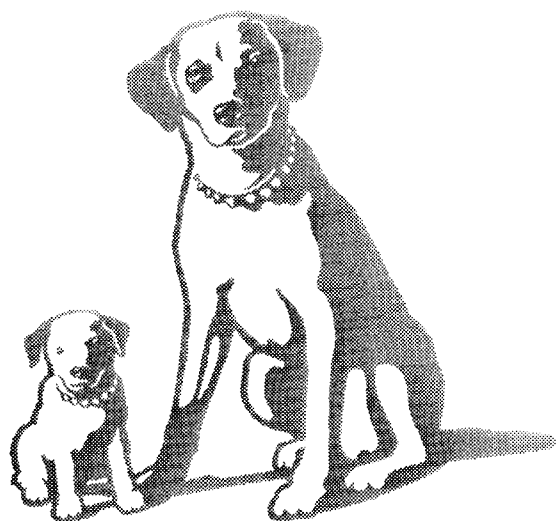


USER'S GUIDE

TRAVEL




VIDEO CASSETTE **RECORDER**


Important Information

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

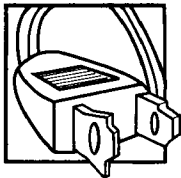
WARNING TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

RISK OF ELECTRIC SHOCK DO NOT OPEN

 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 reduce the risk of 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.

Refer to the identification/rating label on the back of the product for the proper operating voltage. 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. VR339

Serial No. _____

Purchase Date: _____

Dealer/Address/Phone: _____

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Choosing a Hookup

The hookups on pages 3 through 6 are divided into two hookup types: Basic (A) and Advanced (B).

The basic hookups show 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 hookups show the VCR hooked up to a monitor/receiver (TV with audio and video jacks). 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 the questions above.
- B. Then modify the connections as shown on page 6.

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.

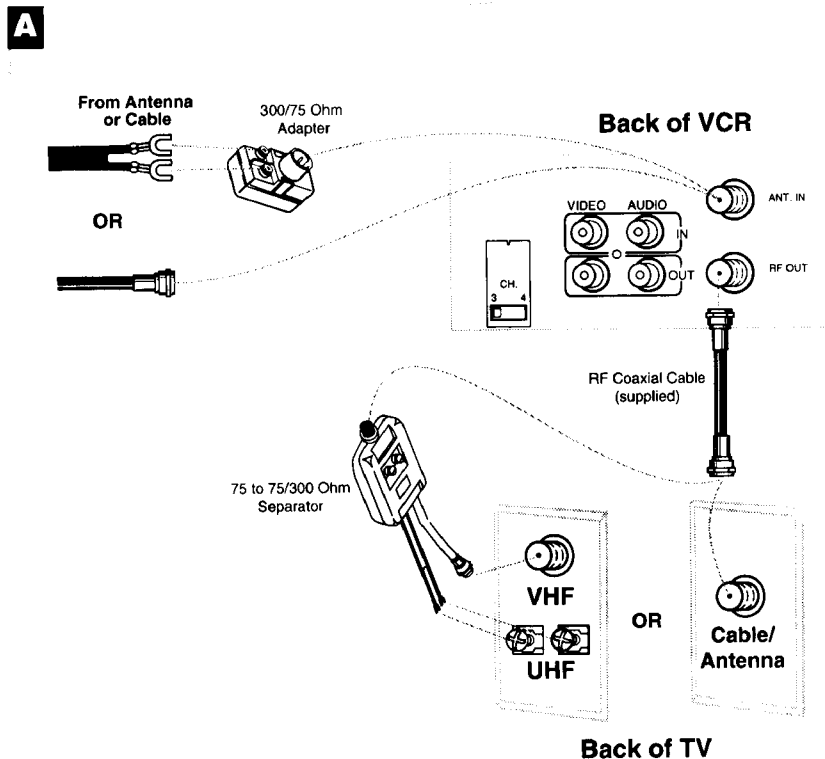
You will tune the TV to this channel and use the TV•VCR button to watch the VCR.

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 7.**



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.

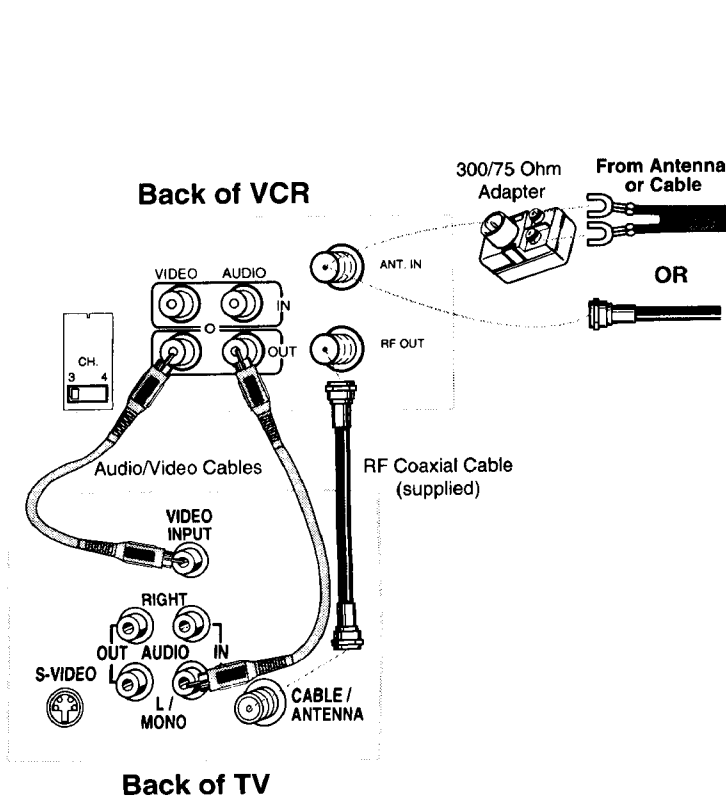
If your TV is stereo, you may need a Y-adapter to hear sound from both left and right channels.

2. Plug in power cords of VCR and TV.

3. **Continue to page 7.**

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

Set the Auto TV/VCR feature to OFF. See page 10.

