

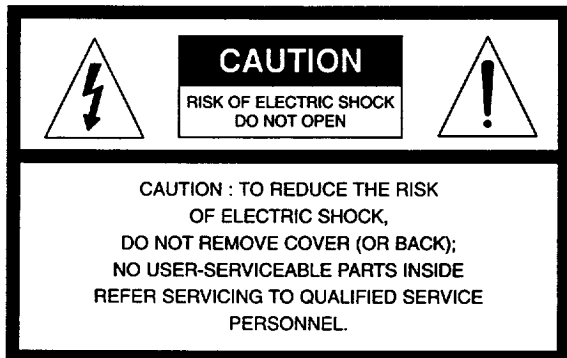
GoldStar

VIDEO CASSETTE RECORDER OWNER'S MANUAL

Before connecting, operating, or adjusting this product,
please read this instruction booklet carefully and completely.

GVR-F435

**WARNING : TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,
DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.**



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.

THIS VIDEO CASSETTE RECORDER SHOULD BE OPERATED WITH AC 120V, 60Hz CURRENT ONLY.



THIS VIDEO DECK IS A VHS TYPE RECORDER. FOR PROPER OPERATION, USE ONLY A VHS TYPE VIDEO CASSETTE.



VHS High Quality technology is incorporated into VCR's marked HQ. This unit is compatible with conventional VHS VCRs.

CAUTION : TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE PLUG CAN BE FULLY INSERTED WITHOUT EXPOSING ANY PARTS OF THE BLADES.

WARNING:

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.

MOISTURE CONDENSATION

If you pour a cold liquid into a glass, water vapor in the air will condense on the surface of the glass. This is moisture condensation. Moisture condensation on the head drum, one of the most crucial parts of the unit, will cause damage to the tape.

When the VCR is exposed to a rapid temperature change from cold to warm, some condensation will occur. Under this condition, connect the power cord to the AC line, press **POWER** button on and allow at least two hours for the VCR to dry out.

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. GVR-F435

Serial No. _____

REGULATORY INFORMATION

This equipment 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 in a residential installation! This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment 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 equipment and receiver.
- Connect the equipment 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.

CONTENTS

Features/Accessories	3
Important Safeguards	4
Installation/Wiring Diagram	6
VCR to TV Connection	6
Antenna to VCR Connections	7
Cable Antenna (CATV) Connections	8
VCR Output Channel Setting	9
Control Names and Locations	10
Remote Control Unit	12
Onscreen Display (OSD)	14
Setting the Onscreen Display	15
Channel Selection	16
Viewing TV Only	17
Video Cassette Tapes	18
Cassette Loading and Unloading	18
Setting the Clock	19
Normal Playback	20
Special Effects Playback	21
VISS/TIME Search	23
Normal Recording	24
Timer Recording	25
Instant Timer Recording (ITR)	28
Tape Counter Memory Feature	29
Editing a Recording	30
Auto-Rewind	30
Playback with TV Equipped with VIR	30
Operating Hints	30
Camcorder to VCR Dubbing and Editing	31
VCR to VCR Dubbing	31
Troubleshooting	32
Video Head Cleaning	33
Specifications	34
Warranty	Rear cover

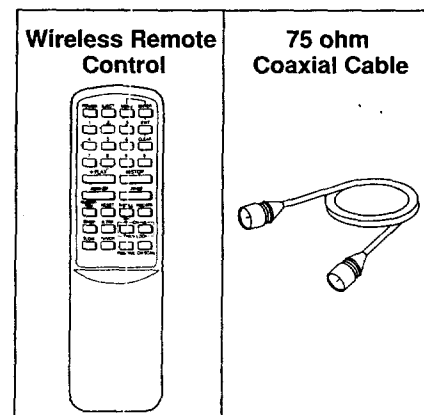
FEATURES

- Double Azimuth 4 Head System
- Quick Response Mechanism
- 181 Channel Frequency Synthesized Cable Compatible Tuner with Autochannel Programming and Multichannel Scan
- 1 Year/8 Event Timer with DAILY and WEEKLY Function
- High Quality (HQ) Picture Enhancement System for Improved Image Sharpness and Detail
- Auto Power and Playback Functions
- ITR (Instant Timer Recording)
- Real-Time Tape Counter, Tape Remaining Time
- Jet Search/Logic Search/CM Scan
- Clean Still, Slow, Frame Advance
- Auto Tracking Function/Auto Head Cleaner
- VISS (VHS Index Search System) Function/Time Search
- Onscreen Display of Function
- Trilingual Onscreen Programming (English/Spanish/French)

ACCESSORIES

Check to make sure that all accessories listed right have been included with your VCR.

Note: Depending on your antenna system, you may need a different type of Combiner (Mixer) and Separator (Splitter). You can purchase them at most electronics stores. For further details, ask your nearest authorized service center.



IMPORTANT SAFEGUARDS

1. **Read Instructions** — All the safety and operating instructions should be read before the product is operated.
2. **Retain Instructions** — The safety and operating instructions should be retained for future reference.
3. **Heed Warnings** — All warnings on the product and in the operating instructions should be adhered to.
4. **Follow Instructions** — All operating and use instructions should be followed.
5. **Cleaning** — Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

Exception: Products meant for continuous use, such as a cable converter, may be left plugged in.
6. **Attachments** — Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. **Water and Moisture** — Do not use this product near water, or near moist or damp areas.
8. **Accessories** — Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
9. **Movement with Accessories** — Moving this product while positioned on a cart should be done carefully. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
10. **Ventilation** — Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating. And these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been followed.
11. **Power Source** — This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other source, refer to the operating instructions.
12. **Grounding or Polarization** — This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
13. **Power-Cord Protection** — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at plugs and the point where they exit the product.

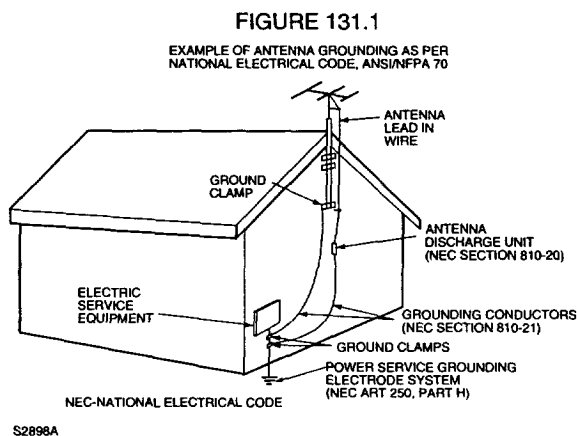
Figure 131.2 - Portable cart warning



S3125A

14. Protective Attachment Plug — This product is equipped with an attachment plug featuring overload protection. This is a safety feature. See Instruction Manual for replacement or resetting of protective device. If replacement of the plug is required, be sure the service technician has used a replacement plug specified by the manufacturer that has the same overload protection as the original plug.

15. Outdoor Antenna Grounding — If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information regarding proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure 131.1.



16. Lightning — For added protection for this product during a lightning storm or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

17. Power lines — An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

18. Overloading — Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

19. Object and Liquid Entry — Never push objects of any kind through openings into this product as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

20. Servicing — Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

21. Damage Requiring Service — Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- a. When the power-supply cord or plug is damaged.
- b. If liquid has been spilled or objects have fallen into the product.
- c. If the product has been exposed to rain or water.
- d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- e. If the product has been dropped or the cabinet has been damaged.
- f. When the product exhibits a distinct change in performance-this indicates a need for service.

22. Replacement Parts — When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

23. Safety Check — Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

24. Wall or Ceiling Mounting — The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

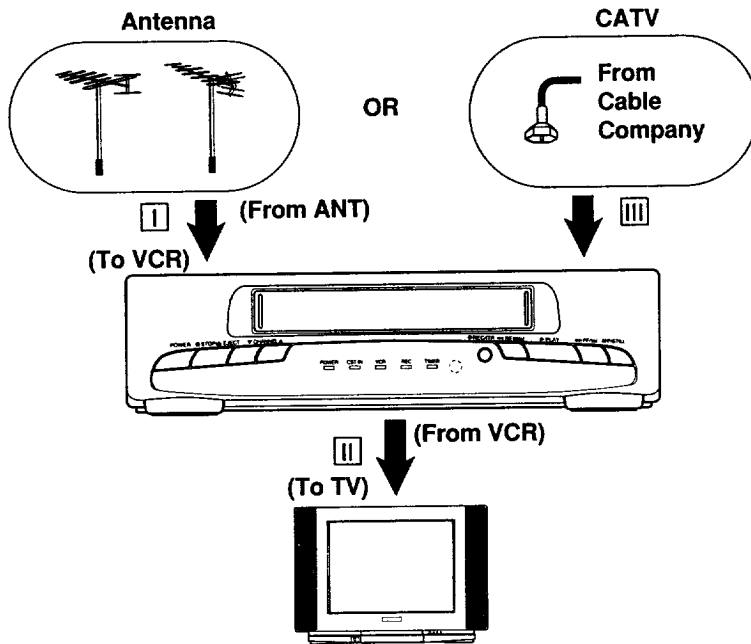
25. Heat — The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

INSTALLATION

Placing your VCR on the top of or under the TV receiver may result in interference appearing on the TV screen when the VCR is on. If this occurs, move the VCR to a position alongside the TV receiver.

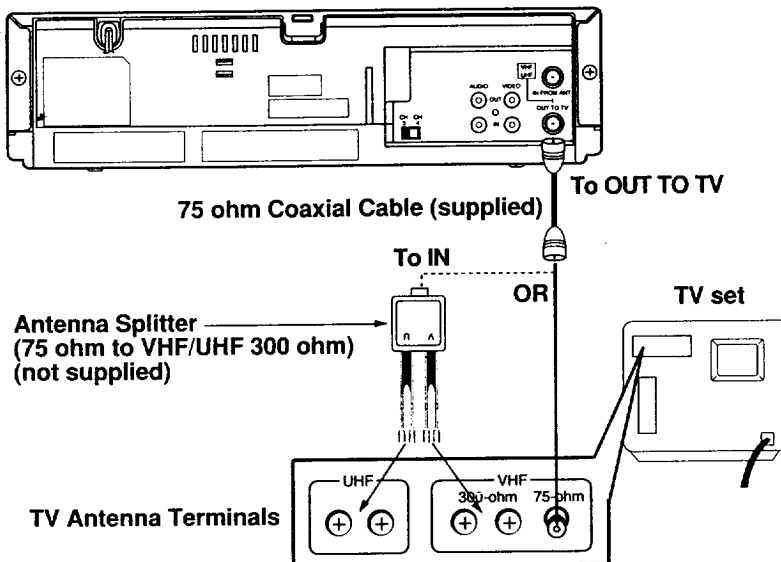
WIRING DIAGRAM

Typical wiring for your VCR is shown below.



- I : See ANTENNA TO VCR CONNECTIONS on page 7.
- II : See VCR TO TV CONNECTION on page 6.
- III : See CABLE ANTENNA (CATV) CONNECTIONS on page 8.

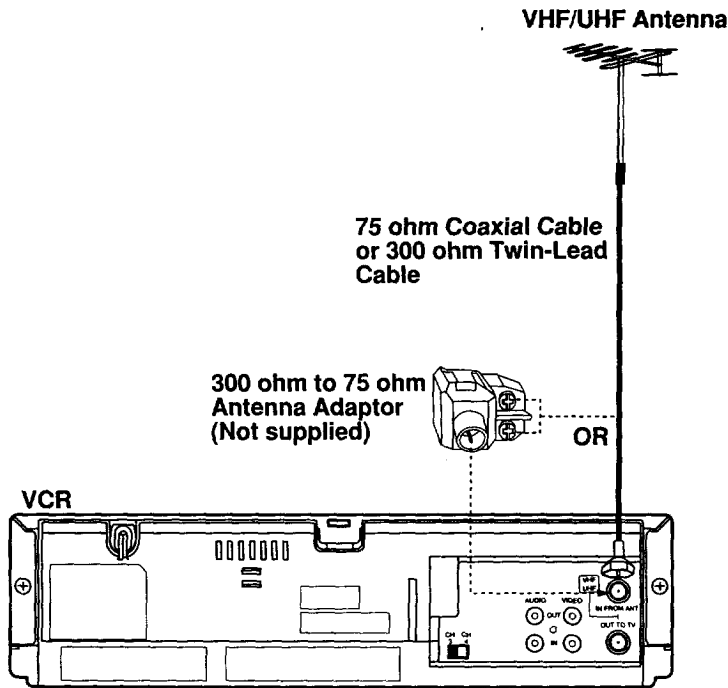
VCR TO TV CONNECTION



1. Connect the 75-ohm Coaxial Cable to OUT TO TV on the VCR. Connect the other end to the 75-ohm antenna input, or to the screws labeled VHF on back of the TV.
2. If UHF is used in your area, a separate splitter may be needed. If applicable, connect the wires marked UHF on the Splitter to the UHF terminals on the rear of your television. See illustration left.
3. Connect the wires marked VHF on the Splitter to the VHF terminals on the rear of your television.

