

Amplifier Integrated Video Cassette Recorder

Operating Instructions



PAL NTSC 4.43

Hi-Fi

VIDEO*plus+*

SLV-AV100UX

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.

Notice for customers in the United Kingdom and Republic of Ireland

A moulded plug complying with BS1363 is fitted to this equipment for your safety and convenience.

If the 13A fitted plug does not match the outlet socket in your home, please refer to your Appointed Sony Dealer for advice.

Should the fuse in the plug supplied need to be replaced, a 5 AMP fuse approved by ASTA or BSI to BS1362, (i.e., marked with 2 or @ mark) must be used. If the plug supplied with this equipment has a detachable fuse cover, be sure to attach the fuse cover after you change the fuse. Never use the plug without the fuse cover. If you should lose the fuse cover, please contact your nearest Sony service station.

Precautions

Safety

- This unit operates on 230 V AC, 50 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 mains as long as it is connected to the mains, even if the unit itself has been turned off.
- Unplug the unit from the mains 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.
- The mains lead must be changed only at a qualified service shop.

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 appliance in a confined space, such as a bookcase or built-in cabinet.
- 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 unit's 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.

Caution

Television programmes, 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 programme owner.

Compatible colour systems

The unit's VCR is designed to record using the PAL colour system and play back using the PAL and NTSC 4.43 colour systems. Recording of video sources based on other colour systems cannot be guaranteed.

Table of contents

Getting Started

- 4 Step 1: Unpacking
- 5 Step 2: Setting up the remote commander
- 6 Step 3: Connecting the unit and TV
- 8 Step 4: Connecting speaker systems
- 10 Step 5: Connecting various audio/video equipment
- 13 Step 6: Tuning your TV to the unit's VCR
- 14 Step 7: Setting up the unit with EASY SET UP
- 19 Manual setup —
 - Presetting channels, Selecting station names/setting up VIDEO Plus+*¹, Changing/disabling programme positions, Setting the clock

Basic VCR Operations

- 32 Playing a video tape
- 34 Using the pre-programmed sound fields
- 35 Recording TV programmes
- 37 Recording TV programmes using VIDEO Plus+
- 40 Setting the timer manually
- 42 Checking/changing/cancelling timer settings

Audio/Video Equipment Operations

- 44 Selecting the equipment
- 47 Controlling VCRs
- 49 Controlling the TV
- 51 Listening to a radio programme
- 52 Playing back a CD
- 53 Controlling a cassette deck
- 55 Controlling a DAT deck
- 57 Controlling an MD deck
- 59 Controlling an LD player

Sound Field Operations

- 61 Taking advantage of the sound fields
- 63 Getting the most out of Dolby Pro Logic Surround*² sound
- 64 Customizing the sound fields
- 68 Reconfiguring the PROLOGIC and THEATRE sound fields

Advanced VCR Operations

- 70 Playing/searching at various speeds
- 71 Recording TV programmes using the quick timer
- 72 Recording stereo and bilingual programmes
- 74 Searching using the index function
- 75 Adjusting the picture
- 76 Changing menu options

Editing

- 77 Recording from another VCR or LD player
- 78 Audio dubbing

Additional Information

- 80 Customizing the remote commander function buttons
- 81 Troubleshooting
- 84 Specifications
- 85 Index to parts and controls
- Back Index
- Cover

*¹ VIDEO Plus+ and PlusCode are trademarks of Gemstar Development Corp. The VIDEO Plus+ system is manufactured under license from Gemstar Development Corporation.

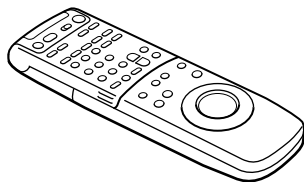
*² This unit uses the Dolby Surround system, manufactured under license from Dolby Laboratories Licensing Corporation. DOLBY, the double-D symbol a, and PRO LOGIC are trademarks of Dolby Laboratories Licensing Corporation.

Step 1

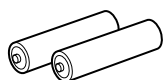
Unpacking

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

- Remote commander



- R6 (size AA) batteries



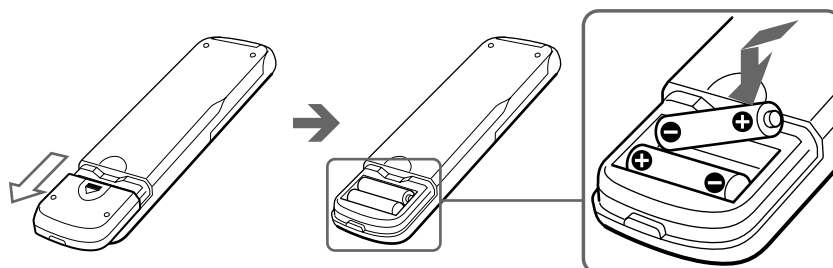
- Aerial cable



Step 2 Setting up the remote commander

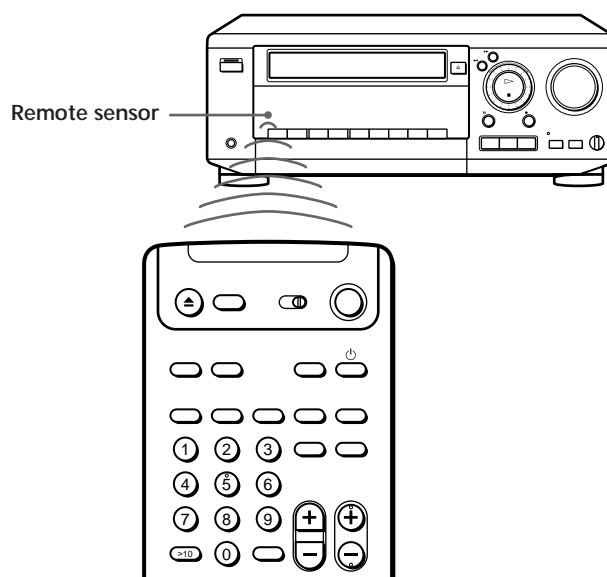
Inserting the batteries

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



Using the remote commander

You can use this remote commander to operate this unit, a TV, other VCRs, an LD deck, CD player, tuner, cassette deck, DAT deck, and MD deck (all equipment must be made by Sony). For details on how to operate other equipment with this remote commander, see “Audio/Video Equipment Operations” from page 44.



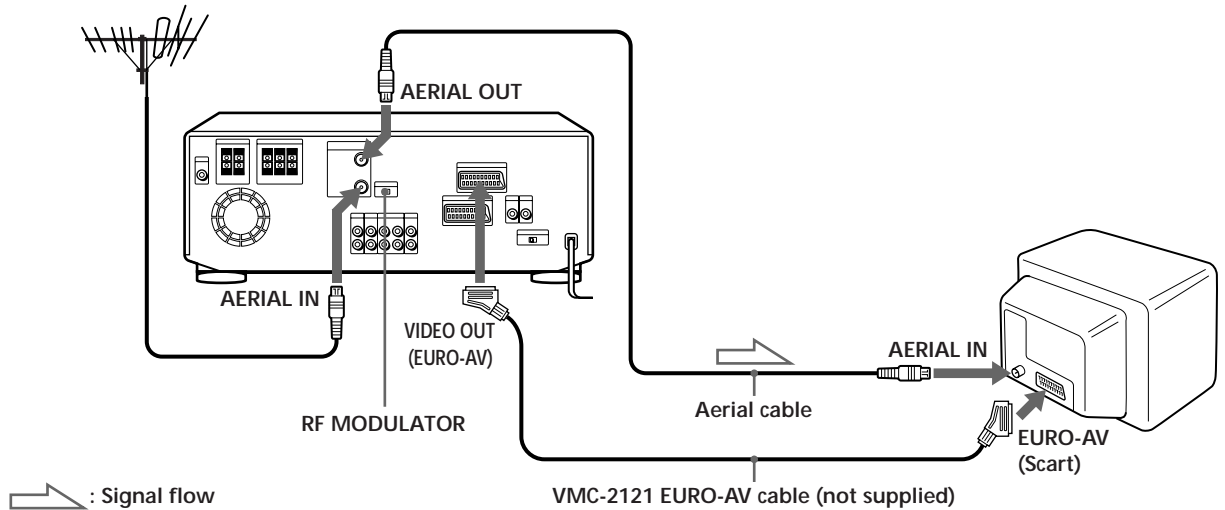
Notes

- The remote commander is initially set to control this unit. However, if it doesn't control the unit, press VHS TUNER first. If the remote commander still doesn't operate, read “Controlling VCRs” on page 47 first.
- 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.

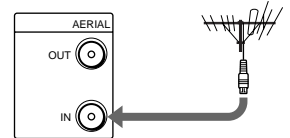
Step 3 Connecting the unit and TV

Before you connect...

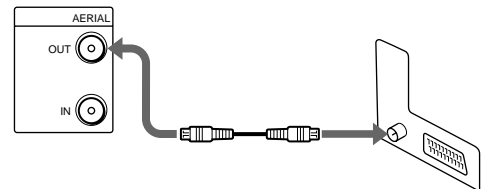
- Turn off the power on the TV.
- Do not connect the mains lead until you finish all the connections through “Step 5 : Connecting various audio/video equipment” on page 10.
- Be sure to make connections firmly to avoid hum and noise.



1 Disconnect the aerial cable from your TV and connect it to AERIAL IN on the rear panel of the unit.



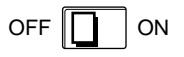
2 Connect AERIAL OUT on the unit and the aerial input on your TV using the supplied aerial cable.



3 Connect VIDEO OUT (EURO-AV) on the unit and the EURO-AV (Scart) connector on the TV.



4 RF MODULATOR OFF ON **Set RF MODULATOR to OFF.**



Whenever you want to watch the unit's VCR picture, press VHS TUNER to turn on the unit and TV. And the TV is automatically set to VCR reception.

If your TV doesn't have a EURO-AV (Scart) connector

To get the best possible picture from the unit, a EURO-AV connection is necessary. However, if your TV doesn't have a EURO-AV (Scart) connector, skip step 3 above and set RF MODULATOR to ON in step 4.

Note

- If you connect this unit to your TV with a EURO-AV (Scart) cable, you cannot reproduce sound from the unit unless you connect the speakers (see next page).

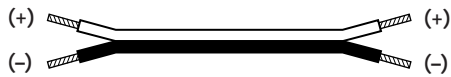
Step 4

Connecting speaker systems

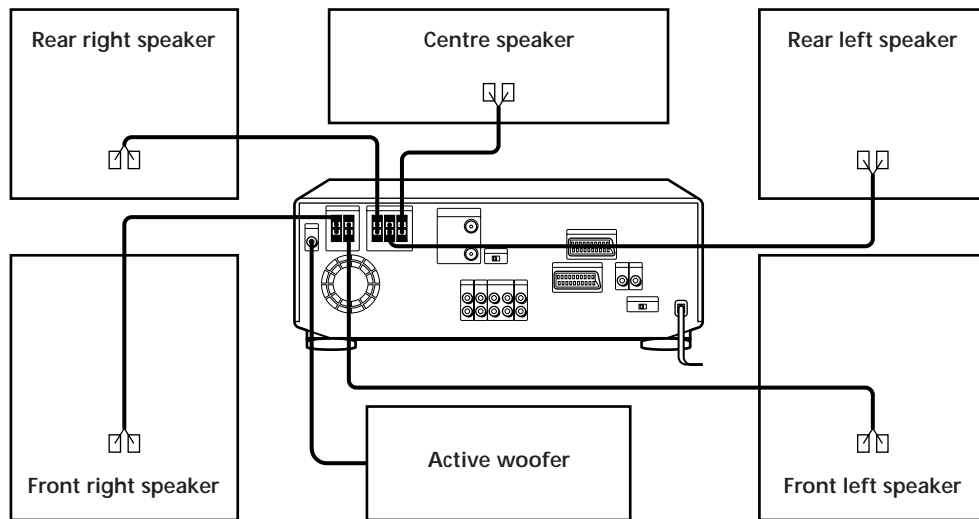
To get the best possible sound from the unit, connect front (left and right), centre, and rear (left and right) speakers. You need to connect either the centre or rear speakers as well as the front speakers to enjoy Dolby Pro Logic Surround sound.

Before you connect...

- Prepare speaker cords (one for each speaker) (not supplied).



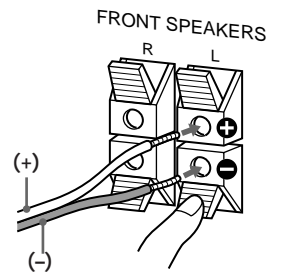
- Be sure to match the speaker cords to the appropriate terminals on the components: + to +, and - to -. (If the cords are reversed, the sound will be distorted and the bass sound will not be reproduced well.)
- Do not connect the mains lead until you finish all the connections through “Step 5 : Connecting various audio/video equipment” on page 10.
- Be sure to make connections firmly to avoid hum and noise.



1

Connect the front speakers to the FRONT SPEAKERS L/R connectors.

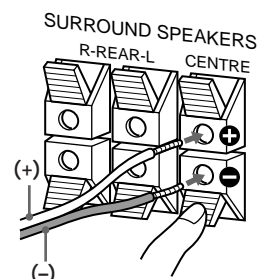
Twist about 15 mm of the stripped ends of the cord. Then insert the stripped ends into the connectors as shown on the right.



2

Connect the centre speaker to the SURROUND SPEAKERS CENTRE connectors.

Repeat step 1 above for the centre speaker. If you don't have a centre speaker, skip this step.



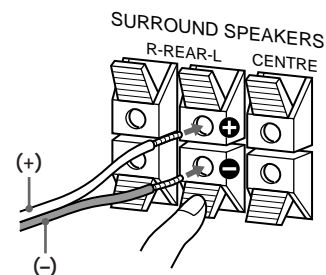
3

Connect the rear speakers to the SURROUND SPEAKERS REAR L/R connectors.

Repeat step 1 above for the surround speakers.
If you don't have rear speakers, skip this step.

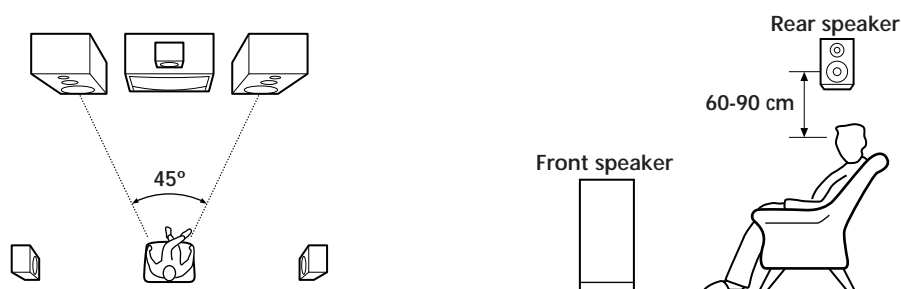
Note

- Be sure to connect both left and right speakers. If you connect only one speaker, the rear speaker won't reproduce the sound.



Placing the speakers

For optimum surround sound effect, place your speakers as shown below.

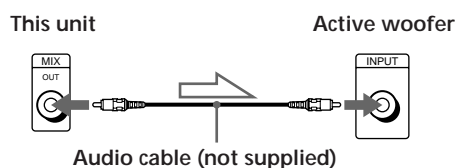


Tips

- Position the centre speaker so the face of the speaker is aligned evenly with, or slightly behind the faces of the front left and right speakers.
- Mount the surround (rear) left and right speakers on the walls so they face each other.
- Position the front left and right speakers and centre speaker as close to the same height as possible.

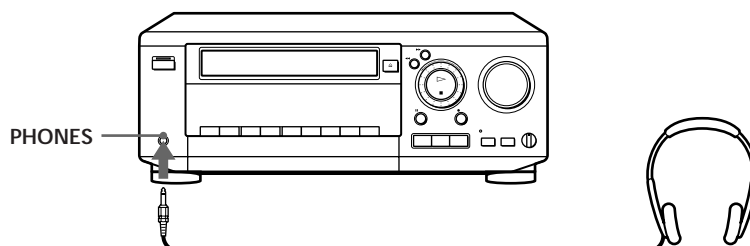
Connecting an active woofer

For further sound improvement, connect an active woofer to MIX OUT with an audio cable (not supplied). The active woofer will increase bass response. The position of the active woofer does not affect the sound quality very much.



Listening through the headphones

Connect the headphones to PHONES. No sound will be reproduced from the speakers.



Step 5

Connecting various audio/video equipment

The following connections with various audio/video equipment are recommended examples. The actual connections may vary depending on the equipment you have.

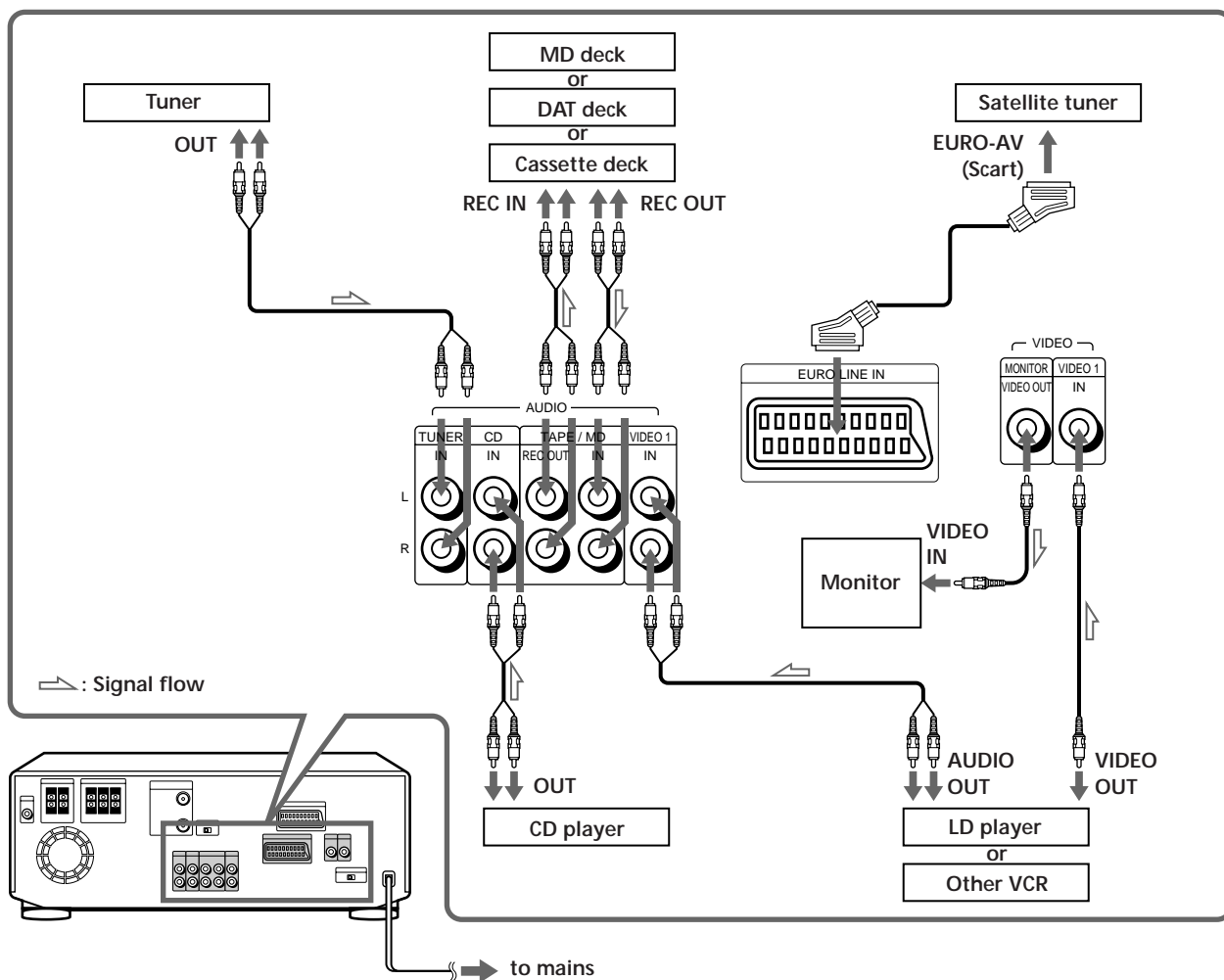
Before you connect....

- Prepare audio and video cables (not supplied), and a EURO-AV cable (not supplied) referring to the following table.



Equipment	Necessary cable for each piece of equipment
Tuner/CD player	One audio cable
MD deck/DAT deck/cassette deck	Two audio cables
LD player/other VCR	One video cable and one audio cable
Monitor	One video cable
Satellite tuner	One EURO-AV cable

- Turn off the power to all equipment before making any connections.
- Do not connect the mains lead until all of the connections are complete.
- Be sure to make connections firmly to avoid hum and noise.

**1**

Connect your audio/video equipment using audio and video cables, and a EURO-AV cable referring to the illustration above.

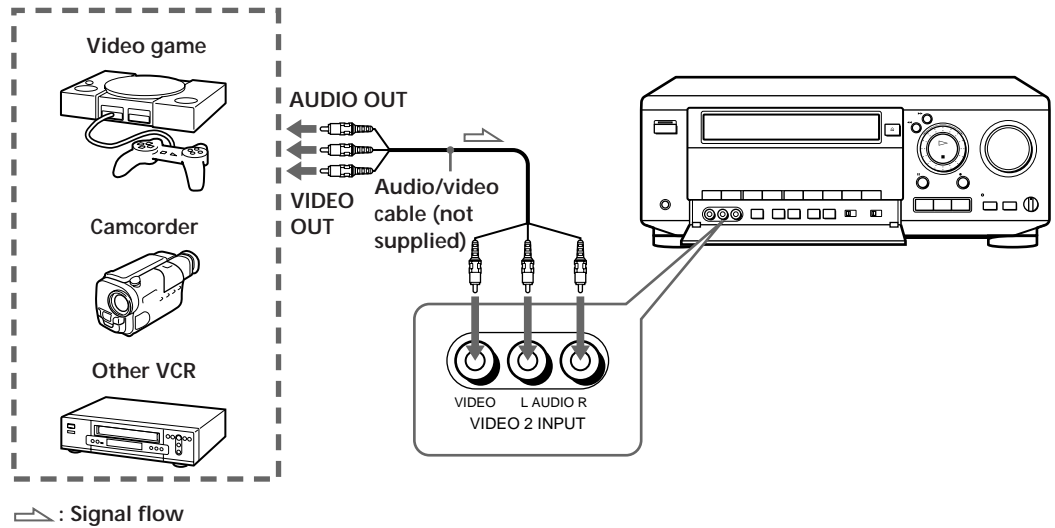
Make sure you connect the audio and video cable plugs to jacks of the same colour.

2

Connect the mains lead to the mains.

continued

Connecting to the front VIDEO 2 INPUT jacks

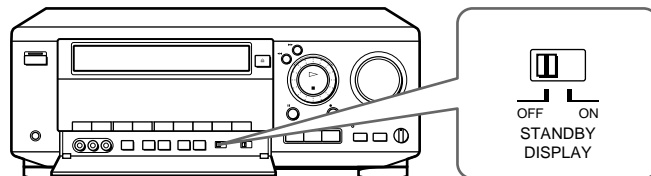


Notes

- Make sure you connect the audio/video plugs to jacks of the same colour.
- If the other VCR is a monaural type, connect only the VIDEO and AUDIO L jacks.

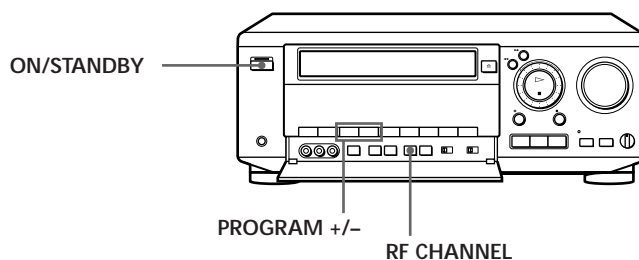
Conserving power while the unit is standing by

Set STANDBY DISPLAY to OFF. The indicators in the display window turn off while the unit is standing by to conserve power. When you set a timer recording, the indicators in the display window remain on even if STANDBY DISPLAY is set to OFF.