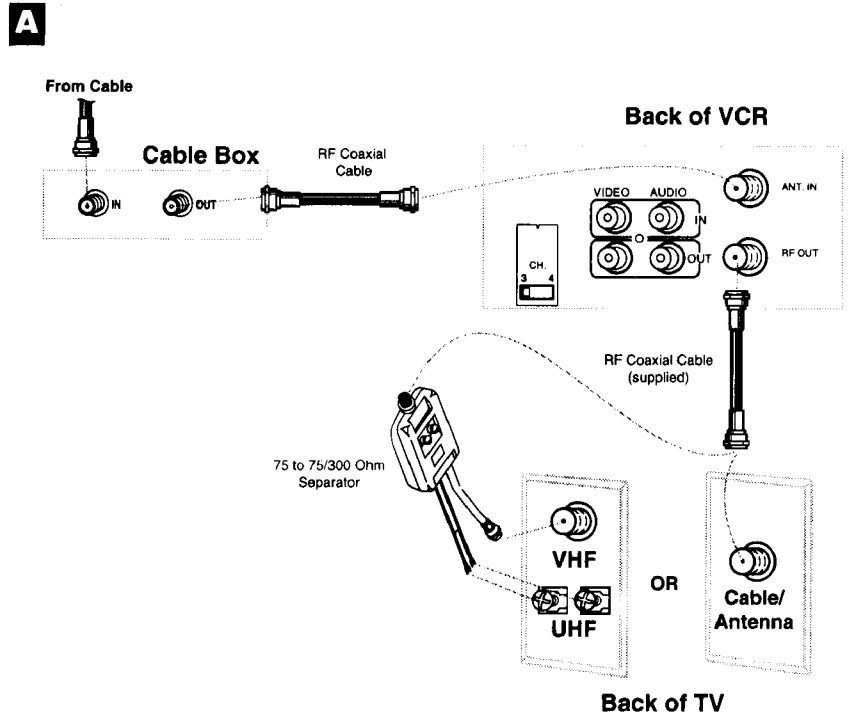


Cable System With Cable Box to Unscramble All Channels

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 7.**



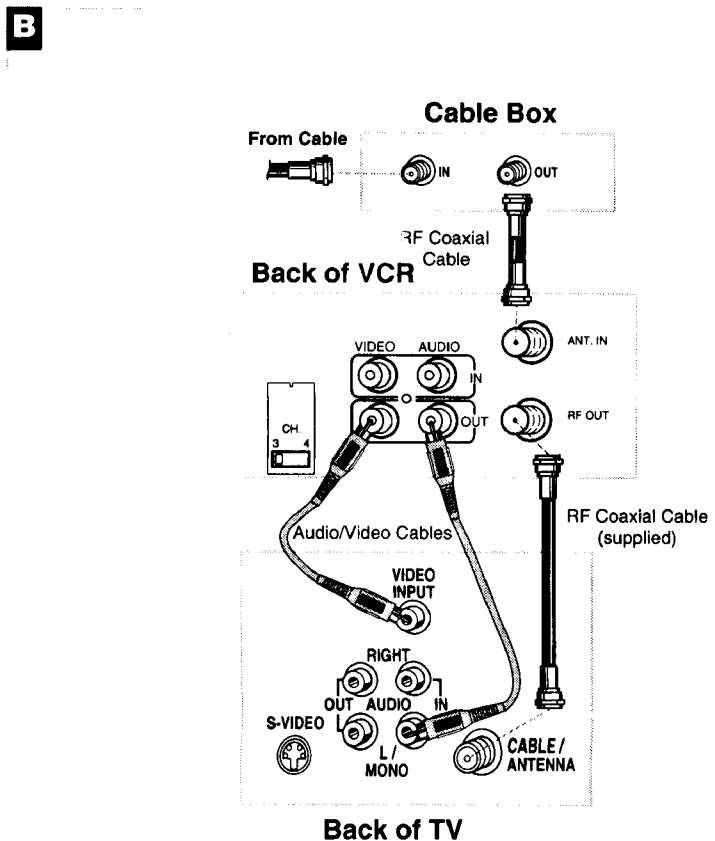
B. Advanced hookup.

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 stereo, you may need a Y-adapter to hear sound from both left and right channels.
2. Plug in power cords of VCR, TV, and cable box.
3. **Continue to page 7.**

You will tune the TV to its video input to watch the VCR.
Set the Auto TV/VCR feature to OFF. See page 10.

Caution: The unauthorized recording of satellite broadcasts, television programs, or other materials may infringe the rights of others.



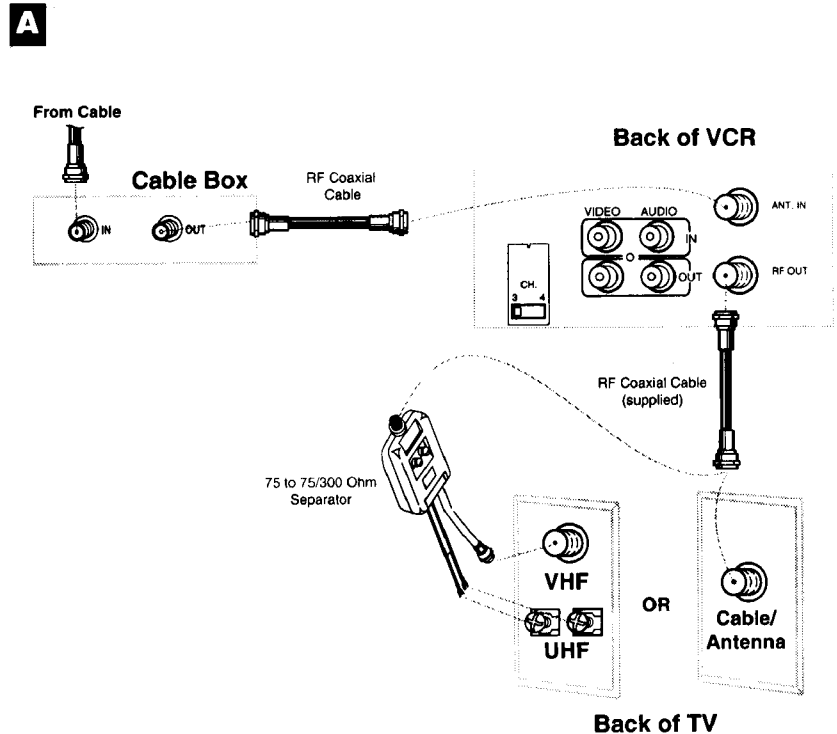
Cable System With Cable Box to Unscramble Pay Channels Only