ANTENNA TO VCR CONNECTIONS

ANTENNAS WITH ONE LEAD (Combined VHF-UHF)

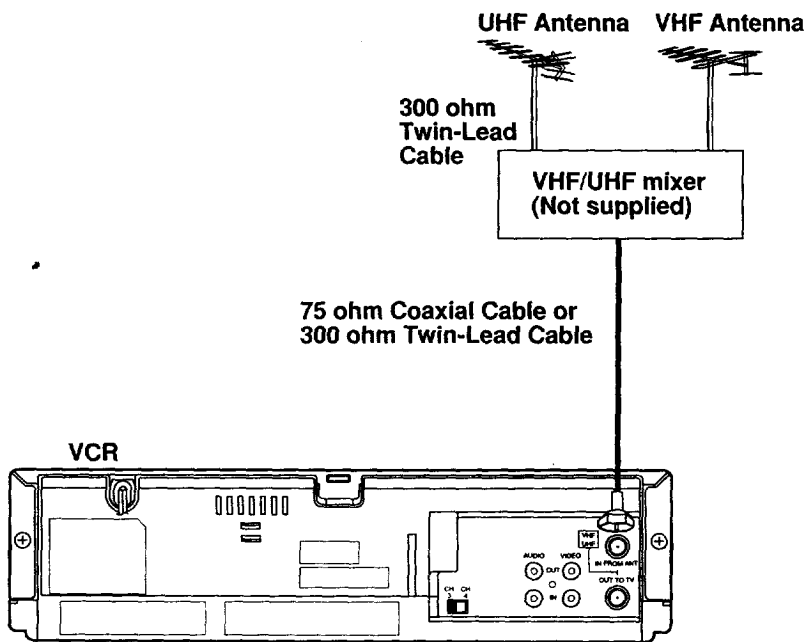


1. Disconnect the antenna leads from the rear of the TV receiver.

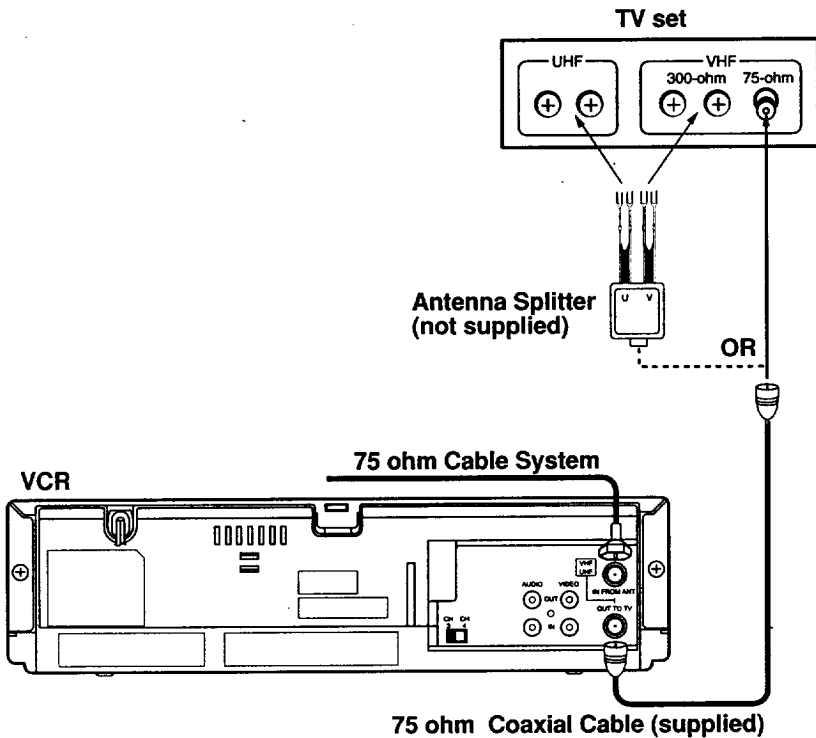
2. Identify the type of cable from your antenna. If it is a round cable as illustrated, it is a 75-ohm coaxial antenna cable. This cable will connect directly to the connector marked IN FROM ANT on your VCR.

If your antenna lead wire is a flat type antenna cable, connect it to a Antenna Adaptor (300-ohm to 75-ohm) (not supplied) and slip the Adaptor onto the IN FROM ANT terminal. The Adaptor does not screw on to the VCR, it just slips over the connector.

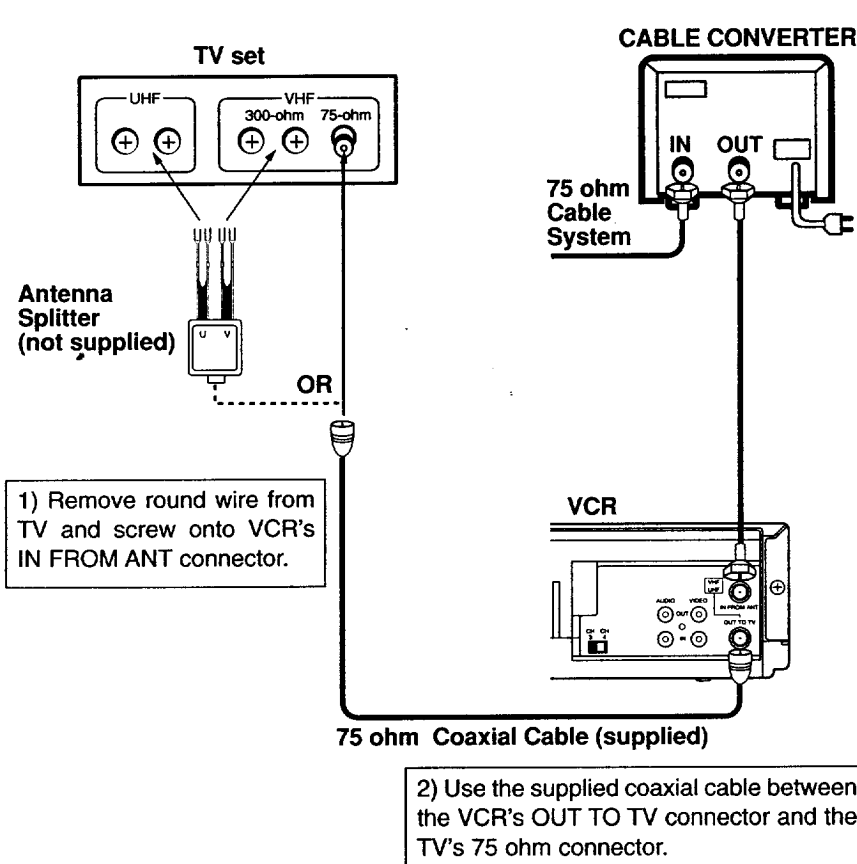
ANTENNAS WITH SEPARATE VHF-UHF LEADS



CABLE ANTENNA (CATV) CONNECTIONS

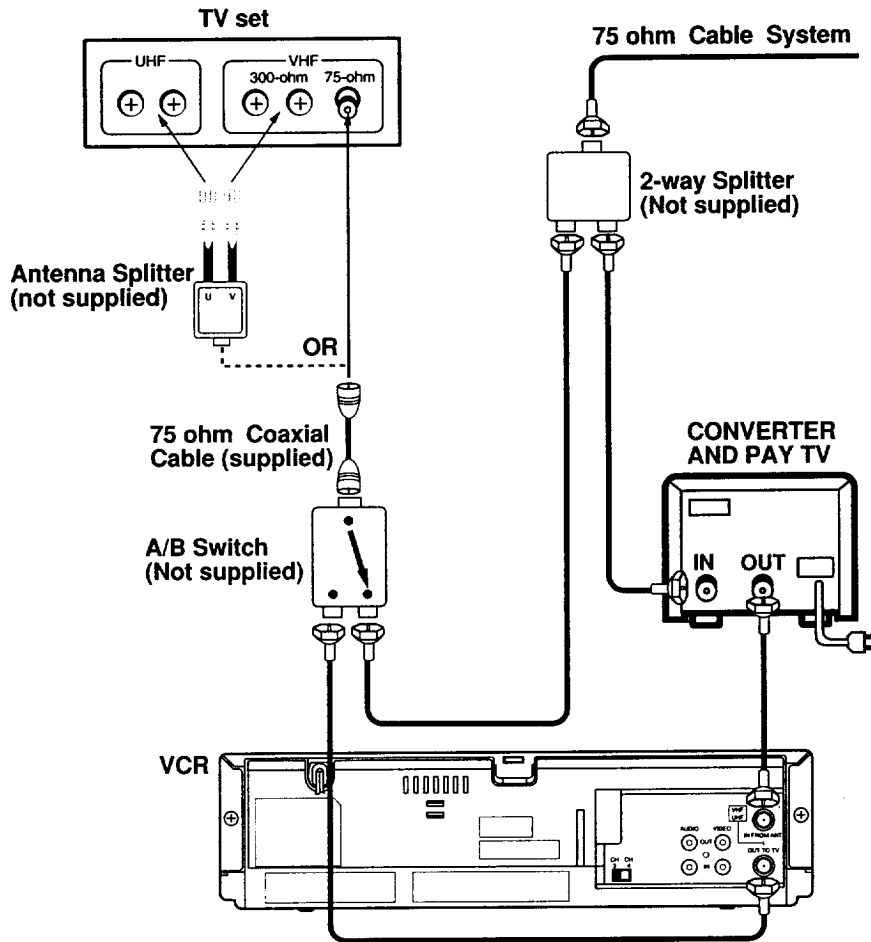


If your cable wire is connected to your TV without a converter or descrambler box, unscrew the wire from your TV and attach it to the IN FROM ANT terminal on the VCR. Use the supplied round coaxial cable to connect between the VCR's OUT TO TV connector and the 75 ohm VHF input connector on the TV. With this connection, you can receive all midband, super band, and hyperband channels.



CABLE and PAY TV reception area (scrambled signals)

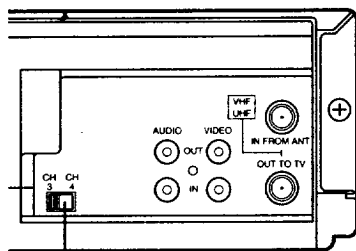
If a converter is required in your cable system, follow the instruction below: The cable hookup left permits both TV and VCR operation. However, it is not possible to view one channel while recording another. All VCR recordings are from whichever channel your converter is set to.



The cable hookup left allows you either to view and record the same channel (scrambled or non-scrambled signal), or to view one channel (non-scrambled signal) while recording another channel (scrambled or non-scrambled signal).

Note to CATV system installer: 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.

VCR OUTPUT CHANNEL SETTING



VCR OUTPUT CHANNEL SWITCH

During playback of a video tape, and when the *TV/VCR* button is set to the VCR position, the VCR OUTPUT converter changes the video and audio signals to the same type of signals that are used for TV broadcasts. Set the VCR OUTPUT channel switch (marked CH3, CH4 and located on the rear panel) to channel 3 or 4. Select the channel that is not used for TV broadcasts in your area.

This is your VCR OUTPUT channel. To play a tape, or to watch TV using the VCR's built-in tuner, always set your TV's channel selector to the same channel (3 or 4).

CONTROL NAMES AND LOCATIONS

FRONT

OPERATION INDICATORS

Details are on the next page.

REC/ITR BUTTON

To record normally, press this button once. Press it twice to activate Instant Timer Recording (ITR).

CASSETTE COMPARTMENT

Where the video cassette is inserted.

