aiwa

HV-FX7000u VHS

STEREO VIDEO CASSETTE RECORDER

OPERATING INSTRUCTIONS
INSTRUCCIONES DE MANEJO
MODE D'EMPLOI

VCRplus+

ENGLISH

ESPAÑOL

FRANÇAIS

For Assistance And Information
Call Toll Free 1-800-BUY-AIWA
(United States and Puerto Rico)

Warning

To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

⚡ CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

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

Explanation of Graphical Symbols

The lightning flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to person.

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

NOTE FOR USE IN THE U.S.A.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Caution

Modifications or adjustment to this product, which are not expressly approved by the manufacturer, may void the user's right authority to operate this product.

Precautions

Important
- Use only VHS-marked cassettes with this unit.
- This unit is designed to receive, record and playback using the NTSC color system.
- Audio/video material may consist of copyrighted work which must not be recorded without the authorization of the owner of the copyright. Please refer to the relevant laws in your country.

Installing
- The unit should be situated with adequate space around it so that proper heat ventilation is assured. Allow 10 cm clearance from the rear and the top of the unit, and 5 cm from the each side.
  - Do not place the unit on a bed, rug, or similar surface that may block the ventilation openings.
  - Do not install the unit in a bookcase, cabinet, or airtight rack where ventilation may be impeded.
- Keep the unit away from radiators and other heat sources.
- Avoid using the unit near strong magnetic fields.
- Use the unit in the horizontal position only.
- Install the unit at least one meter away from radios and receivers. Otherwise, noise may occur during radio reception.
- Do not place heavy objects on the unit.

Cautions
- Do not open the cabinet of the unit.
- Do not push any kind of object into the unit through the cabinet openings as they could touch current carrying parts, which may result in short-circuit, fire, electric shock, or damage to the unit.
- Do not spill liquid of any kind on this unit. If any liquid is spilled over the unit, immediately disconnect the unit from the AC outlet, and consult a qualified service engineer.
- Do not put your hand into the tape compartment.
- When the system is not used for an extended period of time, disconnect the AC cord. When the cord is plugged in, a small amount of current continues to flow to the system, even when the power is turned off.
- When there is lightning, immediately disconnect the unit from the AC outlet and never touch the antenna cable.

Note on moisture condensation

Moisture may condense inside the unit and cause damage to the unit and tape when the unit is moved from a cold to a warm place, after heating a cold room, or under conditions of high humidity. If any of the above conditions apply, place the unit in a well-ventilated area and wait for about two hours until the unit is warmed to room temperature and the moisture evaporates completely before operating the unit .

Maintenance

Professional periodic maintenance is required to maintain the optimum performance of the unit. Maintenance and adjustments to internal components should not be done by the user. Please consult your dealer if you have any trouble with the unit.

Cleaning the unit
Wipe the cabinet clean using a damp soft cloth with diluted detergent. Never use thinner or benzine since they will damage the cabinet surface.

Cleaning the video heads
Although the unit cleans the video heads automatically, dirt may be accumulated after a long period of use. If the playback picture is blurred or noisy while the TV programs are received clearly, the video heads may be dirty. In this case, clean the video heads using a commercially available video head cleaning tape.

OWNER'S RECORD
For your convenience, record the model number and serial number (you will find them on the rear of your set) in the space provided below. Please refer to them when you contact your AIWA dealer in case of difficulty.

Model No. [   ]

Serial No. [   ]

Welcome

Thank you for purchasing this AIWA product. To optimise the performance of this unit, please read through this manual carefully.

Main features of this VCR

VCR Plus+ system and One-Touch Playback

You can easily set the timer with the VCR Plus+ system.
The recorded TV programs can be played back quickly with One-Touch Playback.

MTS (Multi-channel TV Sound) broadcast

You can receive, record and play back stereo and bilingual TV programs.

MBR (Multi Brand Remote control)

The remote control can control the TVs of many manufacturers and CATV converters.

Auto Set-Up

You can easily finish the VCR settings of the TV channels at once.

Shuttle Ring

High speed and slow motion playback in various speeds can be done with the shuttle ring.

VCR Plus+ and PlusCode are trademarks of Gemstar Development Corporation. The VCR Plus+ system is manufactured under license from Gemstar Development Corporation.

Table of contents

Connecting the VCR

Basic connections

300-ohm twin-lead cable
(not supplied)

75-ohm
coaxial cable
(not supplied)

Antenna adaptor
(not supplied)

AERIAL

(VHF/UHF)

RF OUT

1

2

Antenna splitter (not supplied)

3 → To AC outlet

AC cord

Antenna cable
(supplied)

TV

TV

To antenna connector

UHF   VHF
300-ohm 75-ohm

To VHF antenna
terminal

To UHF antenna terminal

1 **Disconnect the antenna cable from your TV and connect it to AERIAL on this VCR.**

If the cable is a round-type 75-ohm coaxial cable, connect it directly to AERIAL.
If the cable is a flat-type 300-ohm twin-lead cable, connect it to the antenna adaptor (not supplied), and connect the adaptor to AERIAL.
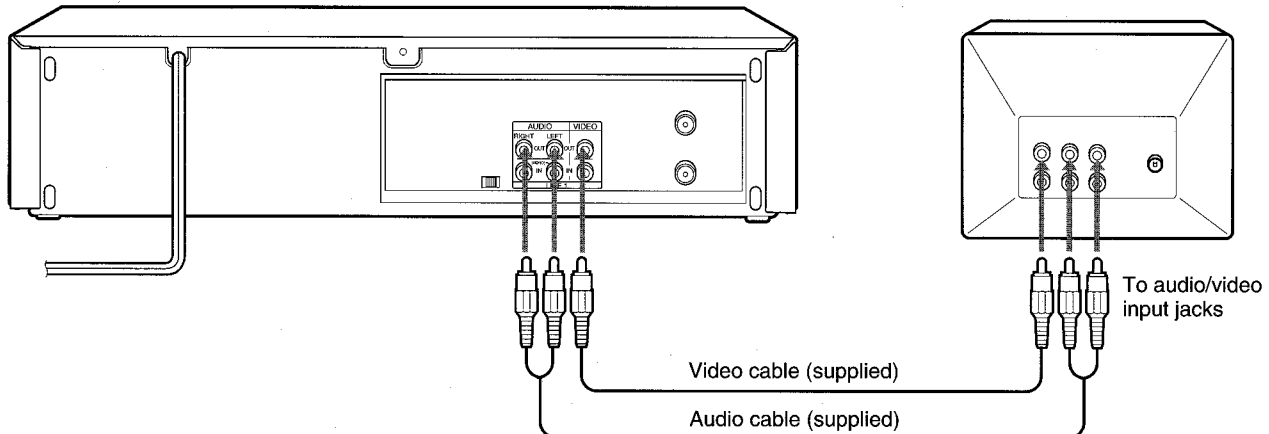
2 **Connect the supplied antenna cable to RF OUT on the VCR and the antenna connector on your TV.**

If your TV has a 300-ohm antenna connector, use an antenna splitter (not supplied).
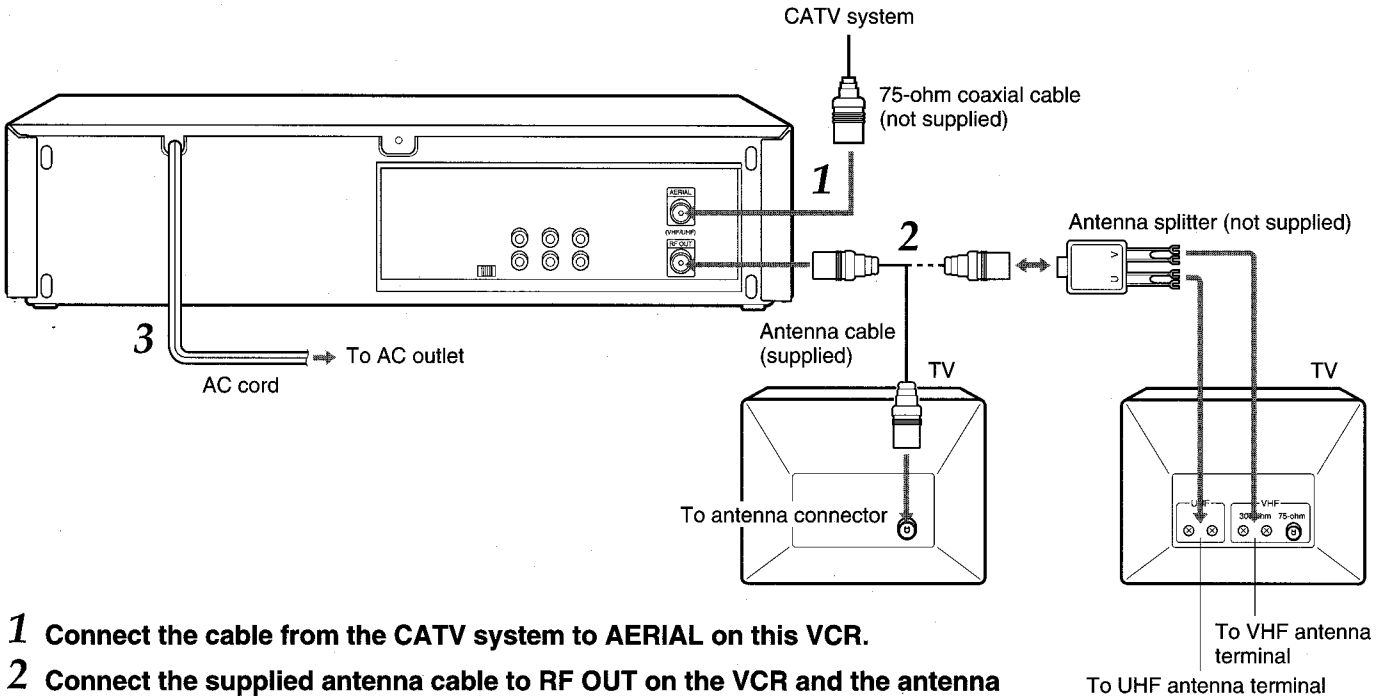
3 **Connect the AC cord to the AC outlet.**

To Connect a TV using the audio and video cables

If your TV has the audio/video input jacks, you can connect the VCR and TV using the supplied audio and video cables.
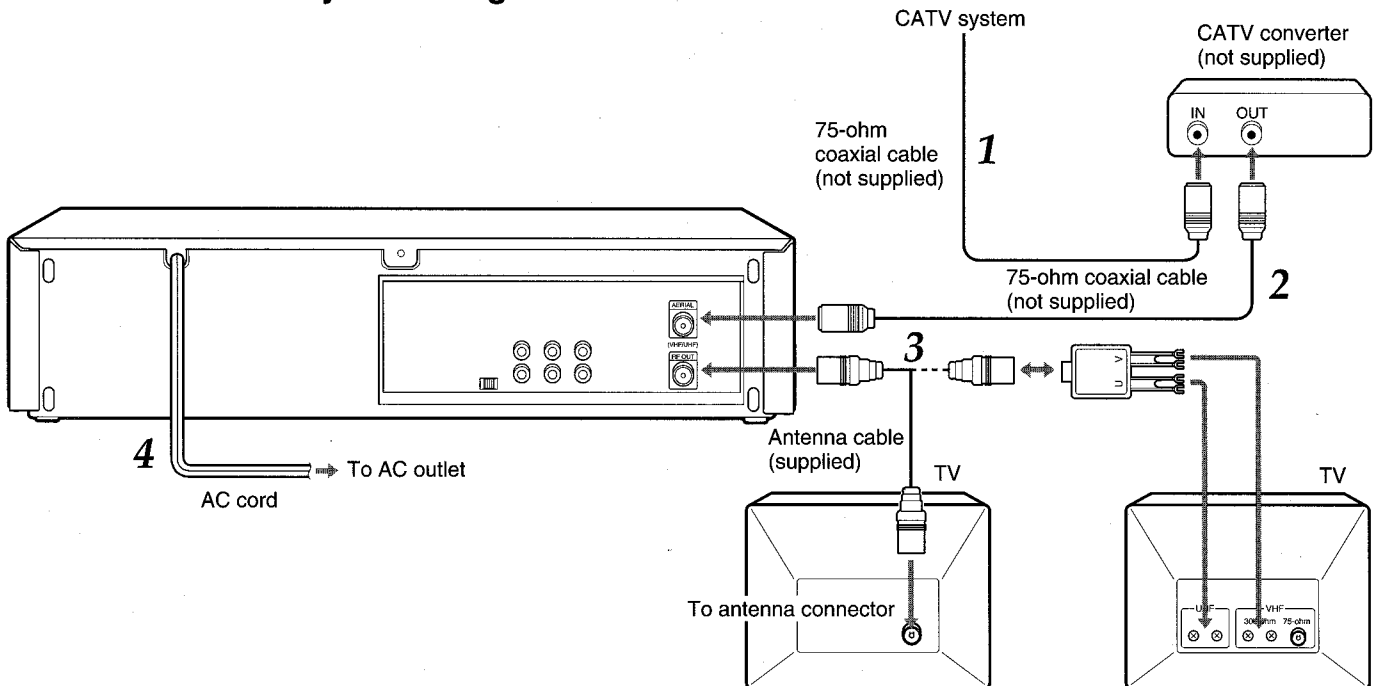This connection improves the picture and sound quality.

