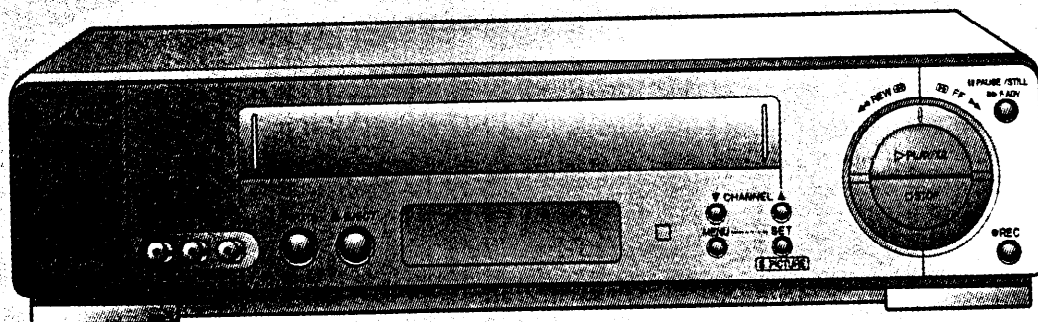


SHARP®

MODEL
VC-A410X
VC-H610X

VIDEO CASSETTE RECORDER

OPERATION MANUAL



(This picture is for VC-H610X.)

MID-DRIVE

VHS HQ HIGH QUALITY
PAL

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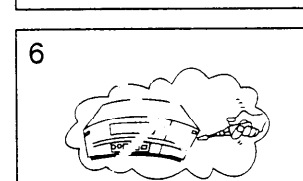
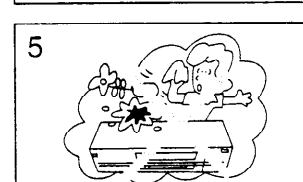
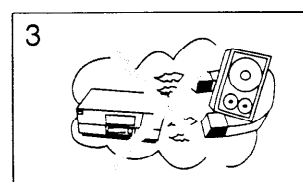
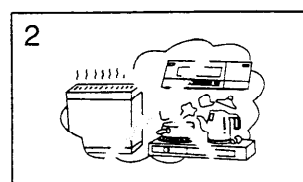
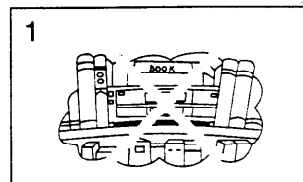
IMPORTANT SAFEGUARDS AND PRECAUTIONS

CAUTION

BEFORE OPERATING YOUR NEW VCR, PLEASE CAREFULLY READ THIS OPERATION MANUAL AND THEN SAVE IT FOR FUTURE REFERENCE AS IT WILL BE USEFUL IF YOU HAVE ANY PROBLEMS OPERATING YOUR VCR IN THE FUTURE.

Location and Handling

1. Air vents are provided in the VCR cabinet to prevent excessive temperatures inside the unit. Do not place your VCR in closed spaces, cover it, or otherwise block the vents.
2. Do not place the VCR in direct sunlight, or near heat sources.
3. Keep the VCR and tapes away from strong magnetic objects.
4. Do not insert or drop anything into the VCR through the air vents or cassette compartment as this could cause serious damage, possibly resulting in fire.
5. Do not place any object containing water or other liquids on the VCR. In the event that liquid should enter the cabinet, unplug the VCR immediately and contact the retailer or a service centre approved by Sharp immediately.
6. Do not remove the VCR cabinet. Touching parts inside the cabinet could result in electric shock and/or damage to the VCR. For service and adjustment inside the cabinet, call a qualified dealer or service centre approved by Sharp.
7. The use of head cleaning tapes is not recommended as they may cause damage to your machine.

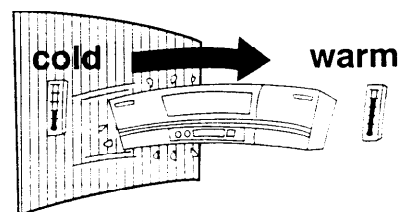


Caution—Prevent Condensation

When moving the VCR from a cold place to a warm one, condensation (dew) is likely to form on the VCR drum and heads. If you try to play back or record in these circumstances, the videotape and VCR may be damaged.

To prevent this, turn the power switch on and wait for a few hours for the VCR to warm up and dry before attempting playback or recording.

This is particularly important before loading a cassette for the first time after purchasing the VCR.





IMPORTANT SAFEGUARDS AND PRECAUTIONS

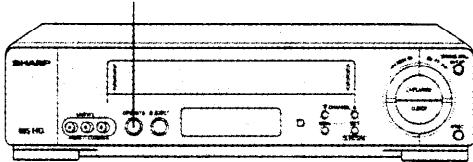
Service

Do not attempt to service this VCR yourself. Please carry out the user checks on page 34. If you still experience a problem, contact your dealer or nearest Sharp service facility.

Others

Copyright may exist in material you wish to record. Copying such material without permission of the relevant licensee(s) or owner(s) of the copyright is prohibited by law. SHARP is not in a position to authorize the recording of copyright works and nothing in this manual should be read or implied as giving that authority.

OPERATE button (turns VCR on/off) Clock display will work regardless of this button.



This picture is for VC-H610X

This VCR is not equipped with a mains power switch. Accordingly, nominal current to drive the clock is drawn at all times when the AC power cord is plugged into a wall socket. If the VCR is not to be used for an extended period, be sure to unplug the cord.



Features

ONLY FOR VC-H610X

•VHS Hi-Fi Stereo Sound/IGR System

COMMON FEATURES

- MID-Drive (New Centre-Mounted Mechanism)
- HQ (High Quality) Circuitry
- Multi Language On Screen Display (English, French, Spanish, Chinese)
- New Sharp Super Picture — Enhances picture quality during playback.
- OSD (On Screen Display) with Menu Screen Guidance
- DPSS (Digital Programme Search System)
- Quick Start with Full Loading Mechanism
- 365-Day, 8-Programme Timer (Daily/Weekly Programmable)
- Auto Channel Tuning
- 48-Channel Preset PLL Frequency Synthesized Tuner

POWER SUPPLY:

The voltage supply of this VCR is AC 240 V, 50 Hz.

CASSETTE TAPE:

This VCR uses VHS standard video signals. Use only video cassette tapes that carry the VHS mark



Accessories

Be sure that the following accessories are all included with your VCR.

	REMOTE CONTROL UNIT		
	VC-A410X	VC-H610X	



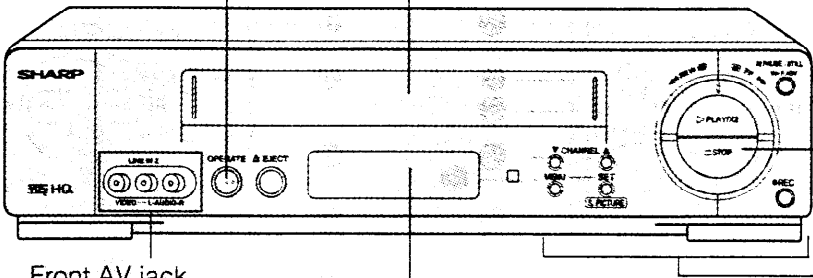
Major Components of Your VCR

Front

OPERATE button (turns VCR on/off)
Clock display will work regardless of this button.

Cassette compartment (See
Playback, Recording.)

(This picture is
for VC-H610X.)



Front AV jack
(LINE IN 2: VIDEO, AUDIO)
Only for VC-H610X

Basic function
controls (See
**Playback,
Recording.**)
Channel tuning
controls (See
**Setting the
Channels.**)

When pressed:
• Stops the
tape during
Playback, FF,
REW or REC.

VCR Display (explained throughout the operation instructions)

(VC-A410X)



NOTE

- When the VCR is ON, this indicator (where a channel position number is usually displayed) will light up. When the power is OFF, this part will not be lit.

(VC-H610X)



NOTE

- When the VCR is ON, this indicator (where a channel position number is usually displayed) will light up. When the power is OFF, this part will not be lit.

	Cassette-In Indicator	S L O W	Slow	Only for VC-H610X	
PLAY	Play/Double speed playback	• REC	Record (When operating mode is displayed)	LR	Audio Output mode
REW	Rewind	• PAUSE	Rec Pause	VSR	Video Search Rewind
FF	Fast Forward	STOP	Stop	VSF	Video Search Forward
STILL	Still/ Frame Advance		Recording with the timer/ Simple Recording timer		New Child-Proof lock
SHARP	When AC power cord is first plugged in.	●	Recording mark		

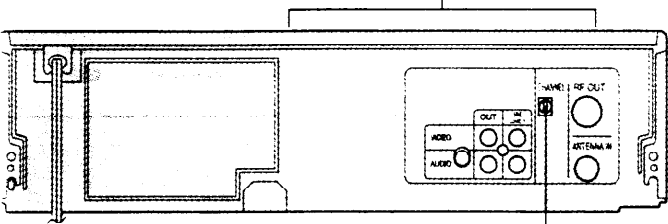
NOTE

- The display changes each time the DISPLAY button on the remote control is pressed. (See page 32.)

Rear

(VC-A410X)

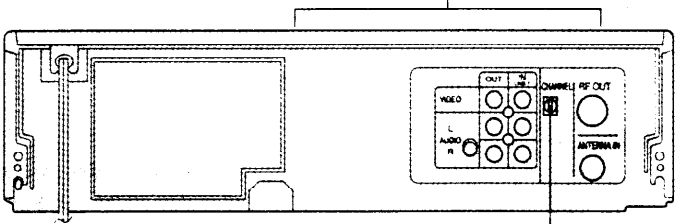
Connection terminals (See **CONNECTIONS** on page 8.)



RF converter output channel
(CHANNEL) adjuster
(UHF channel 31 to 40)

(VC-H610X)

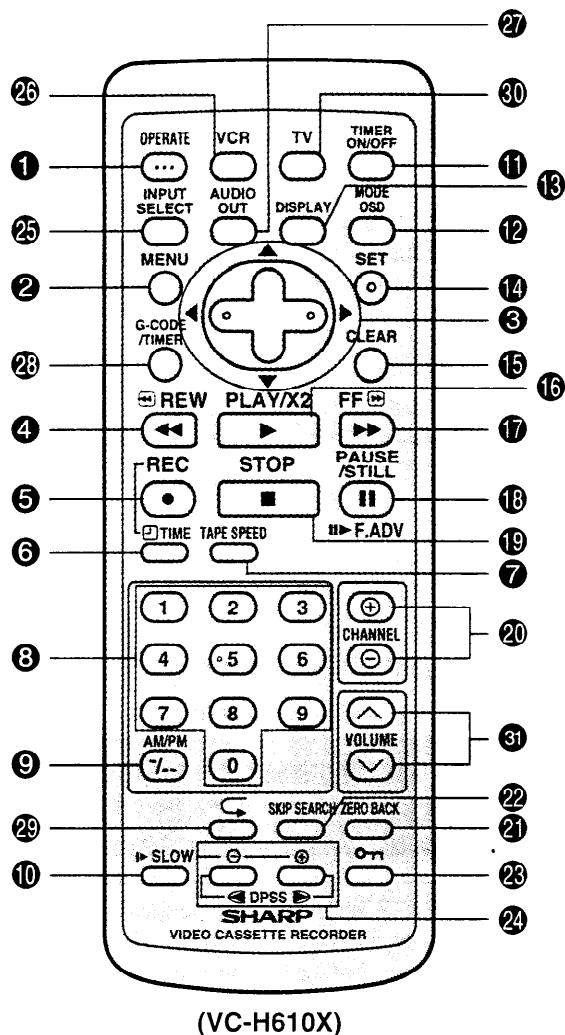
Connection terminals (See **CONNECTIONS** on page 8.)