REW BUTTON

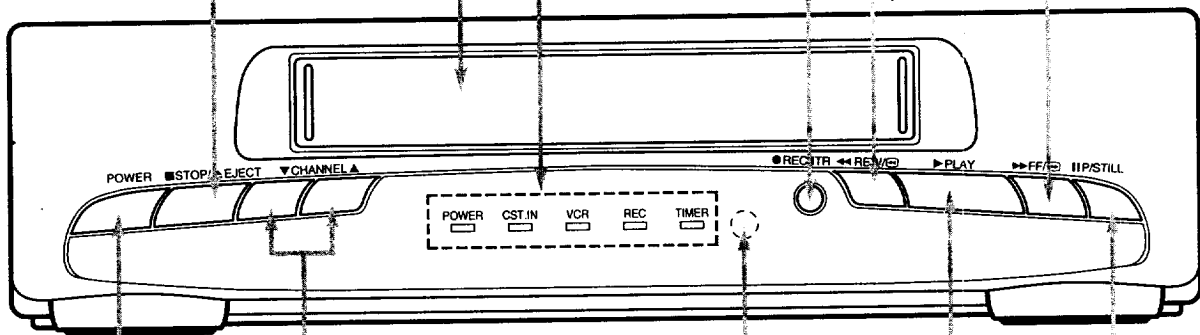
Press this button during the STOP mode to rewind the tape, or during the PLAY mode for fast reverse picture search (REVIEW mode).

STOP/EJECT BUTTON

To stop the tape, or eject a stopped cassette.

FF BUTTON

Press this button during the STOP mode to advance the tape, or during the PLAY mode for fast forward picture search (CUE mode).



POWER ON/OFF BUTTON

To turn the VCR on and off.

INFRARED REMOTE SENSOR

This sensor receives the signal from the infrared remote control.

CHANNEL (▼/▲) BUTTONS

To scan up or down through memorized channels or to adjust the manual tracking.

PLAY BUTTON

Press to play a recorded tape.

P/STILL BUTTON

Press for a temporary pause/still picture during PLAY or RECORDING.

During STILL mode: Press **PLAY** to resume viewing. Press to advance the video picture one frame at a time while viewing a still picture.

In RECORD mode: Press **P/STILL** once to pause and again to resume recording.

REAR

VHF/UHF ANTENNA INPUT CONNECTOR

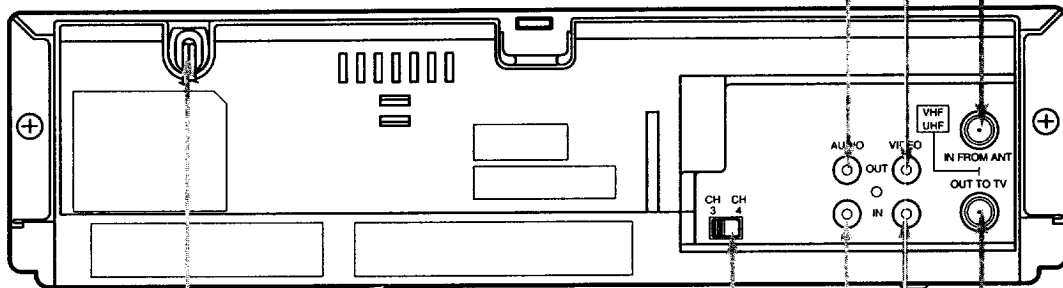
Connect the VHF/UHF antenna to this terminal.

VIDEO-OUT JACK

Connect this terminal to the video input terminal on an external unit, such as a monitor receiver or another VCR.

AUDIO-OUT JACK

Connect this terminal to the audio input terminal on an external unit, such as a monitor receiver, home audio system, or another VCR.



POWER CORD

Connect only to an AC 120V, 60Hz outlet.

RF CHANNEL SELECT SWITCH

Set this switch to channel 3 or 4.

AUDIO-IN JACK

Connect the audio output cable from an external unit to this terminal.

VIDEO-IN JACK

Connect the video output cable from an external unit to this terminal.

VHF/UHF ANTENNA OUTPUT CONNECTOR

Connect this terminal to the VHF or UHF antenna terminals on the back of a TV.

INDICATOR PANEL

POWER Indication

This indicator lights when POWER button is pressed to ON.

VCR Indication

This indicator lights when the TV/VCR selector is set to VCR.

TIMER Indication

This indicator lights when the VCR is in timer standby mode.

POWER



CST.IN



VCR



REC



TIMER



CST.IN Indication

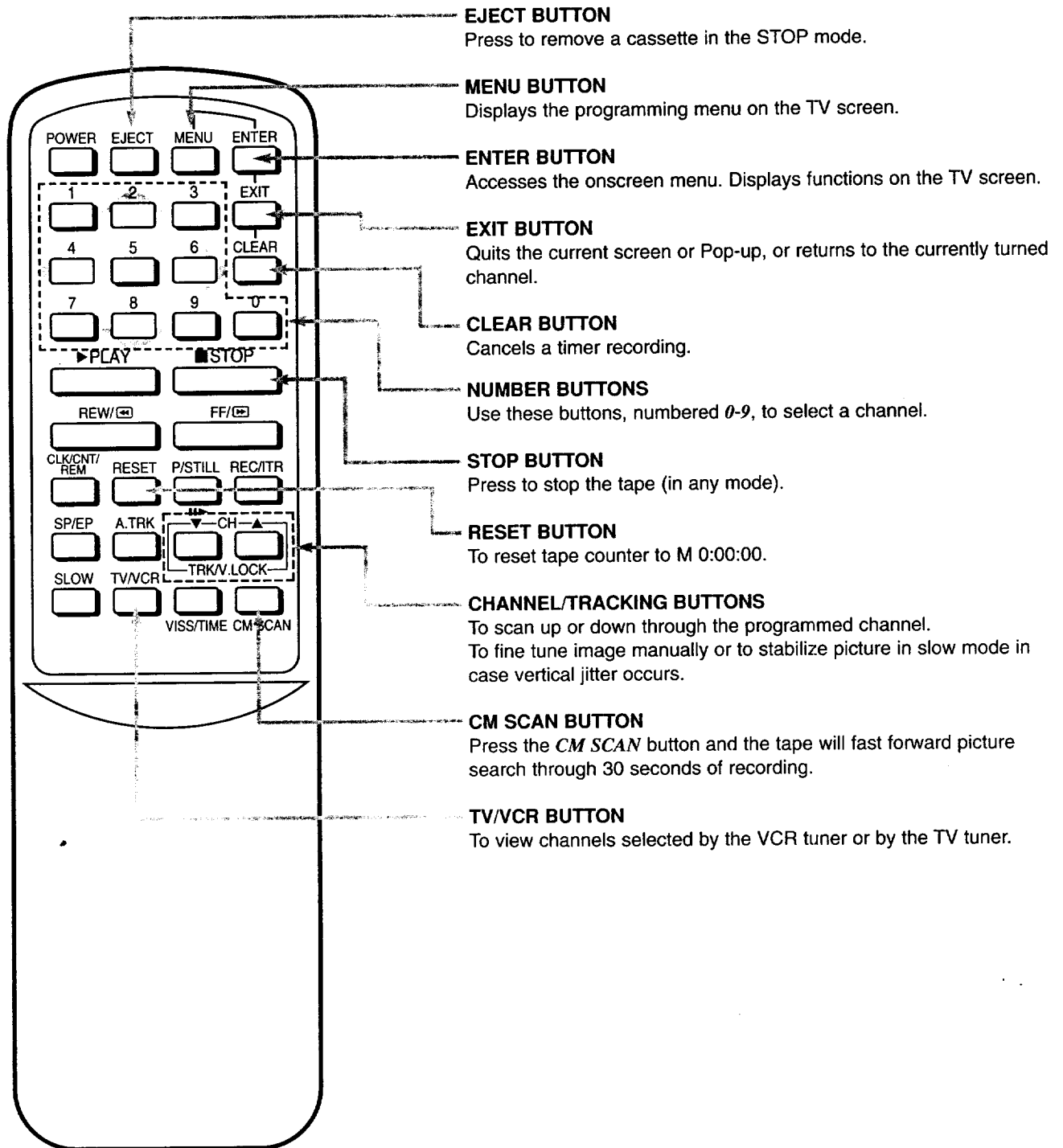
Lights to indicate a cassette is loaded.

REC Indication

This indicator lights when the VCR is in the recording mode.

REMOTE CONTROL UNIT

The remote control is used for most of the operations and features of the VCR. Before proceeding, put batteries in the remote and become familiar with the buttons. Use only type AA batteries. The maximum operating distance is about 25 feet. The **POWER**, **REW**, **PLAY**, **FF**, **P/STILL** and **REC/TR** buttons on the remote control unit perform the same functions as the corresponding buttons on the VCR. The remaining buttons are on the remote control unit only.



UP, DOWN, LEFT, RIGHT ARROWS (except the 5 button)
Move up, down, left, right one row, column, or selection (hold to repeat).

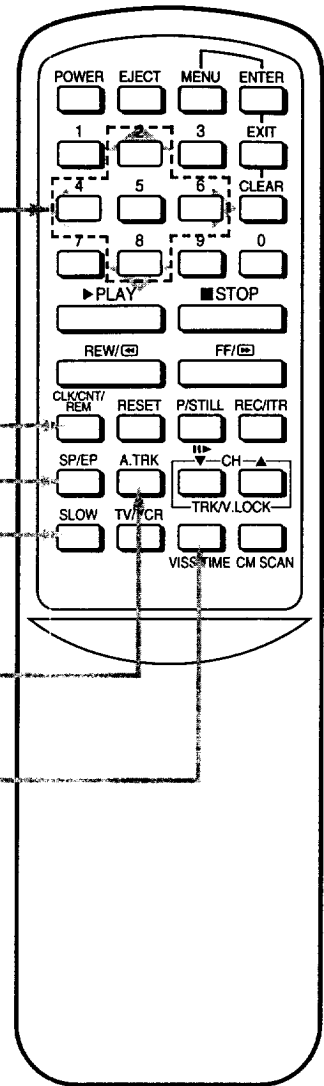
CLOCK/COUNT/REMAIN BUTTON
To switch among the clock, tape counter, and remaining tape time modes on the display.

SP/EP BUTTON
Use to select recording speed.

SLOW BUTTON
Press *SLOW* for slow motion playback during PLAY mode.

AUTO TRACKING BUTTON
Automatically adjusts the screen for a clear picture.

VISS/TIME BUTTON
Press this button once to enter the VISS function mode.
Press this button twice to enter the TIME search function mode.



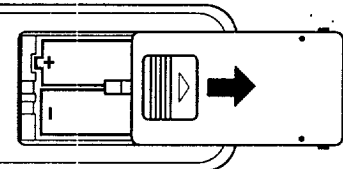
OPERATION OF REMOTE CONTROL

Aim the remote control unit at the sensor on the front panel of the VCR.

NOTES:

1. If the range is short, try new batteries.
2. An object between the VCR and remote control unit may block the invisible light beam and operation will be impossible.
3. Batteries installed backwards may leak and damage your Remote Control.
4. Do not mix old and new batteries or carbon types with alkaline types.
5. Remove the batteries from the battery compartment if the remote control will not be used for a long time.

HOW TO INSTALL THE BATTERIES IN THE REMOTE CONTROL UNIT



NOTES:

1. Be sure to install two AA size batteries before use.
2. Be sure to insert the positive ends of the batteries into the appropriate ends of the Battery Compartment.

ONSCREEN DISPLAY

ONSCREEN FUNCTION DISPLAYS

Some of these functions will be displayed every time the VCR is operated.

FUNCTION DISPLAY

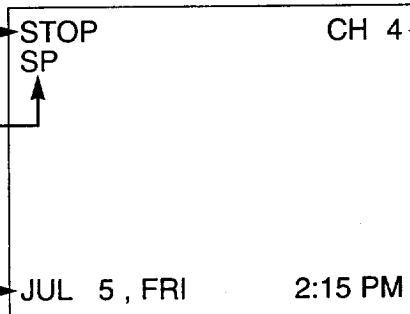
Indicates the function in progress.

TAPE SPEED DISPLAY

Shows on the current tape speed.

DATE DISPLAY

Shows the current date.
(Month/Day/Day of the week format)

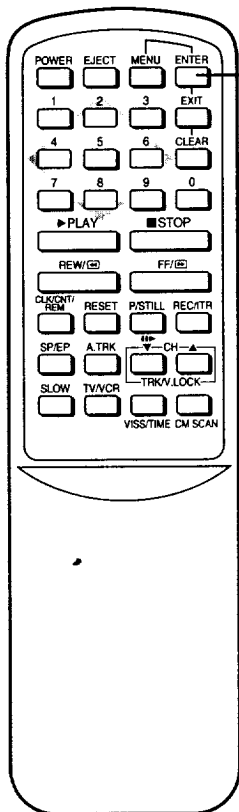


CHANNEL DISPLAY

Indicates the selected channel (or AV in AUDIO/VIDEO mode).

CLOCK/COUNT/REMAIN DISPLAY

Shows the current time (AM/PM format), the tape counter, or the estimated time remaining on the tape.