AUDIO   VIDEO
RIGHT LEFT   OUT
OUT   OUT
VIDEO
IN

To audio/video
input jacks

Video cable (supplied)

Audio cable (supplied)

To connect a CATV system without using a CATV converter

CATV system

75-ohm coaxial cable
(not supplied)

1

2

Antenna splitter (not supplied)

3

To AC outlet

AC cord

Antenna cable
(supplied)

TV

To antenna connector
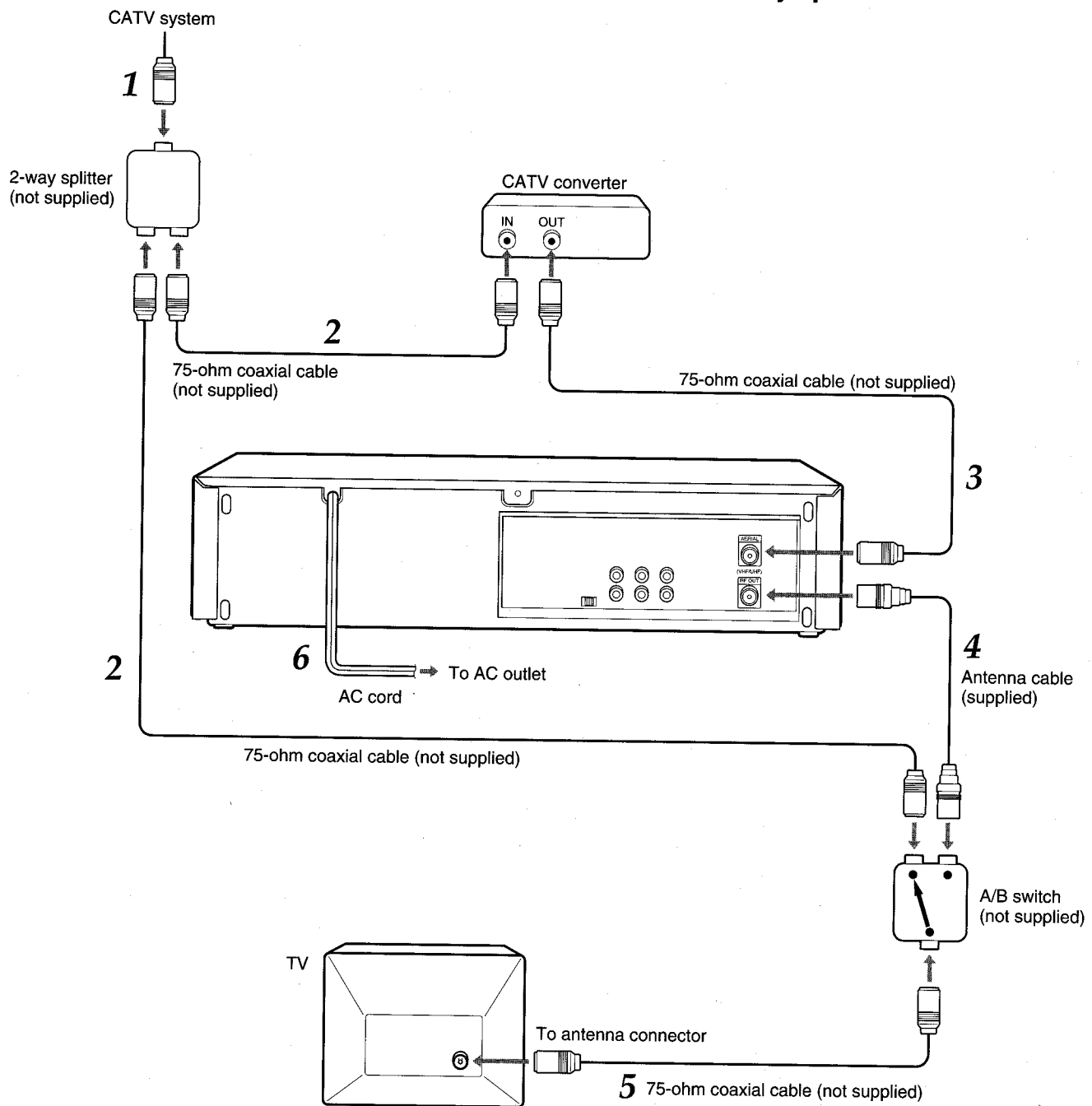
TV

To VHF antenna
terminal

To UHF antenna terminal

1 **Connect the cable from the CATV system to AERIAL on this VCR.**

2 **Connect the supplied antenna cable to RF OUT on the VCR and the antenna connector on your TV.**
If your TV has a 300-ohm antenna connector, use an antenna splitter (not supplied).

3 **Connect the AC cord to the AC outlet.**

To connect a CATV system using a CATV converter

CATV system

CATV converter
(not supplied)

IN   OUT

75-ohm
coaxial cable
(not supplied)

1

75-ohm coaxial cable
(not supplied)

2

3

4

To AC outlet

AC cord

Antenna cable
(supplied)

TV

To antenna connector

TV

1 **Connect the cable from the CATV system to the input on the CATV converter.**

2 **Connect the output on the converter to AERIAL on this VCR.**

3 **Connect the supplied antenna cable to RF OUT on the VCR and the antenna connector on your TV.**
If your TV has a 300-ohm antenna connector, use an antenna splitter (not supplied).

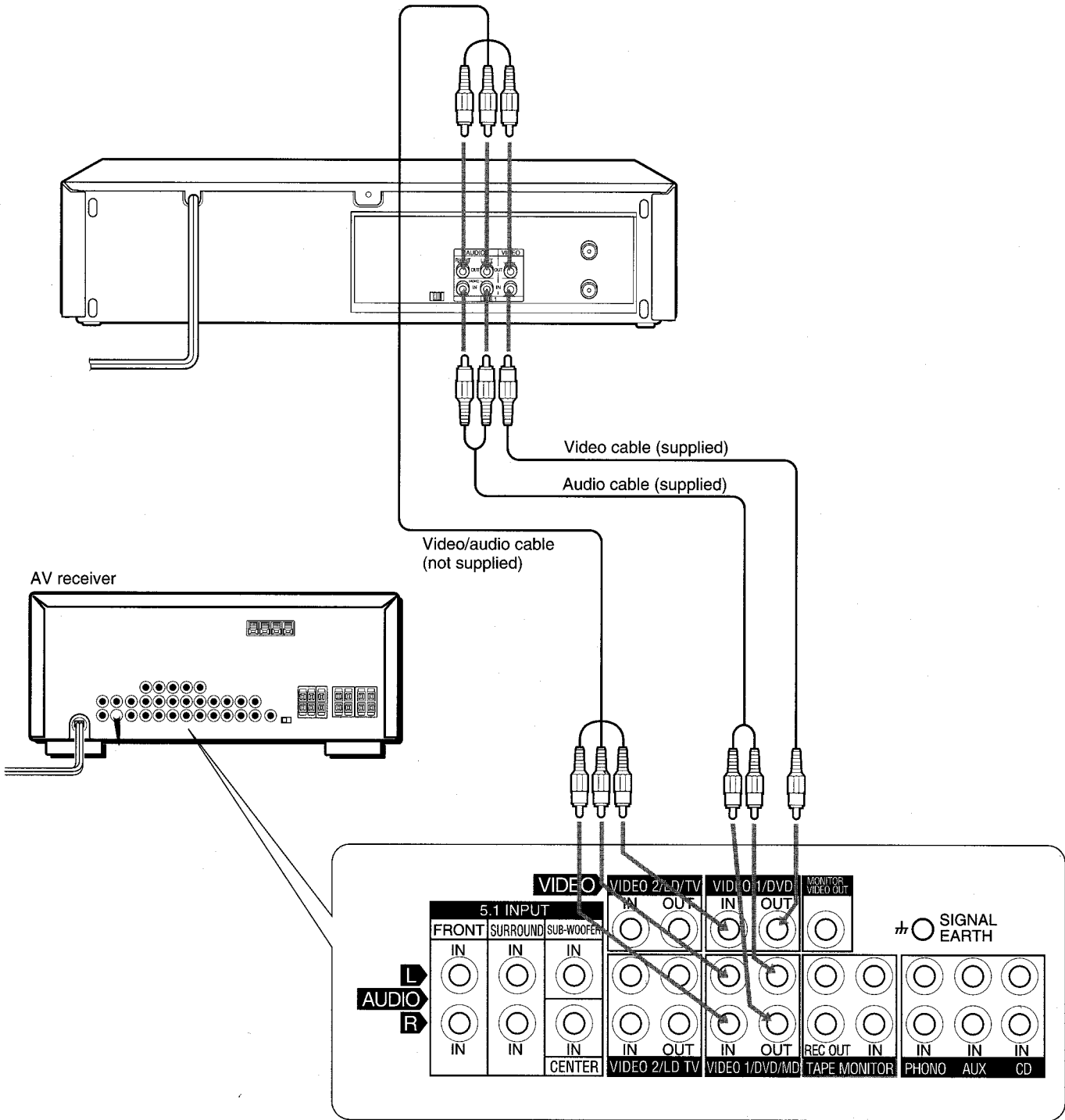*4* **Connect the AC cord to the AC outlet.**

To connect a CATV system using a CATV converter and 2-way splitter

CATV system

1

2-way splitter
(not supplied)

CATV converter

IN   OUT

2

75-ohm coaxial cable
(not supplied)

75-ohm coaxial cable (not supplied)

3

AERIAL

(VHF/UHF)

RF OUT

2

6

To AC outlet

AC cord

4

Antenna cable
(supplied)

75-ohm coaxial cable (not supplied)

A/B switch
(not supplied)

TV

To antenna connector

5   75-ohm coaxial cable (not supplied)

1 Connect the cable from the CATV system to the 2-way splitter.

2 Connect one of the output of the splitter to the input of the CATV converter, and the other to the A/B switch.

3 Connect the output on the converter to AERIAL on this VCR.

4 Connect RF OUT on this VCR to the A/B switch using the supplied antenna cable.

5 Connect the A/B switch to the antenna connector on your TV.

6 Connect the AC cord to the AC outlet.

To connect an AV receiver (AIWA AV-D50)

Video cable (supplied)

Audio cable (supplied)

Video/audio cable
(not supplied)

AV receiver

VIDEO

5.1 INPUT
FRONT | SURROUND | SUB-WOOFER

AUDIO

IN | IN | IN
IN | IN | IN
CENTER

VIDEO 2/LD/TV

IN | OUT
IN | OUT
VIDEO 2/LD TV

VIDEO 1/DVD

IN | OUT
IN | OUT
VIDEO 1/DVD/MD

MONITOR
VIDEO OUT

REC OUT | IN
TAPE MONITOR

SIGNAL
EARTH

IN | IN | IN
PHONO | AUX | CD

Notes
- To receive a radio broadcast on the AV receiver, turn off the VCR.
- Install the AM antenna of the AV receiver in a location that avoids interference, more than 1.5 m away from the VCR.

Preparing the remote control
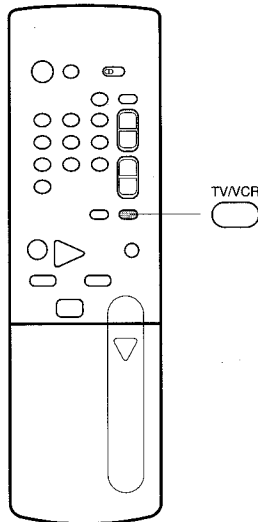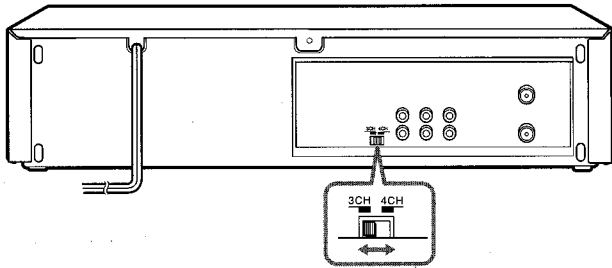
When a TV is connected with an antenna cable only

When the TV is connected to the RF OUT using a supplied antenna cable only, set the channel selector at the rear to 3 CH or 4 CH, not employed for broadcasts, and select the same channel on the TV.

To select a desired TV channel on the TV
Turn the TV and VCR on, and press TV/VCR to turn off
[VCR] in the display window, or turn off this VCR.

To see a TV program or video program selected on the VCR
Turn the TV and VCR on, and press TV/VCR to display
[VCR] in the display window.

Note
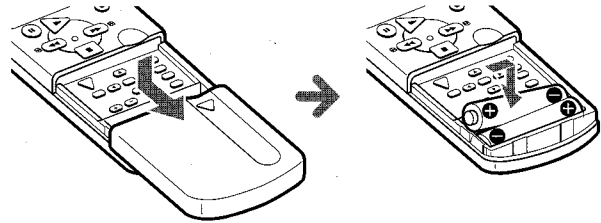[VCR] appears automatically when the VCR is turned on.

When a TV is connected with an audio/video cable

When the TV is connected using an audio/video cable, turn the TV and VCR on, and select the video input mode on the TV.

Inserting the batteries

Insert the two supplied R6 (size AA) batteries.
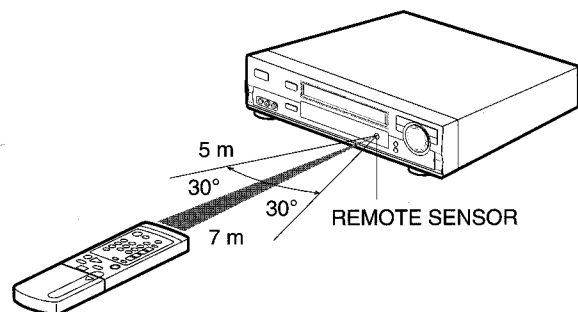Be sure to match ⊕ and ⊖ on the batteries to the diagram inside the battery holder.

Notes
• Do not mix a new battery with an old one.
• Do not mix different kinds of batteries.
• Remove the batteries when they have no more power, or when you do not use the remote control for a long period of time.

Using the remote control

Point the remote control toward REMOTE SENSOR.

Notes
• The remote control may not operate when there is any obstruction between the remote control and REMOTE SENSOR.
• Strong ambient light sources such as a fluorescent lamp or direct sunlight may cause unreliable operation.
• Using a TV with the same type of infrared remote control facing the same direction may cause incorrect operation.
• The maximum distance for effective control between the remote control and REMOTE SENSOR is 7 meters. When the maximum operable distance becomes shorter, replace both batteries with new ones.
• Although you can use the remote control within an angle of up to 30 degrees in any direction from directly in front of REMOTE SENSOR, we recommend a narrower angle for stable operation.

Controlling the TVs and CATVs

The remote control can control the TVs of many manufacturers and CATV converters for the CATV. To control such TVs and CATV converters, set the manufacturer's code number shown in the table on the right.
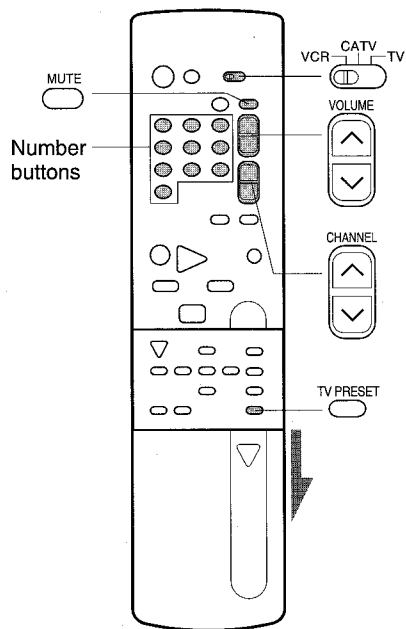
1 Set the VCR/CATV/TV selector to TV or CATV.

