



VG2051

VCR User's Guide



We bring good things to life.

SAFETY INFORMATION

WARNING

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

WARNING

RISK OF ELECTRIC SHOCK
DO NOT OPEN

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

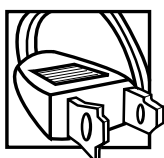


This symbol indicates important instructions accompanying the product.



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

Cautions



Caution: To reduce the risk of electric shock, match the wide blade of plug to wide slot, and 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.

Care and Cleaning:

Use a soft cloth or the dusting attachment of your vacuum cleaner to dust your VCR. Remove dust from the ventilation holes.

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. A nonabrasive, antistatic cleaner/polisher is recommended.

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 product.

Model No. VG2051

Serial No. _____

Purchase Date: _____

Dealer/Address/Phone: _____

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FIRST THINGS FIRST

Welcome to your new VCR...

To help you get started using your VCR with as little reading as possible, we've put all the basic information needed in the first three sections. To help you along, there's even a QuickSet Guide the first time you turn on your VCR, which walks you through several set-up steps at once.

Getting Started

Before this first step, though, learning about the time and date, your remote control's features, working with channels, and basic video tape operations are essential to get all you can out of the VCR. Once you are comfortable with these features, feel free to refer to other sections because they cover the more detailed information.

What Remains?

The final sections of this manual contain playback and recording information, a detailed connections section, and a reference section including troubleshooting tips, warranty information, and an index.

1 FIRST THINGS FIRST



2 SETTING UP THE VCR



3 VCR BASICS



4 RECORDING



5 OTHER FEATURES



6 CONNECTIONS



7 REFERENCE

READ ME!

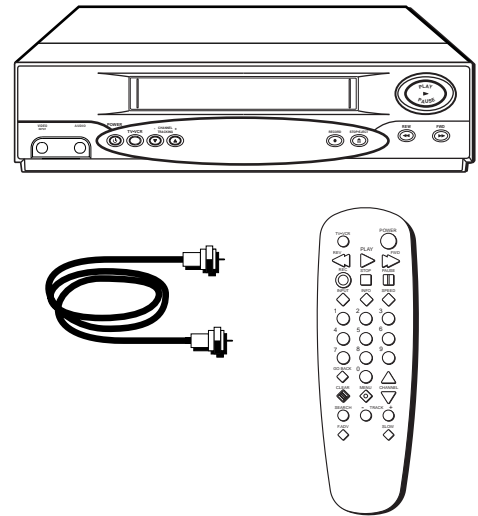
These note boxes give you tips for your new video cassette recorder.

FIRST THINGS FIRST

Step 1: What's In the Box?

The following items come packed in the box:

- VCR
- Remote control
- RF coaxial cable



Step 2: Install Batteries In the Remote Control

Follow these steps whenever you need to install or change the batteries in your VCR's remote.

1. Remove the cover of the battery compartment.
2. Place the batteries into the remote's back panel. Match the positive (+) and negative (-) ends of each battery to the diagram inside the battery compartment.
3. Replace the cover.

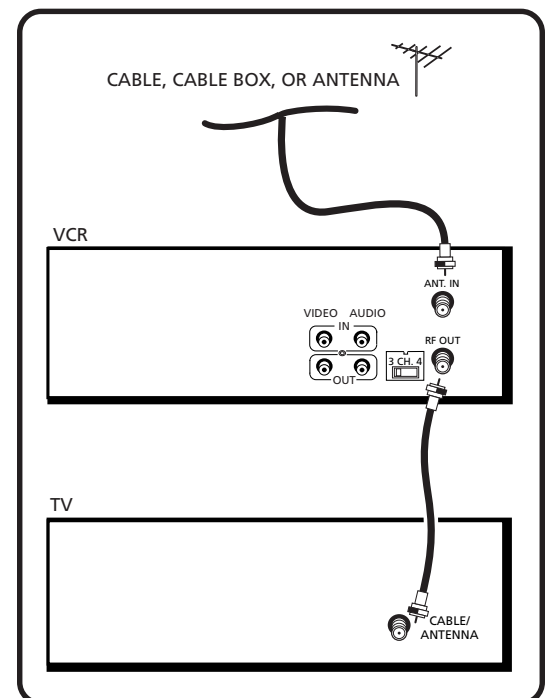
Step 3: Connect Your VCR

If you connect your VCR to your home antenna or cable system and then to your TV, use the VCR's ANT. IN and RF OUT jacks for a good signal as shown to the right.

If you have a TV with AUDIO/VIDEO jacks, use the jacks for a better connection. Refer to the section, *Connections*, toward the back of the manual, for additional connection options.

Step 4: Plug In the VCR

Your VCR's power cord has a plastic band strung through the blades. **Remove plastic band before plugging the cord into the power outlet.** To remove band, cut 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.



FIRST THINGS FIRST

Step 5: Tune the TV

Tune the TV to the VCR viewing channel. The VCR viewing channel is channel 3 or 4 or the TV's video input.

- If you connect your VCR using the ANT. IN and RF OUT connectors with RF coaxial cable, set the 3 CH. 4 switch to 3 or 4 — the channel you want to use on your TV.
- If you connect your VCR using the AUDIO/VIDEO jacks with audio/video cables, select the TV's video input with the TV's remote to see the signal. See page 45 for more information about your TV's Input Channel.

Step 6: Turn On the VCR

Press POWER on the VCR's front panel or VCR on the remote to turn on the VCR. The first time you turn the VCR on, a menu screen appears. This is the start of a QuickSet Guide which helps you pick different options for your VCR.

Step 7: Using the QuickSet Guide

The QuickSet Guide is an automated procedure that helps you set up your VCR. The first time you turn on your VCR, the first screen of the Guide appears.

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

- 1 English
- 2 Español
- 3 Français

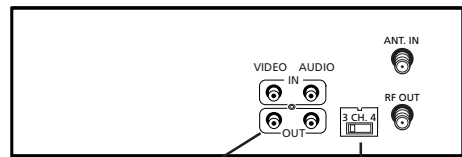
1. Press 1 for English, 2 for Español (Spanish), or 3 for Français (French).

The remaining menus throughout the set up will appear in the chosen language. Just follow the step-by-step procedures until setup is complete.

If the menu does not appear:

- Make sure the TV is tuned to the same channel as the 3 CH. 4 switch or its video input (see page 45 for more information).

VCR Viewing Channel



AUDIO/VIDEO OUT Jacks

3 CH. 4 Switch

When using the ANT. IN and RF OUT jacks to connect your VCR, tune your TV to channel 3 or 4. The 3 CH 4 switch on the back of the VCR determines which TV channel is used to see the VCR's output.

When using the AUDIO/VIDEO jacks to connect your VCR, tune your TV to the TV's Video Input Channel with the TV's remote control. For more information about selecting your TV's Input Channel, see page 45.

FIRST THINGS FIRST

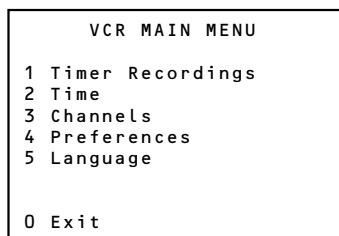
- Make sure the VCR indicator is on in the VCR display if you connected your VCR using the ANT. IN and RF OUT jacks.
- Check your connections.

If you choose to set up your VCR options individually, then go to the next section.

