



We bring good things to life.

Important Information

WARNING

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

CAUTION

RISK OF ELECTRIC SHOCK. DO NOT OPEN.

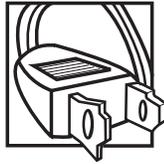
To reduce the risk of electric shock, do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.



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.



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.

Refer to the identification/rating label located on the back panel of your product for its proper operating voltage.

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

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 the 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 television.

Model No. **VG4250** _____

Serial No. _____

Purchase Date: _____

Dealer/Address/Phone: _____

Key Features Overview

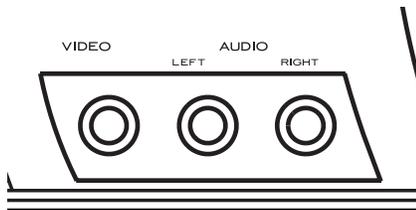
Your VCR is equipped with features that will add to your recording experience. The following information summarizes a few of these features. Chapter 3 provides more information about the rest of the VCR's features and how to use them.



Unified Remote Control

Description: The VCR's remote control can operate most RCA, GE, and Proscan TVs with no additional steps.

Requirements: Point the remote control at the active component and press the ON•OFF button to see if it can be operated.



Front Audio/Video Input Jacks

Description: The VCR has Audio/Video (A/V) input jacks on both the front and rear of the unit (there are output jacks on the rear panel only). The front A/V jacks make it easy to plug in an external A/V device, such as a camcorder.

Requirements: Make sure that all A/V connections are snug. To see a connected device's image, turn the VCR to its Video Line Input by pressing the remote control's WHO•INPUT button.

ShowSaver™ Memory Protection

Description: Set timer programs are stored indefinitely using the VCR's permanent memory so you'll never have to worry about losing your programs due to an extended power outage.

Requirements: Store a daily or weekly timer program in the VCR's memory.

Pro-Tect Plus™ Locking

Description: Locks the VCR so that buttons on the front panel and remote control won't operate the VCR. This feature protects timer programs from frustrating accidents such as being left on at the time of recording.

Requirements: Lock the VCR by pressing and holding the POWER button on the remote control for six seconds. The front panel display will blink for several seconds. The VCR unlocks by pressing and holding the POWER button on the remote control, again for six seconds. The front panel display will blink again and release the lock on the system.

EnergySaver

Description: Set the VCR to turn off automatically after one, two, or three hours of inactivity.

Requirements: Set the EnergySaver preferences.

```
Rec      Ch 36
Record Length 1:30

Press REC to set length
```

Express Recording (XPR)

Description: Allows the VCR to record for a preset amount of time without having to set up a timer recording. You can quickly record the end of a program that is running long or a live sporting event that has gone into overtime using this feature

Requirements: Set the amount of time for the VCR to record using the remote control's RECORD button. The VCR must have a recordable tape inserted.

Broadcast Stereo or Second Audio Program (SAP)

Description: Some TV programs are broadcast with broadcast stereo or Second Audio Program information (usually for a simulcast dubbed foreign language).

Requirements: You must set up the audio preferences.

```
INDEX SEARCH

Press REV or FWD
to begin scanning
OR
enter a specific
index number
--
Press SEARCH to exit
```

Index Search

Description: Index marks are recorded every time a recording is started. Index marks make it easy to search to the beginning of a recorded program. During playback, you can scan forward on the tape by entering any number of index marks, or by simply scanning.

Requirements: Activate the Index Search mode using the remote control's SEARCH button.

Commercial Scan

Description: The purpose of Commercial Scan is to assist you in searching forward on a tape through a block of commercials.

Requirements: A Commercial Scan is performed in 30-second units. Each press of the remote control's SEARCH button adds an additional 30-seconds, up to a maximum of 5 minutes (10 total presses of the SEARCH button). If you press the SEARCH button and the timer is within the 4:30-5:00 range, then the timer will be set to 5:00.

SQPB S-VHS Quasi Playback

Description: Your VCR will be able to play back tapes recorded in S-VHS or S-VHS-ET mode (in VHS quality).

Requirements: Insert a tape recorded in S-VHS or S-VHS-ET mode and press the PLAY button on the remote control or PLAY•PAUSE on the VCR.

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Connections & Setup

Chapter Overview:

- Things to Consider Before Connecting
- Choosing Your Connection
- Making Connections
- Navigating On-Screen Menus
- Completing the QuickSet™ Guide
- Basic Recording



Things to Consider Before Connecting Components

Protect Components From Power Surges

- Connect all components before plugging any power cords into the wall outlet.
- Always turn off the TV and other components before you connect or disconnect any cables.

Position Cables to Avoid Audio Hum or Interference

- Insert all cable plugs firmly into their jacks.
- Place any Audio/Video (A/V) cables to the side(s) of the TV's back panel instead of straight down the back after connecting components.
- Try not to coil any twin-lead cables and keep them away from all A/V cables as much as possible.
- Make sure all antennas and cables are properly grounded. Refer to the *Safety Tips* sheet packed with your unit for detailed information.

Protect Components From Overheating

- Never block ventilation slots in any component. Arrange the components so that air can circulate freely.
- Do not stack components.
- Allow adequate ventilation when placing components in a stand.
- Place an amplifier or satellite receiver on the top shelf of a stand so heated air rising from it will not flow around other components.

Cable Considerations

The RF coaxial cable supplied with your VCR (pictured on the next page) carries both sound and picture information. This is the cable used in all connection diagrams illustrated in this chapter of the manual.

If your TV has A/V input jacks, you should use A/V cables (not supplied) to connect the VCR to the TV. A/V cables provide better picture and sound quality than an RF coaxial cable. If you would like to hook up your VCR using A/V cables, refer to the *Advanced Connection* information on page 56 in the *Other Information* chapter of this manual.



RF Coaxial Cable

Using the RF Coaxial Cable to Connect the VCR to a TV

The RF coaxial cable supplied with your VCR will be the cable used for the basic connections represented in this chapter.

Notes: To hear stereo sound, you will need to purchase Audio/Video (A/V) cables (not provided) to connect the VCR to the TV. For details about this advanced setup, see the instructions on page 56.

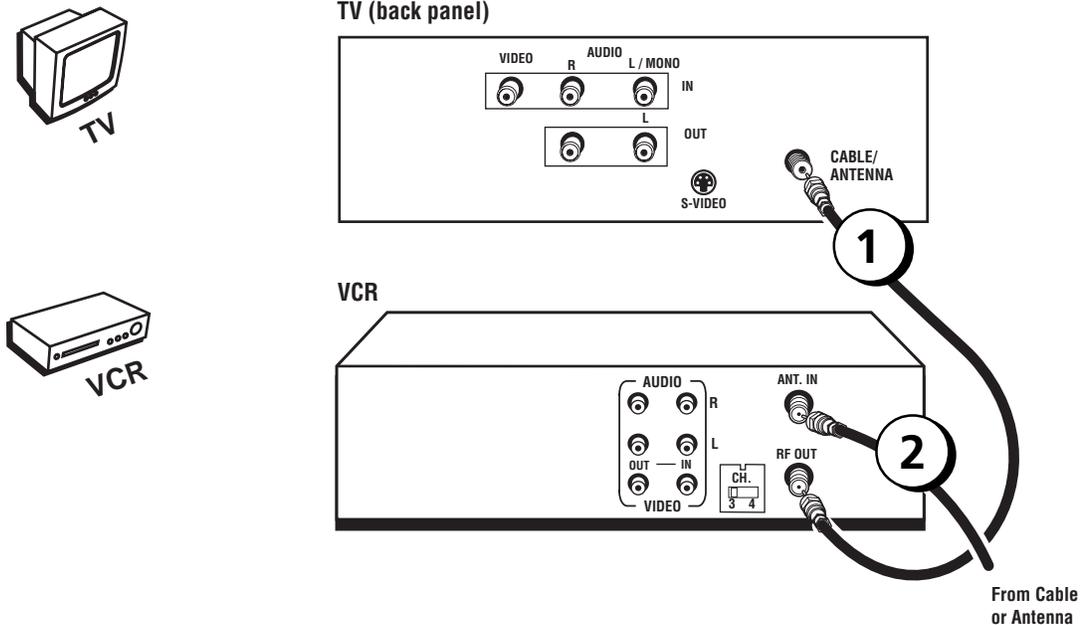
Using A/V jacks to connect the VCR to the TV requires tuning to the TV's Video Line Input to see the VCR's picture. For more information about finding your TV's Video Line Input, see page 55.

Choose Your Connection

There are several ways to hook up your VCR depending on the components connected. Please use the following chart to determine which connection is best for you and proceed to the appropriate page.

Components	Connection Title	Go To
 	<p>TV + VCR</p>	<p>page 8</p>
  	<p>TV + VCR + Satellite Receiver</p>	<p>page 9</p>
  	<p>TV + VCR + Cable Box</p>	<p>page 10</p>

Connections & Setup



TV + VCR

Note: Your television back panel may not look exactly like the model shown here.

Need Some Help?