2 While holding TV PRESET, press the number buttons to set the code number referring to the table on the right.
Some manufacturers have more than one code number. If the remote control does not operate with the TV or CATV after setting the code number, try another number.

To control the TV
POWER, CHANNEL ∧/∨, VOLUME ∧/∨, MUTE, TV/VCR and the number buttons on the remote control are activated.

To control the CATV
POWER, CHANNEL ∧/∨ and the number buttons on the remote control are activated.

Notes
- Due to the variety of codes used by manufacturers, AIWA cannot guarantee that the MBR remote control will operate with every model of the brands listed.
- The number buttons can be used only for channel selection, but they may not function correctly with some TV models and CATV converters.

TV manufacturer	Code number
ADMIRAL	16, 33, 37, 44, 45
AKAI	01
AMARK	09
AOC	01
BELL & HOWELL	33
BROKSONIC	18, 19
CANDLE	51
CCE	07
CENTURION	08
CINERAL	43
CITIZEN	49, 50, 51, 52, 53, 54, 55
CORONADO	09
CROWN	09
CURTIS MATHES	01, 03, 08, 33, 37, 44
DAEWOO	16, 38, 39, 40, 41, 42, 43
DAYTRON	01, 08
EMERSON	01, 09, 16, 17, 18, 19
FISHER	28, 29
FUNAI	46, 47
GENERAL ELECTRIC	03, 10, 11, 13, 35, 37, 44
HITACHI	09, 14, 15, 43
JC PENNEY	01, 08, 10, 27, 35
JVC	20, 21
KIOTE	43
KMC	09
KTV	01, 08, 09, 31
LG (GOLDSTAR)	01, 07, 08, 09, 35, 39, 40
LODGENET	33
LOGIK	33
LXI	09, 24, 25, 26, 27, 28, 29
MAGNAVOX	01, 02, 04, 05, 06, 07, 08, 09, 20, 34, 35, 43, 51
MAJESTIC	33
MARANTZ	01, 32
MEMOREX	33
MGA/MITSUBISHI	01, 08, 32, 34
MONTGOMERY WARD	01, 06, 08, 09, 23, 24, 32, 33, 34
NEC	01, 08
NOBLEX	07
PACKARD BELL	43
PANASONIC	07, 11, 13, 25, 35, 36
PHILCO	01, 06, 07, 08, 09, 15, 38, 43
PHILIPS	06, 07, 43
PIONEER	30
PORTLAND	09
PROSCAN	03, 37, 44
QUASAR	11, 13
RADIO SHACK	16, 17, 23
RCA	01, 03, 37, 44
REALISTIC	16, 17, 23

CONTINUE

Preparing the remote control (continued)

TV manufacturer	Code number
SAMPO	08
SAMSUNG	01, 08, 09, 25
SANYO	28, 29
SCOTT	01, 08
SEARS	09, 25, 26, 27, 28, 29
SHARP	09, 22, 23, 24
SIGNATURE 2000	01, 06, 08, 09, 10, 23, 24, 33, 34
SONY	12
SOUNDESIGN	51
SYLVANIA	01, 04, 05, 06, 07, 08, 35, 51
SYMPHONIC	46, 47
TATUNG	11
TEKNIKA	07, 09, 16, 33, 51
TELERENT	09, 33
YORX	08
TOSHIBA	01, 25, 26, 27
WARDS	01, 06, 08, 09, 10, 33, 34
XR1000	48
ZENITH	02, 33

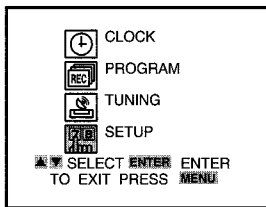| CATV converter manufacturer	Code number
ALLEGRO	46
ARCHER	39
CABLEVIEW	39
CITIZEN	39
CURTIS MATHES	15
EAGLE	24, 25, 28
GEMINI	04, 05, 22, 23
GENERAL ELECTRIC	43
GENERAL INSTRUMENT	04, 05, 07, 09
GOBRAND	39
HAMLIN	33, 34, 35
JERROLD	04, 06, 07, 08, 09, 10, 17, 39
KALE VISION	29
MACOM	03, 40, 41
MAGNAVOX	24, 25, 28, 29, 36, 37
NSC	38
OAK	11, 12, 44
PANASONIC	13, 19, 21
PARAGON	01
PHILIPS	24, 25, 26, 27, 28
PIONEER	13, 14
PULSER	39
RCA	13
REGAL	28
REGENCY	32
SAMSUNG	04, 13, 29
SCIENTIFIC ATLANTA	10, 15, 16, 45, 48
SLMARX	04, 13
SPRUCER	04, 13, 19
STANDARD COMPONENTS	29
STARGATE	04, 05, 13
TELEVIEW	04, 13, 39
TEXSCAN	31
TOCOM	12, 17, 18, 19, 38
UNIDEN	20
UNIKA	39
UNIVERSAL	46, 47
VID TECH	30
VIDEO WAY	01, 42
VIEWSTAR	24, 25, 28
ZENITH	01, 02, 03
ZENITH HT-2000	01

Note

Some TV or CATV converter manufacturers may not be listed above.

Setting the language

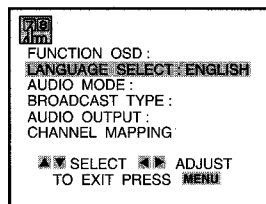The on-screen menu can display any of three languages, English, Spanish and French.
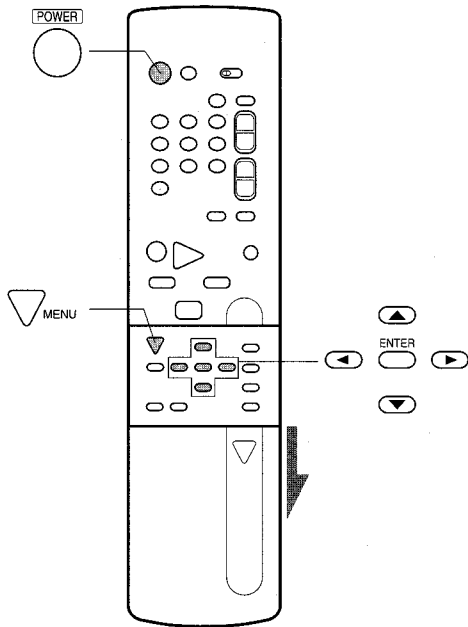
1 Press POWER to turn on the VCR.

2 Press MENU.

3 Press ▲/▼ to select SETUP, then press ENTER.

```
┌─────────────────────────────┐
│  ⊕   CLOCK                  │
│  REC  PROGRAM               │
│  ⊗   TUNING                 │
│  ⏱   SETUP                  │
│ ▲▼ SELECT ENTER ENTER       │
│ TO EXIT PRESS MENU          │
└─────────────────────────────┘
```

4 Press ▲/▼ to select LANGUAGE SELECT.

```
┌─────────────────────────────┐
│  ⏱                          │
│ FUNCTION OSD :              │
│ LANGUAGE SELECT ENGLISH     │
│ AUDIO MODE :                │
│ BROADCAST TYPE :            │
│ AUDIO OUTPUT :              │
│ CHANNEL MAPPING             │
│ ▲▼ SELECT ◄► ADJUST         │
│ TO EXIT PRESS MENU          │
└─────────────────────────────┘
```

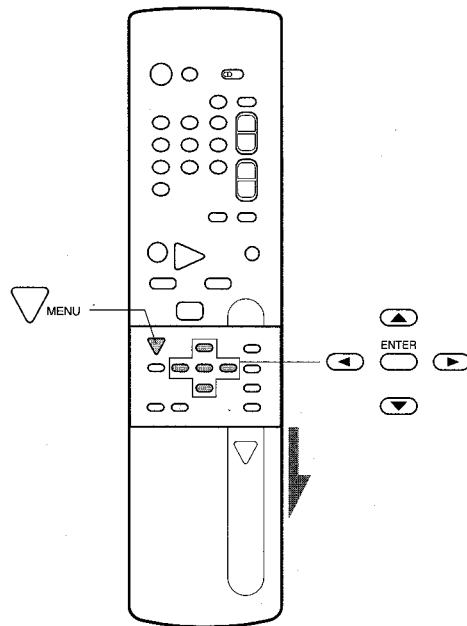## 5 Press ◄/► to display the desired language.
Each time the language changes, the on-screen display language changes.

```
┌─────────────────────────────┐
│  ⏱                          │
│ FUNCTION OSD :              │
│ LANGUAGE SELECT ENGLISH     │
│ AUDIO MODE :                │
│ BROADCAST TYPE :            │
│ AUDIO OUTPUT :              │
│ CHANNEL MAPPING             │
│ ▲▼ SELECT ◄► ADJUST         │
│ TO EXIT PRESS MENU          │
└─────────────────────────────┘
```
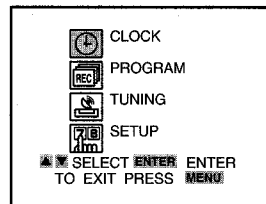
6 Press MENU to return to the normal screen.

Setting the clock
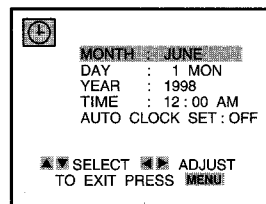
You must set the date and time for timer recordings.

1 Press MENU.

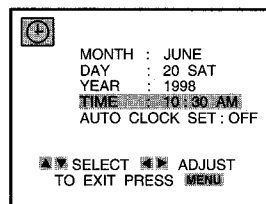## 2 Press ▲/▼ to select CLOCK, then press ENTER.

```
┌─────────────────────────────┐
│  ⊕   CLOCK                  │
│  REC  PROGRAM               │
│  ⊗   TUNING                 │
│  ⏱   SETUP                  │
│ ▲▼ SELECT ENTER ENTER       │
│ TO EXIT PRESS MENU          │
└─────────────────────────────┘
```
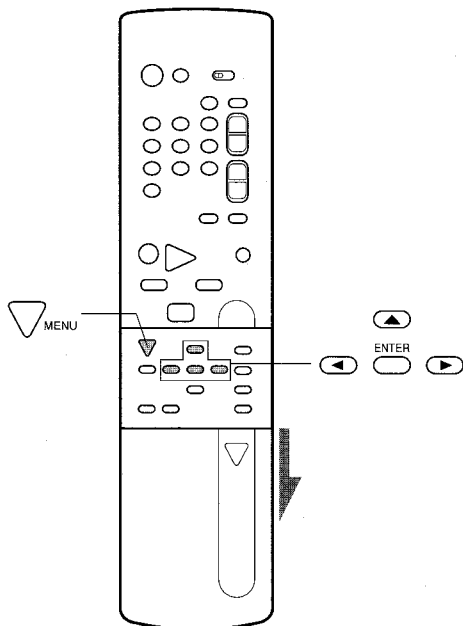
3 Press ◄/► to set MONTH, then press ▼.

```
┌─────────────────────────────┐
│  ⊕                          │
│ MONTH   : JUNE              │
│ DAY     : 1 MON             │
│ YEAR    : 1998              │
│ TIME    : 12 : 00 AM        │
│ AUTO CLOCK SET : OFF        │
│                             │
│ ▲▼ SELECT ◄► ADJUST         │
│ TO EXIT PRESS MENU          │
└─────────────────────────────┘
```

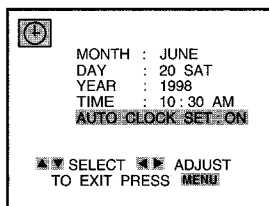## 4 Set DAY, YEAR and TIME as in step 3.
• The day of the week will automatically appear.
• Press and hold ◄/► to change the setting rapidly.

```
┌─────────────────────────────┐
│  ⊕                          │
│ MONTH   : JUNE              │
│ DAY     : 20 SAT            │
│ YEAR    : 1998              │
│ TIME    : 10 : 30 AM        │
│ AUTO CLOCK SET : OFF        │
│                             │
│ ▲▼ SELECT ◄► ADJUST         │
│ TO EXIT PRESS MENU          │
└─────────────────────────────┘
```
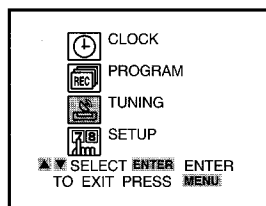
Setting the VCR channels

This convenient Auto Channel Set function can preset up to 181 channels in your area (VHF channels 2 to 13, UHF channels 14 to 69 and CATV channels 1 to 125) on the VCR.
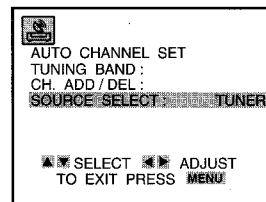
5 Press ◀/▶ to display AUTO CLOCK SET: ON.
The VCR automatically corrects the clock setting once you set AUTO CLOCK SET to ON.

```
     MONTH  :  JUNE
     DAY    :  20 SAT
     YEAR   :  1998
     TIME   :  10 : 30  AM
     AUTO CLOCK SET : ON

  ▲▼ SELECT  ◀▶ ADJUST
     TO EXIT PRESS MENU
```

6 Press MENU to start the clock.
The normal screen returns.

To correct the digits while setting
Before pressing MENU in step 6, press ▲ to select the item you wish to correct. Reset the digits using ◀/▶.

Tip

When the power supply is interrupted for more than 10 minutes, the clock setting is cleared. In this case, you have to set the clock again.

Notes

• The date can be set from A.D.1998 to A.D.2097.
• AUTO CLOCK functions when
  - the VCR's power is turned off.
  - the channel of a broadcaster that offers AUTO CLOCK service is preset.

Before starting
If the VCR is connected to a CATV converter, make sure to turn it on.

