

User guide

Video Cassette Recorder
Model: GC971NM



Before connecting, operating or adjusting your new VCR, please read this user guide carefully. Thank you.

Precautions Information

Note to CATV system installer (USA only): This reminder is provided to call the CATV system installer's attention to Section 820-40 of the NEC 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.

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	<p>CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN</p>	
<p>CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>		

This lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



WARNING: Do not install this equipment in a confined space such as a book case or similar unit.

CAUTION: The apparatus should not be exposed to water (dripping or splashing) and no objects filled with liquids, such as vases, should be placed on the apparatus.

IMPORTANT COPYRIGHT INFORMATION : Many television programs and films are copyrighted. In certain circumstances, copyright law may apply to private in-home video taping of copyrighted materials.

FCC WARNING: This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

REGULATORY INFORMATION: FCC Part 15

This product has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the product is

operated in a residential installation. This product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this product does cause harmful interference to radio or television reception, which can be determined by turning the product off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the product and receiver.
- Connect the product into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This Class (B) digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe (B) respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

IMPORTANT SAFETY INSTRUCTIONS

CAUTION: PLEASE READ AND OBSERVE ALL WARNINGS AND INSTRUCTIONS IN THIS OWNER'S MANUAL. AND THOSE MARKED ON THE PRODUCT. RETAIN THIS BOOKLET FOR FUTURE REFERENCE.

This product has been designed and manufactured to assure personal safety. Improper use can result in electric shock or fire hazard. The safeguards incorporated in this product will protect you if you observe the following procedures for installation, use, and servicing. This product does not contain any parts that can be repaired by the user. **DO NOT REMOVE THE CABINET COVER, OR YOU MAY BE EXPOSED TO DANGEROUS VOLTAGE. REFER TO DANGEROUS TO QUALIFIED SERVICE PERSONNEL ONLY.**

1. **Read these instructions.** - All these safety and operating instructions should be read before the product is operated.
2. **Keep these instructions.** - The safety, operating and use instructions should be retained for future reference.
3. **Heed all warnings.** - All warnings on the product and in the operating instructions should be adhered to.
4. **Follow all instructions.** - All operating and use instructions should be followed.
5. **Do not use this product near water.** - For example: near a bath tub, wash bowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool; and other areas located near water.
6. **Clean only with dry cloth.** - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners.
7. **Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.** - Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from

8. **Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.**
9. **Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.**
10. **Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the product.**

11. **Only use attachments/accessories specified by the manufacturer.**



12. **Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with apparatus. When a cart is used, use caution when moving the cart/product combination to avoid injury from tip-over.**
13. **Unplug this product during lightning storms or when unused for long periods of time. Refer all servicing to qualified service personnel. Servicing is required when the product has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the product, the product has been exposed to rain or moisture, does not operate normally, or has been dropped.**
14. **Refer all servicing to qualified service personnel. Servicing is required when the product has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the product, the product has been exposed to rain or moisture, does not operate normally, or has been dropped.**

Main features of this VCR(Video Cassette Recorder), Contents

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Main features of this VCR

- MTS Hi-Fi Stereo
- OPR (Optimum Picture Response)
- Easy Graphic Menu
- Video Doctor (Advanced Self-Diagnosis)
- 181 Channel Frequency Synthesized Cable Compatible Tuner with Autochannel Programming and Multichannel Scan
- 1 Year/7 Event Timer with DAILY and WEEKLY Function
- Auto Power and Playback Functions
- ITR (Instant Timer Recording)
- Real-Time Tape Counter
- Visual Search, Logic Search, CM Skip
- Clean Still, Slow, Frame Advance
- Auto Tracking Function
- On-screen Display of Function
- Trilingual On-screen Programming (Spanish/English/Portuguese)

