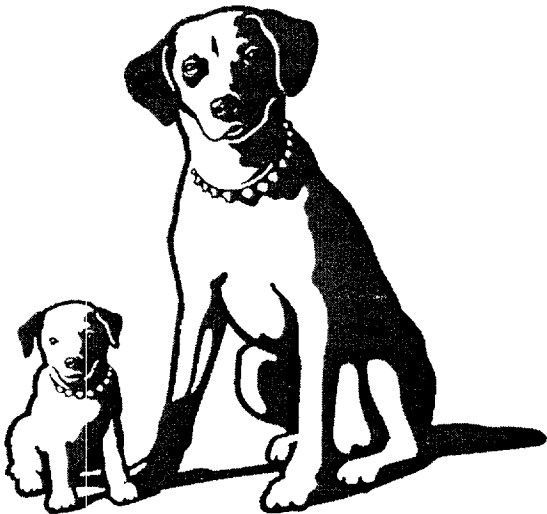
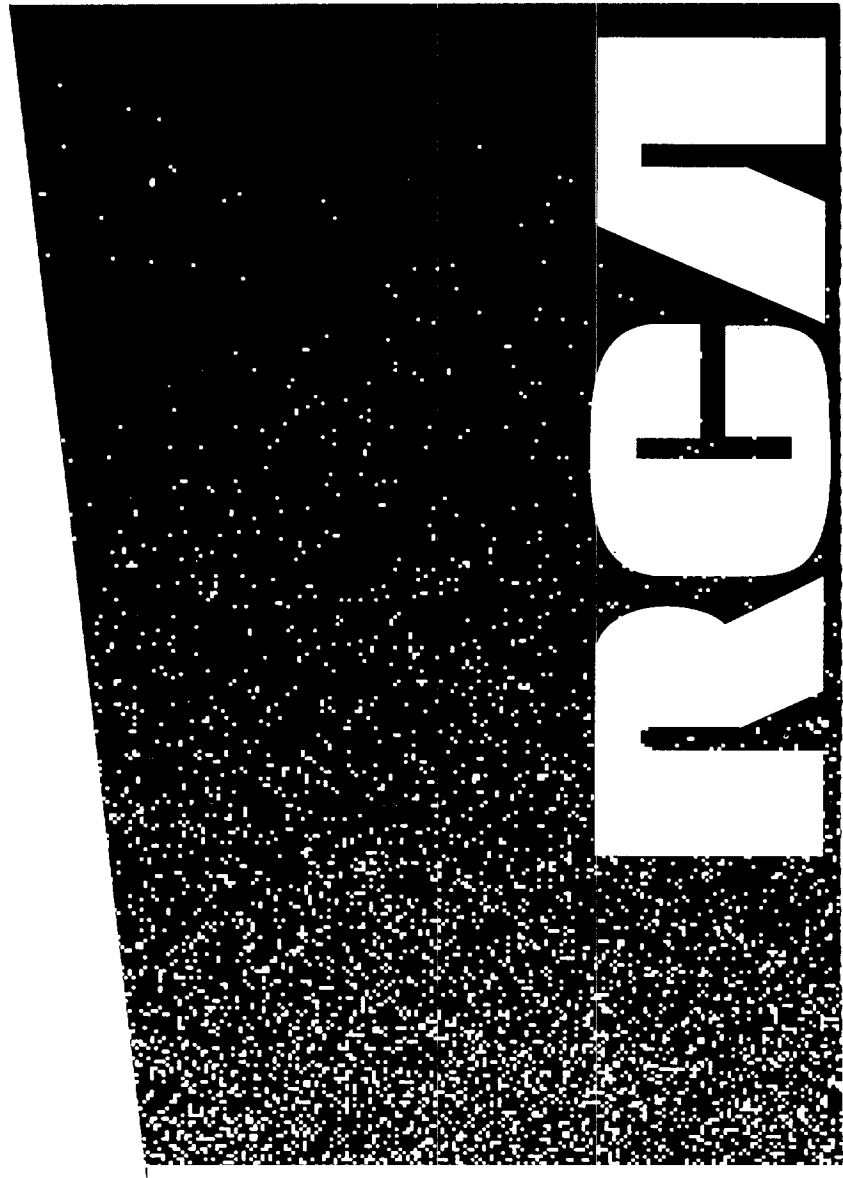


VR673HF

USER'S GUIDE

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VIDEO CASSETTE

RECORDER

Important Information

WARNING

To reduce the risk of fire or shock hazard, do not expose this VCR to rain or moisture.

WARNING

RISK OF ELECTRIC SHOCK
DO NOT OPEN

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

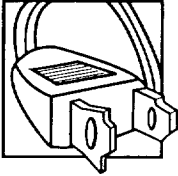


This symbol indicates "dangerous voltage" inside the product that presents a risk of electric shock or personal injury.



This symbol indicates important instructions accompanying the product.

Cautions



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

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

Do not defeat the safety feature of the plug. The wide blade fits into the wall socket only one way. If you need an extension cord, make sure it matches the plug of the VCR.

For U.S.A. — Operate VCR only on 120 volts, 60Hz AC power (normal house power).

For safety reasons, make sure any equipment or accessories connected to this product bears the UL listing mark, or if purchased and used in Canada, the CSA certification mark. If in doubt, contact qualified service personnel.

FCC Regulations state that unauthorized changes or modifications to this equipment may void the user's authority to operate it.

Note To Cable TV Installer

This reminder is provided to call your attention to Article 820-40 of the National Electrical Code (Section 54 of the Canadian Electrical Code, Part 1) which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

Product Registration

Please fill out the product registration card and return it immediately. Returning this card allows us to contact you if needed.

Keep your sales receipt to obtain warranty parts and service and for proof of purchase. Attach it here and record the serial and model numbers in case you need them. The numbers are located on the back of the VCR.

Model No. **VR673HF** _____

Serial No. _____

Purchase Date: _____

Dealer/Address/Phone: _____



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Choosing a Hookup

The hookups on pages 3 through 5 are divided into two hookup types: Basic (A) and Advanced (B).

The basic hookup shows the backs of TVs that have only an antenna/cable connection. It is the easier of the two and additional accessories may not be needed.

The advanced hookup shows the VCR hooked up to a monitor/receiver (TV with audio and video jacks) using a signal splitter. This connection may improve the picture quality as well as convenience of operation.

Answer the questions to choose the hookup for your VCR.

1. How do you receive your TV signals?

Choose one answer from below.

- A. Outside antenna – Turn to page 3.
- B. Rabbit ears (set-top) and/or bow tie antenna – Turn to page 3.
- C. Cable System – Go to question 2.

2. What type of Cable-TV system* do you have?

Choose one answer from below.

- A. Cable without a box – Turn to page 3.
- B. Cable box to unscramble all the channels – Turn to page 4.
- C. Cable box to unscramble only pay channels, such as HBO, Showtime, Cinemax, etc. – Turn to page 5.

*You may need to contact your local cable company for assistance.

Optional Hookups

How to hook up two VCRs for copying tapes?

- A. Select a hookup by answering questions 1 and 2 above.
- B. Then modify the connections as shown on page 6.

How to hook up a stereo amplifier/receiver?

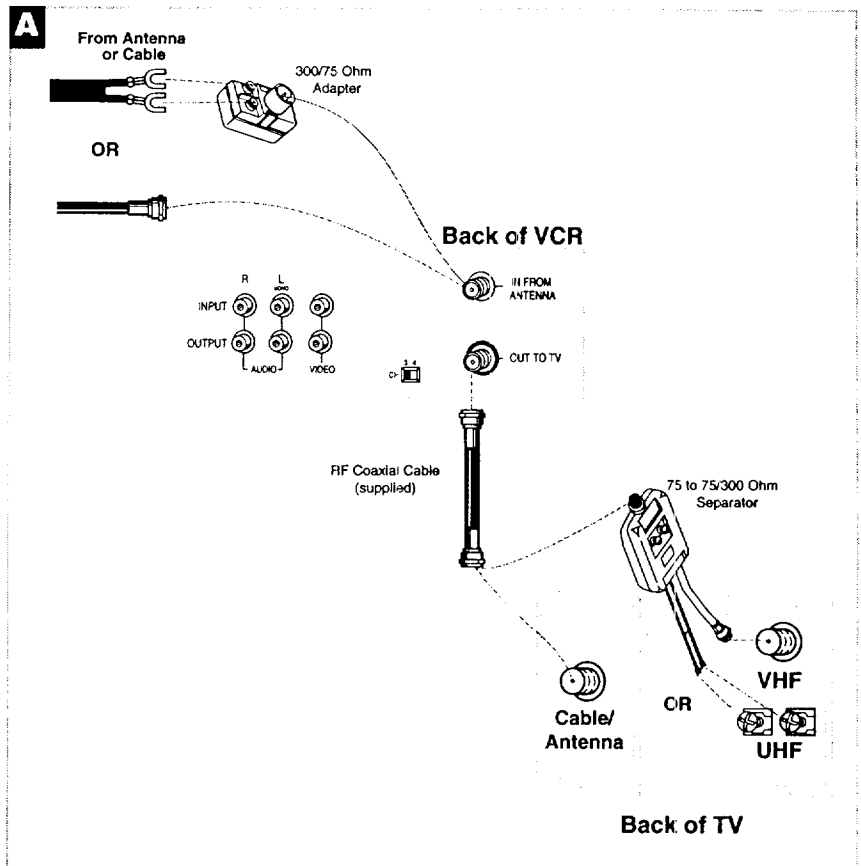
- A. Select a hookup by answering questions 1 and 2 above.
- B. Then modify the connections as shown on page 7.

Antenna or Cable System Without a Cable Box

A. Basic hookup.

Use this hookup for a simple connection which requires fewer accessories.

1. Set the CH3 CH4 switch on back of VCR to either channel 3 or 4.
You will tune the TV to this channel and use the TV•VCR button to watch the VCR.
2. Connect as shown.
This connection may require additional accessories not provided.
3. Plug in power cords of VCR and TV.
4. **Continue to page 8.**

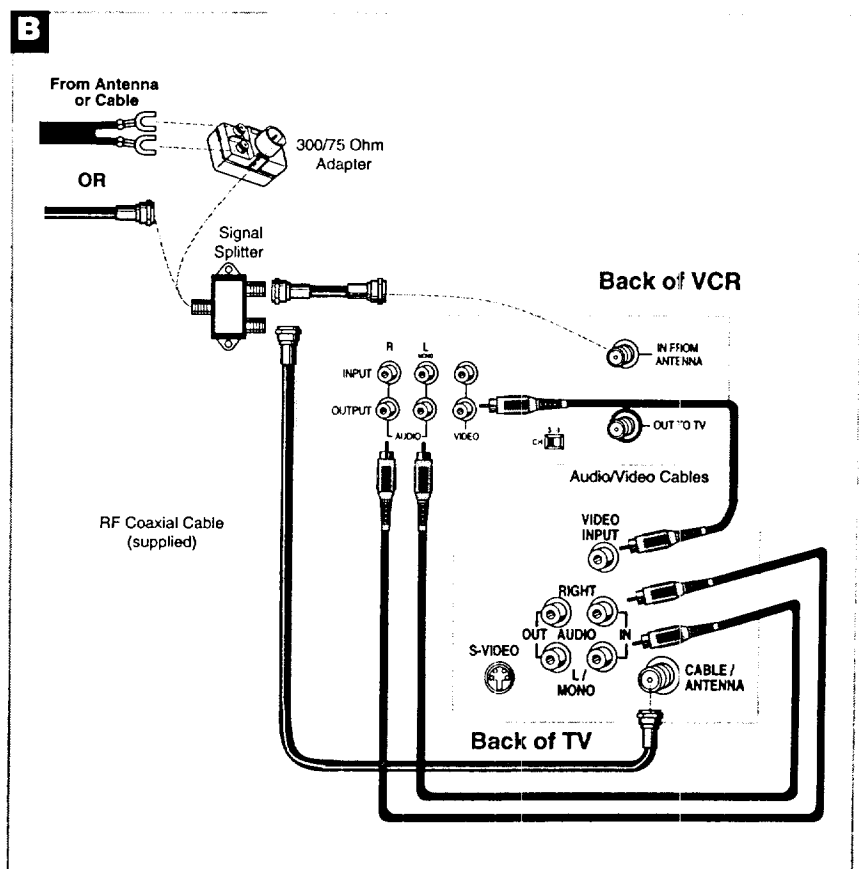


B. Advanced hookup.

Use this hookup for slightly improved picture quality and more convenient operation — use of TV•VCR button not required.

1. Connect as shown.
This connection requires additional accessories not provided.
If your TV is not stereo, connect the VCR's AUDIO OUT L jack to the TV's AUDIO IN jack.
2. Plug in power cords of VCR and TV.
3. **Continue to page 8.**

You will tune the TV to its video input to watch the VCR.

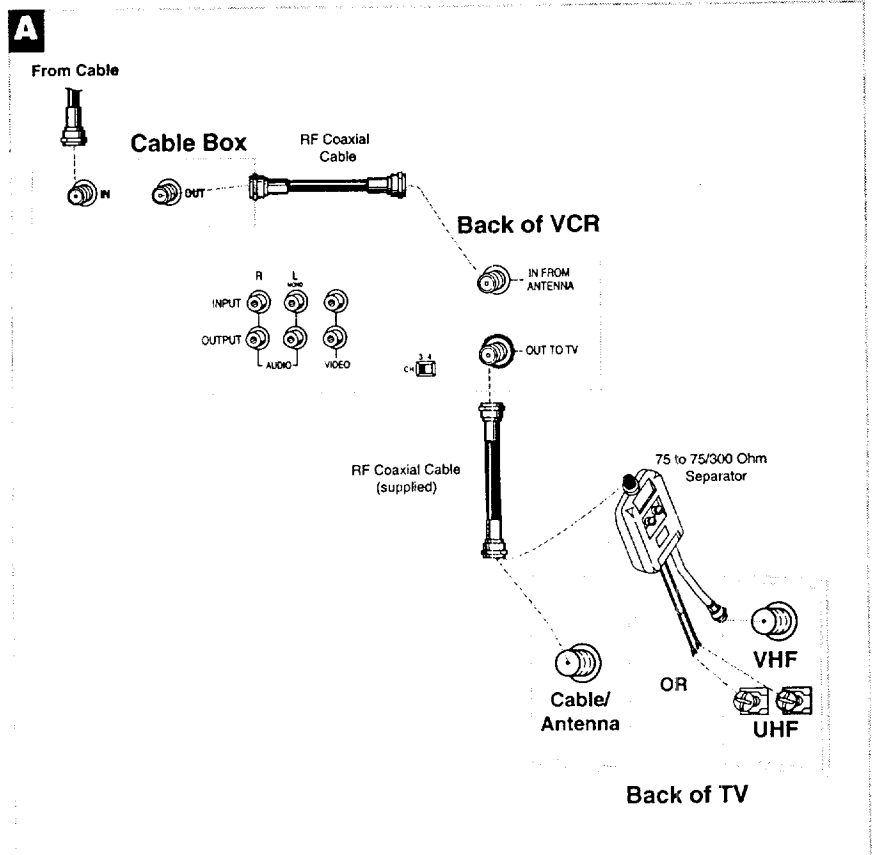


Cable System With Cable Box to Unscramble All Channels

A. Basic hookup.

Use this hookup for a simple connection which requires fewer accessories.

