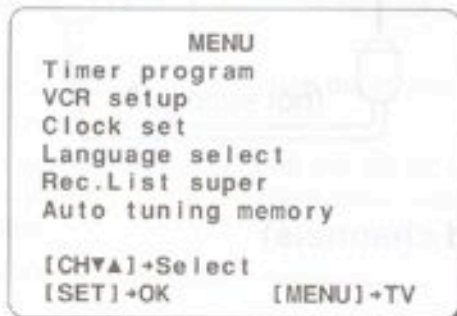
- 1 Be sure the cable connections are correct.
(See page 11.)
- 2 Turn on the TV, VCR and cable converter/decoder.
- 3 Set the TV to channel 3 or 4.
- 4 Press the **VCR** button on the remote control to select the VCR operation mode.
- 5 If the VCR indicator is off, press the **TV/VCR** button on the remote control.

The VCR indicator lights.

NOTE: If the initial setup has not yet been completed, the "Auto Setup" message will appear. In that case, first follow steps 5 - 7 under "INITIAL SETUP" on page 14.

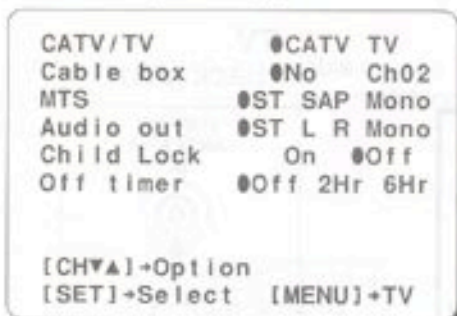
- 6 Press the **MENU** button on the remote control.

The main MENU appears.



- 7 Press the **CH/TRACK** ▼ (or ▲) button to select the VCR setup option, then press the **SET** button.

The VCR setup menu appears.



- 8 Press the **CH/TRACK** ▼ (or ▲) button to select the Cable box option.
- 9 Press the **SET** button to set your cable converter/decoder output channel. The output channel should be indicated on the cable converter/decoder back panel. If not, please refer to the cable converter/decoder instruction manual for details.

*Press the SET button repeatedly. Each time you press the button, the selection changes:
No → Ch02 → Ch03 ... Ch07.*

The selection is indicated by the "●" next to it.

NOTE: Select "No" if you are not using the cable box.

- 10 When finished, press the **MENU** button to exit the menu display.

IMPORTANT NOTES:

When the cable converter/decoder output channel is selected as described above,

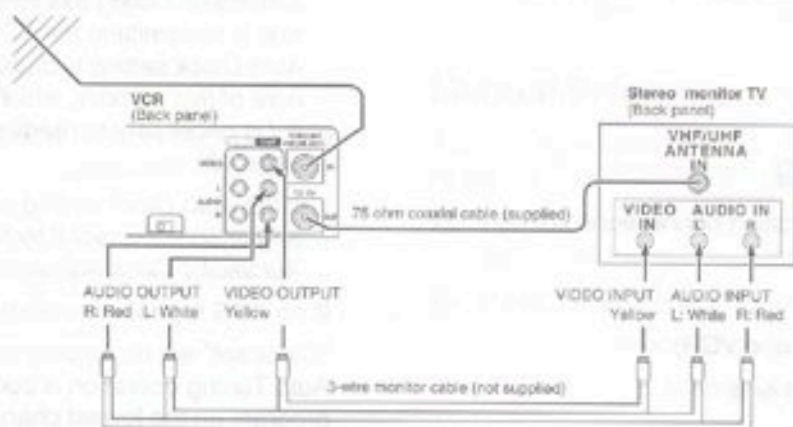
- The VCR tuner remains set to receive the same channel as the output channel of the cable converter/decoder. Auto channel programming and manual channel selection using the VCR tuner are not possible.
- If you turn on the cable converter/decoder after turning on the VCR, no image will appear on the TV screen. In this case, turn off the VCR, then turn it on again.
- Leave the cable converter/decoder on until timer recording is complete.
- For timer recordings, you must select the channel to be recorded using the channel selector on the cable converter/decoder.

