

SONY

3-750-680-21 (1)

Video Cassette Recorder

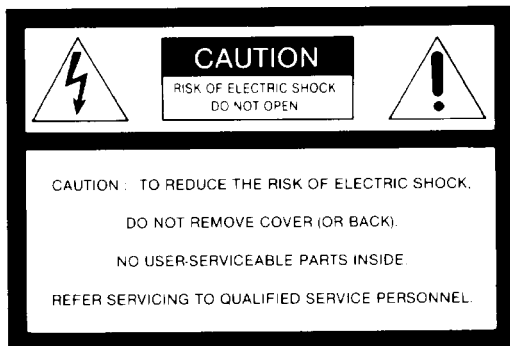
SLV-353UC

Operating Instructions



WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.



This symbol 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.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

INFORMATION

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause 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 the receiving antenna

Relocate the equipment with respect to the receiver

Move the equipment away from the receiver

Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems".

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

Note to CATV system installer:

This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specified that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Owner's Record

The model number is located at the rear and front of the unit and the serial number on the top. Record the serial number in the space provided on the right. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. SLV-353UC

Serial No.

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On Safety

- Operate the unit only on 120V AC, 60 Hz.
- Should anything fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- One blade of the plug is wider than the other for the purpose of safety and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- Unplug the unit from the wall outlet if it will not be used for an extended period of time. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

On Installation

- Allow adequate air circulation to prevent internal heat build-up.
- Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation slots.
- Do not install the unit near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- The unit is designed for operation in a horizontal position. Do not install it in an inclined position.
- Keep the unit and cassette tapes away from equipment with strong magnets, such as microwave ovens or large loud speakers.
- Do not place any heavy object on the unit.

On Operation

- When the unit is not in use, turn the power off to conserve energy and to extend the life of the unit.
- Remove and store video cassettes after recording or playback.
- Store the cassettes in their cases and keep them in an upright position to prevent intrusion of dust and uneven winding.

On Cleaning

- Clean the cabinet, panel and controls with a dry, soft cloth, or a soft cloth slightly moistened with a mild detergent solution.
- Do not use any type of solvent, such as alcohol or benzene, which might damage the finish.

On Repacking

- Do not throw away the carton and packing materials. They make an ideal container in which to transport the unit. When shipping the unit to another location, repack it as illustrated on the carton.

If you have any questions about this unit, contact your Sony dealer or a qualified technician.

Introduction

How to Use This Manual

This manual is arranged to help you quickly find the information you need for the operation of the SLV-353UC. This manual consists of the following four sections.

- 1** Preliminaries
- 2** Preparation
- 3** Operation
- 4** Other Information

First, look through the Table of Contents. If you are already familiar with VCR operation, read starting from the "Preparation" section. If you are new to VCR operation, start with "Identifying the Operational Parts" to familiarize yourself with this unit. To have a quick overview of the operation of this unit, refer to "Playing a Tape" (page 28), "Recording TV Programs" (page 34), and "Timer Recording" (page 38).

Before You Begin

- Check that the following accessories are in the carton with your unit:
 - Remote Commander RMT-V353 (1)
 - Size AA (R6) batteries (2)
 - External antenna connector (1)
 - 75-ohm coaxial cable with F-type connectors (1)
 - AC power cord (1)
- In the text of this manual, buttons and switches are shown in capital letters:
Press **PLAY**.
- The buttons on the Commander and the unit with the same mark have the same functions.
- Notes are enclosed in boxes.

Overview of the SLV-353UC

For editing

• **SWING SHUTTLE dial**

Allows quick access to the desired scene.

• **Control S INPUT jack**

Allows remote control of this VCR by other Sony video equipment with a control S output jack.

• **Input connectors on the front panel**

Offers easy connection to a video camera recorder.

On-screen displays

• **Data screen**

Tape counter, tape speed, operation mode, and remaining tape length are displayed on the screen.

• **AUTO MENU display**

Allows selection of an automatic tape operation on the TV screen.

• **Timer title**

Date, time, and channel of the recorded program can be inserted just before a timer recording.

• **TIMER SET/CHECK display**

Timer recording settings can be set and checked by referring to the TV screen.

Convenient Functions

• **Auto tracking function**

Automatically adjusts the picture for a clear picture.

• **Timer recordings of 8 programs over a month**

Recording of up to eight TV programs can be preset as much as one month in advance.

• **Index function**

The beginning of a desired scene can be located easily with the index scan/index search function.

High Quality picture

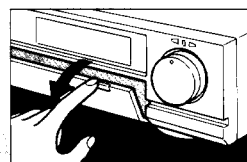
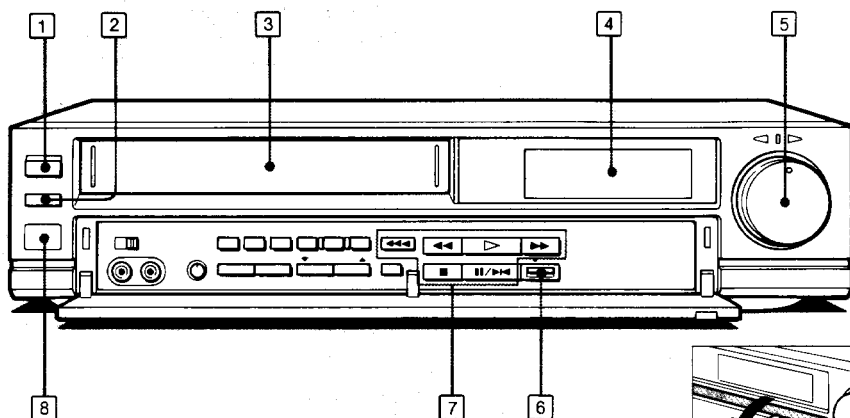
• **High quality (HQ) picture**

The SLV-353UC provides sharp, finely detailed pictures through High Quality (HQ) picture technology.

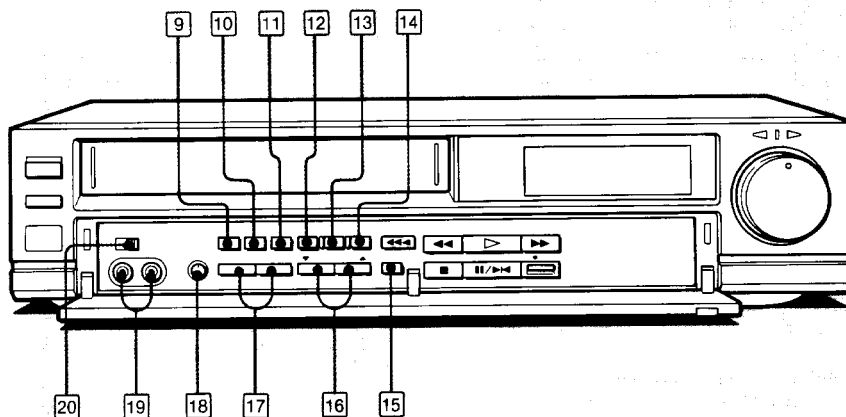
HQ A video cassette recorder (VCR) with this marking incorporates VHS high-quality picture technology and is compatible with any video cassette recorder bearing the **VHS** mark.

Identifying the Operational Parts

Front



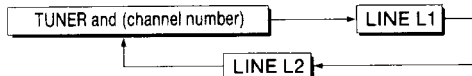
- 1 POWER switch and indicator**
Press to turn on and off the power of the unit. The indicator lights when power is supplied.
- 2 \triangle EJECT button**
Press to eject a cassette.
- 3 Cassette compartment**
Insert a cassette.
- 4 Display window and function mode display**
Various displays appear. See "Indications in the Display Window" (page 55).
- 5 SWING SHUTTLE (FORWARD/REVERSE) dial and indicator**
Turn to the right to advance and to the left to reverse the picture in various speeds including a still picture when the dial is released.
- 6 \bullet REC button**
Press to start recording.
- 7 Tape transport buttons**
 - \ll REW (rewind)
 - \triangleright PLAY
 - \gg FF (fast-forward)
 - \blacksquare STOP
 - \parallel / \gg PAUSE/STILL
 - \lll HIGH SPEED REWIND
- 8 Remote sensor**
Point the supplied Commander here.

**9 ANT TV/VTR button**

When connecting the VCR and a TV via the VHF antenna terminal, press this button so that VTR indicator lights in the display window. When you wish to watch TV programs while the VCR is in use, press it again so that the VTR indicator is turned off.

10 INPUT SELECT button

Press so that the desired input mode indicator appears in the display window to select the program to be recorded. The indicator changes as follows:

**11 REC MODE (SP/EP) button**

Press to select the recording tape speed, SP or EP. When playing back, the tape speed will be automatically detected regardless of the setting of this button.

12 EDIT ON/OFF button

Normally keep this button at OFF (i.e. the EDIT indicator turned off). When using this VCR for editing, press this button so that the EDIT indicator lights.

13 TIMER REC ON/OFF button

Press this button to enter the timer recording standby mode. Press is again to release the timer recording standby mode before changing or canceling a timer recording or to operate the unit before a timer recording starts.

14 QUICK TIMER button

Press to start quick timer recording and to set the recording duration.

15 TRACKING AUTO/MANUAL button

Press to re-activate the automatic tracking function after manual tracking adjustment.

16 TRACKING NORMAL/SLOW and STILL ADJUST ▼/▲ buttons

Press to clear possible streaks on the screen or to reduce picture shaking that may appear when playing tapes recorded on other VCRs. Also press when the picture should shake vertically in the still mode.

17 CHANNEL +/- buttons

Press to select the TV channels. Press + to advance and - to reverse.

18 SHARPNESS SOFT/SHARP control

Use to adjust the sharpness of the picture if necessary. Normally set this control at the indented center position.

19 LINE IN 2 VIDEO/AUDIO jacks (phono type)

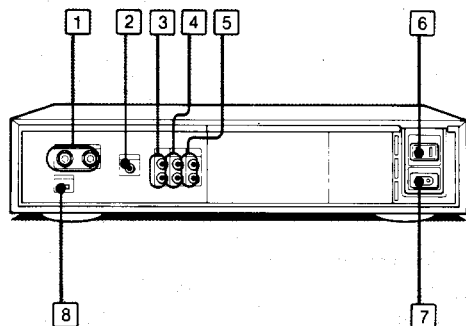
Connect to the video/audio output jack of another VCR or a video camera recorder.

20 COMMAND MODE switch

To remotely control this VCR with the supplied wireless Commander, set this selector to the same position as that on the Commander. Usually set to VTR 3.

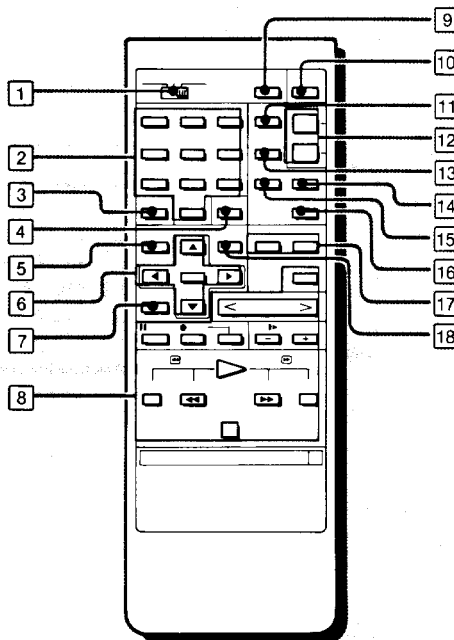
Identifying the Operational Parts

Rear Panel



- 1 VHF/UHF IN/OUT connectors (F type)**
Connect to the VHF/UHF connectors on your TV referring to the "Connections" section. On-screen displays are output via the VHF/UHF OUT connector.
- 2 CONTROL S IN jack (mini type)**
Connect to the CONTROL S output jack of another Sony product for systematic operations such as synchronized editing.
- 3 LINE IN 1 VIDEO and AUDIO jacks (phono type)**
Connect to the video/audio output jacks of other VCR.
- 4 LINE OUT VIDEO and AUDIO jacks (phono type)**
Connect to the video/audio input jacks of other VCR. Note that various on-screen display will not be output via the LINE OUT VIDEO jack.
- 5 MONITOR OUT VIDEO and AUDIO jacks (phono type)**
Connect to the video/audio input jacks on a TV. On-screen displays are output via this connector.
- 6 AC OUTLET (unswitched, max. 400 W)**
Supplies AC power to video or audio equipment. Do not connect any equipment with power consumption exceeding 400 W.
- 7 AC IN**
Connect the supplied AC power cord.
- 8 RF UNIT selector**
Use to select the channel for VCR playback, 3 CH or 4 CH, whichever is not active in your area.

Remote Commander



- 1 COMMAND MODE selector**
To remotely control the VCR with the Commander, set this selector to the same position as that on the unit. Normally set to VTR 3. Change the position as shown below to control other Sony VCRs:
VTR 1: For Sony Betamax format VCRs
VTR 2: For Sony 8mm format VCRs
VTR 3: For Sony VHS format VCRs
- 2 Channel number buttons**
- 3 TIMER CLEAR button**
Use to clear timer programs.
- 4 ENTER button**
Used to enter channel numbers. For example, to select channel 10, press 1, 0, and then ENTER.
- 5 MENU button**
Press to enter the MENU mode. Press again to get out of the MENU mode.
- 6 EXECUTE button and cursor shift ▲/▼/◀/▶ buttons**
Use to preset items in various menu operations.

7 FUNCTION MEMORY button

Use to execute the tape operation selected from the FUNCTION MEMORY menu.

8 Tape transport buttons

■ PAUSE

● REC (Press the two buttons simultaneously)

▶ SLOW (+: to increase the speed, -: to slower the speed)

</> DIRECTION (Press to determine the direction of ▷ PLAY, x 2, and SLOW. During still mode, frame-by-frame picture is available with this button.)

x 2 (double-speed)

◀▶ / ▶▶ SEARCH (reverse/forward)

▷ PLAY

◀◀ REW (rewind)

▶▶ FF (fast-forward)

■ STOP

9 ANT TV/VTR (Antenna TV/VTR) button

When connecting the VCR and a TV via the VHF antenna terminal, press this button so that VTR indicator lights in the display window. When you wish to watch TV programs while the VCR is in use, press it so that the VTR indicator is turned off.

10 POWER switch

11 INPUT SELECT button

Press to select the source to be recorded. The selected input mode indicator will appear in the display window.

12 CHANNEL +/- buttons

13 REC MODE button

Press to select the recording tape speed, SP or EP. When playing back, the tape speed will be automatically detected regardless of the setting of this button.

14 INDEX button

Press to enter the index function mode.

15 DATA SCREEN button

Press to erase or call up the on-screen display.

16 COUNTER RESET button

Press to reset the counter to 0H00M00S.

17 INDEX MARK/ERASE buttons

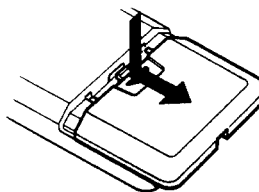
Press MARK to mark an index signal at the desired point on a tape during recording or playback. To erase a previously recorded index signal, locate the index signal and press ERASE.

18 TIMER REC (ON/OFF) button

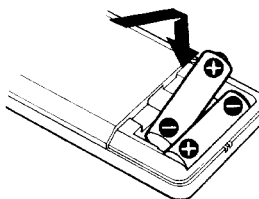
Press this button to enter the timer recording standby mode. Press it again to release the timer recording standby mode before changing or canceling a timer recording or to operate the unit before a timer recording starts.

Battery Insertion

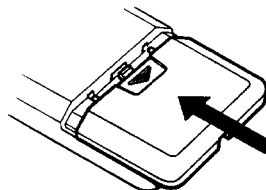
1 Open the lid.



2 Insert two size AA (IEC designation R6) batteries with the polarity lined up correctly.



3 Close the lid.



Notes on batteries

- With normal operation, the batteries will last for approximately 6 months.
- If the Commander will not be used for a long period of time, remove the batteries to avoid possible damage from battery leakage.

