

# ***Video Cassette Recorder***

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Operating Instructions

**VHS**

**Hi-Fi**

**G-CODE**

***KARAOKE***

***SLV-K877PL***

## WARNING

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

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

The AC power cord must be changed only at a qualified service shop.

## 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.

## Precautions

### Safety

- This unit operates on 110 – 240 V AC, 50/60 Hz. Check that the unit's operating voltage is identical with your local power supply.
- If anything falls into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Unplug the unit from the wall outlet if you do not intend to use it for an extended period of time. To disconnect the cord, pull it out by the plug, never by the cord.

### Installing

- Allow adequate air circulation to prevent internal heat buildup.
- 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.
- Do not install the unit in an inclined position. It is designed to be operated in a horizontal position only.
- Keep the unit and cassettes away from equipment with strong magnets, such as microwave ovens or large loudspeakers.
- Do not place heavy objects on the unit.
- If the unit is brought directly from a cold to a warm location, moisture may condense inside the VCR and cause damage to the video head and tape. When you first install the unit, or when you move it from a cold to a warm location, wait for about one hour before operating the unit.

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Quick reference to using the VCR

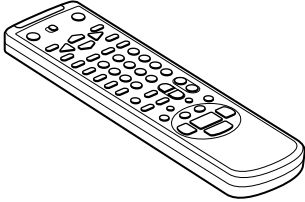
\* G-CODE is a trademark of Gemstar Development Corporation. The G-CODE system is manufactured under license from Gemstar Development Corporation.

# Step 1

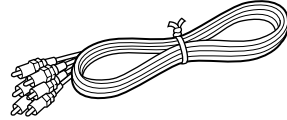
## Unpacking

Check that you have received the following items with the VCR:

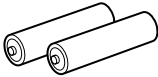
- Remote commander



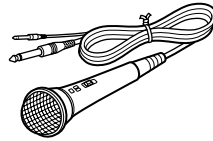
- Audio/video cable (3-phono to 3-phono)



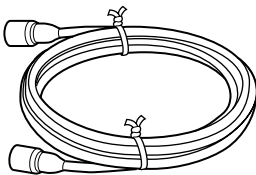
- Size AA (R6) batteries



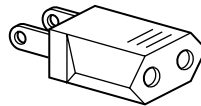
- Microphone



- 75-ohm coaxial cable with F-type connectors



- Plug adaptor



If the plug supplied with your VCR does not fit your power outlet, attach the supplied adaptor to the plug.

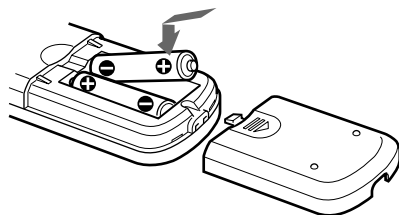
## Step 2

# Setting up the remote commander

### Inserting the batteries

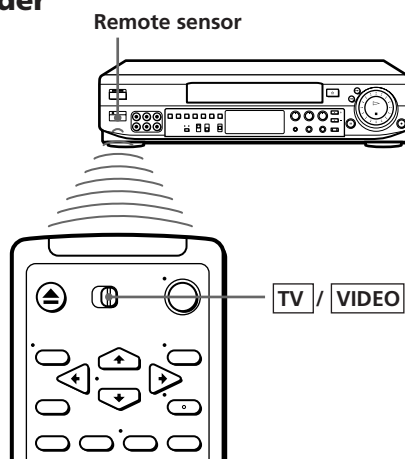
Insert two size AA (R6) batteries by matching the + and - on the batteries to the diagram inside the battery compartment.

Insert the negative (-) end first, then push in and down until the positive (+) end clicks into position.



### Using the remote commander

You can use this remote commander to operate this VCR and a Sony TV. Buttons on the remote commander marked with a dot (•) can be used to operate your Sony TV.



To operate	Set <b>TV / VIDEO</b> to
the VCR	<b>VIDEO</b> and point at the remote sensor on the VCR
a Sony TV	<b>TV</b> and point at the remote sensor on the TV

### Notes

- With normal use, the batteries should last about three to six months.
- If you do not use the remote commander for an extended period of time, remove the batteries to avoid possible damage from battery leakage.
- Do not use a new battery with an old one.
- Do not use different types of batteries.

## Step 3

# Hookups

### Selecting the best hookup option

There are many ways in which your VCR can be hooked up. To hook up your VCR so that it works best for you, first scan through the table below. Then use the accompanying diagrams and procedures on the following pages to set up your VCR.

If you have	Use	Refer to
TV that has audio/video inputs	<b>Audio/video (A/V) hookup</b> , then follow one of the hookups below.	<b>Pages 7 and 8</b>
Antenna only, no cable TV	<b>Hookup 1</b>	<b>Pages 9 to 10</b>
Cable box with many scrambled channels	<b>Hookup 2</b>	<b>Pages 12 to 14</b>
No cable box or cable box with only a few scrambled channels	<b>Hookup 3</b>	<b>Pages 15 to 17</b>
Cable box with only a few scrambled channels, using an A/B switch	<b>Hookup 4</b>	<b>Pages 18 to 20</b>

After you've completed the connections, follow the instructions for setup. During setup, if you need more details on the procedure described, page numbers are provided where you can find complete, step-by-step instructions.

After you've completed the setup, you're ready to use your VCR. Procedures differ depending on the hookup you used. For an overview, refer to "Quick reference to using the VCR" on the back cover.

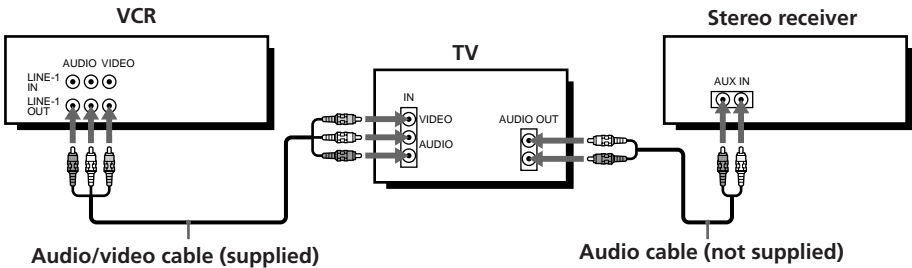
### Before you get started

- Turn off the power to all equipment.
- Do not connect the AC power cords until all of the connections are completed.
- Be sure you make connections firmly. Loose connections may cause picture distortion.
- If your TV doesn't match any of the examples provided, see your nearest Sony dealer or qualified technician.

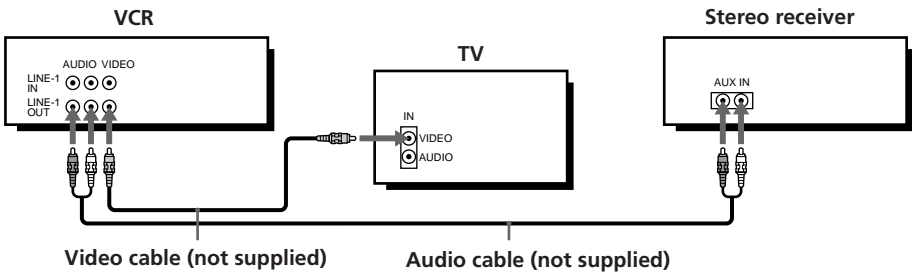
If your TV has audio/video (A/V) input jacks, you will get a better picture and sound if you hook up your VCR using these connections. In addition, for a true “home theater” experience, you should connect the audio outputs of your VCR or TV to your stereo system. If your TV doesn’t have A/V inputs, see the following pages for antenna or cable hookups.

If you’re not planning to use your VCR to record programs, you’re finished setting up the VCR after you’ve made the connections shown on this page. If you want to record off-air or off your cable TV system, complete these connections first, and then go to the following pages for antenna or cable hookups.

**A Use this hookup if your TV has stereo jacks**



**B Use this hookup if your TV doesn't have stereo jacks**



**Notes**

- To play a tape in stereo, you must use the A/V connection.
- If you want to use the Trinitron TV Synchro Play function (page 30), the connection using the audio/video cable is necessary. (If your TV has two or more inputs, connect the audio/video cable to the VIDEO IN 1 jacks.)

continued

## Step 3: Hookups (continued)

### A/V hookup: VCR setup

After you've connected your TV and completed antenna or cable hookup, use the following procedure to set up the VCR.

Press **MENU** and select  
**SET UP MENU.**

```
MENU
TIMER SET / CHECK
KARAOKE PROGRAM
SET UP KARAOKE
▶SET UP MENU
TUNER PRESET
SET G-CODE CHANNELS
CLOCK SET
SELECT : [▲▼]
SET : [EXECUTE]
```



Set **AUTO ANT SEL** to **OFF**  
and press **EXECUTE.**

```
SET UP MENU
▶AUTO ANT SEL ON *OFF
AUTO STEREO *ON OFF
AUDIO MIX ON *OFF
TUNER AUDIO *MAIN SAP
APC *ON OFF
BUZZER *ON OFF
SELECT : [▲▼]
SET : [◆◆]
```

For details, see page 58.

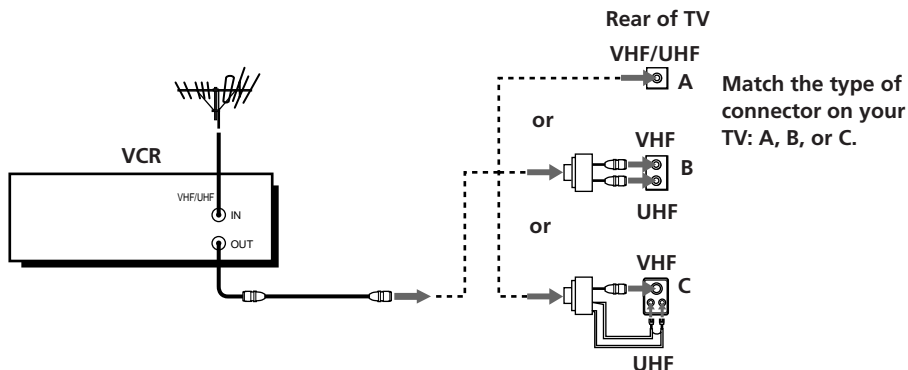


## Antenna hookup

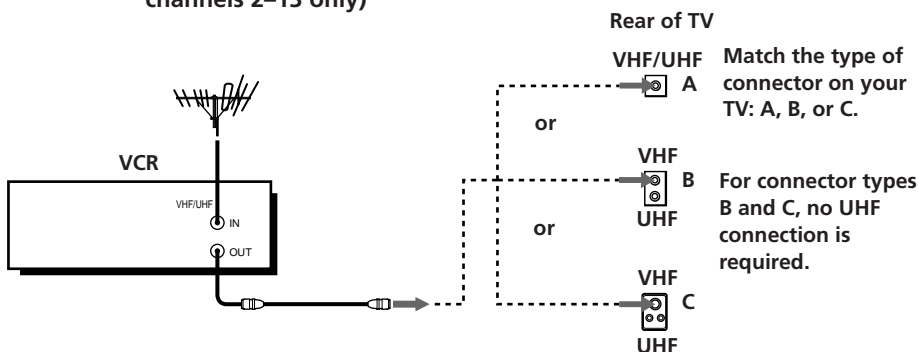
Make the following connections if you're using an antenna (if you don't have cable TV).

### A Use this hookup if you're using:

- VHF/UHF antenna (you get channels 2–13 and channels 14 and higher)
- UHF-only antenna (you get channels 14 and higher)
- Separate VHF and UHF antennas



### B Use this hookup if you're using a VHF-only antenna (you get channels 2–13 only)



### If you cannot connect your antenna cable to the VCR directly

If your antenna cable is a flat cable (300-ohm twin lead cable), attach an external antenna connector (not supplied) so that you can connect the cable to the VHF/UHF IN connector. If you have separate cables for VHF and UHF antennas, you should use a U/V band mixer (not supplied). For details, see page 65.

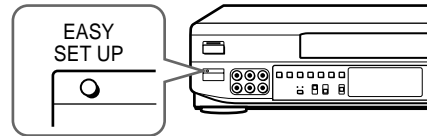
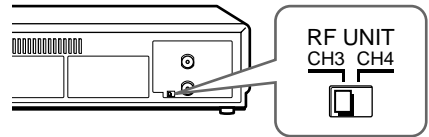
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## Step 3: Hookups (continued)

### Hookup 1: VCR setup

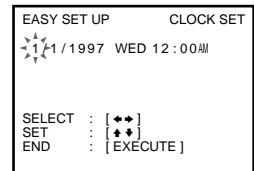
- 1 Set the RF UNIT switch to CH 3 or CH 4, whichever channel is not used in your area. If both are used, set the switch to either channel.

For details, see page 64. If you made A/V connections (from page 7), you can skip this step.

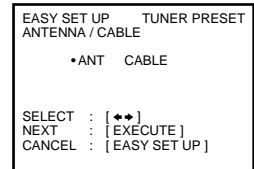


- 2 Press EASY SET UP on the VCR with a ball-point pen, etc.

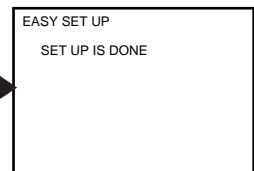
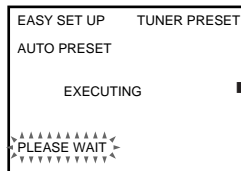
- 1 The CLOCK SET menu appears. Set the clock and press EXECUTE. For details, see page 21.



- 2 The TUNER PRESET menu appears. Set ANTENNA/CABLE to ANT and press EXECUTE. For details, see page 22.



- 3 The AUTO PRESET starts.



↓  
Normal display

## Hookup 1: G-CODE channel setup

- 1 Find the G-CODE Channel Listing in your program guide.
- 2 If the channels in the program guide are different from the channels that you actually use on your TV, set the channels that are different as follows. For details, see page 26.
  - ❶ Press MENU and select SET G-CODE CHANNELS.
- ❷ Enter the program guide channel, then the channel you use on your TV.
- ❸ Press EXECUTE.

```

MENU
TIMER SET / CHECK
KARAOKE PROGRAM
SET UP KARAOKE
SET UP MENU
TUNER PRESET
▶SET G-CODE CHANNELS
CLOCK SET
SELECT : [♦♦]
SET : [EXECUTE]
  
```

```

SET G-CODE CHANNELS
GUIDE CH  TV CH
25      -    15

SET GUIDE CH : [0-9]
CHANNEL LIST : [EXECUTE]
  
```

Program guide channel

Your actual TV channel

### Cable box with many scrambled channels

#### Recommended use

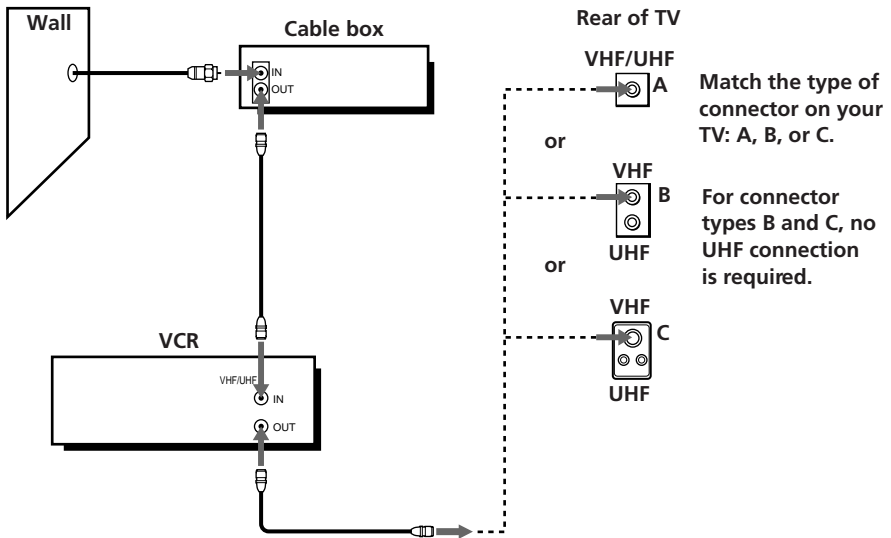
Use this hookup if your cable system scrambles all or most channels.