If you prefer, we can provide you with the name of an Authorized Service Representative who will visit your home for a fee to install your electronic entertainment system and to instruct you in its operation. For details about this service, call 1-888-206-3359.

1. Connect the VCR to the TV

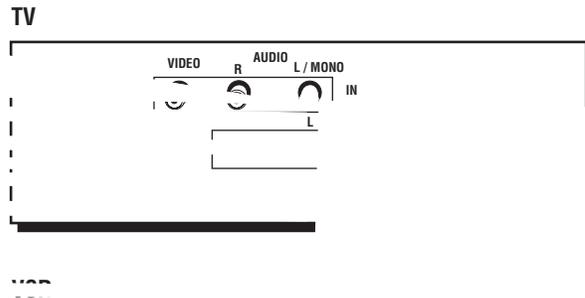
Connect one end of the supplied RF coaxial cable to the RF OUT jack on the back of the VCR and the other end to the TV's Antenna IN jack.

2. Connect the antenna/cable feed to the VCR

Connect the satellite, cable, or antenna RF coaxial cable to the ANT. IN jack on your VCR.

Note: Flip the CH 3/4 switch on the back of the VCR to the channel that is not used in your area. This will be the channel that the TV must be tuned to in order to see the VCR's picture.

Go To Page 11



TV + VCR + Satellite

Note: Your television and satellite models shown here.

- 1. Connect the VCR to the TV**
Connect one end of the supplied video cable to the VIDEO IN jack on the back of the VCR and the other end to the VIDEO IN jack on the back of the TV.
- 2. Connect satellite receiver to the TV**
Connect an RF coaxial cable to the ANT. IN jack on the back of the satellite receiver and to the ANT. IN jack on the back of the TV.
- 3. Connect the antenna to your satellite receiver**
If necessary, connect an external antenna to the antenna input jack on the back of the satellite receiver.
- 4. Connect the satellite feed to the TV**
Connect the satellite receiver's output jack to the ANT. IN jack on the back of the TV.

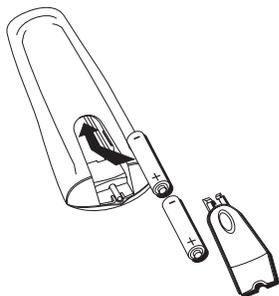
Set the VCR's CH 3/4 Switch

The CH 3/4 switch on back of the VCR determines what channel the TV must be tuned to see the VCR's image. Choose whichever channel is not used locally in your area.

Note: If you connected components using A/V jacks and cables, the VCR's signal must be viewed using the TV's Video Line Input. To find the Video Line Input, refer to the manual that came with the TV or see How to Find Your TV's Video Line Input on page 55 in the Other Information chapter of this manual.

Plug in the VCR

Your VCR's power cord has a plastic band strung through the blades. **Remove the plastic band before plugging the cord into the power outlet.** To remove the band, cut it with a pair of scissors and pull it free of the blades. Once the plastic is removed, match the wide blade of the power cord to the wide slot in the AC outlet. Be sure to insert the plug completely.



Put Batteries in the Remote Control

1. Remove the battery compartment cover on the remote control.
2. Insert new batteries matching the polarities (+ and -) on the batteries with the diagram in the battery compartment.
3. Put the battery compartment cover back on the remote.

Turn on the TV and VCR

Turn on the TV and press the VCR button on the remote control to turn it on.

Note: If you have an RCA, GE, or Proscan TV, your VCR's remote control may be able to operate it without any additional steps. Press the remote control's TV button and then the ON•OFF button to turn on a compatible TV. If neither button turns on the TV, your remote control cannot operate it.

Tune the TV

Tune the TV to the VCR viewing channel. The VCR viewing channel is either channel 3, 4, or the TV's Video Line Input.

- If you connect your VCR using RF coaxial cable only, turn the TV to channel 03 or 04 (whichever was set on the CH 3/4 switch).
- If you connected the VCR using A/V jacks and cables, select the TV's Video Line Input. For more information see *How to Find the TV's Video Line Input* on page 55 in the *Other Information* chapter of this manual.

Using the Remote Control to Navigate On-screen Menus

The technical term is “Navigation” – how you move through the on-screen menus. Choosing a menu item is the same for all on-screen displays; press the corresponding number button on the remote control select the desired item.

Note: Selecting a menu item can take you to another menu, activate a choice, or activate a data entry field (such as the hour field in the Set Time menu).

```
Select a language.  
Seleccione un idioma.  
Choisissez une langue.  
  
1 English  
2 Español  
3 Français
```

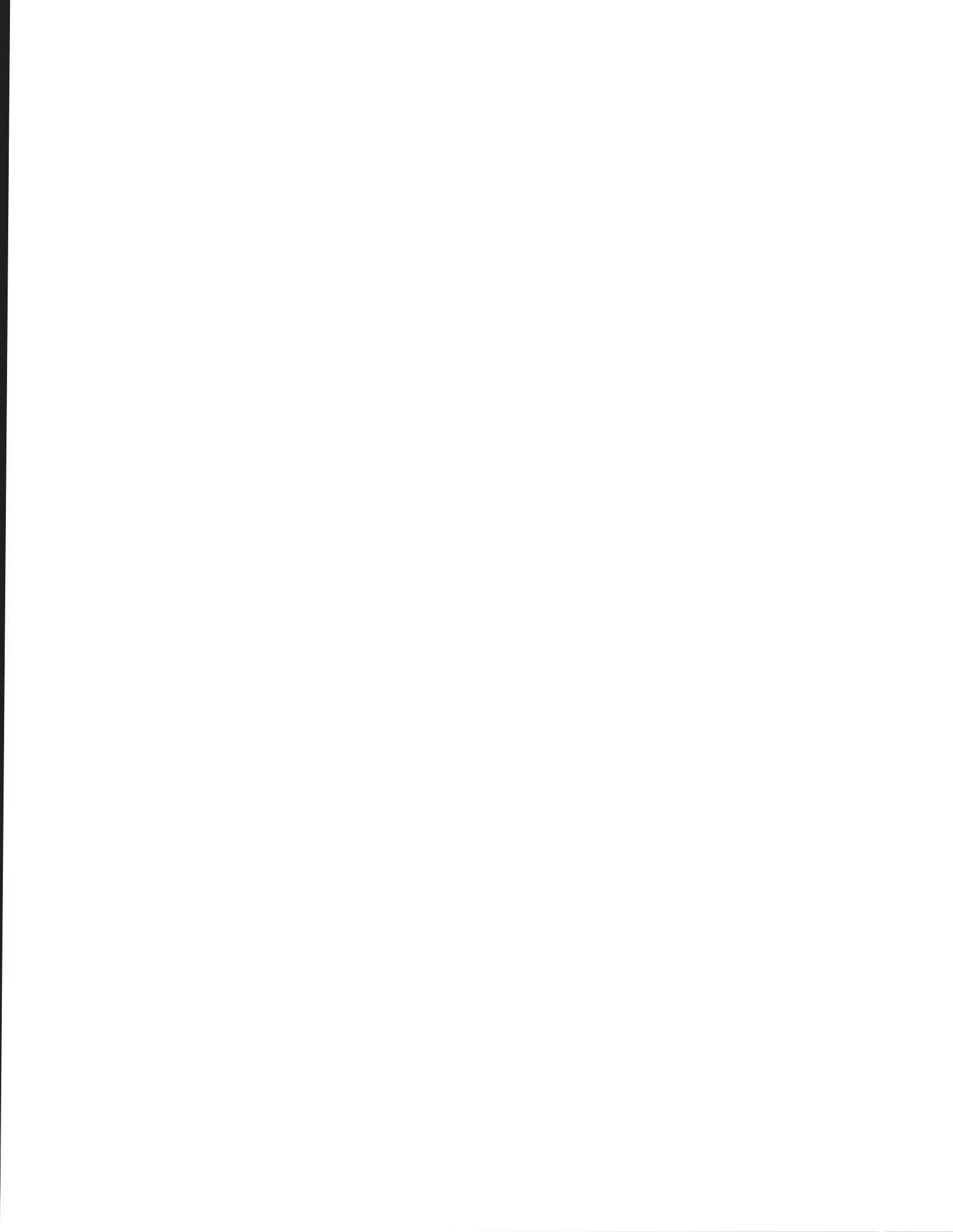
Complete the QuickSet Guide

The menu system in your VCR allows you to customize your preferences as well as use all the VCR’s features. To help you use the VCR as quickly as possible, there is an initial QuickSet Guide that walks you through several important setup steps at one time.

The first time you turn on the VCR, you will be able to set up available channels, time and date information, and more. The first menu you will see asks which language you prefer to have the on-screen menus appear in.

Note: With numbered menu choices, press the corresponding number button on the

```
VCR MAIN MENU  
1 Timer Recordings  
2 Time  
3 Channels  
4 Setup  
5 Preferences  
6 Audio  
7 Language  
  
0 Exit
```



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Using the VCR's Menu System

Chapter Overview:

- **Setting Up the VCR's Preferences**
- **Using On-Screen Menus**
- **Cable Box Setup**
- **Setting Time and Date**
- **Setting VCR Preferences**



Using On-Screen Menus

Using On-Screen Menus to Set Up Features

You set up many of the VCR's features by using the menu system as discussed in the previous chapter. Each feature that appears in the QuickSet Guide is explained in this section as well as a few other features you should set up to get the most out of your VCR.