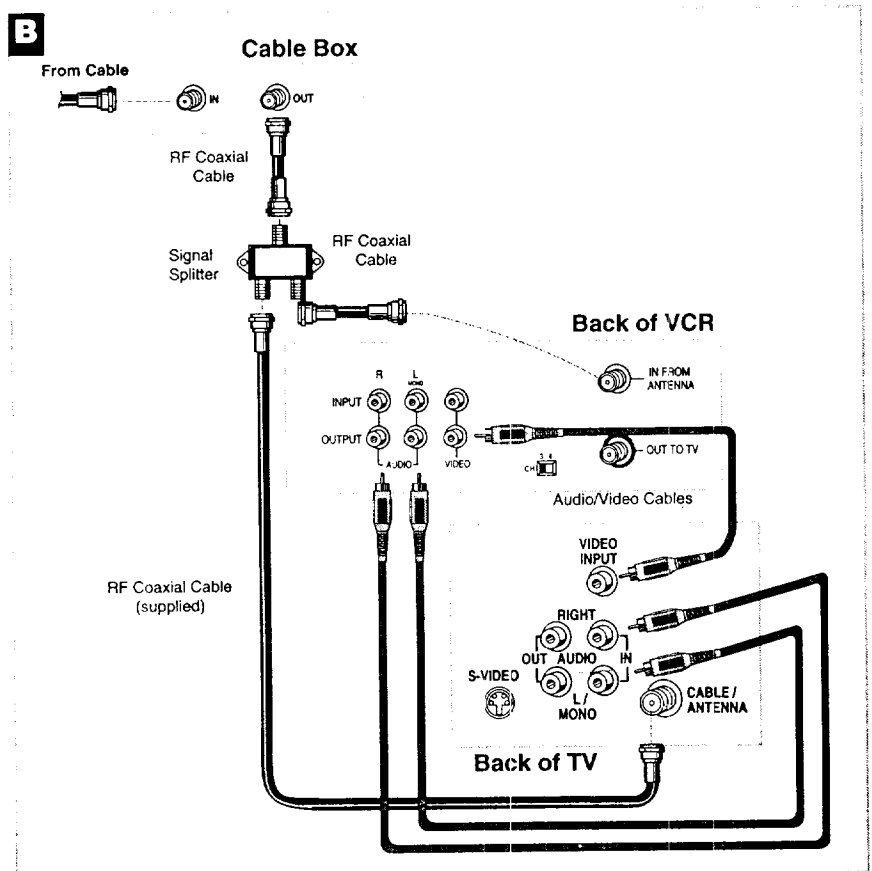
1. Set the CH3 CH4 switch on back of VCR to either channel 3 or 4.
You will tune the TV to this channel and use the TV•VCR button to watch the VCR.
 2. Connect as shown.
- This connection may require additional accessories not provided.
3. Plug in power cords of VCR, TV, and cable box.
 4. **Continue to page 8.**



B. Advanced hookup.

Use this hookup for slightly improved picture quality and more convenient operation — use of TV•VCR button not required.

1. Connect as shown.
- This connection requires additional accessories not provided.
- If your TV is not stereo, connect the VCR's AUDIO OUT L jack to the TV's AUDIO IN jack.
2. Plug in power cords of VCR, TV, and cable box.
 3. **Continue to page 8.**
- You will tune the TV to its video input to watch the VCR.



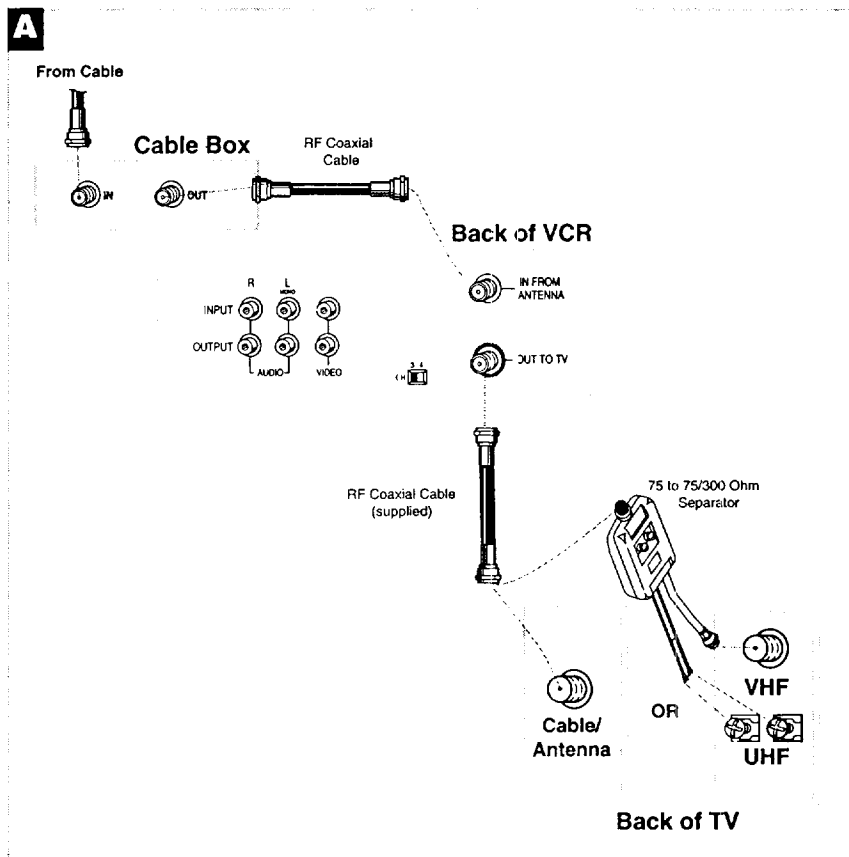
Cable System With Cable Box to Unscramble Pay Channels

(such as HBO, Showtime, Pay-Per-View, etc.)

A. Basic hookup.

Use this hookup for a simple connection which requires fewer accessories.

1. Set the CH3 CH4 switch on back of VCR to either channel 3 or 4.
You will tune the TV to this channel and use the TV•VCR button to watch the VCR.
2. Connect as shown.
This connection may require additional accessories not provided.
3. Plug in power cords of VCR, TV, and cable box.
4. **Continue to page 8.**

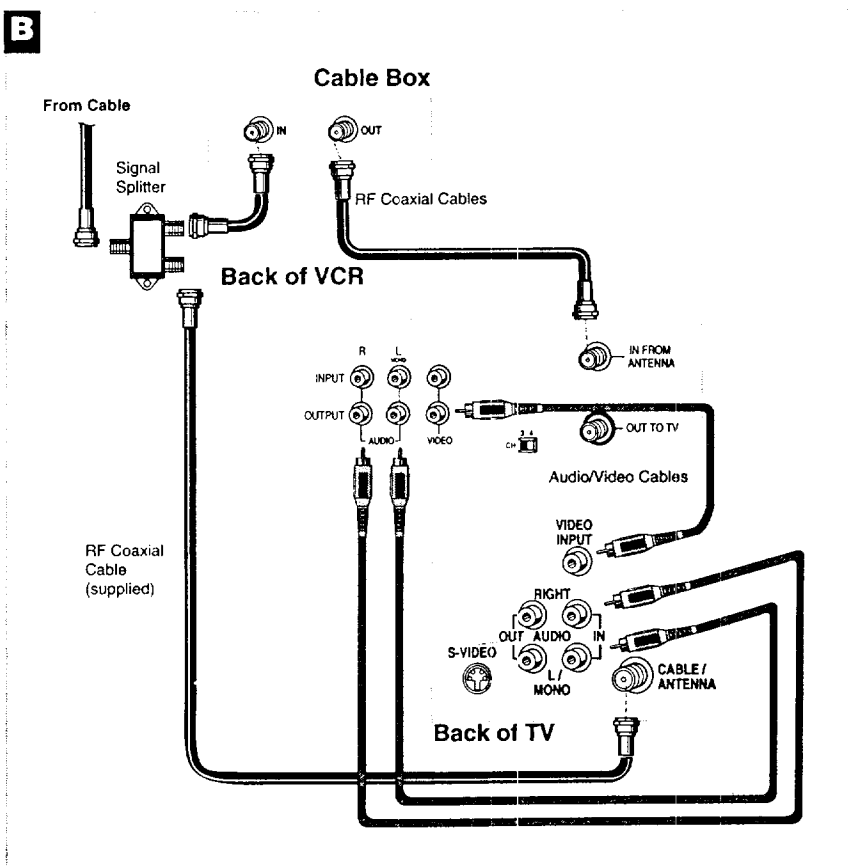


B. Advanced hookup.

Use this hookup for slightly improved picture quality and more convenient operation — use of TV•VCR button not required.

1. Connect as shown.
This connection requires additional accessories not provided.
If your TV is not stereo, connect the VCR's AUDIO OUT L jack to the TV's AUDIO IN jack.
2. Plug in power cords of VCR, TV, and cable box.
3. **Continue to page 8.**

You will tune the TV to its video input to watch the VCR. All pay channels are viewed through the VCR.

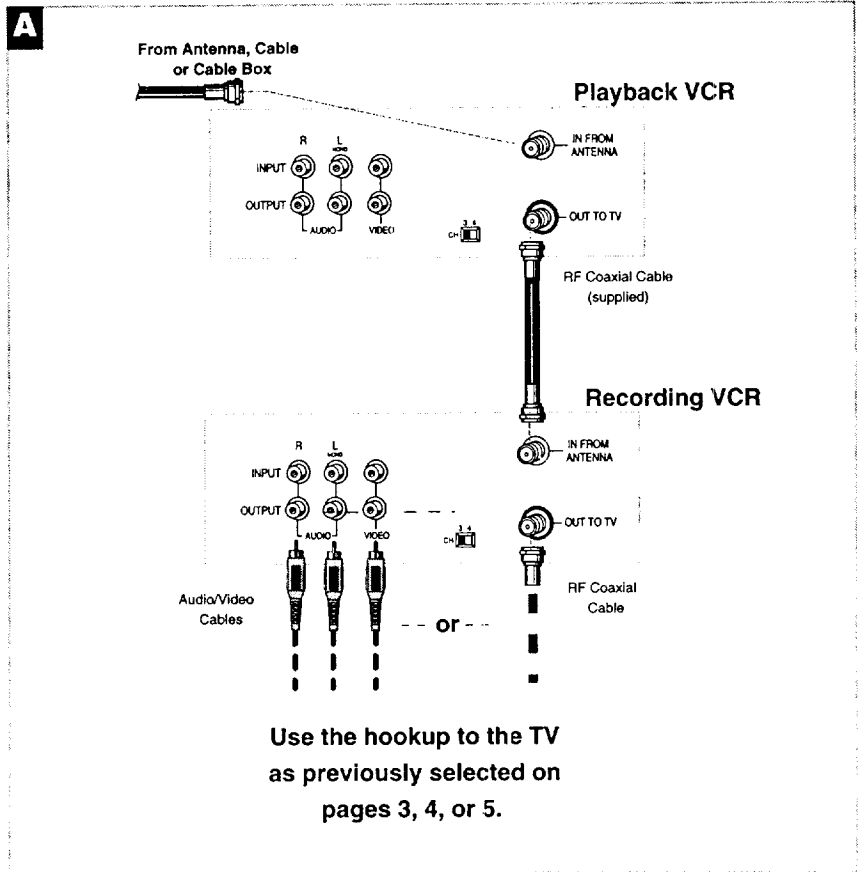


Connecting Two VCRs for Copying Tapes

Option A hookup.

Use this hookup for a simple connection which requires fewer accessories.

1. Select a hookup from pages 2 through 5 and then modify with this connection.
2. Set the CH3 CH4 switch on the playback VCR to either channel 3 or 4.
You will tune the recording VCR to this channel to receive the signal from the playback VCR.
3. Connect as shown.
This connection may require additional accessories not provided.
4. Plug in power cords of VCRs and TV.
5. **Continue to page 8.**



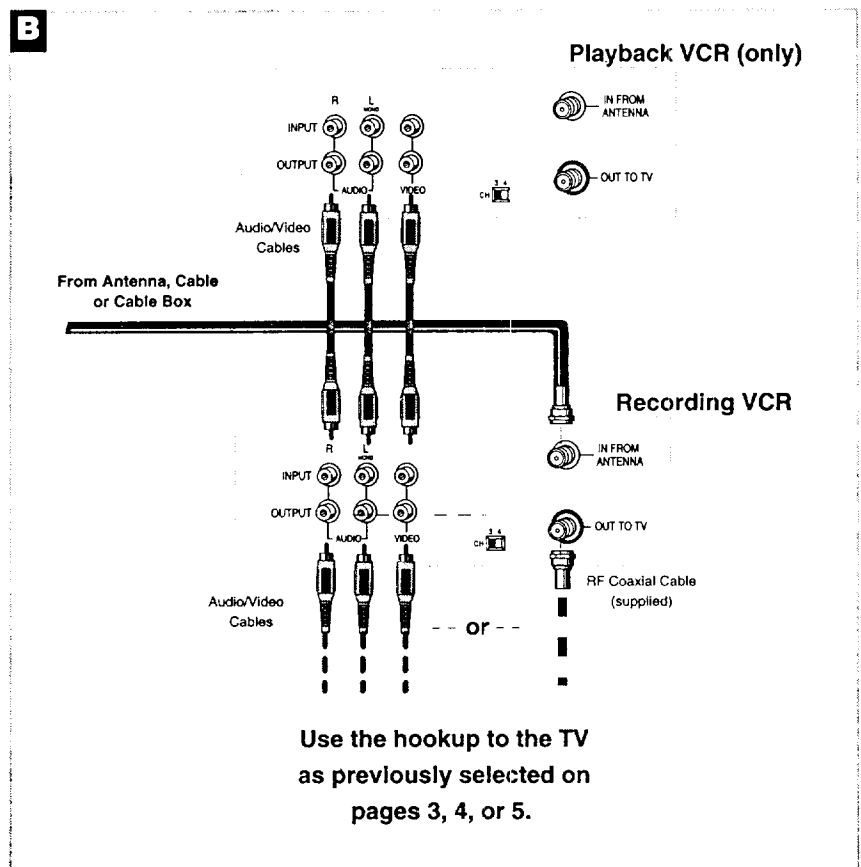
Option B hookup.