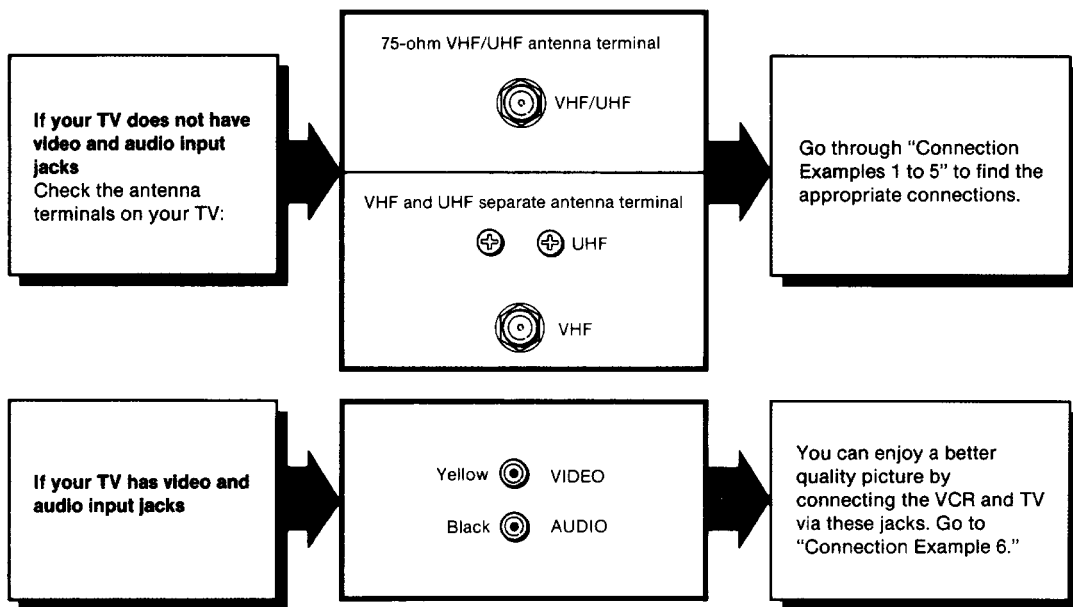
Connections

In order to watch the playback picture on the TV screen and to receive TV programs on this VCR, the VCR, the VCR and the TV receiver must be connected properly. The connection between the two units varies depending upon the type of TV receiver and antenna that you have. We will show you here some typical ways to make connections with the supplied accessories. Before operating the unit, read through this section and make the correct connections.

Before You Begin...

- Turn off the power to the VCR and the TV.
- Disconnect the AC power cord of the VCR and the TV from the wall outlet.
- Do not connect the AC power cords until all of the connections are completed.
- **If your TV does not match the three examples below...** Consult your nearest Sony dealer or qualified technician.

First Check Your TV

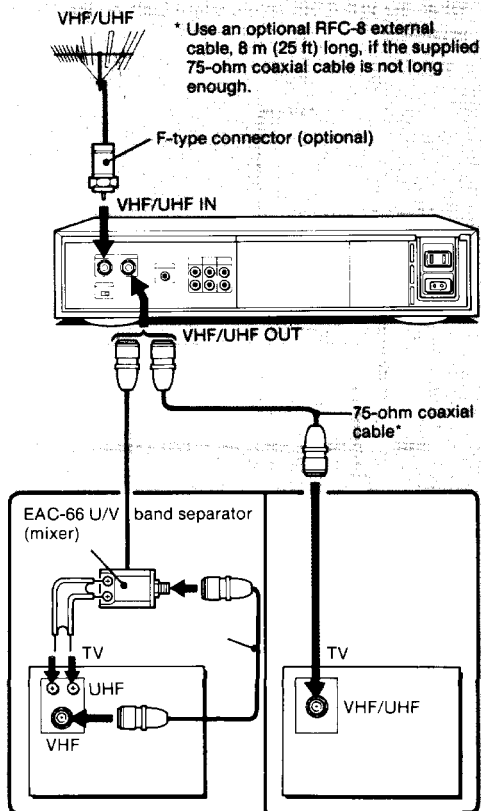


Caution

Connections between the recorder VHF/UHF OUT connector and the antenna terminals of a TV receiver should be made only as shown in the instructions. Failure to do so may result in operation that violates the regulations of the Federal Communications

Commission regarding the use and operation of rf devices. Never connect the output of the recorder to an antenna or make simultaneous (parallel) antenna and recorder connections at the antenna terminals of your receiver.

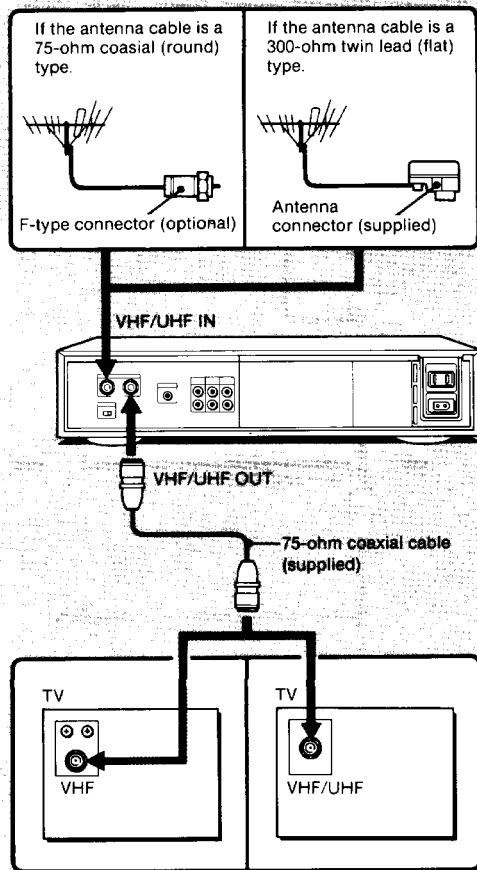
Connection Example 1 — To Connect a Combination VHF/UHF Antenna



- 1 Disconnect the TV antenna cable from the TV receiver and connect it to the VCR.
- 2 Connect the VCR and the TV.
If the TV has a single terminal for the VHF/UHF antenna
Connect directly using the supplied 75-ohm coaxial cable.
If the TV has separate VHF/UHF antenna terminals
Use a U/V band separator.

How to attach the U/V band separator and the F-type connector
See page 15.

Connection Example 2 — To Connect a VHF Antenna Only

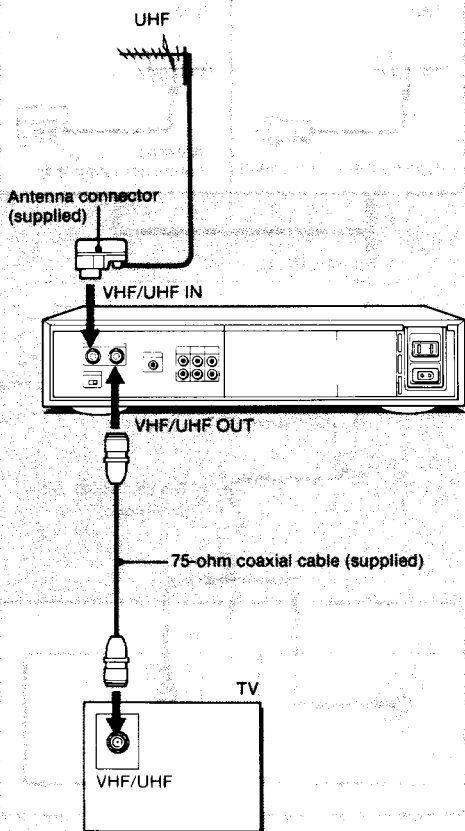


- 1 Disconnect the TV antenna cable from the TV and connect it to the VCR.
If the antenna cable is a 75-ohm coaxial (round) type
Use an F-type connector (optional).
If the antenna cable is a 300-ohm twin lead (flat) type
Use the antenna connector (supplied).
- 2 Connect the VHF/OUT on the VCR and the VHF IN terminal on the TV with the 75-ohm coaxial cable (supplied).

How to attach the antenna connector and an F-type connector
See page 15.

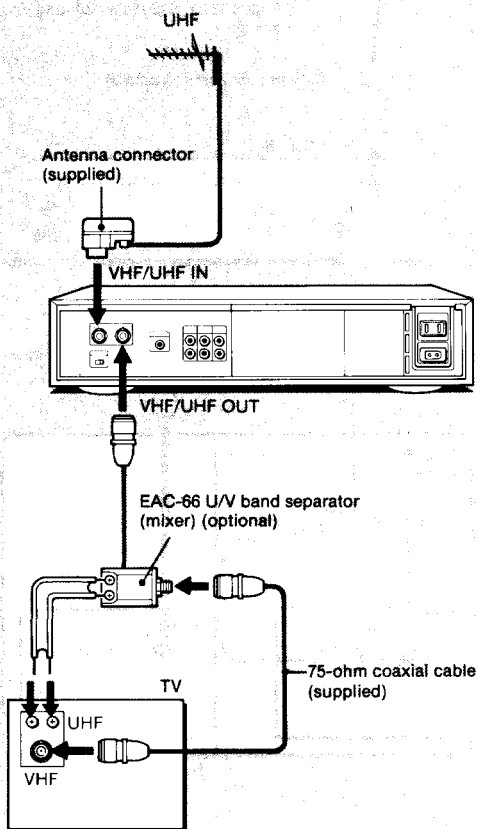
Connection Example 3 — To Connect a UHF Antenna Only

When the VHF/UHF antenna terminal on the TV is combined



- 1** Attach the supplied antenna connector to the cable.
- 2** Attach the antenna connector to VHF/UHF IN on the VCR.
- 3** Connect VHF/UHF OUT on the VCR and the VHF/UHF antenna terminal on the TV.

When the VHF/UHF antenna terminals on the TV are separated



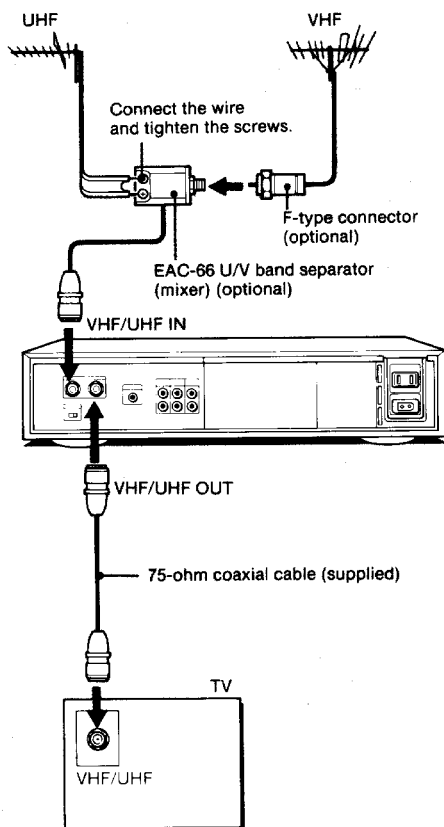
- 1** Attach the supplied antenna connector to the cable.
- 2** Attach the antenna connector to VHF/UHF IN on the VCR.
- 3** Attach an optional EAC-66 U/V band separator to the VHF/UHF OUT on the VCR.
- 4** Connect the separator to the VHF and UHF antenna terminals on the TV.

How to attach the antenna connector and the U/V band separator

See page 15.

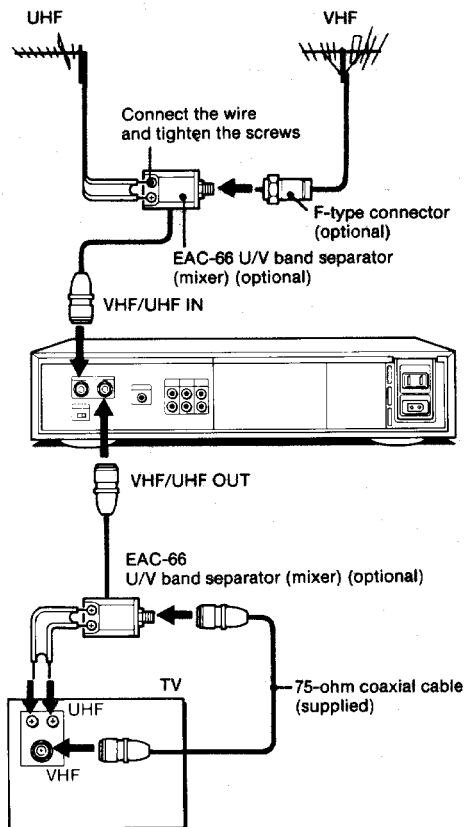
Connection Example 4 — To Connect both VHF and UHF Antennas

When the VHF/UHF antenna terminal on the TV is combined



- 1** Attach an optional U/V band separator to the VHF and UHF antennas and then to the VHF/UHF IN on the VCR.
- 2** Connect the VHF/UHF OUT on the VCR and the VHF/UHF antenna terminal on the TV.

When the VHF/UHF antenna terminals on the TV are separated

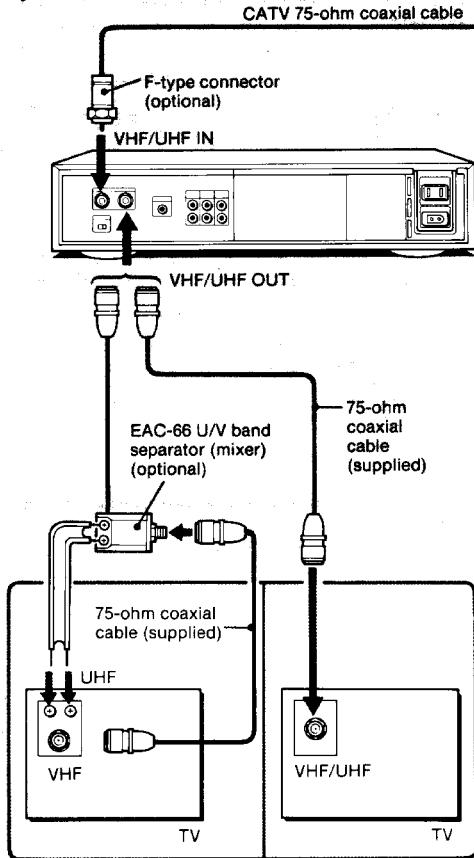


- 1** Attach an optional U/V band separator with the VHF and UHF antennas to the VHF/UHF IN on the VCR.
- 2** Attach an optional U/V band separator to the VHF/UHF OUT on the VCR.
- 3** Connect the separator to the VHF and UHF antenna terminals on the TV.

How to attach an U/V band separator and an F-type connector
See page 15.

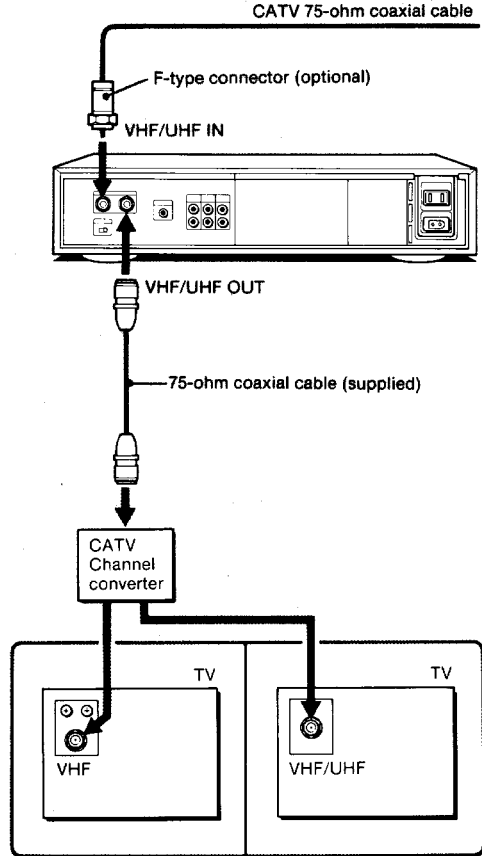
Connection Example 5 — To Connect a Cable TV System

If your TV has a built-in CATV decoder



A connection example is given above, but we recommend that you consult your cable company to make sure that the cable is properly connected.

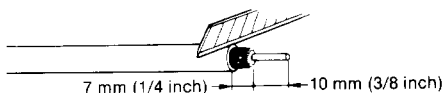
If your TV does not have a built-in CATV decoder



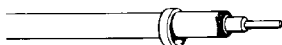
Connect the cable TV channel converter between the TV and the VCR. By setting the TV/VTR switch to TV, you can watch a cable TV program while playing back or recording video sources using the VIDEO LINE IN jack on the VCR.

Attaching an F-type connector

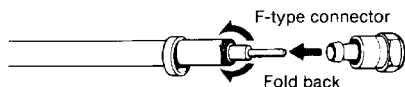
- 1 Strip 1/4 inch from the end of the cable so that 3/8 inch of the center conductor is exposed.



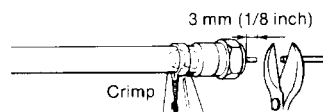
- 2 Slip the crimping ring over the cable.



