

Video Cassette Recorder

Operating Instructions



SLV-ED4PL

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

- The 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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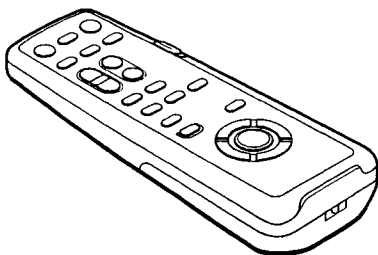
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Step 1

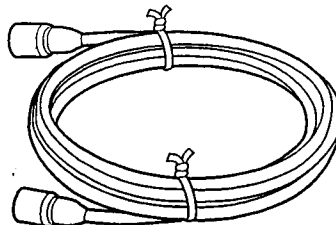
Unpacking

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

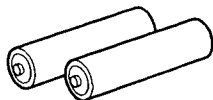
- Remote commander



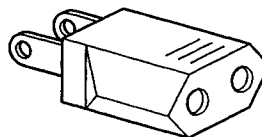
- 75-ohm coaxial cable with F-type connectors



- Size AA (R6) batteries



- Plug adaptor



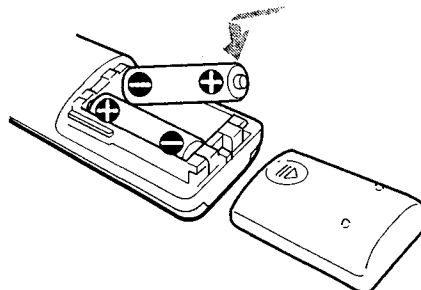
Step 2

Setting up the remote commander


Inserting the batteries

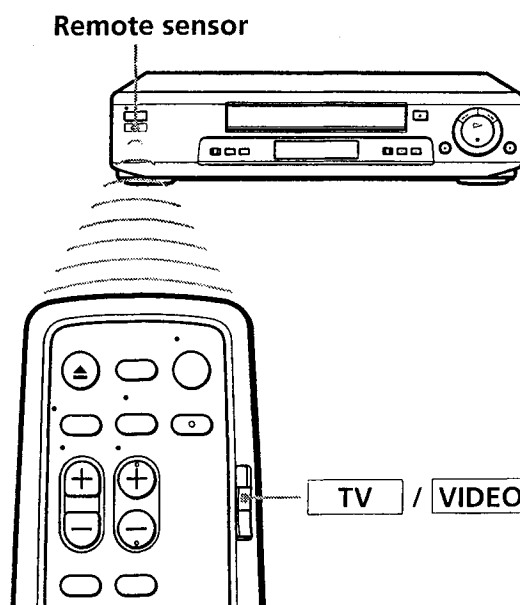
Insert two size AA (R6) batteries by matching the + and – on the batteries to the diagram inside the battery compartment.

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. If the TV does not have the  symbol near the remote sensor, this remote commander will not operate the TV.



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

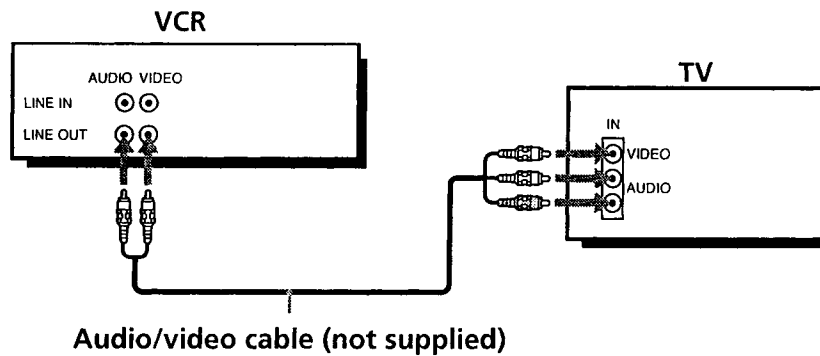
Step 3

Hookup

Audio/video (A/V) hookup

If your TV has audio/video (A/V) input jacks, you will get a better picture and sound when you hook up your VCR using these connections. If your TV doesn't have A/V inputs, see the following page for antenna hookup.

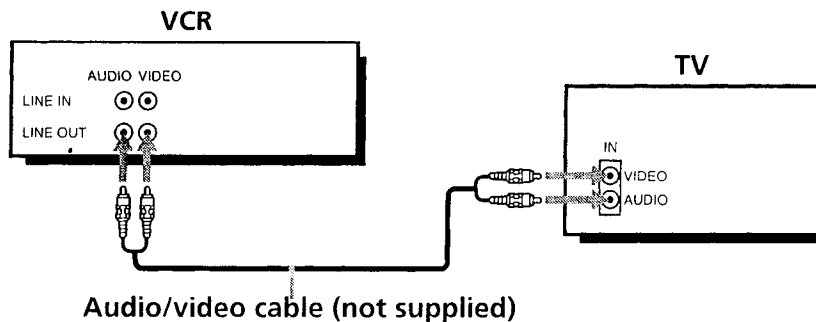
A Use this hookup if your TV has stereo jacks



Tip

- If you want to use the Trinitron TV Synchro Play function (see page 20), this connection is necessary. (If your TV has two or more inputs, connect the audio/video cable to the VIDEO IN 1 jacks.)

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

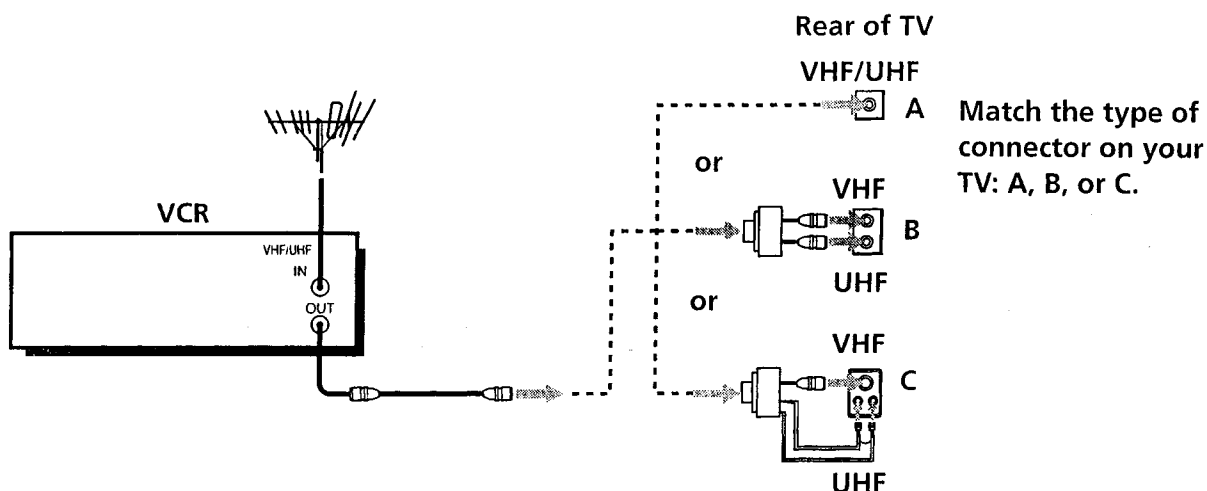


Antenna hookup

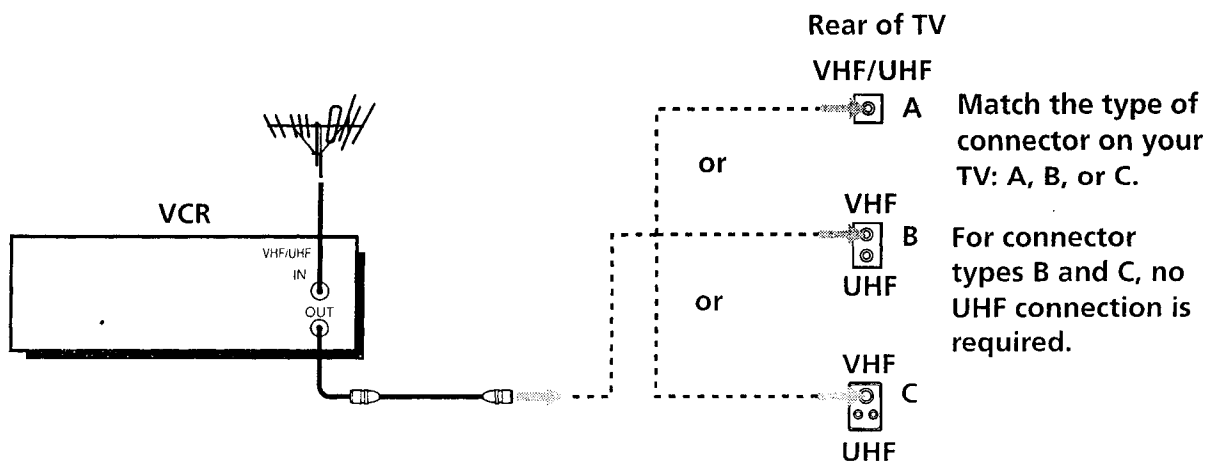
Make the following connections when you're using an antenna.