1 Press MENU.

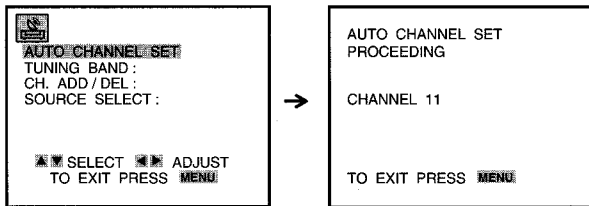**2 Press ▲/▼ to select TUNING, then press ENTER.**

```
  🕐  CLOCK

  REC  PROGRAM

      TUNING

  7|8  SETUP

  ▲▼ SELECT ENTER ENTER
     TO EXIT PRESS MENU
```

3 Press ▲/▼ to select SOURCE SELECT, then press ◀/▶ to display TUNER.

```
     AUTO CHANNEL SET
     TUNING BAND :
     CH. ADD / DEL :
     SOURCE SELECT        TUNER

  ▲▼ SELECT  ◀▶ ADJUST
     TO EXIT PRESS MENU
```

4 Press ▲/▼ to select AUTO CHANNEL SET, then press ◀/▶.

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

```
┌─────────────────────────┐   ┌─────────────────────────┐
│ ▓▓                       │   │  AUTO CHANNEL SET       │
│ AUTO CHANNEL SET         │   │  PROCEEDING             │
│ TUNING BAND :            │   │                         │
│ CH. ADD / DEL :        → │   │  CHANNEL 11             │
│ SOURCE SELECT :          │   │                         │
│                          │   │                         │
│  ▲▼ SELECT ◀▶ ADJUST     │   │                         │
│    TO EXIT PRESS MENU     │   │  TO EXIT PRESS MENU     │
└─────────────────────────┘   └─────────────────────────┘
```

5 Press MENU to return to the normal screen.

If "C" flashes in the display window after Auto Channel Set

Check the antenna connections and repeat the above procedure from step 1.
If you still cannot receive the channels, set the VCR channels manually. See "Adding or erasing VCR channels manually" on the right.
(Presetting the VCR channels is necessary for recording TV programs.)

CATV channels

CATV systems use letters and numerals to designate channels. The table below shows the channel numbers of the CATV system and the corresponding channel number displayed on this VCR. For more information on available channels in your area, consult your local CATV company.

Channels displayed on this VCR	CATV channels
01	4A
02 to 13	2 to 13
14 to 36	A to W
37 to 94	W+1 to W+58
95 to 99	A-5 to A-1
100 to 124	W+59 to W+83
125	W+84

Tip

When you perform the Auto Channel Set, the VCR automatically selects the band (TV or CATV) in which there are more channels to be preset. To check the band, press ▼ to select TUNING BAND.
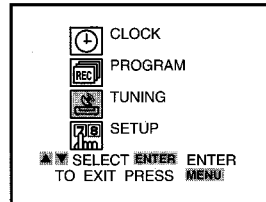
Note

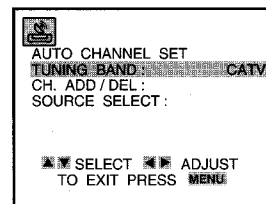Once you conduct Auto Channel Set, the previous settings will be canceled.

Adding or erasing VCR channels manually

If Auto Channel Set does not set the VCR channel, add them manually for recording TV programs.
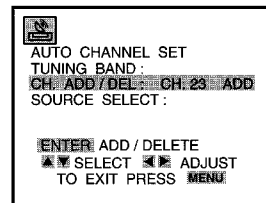You can also erase the unnecessary VCR channels.

1 Press MENU.

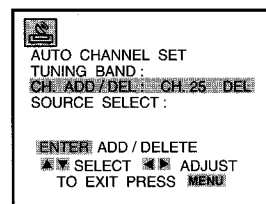## 2 Press ▲/▼ to select TUNING, then press ENTER.

```
┌─────────────────────────┐
│  ⊕  CLOCK               │
│                         │
│  ▓  PROGRAM             │
│                         │
│  ▓  TUNING              │
│                         │
│  ▓  SETUP               │
│  ▲▼ SELECT ENTER ENTER  │
│  TO EXIT PRESS MENU     │
└─────────────────────────┘
```

3 Press ▲/▼ to select TUNING BAND, then press ◀/▶ to display TV or CATV.

```
┌─────────────────────────┐
│ ▓▓                       │
│ AUTO CHANNEL SET         │
│ TUNING BAND :      CATV  │
│ CH. ADD / DEL :          │
│ SOURCE SELECT :          │
│                          │
│  ▲▼ SELECT ◀▶ ADJUST     │
│    TO EXIT PRESS MENU     │
└─────────────────────────┘
```

4 Press ▲/▼ to select CH. ADD/DEL.

```
┌─────────────────────────┐
│ ▓▓                       │
│ AUTO CHANNEL SET         │
│ TUNING BAND :            │
│ CH. ADD / DEL : CH. 23 ADD │
│ SOURCE SELECT :          │
│                          │
│ ENTER ADD / DELETE       │
│  ▲▼ SELECT ◀▶ ADJUST     │
│    TO EXIT PRESS MENU     │
└─────────────────────────┘
```

5 Press ◀/▶ to select the channel to be erased or added.

```
┌─────────────────────────┐
│ ▓▓                       │
│ AUTO CHANNEL SET         │
│ TUNING BAND :            │
│ CH. ADD / DEL : CH. 25 DEL │
│ SOURCE SELECT :          │
│                          │
│ ENTER ADD / DELETE       │
│  ▲▼ SELECT ◀▶ ADJUST     │
│    TO EXIT PRESS MENU     │
└─────────────────────────┘
```

6 Press ENTER to add or erase the channel.

7 If you want to add or erase other channels, repeat steps 5 and 6.

8 Press MENU to return to the normal screen.

Checking the channel set-up to use VCR Plus+

To set the timer using VCR Plus+, you have to check whether the VCR channel numbers match the guide channels which are assigned to the TV stations.
If they do not match, the VCR Plus+ does not function correctly. In this case, coordinate the number.
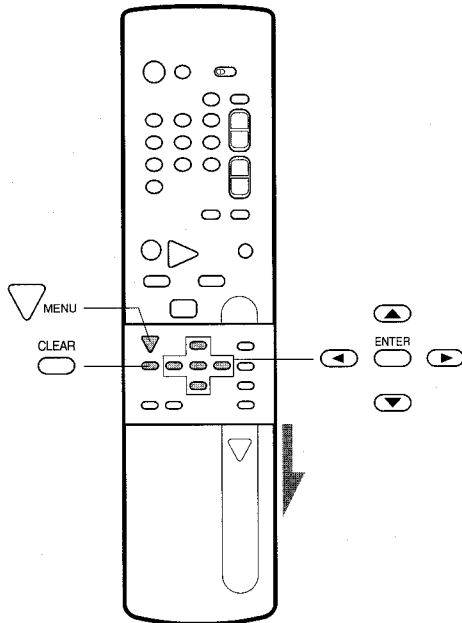
For example
For each channel your VCR receives, use the channel line up chart to check that the channel numbers match. For example, SHOWTIME is listed in the channel line up chart (under the VCR Plus+ Code) as channel 38, your VCR receives SHOWTIME on channel 14, you need to coordinate these numbers by locating guide channel 38 (under GUIDE CH). Next enter your SHOWTIME channel 14 (under CHANNEL) .
Continue this process until all channels match.

Sample Channel Line Up Chart

TV Station		VCR Plus+ Code	Local Cable Company Channel Number
WCBS	New York CBS	02	02
WNBC	New York NBC	04	04
WNYW	New York NYW	05	05
WABC	New York ABC	07	07
A&E	Arts & Entertainment	39	44
BET	Black Entertainment	57	23
CNBC	Consumer News & Business	23	16
CSPAN	Government Business	28	54
DSC	Discovery Channel	37	63
DIS	Disney Channel	53	27
MAX	Cinemax	45	15
SHO	**Showtime**	**38**	**14**
USA	USA Network	44	40

• Channel Guide listings are available in your local TV Guide and Newspaper.
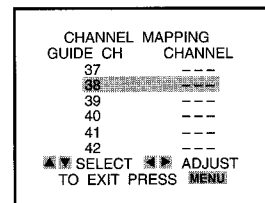
1 Press MENU.

2 Press ▲/▼ to select SETUP, then press ENTER.
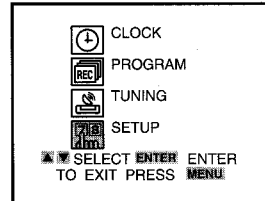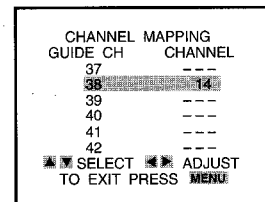

3 Press ▲/▼ to select CHANNEL MAPPING, then press ◀/▶.
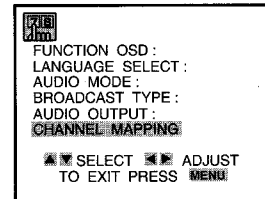
4 Press ▲/▼ to select GUIDE CH "38."

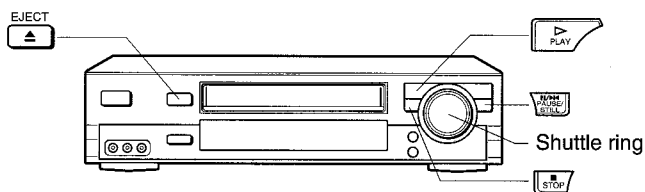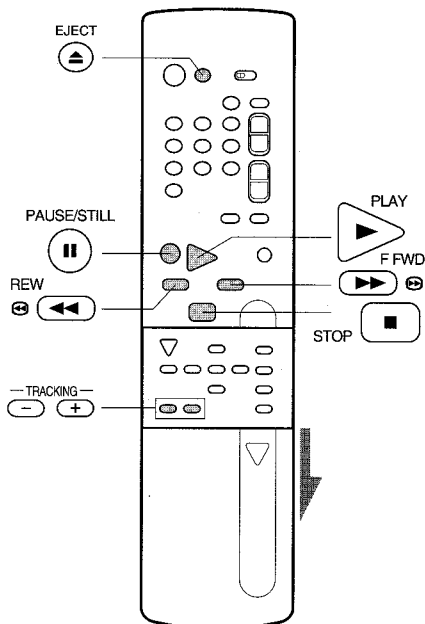
5 Press ◀/▶ to display CHANNEL "14."

6 Repeat steps 4 and 5 until all necessary channel numbers are set.

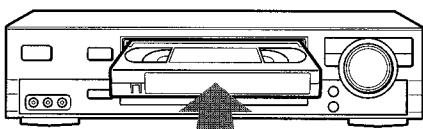*7* Press MENU to return to the normal screen.

Tip
To cancel the CHANNEL setting, press CLEAR in step 5.

Playing back a tape

EJECT

PAUSE/STILL

REW

PLAY

F FWD

STOP

— TRACKING —

EJECT

PLAY

PAUSE/STILL

Shuttle ring

STOP

1 Insert a cassette.

The power turns on automatically.
Playback starts immediately if the erasure prevention tab has been removed from the cassette.

## 2 Press ► PLAY to start playback.

To stop playback
Press ■ STOP.

Notes

• When the tape reaches the end during playback, fast-forward, forward search or index search, the VCR automatically rewinds the tape to the beginning, ejects the cassette, and turns the power off. (Auto rewind function)
• The VCR selects the tape speed, SP, EP or LP, automatically.

If you cannot get a clear playback picture

Although the VCR adjusts the tracking automatically, you may need to adjust the tracking manually if the tape quality is too poor.
While the VCR is adjusting the tracking automatically, "A. TRK" (Automatic Tracking) flashes on the TV screen. It turns off after the adjustment is complete.
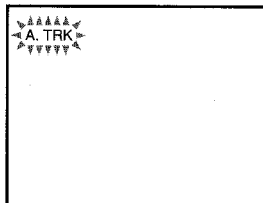
A. TRK

If "A. TRK" keeps flashing for some time, try manual tracking.

To adjust the tracking manually
During playback, press TRACKING +/– repeatedly until you get the best possible picture.
(Automatic Tracking is canceled.)
Tracking is reset to the normal setting when the cassette is ejected or the AC cord is unplugged.

Additional functions

To	Press	To return to the original mode
Make a picture still	**II** PAUSE/STILL during playback	Press ► PLAY.
Fast-forward the tape	►► F FWD or turn the shuttle ring on the VCR to the rightmost position during stop	—
Rewind the tape	◄◄ REW or turn the shuttle ring on the VCR to the leftmost position during stop	—
Eject the cassette	▲ EJECT	—
Search forward at high speed	►► F FWD during playback	Press ► PLAY.
Search reverse at high speed	◄◄ REW during playback	Press ► PLAY.

EJECT

POWER

CHANNEL

PAUSE/STILL

REW   F FWD

AD-SKIP

— TRACKING —
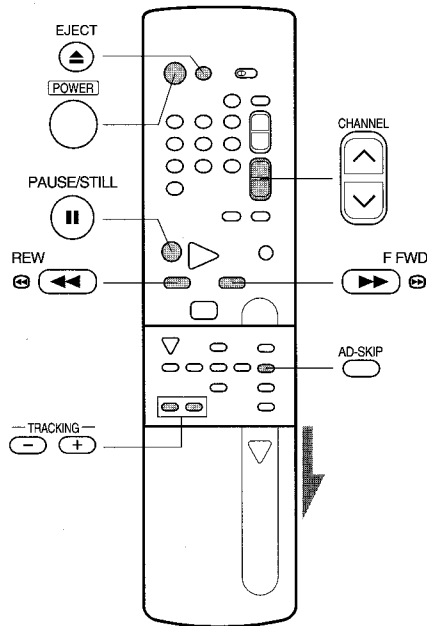
To watch a picture of the tape during fast-forward or rewind — Skip search

You can watch a picture during fast-forward or rewind mode. Hold down ►► F FWD or ◄◄ REW. The VCR switches forward or reverse search.
You can use the shuttle ring by turning it to the right or left. Release the button or the shuttle ring to return to the fast-forward or rewind mode.

To skip an advertisement

Press AD-SKIP during playback. The VCR searches forward approximately 30 seconds of the recorded time.
Each press changes the recorded time of forward search in 30 seconds increments to a maximum of 3 minutes.
After forward search, VCR returns to the normal playback.