#### What you can do with this hookup

- Record any channel by selecting the channel on the cable box

#### What you can't do

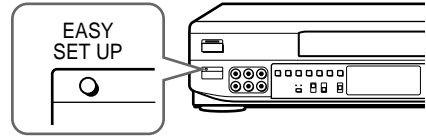
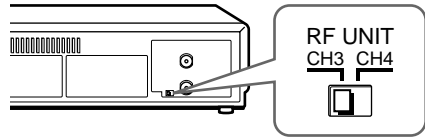
- Record with the cable box turned off
- Record one channel while watching another channel
- Select channels directly on the VCR



## Hookup 2: VCR setup

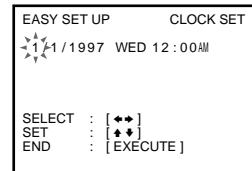
- 1 Set the RF UNIT switch to CH 3 or CH 4, whichever channel is not used in your area. If both are used, set the switch to either channel.

For details, see page 64. If you made A/V connections (from page 7), you can skip this step.

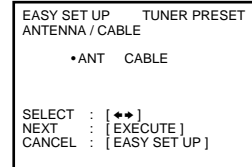


- 2 Turn on your cable box.
- 3 Press EASY SET UP on the VCR with a ball-point pen, etc.

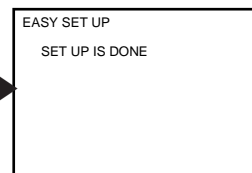
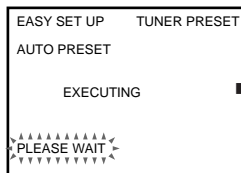
- 1 The CLOCK SET menu appears. Set the clock and press EXECUTE. For details, see page 21.



- 2 The TUNER PRESET menu appears. Set ANTENNA/CABLE to ANT and press EXECUTE. For details, see page 22.



- 3 The AUTO PRESET starts.



Normal display

continued

## Step 3: Hookups (continued)

### Hookup 2: G-CODE channel setup

- 1 Find the G-CODE Channel Listing in your program guide.
- 2 Enter all the channel you want to record and the cable box output channel (usually 2, 3, or 4). For details, see page 26.

- 1 Press MENU and select SET G-CODE CHANNELS.

```
MENU
TIMER SET / CHECK
KARAOKE PROGRAM
SET UP KARAOKE
SET UP MENU
TUNER PRESET
▶SET G-CODE CHANNELS
CLOCK SET
SELECT : [♦♦]
SET : [EXECUTE]
```

- 2 Enter the program guide channel, then the cable box output channel.

- 3 Press EXECUTE.

```
SET G-CODE CHANNELS
GUIDE CH  TV CH
33 - 3
SET GUIDE CH : [0-9]
CHANNEL LIST : [EXECUTE]
```

Program guide channel

Cable box output channel

## No cable box, or cable box with only a few scrambled channels

### Recommended use

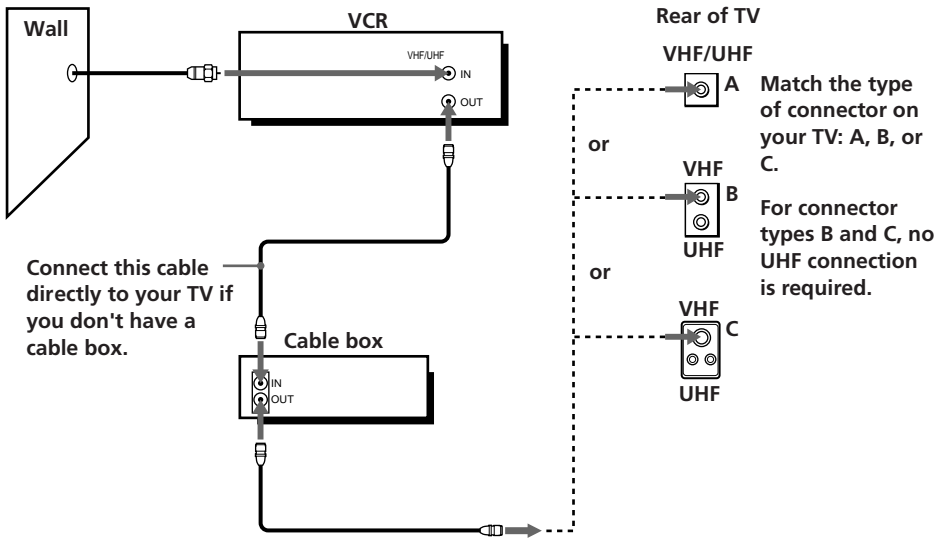
Use this hookup if you do not have a cable box or if your cable system scrambles only a few channels.

### What you can do with this hookup

- Record any unscrambled channel by selecting the channel on the VCR

### What you can't do

- Record scrambled channels that require a cable box



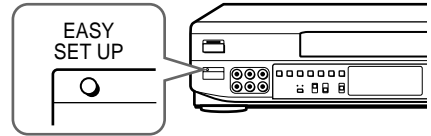
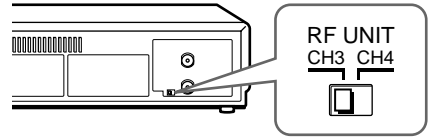
continued

## Step 3: Hookups (continued)

### Hookup 3: VCR setup

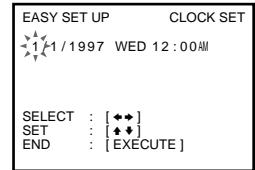
- 1 Set the RF UNIT switch to CH 3 or CH 4, whichever channel is not used in your area. If both are used, set the switch to either channel.

For details, see page 64. If you made A/V connections (from page 7), you can skip this step.

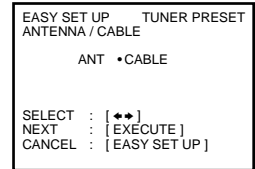


- 2 Press EASY SET UP on the VCR with a ball-point pen, etc.

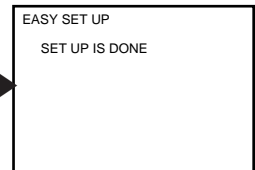
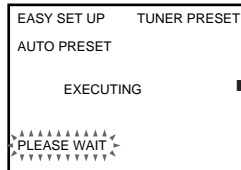
- 1 The CLOCK SET menu appears. Set the clock and press EXECUTE. For details, see page 21.



- 2 The TUNER PRESET menu appears. Set ANTENNA/CABLE to CABLE and press EXECUTE. For details, see page 22.



- 3 The AUTO PRESET starts.



↓  
Normal display



## Hookup 3: G-CODE channel setup

- 1 Find the G-CODE Channel Listing in your program guide.
- 2 If the channels in the program guide are different from the channels that you actually use on your TV, set the channels that are different as follows. For details, see page 26.
  - ❶ Press MENU and select SET G-CODE CHANNELS.
- ❷ Enter the program guide channel, then the channel you use on your TV.
- ❸ Press EXECUTE.

```

MENU
TIMER SET / CHECK
KARAOKE PROGRAM
SET UP KARAOKE
SET UP MENU
TUNER PRESET
▶SET G-CODE CHANNELS
CLOCK SET
SELECT : [♦♦]
SET    : [EXECUTE]
  
```

```

SET G-CODE CHANNELS
GUIDE CH  TV CH
25      -   15

SET GUIDE CH : [0-9]
CHANNEL LIST : [EXECUTE]
  
```

Program guide channel

Your actual TV channel

Hookup 4

**Cable box with only a few scrambled channels, using an A/B switch**

**Recommended use**

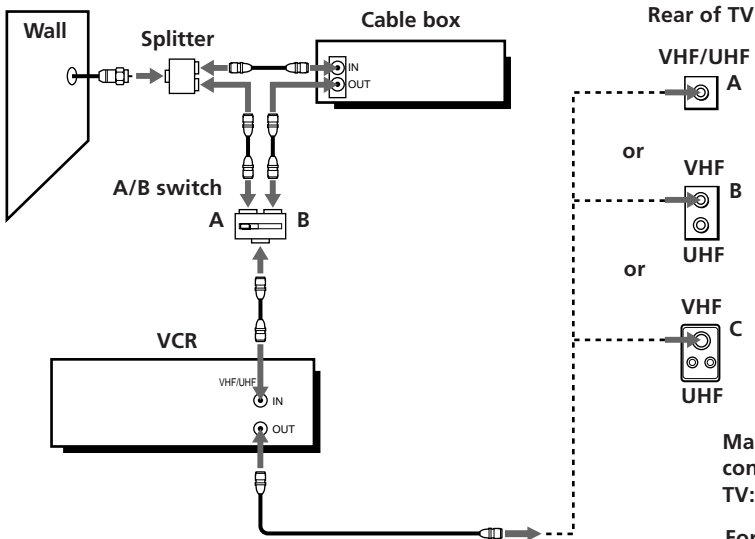
By using an A/B switch (not supplied), this hookup allows you to record both scrambled and unscrambled channels conveniently.

**What you can do with this hookup**

- Record any unscrambled channel by selecting the channel directly on the VCR (the A/B switch is set to A)
- Record any scrambled channel by selecting the channel on the cable box (the A/B switch is set to B)

**What you can't do**

- Record one scrambled channel while watching another channel (the A/B switch is set to B)

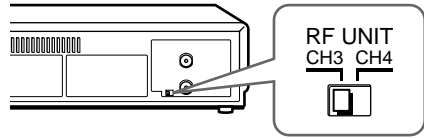


Match the type of connector on your TV: A, B, or C.

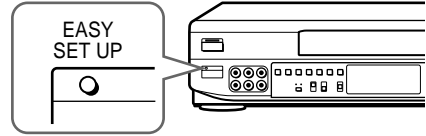
For connector types B and C, no UHF connection is required.

## Hookup 4: VCR setup

- 1 Set the RF UNIT switch to CH 3 or CH 4, whichever channel is not used in your area. If both are used, set the switch to either channel.

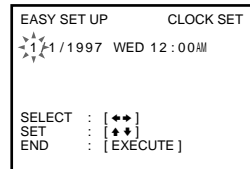


For details, see page 64. If you made A/V connections (from page 7), you can skip this step.

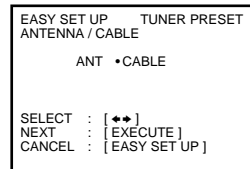


- 2 Set the A/B switch to "A."
- 3 Press EASY SET UP on the VCR with a ball-point pen, etc.

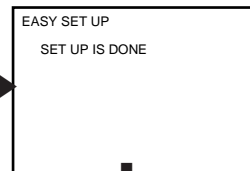
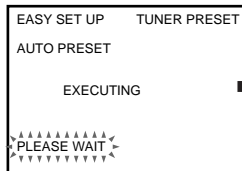
- 1 The CLOCK SET menu appears. Set the clock and press EXECUTE. For details, see page 21.



- 2 The TUNER PRESET menu appears. Set ANTENNA/CABLE to CABLE and press EXECUTE. For details, see page 22.



- 3 The AUTO PRESET starts.



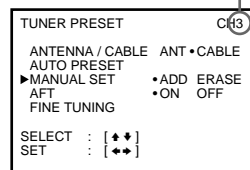
Normal display

- 4 Preset the cable box output channel (usually 2, 3 or 4). For details, see page 24.

- 1 Press MENU and select TUNER PRESET.

### Cable box output channel

- 2 Enter the cable box output channel.



- 3 Set MANUAL SET to ADD and press EXECUTE.

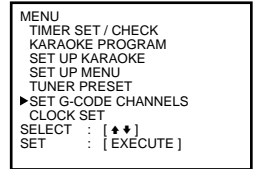
continued

## Step 3: Hookups (continued)

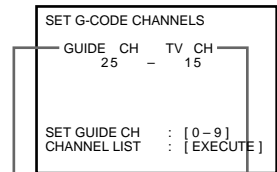
### Hookup 4: G-CODE channel setup

- 1 Find the G-CODE Channel Listing in your program guide.
- 2 For unscrambled channels, if the channels in the program guide are different from the channels that you actually use on your TV, set the channels that are different as follows. For details, see page 26.

- 1 Press MENU and select SET G-CODE CHANNELS.



- 2 Enter the program guide channel, then the channel you use on your TV.



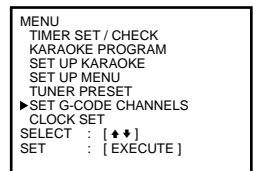
Program guide channel

Your actual TV channel

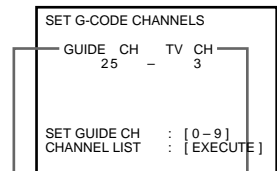
- 3 Press EXECUTE.

- 3 For scrambled channels, enter all the scrambled channels you want to record and the cable box output channel (usually 2, 3, or 4). For details, see page 26.

- 1 Press MENU and select SET G-CODE CHANNELS.



- 2 Enter the program guide channel, then the cable box output channel.



Program guide channel

Cable box output channel

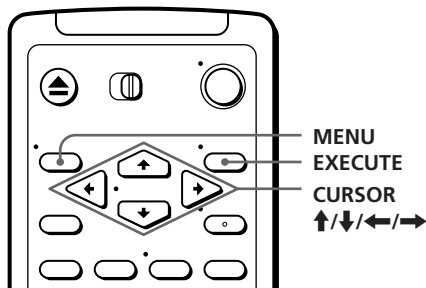
- 3 Press EXECUTE.

# Setting the clock

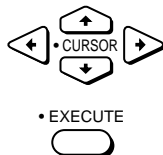
Set the time and date to use the timer feature for recording programs.

## Before you start...

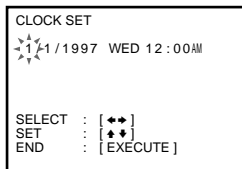
- Turn on the VCR and the TV.
- Set the TV to the VCR channel (channel 3 or 4). If your TV is connected to the VCR using A/V connections, set the TV to video input.
- Press TV/VIDEO to display the VIDEO indicator in the VCR's display window.



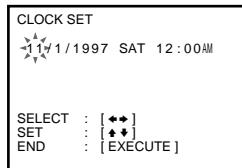
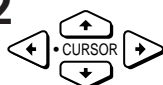
- 1** • MENU
- Press MENU, then press CURSOR  $\uparrow/\downarrow$  to move the cursor ( $\blacktriangleright$ ) to CLOCK SET and press EXECUTE.