- 3 Insert the inner conductor into the F-type connector shaft and push the end of the cable into the connector as far as it will go.



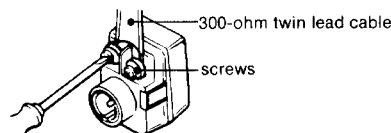
- 4 Slide the crimping ring over this assembly. Then pinch the crimping ring with pliers to hold the connection in place.



- 5 Insert the F-type connector into VHF/UHF IN on the VCR.

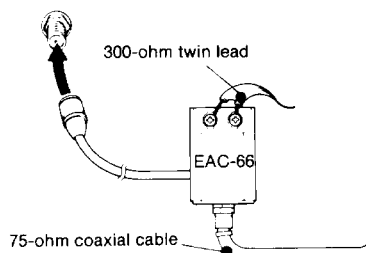


Attaching an external antenna connector



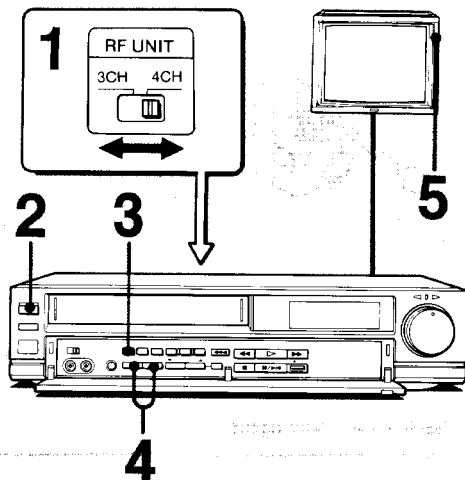
- 1 Loosen the screws on the antenna connector.
- 2 Fit the 300-ohm twin lead cable on the UHF antenna under the screws on antenna connector.
- 3 Tighten the screws again.

Attaching an optional EAC-66 U/V band separator/mixer



- 1 Loosen the screws on the U/V band separator.
- 2 Fit the 300-ohm twin lead cable under the screws.
- 3 Connect the 75-ohm coaxial cable to the U/V band separator.
- 4 Connect the U/V band separator to the VHF/UHF IN on the VCR.

Setting the RF Unit



Why this setting is necessary

Your TV must be set to receive the signal from your VCR. To get the proper RF signal, set the RF UNIT selector switch on the rear panel of the VCR. If channel 4 CH is active in your area, set the switch to 3 CH, and vice versa. If you connect a color monitor or a TV equipped with video/audio input jacks, you do not need to make this adjustment.

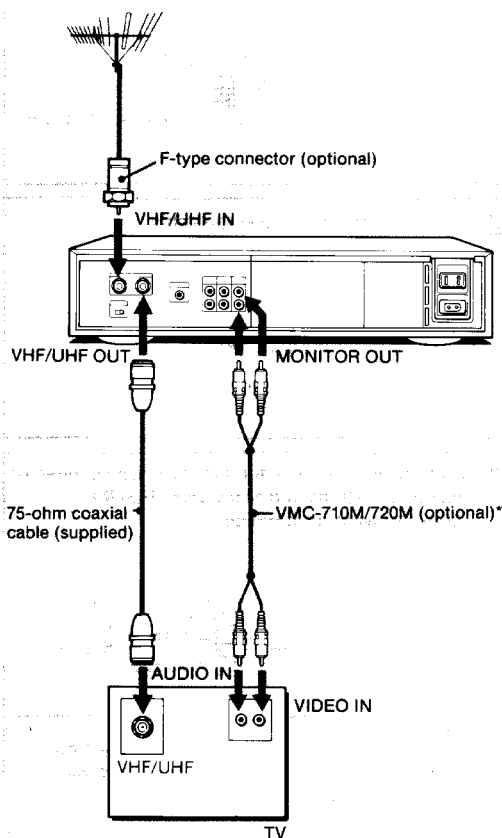
- 1** Set the RF UNIT at the rear to 3 CH or 4 CH, whichever is not active in your area.
- 2** Press POWER.
The indicator will light.
- 3** Press ANT TV/VTR so that the VTR indicator lights.
- 4** Check that the TUNER indicator appears in the display window, then select an active channel in your area by pressing CHANNEL +/-.
- 5** Turn on the TV and set the TV to the channel selected in step 1.
The TV program selected on the VCR will appear on the screen.

Your TV is now tuned to the VCR. Whenever you use the VCR, set the TV to the channel selected above.

Note

For details about TV channel adjustment, see the instruction manual of the TV.

Connection Example 6 — To Connect a TV Equipped with Video/Audio Input Jacks



For a high-quality picture, connect a color monitor or a TV equipped with video/audio input jacks.

- 1** Connect the VHF/UHF antenna to the VHF/UHF IN on the VCR.
- 2** Connect the VHF/UHF OUT on the VCR and the VHF/UHF IN terminal on the TV with the supplied 75-ohm coaxial cable.
- 3** Connect the MONITOR OUT jacks on the VCR and the video/audio input jacks on the TV with the video connecting cable and audio connecting cable.

* When your TV is a stereo type, use the optional VMC-910MS/920MS connecting cable.

About the MENU Display

The SLV-353UC is equipped with a menu display function. Menu display enables you to perform certain operations which are displayed on the TV or the monitor.

First display the main MENU, and select the item to be operated or preset.

Main MENU Display

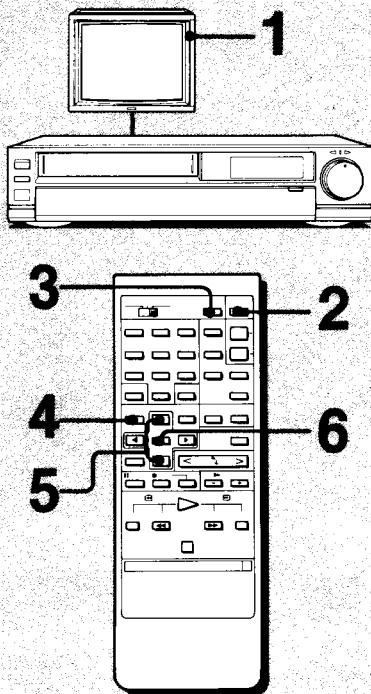
MENU

- ▶ AUTO MENU
- TIMER SET/CHECK
- MODE SET
- TUNER PRESET
- FUNCTION MEMORY
- CLOCK SET
- DEMONSTRATION

How to Display the Main MENU

Before you begin

- Check the connections between the VCR and the TV.
- On-screen display is output from the VCR's VHF OUT connector or MONITOR OUT jack. If your TV is equipped with video/audio input jacks, connect it to MONITOR OUT, not to the LINE OUT jacks.



Operation

- 1 Turn on the TV.**
If your TV is equipped with video/audio input jacks
 Select the input for the VCR.
If your TV is not equipped with video/audio input jacks
 Select the channel for the VCR (3 or 4).
- 2 Press POWER.**
- 3 Press ANT TV/VTR so that the VTR indicator lights.**
 (Only for TVs without video/audio input jacks.)
- 4 Press MENU.**
 The main MENU will appear on the screen.
- 5 Move cursor to the desired menu by ▲ or ▼.**
- 6 Press EXECUTE.**
 The selected MENU will appear on the screen.

To erase the menu display

Press MENU again.

To display other MENU screens

- 1 Press MENU to erase the present display.
- 2 Press MENU again to display main MENU.
- 3 Move cursor to the desired menu.
- 4 Press EXECUTE.

Note

The position of the cursor is retained as long as the power cord is connected.

Details of Each Menu

Here is a list of the menus in the main MENU. For details, refer to the sections indicated.

AUTO MENU

Use to select an automatic tape operation. See "Presetting the VCR's Operation" (page 29).

TIMER SET/CHECK

Use to preset a timer recording and let's you check the settings. See "Timer Recording" (page 38).

MODE SET

Use to set the desired mode. See "Mode Setting" (page 20).

TUNER PRESET

Use to preset the active channels in your area. See "Presetting Active Channels" (page 24).

FUNCTION MEMORY

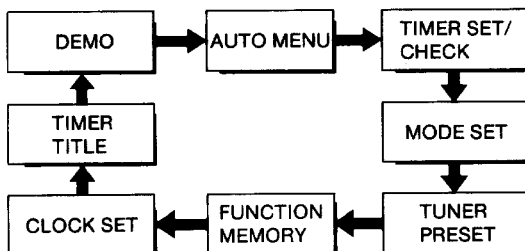
Use to set an automatic tape operation. With one press of the FUNCTION MEMORY button, the tape operation will start. See "Presetting the VCR's Operation" (page 30).

CLOCK SET

Use to set the clock. See "Date and Clock Setting" (page 22).

DEMONSTRATION

Use to display the contents of each menu and an example of TIMER TITLE one after the other. The display sequence is as follows:



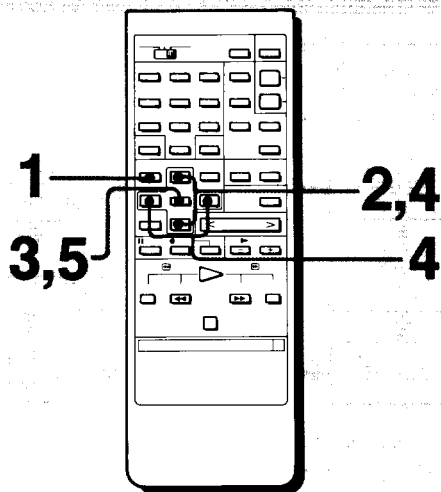
Press any button except EXECUTE to get out of the DEMONSTRATION menu.

Mode Setting

Before operating the unit, set the items in the MODE SET menu.

Operation

Use ▲ and ▼ to move the cursor.
Use ◀ and ▶ to select the items.



1 Press MENU.

MENU

▶ AUTO MENU
TIMER SET/CHECK
MODE SET
TUNER PRESET
FUNCTION MEMORY
CLOCK SET
DEMONSTRATION

2 Move cursor to MODE SET.

MENU

AUTO MENU
TIMER SET/CHECK
▶ MODE SET
TUNER PRESET
FUNCTION MEMORY
CLOCK SET
DEMONSTRATION

3 Press EXECUTE. MODE SET menu appears.

MENU

▶ AUTO ANT SEL • ON OFF
TIMER TITLE • ON OFF
TIMER REC - REW ON • OFF
BACK COLOR • BL GR PK

4 Select the desired setting for each mode.

AUTO ANT SEL (Automatic Antenna Selector)

ON: Automatically displays the playback picture of the VCR on the screen when a tape is played back.

OFF: The picture on the TV screen be changed by pressing ANT TV/VTR.

If your TV is not equipped with video/audio inputs

Normally set to ON.

- **To view the picture played back or recorded on the VCR:**
Press ANT TV/VTR to light the VTR indicator. In the ON setting, the VTR indicator will automatically be lit when playing back a tape.

- **To watch TV programs:**

Press ANT TV/VTR to turn off the VTR indicator and select the desired program on the TV.

If VCR-TV connection is made via the video/audio inputs

Set to OFF to easily select the VCR's playback picture on the TV.

- **To view the picture played back or recorded on the VCR:**
Select video input on the TV to view higher quality picture.
- **To watch TV programs:**
Select the desired program on the TV.

TIMER TITLE

For details, see "Timer Recording" (page 44).

TIMER REC - REW (Timer Recording - Rewind)

For details, see "Timer Recording" (page 46).

BACK COLOR

Select the desired background color for the each menu, program list and timer title.

BL: blue (factory setting)

GR: green

PK: pink

The screen will turn to the selected color in these cases:

- When playing back tape with no signals recorded.
- When calling up channels with no programs preset.

- When the called up channel has programs preset, but no antenna connection is made or the signal is weak or no program is broadcasted.
- When selecting line inputs that has no connected equipment.
- When the picture has noise.

5 Press EXECUTE.

The settings will be memorized.

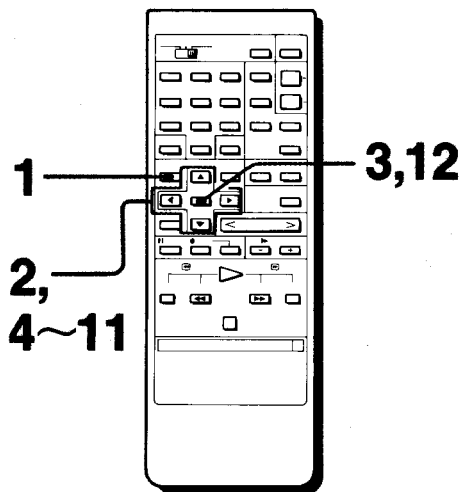
Date and Clock Setting

You can set the date and clock on the TV screen with the Remote Commander.

Operation

Example: To set to 3:32 pm, August 4, 1989.

Use ▲ and ▼ to change the numbers.
Use ◀ and ▶ to change the blinking items.



1 Press MENU.

MENU

- ▶ AUTO MENU
- TIMER SET/CHECK
- MODE SET
- TUNER PRESET
- FUNCTION MEMORY
- CLOCK SET
- DEMONSTRATION

2 Move cursor to CLOCK SET.

MENU

- AUTO MENU
- TIMER SET/CHECK
- MODE SET
- TUNER PRESET
- FUNCTION MEMORY
- ▶ CLOCK SET
- DEMONSTRATION

3 Press EXECUTE.

"1/1 1989 SUN AM 12:00" will be displayed. The left most 1, in the "month" position, is blinking.

CLOCK SET

1/1 1989 SUN AM 12:00

4 Press ▲ until 8 appears in the month position.

CLOCK SET

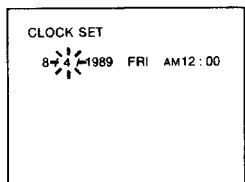
8/1 1989 TUE AM 12:00

5 Press ▶ to make the next number, in the "day" position blink.

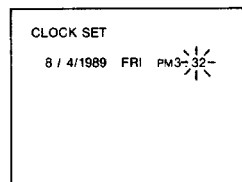
CLOCK SET

8/1 1989 TUE AM 12:00

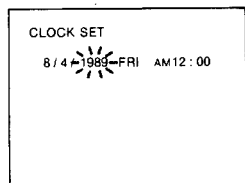
- 6** Press ▲ until 4 appears in the day position.
The day of the week is automatically set.



- 11** Press ▲ or ▼ until 32 appears in the minute position.

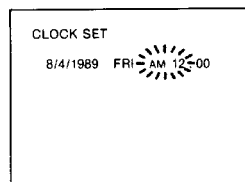


- 7** Press ► to make the year blink and press ▲ to change the year if necessary.



- 12** Press EXECUTE simultaneously with a time signal.
Press of EXECUTE will set the clock to 3:32 pm 00 seconds.

- 8** Press ► to make the "hour" position blink.

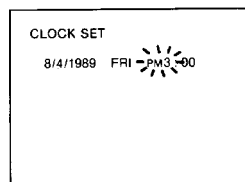


To recall the date and clock on the screen
Select CLOCK SET in the main MENU and press EXECUTE.

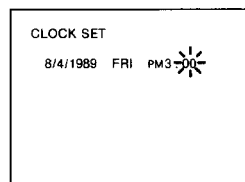
Notes

- You can perform clock setting except during timer recording, timer recording stand-by, quick timer recording.
- When the date and clock are called up on the screen, the clock keeps running as long as no modification is made. The seconds will not be reset to 00 when you return to the original screen.

- 9** Press ▲ or ▼ until PM 3 appears.



- 10** Press ► to make the minute blink.



Presetting Active Channels

Your VCR is capable of receiving TV programs broadcast on VHF/UHF channels 2 to 69 and CATV channels 1 to 125. These channels can be preset on the TV screen using the Remote Commander and the TUNER PRESET menu. First, we recommend that you preset the active channels in your area using the automatic preset mode. Then, if there are any unwanted channels, delete them manually. If you've already decided which channels you wish to preset on the VCR, set them directly by using the channel number buttons.

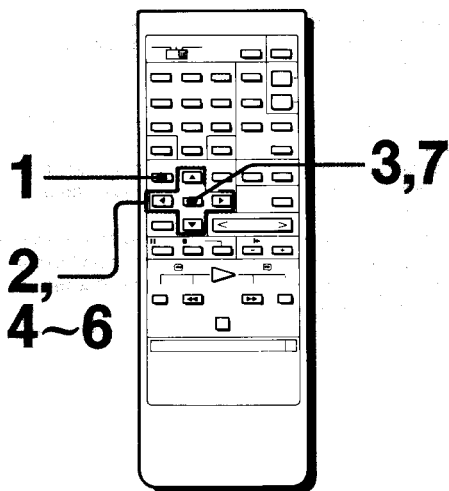
Before Presetting Channels

Turn on the VCR and the TV.