Tips

- If you press ▲ EJECT while the power is off, the VCR automatically turns the power on, ejects the cassette, and turns the power off.
- You can adjust unstable pictures by pressing TRACKING +/– repeatedly during still.
- You can play frame-by-frame by pressing ❚❚ PAUSE/STILL during still.
- Depending on the tape, noise lines may appear or color may fade during still.
- Depending on the tape, noise lines may appear or color may fade during forward and reverse searches. You can move the noise lines by pressing TRACKING +/– or CHANNEL∧/∨. If you start the forward and reverse searches by turning the shuttle ring, only CHANNEL∧/∨ on the VCR are operable.
- To turn off the VCR automatically after rewinding, press ◄◄ REW or turn the shuttle ring to the leftmost position during stop, then press POWER. "REW" flashes in the display window and the VCR turns the power off after rewinding the tape to the beginning.
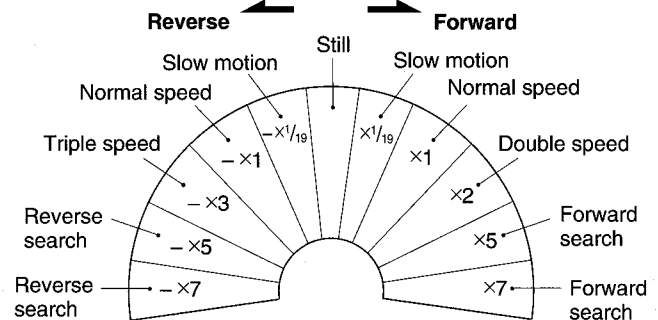
Notes

- If a still picture lasts for more than 5 minutes, the VCR will automatically enter stop mode to protect the tape.
- If forward and reverse searches last for 3 minutes, the VCR will automatically enter playback mode to protect the tape.
- The sound will be muted during still, forward and reverse searches.

Various search functions

Number buttons

PLAY

CHANNEL

SLOW

REW   F FWD

STOP

CLEAR   VISS

ENTER

— TRACKING —
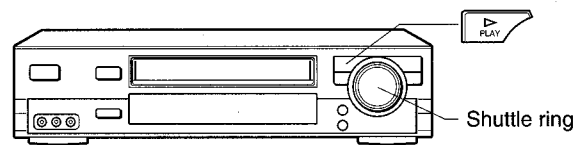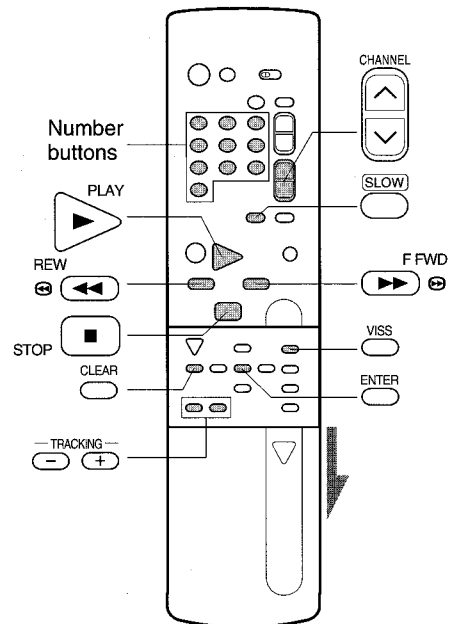
Shuttle ring

Playing at various speeds

Turn the shuttle ring right for various speed playback during still or playback. Turn the shuttle ring left for reverse play.

Reverse ◄   ► Forward

Still

Reverse: Slow motion, Normal speed, Triple speed, Reverse search, Reverse search
–×1/19, –×1, –×3, –×5, –×7

Forward: Slow motion, Normal speed, Double speed, Forward search, Forward search
×1/19, ×1, ×2, ×5, ×7

The slow motion playback and still does not operate when you turn the shuttle ring during playback.

To play back at slow speed during playback

Press SLOW. Playback will proceed at 1/19 normal speed. You can move the noise lines by pressing TRACKING +/– repeatedly or CHANNEL ∧ or ∨.
Press ► PLAY to return to the normal playback.

Notes

- If you continue slow motion playback by pressing SLOW for more than 3 minutes, the VCR will automatically enter playback mode to protect the tape.
- The sound will be muted during various speed playback. However, the sound will be heard only during the normal speed playback in forward direction.
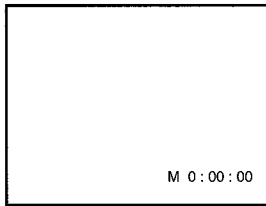- Noise lines may appear or color may fade depending on the tape during various speed playback.

1 Press ENTER repeatedly to display the tape counter on the TV screen.

```
M 1 : 30 : 00
```
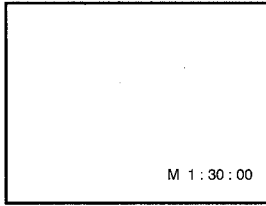
2 Press CLEAR at the point you want to locate later.

The tape counter on the TV screen resets to "0:00:00."

```
M 0 : 00 : 00
```

3 After playback or recording, press ■ STOP, then ◄◄ REW.

The tape automatically stops when the tape counter returns to about "0:00:00."

Tip

You can also see the tape counter in the display window by pressing ENTER repeatedly.

Notes

• Counter Memory does not work during fast-forward, Auto rewind and Index search.
• When you insert a cassette, the tape counter is reset to "0:00:00."
• The counter memory indicator (M) will appear whenever the tape counter appears.

The VCR automatically marks an index signal on the tape each time recording starts. You can use these signals to find the beginning of any recording.

1 Press VISS during playback or stop.

2 Press the number buttons (up to 99) to select the index number.

When selecting the numbers less than 10, press 0 to enter tens digit and then press the buttons 1 through 9 to enter ones digit.
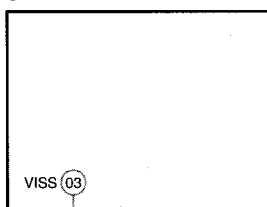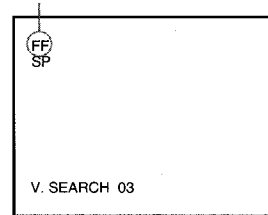
```
VISS (03)
```
Index number

3 Press ►► F FWD (for succeeding programs) or ◄◄ REW (for preceding programs).

The VCR starts searching.
When the VCR detects the index number, playback starts automatically from the beginning of the specified recording.
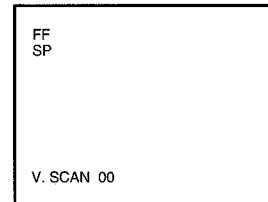
FF or REW appears.
```
(FF)
SP



V. SEARCH 03
```

To search the next index signal continuously

Press VISS during playback or stop. Then press ►► F FWD or ◄◄ REW. When the VCR detects the next index signal, playback starts automatically. After 5 seconds, the VCR goes to fast-forward or rewind.
At the desired scene, press ► PLAY to return to the normal playback.

```
FF
SP



V. SCAN 00
```

Notes

• You can also use the display window to check the index number you specified. "VISS" and the index number will appear in the display window.
• Index signals should be at least 1 minute apart in SP mode, 2 minutes apart in LP mode, and 3 minutes apart in EP mode. Otherwise, the VCR cannot detect them properly.
• Index signals may not be detected on damaged or worn out tapes.
• The index signal at the beginning of a recorded tape may not be detected.
• The index signal may not be detected if it is extremely close to the point where the search began.
• The current tape speed indicator appears during searching. This does not indicate the tape speed of the tape you are using.

Recording a TV program

Number buttons

PAUSE/STILL

STOP

CHANNEL

TV/VCR

REC/ITR
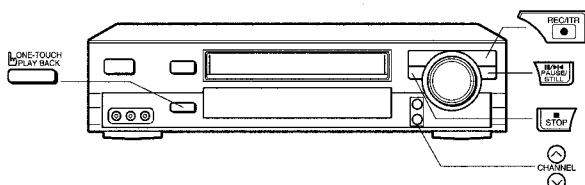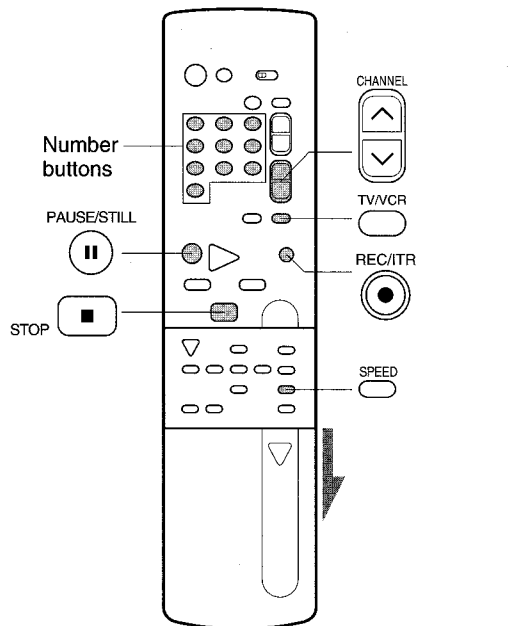
SPEED

1 Insert a cassette with its erasure prevention tab in place.
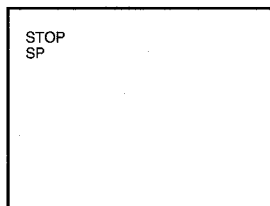
The power turns on automatically.
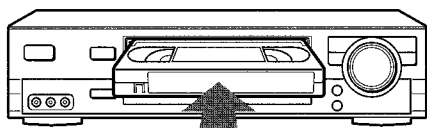
2 Press SPEED to select the tape speed, SP or EP.

STOP
SP

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

3 Press CHANNEL /\/\/ or number buttons to select the channel to record.

When you use the number buttons, the channel will be changed a few seconds after you press the buttons.

4 Press ● REC/ITR to start recording.

To stop recording
Press ■ STOP.

To pause recording
Press II PAUSE/STILL. The RECP indicator appears on the TV screen.
To resume recording, press II PAUSE/STILL again.

To prevent an accidental recording
Break off the erasure prevention tab on the back edge of the cassette.
To record over the tape again, cover the gap with adhesive tape.

Erasure prevention tab

Adhesive tape
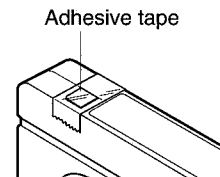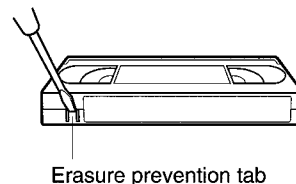
To watch another TV program while recording
If the TV is connected only with an antenna cable, press TV/VCR after starting the recording so that VCR in the display window disappears. Then select another channel on the TV.
To monitor the recording, set the channel on the TV to that of the CHANNEL selector, and press the TV/VCR button again.

Tips
• If you want to record the program through the line input, press CHANNEL /\/\/ continuously to display "L1" (from AUDIO/VIDEO IN jacks at the rear) or "L2" (from the AUDIO/VIDEO IN jacks in the front) in the display window in step 3. You can also select "L1" by pressing the 0 button twice.
• To start recording during playback, press II PAUSE/STILL, and press ● REC/ITR then II PAUSE/STILL.

Notes
• If you try to record on a cassette without its erasure prevention tab, the VCR will eject the cassette.
• If recording pause lasts for more than 5 minutes, the VCR will automatically enter stop mode to protect the tape.

Using One-Touch playback after VCR Plus+ (page 19) or timer (page 21) is convenient. You can make timer recordings and play back only the portion you just recorded with the timer by pressing a single button later.

1 Stop recording (when recording without timer).
ONE-TOUCH PLAY BACK on the VCR lights.
If another operation button is pressed after you stop recording, One-Touch Playback will be canceled.

2 Press ONE-TOUCH PLAY BACK on the VCR.
The tape rewinds to the start of the recorded portion and playback begins.

When you set the timer for more than two timer programs

The VCR starts playing back from the earliest one when you use One-Touch Playback.
To find the beginning of the second (or later) program, use Index Search (page 16).

Note

One-Touch Playback does not work for recordings of less than 30 seconds.

Recording with Instant Timer Recording

You can immediately start recording the current channel for a specified time with Instant Timer Recording.
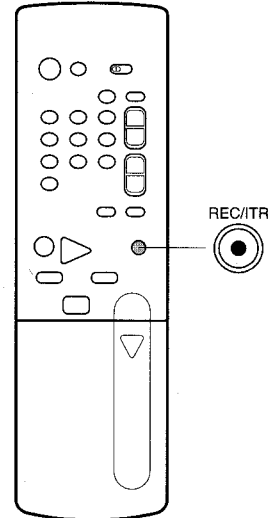
Before starting
• Insert a cassette with its erasure prevention tab in place.
  Make sure the tape is longer than the recording time.
• Select the channel to record and tape speed.

1 Press ● REC/ITR twice.
  • The VCR starts recording, and Instant Timer Recording information appears on the TV screen.
  • ⊙ appears in the display window.

```
INSTANT  TIMER  RECORD

CHANNEL  10 CATV
SPEED    EP

START    NOW
LENGTH   0H30M
```
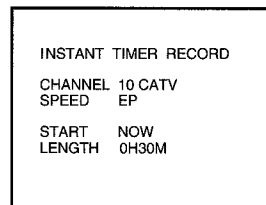
2 Within five seconds, press ● REC/ITR repeatedly to set the recording duration.
Each press changes the recording duration on the TV screen in the following way:

0H30M → 1H00M → 1H30M → ..... → 8H30M

└─ 0H00M (Regular recording) ← 9H00M ←┘

When the recording time indicator in the display window counts down to "0H00M," recording stops and the VCR turns off.

```
INSTANT  TIMER  RECORD

CHANNEL  10 CATV
SPEED    EP

START    NOW
LENGTH   1H30M
```
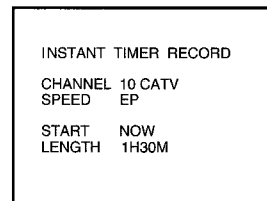
Recording with Instant Timer Recording (continued)

POWER

PAUSE/STILL   REC/ITR

STOP

To stop, pause, or turn off the power while recording

Press ■ STOP, ❚❚ PAUSE/STILL, or POWER.

To extend the recording duration while recording

Press ● REC/ITR until the new duration you want appears.

Tip

When the regular recording is resumed by pressing ● REC/ITR repeatedly to display "0H00M," Instant Timer Recording is canceled.

Note

When the tape reaches the end during Instant Timer Recording, ⊘ flashes in the display window.