Use this hookup for slightly improved copy quality and more convenient operation — use of TV•VCR button not required.

1. Select a hookup from pages 2 through 5 and then modify with this connection.
2. Connect as shown.
This connection requires additional accessories not provided.
If your VCR is not stereo, connect the VCR's AUDIO OUT L jack to the VCR's AUDIO IN jack.
3. Plug in power cords of VCRs and TV.
4. **Continue to page 8.**

You will select the line (audio/video) input on the recording VCR to receive the signal from the playback VCR.

Caution: The unauthorized recording of television programs and other materials may infringe the rights of others.



Connecting a Stereo Amplifier/Receiver

Record on the VCR from an amplifier/receiver.

Connect your VCR to a stereo amplifier/receiver to record stereo audio.

1. Select a hookup from pages 2 through 5 and then modify with this connection.

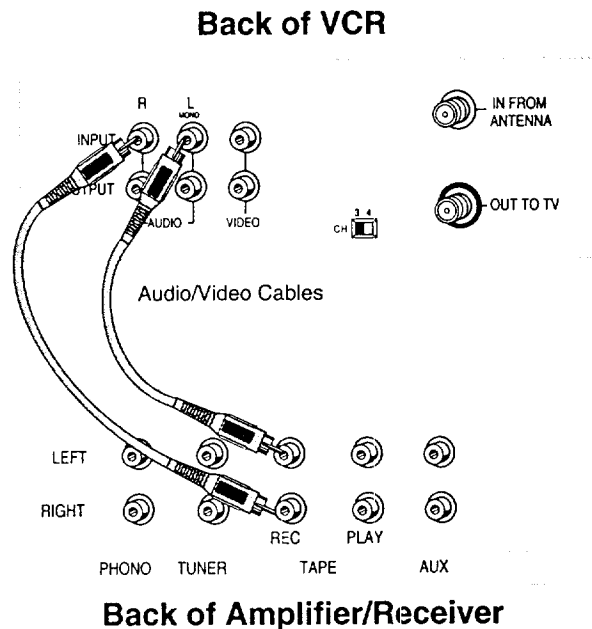
2. Connect as shown.

This connection requires additional accessories not provided.

3. Plug in power cords of amplifier/receiver, VCR, and TV.

4. Turn to page 33 for "Recording Audio Only."

You will select the line input (audio/video) on the VCR to receive the audio signal from the amplifier/receiver.



Play back stereo tapes or receive a stereo broadcast through an amplifier/receiver.

Connect your VCR to a stereo amplifier/receiver to receive stereo broadcasts or play back stereo tapes.

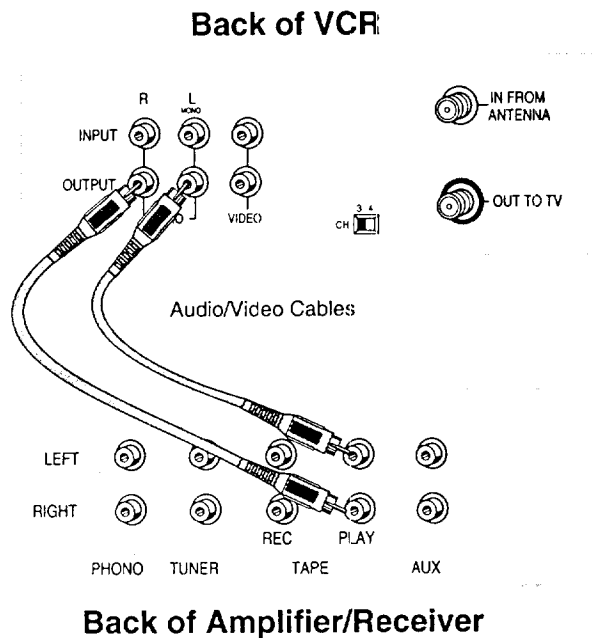
1. Select a hookup from pages 2 through 5 and then modify with this connection.

2. Connect as shown.

This connection requires additional accessories not provided.

3. Plug in power cords of amplifier/receiver, VCR, and TV.

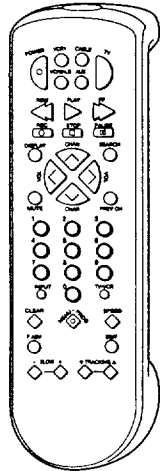
4. Turn to page 17 for "Playback Operation."



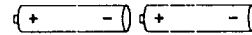
Startup

1. Check accessories with VCR.

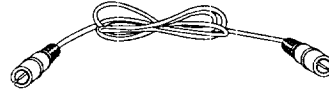
Contact your dealer if any items are missing.



Remote
(Stock No. 221300)

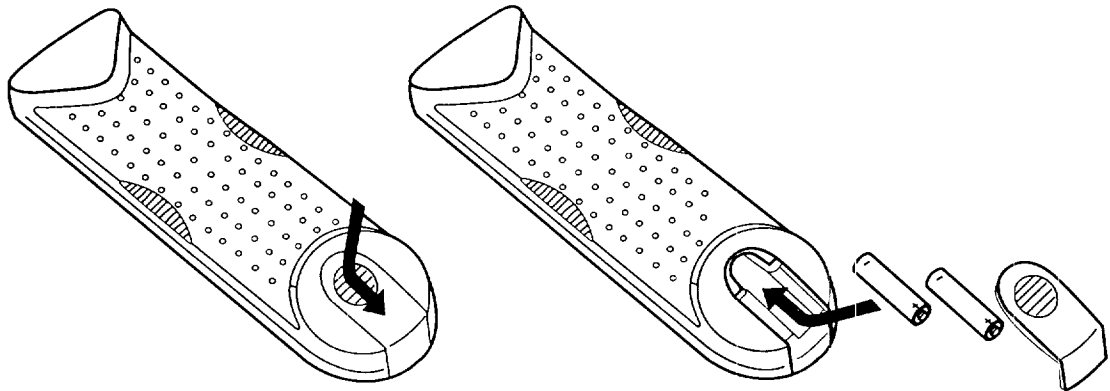


2 "AAA" Batteries



RF Coaxial Cable
(Stock No. 207417)

2. Insert batteries in remote.



3. Turn on the TV.

- A. Turn on the TV.
- B. If you used one of the basic hookups, tune the TV to the channel selected with the CH3 CH4 switch on back of VCR.
If you used one of the advanced hookups, tune the TV to the TV's video input.
(See TV owner's manual for details.)

4. Turn on the VCR.

Press VCR1 on the remote.

Startup

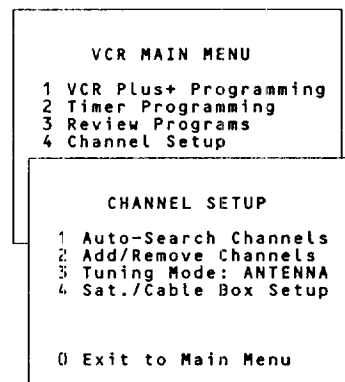
5. Place channels in the VCR's memory.

Channels 2 through 13 including line input (L) are in the VCR's memory when you first turn it on. Pressing CHANNEL up or down stops on these channels. To get additional channels available on your antenna or cable system, you must use the Auto-Search Channels feature of the VCR. If you ever change cable or antenna signals, you may need to Auto-Search channels again.

- A. Press VCR1 to set remote to control VCR.
- B. Press MENU•PROG on the remote to see the VCR MAIN MENU on the TV screen. If the menu does not appear on the TV screen:
 - Make sure TV is tuned to same channel as CH3 CH4 switch on VCR or the TV's video input (refer to TV's manual).
 - Press VCR1 and then press MENU•PROG.
 - If you use a basic hookup, check VCR indicator in display panel — it should be on. Press TV•VCR to turn it on.
 - Check the connections.
- C. Press 4 to select CHANNEL SETUP.
- D. Press 1 to begin Auto-Search Channels.

Wait until the channel numbers stop changing. This takes about one to two minutes. The TV will then tune to the lowest channel found. Pressing CHANNEL up or down will select only the active channels.

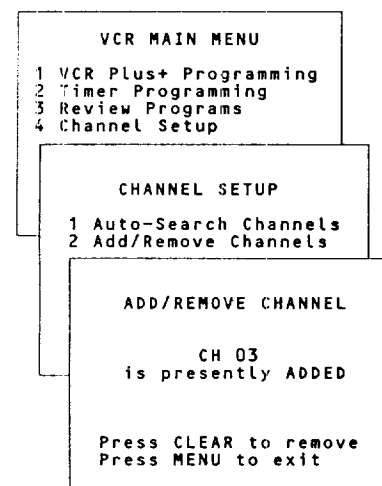
The VCR automatically selects ANTENNA or CABLE of the Tuning Mode feature in the CHANNEL SETUP menu. If you need to change the setting manually, press 3.



6. Add or remove channels from the VCR's memory.

You may want to add or remove channels if some of the channels are not active, have weak signals, or you do not want to watch them.

- A. Press VCR1.
- B. Press MENU•PROG on the remote to see the VCR MAIN MENU on the TV screen.
- C. Press 4 to display the CHANNEL SETUP menu.
- D. Press 2 to display the ADD/REMOVE CHANNEL menu.
- E. Follow the directions on the screen.
- F. Add or remove more channels by entering channel numbers or using CHANNEL up and down buttons.



Startup

7. Use TV•VCR button.

Skip this step if you used one of the advanced hookups.

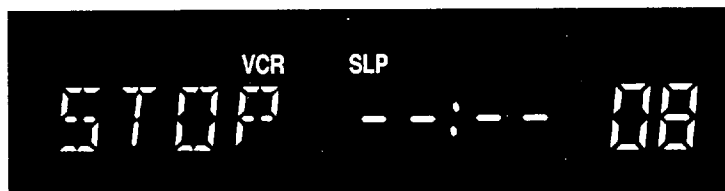
When using one of the basic hookups, the TV•VCR button lets you switch between the picture coming from the VCR or television channels. This button allows you to record a program on the VCR while watching another channel on the TV. *Details are on page 23.*

- A. Press VCR1 to set the remote to control the VCR.
- B. Press TV•VCR to see the picture from the VCR.
The VCR indicator lights in the display panel.
- C. Press CHANNEL up or down to change channels on the VCR.
The channel number changes on the TV screen.
- D. Press TV•VCR to see the TV channels.
The VCR indicator does not light in the display panel. Change channels using the TV's remote.
- E. Return the TV to the VCR viewing channel — CH3 or CH4.
- F. Press VCR1, then TV•VCR to switch back to the picture from the VCR.

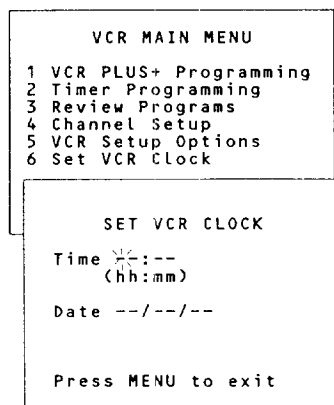
8. Set the time and date.

When you first turn on the VCR, -- : -- appears in the clock area of the VCR's display panel.

VCR Display Panel



- A. Press MENU•PROG on remote to see VCR MAIN MENU on the TV screen.
- B. Press 6 to display SET VCR CLOCK.
- C. Enter the time and date with the number buttons on the remote.
 - Press 0 before single-digit numbers.
Example: press 0, then 5, then 0, then 7 for a time of 5:07. Press 1 for AM or 2 for PM.
 - Press CLEAR on the remote to change incorrect entries.
- D. Press MENU•PROG to remove the SET VCR CLOCK menu from the TV screen and start the clock.
- E. Press 0 to exit the menu system.
The time and date appears on the TV screen whenever you press DISPLAY, and the time appears in the VCR's display panel.



Controlling a VCR

The VCR's remote controls two compatible RCA, ProScan, or GE VCRs with the VCR1 and VCR2 buttons. Most compatible VCRs automatically respond to VCR1 without being programmed. If you own two compatible VCRs, test them to see if VCR1 turns on both VCRs. If it does, then you may want to program this VCR to respond to the VCR2•LD button on the remote.

Program the VCR for remote control

Set the Remote Control feature of the VCR to the VCR1 or VCR2•LD position. The remote then controls the VCR with either the VCR1 or VCR2•LD button — whichever position you select in the menu.

1. Press MENU•PROG to display the VCR MAIN MENU.
2. Press 5 to display SETUP OPTIONS.
3. Press 2 to activate the Remote Control feature.
4. Press VCR1 or VCR2•LD to change the setting and program this VCR to respond to the VCR1 or VCR2•LD button — whichever you select.