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 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 37.

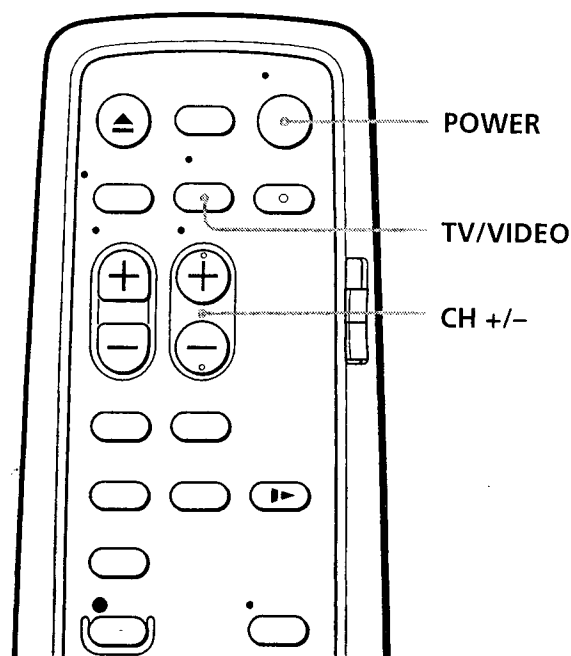
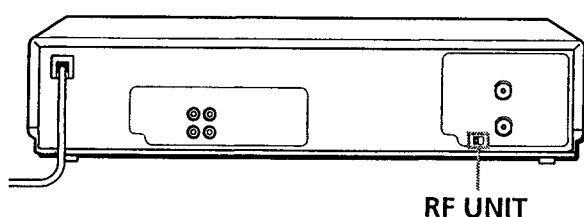
continued

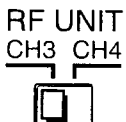
Step 3: Hookup (continued)

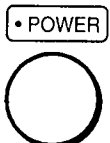
Setting the RF unit


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.


If you made A/V connections (page 6) you can skip this step.



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

-  Press POWER to turn on the VCR.

-  Press TV / VIDEO on the remote commander to turn on the VIDEO indicator in the VCR's display window.

-  Press CH +/- to display a channel number in the display window. Select an active channel number in your area.

- 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 CH +/-, you have made the correct setting.
Whenever you use the VCR, set the TV to the channel selected in step 1.

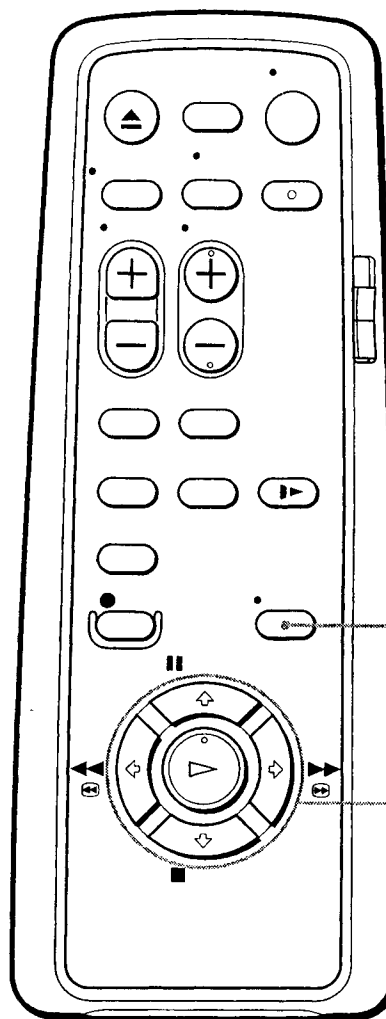
Step 4

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



Press MENU.

MENU

►TIMER SET / CHECK
SET UP MENU
TUNER PRESET
CLOCK SET

SELECT : [↕]
SET : [OK]

2



Press ↑/↓ to move the cursor (►) to CLOCK SET, then press OK.

CLOCK SET

1/1/1998 THU 12:00 AM

SELECT : [↔]
SET : [↕]
END : [OK]

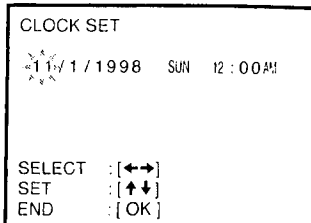
continued

Step 4: Setting the clock (continued)

3



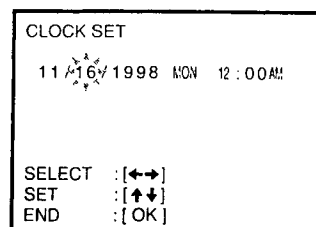
Press **↑/↓** to set the month.



4



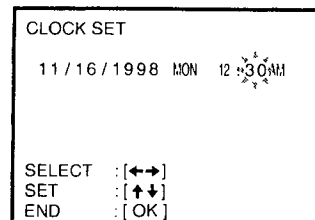
Press **→** to flash the day and press **↑/↓** to set the day.
The day of the week is set automatically.



5



Set the year, hour and minutes in sequence, using **→** to flash the item to be set, and **↑/↓** to select the digits.



6



Press **OK** to start the clock.

Tip

- To change the digits during setting, press **←** to return to the item to be changed, and select the digits using **↑/↓**.

Note

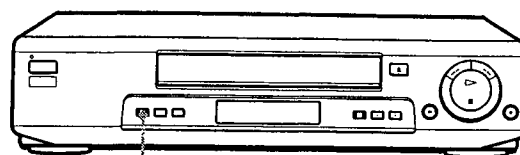
- The menu disappears automatically if you don't proceed for more than a few minutes.

Step 5

Presetting channels

First, we recommend that you preset the receivable channels in your area using one touch tuning. You can also preset the channels automatically using the menu. Then, if some channels could not be preset automatically, set them manually; if there are any unwanted channels among the preset ones, you can disable the channels.

Presetting all receivable channels using one touch tuning



ONE TOUCH
TUNING

1

ONE TOUCH
TUNING



Press ONE TOUCH TUNING on the VCR for more than 3 seconds. The VCR starts the channel presetting.



The WAIT indicator goes off when all receivable channels are preset.

To check to see if the channels are preset correctly

Set the TV to the video channel and press CHANNEL +/- on the VCR. If the TV screen changes to a different program each time you press CHANNEL +/-, the channels are preset correctly.

Tip

- To stop one touch tuning, press ONE TOUCH TUNING or ■ STOP on the VCR during the setting.

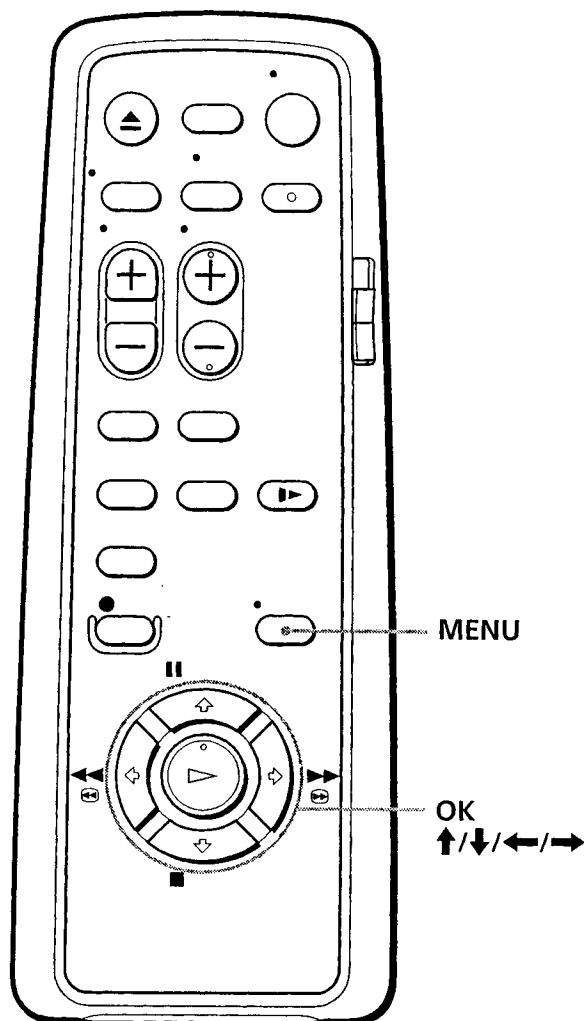
continued

Step 5: Presetting channels (continued)

Presetting all receivable channels automatically

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.

MENU

►TIMER SET / CHECK
SET UP MENU
TUNER PRESET
CLOCK SET

SELECT : [↑↓]
SET : [OK]

2



Press ↑/↓ to move the cursor (►) to TUNER PRESET, then press OK.