- Connect the VCR and the TV using either MONITOR OUT or AERIAL OUT on the VCR.
- If your TV is not equipped with video/audio input jacks, make sure that the TV is set to the correct channel (3 or 4) for the VCR.
- Press ANT TV/VTR to display the VTR indicator.
- Press INPUT SELECT so that the TUNER indicator and channel number appear in the display window.

To Preset All Receivable Channels Automatically

Use ▲ and ▼ to move the cursor.
Use ◀ and ▶ to select the items.



1 Press MENU.

```

MENU
▶ AUTO MENU
  TIMER SET/CHECK
  MODE SET
  TUNER PRESET
  FUNCTION MEMORY
  CLOCK SET
  DEMONSTRATION
    
```

2 Move the cursor to TUNER PRESET.

```

MENU
  AUTO MENU
  TIMER SET/CHECK
  MODE SET
  ▶ TUNER PRESET
  FUNCTION MEMORY
  CLOCK SET
  DEMONSTRATION
    
```

3 Press EXECUTE. The TUNER PRESET display will appear.

```

TUNER PRESET          2CH
NORMAL/CATV • NORM CATV
AUTO PRESET
▶ MANUAL SET • ADD ERASE
AFT          • ON  OFF
FINE TUNING
    
```

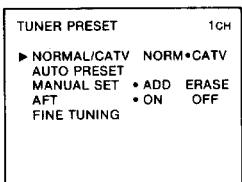
4 Move cursor to NORMAL/CATV.

```

TUNER PRESET          2CH
▶ NORMAL/CATV • NORM CATV
AUTO PRESET
MANUAL SET • ADD ERASE
AFT          • ON  OFF
FINE TUNING
    
```

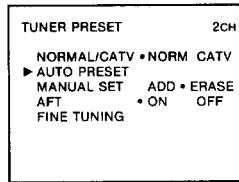
**5 Select NORM to preset VHF and UHF channels.
Select CATV to preset cable TV channels.**

The lowest channel number, 2 for NORM and 1 for CATV will appear on the screen.

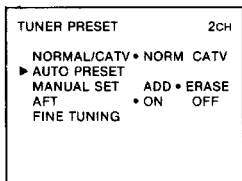


7 Press EXECUTE.

Receivable channels will be preset in numerical sequence. When no more channels can be found, the presetting will stop and the lowest numbered channel will be displayed.

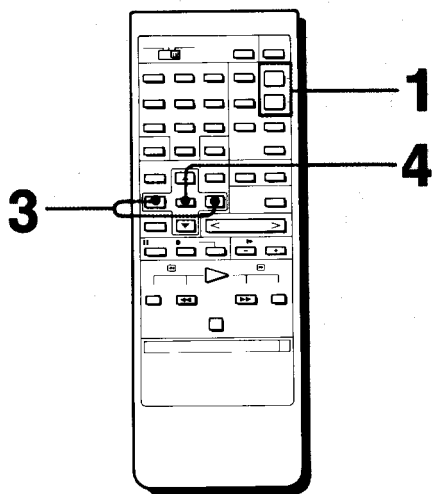


**6 Move cursor to
AUTO PRESET.**



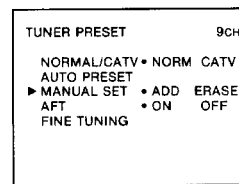
To Preset Only the Desired Channels or to Erase Unnecessary Channels

Use ▲ and ▼ to move the cursor.
Use ◀ and ▶ to select the items.



1 After automatic presetting is over press CHANNEL +/- to select the channel to be added or erased.

2 Follow steps 1 to 3 in "To Preset All Receivable Channels Automatically."



**3 To add channels Select ADD.
To erase channels Select ERASE.**

**4 Press EXECUTE.
When pressing CHANNEL +/-, the erased channel will be skipped.**

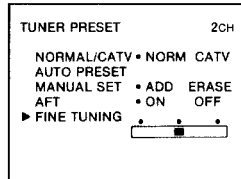
Fine-tuning

Normally the AFT (Auto Fine Tuning) setting is set to ON and the AFT function fine-tunes the picture. If the picture of a particular channel is not acceptable, fine-tune manually.

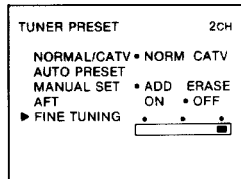
Operation

- 1 Call up the **TUNER PRESET** menu referring to steps 1 to 3 in "To Preset All Receivable Channels Automatically."

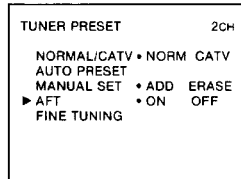
- 2 Press **▲** or **▼** move the cursor to **FINE TUNING**. The fine tuning indicator will appear.



- 3 Press **◀** or **▶** to get a clearer picture. The AFT ON/OFF will automatically be switched to OFF.



- 4 Press **▲** to move the cursor to **AFT** and select **ON** if you cannot get a better picture.



About the FINE TUNING indicator

The FINE TUNING indicator shows the operable fine-tuning range. When the VCR's tuner is receiving a broadcast signal in the best condition, the indicator will be at the center position or within one space right or left of the center position. However, even when a broadcast is received in the best condition, there may be cases when the indicator will not be at the position explained above.

Cable TV channel assignment

Cable TV systems use letters or numbers to designate the channels. To tune-in a CATV channel, refer to the chart below which shows the CATV channel numbers on this VCR and the corresponding CATV channel. Note that the channel number assignment shown in the chart may not correspond to the channel number used by your local cable company. Check with your local cable TV company for more information on the available channels.

Number on this VCR	1	2 ... 13	14	15	16	17	18
Corresponding CATV channel	A-8	2 ... 13	A	B	C	D	E

19	20	21	22	23	24	25	26	27	28	29	30	31	32
F	G	H	I	J	K	L	M	N	O	P	Q	R	S

33	34	35	36	37 ... 94	95	96	97	98	99
T	U	V	W	W+1 ... W+58	A-5	A-4	A-3	A-2	A-1

100	...	125
W+59	...	W+84

This VCR is designed to correspond to the Standard cable system. However, the cable TV services may vary from area to area. Your local cable TV company may be either the HRC^{*1} or IRC^{*2} cable system. Even in these cases, this VCR is capable of receiving either of these cable systems in the best condition.

*1 HRC (Harmonic Related Carriers)

All channels except for 5 and 6 are 1250 kHz lower than the Standard cable system. Channels 5 and 6 are 750 kHz higher than the Standard cable system.

*2 IRC (Incremental Related Carriers)

All channels except for 5 and 6 are the same as the Standard cable system. Channels 5 and 6 are 2000 kHz higher than the Standard cable system.

FINE TUNING indication when receiving HRC or IRC cable systems

Even when the signals are received in the best condition, the FINE TUNING indicator will not stay at the center position for channels higher or lower than the Standard cable system because of the difference in the frequency.

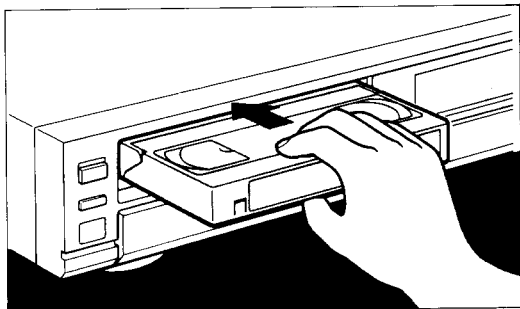
Note

Pay cable TV systems use scrambled or encoded signals and require special converters (decoders) in addition to the normal cable connection.

Handling Video Cassettes

Inserting a Cassette

Insert the cassette fully into the compartment by slowly pressing its center with the arrow indication facing upwards. If the AC power cord is connected to the wall outlet, the power will be automatically turned on.

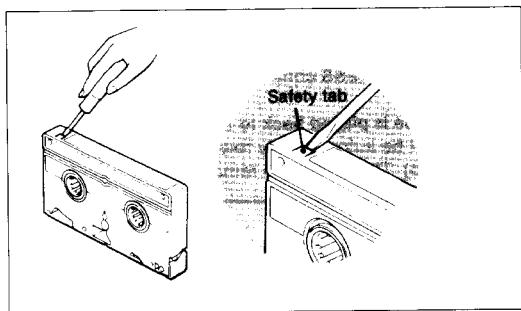


Ejecting a Cassette

Press \blacktriangle EJECT to eject the cassette. As long as the AC power cord is connected to the wall outlet, the cassette can be ejected even when the power of the unit is turned off.

To Avoid Erasing Previously Recorded Video Cassette

When a new recording is made on a previously recorded cassette, the previous recording will be automatically erased. To avoid unintentional erasure, break off the safety tab on the cassette. To re-record on the cassette, cover the slot where the safety tab used to be with plastic tape.



Maximum Recording Time of a Tape

Recording in the SP or EP mode is possible with this VCR. When recording, select the desired recording mode (SP or EP) with REC MODE on the Remote Commander or the VCR. During playback, the VCR automatically detects the recording format, and then plays the tape back in the appropriate mode. A tape recorded in the EP mode runs three times as slower as a tape recorded in the SP mode. Refer to the chart below for the recording/playback time available in each mode.

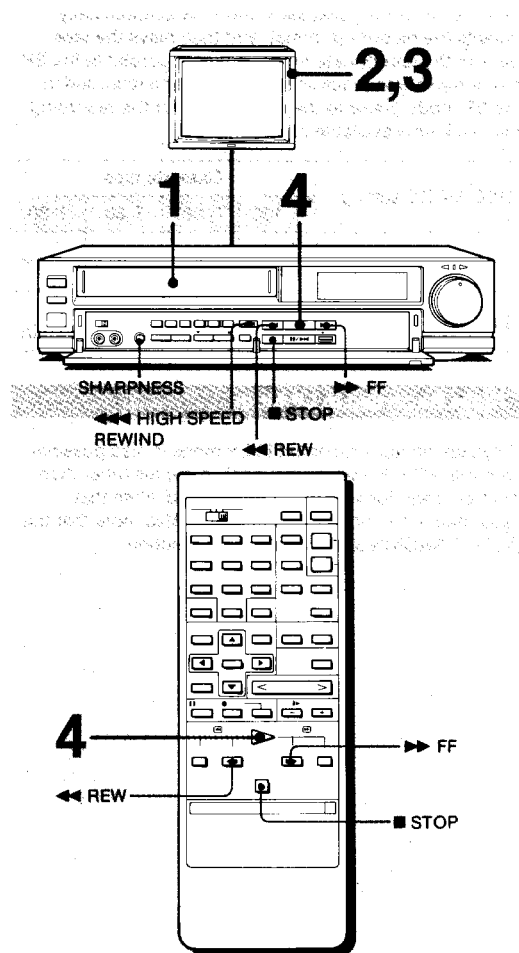
REC MODE setting	Cassette tape			
	T-160	T-120	T-60	T-30
SP (standard)	2 hr. 40 min.	2 hr.	1 hr.	30 min
EP	8 hr.	6 hr.	3 hr.	1 hr. 30 min.

Tapes Recorded in LP Mode

Playback of tapes recorded in LP mode is also possible with this VCR. However, playback in modes other than normal speed forward is not guaranteed. Note that recording in LP mode is not possible. Also, note that the AUTO TRACKING function will not function.

In this section, we will explain the operations and functions related to tape playback.

Basic Playback



1 Insert a cassette.

2 Turn on the TV.

3 If your TV is equipped with video/audio input jacks
Select the input for the VCR.

If your TV is not equipped with video/audio input jacks

Select the channel for the VCR (3 or 4).

4 Press **▶ PLAY**.

To stop playback

Press **■ STOP**.

To advance the tape rapidly

Press **▶▶ FF**.

To rewind the tape

Press **◀◀ REW**.

To rewind the tape at high speed

Press **◀◀◀ HIGH SPEED REWIND**.

To get a sharper picture

Turn the **SHARPNESS** control toward **SHARP**.

To get a softer picture

Turn the **SHARPNESS** control toward **SOFT**.

When the tape is played back to the end

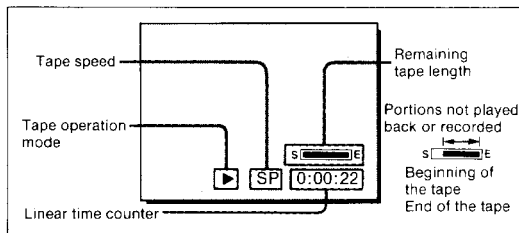
The tape will be automatically rewound to the beginning (auto rewind). The power will remain on.

About the Data Screen

To erase or call up the data screen, press **DATA SCREEN** on the Commander.

Notes on the remaining tape length indicator

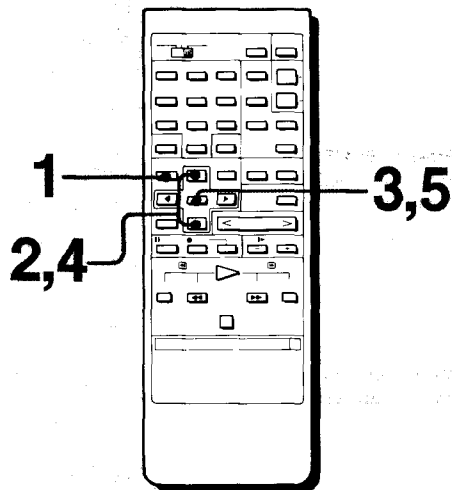
The displayed remaining tape length is not precise. Therefore, use it only as an approximate reference. When you insert a short tape such as T-20, T-30 or a non-standard commercially available tape, this indicator may not function correctly.



Presetting the VCR's Operation — Auto Play

By selecting the desired operation in the AUTO MENU and pressing **EXECUTE**, an operational sequence of several steps can be started automatically.

Use ▲ and ▼ to move the cursor.



Operation

- 1 Press **MENU** when the VCR is in the stop mode.

MENU

- ▶ AUTO MENU
- TIMER SET/CHECK
- MODE SET
- TUNER PRESET
- FUNCTION MEMORY
- CLOCK SET
- DEMONSTRATION

- 2 Move the cursor to **AUTO MENU**.

- 3 Press **EXECUTE**.
The AUTO MENU will appear.

AUTO MENU

- ▶ PLAY - REW - POWER OFF
- GO TO ZERO - STOP
- GO TO ZERO - PLAY
- GO TO REC START - PLAY
- REW - POWER OFF
- REW - EJECT - POWER OFF
- REW - PLAY
- REW - TIMER REC

- 4 Move the cursor to the desired tape operation.

AUTO MENU

- PLAY-REW-POWER OFF
- GO TO ZERO - STOP
- GO TO ZERO - PLAY
- GO TO REC START - PLAY
- ▶ REW - POWER OFF
- REW - EJECT - POWER OFF
- REW - PLAY
- REW - TIMER REC

- 5 Press **EXECUTE**.
The selected tape operation will start.
The selected tape operation mode will be indicated on the screen for several seconds.

REW - POWER OFF

SP 0:03:37

To return to the original screen without making any selection from the AUTO MENU
Press **MENU**.

When the power is turned off

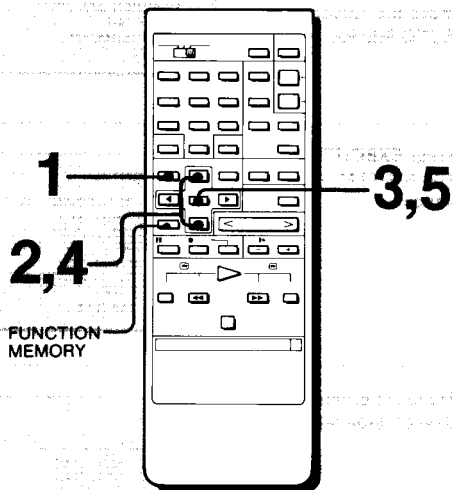
The cursor will stay at the last position it was set to.

Note on the auto play operation

You can pre-set the auto play operation only when the VCR is in the stop mode.

Assigning an AUTO MENU Operation in the FUNCTION MEMORY Button

Use ▲ and ▼ to move the cursor.