Important Reminder: Remember you must press VCR1 or VCR2•LD on the remote — whichever you selected in the menu — before the remote will operate this VCR.

```
VCR MAIN MENU
1 VCR PLUS+ Programming
2 Timer Programming
3 Review Programs
4 Channel Setup
5 VCR Setup Options
```

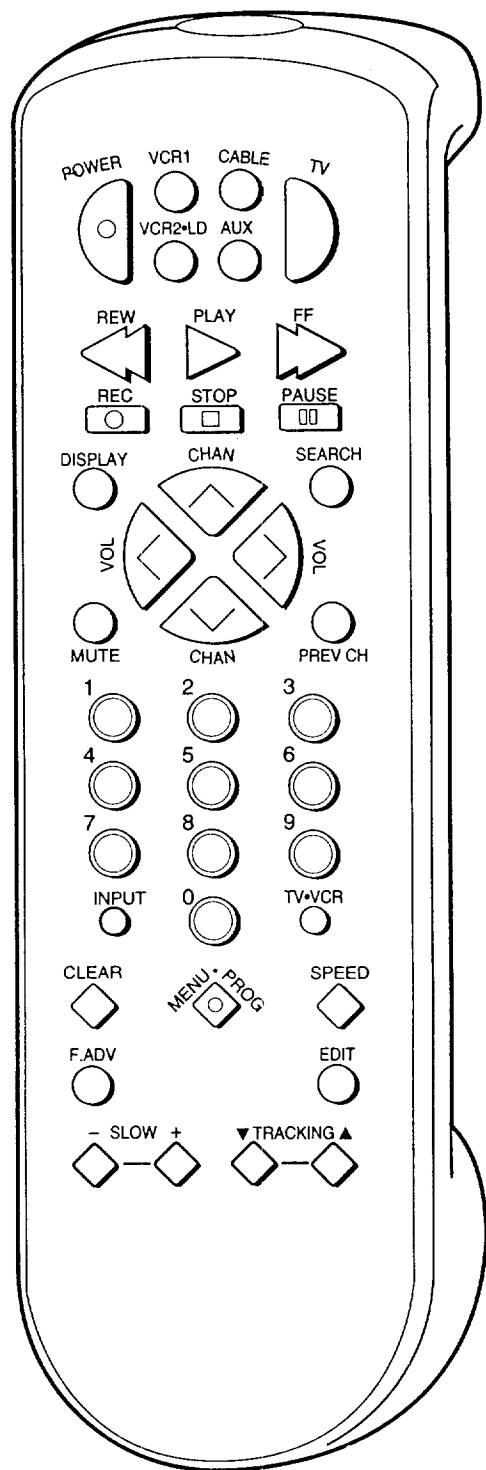
```
SETUP OPTIONS
1 VCR Plus+ Setup
2 Remote Control: VCR1
3 Auto Play: ON
4 Audio Setup

Press VCR2 to change
```

```
SETUP OPTIONS
1 VCR Plus+ Setup
2 Remote Control: VCR2
3 Auto Play: ON
4 Audio Setup

0 Exit to Main Menu
```

Buttons



Component Buttons

Press one of the buttons to set the remote to operate that component.

AUX (Auxiliary)

Used with POWER button to turn on a compatible RCA audio component. *See page 16.*

CABLE

Used with POWER button to turn on a compatible cable box or an RCA satellite receiver. *See page 15.*

TV

Turns on a compatible RCA, ProScan, or GE TV and sets the remote to control the TV.

Used with POWER button to turn on another brand of TV when the remote

is programmed to control that TV. *See page 14.*

VCR1

Turns on a compatible RCA, ProScan or GE VCR and sets remote to control VCR.

VCR2•LD

Turns on a compatible RCA, ProScan or GE VCR and sets remote to control VCR when it has been setup. *See page 11.*

Used with POWER button to turn on compatible RCA or ProScan LaserDisc player.

VCR Function Buttons

Press VCR1 (VCR2•LD) to set remote to control the VCR to use the function buttons.

CHAN Up or Down

Selects next higher or lower channel in the VCR's channel memory.

CLEAR

Resets time counter to 0:00:00.

Allows you to change entries when setting the clock or VCR for a VCR Plus+ or a timer recording.

DISPLAY

Displays VCR operating displays on the TV screen.

Displays the time counter.

EDIT

Signals two properly connected VCRs to begin copying a tape. *See page 31.*

F.ADV (Frame Advance)

Lets you view one frame with each press of the button when tape is in stop-action pause.

FF (Fast Forward)

Fast forwards the tape when the VCR is stopped.

Searches the picture in forward motion during playback.

INPUT

Turns the line input (L) in VCR display panel or VIDEO IN on TV screen on or off.

Line input refers to the signal coming from the component connected to the audio/video jacks on the back of the VCR.

MENU•PROG

Displays the VCR MAIN MENU on the TV screen.

Removes a menu from the screen.

Numbers (0 through 9)

Select a channel up to 99 by pressing two numbers.

Select a cable channel over 99 by pressing and holding 1 until 1-- appears on the screen. Then press the other two numbers.

PAUSE

Pauses action for viewing during playback.

Pauses recording to prevent recording of unwanted scenes.

Buttons

VCR Function Buttons (continued)

PLAY

Plays a tape.

POWER

Turns off VCR when remote is set to control the VCR.

PREV CH (Previous Channel)

Switches between two channels.

Select one channel and then select another. Press PREV CH to switch between the two channels.

REC

Starts VCR recording.

Used for express recording (XPR).
See page 25.

REW (Rewind)

Rewinds the tape when the VCR is stopped.

Searches the picture in reverse motion during playback.

SEARCH

Displays INDEX, TIME, and GO-TO SEARCH menus on TV.

Advances tape 60 or 120 seconds during playback.

SLOW - / +

Used for slow-motion playback.

SPEED (Tape Speed)

Selects a recording speed (SP, LP, SLP).

STOP

Stops the normal functions such as record, playback, rewind, fast forward, and pause of the VCR.

TRACKING Up or Down

Lets you manually reduce the streaks that may appear on the picture during play, slow, or pause.

Reduces picture "jitter" during stop-action playback.

TV•VCR

Switches the picture signal so that it either comes from the VCR or the TV channel. *See page 9.*

TV Function Buttons

Press the TV button to set remote to control a compatible TV. Some buttons may not work with the TV.

CHAN (Channel) Up or Down

Selects next higher or lower channel in the TV's channel memory when remote is set to control a TV.

CLEAR

Removes menus or status displays from the screen.

DISPLAY

Shows the status displays on the screen.

Removes menus or displays from the screen.

POWER

Turns off a compatible TV when remote is set to control that TV.

Used with TV button to turn on a compatible TV that the remote has been programmed to control. *See page 14.*

MUTE

Turns the TV sound on or off.

Numbers (0 through 9)

Select a channel up to 99 by pressing two numbers.

To select a cable channel over 99, press and hold 1 until 1-- appears on the screen. Then press the other two numbers.

PREV CH (Previous Channel)

Switches between two channels.

Select one channel and then select another. Press PREV CH to switch between the two channels.

VOL (Volume) Up or Down

Raises and lowers sound of TV.

Cable Box or RCA Satellite Receiver Function Buttons

Press the CABLE button to set remote to control a compatible cable box or RCA satellite receiver (if connected). Some buttons may not work with the cable box or RCA satellite receiver. For the RCA satellite receiver, you will want to test the other remote buttons to see which ones work with the satellite receiver.

CHAN (Channel) Up or Down

Selects next higher or lower channel in the cable box or RCA satellite receiver's channel memory when remote is set to control a cable box or satellite receiver.

Numbers (0 through 9)

Select a channel up to 99 by pressing two numbers.

POWER

Turns off a compatible cable box or RCA satellite receiver when remote is set to control that cable box or RCA satellite receiver.

Controlling a TV

The VCR's remote is preprogrammed to control the basic functions of a compatible RCA, ProScan, or GE TV. The remote can also be set up to control other manufacturer's brands. To program the remote for another manufacturer's TV, enter the code that corresponds to your brand.

Program the remote for a TV

1. Turn on the TV.
2. Point the VCR remote at the TV.
3. Hold the TV button and press two number buttons to enter the code for your brand. If the TV changes channels when the CHANNEL up or down button is pressed, setup is complete.
4. Release the buttons.
5. Repeat steps 2 – 4 with a different code if the first one does not work.

TV Code List					
Brand *	Code Number(s)	Brand *	Code Number(s)	Brand *	Code Number(s)
Akai	03	Kawasho	03,06	Realistic	05
AOC	06	Kenwood	06,12	Sampo	06
Candle	06	Loewe	04	Samsung	06,09,12
Citizen	06	Luxman	06	Sanyo	05,08
Colortyme	06	LXI	04,05,07	Sears	01,05,06,07,08,10,12
Concerto	06	Magnavox	04,06,12	Sharp	06,13
Curtis Mathes	01,06	Marantz	04,06	Sony	03
Daewoo	06	MGA	06,12	Soundesign	06
Daytron	06	Mitsubishi	06,12	Sylvania	04,06,12
Electrohome	06,12	MTC	06	Technics	11
Emerson	06	NAD	07	Techwood	06
Envision	05,06	NEC	06	Teknika	06
Fisher	05,08	Panasonic	04,11	TMK	06
GE	00,01,06,11	Philco	04,06,12	Toshiba	05,07,09
Goldstar	06,12	Philips	03,04,06,12	Universal	00
Hallmark	06	Pioneer	06	Victor	10
Hitachi	06	Portland	06	Wards	00,01,04,06,12,13
Infinity	04	ProScan	01	Yamaha	12
J C Penney	00,01,06,09	Proton	06	Zenith	02
JBL	04	Quasar	11		
Jensen	06	Radio Shack	01,05,13		
JVC	10,11	RCA	01,06,12		

* The remote may not be able to control every model TV of the brands listed.

Helpful Hint: Notice the difference between the TV and VCR on-screen displays. This is one way to tell if the remote is set to control the VCR or the TV.

Operate the TV

After you have set up your remote to control your TV, test the TV buttons to see which ones operate your TV.

1. Point the remote at the TV and press TV.
2. If TV does not turn on in step 1, press TV and then POWER.
3. Use the "TV Function Buttons" as described on page 13.

Controlling a Cable Box or an RCA DSS™ Satellite Receiver*

The CABLE button on the VCR's remote is preprogrammed to control either a compatible RCA cable box or an RCA DSS satellite receiver. If the cable box is another manufacturer's brand and it has its own remote, then you may be able to program the VCR's remote to control the cable box. To program the remote for another manufacturer's cable box, enter the code that corresponds to your brand.

Program the remote for a cable box

1. Turn on the cable box.
2. Point the VCR remote at the cable box.
3. Hold the CABLE button and press two number buttons to enter the code for your brand.
4. Release the buttons.
5. Press POWER on the remote. If the cable box turns off, setup is complete.
6. Repeat steps 2 – 5 with a different code if the first one does not work.

Cable Box Code List			
Brand **	Code Number(s)	Brand **	Code Number(s)
ABC	53,54	Philips	07, 08, 19, 26, 28, 29, 32, 33, 40, 41
Anvision	07, 08	Pioneer	18, 20, 44
Cablestar	07, 08	Randtek	07, 08
Eagle	07, 08	RCA	00, 27
Eastern International	02	Regal	12, 13
General Instrument	04, 05, 15, 23, 24, 25, 30, 36	Regency	02, 33
Hamlin	12, 13, 34, 48	Samsung	44
Hitachi	37, 43	Scientific Atlanta	03, 22, 35
Jerrold	04, 05, 15, 23, 24, 25, 30, 36, 45, 46, 47	Sylvania	11
Macon	37, 43	Teknika	06
Magnavox	07, 08, 19, 26, 28, 29, 32, 33, 40, 41	Texscan	10, 11
NSC	09	Tocom	17, 21, 49, 50
Oak	01, 16, 38	Unika	31, 32, 41
Oak Sigma	16	Universal	51, 52
Panasonic	03, 27, 39	Viewstar	07, 08, 19, 26, 28, 29, 32, 33, 40, 41
		Warner Amex	44
		Zenith	14, 42

** The remote may not be able to control every cable box model of the brands listed.

Operate the cable box or RCA DSS satellite receiver

After you have set up your remote to control your cable box (if required), test the buttons to see which ones operate your cable box or RCA DSS satellite receiver.

1. Point the remote at the cable box or satellite receiver and press CABLE.
2. If the cable box or satellite receiver does not turn on in step 1, press CABLE and then POWER.
3. Use the "Cable Box Function Buttons" for the cable box or satellite receiver or test the other remote buttons for the satellite receiver box.

*DSS is a trademark of DIRECTV, Inc., a unit of GM Hughes Electronics.

Controlling an RCA Auxiliary Component

The remote that came packed with your VCR can control only compatible RCA audio components, such as a radio, CD player, tape player or turntable. The remote must be programmed for the specific component the remote is to control. To program the remote, use the code that corresponds to your component.

Program the remote for an RCA auxiliary component

1. Turn on the component.
2. Point the VCR remote at the component.
3. Hold the AUX button and press two number buttons to enter the code for the component.
4. Release the buttons.
5. Press POWER on the remote. If the component turns off, setup is complete.

Type of Auxiliary Equipment and Code*				
	AM/FM	CD	TAPE	PHONO
RCA	03	07	06	05

* The remote may not be able to control every RCA model of the auxiliary equipment listed.


Operate the auxiliary component

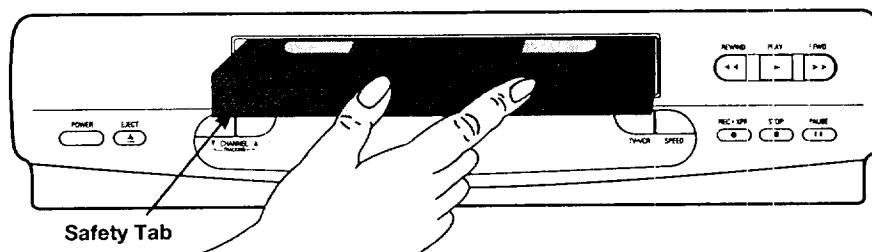
After you have set up your remote to control your component, test the buttons to see which ones operate the component.

1. Point the remote at the component and press AUX.
2. If the component does not turn on in step 1, press AUX and then POWER.

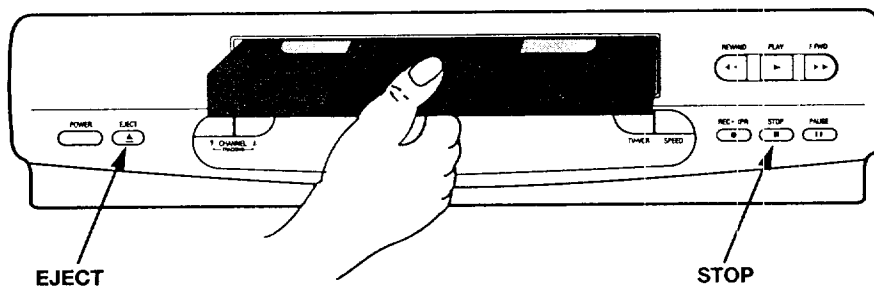
Operating Instructions

To play a tape

1. Turn on the TV and tune it to channel 3, 4, or TV's video input to see the picture from the VCR.
2. Insert a tape in the VCR.
VCR automatically turns on. Tape automatically begins playback if the safety tab on the cassette has been removed and the Auto Play feature is turned on. The cassette-in  and VCR indicators light.