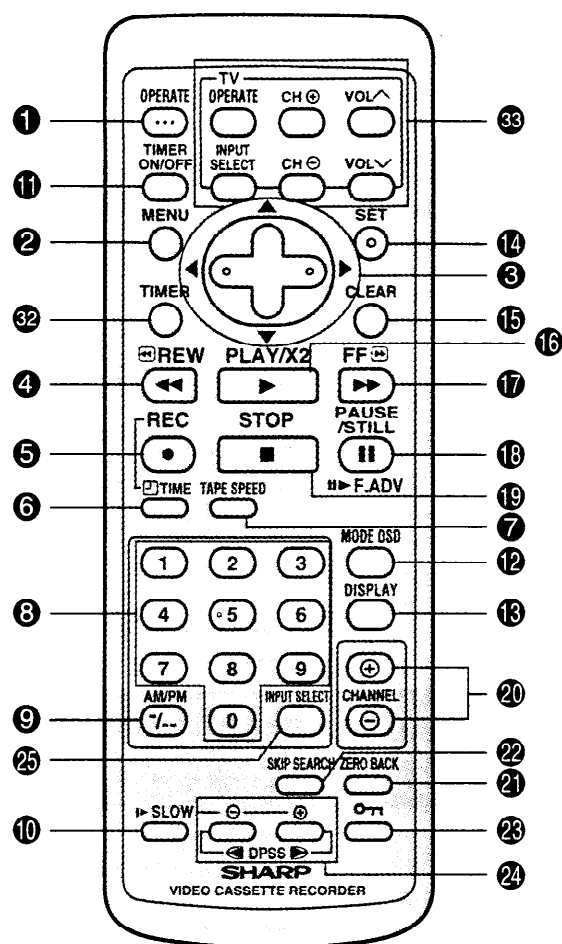
RF converter output channel
(CHANNEL) adjuster
(UHF channel 31 to 40)



Remote Control



(VC-H610X)



(VC-A410X)

- | | |
|---|------------------------------------|
| ① OPERATE button | ⑬ DISPLAY button |
| ② MENU button | ⑭ SET button |
| ③ ◀/▶/▲/▼ buttons | ⑮ CLEAR button |
| ④ REW button | ⑯ PLAY/×2 button |
| ⑤ REC button | ⑰ FF button |
| ⑥ TIME button | ⑱ PAUSE/STILL button |
| ⑦ TAPE SPEED button | ⑲ STOP button |
| ⑧ Numeric buttons | ⑳ CHANNEL Ⓢ/Ⓣ buttons |
| ⑨ AM/PM button | ㉑ ZERO BACK button |
| Digit select (When inputting up to two digit numbers) | ㉒ SKIP SEARCH button |
| ⑩ SLOW button | ㉓ Ⓜ button |
| ⑪ TIMER ON/OFF button | ㉔ Ⓢ/Ⓣ buttons (SLOW Ⓢ/Ⓣ, DPSS ◀/▶) |
| ⑫ MODE OSD button | |

Only for VC-H610X

- ㉕ INPUT SELECT button
- ㉖ VCR button
- ㉗ AUDIO OUT button
- ㉘ G-CODE/TIMER button
- ㉙ INSTANT REPLAY button
- ⑳ TV button
- ㉑ VOLUME Ⓢ/Ⓣ button

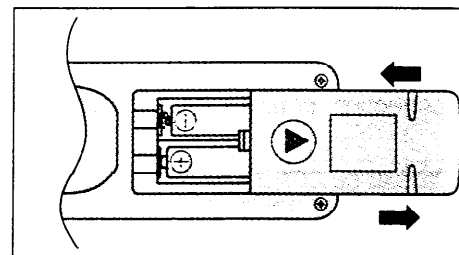
Only for VC-A410X

- ㉒ TIMER button
- ㉓ TV operation buttons (OPERATE, INPUT SELECT, CH Ⓢ/Ⓣ, VOL Ⓢ/Ⓣ)

Inserting the Batteries

First, install the batteries properly. Fit two R6 (UM/SUM-3, AA) 1.5 volt batteries (included) or equivalent. If the remote control stops working, insert new batteries.

Ensure the batteries are inserted correctly, matching the polarities (+/-) indicated in the remote control.



NOTE

- Do not subject the remote control to shock, water or excessive humidity.
- The remote control may not function if the VCR sensor is in direct sunlight or any other strong light.
- Incorrect use of batteries may cause them to leak or burst. Read the battery warnings and use the batteries properly.
- Do not mix old and new batteries, or mix brands in use.
- Remove the batteries if you will not use the remote control for an extended period of time.



Using the Remote Control for TV Operation

(Only for VC-H610X)

The provided remote control can operate the basic functions of your television. In addition to most Sharp televisions, other manufacturers' televisions listed below can also be controlled by setting the remote control to the corresponding TV brand. The remote control's default brand is "SHARP", which enables control of most Sharp televisions. When you replace the batteries in the Remote Control, the control's TV brand setting will be reset to SHARP.

Setting the TV Brand

- 1 Turn on your TV.
 - 2 Press the **OPERATE** button and the button simultaneously which corresponds to the brand of your TV. Hold the button down for about one second.
- Refer to the table of brands below.
- When setting is complete, the remote control will send a "power off" signal (⏻) to the TV, and it should turn off.

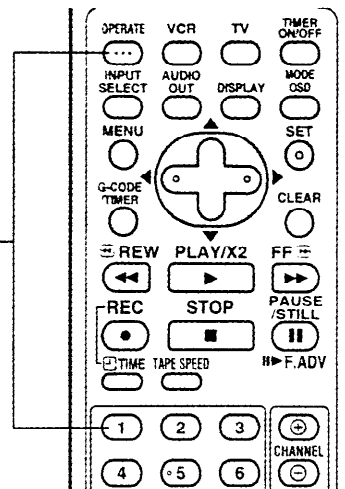
NOTE

If the TV does not turn off in step 2, repeat the step 2 setting procedure and select the button for a different brand.

(For example)

TV brand: SHARP
(Corresponding button is "1")

Press these buttons simultaneously and hold for more than 1 second.



TV BRAND NAME	Corresponding button	TV BRAND NAME	Corresponding button
SHARP	1	GRAETZ	7
PHILIPS	2	LUXOR	7
THOMSON	3 or 4	SALORA	7
TELEFUNKEN	3 or 4	SELECO	7
NORDMEND	3 or 4	SONY	8
BRANDT	3 or 4	TOSHIBA	9
SABA	3 or 4	PANASONIC	0 or +/-
TELAVIA	3 or 4	SANYO	VOLUME ▾
GRUNDIG	5	HITACHI	INPUT SELECT
BLAUPUNKT	5	MITSUBISHI	CHANNEL ⬇
FERGUSON	6	JVC	CHANNEL ⬆
ITT NOKIA	7		

TV Functions to be Controlled

Switch to TV control mode.

- Press the **TV** button to select the TV control mode.

TV function control

- 1 Press the **TV** button to select the TV control mode.
- 2 Use the following buttons on your remote control to operate your TV set.

TV function

- TV POWER (⏻)
- TV CHANNEL UP/DOWN
- TV VOLUME UP/DOWN
- INPUT SELECT button (TV-AV selector)

- 3 Press the **VCR** button to return to the VCR control mode.

Return to VCR control mode.

- Press the **VCR** button to select the VCR control mode.

NOTE

- When you replace the batteries in the remote control, if your television is not a Sharp model you must reset the TV brand.
- If the MENU, PLAY, STOP, FF or REW buttons are pressed in the TV control mode, the VCR will return to VCR control mode.

IMPORTANT NOTE:

Although the provided remote control unit is compatible with most SHARP televisions, as well as many TV models manufactured by others, it is possible that the provided remote control will not work with your TV, or will control only some of the functions. If the button listed in the table does not work with your TV set, you may want to try another; occasionally, models vary within a brand. Consequently, Sharp's warranty does not cover all of the models under the brands listed in the table.



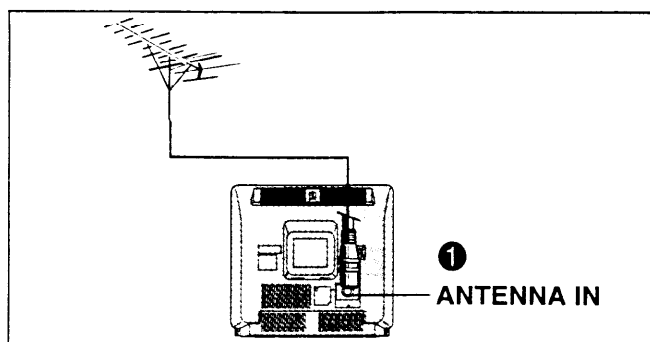
Connections

❶ Disconnecting TV Cable

Disconnect the aerial cable from the back of your TV set.

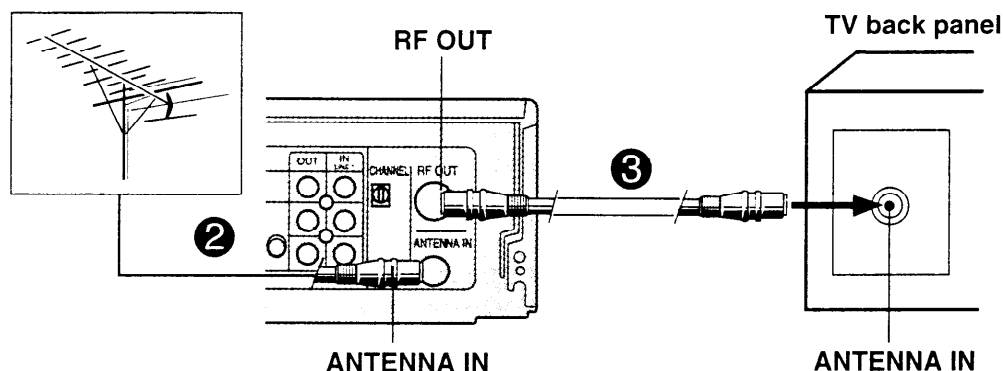
② Connecting Aerial Cable to VCR

Connect the aerial cable to the **ANTENNA IN** terminal of your VCR.



③ Connecting VCR to TV

Connect the supplied coaxial cable to the **RF OUT** terminal of the VCR. Plug the other end into your TV's **ANTENNA IN** terminal.



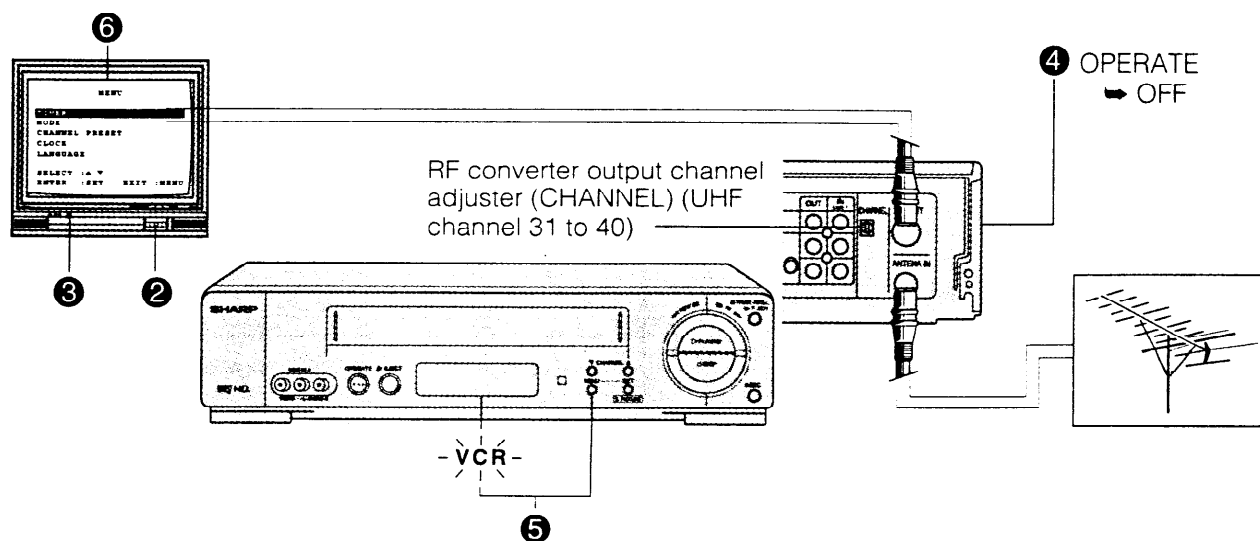
Adjusting the Video Channel

To view the output of your VCR on the television screen, you must select an unused channel on your TV and tune it to the output of your VCR (factory preset to UHF channel 37).

- 1 Make sure that both units (TV and VCR) are connected (power cord) to the power point.
- 2 Turn on your TV.
- 3 Select an unused channel on your TV.
- 4 Set the power on the VCR to off. (If the VCR is ON, press the **OPERATE** button to turn off the power.)
- 5 Keep pressing the **MENU** button for more than two seconds to light up the "VCR" on the VCR display.
- 6 Adjust the tuning of the selected TV channel until the MENU pattern appears on your TV screen. (Refer to your TV Operation Manual for tuning procedures.)

NOTE

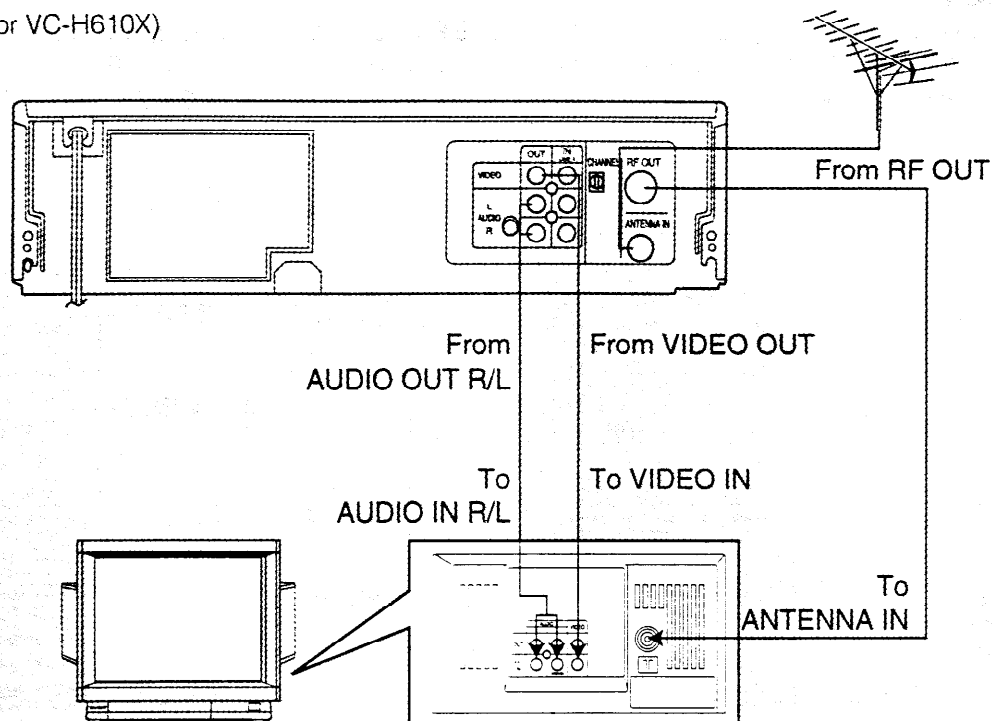
- If interference or a beat pattern is received when the test pattern is tuned in, use a small screwdriver to turn the F converter output channel adjuster to change the VCR output channel, and then retune your TV as above.





