

SONY[®]

3-751-493-22 (1)

Video Cassette Recorder

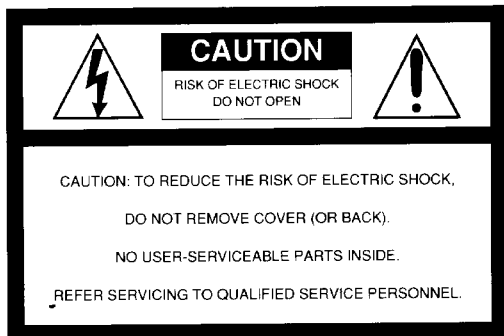
Operating Instructions

Super Betamax



WARNING

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



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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

This unit can be used with any video cassette tapes having the mark **VB**. It is compatible with the **VB II** and **VB III** type recording and playback formats and plays back tapes recorded in the **VB I**s format.

INFORMATION

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

- Reorient the receiving antenna
 - Relocate the equipment with respect to the receiver
 - Move the equipment away from the receiver
 - Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.
- If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

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

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

Note to CATV system installer:

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

Owner's Record

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

Model No. SL-S600 _____

Serial No. _____

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Precautions

On Safety

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

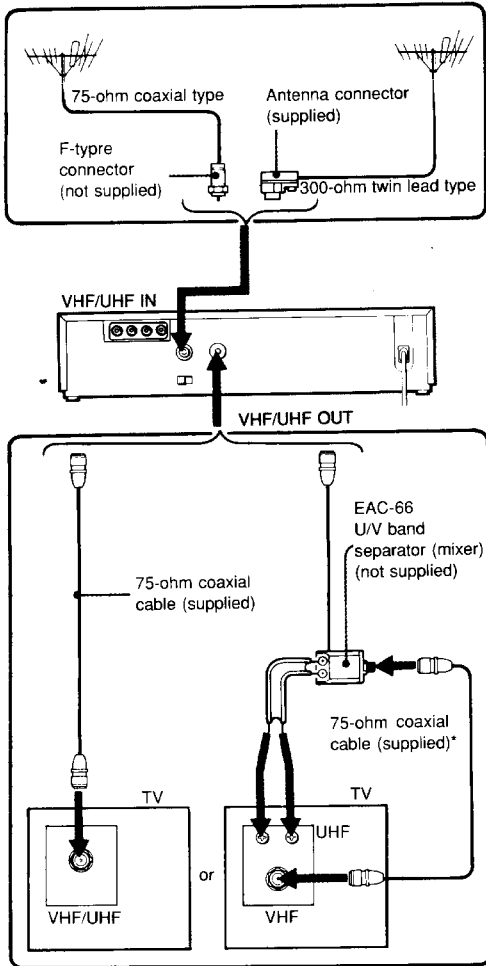
On Installation

- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation slots.
- Keep the unit and cassette tapes away from equipment with strong magnets, such as microwave ovens or large loudspeakers.
- 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.

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 transmitter and/or program owner.

Antenna/Cable and TV Connection



* If you connect a VHF antenna only, connect VHF/UHF OUT on the recorder and the VHF antenna terminal on the TV with the 75-ohm coaxial cable.

Before You Begin

- Turn off the TV and recorder before making connections.
- Disconnect the TV antenna cables from your TV and connect them to the recorder, then connect the recorder and the TV.

Antenna Connection

Connect the antenna cable to the VHF/UHF IN terminal on the recorder.

If your antenna cable is a 75-ohm coaxial type

Use the F-type connector (not supplied). See "Attaching an F-type connector" on page 6.

If your antenna cable is a 300-ohm twin lead type

Use the supplied antenna connector. See "Attaching the supplied antenna connector" on page 6.

If you have both coaxial type and twin-lead type antennas

Use the EAC-66 U/V band separator (mixer) (not supplied) to attach both antennas to the VHF/UHF IN terminal on the recorder. See "Attaching an EAC-66 U/V band separator" on page 6.