ENTER Button

ONSCREEN DISPLAY (OSD) MENU SYSTEM

The SETUP, clock setting, and timer recordings are accessed conveniently with Onscreen Menu Displays that lead you through each step. The following pages describe the Onscreen selections.

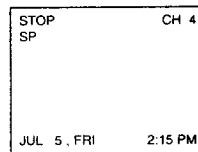
BLUE SCREEN DISPLAY

The blue screen display appears when an inactive TV channel is selected on the VCR.

- NOTES:**
- The TV/VCR button must be set to VCR.
 - The VCR output channel must be set to CH3 or CH4, as appropriate.

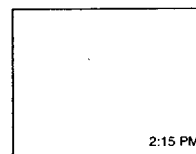
Each press of the **ENTER** button changes the TV screen in the following sequence. (FUNCTION OSD ON position in the SETUP menu.)

**One press-
(Full Function
Display)**



NOTE: After 3 seconds, Display will automatically disappear.

**Two presses-
(Only Clock or
Tape Counter)**

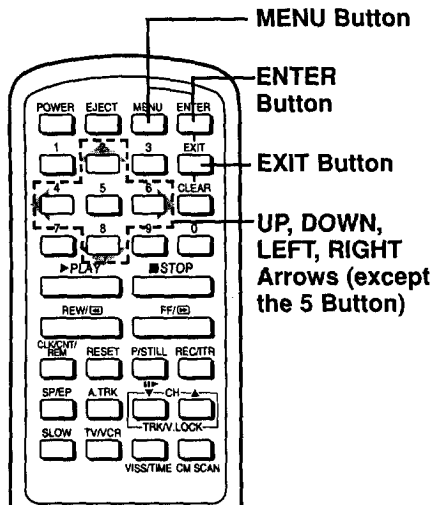


NOTE: The Clock (or Counter) mode will continue until you press the **ENTER** button again.

**Three presses-
(No Display)**



SETTING THE ONSCREEN DISPLAY



The SETUP, clock setting, and timer recordings are accessed conveniently with Onscreen Menu Displays that lead you through each step. The following pages describe the Onscreen selections to be set.

Before Using the Onscreen Display

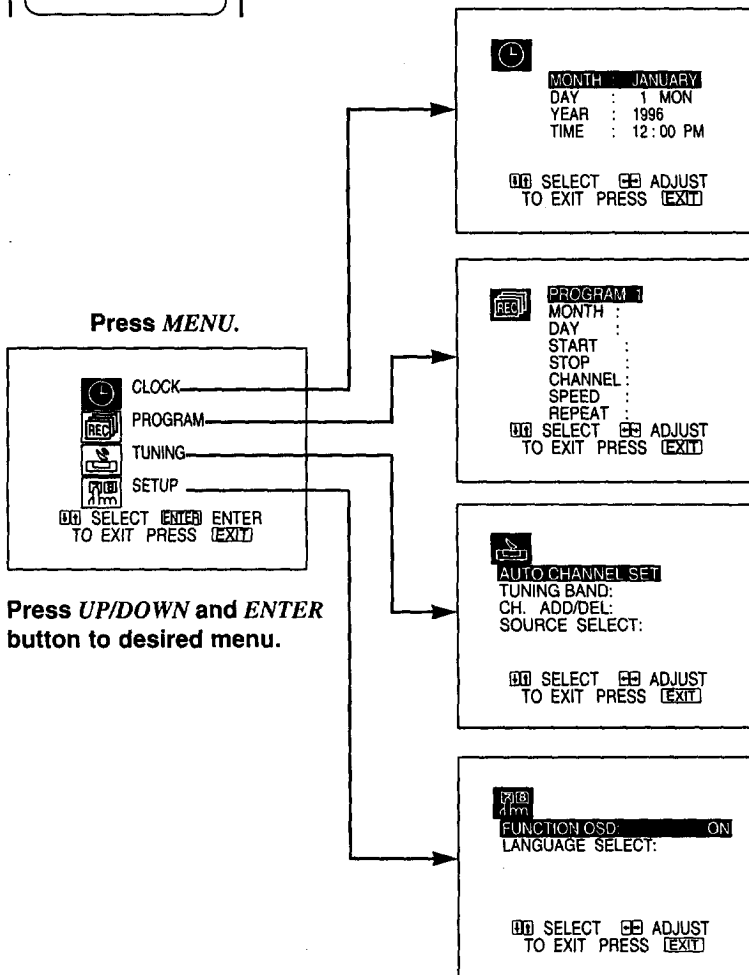
1. Plug in the VCR and turn the power on.
2. Switch on the TV and set the TV's channel selector to match the VCR's output channel (3 or 4).

NOTE: If a direct VIDEO/AUDIO connection is made between the VCR and the TV (via the RCA plugs), set the TV's source selector to VIDEO.

MENU SELECTION

Your VCR allows remote control adjustment of several features.

1. Press **MENU** button.
2. Select the desired menu with the **UP/DOWN** button and then press the **ENTER** button.



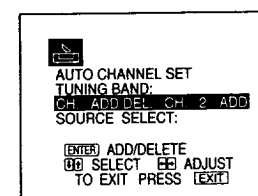
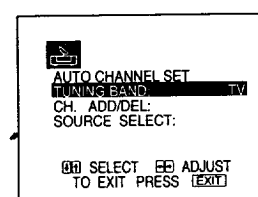
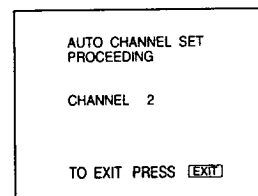
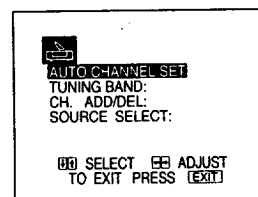
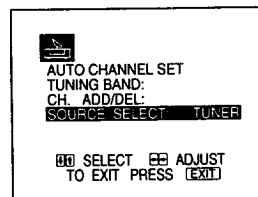
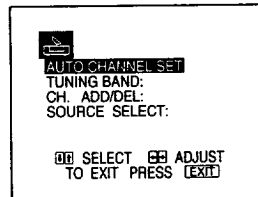
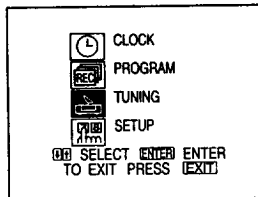
CLOCK SET - Details are on page 19.

PROGRAM - Details are on page 25-27.

TUNING - Details are on page 16-17.

SETUP

CHANNEL SELECTION



This VCR is equipped with a frequency synthesized tuner capable of receiving up to 181 channels. These include VHF channels 2-13, UHF channels 14-69 and CATV channels 1-125. Channel presetting is required, as described below, after the antenna connections have been completed (described on pages 7-9). You can use the **CHANNEL** (▼/▲) buttons only after channel programming is completed.

NOTE: Tuner programming requires the use of the remote control and a TV screen.

PREPARATIONS:

- Connect the VCR to the desired type of antenna or cable TV system, as shown in ANTENNA TO VCR CONNECTIONS.
- Switch on the power to the VCR and TV.
- Set the TV to the match the VCR output channel (CH 3 or 4).

ON THE REMOTE CONTROL

1. Press the **MENU** button until the MENU, as illustrated, appears on the TV screen.
2. Press **UP** or **DOWN** button to select the TUNING menu, then press the **ENTER** button. The TUNING menu will appear.
3. Press **UP** or **DOWN** button to choose the SOURCE SELECT item and **LEFT** or **RIGHT** button to select TUNER. Press **LEFT** or **RIGHT** repeatedly to switch between TUNER and AV.
4. Press **UP** or **DOWN** to choose the AUTO CHANNEL SET item. Press **LEFT** or **RIGHT** to set the channel. The tuner will automatically cycle through all available channels in the area and place them in the tuner's memory.
5. After the AUTO CHANNEL SET operation is complete, make sure the TUNING BAND is set appropriately (TV or CATV) by pressing the **UP** or **DOWN** button and choosing the correct TUNING BAND by pressing the **LEFT** or **RIGHT** button.
(Remember, TV is for the air antenna reception, CATV is for cable or wireless cable connection.)
6. Press the **EXIT** button to return to the TV screen.

NOTE: To check the presets, first set the TV to match the VCR output channel (CH 3 or 4). Then use the remote control or VCR **CHANNEL** (▼/▲) buttons to cycle the VCR through the channels in memory.

TO ADD OR ERASE CHANNELS FROM MEMORY

This feature allows you to add or remove channels from memory manually.

TO ERASE CHANNELS

1. Turn on the TV and tune to channel 3 or 4.
2. Turn on the VCR. The VCR indicator will light on the indicator panel of the VCR.
3. Press the **MENU** button until MENU appears on the TV as illustrated.
4. Press **UP** or **DOWN** to select the TUNING menu, then press the **ENTER** button.
5. Press **UP** or **DOWN** to choose the CH. ADD/DEL item on the TUNING menu. Press **LEFT** or **RIGHT** to choose the unwanted channel.
6. Press **ENTER** to erase the unwanted channel.
7. Repeat steps 5 and 6 until all unwanted channels have been removed.

TO ADD CHANNELS

8. Press **UP** or **DOWN** to choose the CH. ADD/DEL item on the TUNING menu. Press **LEFT** or **RIGHT** to choose the wanted channel.
9. Press **ENTER** to add the wanted channel.
10. Repeat steps 8 and 9 until all wanted channels have been added.

CHANNEL ON DISPLAY	CATV BROADCAST CHANNEL
01	4A
02	2
⋮	⋮
13	13
14	A
⋮	⋮
36	W
37	W+1
⋮	⋮
94	W+58
95	A-5
⋮	⋮
99	A-1
100	W+59
⋮	⋮
124	W+83
125	W+84

CABLE OPERATION

If cable television is available in your area, it can be received on your new VCR by subscribing to your local cable television company. Cable TV channels will then be supplied into your home through a cable. Your local cable television company can advise you of the channels available in your area and any special adaptors that may be required. To receive cable channels, set the TV/CATV selector to the CATV position (TUNING menu).

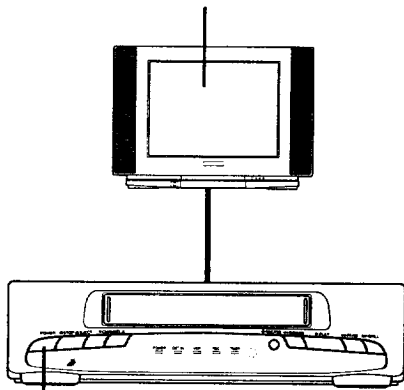
CATV CHANNEL NUMBERS

Your VCR can receive cable channels in addition to the regular channels (VHF 2-13, UHF 14-69). Cable channels are identified by a number, or in some cases, are the same as used by UHF channels.

Cable channels are considered to be VHF channels (not UHF). For example, CATV Channel 26 is not the same as UHF Channel 26.

VIEWING TV ONLY

Switch on the TV and set it to the channel that you wish to watch.



Set the **POWER** button to OFF.

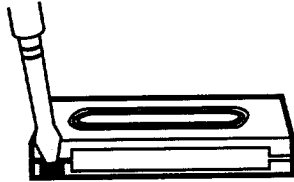
You don't need to disconnect the VCR from the TV to watch TV separately. When the VCR's power is OFF, or when the VCR's power is ON and the TV/VCR selector is set to TV, the TV will operate as if it were connected directly to the antenna or cable.

NOTES:

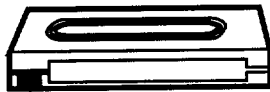
- The power cord must be plugged into an AC outlet.
- To view or record cable TV programs with the VCR, the VCR's TV/CATV selector must be set to CATV (TUNING menu).
- Do not place the VCR directly on top of the TV. This may cause interference in the picture and sound (of the VCR) during the recording or playback mode. If this interference occurs, locate the VCR away from the TV.

VIDEO CASSETTE TAPES

This VCR will operate with any video cassette which has the **VHS** mark. The table below shows the recording/playback time of VHS cassettes when they are used in the SP, LP and EP speeds. (LP speed is for playback only.)



SPEED \ TYPE	T-60	T-120	T-160
SP MODE	60 minutes	120 minutes	160 minutes
LP MODE	120 minutes	240 minutes	320 minutes
EP MODE	180 minutes	360 minutes	480 minutes

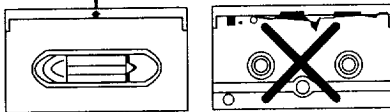


Vinyl tape

SAFETY TAB

To prevent accidental erasure, remove the tab the after recording.
To record again cover the hole with vinyl tape.

