



VG2050

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.

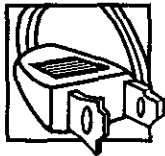


This symbol indicates important instructions accompanying the product.



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

Cautions



Caution: To 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.

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. VG2050

Serial No. _____

Purchase Date: _____

Dealer/Address/Phone: _____

TABLE OF CONTENTS

First Things First	3
Setup with the QuickSet Guide	5
Setting Up the VCR	7
Using On-screen Menus to Set Up Features	8
Language Selection	8
Cable Box Setup	9
VCR Channels List	10
Auto Channel Search	10
Changing the Signal Type	11
Adding or Removing Channels	12
Time and Date	12
Auto Clock Set Feature	12
Setting the Time Zone	13
Setting Daylight-Saving Time	13
Setting Time and Date Manually	14
Additional Set-Up Features	15
Remote VCR1/VCR2 Option	15
Auto Play	16
Auto TV/VCR	16
EnergySaver	17
Front Panel Brightness (VCR Display)	17
Preferred Tape Speed	17
Set Auto Repeat	17
VCR Basics	19
Remote Buttons	20
Component Buttons	20
VCR Function Buttons	20
TV Function Buttons	21
Playing a Tape	22
Automatic Rewind	22
Tape Eject	22
Recording	23
Check the Safety Tab	23
Recording	25
Recording Features	26
Express Recording (XPR)	26
Timer Recording	27
Stopping a Timer Recording	28
Reviewing and Clearing Programs	28
Copying and Editing Tapes	29

TABLE OF CONTENTS

Other Features	31
Picture Search Options	32
Forward and Reverse Search	32
Slow Motion	32
Frame Advance	32
Index Search	33
Go-To Search	33
Commercial Scan (SEARCH Button)	34
Tracking	34
Pro-Tect Plus™ Locking Feature	34
Time Counter	35
On-Screen Displays	35
Connections	37
Things to Know Before Connecting Components	37
Connecting the VCR	38
Jacks and Cables	38
RF Jacks and Coaxial Cables (F-type)	38
Audio/Video Jacks and Cables (RCA-type)	38
Choosing a VCR Connection	39
Advantages of Audio/Video Cable Connections	39
TV with RF Jack Only	40
TV with Audio/Video Jacks	41
TV with A/V Jacks and a Cable Box to Unscramble Pay Channels Only	42
Reference	43
Front Panel	44
Display Panel	45
Back Panel	46
How to Find Your TV's Video Input Channel	47
Troubleshooting Tips	48
Specifications	51
Cleaning the VCR	51
Limited Warranty	52
Index	53

FIRST THINGS FIRST

Welcome to Your New VCR...

To help get started using your new VCR with as little reading as possible, all basic information is placed in the first three sections of the manual. To make things easier, there's even an interactive setup guide the first time the VCR is turned on that walks through several important setup steps.

Getting Started

Before setting up the first time, though, learning some of the finest features are key to getting the most out of your new videotape recorder. Time and date, abilities of the VCR's remote control, working with channels and basic cassette operations are all covered in the manual's first three sections.

Once familiar with the VCR's essential features, make sure to refer to other sections of the manual to learn more detailed information.

What Remains?

The final sections of this manual contain playback and recording information, a detailed connections section, and a reference section complete with 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 REFERENCES

READ ME!

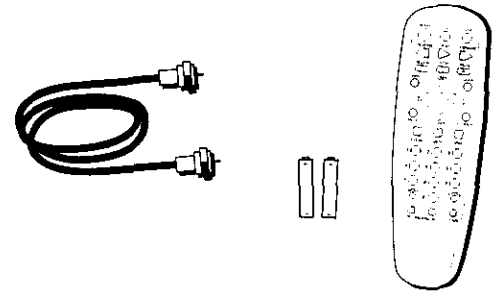
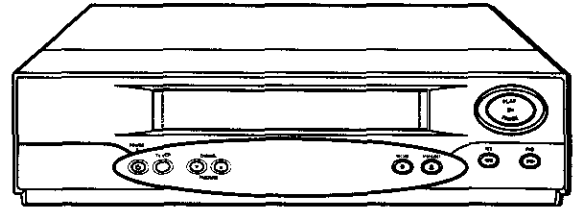
These note boxes give you tips for your new video cassette recorder.

FIRST THINGS FIRST

Step 1: What's in the Box?

The following items come packed in the box:

- VCR
- Remote control
- RF coaxial cable
- AAA Batteries



Step 2: Install Batteries in the VCR's Remote Control

Follow these steps whenever installing or changing the batteries in the VCR's remote control:

1. Remove the cover of the battery compartment on the rear of the remote control.
2. Place the batteries into the compartment matching the positive (+) and negative (-) ends of each battery to the diagram inside the compartment.
3. Replace the cover