TUNER PRESET

CH 1

ANTENNA / CABLE ANT • CABLE
AUTO PRESET
►MANUAL SET • ADD ERASE
AFT • ON OFF
FINE TUNING

SELECT : [↑↓]
SET : [←→]

3



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

4



• To preset cable TV channels:

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

TUNER PRESET	CH 1
▶ANTENNA / CABLE	•ANT •CABLE
AUTO PRESET	
MANUAL SET	•ADD ERASE
AFT	•ON OFF
FINE TUNING	
SELECT	: [↑↓]
SET	: [←→]



• To preset VHF and UHF channels:

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

TUNER PRESET	CH 2
▶ANTENNA / CABLE	•ANT CABLE
AUTO PRESET	
MANUAL SET	•ADD ERASE
AFT	•ON OFF
FINE TUNING	
SELECT	: [↑↓]
SET	: [←→]

5



Press **↑/↓** to select AUTO PRESET, then press OK.

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.

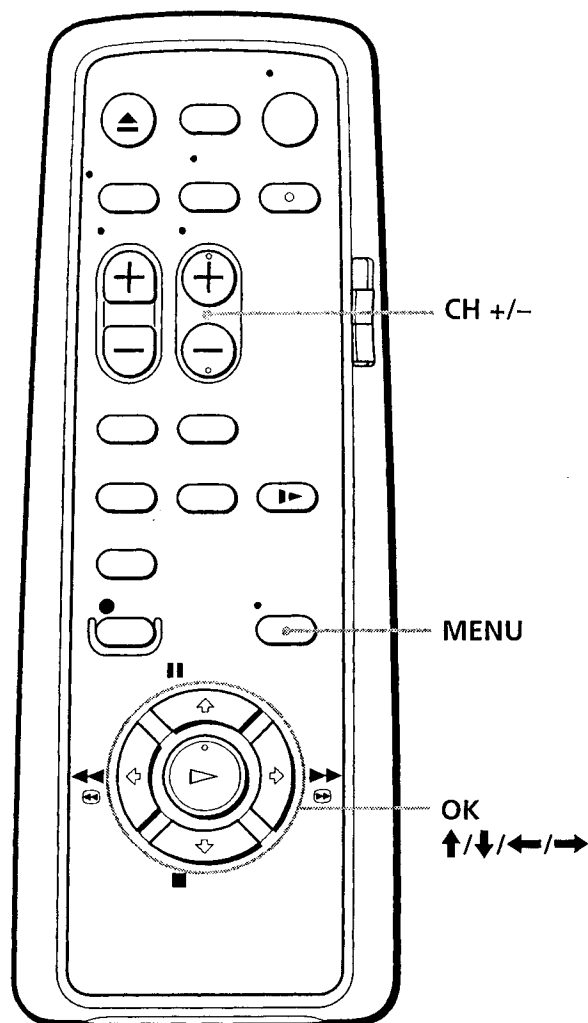
TUNER PRESET	CH 2
ANTENNA / CABLE	•ANT CABLE
▶AUTO PRESET	
MANUAL SET	•ADD ERASE
AFT	•ON OFF
FINE TUNING	

PLEASE WAIT	

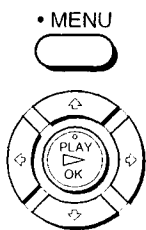
continued

Step 5: Presetting channels (continued)

Presetting/disabling channels manually



1



Press **MENU** and select **TUNER PRESET**, then press **OK**.

TUNER PRESET	CH 1
ANTENNA / CABLE ANT • CABLE	
AUTO PRESET	
▶ MANUAL SET	• ADD ERASE
AFT	• ON OFF
FINE TUNING	
SELECT	: [↑↓]
SET	: [←→]

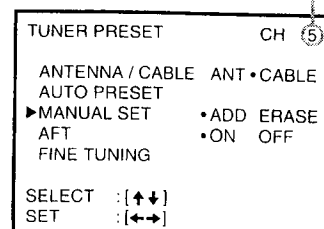
2



- To preset a channel:

- 1 Press CH +/– to select the channel number.
- 2 Press ←/→ to set MANUAL SET to ADD.

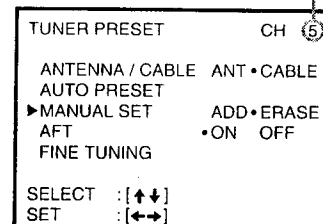
Channel to be preset



- To disable a channel:

- 1 Press CH +/– to select the channel number.
- 2 Press ←/→ to set MANUAL SET to ERASE.

Channel to be disabled



3



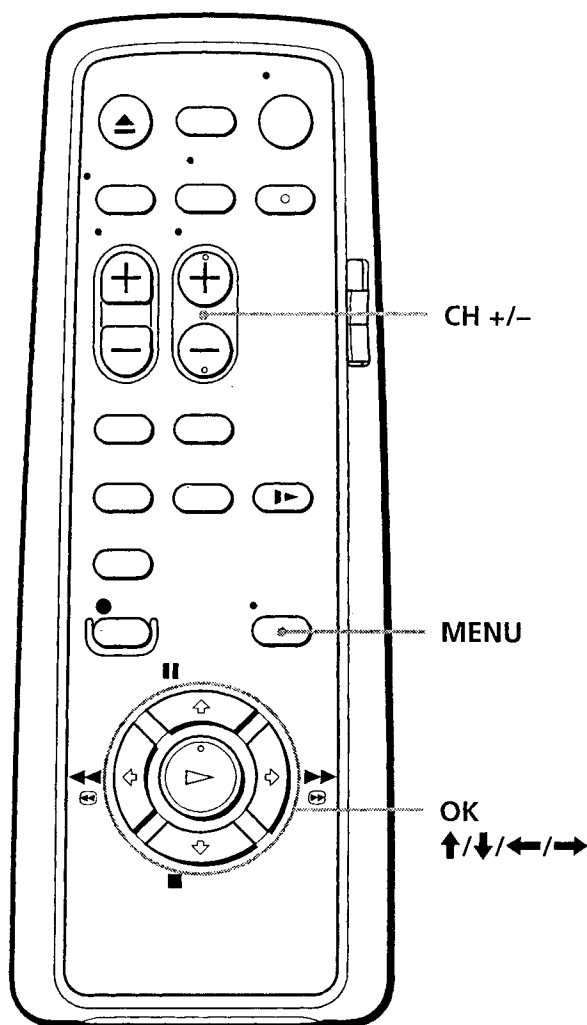
Repeat step 2 to preset or disable channels as required, then press OK.

continued

Step 5: Presetting channels (continued)

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 OK.

TUNER PRESET	CH 1
ANTENNA / CABLE ANT • CABLE	
AUTO PRESET	
▶ MANUAL SET	• ADD ERASE
AFT	• ON OFF
FINE TUNING	
SELECT	: [↑↓]
SET	: [←→]

2



Press CH +/- to select the channel you want to fine-tune.

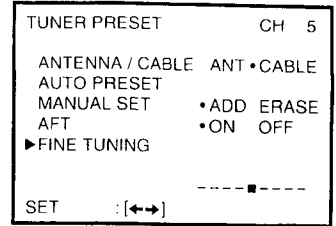
Selected channel

TUNER PRESET	CH 5
ANTENNA / CABLE ANT • CABLE	
AUTO PRESET	
▶ MANUAL SET	• ADD ERASE
AFT	• ON OFF
FINE TUNING	
SELECT	: [↑↓]
SET	: [←→]

3



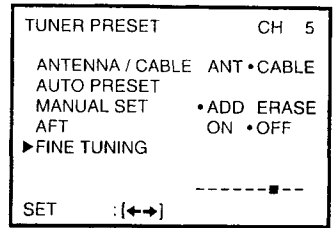
Press **↑/↓** to select FINE TUNING.
The fine tuning meter appears.