Note: Not all the VCR screens are shown in this manual when explaining the features.

Language

Selecting your preferred language determines how the on-screen displays will appear. To change the preferred language:

1. Press MENU to display the *VCR MAIN MENU*.
2. Press 7 to choose *LANGUAGE*.
3. Press 1 for English, 2 for Spanish (Español), or 3 for French (Français).

```
LANGUAGE
Select a language.
Seleccione un idioma.
Choisissez une langue.

1 English
2 Español
3 Français
Press MENU to continue
```

Is Something Missing?

These instructions will not show all of the step-by-step On-Screen Menus. Make sure to follow the instructions completely to get to the menus being discussed.

```
CHANNELS

1 Auto Channel Search
2 Add/Remove Channels
3 Signal Type: CABLE
4 Cable Box Setup

0 Exit
```

```
CABLE BOX SETUP

Do you use your cable
box to receive ALL
channels or only SOME
channels?

1 ALL channels
2 Only SOME channels
3 Cancel setup
```

Cable Box Setup

This setup applies **only** when all channels are received through a cable box. In this case, the VCR will automatically enter the channel used to view cable box programming. Your VCR will use this channel for all future timer recordings.

1. Press MENU to display the *VCR MAIN MENU*.
2. Press 3 to display the *CHANNELS* menu.
3. Press 4 to display *CABLE BOX SETUP*. Then select one of the three choices.

```
CABLE BOX SETUP
On what channel does
the VCR receive signals
from the cable box?
(usually 3, 4, or Video)

--

Enter 01-13 or INPUT
Press MENU to cancel
```

```
CABLE BOX SETUP

The VCR will now
receive all signals
from the cable box
on channel 04.

Press MENU to continue
```

4. If *ALL Channels* is selected, enter the output channel of the cable box (usually 03 or 04), or if Audio/Video (A/V) jacks connect the VCR to the TV, press the INPUT button on the VCR's remote control.
5. Once you complete the setup, the VCR confirms that the VCR will now receive all signals on the designated channel.

VCR Channels List

Your VCR may come with a list of channels preset at the factory. Even though it may come with such a list, you might want to add or delete certain channels.

Note: If you use a cable box for all channels, this step is not necessary.

Auto Channel Searching

Use Auto Channel Search to place all available channels in memory.

Note: If you ever change cable or antenna signals, you may need to run the Auto Channel Search feature again.

1. Press MENU to display the *VCR MAIN MENU*.
2. Press 3 to choose *CHANNELS*.
3. Press 1 to display the *AUTO CHANNEL SEARCH* menu.
4. Select one of the three *AUTO CHANNEL SEARCH* options:
 - **Cable TV** searches for cable stations from a single channel.
 - **Antenna** searches for local broadcast stations on all channels.
 - **Detect Automatically** decides which input to use for you.

```
AUTO CHANNEL SEARCH

What type of signal
are you using?

1 Cable TV
2 Antenna
3>Detect Automatically
0 Cancel
```

Note: With Detect Automatically, a strong cable or antenna signal in your area may cause channels to be detected inaccurately. If this should happen, manually select the input signal for the system you have.

The VCR begins scanning for channels available in the area (taking about one-to two minutes). When scanning is complete, the VCR tunes to the lowest channel available. After completing Auto Channel Search, pressing the remote control's CHAN + or - buttons should only select active channels.

Changing the Signal Type

This feature is useful if your cable signal goes out; it allows you to switch to a regular antenna for alternate television reception.

1. Press MENU to display the *VCR MAIN MENU*.
2. Press 3 to display the *CHANNELS* menu.

```
VCR MAIN MENU
1 Timer Recordings
2 Time
3 Channels
4 Setup
5 Preferences
6 Audio
7 Language
0 Exit
```

```
CHANNELS
1 Auto Channel Search
2 Add/Remove Channels
3 Signal Type: CABLE
4 Cable Box Setup
0 Exit
```

3. Press 3 to change *Signal Type: Cable* or *Antenna*. When finished, press 0 to exit back to the *MAIN MENU* and 0 again to exit to normal viewing.

Adding or Removing Channels

You might want to add or remove channels after using Auto Channel Search, especially if there are weak signals or channels with content you don't care for.

1. Press MENU to display the *VCR MAIN MENU*.
2. Press 3 to display the *CHANNELS* menu.
3. Press 2 to display the *ADD/REMOVE CHANNELS* menu. To go to the channel you want to add or remove, use the remote control's CHANNEL + or - buttons or enter a specific channel number using the number buttons.

When the desired channel is shown, the on-screen display will tell you if the channel is currently in your viewing list. Press CLEAR to remove a channel from the available channels list or press INFO to add it.

```
ADD/REMOVE CHANNELS

Channel 115
is presently ADDED

Press CLEAR to remove
Press MENU to exit
```

4. Once you are finished adding/deleting channels, press the MENU button to exit out of the menus.

Note: To view active channels, use the remote control's CHANNEL + and - buttons. You can also access channels not available in the active channel list by using the remote control's number buttons to enter the specific channel number.

Time and Date

Your VCR gives you two ways to set the time and date; manually or by using the Auto Clock Set feature. Using Auto Clock Set enables the time to be updated each time the VCR is turned off by using time and date information carried in certain broadcast signals.

Auto Clock Set Feature

The Auto Clock Set feature is set to ON by default at the factory. In the ON setting, the VCR looks for a channel carrying time data and updates the clock automatically. In order for Auto Clock Set to work properly, certain steps must first be completed such as Auto Channel Search, setting the time zone, and setting the Daylight-Saving feature.

Notes: Auto Clock Set is available only in limited areas.

You must set available channels, time zone, and Daylight-Saving settings for Auto Clock Set to work.

When using Auto Clock Set with a cable box, the VCR will not reset the clock after a power outage unless the cable box is tuned to the channel carrying time data.

If the time does not automatically set after trying for ten minutes, manually set the time and date information using the TIME menu (see the next page for information on manually setting time and date information).

To Turn Auto Clock Set ON

Note: make sure that available channels, time zone, and Daylight-Saving features are set before turning on Auto Clock Set.

1. Press MENU to display the VCR MAIN MENU.
2. Press 2 to display the TIME menu.
3. Press the 2 button repeatedly to toggle between Auto Clock Set: ON and OFF.

```
TIME
1 Set Time and Date
2 Auto Clock Set:  ON
3 Set Time Zone
4 Set Daylight Savings

Time Data was found
on channel 20.

0 Exit
```

Setting the Time Zone

1. Press MENU to display the VCR MAIN MENU.
2. Press 2 to display the TIME menu.
3. Press 3 to display the SET TIME ZONE screen.
4. Select your time zone.

If you select *Automatic* for your time zone, the VCR sets the clock using the first time information it finds. If the time set is not correct, select another time zone or set the time and date through the menu system.

```
SET TIME ZONE
What is your Time Zone?
1 Eastern
2 Central
3 Mountain
4 Pacific
5 Alaska
6 Hawaii
7 Automatic
Press MENU to continue
```

Setting Daylight-Saving Time

1. Press MENU to display the *VCR MAIN MENU*.
2. Press 2 to display the *TIME* menu.
3. Press 4 to display the *SET DAYLIGHT SAVINGS* menu.

```
TIME
1 Set Time and Date
2 Auto Clock Set:  ON
3 Set Time Zone
4 Set Daylight Savings

Time Data was found
on channel 20.

0 Exit
```

```
SET DAYLIGHT SAVING

Does your area observe
Daylight Saving Time
from April to October?

1 Yes, DST is observed
2 No
3 Automatic
Press MENU to continue
```

4. Select one of the options.

Notes: DST stands for Daylight-Saving Time.

If you choose "Automatic" for the time zone, the VCR sets the clock using any DST information found in broadcast signals.

Displaying Time and Date

Pressing the INFO button on the remote control or VCR displays the time and date on screen temporarily.

```
SET TIME AND DATE

Time --:--
  (hh:mm)

Date --/--/--

SET TIME AND DATE

P Time 12:34 PM

Date 11/16/01 Friday

Press CLEAR to correct
Press MENU to set
```

Setting Time and Date Manually

If Auto Clock Set was unsuccessful, set the time and date manually in the *TIME* menu. Auto Clock Set is automatically turned off when time and date information is set this way.

1. Press MENU to display the *VCR MAIN MENU*.
2. Press 2 to display the *TIME* menu.
3. Press 1 to display the *SET TIME AND DATE* menu.
4. Enter the data using the number buttons. Press 0 before single-digit numbers and follow the on-screen directions to exit the menus.

PREFERENCES	
1 Remote Control:	VCR1
2 Auto Play:	ON
3 Auto TV/VCR:	ON
4 EnergySaver:	2:00
5 Front Panel:	BRIGHT
6 Tape Speed:	SLP
7 Set Auto Repeat	
0 Exit	

The PREFERENCES menu allows changes to be made to a variety of VCR features.