Setting the timer with VCR Plus+

You can greatly simplify timer recordings with VCR Plus+. Just enter the PlusCode, a number assigned to each TV program, and the VCR will set the timer recording automatically. You can find PlusCodes in most TV guide magazines.
You can set up to 8 programs.

POWER   VCR PLUS+

Number buttons

MENU

CLEAR   ENTER
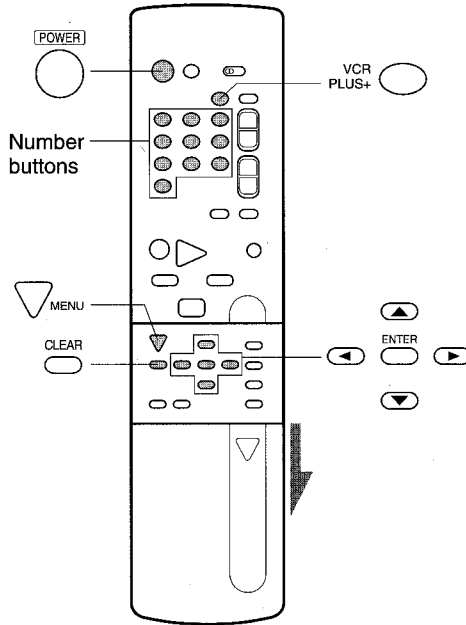
Before starting
• Check that the VCR clock is set correctly.
• Check that the VCR channel numbers match the guide channels which assigned to the TV stations. See page 13.
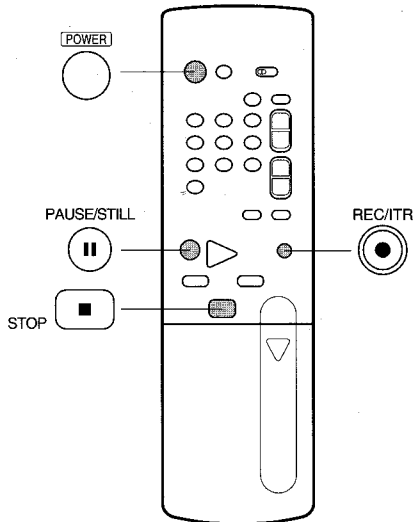• Insert a cassette with its erasure prevention tab in place.
• To set the timer for a CATV (or satellite) channel, check that the CATV (or satellite) receiver is turned on and the channel you want to record is selected.

1 **Press VCR PLUS+.**

2 **Enter the PlusCode of the TV program you want to record using the number buttons.**
If you make a mistake, press CLEAR to cancel.

```
VCR PLUS+ PROGRAM

ENTER VCR PLUSCODE

      236543 ▓ – –

TO CLEAR PRESS  CLEAR
TO ENTER PRESS  ENTER
TO EXIT PRESS   PLUS+
```
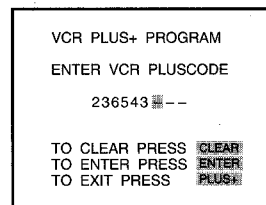
3 Press ENTER.

• The timer information appears on the TV screen.
• If you want to extend the recording time, see "To extend the recording time" below.

```
┌──────────────────────────────┐
│ [REC]  PROGRAM  1            │
│        MONTH  :  JULY        │
│        DAY    :  6  MON      │
│        START  :  6 : 00  PM  │
│        STOP   :  7 : 30  PM  │
│        CHANNEL:  4   CATV    │
│        SPEED  :  AUTO        │
│        REPEAT :  ONCE        │
│     TO ERASE PRESS CLEAR     │
│     TO EXIT  PRESS MENU      │
└──────────────────────────────┘
```

4 Press ▲/▼ to select SPEED, then press ◀/▶ to select SP, EP or AUTO.

If you select AUTO, the VCR determines remaining tape length and switches the speed from SP to EP, if necessary, to complete recording the program.

```
┌──────────────────────────────┐
│ [REC]  PROGRAM  1            │
│        MONTH  :  JULY        │
│        DAY    :  6  MON      │
│        START  :  6 : 00  PM  │
│        STOP   :  7 : 30  PM  │
│        CHANNEL:  4   CATV    │
│        SPEED    SP           │
│        REPEAT :  ONCE        │
│    ▲▼ SELECT ◀▶ ADJUST      │
│     TO EXIT PRESS MENU       │
└──────────────────────────────┘
```

5 Press ▲/▼ to select REPEAT, then press ◀/▶ to select ONCE, WEEKLY or DAILY.

ONCE: for a single program
WEEKLY: for a weekly program such as every Monday
DAILY: for a daily program from Monday to Friday

```
┌──────────────────────────────┐
│ [REC]  PROGRAM  1            │
│        MONTH  :  JULY        │
│        DAY    :  6  MON      │
│        START  :  6 : 00  PM  │
│        STOP   :  7 : 30  PM  │
│        CHANNEL:  4   CATV    │
│        SPEED  :  SP          │
│        REPEAT   ONCE         │
│    ▲▼ SELECT ◀▶ ADJUST      │
│     TO EXIT PRESS MENU       │
└──────────────────────────────┘
```

6 If you want to set another program, repeat from step 1.

7 Press MENU to return to the normal screen.

8 Press POWER to turn off the VCR.

• ⏱ appears in the display window, and the VCR stands by for timer recording.
• If ⌐-⌐ flashes, a cassette is not inserted. If ⌐-⌐ flashes and the cassette is ejected, the cassette's erasure prevention tab is removed.

To extend the recording time

After step 3, press ▲/▼ to select STOP, then press ◀/▶ to change the end time.

If the program overlaps another

The overlapped portions will be deleted. The program which has less program number has priority over the succeeding as illustrated.

```
            8:00      9:00      10:00      11:00
Program 1 ──▶ ┌─────────────────────────┐
Program 2 ──▶     ████████┐
                          │   Deleted Parts
Program 3 ──▶                  └────████████┐
Actual
recorded
portions     Prog.1        Prog.2      Prog.3
```

To cancel the program

Select PROGRAM in the menu. And press ◀/▶ to display the program you want to cancel, then press CLEAR to cancel.

Tips

• If "FULLY PROGRAMMED" flashes and the setting of PROGRAM 1 appears. 8 programs are already set. Cancel an unnecessary program.
• To confirm the settings, select PROGRAM in the menu. Then press ◀/▶ to display the settings of each program. Press MENU to return to the normal screen.

Notes

• When the power supply is interrupted for more than 10 minutes, the preset program is cleared. In this case, you have to set the timer again.
• The VCR may not work correctly when you use a VHS-C tape, even if you select AUTO in step 4.
• When the tape reaches the end during timer recording, ⏱ flashes in the display window.

Setting the timer

If you cannot use VCR Plus+, you can set the timer manually.
You can set up to 8 programs within one year of the current date.
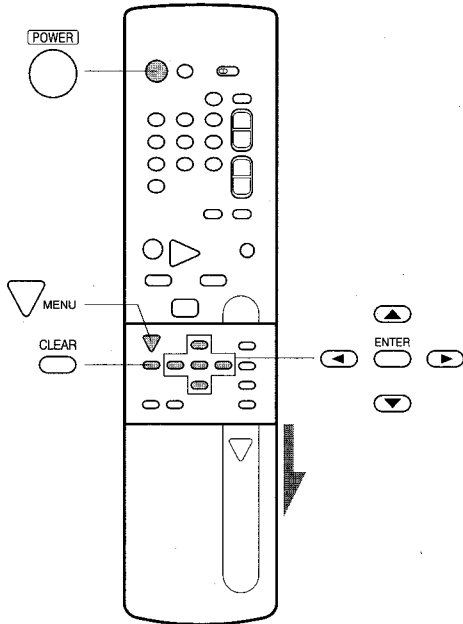
Before starting
- Check that the VCR clock is set correctly.
- Insert a cassette with its erasure prevention tab in place.
- To set the timer for a CATV (or satellite) channel, check that the CATV (or satellite) receiver is turned on and the channel you want to record is selected.
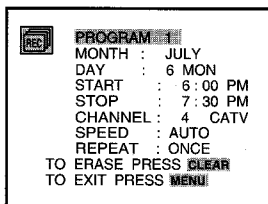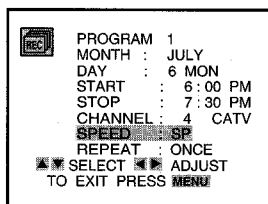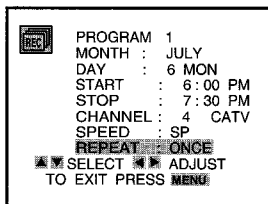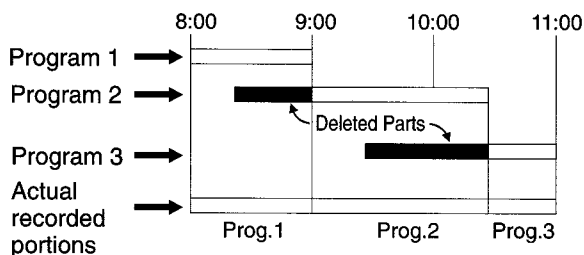
1 Press MENU.

2 Press ▲/▼ to select PROGRAM, then press ENTER.

```
┌──────────────────────────┐
│  ⊕  CLOCK                │
│                          │
│  🎥  PROGRAM             │
│                          │
│  📺  TUNING              │
│                          │
│  📋  SETUP               │
│ ▲▼ SELECT ENTER ENTER    │
│ TO EXIT PRESS MENU       │
└──────────────────────────┘
```

3 Press ▲/▼ to select MONTH, then press ◀/▶ to set the month.
Press and hold ◀/▶ to change the setting rapidly.

```
┌──────────────────────────┐
│ 🎥  PROGRAM  1           │
│     MONTH :  JULY        │
│     DAY    :             │
│     START  :             │
│     STOP   :             │
│     CHANNEL :            │
│     SPEED  :             │
│     REPEAT :             │
│ ▲▼ SELECT ◀▶ ADJUST      │
│ TO EXIT PRESS MENU       │
└──────────────────────────┘
```

4 Set DAY, START time and STOP time as in step 3.

```
┌──────────────────────────┐
│ 🎥  PROGRAM  1           │
│     MONTH :  JULY        │
│     DAY    :  6 MON      │
│     START  :  6 : 00  PM │
│     STOP   :     7 : 30 PM│
│     CHANNEL :            │
│     SPEED  :             │
│     REPEAT :             │
│ ▲▼ SELECT ◀▶ ADJUST      │
│ TO EXIT PRESS MENU       │
└──────────────────────────┘
```

5 Press ▲/▼ to select CHANNEL, press ◀/▶ to set the VCR channel number.
If you have connected the CATV using the CATV converter, set the CHANNEL to match the cable box output channel (usually CH3 or 4). Change the channel on the CATV converter instead of the VCR.

```
┌──────────────────────────┐
│ 🎥  PROGRAM  1           │
│     MONTH :  JULY        │
│     DAY    :  6 MON      │
│     START  :  6 : 00  PM │
│     STOP   :  7 : 30  PM │
│     CHANNEL :  4  CATV   │
│     SPEED  : AUTO        │
│     REPEAT : ONCE        │
│ ▲▼ SELECT ◀▶ ADJUST      │
│ TO EXIT PRESS MENU       │
└──────────────────────────┘
```

6 Set SPEED and REPEAT as in step 3.
For details of SPEED and REPEAT, see "Setting the timer with VCR Plus+" on page 20.

```
┌──────────────────────────┐
│ 🎥  PROGRAM  1           │
│     MONTH :  JULY        │
│     DAY    :  6 MON      │
│     START  :  6 : 00  PM │
│     STOP   :  7 : 30  PM │
│     CHANNEL :  4   CATV  │
│     SPEED  : SP          │
│     REPEAT : ONCE        │
│ ▲▼ SELECT ◀▶ ADJUST      │
│ TO EXIT PRESS MENU       │
└──────────────────────────┘
```

7 If you want to set another program, press ▼ to select PROGRAM, then press ◀/▶ to display another program number. And repeat steps 3 through 7.

8 Press MENU to return to the normal screen.

9 Press POWER to turn off the VCR.
- ⊕ appears in the display window, and the VCR stands by for timer recording.
- If ⁻⁻⁻ flashes, a cassette is not inserted. If ⁻⁻⁻ flashes and the cassette is ejected, the cassette's erasure prevention tab is removed.

To correct the data while setting
Press ▲/▼ until the item you want to correct highlights, then press ◀/▶ to set the correct data.