Contents

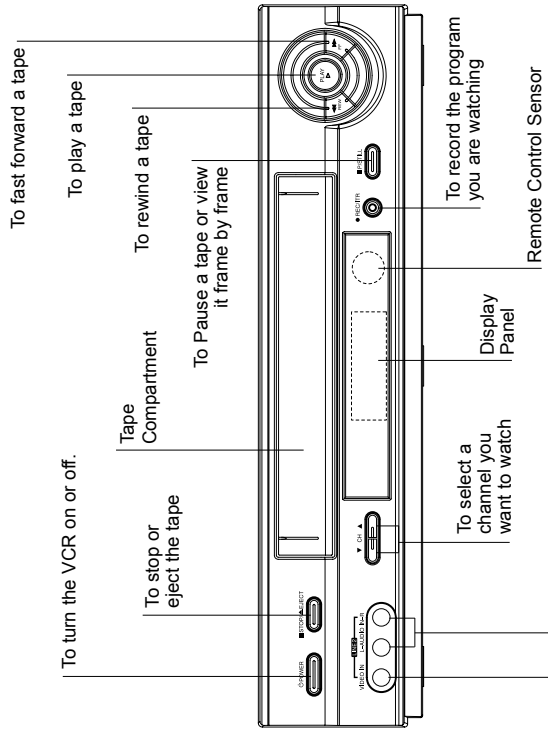
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The serial number is found on the back of this unit. This number is unique to this unit and not available to others. You should record requested information here and retain this guide as a permanent record of your purchase.

Model No. _____
Serial No. _____

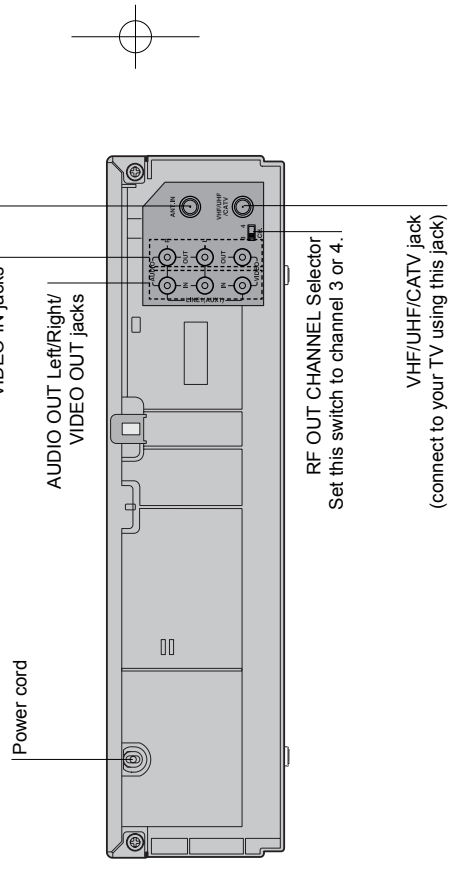
Introducing your VCR(Video Cassette Recorder)

Most of your VCR's functions are accessed using the Remote Control.



i Video IN and Audio IN jacks are for connecting devices such as Video Cameras, Games Consoles and other Video Cassette Recorders. You will need to connect to them using an Audio/Video cable.

Audio IN
 Video IN



Connections

Make sure all connections are made with both your VCR and additional appliance unplugged from the mains to avoid damaging your equipment. Connecting a VCR using a Audio/Video cable is one of the best ways to achieve optimum sound and picture quality from video-tape playback. If you own a stereo TV you will be able to enjoy stereo sound when playing a stereo video tape or stereo TV reception.

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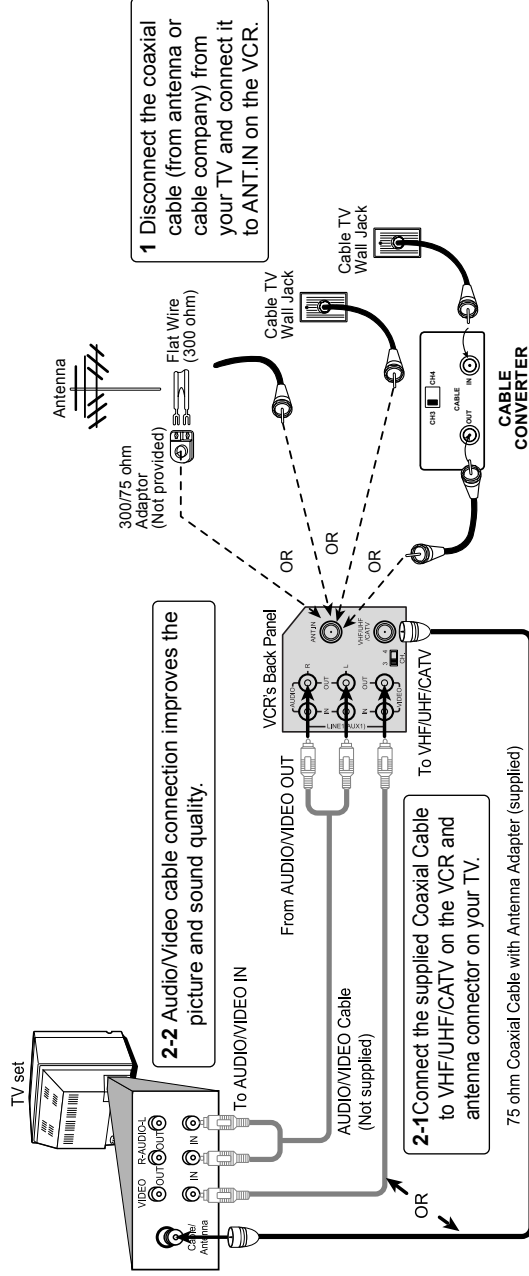
VCR reception setting