1 Press MENU.

MENU

▶ AUTO MENU
TIMER SET/CHECK
MODE SET
TUNER PRESET
FUNCTION MEMORY
CLOCK SET
DEMONSTRATION

2 Move the cursor to FUNCTION MEMORY.

MENU

AUTO MENU
TIMER SET/CHECK
MODE SET
TUNER PRESET
▶ FUNCTION MEMORY
CLOCK SET
DEMONSTRATION

3 Press EXECUTE. FUNCTION MEMORY menu will appear.

FUNCTION MEMORY

PLAY - REW - POWER OFF
GO TO ZERO - STOP
GO TO ZERO - PLAY
GO TO REC START - PLAY
REW - POWER OFF
REW - EJECT - POWER OFF
REW - PLAY
▶ [AUTO MENU]

4 Move cursor to the desired tape operation

FUNCTION MEMORY

▶ PLAY - REW - POWER OFF
GO TO ZERO - STOP
GO TO ZERO - PLAY
GO TO REC START - PLAY
REW - POWER OFF
REW - EJECT - POWER OFF
REW - PLAY
[AUTO MENU]

5 Press EXECUTE to return to the original screen.

Now the selected item is assigned to the FUNCTION MEMORY button. Whenever you press FUNCTION MEMORY on the Commander, the selected tape operation will start automatically.

PLAY - REW - POWER OFF

▶ SP 0:00:46

Note on FUNCTION MEMORY

The FUNCTION MEMORY function is operable only when the VCR is in the stop mode.

What does each operation indicator mean ?

PLAY — REW — POWER OFF

The tape is played back to its end and then rewound to its beginning. Then the power is turned off.

GO TO ZERO — STOP

The tape is fast-forwarded/rewound to around the zero counter position, and stops. See "Tape Return" (page 36) for detailed operation.

GO TO ZERO — PLAY

The tape is fast-forwarded/rewound to around the zero counter position, and then is played back. See "Tape Return Play" (page 37) for detailed operation.

GO TO REC START — PLAY

The tape is fast-forwarded/rewound to the starting point of the recording, and then is played back.

REW — POWER OFF

The tape is rewound to its beginning and then the power is turned off.

REW — EJECT — POWER OFF

The tape is rewound to its beginning, and then the cassette is ejected. Then the power is turned off.

REW — PLAY

The tape is rewound to its beginning and then is played back.

REW — TIMER REC

The tape is rewound to its beginning and then the VCR enters the standby mode for timer recording. This function is possible only when a timer recording has been preset.

AUTO MENU

By selecting [AUTO MENU] in the FUNCTION MEMORY menu, the AUTO MENU will be displayed immediately after FUNCTION MEMORY is pressed. This provides a quick access to the AUTO MENU.

Notes on "GO TO REC START — PLAY"

The memory of the recording start position will be erased and "GO TO REC START — PLAY" will not be operable in the following cases:

- You pressed **COUNTER RESET**.
- You ejected and inserted the cassette.
- You pressed **HIGH SPEED REWIND**.

Various Playback Modes

To obtain a still picture

During playback mode press **PAUSE/STILL** on the unit or **PAUSE** on the Commander. To resume normal playback, press **PLAY**, **PAUSE/STILL**, or **PAUSE**. When the pause mode lasts for more than 5 minutes, the unit will re-enter the playback mode automatically.

To search for a particular scene — Picture search

During playback mode, press **REW** or **FF**. While the button is pressed, a high speed picture without sound will appear on the TV screen. When the button is released, the unit will return to the previous mode.

To watch the picture in high speed — Locked picture search

During the playback mode, press **SEARCH** or **SEARCH** on the Commander. A high speed picture in forward or reverse will appear on the screen even when the button is released. To resume normal playback, press **PLAY**.

To watch slow motion playback

During playback mode, press **SLOW** on the Commander. Change the slow motion speed with the **+** or **-** buttons. Press **+** to increase the playback speed, and **-** to decrease the playback speed.

To see the picture momentarily while the unit is in the fast-forward or rewind mode without picture on the TV screen

During fast-forward mode, press **FF**. During rewind mode, press **REW**. The high speed playback picture can be seen as long as the button is pressed. Release the button to return to the previous mode.

To watch a playback picture at 2 times the normal speed

During playback mode, press **x2** on the Commander.

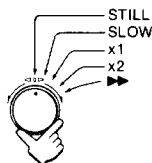
To watch reverse direction playback, slow and x2 picture

During forward playback of the desired mode, press **<** on the Commander. Press **PLAY** or **>** to resume forward playback.

To watch a frame-by-frame picture

During still mode, press **>** to advance the picture one frame. Press **<** to reverse the picture one frame. Each press of **</>** will move the picture one frame. Press **>** to resume normal playback.

To resume normal playback, press **>**.



How to Adjust the Picture Manually in Various Playback Modes

If streaks or noise appear on a slow motion picture

Adjust the picture with the **TRACKING NORMAL/SLOW** and **STILL ADJUST** **▼/▲** buttons inside the front panel. The picture can be adjusted more easily by changing the speed closer to normal playback by pressing **SLOW +**.

If the picture appears to shake in the still mode

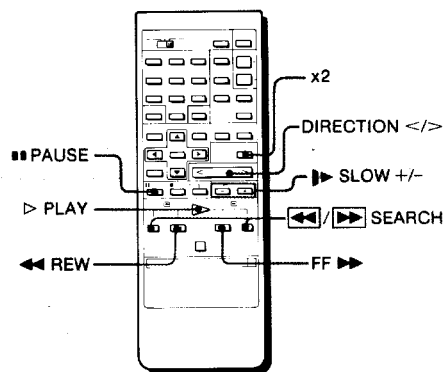
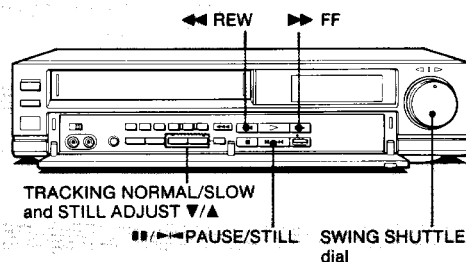
Adjust the picture with the **TRACKING NORMAL/SLOW** and **STILL ADJUST** **▼/▲** buttons inside the front panel until the picture stabilizes.

If a band appears on the top or bottom of the screen in still mode

Adjust the picture with the **TRACKING NORMAL/SLOW** and **STILL ADJUST** **▼/▲** buttons inside the front panel while playing back the tape in a slow motion.

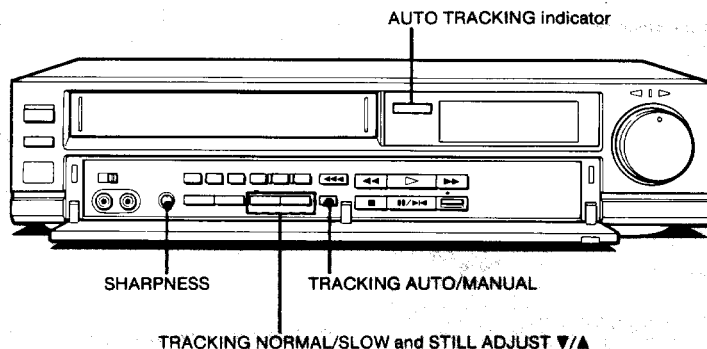
Note

Streaks or noise cannot be completely eliminated in the reverse direction playback or in reverse slow modes.



Playing Back a Tape Recorded on Another VCR

When playing back a tape recorded on another VCR, we recommend that you make the following adjustments to obtain a better picture.



Adjusting the sharpness

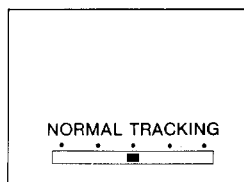
Turn the SHARPNESS control toward SHARP to obtain a sharper picture. Turn it toward SOFT to obtain a softer picture.

Adjusting the tracking

Automatic tracking adjustment

The tracking condition is automatically adjusted on this VCR. The AUTO TRACKING indicator blinks while the VCR is searching for the best tracking condition and lights when maximum playback picture is obtained. The automatic tracking control is activated in the following conditions:

- when the cassette is inserted and played back.
- when the recording mode on the playback tape is switched between SP and EP.
- when the picture is distorted by scratches etc. on the tape.
- when the AUTO TRACKING indicator is turned on by pressing TRACKING AUTO/MANUAL after the picture is adjusted manually. (See Manual tracking adjustment.)



Manual tracking adjustment

When the playback picture proves to have streaks or snow during normal playback, adjust the picture manually with TRACKING NORMAL/SLOW and STILL ADJUST ▼/▲.

Press either ▼ or ▲ to obtain the best possible picture.

The tracking meter will appear on the TV screen and the AUTO TRACKING indicator will be turned off.

When the manual adjustment proves unsatisfactory, press both of the TRACKING NORMAL SLOW and STILL ADJUST ▼/▲. The tracking condition will return to the center position.

Notes

- Auto tracking adjustment may be impossible and the tracking indicator will not appear on the TV screen when the recording condition of the tape is poor.
- During auto tracking adjustment, streaks or noise may appear.
- When **DATA SCREEN** on the Commander is pressed, the tracking indicator will not appear on the TV screen.
- Auto tracking adjustment is not possible on the tapes recorded in LP mode.

Recording TV Programs

Before You Begin

Check the following points:

Check the connections

Make sure that the connections have been made correctly.

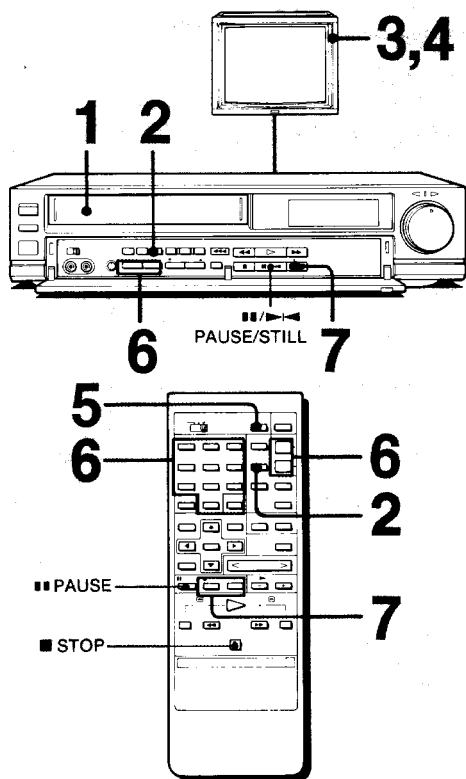
Check the positions of the selector

INPUT SELECT → TUNER

Caution

Television programs, films, video tapes and other materials may be copyrighted. Unauthorized recording of such material may be contrary to the provisions of the copyright laws. Also, use of this recorder with cable television transmission may require authorization from the cable television transmission and/or program owner.

Operation



- 1 Insert a cassette.**
The VCR will turn on automatically (Auto power on).
- 2 Select the recording tape speed, SP or EP, with REC MODE.**
- 3 Turn on the TV.**
- 4 If your TV is equipped with video/audio input jacks**
Select the input for the VCR.
If your TV is not equipped with video/audio input jacks
Select the channel for the VCR (3 or 4.)
- 5 Press ANT TV/VTR so that the VTR indicator lights.**
Skip this step if the VCR is connected to the video/audio input jack of the TV.
- 6 Select the channel to be recorded with CHANNEL +/- or channel number buttons and ENTER.**
- 7 Press the two • REC buttons simultaneously.**
There is only one • REC button on the unit.
Recording starts.

To stop recording

Press ■ STOP.

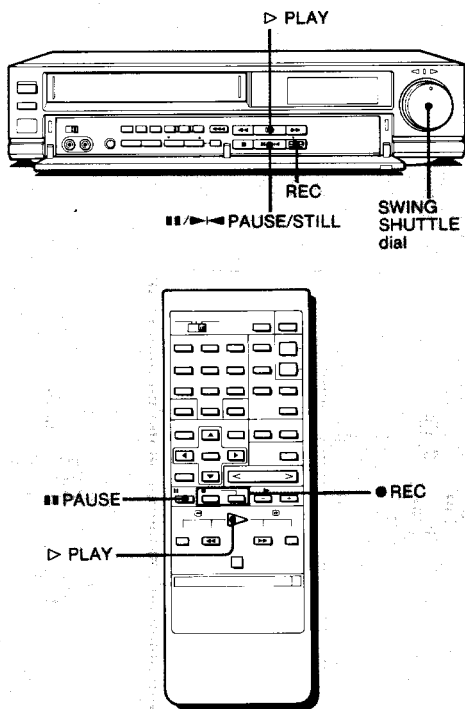
To stop the tape for a moment

Press ■ PAUSE/STILL on the unit or ■ PAUSE.

To resume recording, press ■ PAUSE/STILL or ■ PAUSE. When recording pause mode lasts for more than approximately 5 minutes, the unit enters the stop mode.

When the tape reaches its end

The tape will be rewound to the beginning and the power of the unit is retained.



Temporarily Stopping Recording at a Particular Point

Technique 1

You can stop recording when unwanted scene appears and resume recording smoothly.

- 1 Press **||| PAUSE/STILL** or **||| PAUSE** when an unwanted scene appears.
Recording will stop and the VCR will enter the pause mode.
- 2 Press **||| PAUSE/STILL** or **||| PAUSE** at the desired point to release the recording pause mode.
Recording will resume from the point set in step 1.

Technique 2

When an unwanted scene has already started to be recorded, you can return the tape to the desired point, have the SLV-353UC stand-by in the recording pause mode, and resume recording at the desired scene smoothly.

- 1 Set the VCR to the recording pause mode.
- 2 Turn the **SWING SHUTTLE** dial to the left and search for the point from which you wish to continue recording.
- 3 Release the **SWING SHUTTLE** dial at the desired point.
After an instant of STILL mode, the VCR will automatically enter the recording pause mode.
- 4 Press **||| PAUSE/STILL** or **||| PAUSE**.
Recording will resume.

To Record a Program without Watching the TV

Turn off the power of the TV or color monitor.
There will be no interference to the recording.

What the VTR Indicator in the display window indicates during recording

VTR indicator	Picture on the TV screen
Lit	Channel selected by the VCR
Unlit	Channel selected by the TV

Watching One TV Program While Recording Another

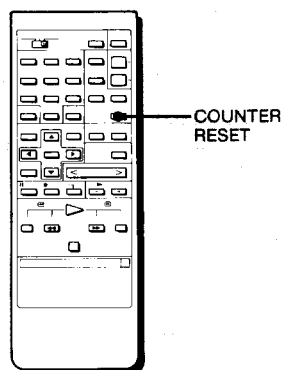
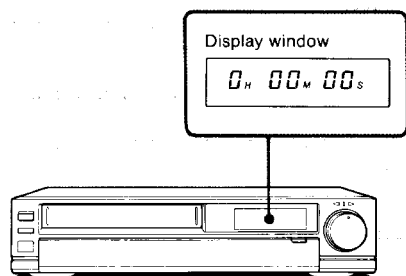
- 1 Press **ANT TV/VTR** so that the VTR indicator is turned off.
- 2 Select the channel you want to watch on the TV.

Note

If you are using a color monitor, you cannot watch another program during recording unless the monitor has an internal TV tuner.

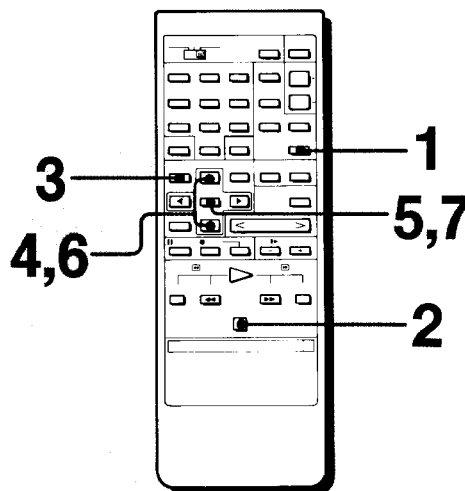
Use of the Tape Counter

Indexing the Tape Contents



Tape Return/Tape Return Play

Tape return
Stops the tape at the counter zero point.



Before starting recording or playback, press COUNTER RESET to reset the counter to zero. By noting the counter reading at the desired point, you can easily find that point later by referring to the counter. Use the label on the cassette to list the programs and their counter readings.

Note on counter reading

Even after a cassette is ejected, the counter reading is retained; however when a cassette is inserted again, the counter will return to "0H00M00S."

- 1** During playback or recording, press the **COUNTER RESET** at the point you want to locate later.
The tape counter will display "0H00M00S."

- 2** When recording or playback is completed, press **STOP**.

- 3** Press **MENU**.