Additional Set Up Features in the Preferences Menu

Note: The features described on the following pages are all accessed through the PREFERENCES menu.

To Access the PREFERENCES menu:

1. Press MENU to display the *VCR MAIN MENU*.
2. Press 5 to select *PREFERENCES*.

You are now ready to select an item from the *PREFERENCES* menu to set up.

Remote VCR1/VCR2 Option

Some universal remote controls can operate up to two VCRs. If you have a universal remote control with this ability, your RCA VCR can be controlled with either the VCR1 or VCR2 button. See the documentation that came with your universal remote control for details about programming it to control your RCA VCR.

In the *PREFERENCES* menu, press 1 to select the Remote Control feature. Then press the VCR2 button on your universal remote control to change the setting.

The VCR will only respond to the universal remote control's VCR2 button. To change the remote control setting back to respond to the VCR1 button, display the *PREFERENCES* menu, press 1, and then press the VCR1 button on the universal remote control.

Notes: Not all universal remote controls can operate two VCRs.

Remember you must press VCR1 or VCR2 on the remote control—whichever is selected in the menu—before the remote will operate the VCR.

Auto Play

With Auto Play turned ON (the factory default setting), the VCR automatically starts playback when you insert a tape with its safety tab removed.

To Access Auto Play:

1. In the *PREFERENCES* menu, press 2 repeatedly to switch between *Auto Play: ON* and *OFF*.
 - Select ON if you want a tape with its safety tab removed to start playing automatically when inserted.
 - Select OFF if you *do not* want a tape with its safety tab removed to start playing automatically when inserted.

Auto TV/VCR

To control whether the TV/VCR setting changes automatically to the VCR mode when the VCR is turned on, use the Auto TV/VCR setting.

To Access Auto TV/VCR:

1. In the *PREFERENCES* menu, press 3 repeatedly to toggle between *Auto TV/VCR: ON* and *OFF*.

Note: Pressing TV•VCR on the remote control will still switch between the VCR and TV modes. When in VCR mode, VCR is displayed on the front panel. The VCR indicator turns off when in TV mode.

- Select ON to switch VCR mode on automatically when the unit's power is turned on. The VCR must be connected to the TV using the supplied RF coaxial cable.
- To remain in the TV mode when the VCR is turned on, select OFF. Leaving Auto TV/VCR off is useful if you use A/V cables to connect the VCR to the TV and you watch the VCR's picture using the TV's Video Line Input. This way, the antenna/cable signal will not be interrupted by the VCR.

EnergySaver

By default, the VCR automatically turns off after two hours of inactivity. This can be changed in the *PREFERENCES* menu by pressing the 4 button repeatedly to change the time delay or to disable the feature altogether.

- Select OFF and the VCR will stay on until you shut it off.
- Select 1:00, 2:00, or 3:00 and the VCR will turn off after a corresponding

Note: Tape Speeds

SP (Standard Play)

Gives the best quality recording, but fewer programs can be recorded on the tape.

SLP (Super Long Play)

Gives three times the recording time of tapes recorded in SP mode.

Recording Times

Cassette	SP	SLP
T-120	2 Hr	6 Hr
T-160	2 Hr/40 Min	8 Hr

```
AUTO REPEAT
Set the length of time
you want the tape to
play in a repeating loop
Loop from 0:00 to --:--
                               (h:mm)
Press CLEAR to turn off
Press MENU to exit
```

Tape Speed

You can choose a preferred tape speed for recording; either Standard Play (SP) or Super Long Play (SLP). The speed selected appears in the VCR's display panel and in timer recording menus.

To Select a Preferred Tape Speed:

In the *PREFERENCES* menu, press the 6 button repeatedly to switch between SP and SLP settings.

Note: See the note to the left for an explanation of recording speeds.

To Override the Preferred Tape Speed:

- Press the SPEED button on the remote control.
- Set the tape speed in the timer recording menu.

When you turn off the VCR, the tape speed reverts to the one you have selected.

Set Auto Repeat

A tape can be set to play in a repeating loop over and over with the Set Auto Repeat feature. Set Auto Repeat uses the VCR's memory counter to determine the duration of the loop.

In the *PREFERENCES* menu, press the 7 button to choose *Set Auto Repeat*. The *Set Auto Repeat* dialog box will ask for a loop end time to be specified:

- The CLEAR key will erase all numbers entered and move the cursor back to the first position (hours).
- The *Press CLEAR to turn off* message will appear only after the first number has been entered into the end time.
- Auto Repeat is set back to --:-- by resetting the dialog box, by cassette ejecting or insertion, by powering off the VCR, by power interruption, or by recording start.

When a duration time has been set:

- The VCR will automatically switch to rewind if the counter meets or goes past the Auto Repeat set duration.
- The VCR will automatically switch to playback during rewind if the counter equals or is less than 0:00.
- The Auto Repeat may be adjusted by setting the counter to 00:00. This can be done by pressing the CLEAR button while the tape counter is on screen or on the front panel display.
- The counter will not reset while rewinding in an Auto Repeat loop.

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Using the Remote Control

Chapter Overview:

- **Using the Remote Control to Control Components**
- **Buttons on the Remote Control**
- **Using the INPUT Button**



Using the Remote Control to Control Components

Your VCR's remote control is capable of controlling more than just your VCR. If you have compatible RCA, GE, or Proscan TV, you may be able to control it without any additional steps.

In order for the VCR's remote control to operate a compatible RCA, GE, or Proscan TV, you must first press the TV button on the remote control. For example, if you wanted to change the TV's channel, you would need to hit the TV button first to put the remote control in TV-controlling mode, and then press the CHAN up or down button. To rewind a tape in the VCR, you would first press the VCR button on the remote control to put it into VCR-controlling mode, and then press the REVERSE button.

Buttons of the Remote Control

0-9 (Number buttons) Enter channel numbers and time settings directly through the remote control.

To enter a two-digit channel, press the two digits. To enter a three-digit channel, press and hold the first digit for two seconds until two dashes appear to the right of the number, then add the second two. Example: to tune to channel 123, press and hold 1 for two seconds, then, when the dashes appear (--) press 2, then press 3.

CHAN (up and down) buttons Scan up or down through the VCR's stored channels. Press once to change the channel up or down; press and hold to continue changing channels.

CLEAR Removes any menu or display from the screen and returns the display to the normal signal.

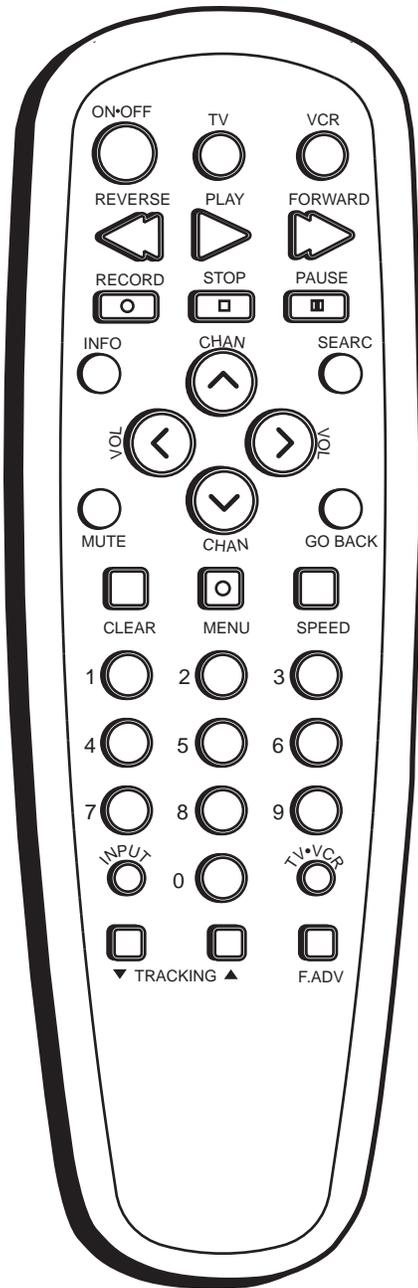
FORWARD Advances the tape in the VCR. If in PLAY mode, the FORWARD button starts fast-motion scan. If the tape in STOP mode, the FORWARD button starts fast forwarding.

F. ADV (Frame Advance) Advances the tape one frame at a time during play-pause mode.

GO BACK Depending on which component the remote control is set to operate, this button returns the TV or VCR to the previously viewed channel.

INFO Shows the VCR's status displays on the TV screen. Press the INFO button once to display the day, date, time, and tape counter information. Press the INFO button a second time to display just the tape counter. Press the INFO button a third time to clear all displays.

INPUT Selects between the Video Line Inputs and the VCR's tuner. Video Line Input refers to the signal coming from another component connected to the A/V input jacks on the VCR (L1 designates the rear A/V jacks and L2 denotes the front jacks).



Using the Remote Control

MENU Displays the VCR's Main Menu. This is the first step when accessing any on-screen menu such as Language, Preferences, Timer Recordings, etc.