Connecting to a Stereo TV (Only for VC-H610X)

(This picture is for VC-H610X)



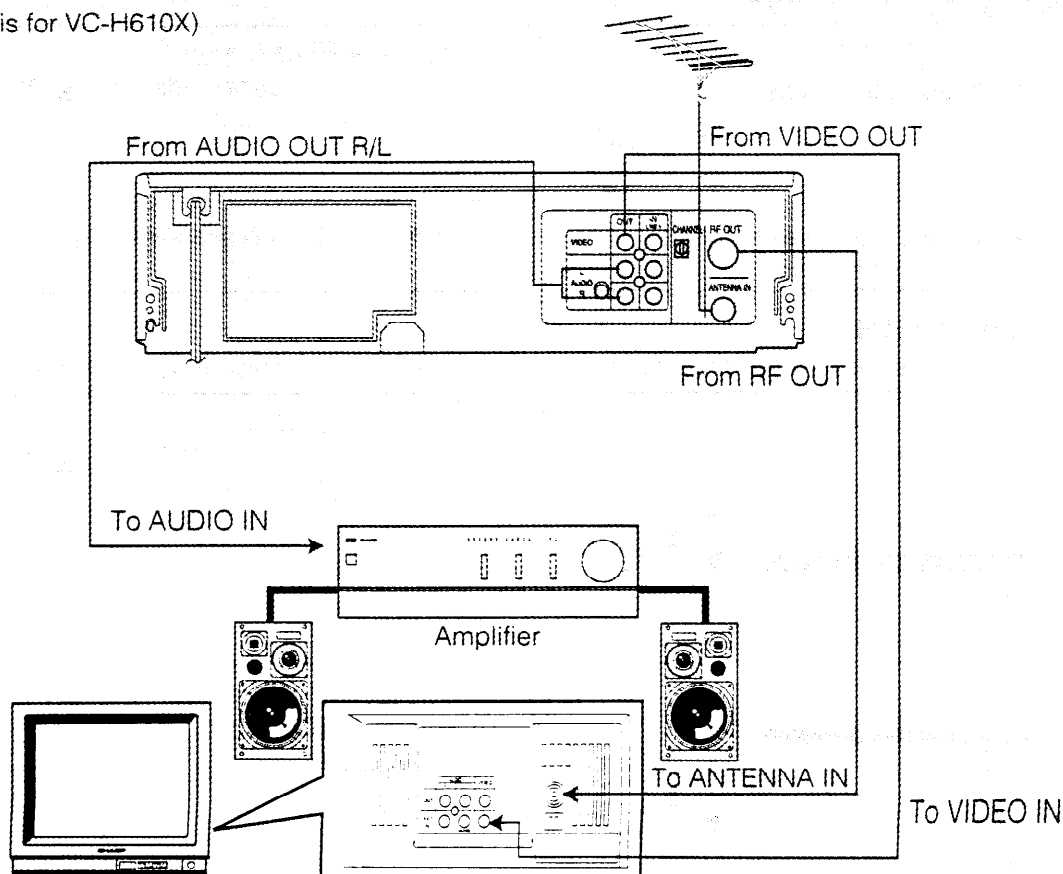
NOTE

- Stereo sound output is only possible using the AUDIO OUT terminals. Sound from the radio frequency converter (RF OUT) is mono only.
- The power cord should not be plugged into the power outlet until the above connections have been completed.
- If TV reception is weak, use a TV signal booster (not supplied).



Connecting to TV And Audio Equipment

(This picture is for VC-H610X)





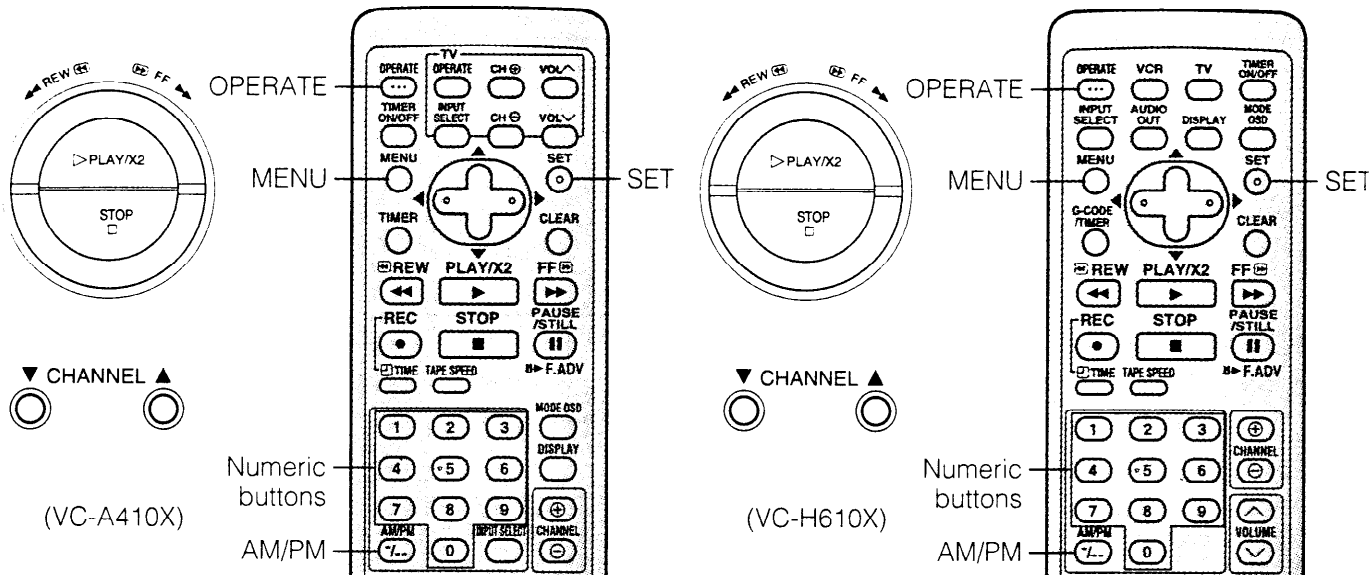
Setting the Language

PREPARATION

• Select the video channel on your TV. Press the **OPERATE** button to turn on the VCR. When you use the VCR for the first time or after a power failure of more than 60 seconds the language will be reset. Apply power to the unit to switch it on and press the **MENU** button. Then perform the following procedure.

NOTE

• If the power has been disconnected, it will be necessary to set the language and clock again.



NOTE

• You can use either the remote buttons or the buttons on the front panel.

1) Buttons on the remote control are in green;

- ▲ → Up
- ▼ → Down
- ◀ → Left
- ▶ → Right

2) Buttons on the front panel are:

- ▲ → Channel up
- ▼ → Channel down
- ◀ → REW
- ▶ → FWD

Initial Setting of Language

	1 Press the MENU button. Select the language with the ▲/▼ buttons and press the SET button. Ex.: <i>ENGLISH</i> NOTE Refer to page 11 to set the clock.
--	--

Changing Language

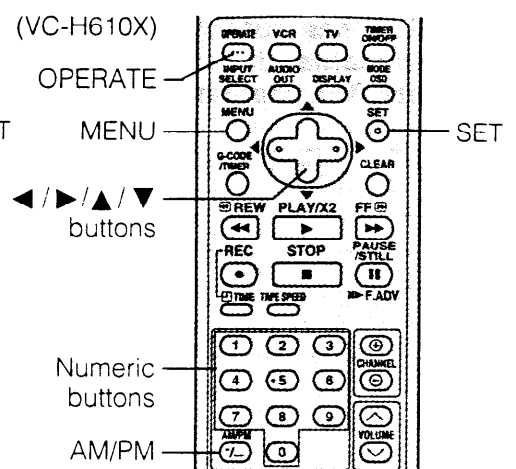
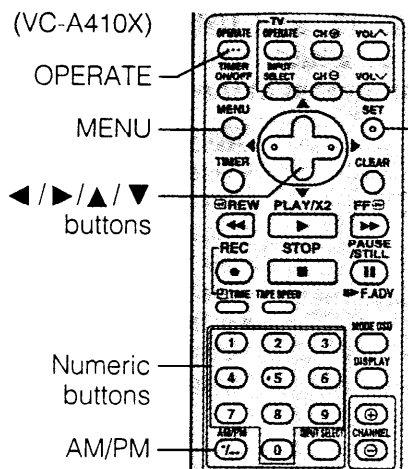
• If the language has already been set previously and you want to change it, follow the steps below.

	1 Press the MENU button. Select item "LANGUAGE" with ▲/▼ buttons and press the SET button.
	2 Select the language with the ▲/▼ buttons and press the SET button. Ex.: <i>ENGLISH</i>



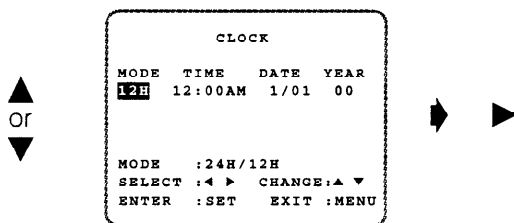
Setting the Clock

When you use the VCR for the first time or after a power failure of more than 60 seconds the clock will be reset. Apply power to the unit to switch it on and press the **MENU** button. Then perform the following procedure.



INITIAL SETTING OF CLOCK

- 1 First set the language (Refer to page 10). Then press the **SET** button.

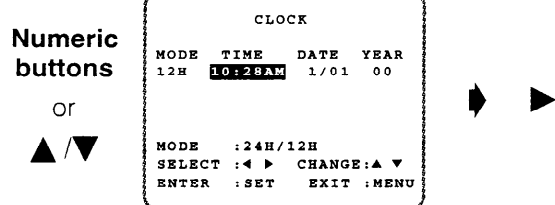


- 2 Select whether the clock should show 12-hour AM/PM time or 24-hour time by pressing the **▲/▼** buttons, and then press the **►** button.

Ex.: 12H

NOTE

- "24H" 24-hour display.
- "12H" 12-hour AM/PM display.
- 12H (AM/PM) mode is preset at the factory.

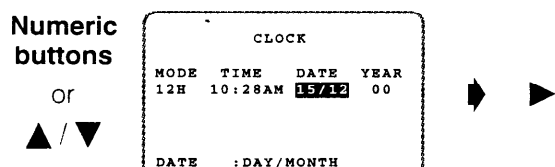


- 3 Set the present time with the numeric or **▲/▼** buttons on the remote control and then press the **►** button. (First set the 'hour' digits and then the 'minute'. If there is only one 'hour' or one 'minute' digit, enter a 0 first.) Set AM or PM, using the **AM/PM** button. (12 hour)

Ex.: 10:28AM

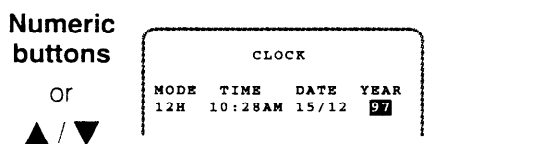
NOTE

- If 12H mode was selected, then set the AM/PM indicator.



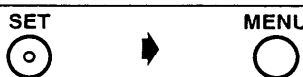
- 4 Set the date with the numeric or **▲/▼** buttons on the remote control, and then press the **►** button. (First set the 'day' digits and then the 'month'. If there is only one 'day' or one 'month' digit, enter a 0 first.)

Ex.: Dec. 15 (15/12)



- 5 Set the year digits with the numeric or **▲/▼** buttons on the remote control. (If there is only one 'year' digit, enter a 0 first.)

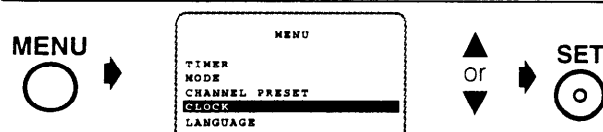
Ex.: 97



- 6 Press the **SET** button. To return to the Normal screen, press the **MENU** button.

CHANGING THE CLOCK SETTING

If the clock has already been set previously and you want to change it, select "clock" from the MENU, and then follow the procedures above.



- 1 Press the **MENU** button. Select item "CLOCK" with the **▲/▼** buttons and press the **SET** button.



- 2 To return to Normal Screen, press the **SET** button.



Setting the Channels

Your VCR can receive VHF channels 0 to 12, and UHF channels 28 to 69. Your VCR has 48 programmable channel positions, each of which can be set to any of the above broadcast channels. The channel positions have been preset at the factory as shown below.