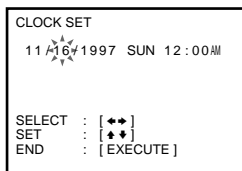
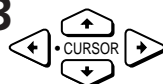
When using the EASY SET UP procedure, skip this step.



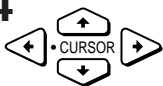
- 2** Press CURSOR  $\uparrow/\downarrow$  to set the month.



- 3** Press CURSOR  $\rightarrow$  to flash the day and press CURSOR  $\uparrow/\downarrow$  to set the day.  
The day of the week is set automatically.



- 4** Set the year, hour, and minutes in the same way as the day.



- 5** • EXECUTE
- Press EXECUTE to start the clock.

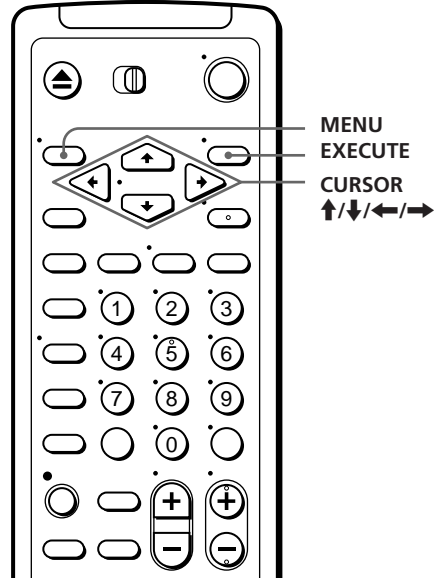


# Presetting channels

This VCR is capable of receiving VHF channels 2 to 13, UHF channels 14 to 69 and unscrambled CATV channels 1 to 125. First, we recommend that you preset the receivable channels in your area using automatic presetting. Then, if there are any unwanted channels, disable them manually. If you have decided which channels you wish to preset, set them directly using manual presetting.

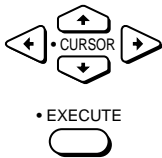
## Before you start...

- Turn on the VCR and the TV.
- Set the TV to the VCR channel (channel 3 or 4). If your TV is connected to the VCR using A/V connections, set the TV to video input.
- Press TV/VIDEO to display the VIDEO indicator in the VCR's display window.



## Presetting all receivable channels automatically

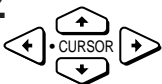
**1** Press **MENU**, then press **CURSOR** **↑/↓** to move the cursor (▶) to **TUNER PRESET** and press **EXECUTE**.



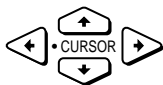
When using the EASY SET UP procedure, skip this step.

TUNER PRESET	CH2
ANTENNA / CABLE	• ANT CABLE
AUTO PRESET	▶ MANUAL SET
AFT	• ADD ERASE
FINE TUNING	• ON OFF
SELECT : [▲▲]	
SET : [◆◆]	

**2** Press **CURSOR** **↑/↓** to select **ANTENNA/CABLE**.



3



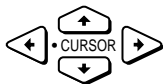
- To preset VHF and UHF channels:

Press CURSOR ←/→ to set ANTENNA/  
CABLE to ANT.

```
TUNER PRESET          CH2
▶ANTENNA / CABLE •ANT  CABLE
AUTO PRESET
MANUAL SET           •ADD ERASE
AFT                  •ON  OFF
FINE TUNING

SELECT : [♦♦]
SET    : [♦♦]
```

- To preset cable TV channels:



Press CURSOR ←/→ to set ANTENNA/  
CABLE to CABLE.

```
TUNER PRESET          CH1
▶ANTENNA / CABLE •ANT •CABLE
AUTO PRESET
MANUAL SET           •ADD ERASE
AFT                  •ON  OFF
FINE TUNING

SELECT : [♦♦]
SET    : [♦♦]
```

4



Press CURSOR ↑/↓ to select AUTO  
PRESET, then press EXECUTE.

All receivable channels are preset in  
numerical sequence. When no more  
receivable channels can be found,  
presetting stops and the picture from the  
lowest numbered channel is displayed on  
the TV screen.

- EXECUTE



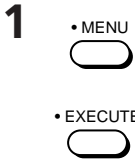
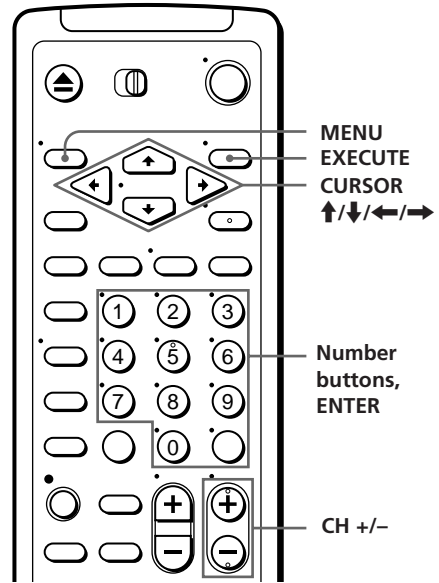
```
TUNER PRESET          CH2
  ANTENNA / CABLE •ANT  CABLE
▶AUTO PRESET
MANUAL SET           •ADD ERASE
AFT                  •ON  OFF
FINE TUNING

*****
▶PLEASE WAIT ◀
*****
```

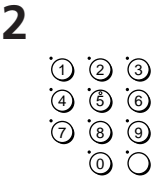
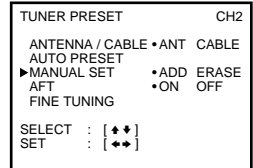
continued

## Presetting channels (continued)

### Presetting/disabling channels manually

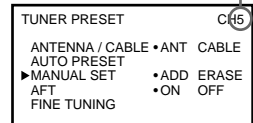


Press MENU and select TUNER PRESET, then press EXECUTE.



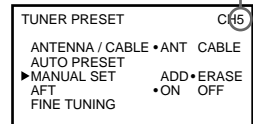
- To preset a channel:
  - 1 Press the number buttons to enter the channel number, then press ENTER.
  - 2 Press CURSOR ←/→ to set MANUAL SET to ADD.

#### Channel to be preset



- To disable a channel:
  - 1 Press CH +/- to select the channel number.
  - 2 Press CURSOR ←/→ to set MANUAL SET to ERASE.

#### Channel to be disabled

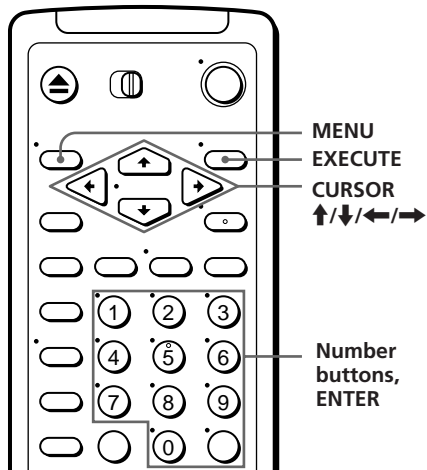


Repeat step 2 to preset or disable channels as required, then press EXECUTE.



## If the picture is not clear

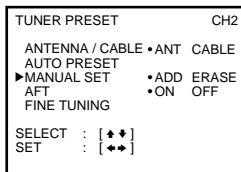
Normally, the Auto Fine Tuning (AFT) function automatically tunes in channels clearly. If, however, the picture of a channel is not clear, you can also use the manual tuning function.



1



Press MENU and select TUNER PRESET, then press EXECUTE.

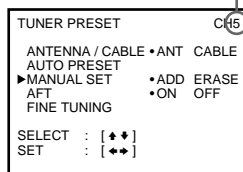


2

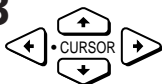


Press the number buttons to select the channel you want to fine-tune, then press ENTER.

Selected channel

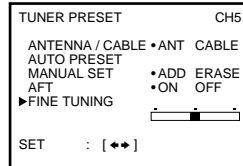


3

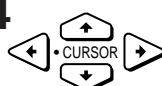


Press CURSOR  $\uparrow/\downarrow$  to select FINE TUNING.

The fine tuning meter appears.

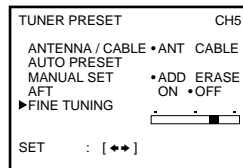


4



Press CURSOR  $\leftarrow/\rightarrow$  to adjust to a clearer picture, then press EXECUTE.

Note that the AFT setting switches to OFF.

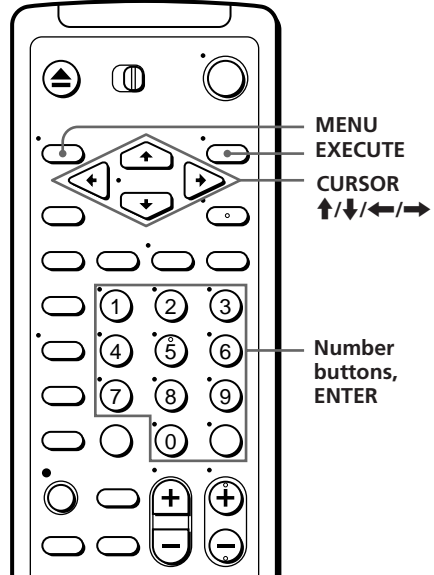


# Setting up G-CODE

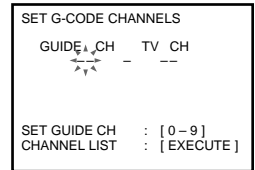
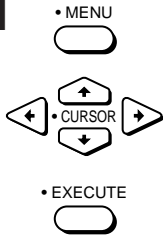
G-CODE is a feature in Sony VCRs that simplifies programming the VCR to make timer recordings. To use G-CODE, each program position needs to be matched with its G-CODE guide channel. To get the guide channel numbers, look in the program guide for your area that features G-CODE numbers.

## Before you start...

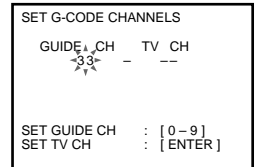
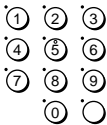
- Turn on the VCR and the TV.
- Set the TV to the VCR channel (channel 3 or 4). If your TV is connected to the VCR using A/V connections, set the TV to video input.
- Press TV/VIDEO to display the VIDEO indicator in the VCR's display window.



- 1** Press MENU, then press CURSOR  $\uparrow/\downarrow$  to move the cursor ( $\blacktriangleright$ ) to SET G-CODE CHANNELS and press EXECUTE.



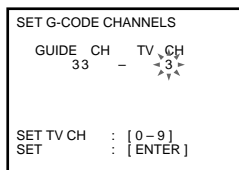
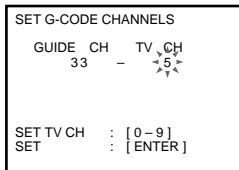
- 2** Enter the channel number assigned in the program guide and press ENTER.



## 3



- If you made Hookup 1 or 3: Enter the actual number on your TV (and VCR) and press ENTER.
- If you made Hookup 2: Enter the cable box output channel (usually 2, 3 or 4) and press ENTER.
- If you made Hookup 4: Enter the actual number on your TV (and VCR) for an unscrambled channel and press ENTER. For a scrambled channel, enter the cable box output channel (usually 2, 3 or 4) and press ENTER.



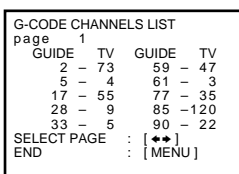
## 4

Repeat steps 2 and 3 for each channel whose numbers don't match.

## 5



When you have set all channels, press EXECUTE to confirm your channel settings.



## 6

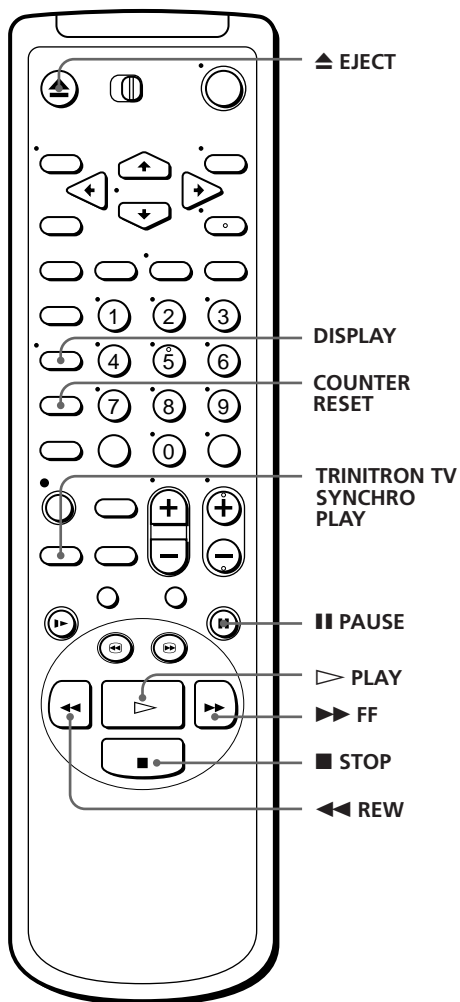


When you've finished, press MENU to exit.

**Note**

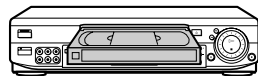
- To display other pages for more than ten guide channels, press CURSOR ◀/▶ repeatedly.


# Playing a tape



**1** Turn on your TV and set it to the video channel.

**2** Insert a tape.  
 The VCR turns on and starts playing automatically if you insert a tape with its safety tab removed.



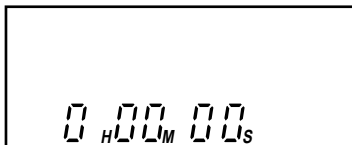
**3** Press  PLAY.  
 When the tape reaches the end, it will rewind automatically.

## Additional tasks

To	Press
Stop play	■ STOP
Pause play	PAUSE
Resume play after pause	PAUSE or ▷ PLAY
Fast-forward the tape	▶▶ FF during stop
Rewind the tape	◀◀ REW during stop
Eject the tape	▲ EJECT

## To use the time counter

At the point on the tape that you want to find later, press COUNTER RESET. The counter in the display window resets to "0H00M00S." Search for the point afterwards by referring to the counter.



To display the counter on the TV screen, press DISPLAY.

### Notes

- The counter resets to "0H00M00S" whenever a tape is reinserted.
- The counter stops counting when it comes to a portion with no recording.
- Tapes recorded in the LP mode on other VCRs can be played back on this VCR but picture quality cannot be guaranteed.

**continued**

## **Turning on the VCR and TV, and starting playback automatically (Trinitron TV Synchro Play)**

You can only use this function if your TV is made by Sony (Trinitron TV).

### **How to connect to use this function**

Connect the VCR and TV with the audio/video cable (see “Audio/video (A/V) hookup” on page 7.) Be sure to connect the audio/video cable to the VIDEO IN 1 jacks on the TV if the TV has two inputs or more. The TV must be placed where it will respond to the remote commander while you are pointing it at the VCR.

### **Operation**

Make sure that the TV’s power is in standby mode.