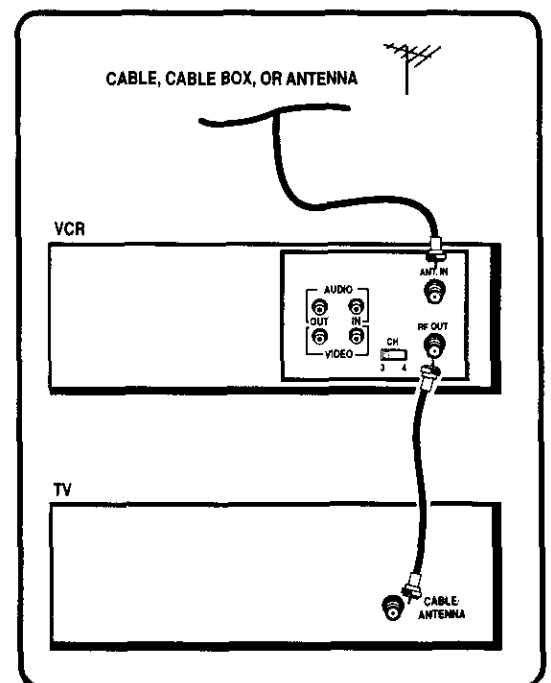
Step 3: Connect the VCR to a TV

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

If you have a TV with AUDIO/VIDEO jacks, use these jacks for a better connection. Refer to the *Connections* section for additional setup 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

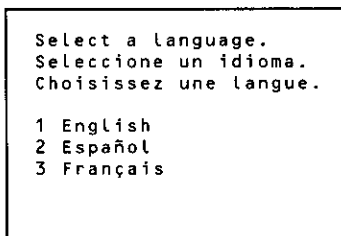
Step 5: Tune the TV

Tune the TV to the VCR viewing channel. The VCR viewing channel is usually channel 3, 4 or the TV's video line 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 — whichever channel isn't used locally.
- If the VCR is connected using the Audio/Video (A/V) jacks and A/V cables, select the TV's video line input with the TV's remote control to see the VCR's picture. For more information about video line input, see "How to Find Your TV's Video Input Channel" in the *References* section of this manual.

Step 6: Turn on the VCR

Press the POWER button on the VCR's front panel or the VCR remote control to turn on the VCR. The first time the VCR is turned on, a menu screen appears.



This is the start of an interactive setup which walks through essential settings of the VCR.

Step 7: Setup with the QuickSet Guide

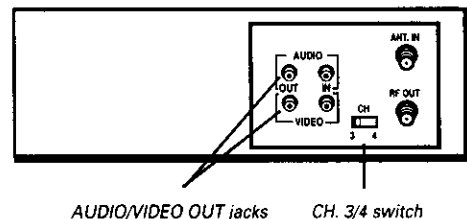
The QuickSet Guide is an automated procedure that helps set up the VCR for first time use. Upon initial power up, the setup guide asks which language to use for all on-screen menus.

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

After this selection is made, just follow the rest of the step-by-step procedures until the initial setup is complete.

(Continued on next page)

VCR Viewing Channel



When using the ANT. IN and RF OUT jacks to connect your VCR, tune the 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 video line input, see "How to Find Your TV's Video Input Channel" in the *References* section of this manual.

FIRST THINGS FIRST

If the initial menu does not appear:

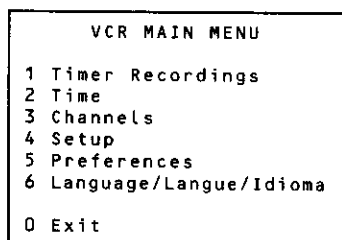
- Make sure the TV is tuned to the same channel as the 3 CH. 4 switch (on back of the VCR), or if using A/V cables to connect the VCR to the TV, tune to the TV's video line input (see, "How to Find Your TV's Video Input Channel," in the *References* section of this manual for more information).
- Make sure the VCR indicator is on in the VCR display (press the TV•VCR button on the remote control or the VCR's front panel until "VCR" shows on the front display).
- Check your connections.

If you choose to set up your VCR options individually instead of using the initial setup, go to the next section.

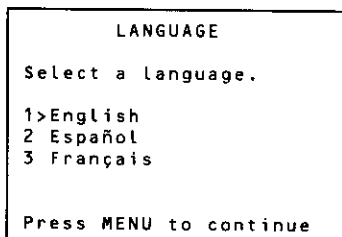
Step 8: Accessing On-screen Menus

The MENU and number buttons on the VCR's remote control allow for accessing, selecting and changing the VCR's preferences. For example, to select a different preferred on-screen language than the one selected during the initial set up:

1. Press MENU to display the VCR MAIN MENU.



2. Press 6 to display the LANGUAGE menu



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

All on-screen menus are handled the same by following on-screen instructions and using the remote control to select choices. See the next section, *Additional Set-Up Features*, for detailed information about accessing menus.

SETTING UP THE VCR

Additional Setup Features

Below is a list of setup features, some of which need to be set up before using your VCR for the first time.

Whether or not the features are handled in the first time interactive setup, all features allow you to get the most out of your VCR.

- Language*
- Cable box set up*
- VCR channels list (Auto Channel Search)*
- Time setup using Auto Clock set*
 - Setting time zone*
 - Daylight Saving time*
- Manually setting time and date
- Remote VCR1/VCR2
- Auto play
- EnergySaver feature
- 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

* Features handled during the VCR's initial setup

SETTING UP THE VCR

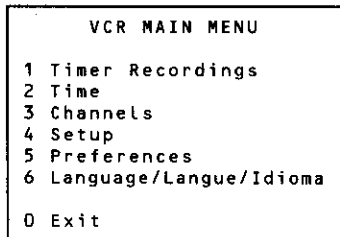
Using On-screen Menus to Set Up Features

The VCR's features can be set up using its remote control buttons to enter choices from on-screen instructions. Each on-screen 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.