TV Connection

Connect the antenna terminal of the TV to the VHF/UHF OUT terminal on the recorder.

If your TV has a 75-ohm VHF/UHF antenna terminal

Use the supplied 75-ohm coaxial cable.

If your TV has VHF and UHF separate terminals

Connect as illustrated using an EAC-66 U/V band separator (mixer) (not supplied).

If your TV has audio/video inputs

In addition to the connection to the antenna terminal, connect the audio/video inputs of the TV to the audio/video outputs of the recorder for better picture quality. See page 5.

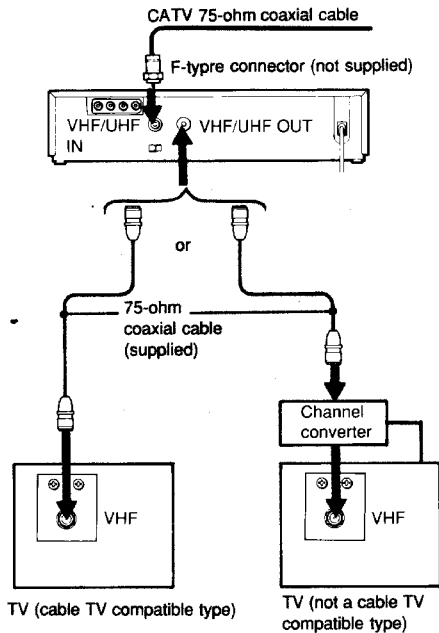
Why you have to make the VHF connection

Be sure to make the connection between the VHF/UHF OUT terminal on the recorder and the VHF terminal on the TV even if you watch UHF programs only. However, if you watch VHF programs only with a VHF antenna connected, UHF connection is not necessary. Connect VHF/UHF OUT on the recorder and the VHF antenna terminal on the TV with the 75-ohm coaxial cable.

Caution

Make connections only as shown in these instructions. For making other connections, consult your Sony dealer.

CATV Cable Connection

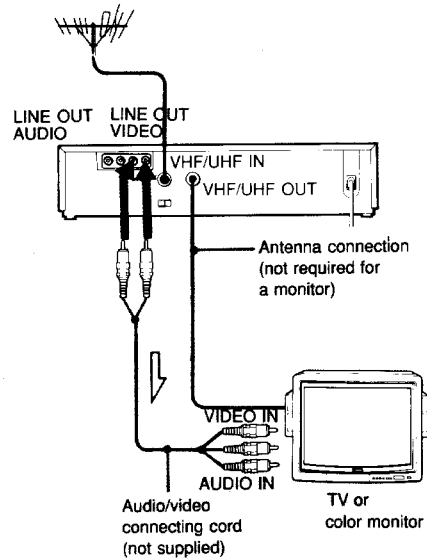


When a TV is a cable TV compatible type
Connect directly using the supplied 75-ohm coaxial cable.

When a TV is not a cable TV compatible type
Connect the cable TV channel converter between the recorder and the TV so that you can watch another cable TV program while recording one cable TV program.

Although an example of how to connect a cable TV system is provided above, we recommend that you consult with your cable company to ensure proper installation.

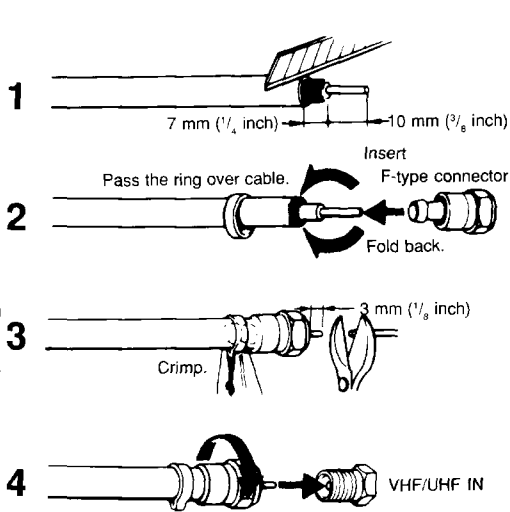
Connecting a TV Equipped with Video/Audio Input Jacks



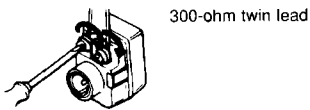
For a high-quality picture, connect a color monitor or a TV equipped with video/audio input jacks.