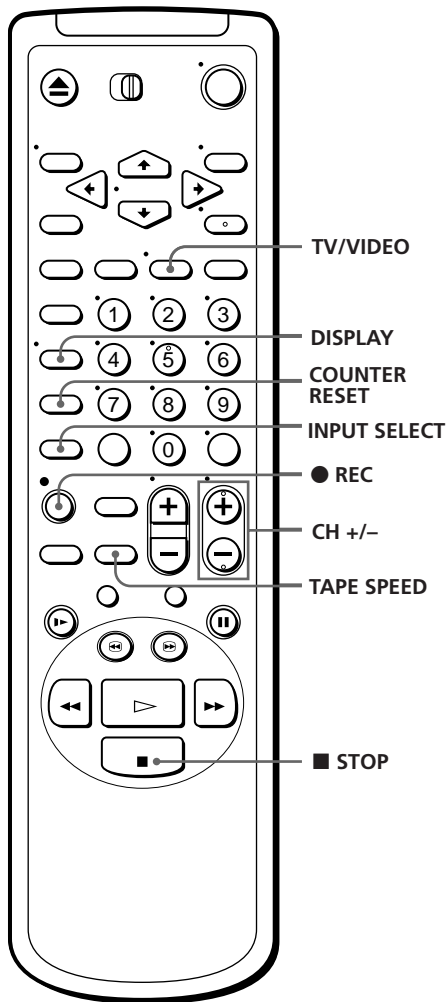
Press TRINITRON TV SYNCHRO PLAY and hold the remote commander in place for about two seconds.

The VCR and TV turn on, and the TV is set to the video channel. If there is a tape in the VCR, playback starts automatically.

### **Notes**

- If the Trinitron TV Synchro Play function does not work properly:
  - Wait a few moments, and press the button again.
  - Replace both of the batteries with new ones, and press the button again.Note that this function may not operate some Sony TVs because of the remote commander’s signal limitations.
- Do not press TRINITRON TV SYNCHRO PLAY while playing back a tape. If you do so, the TV’s input source will momentarily switch to the TV’s tuner.


# Recording TV programs

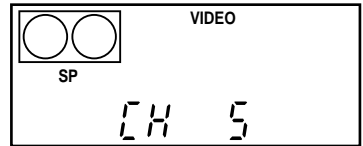



- 1** Turn on your TV and set it to the video channel.  
To record from a cable box, turn it on.
- 2** Insert a tape with its safety tab in place.

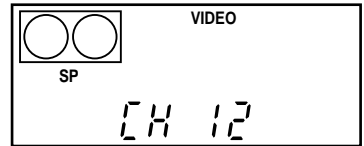
continued


## Recording TV programs (continued)

- 3**  Press INPUT SELECT until a channel number appears in the display window.




- 4**  Press CH +/- to select the channel you want to record.



- 5**  Press TAPE SPEED to select the tape speed, SP or EP.  
EP (Extra Play) provides recording time three times as long as SP (Standard Play), however, SP produces better picture and audio quality.



- 6**  Press ● REC to start recording.  
The REC indicator appears in the display window.

### To stop recording

Press ■ STOP.

### To check the remaining tape length

Press DISPLAY. The white bar indicates the approximate length of tape remaining.





### To watch another TV program while recording

- 1** Press TV/VIDEO to turn off the VIDEO indicator in the display window.
- 2** If the TV is connected to the VCR using an audio/video cable, set the TV to TV input. If the TV is connected to the VCR using only the aerial cable, skip this step.
- 3** Select another channel on the TV.

### To save a recording

To prevent accidental erasure, break off the safety tab as illustrated. To record on a tape again, cover the tab hole with adhesive tape.



### Tips

- To select a channel, you can use the number buttons on the remote commander. Enter the channel number, then press ENTER.
- You can select a video source from the LINE-1 IN or the LINE 2 IN jacks using the INPUT SELECT button.
- The display appears on the TV screen indicating information about the tape, but the information won't be recorded on the tape.
- If you don't want to watch TV while recording, you can turn off the TV. When using a cable box, make sure to leave it on.

### Notes

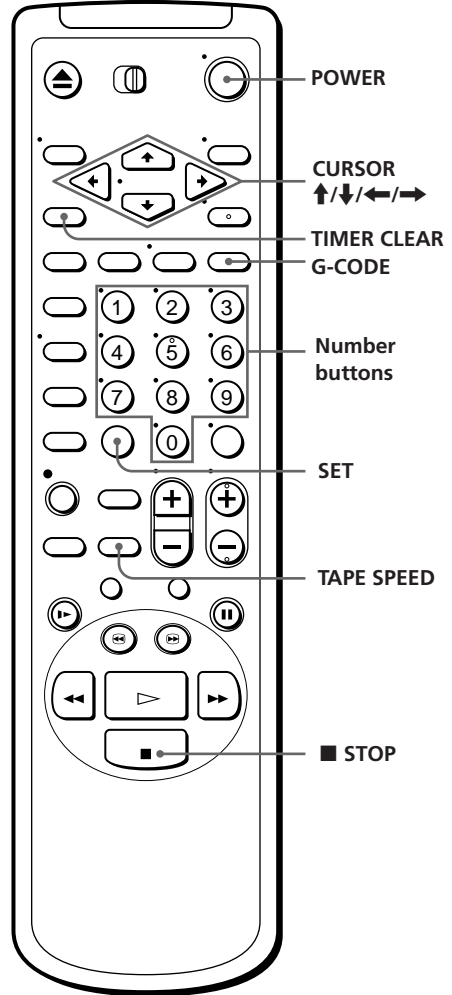
- The remaining tape length may not be indicated accurately for short tapes such as T-20 or T-30, or tapes recorded in the LP mode.
- The display does not appear during still (pause) mode or slow-motion playback.
- It may take up to one minute for the VCR to calculate and display the remaining tape length after you press DISPLAY.
- When the KARAOKE ON/OFF switch is set to ON, the VCR displays the karaoke information (page 48).

# Recording TV programs using G-CODE

Just enter the program's G-CODE number listed in the TV program guide. The date, times, and channel number of that program are set automatically. You can preset up to eight programs at a time.

## Before you start...

- Check that the VCR clock is set to the correct time.
- Turn on your TV and set it to the video channel. When using a cable box, turn it on.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.



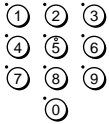
1



Press G-CODE.

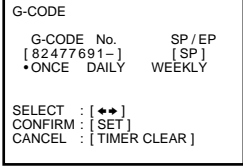
G-CODE	
G-CODE No. [-----]	SP/EP [SP]
SET : [0-9]	
SP/EP : [TAPE SPEED]	

2



Press the number buttons to enter the program's G-CODE number.

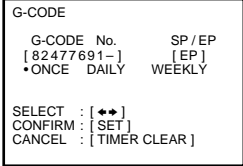
If you make a mistake, press TIMER CLEAR and re-enter the correct number.



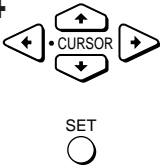
3



Press TAPE SPEED to select SP or EP.

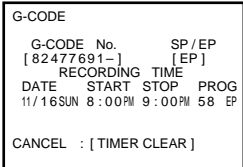


4



Press CURSOR ←/→ to select ONCE, DAILY, or WEEKLY, then press SET:

To record	Select
Only once	ONCE
Everyday Monday to Friday	DAILY
Once a week	WEEKLY



The date, start and stop times, channel number, and tape speed appear on the TV screen.

If the information is not correct, press TIMER CLEAR to cancel the setting.

5

To enter another setting, repeat steps 1 to 4.

6



Press POWER to turn off the VCR.

The TIMER indicator appears in the display window and the VCR stands by for recording. When using a cable box, leave it on.

**To stop recording**

To stop the VCR while recording, press ■ STOP.

continued

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## **Recording TV programs using G-CODE (continued)**

### **To record satellite broadcasts**

If you connect the satellite tuner and the VCR, you can record satellite programs.

- 1** Turn on the satellite tuner.
- 2** On the satellite tuner, select the satellite program for which you wish to make a timer setting.
- 3** Follow the steps on pages 34 and 35.
- 4** Keep the satellite tuner turned on until the VCR finishes recording the satellite program for which you have made a timer setting.

### **To use the VCR after setting the timer**

To use the VCR before a timer recording begins, just press POWER. The TIMER indicator turns off and the VCR switches on. Remember to press POWER to reset the VCR in timer recording standby after using the VCR.

You can also do the following tasks while the VCR is recording:

- Reset the counter.
- Display tape information on the TV screen.
- Check the timer settings.
- Watch another TV program.

### **Tip**

- To cancel the procedure, press G-CODE before pressing SET.

### **Note**

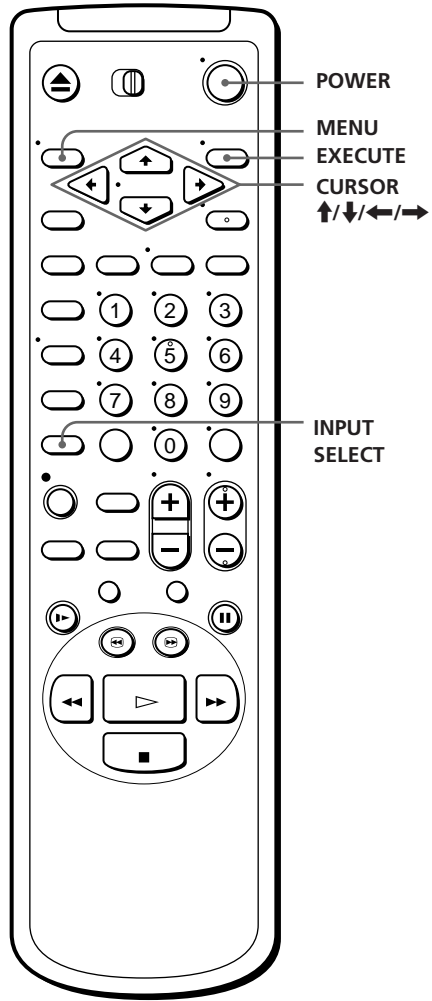
- If the VCR beeps repeatedly, this means that:
  - The G-CODE number is incorrect.
  - ONCE, DAILY, or WEEKLY was selected incorrectly. You cannot select DAILY or WEEKLY for a program that airs more than seven days ahead.

# Setting the timer manually

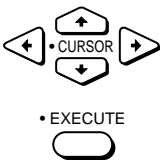
If G-CODE is not available in your area, follow the instructions below to set the timer to record programs.

## Before you start...

- Check that the VCR clock is set to the correct time.
- Turn on your TV and set it to the video channel. When using a cable box, turn it on.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.



**1** • MENU Press MENU and select TIMER SET/  
CHECK, then press EXECUTE.



TIMER SET / CHECK	11 / 16	SUN
DATE	START	STOP CH
▶- / - -	- : - : -	- : - -
- / - -	- : - : -	- - - -
- / - -	- : - : -	- - - -
- / - -	- : - : -	- - - -
- / - -	- : - : -	- - - -
- / - -	- : - : -	- - - -
- / - -	- : - : -	- - - -

continued

## Setting the timer manually (continued)

2



Set the date, start and stop times, channel number, and tape speed:

1 Press CURSOR → to select each item in turn.

2 Press CURSOR ↑/↓ to set each item.

To correct a setting, press CURSOR ← to return to that setting and reset it.

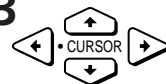
To record the same program every day or the same day every week, press CURSOR ↓ while the date is flashing. For details, see “Daily/weekly recording” below.

TIMER SET / CHECK	11 / 16	SUN	
DATE	START	STOP	CH
▶ 11 / 16 SUN	- : -	- : -	-- SP
X / X X X X	- : -	- : -	--
- / -	- : -	- : -	--
- / -	- : -	- : -	--
- / -	- : -	- : -	--
- / -	- : -	- : -	--
- / -	- : -	- : -	--
- / -	- : -	- : -	--



To record from a source connected to the LINE-1 IN or the LINE 2 IN jacks, press INPUT SELECT to display “L1” or “L2” in the “CH” position.

3



Press CURSOR → to confirm the setting.

To enter another setting, move the cursor to the next line and repeat step 2.

4



Press EXECUTE.

5



Press POWER to turn off the VCR.

The TIMER indicator appears in the display window and the VCR stands by for recording.

When using a cable box, leave it on.

### Daily/weekly recording

In step 2 above, press CURSOR ↓ to select the recording pattern. Each time you press CURSOR ↓, the indication changes as shown below. Press CURSOR ↑ to change the indication in reverse order.

the current date → SUN-SAT → MON-SAT → MON-FRI → EVERY SAT .....  
→ EVERY MON → EVERY SUN → 1 month later → (dates count down)  
→ the current date

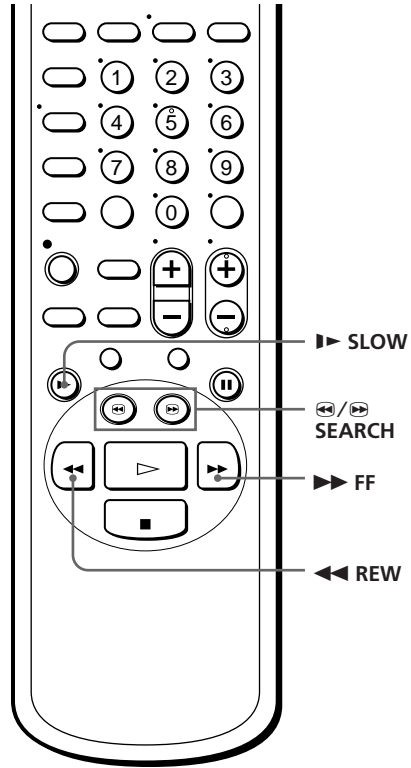
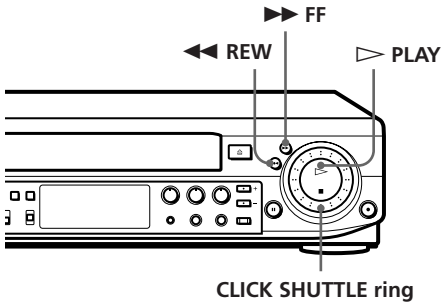
#### Tips

- To set the channel, you can also use the CH +/- or number buttons.
- To set the tape speed, you can also use the TAPE SPEED button.

#### Note

- “TIMER” flashes in the display window when you press POWER with no tape inserted.

# Playing/searching at various speeds



Playback options	Operation
Fast-forward/rewind	During stop, press ►► FF or ◀◀ REW.
View the picture during fast-forward or rewind	During fast-forward, hold ►► FF down. During rewind, hold ◀◀ REW down.
Play at high speed	During playback or pause, press 🔍 SEARCH or 🔍 SEARCH. To change direction, press the other one.
Play in slow motion for two minutes	During playback or pause, press ► SLOW.
Rewind to the beginning of a tape and start play	During stop, hold ◀◀ REW down <u>on the VCR</u> , and press ▷ PLAY <u>on the VCR</u> .

### To resume normal playback

Press ▷ PLAY.

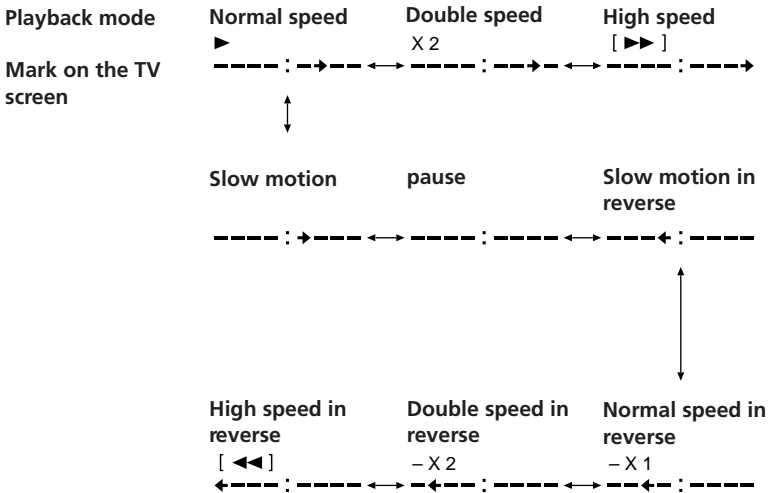
continued

## Playing/searching at various speeds (continued)

### Using the CLICK SHUTTLE ring

With the CLICK SHUTTLE ring on the VCR you can operate a variety of playback options.