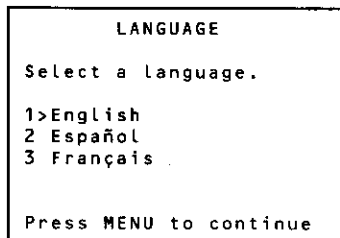
Language Selection

If you did not complete this step in the initial QuickSet Guide, it is time to select a preferred language for on-screen displays.

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



2. Press 6 to select the LANGUAGE menu.



3. Press 1 for English, 2 for Español (Spanish), or 3 for Français (French). An arrow indicator highlights the current selection. Once the proper language is highlighted, press the MENU button on the remote control to return to the VCR MAIN MENU.

Is Something Missing?

Note that not all VCR on-screen displays are always shown in this manual when explaining the features.

SETTING UP THE VCR

Cable Box Setup

This particular 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 (usually 3 or 4). 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 Setup
5 Preferences
6 Language/Langue/Idioma
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 and A/V cables to connect the VCR to the TV.

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 it will now receive all signals on the designated channel.

```
CABLE BOX SETUP

The Cable Box Setup
is complete.
The VCR will NOT control
the cable box channel
during timer recording.

Press MENU to continue
```

VCR Channels List

If a cable box is used for *all channels*, this next step is not necessary. Your VCR may come with a channel list preset at the factory, but adding or deleting some channels may be necessary, depending on whether they are broadcasting signals.

Auto Channel Search

1. Press MENU to display the VCR MAIN MENU.

```
VCR MAIN MENU

1 Timer Recordings
2 Time
3 Channels
4 Setup
5 Preferences
6 Language/Langue/Idioma

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 1 to display the AUTO CHANNEL SEARCH 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.

SETTING UP THE VCR

```
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 (the current choice is highlighted with the arrowhead at left):
 - **Cable TV** searches for cable stations from a single channel
 - **Antenna** searches for local broadcast stations on all channels
 - **Detect Automatically** will attempt to determine if the signal comes from one or many channels.

```
AUTO CHANNEL SEARCH

Now scanning channel 14

Press any key to cancel
```

The VCR begins scanning for available channels—this can take up to one or two minutes. When the scan is complete, the VCR tunes to the lowest numbered channel. Pressing the CHAN up or down buttons on the remote will only scroll through active channels.

Changing the Signal Type

If cable service is ever added or removed, the VCR's signal may have to be adjusted. To choose between cable and standard antenna signals:

1. Press the MENU button on the remote control to display the VCR MAIN MENU.
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 3 to change the Signal Type between CABLE and ANTENNA

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.

Selecting Channels

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

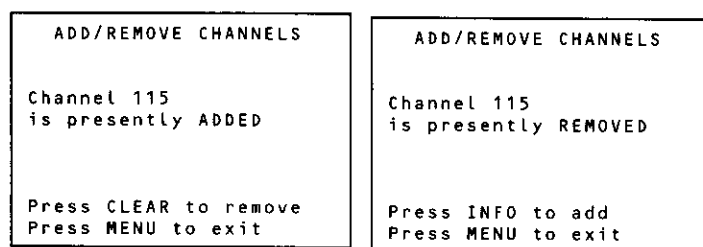
You can still access channels not in the channel list by using the number buttons on the remote.

SETTING UP THE VCR

Adding or Removing Channels

Channels may be added or remove channels after you Auto Channel Search, especially if some of the channels have weak signals or you dont 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 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 UP THE VCR

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 Setup
5 Preferences
6 Language/Langue/Idioma
0 Exit
```

2. Press 2 to display TIME menu.

```
TIME
1 Set Time and Date
2 Set Time Zone
3 Set Daylight Savings
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.

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/date display

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

Continued on Next Page

SETTING UP THE VCR

```
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).

Setting 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 Setup
5 Preferences
6 Language/Langue/Idioma

0 Exit
```

2. Press 2 to display the TIME menu.

```
TIME

1 Set Time and Date
2 Set Time Zone
3 Set Daylight Savings

0 Exit
```

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

```
SET TIME AND DATE

Time ---:--
      (hh:mm)

Date --/--/--

Press MENU to cancel
```

Spring Forward; Fall Back

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

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
```

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

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

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 Setup
5 Preferences
6 Language/Langue/Idioma
0 Exit
```

2. Press 5 to display the PREFERENCES menu.

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

Continued on Next Page

SETTING UP THE VCR

PREFERENCES		PREFERENCES	
(Press VCR2 to Change)		1 Remote Control: VCR2	
2 Auto Play: OFF		2 Auto Play: OFF	
3 Auto TV/VCR: OFF		3 Auto TV/VCR: OFF	
4 EnergySaver: 2:00		4 EnergySaver: 2:00	
5 Front Panel: BRIGHT		5 Front Panel: BRIGHT	
6 Tape Speed: SLP		6 Tape Speed: SLP	
7 Set Auto Repeat		7 Set Auto Repeat	
0 Exit		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.
- Select OFF if you *do not* want a tape with its safety tab removed to start playing automatically.