To cancel the program
Select PROGRAM in the menu. And press ◀/▶ to display the program you want to cancel, then press CLEAR to cancel.
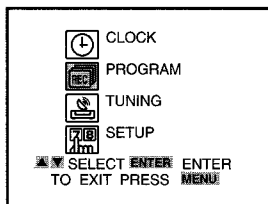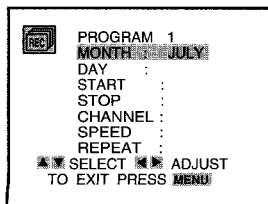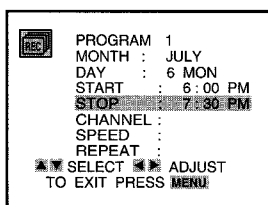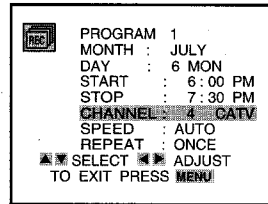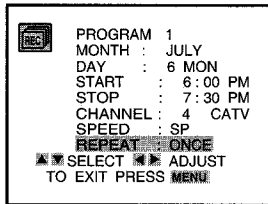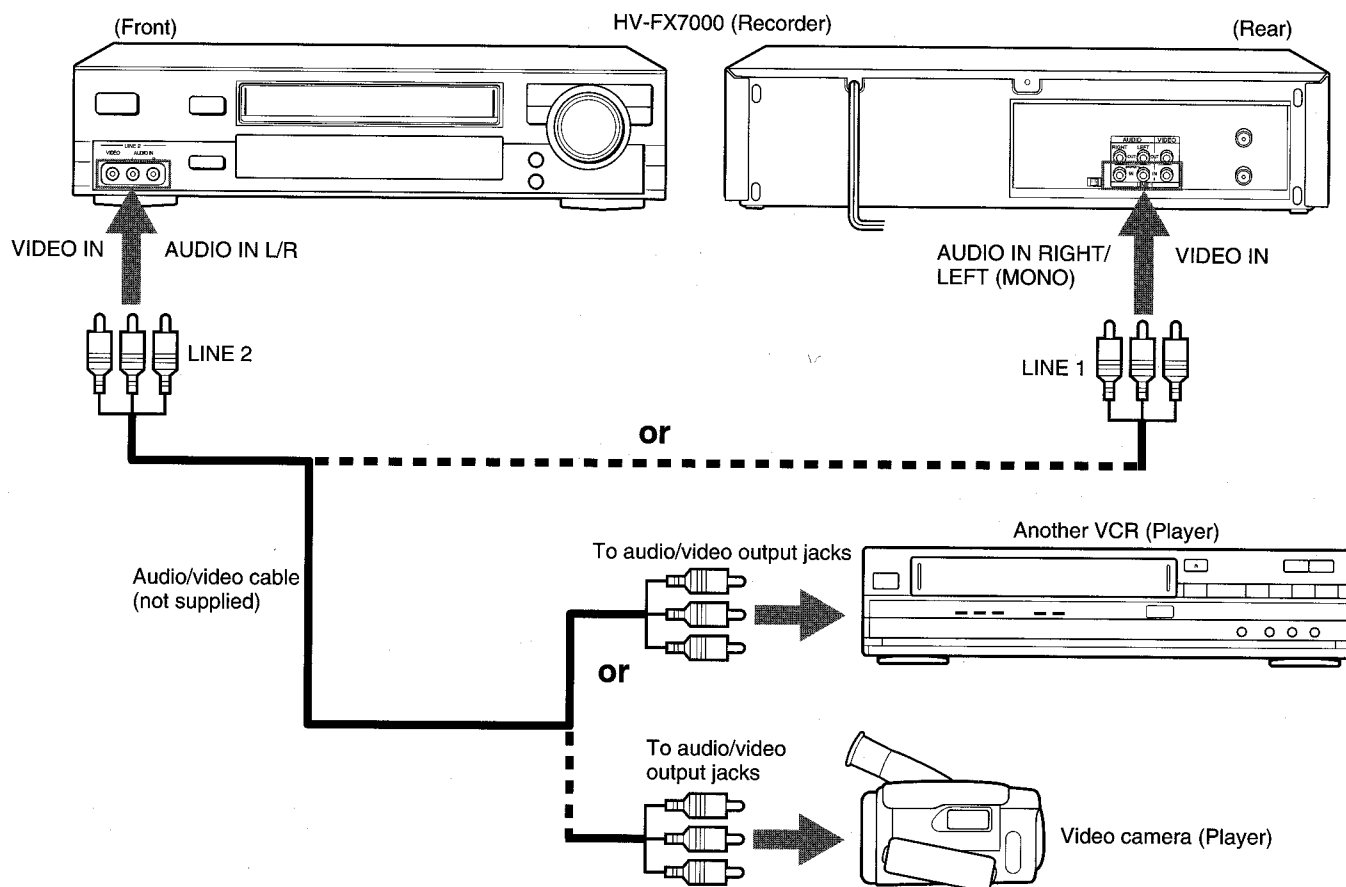
Tips

- To confirm the settings, select PROGRAM in the menu. Then press ◀/▶ to display the settings of each program. Press MENU to return to the normal screen.
- If you want to record the program through the line input, press ◀/▶ to display "L1" (from the AUDIO/VIDEO IN jacks at the rear) or "L2" (from the AUDIO/VIDEO IN jacks in the front) in step 5 instead of the VCR channel number.

Notes

- When the power supply is interrupted for more than 10 minutes, the preset program is cleared. In this case, you have to set the timer again.
- When the tape reaches the end during timer recording, ⊕ flashes in the display window.

Duplicating

Connecting with another VCR

(Front)   HV-FX7000 (Recorder)   (Rear)

VIDEO IN   AUDIO IN L/R   AUDIO IN RIGHT/   VIDEO IN
LEFT (MONO)

LINE 2   LINE 1

or

Audio/video cable
(not supplied)

Another VCR (Player)

To audio/video output jacks

or

To audio/video
output jacks

Video camera (Player)

Tips

- If the other VCR is monaural type, connect one of the audio plugs only to AUDIO IN LEFT (MONO) at the rear.
- If you use this VCR for playback, connect the AUDIO/VIDEO OUT jacks on this VCR and the audio/video input jacks on the recording VCR.

Note

If both units are; turned on, made by AIWA, and located near each other, do not use the remote control. Use the buttons on the VCR instead.

Operation
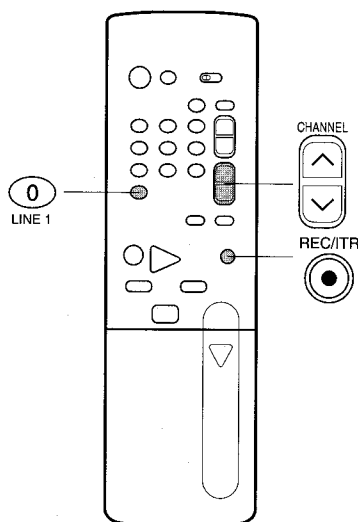
Before starting
Select the tape speed.

1 Insert a pre-recorded source cassette into another (playback) VCR.

2 Insert a blank cassette with its erasure prevention tab in place into your HV-FX7000 (recording) VCR.

3 Press CHANNEL ∧/∨ to display "L1" (rear) or "L2" (front) in the display window.
You can also select "L1" by pressing the 0 button twice.
A/V appears in the display window.

4 Set the other VCR to playback.

5 Press ● REC/ITR on the recording VCR.
Duplicating begins.

Multichannel TV Sound (MTS) and Hi-Fi audio sound system
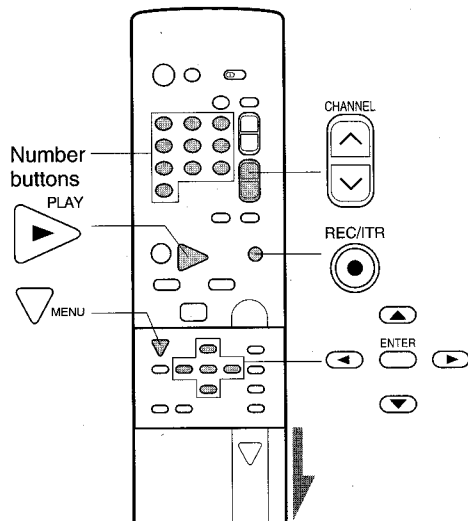
Multichannel TV Sound (MTS)

This VCR is equipped with the MTS (Multi-channel TV Sound) system which decodes stereo and SAP (Second Audio Program) broadcasting signals. It also decodes the stereo TV sound of the local CATV system if it satisfies the assigned cable frequencies and EIA-recommended MTS stereo/bilingual TV sound system.

It can record and play back the audio signal in the VHS Hi-Fi audio sound system.

Second Audio Program (SAP)

This VCR can record and play back a Second Audio Program (SAP) for the second language or additional information. Usually primary language is recorded on the primary sound channel, and the second language or additional information on the SAP channel.

Audio track system

This VCR records a regular monaural audio signal on the normal audio track, and stereo Hi-Fi audio signal on the Hi-Fi audio track.

If you use the VCR equipped with the VHS Hi-Fi audio sound system to play back the tape recorded on this VCR, you can enjoy stereo Hi-Fi sound or bilingual program. If you use the VCR not equipped with the VHS Hi-Fi audio sound system, only a regular audio sound recorded on a normal audio track is played back.

<Tape structure>

Monaural sound

Normal audio track

Hi-Fi audio track

Hi-Fi sound and video signals
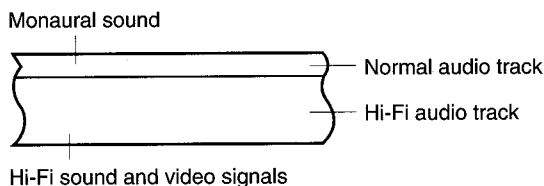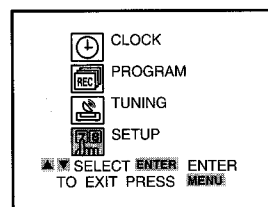
Recording the Hi-Fi audio

The regular audio signal and Hi-Fi audio signal are automatically recorded if the TV program is broadcasted in stereo. No special setting is required for Hi-Fi audio recording.
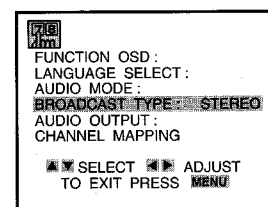
Recording the sound of the MTS Broadcast

Before starting
Insert a cassette and select the tape speed.

1 Press MENU.

2 Press ▲/▼ to select SETUP, then press ENTER.


```
⊕  CLOCK
    PROGRAM
    TUNING
    SETUP
▲▼ SELECT ENTER ENTER
TO EXIT PRESS MENU
```

3 Press ▲/▼ to select BROADCAST TYPE.


```
FUNCTION OSD :
LANGUAGE SELECT :
AUDIO MODE :
BROADCAST TYPE :  STEREO
AUDIO OUTPUT :
CHANNEL MAPPING

▲▼ SELECT ◄► ADJUST
TO EXIT PRESS MENU
```

4 Press ◄/► to select the desired system.
STEREO: for recording the stereo sound
SAP: for recording the SAP program
MONO: for recording the monaural sound

5 Press MENU to return to the normal screen.

6 Press CHANNEL ∧/∨ or number buttons to select the channel to record.
STEREO and/or SAP appears on the TV screen depending upon the receiving program.

7 Press ● REC/ITR.
Recording begins.

Recorded and output signals of the MTS broadcast

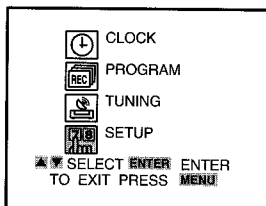| TV screen	Broadcast	BROADCAST TYPE	Recorded signal		Signal output from AUDIO OUT	
			Hi-Fi track	Normal track	LEFT	RIGHT
—	Mono	STEREO	Mono	Mono	Mono	Mono
		SAP	Mono	Mono	Mono	Mono
		MONO	Mono	Mono	Mono	Mono
STEREO	Stereo	STEREO	Left/Right channel	Mono	Left channel	Right channel
		SAP	Mono	Mono	Mono	Mono
		MONO	Mono	Mono	Mono	Mono
SAP	Mono+SAP	STEREO	Mono	Mono	Mono	Mono
		SAP	SAP	SAP	SAP	SAP
		MONO	Mono	Mono	Mono	Mono
STEREO/ SAP	Stereo+SAP	STEREO	Left/Right channel	Mono	Left channel	Right channel
		SAP	Left/Right channel	SAP	SAP	SAP
		MONO	Mono	Mono	Mono	Mono

Note
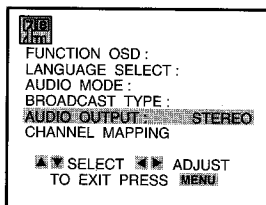
You can also use the display window to check the broadcast type.
When the VCR receives the stereo broadcast, [ST] appears.
When the VCR receives the SAP broadcast, [SAP] appears.

Playing back a MTS-program recorded tape

1 Press MENU.
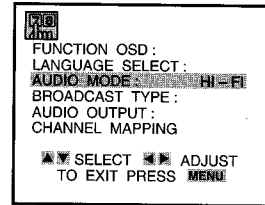
2 Press ▲/▼ to select SETUP, then press ENTER.

```
(⏱) CLOCK
(REC) PROGRAM
(📺) TUNING
(🔢) SETUP
▲▼ SELECT ENTER ENTER
TO EXIT PRESS MENU
```

3 Press ▲/▼ to select AUDIO OUTPUT.

```
FUNCTION OSD :
LANGUAGE SELECT :
AUDIO MODE :
BROADCAST TYPE :
AUDIO OUTPUT :       STEREO
CHANNEL MAPPING
▲▼ SELECT ◄► ADJUST
TO EXIT PRESS MENU
```

4 Press ◄/► to select the audio output mode.
STEREO: The stereo sound is heard.
LEFT: The left channel sound is heard from both channels.
RIGHT: The right channel sound is heard from both channels.

5 Press ▲/▼ to select AUDIO MODE.

```
FUNCTION OSD :
LANGUAGE SELECT :
AUDIO MODE :          HI-FI
BROADCAST TYPE :
AUDIO OUTPUT :
CHANNEL MAPPING
▲▼ SELECT ◄► ADJUST
TO EXIT PRESS MENU
```

6 Press ◄/► to select HI-FI.
HI-FI: The sound on the Hi-Fi audio track is played back.
NORMAL: The sound on the normal audio track is played back.

7 Press MENU to return to the normal screen.

8 Insert a cassette.

9 Press ► PLAY.
Playback begins.

Output signals
The signals output from the AUDIO OUT and RF OUT jacks on the rear panel are as shown below.

AUDIO OUTPUT	AUDIO MODE	AUDIO OUT		RF OUT
		LEFT	RIGHT	
STEREO	HI-FI	Left channel	Right channel	Mono
LEFT	HI-FI	Left channel	Left channel	Left channel
RIGHT	HI-FI	Right channel	Right channel	Right channel
—	NORMAL	Mono	Mono	Mono

**Tips**

• If AUDIO OUTPUT is set to STEREO while playing a prerecorded SAP BILINGUAL audio program, the primary language LEFT and the secondary language RIGHT will be heard simultaneously. For SAP BILINGUAL playback, do not use STEREO setting. Select RIGHT setting.
• If the VCR is connected to the TV through the antenna cable, the audio portion of a stereo or SAP BILINGUAL prerecorded tape will be heard in monaural. Set AUDIO OUTPUT to select the desired portion when playing back a SAP BILINGUAL tape. For stereo or SAP BILINGUAL playback, use the connections given on stereo playback.

Notes

• When you play a tape recorded in mono, the sound is always played back in mono regardless of the AUDIO MODE setting.
• The AUDIO MODE setting automatically returns to HI-FI when a cassette is ejected.