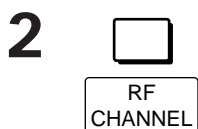


Step 6 Tuning your TV to the unit's VCR

If you connected the unit to your TV using a EURO-AV cable, skip this step.



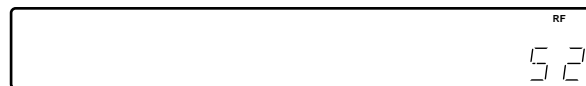
Press ON/STANDBY to turn on the unit.



Press RF CHANNEL on the unit.

The factory-preset RF channel appears in the display window.

The unit's VCR signal is output through this channel to the TV.

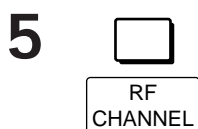


3 Turn on your TV and select a programme position for the unit's VCR picture.

4 Tune the TV's programme position to the RF channel shown in the display window so the picture on the right appears on the TV screen.

Refer to your TV manual for tuning instructions.

If the picture does not appear clearly, see "To obtain a clear picture from the unit's VCR" below.



Press RF CHANNEL.

You have now tuned your TV to the unit's VCR. Whenever you want to play a video tape, set the TV to this programme position. This programme position will now be referred to as the VCR's programme position.

To check that the TV tuning is correct

Set the TV to the VCR's programme position and press PROGRAM +/- on the unit. If the TV screen changes to a different programme each time you press PROGRAM +/-, the TV tuning is correct.

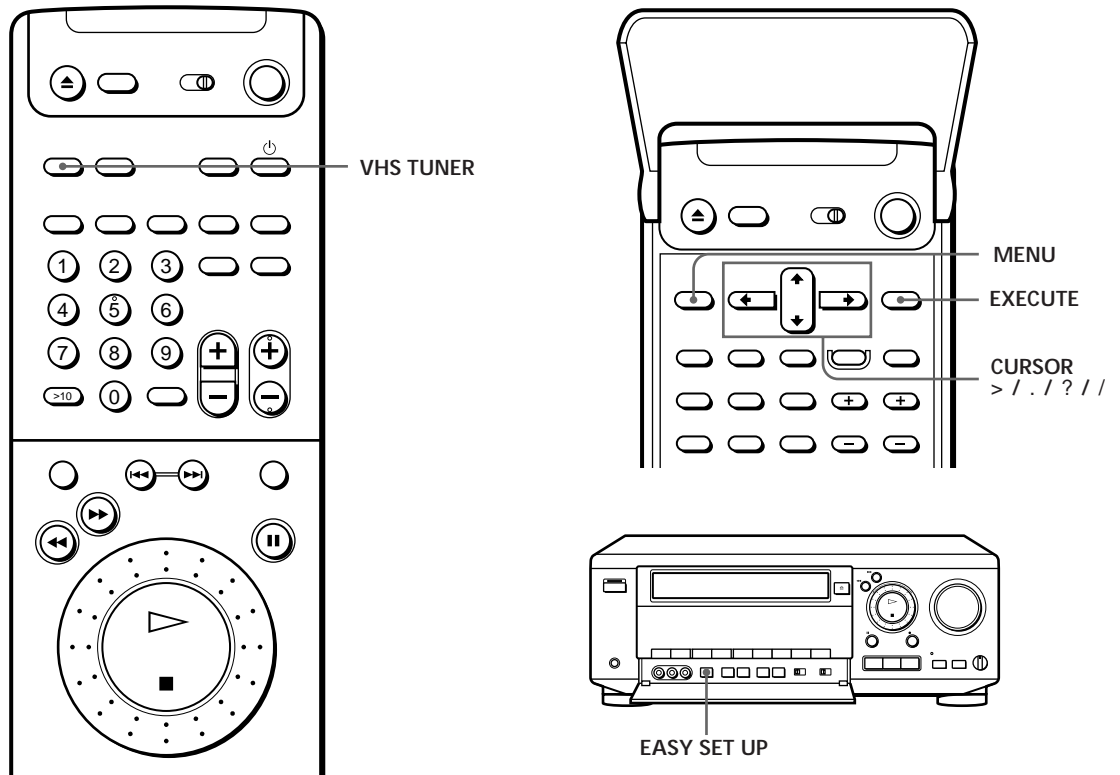
To obtain a clear picture from the unit's VCR

If the picture does not appear clearly in step 4 above, press PROGRAM +/- in step 4, to select another RF channel. Then tune the TV's programme position to the new RF channel until a clear picture appears.

Step 7

Setting up the unit with EASY SET UP

Before using the unit for the first time, set up the unit using the EASY SET UP function. With this function, you can set TV channels, guide channels for VIDEO Plus+, the clock, the centre mode for the PROLOGIC and THEATRE sound fields, and the relative volume level of the centre and rear speakers for the PROLOGIC sound field by following the instructions on the TV screen. (For sound field explanations, see page 61.)



1  VHS TUNER

Press VHS TUNER to turn on the unit and TV.

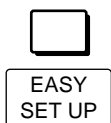
If the TV doesn't turn on, turn it on manually.
Press VHS TUNER again if connected with a EURO-AV (Scart) cable.

2

Set the TV for VCR reception.

- If connected with a EURO-AV (Scart) cable, the TV is automatically set to VCR reception and "VTR" appears in the display window.
- If connected with only the antenna cable, set the TV to the VCR's programme position manually.

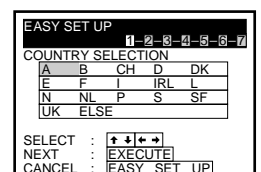
3

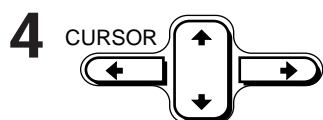


Press EASY SET UP on the unit.

The country abbreviations for ITP (Intelligent Tuner Preset) appear.

To cancel the EASY SET UP function, press EASY SET UP again.





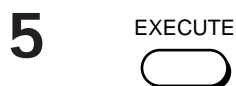
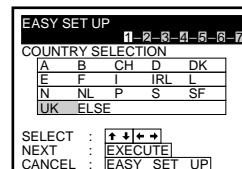
Lift the top cover of the remote commander.

Press **CURSOR >|.!?!|** to highlight the abbreviation for your country.

The abbreviations for the countries are as follows:

A: Austria	L: Luxembourg
B: Belgium	N: Norway
CH: Switzerland	NL: Netherlands
D: Germany	P: Portugal
DK: Denmark	S: Sweden
E: Spain	SF: Finland
F: France	UK: United Kingdom
I: Italy	ELSE: other countries
IRL: Ireland	

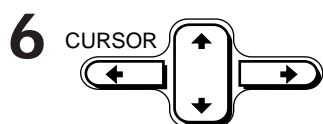
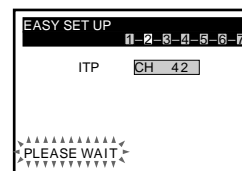
If your country is not listed, select ELSE.



Press **EXECUTE**.

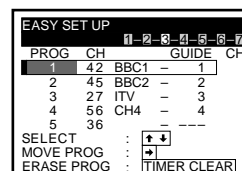
ITP starts searching for all the receivable channels. ITP sorts the located channels appropriately for the selected country and presets them to the programme positions. Some VIDEO Plus+ guide channels and station names may also be preset if ITP can detect them.

During presetting, the located channels are displayed on the TV screen. When all the channels are preset, the following screen appears.




Use **CURSOR >|.!?!|** to set the station names and VIDEO Plus+ guide channels that could not be preset automatically, change the programme positions of the stations, and disable the unused programme positions. (If all the settings are correct, skip this step.)

The setting procedures are the same as those described in "Manual setup — Selecting station names/setting up VIDEO Plus+" on page 22 and "Manual setup — Changing/disabling programme positions" on page 26.



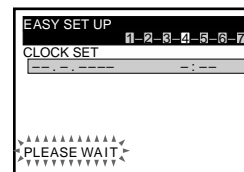
continued

Step 7 Setting up the unit with EASY SET UP (continued)

7 EXECUTE


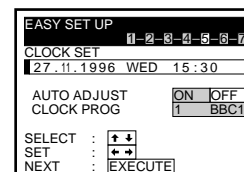
Press EXECUTE.

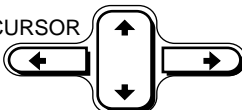
Auto Clock Set starts searching for a TV station that carries the time signal, and sets the clock time automatically. The date is also set if the TV station transmits date data.



When the clock setting is complete, the following screen appears.

If the unit's VCR does not receive the time signal from any station, "1.1. 1996 MON 0:00" appears and AUTO ADJUST is set to OFF.



8 CURSOR


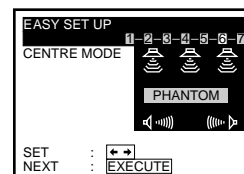
If the clock setting is not correct, adjust the date and time manually or change the station for Auto Clock Set using CURSOR >|/?|/.

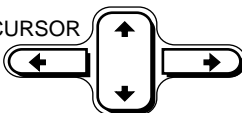
The setting procedures are the same as those described in "Manual setup — Setting the clock" on page 29.

9 EXECUTE


Press EXECUTE.

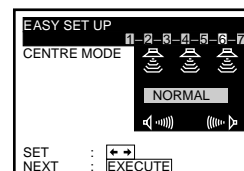
The CENTRE MODE selection menu appears.



10 CURSOR


Press ?// to select the centre mode.

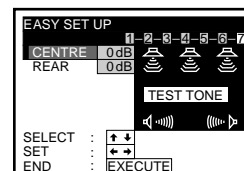
See "Selecting the centre mode" on page 18 for details.

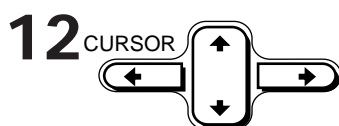


11 EXECUTE


Press EXECUTE.

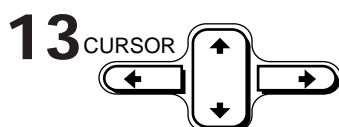
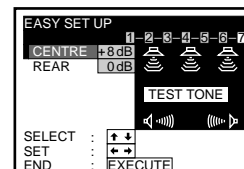
Each speaker emits the test tone in turn (the speaker emitting the test tone is indicated by the red speaker mark). Check each speaker's relative volume balance with the test tones.





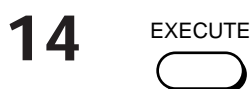
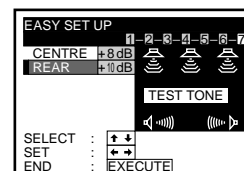
12 Press **CURSOR >/** to move the cursor (I) to **CENTRE**. Then, press **CURSOR ?//** to increase or decrease the volume of the centre speaker so you have an equal volume balance with the other speakers at your listening position.

If you selected PHANTOM in step 10, skip this step.
This volume adjustment affects only the PROLOGIC sound field.



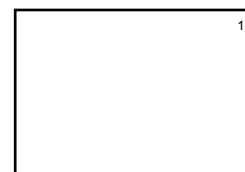
13 Press **CURSOR >/** to move the cursor (I) to **REAR**. Then, press **CURSOR ?//** to increase or decrease the volume of the rear speakers so you have an equal volume balance with the other speakers at your listening position.

If you selected 3CH LOGIC in step 10, skip this step.
The surround speakers' volume balance is always even.
This volume adjustment affects only the PROLOGIC sound field.



14 Press **EXECUTE**.

A programme position appears on the TV screen.



Tips

- To adjust the relative volume balance between the front left and right speakers, use **BALANCE L/R** on the unit.
- If you change the speaker configuration, reset the modes. See “Reconfiguring the PROLOGIC and THEATRE sound fields” on page 68.
- If you need to further increase the volume of the rear speakers from the maximum level (+10 dB), see “Increasing the maximum rear speaker level” on page 69.

Note

- Do not exit **EASY SET UP** while ITP is presetting channels. If you do, repeat **EASY SET UP** from the beginning.

continued

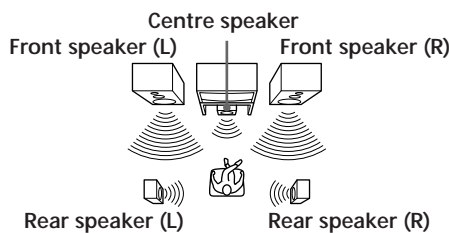
Selecting the centre mode

The centre mode is related to the PROLOGIC and THEATRE sound fields. (See “Taking advantage of the sound fields” on page 61 for a detailed explanation on sound fields.) You must have rear left and right speakers, or one centre speaker other than the front left and right speakers for these sound fields.

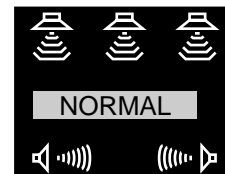
You can select NORMAL, WIDE, PHANTOM, or 3CH LOGIC as the centre mode. Each mode is designed for a different speaker configuration. Select the most suitable mode considering the following conditions:

If you have front and rear speakers, and a small centre speaker

Select NORMAL. The centre channel bass sound is output from the front speakers. This is because small centre speakers cannot reproduce bass sound sufficiently.

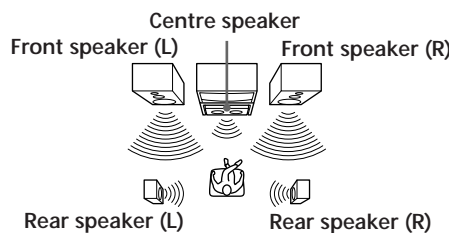


Speaker arrangement display on the TV screen



If you have front and rear speakers, and a large centre speaker

Select WIDE. The combination of this speaker configuration and mode selection is ideal for Dolby Pro Logic Surround sound.

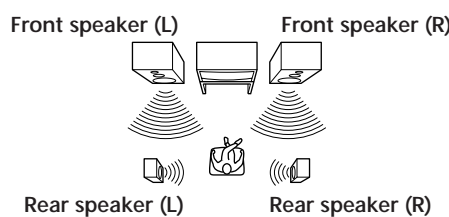


Speaker arrangement display on the TV screen



If you have only front and rear speakers

Select PHANTOM. The centre channel sound is output from the front speakers.

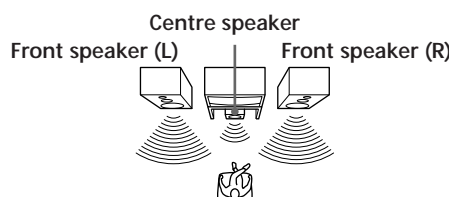


Speaker arrangement display on the TV screen

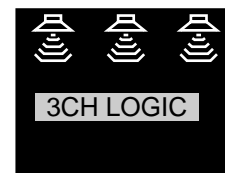


If you have only front and centre speakers

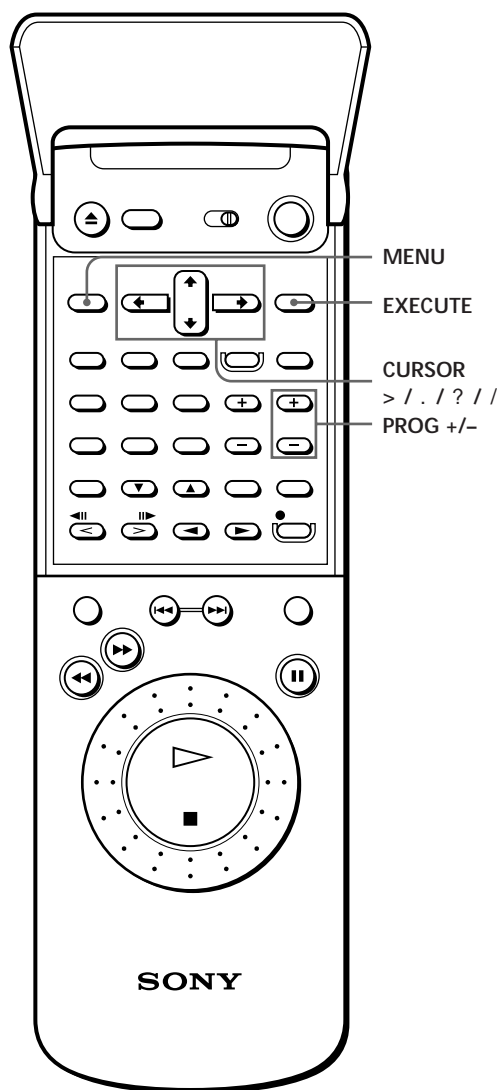
Select 3CH LOGIC (3 Channel Logic). The rear channel sound is output from the front speakers. You can enjoy some surround sound atmosphere, even if you don't have surround (rear) speakers.



Speaker arrangement display on the TV screen



Manual setup — Presetting channels



Note

- The menu disappears automatically if you don't proceed within a few minutes.

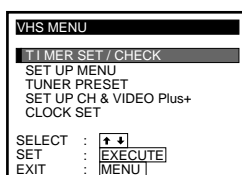
If some channels could not be preset using EASY SET UP, you can preset them manually.

Before you start...

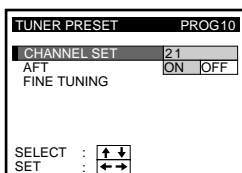
- Press VHS TUNER.
 - If the TV doesn't turn on, turn it on manually. Press VHS TUNER again if connected with a EURO-AV (Scart) cable.
 - If connected with a EURO-AV (Scart) cable, the TV is automatically set to VCR reception.
 - If connected with only the antenna cable, set the TV to the VCR's programme position manually.

1 Lift the top cover of the remote commander.

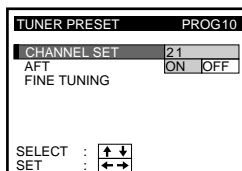
Press MENU. Then press CURSOR >./ to move the cursor (I) to VHS MENU, and press EXECUTE.



2 Press CURSOR >./ to move the cursor (I) to TUNER PRESET and press EXECUTE.

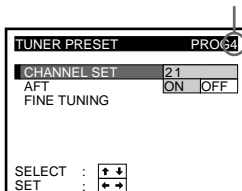


3 Press CURSOR >./ to move the cursor (I) to CHANNEL SET.



4 Press PROG +/- to select the programme position.

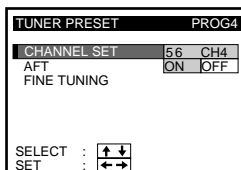
Selected programme position



continued

Manual setup — Presetting channels (continued)

- 5 Press CURSOR / (or ? for reverse search) to start tuning.
The unit's VCR starts searching for a channel and displays the first one it finds on the TV screen. Press CURSOR ?// repeatedly until the channel you want is displayed.



The channels are scanned from UHF E21 through E69.

If you know the number of the channel you want, press the programme number buttons. For example, for channel 43, first press "4," then press "3."

- 6 To allocate another channel to another programme position, repeat steps 4 and 5.
- 7 Press EXECUTE.

Disabling unwanted programme positions

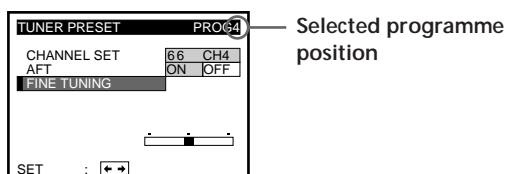
After tuning the TV channels, you can disable unused programme positions. The disabled positions will be skipped later when you press the PROG +/- buttons to select a station. You can also disable unwanted programme positions using the SET UP CH & VIDEO Plus+ menu (page 27).

- 1 In step 5 on the previous page, press number button “0” twice to display the number “0” beside CHANNEL SET.
- 2 Press EXECUTE.

If the picture is not clear

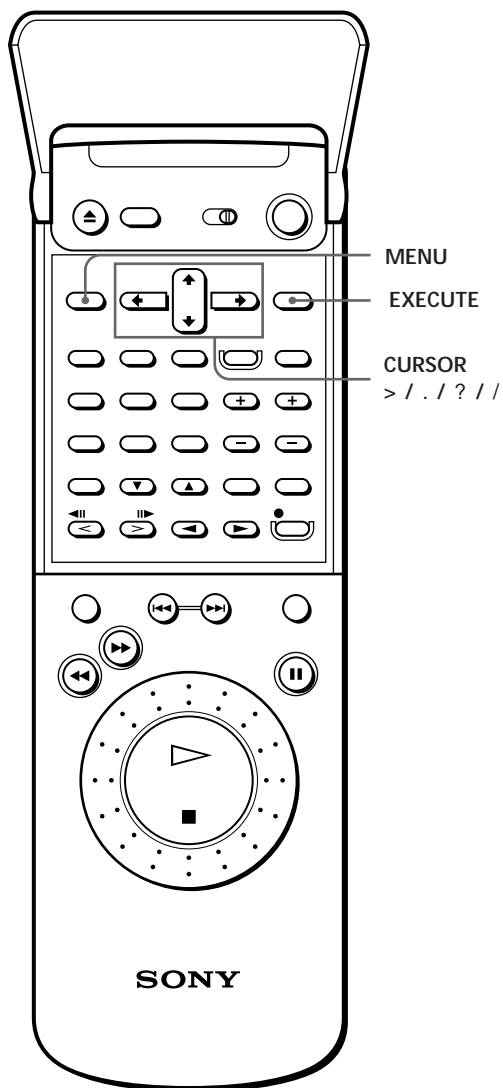
Normally, the Auto Fine Tuning (AFT) function automatically tunes in channels clearly. If, however, the picture is not clear, you can also use the manual tuning function.

- 1 Press PROG +/- to select the programme position for which you cannot obtain a clear picture.
- 2 Press MENU, then select VHS MENU and press EXECUTE.
- 3 Select TUNER PRESET and press EXECUTE.
- 4 Select FINE TUNING. The fine tuning meter appears.



- 5 Press CURSOR ?// to get a clearer picture, then press EXECUTE. Note that the AFT (Auto Fine Tuning) setting switches to OFF.

Manual setup — Selecting station names/setting up VIDEO Plus+



Notes

- The menu disappears automatically if you don't proceed within a few minutes.
- If you entered an incorrect guide channel number, press CURSOR >./ repeatedly to reset the "GUIDE CH" column to "---." "----" appears after "255" (then "1" appears).
- The unit does not allow you to enter guide channel numbers that have already been set.

VIDEO Plus+ is a feature in Sony VCRs that simplifies programming the unit's VCR to make timer recordings. To use VIDEO Plus+, each programme position needs to match its VIDEO Plus+ guide channel. If the guide channels were not preset in the EASY SET UP procedure, set them by selecting the station names. If you cannot find the station name you want, you need to set the guide channel manually. To find the guide channel numbers, see "Guide channels for VIDEO Plus+" on page 24, or look in the programme guide for your area that features PlusCode.

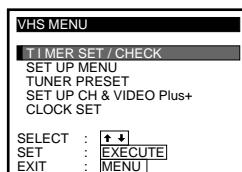
- If you want to record satellite broadcasts using VIDEO Plus+, see page 25.

Before you start...

- Press VHS TUNER.
 - If the TV doesn't turn on, turn it on manually. Press VHS TUNER again if connected with a EURO-AV (Scart) cable.
 - If connected with a EURO-AV (Scart) cable, the TV is automatically set to VCR reception.
 - If connected with only the antenna cable, set the TV to the VCR's programme position manually.

1 Lift the top cover of the remote commander.

Press MENU. Then press CURSOR >./ to move the cursor (I) to VHS MENU, and press EXECUTE.



2 Press CURSOR >./ to move the cursor (I) to SET UP CH & VIDEO Plus+ and press EXECUTE.

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

The preset channels are displayed on the screen. The station names and guide channels also appear if the unit's VCR detected them in EASY SET UP. "----" in the GUIDE CH column means that the guide channel has not been preset.