3. Press PLAY, if necessary.
4. Press CHANNEL•TRACKING on the VCR or TRACKING up or down on the remote to remove any streaks from the picture if necessary. *Details are on page 19.*
5. Press STOP on the VCR or remote.
6. Press REWIND on the VCR or REW on the remote.
The VCR will automatically rewind the tape if it reaches the end of the tape during playback. While rewinding, you can also press POWER and the VCR will automatically turn off after rewinding.



7. Press EJECT on the VCR to eject the tape once it is completely rewound.

Using the Playback Features

Auto Play Feature

This feature lets you tell the VCR whether you want it to automatically start playing a tape that is inserted with the safety tab removed.

1. Press MENU•PROG on the remote to see the VCR MAIN MENU on the TV screen.
2. Press 5 to display the SETUP OPTIONS menu.
3. Press 3 to select Auto Play: ON or OFF.
 - Select ON to have a tape with its safety tab removed start playing automatically.
 - Select OFF if you do not want a tape with its safety tab removed to start playing automatically.

```
VCR MAIN MENU
1 VCR Plus+ Programming
2 Finer Programming
3 Review Programs
4 Channel Setup
5 VCR Setup Options
```

```
SETUP OPTIONS
1 VCR Plus+ Setup
2 Remote Control: VCR1
3 Auto Play: ON
4 Audio Setup

0 Exit to Main Menu
```

Pause for Stop Action

This feature stops the tape in action and allows you to examine the details of the scene. Stop action works best for tapes recorded in the SP or SLP speed.

1. Press PAUSE during playback to stop the action.
2. Press TRACKING ▼ or ▲ on the remote or CHANNEL•TRACKING on the VCR to reduce any jittering of the picture.
3. Press PAUSE or PLAY to return to playback.

The VCR will automatically switch from stop-action playback to stop after a few minutes.

Slow Motion

You can view the picture in slow motion during play or play pause. SLOW + and – allow you to change the speed. Sound is turned off during slow-motion playback. Slow motion works best in the SP or SLP speed.

1. Press SLOW + to increase the speed or – to decrease the speed.
2. Use TRACKING ▲ or ▼ on the remote or CHANNEL•TRACKING on the VCR to remove any streaks from the picture.
3. Press PLAY to return to playback.

The VCR will automatically switch from slow-motion playback to stop after a few minutes.

Picture Search

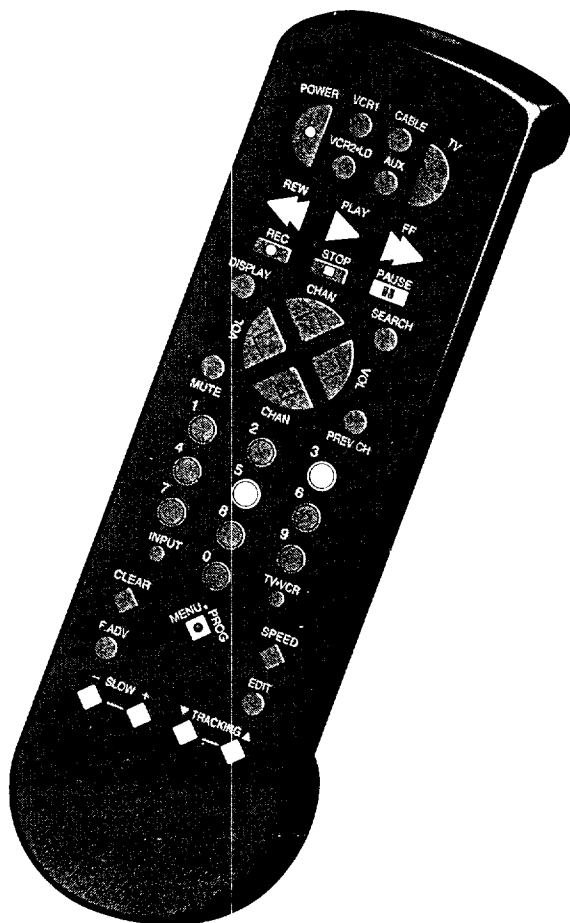
You can search a picture during playback by fast forwarding or rewinding the tape. Sound is turned off during picture search. The picture is best for tapes recorded in the SP or SLP speed.

Fast Forward Search

1. Press F.FWD on the VCR or FF on the remote to search forward at a faster-than-normal speed.
2. Press F.FWD on the VCR, FF on the remote, or PLAY to return to playback.

Rewind Search

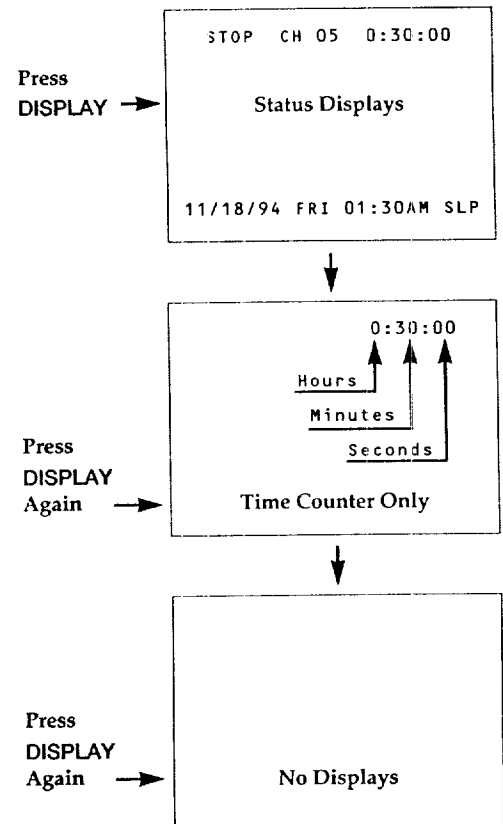
Use REW instead of F.FWD for the same steps in "Fast Forward Search."



Using the Playback Features

DISPLAY Button

1. Press DISPLAY to display the status of the VCR, channel number, time counter, date, time, and tape speed on the TV screen.
The time and date must be set before they are displayed. If you do not press DISPLAY again, this display will time out.
2. Press DISPLAY again to continually display the time counter on the TV screen. The time counter will appear instead of the time in the VCR's display panel.
3. Press DISPLAY again to remove the time counter from the TV.
The time counter will remain in the VCR's display panel and no status displays will appear on the TV screen. This is convenient for editing tapes.
4. Press DISPLAY again to return to the normal display mode.
The clock will appear in the VCR's display panel.



Frame Advance (F.ADV Button)

Frame advance lets you view one stop-action frame after another. Frame advance works best for tapes recorded in the SP or SLP speed.

1. Press PAUSE to stop the action.
2. Press F.ADV each time you want to view the next frame of the scene.
3. Press PAUSE or PLAY to resume normal playback.

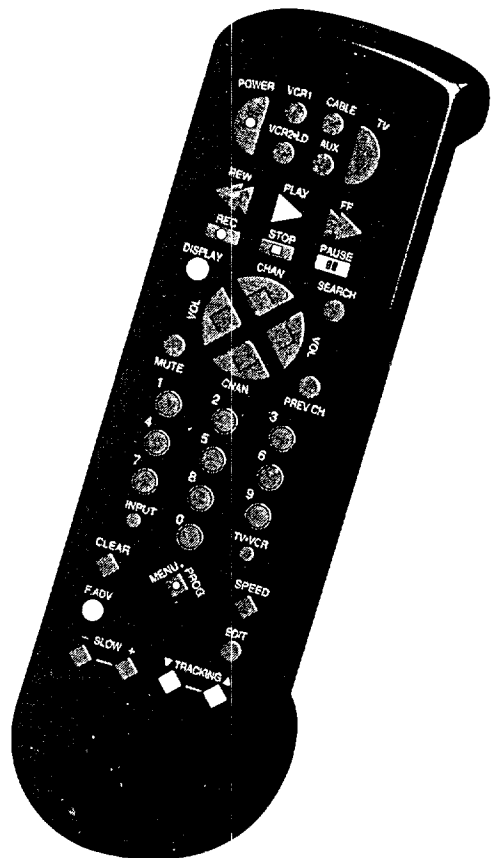
Automatic Tracking

The VCR has automatic tracking which adjusts the picture when playing back a tape recorded on another VCR. Automatic tracking is turned on whenever a tape is inserted or the VCR's power is turned on.

Manual Tracking

Occasionally, you may need to manually adjust tracking on a tape recorded on a different VCR or camcorder. The TRACKING buttons on the remote or CHANNEL•TRACKING on the VCR are used when playing a tape. They have no effect during recording.

When streaks or snow appear during normal or slow-motion playback, press TRACKING up or down on remote or CHANNEL•TRACKING on VCR for the best possible picture. During stop-action pause, use the TRACKING buttons to reduce picture jitter.



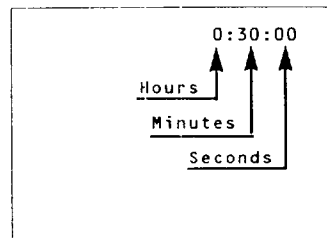
Using the Playback Features

Time Counter

The time counter shows the actual time it takes to record a program or play back a segment of a prerecorded tape. It helps locate the beginning or end of programs you taped. The time counter resets to 0:00:00 whenever the tape is ejected from the VCR.

For example, if a 30-minute program was recorded at the beginning of the tape, you would:

1. Insert the prerecorded tape.
2. Press DISPLAY twice to display only the time counter on the TV screen.
3. Press F.FWD on the VCR or FF on the remote to fast forward the tape until the time counter reads 0:30:00.
4. Press STOP.
This is the approximate end of the program and you can begin recording at this spot.
5. Press CLEAR to reset the time counter to 0:00:00.
6. Press DISPLAY two times to remove the time counter from the screen and return to the normal display mode.

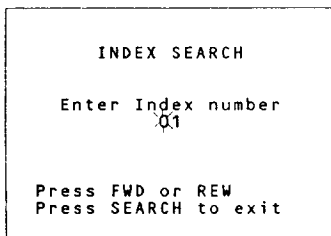


Index Search

The VCR has a "VHS Index Search System" that automatically records an index mark on the tape every time you start recording. During playback you can locate the program you want to play by the number of index marks.

The VCR will automatically locate the index number you select. The VCR will search forward or reverse from the location you are on the tape.

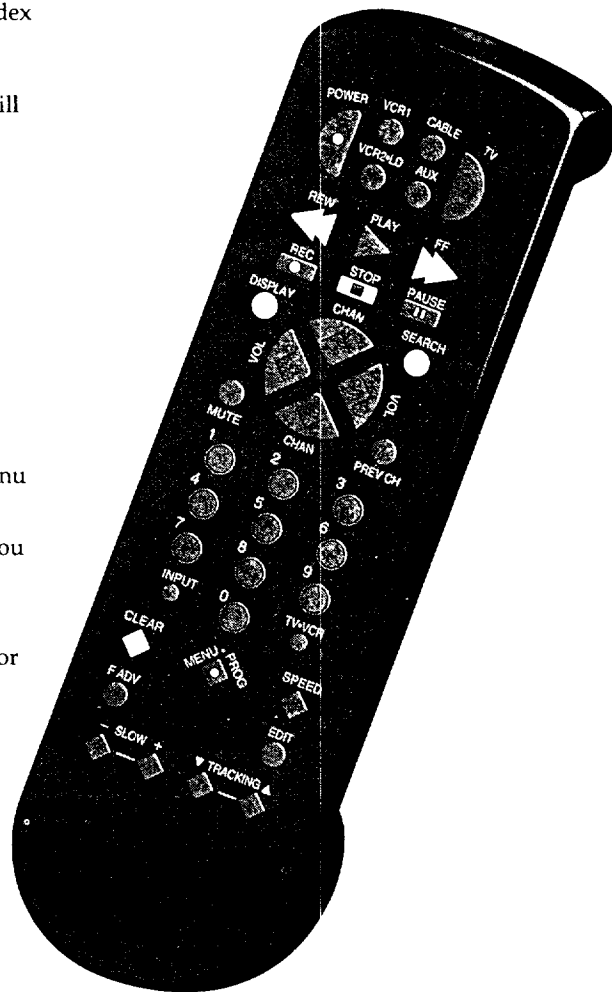
1. Insert the prerecorded tape and press STOP.



2. Press SEARCH on the remote to display the INDEX SEARCH menu on the TV screen.
3. Press two number buttons to enter the number of index marks you want the VCR to search.
Press CLEAR on the remote to correct an entry.
4. Press F.FWD on the VCR or FF on the remote to search forward or REW to search in reverse.
5. Press STOP to stop index searching.

Some index marks may be missed by the VCR.

- A mark too close to your location on the tape.
- The mark at the beginning of a recorded segment of five minutes or less.
- The first index mark on the tape when you start at the beginning of the tape.

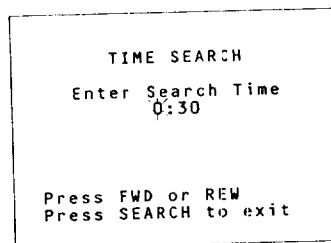


Using the Playback Features

Time Search

The VCR will search forward or reverse the amount of time you select from the location you are on the tape.

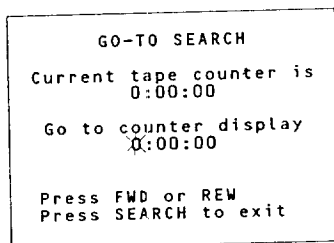
1. Insert the prerecorded tape and press STOP.
2. Press SEARCH on the remote twice to display the TIME SEARCH menu on the TV screen.
3. Press number buttons to enter the amount of time in hours and minutes you want the VCR to search.
Press CLEAR on the remote to correct an entry.
4. Press F.FWD on the VCR or FF on the remote to search forward or REW to search in reverse.
5. Press STOP to stop time searching.



Go-To Search

The VCR will search for the time counter reading you select and automatically begin playing back the tape.

1. Insert the prerecorded tape and press STOP.
2. Press SEARCH on the remote three times to display the GO-TO SEARCH menu on the TV screen.