Position	Preset TV Channel	Position	Preset TV Channel
0	—	8	Skipped channel
1	Skipped channel	9	VHF 9
2	VHF 2	10	VHF 10
3	Skipped channel	11-27	Skipped channel
4	Skipped channel	28	UHF 28
5	VHF 5A	29-46	Skipped channels
6	VHF 6		
7	VHF 7		
		47	—

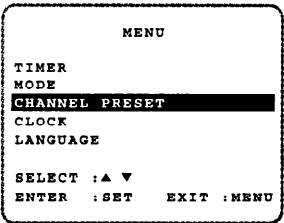
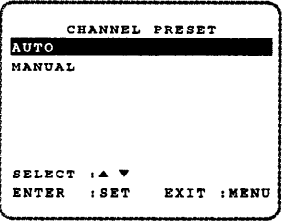
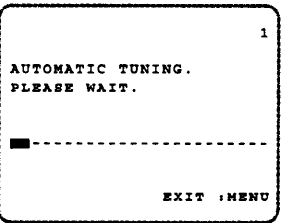
NOTE

- Use the ▲ / ▼ / ◀ / ▶ buttons on the remote control to set the OSD.
- Channel position numbers 1, 3, 4, 8, 11 to 27, and 29 to 46 have been factory set to be skipped when the **CHANNEL** ⊕ or ⊖ button is used.
- If the picture is not clear, if you want a different channel from the one preset or if you wish to reset a skipped channel, reset the channel as follows.

AUTO TUNING

PREPARATION

- Select the video channel on your TV. Press the **OPERATE** button to turn on the VCR.

 	 OR  	1 Press the MENU button. Select item "CHANNEL PRESET" with the ▲/▼ buttons, and press the SET button.
 OR 		2 Select item "AUTO" with the ▲/▼ buttons and press the SET button. NOTE • CHANNEL PRESET has been preset to MANUAL at the factory.
	 Normal Screen	3 The channel display on the TV screen will continue through all of the channels and when finished, the TV screen will return to the normal screen.

NOTE

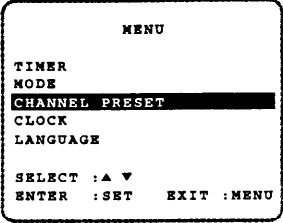
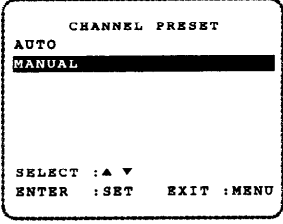
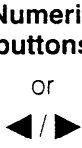
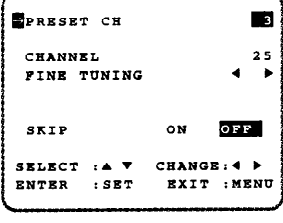
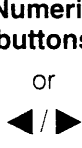
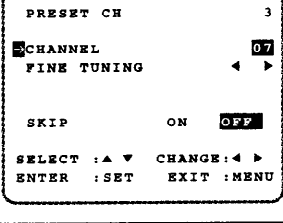
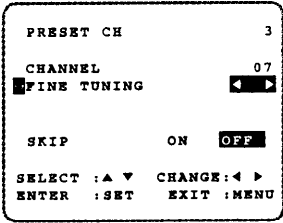
- If additional unwanted channels were found, refer to page 14 to skip unwanted channels.
- If some channels were unable to be found, please refer to page 13 for Manual Tuning.



MANUAL TUNING

PREPARATION

- Select the video channel on your TV. Press the **OPERATE** button to turn on the VCR.

Example: Tuning Channel Position 3 to Broadcast TV Channel 7	
 →  →  or 	① Press the MENU button. Select item “CHANNEL PRESET” with the ▲ / ▼ buttons and press the SET button.
 or  → 	② Select item “MANUAL” with the ▲ or ▼ buttons and press the SET button. NOTE → • CHANNEL PRESET has been preset to MANUAL at the factory.
 or  → 	③ Select the preset channel position number with the numeric or ◀ / ▶ buttons, and then press the ▼ button.
 or  → 	④ Press the numeric buttons or the ◀/▶ buttons until you see the desired broadcast channel on your TV, and then press the ▼ button.
 or  → 	⑤ For fine tuning, press the ◀ or ▶ button until the broadcast channel comes in clearly on your TV.
 → Next Screen	⑥ If you wish to preset more channels, press SET button and repeat steps ③ through ⑤ .
 → Normal Screen	⑦ To return to the Normal Screen, press the MENU buttons.

NOTE →

- Numeric buttons on the remote control can also be used to select channel numbers. Press the 7/- button to switch between one and two digit numbers for step **③**.



Channel Skip/Cancelling Skip

Channel skip

If there are channel positions that are not preset, you can skip them with the following procedure.

PREPARATION

- Turn on your TV and VCR, and select the video channel on your TV.

Example: Skip channel position 12.

	① Press the MENU button. The MENU screen will appear. Select item "CHANNEL PRESET" with the ▲ / ▼ buttons and press the SET button.
	② Select item "MANUAL" with ▲ / ▼ buttons and press the SET button.
	③ Set the channel position you wish to skip with the ◀ / ▶ (or numeric) buttons. Ex.: 12
	④ Select SKIP setting mode with the ▲ or ▼ button.
	⑤ Press the ◀ or ▶ button to select SKIP ON and press the SET button. ⑥ If you wish to set more channels to be skipped, repeat steps ③ through ⑤ .
	⑦ To return to the Normal Screen, press the MENU button.

Cancelling skip

PREPARATION

- Turn on your TV and VCR, and select the video channel on your TV.

Example: Reset channel position 12.

- Follow the same procedure **①**, **②** in **Channel skip**, and then the procedure **③–⑦** below.

	③ Select the channel position you wish to unskip with the ◀ / ▶ (or numeric) buttons. Ex: 12
	④ Select SKIP setting mode by pressing the ▲ or ▼ button.
	⑤ Press the ◀ or ▶ button to select SKIP OFF and press the SET button. ⑥ If you wish to unskip more channels, repeat steps ③ through ⑤ .
	⑦ To return to the Normal Screen, press the MENU button.



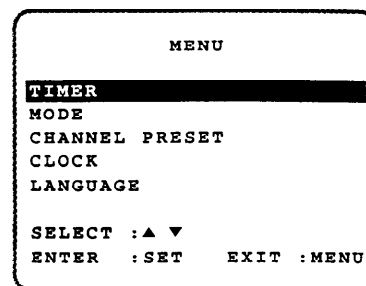
Menu Screen

- 1 Turn on your TV and select the video channel.
- 2 Press the **OPERATE** button to turn on the VCR, and then press the **MENU** button to display the MENU screen.
- 3 Select the item you want by pressing the **▲** or **▼** button on the remote control. Refer to the pages listed below for details on each item.

The following 5 items can be set by using the On Screen Display (OSD).

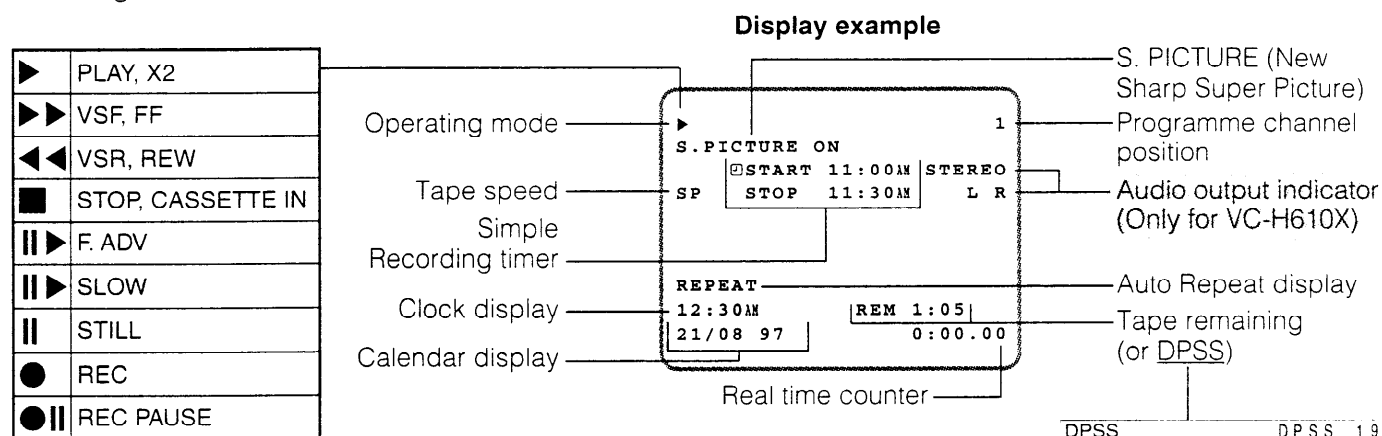
- 1: **TIMER** Setting a timer recording (and checking it). (See page 26 for the setting procedure.)
- 2: **MODE** VCR operating conditions are set according to the broadcast reception and tape playback conditions. (See page 16.)
- 3: **CHANNEL PRESET** Setting the channels. (See page 12.)
- 4: **CLOCK** Setting the present time. (See page 11.)
- 5: **LANGUAGE** Selection of language to be used for the On Screen Display. (See page 10.)

- 4 Press the **SET** button. The screen changes to the item which you have selected.
- 5 To cancel the MENU screen, press the **MENU** button.



OSD (On Screen Display)

The tape counter and VCR mode can be shown on the screen while you are playing back a tape or watching a broadcast on the video channel.

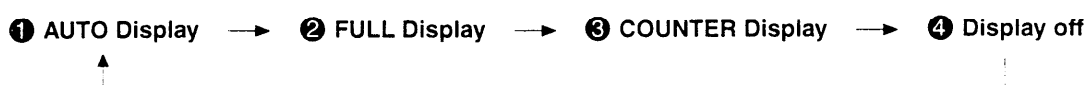


NOTE

- If the clock is not set, the time and date will not be displayed.

How to Display Indicators

- 1 Turn on your TV and select the video channel.
- 2 Press the **OPERATE** button to turn on the VCR. Mode indicators are displayed in the AUTO display screen.
- 3 Each time the **MODE OSD** button is pressed, the screen changes as follows:



AUTO Display

When an operation button, numeric button, or **CHANNEL** **⊕/⊖** button is pressed, the current mode or the number of the channel will be displayed in the upper section of the TV screen for about 3 seconds.

NOTE

- When you record a video signal output from this VCR on another VCR, press the **MODE OSD** button to select Display Off. (If the mode indicator is displayed on the screen, it is also recorded on the tape.)



Mode Selection

You can set the basic functions listed in the table below on the MODE selection screen.

PREPARATION

- Turn on your TV and select the video channel. Press the **OPERATE** button to turn on the VCR.

	① Press the MENU button. ② Select the MODE selection mode with the ▲ / ▼ buttons, and then press the SET button.
[Colour]	③ Select the COLOUR mode by pressing the ◀ / ▶ buttons, and then press the ▼ button. (For details, see Colour Mode on page 19.) AUTO Usually select AUTO mode. PAL Strict PAL colour mode.
[Blue back]	④ Select the BLUE BACK mode by pressing the ◀ / ▶ buttons, and then press the ▼ button. AUTO Usually select AUTO. A blue screen will appear when your VCR receives no TV signal or an unrecorded tape is played back. OFF Select OFF if the screen turns blue due to weak TV signal reception, or playback of a poorly recorded tape.
[Auto Rental]	⑤ Select the AUTO RENTAL mode by pressing the ◀ / ▶ buttons, and then press the ▼ button. (For details, see Auto Rental Mode on page 20.)
[Repeat]	⑥ Select the REPEAT mode by pressing the ◀ / ▶ buttons, and then press the ▼ button. (For details, see Auto Repeat on page 30.)
[Just REC]	⑦ Select the JUST REC mode by pressing the ◀ / ▶ buttons, and then press the ▼ button. (For details, see Intelligent Timer Recording (JUST REC) on page 28.)
SET → Normal Screen	⑧ Press the SET button to return to the normal screen.

Playback

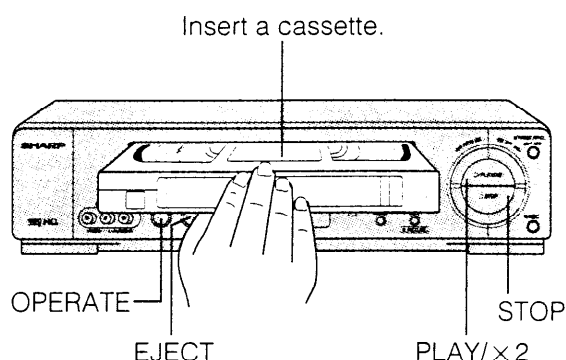
Inserting a Video Cassette

Gently insert the video cassette into the cassette compartment. The VCR turns on automatically. If the cassette is inserted incorrectly, the loading system will not function. Do not force the cassette into the VCR. When the cassette has been properly loaded, "VCR" appears on the VCR display. To remove the cassette, press the **EJECT** button during stop mode.