SET UP CH & VIDEO Plus+				
PROG	CH	GUIDE	CH	
1	42	BBC1	-	1
2	25	BBC2	-	2
3	27	ITV	-	3
4	56	CH4	-	4
5	36			

Navigation options at the bottom:

- SELECT : (up/down arrows)
- MOVE PROG : (right arrow)
- ERASE PROG : [TIMER CLEAR]

3 Press CURSOR >./ to move the cursor (I) to the row on which you want to set the station name and guide channel.

To display other pages for programme positions 6 to 60, press CURSOR >./ repeatedly.

SET UP CH & VIDEO Plus+				
PROG	CH	GUIDE	CH	
1	42	BBC1	-	1
2	25	BBC2	-	2
3	27	ITV	-	3
4	56	CH4	-	4
5	36			

Navigation options at the bottom:

- SELECT : (up/down arrows)
- MOVE PROG : (right arrow)
- ERASE PROG : [TIMER CLEAR]

- 4 Press **CURSOR /** twice to highlight the station name and guide channel columns only.

SET UP CH & VIDEO Plus+				
PROG	CH		GUIDE	CH
1	42	BBC1	-	1
2	25	BBC2	-	2
3	27	ITV	-	3
4	56	CH4	-	4
5	36		-	
SELECT NAME :				
SET GUIDE CH :				
CONFIRM :				

- 5 Press **CURSOR >/.** to select the station name.

The corresponding guide channel number is set automatically.

- If you can set the station name and guide channel this way, press **CURSOR ?** to confirm the setting and skip steps 6 through 8.
- If you cannot find the station name you want to set, go on to the next step.

SET UP CH & VIDEO Plus+				
PROG	CH		GUIDE	CH
1	42	BBC1	-	1
2	25	BBC2	-	2
3	27	ITV	-	3
4	56	CH4	-	4
5	36	MTV	-	109
SELECT NAME :				
SET GUIDE CH :				
CONFIRM :				

- 6 Press **CURSOR /** to highlight the guide channel column only.

SET UP CH & VIDEO Plus+				
PROG	CH		GUIDE	CH
1	42	BBC1	-	1
2	25	BBC2	-	2
3	27	ITV	-	3
4	56	CH4	-	4
5	36		-	
SELECT GUIDE CH :				
CONFIRM :				

- 7 Press **CURSOR >/.** to select the guide channel number assigned in the programme guide.

SET UP CH & VIDEO Plus+				
PROG	CH		GUIDE	CH
1	42	BBC1	-	1
2	25	BBC2	-	2
3	27	ITV	-	3
4	56	CH4	-	4
5	36		-	129
SELECT GUIDE CH :				
CONFIRM :				

- 8 Press **CURSOR ?//** to confirm the setting.

The cursor (I) appears in the leftmost column.

SET UP CH & VIDEO Plus+				
PROG	CH		GUIDE	CH
1	42	BBC1	-	1
2	25	BBC2	-	2
3	27	ITV	-	3
4	56	CH4	-	4
5	36		-	129
SELECT :				
MOVE PROG :				
ERASE PROG : [TIMER CLEAR]				

- 9 To set the station name and guide channel of another station, repeat steps 3 through 8.

If you want to change the programme positions of the stations, proceed to step 3 of “Manual setup --- Changing/disabling programme positions” on page 26.

- 10 Press **EXECUTE**.

continued

Manual setup — Selecting station names/setting up VIDEO Plus+ (continued)

Guide channels for VIDEO Plus+

Guide channel	Station name	Guide channel	Station name
001	BBC1	122	TELECLUB
002	BBC2	123	UK GOLD
003	ITV	124	DISCOVERY
004	CHANNEL 4		THE LEARNING CHANNEL
005	RTE (IRELAND)	125	BRAVO
006	NETWORK 2 (IRELAND)		ADULT CHANNEL
101	SKY ONE	126	CNN
102	SKY NEWS	127	EURONEWS
103	SKY MOVIES	129	QVC
104	THE MOVIE CHANNEL	130	UK LIVING
105	SKY SPORT	131	RAI 1
106	NICKELODEON	132	RAI 2
	VH-1 GERMANY	133	TV5 EUROPE
107	EUROSPORT	134	TVE INTERNATIONAL
108	GALAVISION	135	MBC/ARABIC
109	MTV EUROPE	136	VTM
110	CHILDREN'S CHANNEL	137	SPORTNET
	THE FAMILY CHANNEL	138	COUNTRY MUSIC TV
111	SKY MOVIES GOLD	139	VIDEO HITS ONE
112	BBC WORLD SERVICE		VH-1
113	RTL 4	140	SKY SPORT 2 & SOAPS & TRAVEL
114	SUPER SPORT	141	TV ASIA
	FILMNET 2	142	LA-5
	FILMNET +	143	LIVE TV
115	RTL PLUS INTERNATIONAL	144	SUPERCANNEL
116	SAT 1	145	JAPAN TV
117	PREMIERE	146	SELECT TV
118	3 SAT	147	MOVIE CHANNEL
119	ARD		FILMNET 1
120	PRO 7	149	TNT
121	TELE 5		CARTOON NETWORK

Note

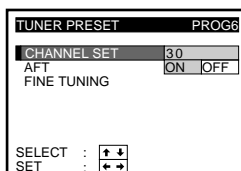
- The guide channel codes listed above are as of 11 September 1995. If you have any questions about the guide channels, please consult your nearest Sony service facility or the marketing group of Sony UK.

Setting up VIDEO Plus+ for satellite broadcasts

If your satellite tuner is connected via the AERIAL IN connector, you must first set the programme position for each satellite channel using the TUNER PRESET menu. Then, set the guide channel number for each satellite channel using the SET UP CH & VIDEO Plus+ menu. If your satellite tuner is connected via the LINE jacks, you don't have to set programme positions and guide channel numbers for satellite channels, and can skip the following operations.

- 1 Turn on the satellite tuner.
- 2 Press MENU. Then select VHS MENU, and press EXECUTE.
- 3 Select TUNER PRESET and press EXECUTE.
- 4 Press PROG +/- to select a programme position you want to use for watching a satellite channel.
- 5 Select CHANNEL SET, then press CURSOR / to tune the unit's VCR to the satellite tuner.

The channel number displayed beside CHANNEL SET is used for receiving all satellite broadcasts from the satellite tuner.

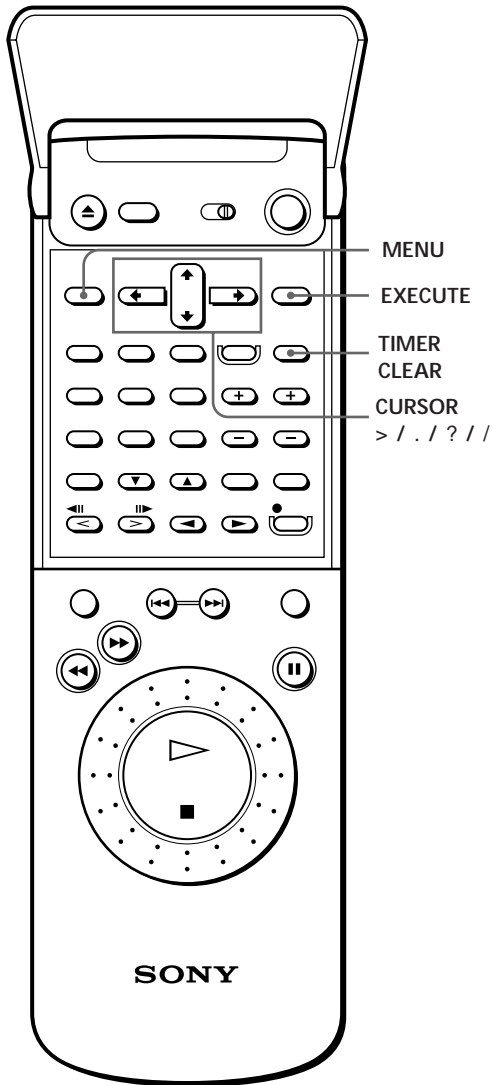


Notes

- If you use a satellite tuner connected via the EURO LINE (Scart) connector, you don't have to set up VIDEO Plus+. Just record a satellite programme using VIDEO Plus+, and the unit's VCR automatically records the programme from the EURO LINE IN connector.
- When you record a satellite broadcast using VIDEO Plus+, you need to select the desired channel on the satellite tuner manually.

- 6 Press PROG +/- to select another programme position for another satellite channel, and press the programme number buttons to enter the same channel number as the one displayed in step 5. Repeat this step for all satellite channels.
- 7 Set the guide channel number for each programme position assigned to the satellite channel, following the procedures in "Manual setup – Selecting station names/setting up VIDEO Plus+" on page 22.

Manual setup -- Changing/disabling programme positions



After setting the channels and VIDEO Plus+ guide channels, you can change the programme positions as you like. If any programme positions are unused or contain unwanted channels, you can disable them.

Before you start...

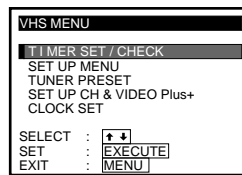
- Press VHS TUNER.
 - If the TV doesn't turn on, turn it on manually. Press VHS TUNER again if connected with a EURO-AV (Scart) cable.
 - If connected with a EURO-AV (Scart) cable, the TV is automatically set to VCR reception.
 - If connected with only the antenna cable, set the TV to the VCR's programme position manually.

Changing programme positions

e.g. Moving the programme position from 3 to 1.

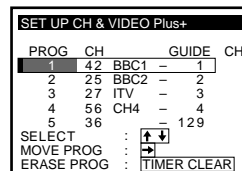
1 Lift the top cover of the remote commander.

Press MENU. Then press CURSOR >/. to move the cursor (I) to VHS MENU, and press EXECUTE.



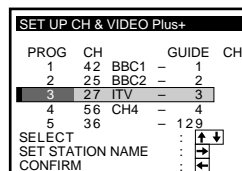
2 Press CURSOR >/. to move the cursor (I) to SET UP CH & VIDEO Plus+ and press EXECUTE.

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



3 Press CURSOR >/. to move the cursor (I) to the row on which you want to change the programme position, then press CURSOR /.

To display other pages for programme positions 6 to 60, press CURSOR >/. repeatedly.



- 4 Press CURSOR >/ . until the selected channel and guide channel row moves to the desired programme position.

The selected channel and guide channel are inserted at the new programme position and the intermediate channels are displaced to fill the gap.

SET UP CH & VIDEO Plus+				
PROG	CH		GUIDE	CH
1	27	ITV	-	3
2	42	BBC1	-	1
3	25	BBC2	-	2
4	56	CH4	-	4
5	36		-	129
SELECT	:			↑ ↓
SET STATION NAME	:			→ ←
CONFIRM	:			↵

- 5 Press CURSOR ? to confirm the setting.
- 6 To change the programme position of another station, repeat steps 3 through 5.
- 7 Press EXECUTE.

Disabling unwanted programme positions

- 1 Lift the top cover of the remote commander.

Press MENU. Then press CURSOR >/ . to move the cursor (I) to VHS MENU, and press EXECUTE.

VHS MENU	
TIMER SET / CHECK	
SET UP MENU	
TUNER PRESET	
SET UP CH & VIDEO Plus+	
CLOCK SET	
SELECT	↑ ↓
SET	EXECUTE
EXIT	MENU

- 2 Press CURSOR >/ . to move the cursor (I) to SET UP CH & VIDEO Plus+ and press EXECUTE.

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

SET UP CH & VIDEO Plus+				
PROG	CH		GUIDE	CH
1	42	BBC1	-	1
2	25	BBC2	-	2
3	27	ITV	-	3
4	56	CH4	-	4
5	36		-	129
SELECT	:			↑ ↓
MOVE PROG	:			→ ←
ERASE PROG	:			TIMER CLEAR

- 3 Press CURSOR >/ . to move the cursor (I) to the row you want to disable.

SET UP CH & VIDEO Plus+				
PROG	CH		GUIDE	CH
1	42	BBC1	-	1
2	25	BBC2	-	2
3	27	ITV	-	3
4	56	CH4	-	4
5	36		-	129
SELECT	:			↑ ↓
MOVE PROG	:			→ ←
ERASE PROG	:			TIMER CLEAR

Note

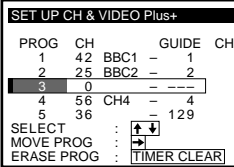
- Be sure to select the correct programme position you want to disable. If you disable a programme position by mistake, you have to reset that channel manually.

continued


Manual setup -- Changing/ disabling programme positions (continued)


- 4 Press **TIMER CLEAR**.

The selected row will be cleared as shown on the right.



PROG	CH	GUIDE	CH
1	42	BBC1	1
2	25	BBC2	2
3	0	-	-
4	56	CH4	4
5	36	-	129

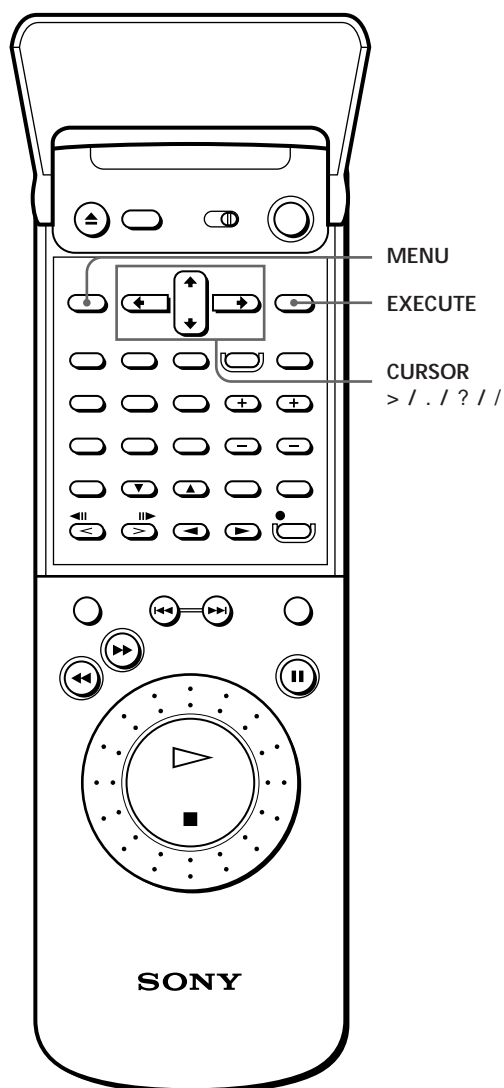
SELECT : 

MOVE PROG : 

ERASE PROG : **TIMER CLEAR**

- 5 Repeat steps 3 and 4 for any other programme positions you want to disable.
- 6 Press **EXECUTE**.

Manual setup — Setting the clock



Tip

- To change the digits during setting, press CURSOR ? to return to the item to be changed, and select the digits using CURSOR >./.

Note

- The menu disappears automatically if you don't proceed within a few minutes.

You must set the time and date on the unit to be able to use the timer recording features. If the unit clock was not set in the EASY SET UP procedure, you need to set it manually.

If Auto Clock Set did not set the clock correctly for your local area, try another station for Auto Clock Set.

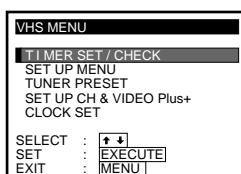
Before you start...

- Press VHS TUNER.
 - If the TV doesn't turn on, turn it on manually. Press VHS TUNER again if connected with a EURO-AV (Scart) cable.
 - If connected with a EURO-AV (Scart) cable, the TV is automatically set to VCR reception.
 - If connected with only the antenna cable, set the TV to the VCR's programme position manually.

Setting the clock manually

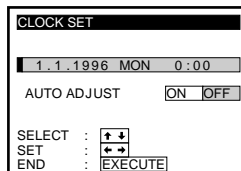
- Lift the top cover of the remote commander.

Press MENU. Then press CURSOR >./ to move the cursor (I) to VHS MENU, and press EXECUTE.

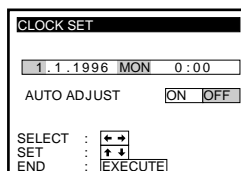


- Press CURSOR >./ to move the cursor (I) to CLOCK SET and press EXECUTE.

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

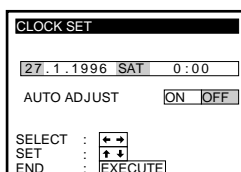


- Press CURSOR / to highlight the date and the day of the week.



- Press CURSOR >./ to set the date.

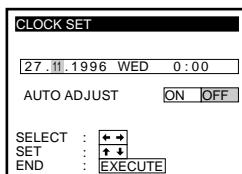
The day of the week is set automatically.



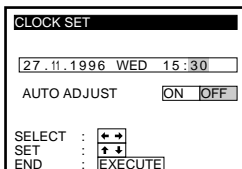
continued

Manual setup — Setting the clock (continued)

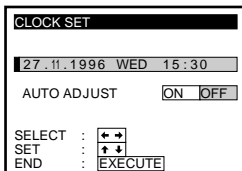
- 5 Press **CURSOR /** to highlight the month, and set the month using **CURSOR >/..**



- 6 Set the year, hour, and minutes in sequence using **CURSOR /** to highlight the item to be set, and **CURSOR >/.** to select the digits.



- 7 Press **CURSOR /** to confirm the setting.
The cursor (**I**) appears in the leftmost column.

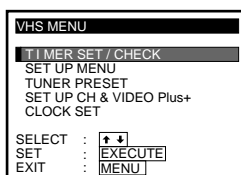


- 8 Press **EXECUTE** to start the clock.

Changing the station for Auto Clock Set

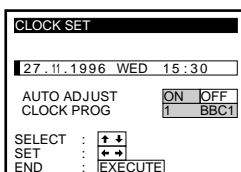
- 1 Lift the top cover of the remote commander.

Press MENU. Then press CURSOR >/ to move the cursor (I) to VHS MENU, and press EXECUTE.

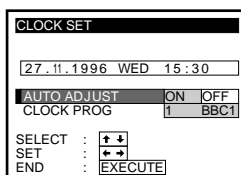


- 2 Press CURSOR >/ to move the cursor (I) to CLOCK SET and press EXECUTE.

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



- 3 Press CURSOR . to move the cursor (I) to AUTO ADJUST, then press CURSOR ? to highlight ON.



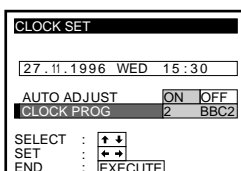
Tip

- If you set AUTO ADJUST to ON, Auto Clock Set is activated whenever the unit is turned off. The date and time are adjusted automatically by referring to the time signal from the station whose programme position is displayed in the "CLOCK PROG" row. If you do not need Auto Clock Set, highlight OFF.

Note

- The menu disappears automatically if you don't proceed within a few minutes.

- 4 Press CURSOR . to move the cursor (I) to CLOCK PROG, then press CURSOR ?// repeatedly until the programme position of the station that carries the time signal appears.

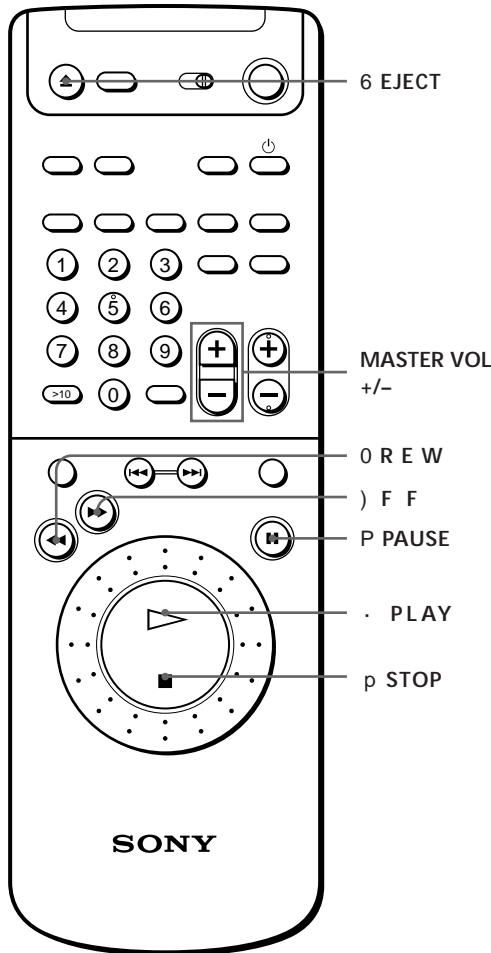
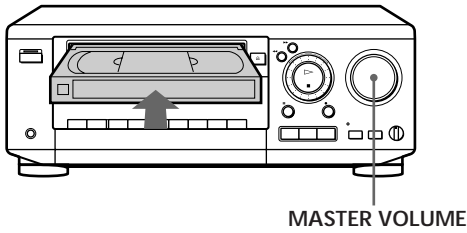


If the unit does not receive the time signal from any station, AUTO ADJUST returns to OFF automatically.

- 5 Press EXECUTE.

Basic VCR Operations

Playing a video tape



Tips

- The unit turns on if you insert a tape while the power is off.
- The counter resets to "0H00M00S" whenever a tape is inserted.

Notes

- The unit's sound won't be reproduced through the TV unless the speaker connectors or TAPE/MD REC OUT jacks are connected to the TV. Normally, the speakers connected to the unit reproduce the sound.

Before you start...

- Turn MASTER VOLUME to the leftmost position (0) to avoid damaging your speakers.

1 Press VHS TUNER.

- If the TV doesn't turn on, turn it on manually.
Press VHS TUNER again if connected with a EURO-AV (Scart) cable.
- If connected with a EURO-AV (Scart) cable, the TV is automatically set to VCR reception.
- If connected with only the antenna cable, set the TV to the VCR's programme position manually.

2 Insert a video tape.

The unit's VCR 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.

4 Press MASTER VOL +/- on the remote commander to adjust the volume.

Additional tasks

To	Press
Stop play	p STOP
Pause play	P PAUSE
Resume play after pause	P PAUSE or . PLAY
Search forward	During playback, press and hold) FF. To resume normal playback, release the button.
Search backward	During playback, press and hold 0 REW. To resume normal playback, release the button.
Fast-forward the tape) FF during stop
Rewind the tape	0 REW during stop
Eject the tape	6 EJECT

To play an NTSC-recorded tape

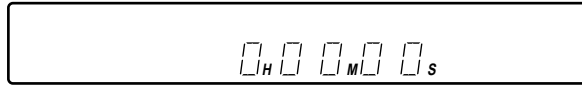
Set NTSC PB on the rear of the unit according to the colour system of your TV.

When your TV is	Set NTSC PB to
PAL only	ON PAL TV
PAL and NTSC	NTSC 4.43

- Depending on your TV, the following may occur while playing an NTSC-recorded tape:
 - The picture is played back in black and white.
 - The picture shakes.
 - No picture appears on the TV screen.
 - Black horizontal streaks appear on the TV screen.
 - The colour density increases or decreases.
- If you play back a tape in LP or EP mode with the NTSC system, the sound is monaural.
- The counter stops counting when it comes to an unrecorded portion.

To use the time counter

At the point on the tape that you want to find later, press COUNTER RESET. The counter in the display window resets to "0H00M00S." To rewind or fast-forward to the "0H00M00S" point, press TAPE RETURN on the unit.

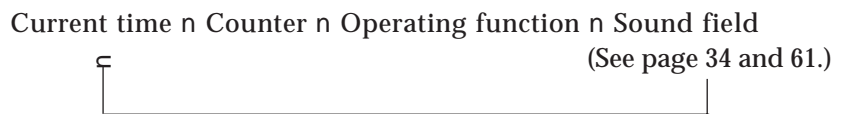


To display the time counter on the TV screen, press DISPLAY.

To change the information in the display window

Press STATUS repeatedly.

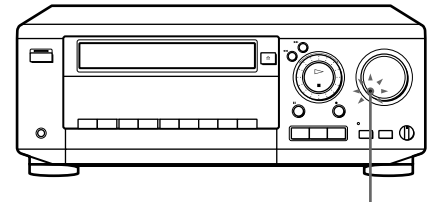
Each press changes the indication in the following way:



Regardless of the selected indication, the operational function and selected sound field appears in the display window momentarily. To display only the indication selected with the STATUS button, set INDICATION in the SET UP MENU to OFF (see page 76).