(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 7.**

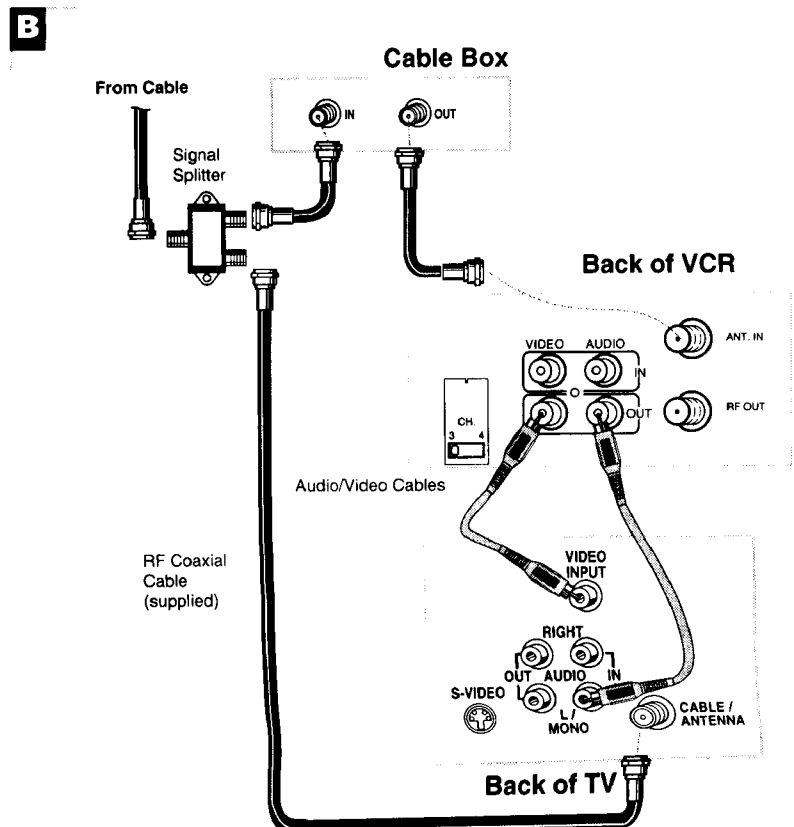


B. Advanced hookup.

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 stereo, you may need a Y-adapter to hear sound from both left and right channels.
2. Plug in power cords of VCR, TV, and cable box.
3. **Continue to page 7.**

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



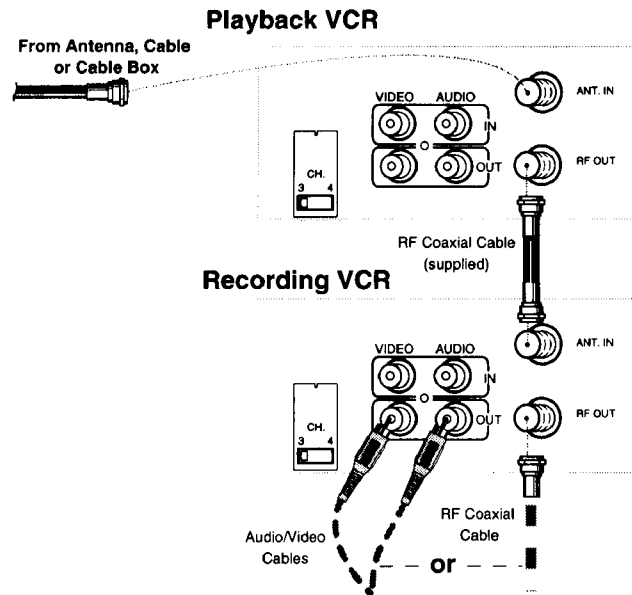
Connecting Two VCRs for Copying Tapes

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 7.**

A



Use the hookup to the TV as previously selected on pages 3, 4, or 5.

Option B hookup.

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

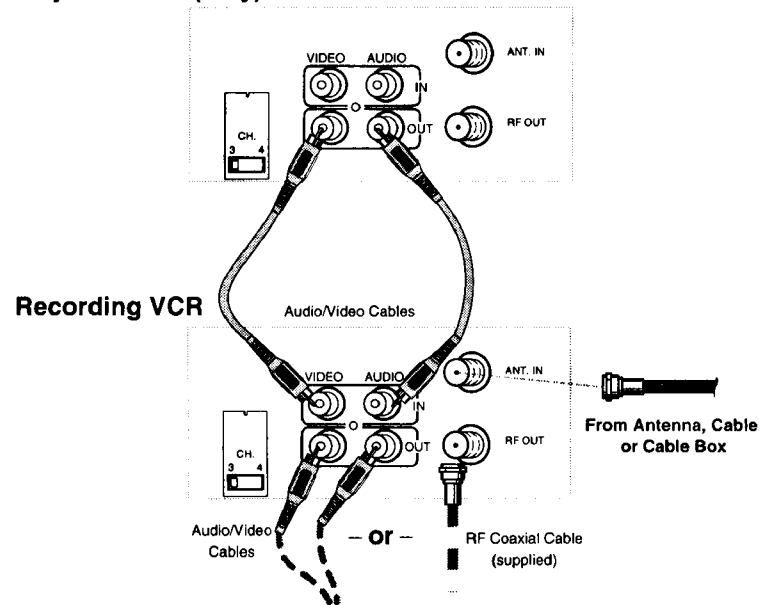
1. Select a hookup from pages 2 through 5 and then modify with this connection.
2. Connect as shown.
This connection requires additional accessories not provided.
If your other VCR is stereo, you may need a Y-adaptor to hear sound from both left and right channels.
3. Plug in power cords of VCRs and TV.
4. **Continue to page 7.**

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 satellite broadcasts, television programs, or other materials may infringe the rights of others.

B

Playback VCR (only)

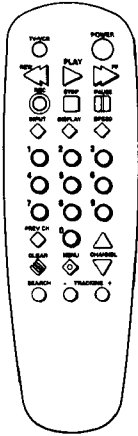


Use the hookup to the TV as previously selected on pages 3, 4, or 5.

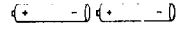
Startup

1. Check accessories with VCR.

Contact your dealer if any items are missing.



Remote
(Stock No. 233456)

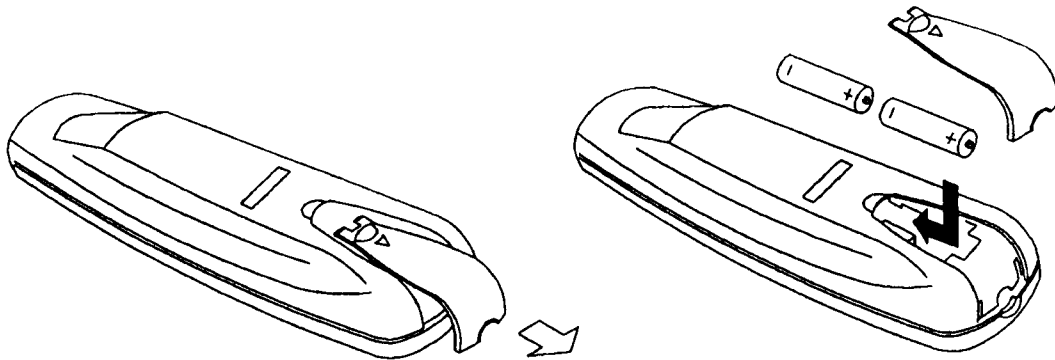


2 "AA" Batteries



RF Coaxial Cable
(Stock No. 221392)

2. Insert batteries in remote.



Startup

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.