When a TV is connected with a coaxial cable only
When the TV is connected to the VHF/UHF/CATV using a supplied coaxial cable only, set the channel selector at the rear to CH 3 or CH 4, not employed for broadcasts, and select the same channel on the TV.

When a TV is connected with an audio/video cable
When the TV is connected using an audio/video cable, turn the TV and VCR on, and select the video input mode on the TV. If your cable service supplies you with a cable converter box, you can use the basic connection shown below.

To view or record CATV channel

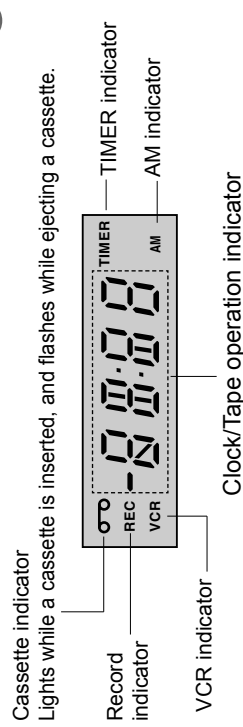
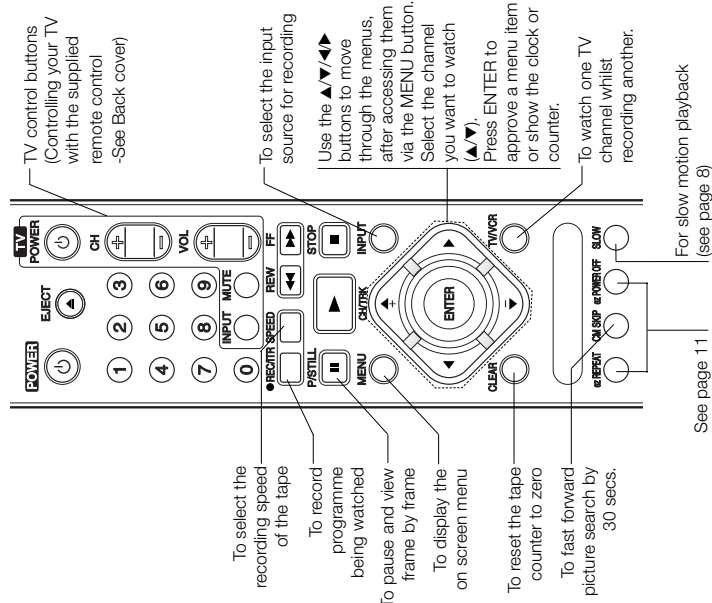
- 1 Set the TV channel to the video output channel as located on the back of the VCR (CH3 or CH4).
- 2 Set the VCR channel selector to the output channel of the cable converter box by using **CH/TRK** (**▲▼**) or Number buttons (**0-9**) of your VCR. (Example: CH3)
- 3 Select the channel to view at the Cable Converter Box.
With this connection, you CANNOT record one program while viewing another.



Remote Control and Display window

Before using the remote control, press **VCR** or **TV** button to select the device to be operated. Basic functions of your VCR can also be operated using the control panel on the front of your VCR.

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Information appears in the display window depending on the VCR function being used. Display window shows which VCR function you are using. For example, when you press **PLAY**, **PLAY** appears to indicate the tape operation. As you change channels, the channel numbers appear. The current time shows even while the VCR is off.

HI — VCR is turned on.
BYE — VCR is turned off.
CUE — Tape is advancing rapidly in playback mode for visual search.
REV — Tape is reversing rapidly in playback mode for visual search.
FF (Fast Forward) — Tape is advancing rapidly.

L_ (Line _) — Auxiliary channel is selected for viewing equipment connected to Audio/Video jacks on the VCR.
PLAY — Tape is playing at normal playback speed.
REW (Rewind) — Tape is rewinding rapidly.
SLW (Slow) — Tape is playing at slow-motion forward speed.
STILL — Playback is halted on one frame.
STOP — Tape rewind or playback is stopped.
Ch_ — VCR tuned to Channel _.