To mute the sound

Press MUTING on the remote commander or unit. The muting mark appears on the TV screen if the on-screen display function is on, and the MASTER VOLUME indicator on the unit flashes.



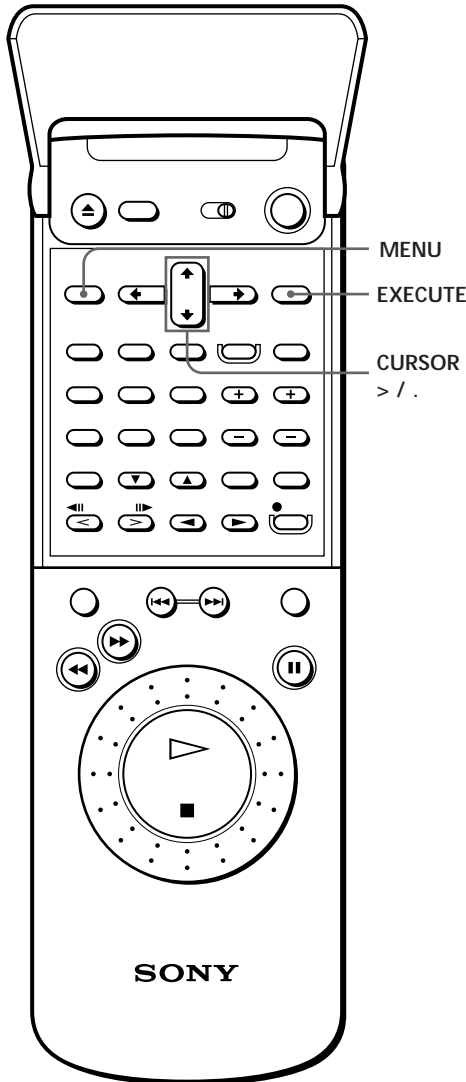
MASTER VOLUME indicator

To restore the sound, press MUTING again.

Note

- If the muting mark doesn't appear on the TV screen, press DISPLAY.

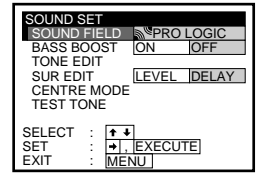
Using the pre-programmed sound fields



You can enjoy the surround sound effect by simply selecting one of the pre-programmed sound fields according to the type of playback source.

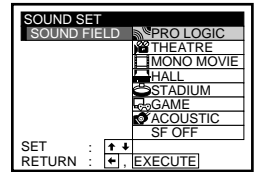
- 1** Lift the top cover of the remote commander.

While playing any source, press **MENU**. Then press **CURSOR >/.** to move the cursor (I) to **SOUND SET**, and press **EXECUTE**.



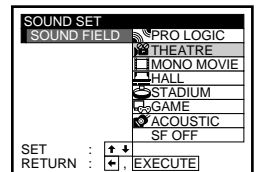
- 2** Press **CURSOR >/.** to move the cursor (I) to **SOUND FIELD** and press **EXECUTE** (or **CURSOR /**).

The current sound field mark is highlighted.



- 3** Press **CURSOR >/.** to highlight the most suitable sound field for the playback source.

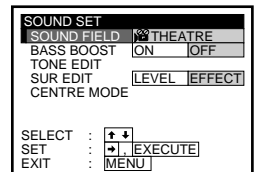
See “Taking advantage of the sound fields” on page 61 for details on selecting a suitable sound field.



- 4** Press **EXECUTE** (or **CURSOR ?**).

The customizing menu for the selected sound field appears.

If you want to customize the sound field, see “Customizing the sound fields” on page 64.

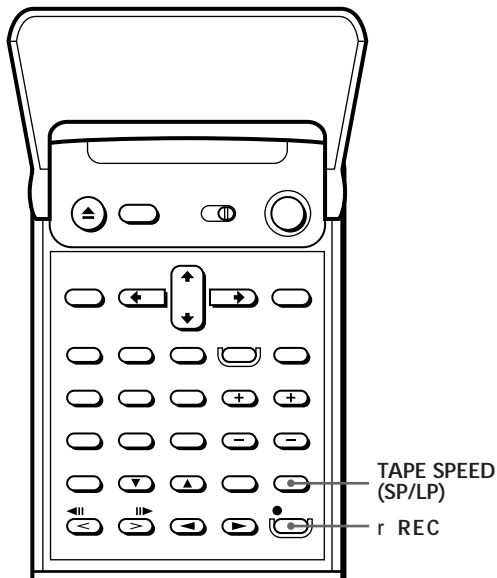
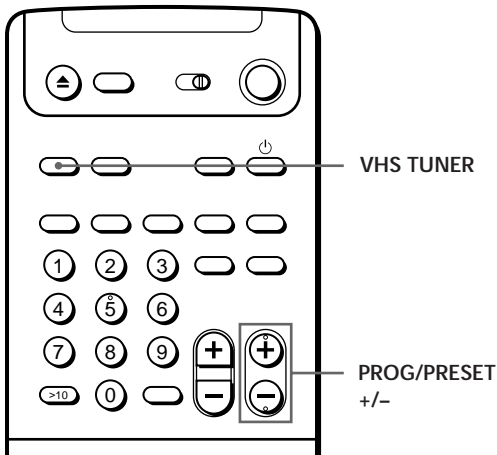


- 5** Press **MENU** to return to the original screen.

The selected sound field mark appears on the TV screen if the display function is on (see “To check the remaining tape length” on the next page).



Recording TV programmes



Tips

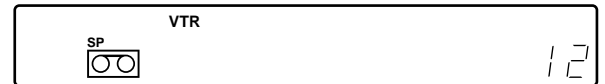
- To select a programme position, you can use the programme number buttons on the remote commander. For two-digit numbers, press the ÷ (tens digit) button followed by the programme number buttons.
- You can select a video source (e.g. a satellite tuner) connected to the EURO LINE IN connector by pressing VHS LINE, or PROG/PRESET +/- repeatedly, until "LINE" is displayed on the TV screen.

(continued)

- Press VHS TUNER.
 - If the TV doesn't turn on, turn it on manually. Press VHS TUNER again if connected with a EURO-AV (Scart) cable.
 - If connected with a EURO-AV (Scart) cable, the TV is automatically set to VCR reception.
 - If connected with only the antenna cable, set the TV to the VCR's programme position manually.

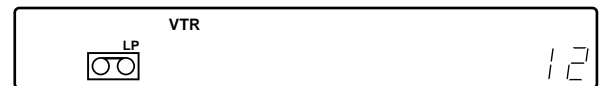
- Insert a tape with its safety tab in place.

- Press PROG/PRESET +/- to select the programme position you want to record.



- Lift the top cover of the remote commander and press TAPE SPEED to select the tape speed, SP or LP.

LP provides twice as much recording time as SP, however, SP produces better picture and audio quality.



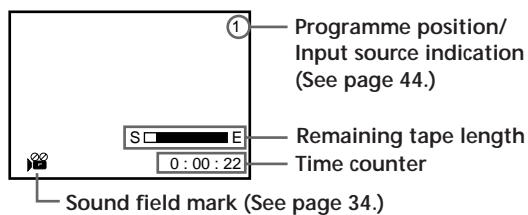
- Press r REC to start recording.

To stop recording

Press p STOP.

To check the remaining tape length

Press DISPLAY. The display function turns on. The white bar indicates the approximate length of tape remaining.



To watch another TV programme while recording

- Press TV CONTROL ON on the remote commander. "VTR" in the display window disappears.
- Select another programme position on the TV.

continued

Recording TV programmes (continued)

Tips (continued)

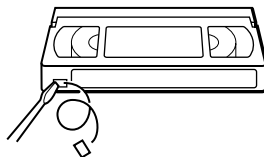
- Information about the tape appears on the TV screen, but the information won't be recorded on the tape.
- If you don't want to watch TV while recording, you can turn off the TV.
- You can enjoy watching or listening to another input source even while recording.

Notes

- The display does not appear during still (pause) mode or slow-motion playback.
- The display will not appear while playing an NTSC-recorded tape.
- If a tape has portions recorded in both PAL and NTSC systems, the time counter reading will not be correct. This discrepancy is due to the difference between the counting cycles of the two video systems.

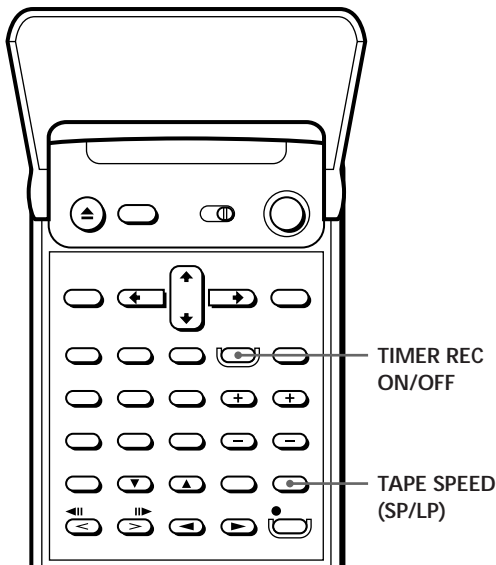
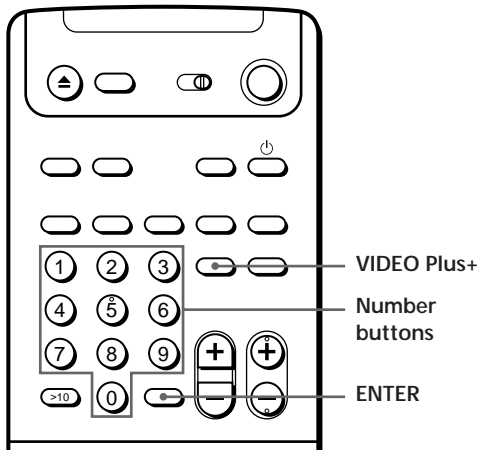
To save a recording

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



Safety tab

Recording TV programmes using VIDEO Plus+

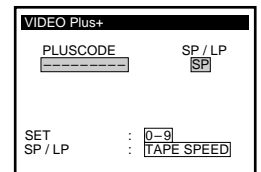


Just enter the programme's "PlusCode" listed in the TV programme guide. The date, times and programme position of that programme are set automatically. You can preset up to eight programmes at a time.

Before you start...

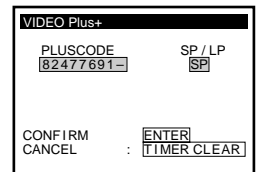
- Check that the unit's clock is set to the correct time.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.
- Press VHS TUNER.
 - If the TV doesn't turn on, turn it on manually. Press VHS TUNER again if connected with a EURO-AV (Scart) cable.
 - If connected with a EURO-AV (Scart) cable, the TV is automatically set to VCR reception.
 - If connected with only the antenna cable, set the TV to the VCR's programme position manually.

1 Press VIDEO Plus+.

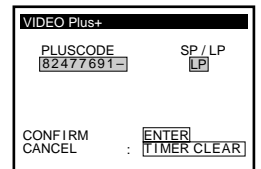


2 Press the number buttons to enter the programme's PlusCode.

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



3 Lift the top cover of the remote commander, then press TAPE SPEED to select SP or LP.



Tip

- To cancel the procedure, press VIDEO Plus+ before pressing ENTER.

Note

- If the unit's VCR beeps repeatedly, the PlusCode is incorrect.

continued

Recording TV programmes using VIDEO Plus+ (continued)

Tip

- TIMER REC on the unit has the same function as TIMER REC ON/OFF on the remote commander.

Note

- If you selected any audio input while watching the unit's VCR picture before the unit's VCR enters recording standby, only the picture switches to the TV after you press TIMER REC ON/OFF.

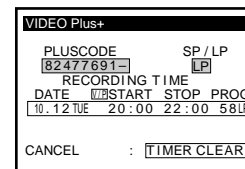
4 Close the top cover of the remote commander, then press ENTER to confirm.

The date, start and stop times, programme position, and tape speed appear on the TV screen.

If you want to turn on the PDC function, or add daily/weekly settings on the programme, see page 40 and change the TIMER SET/CHECK menu.

For details on the PDC function, see "Timer recording with PDC signals" on page 41.

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



5 To enter another setting, repeat steps 1 through 4.

6 Press TIMER REC ON/OFF.

The TIMER indicator appears in the display window and the unit's VCR stands by for timer recording.

The picture and sound switch to the TV.

To stop recording

To stop the unit's VCR while recording, press TIMER REC ON/OFF.

To record satellite broadcasts

If you connect a satellite tuner and the unit, you can record satellite programmes.

- 1 Turn on the satellite tuner.
- 2 Press VHS LINE (if the satellite tuner is connected to the unit with the LINE jacks).
- 3 On the satellite tuner, select the satellite programme for which you wish to make a timer setting.
- 4 Repeat the steps 1 through 6 starting on page 37.
- 5 Keep the satellite tuner turned on until the unit's VCR finishes the timer recording.

Using the unit after setting the timer

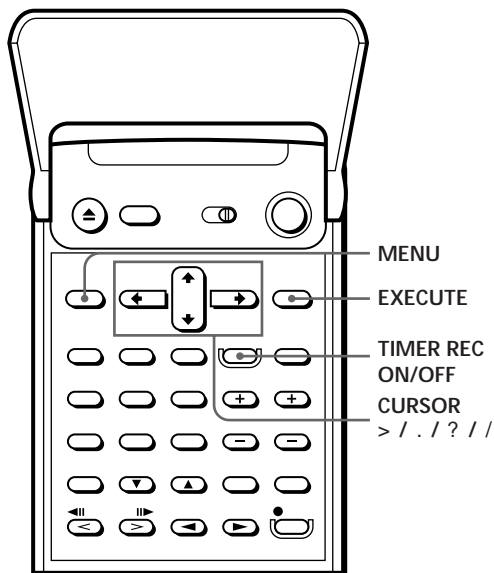
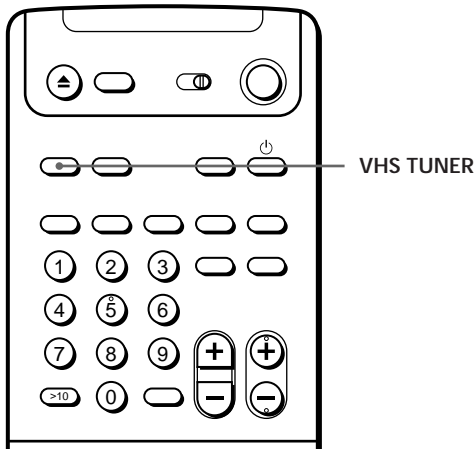
You can use the unit to select and listen to or watch other input sources (see “Audio/Video Equipment Operations” from page 44) during timer recording standby and timer recording.

To use the unit’s VCR before a timer recording begins, just press **TIMER REC ON/OFF**. The **TIMER** indicator turns off and the unit’s VCR switches on. Remember to press **TIMER REC ON/OFF** again to reset the timer after using the unit’s VCR.

You can also do the following VCR related tasks while the unit’s VCR is recording:

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

Setting the timer manually



Tip

- To set the programme position, you can also use the PROG +/- or programme number buttons.

Notes

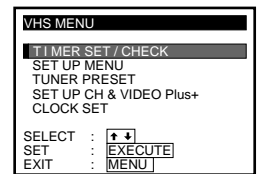
- When setting the timer with PDC signals, enter the start and stop times exactly as indicated in the TV programme guide, otherwise the PDC function won't work.
- If the PDC signal is too weak or the broadcasting station failed to transmit PDC signals, the unit's VCR will start recording at the set time without using the PDC function.

If VIDEO Plus+ is not available in your area, follow the instructions below to set the timer to record programmes

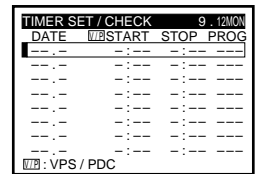
Before you start...

- Check that the unit's clock is set to the correct time.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.
- Press VHS TUNER.
 - If the TV doesn't turn on, turn it on manually, and press VHS TUNER again if connected with a EURO-AV (Scart) cable.
 - If connected with a EURO-AV (Scart) cable, the TV is automatically set to VCR reception.
 - If connected with only the antenna cable, set the TV to the VCR's programme position manually.

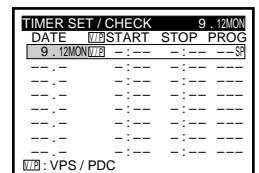
1 Lift the top cover of the remote commander.
Press MENU. Then press CURSOR >/. to move the cursor (I) to VHS MENU, and press EXECUTE.



2 Press CURSOR >/. to move the cursor (I) to TIMER SET/CHECK, then press EXECUTE.



3 Set the date, PDC function, start and stop times, programme position, and tape speed:



- Press CURSOR / to highlight each item in turn.
- Press CURSOR >/. to set each item.
To correct a setting, press CURSOR ? to return to that setting and reset.

To record the same programme every day or on the same day every week, press CURSOR . while the date is highlighted. For details, see "Daily/weekly recording" on the next page.

If you don't want to use the PDC function, highlight the " [V/P] " column and press CURSOR >/. to turn off "[V/P] ." For details, see "Timer recording with PDC signals" on the next page.

To record from a satellite tuner or other source connected to the EURO LINE IN connector, press CURSOR >/. in the "PROG" column repeatedly to display "LINE."

- “TIMER” flashes in the display window if you press TIMER REC ON/OFF with no tape inserted.
- You can only timer record TV programmes from the unit’s VCR tuner, or EURO LINE IN input sources.

Note

- If you selected any audio input while watching the unit’s VCR picture before the unit’s VCR enters recording standby, only the picture switches to the TV after you press TIMER REC ON/OFF.

4 Press CURSOR / to confirm the setting.

The cursor (I) appears at the beginning of the line. To enter another setting, move the cursor to the next line and repeat step 3.

5 Press EXECUTE.

6 Press TIMER REC ON/OFF.

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

The picture and sound switch to the TV.

To record from a satellite tuner or other source, leave the connected equipment switched on.

To stop recording

To stop the unit’s VCR while recording, press TIMER REC ON/OFF.

Daily/weekly recording

In step 3 above, press CURSOR . in the “DATE” column to select the recording pattern. Each time you press CURSOR ., the indication changes as shown below.

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

Timer recording with PDC signals

The broadcast systems transmit VPS (Video Programme System) or PDC (Programme Delivery Control) signals with their TV programmes. These signals ensure that your timer recordings are made regardless of broadcast delay, early starts or broadcast interruptions.

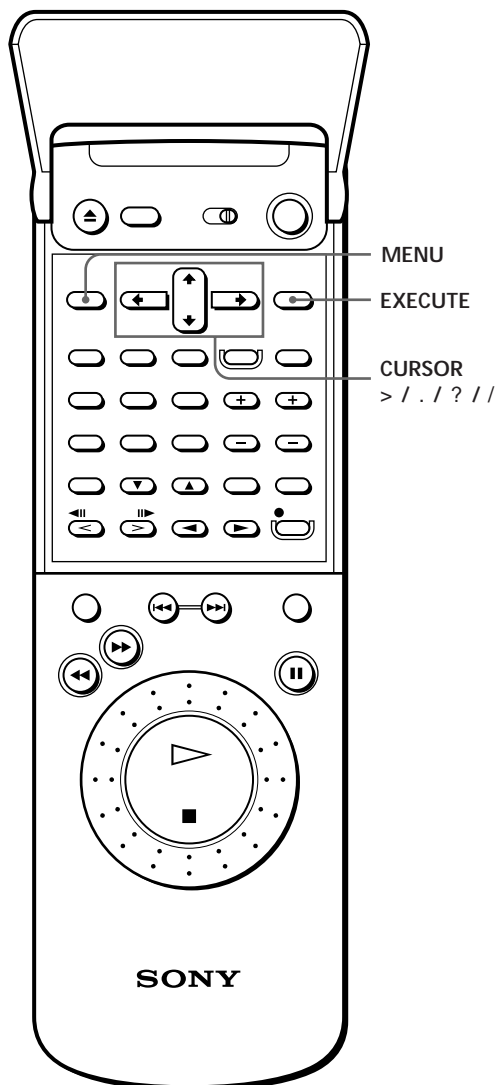
In step 3 above, press CURSOR >/. to turn the indicator on or off after you set the recording date. If you do not want to set the PDC function, turn off the indicator.

You can also use the PDC function for equipment connected to the EURO LINE IN connector.

Using the unit after setting the timer

See page 39.

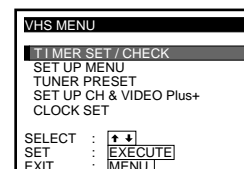
Checking/changing/ cancelling timer settings



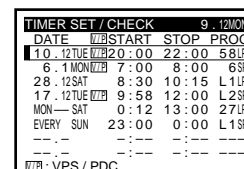
Before you start...

- Press VHS TUNER.
 - If the TV doesn't turn on, turn it on manually. Press VHS TUNER again if connected with a EURO-AV (Scart) cable.
 - If connected with a EURO-AV (Scart) cable, the TV is automatically set to VCR reception.
 - If connected with only the antenna cable, set the TV to the VCR's programme position manually.

- 1 Lift the top cover of the remote commander.**
Press **MENU**. Then press **CURSOR >/.** to move the cursor (I) to **VHS MENU**, and press **EXECUTE**.



- 2 Press CURSOR >/.** to move the cursor (I) to **TIMER SET/CHECK**, then press **EXECUTE**.
 - If you want to change a setting, go on to the next step.
 - If you do not need to change the settings, press **EXECUTE**, then turn off the unit's VCR to return to recording standby.

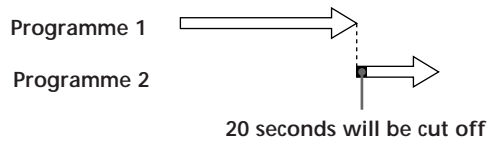
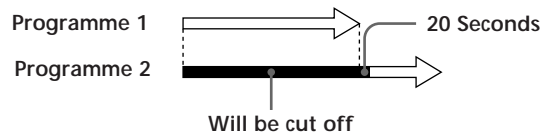


- 3 Press CURSOR >/.** to select the setting you want to change or cancel:
 - To change the setting, press **CURSOR ?//** to highlight the item you want to change, then press **CURSOR >/.** to reset it. To cancel the PDC function, turn off the **[V/P]** indicator. Then, press **CURSOR /** repeatedly until the cursor (I) appears at the beginning of the line.
 - To cancel the setting, press **TIMER CLEAR**.

- 4 Press EXECUTE.**
If any settings remain, turn off the unit's VCR to return to recording standby.

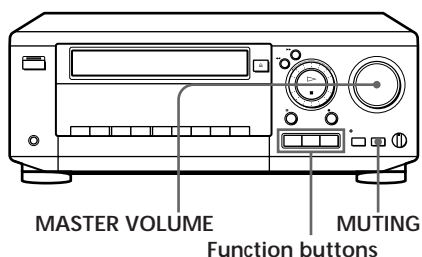
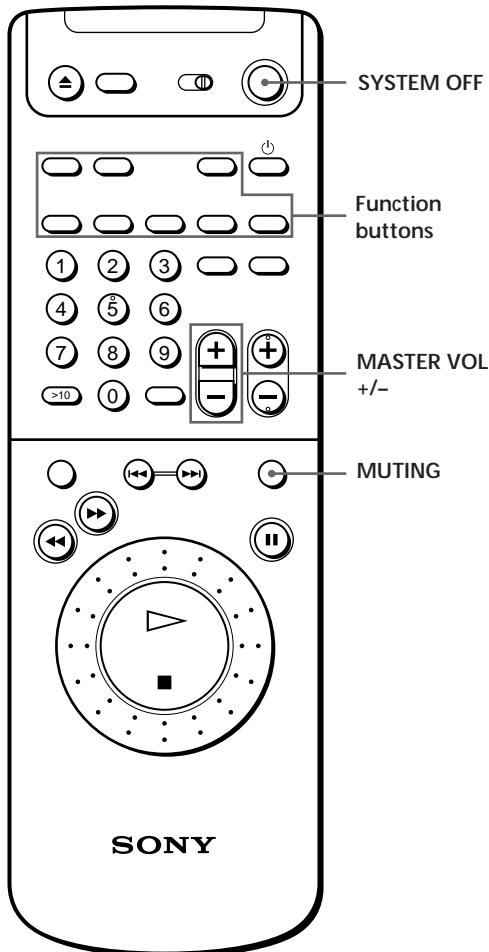
When the timer settings overlap

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



Audio/Video Equipment Operations

Selecting the equipment



You can control the connected audio and video equipment with this remote commander. Before operating any equipment, press the function button corresponding to the equipment. Note that all equipment must be made by Sony to control with the remote commander.