Antenna/Cable and TV Connection

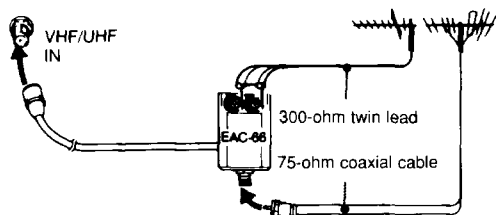
Attaching an F-type connector



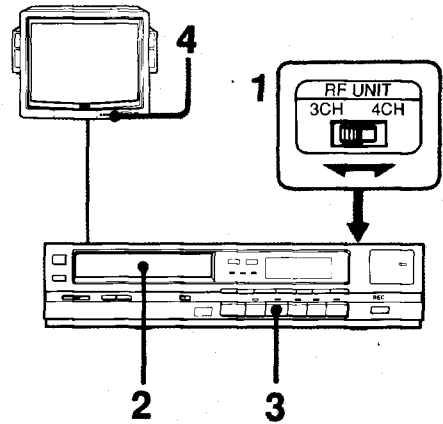
Attaching the supplied antenna connector



Attaching an EAC - 66 U/V band separator



Adjusting the TV



Adjust your TV to receive the signal from the recorder. If the recorder is connected to the video/audio inputs, the adjustment is not necessary.

- 1 Set RF UNIT on the rear of the unit to 3CH or 4CH, whichever channel is not active in your area.
- 2 Insert a recorded cassette.
- 3 Press ▷ PLAY.
- 4 Turn on the TV and select VHF channel 3 or 4 to agree with the RF UNIT setting.

If the recording on the tape is clearly displayed on the TV screen

The TV adjustment is complete.

If a picture does not appear or if the display is not clear
Fine tune the channel (3 or 4) on the TV.

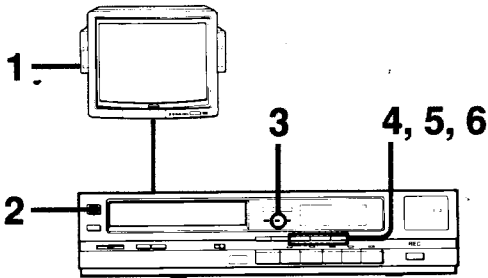
Whenever you use the video cassette recorder, set the TV to the channel which you have chosen above.

Presetting the Active Channels in Your Area

Your recorder is capable of receiving VHF channels 2-13, UHF channels 14-69 and cable TV channels 14-36 (A to W) and 66-125 (A-5 to A-1 and W+30 to W+84).

You can preset 14 channels so that only the desired channels appear in sequence when you press channel +/- later on.

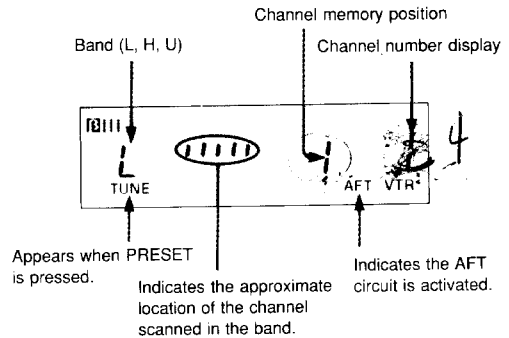
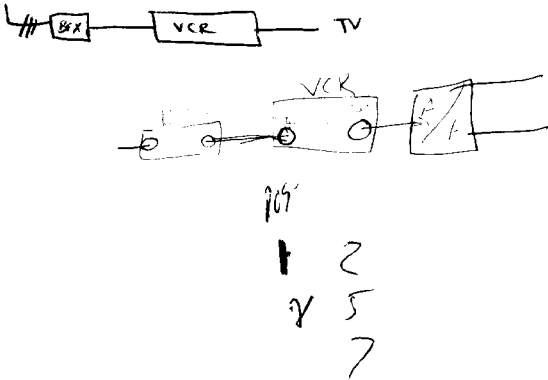
Presetting Channels