Arrow mark



WHEN HANDLING VIDEO CASSETTES:

- Do not expose video cassettes to extreme heat, high humidity, or strong magnetic fields.
- Do not tamper with the cassette mechanism.
- Do not touch the tape with your fingers.
- Always store an unused cassette in its case.
- Insert the cassette into the VCR as illustrated at the left with the label facing up (Arrow side up).

CASSETTE LOADING AND UNLOADING



LOADING

Hold the cassette with the arrow side up (top). Insert the cassette gently into the slot in the direction of the arrow (on the cassette) until the loading mechanism automatically pulls the cassette into the unit. Make certain that the cassette is inserted correctly.

NOTES:

- Do not force the cassette into the VCR.
- Insert the cassette gently.
- If the cassette is not loaded correctly, the VCR will eject the cassette automatically after approximately 3 seconds.
- The cassette indicator will light when the cassette is inserted and loaded correctly into the VCR.
- The automatic loading mechanism will operate only when the cassette is inserted correctly.



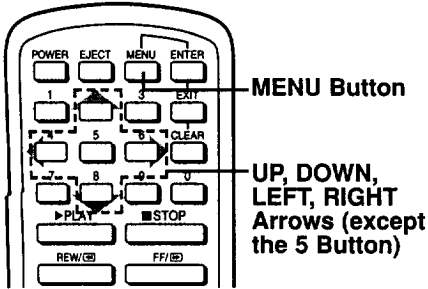
UNLOADING

Press the **STOP/EJECT** button twice. The cassette will be ejected automatically. After the cassette is visible in the tape slot, pull it out to remove it. Unloading the cassette is possible only when the power cord is connected to the wall outlet.

NOTES:

- The cassette indicator goes out when the **STOP/EJECT** button is pressed twice.
- The **STOP/EJECT** button can be pressed during any mode.
- Do not attempt to pull out the cassette once automatic loading has started.
- The cassette can be ejected when the **STOP/EJECT** button is pressed, even if the VCR's power is OFF.

SETTING THE CLOCK



Things to know before starting

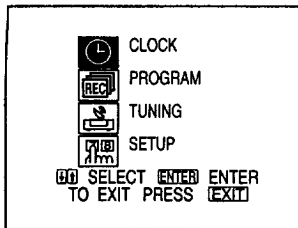
- The clock uses the 12-hour system. (Be sure to set AM and PM correctly.)
- The buttons for setting the clock are on the remote control.
- An illogical date will not be accepted (for example: February 30).

Check the following first...

- Turn on the power of both the VCR and TV.
- Be sure the TV is set to the VCR Output Channel (CH 3 or 4).
- Aim the remote control unit at the sensor on the front panel of the VCR.

NOTE: If a direct VIDEO/AUDIO connection is made between the VCR and the TV, set the TV's source selector to VIDEO.

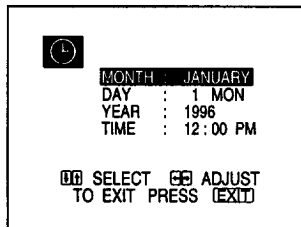
MAIN MENU



1. Press **MENU** button on the remote control. The MENU, as illustrated, will appear on the TV screen
2. Press **UP** or **DOWN** button to choose the CLOCK item. Press **ENTER** to enter selected item. The CLOCK menu will appear as illustrated to the left.

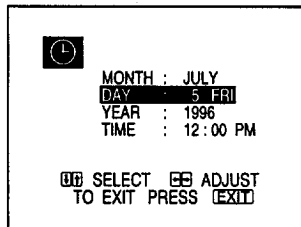
NOTE: The initial Clock Setting is JANUARY 1, 1996; 12:00 PM.

CLOCK SET MENU



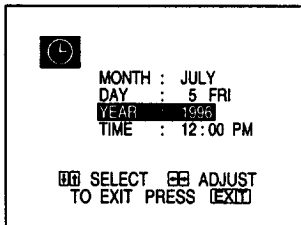
Example: July 5, 1996 ; 2:15 PM

3. Press **LEFT** or **RIGHT** button to choose the month.

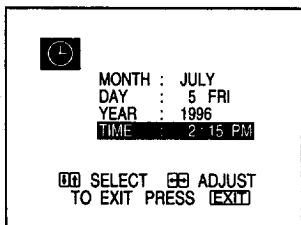


4. Press **DOWN** button to choose the DAY item. Press **LEFT** or **RIGHT** button to choose the day.

Note: The day of the week will display automatically.

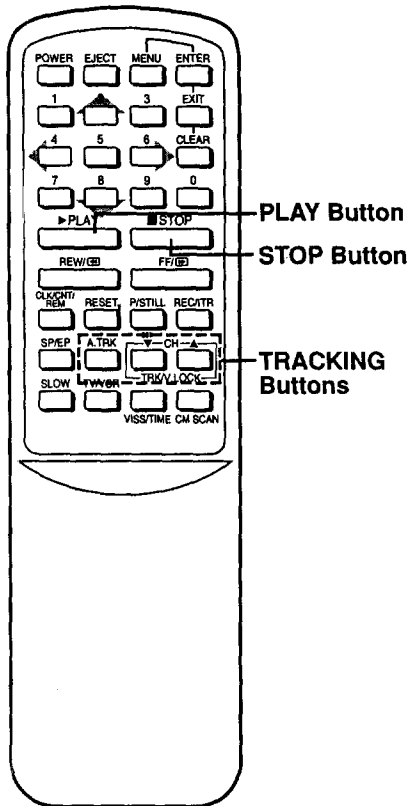


5. Press **DOWN** button to choose the YEAR item. Press **LEFT** or **RIGHT** button to choose the year.



6. Press **DOWN** button to choose the TIME item. Press **LEFT** or **RIGHT** button to choose the time.
7. Press **EXIT** button when finished.

NORMAL PLAYBACK



NOTES:

- Make sure that the Timer indicator in the VCR indicator panel is not lighted. If it is, press the **POWER** button once.
- This VCR is equipped with an Auto Power-On system which operates when a cassette is inserted into the VCR. Also, the unit will start the playback automatically if a tape without a record protect tab is inserted.

1. Insert a prerecorded video cassette. The cassette indicator will light and the VCR will power-up automatically.
2. Turn the TV set ON and select channel 3 or 4, the same as VCR's output channel.

NOTE: If a direct VIDEO/AUDIO connection is made between the VCR and TV, set the source selector on the television to VIDEO.

3. Press the **PLAY** button once.
 - It is not necessary to select the tape speed for playback. It will be automatically selected by the VCR.
 - In playback, the **TV/VCR** Selector switches to VCR mode automatically.
 - **PLAY** appears on the TV screen for a moment.
4. Press the **STOP** button to stop playback.
 - **STOP** appears on the TV screen for a moment.
 - At the end of the tape, the VCR will automatically stop, rewind, eject, and turn itself off.

TRACKING CONTROL

1. AUTO TRACKING

The automatic tracking function adjusts the picture to remove snow or streaks. The **A.TRK** indicator will flash on the screen when it is in operation.

The AUTO TRACKING function works in the following cases:

- A tape is played back for the first time.
- Tape speed (SP, LP, EP) changes.
- Streaks or snow appear because of scratches on the tape.
- **A.TRK** was pressed after manually adjusting the tracking.

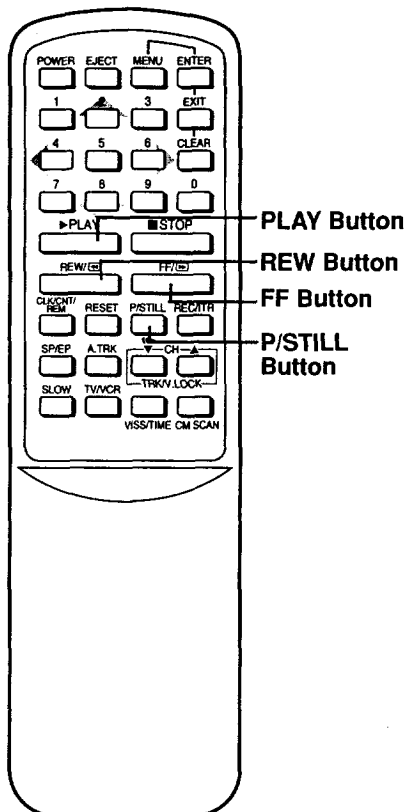
2. MANUAL TRACKING

If noise appears on the screen during playback, press either **TRK/V.LOCK** (**▼/▲**) buttons on the remote control until the noise on the screen is reduced.

NOTES:

- In case of vertical jitter, adjust these controls very carefully.
- Tracking is automatically reset to normal when the tape is ejected or the power cord is unplugged.

SPECIAL EFFECTS PLAYBACK



These special effects are available during playback. During their operation the audio is muted.

TO WATCH A STILL PICTURE

During **PLAYBACK** mode...

1. Press the **P/STILL** button.
Still picture will appear on the TV screen.
2. Press the **P/STILL** button repeatedly to advance the video picture one frame at a time while viewing as still picture.
The picture will slowly advance frame by frame when this button is held down.
3. To continue normal playback, press the **PLAY** button.

NOTES:

- If a still picture vibrates vertically, stabilize it by pressing the **TRK/V.LOCK** (▼/▲) buttons on the remote control.
- If the VCR is left in the **STILL** mode for more than 5 minutes, the VCR will automatically enter the **STOP** mode to protect the tape and video heads.

VISUAL SEARCH FUNCTION (CUE and REVIEW)

During **PLAYBACK** mode...

1. Press the desired search button (**FF** or **REW**).
This function lets you quickly and visually search for a desired tape section in either direction: forward (called **CUE**) and reverse (called **REVIEW**).
During playback, press either search button once to engage the visual search mode. **REV** or **CUE** will appear on the TV screen.
2. To continue normal playback, press the **PLAY** button.

NOTE: If the VCR is left in the **CUE** or **REVIEW** mode for more than 3 minutes, the VCR will automatically enter the **PLAY** mode, to protect the tape and video heads.

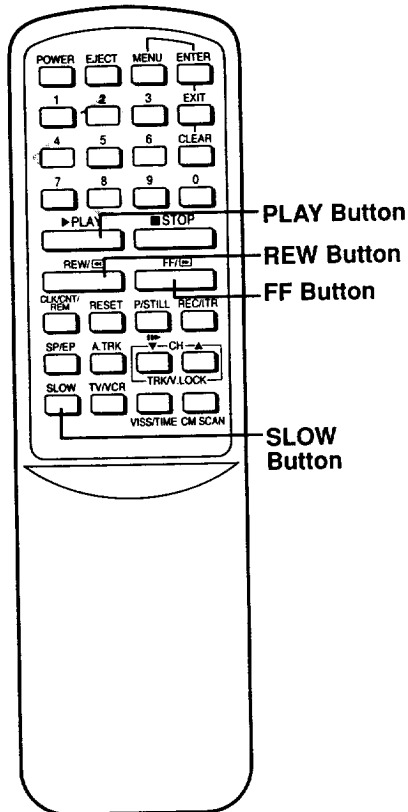
JET SEARCH (RAPID VISUAL SEARCH)

During the **CUE** or **REVIEW** mode...

1. When the search button (**REW** or **FF**) is held down during visual search (described above), the picture search speed will be faster (27 times faster than the normal playback speed of EP recorded tape, 17 times faster than the speed of LP recorded tape, and 9 times faster than SP recorded tape).
2. Release to return to normal playback.

NOTES:

- The audio is automatically muted in this mode, so there is no sound during search.
- Jet Search can be activated during playback of SP and EP recorded tapes. Tapes recorded in LP mode can also be viewed via Jet Search, but the picture may be very snowy.
- A short period is needed to stabilize tape speed when re-entering the **PLAY** mode. Slight interference may be observed during this period.



USING THE SLOW MOTION FEATURE

During PLAYBACK mode...

1. When you press the **SLOW** button during playback, the tape will be played back at a speed 1/19 times slower than the normal speed.
2. Press **PLAY** button to return to normal playback speed or press **STOP** button to stop tape movement.

NOTES:

- The slow feature is intended for use with SP and EP recordings. The LP recordings will contain too much noise (interference) to produce a viewable picture.
- During slow playback **TRK/V.LOCK** (▼/▲) buttons on the Remote Control can be used to minimize noise bands.
- When the slow mode continues for more than 3 minutes, the VCR will automatically change to play mode.