Controlling the function buttons

The function buttons of the remote commander have the following three roles.

- Turning on the unit and related piece of equipment (excluding audio components).
- Switching the input source.
- Switching the remote commander to operate the selected equipment (see the sections for controlling each piece of equipment from page 47 to 60).

To change the input source, you can also use the function buttons on the unit.

The following tables show the relationship between the function buttons (on the remote commander and unit) and the input source.

Function buttons on the remote commander (SYSTEM CONTROL/FUNCTION)

Press	The following indication appears on the TV screen	And the unit's input switches to the
VHS TUNER	Programme position	Unit's VCR
VHS LINE	LINE	EURO LINE IN connector
VIDEO1	VIDEO1	VIDEO1 (VIDEO IN, AUDIO L/R IN) jacks
VIDEO2	VIDEO2	VIDEO2 INPUT (VIDEO, AUDIO L/R) jacks
TV*1	(TV)*2	EURO-AV connector
CD	CD	CD (AUDIO L/R IN) jacks
TUNER	TUNER	TUNER (AUDIO L/R IN) jacks
TAPE/MD	TAPE/MD	TAPE/MD (AUDIO L/R IN) jacks

*1 If the TV is connected to the unit with only the aerial cable, the unit's speakers do not reproduce the sound even if you press this button. When you use the TV tuner, press TV CONTROL ON (see "Using the TV independently" on page 50).

*2 "TV" usually doesn't appear on the TV screen. If another monitor is connected to the MONITOR VIDEO OUT jack, "TV" appears on the monitor screen.

Function buttons on the unit (FUNCTION)

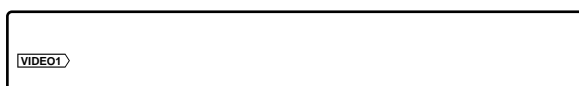
Press the following button repeatedly	Until the following indication appears on the TV screen	Then the unit's input switches to the
VHS	Programme position	Unit's VCR
VIDEO*1	LINE	EURO LINE IN connector
	(TV)*2	EURO-AV connector
	VIDEO1	VIDEO1 (VIDEO IN, AUDIO L/R IN) jacks
AUDIO	VIDEO2	VIDEO2 INPUT (VIDEO, AUDIO L/R) jacks
	TUNER	TUNER (AUDIO L/R IN) jacks
	CD	CD (AUDIO L/R IN) jacks
	TAPE/MD	TAPE/MD (AUDIO L/R IN) jacks

*1 If the TV is connected to the unit with only the aerial cable, the unit's speakers do not reproduce the sound even if you select the TV with this button. When you use the TV tuner, press TV CONTROL ON (see "Using the TV independently" on page 50).

*2 "TV" usually doesn't appear on the TV screen. If another monitor is connected to the MONITOR VIDEO OUT jack, "TV" appears on the monitor screen.

Watching a picture while listening to audio equipment

If you change the input from a video source to an audio source, the sound will be switched to the audio source but the picture continues to be output. The last selected video source's indicator remains lit in the display window.



Before operating audio/video equipment

- Connect all the components securely and correctly as indicated on pages 6 through 12.
- Turn MASTER VOLUME to the leftmost position (0) to avoid damaging the speakers.
- Note that you may not be able to control all the functions of the equipment described in these Operating Instructions with the remote commander. In this case, refer to the operating instructions of each piece of equipment.

If there is any function you cannot control with the remote commander, use the remote control of each piece of equipment.

continued

Selecting the equipment (continued)

Using the operations common to all equipment

To increase or decrease the volume

Press MASTER VOL +/- on the remote commander, or turn MASTER VOLUME on the unit clockwise or anticlockwise.

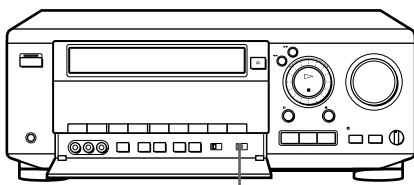
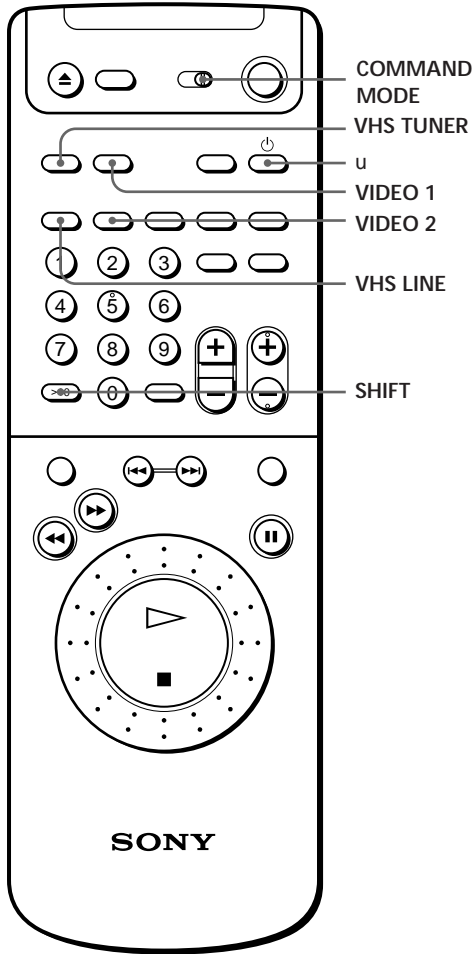
To mute the sound

Press MUTING. To restore the sound, press it again.

To turn off the whole system

Press SYSTEM OFF.

Controlling VCRs



VTR COMMAND MODE OFF/1/2/3

Controlling VCRs which have the COMMAND MODE selector

To control a VCR with the remote commander, set the COMMAND MODE selectors on the remote commander and the VCR to the same position. The COMMAND MODE*¹ selectors on both the unit and remote commanders are factory set to VTR3. Be sure to set the COMMAND MODE selector on each VCR to a different position to operate each VCR independently.

If the COMMAND MODE selector on a VCR is set to OFF, you cannot control that VCR with the remote commander.

If the COMMAND MODE selector on this unit is set to OFF, although you cannot control the unit's VCR with the remote commander, MASTER VOL +/-, MUTING, and the function buttons on the remote commander can operate the unit.

*¹ The selector's name on the unit is VTR COMMAND MODE, however, it is described as COMMAND MODE in these Operating Instructions for the sake of convenience.

Controlling a VCR which doesn't have a COMMAND MODE selector

If a VCR has no COMMAND MODE selector, set COMMAND MODE on the remote commander in the following way.

If your VCR is a	Set COMMAND MODE to
Sony Betamax format VCR	VTR1
Sony 8mm format VCR	VTR2
Sony VHS format VCR	VTR3

If you have another VHS format VCR, set COMMAND MODE on the unit to VTR1 or VTR2.

Turning on and controlling the unit's VCR

- 1 Set COMMAND MODE on the remote commander to the same position as COMMAND MODE on the unit.
- 2 Press VHS TUNER.
 - If the TV doesn't turn on, turn it on manually. Press VHS TUNER again if connected with a EURO-AV (Scart) cable.
 - If connected with a EURO-AV (Scart) cable, the TV is automatically set to VCR reception.
 - If connected with only the antenna cable, set the TV to the VCR's programme position manually.

continued

Turning on and controlling another VCR

- 1 Set COMMAND MODE on the remote commander to the same position as COMMAND MODE on the other VCR.
If the other VCR doesn't have a COMMAND MODE selector, set COMMAND MODE on the remote commander according to the table in "Controlling a VCR which has no COMMAND MODE selector" on the previous page.
- 2 Press VIDEO1, VIDEO2, or VHS LINE depending on which jacks the other VCR is connected to.
The other VCR and TV turn on, and the corresponding input source is selected.

Customizing the remote commander to make controlling other VCRs easier

Initially VIDEO1 and VIDEO2 only select the input source, and COMMAND MODE on the remote commander determines which VCR you can control with the remote commander.

However, you can customize VIDEO1 and VIDEO2 on the remote commander to control the other VCR.

While pressing either VIDEO1 or VIDEO2,

- press number button 7 to control the VCR with its COMMAND MODE selector set to VTR1, or Betamax format VCR;
- press number button 8 to control the VCR with its COMMAND MODE selector set to VTR2, or 8mm format VCR; or,
- press number button 9 to control the VCR with its COMMAND MODE selector set to VTR3, or VHS format VCR.

The customized button is no longer related to the COMMAND MODE position. To turn on and control the other VCR with the remote commander, simply press the customized VIDEO1 or VIDEO2 button.

To relate VIDEO1 or VIDEO2 with COMMAND MODE again

While pressing VIDEO1 or VIDEO2, press SHIFT.

Using the remote commander buttons to control the other VCR

You can control the other VCR with the same buttons you use to control this unit's VCR. Note that the VIDEO Plus+, DISPLAY, MENU, CURSOR >/./?//, TIMER REC ON/OFF, and TIMER CLEAR buttons, and the CLICK SHUTTLE ring don't operate other VCRs.

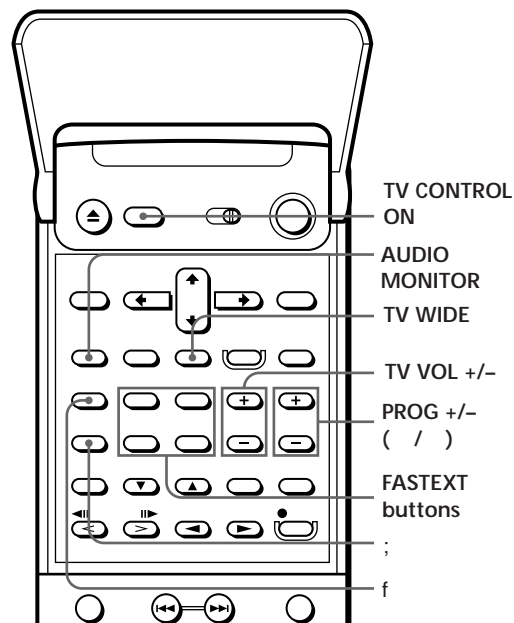
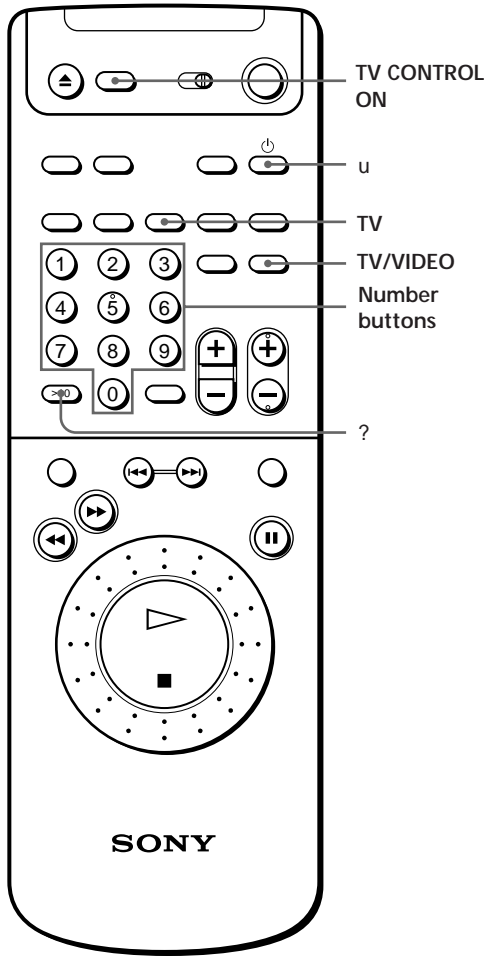
Turning off the selected VCR

Press u while the remote commander is in the selected VCR operation mode.

Note

- You cannot do this customizing for VHS TUNER or VHS LINE. These buttons are always related to the COMMAND MODE position.

Controlling the TV



Watching a TV programme

- 1 Press TV.
The TV and unit turn on.
- 2 Press the number buttons to select the programme position.
For two-digit numbers, press ? before pressing the number buttons.
To scan through programme positions, lift the top cover of the remote commander, then press PROG +/-.

Selecting a stereo or bilingual programme

Press AUDIO MONITOR. Each press changes the sound between bilingual and stereo.

Using the WIDE function

Press TV WIDE. Each press changes the WIDE mode.

Displaying Teletext

- 1 Select a TV channel which carries the Teletext broadcast you want to watch.
- 2 Lift the top cover of the remote commander and press f to display the Teletext.

To access the next or previous page

Lift the top cover of the remote commander and press PROG +/- (/).

To turn off Teletext

Press ;.

Using FASTEXT

This feature allows you to quickly access a Teletext page that uses FASTEXT. When a FASTEXT page is broadcast, a colour-coded menu appears at the bottom of the screen. The colours of the menu correspond to the red, green, yellow, and blue buttons on the remote commander. These coloured buttons function as the FASTEXT buttons in Teletext mode.

Press the coloured button which corresponds to the colour-coded menu. The page is displayed after a few seconds.

Note

- You cannot use the on-screen display while the unit is in TV control mode.

continued

Controlling the TV (continued)

Using the TV independently

Press TV CONTROL ON.

The TV turns on.

You can use the buttons described above to control the TV.

To control the volume, lift the top cover of the remote commander and press TV VOL +/-.

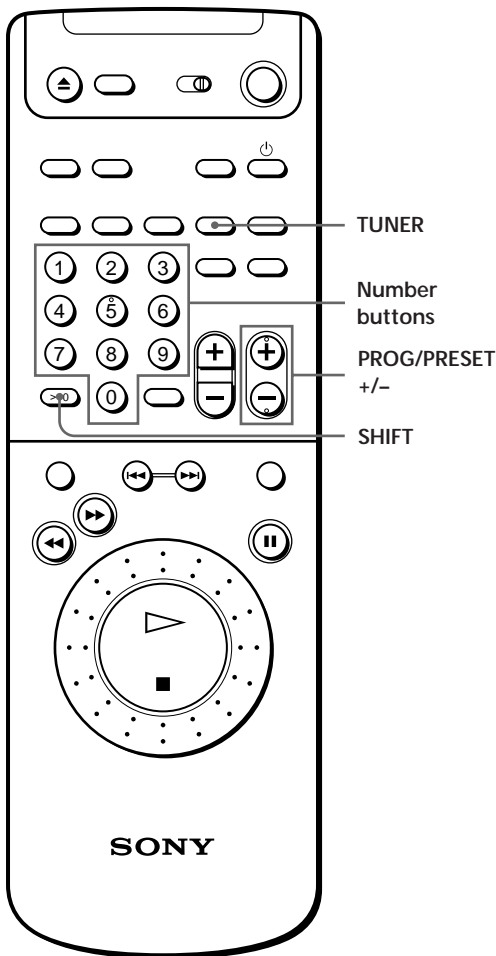
To select the TV's input source

Press TV/VIDEO repeatedly until you have the desired input source.

Turning off the TV

Press u while the remote commander is in TV control mode.

Listening to a radio programme



Listening to preset radio programmes

- 1 Press TUNER, and turn on the tuner.
The unit turns on and switches the input source to the tuner connected to the TUNER jacks.
- 2 Select the preset number by pressing the number buttons.

To scan preset stations

Press PROG/PRESET +/- . Each press changes the preset number. Press and hold this button to keep changing the preset numbers.

To use the tuner with the A, B, and C categorization system

- 1 Press TUNER, and turn on the tuner.
The unit turns on and switches the input source to the tuner connected to the TUNER jacks.
- 2 Press SHIFT repeatedly to select A, B, or C, then press the number.
For example, select A and press 7 to tune in the station preset as A7.

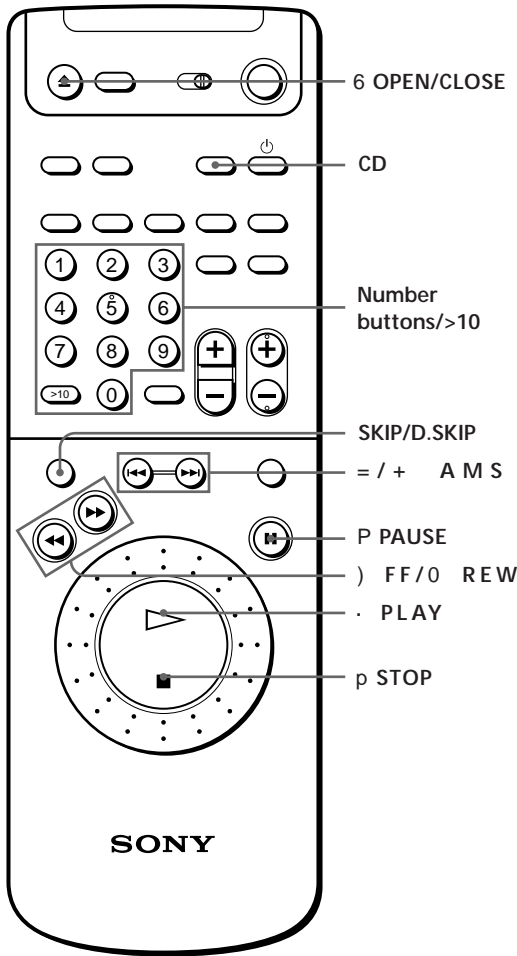
To scan the preset stations

Press PROG/PRESET +/- in step 2 above. Each press changes the preset number as follows:

A1 ~ A2 ~ ... ~ A0 ~ B1 ~ B2 ~ ... ~ B0 ~ C1 ~ C2 ~ ... ~ C0

Press and hold this button to keep changing the preset numbers.

Playing back a CD



- 1 Press CD and turn on the CD player.
The unit turns on and switches the input source to the CD player connected to the CD jacks.
- 2 Press 6 OPEN/CLOSE to open the disc tray.
If the disc tray or cover doesn't open, refer to your CD player's operating instructions.
- 3 Load a CD or CDs referring to your CD player's operating instructions.
- 4 Press 6 OPEN/CLOSE to close the disc tray.
If the disc tray or cover doesn't close, refer to your CD player's operating instructions.
Depending on the CD player, you can skip this step. Refer to your CD player's operating instructions.
- 5 Press · PLAY.
Depending on the CD player, you can skip this step. Refer to your CD player's operating instructions.

Additional tasks

To	Press
Stop play	p STOP
Pause play	P PAUSE
Resume play after pause	P PAUSE or · PLAY
Scan forward or backward	And hold) FF or 0 REW during playback
Locate the beginning of other tracks	= / + AMS repeatedly
(Stop and) remove the CD This function doesn't operate some CD players.	6 OPEN/CLOSE
Close the tray This function doesn't operate some CD players.	6 OPEN/CLOSE
Select other discs This function only works for CD players with a built-in multi-disc changer.	SKIP/D.SKIP repeatedly during playback or before playback

To locate a track with the number buttons

Press one of the number buttons for single digit track numbers (except 0).

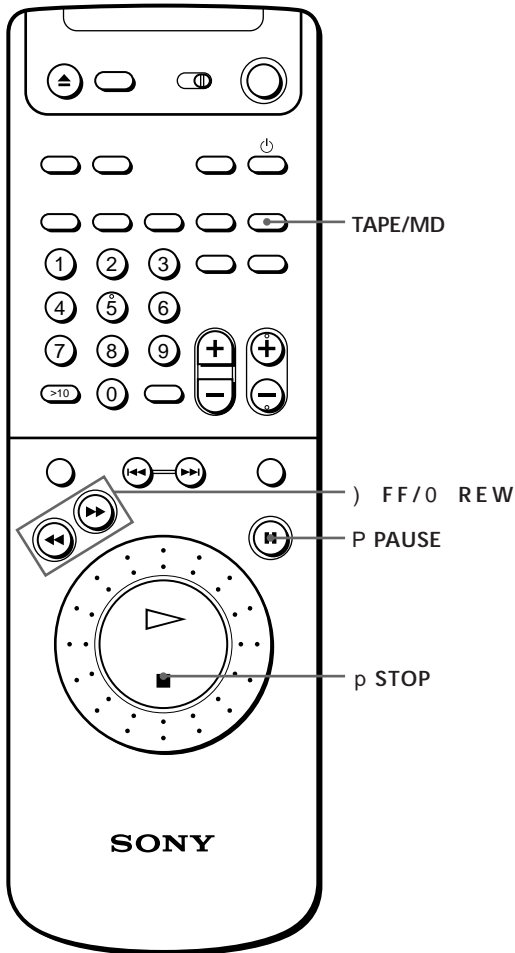
To locate the 10th track, press 1, then 0.

To enter a track number over 10, first press >10, then any number button for the tens digit except 0, and the number button for the ones digit.

Examples of entering the two-digit number

To	Press
Enter 30	>10, then 3, and 0
Enter 24	>10, then 2, and 4

Controlling a cassette deck



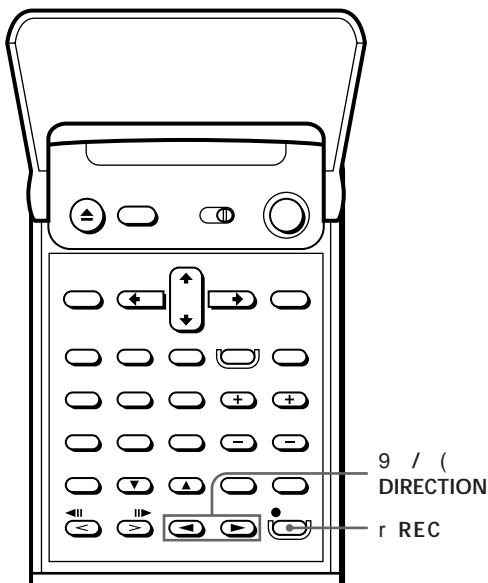
The remote commander's TAPE/MD button is factory set to work for single-cassette decks or deck B if you have a double-cassette deck. If you want the remote commander operate deck A, you need to customize your remote commander. See "Customizing the remote commander for deck A of a double-cassette deck" on the next page.

Playing a tape

- 1 Press TAPE/MD, and turn on the cassette deck.
The unit turns on and switches the input source to the cassette deck connected to the TAPE/MD jacks.
- 2 Insert a recorded cassette (into deck B for double-cassette decks) referring to your cassette deck's operating instructions.
- 3 Lift the top cover of the remote commander and press (DIRECTION.
For reverse side playback, lift the top cover of the remote commander and press 9 DIRECTION.

Additional tasks

To	Press
Stop play	p STOP
Pause play	P PAUSE
This function doesn't operate some cassette decks.	
Resume play after pause	(DIRECTION, 9 DIRECTION, or P PAUSE
Fast-forward) FF
Rewind	0 REW



Recording on a tape

- 1 Press TAPE/MD, and turn on the cassette deck.
The unit turns on and switches the input source to the cassette deck connected to the TAPE/MD jacks.
- 2 Insert a blank cassette with its erasure prevention tabs in place (into deck B for a double-cassette deck) referring to your cassette deck's operating instructions.
- 3 Select the input source by pressing one of the function buttons on the unit.
If you want to select the unit's VCR or piece of equipment connected to the LINE jacks, press VHS repeatedly to display a programme position or "LINE" on the TV screen.
If you want to select a piece of equipment connected to the VIDEO 1 or VIDEO 2 jacks, press VIDEO repeatedly to display "VIDEO 1" or "VIDEO 2" on the TV screen.
If you want to select the CD player or tuner, press AUDIO repeatedly to display "CD" or "TUNER" on the TV screen.

continued

Controlling a cassette deck (continued)

- 4 Lift the top cover of the remote commander and press **r REC** to set the cassette deck to recording pause.
- 5 Press **(DIRECTION** (or **9 DIRECTION** to record on the reverse side).
Recording starts.
- 6 Play back the programme source.