MENU

AUTO MENU
TIMER SET/CHECK
▶ MODE SET
TUNER PRESET
FUNCTION MEMORY
CLOCK SET
DEMONSTRATION

- 4** Move the cursor to **AUTO MENU**.

MENU

▶ AUTO MENU
TIMER SET/CHECK
MODE SET
TUNER PRESET
FUNCTION MEMORY
CLOCK SET
DEMONSTRATION

- 5** Press **EXECUTE**.

AUTO MENU

▶ PLAY - REW - POWER OFF
GO TO ZERO - STOP
GO TO ZERO - PLAY
GO TO REC START - PLAY
REW - POWER OFF
REW - EJECT - POWER OFF
REW - PLAY
REW - TIMER REC

- 6** Move the cursor to **GO TO ZERO — STOP**.

AUTO MENU

PLAY-REW-POWER OFF
▶ GO TO ZERO - STOP
GO TO ZERO - PLAY
GO TO REC START - PLAY
REW - POWER OFF
REW - EJECT - POWER OFF
REW - PLAY
REW - TIMER REC

- 7** Press **EXECUTE**.
The tape will be rewound or advanced close to the counter zero point and stop.

GO TO ZERO - STOP

◀ EP 0:01:09

Tape return play

Starts playback automatically from the counter zero point.

- 1** Follow steps 1 to 5 in "Tape return."

- 2** Move the cursor to **GO TO ZERO — PLAY**.

AUTO MENU

PLAY - REW - POWER OFF
GO TO ZERO - STOP
▶ GO TO ZERO - PLAY
GO TO REC START - PLAY
REW - POWER OFF
REW - EJECT - POWER OFF
REW - PLAY
REW - TIMER REC

- 3** Press **EXECUTE**.

GO TO ZERO - PLAY

◀ EP 0:01:40

Notes

- The tape counter does not work when the inserted tape has no recordings.
- There may be a difference of several seconds between the COUNTER ZERO position you have marked and the position detected by the VCR.

Timer Recording

You can preset up to eight recordings as much as one month in advance. The recordings can be preset with the Commander only while referring to the **TIMER SET/CHECK** menu on the TV screen.

Before You Begin

- The date and clock must be set correctly. (See "Date and Clock Setting.")
- Make sure that the cassette tape is long enough to record all the programs.
- Make sure that the safety tab on the cassette is not broken off. If you insert a cassette without its safety tab and press **TIMER REC ON/OFF**, the cassette will automatically be ejected.
- Turn on the VCR and the TV.

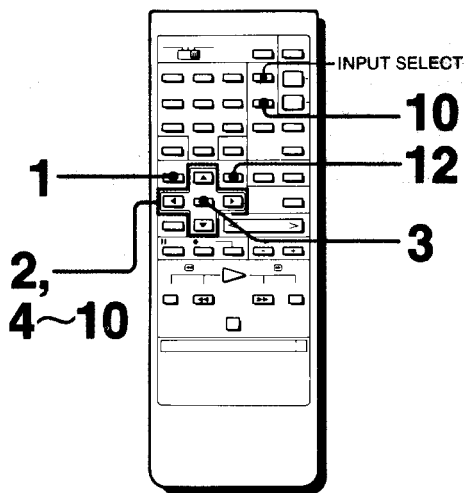
Recording from today to one month later

If today is August 31st, you can set the timer to record a program broadcast between today and September 30 (for 31 days). If today is January 31st, you can set the timer to record a program broadcast between today and February 28th (for 29 days). A leap year is automatically considered.

Timer Setting Example

Suppose you want record a program broadcast on channel 26 from 9:00 PM to 10:55 PM on Thursday August 3rd in SP mode.

Use ◀ and ▶ to select the items.
Use ▲ and ▼ to change the numbers.



Operation

1 Press **MENU**.

```

MENU
▶ AUTO MENU
  TIMER SET/CHECK
  MODE SET
  TUNER PRESET
  FUNCTION MEMORY
  CLOCK SET
  DEMONSTRATION
    
```

2 Move the cursor to **TIMER SET/CHECK**.

```

MENU
  AUTO MENU
  ▶ TIMER SET/CHECK
  MODE SET
  TUNER PRESET
  FUNCTION MEMORY
  CLOCK SET
  DEMONSTRATION
    
```

3 Press **EXECUTE**.

The **TIMER SET/CHECK** menu will be displayed on the screen. When the clock is not set properly, a short beep alerts you. Return to "Date and Time Setting" section to reset the clock.

```

TIMER SET/CHECK  7/28  FRI
DATE    ON  OFF  CH
▶ --/--  --/--  --/--  --
--/--  --/--  --/--  --
--/--  --/--  --/--  --
--/--  --/--  --/--  --
--/--  --/--  --/--  --
--/--  --/--  --/--  --
--/--  --/--  --/--  --
    
```

- 4 Press ►.**
Make sure that today's date is flashing. If not, set the correct time. (See "Date and Time Setting.")

TIMER	SET/CHECK	7/28	FRI
DATE	ON	OFF	CH
7/28	FRI	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---

- 10 Press ► to flash the recording speed position. Press ▲ or ▼ to select the tape speed, SP or EP.**
REC MODE can also be used.

TIMER	SET/CHECK	7/28	FRI
DATE	ON	OFF	CH
8/3	THU PM 9:00	10:55	26 SP
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---

- 5 Press ▲ to set the month and date to 8/3 THU.**
The day of the week is automatically set.

TIMER	SET/CHECK	7/28	FRI
DATE	ON	OFF	CH
8/3	THU	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---

- 11 Press ► to store the setting.**
When all of the settings stop flashing with a ► on the left most position indicates that this setting has been completed.

TIMER	SET/CHECK	7/28	FRI
DATE	ON	OFF	CH
► 8/3	THU PM 9:00	10:55	26 SP
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---

- 6 Press ► to flash the hours section under "ON" then ▲ until PM:26 appears.**

TIMER	SET/CHECK	7/28	FRI
DATE	ON	OFF	CH
8/3	THU PM 9:00	10:55	26 SP
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---

- 12 Press EXECUTE.**
Press **TIMER REC ON/OFF** to enter the recording stand-by mode.

TIMER	SET/CHECK	7/28	FRI
DATE	ON	OFF	CH
► 8/3	THU PM 9:00	10:55	26 SP
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---

- 7 Press ► to flash minute section under "ON" then ▲ or ▼ until 00 appears.**

TIMER	SET/CHECK	7/28	FRI
DATE	ON	OFF	CH
8/3	THU PM 9:00	10:55	26 SP
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---

To preset another program
Move the cursor to the second line and repeat steps 4 to 11.

To record video sources from LINE 1 or 2 jacks
Press **INPUT SELECT** during steps 4 to 11 to call up LINE 1 or 2 under the "CH" position. The indication will return to channel numbers on the third press.

- 8 Press ►.**
The on-time will blink under "OFF." Set the turn-off time referring to steps 6 and 7. If you went past the desired turn-off time, press ▼ to go back instead of ▲. Pressing ▲ will advance the setting to 12 hours later than the desired turn-on time.

TIMER	SET/CHECK	7/28	FRI
DATE	ON	OFF	CH
8/3	THU PM 9:00	10:55	26 SP
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---

- 9 Press ► to flash the CH position.**
Press ▲ or ▼ until 26 appears.
Only the channels preset in the VCR will appear. Channel number buttons can also be used.

TIMER	SET/CHECK	7/28	FRI
DATE	ON	OFF	CH
8/3	THU PM 9:00	10:55	26 SP
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---

Problem when TIMER REC ON/OFF is pressed

The cassette is ejected automatically.	The safety tab on the inserted cassette has been removed.
The TIMER REC indicator does not appear.	<ul style="list-style-type: none"> No cassette has been inserted. The tape is at its end.

If a power interruption occurs

- If a power interruption lasting less than approximately three hours occurs while the VCR is waiting for the preset time, the VCR will re-enter the timer recording standby mode.
- If a power interruption lasting more than approximately three hours occurs before a timer recording, the memory will be cleared. Reset the date and time for timer recording.
- If a power interruption lasting less than approximately three hours occurs during a timer recording, the VCR will start recording again and the tape counter will indicate "0H00M00S."

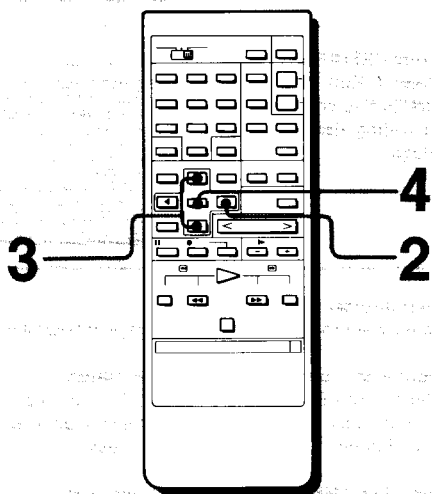
Every Week and Every Day Recording

Weekly or daily timer recording can be set on this VCR. This function is convenient if, for example, you wish to record the same program every Friday from 9:00 to 11:00 PM on channel 8.

Operation

Use ▲ or ▼ to move the cursor and to change the items.

Use ◀ or ▶ to make the desired items blink.



- 1 Follow steps 1 to 3 in "Timer Recording" (page 38).

TIMER	SET/CHECK	8/4	FRI
DATE	ON	OFF	CH
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-

- 2 Press ▶ to make the DATE position blink.

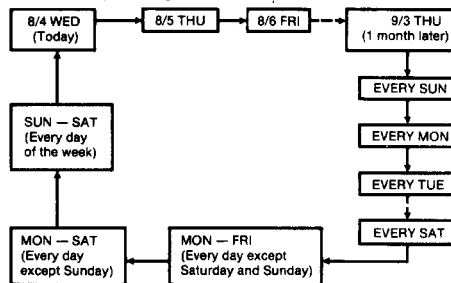
TIMER	SET/CHECK	8/4	FRI
DATE	ON	OFF	CH
8/4	FRI	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-

- 3 Change the indication under DATE.

Each press of ▲ changes the indication as follows. ▼ changes the indication in the reverse direction.

TIMER	SET/CHECK	8/4	FRI
DATE	ON	OFF	CH
EVERY SAT	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-

Example: Today is August 4th.



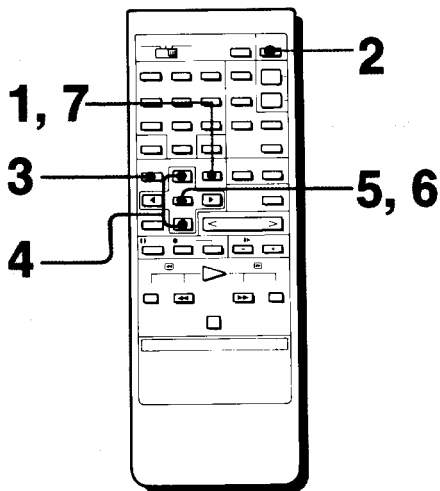
- 4 Press EXECUTE to store the setting and return to the original screen.

- 5 Follow steps 6 to 12 in "Timer Recording" (page 39).

To Check Timer Settings

You can display all of the timer settings on the TV screen to check the settings.

Press ▲ or ▼ to move the cursor.



1 Press **TIMER REC ON/OFF** to turn off the **TIMER REC** indicator in the display window.

2 Press **POWER**.

3 Press **MENU**.

MENU

► **AUTO MENU**
TIMER SET/CHECK
MODE SET
TUNER PRESET
FUNCTION MEMORY
CLOCK SET
DEMONSTRATION

4 Move cursor to **TIMER SET/CHECK**.

MENU

AUTO MENU
 ► **TIMER SET/CHECK**
MODE SET
TUNER PRESET
FUNCTION MEMORY
CLOCK SET
DEMONSTRATION

5 Press **EXECUTE**.
 The **TIMER SET/CHECK** menu appears.

TIMER	SET/CHECK	8/4	FRI
DATE	ON	OFF	CH
►8/4	FRI AM 7:00	8:00	12 SP
8/15	TUE PM 12:00	2:15	LINE2 EP
9/3	SUN PM 1:00	2:00	LINE1 SP
MON	FRI PM 11:00	11:15	6 EP
MON	SAT AM 8:15	8:30	15 SP
SUN	SAT PM 9:00	11:00	10 EP
EVERY	SAT PM 8:00	8:54	8 EP
8/27	SUN AM 10:00	12:00	50 SP

6 Press **EXECUTE** to return to original screen.

7 Press **TIMER REC ON/OFF** to return to the timer recording stand-by mode.

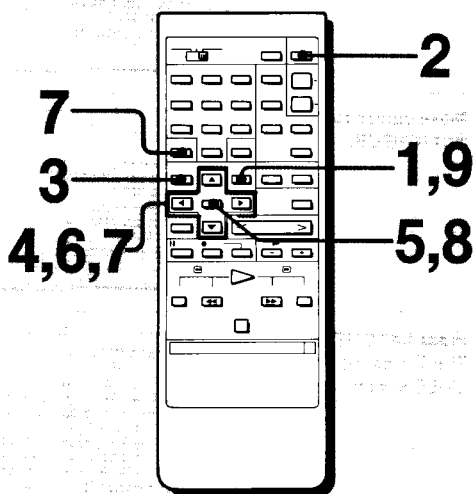
The **TIMER/SET CHECK** menu

When a recording is set for only one day, that program will be erased from the **PROGRAM LIST** after the recording is over.

To Change or Cancel the Timer Settings

The timer settings can be changed or canceled by referring to the TIMER SET/CHECK menu.

Use ▲ and ▼ to move the cursor.
Use ◀ and ▶ to change the blinking positions.



1 Press **TIMER REC ON/OFF** to turn off the **TIMER REC** indicator in the display window.

2 Press **POWER**.

3 Press **MENU**.

MENU

- ▶ AUTO MENU
- TIMER SET/CHECK
- MODE SET
- TUNER PRESET
- FUNCTION MEMORY
- CLOCK SET
- DEMONSTRATION

4 Move the cursor to **TIMER SET/CHECK**.

MENU

- AUTO MENU
- ▶ **TIMER SET/CHECK**
- MODE SET
- TUNER PRESET
- FUNCTION MEMORY
- CLOCK SET
- DEMONSTRATION

-
- 5** Press **EXECUTE**.
TIMER SET/CHECK menu appears.

TIMER	SET/CHECK	8/4	FRI
DATE	ON	OFF	CH
▶8/4	FRI	AM 7:00	8:00 12 SP
8/15	TUE	PM 12:00	2:15 LINE2 EP
9/3	SUN	PM 1:00	2:00 LINE1 SP
MON	FRI	PM 11:00	11:15 6 EP
MON	SAT	AM 8:15	8:30 15 SP
SUN	SAT	PM 9:00	11:00 10 EP
EVERY	SAT	PM 8:00	8:54 8 EP
8/27	SUN	AM 10:00	12:00 50 SP

-
- 6** Move the cursor to the program you wish to change or cancel.

TIMER	SET/CHECK	8/4	FRI
DATE	ON	OFF	CH
8/4	FRI	AM 7:00	8:00 12 SP
▶8/15	TUE	PM 12:00	2:15 LINE2 EP
9/3	SUN	PM 1:00	2:00 LINE1 SP
MON	FRI	PM 11:00	11:15 6 EP
MON	SAT	AM 8:15	8:30 15 SP
SUN	SAT	PM 9:00	11:00 10 EP
EVERY	SAT	PM 8:00	8:54 8 EP
8/27	SAT	AM 10:00	12:00 50 SP

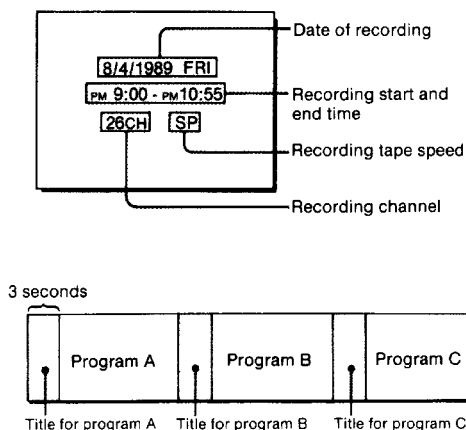
-
- 7** To cancel it, press **TIMER CLEAR**.
To change it, make the item to be changed blink by pressing ◀ or ▶ and make the necessary changes by pressing ▲ or ▼.

-
- 8** Press **EXECUTE** to store the changes and to return to the original screen.