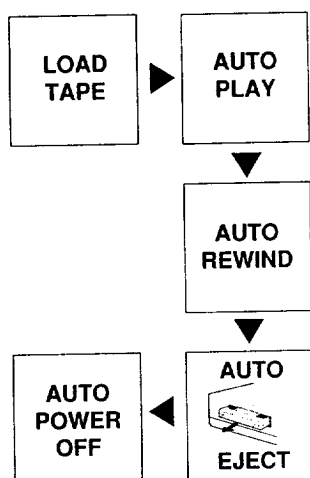
LOGIC SEARCH FUNCTION

The VCR must be in the STOP Mode.

1. Press the **FF** or **REW** button once. Fast winding begins.
2. Press and hold the **FF** or **REW** button again. Visual search (Cue/Review) begins so you can check what is on the tape.
3. The CUE or REVIEW mode will continue until the **FF** or **REW** button is released.
4. When released, Fast Forward or Rewinding resumes.
5. Press the **STOP** or **PLAY** button to stop the FF or REW mode.

PICTURE SEARCH NOTES:

- The Picture Search function may not provide a usable picture when searching a tape recorded in the LP mode.
- During the high-speed picture search modes, horizontal lines (noise bars) will appear on the TV screen. This is normal.



AUTO PLAY SYSTEM

This VCR features a convenient AUTO PLAY function.

If you insert a cassette tape without a safety tab into the VCR, the tape will begin playing automatically. When the tape is finished, it will rewind and be ejected, and it will turn itself off. This process is illustrated at the left:

AUTO POWER SHUT-OFF FUNCTION

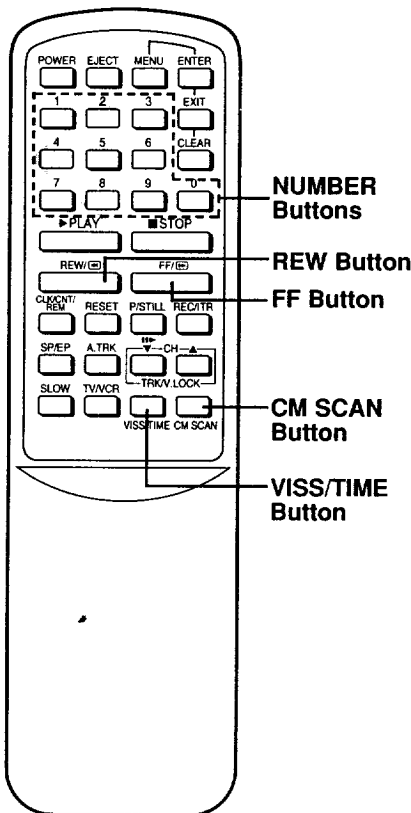
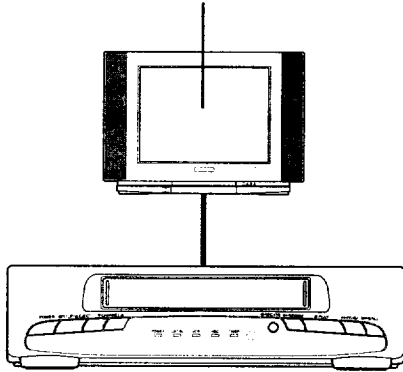
1. During the Rewind mode, press the **POWER** button once.
 - The VCR will enter the AUTO POWER SHUT-OFF mode. The REW indicator will flash on the TV screen.
 - After tape is rewound, VCR will turn off.
2. This feature is especially helpful when you finish watching a tape. Press **STOP**, **REWIND**, and **POWER**. The VCR will rewind the tape and turn itself off automatically.

VISS (VHS Index Search System)/TIME SEARCH

TV's POWER switch ON.

Select channel 3 or 4.

If a direct VIDEO/AUDIO connection is made between the VCR and the TV, the source selector on the television should be set to VIDEO.



The VHS INDEX SEARCH SYSTEM enables you to locate the beginning of any recording made on this VCR. Whenever a recording begins, an invisible INDEX mark is recorded on the tape. VISS SCAN lets you search out each VISS mark on the recorded tape and play 5 seconds before advancing to the next VISS mark. VISS SEARCH lets you find a specific recording on the tape by telling the VCR which VISS mark to search for. This feature makes use of VISS signals to search out a specified tape segment and begin playback automatically.

VISS SCAN

From the play or stop mode:

1. Insert a cassette tape that has VISS signals marked.
2. Press the *VISS/TIME* button once during PLAYBACK or STOP mode. The VISS 00 indicator will appear on the TV screen.
3. Press either the *FF* or the *REW* button and VISS will start. The indicator appears simultaneously during scanning. The tape will be rewound or rapidly advanced to the next signal marked.

The tape will be played back for approximately 5 seconds, and then rewind or rapidly advanced to the next VISS signal.

Every time a VISS signal is detected and playback begins, the displayed VISS scan number appears. (V.SCAN 00)

4. At the desired program, press the *PLAY* button. Normal playback of that program will begin.

VISS SEARCH

You can locate the desired program and play it back automatically by designating the number of its VISS signal. Up to the 99th VISS signal from the preset position on the tape can be located.

From the play or stop mode:

1. Press the *VISS/TIME* button once during PLAYBACK or STOP mode. The VISS 00 indicator will appear on the TV screen.
2. Enter the number of VISS signals you wish to skip. Up to 99 signals may be skipped from any given position on the tape.
3. Press either the *FF* or *REW* button once. The V.SEARCH 02 (for example) message appears on the TV screen. When the desired VISS signal is found, playback begins automatically.

NOTE: If the end of the tape is reached during forward VISS search, the VCR will automatically stop, rewind, eject, and turn itself off.

TIME SEARCH

Time Search allows you to skip forward or backward. When the search is completed, the VCR will automatically playback.

From the PLAYBACK or STOP mode:

1. Press the *VISS/TIME* button twice. The TIME SEARCH 0:00 indicator will appear on the TV screen.
2. Press a number button for the hour, then press two numbers for the minute. (For example, for 1 hour 25 minutes, press 1, 2, 5. For 5 minutes, press 0, 0, 5.)
3. Press the *FF* or *REW* button to skip ahead or back. The VCR will skip over the desired length of time and go into PLAYBACK mode automatically.

CM (Commercial Message) SCAN

During the PLAYBACK or STILL mode...

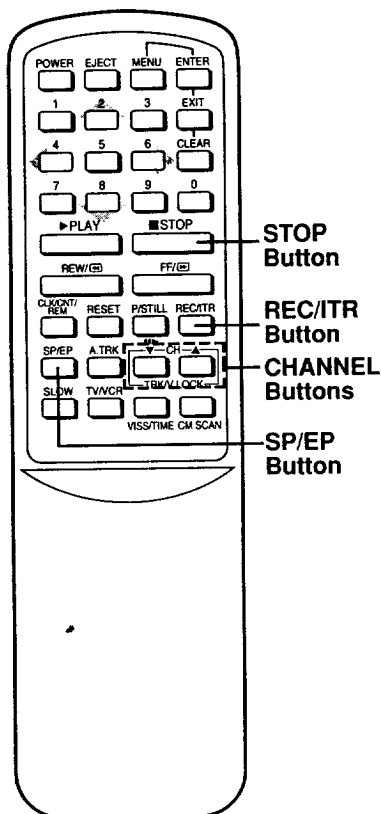
1. Press the *CM SCAN* button and the tape will fast forward picture search through 30 seconds of recording.
2. When the search is completed, the VCR will go into PLAYBACK mode automatically.

NOTE: If you want to skip once again, you must press CM SCAN button after the search is completed.

NORMAL RECORDING

PREPARATIONS:

- Make sure that the Timer indicator is OFF. If the Timer indicator appears, press the **POWER** button once. The indicator should go off. If the power indicator is not shown, press the **POWER** button again.
- Be sure that the safety tab is in place. If it is missing, the VCR will enter the AUTO PLAY mode when the tape is inserted. The full auto play function will start. Insert a cassette with tab in place, or cover the hole with a piece of cellophane tape.



1. Insert the VIDEO CASSETTE.
 - Cassette indicator appears on the indicator panel.
 - The POWER indicator will light.
2. Turn the TV set ON, and set the channel of your TV to channel 3 or 4, the same as selected on the VCR's output channel.

NOTE: If a direct VIDEO/AUDIO connection is made between the VCR and TV, set the source selector on the television to VIDEO.
3. Select the desired channel by using the Channel Selector buttons. The channel number appears on the TV screen.
 - If you are recording from another source via audio/video input jacks, press the 0 button twice to select AV. If you select AV, the AV will temporarily appear on the TV screen.
4. Set the desired speed (SP or EP) by pressing the **SP/EP** button.

NOTE: This VCR is not designed to record in LP mode.
5. Press the **REC/ITR** button once and REC will appear on the TV screen and the REC indicator will light on the indicator panel. Recording will start.

NOTE: If a cassette with no safety tab is loaded, the cassette will be ejected automatically.
6. Press the **STOP** button to stop recording.
 - If the tape reaches the end before **STOP** is pressed, the VCR will automatically stop, rewind, eject, and it will turn itself off.

To pause the recording: During the RECORDING mode...

1. Press the **P/STILL** button to pause the tape. RECP will show on the TV screen and REC indicator will flash on the VCR indicator panel.
2. When you want to continue recording, press the **P/STILL** button again. (Remember, after 5 minutes in pause mode, the tape will be stopped automatically to protect the tape and the video heads. If this should occur, you can continue recording by pressing the **REC/ITR** button again.)

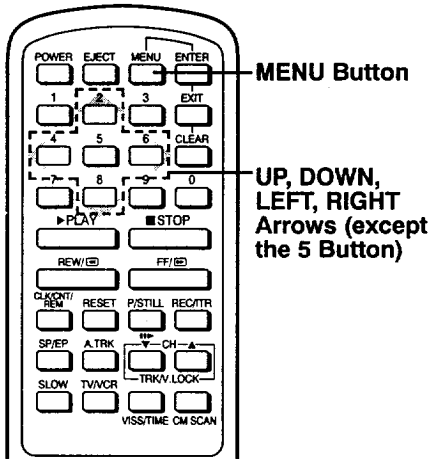
To record one TV program while watching another:

1. Follow steps 1-5 of normal recording.
2. Set the **TV/VCR** selector to TV. (The TV picture will change, but recording will continue.)
3. Using the TV, select the channel to be viewed.

NOTES:

- If a direct VIDEO/AUDIO connection is made between the VCR and the TV, set the source selector on the television to TV.
 - Always use the **P/STILL** button for best results when making changes during recording.
- For example: To change channels during recording, first press the **P/STILL** button to put the unit in pause mode. Then select the desired channel on the VCR, and press the **P/STILL** button again to resume recording.*

TIMER RECORDING



This VCR can be programmed to record up to 8 programs within a period of 1 year. For unattended recording, the timer needs to know the channels to be recorded and the starting and ending times.

Things to know before starting

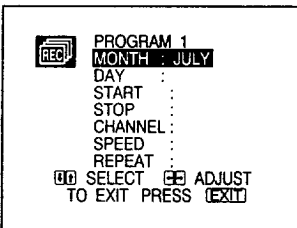
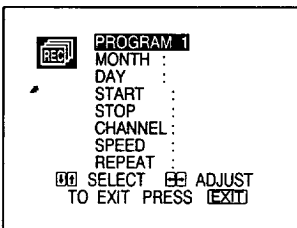
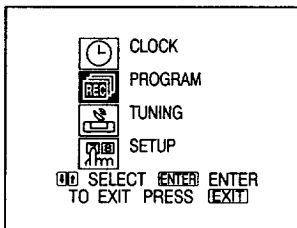
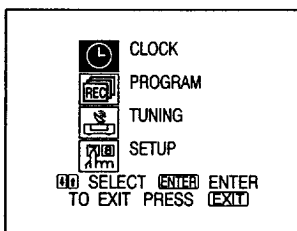
- If you try to set the program timer before setting the clock, PLEASE SET THE CLOCK appears for a moment and then CLOCK menu appears on the TV screen. Set the time and date before proceeding.
- The buttons for programming the timer are on the remote control.
- While you are programming the timer, the MENU display on the TV screen will prompt you through the procedures.
- The display contents will be automatically replaced by TV programs after 3 minutes.
- Make sure batteries are installed in the remote control.
- Make sure a tape is in the VCR and the safety tab is in place or the tape will be automatically ejected.

Check the following first...

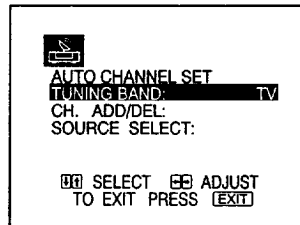
- Turn on the power of both the VCR and the TV.
- Be sure the TV is set to the VCR output channel (3 or 4).
- Aim the remote control at the VCR.