Auto TV/VCR

To view a signal from a VCR connected to a TV with a standard RF coaxial cable, the TV/VCR button on the remote control must be pressed in order to see the signal.

When Auto TV/VCR is turned on, the signal will be changed to VCR automatically, eliminating the need to press the remote control button.

- The TV must be tuned to the VCR viewing channel (usually 3 or 4) to see the signal.
- Select OFF if you *do not* want the VCR's signal to change automatically to VCR when a tape is inserted and played.

Remote control option

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

SETTING UP THE VCR

EnergySaver

By default, this VCR automatically turns off after two hours of inactivity. Press 4 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 5 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

Set Auto Repeat

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

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.

Continued on Next Page

SETTING UP THE VCR

The Set Auto Repeat dialog box will ask for a loop end time to be specified:

```
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
```

- The CLEAR key will erase all three 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.

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

The remote control is capable of controlling your VCR and many brands of televisions. If you have a GE, RCA or PROSCAN TV, you may be able to control it without having to program the remote.

Component Buttons

ON•OFF Turns off VCR when remote is set to control the VCR. Also turns some compatible components on and off.

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

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

VCR Function Buttons

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

CLEAR Resets time counter to 0:00:00. Allows you to change entries when setting the clock or a timer recording.

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

FORWARD 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.

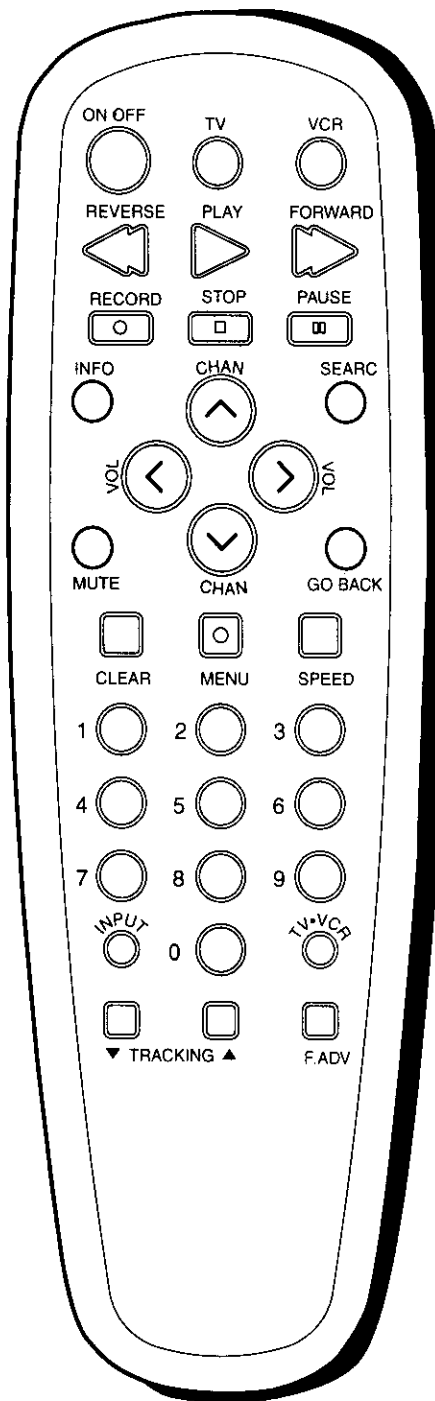
GO BACK Switches between two channels. Select one channel and then select another using the number buttons. Press GO BACK to switch between the two channels. In menu mode, press to go back to a previous menu.

INFO Shows the status displays on the TV screen.

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



VCR BASICS

PAUSE Pauses playback or recording. Press PAUSE again to return to playback or recording.

PLAY Plays a tape.

RECORD Starts VCR recording. Also used for Express recording.

REVERSE 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 ZERO 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.

SPEED Selects a recording speed (SP or SLP).

STOP Stops the current VCR function such as record, playback, rewind, or fast forward. Press and hold for three seconds during the stop mode and the tape will eject.

TRACKING Up or Down Lets you manually reduce the streaks that may appear on the picture during play, slow motion, or pause. Reduces picture "jitter" during stop-action playback.

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

TV Function Buttons

CHAN Up or down Selects next higher or lower channel in the TV's channel memory.

CLEAR Removes menus or status displays from the screen.

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.

INFO Shows the TV's status displays on the TV screen.

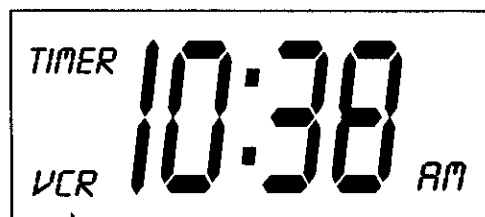
INPUT Selects between the TV's input channel or tuner. Press to see the VCR signal if you connected your VCR using the AUDIO/VIDEO jacks.

MUTE Reduces volume to minimum level.

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.

ON•OFF Turns a compatible TV off and on.

VOL Up and Down Raises and lowers sound of TV.