- A. Press POWER on the remote.

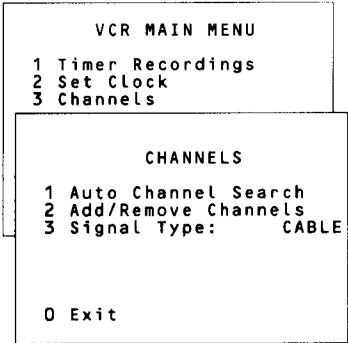
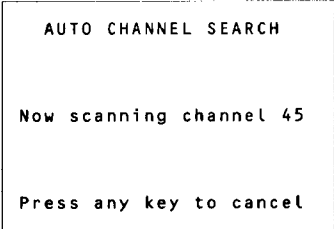
5. Place channels in the VCR's memory.

The first time you turn on the VCR or after a power interruption, perform the AUTO CHANNEL SEARCH so that your VCR can locate the channels available through your signal type—cable or antenna. The signal type is automatically selected when you perform the AUTO CHANNEL SEARCH function. Also, if you change the signal type, you will need to perform AUTO CHANNEL SEARCH again.

- A. Press MENU to display the VCR MAIN MENU on the TV screen. If this menu does not appear:
 - Make sure TV is tuned to same channel as the CH3 CH4 switch on the back of the VCR or the TV's video input (refer to TV's manual).
 - Press MENU again.
 - 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.
- B. Press 3 to display the CHANNELS menu.
- C. Press 1 to begin AUTO CHANNEL SEARCH.

The VCR automatically selects CABLE (cable TV) or ANTENNA. If you need to change the setting manually, press 3.

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.



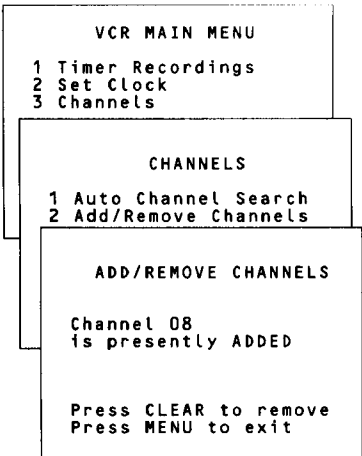
Startup

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

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

We recommend channels be placed in memory using the AUTO CHANNEL SEARCH feature described on the previous page before adding or removing channels. All Channel (TV 02-69, CATV 01-125 and VID1) were placed in memory at the factory.

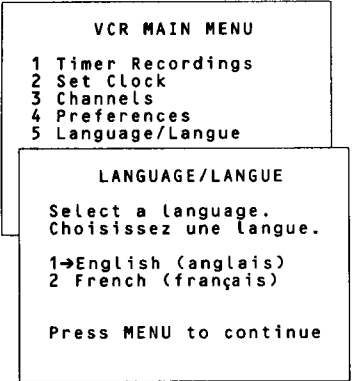
- A. Press MENU on the remote to see the VCR MAIN MENU on the TV screen.
- B. Press 3 to display the CHANNELS menu.
- C. Press 2 to display the ADD/REMOVE CHANNELS menu.
- D. Follow the directions on the screen.
- E. Add or remove more channels by entering channel numbers or using CHANNEL up or down.



7. Select a language./Choisissez une langue.

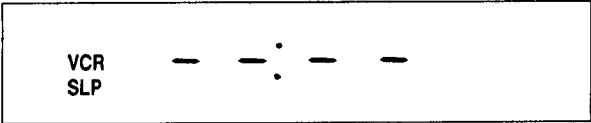
You can select the language for the displays on the VCR.

- A. Press MENU on the remote to see the VCR MAIN MENU on the TV screen.
- B. Press 5 to display the LANGUAGE menu.
- C. Select English or French.
 - Press 1 to select English.
 - Press 2 to select Français (French).

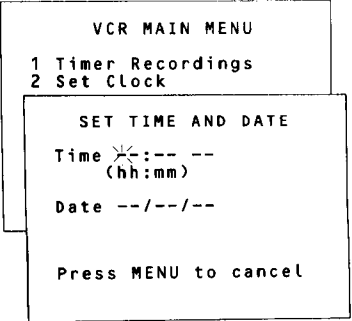


8. Set the time and date.

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



- A. Press MENU on remote to display the VCR MAIN MENU on the TV screen.
- B. Press 2 to display SET TIME AND DATE.
- 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 on remote to remove SET TIME AND DATE from the TV screen and start the clock. The time will appear in the VCR's display panel and the time and date will appear on the TV screen when you press DISPLAY.



continued on next page

Startup

9. 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 the picture from the TV channel. This button lets you record a program on the VCR while watching another channel on the TV. *Details are on page 18.*

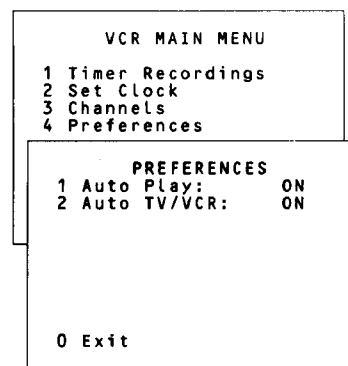
- A. Press TV•VCR to see the picture from the VCR.
The VCR indicator lights in the display panel.
- B. Press CHANNEL up or down to change channels on the VCR.
The channel number changes in the display panel.
- C. Press TV•VCR to see the TV channels.
The VCR indicator does not light in the display panel.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

10. Set Auto TV/VCR feature.

If you used one of the basic hookups and did not connect the audio/video jacks of the VCR to the TV, leave the Auto TV/VCR feature set to ON.

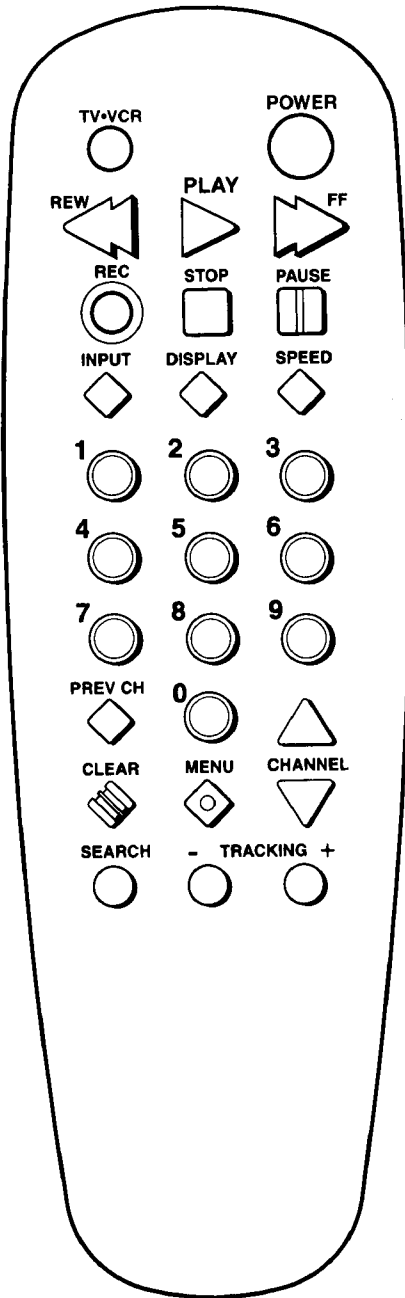
If you have connected your VCR using the audio/video input of your TV, you can prevent the VCR indicator from turning on automatically and interrupting the cable or antenna signal to your TV.