Don't forget to install three AAA type batteries in the Remote Control.

Operating your VCR(Video Cassette Recorder)

The main functions of your VCR can be operated using either the Remote Control or front control panel on the VCR. Before starting, you should ensure that your television and your VCR have been plugged in and switched on and that the video channel on your television is selected.

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Playing a video tape

Press **PLAY** . The television screen will display **PLAY**.

Auto tracking

Your VCR will automatically adjust the tracking to give you the best picture quality.

Manual tracking

If noise appears on the screen during playback, press either **CH/TRK** () on the remote control until the noise on the screen is reduced.

Stopping play








Simply press **STOP**  to halt video play. The VCR will revert to television mode.

Picture Search

While a video cassette is playing you can search the tape forward and backward to look for a specific position on the tape.

Press **REW**  or **FF**  to make the tape play rapidly forwards or backwards.

Fast Forward / Rewind


To fast forward or rewind at maximum speed, the tape must not be in play mode. Press **STOP**  then press either **REW**  for rewind or **FF**  for fast forward. While you are rewinding or fast forwarding you can view the section you are passing. Press and hold (for a few seconds) either **REW**  or **FF** . Releasing **FF**  button or **REW**  button will return the VCR to normal rewind or fast forward operation.

Slow Motion Playback

Press **SLOW** during playback.


The tape will be played back at a speed 1/19 times slower than the normal speed.

During slow playback,

CH/TRK () on the Remote Control can be used to minimize noise bands.




When the slow mode continues for more than 3 minute, the VCR will automatically change to play mode.

Pausing a tape


Pressing **P/STILL**  will pause play, giving you a still picture on the screen. This picture may display some interference in the form of black and white horizontal lines. This is perfectly normal and does not mean that the video tape or VCR are damaged.

The tape can be paused for up to 5 minutes. The VCR will then automatically stop playing in order to avoid damaging the tape or your VCR.

Frame Advance

- 1 Pressing **P/STILL**  repeatedly will advance the picture frame by frame.
- 2 You can use **CH/TRK** () buttons to reduce any vertical movement seen on the still picture.
- 3 Press **PLAY**  to continue play from pause.

Removing the Video tape

Press **EJECT**  to remove the video cassette from your VCR. If the end of the tape is reached, your VCR will automatically stop, rewind, eject the tape and place itself into Standby mode.

Recording

- For all recording methods you should ensure the television channels are tuned and stored correctly and that the clock is set to the correct time.
- Set the TV to the VCR Output Channel (CH 3 or 4) or video input.
- Insert a video cassette with protection tab into your VCR.

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Normal recording

- 1 Set the desired speed (SP or EP) by pressing **SPEED**.
- 2 Use **CH/TRK** (▲▼) or **Number** buttons to select the channel to record.
- 3 Press **REC/ITR** ● once. The REC indicator appear on the TV screen and display window.

i EP provides three times as much recording time as SP, although SP produces better picture and audio sounds.

- If a cassette with no prevention tab is loaded, the cassette will be ejected automatically. ("NO TAB CASSETTE" message appears)

Instant Timer Recording(ITR)

ITR begins recording immediately either for a set period of time or until the tape runs out.

- 1 Turn on your VCR and television. Insert a video tape into the VCR. Select the video channel on your television.

To pause recording.

You can also interrupt recording to avoid unwanted scenes.

- 1 To pause recording press **P/STILL** ■. The REC PAUSE REC indicator will flash during pause mode on the display window.
- 2 Press **P/STILL** ■ again to continue recording. Tapes can be paused for up to 5 minutes. The RECP will be displayed on the display panel while a tape is paused. After 5 minutes your VCR will automatically cancel recording to prevent damage to the video tape or your VCR.

i If you press **P/STILL** ■ during ITR the VCR will enter the record pause mode and the set period of time is cancelled.

- 2 Use **CH/TRK** (▲▼) buttons to select which program you wish to record. The currently selected program will be displayed on screen. You can also select the program number using the Number buttons.

- 3 Press **REC/ITR** ● to begin recording. On the first press REC will appear on the television screen and REC will be displayed on the display panel. The VCR will start recording. It will continue recording until the end of the tape is reached or it is manually stopped.