During playback or pause, turn the CLICK SHUTTLE ring clockwise or counterclockwise. Each change in the CLICK SHUTTLE ring position changes the playback mode, and the corresponding mark appears on the TV screen for a few seconds in the following way if the on-screen display function is on.



#### Tip

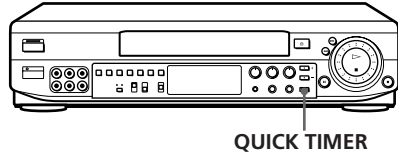
- Adjust the picture using the TRACKING +/- buttons on the VCR if:
  - streaks appear while playing in slow motion.
  - bands appear at the top or bottom while pausing.
  - the picture shakes while pausing.

#### Notes

- The sound is muted during these operations.
- Tapes recorded in the LP mode on other VCRs can be played back on this VCR but the picture quality cannot be guaranteed.
- The picture may have snow:
  - when playing at high speed in reverse
  - when playing in reverse slow motion
  - when playing in reverse.
- If the playback mode mark doesn't appear on the TV screen, press DISPLAY.
- The playback mode mark may shake while playing or searching at various speeds.



# Recording TV programs using the quick timer



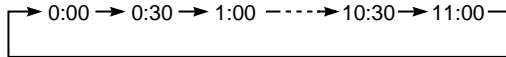
After starting recording in the normal way, you can have the VCR stop recording automatically after a specified duration.

- 1 While recording, press QUICK TIMER on the VCR once.



- 2 Press QUICK TIMER repeatedly to set the duration.

Each press advances the time in increments of 30 minutes.



The duration decreases minute by minute to 0:00, then the VCR stops recording and turns off automatically.

## To extend the duration

Press QUICK TIMER repeatedly to set to the new duration.

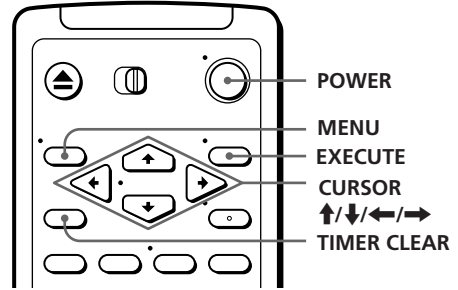
## To stop the VCR while recording

Press ■ STOP.

### Tip

- You can also set the quick timer and start recording during the stop mode.

# Checking/ changing/ cancelling timer settings



## Before you start...

- Turn on your TV and set it to the video channel.

- 1 Press POWER to turn on the VCR.
- 2 Press MENU, then select TIMER SET/CHECK:

- If you want to change a setting, go on to the next step.
- If you do not need to change the settings, press EXECUTE, then turn off the VCR to return to recording standby.

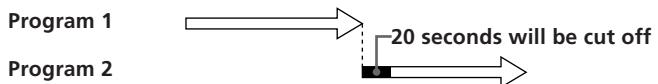
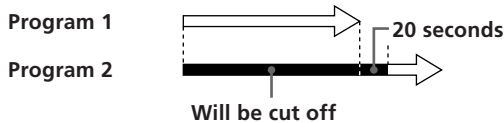
TIMER SET / CHECK	12 / 9	TUE	
DATE	START	STOP	CH
▶ 1 / 6 TUE	7 : 00 AM	8 : 00 AM	6 SP
12 / 28 SUN	9 : 00 AM	12 : 00 AM	50 EP
MON - SAT	12 : 12 PM	1 : 00 PM	27 EP
EVERY SUN	11 : 00 PM	12 : 00 AM	L1 SP
- / - -	- : - -	- : - -	- -
- / - -	- : - -	- : - -	- -
- / - -	- : - -	- : - -	- -
- / - -	- : - -	- : - -	- -

- 3 Press CURSOR ↑/↓ to select the setting you want to change or cancel:
  - To change the setting, press CURSOR ←/→ to select the item you want to change, and press CURSOR ↑/↓ to reset it. Then, press CURSOR → repeatedly until the cursor (▶) appears at the beginning of the line.
  - To cancel the setting, press TIMER CLEAR.
- 4 Press EXECUTE.

If any timer settings remain, turn off the VCR to return to recording standby.

## When the timer settings overlap

The program that starts first has priority and the second program starts recording only after the first program has finished. If the programs start at the same time, the program listed first in the menu has priority.



# Recording stereo and bilingual programs

## Recording stereo programs

This VCR automatically receives and records stereo programs. When a stereo program is received, the STEREO indicator lights up. If there is noise in the stereo program, set AUTO STEREO in the SET UP MENU to OFF. The sound will be recorded in monaural (on both hi-fi and normal audio tracks) but with less noise. For details, see page 58.

## Recording bilingual programs

Normally, this VCR records only the main sound. When a SAP (Second Audio Program) is received, the SAP indicator lights up. To record only SAP sound, set TUNER AUDIO in the SET UP MENU to SAP. For details, see page 58.

## Selecting the sound while playing

Press AUDIO MONITOR to select the desired sound. (The sound being recorded will not change.)

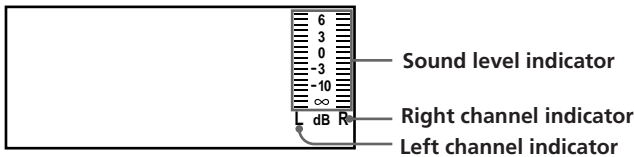
### Stereo program

To listen to	Indicator on the TV screen
Stereo	STEREO
Left channel	L
Right channel	R
Monaural sound on the normal audio track*	No indicator appears

\* Usually the mixed sound of left and right channels

### To check audio channel and sound level

You can check the audio channel and sound level visually with the indicators in the display window.



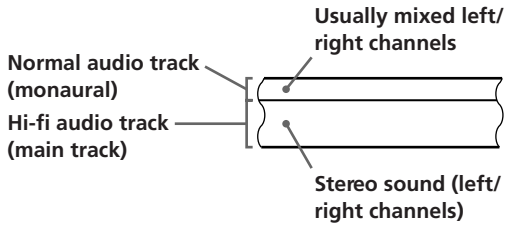
**continued**

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## Recording stereo and bilingual programs (continued)

### How sound is recorded on a video tape

The VCR records sound onto two separate tracks. Hi-fi audio is recorded onto the main track along with the picture. Monaural sound is recorded onto the normal audio track along the edge of the tape.



#### Notes

- To play a tape in stereo, you must use the A/V connection.
- When you play a tape recorded in monaural, the sound is heard in monaural regardless of the AUDIO MONITOR setting.
- If the AUDIO MONITOR button does not function, check that AUDIO MIX in the SET UP MENU is set to OFF.

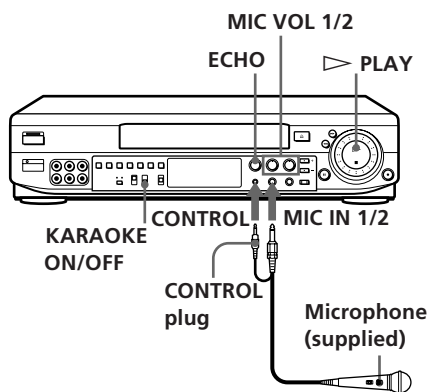
# Karaoke sing-along

You can sing along with a karaoke videotape, a TV broadcast, or music played back on equipment connected to the LINE IN jacks on the VCR. You can sing duets if you use an extra microphone (not supplied).

## Singing along with karaoke video tapes

### Before you start...

- Turn on the VCR and the TV.
- Set the TV to the video channel.
- Connect the supplied microphone to the MIC IN 1 jack and its control plug to the CONTROL jack. To sing duets, connect an optional microphone to the MIC IN 2 jack.



- 1** Set KARAOKE ON/OFF to ON.  
“KARAOKE MODE WELCOME TO THE Sony KARAOKE WORLD” appears on the TV screen.
- 2** Insert a karaoke video tape.  
The VCR starts playing automatically if you insert a tape with its safety tab removed.
- 3** Press ▷ PLAY.  
If you want to play back a specific song, see “Searching with the AMS or index function” on page 54.
- 4** Switch the microphone on.  
Now you can enjoy singing karaoke.

### To adjust the microphone volume

Turn the MIC VOL 1 control for the microphone connected to MIC IN 1.  
Turn the MIC VOL 2 control for the microphone connected to MIC IN 2.

Setting the MIC VOL 1 and/or 2 control(s) to the center position provides the best microphone volume.

### To control the echo effect

Turn the ECHO control. This adjusts both microphones’ echo effect to the same level. To get the best effect, adjust the microphone volume to a slightly higher level than the music volume.

**continued**

## Karaoke sing-along (continued)

### Tip

- When you sing along with TV broadcasts or music played back on equipment connected to the LINE IN jacks on the VCR, play the music source and follow steps 1 and 4.

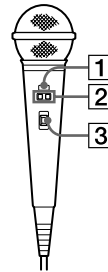
### Notes

- If the sound is reproduced through a stereo amplifier, turn down the volume of amplifier before operation.
- If feedback occurs, turn down the microphone or TV volume, or move the microphone away from the speakers.

## Using the supplied microphone

You can control some of the VCR's karaoke functions with the microphone.

- 1** **CHOI** button  
Press and hold to rewind the tape while viewing the picture.
- 2** **b/#** buttons  
Change the pitch in Key Control mode (page 49).  
Set the harmony interval in Self Duet mode (page 50).
- 3** **KEY/S.D./OFF** selector  
Select KEY or S.D. to switch the microphone on in the Key Control mode or the Self Duet mode. Select OFF to switch the microphone off.



### Note

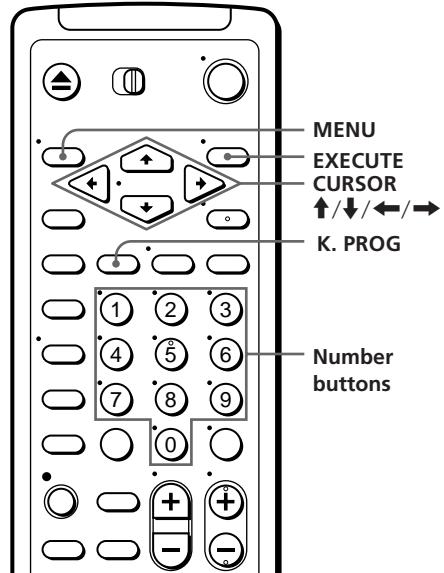
- The **b/#** buttons on the microphone may not operate with other VCRs.

## Playing a tape in a programmed order (Karaoke Program)

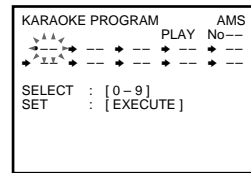
You can sing songs in the order you want.

### Before you start...

- Turn on your TV and set it to the video channel.
- Select the search mode, AMS or INDEX in the SET UP KARAOKE menu. For details, see "Selecting the AMS or index function" on page 54.

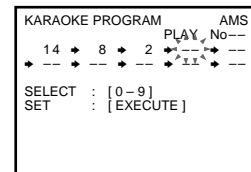


- 1 Insert a tape and set KARAOKE ON/OFF on the VCR to ON.
- 2 Press K. PROG.



- 3 Press the number buttons to select up to ten songs in the order you want.

For single-digit numbers, first press "0" then the song number. To correct a song number, press CURSOR ← to return to that number and reset it.



- 4 Press EXECUTE.

The tape automatically rewinds to the beginning, and playback starts in the order you selected.

**continued**

## Karaoke sing-along (continued)

### To stop playing

Press ■ STOP.

### To change the program order

Press ■ STOP and repeat steps 2 through 4 above.

### Tip

- You can also select the KARAOKE PROGRAM menu by pressing MENU and CURSOR ↑/↓.

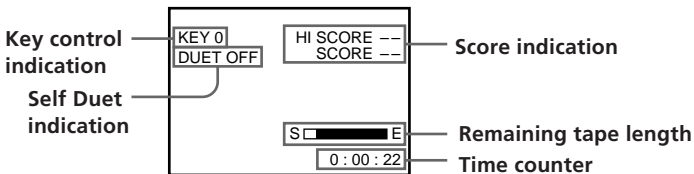
### Notes

- If you set KARAOKE ON/OFF to OFF, the list settings are cleared.
- When you turn off the VCR, the VCR exits the KARAOKE PROGRAM mode.
- When you press ◀◀ / ▶▶ SEARCH AMS/INDEX while in Karaoke Program mode, the VCR does not search beyond the current song, but rewinds the tape to the beginning of the song being played back, or fast-forwards to the next song. When the VCR exits KARAOKE PROGRAM mode, ◀◀ / ▶▶ SEARCH AMS/INDEX returns to its normal function. (See “Searching with the AMS or index function” on page 54.)
- If you press CHOI on the microphone and rewind past the beginning of the current song, the selected song order may not be played correctly.

## Displaying the karaoke information

Press DISPLAY when the KARAOKE ON/OFF switch is set to ON. The karaoke information appears on the TV screen. If you press DISPLAY once more, the remaining tape length and time counter will also appear.

To turn off the display, press DISPLAY again.

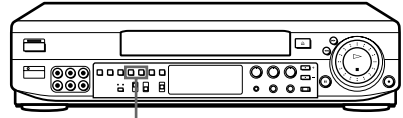
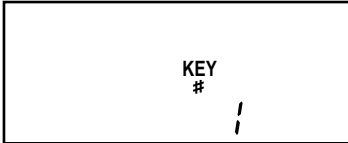




## Changing the pitch (Key Control)

While you are singing, you can change the pitch of the song to match your vocal range.

Press KEY CONTROL **b** or **#** repeatedly to set the pitch you want.



KEY CONTROL **b**/**#**

You can change the pitch of the song in half tone intervals.

To	Press	Range	Display window
Raise the pitch	<b>#</b> (sharp)	8 half tones	"#1" to "#8"
Lower the pitch	<b>b</b> (flat)	8 half tones	"b1" to "b8"

### To return to the original pitch

Press KEY CONTROL **b** or **#** repeatedly until "0" appears in the display window.

#### Tip

- You can also change the pitch with the supplied microphone.

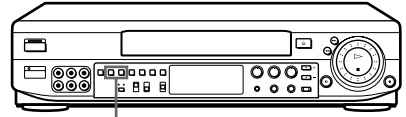
continued

## Karaoke sing-along (continued)

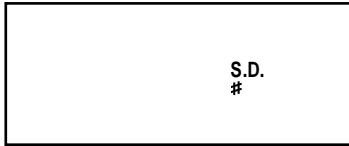
### Adding harmony (Self Duet)

You can sing duets by yourself. The VCR creates a harmony voice at the interval you want.

Press SELF DUET **b/#** to select a high or low harmony voice.