- 1** Turn on the TV and select the channel for the recorder.
- 2** Press POWER.
- 3** Press PRESET.
- 4** Press CHANNEL + or - to select a channel memory position and press NEXT.
- 5** Press CHANNEL + or - until the desired channel appears and press NEXT.
- 6** Press CHANNEL + or - to change the channel number display to identify the channel being received and press NEXT.
The current time reappears.

Repeat steps 3 to 6 for other channel memory positions to be preset.

Check in the window during presetting



Presetting the Active Channels in Your Area

To Cancel an Unused Channel

- 1 Press PRESET.**
- 2 Select the channel to be cancelled with CHANNEL + or - .**
- 3 Press CLEAR/RESET.**
The channel number display changes to "--".

Then the cancelled channel skips when you press CHANNEL +/- .

To Fine-tune a Weak Station

When the channel received is distorted due to signal interference, fine-tune the channel as follows.

- 1 Press FINE.**
- 2 Keep CHANNEL + or - pressed until the picture becomes clearer.**
The AFT indicator goes off.
- 3 Press NEXT.**
The current time reappears.

Once the channel is fine-tuned, the AFT (Automatic Fine Tuning) circuit does not function. To reactivate the circuit on that channel, repeat the channel presetting procedure.

Channel Allocation Chart

Frequency (MHz)	50	100	150	200	250	300	400	500	600	700	800
VHF/UHF channels	VHF 2-6		95-99, 14		VHF 7-13	UHF 14-69					
CATV channels			15-22		23-36		86-94		100-125		
Band indicator	L		H		U						

Cable TV Channel Chart*

Cable TV systems use letters or numbers to designate channels as in the following chart.

CATV Channels in numbers	95	96	97	98	99	14					
CATV Channels in letters	A-5	A-4	A-3	A-2	A-1	A					
15	16	17	18	19	20	21	22	23	24		
B	C	D	E	F	G	H	I	J	K		
25	26	27	28	29	30	31	32	33	34		
L	M	N	O	P	Q	R	S	T	U		
35	36	66	...	...	...	...	94	100	101		
V	W	W+30	...	...	...	...	W+58	W+59	W+60		
102	...	...	123	124	125						
W+61	...	...	W+82	W+83	W+84						

Check with your local cable TV company for more complete information on the available channels.

* The designation of the cable TV channels conforms to the EIA / NCTA recommendation.

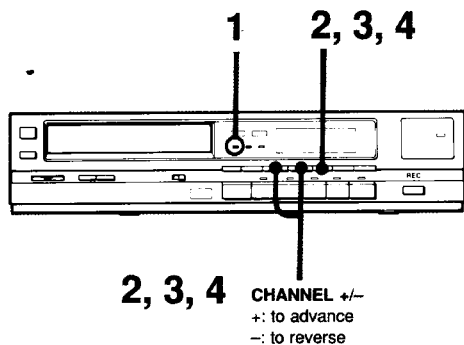
Note

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

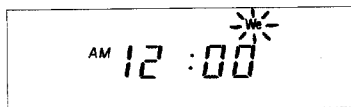
Setting the Clock

When you connect the AC power cord to a wall outlet, the clock indicates "Su AM 12:00" and it blinks to show that the clock is ready to be set.