- 4 To set the length of time which you want to record for, press **REC/ITR** ● button twice. The television screen will show 0H30. Each subsequent press of **REC/ITR** ● button will increase the recording time by 30 minutes to a maximum of 9 hours.

REC
SP 0H30
CH 4

To view one channel while recording another, press TV/VCR to disappear VCR on the display panel.

Using your TV remote control, switch to the channel you want to watch.

Finishing a recording

- 1 Press **STOP** ■.
- 2 Press **EJECT** ▲. EJECT will appear on the television screen. If the end of the tape is reached your VCR will automatically stop recording, rewind, stop and eject the tape and place itself into Standby.

Recording

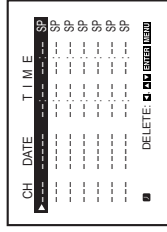
Allows you to specify a time at which the VCR will start recording. This can be done up to one year in advance with up to seven recordings being pre-programmed. Ensure the television channels have been tuned and stored correctly and that the clock is set to the correct time.

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Timer Recording

Insert a video tape.

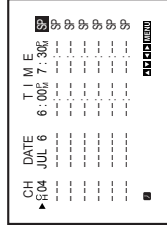
- 1 Press **MENU** for the main menu.
- 2 Use ◀ or ▶ to select then press **ENTER**.



- 3 Press **ENTER** to enter the timer record menu.
- 4 Use ▲ or ▼ to select channel number (or LINE1, LINE2)
- 5 Press ▶ and enter the date of the program that you wish to record. Press **ENTER** before entering a date to select one of the automated features. They are DLY (daily) to record every day except Saturday and Sunday at the set time, or individual days e.g. MO (Monday) to record at the same time every week. Use ◀ or ▶ to select, then press **ENTER** to confirm.

- 6 Enter the time of the start and end of the program that you wish to record. The VCR uses a 12 hour clock.

- 7 Press ▶ to select the recording speed. Use the ▲ or ▼ to move between SP and EP.



- 8 Check that the timer event details are correct, if they are, press **MENU** to save your settings. If **PLEASE CORRECT THE DATA!** is displayed you have entered incorrect information. Check the details on the television screen and re-enter it. If you want to enter more Timer recordings, repeat the above process from point 3. Press **MENU** again to remove the menu.

If all programs have been entered, **FULLY PROGRAMMED** message will appear.

- 9 Place the VCR on standby by pressing **POWER** button on the remote control. **TIMER** will appear in the VCR display to show that it is set to record. The VCR is now set to record at the time you have specified.

Changing timer events

If you wish at any time to change a recording event press ▲ or ▼ to select the timer slot that you wish to change.

Press ◀ to delete or **ENTER** to edit that entry. Use the ◀ or ▶ buttons to select the section you wish to change and the ▲ or ▼ buttons to change those sections.

CH	DATE	TIME	SP
RD4	JUL 6	5:00P	6:30P
RD5	JUL 8	7:00P	8:20P
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---

Dubbing and Editing

- 1 Connect the another VCR's (or camcorder's) Audio/Video outputs to your VCR.
- 2 Set the input channel "LINE1" or "LINE2". Press **INPUT** repeatedly to display "LINE1" (from AUDIO/VIDEO IN jacks at the rear) or "LINE2" (from AUDIO/VIDEO IN jacks at the front) on the TV screen.
- 3 Play the tape in the another VCR (or camcorder). If you have a TV attached to your VCR, you can see the video playing.
- 4 Press **REC/TR** on the recording VCR.
- 5 To edit out unwanted parts. Press **P/STILL** on the recording VCR while copying is in progress. Press **P/STILL** again to resume copying.
- 6 To stop copying. Press **STOP** on the recording VCR.

Advanced functions on your VCR(Video Cassette Recorder)

Your VCR has some advanced operations with features you may find useful.

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CM (Commercial Message) Skip

This enables you to skip past small sections of the video tape, such as commercial messages, television adverts or film trailers.

Press **CM SKIP** button on the remote control, during play. Each subsequent press of the button increases the amount of the tape which is skipped by 30 seconds, up to a total of 3 minutes (180 seconds). After the chosen time has passed normal play will automatically resume.

Resetting the digital tape counter

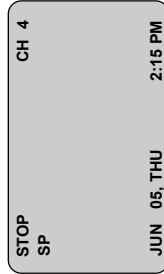
The tape counter displays the play or recording time elapsed in hours, minutes and seconds. Press **CLEAR** to reset the counter to **0:00:00**.