AUDIO/VIDEO CONNECTIONS

Stereo Connections

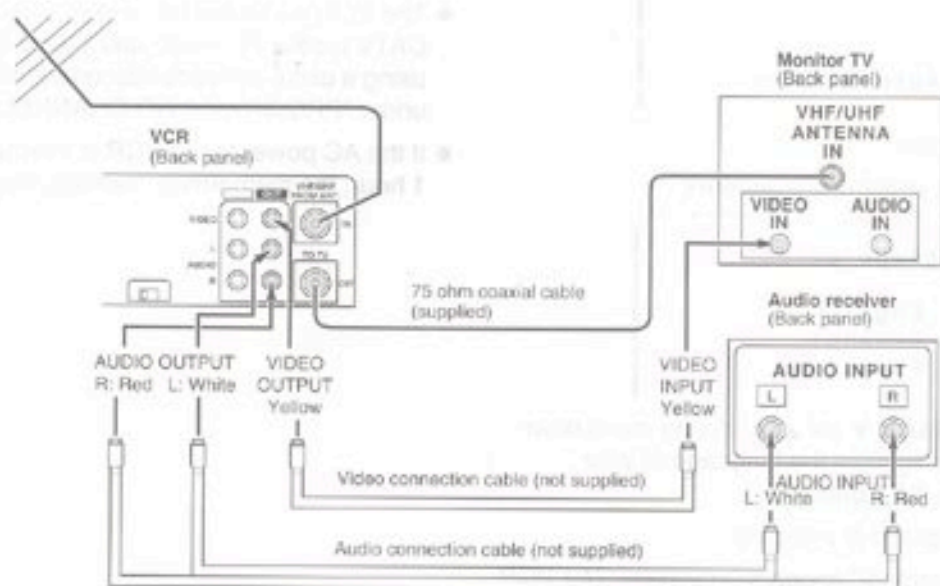
Connecting your VCR to your stereo TV through audio/video jacks usually provides better picture and sound quality. It also enables you to play back stereo broadcast programs in stereo.

When you have a stereo monitor TV



When you have a monitor TV and a stereo system

Be sure to turn the TV volume all the way down and set the TV speaker selector switch to EXTERNAL or OFF (to disconnect the TV speakers). Adjust the volume with the volume control on the stereo system.



NOTES:

- Even when audio/video connections are made, always make the antenna connection between the VHF/UHF OUT (VCR) and the VHF/UHF IN (TV) using the supplied 75-ohm coaxial cable.
- If video and/or audio connections are made between the VCR and the TV, set the source selector on the television to A/V input.

INITIAL SETUP

When you are setting up the VCR for the first time, or after the power has failed for more than 1 hour, follow the steps below. This AUTO SETUP operation automatically enters all available channels in your area into the VCR tuner memory and sets its internal clock.

Many TV stations transmit a signal called Extended Data Services (XDS). This VCR uses the XDS signal to automatically set the clock. If no XDS signal is available in your area, the VCR prompts you to set the clock manually.

AUTO SETUP

Before starting

- Be sure the antenna or cable connections are correct. (See pages 10 and 11.)

- 1 Turn on the power (TV and VCR).
- 2 Set the TV to channel 3 or 4.
- 3 Press the **VCR** button on the remote control to select the VCR operation mode.
- 4 If the VCR indicator is off, press the **TV/VCR** button on the remote control.

The VCR indicator lights.

The "Auto Setup" message appears.



Auto Setup

- 5 Press the **SET** button.

The Language select menu appears.



Language select

English
Español
Français

- 6 Press the **CH/TRACK** ▼ (or ▲) button to move down or up the list and highlight the language of your choice. Press the **SET** button.

The menu language is selected.

"Auto tuning memory" appears on screen. The VCR scans all 125 channels and memorizes each active channel in your area in succession. It takes about 4-6 minutes.

- 7 When Auto Tuning is completed, the VCR will select the channel that carries the XDS signal and proceed to Auto Clock setting.



Clock set

The Auto Clock setting normally takes about 3 minutes. During this time, the channel number that is transmitting the XDS signal used for the Auto Clock setting is displayed on-screen. Make a note of this number, which you may need to refer to if it is necessary to readjust the clock later (see page 19).

If the Auto Clock setting entered the incorrect date and/or time, correct it by following the steps under Automatic Clock Adjustment on page 19.

If no XDS signal is available in your area:

"Clock set" will not appear on the screen when the Auto Tuning operation is completed. Instead, the TV program on the lowest channel that the VCR memorized will appear on screen. In this case, you must set the clock manually. Follow the steps under Manual Clock Setting on page 20.

NOTES:

- During AUTO SETUP, do not press any buttons other than the ones indicated here.
- The VCR will search for and memorize channels in the CATV (cable TV) mode and TV mode. If you are not using a cable converter/decoder, follow steps 1 - 4 under "PROGRAMMING CHANNELS" on page 21.
- If the AC power to the VCR is interrupted for more than 1 hour, the memorized channels may be erased.