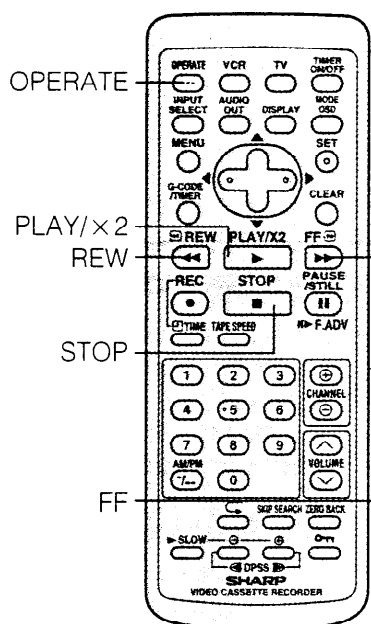
Playback

PREPARATION

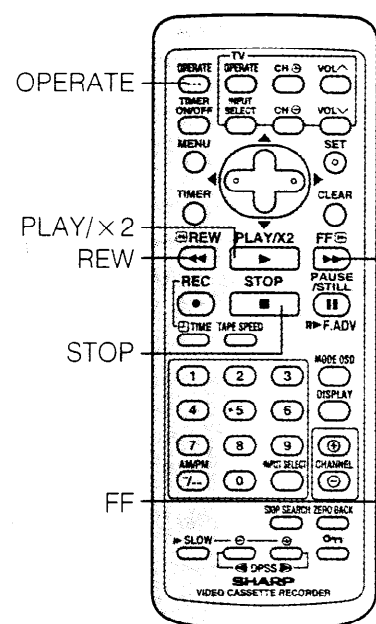
- Turn on your TV and select the video channel.



(This picture is for VC-H610X)



(VC-H610X)



(VC-A410X)

- 1 Press the **OPERATE** button to turn on the VCR.
- 2 Insert a cassette.
- 3 Press the **PLAY/X2** button. (The auto tracking control system engages and "▶" flashes on the TV screen for a few seconds.)
- 4 To stop playback, press the **STOP** button. (If the tape reaches its end, the VCR will automatically rewind the tape to the beginning, eject the cassette, and turn off the power.)

Video Search (with the Remote Control)

Use the following procedure to quickly find the section you want, while viewing the picture.

- 1 During playback, press the **FF** button for forward video search, or the **REW** button for reverse search.
There are 2 search speeds in each direction. The VCR switches between them each time the button is pressed.
- 2 Press the **PLAY/X2** button to resume normal playback.

NOTE

- During video search of a tape recorded in the LP mode, the upper part of the picture may be skewed to one side.

Fast Forwarding and Rewinding (with the Remote Control)

- 1 To move through the cassette faster, press the **STOP** button and then press the **FF** or **REW** button to fast forward or rewind the cassette. (The picture cannot be viewed in this mode.)
- 2 Press the **STOP** button to stop fast forward or rewind.

NOTE

- If you use other than E-90/E-180 cassettes, fast forward and rewind may take somewhat longer.



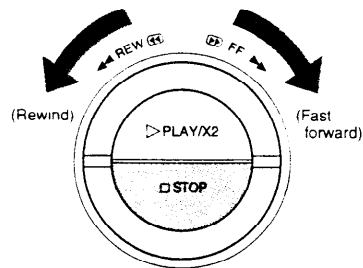
Shuttle System

The shuttle system lets you control all the basic playback functions using just the shuttle ring.

NOTE

- The shuttle ring does not rotate 360°.

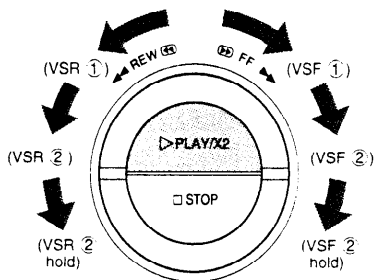
DURING STOP MODE



Fast Forward and Rewind

- 1 Turn the ring either to the right or the left and release it. (The shuttle ring will return to centre.)
- 2 Press the **STOP** button to stop fast forward or rewind.

DURING PLAY MODE



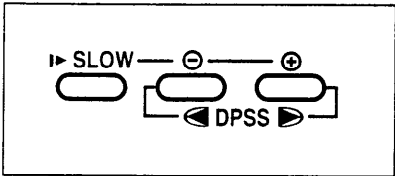
Video Search

- Turn the ring to the left or the right during playback to enter VSF (Video Search Forward), or VSR (Video Search Reverse) mode. Select from two speeds by turning the ring. Release the ring (the shuttle ring returns to centre) to return to playback.
- During playback, turning the ring all the way to the left or right locks the VCR in VSF (Video Search Forward), or VSR (Video Search Reverse) mode. Press the **PLAY/X2** button to return to regular playback.

TAPE SPEED

	VSF/VSR (1)	VSF/VSR (2)
SP/LP	× 7	× 3

Slow Motion Playback (with the Remote Control)



- 1 Press the **SLOW** button on the remote control during playback.
- 2 Press the **SLOW +/−** button (to the right of the SLOW button) to vary the slow motion playback speed between 1/5 and 1/30 of the normal playback speed.
- 3 Press the **PLAY/X2** button to resume normal playback.



Still Picture and Frame Advance

- 1 Press the **PAUSE/STILL (F.ADV)** button during playback. This will freeze the picture on your TV.
- 2 If noise bars appear on the screen during still picture, set your VCR to the slow mode and press the **CHANNEL** $\oplus/\ominus$ buttons to make the noise disappear. Then press the **PAUSE/STILL (F.ADV)** button again.
- 3 If there is vertical jitter during Still Picture Playback, press the **CHANNEL** $\oplus/\ominus$ buttons to stop the jitter.
- 4 Press the **PAUSE/STILL (F.ADV)** button during still mode for frame advance.
- 5 Press the **PLAY/X2** button again to resume normal playback.

Double Speed Playback

- 1 Press the **PLAY/X2** button during playback. The tape will be played back at twice the normal speed.
- 2 Press the **PLAY/X2** button to resume normal playback.

NOTE

- Sound is muted during video search, slow motion, still picture, frame advance, and double speed playback.
- To avoid damage to the tape, your VCR will resume normal playback after about 5 minutes of slow motion playback and still picture.
- During slow motion, still, frame advance and double speed playback with a tape recorded in the LP mode, the upper part of the picture may be skewed to one side.

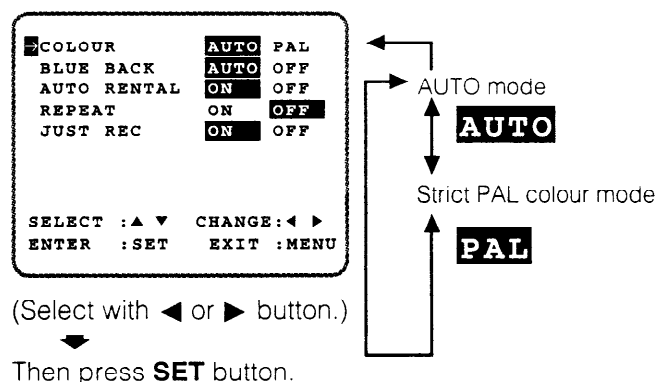
Colour Mode

If a colour recording's quality is poor, the picture may turn black and white. In this event, set the COLOUR mode on the MODE selection screen to PAL (strict PAL colour mode). Normally, the colour mode should be set to "AUTO" mode.

(See **Mode Selection** on page 16.)

NOTE

- When the colour mode is set to fixed colour mode while the VCR is playing back a black and white tape or is receiving a black and white broadcast, the picture may be coloured. In this event, set the COLOUR mode on the MODE selection screen to "AUTO" mode.



NTSC Tape Play Back on PAL TV

When you play back an NTSC tape on your VCR, it is possible to use a PAL or multi-system compatible TV. However, please note the following:

- The picture will shrink vertically to some degree, as shown in the diagram, but this does not indicate a malfunction in your TV or VCR.
- If your TV does not have a V-HOLD control, the picture may roll and be unwatchable. However, if you use a TV with a V-HOLD control, you can stop the rolling by adjusting the V-HOLD control and watch the picture.
- Horizontal noise bars may appear on the screen during special effect playback (video search, still, slow, frame advance, and double speed playback), possibly accompanied by discolouring.
- Although NTSC tapes can be played back onto a PAL TV, those tapes cannot be dubbed by a PAL system VCR connected to the AUDIO OUT and VIDEO OUT terminals of this product. Tapes recorded in this way cannot be played back on PAL system VCRs.
- Set the COLOUR mode to AUTO. If the COLOUR mode is set to PAL, you cannot play back the tape.



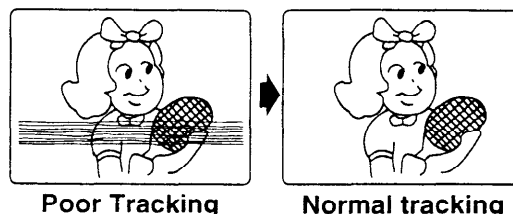


Auto Tracking Control System

This function automatically adjusts the tracking to match the recorded tape. Auto tracking engages in the following cases:

- When you insert the cassette and begin playback.
- When you press the **CHANNEL** ⊕ and ⊖ buttons at the same time.
- When the VCR has been playing back an unrecorded section of tape, and then reaches a recorded tape segment.

When auto tracking engages, "▶" on the TV screen flashes for a few seconds.



NOTE

- When a poorly recorded tape is played back, auto tracking may not operate normally. In this event, manually adjust the tracking with the **CHANNEL** ⊕/⊖ buttons to make any noise disappear.

Auto Head Cleaning System

When the tape is inserted or ejected, this system automatically cleans the drum and heads with a special roller before recording or playback begins, protecting the heads and drum from dirt and preserving beautiful picture quality.

Quick Start with Full Loading Mechanism

Your VCR has a standby function (Full Loading Mechanism) to allow immediate recording and playback.

After pressing the **REC** or **PLAY/X2** button, it takes about 2 seconds until recording or playback is engaged when in the standby mode.

Auto Rental Mode

(This function only works when AUTO RENTAL mode on the MODE selection screen is set to ON.)

The convenient auto rental mode lets you enjoy playback with ease. When you insert a cassette with the erasure protection tab removed (rental videos, etc.), your VCR automatically turns on the power, winds the tape forward to find the recorded section, and plays back the tape. When the tape reaches the end of recorded section, the VCR automatically rewinds the tape, ejects it and turns off the power.

NOTE

- If there is more than a 15 second unrecorded section between recorded sections, the tape will automatically stop and rewind. To watch the next recorded section, press the **STOP** button, fast forward to that section and play the tape.
- If the erasure protection hole is covered, press the **PLAY/x2** button after the power turns on automatically. (Auto Rental Mode does not work.)
- The AUTO REPEAT mode has priority over the AUTO RENTAL mode. If the AUTO REPEAT mode is set to ON and the video cassette reaches its end, the VCR will rewind the tape and play it back again without ejecting the tape or turning off the power.



Blue Back

Set the BLUE BACK mode to AUTO on the MODE-selection screen. (See **Mode Selection** on page 16.) This function eliminates monitor noise and mutes sound during playback of unrecorded portions of a tape, and when receiving a non-broadcasting channel. Blue Back will also appear if the VCR is set to the Auxiliary input (LINE IN) mode but no video signal is fed to the VCR. (The BLUE BACK mode is set to AUTO at the factory.)

NOTE

- Blue Back does not function during still picture, variable slow motion and video search.
- Blue Back may not function properly if the broadcast signal is too strong or too weak.
- Blue Back cannot be recorded.
- If the antenna signal is weak while recording a TV programme, or if the input signal is weak while tape dubbing, the monitor screen may turn blue back since the unit may not recognize whether or not a proper signal is being received. In this event, set the BLUE SCREEN mode to OFF.

Full Auto Playback

This function only works when AUTO RENTAL mode on the MODE selection is set to OFF. Full Auto Playback lets you enjoy playback with ease. When you insert a cassette with the erasure protection tab removed, your VCR automatically turns on the power and plays back the tape. When the tape reaches its end, the VCR automatically rewinds the tape, ejects it and turns off the power.

NOTE

- If the erasure protection hole is covered, press the **PLAY/x2** button after the power turns on automatically.

(Only for VC-H610X)

Playback of Hi-Fi Recorded Tapes

This VCR will play back both video and audio-only tapes recorded in the Hi-Fi mode.

NOTE

- Stereo sound output is only possible using the AUDIO OUT terminals. Sound from the radio frequency converter (RF OUT) is mono only. A blue screen will appear if audio-only Hi-Fi tapes are played back.

Audio Output Mode

The audio output mode is controlled by the **AUDIO OUT** button on the remote control. The VCR is normally set to the Hi-Fi mode, with **L** and **R** displayed on the VCR display, and normal stereo sound output.

Select **L**, and only the Hi-Fi Left channel audio is heard from both the Right and Left speakers.

Select **R**, and only the Hi-Fi Right channel audio is heard from both the Right and Left speakers.

If you select the mono linear track, **L** and **R** will disappear.

NOTE

- Should the Hi-Fi output level be poor, the VCR will automatically select the mono linear track output.
- When playing back tapes which have only Hi-Fi sound recorded: if Hi-Fi sound is not reproduced, or if there is some noise in the audio, press the **CHANNEL** **+** or **-** button until the sound improves.