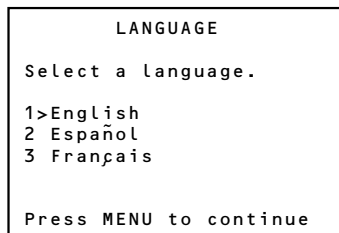
Step 8: Access the Menus

The MENU and number buttons on the remote let you access, select, and change your VCR's preferences. For example, to select a different preferred on-screen language than the one you selected during the initial set up, do the following:

1. Press MENU to display the VCR MAIN MENU.



2. Press 5 to display the LANGUAGE menu.



3. Press 1 for English, 2 for Español (Spanish), or 3 for Français (French).

All other on-screen menus are worked within similar ways using the remote control to follow on-screen instructions.

See *Additional Set-Up Features* in the next section for detailed information about accessing menus.

Next Section: Learn VCR's Menus

Once you understand how to move around through menus, go to the next section to set up the individual features of your VCR.

SETTING UP THE VCR

Additional Set-up Features

Below is a list of features that need to be set up before using your VCR for the first time. Many of these menus are covered during the initial set up, but if you ever want to change a menu, refer to this section.

- Language
- Cable Box Set Up
- VCR Channels List (Auto Channel Search)
- Auto Clock (Set Time Zone and Daylight-Saving Time)
- Manual Clock Set
- Remote VCR1/VCR2
- Auto Play
- EnergySaver
- Front Panel Brightness
- Preferred Tape Speed

1 FIRST THINGS FIRST



2 SETTING UP THE VCR



3 VCR BASICS



4 RECORDING



5 OTHER FEATURES



6 CONNECTIONS



7 REFERENCE

SETTING UP THE VCR

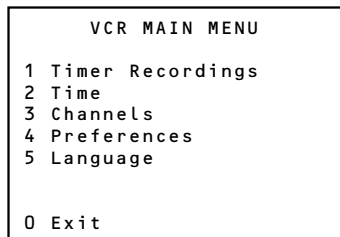
Using Menus to Set Up Features

You can set up your VCR's features by using the remote control's buttons to enter your choices from on-screen instructions. Each menu item is explained in this section. For each numbered selection on the menus, use the same numbered button on the remote control to select it.

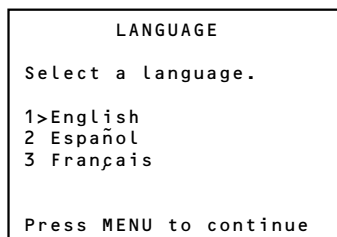
Language Selection

If you did not complete this step in the previous section using the QuickSet Guide, it is time to select your preferred language. Once this step is complete, all on-screen displays will appear in that language.

1. On your remote control, press the MENU button to display the VCR MAIN MENU.



2. Press 5 to select the LANGUAGE menu.



3. Press 1 for English, 2 for Español (Spanish), or 3 for Français (French). An arrow indicates the selection you've made. Once you have made your choice, press MENU on the remote to continue back to the VCR MAIN MENU.

Is Something Missing?

Not all the VCR screens will always be shown in this manual when explaining the features.

SETTING UP THE VCR

Cable Box Setup

This set up 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.

```
VCR MAIN MENU
1 Timer Recordings
2 Time
3 Channels
4 Preferences
5 Language

0 Exit
```

2. Press 3 to display the CHANNELS menu.

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

0 Exit
```

3. Press 4 to display the CABLE BOX SETUP screen. Then select one of the three choices.

```
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
```

4. If you selected ALL Channels, enter the output channel of your cable box (usually 03 or 04), or press the INPUT button on the VCR's remote to select the VCR's video input channel if you used the AUDIO/VIDEO jacks.

Choosing the Right Setup for Your Cable Box

If you use your cable box to receive:

ALL channels– enter two numbers for the output channel of your cable box or press INPUT if you connect your cable box with AUDIO/VIDEO jacks.

Only SOME channels– choose this option if you only use the cable box to unscramble premium channels.

Cancel setup will take you to a screen stating your VCR will not control the cable box channel during timer recordings.

SETTING UP THE VCR

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

04

Press CLEAR to correct
Press MENU to continue
```

5. Once you complete the setup, the VCR confirms that the VCR will now receive all signals on the designated channel.

```
CABLE BOX SETUP

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

Press MENU to continue
```

VCR Channels List

If you use a cable box for *all channels*, this step is not necessary. Your VCR may come with a channel list preset at the factory, but you may want to add or delete some channels depending on whether they are active.

Auto Channel Search

1. Press MENU to display the VCR MAIN MENU.

```
VCR MAIN MENU

1 Timer Recordings
2 Time
3 Channels
4 Preferences
5 Language

0 Exit
```

2. Press 3 to display the CHANNELS menu.

SETTING UP THE VCR

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

0 Exit
```

3. Press 1 to display the AUTO CHANNEL SEARCH menu.

```
AUTO CHANNEL SEARCH
What type of signal
are you using?

1 Cable TV
2 Antenna
3>Detect Automatically

0 Cancel
```

4. Select one of the three AUTO CHANNEL SEARCH options, your choice will be marked with an arrow symbol at the left:
 - *Cable TV* searches for cable stations from a single channel
 - *Antenna* searches for local broadcast stations on all channels
 - *Detect Automatically* will make this decision for you

```
AUTO CHANNEL SEARCH

Now scanning channel 14

Press any key to cancel
```

The VCR begins scanning for the available channels—this takes about one to two minutes. When the scan is complete, the VCR tunes to the lowest channel number available. At this point, pressing CHAN up or down should only select the active channels.

To Change the Signal Type

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

Auto Channel Search

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

If you ever change cable or antenna signals, you may need to Auto Channel Search again.

Detect Automatically

A strong cable or antenna signal in your area may cause Auto Detect to mis-detect. If this should happen, select 1 or 2 for the system you have.

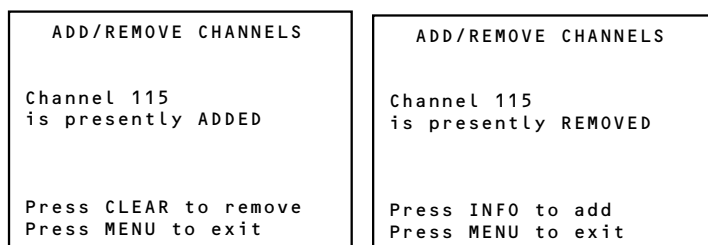
SETTING UP THE VCR

3. Press 3 to change the Signal Type between CABLE and ANTENNA.

Adding or Removing Channels

You may want to add or remove channels after you Auto Channel Search, especially if some of the channels have weak signals or you don't want to watch them.

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 screen. Use CHAN up or down or number buttons to go to the channels you want to remove or add.



4. Follow the on-screen instructions to finish this set up.

Time and Date

The VCR gives you two ways to set the time and date: the Auto Clock Feature or manually. The Auto Clock Feature enables the VCR to update the clock each time the VCR is turned off. The Auto Clock is advantageous because it updates the time for you automatically.

Before you set the time and date, set the Auto DST (Daylight-Saving Time) feature to ON or OFF for your area.

Auto Clock Set Feature

The Auto Clock Set feature is set to ON at the factory. In the ON setting, the VCR looks for a channel carrying XDS (Extended Data Services) information. XDS updates the clock using the

Selecting Channels

The Channel up and down buttons access those channels active in your VCR channel list.

You can still access channels not in the channel list by using the number buttons on the remote.

SETTING UP THE VCR

Coordinated Universal Time. There are certain steps that are required, such as Auto Channel Search, setting the Time Zone, and Daylight Saving feature before the Auto Clock feature works.

Setting the Time Zone

1. Press MENU on the remote to display the VCR MAIN MENU.