When you press **STOP** and press **REW** the VCR will stop at 0:00:00, the point where you reset the counter.

On screen display (OSD)

This can be used to display the current time, tape counter, tape remaining, day, month and year, day of week, channel and operational mode of your VCR on your television screen. If a recording is taking place, the on screen displays will not be recorded onto tape.

- 1 Press **ENTER** to show the OSD.



- 2 Press **ENTER** repeatedly to cycle through the display options. The tape counter and amount of tape left will appear if there is a tape loaded.
- 3 After 5 seconds the majority of the OSD will clear leaving only the clock or tape counter and the amount of tape left on the television screen.
- 4 Press **ENTER** again to remove all OSD's from the television screen.

To turn off the on screen displays completely.

- 1 Press **MENU** to enter the main menu.
- 2 Select **#00** using **◀** or **▶** then press **ENTER**.
- 3 Select **OFF** using **▲** or **▼**. Press **MENU** to save the setting.

Automatic power off

By pressing **POWER** button while rewinding a tape the VCR will turn off automatically when the tape rewind has completed.

ez(easy) Operations

Press	Operation
PLAY	Power On → Play back the tape
FF	Power On → Fast-forward the tape
REW	Power On → Rewind the tape
EJECT	Eject the tape → Power Off
REC/TR	Power On → Enter pause record mode if a cassette with no safety tab is loaded, the cassette will be ejected automatically.

ez Power Off

Press **ez POWER OFF** button during play. The VCR will automatically stop the tape, rewind to the beginning and eject the tape. It will then turn itself to standby.

ez Repeat

You can select a section of the video tape to repeat twice and then resume play.

- 1 Press and hold **ez REPEAT** button for more than 3 seconds. The VCR will automatically rewind for as long as **ez REPEAT** button is held.
- 2 Release the button when you want the replay to begin.
- 3 The VCR will then play the selected section twice.
- 4 To resume normal play from any position, press **PLAY** button.

Advanced functions on your VCR(Video Cassette Recorder)

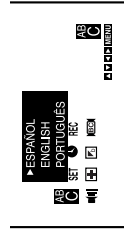
Your VCR has some advanced operations with features you may find useful.

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Language selection

It is possible to change the language that the on screen displays are shown in. You can choose among Español, English and Portuguese.

- 1 Press **MENU** to enter the main menu.
- 2 Select **C** using the ◀ or ▶ buttons.
- 3 Press **ENTER** to reveal the language choice screen. Select your desired language using the ▲ or ▼ buttons.



- 4 Press **MENU** to store the settings.

Setting the Clock

- 1 Press **MENU** to enter the main menu.
- 2 Use ◀ or ▶ to select **3** then press **ENTER**.



- 3 Use the ▲ or ▼ to set MONTH first, then press ▶ to move to next option. And then set DAY, YEAR and TIME by using ▼, ▲ and ▶.

The day of the week will appear automatically once the date has been entered. If you make a mistake use ◀ or ▶ to select the item and re-enter the details.

- 4 Once you are satisfied press **MENU** to store your settings. The new time will be displayed on the Display Panel.

OPR (Optimum Picture Response)

This enhances the picture from the video tape by adjusting to the condition of the video tape. If you feel that the picture needs adjusting you can manually change the OPR setting. You can only set OPR when a tape is playing in the VCR.

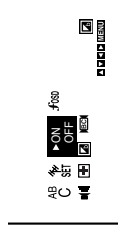
- 1 Press **MENU** to enter the main menu.
- 2 Use the ◀ or ▶ to select **4** then press **ENTER**.
- 3 Use the ▲ or ▼ buttons to select OFF, SOFT or HARD.



- 4 Press **MENU** to exit the menus.

Blue Background on-screen Function On/Off

- 1 Press **MENU** to enter the main menu.
- 2 Use ◀ or ▶ to select **5** then press **ENTER**.
- 3 Select a desired mode (ON or OFF) with ▲ or ▼ and then press **MENU**.




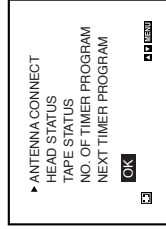
Advanced functions on your VCR(Video Cassette Recorder)

Your VCR has some advanced operations with features you may find useful.

Video Doctor

The Video Doctor will show the status of aspects of the VCR.

- 1 Press **MENU** to enter the main menu.
- 2 Use **◀** or **▶** to select  then press **ENTER**.
- 3 Use the **▲** or **▼** buttons to check the following features.