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

TV Buttons

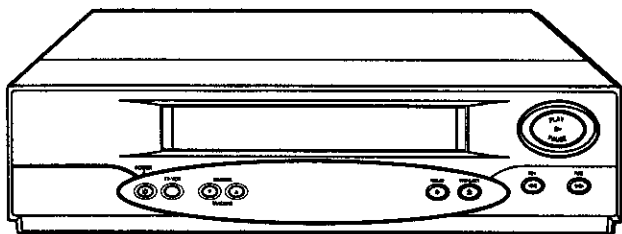
The TV buttons may not control all features of all models of GE, RCA, or PROSCAN TVs.

For more information about selecting a video line input, see, "How to Find Your TV's Video Input Channel" or "Troubleshooting" in the *Reference* section of this manual.

VCR BASICS

Playing a Tape

1. Tune the TV to your VCR viewing channel (3, 4, or TV's video line input- see "How to Find Your TV's Video Input Channel" in the *References* section for more about the video line input).
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.

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.

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

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.

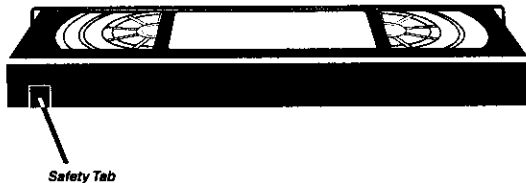
1. Set the tape speed by pressing the SPEED button on the remote.
2. Press RECORD (REC on remote) to begin recording.
3. Press STOP to stop recording.

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.

Recording Time

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

RECORDING

Several Recording Options

Now that we've covered many of the necessary steps to operate the VCR, it's time to explain the different recording features available to suit specific needs including:

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

1 FIRST THINGS FIRST



2 SETTING UP THE VCR



3 VCR BASICS



4 RECORDING



5 OTHER FEATURES



6 CONNECTIONS



7 REFERENCE

RECORDING

Recording Features

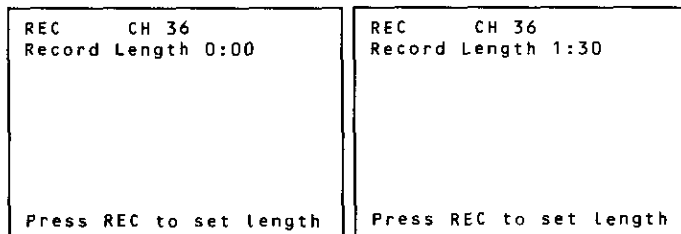
There are three ways to record programs:

- **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.



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 Setup
5 Preferences
6 Language/Langue/Idioma
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.

0 Exit
```

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

```
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.

RECORDING

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 "How to Find Your TV's Video Input Channel" in the *References* section of this manual 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*).

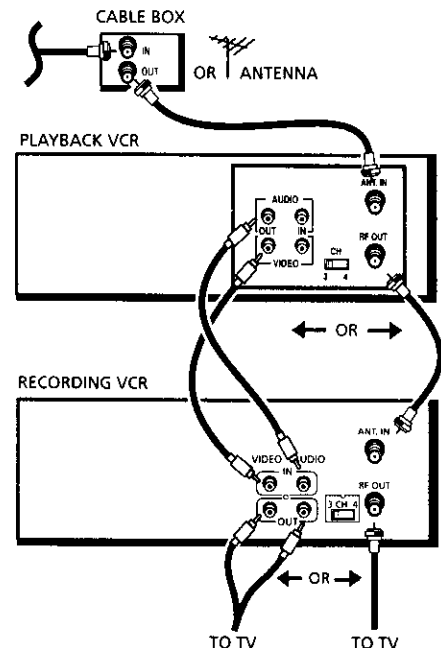
If you are using audio/video cables, select the line input on the *recording VCR* (L1 for the back jacks or L2 for the front jacks).

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

1 FIRST THINGS FIRST



2 SETTING UP THE VCR



3 VCR BASICS



4 RECORDING



5 OTHER FEATURES



6 CONNECTIONS



7 REFERENCE

OTHER FEATURES

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

OTHER FEATURES

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.

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.

```
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

4. Press FWD to search forward or REV to search in reverse.
5. Press STOP to stop Go-To searching.

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.

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.