SELF DUET **b/#**



To	Press	Display window
Add a high harmony	<b>#</b> (sharp)	"S.D. <b>#</b> "
Add a low harmony	<b>b</b> (flat)	"S.D. <b>b</b> "

### To cancel the Self Duet

Press SELF DUET **b/#** again.

#### Tip

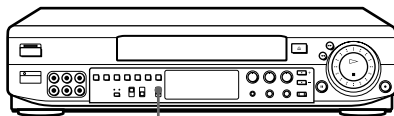
- You can also change the pitch with the supplied microphone.

## Reducing the playback vocals (Karaoke Pon)

This function reduces the vocals on played back music sources. You can use hi-fi stereo music sources for karaoke.

Set KARAOKE MODE to KARAOKE PON.

The singer's voice is reduced.



**KARAOKE MODE**

### To cancel Karaoke Pon

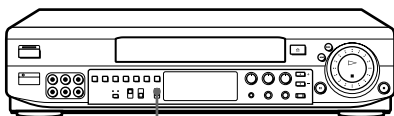
Set KARAOKE MODE to OFF.

#### Note

- Karaoke Pon does not work with the following tapes:
  - Tapes on which different vocal sounds are recorded on the left and right channels, such as a duet
  - Monaural recorded tapes
  - Tapes on which sound sources are recorded with strong echo effects and/or chorus-effects

## Backing up your singing (Vocal Assist)

This VCR can assist your singing in case you forget the lyrics while you are singing. The VCR fills in the vocal for you automatically if you stop singing into the microphone. Use karaoke stereo hi-fi tapes which have the accompaniment music on the left channel and the accompaniment plus vocal on the right channel.



**KARAOKE MODE**

Set KARAOKE MODE to VOCAL ASSIST.

### To cancel Vocal Assist

Set KARAOKE MODE to OFF.

#### Note

- Vocal Assist does not work with the following tapes:
  - Hi-fi tapes on which the same sound is recorded on the left and right channels
  - Monaural recorded tapes

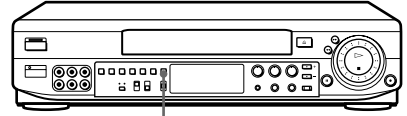
**continued**

## Karaoke sing-along (continued)

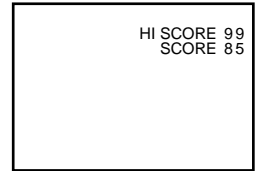
### Grading your singing

As an extra challenge, the VCR can grade your singing.

- 1 Start singing and press SCORE.  
"SCORE" appears on the TV screen, and the VCR starts analysing your singing.
- 2 Press SCORE again after singing for more than one minute.  
Your score appears on the TV screen for five seconds. The highest score (HI SCORE) is saved, and is indicated above your present score.



SCORE



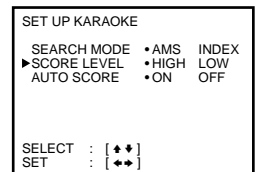
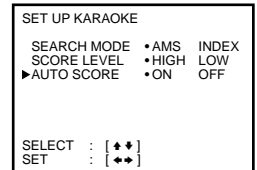
### To score automatically (Auto Score)

The VCR automatically scores each song in order during Karaoke Program. Press MENU and select SET UP KARAOKE, then set AUTO SCORE to ON.

Each time a song ends, the score appears for five seconds.

### To set the score level

This VCR has two different score levels. To set the score level, press MENU and select SET UP KARAOKE. Then set SCORE LEVEL to HIGH for easy grading or LOW for strict grading.



### Tips

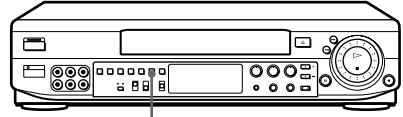
- The highest possible score is 99 points.
- To display your score on the TV screen again, press DISPLAY.
- The highest score is cleared each time you set the KARAOKE ON/OFF switch to OFF.

### Note

- The grading is not absolute. Please use this function for your own amusement.

## Competing for the loudest voice

The VCR measures and displays the loudness of the voice numerically when you shout into the microphone.



SHOUT

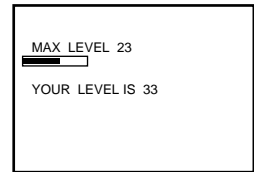
- 1 Press SHOUT.

“SHOUT” appears in the display window and the VCR starts a countdown on the TV screen.

- 2 Shout into the microphone when the VCR counts down to 0.

While you are shouting, the highest score (MAX LEVEL) and your current shout level are displayed on the TV screen with a level meter. Below the level meter, a bar appears every second to show the changes in your shout level.

After five seconds, the measurement is complete and the highest score (MAX LEVEL) and your score (YOUR LEVEL) appear.



### Tips

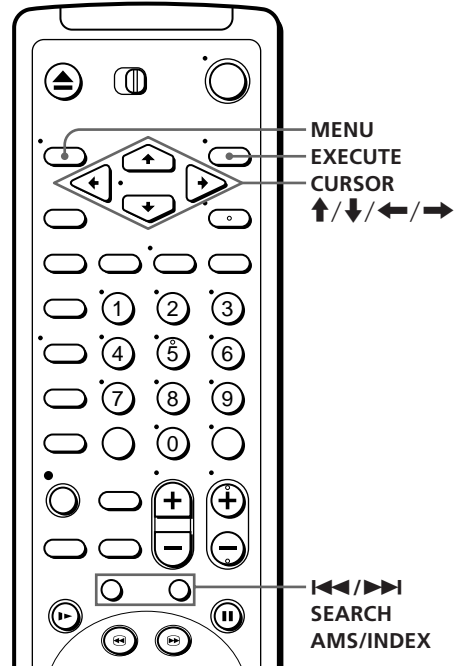
- To exit SHOUT mode, press SHOUT again.
- The highest score (MAX LEVEL) is cleared each time you set the KARAOKE ON/OFF switch to OFF.

### Note

- Adjust the MIC VOL control to the center position and turn down the TV volume.

# Searching with the AMS or index function

You can search for the start of a specific passage or scene. There are two ways for automatic searching depending on the way the tape was recorded.

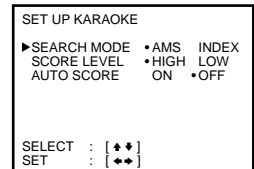


## Selecting the AMS or index function

The AMS (Automatic Music Sensor) function is mainly for karaoke tapes. It searches for blank spaces (of at least four seconds) between recorded signals on the sound track of a tape. Use this function to search an index-incompatible tape. If you are not sure of the way the tape was recorded, try AMS first.

The index function is for indexed tapes like the tapes recorded with this VCR. The VCR marks the tape with an index signal at the point where each recording begins. When you use commercially prerecorded tape, check the packaging to see if the tape is index-compatible.

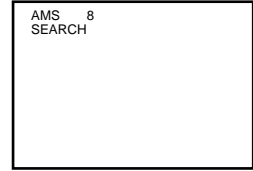
- 1** Press MENU and select SET UP KARAOKE, then press EXECUTE.
- 2** Press CURSOR  $\uparrow/\downarrow/\leftarrow/\rightarrow$  to select SEARCH MODE, then select either AMS or INDEX.
- 3** Press EXECUTE.



## Searching with the AMS function

The VCR can search up to 99 blank spaces ahead of or behind the current position.

- 1 Set KARAOKE ON/OFF on the VCR to ON.
- 2 Insert a tape into the VCR.
- 3 Press ◀◀/▶▶ SEARCH AMS/INDEX repeatedly to specify how many blank spaces ahead or behind you want to search:
  - To search ahead, press ▶▶ SEARCH AMS/INDEX.
  - To search backwards, press ◀◀ SEARCH AMS/INDEX.



The VCR starts searching and the number of blank spaces on the TV screen counts down to zero. Playback starts automatically from that point.

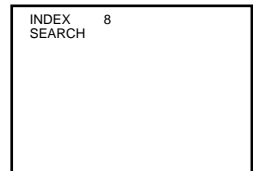
### To stop searching

Press ■ STOP.

## Searching with the index function

The VCR can search up to 99 index signals ahead of or behind the current position.

- 1 Insert an indexed tape into the VCR.
- 2 Press ◀◀/▶▶ SEARCH AMS/INDEX repeatedly to specify how many index signals ahead or behind you want to search:
  - To search ahead, press ▶▶ SEARCH AMS/INDEX.
  - To search backwards, press ◀◀ SEARCH AMS/INDEX.



The VCR starts searching and the index number on the TV screen counts down to zero. Playback starts automatically from that point.

### To stop searching

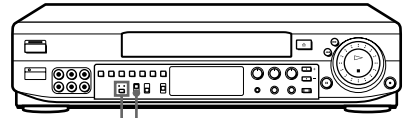
Press ■ STOP.

#### Notes

- No index signal will be added when recording starts from recording pause. However, an index signal will be marked if you change the channel during recording pause.
- The AMS function only works when the KARAOKE ON/OFF switch is set to ON.
- You cannot use the AMS function on tapes that have many blank spaces in a short time span such as dramas and dialogues.

# Enjoying the surround sound (Virtual Sound)

You can use the Virtual Sound function to give stereo sources the surround sound effect and monaural sources a simulated stereo effect.



- 1 Select the type of sound source with the VIRTUAL SOUND switch. Select SURROUND when listening to a stereo source; select SIMULATED STEREO for a monaural source.
- 2 Press EFFECT so the WIDE or WARP indicator lights up.

## Virtual sound

Type	Effect	For
SURROUND (stereo)	WIDE	A sound effect that spreads out over a large area
	WARP	A sound effect that totally envelopes you in sound
SIMULATED STEREO (monaural)	WIDE	A simulated stereo effect
	WARP	A wide ranging simulated stereo effect

## To cancel the Virtual Sound

Press EFFECT repeatedly until both WIDE/WARP indicators turn off.


### Notes


- This function is available only when the tape sound is reproduced on a stereo TV (or other stereo audio equipment). If the connected TV or other audio equipment is monaural or simulated stereo, you cannot get a clear effect.
- We recommend that you do not use the surround effect function of this VCR and that of the connected TV (or other audio equipment) at the same time. If you do so, the function may not work properly because the effects overlap each other.

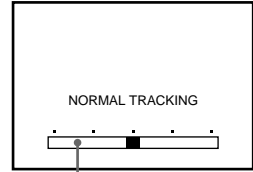


# Adjusting the picture

## Adjusting the tracking

Although the VCR automatically adjusts the tracking when playing a tape (the  indicator flashes in the display window, then goes off), distortion may occur if the tape was recorded in poor condition. In this case, manually adjust the tracking.

Press TRACKING +/- on the VCR to display the tracking meter. The distortion should disappear as you press one of the two buttons (The  indicator lights up). To resume automatic tracking adjustment, eject the tape and reinsert it.



Tracking meter

## About Adaptive Picture Control (APC)

Adaptive Picture Control (APC) automatically improves recording and playback quality by adjusting the VCR to the condition of the video heads and tape. To maintain better picture quality, we recommend that you set APC in the SET UP MENU (with the APC indicator in the display window lit).

SET UP MENU		
AUTO ANT SEL	•ON	OFF
AUTO STEREO	•ON	OFF
AUDIO MIX	ON	•OFF
TUNER AUDIO	•MAIN	SAP
▶APC	•ON	OFF
BUZZER	•ON	OFF
SELECT :	[♦♦]	
SET :	[♦♦]	

### APC playback

The APC function automatically works on all types of tapes, including rental tapes and tapes that were not recorded with APC.

### APC recording

Whenever you insert a tape and start recording for the first time, the VCR adjusts to the tape using the APC function (the APC indicator flashes rapidly). This adjustment is retained until the tape is ejected.

### To deactivate the APC

Press MENU and select SET UP MENU, then set APC to OFF. The APC indicator in the display window goes off.

### Notes

- The auto tracking adjustment cannot be guaranteed to work with tapes recorded in LP mode on other VCRs.
- There is a delay of a few seconds before the VCR actually starts recording while the VCR analyzes the tape. To avoid the delay, first set the VCR to recording pause (the APC indicator flashes slowly) and press ● REC to have the VCR analyze the tape (the APC indicator flashes rapidly). After the APC indicator stops flashing, press ■ PAUSE to start recording immediately. If you want to start recording quickly without using the APC function, first set the VCR to recording pause (the APC indicator flashes slowly) and press ■ PAUSE to start recording.

# Changing menu options

1 Press MENU, then select SET UP MENU.

SET UP MENU		
▶ AUTO ANT SEL	ON	• OFF
AUTO STEREO	• ON	OFF
AUDIO MIX	ON	• OFF
TUNER AUDIO	• MAIN	SAP
APC	• ON	OFF
BUZZER	• ON	OFF
SELECT	: [↕↕]	
SET	: [↔↔]	

2 Press CURSOR ↑/↓ to select the option to change, then press CURSOR ←/→ to change the setting.

3 Press EXECUTE to return to the original screen.

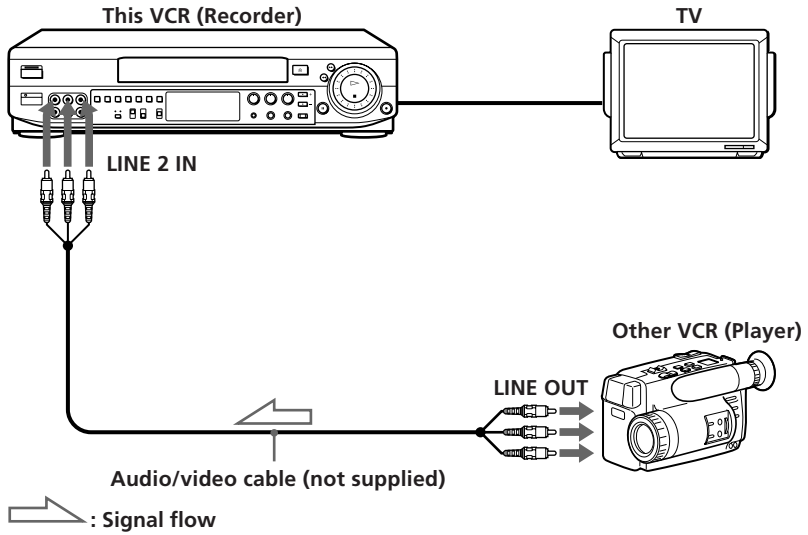
## Menu choices

Initial settings are indicated in bold print.

Menu option	Set this option to
AUTO ANT SEL	<ul style="list-style-type: none"> <li>• <b>ON</b> if your TV is connected only to VHF/UHF OUT on the VCR. To play a tape, set the TV to the VCR channel (channel 3 or 4).</li> <li>• <b>OFF</b> if your TV is connected to both VHF/UHF OUT and LINE OUT on the VCR. To play a tape, set the TV to the video input.</li> </ul>
AUTO STEREO	<ul style="list-style-type: none"> <li>• <b>ON</b> to receive stereo programs.</li> <li>• <b>OFF</b> to reduce noise. The sound changes to monaural.</li> </ul>
AUDIO MIX	<ul style="list-style-type: none"> <li>• <b>ON</b> to listen to the hi-fi and normal audio tracks at the same time. The AUDIO MONITOR button will not function.</li> <li>• <b>OFF</b> to listen to hi-fi and normal audio tracks separately. Select the sound using the AUDIO MONITOR button.</li> </ul> <p>For details, see page 43.</p>
TUNER AUDIO	<ul style="list-style-type: none"> <li>• <b>MAIN</b> to record the main sound on both hi-fi and normal audio tracks.</li> <li>• <b>SAP</b> to record the SAP (Second Audio Program) sound on both hi-fi and normal audio tracks.</li> </ul>
APC	<ul style="list-style-type: none"> <li>• <b>ON</b> to switch on the APC (Adaptive Picture Control) function and improve picture quality.</li> <li>• <b>OFF</b> to switch off APC.</li> </ul> <p>For details, see page 57.</p>
BUZZER	<ul style="list-style-type: none"> <li>• <b>ON</b> to output a beep sound when all illogical operation is made.</li> <li>• <b>OFF</b> to deactivate it.</li> </ul>

# Hooking up a VCR or stereo system

## How to hook up to record on this VCR



## How to hook up to a stereo system

Connect LINE 2 IN AUDIO on this VCR to the audio output jacks on the stereo system, using an audio cable (not supplied).