On-screen display
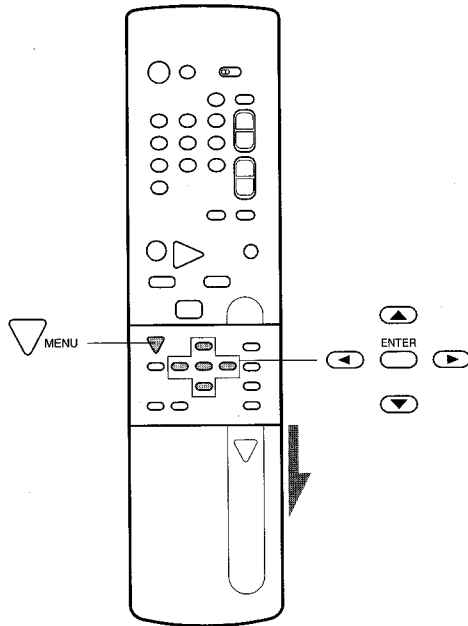
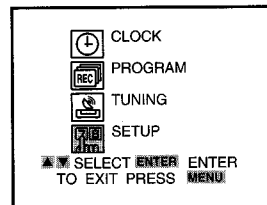When you record a video signal output from this VCR onto another VCR, turn off the on-screen display. Otherwise, the indicators displayed on the TV screen will be recorded on the tape.
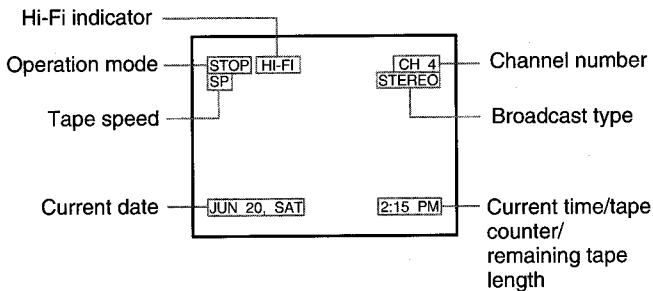
Notes

- The tape counter and the remaining tape length indicator appear only when a cassette is inserted. Also, the remaining tape length indicator appears after any tape operation.
- The remaining tape length indicator may not be displayed correctly depending on the condition of the tape or when you use a VHS-C tape. There may be errors within plus or minus 2 minutes in SP mode and 6 minutes in EP mode.

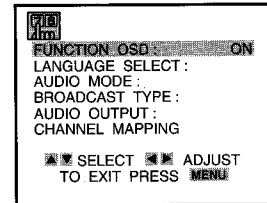## To turn the on-screen display off

1 Press MENU.

2 Press ▲/▼ to select SETUP, then press ENTER.

```
   CLOCK
   PROGRAM
   TUNING
   SETUP
 ▲▼ SELECT ENTER ENTER
 TO EXIT PRESS MENU
```

3 Press ▲/▼ to select FUNCTION OSD.

```
 FUNCTION OSD :        ON
 LANGUAGE SELECT :
 AUDIO MODE :
 BROADCAST TYPE :
 AUDIO OUTPUT :
 CHANNEL MAPPING

 ▲▼ SELECT ◀▶ ADJUST
 TO EXIT PRESS MENU
```

4 Press ◀/▶ to display OFF.

```
 FUNCTION OSD :        OFF
 LANGUAGE SELECT :
 AUDIO MODE :
 BROADCAST TYPE :
 AUDIO OUTPUT :
 CHANNEL MAPPING

 ▲▼ SELECT ◀▶ ADJUST
 TO EXIT PRESS MENU
```

5 Press MENU to return to the normal screen.

Tip

Even if you set FUNCTION OSD to OFF, you can check the clock, tape counter and the remaining tape length in the display window by pressing ENTER repeatedly.

Identifying the on-screen display items

Hi-Fi indicator
Operation mode — STOP HI-FI
Tape speed — SP
Channel number — CH 4
Broadcast type — STEREO

Current date — JUN 20, SAT
Current time/tape counter/remaining tape length — 2:15 PM
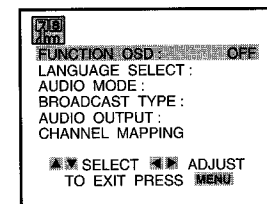
Changing the on-screen function display

Press ENTER. Each press changes the on-screen function display as follows:

One press	Two presses	Three presses
STOP CH 4 SP STEREO JUN 20, SAT 2:15 PM	STOP CH 4 SP STEREO M 0:35:40	STOP CH 4 SP STEREO REM 1:15
↓ After 3 seconds	↓ After 3 seconds	↓ After 3 seconds
2:15 PM	M 0:35:40	REM 1:15
↓ Press ENTER.	↓ Press ENTER.	↓ Press ENTER.

All indicators are turned off.

Troubleshooting

If the unit does not seem to operate properly, read the instructions again, then check the table below.

The POWER button does not operate.
Make sure the AC cord is connected securely.

The playback picture is noisy.
• Make sure the TV is set to the video channel or video input.
• Adjust the tracking manually when the tape quality is poor.
• Although the unit cleans the video heads automatically, dirt may be accumulated after a long period of use. Clean the video heads with a commercially available video heads cleaning tape.
• Make sure all the connections with the VCR are made correctly and securely.

There is no playback picture.
Set the TV to the video channel or video input.

TV reception is noisy or there is no TV reception.
• Connect the VCR to the antenna and TV correctly and securely.
• Move the VCR away from the TV set.

Tape operation buttons do not work while the power is on and the cassette is inserted.
Moisture condensation may have occurred. Wait for about two hours until moisture evaporates completely before you operate the VCR.

Abnormal operation has occurred.
External interference may have affected the internal microprocessor.
Disconnect the AC cord from the AC outlet. Then connect it again.

The VCR does not work.
Make sure the VCR/CATV/TV selector is set to VCR.

The remote control does not operate.
Replace both batteries with new ones.

There is no sound.
Connect the VCR correctly and securely.

The timer does not operate.
• Set the VCR clock correctly.
• Check that the VCR channel numbers match the guide channels which assigned to the TV stations.

There is no sound and picture from an input source.
You may have selected the wrong input. Press CHANNEL ∧/∨ until you select the correct input source. (e.g. You must select "L2" when you connect an input source to the AUDIO/VIDEO IN jacks on the front panel.)
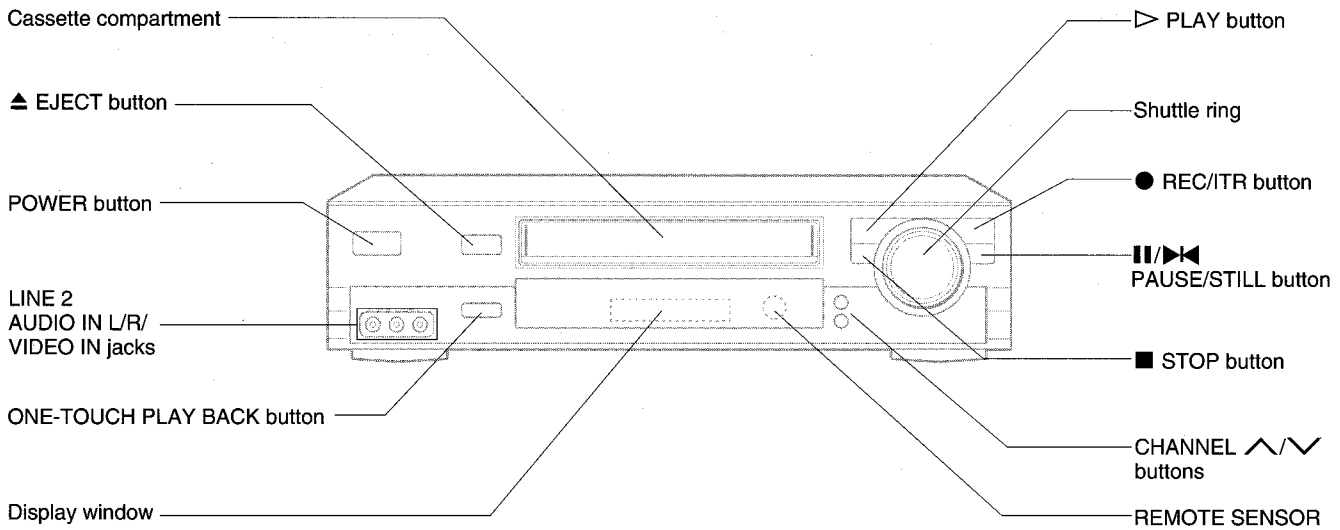
Specifications

Video recording system
    Rotary 2 head helical scanning system
Video head   Double azimuth 4 head
Tuner system   Frequency synthesized tuner
TV system   M
Video signal system   525 lines, 60 fields
Usable cassettes   VHS video cassette
Recording/Playback time
    SP: 3 hours with T-180 tape
    LP: 6 hours with T-180 tape (playback only)
    EP: 9 hours with T-180 tape
Tape speed   SP: 33.35 mm/sec
    LP: 16.67 mm/sec
    EP: 11.12 mm/sec
Fast-forward/Rewind time
    less than 180 seconds with T-120 tape
Channel coverage   VHF: 2 to 13
    UHF: 14 to 69
    CATV: 4A, 2 to 13, A to W, W+1 to W+58, A-5 to A-1, W+59 to W+84
RF output   VHF channel 3 or 4 (switchable), 65 dBμ
Video input   1.0 Vp-p, 75 ohm, unbalanced
Video output   1.0 Vp-p, 75 ohm, unbalanced
Horizontal resolution   230 lines
Video S/N   43 dB (at SP)
Audio track   3 tracks (Hi-Fi sound 2 tracks, Normal sound 1 track)
Audio input   −6 dBs, 47 K ohm
Audio output   −6 dBs, less than 1 K ohm
Audio frequency response
    normal: 105 Hz - 10 K Hz (at SP)
    Hi-Fi: 20 Hz - 20 K Hz (at SP)
Audio S/N   normal: more than 43 dB (at SP)
    Hi-Fi: more than 70 dB (at SP)
Operating temperature   5°C to 35°C
Power requirements   120 V AC, 60 Hz
Power consumption   17 W
Dimensions   430 (W) × 102 (H) × 304 (D) mm (17 × 4 1/8 × 12 in.)
Weight   4.2 Kg (9.24 lbs.)
Supplied accessories   Antenna cable (1)
    Batteries (2)
    Remote control (1)
    Audio cable (1)
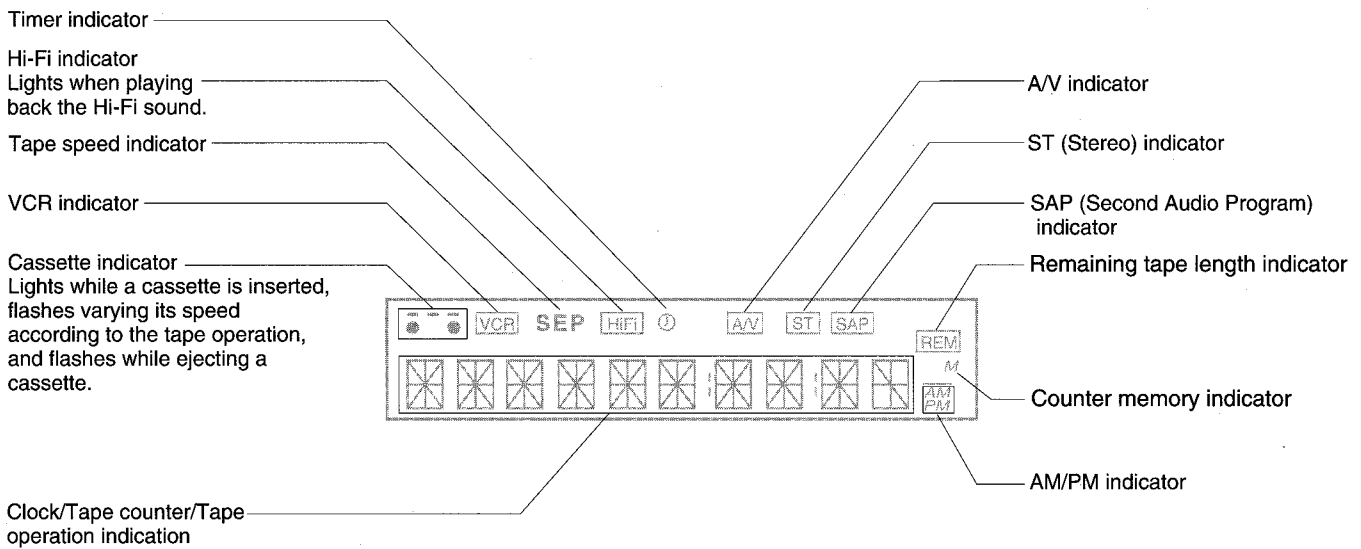   Video cable (1)

Design and specifications are subject to change without notice for the purpose of performance improvement.

Index to parts and controls

Cassette compartment

▲ EJECT button

POWER button

LINE 2
AUDIO IN L/R/
VIDEO IN jacks

ONE-TOUCH PLAY BACK button

Display window

▷ PLAY button

Shuttle ring

● REC/ITR button

II/▶◀
PAUSE/STILL button

■ STOP button

CHANNEL ∧/∨
buttons

REMOTE SENSOR

Display window

Timer indicator

Hi-Fi indicator
Lights when playing
back the Hi-Fi sound.

Tape speed indicator

VCR indicator

Cassette indicator
Lights while a cassette is inserted,
flashes varying its speed
according to the tape operation,
and flashes while ejecting a
cassette.

Clock/Tape counter/Tape
operation indication

A/V indicator

ST (Stereo) indicator

SAP (Second Audio Program)
indicator

Remaining tape length indicator

Counter memory indicator

AM/PM indicator

VCR SEP HiFi ⏱ A/V ST SAP REM

AC cord

AUDIO OUT LEFT/RIGHT/
VIDEO OUT jacks

AERIAL connector

RF OUT connector

LINE 1
AUDIO IN LEFT (MONO)/RIGHT/
VIDEO IN jacks

Channel selector

▲ EJECT button

POWER button

VCR PLUS+ button

Number buttons

❚❚ PAUSE/STILL button

► PLAY button

◄◄ REW (rewind)/⊗ button

MENU button

CLEAR button

TRACKING +/– buttons

▲/▼/◄/► /ENTER buttons

VCR/CATV/TV selector

MUTE button

VOLUME ∧/∨ buttons

CHANNEL ∧/∨ buttons

TV/VCR button

SLOW button

● REC/ITR (Instant Timer Recording)
button

►► F FWD (Fast-forward)/⊗ button

■ STOP button

VISS button

AD-SKIP button

SPEED button

TV PRESET button

AIWA CO., LTD.

For Assistance and Information, *Call Toll Free 1-800-BUY-AIWA* (United States and Puerto Rico)