Additional tasks

To	Press
Stop recording	p STOP
Pause recording	P PAUSE
Resume recording	P PAUSE, (DIRECTION, or 9 DIRECTION

Customizing the remote commander for deck A of a double-cassette deck

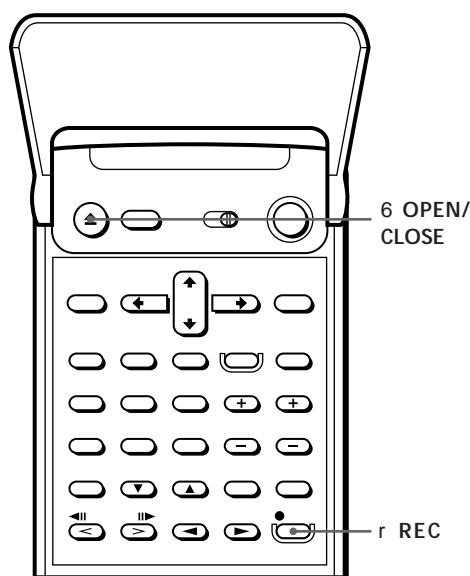
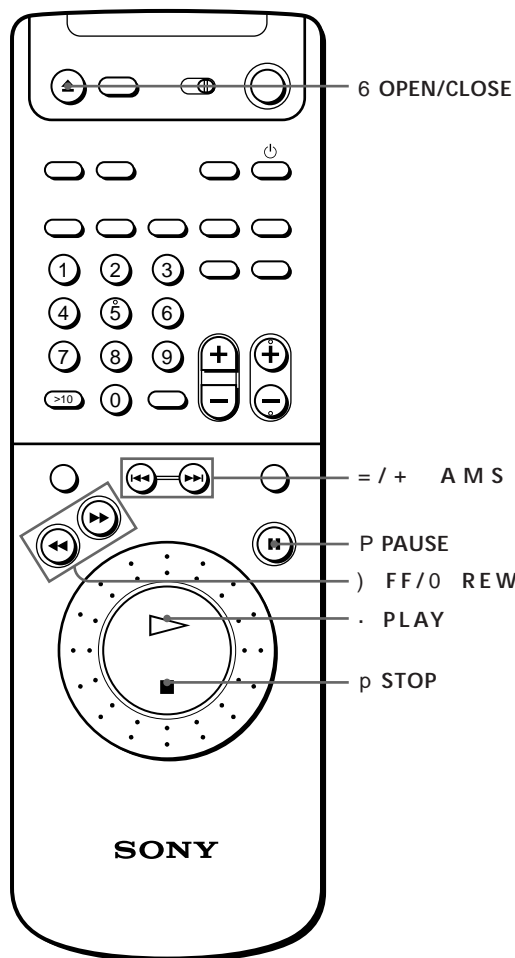
The remote commander's TAPE/MD button is factory set to operate single-cassette decks or deck B if you have a double-cassette deck. To control deck A, first you need to customize one of the function buttons for deck A.

You can customize the VIDEO 1, VIDEO 2, CD, TAPE/MD, or TV function buttons. While pressing the selected function button, press the number button 5. (You must select the function button corresponding to the input jacks the cassette deck is connected to.)

Now that function button operates deck A. To change the button's function again, see "Customizing the remote commander function buttons" on page 80.

To play back a tape, follow the instructions in "Playing a tape" on the previous page. During the procedure, press the function button you customized for deck A in step 1 instead of TAPE/MD, and insert a recorded cassette into deck A in step 2 instead of deck B.

Controlling a DAT deck



Customizing the remote commander for a DAT deck

The remote commander is not factory set to control DAT decks. So you need to customize the function button corresponding to the jacks the DAT deck is connected to. For example, if you connect the DAT deck to the TAPE/MD jacks, customize TAPE/MD for the DAT deck in the following way.

While pressing the function button (e.g. TAPE/MD), press number button 2.

The function button is customized to control the DAT deck.

You can customize the VIDEO 1, VIDEO 2, CD, TAPE/MD, or TV function buttons. To change the button's function again, see "Customizing the remote commander function buttons" on page 80.

Playing a tape

- 1 Press the function button you customized for the DAT deck, and turn on the DAT deck.
The unit turns on and switches the input source to the jacks the DAT deck is connected to.
- 2 Press 6 OPEN/CLOSE to open the cassette cover/holder.
If the cassette cover/holder doesn't open, refer to your DAT deck's operating instructions.
- 3 Insert a cassette.
- 4 Press . PLAY.
The deck starts playing a tape.

Additional tasks

To	Press
Stop playing	p STOP
Go to the next track	+ A M S
Go to the preceding track	= A M S
Fast-forward or rewind) FF or 0 REW during stop
Monitor the sound during fast-forward or rewind) FF or 0 REW during playback. To resume normal playback, release the button.
Eject the cassette	6 OPEN/CLOSE during stop

continued

Controlling a DAT deck (continued)

Recording on a tape

- 1 Press the function button you customized for the DAT deck, and turn on the DAT deck.

The unit turns on and switches the input source to the TAPE/MD jacks the DAT deck is connected to.

- 2 Insert a cassette with the record-protect tab closed.
- 3 Select an input source by pressing one of the function buttons on the unit.

If you want to select the unit's VCR or piece of equipment connected the LINE jacks, press VHS repeatedly to display a programme position or "LINE" on the TV screen.

If you want to select a piece of equipment connected to the VIDEO 1 or VIDEO 2 jacks, press VIDEO repeatedly to display "VIDEO 1" or "VIDEO 2" on the TV screen.

If you want to select the CD player or tuner, press AUDIO repeatedly to display "CD" or "TUNER" on the TV screen.

- 4 Locate the point you want to start recording from.
To record from the beginning of the tape, press 0 REW to rewind the tape to the beginning.
To record from the end of the recorded portion, press) FF.
The deck locates the end of the recorded portion on the tape and stops automatically.
- 5 Lift the top cover of the remote commander and press r REC to set the MD deck to recording pause.
- 6 Press · PLAY or P PAUSE.
Recording starts.
- 7 Play back the programme source.

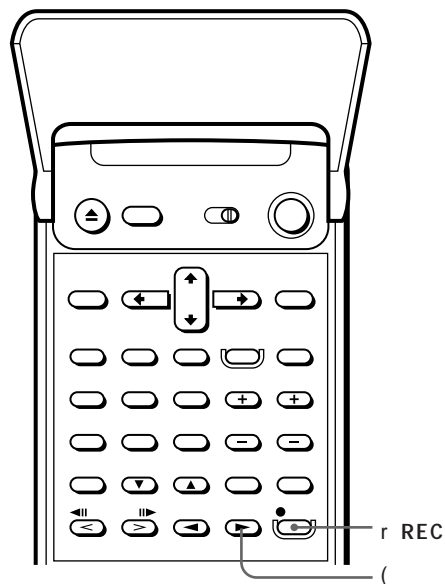
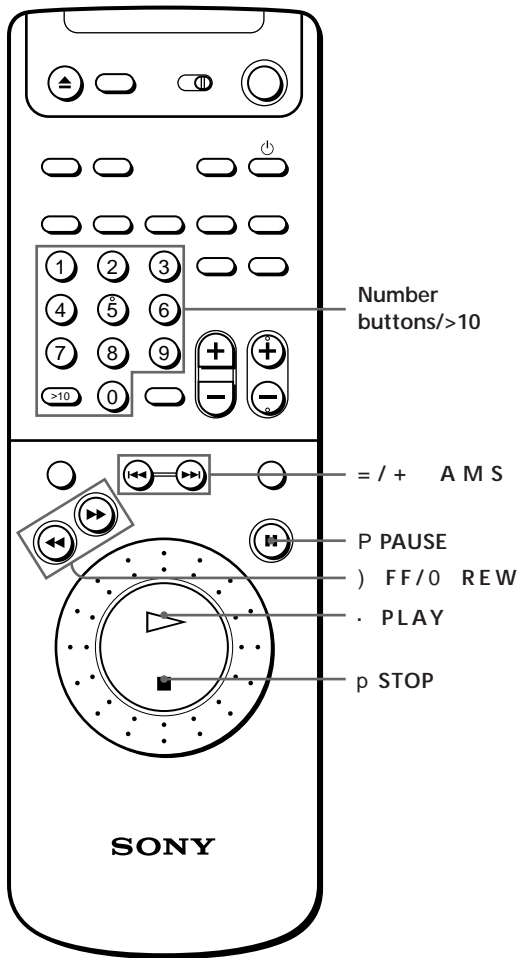
Note

- You must connect the DAT deck to the TAPE/MD jacks to record on a tape with the DAT deck.

Additional tasks

To	Press
Stop recording	p STOP
Pause recording	P PAUSE. To resume recording, press the button again.
Resume recording	P PAUSE or · PLAY

Controlling an MD deck



Customizing the remote commander for an MD deck

The remote commander is not factory set to control MD decks. So you need to customize the function button corresponding to the jacks the MD deck is connected to. For example, if you connect the MD deck to the TAPE/MD jacks, customize TAPE/MD for the MD deck in the following way.

While pressing the function button (e.g. TAPE/MD), press number button 3.

The function button is customized to control the MD deck.

You can customize the VIDEO 1, VIDEO 2, CD, TAPE/MD, or TV function buttons. To change the button's function again, see "Customizing the remote commander function buttons" on page 80.

Playing an MD

- 1 Press the function button you customized for the MD deck, and turn on the MD deck.
The unit turns on and switches the input source to the jacks the MD deck is connected to.
- 2 Insert an MD referring to your MD deck's operating instructions.
- 3 Press · PLAY.
The MD deck starts playing.

Additional tasks

To	Press
Stop play	p STOP
Pause play	P PAUSE
Resume play after pause	P PAUSE or · PLAY
Scan forward or backward	And hold) FF or 0 REW during playback
Locate the beginning of other tracks	= / + AMS repeatedly

To locate a track with the number buttons

Press one of the number buttons for single digit numbers (except 0). To locate the 10th track, press 1, then 0.
To enter a track number over 10, first press >10, then any number button for the tens digit except 0, and the number button for the ones digit.

Examples of entering the two-digit number

To	Press
Enter 30	>10, then 3, and 0
Enter 24	>10, then 2, and 4

continued

Controlling an MD deck (continued)

Recording on an MD

- 1 Press the function button you have customized for the MD deck, and turn on the MD deck.

The unit turns on and switches the input source to the TAPE/MD jacks the MD deck is connected to.

- 2 Insert an MD with its erasure prevention tab closed, referring to your MD deck's operating instructions.
- 3 Select the input source by pressing one of the function buttons on the unit.

If you want to select the unit's VCR or piece of equipment connected to the LINE jacks, press VHS repeatedly to display a programme position or "LINE" on the TV screen.

If you want to select a piece of equipment connected to the VIDEO 1 or VIDEO 2 jacks, press VIDEO repeatedly to display "VIDEO 1" or "VIDEO 2" on the TV screen.

If you want to select the CD player or tuner, press AUDIO repeatedly to display "CD" or "TUNER" on the TV screen.

- 4 Lift the top cover of the remote commander and press r REC to set the MD deck to recording pause.
- 5 Press (or · PLAY)
Recording starts.
- 6 Play back the programme source.

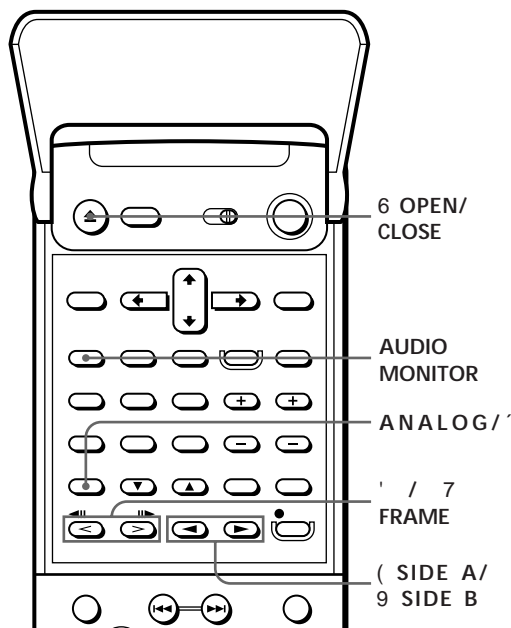
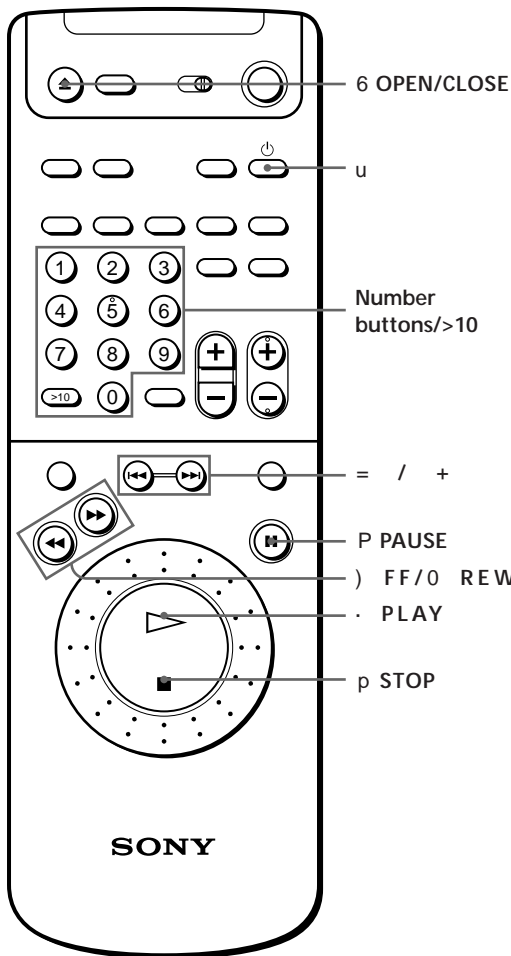
Note

- You must connect the MD deck to the TAPE/MD jacks to record on an MD with the MD deck.

Additional tasks

To	Press
Stop recording	p STOP
Pause recording	P PAUSE. Press the button again to resume recording.
Resume recording	P PAUSE or · PLAY

Controlling an LD player



Customizing the remote commander for an LD player

The remote commander is not factory set to control LD players. So you need to customize the function button corresponding to the jacks the LD player is connected to. For example, if you connect the LD player to the VIDEO 1 jacks, customize VIDEO1 for the LD player in the following way.

While pressing the function button (e.g. VIDEO1), press number button 6.

The function button is customized to control the LD player.

You can customize the VIDEO 1, VIDEO 2, CD, TAPE/MD, or TV function buttons. To change the button's function again, see "Customizing the remote commander function buttons" on page 80.

Playing back an LD

- 1 Press the function button you customized for the LD player, and turn on the LD player.

The unit turns on and switches the input source to the jacks the LD player is connected to.

- 2 Press 6 OPEN/CLOSE to open the disc tray.
- 3 Place an LD on the disc tray.
- 4 Press · PLAY.

The disc tray closes and side A of the LD starts playing.

When playback of side A ends, side B starts playing automatically.

Additional tasks

To	Press
Stop play	p STOP
Pause play	P PAUSE
Resume play after pause	P PAUSE or · PLAY
Scan forward or backward	And hold) FF or 0 REW during playback
Skip chapters or tracks	= / + repeatedly
(Stop and) remove the LD	6 OPEN/CLOSE
Close the tray	6 OPEN/CLOSE

To start playback from the beginning of either LD side

Press (SIDE A to play side A of the LD from the beginning. Press 9 SIDE B to play side B of the LD from the beginning.

To pause playing just before starting

Press P PAUSE instead of · PLAY after you place an LD on the disc tray.

The disc tray closes and the player waits at the start of the LD until you press · PLAY or P PAUSE. If you want to start from side B, press 9 SIDE B after you press P PAUSE.

continued

Controlling an LD player (continued)

To locate a particular chapter or track

Press any number button to enter the single digit chapter/track number (except 0).

For two-digit numbers, press >10 repeatedly to enter the tens digit (the number of times you press the button becomes the tens digit number). Then press any number button to enter the ones digit.

Examples of entering a two-digit number

To	Press
Enter 30	>10 three times, then press 0
Enter 14	>10 once, then press 4

To play a chapter or track on the opposite side of the LD, press 9 SIDE B while playing SIDE A (or (SIDE A while playing SIDE B), then enter the chapter or track number.

To play frame-by-frame (Step Play)

Press '/7 FRAME repeatedly. Each press shifts the picture to the next frame.

For continuous frame playback, press and hold '/7 FRAME.

To resume normal playback, press · PLAY.

To listen to analog sound from an LD

If your LD contains digital sound tracks, the player automatically outputs digital sound. To listen to the sound recorded on analog soundtracks, press ANALOG/'. To resume the digital mode, press ANALOG/' again.

To play a stereo disc or Second Audio Programme (SAP) disc

When playing SAP discs such as bilingual discs, you can alternate the sound output by pressing AUDIO MONITOR. Each press changes the sound as follows.

Stereo disc	SAP disc
Left channel	Sound track 1 (Left channel)
Right channel	Sound track 2 (Right channel)
Stereo (Both channels)	Both tracks (Left and right channels)

To play an LD with the ' (CX) logo

LDs with the ' logo are recorded with the CX noise reduction system for analog sound. Although LD players usually detect and activate this system, you can manually set the LD player to use the system.

Press ANALOG/'.

To cancel this function, press ANALOG/' again.

Turning off the LD player

Press u while the remote commander is in LD control mode.

Sound Field Operations

Taking advantage of the sound fields

You can enjoy the surround sound effect by simply selecting one of the pre-programmed sound fields according to the type of playback source.

- 1 Select the input source.
- 2 Select the sound field. (See “Using the pre-programmed sound fields” on page 34.)

You can set the sound effect independently for each input source.

Selecting the sound field

Select	To	You need the following speakers
PROLOGIC	Fully enjoy programmes processed with Dolby Pro Logic Surround sound (See “What’s Dolby Surround and Dolby Pro Logic Surround?” on the next page.)	See “Selecting the centre mode” on page 18.
THEATRE	Add the acoustic reflections of a theatre to the decoded Dolby Surround signals (See “What’s Dolby Surround and Dolby Pro Logic Surround?” on the next page.)	See “Selecting the centre mode” on page 18.
MONO MOVIE	Create a theatre-like environment for movies with monaural soundtracks (See “What’s surround sound?” on the next page.)	The surround (rear left and right) speakers as well as the front left and right speakers
HALL	Reproduce the acoustics of a hall (See “What’s surround sound?” on the next page.)	The surround (rear left and right) speakers as well as the front left and right speakers
STADIUM	Reproduce the feeling of a large open-air stadium (See “What’s surround sound?” on the next page.)	The surround (rear left and right) speakers as well as the front left and right speakers
GAME	Obtain maximum audio impact from video game software (See “What’s surround sound?” on the next page.)	The surround (rear left and right) speakers as well as the front left and right speakers
ACOUSTIC	Reproduce normal 2 channel stereo	Only the front left and right speakers
OFF	Turn off the sound effect	Only the front left and right speakers

To temporarily turn off the sound effect you set

- 1 Select the input source for the sound effect you want to turn off.
- 2 Press SURROUND on the unit to turn off the sound effect.

To resume the previous sound effect, press SURROUND again.

continued

Taking advantage of the sound fields (continued)

What's Dolby Surround and Dolby Pro Logic Surround?

Dolby Surround is a system that decodes the extra channels of Dolby Surround encoded sound tracks on movie videos and TV programmes, and produces sound effects and echoes that make the action seem to envelop you.

Dolby Pro Logic Surround is a more advanced system developed after Dolby Surround. The sound image is improved by using four separate channels: off-screen audio effects, on-screen dialogue, left-to-right panning, and music. These channels manipulate the sound and enhance the action as it happens on the screen.

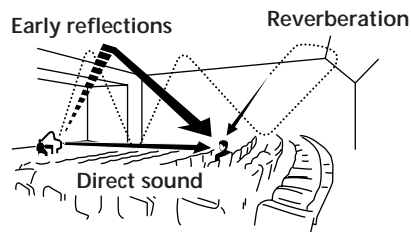
The unit offers PROLOGIC mode for these systems as one of the sound fields. You can tell if a video tape or laser disc uses Dolby Surround or Dolby Pro Logic Surround encoded software by looking at the packaging. (Some video tapes and laser discs may use Dolby Surround even if it's not indicated on the package.)

What's surround sound?

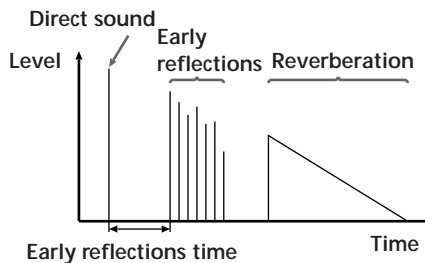
Surround sound consists of three elements, direct sound, early reflected sound (early reflections), and reverberated sound (reverberation). The acoustics of the venue affect the way these three sound elements are heard.

The unit combines the three sound elements in such a way that you can actually feel the size and type of a particular venue such as a concert hall. The unit also varies the combination of the sound elements to offer you a variety of sound fields (THEATRE, MONO MOVIE, HALL, STADIUM, and GAME).

The three sound elements in an actual concert hall



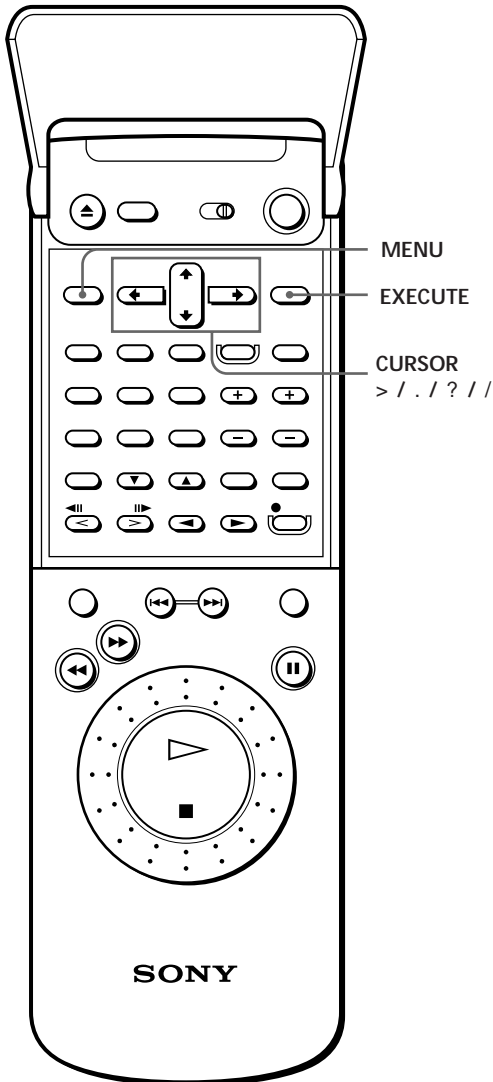
Transition of sound from rear speakers



Getting the most out of Dolby Pro Logic Surround sound

To obtain the best possible Dolby Pro Logic Surround sound, you need to adjust the delay time. The centre mode and speaker levels were set in EASY SET UP, so you don't have to change those settings unless you change the speaker configuration.

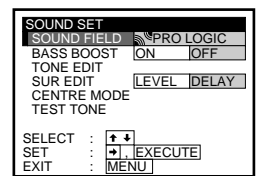
If you change the speaker configuration, see "Reconfiguring the PROLOGIC and THEATRE sound fields" on page 68.