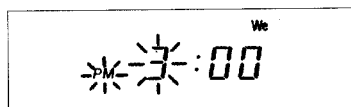
Example: to set for Wednesday afternoon 3:56



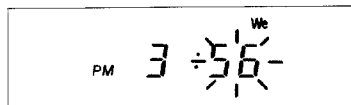
- 1 Press CLOCK.**
Set the day with **CHANNEL + or -** until "We" (for Wednesday) appears.



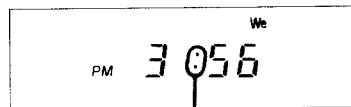
- 2 Press NEXT.**
Set the hour with **CHANNEL + or -** until "PM 3:00" appears.
AM 12:00 = midnight, PM 12:00 = noon



- 3 Press NEXT.**
Set the minute with **CHANNEL + or -** until "PM 3:56" appears.



- 4 Press NEXT.**
(Press **NEXT** at the same time with an announced time signal.)
The clock now shows the current time.

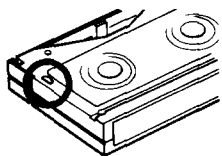


The dots of the colon (:) alternately blink every 30 seconds.

Handling the Video Cassettes

To avoid erasing a recording

Break off the safety tab on the rear of the cassette.

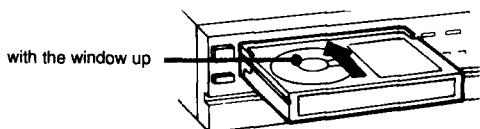


To re-record the cassette

If the safety tab has been removed, recover the opening with a piece of cellophane tape.

Inserting a Cassette

Insert a cassette fully into the compartment by slowly pressing its center with the arrow indication facing upwards. Even if the power is turned off, the power will be automatically turned on.

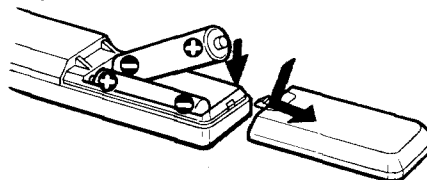


Remote Control Operation

The buttons on the supplied Remote Commander except the ● REC buttons will function the same as the buttons on the recorder with the similar name or mark.
(The auto play cannot be activated with ◀◀ REW and ▶▶ PLAY buttons.)

Inserting batteries

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



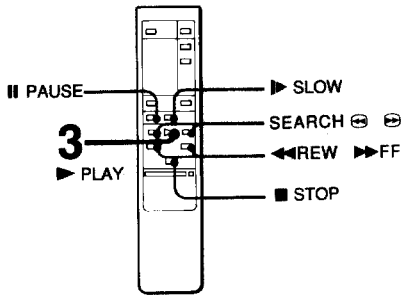
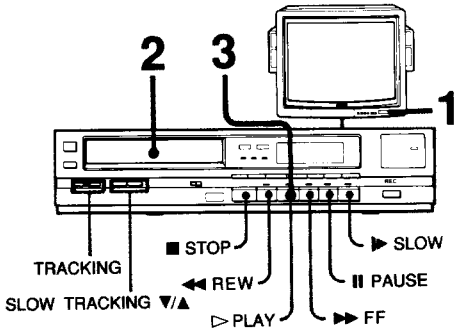
Battery life

With normal operation, batteries last for about six months.

Recording / playback time available in each mode

Cassette used	FB II	FB III
L-125	30 min.	45 min.
L-250	1 hr.	1 hr. 30 min.
L-500	2 hr.	3 hr.
L-750	3 hr.	4 hr. 30 min.
L-830	3 hr. 20 min.	5 hr.

Playing a Tape



1 Turn on the TV and select the channel for the recorder.
If the TV has video/audio jacks, select the video input.

2 Insert a cassette.
The power indicator lights up.

3 Press **▶ PLAY**.

To stop playing, press **■ STOP**.

To rewind the tape, press **◀ REW**.

To advance the tape rapidly, press **▶▶ FF**.

To eject the cassette, press **⏏ EJECT**.

To play back a cassette with its safety tab removed
Simply insert the cassette without pressing POWER. The power automatically turns on and playback begins.