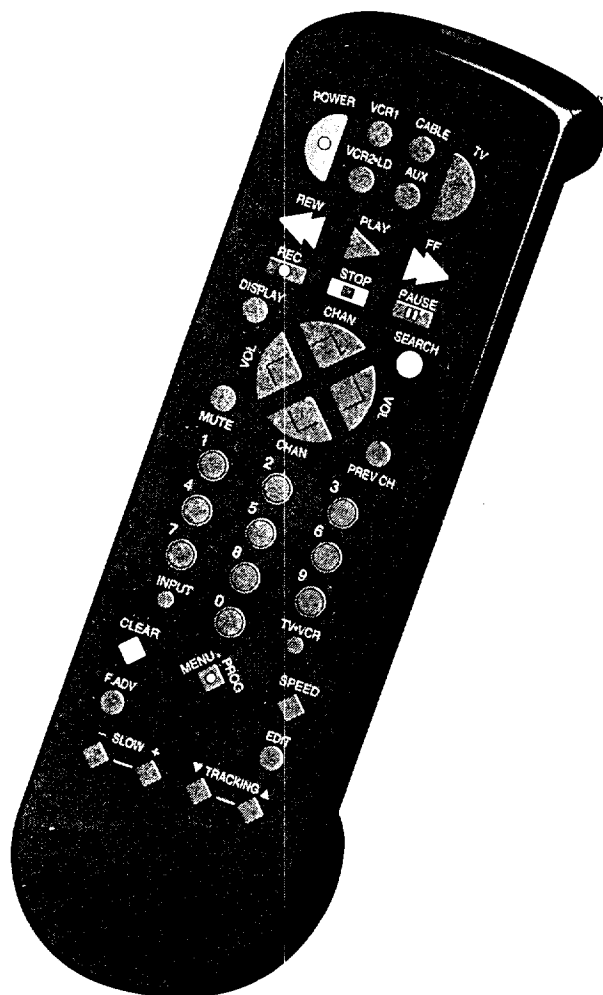


3. Press number buttons to enter the hour(s) and minute(s) of the time counter reading you want the VCR to search.
Press CLEAR on the remote to correct an entry.
4. Press F.FWD on the VCR or FF on the remote to search forward or REW to search in reverse for the time counter reading you entered.
5. Press STOP to stop go-to searching.

Commercial Scan (SEARCH Button)

This is useful for scanning commercials or short program segments.

1. Press SEARCH once during playback to advance the tape approximately 60 seconds.
2. Press SEARCH twice during playback to advance the tape approximately 120 seconds.



Using the Playback Features

Playback: HI-FI/LINEAR/MIX Feature

The VCR records the same audio on both the Hi-Fi and linear tracks on the tape. The Hi-Fi sound is recorded on separate left and right stereo channels. Monaural sound is recorded on the linear track.

To enjoy Hi-Fi sound, connect your VCR to a stereo television or amplifier/receiver using the audio/video jacks. The Playback: HI-FI/LINEAR/MIX feature lets you select which audio you play back.

To select playback sound

1. Press MENU•PROG to see the VCR MAIN MENU on the TV screen.
2. Press 5 to see the SETUP OPTIONS menu on the TV screen.
3. Press 4 to see the AUDIO SETUP menu on the TV screen.
4. Press 2 to switch between HI-FI, LINEAR, or MIX sound.

- Select HI-FI to play back sound recorded on the Hi-Fi track and for normal use.

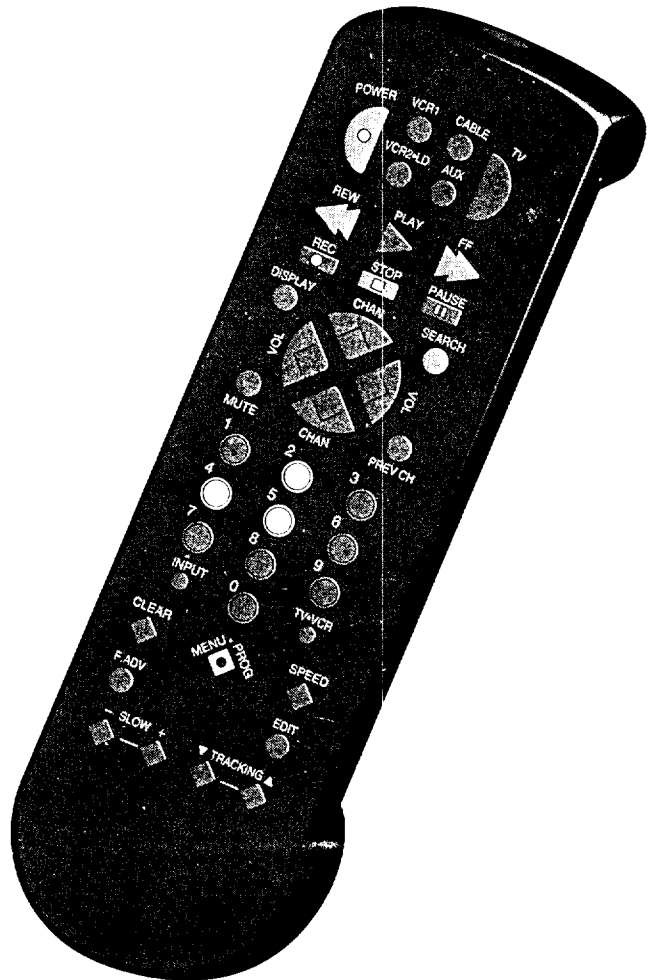
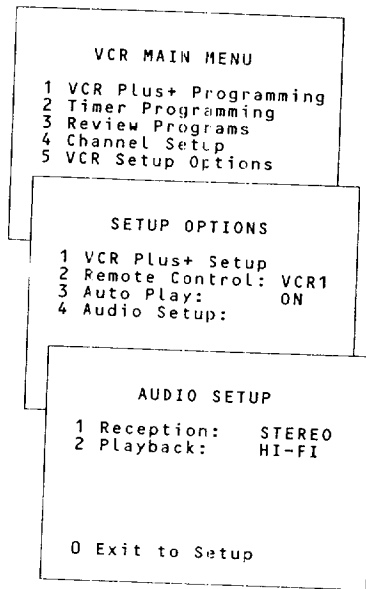
The HI-FI indicator lights in the VCR's display panel.

- Select LINEAR to play back the sound recorded on the linear monaural track, such as a second audio program (SAP).

The HI-FI indicator turns off in the VCR's display panel.

- Select MIX to play back the sound recorded on both the linear track and the Hi-Fi track, sound-on-sound.

The HI-FI indicator lights in the VCR's display panel.



Types of Recordings

Your VCR provides different types of recording. These types are explained in the following sections:

Basic Recording – Operating Instructions

Express (XPR) Recording

Recording While You're Away

VCR Plus+ Recording

Timer Recording

Using Two VCRs for Copying Tapes

Recording Broadcast Stereo TV or SAP

Recording Audio Only

Basic Recording – Operating Instructions

To make a recording

Turn on the TV and tune it to the VCR viewing channel, either 3, 4, or TV's video input channel.

1. Insert a tape with safety tab in place.
2. Press VCR1 (VCR2•LD) to set remote to control VCR.
3. If using one of the basic hookups, make sure the VCR indicator appears in the VCR's display panel. If not, press TV•VCR to turn it on.
4. Select recording speed using SPEED on the VCR or remote.
The tape speed indicator appears in the VCR's display panel and on the TV screen.
5. Select the channel to be recorded.
The channel number appears in the VCR's display panel and on the TV screen.
6. Press REC•XPR to begin recording.

Watch a TV channel while VCR is recording a different channel

1. Follow steps 1 through 6 above.
2. If using one of the basic hookups, press TV•VCR to switch to the TV channel. The VCR indicator will turn off in the display panel.
3. Press TV to set the remote to control TV functions for a compatible TV.
4. Select the channel you want to watch with the TV's channel buttons.
5. Press STOP on VCR or remote when recording is finished.

Recording While You're Away

Select Cable Box or Satellite Receiver Viewing Channel

(Required Only if All Channels Are Received From a Cable Box or Satellite Receiver)

After you select the cable box or satellite receiver viewing channel, the VCR will automatically enter the output channel of your cable box or satellite receiver in the VCR PLUS+ and Timer Programming menus as the channel to be recorded. No VCR Plus+ setup is required when you use a cable or satellite receiver.

Operating Instructions

1. Press MENU•PROG on the remote to display the VCR MAIN MENU on the TV screen.
2. Press 4 to display CHANNEL SETUP menu.
3. Press 4 to display Sat./Cable Box Setup menu.
4. Press 1 when the Sat./Cable Box Setup menu appears.

5. Press two numbers on the remote to enter the output channel of your cable box or satellite receiver. Press 0 before a single-digit number. For Example: Press 03 for channel 3.

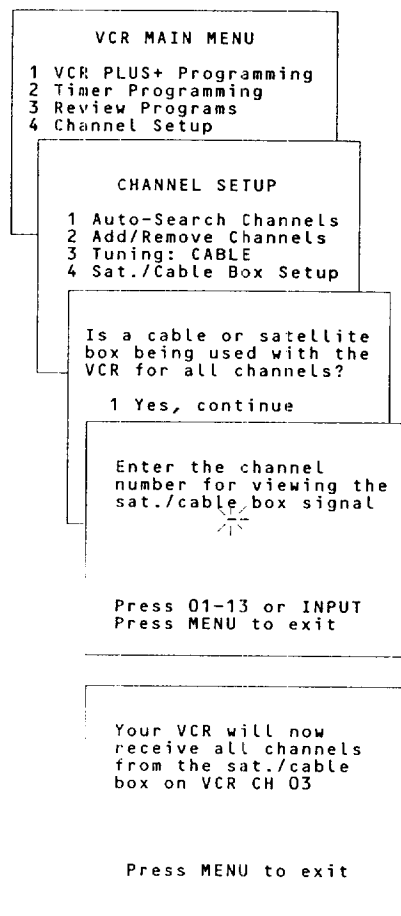
If you connected your cable box or satellite receiver to the VCR using the cable box or satellite receiver's AUDIO/ VIDEO OUT jacks, press INPUT on the remote to select the VIDEO IN option.

Press CLEAR to erase a number.

6. Press MENU•PROG when you are finished. A message appears which will time out, or press MENU•PROG to return to CHANNEL SETUP screen.

The VCR will now automatically enter the output channel of your cable box or satellite receiver as the channel to be recorded in the VCR PLUS+ and Timer Programming menus.

7. Exit the menu system by following directions at the bottom of the screen.



Turn on the cable box or satellite receiver and tune it to the channel you want to record before time for the recording to begin.

Recording While You're Away (VCR Plus+* Recording)

VCR Plus+ Setup for Antenna or Unscrambled Cable Systems (Not Requiring a Cable Box)

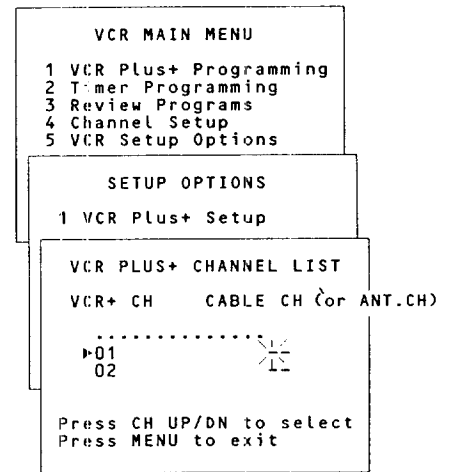
A VCR Plus+ channel number is assigned for each broadcast or cable channel. These numbers are listed in most publications that list PlusCode numbers.

1. Prepare a worksheet for the VCR Plus+ channels that are different than the channels you receive them on. Refer to the chart below for standardized VCR Plus+ channel numbers.

Broadcast or Cable TV Station Name	VCR Plus+ Channel Number	Channel Number You Receive This Station On
HBO	33	See Note 1
ESPN	34	See Note 1
ABC	See Note 2	See Note 1
Fox	See Note 2	See Note 1

Note 1: Check your local or cable listing for the channel number you receive this station on.
Note 2: Check your local listing for the broadcast or VCR Plus+ channel number assigned to this station.

2. Press MENU•PROG on the remote to display the VCR MAIN MENU on the TV screen.
3. Press 5 to display SETUP OPTIONS menu.
4. Press 1 to display VCR PLUS+ CHANNEL LIST menu.
5. Using your worksheet, press two numbers to enter each channel number you receive on a different channel than the assigned VCR Plus+ channel number.
 If a channel in your area has been assigned more than one VCR Plus+ channel number, enter that same channel number next to each VCR Plus+ channel number.
 Press CHANNEL up or down to move the VCR+ CH numbers up or down on the menu.
 Press CLEAR on the remote to erase a number.
6. Press MENU•PROG when you are finished.
7. Press 0 to exit the menu system.



Standardized VCR Plus+ Channel Numbers for Cable-TV					
U.S.A. List	58	The Movie Channel	Canadian List	65	MeteoMedia/The Weather Network
35 American Movie Classics	48	Music Television	67 Allarcom Pay Television/Superchannel	48	MuchMusic Network
39 Arts & Entertainment	49	The Nashville Network	44 Arts & Entertainment	55	MusiquePlus
57 Black Entertainment	38	Nickelodeon	72 Cable News Network-Headline News	52	Nashville Network
54 Bravo	64	The Nostalgia Channel	61 Cable News Network	73	Newsworld/CBC
42 Cable News Network	99	Quality Value Cable	70 Canadian Home Shopping Network	53	Le Reseau des Sports
45 Cinemax	41	Showtime	56 Canal Famille	43	The Sports Network
98 Cinemax 2	97	Showtime 2	69 Cathay International Television Inc	64	Super Ecran
37 The Discovery Channel	59	Sports Channel	68 Chinavision Canada Corp	64	Super Ecran B
53 The Disney Channel	52	Turner Network Television	60 Country Music Television	98	Super Ecran C
63 Entertainment Television	44	USA Network	63 Family Channel	66	Telatino Network Inc
34 ESPN Sports Network	62	Video Hits 1	62 First Choice	46	TV5 Montreal
47 The Family Channel	93	Viewer's Choice 1	96 First Choice Two	92	Viewer's Choice 1
33 Home Box Office	94	Viewer's Choice 2	97 First Choice Three	93	Viewer's Choice 2
95 Home Box Office 2	55	WGN Chicago	99 First Choice Four	94	Viewer's Choice 3
96 Home Box Office 3	43	WTBS Atlanta	90 House of Commons	95	Viewer's Choice 4
51 The Learning Channel	60	WWOR New York	91 La Chaine Francaise	71	Vision TV: Canada's Faith Network
46 Lifetime			51 The Learning Channel	38	Youth TV, Canada Inc

*VCR Plus+ and PlusCode are trademarks of Gemstar Development Corporation.