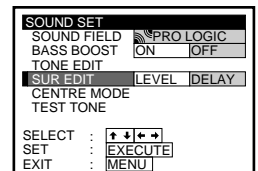
Adjusting the delay time

You can make the surround sound more effective by delaying the output from the rear speakers (delay time) relative to the front speakers. You don't have to adjust the delay time if you select 3CH LOGIC for CENTRE MODE.

- 1 Repeat steps 1 through 4 in "Using the pre-programmed sound fields" on page 34 and select PROLOGIC in step 3.

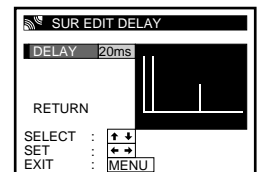


- 2 Press CURSOR > / . / ? / // to move the cursor (I) to SUR EDIT, then highlight DELAY.



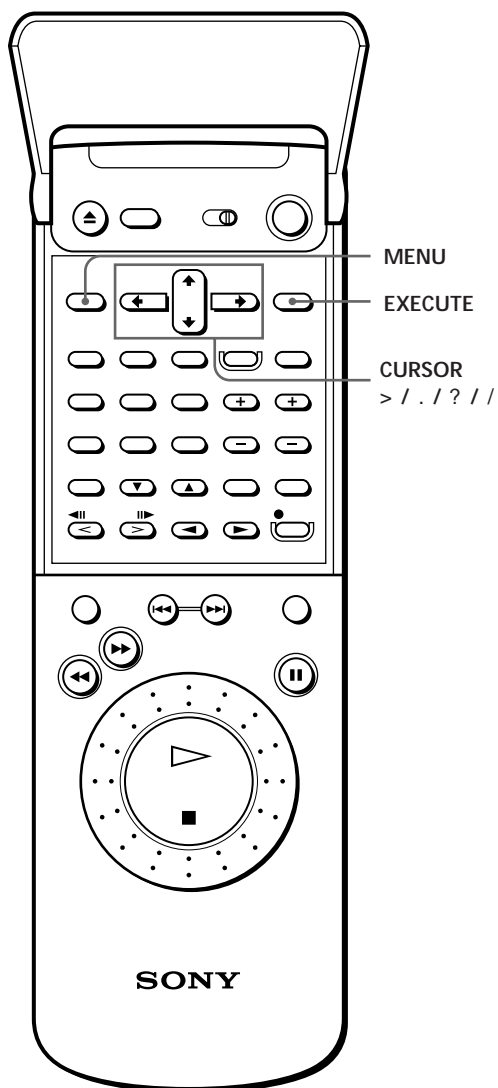
- 3 Press EXECUTE, then press CURSOR ? / // to select 15ms, 20ms, 25ms, or 30ms as the delay time.

Make the delay time longer when you have placed the rear speakers in a small room or close to your listening position, and make it shorter when you have placed them in a large room or far from your listening position.



- 4 Press MENU to return to the original screen.

Customizing the sound fields

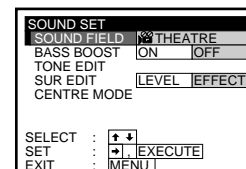


Each sound field is composed of an equalizer (bass, midrange, and treble) and surround sound parameters: sound variables that create the sound image. You can customize the sound fields by adjusting the speaker levels, effects, and surround sound parameters to suit your listening situation.

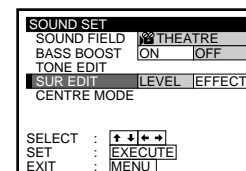
Once you customize the sound fields, they are stored in memory.

Adjusting the speaker level for THEATRE, MONO MOVIE, HALL, STADIUM, or GAME

- 1 Start playing a programme source, then repeat steps 1 through 4 in “Using the pre-programmed sound fields” on page 34 and select one of the above sound fields in step 3.



- 2 Press CURSOR >./?// to move the cursor (I) to SUR EDIT, then highlight LEVEL.



- 3 Press EXECUTE. Then, press CURSOR >./ to move the cursor to CENTRE, and press CURSOR ?// to increase or decrease the volume of the centre speaker to a preferable level.



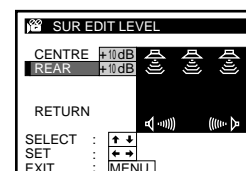
If you select MONO MOVIE, HALL, STADIUM, or GAME in step 1, skip this step.

If you select THEATRE in step 1, and you set the centre mode to PHANTOM (see “Selecting the centre mode” on page 18), skip this step.

Tips

- To adjust the relative volume balance between the front left and right speakers, use BALANCE L/R on the unit.
- To restore the factory settings of the sound fields, turn on the unit while pressing SURROUND.

- 4 Press CURSOR >./ to move the cursor (I) to REAR, then press CURSOR ?// to increase or decrease the volume of the rear speakers to a preferable level.



If you select THEATRE in step 1 and 3CH LOGIC is selected as the centre mode (see “Selecting the centre mode” on page 18), skip this step.

The rear speakers’ volume balance is always even.

- 5 Press MENU to return to the original screen.

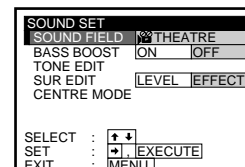
To return to the previous menu

Select RETURN instead of pressing MENU in step 5, then press EXECUTE.

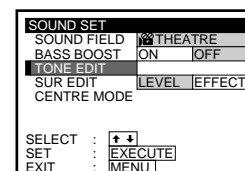
Adjusting the tone for all sound fields

Adjust the tone of the front, centre and rear speakers for optimum sound. You can adjust the tone for all sounds fields, including PROLOGIC.

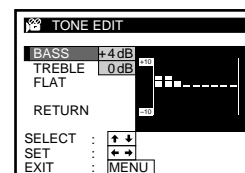
- 1 Start playing a programme source, then repeat steps 1 through 4 in "Using the pre-programmed sound fields" on page 34 and select one of the sound fields in step 3.



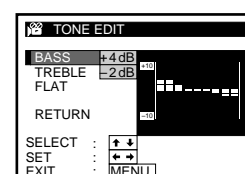
- 2 Press CURSOR >/ to move the cursor (I) to TONE EDIT.



- 3 Press EXECUTE. Then, press CURSOR >/ to move the cursor (I) to BASS, and press CURSOR ?// to adjust the level of the low frequencies as you like.



- 4 Press CURSOR >/ to move the cursor (I) to TREBLE, then press CURSOR ?// to adjust the level of the high frequencies as you like.



- 5 Press MENU to return to the original screen.

To return to the previous menu

Select RETURN instead of pressing MENU in step 5, then press EXECUTE.

To start your adjustment from a flat equalizer curve

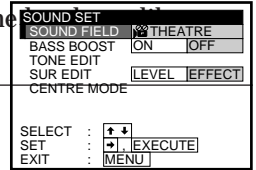
Select FLAT after pressing EXECUTE in step 3 above, then adjust BASS and TREBLE.

continued

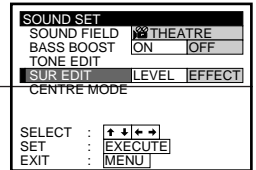
Adjusting the effect level for THEATRE, MONO MOVIE, HALL, STADIUM, or GAME

You can adjust the influence of the sound field to the

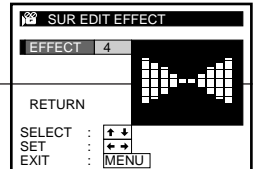
- 1 Start playing a programme source, then repeat steps 1 through 4 in “Using the pre-programmed sound fields” on page 34 and select one of the above sound fields in step 3.



- 2 Press CURSOR >./?// to move the cursor (I) to SUR EDIT, then highlight EFFECT.



- 3 Press EXECUTE, then press CURSOR >/. to select 1, 2, 3, or 4 as the effect level.



If you select THEATRE in step 1, and you set the centre mode to PHANTOM (see “Selecting the centre mode” on page 18), skip this step.

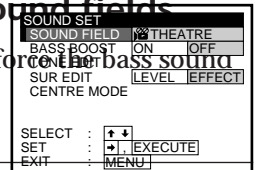
- 4 Press MENU to return to the original screen.

To return to the previous menu

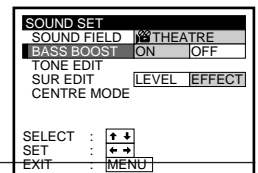
Select RETURN in stead of pressing MENU in step 4, then press EXECUTE.

Reinforcing the bass sound for all sound fields

In addition to the other sound effects, you can reinforce the bass sound for all sounds fields including PROLOGIC.



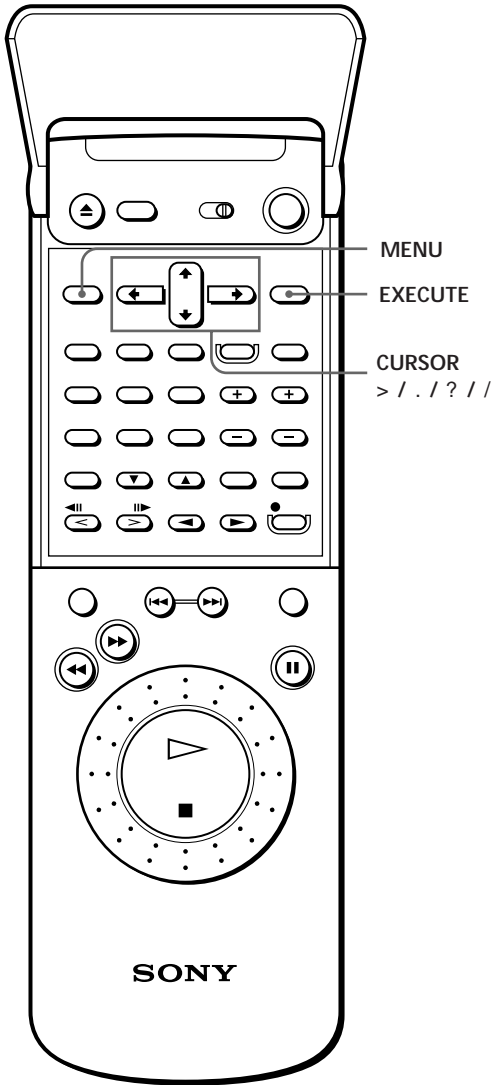
- 1 Start playing a programme source, then repeat steps 1 through 4 in "Using the pre-programmed sound fields" on page 34 and select one of the sound fields in step 3.



- 2 Press CURSOR >|.|?|/ to move the cursor (I) to BASS BOOST, then highlight ON.

- 3 Press MENU to return to the original screen.

Reconfiguring the PROLOGIC and THEATRE sound fields

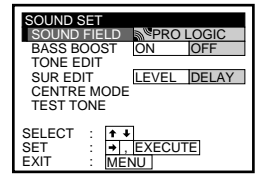


Tip

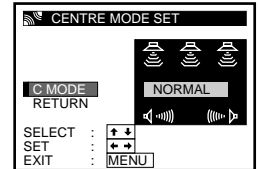
- To adjust the relative volume balance between the front left and right speakers, use BALANCE L/R on the unit.

If you change your speaker configuration, you need to readjust the centre mode and speaker levels for the PROLOGIC and THEATRE sound fields.

1 Repeat steps 1 through 4 in “Using the pre-programmed sound fields” on page 34 and select PROLOGIC or THEATRE in step 3.

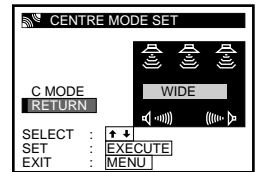


2 Press CURSOR >/. to move the cursor (I) to CENTRE MODE, then press EXECUTE.

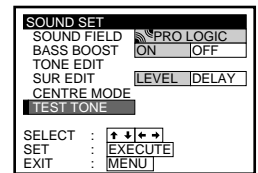


3 Press CURSOR ?// to select the centre mode, then press CURSOR . to highlight RETURN.

See “Selecting the centre mode” on page 18.



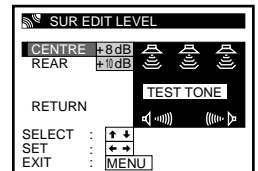
4 Press EXECUTE, then press CURSOR >/. to highlight TEST TONE.



5 Press EXECUTE.

Each speaker emits the test tone in turn (the speaker emitting the test tone is indicated by the red speaker mark).

Check each speaker’s relative volume balance with the test tones.

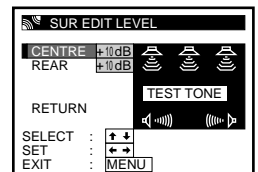


6 Press CURSOR ?// to increase or decrease the volume of the centre speaker.

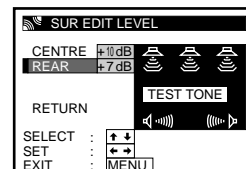
If you selected PHANTOM in step 3, skip this step.

For PROLOGIC sound, you should have an equal volume balance with the other speakers at your listening position.

For THEATRE sound, you can adjust the speaker level as you like.



-
- 7** Press **CURSOR >/.** to move the cursor (**I**) to **REAR**, then press **CURSOR ?//** to increase or decrease the volume of the rear speakers.



If you selected 3CH LOGIC in step 3, skip this step.

For PROLOGIC sound, you should have an equal volume balance with the other speakers at your listening position.

For THEATRE sound, you can adjust the speaker level as you like.

The surround speakers' volume balance is always even.

-
- 8** Press **MENU** to return to the original screen.
-

Adjusting the speaker level by listening to the programme source

- 1 Start playing a programme source, then repeat step 1 through 4 in “Using the pre-programmed sound fields” on page 34 and select PROLOGIC or THEATRE in step 3.
- 2 Press **CURSOR >/./?//** to move the cursor (**I**) to SUR EDIT, then highlight LEVEL.
- 3 Repeat steps 5 through 8 on the previous page.

Increasing the maximum rear speaker level

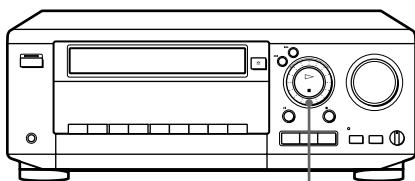
Although the adjustment range of the rear speakers is preset from -15 to +10 dB, you can shift the range up 5 dB (-10 to +15 dB). Hold down MUTING on the unit while turning on the power. “GAIN UP” appears in the display window.

The values for the rear level remain fixed at -15 to +10 dB on the menu, but you will be able to hear the difference in the actual output level.

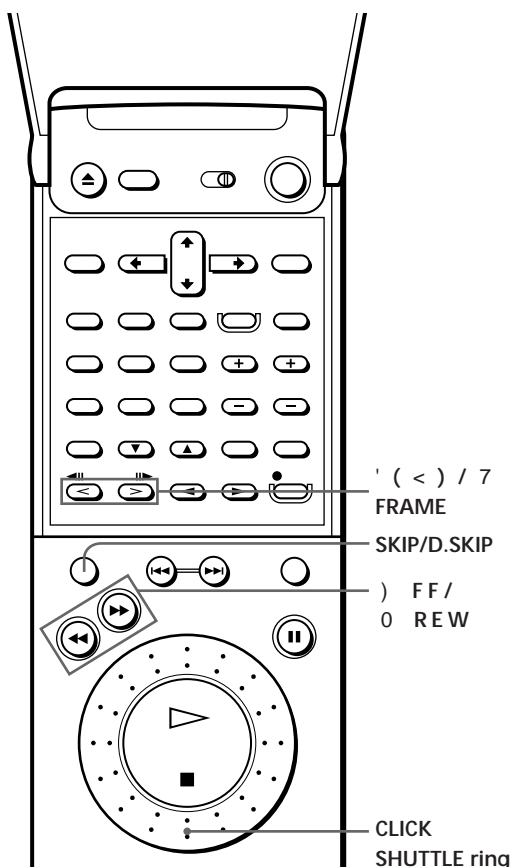
To reset the rear level adjustment range, repeat this procedure so “GAIN NOR” appears in the display window.

Advanced VCR Operations

Playing/searching at various speeds



CLICK SHUTTLE ring

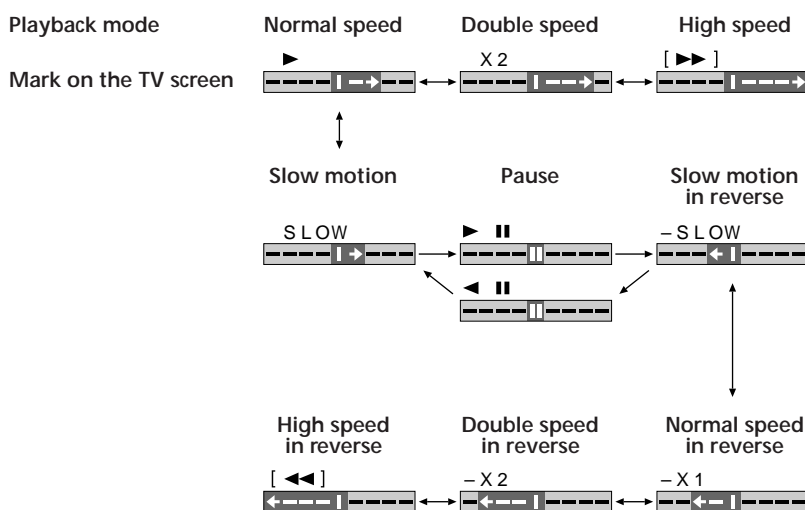


Playback options	Operation
View the picture during fast-forward or rewind	During fast-forward, press and hold) FF. During rewind, press and hold 0 REW.
Play frame by frame	During pause, lift the top cover of the remote commander and press 7 FRAME or ' FRAME. Hold down either button to play one frame each second.
Play in reverse	During playback, press <.
Skip a scene	During playback, press SKIP/D.SKIP. Pressing once skips about 30 seconds.

Using the CLICK SHUTTLE ring

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

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



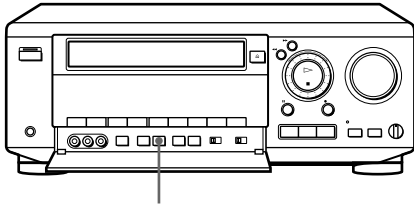
Tip

- Adjust the picture using \$/4 STILL ADJUST if:
 - Streaks appear while playing in slow motion.
 - Bands appear at the top or bottom while pausing.
 - The picture shakes while pausing.

Notes

- The playback sound is muted during these modes except for normal speed playback.
- In LP mode, bands may appear or there may be no colour.
- If the playback mode doesn't appear on the TV screen, press DISPLAY.

Recording TV programmes using the quick timer



QUICK TIMER

Tips

- You can also set the quick timer and start recording during stop mode. In this case, the unit must be turned on before you start recording.
- You can turn off the unit while recording with the quick timer. This doesn't affect the quick timer recording.
- You can enjoy watching or listening to another input source even during quick timer recording.

Note

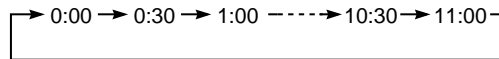
- You can use the quick timer only for recording TV programmes from the unit's VCR tuner or LINE input source.

After you start recording a TV programme from the unit's VCR tuner, or a satellite tuner connected to the LINE jacks in the normal way, you can have the unit's VCR stop recording automatically after a specified duration.

- 1 While recording, press QUICK TIMER once.



- 2 Press QUICK TIMER repeatedly to set the duration. Each press advances the time in 30 minute increments.



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

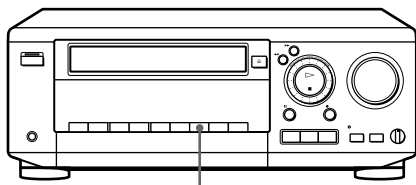
To extend the duration

Press QUICK TIMER repeatedly to set to the new duration.

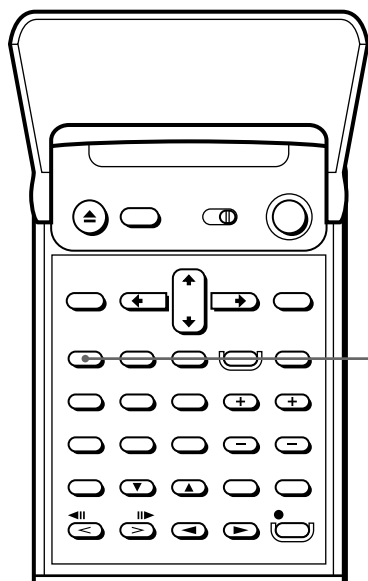
To stop recording

To stop the unit's VCR while recording, press TIMER REC ON/OFF.

Recording stereo and bilingual programmes



AUDIO MONITOR



AUDIO MONITOR

Notes

- If the AUDIO MONITOR button does not function, check that AUDIO MIX in the SET UP MENU is set to OFF.
- If HIFI AUDIO is set to STD, the standard sound will be recorded on both the hi-fi and normal audio tracks. Pressing AUDIO MONITOR will not change the sound.
- When you play a tape recorded in monaural, the sound is heard in monaural regardless of the AUDIO MONITOR setting.

In the NICAM system

This unit receives and records stereo and bilingual programmes based on the NICAM system (the NICAM indicator appears). When a stereo or bilingual programme is received, the STEREO indicator appears in the display window.

To record a NICAM programme, HIFI AUDIO in the SET UP MENU should be set to NICAM (initial setting). To check the menu setting, see page 76.

To select the sound while recording

Press AUDIO MONITOR to select the sound you want.

Stereo programmes

To listen to	On-screen display	Display window
Stereo sound	STEREO	STEREO
Standard sound*	No indicator	No indicator

* Usually the mixed sound of the left and right channels (monaural)

Bilingual programmes

To listen to	On-screen display	Display window
Main sound	MAIN	STEREO
Sub sound	SUB	STEREO
Main and sub sounds	MAIN/SUB	STEREO
Standard sound*	No indicator	No indicator

* Usually the main sound (monaural)

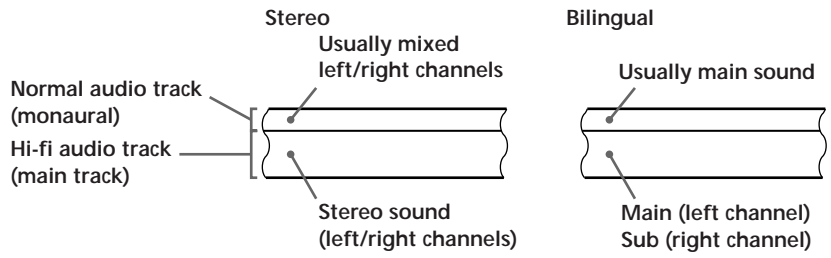
Selecting the sound during playback

Press AUDIO MONITOR to select the sound you want.

To listen to	On-screen display	Display window
Stereo/main and sub sounds (left and right channels)	STEREO	STEREO
Left channel/main sound	LCH	STEREO
Right channel/sub sound	RCH	STEREO
Standard sound	No indicator	No indicator

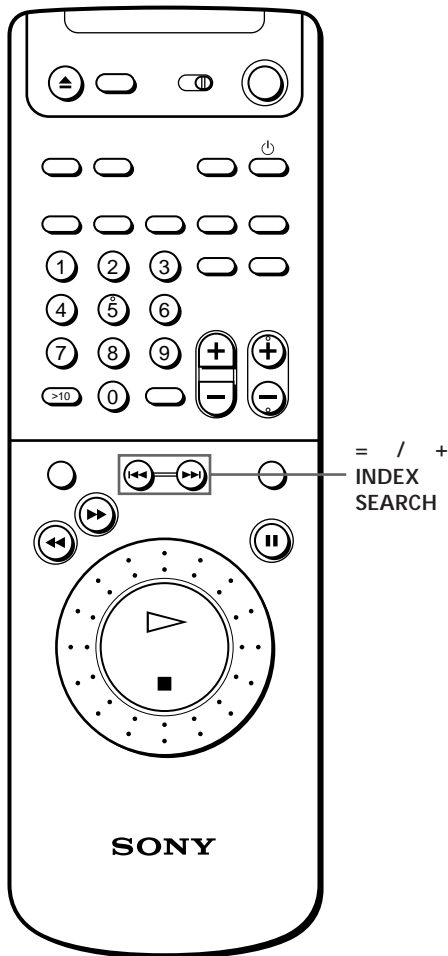
How sound is recorded on a video tape

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

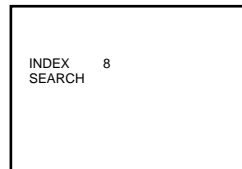


Searching using the index function

The unit's VCR marks the tape with an index signal at the point where each recording begins. Use these signals as references to find a specific recording. The unit's VCR can search up to 99 index signals ahead of or behind the current position.