INITIAL SETUP

Channel Selection Convenience

You can select a channel on your VCR by using one of the two methods shown below:

10-KEY RANDOM ACCESS TUNING

Select the desired channel number by using the number buttons and **100/ENTER** button on the remote control. For single-digit numbers, press **0** first. For channel numbers higher than 99, press the **100/ENTER** button first.

UP/DOWN SELECTION

Press and hold the **CH/TRACK** down (▼) or up (▲) (or **CHANNEL** on the front panel) button until the desired channel is received.

NOTE: When an inactive TV channel is selected on the VCR, the "No Signal" message appears and the sound is muted.

Manual Erase

You can eliminate unwanted channels or channels with weak or scrambled signals from the memorized channel sequence.

- 1 Select the channel you want to erase.
- 2 Press the **CLEAR** button for about 2 seconds.
"Erase" is displayed on-screen for about 3 seconds.
The channel is now erased from the memory.

Manual Programming

You can add channels to the memorized channel sequence by manually adding them to the tuner memory.

- 1 Select the channel you want to add using the number buttons on the remote control.
- 2 Press the **SET** button for about 2 seconds.
"Add" is displayed on-screen for about 3 seconds.
The channel is now added to the memory.

MULTIFUNCTION ON-SCREEN DISPLAYS

Various displays appear, superimposed over the screen image, indicating the operation mode and features in use.



Operation Mode Display

When an operation button is pressed, the corresponding operation mode icon is displayed in the top left corner of the screen for about 3 seconds.

NOTE: The recording pause mode icon will remain displayed until recording is resumed or stopped.

Operation	Icon	Operation	Icon
Play	▶	Record	●
Fast-forward	▶▶	Record pause	● II
Rewind	◀◀		

Channel Number and MTS Mode Displays

The channel number and the MTS mode displays appear for about 3 seconds when a channel is selected.

Program Title Display

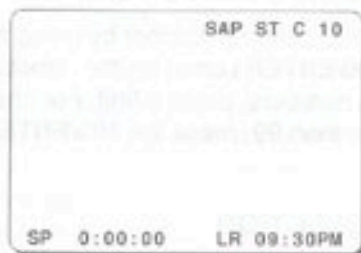
When a channel is tuned or when normal playback is started, the program title (maximum 24 characters) will be displayed for about 4 seconds.

NOTES:

- The program title is only displayed if the broadcast carries the title information or if it has been recorded on the tape.
- Depending on the TV signal or tape condition the program title may not be displayed even if it is available.

Status display

- 1 Press the **DISPLAY** button on the remote control.
The status display appears.



- 2 To remove the status display, press the **DISPLAY** button (press the button twice if a tape is loaded in the VCR).

NOTE: The status display will not appear if a menu is displayed on screen, or during special playback.

Remaining Tape Duration Display

- 1 Press the **DISPLAY** button twice.

The remaining tape duration appears at the bottom of the screen. It is calculated in hours and minutes from the current position to the end of the tape.

If "--:--" is displayed, the remaining tape duration has not been calculated.

- 2 To remove the remaining tape duration display, press the **DISPLAY** button again.

NOTES:

- The remaining tape duration display will not appear if a menu is displayed on screen or during special playback.
- This feature will not work properly on T-140 tapes or tapes longer than T-160. (The feature will work on T-160 tapes.)
- Depending on the condition and type of tape used, the VCR may not accurately detect the remaining tape duration.

ON-SCREEN MENU

Your new VCR is designed with user-friendly on-screen menus to help you operate its many features. Color-coded menus prompt you step-by-step through operations by highlighting the sections awaiting your entries.

Displaying the On-Screen Menus

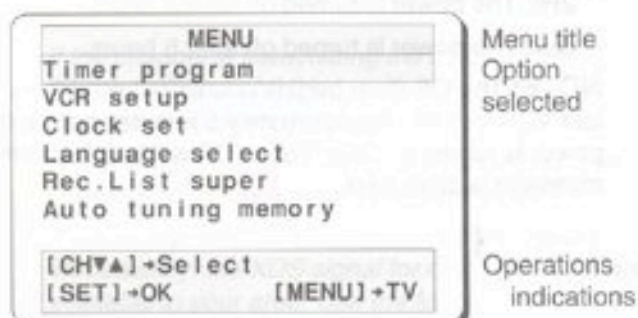
- 1 Turn on the power (TV and VCR).
- 2 Set the TV to channel 3 or 4.
- 3 Press the **VCR** button on the remote control to select the VCR operation mode.
- 4 If the VCR indicator is off, press the **TV/VCR** button on the remote control.