ANTENNA CONNECT

PLEASE CHECK : Connect the VCR to the antenna and TV correctly and securely.

HEAD STATUS

PLEASE CLEAN: The tape heads need cleaning

TAPE STATUS

NOT RECORDABLE: The Cassette in the VCR has had its protection tabs removed, insert a tape suitable for recording.

NO. OF TIMER PROGRAM

Shows the number of timer recording programmed.

NEXT TIMER PROGRAM


Shows the current status of timer recording.

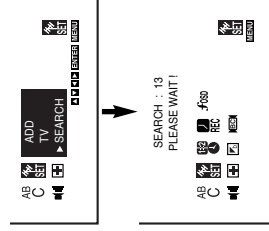
- 5 Press **MENU** to remove the menu from the television screen.

Tuning in TV Stations

i This convenient Auto Channel Set function can preset up to 181 channels in your area (VHF channels 14 to 69 and CATV channels 1 to 125) on the VCR.

Auto Channel Set

- 1 Press **MENU** to enter the main menu.
- 2 Use **◀** or **▶** to select  then press **ENTER**.
- 3 Press **▼** to choose the SEARCH item, then press **ENTER**.




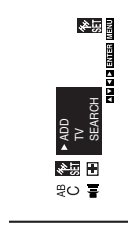
- 4 All available channels in your area are scanned and stored in the memory of the VCR. After scanning, the previous screen returns.

i When you perform the Auto Channel Set, the VCR automatically selects the band (TV or CATV) in which there are more channels to be preset. Remember, TV is for the air antenna reception, CATV is for cable or wireless cable connection.

You can change the band by using **▲** or **▼** to choose second item, then press **ENTER** to display TV or CATV.

Adding or Deleting VCR channels manually

- 1 Select a channel using the Number or **CH/TRK(▲/▼)** buttons to add or delete.
- 2 Press **MENU** to enter the main menu.
- 3 Use **◀** or **▶** to select  then press **ENTER**.
- 4 Use **▲** or **▼** to choose the first item, then press **ENTER** to choose between ADD and DEL(Delete)



- 5 Press **MENU** to exit the menu.


Advanced functions on your VCR(Video Cassette Recorder)

Your VCR has some advanced operations with features you may find useful.

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Sound settings


Your VCR can record and play back stereo sound. You can select the way sound is played back.

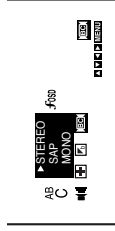
- 1 Press **MENU** to enter the main menu.
- 2 Use **◀** or **▶** to select  then press **ENTER**.
- 3 Use the **▲** or **▼** buttons to choose among below:
STEREO
LEFT (left channel only)
RIGHT (right channel only)
MONO
- 4 Press **MENU** to exit the menu.

i If audio output selection is selected at STEREO position while playing a prerecorded SAP audio program, the main language (Left) and the sub language (Right) will be heard simultaneously.
For SAP BILINGUAL playback do not use STEREO position. Select the RIGHT position.

Broadcast type selection for recording

You can select the broadcast audio format (STEREO, SAP or MONO) to use when recording. We recommend using STEREO.


- 1 Press **MENU** to enter the main menu.
- 2 Use **◀** or **▶** to select  then press **ENTER**.
- 3 Select a desired Broadcast type mode (STEREO, SAP, or MONO) with the **▲** or **▼** and then press **MENU**.

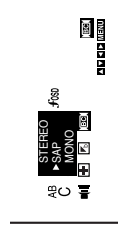


- 4 Do a recording. Follow "Recording" section on page 9.

SAP (Second Audio Program) recording

Some stations transmit a Second Audio Program, which is used for a sub language or additional information.

- 1 Press **MENU** to enter the main menu.
- 2 Use **◀** or **▶** to select  then press **ENTER**.
- 3 Select Broadcast type to SAP with the **▲** or **▼** and then press **MENU**.



- 4 Do a recording. Follow "Recording" section on page 9.

Do the SAP (Second Audio Program) recording if only the SAP appears on the TV screen.

Receivable Broadcast types

The following are possible audio broadcast type and on screen displays.
Press **ENTER** to display the broadcast signal currently being received.

MTS Stereo and SAP broadcast
Multi-channel Television Sound Stereo (main language) and Secondary Audio Program (sub language) broadcasts are being received simultaneously. Select STEREO or SAP broadcast type mode.