MUTE Lowers the TV volume to its minimum level. Press the MUTE button again to restore the TV's volume to its previous level.

ON•OFF Turns the power of the active device (either the TV or VCR) on or off.

PAUSE Pauses playback in VCR mode.

PLAY Starts playback when in VCR mode. Pressing PLAY while in Pause mode will also start playback.

RECORD Starts recording when in VCR mode.

REVERSE If you're operating a VCR with the remote control, press REVERSE to go backwards on a videotape. While in playback mode, pressing and holding REVERSE starts reverse playback.

SEARCH Displays INDEX and GO-TO Search menus on TV screen when VCR is stopped. The Commercial Scan feature advances the tape 30 seconds of recorded material during playback. Each press advances the tape an additional 30 seconds up to five minutes.

SPEED Overrides the set recording speed (either SP or SLP).

STOP Stops the active function of the VCR including tape playback, rewinding, and fast-forwarding. Pressing the STOP button for several seconds also ejects an inserted tape.

TRACKING up and down Allows the manual reduction of streaks which may appear on the picture during regular or slow-motion playback. Reduces picture "jitter" during stop-action (paused) playback.

TV Puts the remote control in TV mode. This button will automatically turn on most RCA, GE, and Proscan TVs.

TV/VCR Toggles the VCR between TV and VCR signals.

VCR Puts the remote control in VCR mode.

VOL (up and down) buttons Decrease or increase the TV volume.

Using the INPUT Button

Use the INPUT button to toggle through the available Video Line Input sources (toggles between line input(s) and regular broadcasting) and to view the connected component's image (like a camcorder's playback picture) through the VCR.

1. Press the remote control's VCR button to place the remote control in VCR mode. Make sure that the VCR is turned ON.
2. Press the remote control's INPUT button to tune to its Video Line Input source which allows you to see the component's image.
3. Press the INPUT button again to tune back to the broadcast image you were previously watching through the VCR.

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Using the VCR's Features

Chapter Overview:

- **Recording**
- **Express Recording (XPR)**
- **Timer Recordings**
- **Copying and Editing Tapes**



Recording Features

Your VCR provides many ways to capture programming:

1. **Recording** lets you press one button to record a program.
2. **Express Recording (XPR)** allows recording to start while a program is being watched. This feature automatically stops recording after a designated period of time.
3. **Timer Recording** program the VCR for a daily, weekly, or a one-time recording which will automatically start and stop at the times you set.

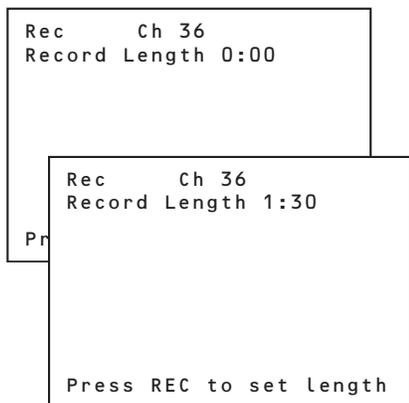
Express Recording (XPR)

Use XPR to quickly record the remaining portion of a program being watched. XPR is a great way to capture the end of a sporting event that has run into overtime or a live broadcast that runs long.

XPR works in 30-minute increments. You can capture the last 30, 60, 90, etc. minutes of programming (providing on tape length), up to four hours total.

To Activate XPR:

1. If necessary, turn on the VCR and tune it to the channel with the desired programming.
2. If necessary, insert a tape with its safety tab in place into the VCR. Make sure it is cued to record at the proper starting point.
Note: To override the preferred tape speed setting, press the SPEED button on the remote control repeatedly to toggle through SP or SLP choices.
3. Press the RECORD button on the remote control or VCR front panel to start recording.
4. Repeatedly press the RECORD button to set up the recording duration.
 - Each press of the RECORD button adds 30 minutes of recording time.
 - The VCR automatically turns off after recording for the amount of time set.
 - To stop capturing XPR, press and hold the STOP button on the remote control or VCR front panel for several seconds until "STOP" appears on the VCR front panel and/or on-screen.



Timer Recording

You can program up to eight different broadcasts to be recorded.

Notes on Timer Recordings- In order for a Timer Recording to work:

- The VCR's clock must be set correctly.
- Insert a tape with its safety tab in place and enough tape to record the program.
- The output of your cable box appears in the Channel item of the timer recording menu if you've set up the VCR for a cable box for all channels.
- PROGRAMS OVERLAP appears if two programs whose times overlap are entered.
- TIMER appears in the display when you turn off the VCR and a timer recording has been set. TAPE flashes if there is no tape in the VCR.
- For a cable box or satellite receiver, turn it on and tune it to the channel you want to record before the recording is to begin.

To Set Up to as Many as Eight Timer Recording Programs:

1. Press the MENU button to display the *VCR MAIN MENU*.
2. Press 1 to display the *TIMER RECORDINGS* menu.
3. Press 1 to select *Create a New Program*.

```
TIMER RECORDINGS
1 Create a New Program
2 Review Existing Progs.

0 Exit
```

4. Select how often you want the program to record.

```
How often should this
program record?
1 One time
2 Daily (every day)
3 Weekdays (M-F)
4 Weekly (once per week)
0 Cancel
```

5. Enter the data for the program with the number buttons.

The data includes the channel number (press INPUT to select the Video Line Input if using A/V jacks to connect the VCR to the TV), and start and end times (including AM or PM). The start date is automatically entered based on the VCR clock. Both the recording date and speed can be changed.

```
Program 1 has been saved
Remember to insert a
recordable tape and
turn the VCR off before
the program start time.
Remember to leave your
cable box on.
```

6. Review the information to make sure it is correct.

7. Press the MENU button to save.

VCR Features

Stopping a Timer Recording

To Stop or Cancel a Timer Recording in Progress (even an Express Recording):

Press and hold the STOP button for several seconds until *STOP* appears on screen and/or on the VCR front panel.

Reviewing and Clearing Programs

To Review Programs:

1. With the *VCR MAIN MENU* displayed, press 2 to choose *TIMER RECORDINGS*.
2. Press 2 to display the *Review Existing Progs.* screen.
3. Press CLEAR to erase, or MENU to see the next program.

```
Program 1 (One time)
Channel      104 Cable
Start Time   12:00 AM
End Time     01:30 AM
Start Date   11/16/01 Fri
Tape Speed   SLP

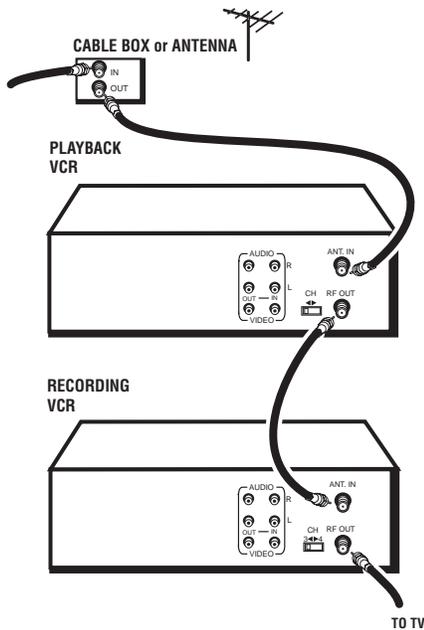
Press CLEAR to erase
Press MENU for next prog
```

Recording Broadcast Stereo TV or SAP (Second Audio Program)

Some TV programs are broadcast with stereo audio or SAP (Second Audio Program).

To Capture Broadcast Stereo or SAP Audio:

1. Turn on the TV and tune it to the VCR viewing channel (either 03, 04, or Video Line Input).
2. Insert a tape with its safety tab in place.
3. If your VCR viewing channel is 3 or 4, make sure the VCR indicator appears in the VCR's display panel. If not, press the TV•VCR button on the remote control to turn it on.
4. If desired, press the SPEED button on the remote control to override the Preferred Tape Speed setting. The tape speed indicator appears on the TV screen (either SP or SLP).
5. Select the channel or Video Line Input to be recorded.
6. Press RECORD to start recording.
7. Press STOP when finished.



Caution:

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

Insert Tape:

Don't forget to insert a recorded tape when using the search features.

Copying and Editing Tapes Using Two VCRs

Use one VCR as the *playback* VCR and the other as the *recording* VCR.

1. Turn on the TV and VCRs.
2. Tune the TV to its VCR viewing channel (either 3, 4, or video line input).
3. If you connected your VCR using the RF coaxial cable jacks, tune the *recording* VCR to channel 03 or 04 (whichever is selected on the *playback* VCR's CH. 3/4 switch on the back panel).

If you have connected your VCR using the A/V jacks, press INPUT on the *recording* VCR's remote control to select the video line input. Select L1 for the jacks on the back of the VCR or L2 for the jacks on the front.