```
VCR MAIN MENU
1 Timer Recordings
2 Time
3 Channels
4 Preferences
5 Language

0 Exit
```

2. Press 2 to display TIME menu.

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

XDS Time Data was
found on channel 20.

0 Exit
```

3. Press 3 again to display the SET TIME ZONE menu.

```
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
```

4. Select your time zone.

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

Auto Clock Information

With a cable box, the VCR will not reset the clock after a power outage unless the cable box is turned on to the channel carrying the XDS signal.

If Auto Clock Set is unsuccessful, try tuning the VCR (or cable box) to a channel carrying the broadcast information (usually PBS), then turn the VCR off. If the time does not set within ten minutes, set the time and date manually through the menu.

Check your local cable system or TV stations for availability of channels with XDS.

SETTING UP THE VCR

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.

```
SET DAYLIGHT SAVINGS  
  
Does your area observe  
Daylight Savings Time  
from April to October?  
  
1 Yes, DST is observed  
2 No  
3>Automatic  
Press MENU to continue
```

4. Select one of the options.
 - DST is the acronym for Daylight Saving Time.
 - If you chose AUTOMATIC, the VCR sets the clock using the DST information broadcast in the signal (channel).

Set the Time and Date Manually

If the Auto Clock Set was unsuccessful, set the clock through the menu option. The Auto Clock Set feature is set to OFF automatically when you set the clock this way.

1. Press MENU to display the VCR MAIN MENU.

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

2. Press 2 to display the TIME menu.

```
TIME  
  
1 Set Time and Date  
2 Auto Clock Set: ON  
3 Set Time Zone  
4 Set Daylight Savings  
  
XDS Time Data was  
not found  
  
0 Exit
```

Spring Forward; Fall Backward

In the Spring, daylight-saving time begins on the first Sunday in April. Because the clock automatically changes from 2:00 AM to 3:00 AM (forward one hour), remember to include the extra hour for timer recording falling within this time frame.

In the Autumn, daylight-saving time ends on the last Sunday in October. The VCR clock automatically changes from 2:00 AM to 1:00 AM (back one hour). Therefore, it can affect your recording length.

SETTING UP THE VCR

3. Press 1 to display the SET TIME AND DATE menu.

```
SET TIME AND DATE  
  
Time --:--  
  (hh:mm)  
  
Date --/--/--  
  
Press MENU to cancel
```

4. Enter the data using the number buttons. Press 0 before single-digit numbers and follow the on-screen directions.

```
SET TIME AND DATE  
  
Time 12:34 PM  
  
Date 11/18/99 Thursday  
  
Press CLEAR to correct  
Press MENU to set
```

Additional Set-Up Features in the PREFERENCES Menu

The features in this section are all accessed through the PREFERENCES menu.

1. Press MENU to display the VCR MAIN MENU.

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

2. Press 4 to display the PREFERENCES menu.

Time/Date Display

Pressing INFO on the remote displays the time and date on the screen.

SETTING UP THE VCR

PREFERENCES		
1	Remote Control:	VCR1
2	Auto Play:	ON
3	EnergySaver:	2:00
4	Front Panel:	AUTO
5	Tape Speed	SLP
0 Exit		

Now you are ready to select an item from the menu to set up.

Remote VCR1/VCR2 Option

If you own a compatible GE, RCA, or PROSCAN remote that has a VCR2, VCR2•LD, or VCR2•DVD button, this feature allows you to set this VCR to respond to that button.

Press 1 to select the Remote Control item. Then press the VCR2, VCR2•LD, or VCR2•DVD button to change.

PREFERENCES		
(Press VCR2 to Change)		
2	Auto Play:	ON
3	EnergySaver:	2:00
4	Front Panel:	AUTO
5	Tape Speed	SLP
0 Exit		

PREFERENCES		
1	Remote Control:	VCR2
2	Auto Play:	ON
3	EnergySaver:	2:00
4	Front Panel:	AUTO
5	Tape Speed:	SLP
0 Exit		

The VCR will only respond to the compatible remote's VCR2, VCR2•LD, or VCR2•DVD button. If you change the remote setting to VCR2, the remote that came with your VCR will no longer control it.

Use the compatible remote to change the remote setting back to VCR1. Display the PREFERENCES menu, press 1, and then press VCR or VCR1 on the compatible remote.

Auto Play

This feature allows the VCR to automatically start playing when you insert a tape with the safety tab removed. Press 2 to switch between ON or OFF.

- Select ON if you want a tape with its safety tab removed to start playing automatically when the tape is inserted.

Remote Control Option

Changing the remote option to VCR2 disables the remote that came with your VCR.

Auto Play

For a tape to be able to start playing automatically, it must have the safety tab removed. All rented movies and purchased movies should have this tab removed.

SETTING UP THE VCR

- Select OFF if you *do not* want a tape with its safety tab removed to start playing automatically.

EnergySaver

By default, this VCR automatically turns off after two hours of inactivity. Press 3 to change the time delay, or to disable the feature.

- OFF: The VCR will remain turned on until you shut it off.
- 1:00, 2:00, or 3:00: The VCR turns off after one, two, or three hours of inactivity.

Thirty seconds before shutting off, the VCR will warn you with a screen reading, "The VCR will turn off in 30 seconds. Press any key to cancel."

If you use the VCR's tuner instead of your TV to tune channels, you may want to turn this feature off.

Front Panel Brightness (VCR Display)

You can change the brightness level of the fluorescent display panel on the front of the VCR. Press 4 to switch between the options.

- AUTO brightens the display when the VCR is on and dims the display when the VCR is off.
- BRIGHT keeps the display bright.
- DIM keeps the display at a low brightness level.

Preferred Tape Speed

You can set the preferred tape speed between Standard Play (SP) and Super Long Play (SLP). In the PREFERENCES menu, press 5 to switch between the options.

- SP sets the preferred recording speed to SP.
- SLP sets the preferred recording speed to SLP.

PREFERENCES		
1	Remote Control:	VCR1
2	Auto Play:	ON
3	EnergySaver:	2:00
4	Front Panel:	AUTO
5	Tape Speed	SLP
0	Exit	

The PREFERENCES menu allows you to access settings for your remote control, EnergySaver, front panel brightness, and more.

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. Special effects such as pause, slow motion, picture search, and frame advance work well when you play back tapes recorded in this speed.

Cassette	Recording Time	
	SP	SLP
T-120	2Hr	6Hr
T-160	2Hr	8Hr
	40 min	

VCR BASICS

Learn the Basics To Get You Started

These VCR basics should be enough for you to begin enjoying your VCR. Learning the remote control functions, playing a recorded tape, and recording a program should do just that.

This section shows you the basics of using your VCR. It discusses things like using the remote control, playing a tape, and recording programs.

1 FIRST THINGS FIRST



2 SETTING UP THE VCR



3 VCR BASICS



4 RECORDING



5 OTHER FEATURES



6 CONNECTIONS



7 REFERENCE

VCR Basics tells you what you need to know in order to watch a movie or tape your favorite show.

VCR BASICS

Remote 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 a timer recording.

F.ADV Lets you view one frame with each press of the button when tape is in pause.

FWD Fast forwards the tape when the VCR is stopped. Searches forward through a tape during playback. Starts slow motion during play-pause and increases slow-motion speed.

GO BACK Switches between two channels. Select one channel and then select another using the number buttons. Press GO BACK to switch between the two channels. In menu mode, press to go back to a previous menu.