```
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.
```

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.

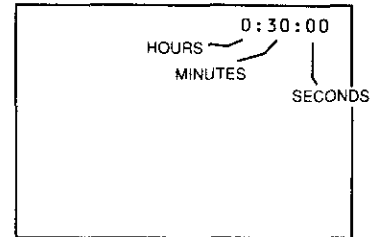
OTHER FEATURES

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.



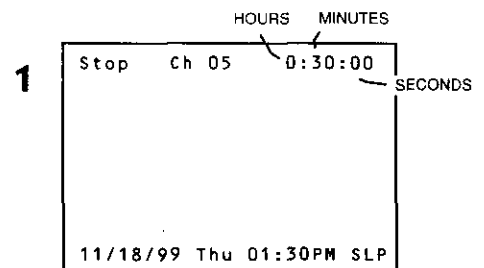
Timer Counter on-screen display shows hours, minutes and seconds of a segment of tape.

On-Screen Displays

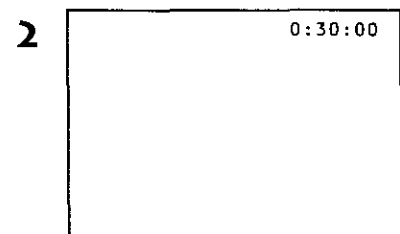
The **INFO** button shows the status of the VCR (**STOP**, **PLAY**, **RECORD**, etc.), channel number, time counter, date, time, and tape speed on the TV screen. The date and time must be set before they can be displayed.

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.

1 FIRST THINGS FIRST



2 SETTING UP THE VCR



3 VCR BASICS



4 RECORDING



5 OTHER FEATURES



6 CONNECTIONS



7 REFERENCE

CONNECTIONS

Connecting the 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.



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 the manual's first section, *First Things First*, and follow the connection steps.

Using This Connection

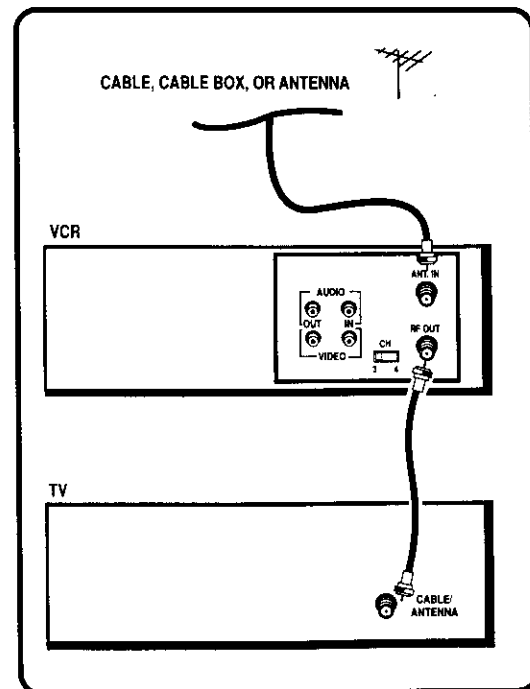
Tune your TV to channel 3 or 4, whichever one you selected with the 3 CH. 4 switch on the back of the VCR.

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 the manual's first section, *First Things First*, and follow the connection steps.

Using This Connection

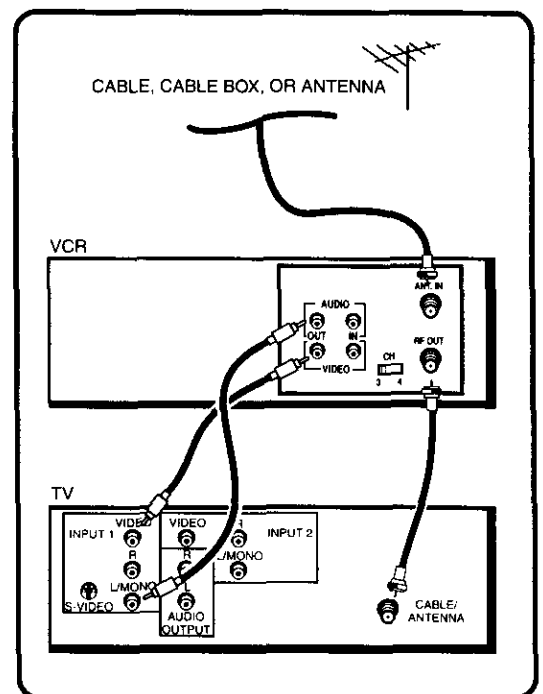
Tune your TV to its video input channel. Use of TV•VCR button is not required.

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 A/V Jacks and a 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 the manual's first section, *First Things First*, and follow the connection steps.

Using This Connection

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

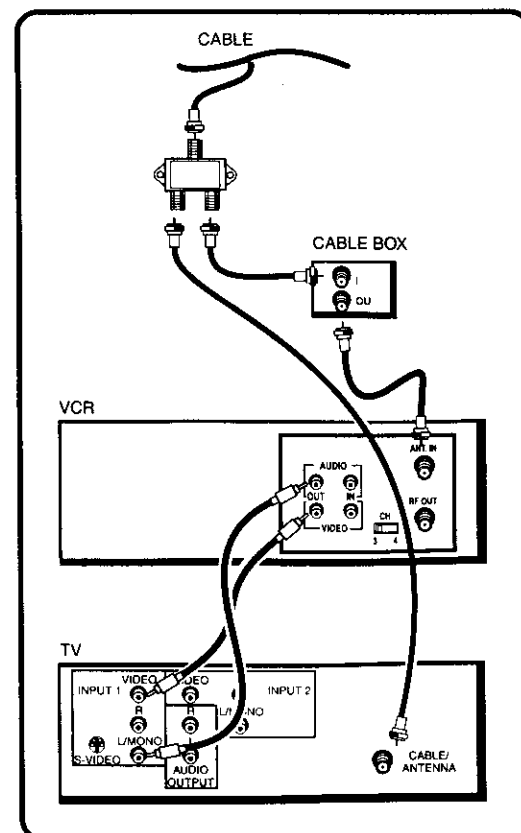
To play a tape:

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.

1 FIRST THINGS FIRST



2 SETTING UP THE VCR



3 VCR BASICS



4 RECORDING



5 OTHER FEATURES



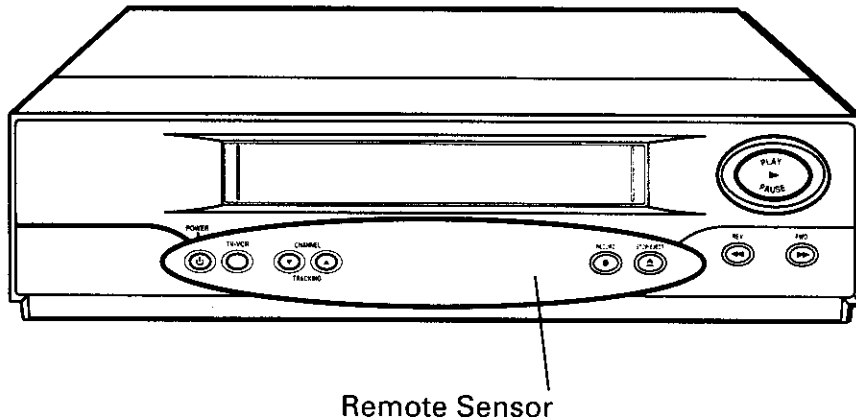
6 CONNECTIONS



7 REFERENCE

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.

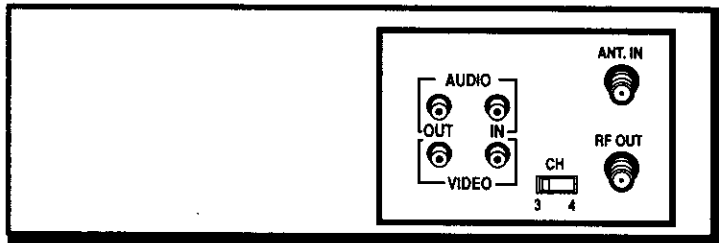
REC Indicator Lights when the VCR is recording (flashes when in record-pause mode)

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 AUDIO/VIDEO OUT jacks to connect to the TV's AUDIO/VIDEO 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.

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

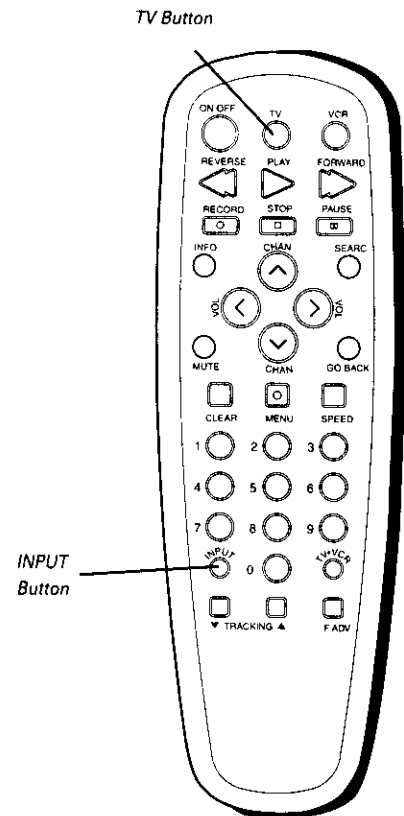
- If your TV brand is GE, RCA, or PROSCAN, press the TV button on the remote control that came with the VCR. Then press the INPUT button on the remote.

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

- pressing a button on the TV's remote control (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:

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	



APPENDIX: REFERENCE

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 "How to Find Your TV's Video Input Channel" in the *Reference* section 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.
- 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.

APPENDIX: REFERENCE

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).
- 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.

APPENDIX: REFERENCE

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.

APPENDIX: REFERENCE

Specifications

Format:	VHS
Record/Playback System:	Video: 2 head Audio: Mono record/playback system
Video Signal System:	EIA standard: NTSC color
Antenna:	75-ohm external VHF/UHF combined antenna terminal
Tuner:	USA: 181 channels capability* (125 cable channels) Canada: 178 channels capability* (122 cable channels)
Type:	AutoProgramming frequency synthesis
Power Requirement:	120V AC, 60 Hz
Power Consumption:	17 watts
Dimensions:	3.64 inches high (91 mm) 14.4 inches wide (360 mm) 9.44 inches deep (236 mm)
Weight:	6.4 pounds (2.9 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.

INDEX

A

- Adding/removing channels 12
- Audio/Video (A/V) jacks 9, 20, 38, 41, 46, 47
- Audio/video cables 37, 39, 42
- Auto Channel Search 10
- Auto channel search 10
- Auto clock feature 12
- Auto play feature 16, 22
- Auto TV/VCR feature 40
- Automatic rewind 22
- Automatic tracking 22

B

- Batteries
 - installing in the remote 4
- Buttons, remote 20

C

- Cable box setup 9
- Cables, positioning 37
- Cables, types of 38
- CHAN buttons 11, 12, 20
- Channel 3/4 switch 5, 6, 40
- Channel, VCR viewing 5
- CHANNEL•TRACKING button 44
- Channels
 - adding/removing 12
 - detecting automatically 10
 - VCR list 10
- CHANNELS menu 9, 10, 11, 12
- Cleaning the VCR 51
- CLEAR button 20, 33, 35
- Clearing programs 28
- Commercial scan 34
- Component buttons 20
- Connecting components 37
- Connecting your VCR 4, 38

Connections 37

- Audio/Video (A/V) cables 39
 - TV with A/V jacks 41
 - TV with RF jack only 40
 - two VCRs 29
 - unscrambling pay channels 42
- Copying and editing tapes 29

D

- Date and time 12
- Daylight-saving time 13, 14
- Display panel 45
- Displays, on screen 35

E

- Eject 22
- EnergySaver feature 17
- Express Recording (XPR) 26

F

- F ADV button 20, 32
- Forward and reverse search 32
- FORWARD button 32, 34, 35
- Frame advance 32
- Front panel 44
- Front panel brightness 17
- FWD button 22, 44

G

- GO BACK button 20
- GO-TO SEARCH menu 33

I

- IN (FROM ANT) jack 4, 5, 38, 46
- Index search 33
- INFO button 20, 35
- INPUT button 9, 20, 47

INDEX

J

Jacks

- AUDIO/VIDEO 47
- audio/video 46
- Audio/Video (A/V) 46
- IN (FROM ANT) 46
- OUT (TO TV) 46

Jacks, types of 38

L

- Language feature 8
- LANGUAGE menu 6, 8
- Locking feature 34

M