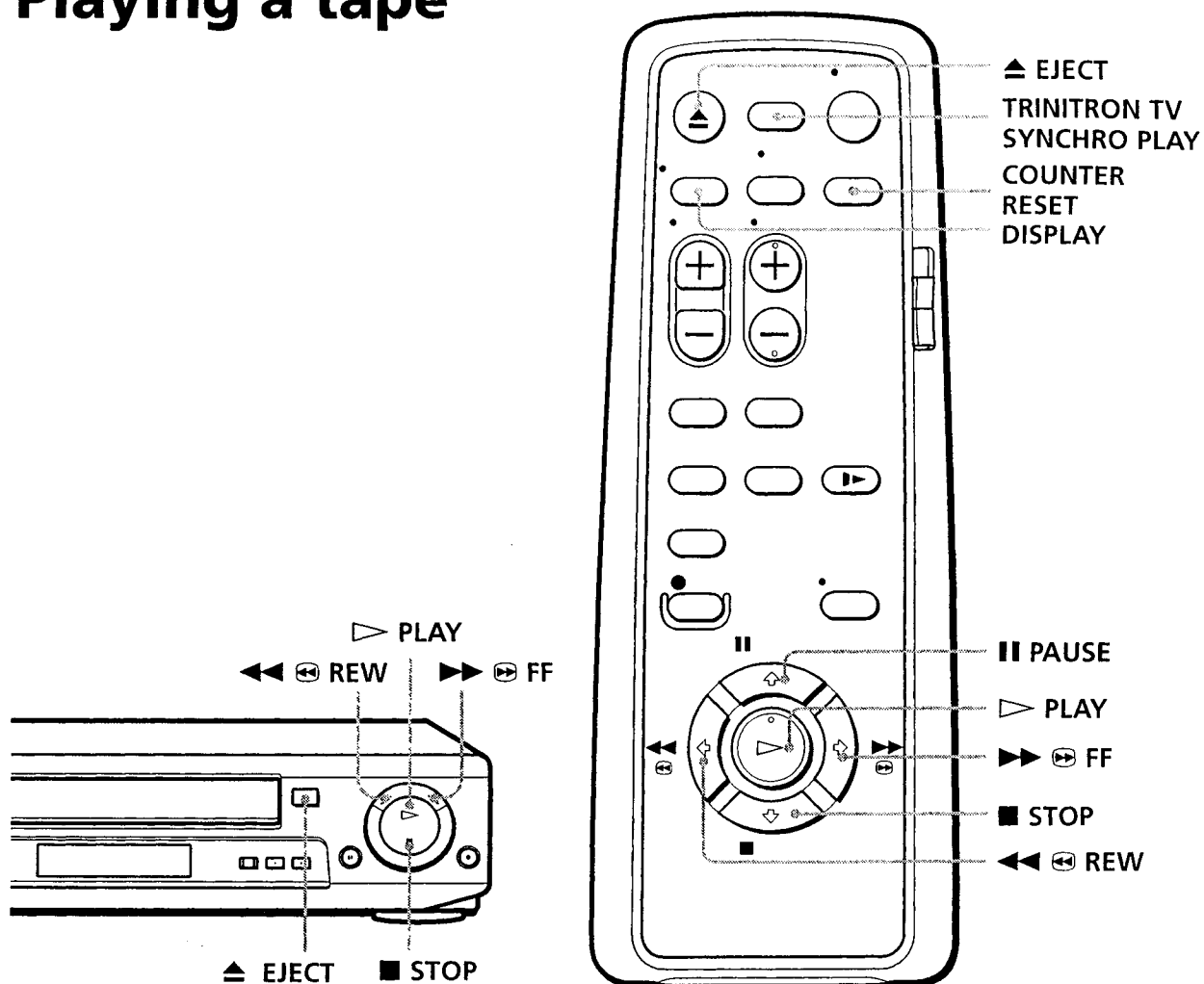
4



Press **←/→** to adjust to a clearer picture,
then press OK.
Note that the AFT setting switches to OFF.



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 "0:00:00." Search for the point afterwards by referring to the counter.



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

Notes

- Tapes recorded in the LP mode on other VCRs can be played back on this VCR but the picture quality cannot be guaranteed.
- While setting the menu on the TV screen, you cannot use the ▷ PLAY, || PAUSE, ▶▶ ⏮ FF, ◀◀ ⏭ REW, or ■ STOP buttons.
- The counter resets to "0:00:00" whenever a tape is reinserted.
- The counter stops counting when it comes to a portion with no recording.

continued

Playing a tape (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 6.) 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.

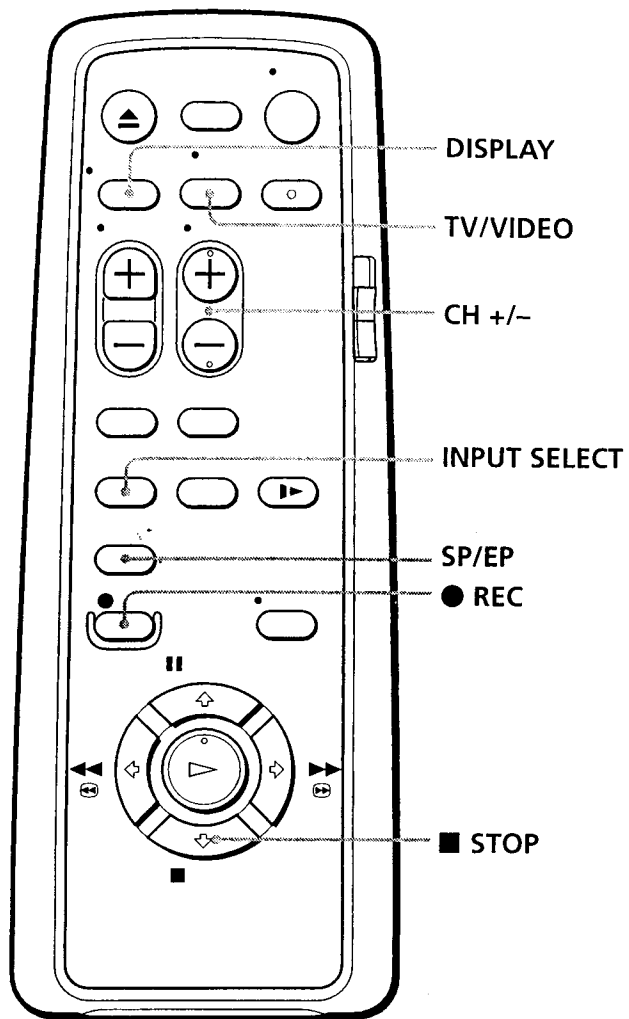
Press TRINITRON TV SYNCHRO PLAY and hold the remote commander in place for about two seconds.


The VCR and TV turn on, and the TV is set to VCR reception. 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 video 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.
- 2 Insert a tape with its safety tab in place.
- 3  Press INPUT SELECT until a channel number appears in the display window.

VIDEO EP CH 5 APC
- 4  Press CH +/- to select the channel you want to record.

VIDEO EP CH 12 APC

continued

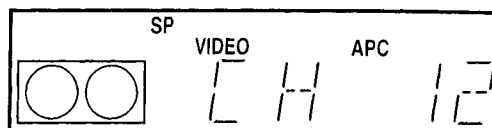
Recording TV programs (continued)

5



Press SP / EP 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.



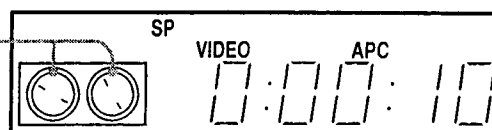
6



Press ● REC to start recording.

The recording indicator lights up red in the display window.

Recording indicator

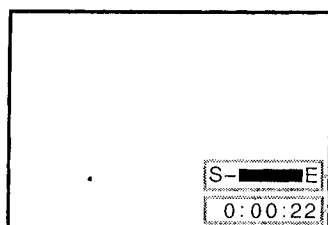


To stop recording

Press ■ STOP.

To check the remaining tape length

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



Remaining tape length

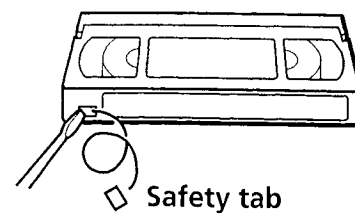
Time counter

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's LINE OUT jacks, set the TV to TV input; if not, 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

- You can select a video source from the LINE IN jacks using INPUT SELECT or CH +/- buttons.
- 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.

Notes

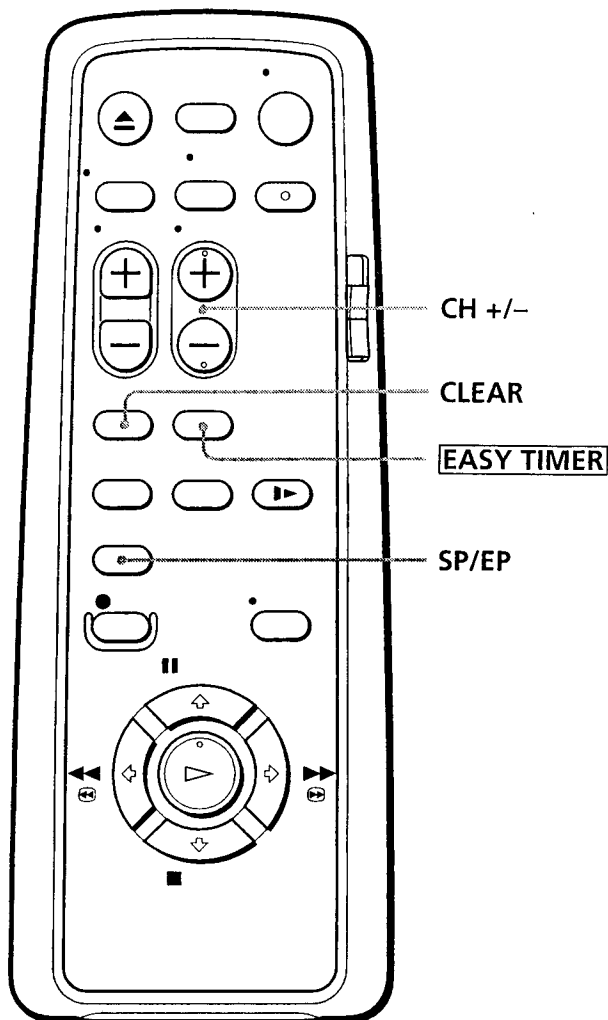
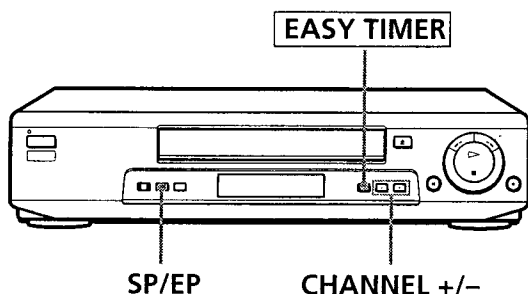
- The display doesn't appear during still (pause) mode or slow-motion playback.
- It may take up to one minute for the VCR to calculate and display the remaining tape length after you press DISPLAY.
- The VCR marks the tape with an index signal at the point where each recording begins. You can use these index search signals as references to find a specific recording with other Sony VCRs that feature the index search function.