4. Insert the tape you want to copy into the *playback* VCR. Insert a blank tape with its safety tab in place into the *recording* VCR.
5. Press PLAY on the *playback* VCR to begin playback. When you reach the point on the tape or program where you want to begin copying, press PAUSE. You may need to adjust the tracking.
6. Press the RECORD button, then press PAUSE on the *recording* VCR.
7. Press the PAUSE buttons on *both* VCRs at the same time to begin copying the tape.
8. To edit segments that you do not want to copy:
 - Press PAUSE on the *recording* VCR to pause copying.
 - Locate the next segment you want to copy on the *playback* VCR by using FWD, REV, and PLAY, and then press PAUSE to cue.
 - Press PAUSE on *both* VCRs at the same time to resume copying.
9. Press STOP on *both* VCRs when finished.

Picture Search Options

The most basic way to search during playback is using the FORWARD or REVERSE buttons (FWD and REV on the VCR). This section, though, contains several other options available for searching a tape.

Forward and Reverse Search

You can perform a basic search during playback either forward or reverse.

Note: Sound is turned off during picture search.

1. Press the FORWARD button (FWD on the VCR) to search forward or REVERSE (REV on the VCR) to search in reverse.
2. Press FORWARD (FWD) or REVERSE (REV) again or press PLAY to return to normal playback.

VCR Features

Commercial Scan

This is useful for skipping commercials or short program segments.

1. Press SEARCH once during playback to advance the tape approximately 30 seconds of recorded material.
2. Each press of the SEARCH button adds an additional 30 seconds up to five minutes.

Slow Motion

You can view a tape during play or play-pause mode using slow motion.

1. In pause mode, press the FORWARD button (FWD on the VCR) or the REVERSE button (REV on the VCR) to start slow-motion playback.
2. Press the FORWARD button (FWD on the VCR) to increase search speed or the REVERSE button (REV on the VCR) to decrease the speed of the search.
3. Use the TRACKING + or – buttons to remove any streaks from the picture.
4. Press the PLAY button to return to normal playback.

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

Frame Advance

Frame Advance lets you view one-stop action one frame after another during playback. Frame advance works well for tapes recorded at the SP or SLP speed.

1. Press PAUSE on the remote (PLAY/PAUSE on the VCR) to freeze the action.
2. Press F. ADV on the remote each time you want to view the next frame of the scene.
3. Press PAUSE or PLAY on the remote (PLAY/PAUSE on the VCR) to return to normal playback.

Index Search

The VCR has a *VHS Index Search System* that automatically records an index mark every time you start a recording. During playback you can locate the program you want to play by the number of index marks or by scanning. The VCR will search forward or reverse from the location you are at on the tape.

To Search:

```
INDEX SEARCH
Press REV or FWD
to begin scanning
OR
enter a specific
index number
--
Press SEARCH to exit
```

```
INDEX SEARCH
Searching for
index number 12...

Press STOP to cancel
```

```
INDEX SEARCH
Searching for
index marks...

Press STOP to cancel
```

1. Press STOP.
2. Press SEARCH on the remote to display the *INDEX SEARCH* menu on the TV screen.
3. If you want to search through a certain number of index marks, press two number buttons to enter the number of marks you want to search. Press CLEAR on the remote to correct an entry.
4. Press FORWARD (FWD) to search forward or REVERSE (REV) to search in reverse. The VCR will locate your index mark and begin playback. If you did not enter a specific index number, the VCR will locate the next index mark and begin playback.
5. Press STOP to halt Index Search.

Notes: *Certain index marks may be missed by the VCR including:*

- *Marks too close to the current location of the tape.*
- *Marks at the beginning of a recorded segment lasting less than five minutes.*
- *Index marks that start at the beginning of the tape.*

```
GO-TO SEARCH  
  
Current tape counter is  
  2:17:25  
  
Press REV or FWD  
to go to --:--:00  
  
Press SEARCH to exit
```

Go-To Search

The Go-To Search feature enables the VCR to quickly locate a counter reading anywhere on the tape. When the VCR locates the counter reading, it will begin playback.

1. Press the STOP button.
2. Press the SEARCH button on the remote control until the *GO-TO SEARCH* menu appears on the screen.
3. Press number buttons to enter the hour and/or minute of the counter reading you want the VCR to go to. Press the CLEAR button on the remote control to correct an entry.
4. Press the FORWARD button to search ahead or the REVERSE button to search behind.
5. Press the STOP button to end Go-To searching.

Pro-Tect Plus™ Locking Feature

To protect set timer recordings and disable the VCR for use, the unit can be locked so that the buttons on the front panel or remote control don't work.

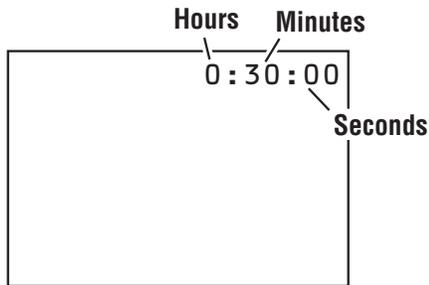
- **To Lock:** Press and hold either the remote control's ON•OFF or VCR button until the front panel display flashes.
- **To Unlock:** Press and hold either the remote control's ON•OFF or VCR button until the front panel display flashes for several seconds. Unlocking is the only way to turn on and use the VCR.

Tracking

Your VCR has automatic tracking that removes streaks and *noise* from the picture. Automatic tracking is activated when you insert a tape or turn on the VCR. Occasionally you may need to manually adjust tracking, especially if the tape was recorded on a different VCR. Use the TRACKING -/+ buttons to remove streaks and noise. You can also use tracking when pausing a tape to reduce the noise of the stilled picture.

When manually adjusting the picture, automatic tracking is turned off. To turn automatic tracking back on, eject the tape and reinsert it.

Tracking has no effect when recording—only during playback.



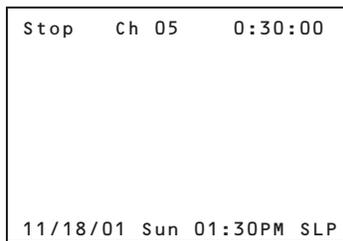
Time Counter

The time counter shows the actual time used in recording or playing back a tape. The time counter helps locate the beginning or end of recorded events. It resets to 0:00:00 whenever a tape is ejected from the VCR.

For example, if you record a 30-minute program at the beginning of a tape, rewind it, and then want to go to the end of the first program to start another recording:

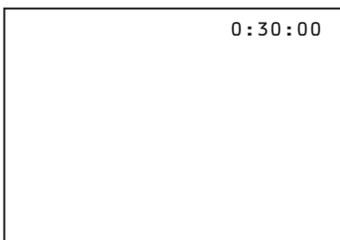
1. Press the INFO button **twice** to display only the time counter.
2. Press the CLEAR button to reset the time counter to 0:00:00.
3. Press the FORWARD button (FWD on the VCR) to advance a tape until the time counter reads 0:30:00.
4. Press STOP. This is the approximate end of a 30-minute program (you may want to press PLAY to verify). When the tape is cued correctly, you can begin recording.
5. Press the INFO button to remove the time counter from the screen and return to the normal display mode.

1



On-screen display (times out)

2



Time counter only (does not time out)

3



No displays will appear (useful for dubbing)

On-Screen Displays

The INFO button displays the status of the VCR (Stop, Play Record, etc.) as well as the channel number, time counter position, date, time, and tape speed on the TV screen.

Note: The date and time must be set before they can be displayed.

1. Press the INFO button to show the on-screen displays. The current time is displayed in the VCR's front panel.
2. Press INFO again to have only the time counter remain on the screen. The time counter is also displayed in the VCR's front panel.
3. Press INFO again to have no displays appear on the TV screen. The time counter remains in the VCR's display panel. This is useful for dubbing tapes.
4. Press INFO again to return to normal display. The current time is displayed in the VCR's display panel.

Note: Turning off the VCR also resets the displays.

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Other Information

Chapter Overview:

- Troubleshooting
- Front, Rear, and Display Panel Diagram
- Specifications
- Care and Cleaning
- Warranty Information
- Finding the TV's Video Line Input
- Advanced Connection Diagram
- Glossary
- Index



Other Information

Troubleshooting

Most problems with your VCR are addressed in this Troubleshooting section. If you ever have any problems with the VCR's general, playback, or recording abilities, refer to this section first.

General Problems

No power

- Check to make sure the VCR is plugged into a working outlet.
- Check to make sure connections between devices are correct and snug.

The VCR does not respond to the remote control

- To put the remote control in VCR-operating mode, press the VCR button first. The remote control should then operate the VCR.
- Make sure there are no objects between the VCR and the remote control.
- The remote control's batteries may need changing.
- Remove the remote control's batteries for at least one minute, then replace. This resets the factory default settings, which may require reprogramming to operate other components.

The remote control no longer operates an RCA, GE, or Proscan TV

- Press the TV button to put remote control in TV-controlling mode. The remote control should then operate the TV.

There's poor quality or no picture for normal TV viewing

- If using RF coaxial cables to connect the VCR to the TV, make sure the VCR indicator is not displayed on the VCR's front panel (press the remote control's TV•VCR button to toggle between VCR and TV-viewing modes).

If using A/V jacks and cables to connect the VCR to the TV, press the remote control's INPUT button when in TV-controlling mode to access the TV's Video Line Input).