INFO Shows the status displays on the TV screen.

INPUT Selects between the line input and the VCR's tuner. Line input refers to the signal coming from the component connected to the AUDIO/VIDEO IN jacks on the front or back of the VCR.

MENU Brings up VCR MAIN MENU on the TV 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 playback or recording. Press PAUSE again to return to playback or recording.

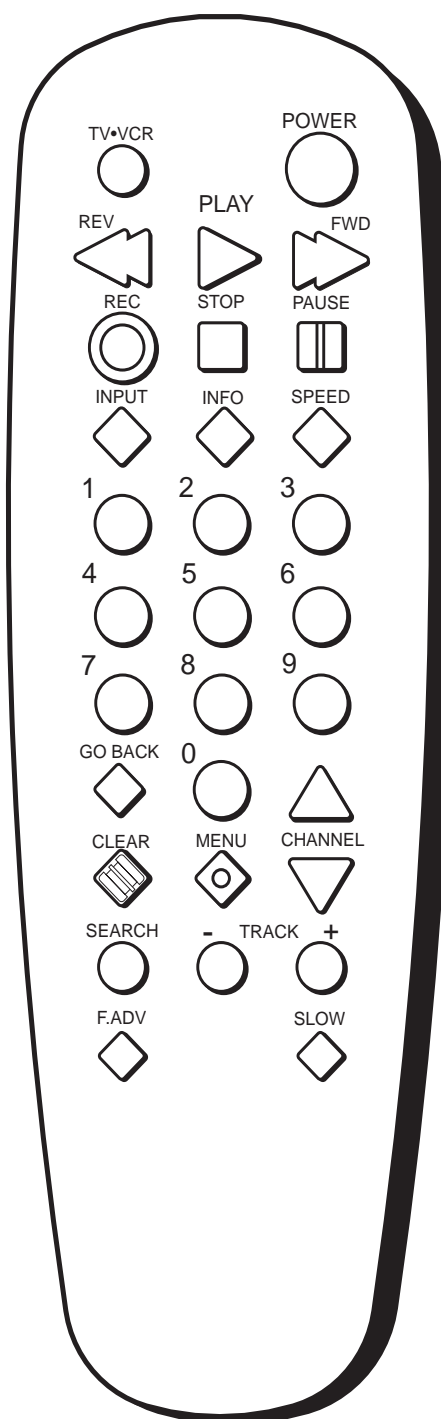
PLAY Plays a tape.

POWER Turns the VCR on or off.

REC Starts VCR recording. Also used for Express recording (XPR).

REV Rewinds the tape when the VCR is stopped. Searches backward through a tape during playback. Starts slow motion during play-pause and decreases slow-motion speed.

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



VCR BASICS

SLOW Used for slow-motion playback.

SPEED Selects a recording speed (SP or SLP).

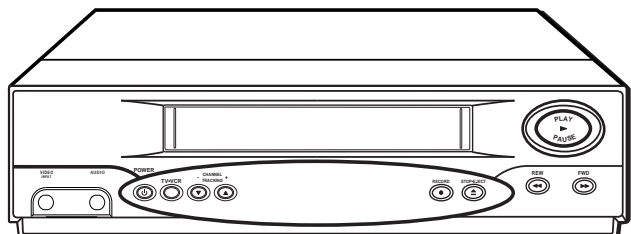
STOP Stops the current VCR function such as record, playback, rewind, or fast forward. This button also ejects a tape if held for 3 seconds.

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

TV•VCR Switches the picture signal so that it either comes from the VCR or cable/antenna system.

Playing a Tape

1. Tune the TV to your VCR viewing channel (3, 4, or TV's video input- see page 45 for more about the video input channel).
2. Insert a tape in the VCR.



If the Auto Play feature is set to ON, the tape automatically begins playback (if the safety tab on the cassette is removed).

- Press FWD or REV to position the tape.
- Press PLAY•PAUSE (if necessary) on the VCR (PLAY on remote) to begin tape play.
- Press PLAY•PAUSE (PAUSE on remote) for stop action.
- Press TRACK up or down to remove any streaks from the picture, if necessary.
- Press STOP•EJECT on VCR (STOP on remote) to stop playback.



The VCR display indicates that the unit is in VCR mode, suitable to watch a tape.

Pause

If you pause, the VCR automatically switches from pause to stop after a few minutes to reduce tape wear.

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.

VCR BASICS

Automatic Rewind

The VCR automatically rewinds 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.

Tape Eject

Press **STOP•EJECT** on the VCR (**STOP** on the remote control) for three seconds when in **STOP** mode to eject the tape. A tape can be ejected even when the VCR is off.

Recording

If you want to record something that you're watching, you can use basic recording. For more detailed information, refer to the "Recording" section starting on the next page.

1. Set the tape speed by pressing the **SPEED** button on the remote.
2. Press **RECORD** (**REC** on remote) to begin recording.
3. Press **STOP** to stop recording.

If you just want to pause the recording for a short time (such as during a commercial), press **PAUSE** instead of **STOP**.

- For more information about in-depth recording features, refer to the next section.

Check the Safety Tab

No matter which recording option you use, you need to make sure there is a tape in the VCR, and that the tape's safety tab is in place. You cannot record on a tape with the safety tab removed.

If the safety tab is removed and you want to record over it, simply cover the hole with vinyl tape.



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. Special effects such as pause, slow motion, picture search, and frame advance work well when you play back tapes recorded in this speed.

Cassette	Recording Time	
	SP	SLP
T-120	2Hr	6Hr
T-160	2Hr	8Hr
	40 min	

RECORDING

Several Recording Options

Now that you've gone through the necessary steps to operate your VCR, it's time to explain the different recording features available to suit your needs including:

- Recording (explained in *VCR Basics* section)
- Express Recording
- Timer Recording
- Copying and Editing Tapes

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RECORDING

Recording Features

There are three ways to record programs:

- **Recording** press RECORD (REC on remote) to start recording a program. (See *VCR Basics* section.)
- **Express Recording (XPR)** starts recording a program you are watching. You can then set the VCR to automatically stop recording after a designated period of time.
- **Timer Recording** programming the VCR to automatically start and stop recording at a predetermined time.

Express Recording (XPR)

Use Express recording to quickly record the remaining portion of the program you are watching.

1. Set the tape speed by pressing the SPEED button on the remote control.
2. Press the RECORD (REC on remote) button to begin recording.
3. Repeatedly press the RECORD button to set up the recording duration.

REC CH 36 Record Length 0:00 Press REC to set length	REC CH 36 Record Length 1:30 Press REC to set length
--	--

Each time you press the RECORD button, you increase the recording time (up to 4 hours).

The VCR continues to record for the amount of time you indicate, and then automatically turns off.

To stop an Express recording, press and hold STOP on the remote control for a few seconds.

Express Recording

Express recording is a great way to tape the last quarter of the game, or the last part of a movie when you have to leave.

RECORDING

Timer Recording

You can set up as many as eight timer recording programs.

1. Press MENU to display the VCR MAIN MENU.

```
VCR MAIN MENU
1 Timer Recordings
2 Time
3 Channels
4 Preferences
5 Language

0 Exit
```

2. Press 1 to display the TIMER RECORDINGS menu.

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

0 Exit
```

3. Select 1 to Create a New Program.

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

0 Cancel
```

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

```
Program 1 (One time)

Channel    --
Start Time --:--
End Time   --:--
Start Date --/--/--
Tape Speed SLP

Press MENU to cancel
```

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

Timer Recording Information

The Clock must be set correctly.