Recording TV programs using the easy timer

You can record one program on the same day (within 24 hours) using the easy timer. If the VCR clock has not been set due to power interruption, etc., you can set the clock and timer recording.

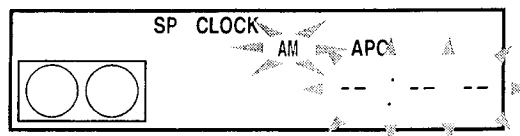
Before you start...

- Insert a tape with its safety tab in place. Make sure the tape is longer than the recording time.
- If you want to see the setting on the TV screen, turn on the TV and set it to the video channel.



1 Press **EASY TIMER**.

The CLOCK indicator appears and the current time flashes in the display window. If the clock has not been set yet or has been cleared, "--:--" flashes.

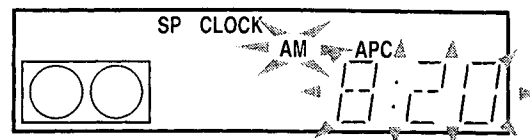


2



Set the current time, if necessary, using CH +/- . If the clock has already been set correctly, skip this step.

Press CH +/- to increase or decrease the time by a minute. Holding down CH +/- changes the time by 15 minutes.



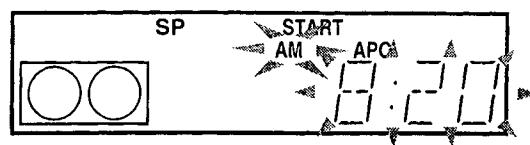
3

EASY TIMER



Press **EASY TIMER** to confirm the clock setting.

The START indicator appears.



4

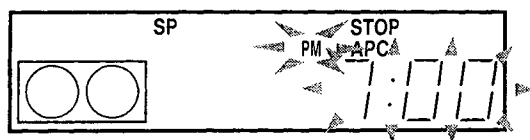


EASY TIMER



Set the recording start time using CH +/- in the same way as in step 2, then press **EASY TIMER**.

The STOP indicator appears.



5



EASY TIMER



Set the recording stop time in the same way as in step 2, then press **EASY TIMER**.

A channel number flashes.



6



SP/EP



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

To select the tape speed, press SP/EP.




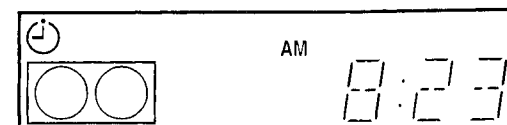
7

EASY TIMER



Press **EASY TIMER** to confirm the setting.

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



continued

Recording TV programs using the easy timer (continued)

To stop recording

To stop the VCR while recording, press ■ STOP.

To check or change the timer setting

Press **EASY TIMER** repeatedly until the setting you want to check or change flashes. Then re-enter the new setting, if necessary. You can also change the timer setting using the **TIMER SET/CHECK** menu. For details, see page 31.

To use the VCR after setting the timer

To use the VCR before a timer recording begins, just press **POWER**. The ⏻ 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.

Tips

- To record from a source connected to **LINE IN** jacks, press **INPUT SELECT** or **CH +/-** to display "L" in the display window.
- To cancel the easy timer setting, press **CLEAR** on the remote commander or press **CHANNEL +** and **-** on the VCR at the same time during the setting. Note that the cancellation can only be done after clock setting mode.

Notes

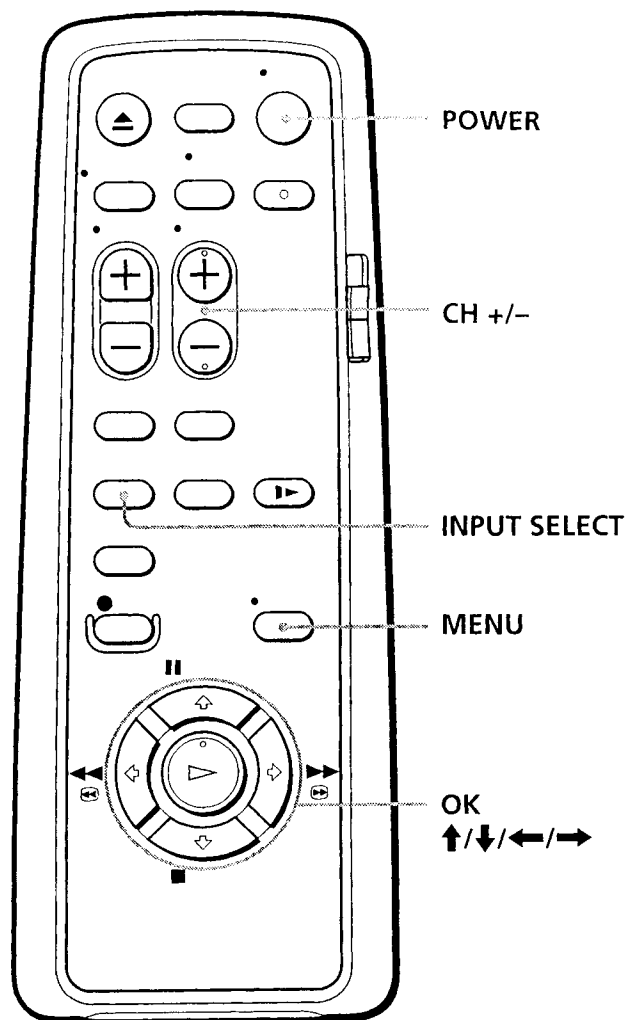
- You cannot set the easy timer if eight programs have already been set.
- You can set the timer for only one program using the easy timer. If you want to set the timer for other programs, use the **TIMER SET/CHECK** menu. For details, see page 27.
- You cannot set the date using the easy timer. Set the date using the **CLOCK SET** menu if you want to set the timer with the **TIMER SET/CHECK** menu. For details, see page 9.
- The ⏻ indicator flashes in the display window when you set the timer with no tape inserted.

Setting the timer manually

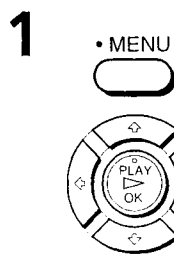
You can preset up to eight programs at a time.

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.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.



Basic Operations



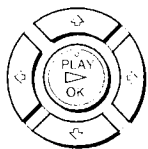
Press MENU and select TIMER SET / CHECK, then press OK.

TIMER SET / CHECK				11 / 16 MON
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 → to flash each item in turn.

2 Press ↑/↓ to set each item.

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

TIMER SET / CHECK		11 / 16	MON
DATE	START	STOP	CH
11 / 16 MON	--:--	--:--	-- SP
12 / 17 TUE	--:--	--:--	--
13 / 18 WED	--:--	--:--	--
14 / 19 THU	--:--	--:--	--
15 / 20 FRI	--:--	--:--	--
16 / 21 SAT	--:--	--:--	--
17 / 22 SUN	--:--	--:--	--
18 / 23 MON	--:--	--:--	--
19 / 24 TUE	--:--	--:--	--
20 / 25 WED	--:--	--:--	--
21 / 26 THU	--:--	--:--	--
22 / 27 FRI	--:--	--:--	--
23 / 28 SAT	--:--	--:--	--
24 / 29 SUN	--:--	--:--	--

To record the same program every day or the same day every week, press ↓ while the date is flashing. For details, see "Daily/weekly recording" on this page.

To record from a source connected to the LINE IN jacks, press INPUT SELECT or CH +/- to display "L" in the "CH" position.

3



Press → to confirm the setting.

The cursor (▶) appears at the beginning of the line. To enter another setting, move the cursor to the next line and repeat step 2.

4



Press OK.

5

• POWER



Press POWER to turn off the VCR.

The ⏻ indicator lights up in the display window and the VCR stands by for recording.