-

The incorrect time or date is shown

- A power interruption may have occurred and Automatic Clock Set was not turned on or did not work properly. Check the time zone and Daylight-Saving settings in the *TIME* menu.
- Make sure the VCR or cable box is tuned to the time data channel (check with your service provider for information about time data).
- Auto Clock Set is not supported in all areas or by digital satellite receivers. Set the time and date manually using the *TIME* menu.

The time did not adjust for Daylight-Saving Time

- Make sure the Daylight-Saving Time feature is set correctly in the *TIME* menu.

The timer or tape indicator (⏰ or ⏮) flashes on the VCR front panel

- Make sure there is a tape in the VCR when a timer recording is set.

The VCR makes noise when it is stopped

- This is normal. The VCR removes the tape from the playheads when stopping. The cylinders inside the VCR will continue to rotate for a few minutes after stopping.

The VCR will not find active channels correctly using the Auto Channel Search feature

- Make sure all cable connections are secure and correct.
- Make sure that Signal Type: CABLE/ANTENNA, is set correctly in the *CHANNELS* menu.
- If *Detect Automatically* was selected for the Signal Type in the *AUTO CHANNEL SEARCH* menu, try using either CABLE TV or ANTENNA instead.
- Auto Channel Search may not be necessary if using a cable box to view all channels. Contact your local cable company for more information.

On-screen menus appear in a foreign language

- Check the *LANGUAGE* menu to choose a preferred on-screen language.

Playback Problems

Snowy or no picture during playback

- Press the TV•VCR button on the remote control or VCR front panel to go into VCR-viewing mode (*VCR* appears on the VCR's display panel LCD when in VCR-viewing mode).
- Check that the TV channel selected (either 03 or 04) matches the channel set with CH. 3/4 switch on the VCR's back panel.
- Make sure the TV's fine tuning is correct for the channel selected.
- All cables should be securely connected to the proper jacks.
- If using A/V jacks and cables to connect components, make sure the TV is tuned to its Video Line Input to see the VCR's signal.
- Try another tape.
- Picture *noise* is normal during search, stop action, frame advance, and slow-motion playback.

Other Information

Streaks appear in the picture during normal playback

- Press one of the remote control's TRACKING buttons to adjust for the best picture.
- Make sure the tape used is in good condition and not worn out.

Tapes play back in slow motion

- Press the PLAY button to return to normal playback mode.

A tape with its safety tab removed doesn't start to play automatically

- Make sure the Auto Play feature is set to *ON* in the *PREFERENCES* menu.

The time counter is not working or it is not working in search modes

- 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 sign (-) appears in front of the displayed time if you rewind a tape back further than a counter reading of 0:00:00.

The VCR will not play

- Make sure there is a tape in the VCR.
- Try ejecting, then reinserting the tape.
- Check to make sure the tape is not damaged or broken.
- Make sure the VCR is not in Pause mode. Press the remote control's PAUSE or PLAY button to return to normal playback.
- Make sure the Pro-Tect Plus feature is not activated (press and hold the STOP button on the remote control or VCR front panel for several seconds until the front panel display flashes to activate/deactivate this feature).
- If unable to record, make sure the safety tab on the tape is in place.

The time counter disappears during picture search

- This is normal.

There is no stereo sound during playback

- Make sure the Tape Playback feature is set to HI-FI in the *AUDIO* menu to hear stereo sound during playback.
- You must use A/V jacks and cables to connect the VCR to the TV (or stereo) to hear multi channel stereo sound.

The stereo audio is too noisy

- The stereo signal is weak. Set the Reception: STEREO/SAP/MONO feature to MONO in the *AUDIO* menu.
- Press either of the remote control's TRACKING buttons to minimize audio noise.

Recording Problems

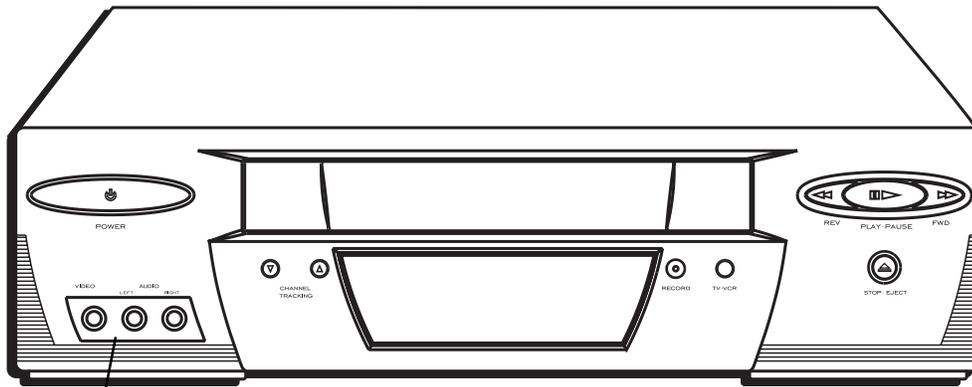
The VCR will not record

- Make sure there is a tape in the VCR.
- Try ejecting, then reinserting the tape.
- Check to make sure the tape is not damaged or broken.
- Make sure the VCR is not in Pause mode. Press the remote control's PAUSE or PLAY button to return to normal playback.
- Make sure the Pro-Tect Plus feature is not activated (press and hold the STOP button on the remote control or VCR front panel for several seconds until the front panel display flashes to activate/deactivate this feature).
- If unable to record, make sure the safety tab on the tape is in place.

A timer recording didn't record or the wrong program recorded

- Make sure any connected cable box or satellite receiver was turned on when the recording time began.
- Make sure the program information was entered correctly (i.e. channel number and start/stop times).
- A power interruption may have occurred. Reset the time and date and try again.
- Time (including AM or PM) and date information may be incorrect.
- Make sure the timer program did not exceed the tape's length and that the tape was cued correctly.
- Make sure the VCR was turned off when recording started.
- Make sure there was a tape in the VCR and that its safety tab was in place.
- The VCR ejects a tape when its end is reached during a timer recording.

Other Information



Front A/V Jacks

Front Panel

Front A/V Jacks Receives signals from another component like a VCR or camcorder when it is connected to these jacks. Use INPUT to select L2 to see a signal using these jacks.

CHANNEL TRACKING Up (▲)/Down (▼) Selects next higher or lower channel in the VCR's channel memory. Adjusts tracking when a tape is playing. Used for program express and moving through menu system.

FWD Forwards the tape when the VCR is in stop mode. Searches the picture forward during playback mode.

PLAY•PAUSE Plays a tape. Pauses action for viewing during playback. Pauses recording to prevent recording of unwanted scenes.

POWER Turns the VCR on and off.

RECORD Starts VCR recording. Press repeatedly for setting Express Recording time duration.

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

STOP•EJECT A single press of this button stops normal VCR functions (record, playback, rewind, fast-forward, or pause). If pressed a second time, this button ejects an inserted tape.

TV•VCR Switches the picture so that it either comes from the VCR or the TV's signal.



Display Panel

Clock/Counter Displays current time, time counter, tape speed, or channel numbers when switching channels.

FUNCTION DISPLAYS:

dn & Ld (Down and Load) Front panel display alternates between these two words when time data is being downloaded.

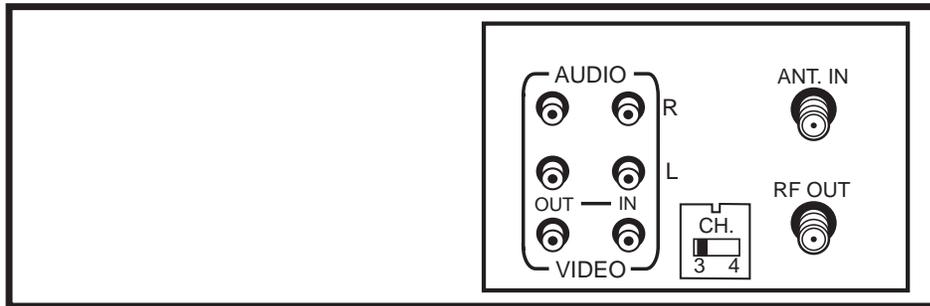
REC (Recording indicator) The VCR is recording. REC flashes on the front panel display when a recording is paused.

⌚ (Timer indicator) Displayed when an Express Recording (XPR) or timer recording is under way or when the VCR is set for a timer recording and the power is turned OFF. *TIMER* flashes on the VCR front panel when a timer recording is set and no tape is inserted in the VCR.

VCR indicator Indicates that the VCR is in VCR-display mode. Press the TV•VCR button to toggle between VCR and TV viewing modes.

- VCR indicator is ON when the picture displayed is from the VCR's tuner.
- VCR indicator is OFF when the picture displayed is from the TV's tuner.

Other Information



Back Panel

ANT. IN jack Receives a signal from an antenna or cable system when the VCR is attached with RF cables.

AUDIO (R /L) and VIDEO Input Jacks Receives signals from another component, such as a VCR or camcorder, when connected to these jacks. Use the INPUT button on the VCR or remote control to select the video line input (L1) and record from these jacks.

AUDIO (R and L) and VIDEO Output Jacks Sends signals from the VCR to another component, like a TV or VCR, when the other component is connected to these jacks.