Insert a tape with the safety tab in place and enough tape to record the program.

PROGRAMS OVERLAP appears if you have entered two programs where the times overlap.

The Timer Indicator (⌚) appears in the display when you turn off the VCR and a timer recording has been set. It flashes if there is no tape in the VCR.

When recording from 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. The VCR channel should be set to the cable box's output channel, usually Channel 3 or 4.

RECORDING

The data includes the channel number (press INPUT to select the line input), start time, and end time (including AM or PM). The start date is automatically entered based on the VCR clock. The date and/or speed can be changed when flashing.

6. Review the information to make sure it is correct, and then press MENU to save.

Program 1 (One Time)

Channel 104 Cable
Start Time 08:00 PM
End Time 09:30 PM
Start Date 11/18/99 Thu
Tape Speed SLP

Press CLEAR to correct
Press MENU to erase

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 and tuned
to the desired channel

Stopping a Timer Recording

To stop or cancel a timer recording in progress (even an express recording):

- Press and hold the STOP button for three seconds.

Reviewing and Clearing Programs

To review programs that you have already set up:

1. Press 1 when the VCR MAIN MENU is displayed to display the TIMER RECORDINGS menu

TIMER RECORDINGS

1 Create a New Program
2 Review Existing Progs.
3 Use VCR Plus+ Code

0 Exit

2. Press 2 to display the Review Existing Progs. screen

RECORDING

```

Program 1 (One Time)

Channel      104 Cable
Start Time   08:00 PM
End Time     09:30 PM
Start Date   11/18/99 Thu
Tape Speed   SLP

Press CLEAR to correct
Press MENU to erase
    
```

3. Press CLEAR to erase or MENU to see the next program.

Using Two VCRs For Copying and Editing Tapes

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

1. Connect the VCRs using the diagram at the right.
2. Turn on both VCRs and TV.
3. Tune the TV to the VCR viewing channel (either 3, 4, or TV's video input). (See page 45 for more information.)
4. If you are using coaxial cables for the connection, tune the *recording VCR* to channel 3 or 4 (the one selected on the *playback VCR*).

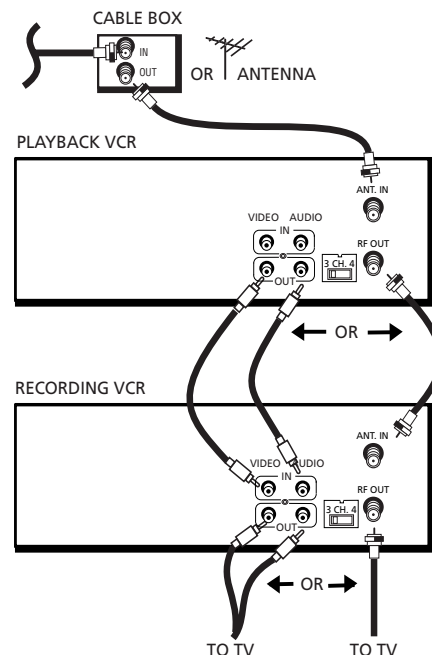
If you are using audio/video cables, select the line input on the *recording VCR* (L1 for the back jacks or L2 for the front jacks).

5. 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*.
6. Using visual search, locate the segment you want to copy on the *playback VCR*. Pause the tape at this location.
7. Press RECORD on the *recording VCR*, then PAUSE.
8. Press PAUSE on both VCRs to begin copying.
9. Press PAUSE on both VCRs to stop copying.
10. Repeat steps 6–9 to copy or edit additional segments.

Caution:

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

Two VCR Connection



OTHER FEATURES

Features to Enhance VCR Operation

- Picture Search Options
- Commercial Scan
- Tracking
- Pro-Tect Plus™ Locking
- Time Counter
- On-Screen Displays

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Picture Search Options

The most basic way to search during playback is using the FWD or REV button on the remote control. This section contains several other options available for searching a tape.

Forward and Reverse Search

You can search a tape during playback. Sound is turned off during picture search. Search works well for tapes recorded at the SLP speed.

1. Press FWD to search forward or REV to search in reverse.
2. Press FWD or REV again or press PLAY to return to normal playback.

Slow Motion

You can view a tape during play or play-pause using slow motion. Slow motion works well for tapes recorded at the SLP speed.

1. During playback, press SLOW or press PAUSE and then FWD or REV to begin slow-motion playback.
2. Press FWD to increase or REV to decrease the speed of the search.
3. Use TRACK up or down to remove any streaks from the picture.
5. Press PLAY 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 recorded action one frame after another during playback. Frame advance works well for tapes recorded at the SLP speed.

- Pressing PAUSE “freezes” the action.

OTHER FEATURES

- Pressing F.ADV repeatedly lets you view single frames of the action.
- Pressing PAUSE or PLAY returns normal playback.

Index Search

The VCR has a "VHS Index Search System" that automatically records an index mark on the tape 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 on the tape.

To Search:

1. Press STOP.
2. Press SEARCH on the remote to display the INDEX SEARCH on-screen display.
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 FWD to search forward or 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 end 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 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
```

OTHER FEATURES

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 STOP.
2. Press SEARCH on the remote until the GO-TO SEARCH menu appears on the screen.
3. Press number buttons to enter the hour(s) and/or minutes of the counter reading you want the VCR to "go to." Press CLEAR on the remote to correct an entry.
4. Press FWD to search forward or REV to search in reverse.
5. Press STOP to stop Go-To searching.

```
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
Current tape counter is
2:17:25