1. Press **MENU** button on the remote control. The menu will appear on the TV screen, as illustrated to the left.

MAIN MENU



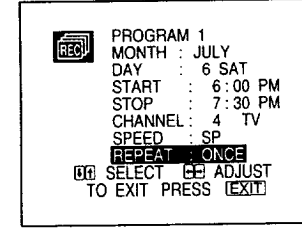
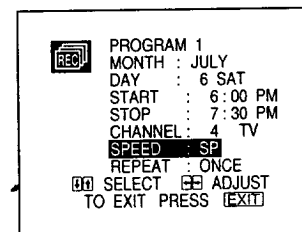
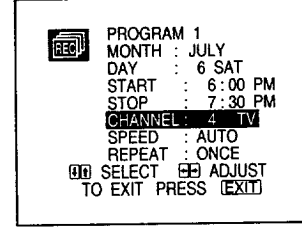
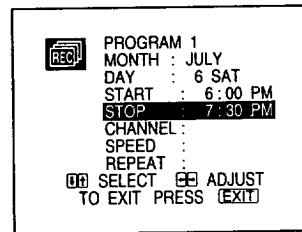
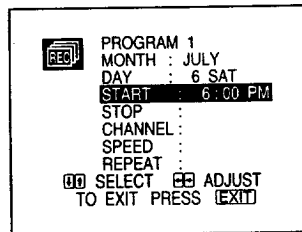
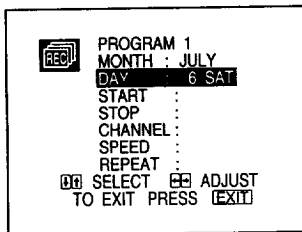
NOTE: Make sure the **TUNING BAND** in the **TUNING** menu is set appropriately (TV or CATV) (see illustration below).



2. Press the **DOWN** button to choose the PROGRAM menu.
3. Press **ENTER** to enter the PROGRAM menu.

NOTE: Press **LEFT** or **RIGHT** to choose the PROGRAM No. (1-8).
If all programs have already been entered, **FULLY PROGRAMMED** message will blink for a moment and then **PROGRAM 1** will appear on the TV screen.

4. Press **DOWN** button to choose the MONTH item.
Press **LEFT** or **RIGHT** button to choose the desired month.
Example: JULY



5. Press **DOWN** button to choose the DAY item.
Press **LEFT** or **RIGHT** button to choose the desired day.
Example: 6 SAT
6. Press **DOWN** button to choose the START item.
Press **LEFT** or **RIGHT** button to choose the desired start time.
Example: 6:00 PM
7. Press **DOWN** button to choose the STOP item.
Press **LEFT** or **RIGHT** button to choose the desired stop time.
Example: 7:30 PM
8. Press **DOWN** button to choose the CHANNEL item.
Press **LEFT** or **RIGHT** button to choose the desired channel (Channel or AV).
Example: CH 4
Cable Users: If you have CABLE TV and used example 2 in Cable Antenna Connections (pages 8-9), using a cable box converter, you must set the channel in this step to match the cable box output channel (usually CH 3 or 4). Change channels on the cable box instead of with the VCR.
9. Press **DOWN** button to choose the SPEED item.
Press **LEFT** or **RIGHT** button to choose the desired tape speed (SP, EP, or AUTO).
Example: SP
NOTE: The AUTO mode determines how much tape is left and switches speed from SP to EP, if necessary, to complete recording the program. There will be some picture and sound distortion at the point of the speed change.
10. Press **DOWN** button to choose the REPEAT item.
Press **LEFT** or **RIGHT** button to choose the desired repeat (ONCE, WEEKLY, or DAILY).
Example: ONCE

ONCE event....for recording up to 8 programs on a single day or over the days within a period of 1 year.

WEEKLY event....for recording up to 8 programs on a certain day of every week.

DAILY event....for recording up to 8 programs at the same time(s) Monday through Friday.

NOTE: If the input data is wrong, press UP button to select the data and correct it.

11. Press **MENU** button, the program will be memorized at the VCR.

- NOTES:**
- If the program preset time is past, the **PAST TIME PROGRAMMED** message will blink on the TV screen. Return to the incorrect program and program it with the correct time.
 - If you had entered a past date, the timer recording will be performed on that date of the next year.

Additional programs may be entered by repeating steps **3 - 11**.

12. Press *EXIT* button when finished.

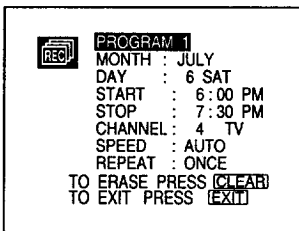
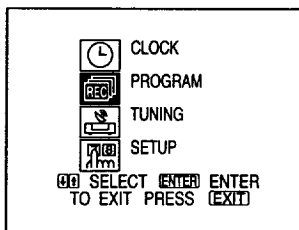
Cable Users: If your cable hookup is via a TV converter box, you can program multiple recordings only on the converter box output channel. This is because the converter determines what channel you view through your VCR.

NOTE: If you are finished programming and you want to set the VCR to record the programs you have entered.

A) **MAKE SURE YOU HAVE INSERTED A TAPE INTO THE VCR.**

B) **YOU MUST TURN OFF THE VCR BEFORE IT WILL RECORD ANY TIMER PROGRAMS.** (Timer indicator appears). The VCR is now set to record the preset programs.

The VCR must be off for timer recording to take place!



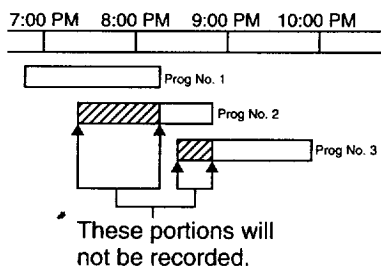
CHECKING THE TIMER PROGRAM

Programming can be checked whenever the VCR is turned on.

1. Press *MENU* button on the remote control. The MENU, as illustrated, will appear on the TV screen.
2. Press *UP* or *DOWN* button to choose the PROGRAM item. Press *ENTER* button to see the program review.
3. Press *LEFT* or *RIGHT* button to see the another program review.
4. Press *EXIT* button to return to the TV screen.

ERASING A TIMER PROGRAM

1. Press *MENU* button on the remote control. The MENU, as illustrated, will appear on the TV screen.
2. Press *UP* or *DOWN* button to choose the PROGRAM item. Press *ENTER* button to see the program review.
3. Select the program to erase by pressing the *LEFT* or *RIGHT* button.
4. Press *CLEAR* button to erase the program.
5. Press *EXIT* button to return to the TV screen.



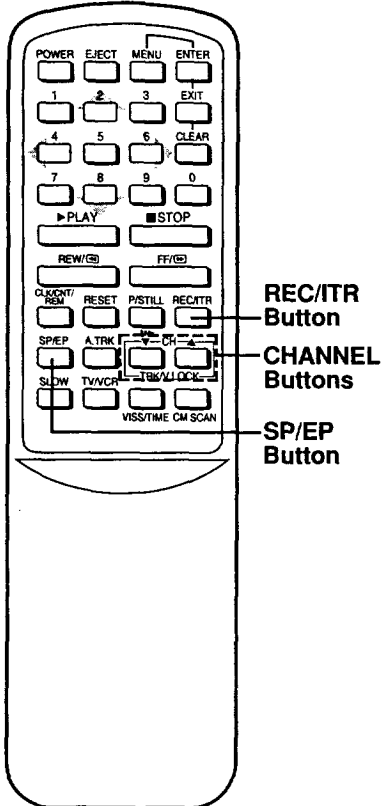
PROGRAM PRIORITY

If the recording start and end times of preset programs overlap on the same day (see the example and diagram left), program number 2 will not be recorded until program number 1 is finished.

The first part of program number 2 will not be recorded. The same thing will happen to program number 3.

INSTANT TIMER RECORDING (ITR)

Instant Timer Recording (ITR) allows you to make a recording easily of a preset length without using the program timer. Be sure that clock is set to the correct time before using the ITR.



Set the TV's POWER switch to ON. Select channel 3 or 4 to match the VCR's OUTPUT CHANNEL setting.

NOTE: If a direct VIDEO/AUDIO connection is made between the VCR and the TV, the source selector on the television should be set to VIDEO.

1. Insert the VIDEO CASSETTE.
The CST.IN indicator will light.

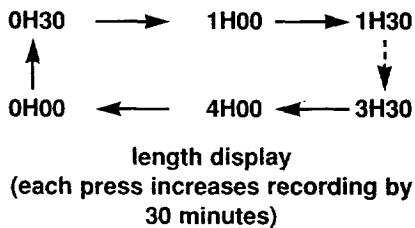
NOTE: The POWER is switched ON automatically when a cassette is inserted.

2. Select the desired channel by using the Channel Selector buttons.
The channel number appears on the TV screen.
 - If you are recording from another source via audio/video input jacks, press 0 button twice to select AV. If you select AV, the AV will temporarily appear on the TV screen.
3. Set the TAPE SPEED selector to desired speed (SP or EP) by pressing the **SP/EP** button. The tape speed will appear on the TV screen.
4. Press the **REC/ITR** button twice.
The ITR menu as illustrated, will appear on the TV screen.
5. Press the **REC/ITR** button again to select the recording time length.
6. At the end of recording the display will read **0H00**, the VCR will stop recording and shut off.

CHECKING THE ITR TIME

Press the **REC/ITR** button once to check the recording time. The recalled ITR setting will automatically return to the previous position display in 3 seconds.

INSTANT TIMER RECORD	
CHANNEL	2
SPEED	SP
START	NOW
LENGTH	0H30



TO EXTEND THE RECORDING TIME

The recording time can be extended anytime by pressing the **REC/ITR** button. Subsequent presses result in advancing the recording time by 30 minute increments.

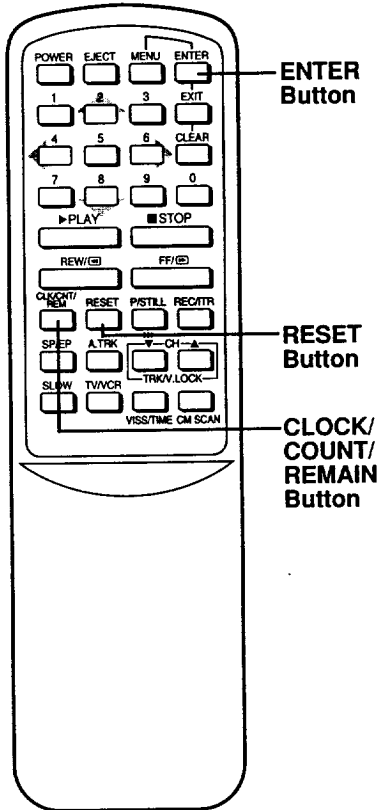
TO CLEAR ITR PROGRAM

1. You can clear ITR by pressing the **STOP** button.
2. The VCR will stop and ITR will be cleared.

NOTES:

- During Instant Timer Recording, you can't change the channel on the VCR.
- If you want to view another channel, press the **TV/VCR** button to TV mode, and then select the channel to be viewed with the TV's channel selector.

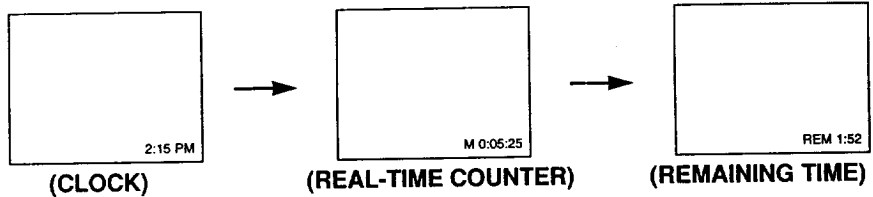
TAPE COUNTER MEMORY FEATURE



REAL-TIME COUNTER

Shows length of tape run in hours, minutes, and seconds. Press the *CLK/CNT/REM* select button to select the real-time counter display or clock display.

Every press of the *CLK/CNT/REM* select button changes the TV screen as follows.



NOTES:

- Counter changes to **M 0:00:00** when the cassette is ejected.
- The real-time counter does not operate when nothing is recorded on the tape.
- The *CLK/CNT/REM* button does not work when the tape is not inserted.

COUNTER MEMORY FUNCTION

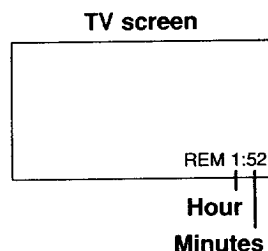
This is useful if there is a section of tape you want to view immediately after recording or if you want to return to the same point several times.