- A. Press MENU on the remote to see VCR MAIN MENU on the TV screen.
- B. Press 4 to display PREFERENCES.
- C. Press 2 to select Auto TV/VCR: ON or OFF.
 - Select ON if you used one of the basic hookups and watch the VCR on channel 3 or 4 of your TV. The VCR will automatically switch the TV•VCR setting to VCR every time the VCR is turned on, a tape with the safety tab removed is inserted, or you press PLAY.
 - Select OFF if you used one of the advanced hookups and watch your VCR on the video input channel of your TV. The VCR indicator will not turn on automatically and the signal from your antenna or cable to your TV will not be interrupted. Pressing TV•VCR on the remote will still turn the VCR indicator on or off and switch the antenna signal.



VCR Function Buttons

VCR Function Buttons



CHANNEL 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 timer recording.

DISPLAY
Shows VCR operating displays on the TV screen.
Displays the time counter.

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 on or off. VID1 appears in VCR's display panel and VIDEO appears on the TV screen.

Line input refers to the signal coming from the component connected to the AUDIO/VIDEO IN jacks on the back of the VCR.

MENU
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.

PLAY
Plays a tape.

POWER
Turns the VCR on and off.

PREV CH (Previous Channel)
Switches between two channels.

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

REC
Starts VCR recording.

Used for express recording (XPR). See page 19.

REW (Rewind)
Rewinds the tape when the VCR is stopped.

Searches the picture in reverse motion during playback.

SEARCH
Displays INDEX and ZERO SEARCH menus on TV.

Lets you advance tape 60 or 120 seconds during playback.

SPEED (Tape Speed)
Selects a recording speed (SP or SLP).

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

TRACKING - and +
Lets you manually reduce the streaks that may appear on the picture during play or pause.

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

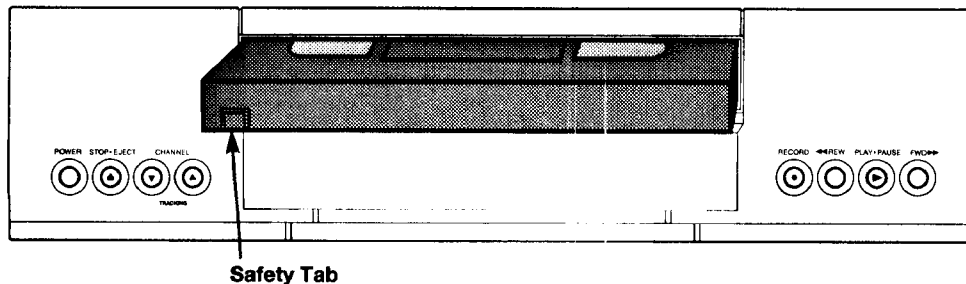
Operating Instructions

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. The cassette-in indicator lights, and the VCR indicator lights if the Auto TV/VCR feature is set to ON. The tape automatically begins playback if the safety tab on the cassette has been removed and the Auto Play feature is turned on.

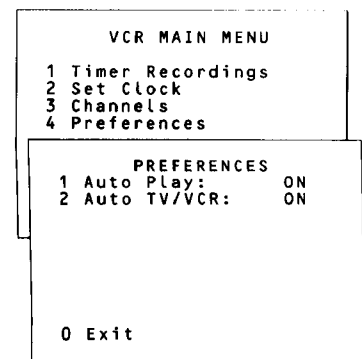


3. Press PLAY on the remote or PLAY•PAUSE on the VCR, if necessary. PLAY appears in the VCR's display panel.
4. Press TRACKING up or down to remove any streaks from the picture, if necessary. *Details are on page 13.*
5. Press STOP on the remote or STOP•EJECT on the VCR.
6. Press REW. REW will appear in the VCR's display panel.
The VCR will automatically rewind the tape if it reaches the end of the tape during playback. While rewinding, you can press POWER and the VCR will turn off after rewinding.
7. Press STOP•EJECT on the VCR to eject the tape once it is completely rewound.

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 on the remote to see the VCR MAIN MENU on the TV screen.
2. Press 4 to display the PREFERENCES menu.
3. Press 1 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.



Using the Playback Features

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 SLP speed.

1. Press **PAUSE** on the remote or **PLAY•PAUSE** on the VCR during playback to stop the action.
PAUS appears in the VCR's display panel.
2. Press **PLAY•PAUSE** on the VCR or **PLAY** on the remote to return to playback.
The VCR will automatically switch from stop-action 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. Picture search works best for tapes recorded in SLP speed.

Fast Forward Search

1. During playback, press **FF** on the remote or **FWD** on the VCR to search forward at a faster-than-normal speed.
SRCH+ appears in the VCR's display panel.
2. To return to playback, press **FF** on the remote, **FWD** on the VCR, **PLAY** on the remote, or **PLAY•PAUSE** on the VCR.

Rewind Search

1. During playback, press **REW** to search in reverse at a faster-than-normal speed.
SRCH- appears in the VCR's display panel.
2. To return to playback, press **REW**, **PLAY** on the remote, or **PLAY•PAUSE** on the VCR.