Daily/weekly recording

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

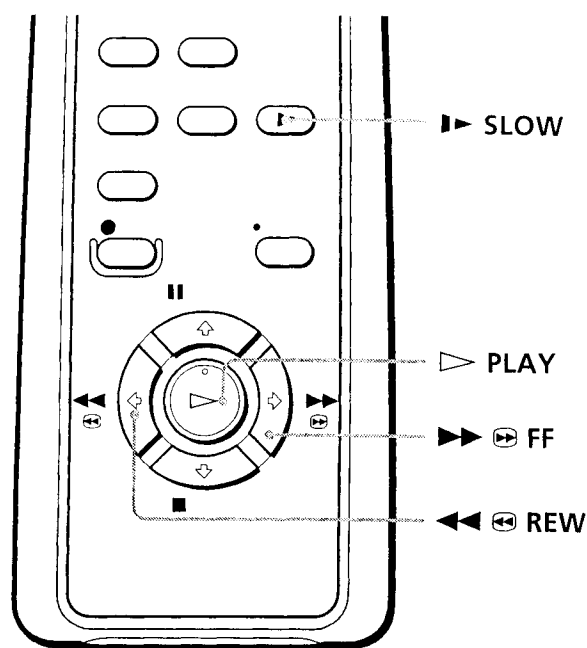
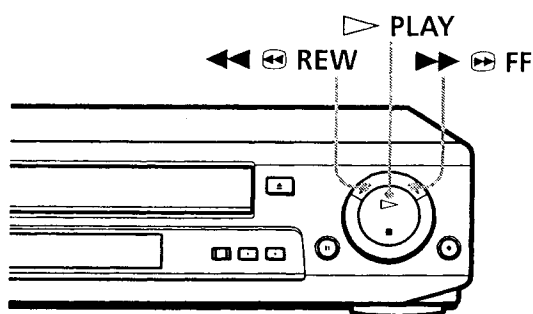
Tips

- To set the channel, you can also use CH +/-.
- To set the tape speed, you can also use SP/EP.

Note

- The ⏻ indicator flashes in the display window when you set the timer with no tape inserted.

Playing/searching at various speeds



Playback options	Operation
View the picture during fast-forward or rewind	During fast-forward, hold ▶▶ FF down. During rewind, hold ◀◀ REW down.
Play at high speed	<ul style="list-style-type: none"> During playback, press ▶▶ FF or ◀◀ REW on the remote commander. During playback, hold ▶▶ FF or ◀◀ REW down. When you release the button, normal playback resumes.
Play in slow motion	During playback or pause, press ▶ SLOW .
Play frame by frame	During pause, press ▶▶ FF or ◀◀ REW . Hold the button down to play one frame each second.
Rewind and start play	During stop, press ▶ PLAY on the VCR while holding ◀◀ REW down on the VCR.

To resume normal playback

- Press **▶ PLAY**.

Tip

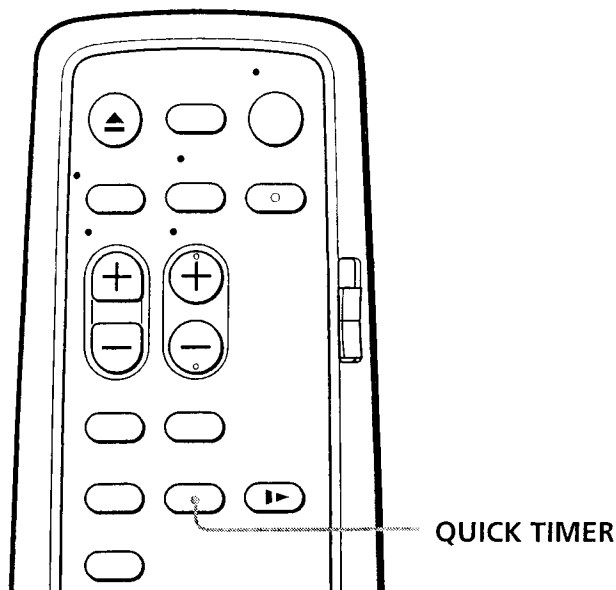
- Adjust the picture using the TRACKING +/- buttons on the VCR if:
 - Streaks appear while playing in slow motion.
 - The picture shakes while pausing.
- To set tracking to the center position, press both buttons (+/-) at the same time.

Notes

- The sound is muted during these operations.
- In EP mode, noise may appear or there may be no color.
- 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.
- On screen symbols may shake while playing or searching at various speeds.

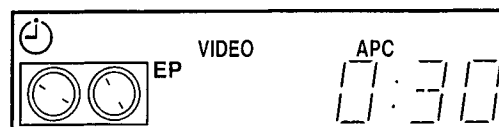
Recording TV programs using the quick timer

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

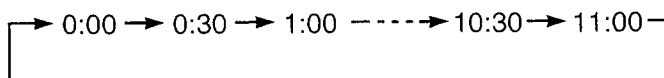


- 1 While recording, press QUICK TIMER once.

The ⌚ indicator appears in the display window.



- 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.

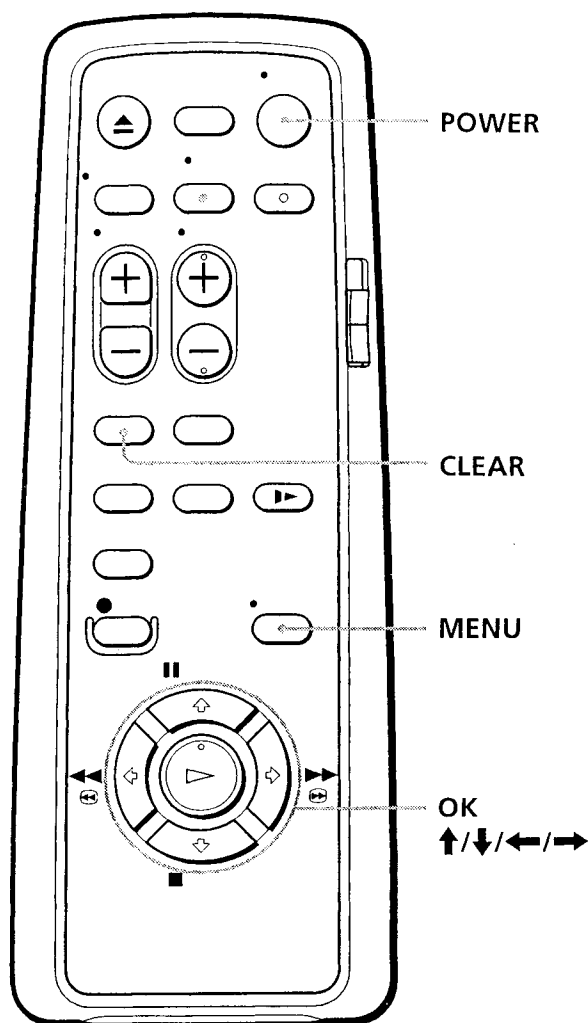
Using the quick timer during stop mode

You can set the quick timer and start recording during stop mode by pressing QUICK TIMER. To set the channel, you can use the CH +/– or INPUT SELECT buttons. Press QUICK TIMER repeatedly to set the recording duration. The recording will start automatically.

Checking/ changing/ canceling 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 and 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 OK, then turn off the VCR to return to recording standby.

TIMER SET / CHECK					11 / 16 MON
DATE	START	STOP	CH		
▶ 11 / 17 TUE	7 : 00 AM	8 : 00 AM	6	SP	
11 / 25 WED	10 : 30 PM	11 : 15 PM	50	EP	
MON - SAT	1 : 00 PM	3 : 00 PM	L	EP	
EVERY SUN	11 : 55 AM	1 : 30 PM	42	SP	
- / - -	- : - -	- : - -	- -	- -	
- / - -	- : - -	- : - -	- -	- -	
- / - -	- : - -	- : - -	- -	- -	
- / - -	- : - -	- : - -	- -	- -	

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

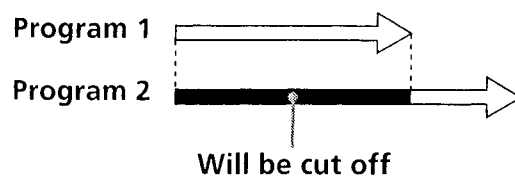
If any timer settings remain, turn off the VCR to return to recording standby.

continued

Checking/changing/canceling timer settings (continued)


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.

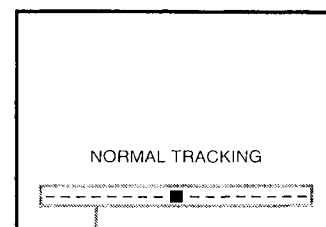


Adjusting the picture

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 the TRACKING +/- buttons 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 to ON in the SET UP MENU (with the APC indicator in the display window lit).

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 at 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

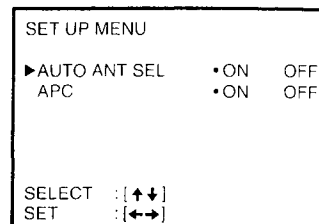
Press MENU and select SET UP MENU, then set APC to OFF. The APC indicator in the display window goes off.

Notes

- The auto tracking adjustment cannot be guaranteed to work with tapes recorded in the 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. After the APC indicator stops flashing, press  PAUSE to start recording immediately. If you press  PAUSE before the APC indicator stops flashing, the APC function is canceled.

Changing menu options

- 1 Press MENU and select SET UP MENU.



- 2 Press **↑/↓** to select the option to change, then press **←/→** to change the setting.
- 3 Press OK to return to the original screen.