If streaks or snow appear during playback
Adjust the TRACKING control for the best possible picture. Return to the center detent position after playing back that particular tape.

Various Playback Modes

Use the buttons on the recorder or the commander.

To watch slow motion picture (**⏪ and **⏩** modes only)**

Press **▶ SLOW** during playback mode. To resume the normal speed, press **▶ PLAY**.
If streaks or noise bands appear, press **SLOW TRACKING ▲** to move the bands upward or **▼** to move them downwards.

If the picture appears to shake, press **SLOW TRACKING ▼** or **▲** until the picture stabilizes best. Even if the picture stabilizes best, a noise may appear.

To reset to the center tracking position, press both **SLOW TRACKING ▼ / ▲** buttons simultaneously.

To obtain a still picture — Freeze picture

Press **⏏ PAUSE** during playback mode.
To resume playback, press **⏏ PAUSE** again or press **▶ PLAY**.

To search for a particular scene — Picture search

Press **◀ REW** or **▶▶ FF** during playback. When you release the button, the recorder returns to the previous mode.

Use the buttons on the commander.

To watch the picture during high speed playback — Locked picture search

Press **⏪ SEARCH** or **⏩ SEARCH** during playback. A high speed picture in forward or reverse appears even when you release the button.
To resume normal playback, press **▶ PLAY**.

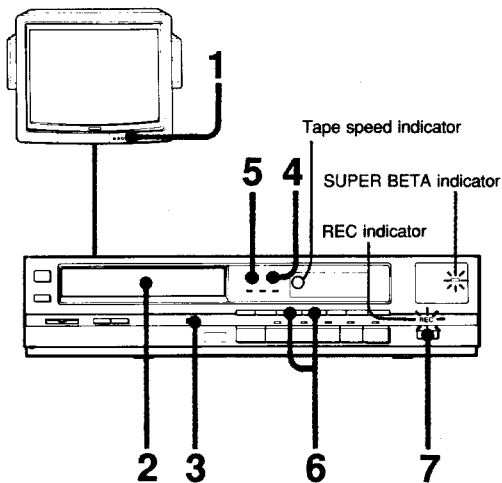
Use the buttons on the recorder.

To start playback from the beginning of the tape — Auto play

In stop mode, keeping **◀ REW** pressed, press **▶ PLAY**. After the tape is completely rewound, the playback begins automatically.

When the slow motion mode or freeze mode lasts for more than 8 minutes
The recorder will re-enter the playback mode automatically.

Recording TV Programs



To protect the video heads and tape, the pause mode will be automatically released after about 8 minutes and **recording will stop**.

Using the SUPER BETA switch

Normally, keep this switch in the "ON" position to obtain high picture quality recording and playback.

If you intend to play back on other non-SuperBeta recorders, set the switch to the "OFF" position when making your recordings.

Recording One TV Program while Viewing Another

- 1 Start recording a TV program following the procedure in "Recording TV programs".
- 2 Press TV/VTR so that the VTR indicator disappears.
- 3 Select the channel you want to watch on the TV.

- 1 **Turn on the TV and select the channel for the recorder.**
If the TV has video/audio jacks, select the video input.
- 2 **Insert a cassette.**
The power indicator lights up.
- 3 **Check that SUPER BETA is set to ON and the SUPER BETA indicator lights.**
- 4 **Press REC MODE to select the recording tape speed, I, II or III.**
The selected tape speed indicator appears.
- 5 **Press TV/VTR so that the VTR indicator appears.**
(Only when the TV does not have video/audio jacks.)
- 6 **Press CHANNEL + or - to select the channel to be recorded.**
- 7 **Press RECORD on the recorder or the two ● REC buttons on the Remote Commander to start recording.**
The REC indicator lights.

To stop recording, press ■ **STOP**.

When the tape reaches its end during recording, it is rewound to the beginning.

To stop the tape momentarily during recording, press II **PAUSE**.

To resume recording, press II **PAUSE** again.