1. Begin recording or playing a tape.
2. Press the *ENTER* button twice to display the counter mode.
3. Press the *CLK/CNT/REM* button to display the real-time counter and **M** appears in the TV screen.
4. At the point where you want playback to begin, reset the real-time counter to **M 0:00:00** by pressing the *RESET* button.
5. Continue to play or record.
6. Press the *STOP* button when recording or playback finishes.
7. Press the *REW* button.
The VCR will stop at the beginning of the tape, or at the COUNTER MEMORY position **M 0:00:00** if that function is ON.

TAPE REMAINING

This function allows the time of the remaining tape to be displayed during recording or playback.

1. Press the *ENTER* button twice to display the counter mode.
2. Press the *CLK/CNT/REM* button on the remote control until the **REM** indicator lights on the TV screen.
3. Start recording or playback.



EDITING A RECORDING

1. Press the **PLAY** button and watch the program until you reach the exact point where you want the new recording to start.
2. Press the **P/STILL** button.
3. Press the **REC/ITR** button once. The program material to be recorded will appear on the television.
4. When you wish to start recording, press the **P/STILL** button again. The new program material will directly follow the previously recorded material. This feature is especially helpful during camcorder-to-VCR dubbing use so each segment of the recording becomes a continuous program.

AUTO REWIND

In manual recording, Timer recording, Instant Timer Recording, playback, or fast forward modes, the VCR automatically starts rewinding the tape at the end of the tape. The VCR will stop at the beginning of the tape and be ejected, and it will turn itself off.

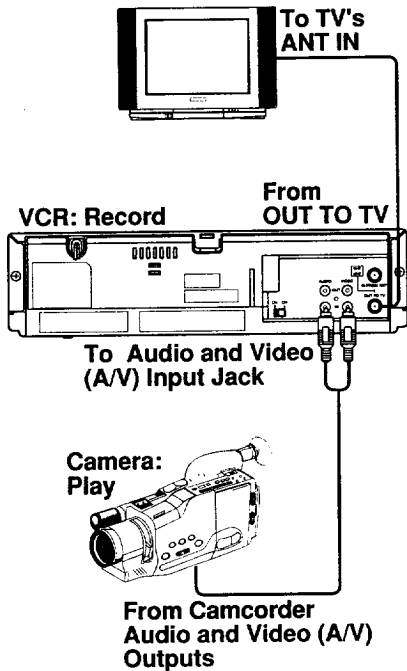
PLAYBACK WITH TV EQUIPPED WITH VIR

If your television receiver is equipped with VIR, it may be necessary to turn the VIR OFF when playing back the video tape. Otherwise, the color may be too bright, too faint, or even change.

OPERATING HINTS

- After you have finished using the VCR, rewind, eject, and remove the cassette. Place the cassette in its protective sleeve to protect it from dust. It is not necessary to rewind the cassette before removing it, but if you do, it will be ready to play or record the next time you use it.
- Be sure the VCR Channel Selector is on the correct channel you wish to record. The channel that is being recorded can always be checked by setting the television on the VCR channel (3 or 4) and pressing the **TV/VCR** selector to turn the VCR's VCR indicator on.
- Always reset the COUNTER to **M 0:00:00** when starting to use a cassette. Make a note on the cassette what number the COUNTER reads when the recording is finished if less than the full cassette is used. This allows you to record more program material at the end of the first recording. Any other locations on the tape can be noted on the cassette label also, if desired, so you can quickly locate them later.
- Do not attempt to hook up more than one television set to the VCR for either recording or playback.

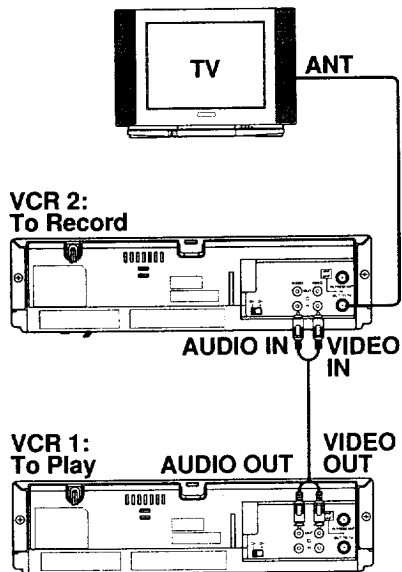
CAMCORDER TO VCR DUBBING AND EDITING



If you wish to edit or dub your camcorder recordings to this VCR, the rear panel mounted Audio and Video (A/V) input jacks make the connections quick and easy. The direct A/V jacks will also provide better picture results than using the RF (IN FROM ANT) jack on the rear panel.

1. Connect the camcorder's A/V outputs to the VCR as illustrated at the left.
2. Set the input selector of VCR to AV mode by pressing the θ button twice, AV will temporarily appear on the TV screen.
3. Play the tape in the camcorder. If you have a TV attached to the VCR, you can see the video playing.
4. When you desire recording to begin, press the VCR's *REC/ITR* button once to start.

VCR TO VCR DUBBING



If you wish to exchange or copy some of your friend's favorite home recordings, the following instructions can be used to connect one VCR to another for this purpose.

1. Connect VIDEO OUT/AUDIO OUT of VCR 1 to VIDEO IN/AUDIO IN of VCR 2.
2. Set the input selector of VCR 2 to AV mode by pressing the θ button twice, AV will temporarily appear on the TV screen.
3. Play the tape on VCR 1 and record it on VCR 2.

*NOTE: You can monitor the dubbing process by connecting the OUT TO TV jack of VCR 2 to the TV, as illustrated. Press the *TV/VCR* button until you see the VCR picture on the TV screen.*

TROUBLESHOOTING

SYMPTOM

CHECK POINT & CORRECTION

INSERTING OR REMOVING THE CASSETTE

Cassette cannot be inserted into Cassette Compartment.

- Load cassette in direction indicated by arrow on cassette.
- Is a cassette already in the VCR?
- Check that the display on the VCR is ON. If not, make sure power cord is plugged in.
- If the CST.IN indicator flashes on and off, press the **POWER** button again.

RECORDING TV PROGRAMS OFF THE AIR

No picture appears on television screen.

- Switch the **TV/VCR** selector to VCR mode.
- Set the television to the same channel selected on the RF Channel Select Switch. (CH3 or CH4).

A picture appears on TV screen but is not clear.

- Adjust the Tuning Control on the television to obtain the best picture.

The VCR will not go into the recording mode, even when **REC/ITR** button is pressed.

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

PLAYBACK OF PRE-RECORDED CASSETTE

No picture appears on television screen when **PLAY** button is pressed.

- Set the television to the VCR channel (3 or 4) depending upon the selected channel on the back of the VCR. (Output Channel).
- Try a different cassette tape.

No picture, but audio is clear.

- The heads may require cleaning.
- Take VCR to a qualified Service Center for service.

Interference on playback picture.

- Adjust fine tuning knob on television set to obtain best picture.
- Adjust **TRK/V.LOCK** (▼/▲) control button or press **A.TRK**.
- Take VCR to Service Center for service.

Picture bends at top of screen.

- TV receiver is of older type. It needs to be modified to work properly with VCR.
- Tape is damaged. Try another cassette.

Color is too bright, too faint, or changes.

- TV set has VIR circuit. Turn it off during playback.

REMOTE CONTROL OPERATION

The VCR cannot be remotely controlled or the remote control has short range.

- Weak or dead batteries.
- Do not block sensor.

SYMPTOM

CHECK POINT & CORRECTION

CLOCK

--:-- -- appears on the TV screen.

VCR does not start at preset record starting time.

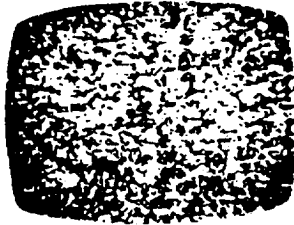
VCR does not start at preset record starting time.
The tape is ejected in the timer mode.

CST.IN indication flashes.

Power indicator flashes.

- Reset time according to instructions. Power has been interrupted.
- Setup recording time according to instructions.
- Be sure the AM-PM display is correct.
- The cassette has had the erase prevention tab removed. Stick a piece of cellophane tape over the erase prevention tab hole or select a different cassette.
- Insert a cassette.
- Unplug the VCR; after 3 seconds, put the plug in again.

VIDEO HEAD CLEANING



- Picture playback may become blurred or interrupted even though the TV program received is clear. This does not mean that the recorded program has been erased.
- Dirt accumulation on the head after long periods of use can cause these problems.
- If high quality video tapes are used in this VCR, the video heads should not require cleaning because of the built-in automatic head cleaner. However, it is possible that the heads may become clogged when playing an old or damaged tape. If the image on your screen resembles the picture on the left while playing back a tape, the heads may require cleaning.
- To clean the heads, obtain a head cleaning tape from your local video dealer. Be sure to follow the instructions that come with the cleaning tape, as excessive use can shorten head life.

SPECIFICATIONS

Power Source		AC 120V, 60Hz
Power Consumption		Approx. 16 Watts
Head System		Four head helical scan azimuth system
Tape Speed	(SP)	33.35 mm/sec
	(LP)	16.67 mm/sec
	(EP)	11.12 mm/sec
Tape Width		12.7 mm
Maximum Recording Time	(SP)	2 HOURS (T-120)
	(EP)	6 HOURS (T-120)
		8 HOURS (T-160)
Rewind Time		Less than 210 seconds (T-120)
Video		
Video Signal System		EIA Standard (525 lines, 60 fields) NTSC type color signal
Channel Coverage	(VHF)	2-13
	(UHF)	14-69
	(CATV)	4A, A-W, W+1~W+84, A-5~A-1
Input		1.0 Vp-p 75 ohms unbalanced
Output		1.0 Vp-p 75 ohms unbalanced
Signal to Noise Ratio		More than 45 dB (at SP mode)
Audio		
Input	(LINE)	-7.8 dBm
Output	(LINE)	-7.8 dBm
S/N Ratio		More than 40 dB (at SP mode)
Type		Monaural type
Antenna	(UHF)	75 ohms
	(VHF)	75 ohms
VHF Output Signal		Channel 3 or 4 (Switchable)
Dimensions	(WxHxD)	360 x 92 x 283 mm (14.2" x 3.6" x 11.1")
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. 4.4 Kg (9.7 lbs)

* Designs and specifications are subject to change without notice.

* Weight and dimensions shown are approximate.

GOLDSTAR VCR LIMITED WARRANTY

LG Electronics U.S.A., Inc. will repair or at its option replace, without charge, your product which proves to be defective in material or workmanship under normal use, during the warranty period listed below from the date of original purchase. **This warranty is good only to the original purchaser of the product during the warranty period as long as it is in the U.S. including Alaska, Hawaii and U.S. Territories.**

WARRANTY PERIOD

<u>MODEL #</u>	<u>LABOR</u>	<u>PARTS</u>	<u>HOW SERVICE IS HANDLED</u>
GVR-F435	90 days	1 Year	Call 1-800-243-0000, Option # 1 24 hrs. a day, 7 days per week, please have your product type (Monitor, TV, VCR) and ZIP code ready.

No other express warranty is applicable to this product. **THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN. LG ELECTRONICS U.S.A., INC. SHALL NOT BE LIABLE FOR THE LOSS OF THE USE OF THE PRODUCT, INCONVENIENCE, LOSS OR ANY OTHER DAMAGES, DIRECT OR CONSEQUENTIAL, ARISING OUT OF THE USE OF, OR INABILITY TO USE, THIS PRODUCT OR FOR ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY APPLICABLE TO THIS PRODUCT.**

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts; so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

THE ABOVE WARRANTY DOES NOT APPLY:

- To damages or problems which result from delivery or improper installation.
- To damages or problems which result from misuse, abuse, accident, alteration, or incorrect electrical current or voltage.
- To service calls, which do not involve defective workmanship or material, such as head cleaning and explaining the operation of the unit.

Therefore, these costs are paid by the consumer.

CUSTOMER ASSISTANCE NUMBERS:

- | | | |
|----------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------|
| To Prove Warranty Coverage: | → | Retain your Sales Receipt to prove date of purchase. |
| | → | Copy of your Sales Receipt must be submitted at the time warranty service is provided. |
| To Obtain Product, Customer or Service Assistance: | → | Call 1-800-243-0000, (Mon-Fri 7am-7pm CST)
Push appropriate menu code. |
| To Obtain Nearest Authorized Service Center, Parts Distributor or Sales Dealer: | → | Call 1-800-243-0000, Push option # 1 24 hrs. a day, 7 days per week, please have your product type (Monitor, TV, VCR) and ZIP code ready. |