MTS Stereo broadcast
Multi-channel Television Sound Stereo broadcast. Select STEREO. If a stereo broadcast is weak and the display flickers, you may want to select the MONO audio mode for better picture.

SAP broadcast
Secondary Audio Program (sub language) broadcast. Select SAP audio mode for the sub language.

MONO broadcast
Normal monaural sound broadcast.

Troubleshooting

If you are having trouble with your VCR please check the following before contacting service.

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No picture and no sound

- Check that the VCR plug has been plugged in and switched on at a mains wall outlet and that the television has been plugged in and switched on.
- Check the antenna wire is undamaged and securely connected to the correct jacks in both the television and the VCR.
- Check that you have tuned into a video channel on your television.

No playback or a poor picture

- Try a different video cassette. If the problem is resolved, the problem may have been the cassette itself.
- Try using **CH/TRK(▲/▼)** button to reduce the amount of visible interference.
- If the cassette contains a recording that you have recently made from the television, the television channels may not be tuned to the VCR correctly.

TV programs cannot be recorded

- Check the reception on your television set. If you cannot receive a picture through your antenna, the VCR will be unable to record television broadcasts.
- Check the antenna wire is undamaged and securely connected to the correct outlet.
- Check that the VCR has been tuned to the television programs properly.
- Check the rear of the video cassette to see if the safety tab used to prevent recording has been removed.
- Check that the signal being received by the television is of reasonable quality.

The tape is ejected in the timer mode.

- The cassette has had the erase prevention tab removed. Stick a piece of adhesive tape over the erase prevention tab hole or select a different cassette.

A video tape cannot be inserted

- Check that there is not a cassette in the VCR already.
- Is the video cassette the right way round? The windows should be at the top and the arrow should be pointing toward the VCR.

The Remote Control does not work

- Has the VCR been plugged in?
- Check that the batteries have been inserted correctly into the Remote Control.

Autoplay does not work

- If the safety tab has not been removed from the video cassette this function will not work.

No Hi-Fi sound

- In the Audio menu check that the STEREO option has been selected.
- Check your television user guide to see if you have a stereo feature on your television.

The top of the video picture is unstable

- The video cassette may be damaged. Insert another video cassette and check the picture from it.
- Try adjusting the horizontal control on your television, you should consult your television user guide on how to do this.
- Check the antenna wire is undamaged and securely connected to the correct jacks.
- Ensure that the television has been correctly tuned to your VCR.

⚠ indication flashes.

- Insert a cassette.

Technical specifications

Specifications are correct at time of printing. LG is constantly innovating and products may change at any time without warning.

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GENERAL

Head System	Four head helical scan azimuth system
Power Source	AC 100-130V, 50/60Hz
Power Consumption	Approx. 18 Watts
Dimensions (WxHxD)	360 x 94.5 x 230 mm (14.3" x 3.8" x 9.2")
Operating Temperature	5 °C~35 °C (41 °F~95 °F)
Operating Humidity	Less than 80% RH
Timer	12-hour display type with AM, PM
Weight	Approx. 3.2 kg (7 lbs)
Tape Speed	33.35 mm/sec (SP mode) 16.67 mm/sec (LP mode) 11.12 mm/sec (EP mode)
Tape Width	12.7 mm
Maximum Recording Time	2 HOURS (T-120, SP mode) 6 HOURS (T-120, EP mode) 8 HOURS (T-160, EP mode)
Rewind Time	About 65 seconds (T-120)
TUNER	
Antenna	75 ohms (UHF), 75 ohms (VHF)
VHF Output Signal	Channel 3 or 4 (Switchable)
Channel Coverage	VHF: 2-13 UHF: 14-69 CATV: 4A, A~W, W+1~W+84, A-5~A-1

VIDEO

Video Signal System	EIA Standard (525 lines, 60 fields) NTSC type color signal
Input	1.0 Vp-p 75 ohms unbalanced
Output	1.0 Vp-p 75 ohms unbalanced
Signal to Noise Ratio	More than 43 dB (SP mode)
AUDIO	
FM audio	
Frequency Range	20Hz to 20kHz
Dynamic Range	More than 83 dB
Channel Separation	More than 55 dB
Conventional audio	
Input	-6.0 dBm more than 47 kohms (LINE)
Output	-6.0 dBm less than 1.5 kohms (LINE)
SN Ratio	More than 43 dB (SP mode)
Frequency Range	200 Hz to 10kHz (SP mode)

Supplied Accessories

- Coaxial Cable (1)
- Remote control (1)

P/NO : 3834RM0057F