Recording While You're Away (VCR Plus+ Recording)

The VCR Plus+ and timer program features let you program the VCR to record up to eight different programs within a one year period. Before using VCR Plus+ to record a program, make sure that:

- The clock is set correctly.
- A tape with safety tab has been inserted with enough tape to record the programs.
- The remote is set to control the VCR — using VCR1 (VCR2•LD).
- The VCR is setup for VCR Plus+ programming.
 - If you receive all channels through a cable box or satellite receiver, select the viewing channel on page 26.
 - If you do not use a cable box or satellite receiver for all channels, complete VCR Plus+ Setup on page 27.

Setting a VCR Plus+ Recording

1. Press MENU•PROG on the remote to display the VCR MAIN MENU.
2. Press 1 to display the VCR PLUS+ menu.
3. Press numbers on the remote to enter PlusCode number for the program you want to record. VCR PlusCode numbers are found in most local TV listings.

Press CLEAR on the remote to correct an entry.

4. Press MENU•PROG to enter the program.

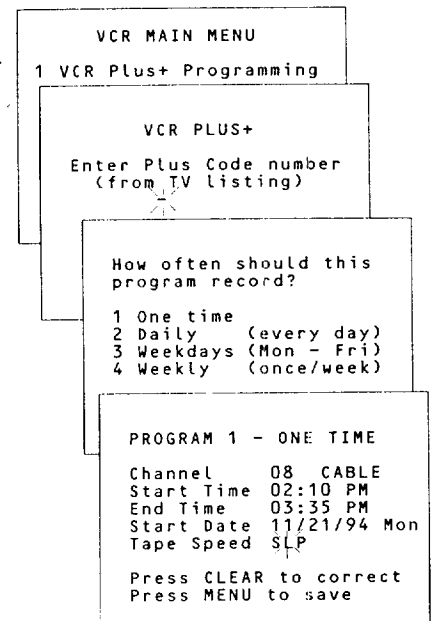
If the VCR does not recognize the PlusCode number, check the number and enter it again.
5. Press 1, 2, 3, or 4 to select type of program.
 - 1 One time – single program recorded once.
 - 2 Daily – program recorded at same time every day.
 - 3 Weekdays – program recorded at same time Monday through Friday.
 - 4 Weekly – program recorded at same time once a week.
6. Select recording speed using the SPEED button.
7. Press CLEAR repeatedly to change the program End Time and enter the new time.

This feature allows you to extend the recording time on VCR Plus+ program before the program is saved. This option may be useful when recording programs such as sporting events that could go past scheduled broadcast times.

8. Press MENU•PROG to enter your program. A reminder appears which will time out or you can press MENU•PROG to return to the VCR MAIN MENU.

PROGRAMS OVERLAP may appear on the screen if you entered two programs where the times overlap.
9. Repeat steps 2 – 8 for additional programs or press MENU•PROG to remove the menu from the TV screen.
10. **Turn off the VCR** before recording time.

TIMER appears in the VCR's display panel.
11. **If using a cable box, leave it turned on and tuned to the channel you want to record.**



Stopping a Recording in Progress

With the VCR: Press POWER, then STOP within a few seconds.

With the Remote: Press VCR1 (VCR2•LD), then STOP within a few seconds.

Recording While You're Away (Timer Recording)

The timer program and VCR Plus+ features let you program the VCR to record up to eight different programs within a one year period. Before setting the timer, make sure that:

- The clock is set correctly.
- A tape with safety tab has been inserted with enough tape to record the programs.
- The remote is set to control the VCR — using VCR1 (VCR2•LD).
- If you receive all channels through a cable box or satellite receiver, select the viewing channel on page 26.

Setting a Timer Recording

1. Press MENU•PROG on the remote to display the VCR MAIN MENU.
2. Press 2 to display the Timer Programming menu.
3. Press 1, 2, 3, or 4 to select type of program.
 - 1 One time — single program recorded once.
 - 2 Daily — program recorded at same time every day.
 - 3 Weekdays — program recorded at same time Monday through Friday.
 - 4 Weekly — program recorded at same time once a week.
4. Press number buttons on the remote to enter the channel number (or INPUT on remote to select line input), start time including AM or PM, end time, and start date of the recording. Just follow the on-screen prompts.

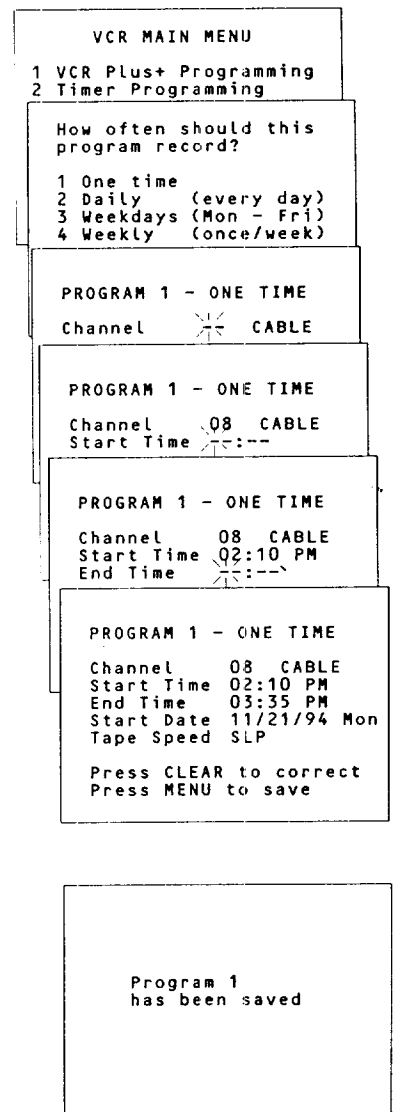
Press CLEAR on the remote to correct an entry.

If you receive all channels from a cable box or satellite receiver and have completed Cable Box Setup, the output channel of your cable box or satellite receiver appears on the menu. See page 26.

5. Select recording speed using the SPEED button on the remote or VCR.
6. Press MENU•PROG to enter your program. A reminder appears which will time out or you can press MENU•PROG to return to the VCR MAIN MENU.

PROGRAMS OVERLAP may appear on the screen if you have entered two programs where the times overlap.

7. Repeat steps 2–6 for additional programs or press MENU•PROG to remove the menu from the TV screen.
8. **Turn off the VCR** before recording begins. TIMER appears in the VCR's display panel.
9. If using a cable box, leave it turned on and tuned to the channel you want to record.



Stopping a Recording in Progress

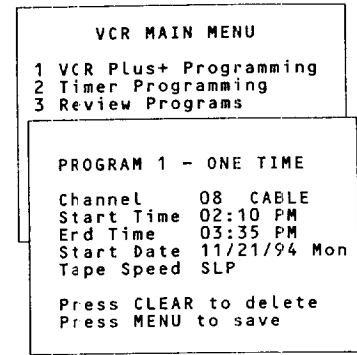
With the VCR: Press POWER, then STOP within a few seconds.

With the Remote: Press VCR1 (VCR2•LD) and then STOP within a few seconds.

Recording While You're Away (Timer Recording)

Checking or Clearing VCR Plus+ and Timer Recordings

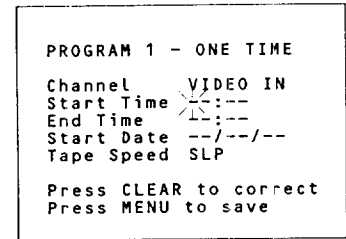
1. Press MENU•PROG on remote to display VCR MAIN MENU on TV screen.
2. Press 3 for Review Programs.
Each entered program is displayed for a few seconds in sequence.
3. Press MENU•PROG or 3 to display information at a faster pace.
4. Press CLEAR on the remote when the program you want to erase appears on the screen.



Timer Recording From the VCR's Line Input

The line input refers to the signal coming from the AUDIO and VIDEO IN jacks of the VCR. Recording from the line input is convenient if you have a satellite receiver or similar component attached to these jacks. To timer record from the component connected to the VCR's line input:

Press INPUT on the remote to enter VIDEO IN instead of the channel number on the TV screen during timer programming.



Using Two VCRs for Copying and Editing Tapes

Operating Instructions (Refer to hookup on page 6.)

Use one VCR as the playback VCR and the other as the recording VCR. If you have two compatible VCRs, use the AutoEdit™ feature described below.

Caution: The unauthorized recording of television programs and other materials may infringe the rights of others.

1. Turn on the TV and VCRs.
2. Tune TV to the VCR viewing channel, either 3, 4, or TV's video input.
3. If you have connected your VCR using Option A (page 6), tune recording VCR to channel 3 or 4 – the one selected on the back of the playback VCR.
If you have connected your VCR using Option B (page 6), press INPUT on recording VCR's remote to select the line input.
4. Insert the tape you want to copy into playback VCR. Insert a blank tape with safety tab in place into recording VCR.
5. Press PLAY, then PAUSE on playback VCR when you reach the point on the tape or program where you want to begin copying. If the tape was not recorded on the playback VCR, streaks may appear and you may need to adjust TRACKING.
6. Press REC•XPR, then PAUSE, on recording VCR.
7. Press PAUSE buttons on both VCRs at the same time to begin copying the tape.*
8. Edit out segments that you do not want to copy by pressing PAUSE on recording VCR to stop copying the tape. Then, locate the next segment you want to copy on playback VCR by using F.FWD, REWIND, and PLAY. Press PAUSE on the playback VCR. Press PAUSE at the same time on both VCRs to resume copying.
9. Press STOP on both VCRs when you are finished.

* You may turn off the TV after the recording has started as it does not have to be on to copy a tape.

Using Dual Remote with AutoEdit™

Use this VCR as the recording VCR and set it to respond to VCR2•LD on the remote as described on page 11. Use your other compatible VCR as the playback VCR, which should respond to VCR1.

1. Follow steps 1– 4 in the "Operating Instructions" above.
2. Press VCR2•LD on remote to control recording VCR. Press REC•XPR, then PAUSE, to put recording VCR in pause mode.
3. Press VCR1 on remote to control playback VCR.
4. Use F.FWD, REW. and PLAY to locate the point where you want to begin copying. Press PAUSE while VCR is playing to put playback VCR in pause mode.
5. Press EDIT on remote; the VCRs will begin copying.
6. Press EDIT again when you want to stop the tape from copying.
7. Repeat steps 4 – 6 as needed.
8. Press VCR1, STOP, then VCR2•LD, STOP, when you are finished.

Recording Broadcast Stereo TV or SAP (Second Audio Program)

Some TV programs are broadcast with stereo audio or a second audio language (SAP). The Reception: STEREO/MONO/SAP feature lets you select the type of audio you want to record.

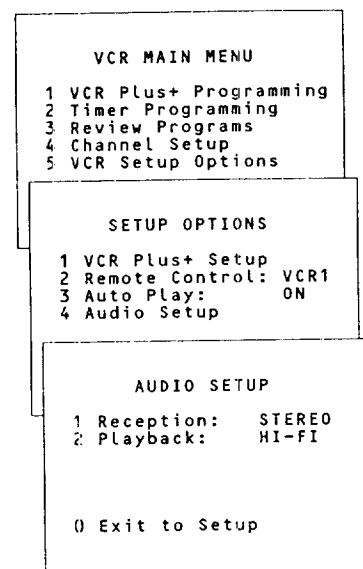
To record stereo broadcast TV or SAP

Turn on the TV and tune it to the VCR viewing channel, either 3, 4, or TV's video input.

1. Insert a tape with safety tab in place.
2. If using one of the basic hookups, make sure the VCR indicator appears in the VCR's display panel. If not, press TV•VCR to turn it on.
3. Use SPEED on the VCR or remote to select a recording speed.
4. Select the channel or line input to be recorded. Channel number or VIDEO appears on the TV screen.
5. Set the Reception: STEREO/MONO/SAP feature for the type of audio you want to record.
 - A. Press MENU•PROG to display the VCR MAIN MENU on the TV screen.
 - B. Press 5 to display the SETUP OPTIONS menu.
 - C. Press 4 again to display the AUDIO SETUP menu.
 - D. Press 1 to select the type of audio Reception: STEREO, MONO, or SAP.
 - Set to STEREO for normal recording and to record broadcast stereo TV.

The STEREO indicator lights in the VCR's display panel when the station you are tuned to is broadcasting stereo.
 - Set to MONO if the stereo signal is weak and the sound is too "noisy".
 - Set to SAP to record SAP (second audio program) instead of the normal audio.

The SAP indicator (■) lights in the VCR's display panel when the station you are tuned to is broadcasting SAP.
6. Press REC•XPR to start recording.
7. Press STOP on the VCR or remote when you are finished.



Recording Audio Only

You can record audio only from another audio source connected to the AUDIO IN (L and R) jacks on the back of the VCR.

To record audio only (Refer to hookup on page 7.)