Press REV or FWD
to go to 0:00:00

Press SEARCH to exit.
```

Commercial Scan (SEARCH Button)

This is useful for skipping commercials or short program segments.

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

Tracking

Your VCR has automatic tracking which removes the streaks or snow 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. Just use the TRACKING (TRACK on remote) buttons to remove the streaks or snow.

When you manually adjust the picture, automatic tracking is turned off. To turn automatic tracking back on, press both TRACKING buttons on the front of the VCR at the same time, or eject the tape and re-insert it. Tracking has no effect during recording – only playback.

OTHER FEATURES

Pro-Tect Plus™ Locking Feature

To disable the usage of the VCR, or to protect your timer recordings, you can lock the VCR so that the buttons on the VCR or remote won't work.

- **To Lock:** Press and hold the POWER button on the remote for approximately six seconds. All of the lighted digits flash in the VCR's display panel when the VCR is locked.
- **To Lock While a Timer Recording is in Progress:** Press and hold the POWER button on the remote for approximately six seconds.
- **To Unlock:** Press and hold the POWER button on the remote for approximately six seconds.

Locking Your VCR:

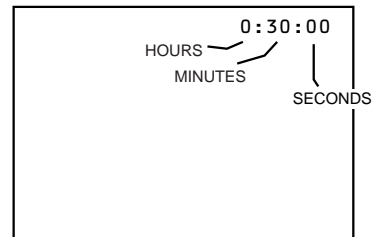
If a timer recording is programmed, make sure your VCR is turned off. Locking your VCR prevents the VCR from being accidentally turned on.

Time Counter

The time counter shows the actual time it takes to record a program or play back a segment of a recorded 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 you record a 30-minute program at the beginning of the tape and you want to go to the end of that program to begin another recording, you would:

1. Press INFO **twice** to display the time counter.
2. Press CLEAR to reset the time counter to 0:00:00.
3. Press FWD to forward the tape until the time counter reads 0:30:00.
4. Press STOP. This is the approximate end of the program. (You may want to press PLAY to verify.) Now, you can begin recording at this spot.
5. Press INFO to remove the time counter from the screen and return to the normal display mode.



Timer Counter on-screen display shows hours, minutes and seconds of a segment of tape.

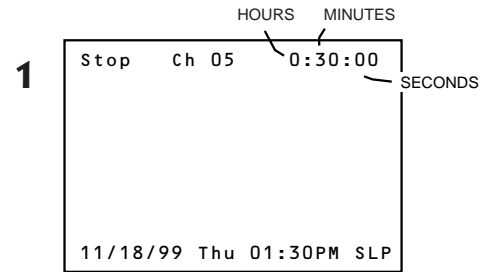
OTHER FEATURES

On-Screen Displays

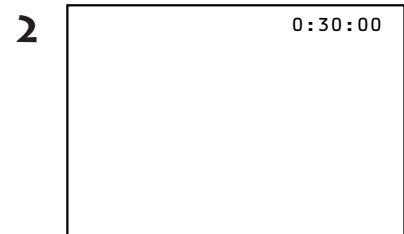
The INFO button shows the status of the VCR (STOP, PLAY, RECORD, etc.), channel number, time counter, date, time, and tape speed on the TV screen. The date and time must be set before they can be displayed.

1. Press INFO to see the on-screen displays.
2. Press INFO again to have only the time counter remain on the screen.
3. Press INFO again to remove the time counter from the screen and return to the normal display mode.

Turning off the VCR also resets the displays.



*On-Screen Display
(Times Out)*



*Time Counter Only
(Does Not Time Out)*

CONNECTIONS

Things to Know Before Connecting Components

Protect Your 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 Correctly to Avoid Audio Hum or Interference

- Insert all cable plugs firmly into their jacks.
- Place the audio/video cables to the sides of the TV's back panel instead of straight down the middle after you connect your components.
- Try not to coil any twin-lead cables and keep them away from the audio/video cables as much as possible.
- Make sure all antennas and cables are properly grounded. Refer to the Safety Tips sheet packed with your unit.

Protect Your Components from Overheating

- Do not block ventilation holes in any of the components. Arrange the components so that air can circulate freely.
- Do not stack components.
- Allow adequate ventilation when placing your components in a stand.
- Place an amplifier or satellite receiver on the top shelf of the stand so heated air rising from it will not flow around other components.

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CONNECTIONS

Connecting Your VCR

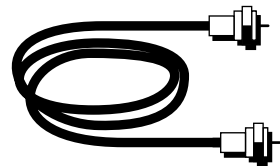
Refer to these pages to help you connect your VCR.

Jacks and Cables

RF Jacks and Coaxial Cables (F-type)

The RF jacks provide good picture and mono sound quality, and must be used if audio/video connections are not available for your TV.

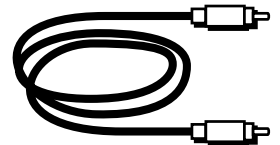
These jacks are required for antenna or cable-TV connections. The RF jacks on the VCR are labeled ANT. IN and RF OUT. The coaxial cable supplied with your VCR is used to connect the VCR's RF OUT jack and your TV's antenna input.



Audio/Video Jacks and Cables (RCA-type)

The AUDIO/VIDEO jacks provide very good picture quality and mono sound, and can be used if your TV has audio/video input jacks.

These jacks are used for most audio/video connections between components. The VCR AUDIO/VIDEO jacks are color coded (yellow for video and white for audio). If your TV has two inputs for audio (stereo), you may need a Y-adaptor to hear sound from both channels.



CONNECTIONS

Choosing a VCR Connection

There are several different ways to connect your VCR, depending on whether or not you have cable service, and if you have a cable box, and whether some of the channels are scrambled, and ...well, you get the picture.

Three connections are described in this section and one of them should provide you with a VCR connection that works.

- TV with RF jack only
- TV with audio/video jacks
- TV with audio/video jacks and cable box to unscramble pay channels only

If you need to connect additional components not shown in the diagrams here (and are unsure of how to connect them), refer to the instruction manual that came with that particular component.

Advantages of Audio/Video Cable Connections

Using a simple coaxial cable connection gives you good picture quality. If your television has audio/video jacks, I highly recommend using them to get even better picture quality and mono sound when recording and playing back videotapes. These connections give you more convenient operation by not having to share the TV's antenna signal.

CONNECTIONS

TV with RF Jack Only

This connection assumes:

- You are connecting antenna, cable, or cable box system.
- Your television has only an RF input jack.

This connection provides:

- Mono sound playback from VCR.
- Record one channel while watching another (except when using a cable box for all channels).

To use this connection, you must have:

- (1) coaxial cable for cable or antenna connection; (2) for cable box.

To connect:

1. Connect cables as shown.
2. Return to *First Things First*, then follow the steps.

Using This Connection

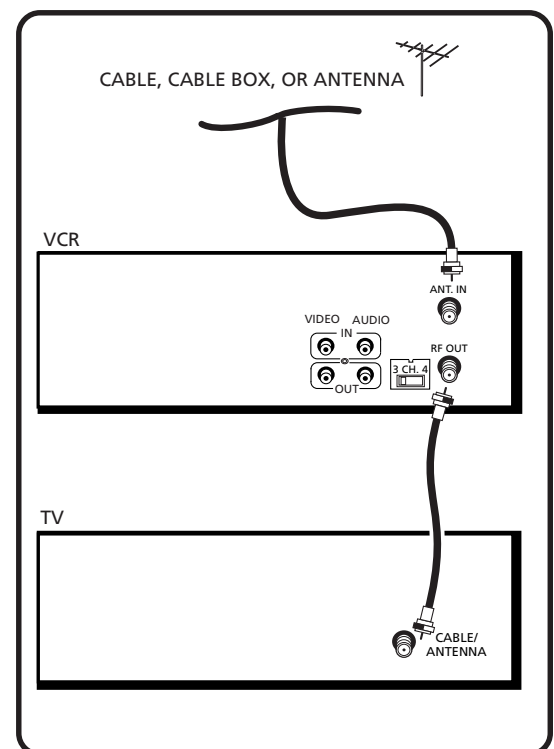
Tune your TV to channel 3 or 4, whichever one you selected with the 3 CH. 4 switch on the back of the VCR.

To play a tape:

1. Insert a tape.
2. If necessary, press PLAY.

To record one program and watch another:

1. Begin recording a program using one of the recording features.
2. Press the TV•VCR button and select a different channel on the TV.



CONNECTIONS

TV with Audio/Video Jacks

This connection assumes:

- You are connecting an antenna, cable, or cable box system.
- Your television has audio/video jacks.

This connection provides:

- Mono sound playback from VCR.
- Record one channel while watching another (except when using a cable box for all channels).

To use this connection, you must have:

- (1) coaxial cable for cable/antenna connection; (2) for cable box
- (2) audio/video cables

To connect:

1. Connect cables as shown.
2. Return to *First Things First*, then follow the steps.

Using This Connection

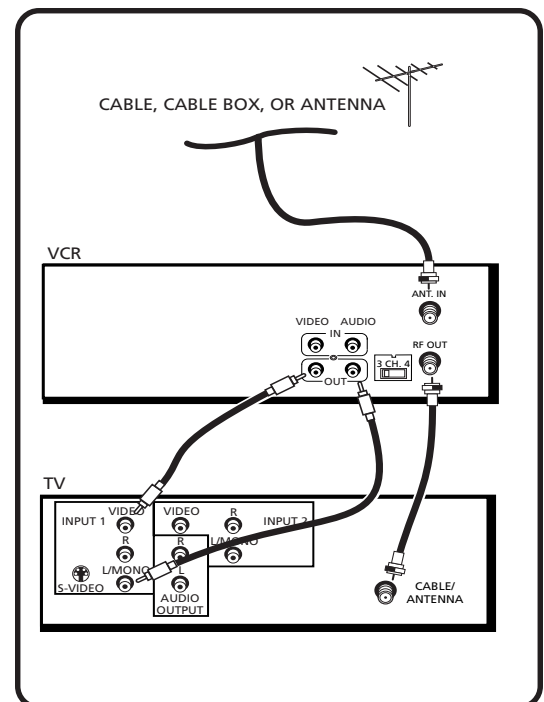
Tune your TV to its video input channel. Use of TV•VCR button is not required.

To play a tape:

1. Insert a tape.
2. If necessary, press PLAY.

To record one program and watch another:

1. Begin recording a program using one of the recording features.
2. Select a different channel on the TV.



CONNECTIONS

TV with Audio/Video Jacks and Cable Box to Unscramble Pay Channels Only

This connection assumes:

- You are using a cable box only to unscramble premium channels.
- Your TV has audio/video input jacks.

This connection provides:

- Mono sound playback from VCR.
- Recording a scrambled or unscrambled channel through the cable box while watching an unscrambled channel.

To use this connection, you must have:

- (3) coaxial cables
- (2) audio/video cables
- (1) splitter

To connect:

1. Connect cables as shown.
2. Return to *First Things First*, then follow the steps.

Using This Connection

Tune your TV to its video input channel. Use of TV•VCR button is not required.

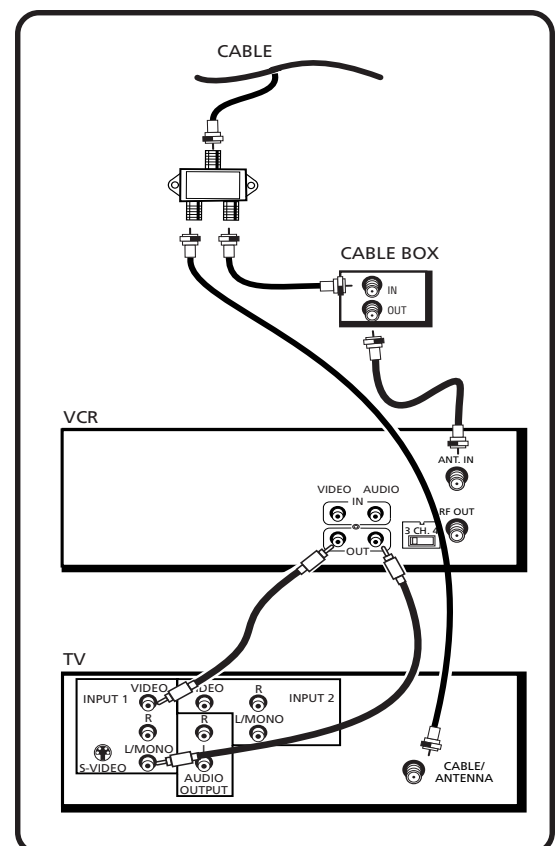
To play a tape:

1. Insert a tape.
2. If necessary, press PLAY.

To record a scrambled or unscrambled program and watch another unscrambled program:

1. Begin recording a scrambled or unscrambled program through the cable box using one of the recording features.
2. Select an unscrambled channel on the TV.

All scrambled channels must be viewed through the VCR.



APPENDIX: REFERENCE

This section gives you some additional information about the VCR, including a description of the unit's controls and display.

You also will find a *Troubleshooting Tips* section in this Appendix, which might help to resolve some of those simple problems.

Finally, this section contains your warranty information.

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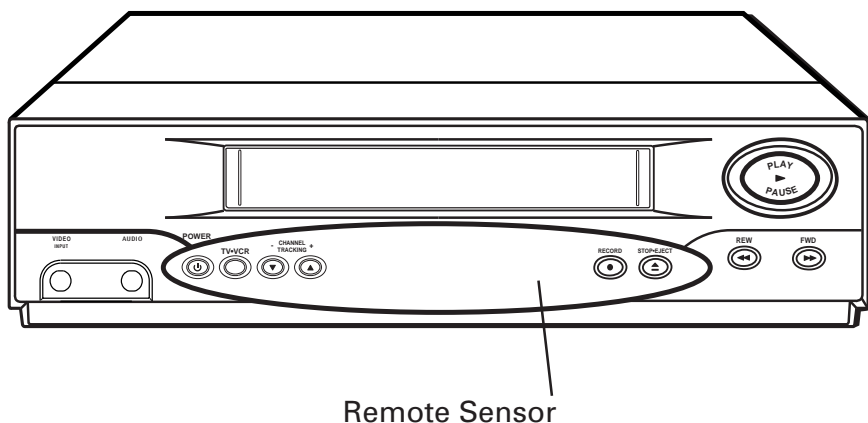
6 CONNECTIONS



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APPENDIX: REFERENCE

Front Panel



CHANNEL•TRACKING Up or Down Selects next higher or lower channel in the VCR's channel memory. Adjusts tracking when a tape is playing. Press both together to recenter tracking.

FWD Forwards the tape when the VCR is stopped. Searches the picture forward during playback. Starts slow motion during play-pause and increases slow-motion speed.

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

POWER Turns the VCR on or off.

RECORD Starts VCR recording. Used for express recording.

Remote Sensor Receives signals from the remote control. Aim the remote at this sensor.

REV Rewinds the tape when the VCR is stopped. Searches the picture in reverse during playback. Starts slow motion during play-pause and decreases slow-motion speed.

STOP•EJECT Stops the normal functions such as record, playback, rewind, fast-forward, or pause. Ejects the tape when the VCR is stopped.

VIDEO/AUDIO INPUT jacks Receives signals from another component, like a VCR or camcorder, when it is connected to these jacks. Use INPUT on the VCR's remote to select L2 to record from these jacks.

TV•VCR Switches the picture signal so that it either comes from the VCR or the cable/antenna system.

APPENDIX: REFERENCE

Display Panel



Time The current time appears. Only an AM indicator appears with the time. There is no indicator for PM.

Timer Indicator (🕒) Lights during express or timer recording and when VCR is turned off and set for timer recording. Flashes when clock is not set or when a timer recording is set and there is no cassette in the VCR.

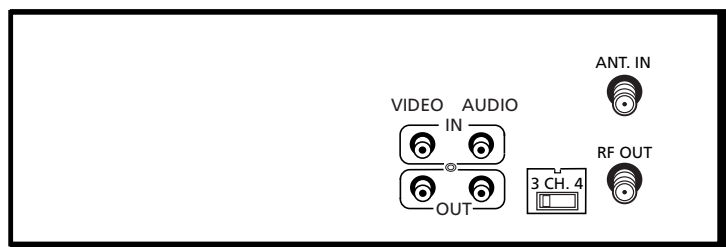
REC Indicator Lights when the VCR is recording (flashes when in record-pause mode)

VCR Indicator (Applies only if the VCR Viewing Channel is 3 or 4). Press the TV•VCR button to turn on or off.

- VCR indicator on: Picture from VCR.
- VCR indicator off: Picture from TV channel.

APPENDIX: REFERENCE

Back Panel



3 CH. 4 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. IN Jack Receives a signal from an antenna or cable system when attached.

AUDIO and VIDEO IN Jacks Receives signals from another component, like a VCR or camcorder, when it is connected to these jacks. Press INPUT on the remote to select L1 to record from these jacks.

AUDIO and VIDEO OUT Jacks Sends signals from VCR to another component, like a TV or VCR, when it is connected to these jacks.

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

APPENDIX: REFERENCE

How to Find Your TV's Video Input Channel

You need to tune your TV to the Video Input Channel if you are using the VCR's VIDEO/STEREO OUT jacks to connect to the TV's VIDEO/STEREO INPUT jacks. You must select this "channel" before you can see the VCR's menus, the cable or antenna reception, and the content that's on a tape, but you cannot do it with your VCR's remote control.

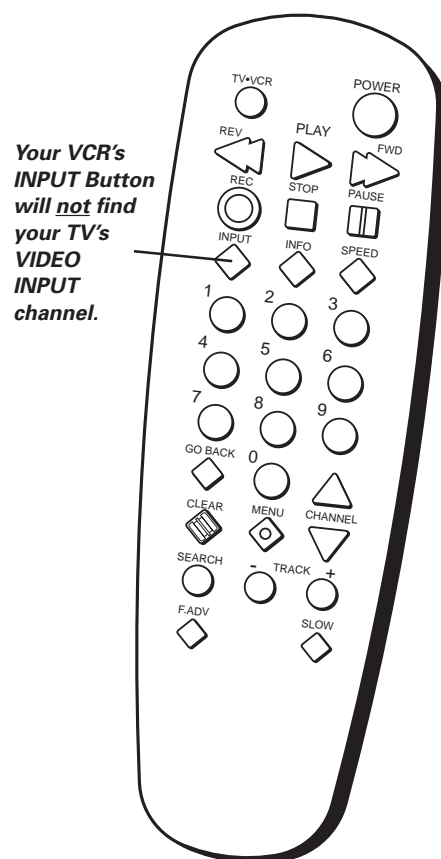
The video channel on TVs varies for different brands and different models. Below are some steps to try:

- pressing a button on the TV's remote (see table below)
- selecting the channel from the TV's menu system (see table below)
- tuning directly to the channel by selecting a specific channel number (see table below)
- going through all the channels in the channel list by pressing the channel up or down buttons on the TV.