### Tip

- You can also use the LINE-1 IN jacks instead.

### Notes

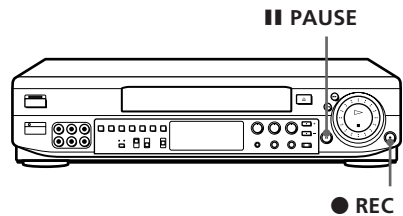
- Make sure you connect the plugs to jacks of the same color.
- If the other VCR is a monaural type, connect the audio plug to the AUDIO L (white) jack. The sound is recorded on both right and left channels. When connecting to the AUDIO R (red) jack, the sound is recorded only on the right channel.
- If you connected this VCR to both the LINE IN and LINE OUT jacks of the other VCR, select the input correctly to prevent a humming noise.

# Basic editing

## (when recording on this VCR)

### Before you start editing

- Turn on your TV and set it to the video channel.
- Press INPUT SELECT on the remote commander to display "L2" (or "L1") in the display window.
- Press TAPE SPEED on the remote commander to select the tape speed, SP or EP.



- 1 Insert a source tape with its safety tab removed into the other (playback) VCR. Search for the point to start playback and set it to playback pause.
- 2 Insert a tape with its safety tab in place into this (recording) VCR. Search for the point to start recording and press || PAUSE.
- 3 Press ● REC on this VCR and set it to recording pause.
- 4 To start editing, press the || PAUSE buttons on both VCRs at the same time.

### To stop editing

Press the ■ STOP buttons on both VCRs.

### Tips

- To edit more precisely, press the || PAUSE buttons on the VCRs to release pause.
- To cut out unwanted scenes while editing, press || PAUSE on this VCR when an unwanted scene begins. When it ends, press || PAUSE again to resume recording (Assemble Editing).
- You can dub sound onto the normal audio track through a microphone while editing. Set KARAOKE ON/OFF to ON before you start dubbing.

### Note

- If you start recording following the procedure above, the VCR won't start recording with the APC function. To record a tape with the APC function, press ● REC again during recording pause in step 3 so that the VCR analyses the tape. Then when you start recording in step 4, press || PAUSE after the APC indicator stops flashing. If you press || PAUSE before the APC indicator stops flashing, the APC function is cancelled.

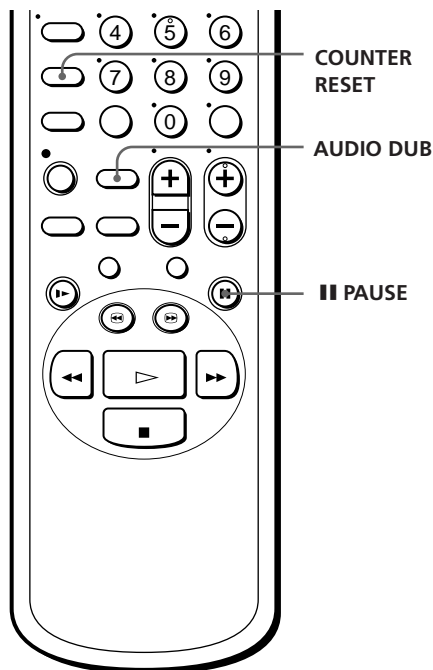
# Audio dubbing

This feature lets you record over the normal audio track. The monaural sound previously recorded is replaced while the original hi-fi sound remains unchanged. Use this feature to add commentary to a tape that you have recorded with a camcorder. You can also record your karaoke performances.

## Audio dubbing from a stereo system or other external source

### Before you start dubbing

- Turn on your TV and set it to the video channel.
- Press INPUT SELECT to display "L2" in the display window.



- 1** Insert a source tape into the stereo system (or the playback VCR). Search for the point to start playback and set it to playback pause.
- 2** Insert a prerecorded tape into this (recording) VCR. Search for the end of the section to be replaced and press **|| PAUSE**.  
Make sure that the tape has its safety tab in place.
- 3** Press COUNTER RESET on this VCR to reset the counter to "0H00M00S."
- 4** Rewind the prerecorded tape to the beginning of the section to be replaced.  
The VCR pauses.
- 5** Press AUDIO DUB.  
The audio dubbing indicator ⊖ appears in the display window.
- 6** To start editing, press the **|| PAUSE** buttons on this VCR and the stereo system (or other VCR) at the same time.  
When the counter reaches "0H00M00S," audio dubbing stops automatically.

**continued**

## Audio dubbing (continued)

### To stop while recording

Press the ■ STOP buttons on this VCR and the stereo system (or other VCR).

### To listen to both the hi-fi and normal audio

Set AUDIO MIX to ON in the SET UP MENU (page 58). Use this feature to listen to dubbed audio over the original hi-fi audio. When AUDIO MIX is set to ON, the AUDIO MONITOR button does not function. Remember to reset AUDIO MIX to OFF after playing the tape.

### To listen to the dubbed sound (normal audio)

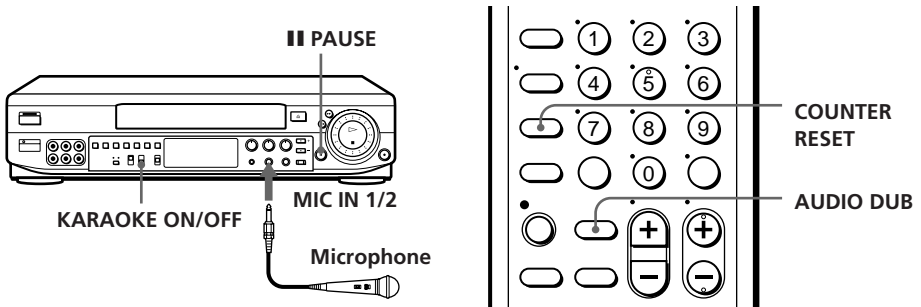
Press AUDIO MONITOR until the “L,” “R,” and “STEREO” indicators go off in the display window.

## Audio dubbing from the microphone

Using the microphone, you can add songs or narration on a recorded tape. Sound from the microphone is mixed with the original hi-fi sound and recorded on the normal audio track.

### Before you start dubbing

- Connect the microphone(s) to the MIC IN 1 and/or 2 jack(s), and turn on the microphone(s).



- 1 Set KARAOKE ON/OFF to ON.
- 2 Insert the prerecorded tape into the VCR. Search for the end of the section to be replaced and press ■ PAUSE.  
Make sure that the tape has its safety tab in place.
- 3 Press COUNTER RESET to reset the counter to “0H00M00S.”
- 4 Rewind the prerecorded tape to the beginning of the section to be replaced.  
The VCR pauses.

---

**5** Press AUDIO DUB.

The audio dubbing indicator ⊖ appears in the display window.

**6** To start editing, press ■ PAUSE to start dubbing and sing or speak into the microphone.

When the counter reaches "0H00M00S," audio dubbing stops automatically.

### **To stop while recording**

Press ■ STOP.

### **To listen to the dubbed sound**

Press AUDIO MONITOR until the "L," "R," and "STEREO" indicators go off in the display window.

### **To record sound from the microphone mixed with an external source**

If you connect equipment such as a laser disc player to this VCR's LINE 2 IN jacks, you can record while singing along to a karaoke LD. Be sure to press INPUT SELECT to display "L2" before starting recording. The mixed sound is recorded on the normal audio track, and the sound input from the LINE 2 IN jacks is recorded on the hi-fi audio track.

### **Tip**

- When dubbing from the microphone, you can use the functions of echo effect, Key Control, and Self Duet.

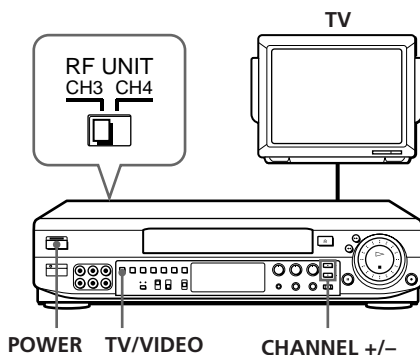
### **Note**

- Recording stops if you press COUNTER RESET while audio dubbing.

# General setup information

## Setting the RF unit

When connecting the VCR to the TV using only the antenna cable, you must set the RF UNIT switch on the rear of the VCR so that the TV can receive the correct signal from the VCR.



- 1** Set the RF UNIT switch on the rear of the VCR to CH3 or CH4, whichever channel is not used in your area. If both are used, set the switch to either channel.
- 2** Press POWER to turn on the VCR.
- 3** Press TV/VIDEO to turn on the VIDEO indicator in the VCR's display window.
- 4** Press CHANNEL +/- to display a channel number in the display window. Select an active channel number in your area.
- 5** Turn on your TV and set it to the channel you selected in step 1 (channel 3 or 4).

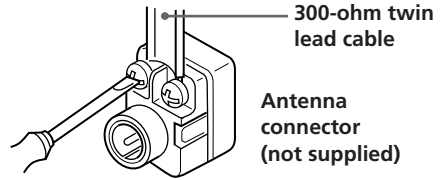
The selected TV channel broadcast appears on the TV screen. If the channels change when you press CHANNEL +/-, you have made the correct setting.

Whenever you use the VCR, set the TV to the channel selected in step 1.



## Attaching the external antenna connector

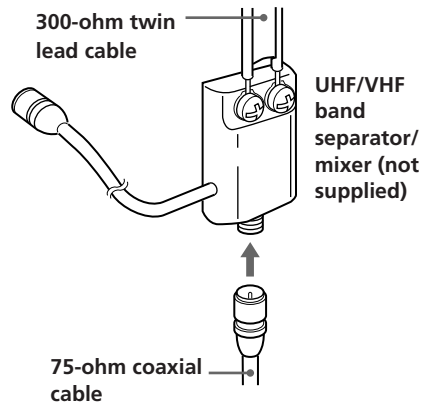
When using a 300-ohm twin lead cable for a VHF/UHF antenna, use an antenna connector (not supplied) to connect the antenna to the VCR.



- 1 Loosen the screws on the antenna connector.
- 2 Wind the twin leads around the screws on the antenna connector.
- 3 Retighten the screws.

## Attaching a UHF/VHF band mixer

When using both a 75-ohm coaxial cable and a 300-ohm twin lead cable for a VHF/UHF antenna, use a UHF/VHF band separator/mixer (not supplied) to connect the antenna to the VCR.



- 1 Loosen the screws on the mixer.
- 2 Wind the twin leads around the screws on the mixer.
- 3 Retighten the screws.
- 4 Connect the 75-ohm coaxial cable to the mixer.

# Troubleshooting

If you have any questions or problems not covered below, please consult your nearest Sony service facility.

	Symptom	Remedy
Power	The POWER switch does not function.	<ul style="list-style-type: none"> <li>• Connect the AC power cord securely.</li> </ul>
	The power is turned on but the VCR does not operate.	<ul style="list-style-type: none"> <li>• Moisture condensation occurs. Turn the power off, unplug the AC power cord and leave the VCR to dry for over one hour.</li> </ul>
Clock	The clock has stopped and “--:--” lights in the display window.	<ul style="list-style-type: none"> <li>• The clock stops if the VCR is disconnected from the mains for more than an hour. Reset the clock (and timer).</li> </ul>
	The playback picture does not appear on the TV screen.	<ul style="list-style-type: none"> <li>• Make sure the TV is set to the video channel. If you are using a monitor, set it to video input.</li> </ul>
Playback	The picture is not clear.	<ul style="list-style-type: none"> <li>• Adjust the tracking with the TRACKING +/- buttons.</li> <li>• The video heads are dirty (see below). Clean the video heads using the Sony V-25CL video head cleaning cassette. If this cleaning cassette is not available in your area, have the heads cleaned at your nearest Sony service facility (a standard service charge will be required). Do not use a commercially available wet-type cleaning cassette, as it may damage the video heads.</li> <li>• The video heads may have to be replaced. Consult your local Sony dealer for more information.</li> </ul>
	The picture rolls vertically during picture search.	<ul style="list-style-type: none"> <li>• Adjust the vertical hold control on the TV or monitor.</li> </ul>
	The picture has no sound.	<ul style="list-style-type: none"> <li>• The tape is defective. Use a new tape.</li> </ul>
	The sound is unstable or has an echo.	<ul style="list-style-type: none"> <li>• When you play a tape with the same sound recorded on both the hi-fi and normal sound tracks, make sure the AUDIO MIX option in the SET UP MENU is set to OFF.</li> </ul>

## Symptoms caused by contaminated video heads

• Normal picture

• Rough picture

• Unclear picture

• No picture (or black & white screen appears)



initial  
contamination



terminal

	Symptom	Remedy
Recording	A TV program does not appear on the TV screen.	<ul style="list-style-type: none"> <li>Make sure the TV is set to the video channel. If you are using a monitor, set it to video input.</li> </ul>
	TV reception is poor.	<ul style="list-style-type: none"> <li>Adjust the TV antenna.</li> </ul>
	The tape starts playing as soon as it is inserted.	<ul style="list-style-type: none"> <li>The safety tab has been removed. To record on this tape, cover the tab hole.</li> </ul>
	The tape is ejected when you press ● REC.	<ul style="list-style-type: none"> <li>Check that the safety tab has not been removed.</li> </ul>
Timer recording	Nothing happens when you press ● REC.	<ul style="list-style-type: none"> <li>Make sure the tape is not at its end.</li> <li>Select the correct source. Select a channel number with the CH +/- buttons when recording TV programs; select "L1" or "L2" with the INPUT SELECT button when recording from other equipment.</li> </ul>
	The timer does not operate.	<ul style="list-style-type: none"> <li>Check that the clock is set.</li> <li>Make sure a tape has been inserted.</li> <li>Check that the safety tab has not been removed.</li> <li>Make sure the tape is not at its end.</li> <li>Make sure a program has been set for timer recording.</li> <li>Make sure your timer settings have not already passed the current time.</li> <li>Check that the cable box is turned on.</li> <li>The clock stops if the VCR is disconnected from the wall outlet for more than an hour. Reset the clock and timer.</li> </ul>
Others	A tape cannot be inserted.	<ul style="list-style-type: none"> <li>Check that a tape isn't already in the tape compartment.</li> </ul>
	The remote commander does not function.	<ul style="list-style-type: none"> <li>Make sure you are pointing the remote commander at the remote sensor on the VCR.</li> <li>Replace all the batteries in the remote commander with new ones if they are weak.</li> <li>Make sure the <b>[TV]/[VIDEO]</b> remote control switch is set correctly.</li> </ul>
	The tracking meter does not appear on the screen.	<ul style="list-style-type: none"> <li>The recording condition of the tape is very poor and tracking cannot be adjusted.</li> </ul>
	The VCR needs to be cleaned.	<ul style="list-style-type: none"> <li>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 benzine.</li> </ul>
	The AMS function does not work properly.	<ul style="list-style-type: none"> <li>The tape has too many blank spaces in a short time span. Change SEARCH MODE in the SET UP KARAOKE menu from AMS to INDEX.</li> </ul>