Adjusting Hi-Fi Audio Tracking

(To adjust the Hi-Fi tracking manually when playing back a poorly recorded Hi-Fi tape)

- Normally you can simultaneously press and hold both **CHANNEL** **+** / **-** buttons to obtain the optimal Hi-Fi audio tracking.
- If Hi-Fi audio is unstable (frequent dropouts, etc.) with a rental video, a tape recorded on another VCR, restore normal tracking while playing back the tape as described below:
 - ① Simultaneously press the **CHANNEL** **+** / **-** buttons.
 - ② Press the **CHANNEL** **-** button repeatedly at equal, short intervals until the **L** and **R** indicators disappear from the VCR display.
 - ③ Press the **CHANNEL** **+** button in the same manner while counting button operations until the **L** and **R** indicators reappear and then disappear again.
 - ④ Press the **CHANNEL** **-** button again for half the number of times counted in step ③ above to obtain optimal tracking.

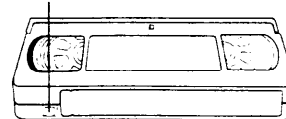


Recording a TV Programme

Cassette Erase Protection

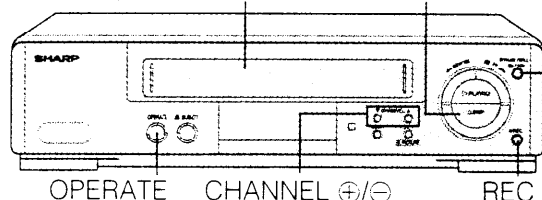
A **VHS** cassette has a removable tab to prevent accidental erasure of recorded material. Removing the tab prevents recording. To record on a video cassette with the tab removed, place adhesive tape over the tab opening.

ERASURE PROTECTION TAB

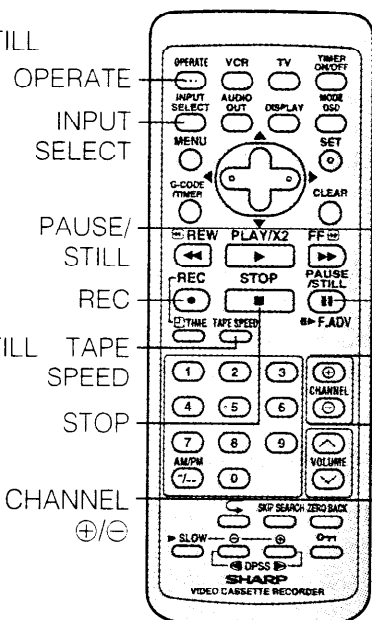
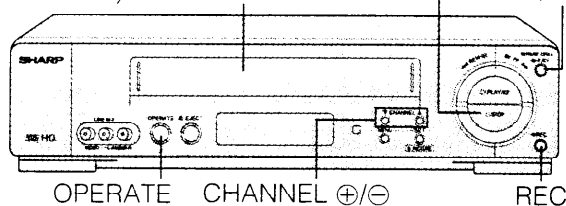


Recording a TV Programme

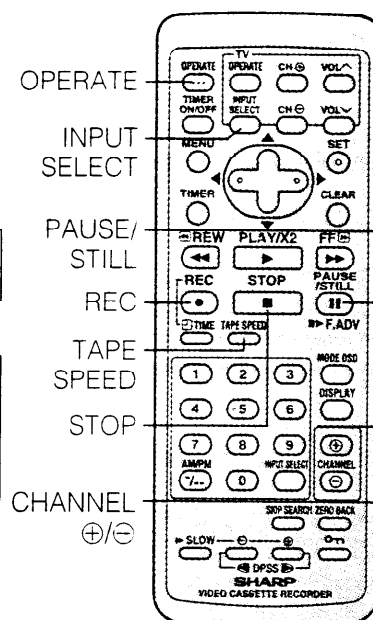
(VC-A410X) Insert a cassette. STOP PAUSE/STILL



(VC-H610X) Insert a cassette. STOP PAUSE/STILL



(VC-H610X)



(VC-A410X)

PREPARATION

- Turn on your TV and select the video channel.

PROCEDURE

- 1 Press the **OPERATE** button to turn on the VCR.
- 2 Insert the cassette, making sure the erasure protection hole is covered.
- 3 Select the channel position you wish to record with the **CHANNEL +/-** buttons.
- 4 Select the SP (Standard Play) or LP (Long Play) recording speed with the **TAPE SPEED** button on the remote control ("SP" or "LP" will light up on the VCR display). SP (Standard Play) gives the best picture quality. LP (Long Play) gives the longest recording time.
- 5 Press the **REC** button. (If the erasure protection hole is uncovered, the cassette will be ejected.) To pause during recording, press the **PAUSE/STILL (F. ADV)** button. To resume recording, press the **PAUSE/STILL (F. ADV)** button again.
- 6 To stop recording, press the **STOP** button.

NOTE

- The pause mode disengages automatically after about 5 minutes, and the VCR enters stop mode.
- To record audio and video from an external source through the AUDIO/VIDEO terminal on the rear of the VCR, press the **INPUT SELECT** button on the remote control or press the **CHANNEL +/-** buttons to select the AV channel position situated between the last channel and first channel. (When the AV position is displayed, "AV" is displayed where a channel position number is usually displayed.)

NOTE

- VC-A410X is only equipped with AUDIO/VIDEO (rear) terminals. ("AV" is displayed.)
- If the TV signals are weak and the picture changes to monochrome, set the PAL mode on the MODE selection screen. (See **Colour Mode** on page 19.) Normally, the colour mode should be set to "AUTO".

To Watch Another TV Programme While Recording

After steps 1 to 5 have been completed, select the programme you wish to view using the TV tuner. At the end of the tape, your VCR will automatically stop recording, rewind to the beginning of the tape, eject the tape and turn off the power.



Recording Hi-Fi Stereo Sound

(Only for VC-H610X)

This VCR automatically records audio signals on two kinds of audio tracks.

- Hi-Fi: Using specialized rotary heads, audio signals are recorded on the video track in the FM format. Multi-sound broadcasts (stereo or bilingual programmes) are automatically recorded on two channels.
- Normal: Audio signals are recorded monaurally on the linear track. Stereo broadcasts are recorded in mono, and only the main audio track of bilingual programmes is recorded.

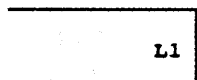
NOTE

- Video cassettes recorded on a non-Hi-Fi VCR can also be played back. However, if the audio signals are recorded on two linear channels, stereo programmes will be played back monaurally and bilingual programmes will be played back with both the main and sub audio tracks mixed together.
- Video cassettes recorded on this VCR can be played back on a non-Hi-Fi VCR. However, only the normal (linear) track will be played back.

Switching Input Signals

Various sources of video and audio signals can be recorded as shown in the following chart.

- (a) Selecting a channel will record both video and audio from the VCR tuner.
- (b) Selecting an external source position (to select an external source position, press the **INPUT SELECT** button or select a channel situated between the last channel and the first channel with the **CHANNEL** $\oplus$ / $\ominus$ buttons) will record both video and audio from an external source via the back-panel AUDIO/VIDEO LINE 1 or front LINE IN 2 terminal.

Input mode	TV screen	Signals Recorded		
		Video track	Normal audio track	Hi-Fi audio track
Tuner		Signals from tuner		
External 1 (LINE 1)		Signals from AUDIO/VIDEO (LINE1) socket on the rear of the VCR		
External 2 (LINE 2)		Signals from LINE IN 2 terminal on the front of the VCR		

Recording Audio Only

This VCR can record Hi-Fi audio-only signals.

- 1 Connect the audio source (CD player, etc.) to the AUDIO-IN L/R terminals on the front or rear of the VCR.
- 2 Select the connected external position LINE IN 1 or 2 ("L1" or "L2" lights up) by pressing the **INPUT SELECT** button or the $\oplus$ / $\ominus$ buttons.
- 3 Press the **TAPE SPEED** button on the remote control to select SP or LP mode.
- 4 Press the **REC** button.



Simple Recording Timer

There are two ways to use this Simple Recording Timer for your convenience.

- Immediate recording:
Convenient when having an unexpected visitor or telephone call.
- Delayed recording:
Convenient when leaving the house or going to bed.

Immediate Recording

	① Select the channel position to be recorded by pressing the CHANNEL ⊕/⊖ buttons. (Ex.: Channel position: 2) In each step, I/II (or STEREO) and L R appear on the screen for VC-H610X.
	② Press the REC button to enter the normal recording mode. Then, press the REC button repeatedly to set the desired ending time. (Ex.: Ending time: 9:30 AM) NOTE • Each press of the REC button increases the stop time by 10 minutes. • If necessary, press the CHANNEL ⊕/⊖ buttons to change the minutes setting.

- NOTE**
- Press the **STOP** button to terminate recording.

Delayed Recording

	① Select the channel position to be recorded by pressing the CHANNEL ⊕/⊖ buttons. (Ex.: Channel position: 2)
	② Set the starting time by pressing the TIME button. (Ex.: Starting time: 8:40 AM) NOTE • Each press of the TIME button increases the start time by 10 minutes. • Setting the time within a 24-hour period in 10-minute intervals is possible. • Press the CHANNEL ⊕/⊖ buttons to adjust the minutes if necessary.
	③ Set the ending time by pressing the REC button. (Ex.: Ending time: 9:30 AM) NOTE • Each press of the REC button increases the stop time by 10 minutes. • If necessary, press the CHANNEL ⊕/⊖ buttons to change the minutes setting.
	④ Press the OPERATE button to turn off the power. (Ex.: Present time: 8:28 AM)

- NOTE**
- After the Simple Recording Timer is set, the channel position cannot be changed.
 - To confirm the starting time and the ending time, first press the **OPERATE** button to turn on the power. Then press the **TIME** button to confirm the starting and ending time. Press the **OPERATE** button to turn off the power.
 - To clear the Simple Recording Timer setting during setting of "Delayed Recording", press the **CLEAR** button on the remote control. To clear after setting, turn on the power, press the **TIME** button to select Simple Recording Timer mode, and then while the **START** time is flashing, press the **CLEAR** button.
 - The Simple Recording Timer cannot be set if the timer has been preset ("P" indicator on the VCR display is lit). If this is the case, cancel the timer standby mode by pressing the **TIMER ON/OFF** button, turn on the power and then proceed with setting of the Simple Recording Timer.
 - Select the SP (Standard Play) or LP (Long Play) recording speed with the **TAPE SPEED** button on the remote control ("SP" or "LP" will light up on the VCR display). SP (Standard Play) gives the best picture quality. LP (Long Play) gives the largest recording time.
 - The stop time for delayed recording must be set within 10 seconds of setting the start time otherwise start time must be set again.



Recording with the Timer

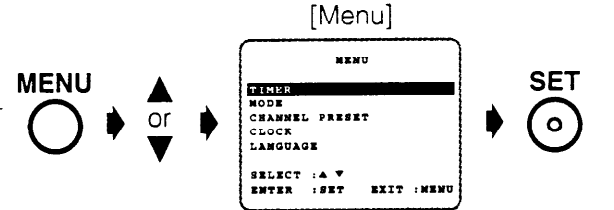
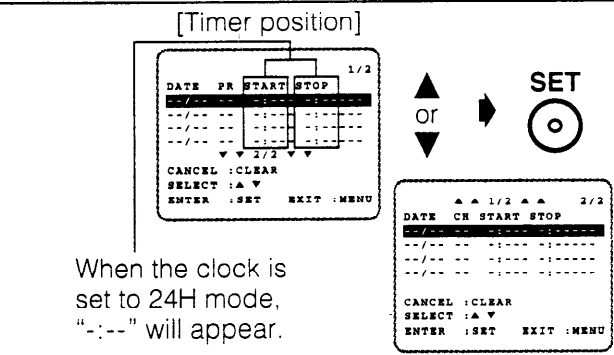
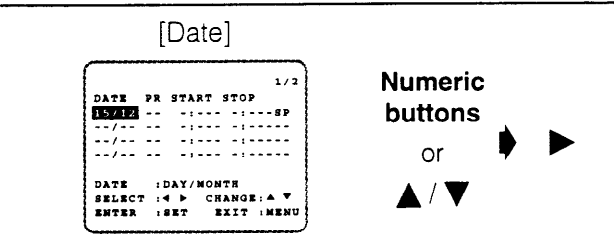
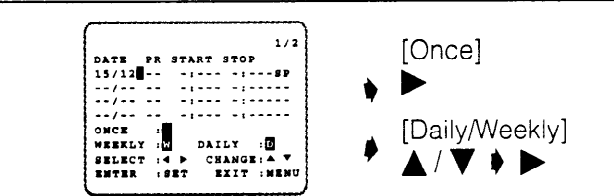
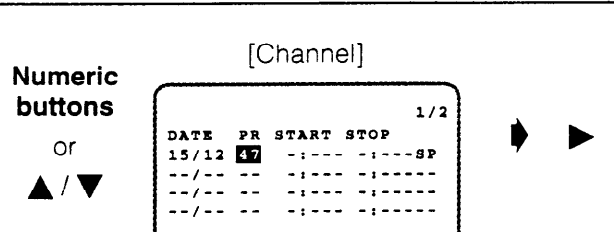
The timer can be set manually for automatic recording of up to 8 events over a 365 day period.

PREPARATION

- Load the cassette, ensuring the erasure protection hole is covered. The VCR power will automatically turn on.
- Check that the clock is displaying the correct time. (See **Setting the Clock** on page 11.)

PROCEDURE

Example: Recording channel position 47 in SP mode from 12:00 PM to 12:30 PM, December 15, 1997, if the present time is 10:28 (morning), December 14, 1997.