Some common scenarios are listed in the Video Input Channel Variations table that follows:

Common Scenarios for 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	



Remote Control Input Button

The VCR remote's INPUT button will NOT find your TV's VIDEO INPUT channel. This button only finds the VIDEO INPUT channel of your VCR which you would use if you plugged a camcorder into your VCR's A/V IN jacks.

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Troubleshooting Tips

No power

- Check to make sure it is plugged into an operating outlet.
- Check to make sure your connections are correct.

VCR does not respond to remote

- Check to make sure there are no objects between the VCR and remote.
- The batteries may need changing.
- Make sure the Remote VCR1/VCR2 setting is set to VCR1 so the remote that came packed with your VCR can operate it.
- ProTect Plus™ Locking feature is activated.

Poor or no picture for normal TV viewing

- Check to make sure the VCR indicator is off.
- Check to make sure the TV is switched to an active channel.
- Check to make sure the antenna connections are secure and correct.

Snowy or no picture during playback

- Press TV•VCR to turn VCR indicator on.
- Check TV channel selected (3 or 4) to make sure it matches the channel selected with 3 CH. 4 switch on back of VCR.
- Check to make sure the TV's fine tuning is correct for the channel you have selected.
- Check video cable connections between VCR and TV monitor.
- Check to make sure the TV monitor is set to video input. See page 45 for details.
- Try another tape.
- Some snow/streaks are normal during search, stop action, frame advance, and slow-motion playback.

Streaks in picture during normal playback

- Press one of the TRACKING buttons to move streaks up or down for the best picture.
- Check to make sure the tape is of good quality and not worn out.

Time counter not working or time counter 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.

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- A minus (–) will appear in front of the time if you rewind the tape farther back than a counter reading of 0:00:00.
- The time counter disappears during search; this is normal.

Will not record or play

- Check to make sure there is a tape in the VCR.
- Try ejecting and reinserting the cassette.
- Check to make sure the tape is not broken.
- Check to make sure the VCR is not in pause mode. Press PAUSE or PLAY to return to normal playback.
- Check the ProTect Plus™ feature.

VCR Panel Indicators flash

- Timer (⌚) and other panel indicators flash when the ProTect Plus™ Locking feature is activated or when you press a button on the remote or VCR and ProTect Plus is activated..

Rewind does not operate

- Check to make sure the tape is not already rewound.

Timer recording not made or wrong program recorded

- Check to make sure the cable box or satellite receiver was turned on when recording was to begin.
- Check to make sure the program was entered correctly (wrong channel or times).
- Power interruption. Reset the clock.
- Check to see if time and date are correct – including AM/PM.
- Check to make sure the program did not exceed the tape's length or the tape was not rewound beforehand.
- Check to make sure the VCR was turned off at the time recording was to start.
- Check to make sure there was a tape in the VCR and the cassette's safety tab was intact.
- VCR ejects cassette when the end of the tape is reached during a timer recording.

Will not record

- Check to make sure the safety tab is intact.
- Check to make sure the VCR is not in the line mode. Press INPUT on the remote.

Internal clock shows incorrect time or date

- Power interruption. Make sure cable box or VCR is tuned to channel carrying the XDS information.
- Check to make sure the clock is set accurately (check AM/PM and date).

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- Check Daylight-Saving setting. The clock may have adjusted for daylight-saving time.

Time did not adjust for daylight-saving time

- Check to make sure daylight-saving feature is set correctly.

VCR makes noise when stopped

- 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

- Check to make sure the antenna connections are secure and correct.
- Check to make sure the Signal Type: CABLE/ANTENNA feature is set correctly.
- If Detect Automatically was selected for the Signal Type in the AUTO CHANNEL SEARCH menu, try using either CABLE TV or ANTENNA instead.
- May not be necessary if using a cable box for all channels. Contact your local cable company for more information.

Tape plays back in slow motion

- Press PLAY to return to normal playback.

Cannot select channels over 69

- Cable channels over 69 can only be selected if Signal Type: CABLE/ANTENNA feature is set to CABLE.

Cassette with safety tab removed does not start to play automatically

- Check to make sure the Auto Play ON/OFF feature is set to ON.

Timer Indicator (🕒) flashes

- Clock is not set.
- Check to make sure there is a cassette in the VCR when a timer recording is set.
- Timer (🕒) and other panel indicators flash when the ProTect Plus™ Locking feature is activated or when you press a button on the remote or VCR and ProTect Plus is activated.

Time counter disappears during searching

- This is normal.

On-screen menus appear in English, French, or Spanish

- Check LANGUAGE feature.

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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:	16 watts
Dimensions:	3.54 inches high (90 mm) 14.17 inches wide (360 mm) 10.75 inches deep (273 mm)
Weight:	7.8 pounds (3.65 kg)
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 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 nonabrasive, antistatic cleaner and polisher.

Specifications are subject to change.

APPENDIX: REFERENCE

Limited Warranty

What your warranty covers:

- Any defect in materials 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 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 or 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 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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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**

10330 North Meridian Street
Indianapolis, IN 46290

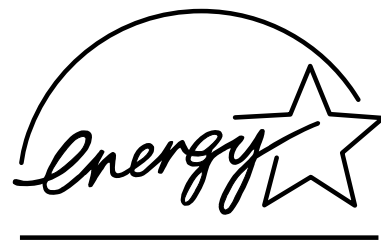
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Printed in Mexico

TOCOM 15407500



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