CH. 3/4 Switch Determines the channel to which the TV must be tuned in order to see the VCR's picture. Not used when connecting the VCR to the TV using Audio/Video cables.

RF OUT jack Passes signal to TV using the supplied RF cable.

Specifications

Format:	VHS
Record/Playback System:	Video: 4-head Audio: VHS 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:	17 watts (standby < 3 watts)
Dimensions:	3.64 inches high (91 mm) 14.4 inches wide (360 mm) 9.56 inches deep (239 mm)
Weight:	6.4 pounds (2.9 kg)
Other:	Automatic head cleaner
Storage Temperature Range:	- 22°F to +149°F (-30°C to +65°C)
Operating Temperature Range:	+41°F to +104°F (+5°C to +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 VCR and all connected components.

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 nonabrasive, antistatic cleaner and polisher.

Other Information

GE VCR WARRANTY

What your warranty covers:

- Any defect in materials or workmanship.

For how long after your purchase:

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

The warranty period for rental units begins with the first rental or 45 days from date of shipment to the rental firm, whichever comes first.

What we will do:

- Pay any Authorized GE VCR Service Center the labor charges to repair your VCR.
- Pay any Authorized GE VCR Service Center 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 GE VCR Service Center. To identify your nearest Authorized GE VCR Service Center, ask your dealer, look in the Yellow Pages, or call 1-800-447-1700.
- Show the Authorized Service Center Representative your evidence of purchase date or first rental.
- 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.
- 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 U.S.A.
- Acts of nature, 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 unit outside the United States:

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

Service calls which do not involve defective materials or workmanship are not covered by this warranty. Costs of such service calls are the sole responsibility of the purchaser.

Finding the TV's Video Line Input

You need to tune your TV to the Video Line Input if you are using the VCR's Audio/Video (A/V) OUT jacks to connect to the TV's A/V input jacks. You must select the TV's Video Line Input before you can see or hear the VCR's signal.

The Video Line Input for TVs varies by brand and model. Below are some ways to find the TV's Video Line Input:

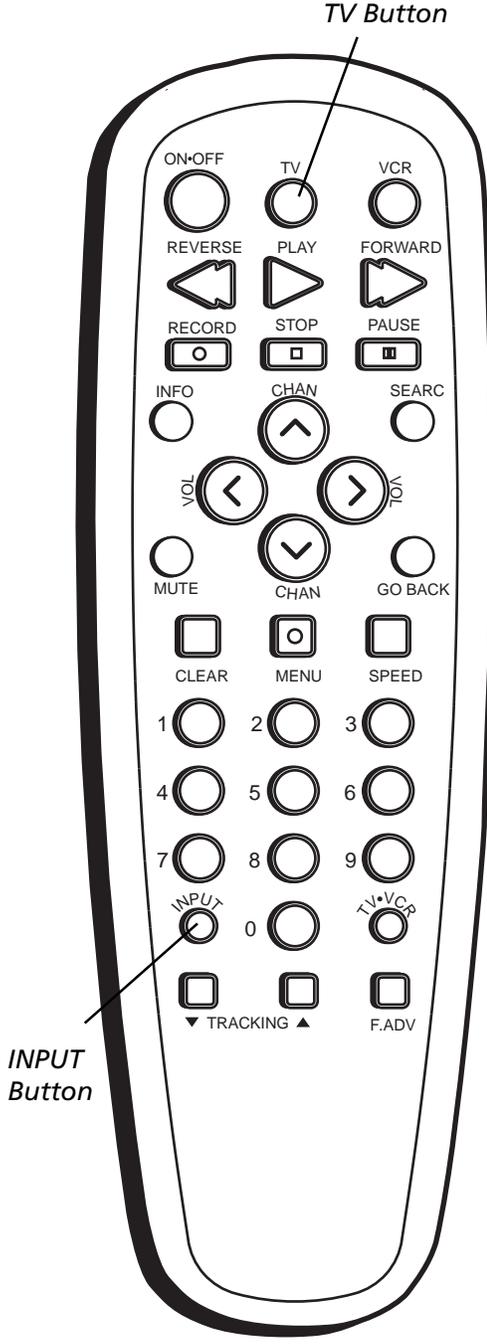
- If your TV brand is RCA, GE, or Proscan, press the TV button on the VCR's remote control, then press the INPUT button.
- If you have another brand of TV, see the documentation that came with it to determine how to access its Video Line Input.

If those options do not work, try the following ideas. You might access the Video Line Input by:

- Pressing a button on the TV's remote control (see the table below).
- Selecting a specific channel from the TV's on-screen menu system (see the table below).
- Tuning directly to the Video Line Input by selecting a specific channel number (see the table below)
- Going through all available channels by pressing the channel up or down buttons on the TV or its remote control.

Common Video Line Input scenarios:

Video Input Channel Variations		
Button/Switch on the TV	Button on the TV Remote	Channel Number
VIDEO	VID 1	00
SIGNAL	LINE	90
VID 1	VID	91
VID 2	VIDEO	92
S-VID	S-VID	93
S-VIDEO	INPUT	VID 1
	S-VIDEO	VID 2
	SOURCE	
	AUX	



Advanced Connection

TV + VCR + Satellite Receiver

Cables: A/V and RF Coaxial

Note: Your satellite receiver and television back panels may not look exactly like the models shown here. This connection can also be used for a cable box.

1. Connect the VCR to the TV

- A. Connect one end of the supplied RF coaxial cable to the RF OUT jack on the back of the VCR and the other end to the TV's Antenna input jack.
- B. Connect the A/V cables. Connect audio cables to the VCR's R and L Audio OUT jacks and the other ends to the TV's corresponding audio input jacks (if your TV only has one audio input jack, use the VCR's L jack to connect). Connect one end of the video cable to the VCR's Video OUT jack, and the other end to the TV's video input jack.

2. Connect the satellite receiver to the VCR

- A. Connect one end of a second RF coaxial cable (not included) to the Satellite receiver's antenna output jack. Connect the other end to the VCR's ANT. IN jack.
- B. Connect the Audio cables. Connect audio cables to the satellite receiver's Audio output jacks and the other ends to the VCR's R and L audio IN jacks (if your satellite receiver only has one audio output jack, use the VCR's L jack to connect). Connect one end of the video cable to the satellite receiver's video output jack, and the other end to the VCR's video input jack.

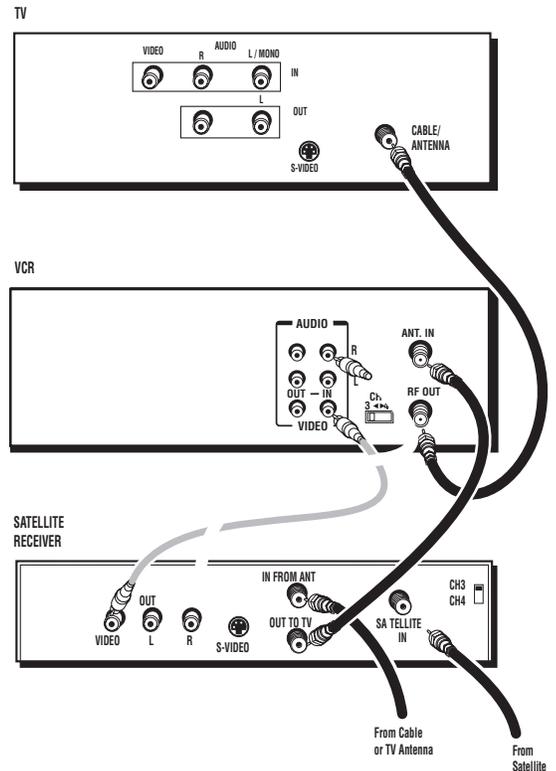
3. Connect a TV antenna or cable feed to the satellite receiver

If you have cable or a standard TV antenna, connect its RF coaxial cable (not included) to the antenna input jack on the satellite receiver.

4. Connect the satellite antenna's cable to the satellite receiver

Connect the satellite antenna's RF coaxial cable feed (not included) to the receiver's satellite input jack.

Note: To hear stereo output from the satellite receiver, you must use the TV or VCR's Video Line Input. RF coaxial cable only carries mono sound.



Glossary

A/V Jacks & Cables Commonly called “RCA-type” cables. Improves picture and sound quality over RF Coaxial cables. A/V cables are required for stereo audio.

EnergySaver Automatically turns the VCR off after a user-defined period of inactivity.

Express Recording (XPR) A method of timer recording which tapes for a set period of time using 30-minute increments.

Pro-Tect Plus™ Allows the VCR to be disabled so that the front panel and remote control buttons don't work. Useful for protecting timer recordings.

QuickSet Guide An first-time use, interactive, menu-based system that walks you through several setup steps in a series of questions. The QuickSet Guide is also available in the VCR's Main Menu.

SAP (Second Audio Program) A second sound track that may be included with a stereo broadcast. Usually used for foreign language dubs of programs.

VCR Channels List The active list of channels available to the VCR using the CHANNEL +/- buttons.

XPR See *Express Recording* above.

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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.

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