1. Press the INPUT button on remote until VIDEO appears on the TV screen and L appears in the VCR's display panel.
The VCR will record audio from the audio equipment connected to the AUDIO IN jacks.
2. Use SPEED on the VCR or remote to select the recording speed.
3. Make sure the Reception: STEREO/MONO/SAP feature is set to STEREO.
 - A. Press MENU•PROG to display the VCR MAIN MENU on the TV screen.
 - B. Press 5 to display the SETUP OPTIONS menu.
 - C. Press 4 again to display the AUDIO SETUP menu.
 - D. Press 1 to select Reception: STEREO.
 - E. Repeatedly press 0 to remove the menus from the TV screen.
4. Start audio source playing and press REC•XPR to begin recording.
5. Press STOP on the VCR or remote when you are finished.

```
VCR MAIN MENU
1 VCR Plus+ Programming
2 Timer Programming
3 Review Programs
4 Channel Setup
5 VCR Setup Options
```

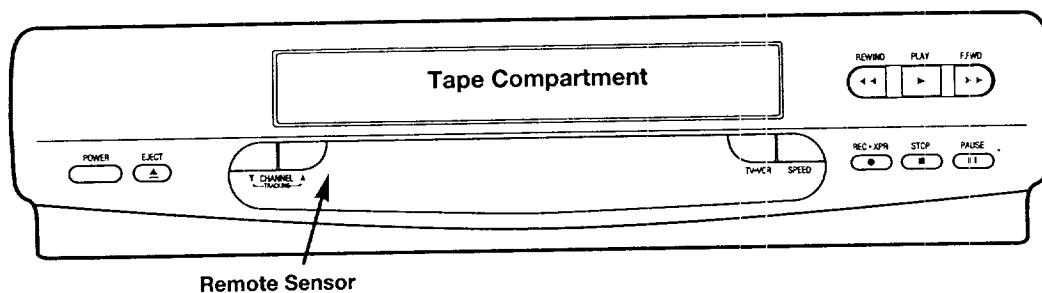
```
SETUP OPTIONS
1 VCR Plus+ Setup
2 Remote Control: VCR1
3 Auto Play: ON
4 Audio Setup
```

```
AUDIO SETUP
1 Reception: STEREO
2 Playback: HI-FI

0 Exit to Setup
```

Location of Controls

Front Panel



CHANNEL•TRACKING (Up or Down)

Selects next higher or lower channel in the VCR's channel memory.

Adjusts tracking when a tape is playing.

EJECT

Press when the VCR is stopped to eject the cassette.

F.FWD (Fast Forward)

Fast forwards the tape when the VCR is stopped. Searches the picture forward during playback.

PAUSE

Pauses action for viewing during playback. Pauses recording to prevent recording of unwanted scenes.

PLAY

Plays a tape.

POWER

Turns the VCR on or off.

REC•XPR

Starts VCR recording.

Used for express recording (XPR).

Remote Sensor

Receives signals from the remote control. Aim the remote at this sensor with no objects between them.

REWIND

Rewinds the tape when the VCR is stopped. Searches the picture in reverse during playback.

SPEED

Selects a recording speed (SP, LP, SLP).

STOP

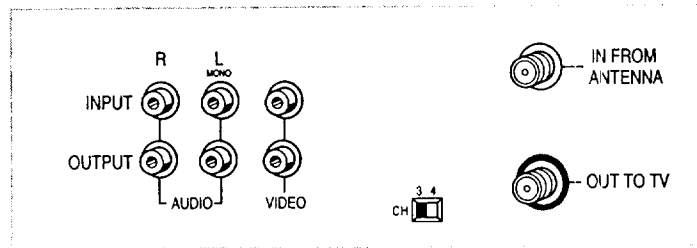
Stops the normal functions such as record, playback, rewind, fast forward, or pause.

TV•VCR

Switches the picture signal so that it either comes from the VCR or the TV channel. See page 10.

Location of Controls

Back Panel



CH3 CH4 Switch

Selects the channel to which you will tune the TV to see the VCR picture if you connect the VCR using one of the basic hookups.

IN FROM ANTENNA Connector

Receives a signal from an antenna or cable system when attached.

OUT TO TV Connector

Passes signal to TV using the cable supplied.

VIDEO and AUDIO R (right) and L (left) Mono INPUT Jacks

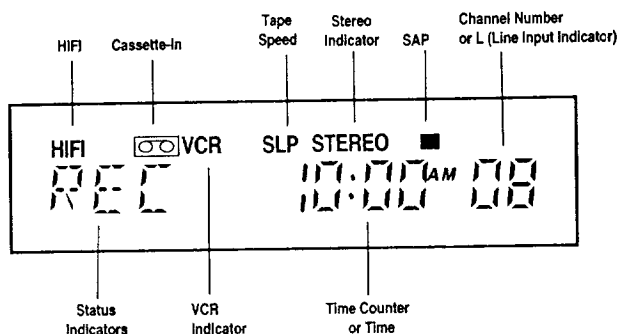
Receives signals from another component, like a VCR or camcorder, when it is connected to these jacks. Use INPUT on remote to select.

VIDEO and AUDIO R (right) and L (left) OUTPUT Jacks

Sends signals from VCR to another component, like a VCR or camcorder, when it is connected to these jacks.

Location of Controls

Display Panel



Cassette-in Indicator ()

Lights when a tape is in the VCR.

Channel Number or Line Indicator (L)

The channel number or line indicator (L) is displayed.

L lights when you press INPUT on the remote to record from the VIDEO and AUDIO INPUT jacks.

HI-FI Indicator

Lights when Playback: HI-FI/Linear/MIX feature is set to HI-FI or MIX.

SAP Indicator(■)

Lights when the station you are tuned to is broadcasting SAP.

Status Indicators

Show what the VCR is doing.

F — FWD	Fast forward
PLAY	Playback
REC	Recording
REC P	Record-pause
REW	Rewind
SLOW+	Slow motion
SRCH —	Reverse search

SRCH+

STILL

STILL

STOP

TAPE Flashing

TIMER

Forward search

Play-pause

Frame advance

Stopped

Tape not inserted

Timer programmed

STEREO Indicator

Lights when the station you are tuned to is broadcasting stereo.

Tape Speed Indicators (SP, LP, or SLP)

Press SPEED on remote to change.

Time or Time Counter

Press the DISPLAY button on the remote to switch between the current time and time counter.

VCR Indicator

Lights when using the TV•VCR button.

When using one of the basic hookups:

- When VCR indicator is on, the picture comes from the VCR.
- When VCR indicator is off, picture is from the television channels.

Limited Warranty

What your warranty covers:

- Any defect in material or workmanship.

For how long after your purchase:

- Ninety days for labor charges.
- One year for parts.

The warranty period for rental units begins with the first rental.

What we will do:

- Pay any Authorized RCA VCR Servicenter the labor charges to repair your VCR.
- Pay any Authorized RCA VCR Servicenter for the new or, at our option, refurbished replacement parts required to repair your VCR.

How you get service:

- Take your VCR to any Authorized RCA VCR Servicenter. To identify your nearest Authorized RCA VCR Servicenter, ask your dealer, look in the Yellow Pages, or call 1-800-336-1900.
- Show the service technician your evidence of purchase date.
- Pick up your VCR when repairs are completed.

What your warranty does not cover:

- Customer instruction. (Your Owner's Manual clearly describes how to install, adjust, and operate your VCR. Any additional information should be obtained from your Dealer.)
- Installation and related adjustments.
- Signal reception problems not caused by your VCR.
- Damage from misuse or neglect.
- Cleaning of video/audio heads.
- Remote control batteries.
- A VCR that has been modified or incorporated into other products or is used for institutional or other commercial purposes.
- A VCR purchased or serviced outside the USA.

Product registration:

- Please complete and mail the Product Registration Card packed with your VCR. It will make it easier to contact you should it ever be necessary. The return of the card is not required for warranty coverage.

How state law relates to this warranty:

- This warranty gives you specific legal rights, and you also may have other rights that vary from state to state.

If you purchased your VCR outside the United States:

- See your dealer for details.

Trouble Checks

Sometimes problems can be easily solved by checking a few basic things. Check below before you call for help or take your VCR to an Authorized VCR Servicer.

Trouble	Here's what to try:
No power	<ul style="list-style-type: none"> • Plug VCR into an operating outlet. • Check connections.
VCR does not respond to remote	<ul style="list-style-type: none"> • Press VCR1 (VCR2•LD) to set remote to control the VCR. <i>See page 11.</i> • Aim remote at VCR with no objects between them. • Change batteries.
RCA TV does not respond to remote.	<ul style="list-style-type: none"> • Press TV to set remote to control a compatible TV. <i>See page 14.</i> • Reprogram remote for RCA TV. <i>See page 14.</i>
Remote no longer controls a compatible TV	<ul style="list-style-type: none"> • Press TV to set remote to control a compatible TV. <i>See page 14.</i>
VCR only responds to VCR2 button on remote	<ul style="list-style-type: none"> • Check setting of Remote Control: VCR1/VCR2 feature. <i>See page 11.</i>
Poor or no picture for normal TV viewing	<ul style="list-style-type: none"> • Press TV•VCR to turn VCR indicator off. • Switch TV to an active channel. • Check antenna connections.
Snowy or no picture during playback	<ul style="list-style-type: none"> • Press TV•VCR to turn VCR indicator on. • Check TV channel selected (3 or 4) to make sure it matches the channel selected with CH3 CH4 switch on back of VCR. • Check TV's fine tuning. • Check video cable connections between VCR and TV monitor. • Set TV monitor to video input channel. • Try another tape. • Some snow/streaks are normal during search, frame advance, slow motion, and stop action playback.
Streaks in picture during normal playback	<ul style="list-style-type: none"> • Press one of the TRACKING buttons on the remote or CHANNEL•TRACKING on the VCR to move streaks up or down and out of the picture. • Check tape — it may be worn out or of poor quality.
Time counter not working or timer counter not working in search modes	<ul style="list-style-type: none"> • The time counter does not advance during unrecorded portions of tape. When an unrecorded segment of tape is encountered, the time counter will hold its count until recorded material is detected again. • A minus (-) will appear in front of the time if you rewind the tape farther back than a counter reading of 0:00:00.
Will not record or play	<ul style="list-style-type: none"> • No cassette in VCR. • Eject and re-insert cassette. • Broken tape — try another cassette. • VCR is in pause mode. Press PAUSE.
Will not record	<ul style="list-style-type: none"> • Safety tab removed from cassette. • Make sure (VIDEO) does not appear on the TV screen for normal recording from the VCR's tuner. Press INPUT on the remote to turn off the line input.

Trouble Checks

Trouble	Here's what to try:
Rewind does not operate	<ul style="list-style-type: none"> • Tape already rewound.
VCR Plus+ or timer recording not made or wrong program recorded	<ul style="list-style-type: none"> • Wrong VCR Plus+ code entered. • Cable box or satellite receiver was not turned on when recording was to begin. • Program entered incorrectly (wrong channel or times). • Power interruption. Reset clock. <i>See page 10.</i> • Check to see if time and date are correct — including AM/PM. • Program exceeded tape's length or tape was not rewound beforehand. • VCR was not turned off at the time recording was to start. • No tape in VCR or cassette's safety tab broken off. • VCR ejects cassette when the end of the tape is reached during a timer recording.
Incorrect time or date	<ul style="list-style-type: none"> • Clock was not set accurately (check AM/PM and date). <i>See page 10.</i>
VCR makes noise when stopped	<ul style="list-style-type: none"> • VCR is removing tape from heads. This is normal. The head cylinder inside the VCR will continue to rotate for a few minutes after you put the VCR in the stop mode.
Will not Auto-Search active channels correctly	<ul style="list-style-type: none"> • Check antenna connections. • Check Tuning Mode: CABLE/ANTENNA feature. <i>See page 9.</i>
Tape plays back in slow motion	<ul style="list-style-type: none"> • Press PLAY to return to normal playback.
Cannot select channels over 69	<ul style="list-style-type: none"> • Cable channels over 69 can only be selected if Tuning Mode: CABLE/ANTENNA feature is set to CABLE.
Cassette with safety tab removed does not start to play automatically	<ul style="list-style-type: none"> • Set Auto Play ON/OFF feature to ON. <i>Details are on page 18.</i>
No status displays appear on the TV screen when you change channels, etc.	<ul style="list-style-type: none"> • Display off mode is selected. Press DISPLAY. <i>See page 19.</i>
Stereo or SAP sound not recorded	<ul style="list-style-type: none"> • Reception: STEREO/SAP/MONO feature must be set to STEREO to record broadcast stereo. <i>See page 32.</i> • Reception: STEREO/SAP/MONO feature must be set to SAP to record SAP <i>see page 32.</i> • STEREO or SAP indicator (■ - in VCR's display panel) not on. Station not broadcasting stereo or SAP.
No stereo sound during playback	<ul style="list-style-type: none"> • Playback: HI-FI/MIX/LINEAR feature must be set to HI-FI to hear stereo sound during playback. <i>See page 22.</i>
Stereo audio too noisy	<ul style="list-style-type: none"> • Stereo signal is weak. Set Reception: STEREO/SAP/MONO feature to MONO. • Press one of the TRACKING up or down buttons to minimize the noise.

Specifications

Format:	VHS
Record/Playback System:	Video: 4-Head Audio: 2 Hi-Fi record/playback system
Video Signal System:	EIA standard: NTSC color
Antenna:	75-ohm external VHF/UHF combined antenna terminal
Tuner:	USA: 181 channels capability* (125 cable channels) Canada: 178 channels capability* (122 cable channels)
Type:	AutoProgramming frequency synthesis
Power Requirement:	120V AC, 60 Hz
Power Consumption:	22 watts
Dimensions:	3.5 inches high (89.5 mm) 15.43 inches wide (392 mm) 12.2 inches deep (309.5 mm)
Weight:	9.46 pounds (4.3 kg)
Storage Temperature Range:	- 22°F to +149°F
Operating Temperature Range:	+41°F to +104°F

*Check your cable company's compatibility requirements.

Cleaning the VCR

Use a soft cloth or dusting attachment of your vacuum cleaner to dust your VCR. Remove dust from the ventilation holes on the top, back, sides, and bottom of the cabinet.

Plastic surfaces are easily scratched and can be marred by alcohol and various solvents. Avoid excessive use of oil-based furniture polishes since the materials used in the cabinet will accumulate more dust. We recommend using a non-abrasive, anti-static cleaner and polisher.

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100%
RECYCLED PAPER



For your nearest Home
Entertainment Dealer
or Authorized Servicenter
call toll-free in the U.S.A.

1-800-336-1900

Canadian Consumers –
Your toll free numbers are:

English: 1-800-522-0338
French: 1-800-522-0445

If you would like a copy of this manual in French, please follow the
instructions below:

Si un livret d'instructions en français n'est pas inclus avec votre
appareil, vous pouvez en obtenir un (indiquer le numéro de modèle,
votre nom, et votre adresse) en vous adressant à:

Thomson Consumer Electronics
Attention: Canadian Operations
P.O. Box 0944
Indianapolis, IN 46206-0944

If your VCR needs service, please contact your dealer or the nearest
Servicenter from the yellow pages. Please do not send any products
to the Indianapolis address listed in this manual or on the carton.
This will only add delays in service for your product.

Thomson Consumer Electronics
600 N Sherman Dr, PO Box 1976
Indianapolis, IN 46206

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