- MENU button 6, 8, 9, 11, 12, 14, 15, 20
- MUTE button 21

N

- Number buttons 6, 15, 20, 21, 33

O

- ON•OFF button 20, 21
- On-screen displays 35
- OUT (TO TV) jack 4, 5, 38, 46
- Overheating 37

P

- Panel brightness 17
- PAUSE button 21, 23, 32
- Picture search options 32
- PLAY button 21, 22, 32, 35, 40, 41, 42, 44
- PLAY•PAUSE button 22
- Playing a tape 22
- Plugging in the VCR 4

- POWER button 5
- POWER button 22, 44
- Power surges 37
- PREFERENCES menu 15, 16, 17
- Preferred tape speed 17
- Pro-Tect Plus locking 34
- Problem solving 48
- PROGRAMS OVERLAP message 27

Q

- QuickSet Guide 5, 8

R

- REC button 44
- RECORD button 21, 23, 26
- Record protect tab 23
- Recording
 - audio only 29
 - basic 23
 - copying and editing tapes 29
 - Express (XPR) 26
 - options 25
 - timer 27
 - types of 26
 - XPR (Express) 26
- Remote
 - buttons 20
 - component buttons 20
 - installing batteries 4
 - TV function buttons 21
- Remote Control Option 16
- Remote sensor 44
- Remote VCR1/VCR2 option 15
- Removing/adding channels 12
- REV button 21, 44
- REVERSE button 32, 34
- Reviewing programs 28
- REW button 22
- Rewind, automatic 22

INDEX

S

SAFE display 34
Safety tab 22, 23
Search
 commercial scan 34
 forward and reverse 32
 frame advance 32
 index 33
 slow-motion 32
SEARCH button 21, 33
Sensor, remote 44
SET DAYLIGHT SAVINGS menu 13
SET TIME AND DATE menu 14
SET TIME ZONE menu 13
Set up
 cable box 9
 channels list 10
 language 8
 time and date 12
 time and date manual 14
 using menus 8
 using PREFERENCES menu 15
Signal type 11
 changing 11
Slow-motion search 32
SLP (tape speed) 23
Solving problems 48
SP (tape speed) 23
Specifications 51
SPEED button 21, 23, 26
Status indicators
 REC 45
STOP button 21, 22, 23, 26, 33, 35
STOP•EJECT button 22, 44

T

Tape eject 22
Tape, playing 22
Tape speed 23
Time and date 12

Time counter 35
TIME menu 13, 14
Time zone 13
TIMER indicator 27, 45
Timer recording 26
 stopping 28
Tips, troubleshooting 48
Tracking 34
TRACKING button 32
TRACKING buttons 21, 22
Troubleshooting tips 48
TV button 20, 47
TV function buttons 21
TV•VCR button 21, 40, 41, 42, 44, 45
TV's video input channel 47

V

VCR button 20
VCR channel list 10
VCR, cleaning 51
VCR display panel 45
VCR front panel 44
VCR indicator 45
VCR MAIN MENU 6, 8, 15
VCR viewing channel 5
VCR1 button 16
VCR2 button 15
VHS index search system 33
VOL buttons 21

W

Warranty 52

X

XPR (Express Recording) 26

Y

Y-adaptor 38

MEMO

MEMO

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

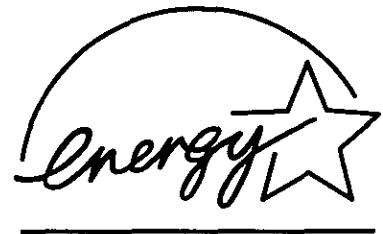
©1999 Thomson Consumer Electronics, Inc.

Trademark(s)® Registered

Marca(s) Registrada(s)

Printed in USA

TOCOM 15530250



As an ENERGY STAR® Partner, Thomson Consumer Electronics has determined that this product or product model meets the ENERGY STAR® guidelines for energy efficiency.