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

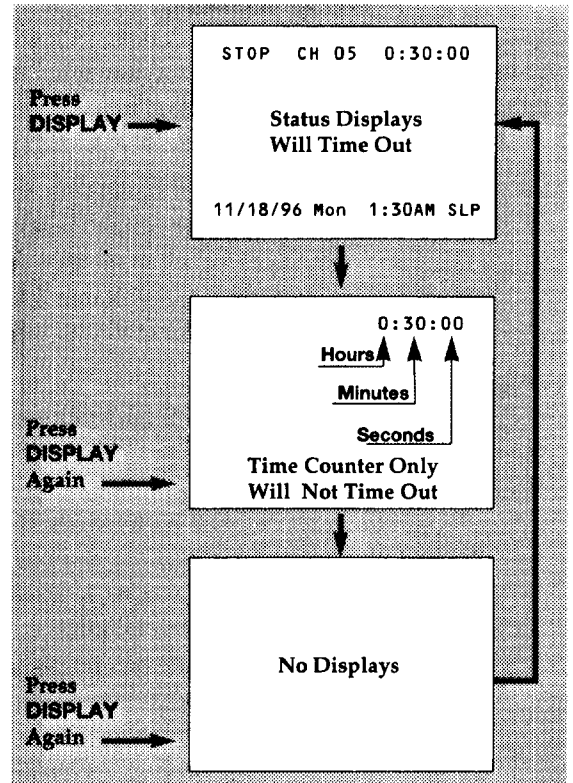
Occasionally, you may need to manually adjust tracking on a tape recorded on a different VCR or camcorder. The **TRACKING** buttons on the remote or VCR are used when playing a tape. They have no effect during recording.

- When streaks or snow appear, press **TRACKING** up or down for the best possible picture.

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 VCR status will appear in the display panel.
The time and date must be set before they are displayed. If you do not press DISPLAY again, these displays will time out.
2. Press DISPLAY again to have only the time counter remain 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 screen.
The time counter will remain in the VCR's display panel.
4. Press DISPLAY again to return to the normal status displays.
The time will appear in the VCR's display panel.
Turning off the VCR automatically returns the displays to normal.

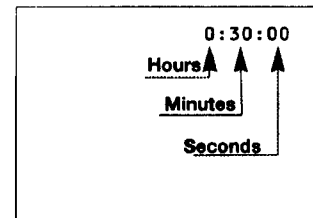


Time Counter

The time counter shows the elapsed 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. Make sure the tape is rewound. Press STOP on the remote or STOP•EJECT on the VCR.
2. Press DISPLAY twice to display only the time counter on the TV screen.
3. Press CLEAR to reset the time counter to 0:00:00.
4. Press FF on remote or FWD on the VCR to fast forward the tape until the time counter reads 0:30:00. Press STOP on the remote or STOP•EJECT on the VCR.
This is the approximate end of the program and you can begin recording at this spot.
5. Press DISPLAY to remove the time counter from the screen and return to the normal displays.



Using the Playback Features

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.

SRCH+ appears in the VCR's display panel

Index Search

The VCR has a "VHS Index Search System" that automatically records an index mark on the tape every time you begin recording a program. 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 **FF** or **REW** to search for the next index mark or press two number buttons to enter the specific index mark you want the VCR to search for.

Press **CLEAR** to correct an entry.

4. Press **FF** to search forward or press **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.

```
INDEX SEARCH
Press REW or FF
to begin scanning
OR
Enter a specific
Index number
  ^
  v
Press SEARCH to exit
```

```
INDEX SEARCH

Searching for
Index number
  03
Press STOP to cancel
```

Using the Playback Features

Zero Search

The zero search feature allows you to quickly return to a counter reading of 0:00:00 at any spot on the tape. This is convenient when you want to watch a segment of the tape several times.

1. Insert the prerecorded tape and press STOP.
2. Press DISPLAY twice to display only the time counter on the TV screen.
3. Locate the point on the tape that you want to return to quickly.
4. Press CLEAR to reset the time counter to 0:00:00.
5. You can continue to play the tape or perform other functions. When you are finished, press STOP.
6. Press SEARCH twice to display the ZERO SEARCH menu. The current tape counter is displayed.
7. Press REW to return to 0:00:00. When the VCR reaches 0:00:00, it will begin playback.
If the time counter reading has a minus (-) in front of it, press FF to return to a reading of 0:00:00.
8. Press STOP to stop zero search.

```
ZERO SEARCH  
  
Current tape counter is  
2:17:25  
  
Press REW to go to  
0:00:00  
  
Press SEARCH to exit
```

-OR-

```
ZERO SEARCH  
  
Current tape counter is  
-2:17:25  
  
Press FF to go to  
0:00:00  
  
Press SEARCH to exit
```

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
- Timer Recording
- Using Two VCRs for Copying Tapes

Using the Recording Features

Recording Speeds

Press **SPEED** on the remote to select a recording speed (SP or SLP). The speed you select appears on the TV screen and in the VCR's display panel. The VCR automatically selects the playback speed (SP, LP, or SLP).

Cassette Type	Recording Time	
	SP	SLP
T120	2Hr	6Hr
T160	2Hr 40Min	8Hr

SP (Standard Play) gives the best quality recording. That is why most prerecorded, rental tapes are recorded in SP. Fewer programs can be recorded on the tape.

SLP (Super Long Play) gives three times the recording time of tapes recorded in SP. Special effects, such as pause and picture search, work well.

Recording Pause

This feature allows you to prevent recording short passages of unwanted material.

Press **PAUSE** during recording to stop and start recording. **REC.P** appears in the VCR's display panel.


The VCR will automatically switch from pause to stop after a few minutes.

Types of Recordings

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.

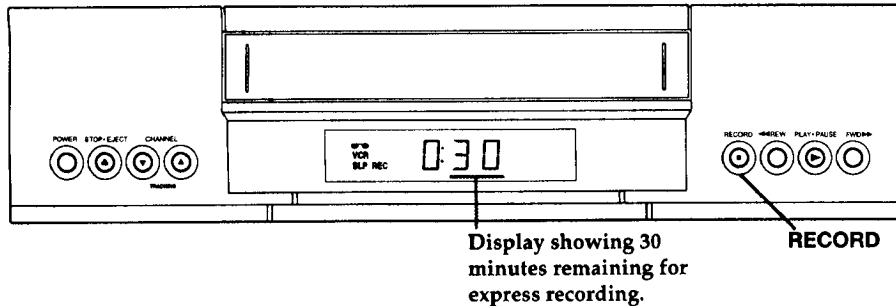
1. Insert a tape with safety tab in place.
The cassette-in indicator  lights in the VCR's display panel.
2. If using one of the basic hookups, make sure the VCR indicator appears in the VCR's display panel. If not, press TV•VCR to turn it on.
3. Select recording speed using SPEED on the remote.
The tape speed indicator appears in the VCR's display panel and on the TV screen.
4. Select the channel to be recorded.
The channel number appears in the VCR's display panel and on the TV screen.
5. Press REC on the remote or RECORD on the VCR to begin recording. REC appears in the VCR's display panel while the VCR is recording.

Watch a TV Channel While VCR is Recording a Different Channel

1. Follow steps 1 through 5 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. Select the channel you want to watch with the TV's channel buttons.
4. Press STOP on the remote or STOP•EJECT on the VCR when recording is finished.

Express Recording (XPR)

Express recording lets you record up to four hours without using the timer program feature. The VCR will turn off automatically at the end of the recording.