Indexing the Tape Contents

Before starting recording or playback, press CLEAR/RESET to set the counter to "0H00M00S".

By noting the counter reading at the desired point, you can easily find that point later by referring to the counter.

Note

The counter does not advance during any portion of a tape that is blank or unrecorded.

If the counter is not displayed, press CLOCK/COUNTER.

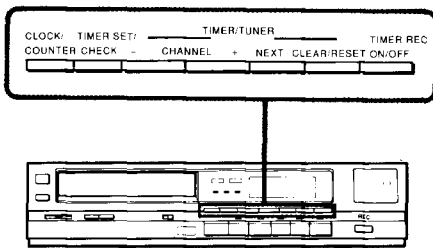
Timer Recording

Before You Begin

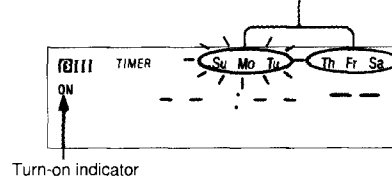
- Press POWER to turn the power on.
- Check the clock is set to the correct time.
- Select the recording tape speed. Check the **II** or **III** indicator in the window.
- Set SUPER BETA to ON.
- Make sure that nothing is connected to the LINE IN VIDEO and AUDIO jacks at the rear.

Setting the Timer

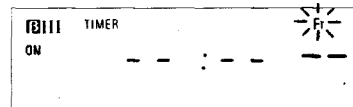
Suppose you want to make a recording of channel 6 from 7:10 to 11:15 on Friday evening.



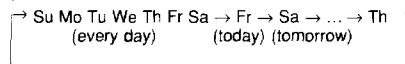
- 1** Press **TIMER SET**. Blink alternately



- 2** Set the day with **CHANNEL +** or **-**.

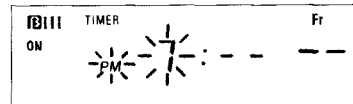


By pressing the + button, the day indication changes as follows:

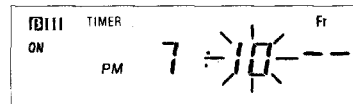


- 3** Press **NEXT** and set the turn-on hour with **CHANNEL +** or **-**.

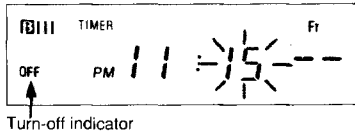
Make sure that AM or PM is properly set.
AM 12:00 = midnight, PM 12:00 = noon



- 4** Press **NEXT** and set the minute with **CHANNEL +** or **-**.



- 5** Press **NEXT** and set the turn-off time as in steps 3 and 4.

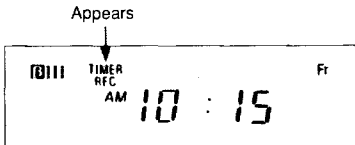


- 6** Press **NEXT** and set the channel to be recorded with **CHANNEL +** or **-**.



- 7** Press **NEXT**.
The turn-on time and turn-off time is displayed for 3 seconds respectively and the current time reappears.

- 8** Press **TIMER REC**.
The power is turned off and the recorder is in the standby mode.



Recording starts at the preset time and automatically stops when the recording is completed.
When the recording is finished, the programming (except the everyday setting) is eliminated.

Buttons you can operate during timer recording

- **TIMER REC ON/OFF**
- **COUNTER RESET**
- **TV/VTR** (to watch the picture broadcast on another channel)
- **TIMER SET/CHECK** (During recording, checking another setting is possible. But changing or canceling is not possible).

Checking the Timer Settings

When the **TIMER REC** indicator is displayed, press **TIMER SET/CHECK**.

Changing the Settings

- 1** Press **TIMER REC**. The **TIMER REC** indicator turns off.
- 2** Press **TIMER SET/CHECK**.
- 3** Press **NEXT** enough times until the item to be changed blinks.
- 4** Change the setting with **CHANNEL +** or **-**.
- 5** Press **NEXT** so that the current time appears.
- 6** Press **TIMER REC** again to reactivate the timer.