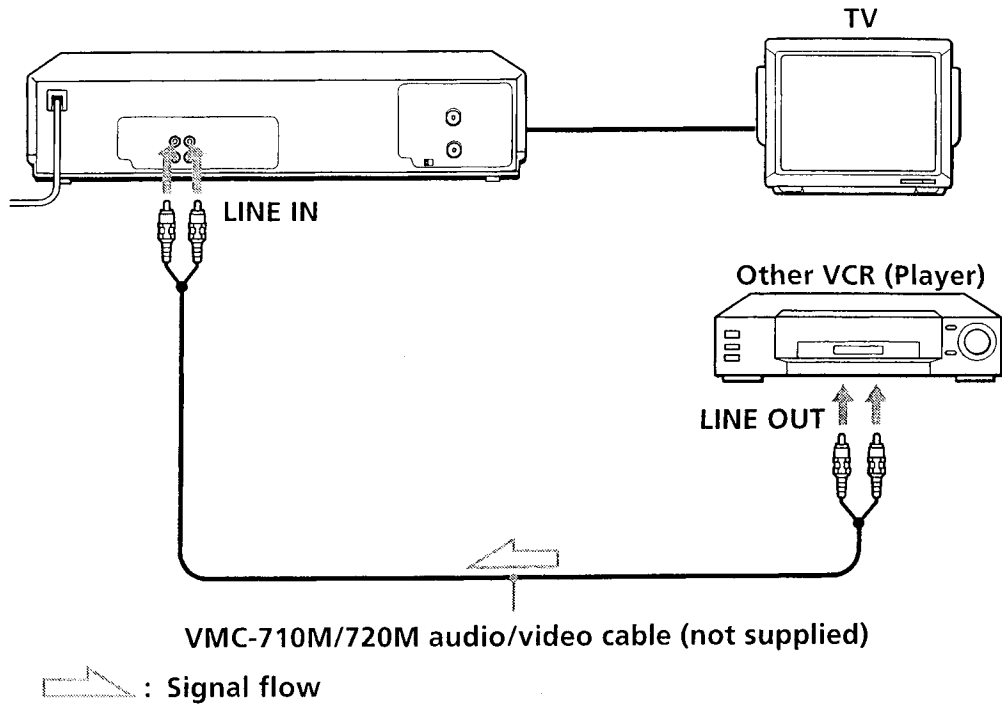
Menu choices

Initial settings are indicated in bold print.

Menu option	Set this option to
AUTO ANT SEL	ON 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). OFF 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 VCR input.
APC	ON to switch on the APC (Adaptive Picture Control) function and improve picture quality. OFF to switch off APC.

Editing with another VCR

How to hook up to record on this VCR



Notes

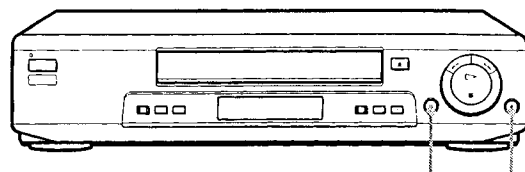
- Make sure you connect the plugs to jacks of the same color.
- If you connected this VCR to both the **LINE IN** and **LINE OUT** jacks of the other VCR, select the input correctly to prevent a humming noise.

Operation

(when recording on this VCR)

Before you start editing

- Turn on your TV and set it to the video channel.
- Press INPUT SELECT or CH +/- to display "L" in the display window.
- Press SP/EP to select the tape speed, SP or EP.



▬ PAUSE ● REC

- 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 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.

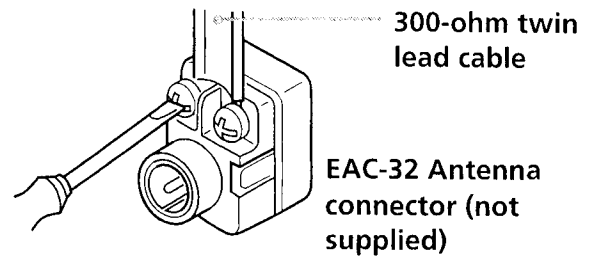
Note

- 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 analyzes the tape. Then when you start recording in step 4, press ▬ PAUSE immediately after the APC indicator stops flashing. If you press ▬ PAUSE before the APC indicator stops flashing, the APC function is canceled.

General setup information

Attaching the external antenna connector

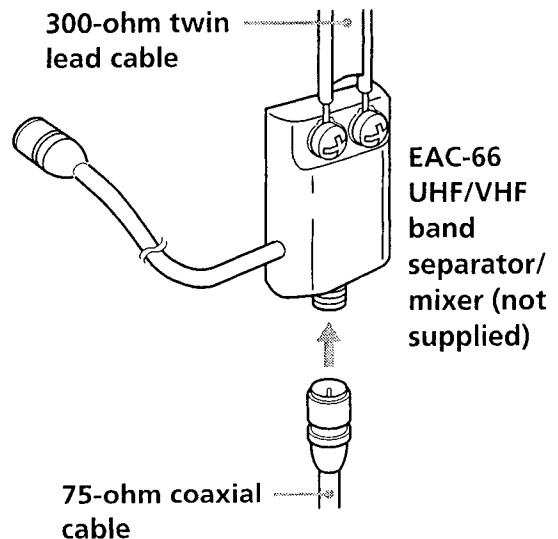
When using a 300-ohm twin lead cable for VHF/UHF antenna, use the EAC-32 antenna connector (not supplied) to connect the antenna to the VCR.



- 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 75-ohm coaxial cable and 300-ohm twin lead cable for VHF/UHF antenna, use the EAC-66 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 dealer.

	Symptom	Remedy
Power	The POWER switch does not function.	<ul style="list-style-type: none"> • Connect the AC power cord securely.
	The power is turned on but the VCR does not operate.	<ul style="list-style-type: none"> • Moisture condensation occurs. Turn the power off, unplug the AC power cord and leave the VCR to dry for over one hour.
Clock	The clock has stopped and “-:-” lights in the display window.	<ul style="list-style-type: none"> • The clock stops if the VCR is disconnected from the wall outlet for more than one hour. Reset the clock (and timer).
Playback	The playback picture does not appear on the TV screen.	<ul style="list-style-type: none"> • Make sure the TV is set to the channel for the VCR. If you are using a monitor, set it to video input.
	The picture is not clear.	<ul style="list-style-type: none"> • Adjust the tracking with the TRACKING +/- buttons. • The video heads are dirty (see the next page). Clean the video heads using the Sony T-25CLD, T-25CLDR or T-25CLW video head cleaning cassette. If these cleaning cassettes are 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 liquid type cleaning cassette other than Sony's, as they may damage the video heads. • The video heads may have to be replaced. Consult your local Sony dealer for more information.
	The picture rolls vertically during picture search.	<ul style="list-style-type: none"> • Adjust the vertical hold control on the TV or monitor.
	The picture has no sound.	<ul style="list-style-type: none"> • The tape is defective. • If you made A/V connections, check the audio cable connection.
	A TV program does not appear on the TV screen.	<ul style="list-style-type: none"> • Make sure the TV is set to the channel for the VCR. If you are using a monitor, set it to video input.
	TV reception is poor.	<ul style="list-style-type: none"> • Adjust the TV antenna.
Recording	The tape starts playing as soon as it is inserted.	<ul style="list-style-type: none"> • The safety tab has been removed. To record on this tape, cover the tab hole.
	The tape ejects when you press ● REC.	<ul style="list-style-type: none"> • Check that the safety tab has not been removed.
	Nothing happens when you press ● REC.	<ul style="list-style-type: none"> • Make sure the tape is not at its end. • Select the correct source. Select a channel number with the CH +/- buttons when recording TV programs; select “L” with the INPUT SELECT or CH +/- buttons when recording from other equipment.

	Symptom	Remedy
Timer recording	The timer does not operate.	<ul style="list-style-type: none"> • Check that the clock is set. • Make sure a tape has been inserted. • Check that the safety tab has not been removed. • Make sure the tape is not at its end. • Make sure a program has been set for timer recording. • Make sure your timer settings have not already passed the current time. • The clock stops if the VCR is disconnected from the wall outlet for more than one hour. Reset the clock and timer.
	A tape cannot be inserted.	<ul style="list-style-type: none"> • Check that a tape isn't already in the tape compartment.
Others	The remote commander does not function.	<ul style="list-style-type: none"> • Make sure you are pointing the remote commander at the remote sensor on the VCR. • Replace all the batteries in the remote commander with new ones if they are weak. • Make sure the <input type="checkbox"/> TV / <input type="checkbox"/> VIDEO remote control switch is set correctly.
	The tracking meter does not appear on the screen.	<ul style="list-style-type: none"> • The recording condition of the tape is very poor and tracking cannot be adjusted.
	The VCR needs to be cleaned.	<ul style="list-style-type: none"> • Clean the cabinet, panel and controls with a dry, soft cloth, or a soft cloth slightly moistened with a mild detergent solution. Do not use any type of solvent, such as alcohol or benzene.

Symptoms caused by contaminated video heads

• Normal picture	• Rough picture	• Unclear picture	• No picture (or black & white screen appears)
			
	initial contamination	terminal	

Sapphire tape cleaner

The unit incorporates a sapphire tape cleaner which cleans a video tape when it is loaded. This cleaner can prevent the video heads from contamination by removing dust or mold from a tape with the sapphire edge.