	❶ Press the MENU button. Select the TIMER-setting mode and press the SET button.
 When the clock is set to 24H mode, "-:--" will appear.	❷ Select the timer position with the ▲/▼ buttons and press the SET button. • If the timer positions 1 to 4 have already been set, the screen changes 2/2 (timer positions 5 to 8). • Press the TIMER button (for VC-A410X) or the G-CODE/TIMER button (for VC-H610X) to directly select the TIMER mode.
 Numeric buttons or ▲ / ▼	❸ Set the date for timer recording with the numeric or ▲ / ▼ buttons on the remote control and then press the ► button. • First set the "day" digits and then "month". If there is only one "day" or one "month" digit, enter a 0 first.
 [Once] [Daily/Weekly] ▲ / ▼ ► ►	❹ If you want to record only once, press the ► button and go to step ❺. Otherwise, select "D (DAILY)" to record at the same time each day or "W (WEEKLY)" to record at the same time each week by pressing the ▲ or ▼ button, and then pressing the ► button.
 Numeric buttons or ▲ / ▼ [Channel]	❺ Set the channel number using the numeric or ▲ / ▼ buttons and then press the ► button. NOTE • To record audio and video from an external source through an AUDIO/VIDEO terminal on the VCR, press the ▲ / ▼ buttons to select an AV channel. (When an AV position is selected, "L1" or "L2" is displayed where a channel position number is usually displayed.) (VC-A410X is only equipped with AUDIO/VIDEO (rear) terminals.)

NOTE

- **▲ / ▼** buttons can also be used to set the date and time instead of the numeric buttons.
- Press 0 first if the day, month, hour or minute is a single digit.

Continued on next page



Numeric buttons or ▲ / ▼ [Start]	⑥ Set the start time with the numeric buttons or ▲ / ▼ buttons and press the ► button.
[Stop] Numeric buttons or ▲ / ▼	⑦ Set the stop time with the numeric buttons or ▲ / ▼ buttons and press the ► button.
[Tape Speed] ▲ or ▼	⑧ Select the tape speed with ▲ or ▼ button. (See Intelligent Timer Recording (JUST REC) on page 28.)
[Timer review] SET 1 / 2 DATE PR START STOP 15/12 47 12:00P 12:30P ---SP ---P--- ---P--- ---P--- ▼▼ 2/2 ▼▼ CANCEL : CLEAR SELECT : ▲▼ ENTER : SET EXIT : MENU	⑨ Press the SET button. To programme additional timer settings, repeat steps ③ through ⑧.
MENU Normal Screen	⑩ To return to the Normal Screen, press the MENU button.
TIMER ON/OFF AM 10:28	⑪ To set the VCR for automatic timer recording, press the TIMER ON/OFF button and ensure the "☐" indicator lights on the VCR display.

NOTE

- If the video cassette runs out before recording all the programmes, your VCR will stop, eject the cassette, and shut off automatically.
- If power is interrupted for more than 1 minute (power failure, etc.), all timer settings will be cancelled.
- If the **TIMER ON/OFF** button is pressed when there is no cassette loaded, "☐" flashes for 5 seconds, indicating that timer recording is not possible.
- If the **TIMER ON/OFF** button is pressed while a cassette with an uncovered erasure protection hole is loaded, "☐" flashes and the cassette is ejected.
- When "☐" is lit, regular VCR operation, clock setting and setting/cancelling/confirming timer positions are not possible. For regular VCR operation, clock setting and setting/cancelling/confirming timer positions, press the **TIMER ON/OFF** button to disengage the timer ("☐" disappears), and then turn on your VCR.
- During timer recording, the timer cannot be set.
- To terminate timer recording, press the **STOP** button during timer recording.
- If no buttons are pressed within one minute while setting a timer programme position, the mode automatically returns to the previous mode.
- If the same time is input for the start time and the stop time, the timer setting will be cancelled.

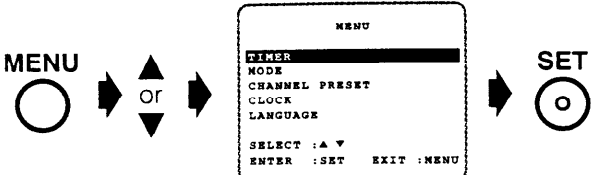
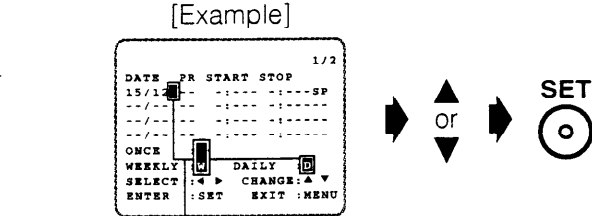


Confirming Timer Programmes

You can see on the On Screen Display a list of all timer programmes that are already set.

PREPARATION

Turn on your TV and VCR and select the video channel on the TV.

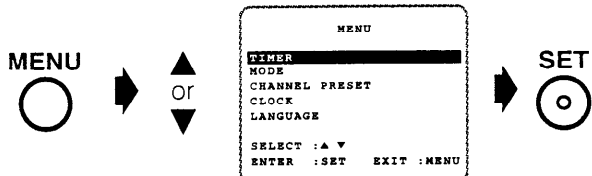
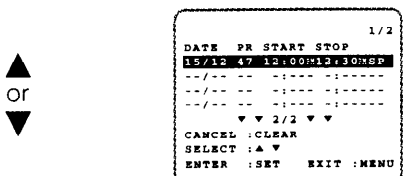
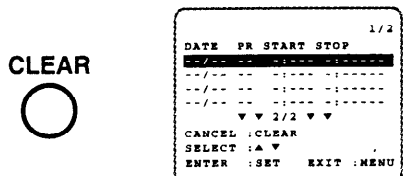
	1 Press the MENU button. (If the "□" indicator on the VCR display is lit, cancel the timer standby mode by pressing the TIMER ON/OFF button and then turn on the power.)
	2 Select the TIMER-setting mode with the ▲/▼ buttons and then press the SET button.
 [Example] ONCE/DAILY/WEEKLY ONCE: no indicator DAILY: "D" is displayed. WEEKLY: "W" is displayed.	3 The screen for confirming programmes that have been set will appear. • Check the information displayed. • If you want to correct the data, select the programme to be changed with the ▲/▼ buttons and then press the SET button. Correct the setting as described on pages 25 and 26.
	4 To return to the Normal Screen, press the MENU button. • After checking or correcting the programme contents, press the TIMER ON/OFF button to enter the Timer Standby mode.

Cancelling Timer Programmes

Perform the following procedure to cancel timer programmes that have already been set.

PREPARATION

Turn on your TV and VCR and select the video channel on the TV.

	1 Press the MENU button. (If the "□" indicator on the VCR display is lit, cancel the timer standby mode by pressing the TIMER ON/OFF button and then turn on the power.)
	2 Select the TIMER-setting mode with the ▲/▼ buttons and then press the SET button.
	3 The screen for confirming timer recording programmes that have been set will appear. • Select the programme you wish to cancel with the ▲/▼ buttons. (The selected programme will appear highlighted.)
	4 Double-check that it is the programme you wish to cancel, and press the CLEAR button. It will be cleared on the screen. NOTE • Ensure that the remote control is in VCR mode. Press the VCR button.
	5 To return to the Normal Screen, press the MENU button. • If there are still some programmes set, press the TIMER ON/OFF button to enter the Timer Standby mode.

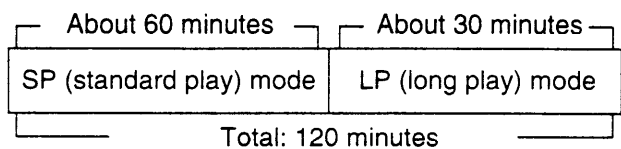


Intelligent Timer Recording (JUST REC)

When the tape is expected to run out halfway during timer recording in the SP (standard play) mode the mode will automatically change to the LP (long play) mode to prevent termination of recording. This function works only when JUST REC mode on the MODE selection screen is set to ON.

For example:

- When a 120-minute programme is timer-recorded with a 90-minute tape while the automatic select is set to LP mode as shown bellow:



NOTE

- This function may not properly work for video tapes other than E60, E90, E180 and E240.
- This tape may not be completely used up.
- When more than one programme is set on the timer, the automatic recording function will work for the length of each timer-set programme, but not for the total length of all programmes.
- When the LP mode is initially used for timer-recording a programme, if the tape is not long enough to record the entire length of the programme, the programme will not be entirely recorded.



New Sharp Super Picture

This function creates clearer modulation during playback for high picture quality.



Press the **S. PICTURE** button on the VCR.

"S.PICTURE ON (or OFF)" will appear on the TV screen for a few seconds. Each time the button is pressed, the mode switches between ON and OFF. (The New Sharp Super Picture is preset to ON at the factory.)

ON:

Normally leave the mode set to ON. This high picture quality function will create a clearer image during playback.

OFF:

Set to OFF when playing back a tape on the VCR while editing or when strong noise appears on the screen. Set to OFF when using the VCR as an editing source.

NOTE

- This function only operates during playback. It will not operate when recording or watching a TV programme with the VCR tuner.

- This function can not be set to ON/OFF with the MENU screen displayed.
- If power is interrupted for more than 60 seconds (power failure, etc.), the setting will return to ON.

S. PICTURE ON



Zero-Back Function

The zero-back function makes the cassette fast forward (or rewind) to the previously set "0:00.00" point and stop there.



- 1 Make sure the counter is displayed, then press the **CLEAR** button on the remote control at the point you wish to return to later. "0:00.00" is displayed.
- 2 Press the **ZERO BACK** button on the remote control. The VCR automatically detects the direction of the "0:00.00" position and fast forwards (or rewinds) the tape.
- 3 When the tape reaches the "0:00.00" position, the tape automatically stops.

NOTE

- The zero-back function does not operate during recording. The function works during the playback, stop, fast forward, rewind and video search modes.

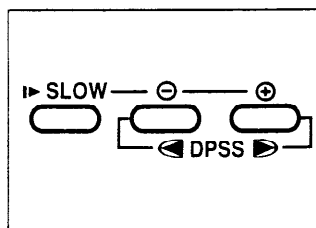
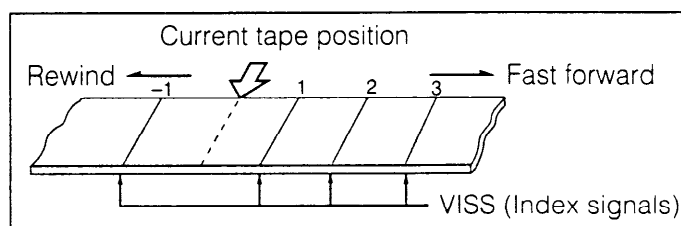


DPSS (Digital Programme Search System)

With this feature you can quickly locate a desired section of the tape. The DPSS feature makes use of VISS (index) signals to search for a specified tape segment and begin playback automatically.

VISS (Index) Signal

An VISS (index) signal is automatically recorded on the tape at the start of ordinary recording, simple recording timer and timer recording.



- 1 Load a tape containing VISS (index) signals into the VCR.
- 2 Select the VISS (index) number of the desired programme using the **DPSS** button or left/right arrow button on the remote control. Search starts immediately. (When a signal is located, the displayed number decreases.)
- 3 When the selected VISS (index) signal-encoded section is found, playback begins automatically.

NOTE

- DPSS may not function properly if the VISS (index) signals are too close together (within 3 minutes of each other).
- DPSS can be cancelled by pressing the **PLAY/×2** or **STOP** button.
- If the tape reaches its end or is rewound completely before locating the desired VISS (index) signal, DPSS is cancelled.

- DPSS may not function for damaged or worn tapes.
- The DPSS function cannot be used with tapes that contain no VISS (index) signals.
- The starting point of a programme may vary slightly.
- DPSS does not operate during the slow, record, timer standby, and timer recording modes, or when there is no cassette loaded.



Auto Repeat

With this feature, the entire tape is played back repeatedly.

- 1 Set the REPEAT mode on the MODE-selection screen to ON. When the video cassette reaches its end, the VCR will stop playback, rewind the tape, and automatically play it back again.

COLOUR	AUTO	PAL
BLUE BACK	AUTO	OFF
AUTO RENTAL	ON	OFF
REPEAT	ON	OFF
JUST REC	ON	OFF

NOTE

- The ON/OFF status of the Auto Repeat can be checked on the MODE Selection screen. (See **Mode Selection** on page 16.) (And when the AUTO REPEAT is ON, "REPEAT" will be displayed on the OSD screen.)
- If the Auto Repeat is on and the tape is rewound to the beginning with rewind or reverse video search, the tape will automatically start playback.



Skip Search



When the **SKIP SEARCH** button on the remote control is pressed during playback mode, the VCR will perform a forward video search for a fixed interval of playback time before resuming playback. Depending on how many times the button is pressed it is possible to set the forward video search time to approx. 30, 60, 90 or 120 seconds of recorded material.

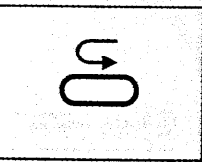
Number of Times Pressed	Forward Video Search Time	(On the VCR display)
1 time	Approx. 30 sec. (of playback time)	0:30
2 times	Approx. 60 sec. (of playback time)	1:00
3 times	Approx. 90 sec. (of playback time)	1:30
4 times	Approx. 120 sec. (of playback time)	2:00

During skip search, the interval of the video search will flash on the display.