Erasing the Memory of the Timer Settings

- 1** Press **TIMER REC**. The **TIMER REC** indicator turns off.
- 2** Press **TIMER SET/CHECK**.
- 3** Press **CLEAR/RESET**. The memory of the settings is eliminated.

To stop during a timer recording

Press **TIMER REC**. The recording stops and the power turns off.

If the power should be interrupted during timer recording

When the recorder is in the standby mode, the timer settings have been erased. Reset the clock and timer settings.
If the power interruption occurs while recording, the recording then stops.

Timer recording from the equipment connected to the **LINE IN** jacks

Set the timer as in page 13.

(Set any channel in step 6.)

To turn on the connected equipment at the preset time, use another timer.

Editing Tapes

Editing from this Recorder onto Another Recorder

Connect the LINE OUT VIDEO and AUDIO jacks of this unit to the VIDEO IN and AUDIO IN jacks of the other recorder respectively.

Set the INPUT SELECT switch of the other recorder to LINE (line input), if provided.

Editing from Another Recorder onto this Recorder

Connect the LINE IN VIDEO and AUDIO jacks of this unit to the VIDEO OUT and AUDIO OUT jacks of the other recorder respectively.

Trouble Checks

Noisy picture

The video heads may be contaminated. Clean the heads using the Sony L-25CL video head cleaning cassette. For details on cleaning, refer to the instructions furnished with the cleaning cassette. If the cleaning cassette is not available in your area, have the heads cleaned at the nearest Sony facility. (Do not use a commercially available wet-type cleaning cassette. It may damage the video heads).

No picture

If you select channel 2 or 3 on the TV immediately after changing from watching the video recorder picture, the picture of the channel might not appear on the TV screen. In this case, first change to a different channel on the TV and then select channel 2 or 3 again.

Specifications

System

Video recording system	Rotary two-head helical scanning
Video signal	EIA standards, NTSC color
Channel coverage	VHF channels 2-13 UHF channels 14-69 Cable TV channels 14-36, 66-125
RF output signal	Channel 3 or 4 (selectable) 75 ohms, unbalanced
Antenna	75-ohm external antenna terminal for VHF/UHF

Video

Input	LINE IN VIDEO: phono jack 1.0 V (p-p), 75 ohms, unbalanced, sync negative
Output	LINE OUT VIDEO: phono jack 1.0 V (p-p), 75 ohms, unbalanced, sync negative

Audio

Input	LINE IN AUDIO: phono jack More than 47 kilohms, -7.5 dBs (0 dBs = 0.775 Vrms)
Output	LINE OUT AUDIO: phono jack Less than 10 kilohms, -7.5 dBs (47 kilohms load), unbalanced
Frequency response	II: 50 - 10,000 Hz III: 50 - 7,000 Hz

Tape transport

Tape speed	II: 4.0 cm/sec. (playback only) III: 2.0 cm/sec. III: 1.33 cm/sec.
Maximum recording time	II: 3 hours 20 min. III: 5 hours (with Sony L-830 cassette)
Fast-forward time	Approx. 5½ min. (L-500)
Rewind time	Approx. 4½ min. (L-500)

General

Power requirements	120 V AC, 60 Hz
Power consumption	20 W
Operating temperature	5° C to 40° C (41° F to 104° F)
Storage temperature	-20° C to +60° C (-4° F to 140° F)
Dimensions	Approx. 430 × 103 × 360 mm (w/h/d) (17 × 4⅛ × 14¼ inches) incl. projecting parts and controls
Weight	Approx. 5.5kg (12 lb 2 oz)

Accessories supplied

Remote Commander RMT-V600 with two size AA batteries (R6)
External antenna connector (300-ohm to 75-ohm matching transformer) (1)
75-ohm coaxial cable (1)
AC power cord (1)

Design and specifications are subject to change without notice.