Operating Instructions

1. Turn on the VCR.
2. Insert a tape with safety tab in place.
3. Select the channel you want to record.
4. Select the desired recording speed using SPEED on the remote.
5. Press REC on the remote or RECORD on the VCR twice to activate XPR recording.
6. Press REC on the remote or RECORD on the VCR repeatedly until the amount of recording time for the program is displayed in the VCR's display panel or on the TV screen.

	Press RECORD	Recording Time
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>REC Ch 11 Record Length 0:30</p> <p>Press REC to set length</p> </div> <p>Express Display on TV Screen</p>	0:30	(30 Min)
	1:00	(1 Hr)
	1:30	(1 Hr, 30 Min)
	2:00	(2 Hrs)
	3:00	(3 Hrs)
	4:00	(4 Hrs)
		(Normal Recording)

Each press increases the time — 30 minutes up to two hours and then 1 hour up to four hours.

The amount of time the VCR will record and REC will appear in the VCR's display panel.

You can increase the amount of recording time by pressing REC on the remote or RECORD on the VCR.

Stopping a Recording in Progress

Press and hold STOP on the remote or STOP•EJECT on the VCR for approximately three seconds.

Recording While You're Away (Timer Recording)

The timer program feature lets you program the VCR to record up to eight different programs within a one year period. Before setting the timer, make sure that:

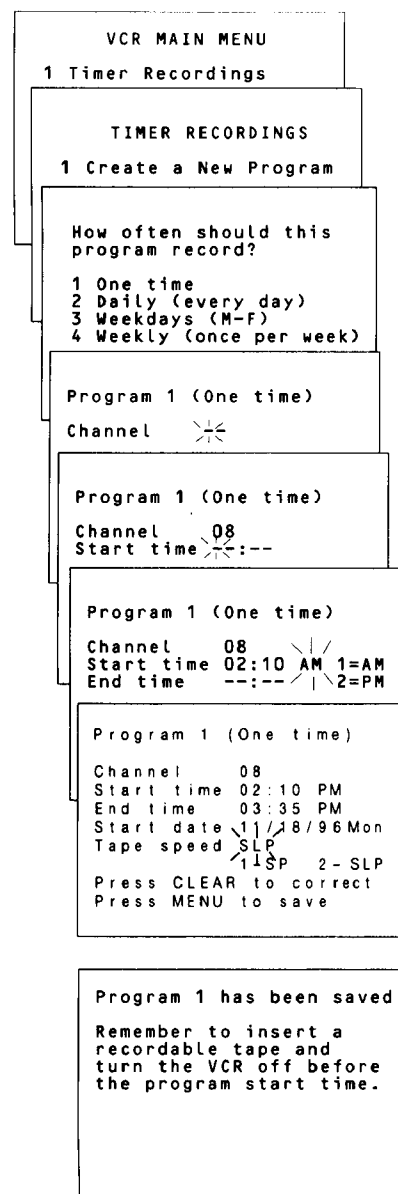
- The clock is set correctly.
- A tape with safety tab has been inserted with enough tape to record the programs.

Setting a Timer Recording

1. Press **MENU** on the remote to display **VCR MAIN MENU**.
2. Press **1** to display **TIMER RECORDINGS** menu.
3. Press **1** to display **Create a New Program** menu.
4. 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.
5. Press number buttons on the remote to enter the channel number (use **INPUT** or **0, 0** to select video input), start time including **AM** or **PM**, end time, and start date of the recording. Just follow the on-screen prompts. Press **CLEAR** to correct an entry.
6. Press **SPEED** on the remote to change recording speed.
7. Press **MENU** to enter your program. A reminder appears which will time out or you can press **MENU** to return to the **VCR MAIN MENU**.
PROGRAMS OVERLAP may appear on the screen if you have entered two programs where the times overlap.
8. The **TIMER RECORDINGS** menu appears. Press **1** to enter an additional timer program, or press **0** to exit.
9. **Turn off the VCR** before recording begins. **TIMER** appears in the VCR's display panel when the timer has been programmed.
10. **If using a cable box, leave it turned on and tuned to the channel you want to record.**

Stopping a Recording in Progress

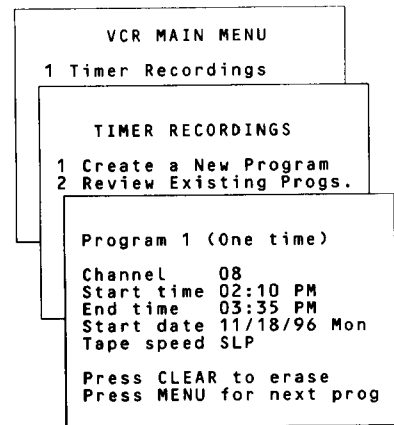
Press and hold **STOP** on the remote or **STOP•EJECT** on the VCR for approximately three seconds.



Recording While You're Away

Checking or Clearing Timer Recordings

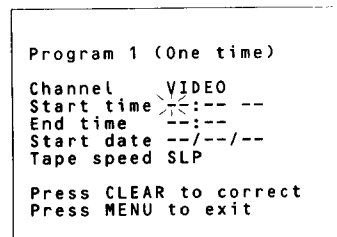
1. Press MENU on the remote to display VCR MAIN MENU on the TV screen.
2. Press 1 to display the TIMER RECORDINGS menu.
3. Press 2 for Review Existing Progs. feature.
4. Press MENU to display information for the next program.
5. Press CLEAR when the program you want to erase appears on the screen.



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 (or 0,0) to select VIDEO in place 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 this VCR as the playback VCR and the other as the recording VCR.

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.

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

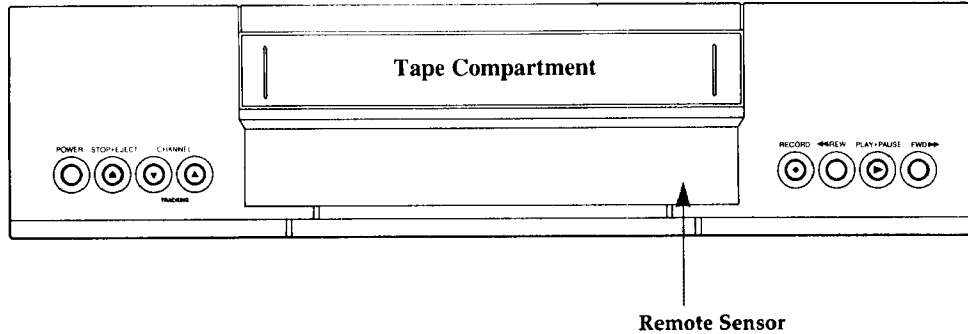
If you have connected your VCR using Option B (page 6), press INPUT on recording VCR's remote to select the line input (VID1).