(Only for VC-H610X)



Instant Replay



When the  button on the remote control is pressed during playback, the VCR will perform a reverse video search for a fixed interval of playback time before resuming playback. Depending on how many times the button is pressed, it is possible to set the reverse video search time to approx. 20, 40, 60, or 80 seconds of recorded material.



New Child-Proof Lock



With this feature, you can lock all VCR modes to prevent accidental change. This function works even when the VCR power is off, thus preventing children from operating the VCR or viewing select programmes while you are away from home.

New Child-Proof Lock

- 1 Press  on the remote control for about 2 seconds.
“” flashes and “---” lights on the VCR-function display.
- 2 Press  again.
“” remains lit on the VCR display confirming that New Child-Proof Lock has been activated.
- 3 Now regardless of what other operating buttons are touched, the VCR will continue to operate in the present mode.
(If New Child-Proof Lock is activated during playback, once the tape reaches its end, the VCR automatically rewinds the tape, ejects it, and turns the power off.)

Disengaging New Child-Proof Lock

- Press  button for about 2 seconds.
“” starts flashing and then disappears. Now, New Child-Proof Lock is disengaged.

Advanced New Child-Proof Lock

- 1 Press  button on the remote control for about 2 seconds.
“” flashes and “---” lights on the VCR display.
- 2 Input the personal code number (4 digit code) with the numbered buttons. The personal code number you have input is displayed on the VCR display.
- 3 Press  button again.
“” remains lit on the VCR display confirming that New Child-Proof Lock has been activated.
- 4 Now regardless of what other operating buttons are touched, the VCR will continue to operate in the present mode.
(If New Child-Proof Lock is activated during playback, once the tape reaches its end, the VCR automatically rewinds the tape, ejects it, and turns the power off.)

Disengaging Advanced New Child-Proof Lock

- 1 Press  button for about 2 seconds.
“” flashes and “---” lights on the VCR display.
- 2 Input the personal code number (4 digit code) you used to activate Advanced New Child-Proof Lock with the numbered buttons. The personal code number you have input is displayed on the VCR display.
- 3 Press  button again.
“” disappears. Now, New Child-Proof Lock is disengaged. If the code number is wrong, “---” is displayed on the VCR display. Retry to input the right code number. Press  button again.

If you forget your personal code number, you can disengage New Child-Proof Lock with the following procedure:

- 1 Press  button for about 2 seconds.
“” flashes and “---” lights on the VCR display.
- 2 Press the **OPERATE** buttons on both the VCR and remote control for at least 2 seconds. New Child-Proof Lock is disengaged.

NOTE

- If, while New Child-Proof Lock is on, you attempt to change modes by pressing another button, the “” indicator will flash on the VCR display.



VCR Display

When the **DISPLAY** button is pressed, the display changes in the following way. (However, the following is the case when the clock time is set and displayed in the 12-hour system.)

Example:
[TAPE REMAINING/CHANNEL]



Example:
[TAPE COUNTER/CHANNEL]



Example:
[PRESENT TIME/CHANNEL]



Example:
[OPERATING MODE/CHANNEL]



NOTE

- During timer recording or Simple Recording Timer, the display shows the record finish time. When the **DISPLAY** button is pressed, the display changes in the following way. (If the "□" indicator on the VCR display is lit, cancel the timer standby mode by pressing the **TIMER ON/OFF** button and then turn on the power.)

Example:
[RECORD FINISH TIME]



Example:
[OPERATING MODE]



Example:
[PRESENT TIME]



Example:
[COUNTER]



Example:
[REMAINING TIME]



NOTE

- During Simple Recording Timer recording, "□" lights.

Counter Clear

Make sure the counter is displayed, then press the **CLEAR** button on the remote control. "0:00.00" is displayed.



NOTE

- The counter will reset to "0:00.00" when the tape is rewound completely.

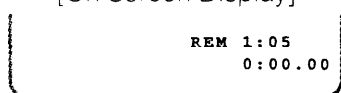


Tape Remaining Display

On Screen Display

- Select **FULL** or **COUNTER** display mode by pressing the **MODE OSD** button on the remote control.

[On Screen Display]

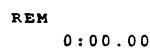


[VCR Display]

- Press the **DISPLAY** button on the remote control.



[OSD]



[VCR Display]



NOTE

- This function accurately displays the tape remaining only for tapes recorded in PAL mode. (It does not accurately display the tape remaining for tapes recorded in NTSC or MESECAM modes.)
- When you insert the tape and the VCR is in the stop mode, the tape remaining cannot be computed. The following indicator is shown when the tape remaining has not yet been computed or cannot be computed.
- When you start recording or playback, the VCR will begin the computation. However, this may take some time. When computation is completed, tape remaining will be shown on the OSD and VCR display for 5 seconds.
- If the "REM." mode is selected with the **MODE OSD** or **DISPLAY** button and the VCR is in stop mode, the tape will automatically fast forward or rewind for a few seconds and then the VCR will begin computing the amount of tape remaining.
- During computation, the **REC** button will not function, and pressing the **STOP**, **PLAY/×2**, or other buttons will interrupt the computation.
- Setting the **DPSS** or **ZERO-BACK** function during computation may cancel it.
- The indicated length of tape remaining is only an approximate guide.
- This function may not properly work for video tapes other than E60, E90, E180 and E240.
- The length of tape remaining during fast forward or rewind may be indicated as greater than it actually is.
- When **VHS** and **SVHS** tapes are used with a cassette adapter, the indication may not be correct.

Warning for the length of tape remaining

When the tape reaches the point where only about five minutes of recording time is left, the remaining length of tape will be automatically displayed, as a warning.

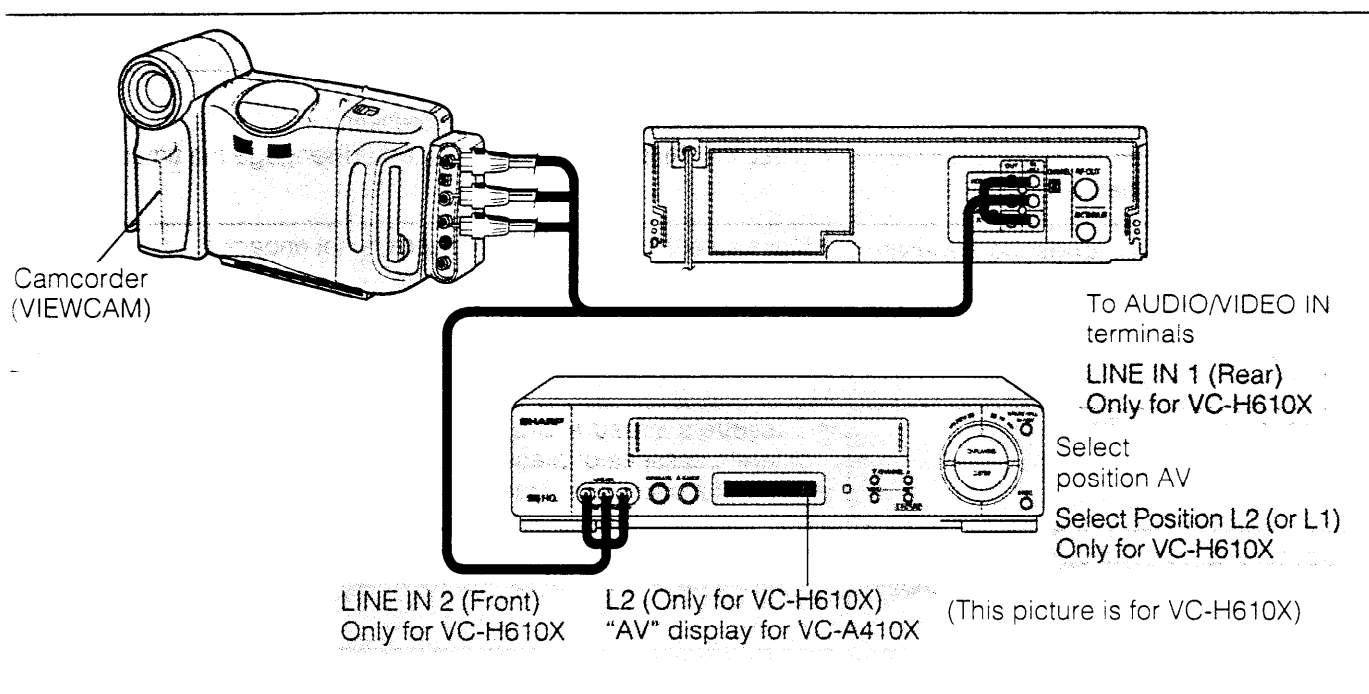
NOTE

- No warning, however, will be shown during timer recording or Simple Recording Timer recording



Editing from a Camcorder to Your VCR

Editing from your Camcorder is extremely easy using your VCR with a linear tape counter, etc. The connection diagram below is for a guideline only. Refer to your Camcorder operation manual for precise connection information.



Specifications

Format: VHS PAL standard

Video recording system: Two rotary heads, helical scan

Video signal system: PAL colour or monochrome signals: 625 lines

Hi-Fi audio recording system

(Only for VC-H610X): Deep-layer recording system conforming to stereo Hi-Fi VHS standard

Maximum playing time: 480 min. with E-240 video cassette in LP mode

Tape width: 12.7 mm

Tape speed: 23.39 mm/sec. SP; 11.70 mm/sec. LP

Antenna: 75 Ohm unbalanced

Reception channels: VHF channel 0 to 12, UHF channel 28 to 69

RF output signal: UHF channel 31 to 40 (preset to 37)

Power requirement: AC 240 V, 50 Hz

Power consumption: 16 W (approx.) for VC-A410X/19 W (approx.) for VC-A610X

Operating temperature: 5°C to 40°C

Storage temperature: -20°C to 55°C

Video input: 1.0 Vp-p, 75 Ohm

output: 1.0 Vp-p, 75 Ohm

Audio input: (phono type) Line: -8dBs, 47 kohm

output: (phono type) Line: -8dBs, 1 kohm

Hi-Fi audio

(Only for VC-H610X): Dynamic range: Typically 90dB

Frequency response: 20Hz-20kHz

Wow and flutter: less than 0.005% Wrm

Dimensions: 360 (W) × 286 (D) × 94 (H) mm (VC-A410X/VC-H610X)

Weight: 3.4 kg (approx.) (VC-A410X/VC-H610X)

Supplied accessories: R6 (AA, UM/SUM-3) battery × 2, 75-ohm coaxial cable, remote control unit

Design and specifications are subject to change without notice.



Before Calling for Service

Check this list before calling for service.

Problem	Possible Cause/Solutions
MISCELLANEOUS PROBLEMS	
• No power. OPERATE button will not function.	• Make sure the power cord is plugged in. • Check the outlet, fuse or circuit breaker. • Press the TIMER ON/OFF button and disengage the timer.
• Cassette cannot be ejected.	
• The VCR display does not operate properly.	• Make sure that the Child-Proof Lock is not engaged. • Safety device in VCR is functioning. Unplug VCR and plug in again after a few minutes and set the clock again. Set the timer again if necessary.
• No operation when any button is pressed.	
• VCR does not record.	• Cassette's erasure protection tab has been removed. Use a different cassette or place adhesive tape over the tab opening. • Check if a cassette is loaded.
• Cassette is automatically ejected when pressing REC. or TIMER ON/OFF button.	• Cassette's erasure protection tab has been removed. Use a different cassette or place adhesive tape over the tab opening.
• No tape movement.	• Make sure VCR is not in pause/still mode. • Make sure tape has not reached the beginning or end.
• Cassette cannot be loaded.	• Make sure there is no other cassette inside. • Make sure the cassette is properly positioned and reinsert.
• Picture does not change even though CHANNEL ⊕/⊖ buttons are pressed.	• Make sure the VCR is not in the timer setting or clock setting mode. • Make sure the VCR is not in the channel setting mode.
• Desired channel position cannot be selected.	• The channel has been set to be skipped. Cancel the skip mode for that channel.
NO COLOUR OR POOR PICTURE	
• No colour or poor TV picture on normal viewing.	• Make sure all the cables are connected properly. • Make sure the VCR power cord is properly plugged in.
• Snowy picture appears on TV during playback.	• Adjust the CHANNEL ⊕/⊖ buttons or try a different cassette. • The heads may be dirty from condensed moisture or the magnetic coating of the video tape. (If this is the case, the heads need to be cleaned. Ask the retailer or Sharp approved service centre.)
• No picture appears or colour is not correct during playback.	• Make sure the TV is set to the same channel as the VCR RF converter output channel adjuster. • Check all connecting cables.
REMOTE CONTROL PROBLEM	
• The VCR cannot be operated by the remote control.	• The remote control unit is too far away from the main unit. • The remote control unit is not pointed correctly at the photoreceptor window. • The batteries are exhausted. • The batteries have not been inserted in the correct direction (+/- polarity).
	(Only for VC-H610X) • Make sure VCR button has been activated.

This unit is equipped with a microprocessor. Its performance could be adversely affected by external electrical noise or interference. If this should happen, unplug the VCR and plug it on again after a few minutes.

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