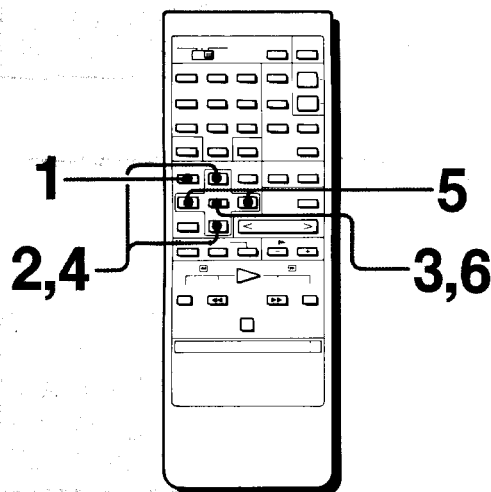
-
- 9** Press **TIMER REC ON/OFF** to return to the timer recording stand-by mode.
-

Recording a Timer Title

A timer title, consisting of recording information given in the illustration, can be recorded at the beginning of a recorded program. The VCR will be automatically turned on 20 seconds prior to the preset timer recording time and the timer title screen will be recorded for 3 seconds. Then the VCR will enter the recording pause mode and start recording at the preset time. This function is convenient when searching for a certain program on a tape on which several programs have been recorded. The timer title will automatically be recorded when a timer recording is made. If you wish to record without the timer title, change the setting by the following operations.



Operation



1 Press MENU.

```
MENU
▶ AUTO MENU
  TIMER SET/CHECK
  MODE SET
  TUNER PRESET
  FUNCTION MEMORY
  CLOCK SET
  DEMONSTRATION
```

5 Select OFF to record without a timer title.

```
MODE SET
  AUTO ANT SEL  • ON  OFF
▶ TIMER TITLE   • ON  • OFF
  TIMER REC - REW  ON  • OFF
  BACK COLOR     • BL  GR  PK
```

2 Move cursor to MODE SET.

```
MENU
  AUTO MENU
  TIMER SET/CHECK
▶ MODE SET
  TUNER PRESET
  FUNCTION MEMORY
  CLOCK SET
  DEMONSTRATION
```

6 Move cursor to BACK COLOR and select the background color; BL for blue, GR for green, or PK for pink.

```
MODE SET
  AUTO ANT SEL  • ON  OFF
  TIMER TITLE   • ON  OFF
  TIMER REC - REW  ON  • OFF
▶ BACK COLOR     • BL  GR  PK
```

3 Press EXECUTE. MODE SET menu appears.

```
MODE SET
▶ AUTO ANT SEL  • ON  OFF
  TIMER TITLE   • ON  OFF
  TIMER REC - REW  ON  • OFF
  BACK COLOR     • BL  GR  PK
```

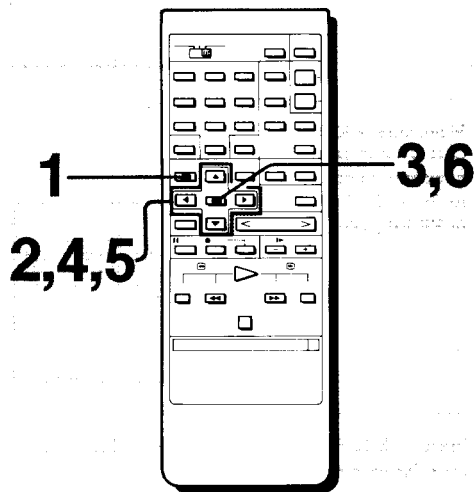
7 Press EXECUTE to enter the setting and to return to the original screen.

4 Move cursor to TIMER TITLE.

```
MODE SET
  AUTO ANT SEL  • ON  OFF
▶ TIMER TITLE   • ON  OFF
  TIMER REC - REW  ON  • OFF
  BACK COLOR     • BL  GR  PK
```

To Rewind the Tape Automatically after Timer Recording

Use ▲ and ▼ to move the cursor.
Use ◀ and ▶ to select the items.



1 Press MENU.

MENU

▶ AUTO MENU
TIMER SET/CHECK
MODE SET
TUNER PRESET
FUNCTION MEMORY
CLOCK SET
DEMONSTRATION

2 Move cursor to MODE SET.

MENU

AUTO MENU
TIMER SET/CHECK
▶ MODE SET
TUNER PRESET
FUNCTION MEMORY
CLOCK SET
DEMONSTRATION

3 Press EXECUTE. The MODE SET menu appears.

MODE SET

▶ AUTO ANT SEL • ON OFF
TIMER TITLE • ON OFF
TIMER REC - REW ON • OFF
BACK COLOR • BL GR PK

4 Move cursor to TIMER REC — REW.

MODE SET

AUTO ANT SEL • ON OFF
TIMER TITLE • ON OFF
▶ TIMER REC - REW ON • OFF
BACK COLOR • BL GR PK

5 Select ON.

MODE SET

AUTO ANT SEL • ON OFF
TIMER TITLE • ON OFF
▶ TIMER REC - REW ON OFF
BACK COLOR • BL GR PK

6 Press EXECUTE to store the setting and to return to the original screen.

When timer recording is finished, the VCR will automatically rewind the tape to the beginning of that program.

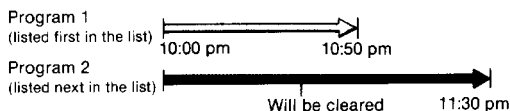
Notes

- If you have set more than one timer recording, the TIMER REC — REWIND function will not be activated until all of the recording is completed.
- If the tape reaches its end during timer recording, the tape will be rewound to the recording start point and the power will be turned off.

When Preset Timer Recordings Overlap

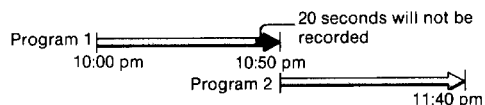
If the turn-on time of two programs are the same

The program listed first on the program list has priority over the other programs. The timer recording parameters of lower priority programs will be erased from the PROGRAM LIST when recording is over.



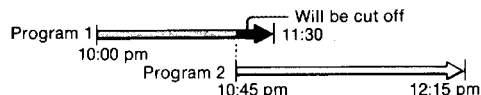
If the recording start time of program 2 is the same as the recording end time of program 1

The last 20 seconds of program 1 will not be recorded.



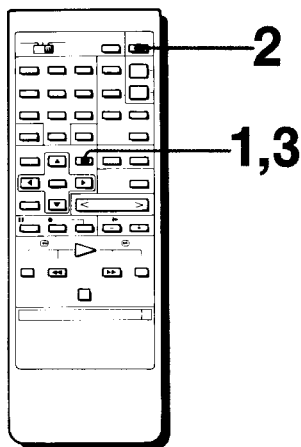
If the recording start time of program 2 comes before recording of program 1 is over

The recording of program 2 will begin before program 1 is finished.



Using the VCR before Timer Recording Starts

If you want to use the VCR when it is in the timer recording standby mode, you must first turn off the TIMER REC indicator in the display window and get out of the timer recording standby mode.



1 Press **TIMER REC ON/OFF** so that the **TIMER REC** indicator in the display window is turned off.

2 Turn on the power of the VCR.
Now the VCR is ready to be used.

3 After using the VCR, press **TIMER REC ON/OFF** to return to the timer recording standby mode and to light the **TIMER REC** indicator.

After Entering the Timer Recording Stand-by Mode

Automatic power on

The VCR is automatically turned on when the set time comes and starts recording. When it completes recording, the power is automatically turned off.

To stop recording activated by the timer

Press **TIMER REC ON/OFF**.

Buttons which can be operated during timer recording

- **TIMER REC ON/OFF**
- **COUNTER RESET** (See "Use of the Tape Counter.")
- **ANT TV/VTR** (See "Watching One TV Program While Recording Another.")
- **DATA SCREEN** (See "Playing a Tape — About the Data Screen.")
- **INDEX MARK** (See "Index Function.")
- **TIMER SET/CHECK** (For checking the programs only. See "To Check Timer Settings.")

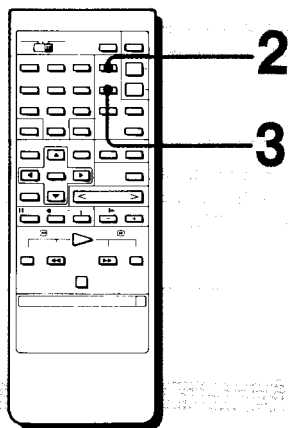
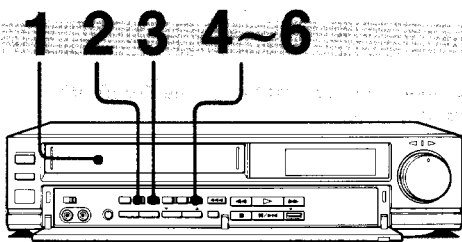
Quick Timer Recording

This function is convenient when, for example, you want to set the VCR to start recording immediately without going through the whole timer setting procedure. However, the quick timer recording function only provides a very rough setting for the desired program.

Before You Begin

- Press **TIMER REC ON/OFF** if the **TIMER REC** indicator is turned on.
- If you are currently recording, perform step 6 only.

Operation



- 1 Insert a cassette.**
- 2 Press INPUT SELECT** so that the **TUNER** indicator is turned on.
- 3 Press REC MODE** to decide the tape speed, **SP** or **EP**.
- 4 Press QUICK TIMER on the VCR.**
Select the channel for recording with **CHANNEL +/-** or channel number buttons while the channel display is blinking.
- 5 Press QUICK TIMER again** to start recording.
- 6 To decide the recording duration, press QUICK TIMER to change the duration indicator.**
Every press of **QUICK TIMER** increases the recording duration in units of 30 minutes, up to 8 hours.

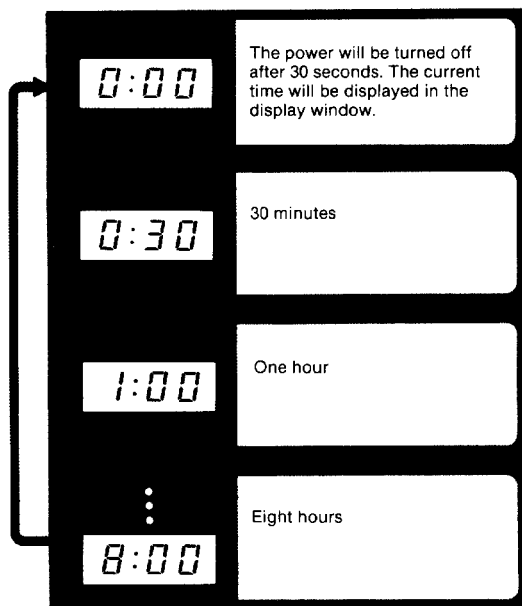
You can leave your VCR after turning off the TV. The VCR will automatically be turned off when the recording is finished.

If a cassette without its safety tab is inserted

The cassette will be ejected automatically when you press **QUICK TIMER**.

Recording Duration Indicator

Every time you press QUICK TIMER, the recording duration indicator will change as shown in the illustration. The recording duration can be changed by pressing QUICK TIMER even during quick timer recording. The duration indicator counts down the recording time minute by minute during recording.



Buttons Operable during Quick Timer Recording

PAUSE	To stop quick timer recording momentarily.
TIMER REC ON/OFF	To stop quick timer recording.
QUICK TIMER	To change recording duration.
COUNTER RESET	To reset the tape counter to zero.
INDEX MARK	To mark an index signal.
ANT TV/VTR	To watch the picture broadcast on another channel.
MENU	Only operable to check the timer recording settings. (See "To Check Timer Settings.")

If the tape runs out during quick timer recording

Recording will stop and the power will be turned off. The tape will not be rewound automatically.

If a power interruption occurs during quick timer recording

Recording will stop and the power will be turned off. If the power interruption lasts less than three hours and the power is restored before the recording end time, recording will start again from that point.

Index Function

A particular program can be easily located by an index signal marked on the tape.

To Mark Index Signals

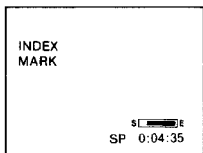
The INDEX indicator blinking in the display window and the INDEX MARK display on the screen show that an index signal has been marked.

Automatic index mark

An index signal is automatically marked at the beginning of recording.

Manual index mark

Index signals can be marked at any desired point during any recording or normal playback. Press INDEX MARK to mark an index signal.

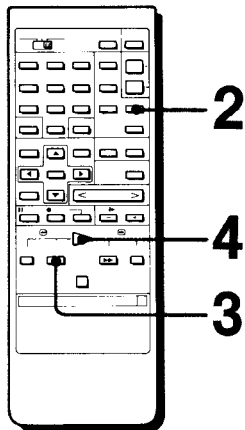


Notes

- Leave an interval of more than 2 minutes between index signals when marking them one after the other so that the VCR can detect them correctly.
- While an index signal is being marked during playback, the recorded sound will not be heard, but it will not be erased.
- You cannot mark an index signal in the following erases:
 - On a tape without its safety tab.
 - On an unrecorded portion of a tape.
 - Immediately before a point on the tape where the tape speed (EP or SP) changes.
 - When playing back a tape recorded in LP mode.

Index Scan

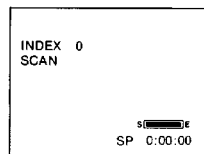
The beginning of each program can be found and played back by using the index signals.



1 Insert a cassette with index signals.

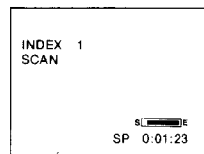
2 Press INDEX once.

The INDEX or SCAN indicator blinks alternately in the display window.



3 To scan the previous programs, press ◀◀ REW. To scan the programs ahead, press ▶▶ FF.

The INDEX SCAN indicator will blink continuously while scanning. The tape will be rewound or rapidly advanced to the next marked index signal. The tape will be played back for approximately 10 seconds from the index signal, and then be rewound or advanced to the next index signal. Every time an index signal is detected and playback begins, the displayed index number will increase.

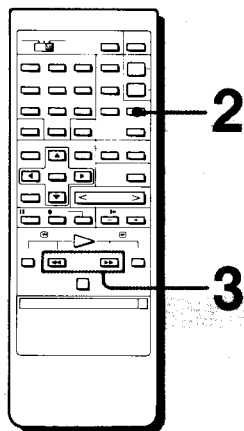


4 When the desired program is detected, press ▷ PLAY.

Playback will start from that point.

Index Search

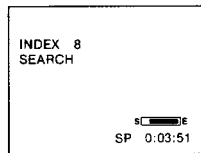
A particular program can be located and be played back by designating how many index signals ahead or behind that program is from the current position. Up to 19 indexes can be searched for.



1 Insert a cassette with index signals.

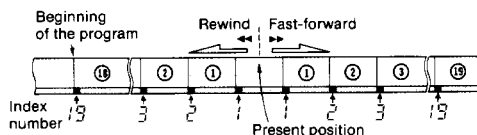
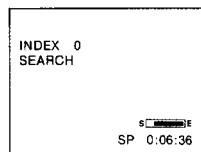
2 Press INDEX until the index number of the desired program is displayed.

The INDEX indicator and the INDEX SEARCH number will light up in the display window.



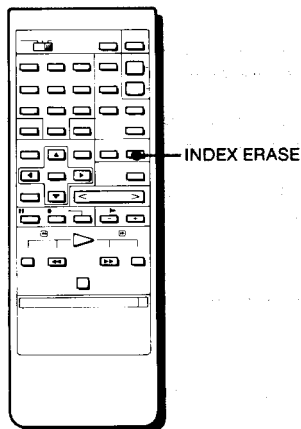
3 To locate a previous program on the tape, press ◀ REW. To locate a program ahead, press ▶▶ FF.

The tape will be rewound or rapidly advanced. Every time an index signal is detected, the INDEX SEARCH number will decrease. When the number reaches 0, playback of your desired program will begin.

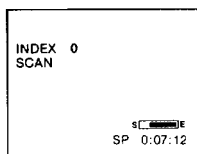


Erasing Index Signals

Unnecessary index signals can be erased.

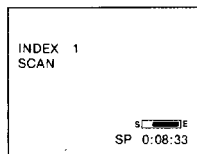


1 Press INDEX once.



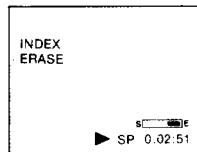
2 Press ◀ REW or ▶▶ FF.

The tape will be rewound or rapidly advanced. Every time an index signal is detected, the tape will be played back and then rewound or advanced to the next index signal.



3 When you reach the index signal you wish to erase, press ERASE within approximately 10 seconds after you have verified the playback picture.

While the index signal is being erased, the recorded sound will not be heard, but it will not be erased from the tape.