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 ³/₈ inches/s)
 - EP: 11.11 mm/s (⁷/₁₆ inches/s)
 - LP: 16.67 mm/s (¹¹/₁₆ 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 IN
 - VIDEO IN, phono jack (1)
 - Input signal: 1 Vp-p, 75 ohms, unbalanced, sync negative
 - AUDIO IN, phono jack (1)
 - Input level: 327 mVrms
 - Input impedance: more than 47 kilohms
- LINE OUT
 - VIDEO OUT, phono jack (1)
 - Output signal: 1 Vp-p, 75 ohms, unbalanced, sync negative
 - AUDIO OUT, phono jack (1)
 - Standard output: 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
 - 19 W
- Operating temperature
 - 5°C to 40°C
- Storage temperature
 - 20°C to 60°C
- Dimensions
 - Approx. 430 × 100 × 286 mm (w/h/d) including projecting parts and controls
- Mass
 - Approx. 4.2 kg

Supplied accessories

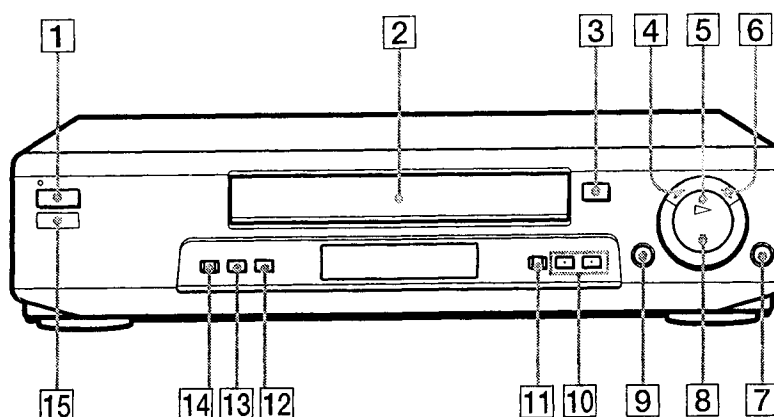
- Remote commander (1)
- Size AA (R6) batteries (2)
- 75-ohm coaxial cable with F-type connectors (1)
- Plug adaptor (1)

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

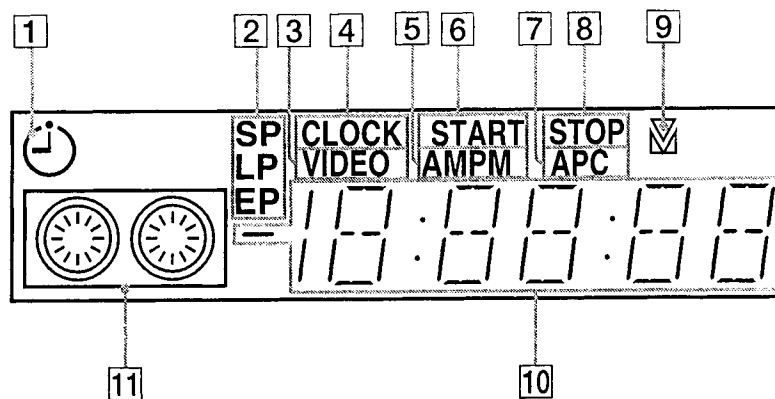


- | | |
|---|--|
| 1 POWER switch/indicator (28) | 9 PAUSE button (19) |
| 2 Tape compartment | 10 CHANNEL/TRACKING +/- buttons (21, 33) |
| 3 ▲ EJECT button (19) | 11 EASY TIMER button (24) |
| 4 ◀◀ ⏮ REW (rewind) button (19, 29) | 12 INPUT SELECT button (21, 28) |
| 5 ▶ PLAY button (19) | 13 SP (Standard Play)/EP (Extra Play) button (22) |
| 6 ▶▶ ⏭ FF (fast-forward) button (19, 29) | 14 ONE TOUCH TUNING button (11) |
| 7 ● REC (record) button (22) | 15 Remote sensor (5) |
| 8 ■ STOP button (19) | |

continued

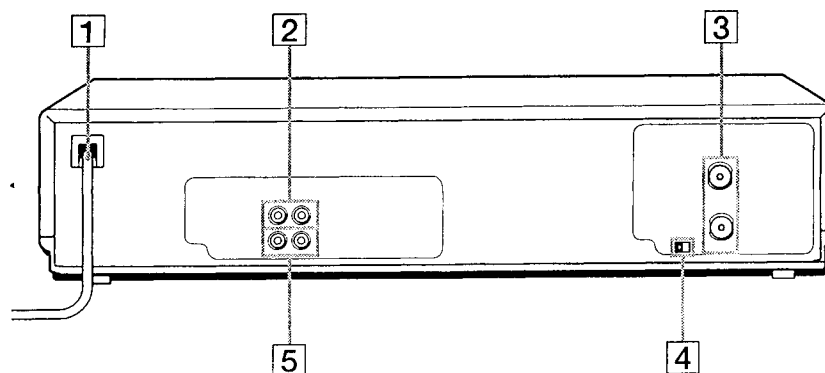
Index to parts and controls (continued)

Display window



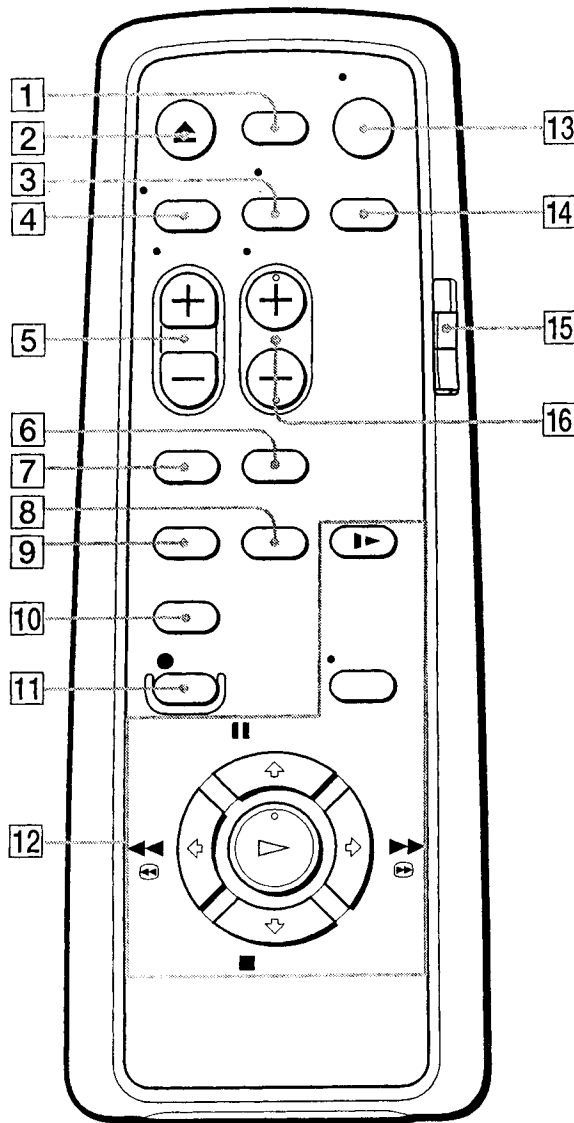
- | | |
|------------------------------------|--|
| 1 Timer indicator (25) | 7 APC (Adaptive Picture Control) indicator (33) |
| 2 Tape speed indicator (22) | 8 STOP indicator (25) |
| 3 VIDEO indicator (8, 22) | 9 Tracking indicator (33) |
| 4 CLOCK indicator (24) | 10 Time counter / clock / line / channel indicator (19, 21, 25, 36) |
| 5 AM / PM indicator | 11 Tape / recording indicator (22) |
| 6 START indicator (25) | |

Rear panel



- | | |
|--|---|
| 1 AC power cord | 4 RF (Radio Frequency) UNIT switch (8) |
| 2 LINE IN AUDIO / VIDEO jacks (35) | 5 LINE OUT AUDIO / VIDEO jacks (6) |
| 3 VHF / UHF IN / OUT connectors (7) | |

Remote commander



1 TRINITRON TV SYNCHRO PLAY button (20)

2 EJECT button (19)

3 TV / VIDEO button (8)

4 Display button (22)

5 VOL (volume) +/- buttons (for TV)

6 EASY TIMER button (24)

7 CLEAR button (31)

8 QUICK TIMER button (30)

9 INPUT SELECT button (21, 28)

10 SP (Standard Play) / EP (Extra Play) button (22)

11 ● REC (record) button (22)

12 Tape / menu operation buttons

MENU button (9, 34)

⏸ PAUSE / ⬆ button (19)

■ STOP / ⬇ button (19)

⏮ ⏪ REW (rewind) / ⬅ button (19, 29)

⏭ ⏩ FF (fast-forward) / ➡ button (19, 29)

▷ PLAY / OK button (18)

⏪ SLOW button (29)

13 POWER switch (28)

14 COUNTER RESET button (19)

15 TV / VIDEO remote control switch (5)

16 CH (channel) +/- buttons (21)

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