# Specifications

## System

- Format
  - VHS NTSC standard
- Video recording system
  - Rotary head helical scanning FM system
- Video heads
  - Double azimuth four heads
- Video signal
  - NTSC color, EIA standards
- Tape speed
  - SP: 33.35 mm/s ( $1\frac{3}{8}$  inches/s)
  - EP: 11.11 mm/s ( $\frac{7}{16}$  inches/s)
  - LP: 16.67 mm/s ( $1\frac{1}{16}$  inches/s), playback only
- Maximum recording/playback time
  - 8 hrs. in EP mode (with T-160 tape)
- Fast-forward and rewind time
  - Approx. 3 min. (with T-120 tape)

## Tuner section

- Channel coverage
  - VHF 2 to 13
  - UHF 14 to 69
  - CATV 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-1 IN and LINE 2 IN
  - VIDEO IN, phono jacks (1 each)
    - Input signal: 1 Vp-p, 75 ohms, unbalanced, sync negative
  - AUDIO IN, phono jacks (2 each)
    - Input level: 327 mVrms
    - Input impedance: more than 47 kilohms
- LINE-1 OUT and LINE 2 OUT
  - VIDEO OUT, phono jacks (1 each)
    - Output signal: 1 Vp-p, 75 ohms, unbalanced, sync negative
  - AUDIO OUT, phono jacks (2 each)
    - Standard output: 327 mVrms
    - Load impedance: 47 kilohms
    - Output impedance: less than 10 kilohms

## Timer section

- Clock
  - Quartz locked
- Timer indication
  - 12-hour cycle
- Timer setting
  - 8 programs per month (max.)
- Power back-up
  - Built-in self-charging capacitor
  - Back-up duration: up to 1 hour at a time

## General

- Power requirements
  - 110 – 240 V AC, 50/60 Hz
- Power consumption
  - 27 W
- Operating temperature
  - 5°C to 40°C
- Storage temperature
  - 20°C to 60°C
- Dimensions
  - Approx. 430 × 100 × 282 mm (w/h/d) including projecting parts and controls
- Mass
  - Approx. 4.7 kg

## Supplied accessories

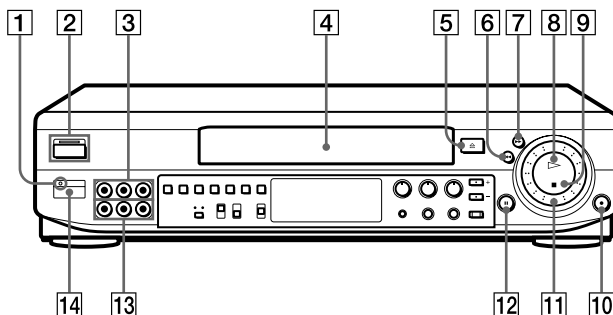
- Remote commander (1)
- Size AA (R6) batteries (2)
- 75-ohm coaxial cable with F-type connectors (1)
- Audio/video cable (3 phono to 3 phono) (1)
- Microphone (1)
- Plug adaptor (1)

Design and specifications are subject to change without notice.

# Index to parts and controls

Refer to the pages indicated in parentheses ( ) for details.

## Front panel

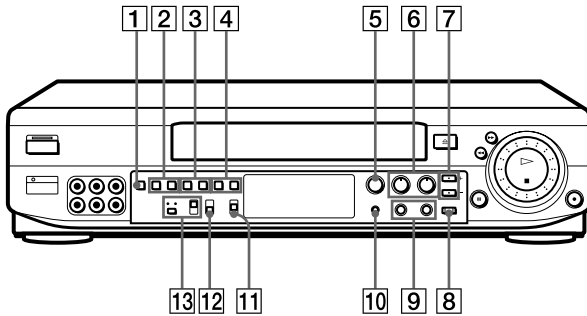


- |   |  |
|---|--|
| <b>1</b> EASY SET UP button (10, 13, 16, 19)  | <b>8</b> ▷ PLAY button (28)                |
| <b>2</b> POWER switch/indicator (35)          | <b>9</b> ■ STOP button (29)                |
| <b>3</b> LINE 2 IN VIDEO/AUDIO L/R jacks (59) | <b>10</b> ● REC (record) button (32)       |
| <b>4</b> Tape compartment                     | <b>11</b> CLICK SHUTTLE ring (40)          |
| <b>5</b> ▲ EJECT button (29)                  | <b>12</b>    PAUSE button (29)             |
| <b>6</b> ◀◀ REW (rewind) button (29, 39)      | <b>13</b> LINE 2 OUT VIDEO/AUDIO L/R jacks |
| <b>7</b> ▶▶ FF (fast-forward) button (29, 39) | <b>14</b> Remote sensor (5)                |

continued

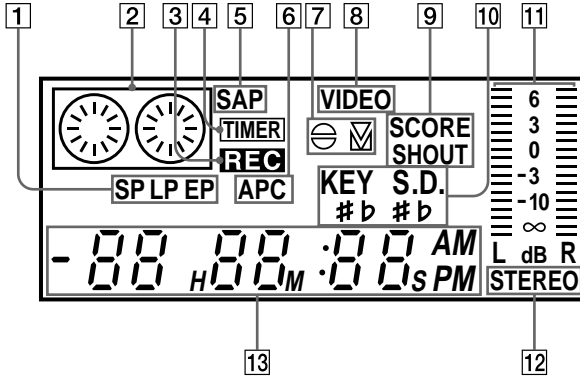
## ***Index to parts and controls (continued)***

### **Front panel (continued)**



- |   |                                      |
|---|--------------------------------------|
| <b>1</b> TV/VIDEO button (64)                   | <b>8</b> QUICK TIMER button (41)     |
| <b>2</b> SELF DUET <b>b/#</b> buttons (50)      | <b>9</b> MIC IN 1/2 jacks (45)       |
| <b>3</b> KEY CONTROL <b>b/#</b> buttons (49)    | <b>10</b> CONTROL jack (45)          |
| <b>4</b> SHOUT button (53)<br>SCORE button (52) | <b>11</b> KARAOKE MODE switch (51)   |
| <b>5</b> ECHO control (45)                      | <b>12</b> KARAOKE ON/OFF switch (45) |
| <b>6</b> MIC VOL 1/2 controls (45)              | <b>13</b> VIRTUAL SOUND switch (56)  |
| <b>7</b> CHANNEL/TRACKING +/-<br>buttons (57)   | EFFECT button (56)                   |
|   | WIDE/WARP indicators (56)            |

## Display window

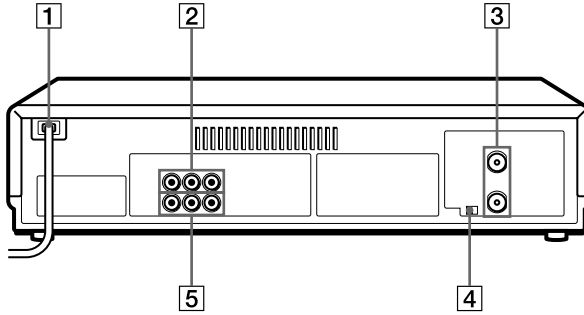


- |   |   |    |   |
|---|---|----|---|
| 1 | Tape speed indicator (32)                     | 8  | VIDEO indicator (33)  |
| 2 | Tape indicator (31)                           | 9  | SCORE/SHOUT indicator (52, 53)  |
| 3 | REC (record) indicator (32)                   | 10 | KEY/S.D.(Self Duet)/#/b indicators (49)                                 |
| 4 | TIMER indicator (35)                          | 11 | Audio channel/sound level indicator (43)                                |
| 5 | SAP (Second Audio Program) indicator (43)     | 12 | STEREO indicator (43)   |
| 6 | APC (Adaptive Picture Control) indicator (57) | 13 | Time counter/clock/line/channel/pitch adjustment indicator (29, 31, 60) |
| 7 | ⊖ (Audio dub) indicator (61)                  |    |   |
|   | ☒ (Tracking) indicator (57)                   |    |   |

continued

## ***Index to parts and controls (continued)***

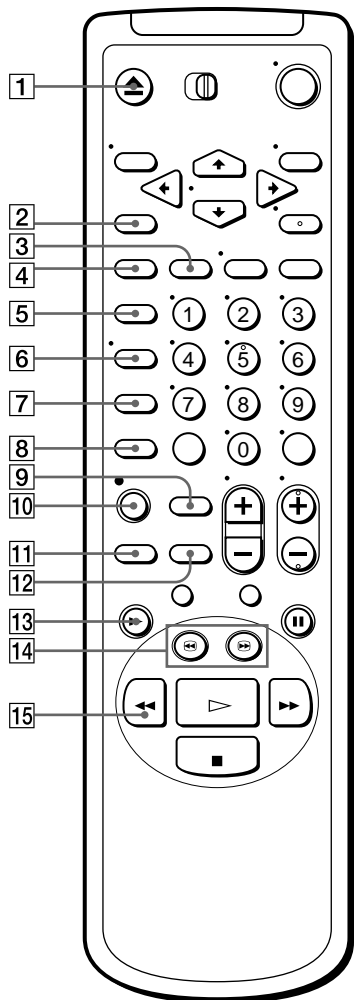
### **Rear panel**



- |  |  |
|--|--|
| <b>1</b> AC power cord (6)                         | <b>4</b> RF (Radio Frequency) UNIT switch (64) |
| <b>2</b> LINE-1 IN AUDIO R/L/VIDEO jacks (59)      | <b>5</b> LINE-1 OUT AUDIO R/L/VIDEO jacks (7)  |
| <b>3</b> VHF/UHF IN/OUT connectors (9, 12, 15, 18) |  |



## Remote commander

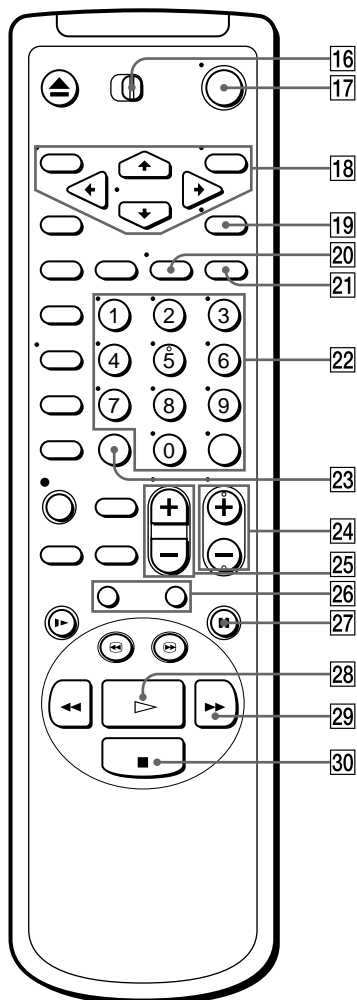


- 1 ▲ EJECT button (29)
- 2 TIMER CLEAR button (42)
- 3 K. PROG (Karaoke Program) button (47)
- 4 SCORE button (52)
- 5 EFFECT button (56)
- 6 DISPLAY button (32)
- 7 COUNTER RESET button (29)
- 8 INPUT SELECT button (31, 33)
- 9 AUDIO DUB button (61)
- 10 ● REC (record) button (32)
- 11 TRINITRON TV SYNCHRO PLAY button (30)
- 12 TAPE SPEED button (32)
- 13 ► SLOW button (39)
- 14 ◀▶ SEARCH buttons (39)
- 15 ◀◀ REW (rewind) button (29, 39)

continued

## Index to parts and controls (continued)

### Remote commander (continued)



- 16 TV/VIDEO remote control switch (5)
- 17 POWER switch (35)
- 18 Menu buttons (10, 58)  
MENU button  
CURSOR  $\uparrow/\downarrow/\leftarrow/\rightarrow$  buttons  
EXECUTE button
- 19 AUDIO MONITOR button (43)
- 20 TV/VIDEO button (33, 64)
- 21 G-CODE button (34)
- 22 Number/ENTER buttons (26)
- 23 SET button (35)
- 24 CH (channel) +/- buttons (32)
- 25 VOL (volume) +/- buttons (for TV)
- 26  $\lll/\ggg$  SEARCH AMS/INDEX buttons (55)
- 27  $\|\|$  PAUSE button (29)
- 28  $\triangleright$  PLAY button (28)
- 29  $\ggg$  FF (fast-forward) button (29, 39)
- 30  $\blacksquare$  STOP button (29)

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# Quick reference to using the VCR

## Hookup 1

### To play a tape

- 1 Set the TV to channel 3 or 4 (or to video input, if you made A/V connections.)
- 2 Insert a tape and press PLAY. If there's no picture on your TV, press the VCR's TV/VIDEO button until the VIDEO indicator comes on in the display window.

### To record a program

- 1 Press G-CODE on the remote commander.
- 2 Enter the program's G-CODE number.
- 3 Select ONCE, DAILY, or WEEKLY, then press SET.
- 4 Insert a tape.
- 5 Press POWER to turn off the VCR.

### To watch TV

- 1 Turn off the VCR, or press the VCR's TV/VIDEO button until the VIDEO indicator in the display window goes off.
- 2 Set the TV to the channel you want to watch.

## Hookup 2

### To play a tape

- 1 Set the TV to channel 3 or 4 (or to video input, if you made A/V connections.)
- 2 Insert a tape and press PLAY. If there's no picture on your TV, press the VCR's TV/VIDEO button until the VIDEO indicator comes on in the display window.

### To record a program

- 1 Turn on the cable box.
- 2 Set the cable box to the channel you want to record.
- 3 Press G-CODE on the remote commander.
- 4 Enter the program's G-CODE number.
- 5 Select ONCE, DAILY, or WEEKLY, then press SET.
- 6 Insert a tape.
- 7 Press POWER to turn off the VCR.
- 8 Leave the cable box on.

### To watch TV

- 1 Turn off your VCR, or press the VCR's TV/VIDEO button until the VIDEO indicator in the display window goes off.
- 2 Turn on your cable box.
- 3 Set the TV to the cable box output channel (usually 2, 3, or 4).
- 4 Set the cable box to the channel you want to watch.

## Hookup 3

### To play a tape

- 1 If you made A/V connections, set the TV to video input. If you didn't use A/V hookup:
  - Turn on the cable box.
  - Set the cable box to channel 3 or 4.
  - Set the TV to the output channel of the cable box (usually 2, 3 or 4).
- 2 Insert a tape and press PLAY.

### To record a program

- 1 Press G-CODE on the remote commander.
- 2 Enter the program's G-CODE number.
- 3 Select ONCE, DAILY, or WEEKLY, then press SET.
- 4 Insert a tape.
- 5 Press POWER to turn off the VCR.

### To watch TV

- 1 Turn off your VCR, or press the VCR's TV/VIDEO button until the VIDEO indicator in the display window goes off.
- 2 Select the channel with your cable box (if you have one) or with your TV.