Using an additional VCR, you can create your own video program tapes.

Before You Begin

When using the SLV-353UC as the recording VCR

Before editing, check these settings:

- **INPUT SELECT:** Select LINE 1 or LINE 2, whichever the playback VCR is connected to.
- **REC MODE:** Select SP or EP.
- **EDIT indicator:** Press EDIT to light the EDIT indicator.

When using the SLV-353UC as the playback VCR

Before editing, check the setting:

- **EDIT indicator:** Press EDIT to light the EDIT indicator.

Caution

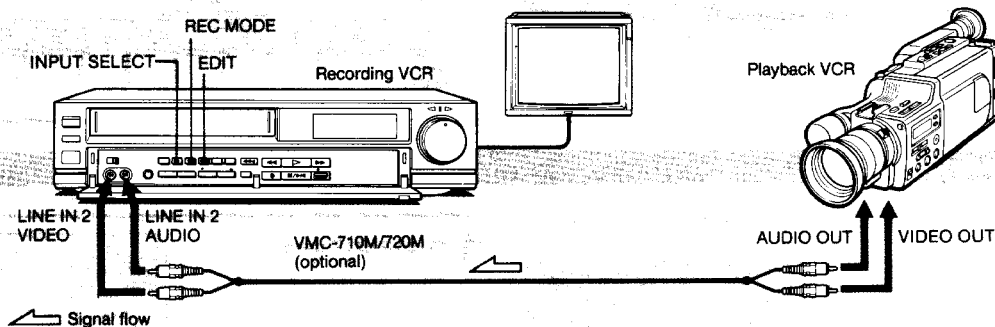
Television programs, films, video tapes and other materials may be copyrighted. Unauthorized duplication of such material may be contrary to the provisions of the copyright laws.

Use of the EDIT button

Even when using the EDIT mode during editing, the quality of the edited tape will have a certain amount of deterioration in picture and sound. Please avoid using an edited tape for multiple generations of editing.

Editing with a VCR without a Sony Control Terminal

Using this VCR as the recording VCR and a 8 mm Video Camera Recorder as the player



- 1 Insert a tape for recording into the recording VCR.
- 2 Turn on the power of the playback VCR and insert a source tape.
- 3 Activate the EDIT mode on the recording VCR. Activate the EDIT mode on the playback VCR if the player has this function.
- 4 Search for the playback start point and enter the playback pause mode.
- 5 Search for the recording start point and enter the recording pause mode.
- 6 Press the PAUSE button on both of the units. Recording of the signals from the playback VCR will start.

When editing is completed

Press the STOP button on both of the VCRs.

When pressing PAUSE

Press the PAUSE button on the playback VCR a little before pressing the one on the recording VCR.

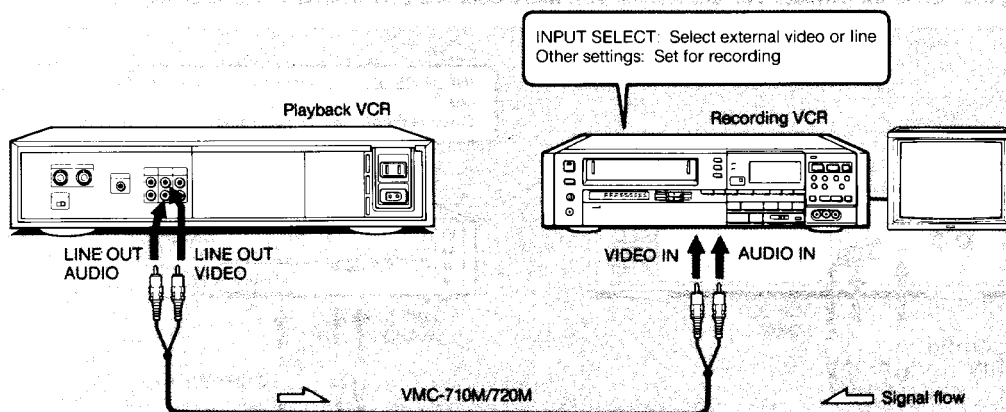
When the recording VCR is a stereo unit

Make connections with the optional VMC-901MS/920MS cable.

When connecting the VCRs

Do not connect both LINE IN and LINE OUT jacks on the two VCRs simultaneously. Doing so may cause a humming noise.

Using this VCR as the playback VCR and a Betamax VCR as the recording VCR



- 1** Turn on the power of the recording VCR and insert a tape for recording.
- 2** Insert a source tape into the playback VCR.
- 3** Activate the EDIT mode on the playback VCR.
Activate the EDIT mode on the recording VCR if the recorder has this function.
- 4** Search for the playback start point and enter the playback pause mode.
- 5** Search for the recording start point and enter the recording pause mode.
- 6** Press the PAUSE button on both of the units.
Recording of the signals from the playback VCR will start.

When editing is completed

Press the STOP button on both of the units.

When pressing PAUSE

Press the PAUSE button on the playback VCR a little before pressing the one on the recording VCR.

When the recording VCR is a stereo unit

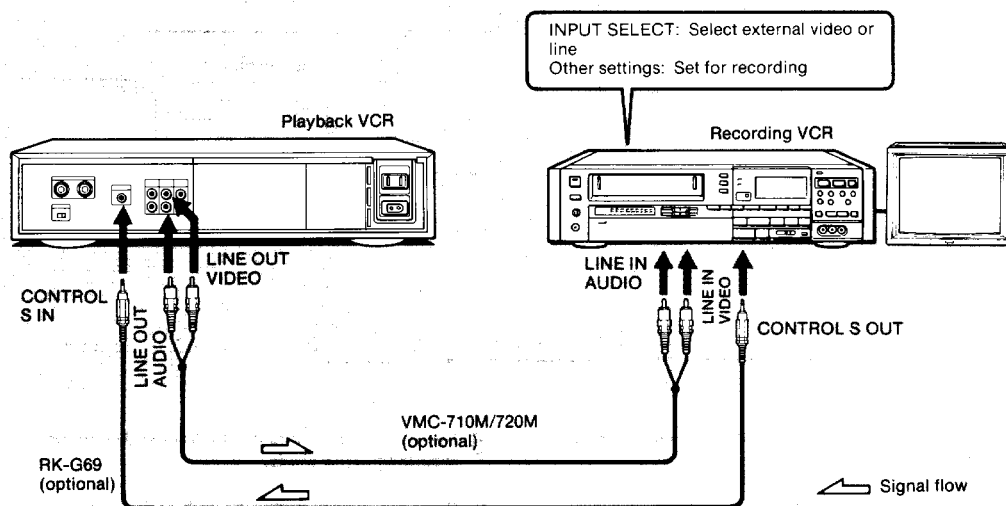
Make connections with the optional VMC-910MS/920MS cable.

When connecting the VCRs

Do not connect both LINE IN and LINE OUT jacks on the two VCRs simultaneously. Doing so may cause a humming noise.

Editing with a VCR with a Control S Out Terminal

Using this VCR as the playback VCR and another VCR with a Control S OUT terminal as the recording VCR



- 1** Turn on the power of the recording VCR and insert a tape for recording.
- 2** Insert a source tape into the playback VCR.
- 3** Search for the edit start point and enter the recording pause mode.
- 4** Search for the playback start point and enter the recording pause mode.
- 5** Press **SYNCHRO EDIT** on the recording VCR.
Recording of the playback signal will start.
- 6** At the desired edit end point, press **SYNCHRO EDIT** on the recording VCR.
The recording VCR will enter the recording pause mode and the playback VCR will enter the playback pause mode.

To edit the next scene

Repeat steps 3, 5 and 6.

When editing is completed

Press **STOP** on both of the units.

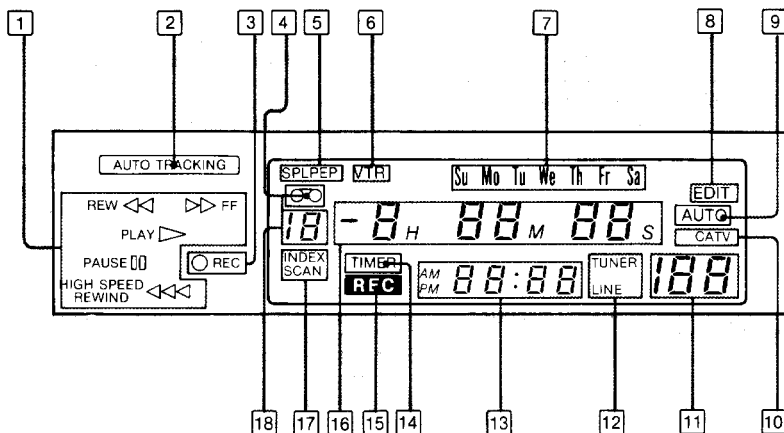
When the recording VCR is a stereo unit

Make connections with the optional cable VMC-901MS/920MS.

When connecting the VCRs

Do not connect both **LINE IN** and **LINE OUT** jacks on the two VCRs simultaneously. Doing so may cause a humming noise.

Indications in the Display Window



- | | |
|--|---|
| <p>1 Tape operation indicator</p> <p>2 AUTO TRACKING indicator
Blinks while the VCR is searching for the best tracking condition and lights when the best tracking condition is obtained.</p> <p>3 REC (recording) indicator</p> <p>4 Cassette indicator</p> <p>5 Tape speed indicator
LP is only for playback.</p> <p>6 VTR indicator</p> <p>7 Day of the week indicator</p> <p>8 EDIT indicator</p> <p>9 Automatic function indicator</p> <p>10 CATV indicator</p> | <p>11 Channel/input mode number indicators</p> <p>12 Input mode indicators</p> <p>13 Current time</p> <p>14 TIMER recording indicator
Appears while the unit is performing timer-recording, is waiting for the turn-on time of timer recording, or is performing quick timer recording.</p> <p>15 REC (recording) indicator
Appears while the unit is performing normal recording, timer recording, or is waiting for the turn-on time of timer-recording, or is performing quick timer recording.</p> <p>16 Linear time counter</p> <p>17 INDEX, INDEX SCAN indicator</p> <p>18 INDEX number indicator</p> |
|--|---|

Troubleshooting

If any difficulty should arise during operation, first check the power cord connection, then go through the following list. Should the difficulty persist, unplug the unit, and contact your Sony dealer or local authorized Sony service facility.

	Symptom	Possible causes and remedies
Power	The POWER switch does not function.	<ul style="list-style-type: none"> • The power cord is disconnected. • The VCR is in the timer recording standby mode.
	The power is turned off.	<ul style="list-style-type: none"> • The safety device on the unit has activated. Turn the power off, disconnect the power cord from the wall outlet and leave the unit for more than 1 minute.
Clock and timer	The clock has stopped and "AM 12:00" is blinking.	<ul style="list-style-type: none"> • There has been a power interruption. Reset the date, clock time, and timer setting.
TV reception	TV program is not clearly displayed on the TV screen.	<ul style="list-style-type: none"> • The channel for the VCR is not correctly tuned on the TV receiver. • The TV signal is weak. Adjust the direction of the antenna. • The AC power cord of the VCR is disconnected.
Recording and playback	Noisy picture during recording	<ul style="list-style-type: none"> • The TV's channel is not set to that preset for the VCR. • The TV signal is weak. Adjust the direction of the antenna.
	No picture on the TV screen	<ul style="list-style-type: none"> • Press TV/VTR so that the VTR indication appears in the display window. • The TV's channel is not set to 3 CH or 4 CH, or the video input has not been selected at the monitor.
	Recording cannot be made.	<ul style="list-style-type: none"> • No cassette has been inserted. • The tape is at its end. • INPUT SELECT is not set correctly.
	The playback picture is not clear.	<ul style="list-style-type: none"> • The channel for the VCR is not correctly tuned on the TV receiver. • A tape recorded on another VCR is being played back. Adjust the tracking with the TRACKING NORMAL/ SLOW and STILL ADJUST ▼/▲. • The video heads are dirty. Clean the heads using the Sony T-25CL video head cleaning cassette. For details on cleaning, refer to the instructions furnished with the cleaning cassette. If the cleaning cassette is not available in your area, have the heads cleaned at your nearest Sony facility. (Do not use a commercially available wet-type cleaning cassette. It may damage the video heads.) • The video heads are worn out. • Adjust SHARPNESS.
	The picture moves vertically during picture search mode.	<ul style="list-style-type: none"> • Adjust the vertical hold control on the TV or color monitor.
	Distorted or noisy sound	<ul style="list-style-type: none"> • Recording level was not properly adjusted.

	Symptom	Possible causes and remedies
Recording and playback	Sound drop-out	<ul style="list-style-type: none"> • The tape is defective. • Use a new video cassette tape.
Timer recording	Timer setting cannot be made.	The current time has not been preset.
	The TIMER REC indicator is not lit even though you've pressed TIMER REC ON/OFF.	<ul style="list-style-type: none"> • No cassette has been inserted. • The tape is at its end. • No program is set for timer recording.
	The cassette is ejected when you press TIMER REC ON/OFF.	• The safety tab of the cassette has been removed.
	Timer recording was not made.	<ul style="list-style-type: none"> • There has been a power interruption of 3 hours or more. • TIMER REC ON/OFF was not pressed.
Data screen	The data screen disappears	<ul style="list-style-type: none"> • Press DATA SCREEN. • The TV or color monitor is connected via the LINE OUT jacks.
Others	Cassette cannot be inserted	• A cassette has already been inserted.
	The Commander cannot be operated.	<ul style="list-style-type: none"> • The COMMAND MODE switch has not been set correctly. • The batteries are exhausted.
	A short beep sounds repeatedly.	An illogical operation has been made.

Specifications

System

Video recording system	Rotary two-head helical scanning FM system
Video signal	EIA standard, NTSC color
Tape speed	SP: 33.35 mm/sec. (1 1/4 inches/second) EP: 11.11 mm/sec. (3/8 inches/second) LP: 22.22 mm/sec. (7/8 inches/second) Playback only
Maximum recording/playback time	8 hours in EP mode (with T-160)
Fast-forward and rewind time	Approx. 4 min. (with T-120)
High speed rewind time	Approx. 2 min. 30 sec. (with T-120)

Tuner Section

Tuner system (audio)	Split inter-carrier system
Channel coverage	VHF channels 2 to 13 UHF channels 14 to 69 CATV channels A-8 to A-1, A to W, W+1 to W+84
Antenna	75 ohm antenna terminal for VHF/UHF

Inputs and Outputs

LINE IN 1 and 2	VIDEO IN (phono jack) (1) each Input signal: 1 Vp-p, 75 ohms, unbalanced, sync negative AUDIO IN (phono jack) (1) each Input level: -7.5 dBs (0 dBs = 0.775 Vrms) Input impedance: more than 47 kilohms
LINE OUT	VIDEO OUT (phono jack) (1) Output signal: 1 Vp-p, 75 ohms, unbalanced, sync negative AUDIO OUT (phono jack) (1) Standard output: -7.5 dBs at load impedance 47 kilohms Output impedance: less than 10 kilohms
MONITOR OUT	VIDEO OUT (phono jack) (1) Output signal: 1 Vp-p, 75 ohms, unbalanced, sync negative AUDIO OUT (phono jack) (1) Standard output: -7.5 dBs at load impedance 47 kilohms Output impedance: less than 10 kilohms
CONTROL S IN	Minijack (1)

Timer Section

Clock	Quartz locked
Time indication	12-hour cycle
Timer setting	Only for recording 8 programs in one month at max.
Power back up	Built-in self-charging battery Back-up duration: Up to 3 hours at one time

General

Power requirements	120 V AC, 60 Hz
Power consumption	29W
AC outlet	Max. 400W (unswitched)
Operating temperature	5° C to 40° C (41° F to 104° F)
Storage temperature	-20° C to 60° C (-4° F to 140° F)
Dimensions	430 x 99 x 364 mm (w/h/d) (17 x 4 x 14 3/8 inches)
Weight	5.7 kg (12 lb 9 oz)

Wireless Commander RMT-V353

Remote control system	Infrared control
Command mode	VTR 1/2/3 switchable
Power requirements	3V DC, 2 size AA batteries (IEC designation R6)
Dimensions	62 x 20 x 175 mm (w/h/d) (2 1/2 x 7/8 x 7 inches)
Weight	95g (4.7 oz) (excluding batteries)

Accessories Supplied

Wireless Commander RMT-V353 with two size AA batteries (IEC designation R6)	(1)
75-ohm coaxial cable with F-type connectors	(1)
Antenna connector	(1)
AC power cord	(1)

Design and specifications are subject to change without notice.