The VCR indicator lights.

NOTE: If the initial setup has not yet been completed, the "Auto Setup" message will appear. Follow steps 5 – 7 under "INITIAL SETUP" on page 14.

- 5 Press the **MENU** button on the remote control.

The main MENU appears.



The menu items are color-coded as shown below:

- Menu title: On magenta background
- Option selected: Highlighted in green
- Operations indications: On blue background
- Others: On gray background

NOTE: If the clock has not yet been set, the Clock set menu appears. To set the clock, see "SETTING THE CLOCK" on page 19.

*Press the **CH/TRACK** ▼ (or ▲) button to select the desired option, then press the **SET** button.*

- 6 Press the **MENU** button to exit the menu.

Main Menu Options

Reference pages are shown in square brackets.

Timer program [34 – 36]

- Select this to program, check or cancel a timer recording setting.

VCR setup [18]

- Select this to set the VCR functions.

Clock set [19, 20]

- Select this to set the clock or change the clock setting.

Language select [21]

- Select this to change the on-screen language.

Rec. List super [25, 26]

- Select this to list the recordings on the tape inserted in the VCR.

Auto tuning memory [21]

- Select this to program the channels into the VCR's tuner memory.

ON-SCREEN MENU

Displaying the VCR Setup Menus

Before starting

- Turn on the power (TV and VCR).
- Set the TV to channel 3 or 4.
- Press the **VCR** button on the remote control to select the VCR operation mode.
- If the VCR indicator is off, press the **TV/VCR** button on the remote control.

The VCR indicator lights.

- 1 Press the **MENU** button on the remote control.

The main MENU appears.

- 2 Press the **CH/TRACK** \blacktriangledown (or \blacktriangle) button to select the VCR setup option, then press the **SET** button.

The VCR setup menu appears.

CATV/TV	<input type="radio"/> CATV	<input type="radio"/> TV
Cable box	<input type="radio"/> No	<input type="radio"/> Ch02
MTS	<input type="radio"/> ST	<input type="radio"/> SAP Mono
Audio out	<input type="radio"/> ST	<input type="radio"/> L R Mono
Child Lock	<input type="radio"/> On	<input type="radio"/> Off
Off timer	<input type="radio"/> Off	<input type="radio"/> 2Hr 6Hr

[CH \blacktriangledown \blacktriangle]+Option
[SET]+Select [MENU]+TV

- 3 Press the **CH/TRACK** \blacktriangledown (or \blacktriangle) button to highlight the desired option.
- 4 Press the **SET** button once or more to move the "●" indicator in front of your selection.
- 5 When finished, press the **MENU** button to save the settings.

VCR Setup Menu Options

Reference pages are shown in square brackets.

CATV/TV [21]

- Indicate whether you subscribe to cable TV or use antenna.

Cable box [12, step ⑨]

- If you use a cable converter/decoder (cable box), set the output channel.

MTS [27]

- Select the MTS (Multichannel TV Sound) mode - stereo, SAP or mono.

Audio out [28]

- Select the audio output mode.

Child Lock [38]

- Select this to block picture and sound.

Off timer

- Select this to set the VCR to automatically shut off after a specified period of non-operation.

Off: The power will not be turned off automatically.

2Hr: The power is turned off after 2 hours.

6Hr: The power is turned off after 6 hours.

NOTE: The Off timer begins counting down after the last VCR activity. Approximately 5 minutes before the power is turned off, the "Your VCR will be off shortly" message is displayed.

SETTING THE CLOCK

Generally, during the initial setup, your VCR will automatically set the clock by detecting a channel that is transmitting the XDS (Extended Data Services) signal. However, if the XDS signal necessary for Automatic Clock Setting was poor or unavailable at the time, Automatic Clock Setting may not have been possible.

Follow the steps below to set the clock.

Before starting

- Turn on the power (TV and VCR).
- Set the TV to channel 3 or 4.
- Press the **VCR** button on the remote control to select the VCR operation mode.
- If the VCR indicator is off, press the **TV/VCR** button on the remote control.

The VCR indicator lights.

- 1 Press the **STOP** button, then enter the channel number that you have made note of during Automatic Clock Setting (see page 14).
- 2 Press and hold the **PAUSE/STILL** button for more than 2 seconds.

If the channel is transmitting the XDS signal, "Clock set" starts blinking on screen after approximately 4 seconds.

When Automatic Clock Setting is completed, the screen shows the current TV program.