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 RECORD, 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 the playback VCR by using FWD, REW, 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.

Location of Controls

Front Panel



CHANNEL or TRACKING Up or Down
Selects next higher or lower channel in the VCR's channel memory.

Adjusts tracking during playback or pause.

FWD (Fast Forward)
Fast forwards the tape when the VCR is stopped.

Searches the picture forward during playback.

PLAY•PAUSE
Plays a tape.

Pauses the tape for stop-action viewing during playback.

Pauses the tape during recording to prevent recording unwanted material.

POWER
Turns the VCR on or off.

RECORD
Start the VCR recording.
Used for express recording.

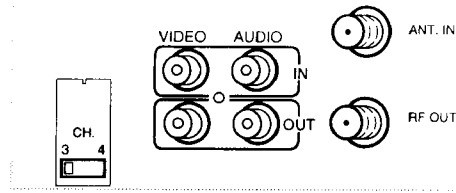
Remote Sensor
Receives signals from the remote control. Aim the remote at this sensor with no objects between them.

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

STOP•EJECT
Stops the normal functions such as record, playback, rewind, fast-forward, or pause. Press when the VCR is stopped to eject the cassette.

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.

ANT. (Antenna) IN Connector

Receives the signal from an antenna or cable system that is attached to this connector.

RF OUT Connector

Passes signal to TV using the cable supplied.

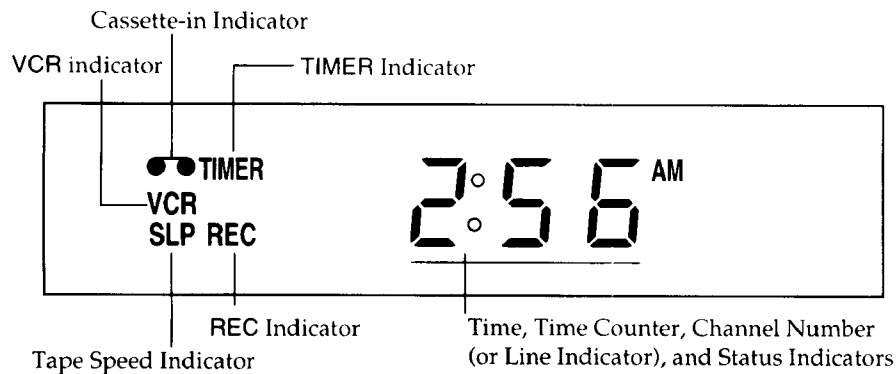
VIDEO and AUDIO IN Jacks

Receives signals from another component, like a VCR or camcorder, when it is connected to these jacks. Use INPUT or channel number 0,0 to select VID1 in the VCR's display panel.

VIDEO and AUDIO OUT Jacks

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

Display Panel



Cassette-in Indicator ()

Lights when a tape is in the VCR. Flashes while tape is ejecting.

Channel Number, Line Indicator (VID1), Time, Time Counter, or Status Indicator

The current time, time counter, channel number, or line indicator (VID1) appears here.

Status indicators show what the VCR is doing.

BYE	Turned off
F.FWD	Fast forward
HI	Turned on
PLAY	Playback
PAUS	Play pause
REC	Record
REC.P	Record pause
REW	Rewind
SRCH+	Forward search

SRCH-	Reverse search
STOP	VCR stopped
T.REC	Timer recording

REC Indicator

Lights when the VCR is recording.

Tape Speed Indicators (SP, LP, or SLP)

Press SPEED to change.

TIMER Indicator

Lights when a timer recording is set.

VCR Indicator (Applies Only to Basic Hookups)

Press TV•VCR to turn on or off.

VCR indicator on: Picture from VCR.

VCR indicator off: Picture from TV channel.

Specifications

Format:	VHS
Record/Playback System:	Video: 2-Head Audio: Mono 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:	17 watts
Dimensions:	3.5 inches high (90 mm) 15.5 inches wide (393 mm) 12.5 inches deep (318 mm)
Weight:	9.5 pounds (4.3 kg)
Storage Temperature Range:	- 22°F (- 30°C) to +149°F (+65°C)
Operating Temperature Range:	+41°F (+5°C) to +104°F (+40°C)

*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.

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 RCA VCR Servicenter.

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"> • Remove batteries and hold down one or more buttons for several seconds to drain the microprocessor inside the remote to reset it. Reinstall the batteries and try remote again. • Aim remote at VCR with no objects between them. • Change batteries.
No picture when VCR turned on – using a basic hookup	<ul style="list-style-type: none"> • Press TV•VCR to turn VCR indicator on. <i>See page 10.</i> • Check to see if Auto TV/VCR feature is set to OFF. <i>See page 10.</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 or stop-action playback.
Time counter not working	<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.

Trouble Checks

Trouble	Here's what to try:
Streaks in picture during normal playback	<ul style="list-style-type: none"> • Some snow/streaks are normal during search or stop-action playback.
Will not record	<ul style="list-style-type: none"> • VCR is in pause mode. Press PAUSE. • Safety tab removed from cassette. • Make sure the line indicator (VID1) is turned off in VCR's display panel for normal recording from the VCR's tuner. Press INPUT to turn off the line indicator.
Rewind does not operate	<ul style="list-style-type: none"> • Tape already rewind.
Timer recording not made or wrong program recorded	<ul style="list-style-type: none"> • Cable box was not turned on or was tuned to the wrong channel at time recording was to begin. • Program entered incorrectly (wrong channel or times). • Power interruption. Clock area in display panel will show --:--. • Check to see if time and date are correct — including AM/PM. • Check Signal Type: CABLE/ANTENNA feature. See page 8. • Program exceeded tape's length or tape was not rewind beforehand. • VCR was not turned off at the time recording was to start. • No tape in VCR or cassette's safety tab broken off.
Clock shows incorrect time or date	<ul style="list-style-type: none"> • Power interruption. Clock on the front panel will show --:--. • Clock was not set accurately (check AM/PM and date). • Time counter display appears in VCR's display panel. Press DISPLAY on remote.
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 channel search active channels correctly	<ul style="list-style-type: none"> • Check antenna connections. • Check Signal Type: CABLE/ANTENNA feature. See page 8.
Cannot select channels over 69	<ul style="list-style-type: none"> • Cable channels over 69 can only be selected if Signal Type: CABLE/ANTENNA feature is set to CABLE. Details are on page 8.
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. Details are on page 12.
Displays appear in wrong language	<ul style="list-style-type: none"> • Language feature set incorrectly. Details are on page 9.

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 or 45 days from the date of shipment to the rental firm, whichever comes first.

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.
- Acts of God, such as but not limited to lightning damage.

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:

- This warranty does not apply. Contact your dealer for warranty information.

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For your nearest 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 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**

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