If the screen returns to the current TV program immediately, the XDS signal for clock setting is not available in your area. Use the Manual Clock Setting procedure on page 20.

NOTE: If the Automatic Clock Setting procedure set the wrong clock time, follow the steps under Automatic Clock Adjustment.

Automatic Clock Adjustment

- 1 Press the **MENU** button.
The main MENU appears.
- 2 Press the **CH/TRACK** \blacktriangledown (or \blacktriangle) button to select the Clock set option, then press the **SET** button.

The Clock set menu appears.

```
          Clock set
          03/07[Tue]2000 09:30PM
          Clock adjust  ●Auto Off

          [DISPLAY]+Clock adjust
          [CH▲]+Day/STD shift
          [100]+AM/PM
          [CLEAR]+Cancel
          [SET]+OK
```

- 3 Press the **DISPLAY** button to set the Clock adjust option to Off.
- 4 Press the **CLEAR** button until the wrong clock setting is erased, then enter the correct time.
- 5 When finished, press the **SET** button to exit from the menu.

When you set the Clock adjust option to Auto, the time will automatically be adjusted twice a week (every Sunday at 3:00 AM and 6:00 AM) according to the XDS signal.

If the automatic clock setup procedure enters the wrong time, make sure to select Off for the Clock adjust option. If set to Auto, an incorrect time will be entered again at the next automatic clock adjustment.

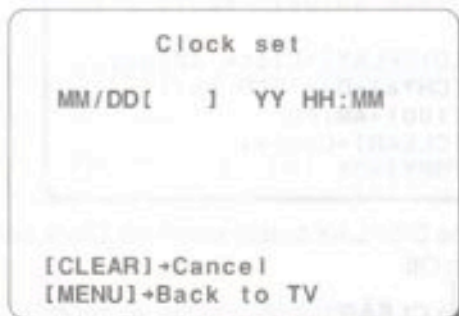
NOTES:

- The Clock adjust option appears only when the clock has been set automatically.
- The automatic clock adjustment will not be performed if the power is on, or if a program timer recording is set to start within 5 minutes of the automatic clock adjustment times (2:55 AM - 3:05 AM and 5:55 AM - 6:05 AM).
- If using a cable converter/decoder, the automatic clock adjustment may not function properly.

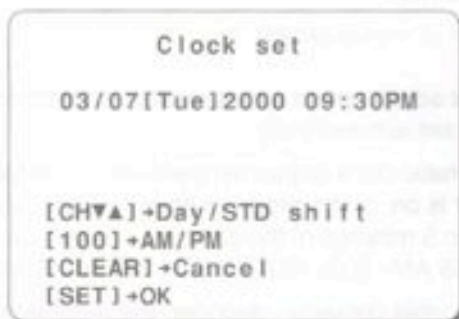
SETTING THE CLOCK

Manual Clock Setting

- 1 Follow the steps in **Before starting**.
- 2 Press the **MENU** button.
The main MENU appears.
If the clock has not yet been set, the Clock set menu appears.
- 3 Press the **CH/TRACK** ▼ (or ▲) button to select the Clock set option, then press the **SET** button.
The Clock set menu appears.



- 4 Press the number buttons (0 – 9) to set the date and time.
 - **EXAMPLE:** Setting the clock to standard time.
March 7, 2000, 9:30 PM (03/07/00, 9:30 PM).
 - Date March 7: Press 0 – 3 – 0 – 7
 - Year '00: Press 0 – 0
 - Time 9:30: Press 0 – 9 – 3 – 0
 - Select standard (or daylight saving time): Press **CH/TRACK** ▼ or ▲
 - PM: Press **100/ENTER**



NOTES:

- When entering the year, press the two number buttons that correspond to the last two digits of the year (i.e. 99 for 1999, 05 for 2005 or 25 for 2025).
 - If you press the wrong button, press the **CLEAR** button to erase the wrong number. Then press the correct button to continue.
- 5 When finished, press the **SET** button to save the settings.

Standard/Daylight Time Adjustment

The clock time can be easily changed to daylight saving time (by adding one hour) or standard time (by subtracting one hour).

- 1 Press the **MENU** button.
The main MENU appears.
- 2 Press the **CH/TRACK** ▼ (or ▲) button to select the Clock set option, then press the **SET** button.
- 3 Press the **CH/TRACK** ▼ (or ▲) button.
Every time the CH/TRACK ▼ (or ▲) button is pressed, 1 hour is subtracted (or added) to the displayed time.
- 4 When finished, press the **SET** button to save the settings.