- 1 Insert an indexed tape into the unit.
- 2 Press =/+ INDEX SEARCH repeatedly to specify how many index signals ahead or behind you want to search:
 - To search ahead, press + INDEX SEARCH.
 - To search behind, press = INDEX SEARCH.



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

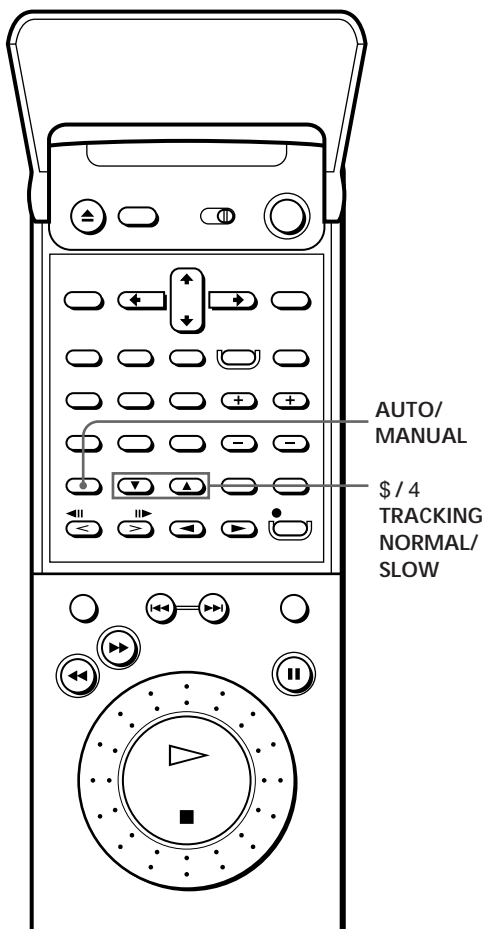
To stop searching

Press p STOP.

Note

- No index signal will be added when recording starts from recording pause. However, an index signal will be marked if you change the channel during recording pause.

Adjusting the picture



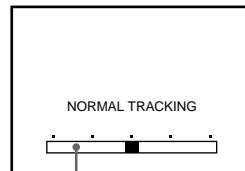
Notes

- You can adjust the tracking for NTSC-recorded tapes but the tracking meter won't be displayed.
- There is a delay of a few seconds before the unit's VCR actually starts recording while the unit's VCR analyses the tape. To avoid the delay, first set the unit's VCR to recording pause (the OPC indicator flashes slowly) and press **r** REC to have the unit's VCR analyse the tape (the OPC indicator flashes rapidly). After the OPC indicator stops flashing, press **P** PAUSE to start recording immediately. If you want to start recording quickly without using the OPC function, first set the unit's VCR to recording pause (the OPC indicator flashes slowly) and press **P** PAUSE to start recording.

Adjusting the tracking

Although the unit's VCR automatically adjusts the tracking when playing a tape (the AUTO TRACKING indicator flashes in the display window, then lights steadily), distortion may occur if the tape was poorly recorded. If picture distortion occurs, manually adjust the tracking.

Press **\$ / 4 TRACKING NORMAL/SLOW** to display the tracking meter. The distortion should disappear as you press one of the two buttons. If you cannot get a clear picture with manual adjustment, press **TRACKING AUTO/MANUAL** to return to automatic adjustment.



Tracking meter

About Optimum Picture Control (OPC)

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

SET UP MENU		
BUZZER	ON	OFF
DIMMER	ON	OFF
HIFI AUDIO	STD	NCAM
AUDIO MIX	ON	OFF
INDICATION	ON	OFF
OPC	ON	OFF
SELECT :	↑ ↓	
SET :	← →	

OPC playback

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

OPC recording

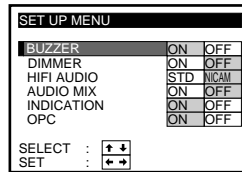
Whenever you insert a tape and first start recording, the unit's VCR adjusts to the tape using the OPC function (the OPC indicator flashes rapidly). This adjustment remains in effect until the tape is ejected.

To deactivate the OPC

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

Changing menu options

1 Press MENU, then select SET UP MENU.



2 Press CURSOR >/ . to select the option to change, then press CURSOR ?// to change the setting.

3 Press EXECUTE to return to the original screen.

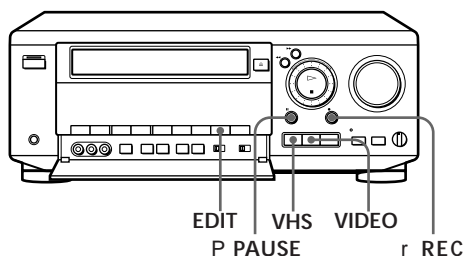
Menu choices

Initial settings are indicated in bold print.

Menu option	Set this option to
BUZZER	ON to emit a beep tone when an incorrect operation is made. OFF to deactivate buzzer.
DIMMER	ON to make the display window dim, OFF to make it brighter.
HIFI AUDIO	STD to record standard sound on the hi-fi audio track. NICAM to record NICAM broadcasts on the hi-fi audio track. For details, see page 72.
AUDIO MIX	ON to listen to the hi-fi and normal audio tracks at the same time. The AUDIO MONITOR button will not function. OFF to listen to the hi-fi and normal audio tracks separately. Select the sound using the AUDIO MONITOR button. For details, see page 72.
INDICATION	ON to display the operational function and selected sound field for a few seconds in the display window. OFF to display only the indication selected with the STATUS button on the unit. For details, see page 33.
OPC	ON to switch on the OPC (Optimum Picture Control) function and improve the picture quality, OFF to switch off OPC. For details, see page 75.

Editing

Recording from another VCR or LD player



Tips

- To cut out unwanted scenes while editing, press P PAUSE on the unit when an unwanted scene begins. When it ends, press P PAUSE again to resume recording (Assemble Editing).
- You can record audio sound from the desired input source on the video tape by pressing AUDIO repeatedly in step 4.

Note

- If you follow this procedure to start recording, the unit's VCR won't record with the OPC function. To record a tape with the OPC function, press r REC again during recording pause in step 2 so the unit's VCR analyses the tape. Then when you start recording in step 6, press P PAUSE after the OPC indicator stops flashing. If you press P PAUSE before the OPC indicator stops flashing, the OPC function is cancelled.

Before you start editing

- Connect another VCR or LD player to the unit referring to the connections on pages 10 through 12.
- Press VHS TUNER.
 - If the TV doesn't turn on, turn it on manually. Press VHS TUNER again if connected with a EURO-AV (Scart) cable.
 - If connected with a EURO-AV (Scart) cable, the TV is automatically set to VCR reception.
 - If connected with only the antenna cable, set the TV to the VCR's programme position manually.
- Press TAPE SPEED to select the tape speed, SP or LP.
- On this unit, press EDIT so "EDIT" appears in the display window. If the other VCR has a similar switch, set it to ON as well.
- Do not use the remote commander in the following procedure.

1 Insert a tape with its safety tab in place into the unit (recording VCR).

Search for the point to start recording and press P PAUSE.

2 Press r REC on the unit to set it to recording pause.

3

- Insert a source tape with its safety tab removed into the other (playback) VCR when recording from another VCR.
- Insert an LD into the LD player, when recording from an LD player.

4 Press VIDEO or VHS repeatedly to select the input (playback) source (VIDEO1, VIDEO2, or LINE).

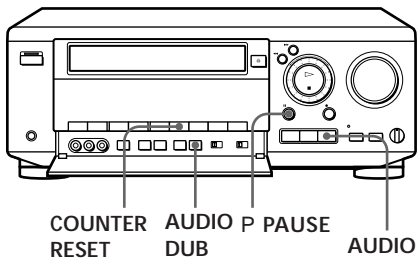
5 Search for the point to start playback and set it to playback pause.

6 To start editing, press P PAUSE on this unit and release the pause mode on the other equipment at the same time.

To stop editing

Press the p STOP buttons on both units.

Audio dubbing



This feature lets you record over the normal audio track. The monaural sound previously recorded is replaced while the original hi-fi sound remains unchanged. Use this feature to add music to a tape you have recorded with a camcorder.

Before you start dubbing...

- Press VHS TUNER.
 - If the TV doesn't turn on, turn it on manually. Press VHS TUNER again if connected with a EURO-AV (Scart) cable.
 - If connected with a EURO-AV (Scart) cable, the TV is automatically set to VCR reception.
 - If connected with only the antenna cable, set the TV to the VCR's programme position manually.
- Do not use the remote commander in the following procedure.

1 Insert a prerecorded tape with its safety tab in place into this (recording) VCR.

Search for the end of the section to be dubbed and press P PAUSE.

2 Press COUNTER RESET on this unit to reset the counter to "0H00M00S."

3 Rewind the prerecorded tape to the beginning of the section to be dubbed.

The unit's VCR pauses.

4 Insert a source tape, MD, CD, etc. into the playback component connected to the unit.

5 Press AUDIO repeatedly to select the input (playback) source.

6 Search for the point to start playback and set it to playback pause.

7 Press AUDIO DUB.
The audio dubbing indicator ⊖ appears in the display window.

8 To start editing, press P PAUSE on the unit and release the pause mode of the playback equipment at the same time.

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

To stop while editing

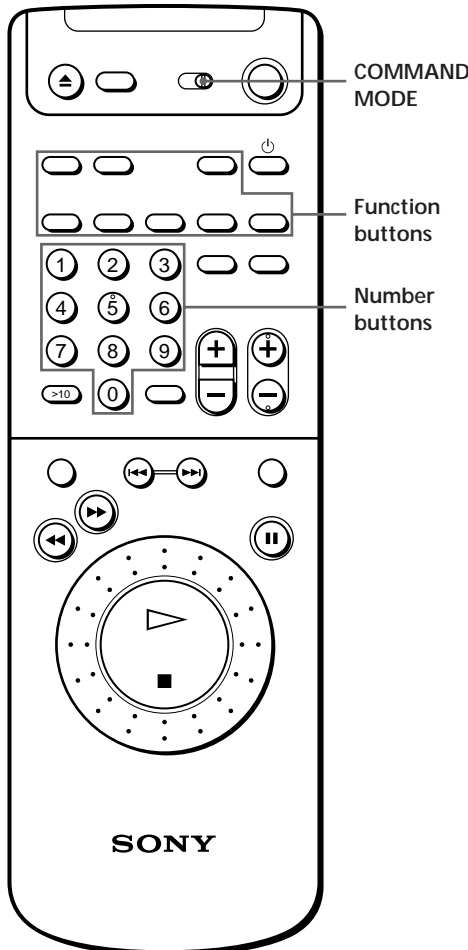
Press the p STOP buttons on the unit and the playback equipment.

To listen to both the hi-fi and normal audio

Set AUDIO MIX to ON in the SET UP MENU (page 76). Use this feature to listen to the dubbed audio as well as the original hi-fi audio. When AUDIO MIX is set to ON, the AUDIO MONITOR button does not function. Remember to reset AUDIO MIX to OFF after playing the tape.

Additional Information

Customizing the remote commander function buttons



Notes

- You cannot customize the VHS TUNER, VHS LINE, and TUNER function buttons.
- The COMMAND MODE selectors on both the remote commander and unit (the actual selector's name on the unit is VTR COMMAND MODE) are factory set to VTR3.

The function buttons on the remote commander have two roles. One is to select the input sources (see "Selecting the equipment" on page 44) and the other is to switch the remote commander to operate the selected piece of equipment. The function buttons are factory set for the unit's VCR, a radio tuner, CD player, cassette deck (deck B for double-cassette decks), and TV connected to the source inputs. If you want to control other piece of equipment or restore the factory settings, you need to customize the function buttons. For detailed customizing explanations, see the sections for controlling each piece of equipment (see pages 47 through 60). This section shows you the factory settings of, and the way to customize, the remote commander function buttons.

Factory set functions

Press	Then, the remote commander operates
VHS TUNER*	The unit's VCR (The COMMAND MODE selector determines the controllable VCR.)
VHS LINE*	Same as above
VIDEO 1	Same as above
VIDEO 2	Same as above
TUNER*	A radio tuner
CD	A CD player
TAPE/MD	A single cassette deck or deck B of a double-cassette deck
TV	A TV

* You cannot customize this function button.

To customize the function buttons

To control	While pressing one of the function buttons, press
A CD player	1
A DAT deck	2
An MD deck	3
A single cassette deck or Deck B of a double-cassette deck	4
A single cassette deck or Deck A of a double-cassette deck	5
An LD player	6
A VCR if its COMMAND MODE position/format is	
VTR1/Betamax	7
VTR2/8mm	8
VTR3/VHS	9
A TV	0

To restore the factory settings for all the function buttons

Remove the batteries from the remote commander, and insert the batteries again.

To restore the factory settings for VIDEO1 or VIDEO2

See "To relate VIDEO1 or VIDEO2 with COMMAND MODE again" on page 48.

Troubleshooting

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

	Symptom	Remedy
Unit's power	The ON/STANDBY switch doesn't function.	<ul style="list-style-type: none"> Connect the mains lead securely.
	The power is turned on but the unit doesn't operate.	<ul style="list-style-type: none"> Moisture condensation has occurred. Turn the power off, unplug the mains lead and leave the unit 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 unit is disconnected from the mains 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 VCR's programme position. If you are using a monitor, set it to video input. If the unit is connected to the TV only with the aerial cable, make sure that the RF MODULATOR switch on the rear panel is set to ON.
	The picture is not clear.	<ul style="list-style-type: none"> Adjust the tracking with the TRACKING NORMAL/SLOW buttons. The video heads are dirty (see below). Clean the video heads using the Sony V-25CL video head cleaning cassette. If this cleaning cassette is not available in your area, have the heads cleaned at your nearest Sony service facility (a standard service charge will be required). Do not use a commercially available wet-type cleaning cassette, as it may damage the video heads. The video heads may have to be replaced. Consult your local Sony service facility for more information. Place the TV away from the audio components.
	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. Use a new tape.
	The sound is unstable or has an echo.	<ul style="list-style-type: none"> When you play a tape with the same sound recorded on both the hi-fi and normal sound tracks, make sure the AUDIO MIX option in the SET UP MENU is set to OFF.

Symptoms caused by contaminated video heads

- Normal picture
- Rough picture
- Unclear picture
- No picture (or black & white screen appears)




initial → terminal

continued

Troubleshooting (continued)

	Symptom	Remedy
Recording and TV reception	No TV programme appears on the TV screen.	<ul style="list-style-type: none"> • Make sure the TV is set to the video channel. If you are using a monitor, set it to video input. • If the unit is connected to the TV using only the aerial cable, make sure that the RF MODULATOR switch on the rear panel is set to ON.
	TV reception is poor.	<ul style="list-style-type: none"> • Adjust the TV aerial. • Place the TV away from the audio components.
	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 is ejected when you press r REC.	<ul style="list-style-type: none"> • Check that the safety tab has not been removed.
	Nothing happens when you press r REC.	<ul style="list-style-type: none"> • Make sure the tape is not at its end. • If you want to record from other equipment, select the correct source with the function buttons <u>on the unit</u>. If you select the input source with the remote commander function buttons, the remote commander may be switched to control other equipment. Make sure the remote commander is set for the unit's VCR control if you use r REC on the remote commander. <p>If you want to record TV programmes, press VHS TUNER on the remote commander, then select a programme position.</p>
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 programme has been set for timer recording. • Make sure you press TIMER REC ON/OFF to set the unit to timer recording standby. • Make sure the current time has not already passed your timer settings. • Check that the decoder is turned on. • Check that the satellite tuner is turned on. • The clock stops if the unit is disconnected from the mains for more than one hour. Reset the clock and timer.
Other VCR problems	A tape cannot be inserted.	<ul style="list-style-type: none"> • Check that a tape isn't already in the tape compartment.
	The tracking indicator 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 unit needs to be cleaned.	<ul style="list-style-type: none"> • Clean the cabinet, panel and controls with a soft, dry cloth, or a soft cloth slightly moistened with a mild detergent solution. Do not use any type of solvent, such as alcohol or benzene.

	Symptom	Remedy
Amplifier	There's no sound or only a very low-level sound is heard.	<ul style="list-style-type: none"> • Check that the speakers and components are connected securely. • Press MUTING if the  (muting) indicator is displayed on the TV screen or the MASTER VOLUME indicator on the unit flashes. • The headphones are connected to PHONES. Disconnect the headphones. • The protective device on the receiver has been activated because of a short circuit. ("PROTECT" appears in the display window.) Turn off the unit, then eliminate the cause of the short-circuit and turn on the unit again.
	The left and right sounds are unbalanced or reversed.	<ul style="list-style-type: none"> • Check that the speakers and components are connected correctly and securely. • Adjust BALANCE L/R on the unit.
	Severe hum or noise is heard.	<ul style="list-style-type: none"> • Check that the speakers and components are connected correctly and securely. • Check that the connecting cords and cables are away from a transformer or motor, and at least 3 meters away from a TV set or fluorescent light. • Place your TV away from the audio components. • The plugs and jacks are dirty. Wipe them with a cloth slightly moistened with alcohol.
	No sound or a very low-level sound is heard from the rear speakers or centre speaker.	<ul style="list-style-type: none"> • Select the appropriate centre mode. • Adjust the speaker volume appropriately. • Make sure you turn on the sound field surround mode function. • Make sure you select a suitable sound field for the playback source.
	The surround effect cannot be heard.	<ul style="list-style-type: none"> • Make sure you turn on the sound field function. • Make sure you select a suitable sound field for the playback source.
Remote commander	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 unit or equipment you want to control. • Replace all the batteries in the remote commander with new ones if they are weak. • Make sure you press the correct remote commander function button to set the remote commander for the equipment you want to control. • Remove obstacles in the path of the remote commander and the receiver.

Specifications

System

Channel coverage

PAL:
UHF E21 to E69

RF output signal

UHF channels 28 to 55

Aerial out

75-ohm asymmetrical aerial socket

VCR Inputs and outputs

VIDEO OUT (EURO-AV)

EURO LINE IN

21-pin
Video input: pin 20
Audio input: pins 2 and 6
Video output: pin 19
Audio output: pins 1 and 3

VIDEO 1 IN

VIDEO 2 INPUT

VIDEO IN, phono jack (1)
Input signal: 1 Vp-p, 75 ohms,
unbalanced, sync negative
AUDIO IN, phono jacks (2)
Input level: 327 mVrms
Input impedance: more than 47
kilohms

MONITOR VIDEO OUT

Phono jack (1)
Output signal: 1 Vp-p, 75 ohm
(unbalanced), sync negative

Amplifier

POWER OUTPUT

Stereo Mode

DIN 1 kHz, 4 ohms, 75 W + 75 W

Surround mode

(DIN 1 kHz, 4 ohms)
Front 50 W/ch
Centre 50 W
(only in the PROLOGIC
and THEATRE mode)
Rear 50 W

Frequency response

TUNER, CD, TAPE/MD, VIDEO 1,
VIDEO 2, TV, and LINE : 10 Hz - 20
kHz \pm 1 dB

Inputs

CD
Sensitivity 220 mV
Impedance 50 kilohms
S/N 82 dB
(Weighting 82 dB ('78 IHF)
network, input (A, 0.5 V)
level)

TUNER, TAPE/MD, VIDEO1,
VIDEO2, TV, and LINE

Sensitivity 180 mV
Impedance 50 kilohms
S/N 82 dB
(Weighting 82 dB ('78 IHF)
network, input (A, 0.5 V)
level)

Outputs

TAPE/MD REC OUT
Voltage 180 mV,
Impedance 10 kilohms
MIX OUT
Voltage : 2 V
Impedance : 10 kilohms
PHONES
Accepts low and high impedance
headphones

Muting

-20 dB

BASS BOOST

+10 dB at 70 Hz

TONE

\pm 8 dB at 100 Hz and 10 kHz

General

Power requirements

230 V AC, 50 Hz

Power consumption

180 W

(During stand-by with the STANDBY
DISPLAY switch set to OFF)

4.6 W

Operating temperature

5°C to 40°C

Storage temperature

-20°C to 60°C

Dimensions

Approx. 430 \times 157 \times 430 mm (w/h/
d)
including projecting parts and
controls

Mass

Approx. 13.7 kg

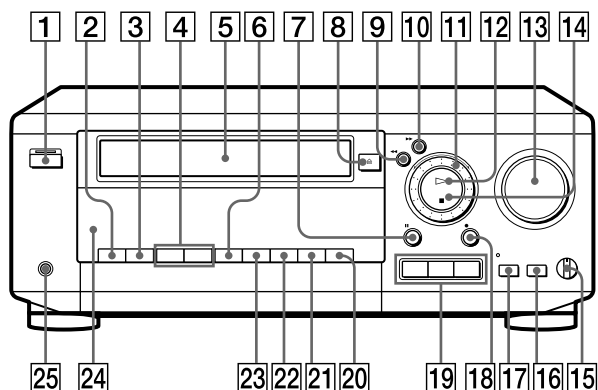
Supplied accessories

Remote commander (1)
R6 (size AA) batteries (2)
Aerial cable (1)

Design and specifications are subject to
change without notice.

Index to parts and controls

Front panel

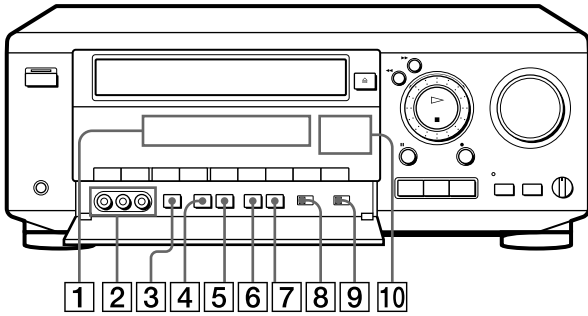


- 1 ON/STANDBY switch/indicator (13)
- 2 TV/VTR button
- 3 TAPE SPEED button (35)
- 4 PROGRAM +/- buttons (13)
- 5 Tape compartment (32)
- 6 TAPE RETURN button (33)
- 7 P PAUSE button (77, 78)
- 8 6 EJECT button (32)
- 9 0 REW button (32)
- 0) FF button (32)
- ! j CLICK SHUTTLE ring (70)
- !™ . PLAY button (32)
- ! £ MASTER VOLUME control/indicator (32, 33)
- ! ¢ p STOP button (77, 78)
- ! BALANCE L/R control (17, 68)
- ! § MUTING button (33)
- ! ¶ SURROUND button/indicator (61, 64)
- ! • r REC button (77)
- ! ¢ FUNCTION buttons (45, 53, 56, 58, 77, 78)
- @° STATUS button (33)
- @j EDIT button (77)
- @M AUDIO MONITOR button (72, 76)
- @£ COUNTER RESET button (33, 78)
- @¢ Remote sensor (5)
- @ PHONES jack (9)

continued

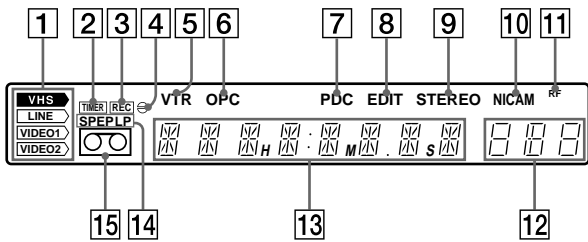
Index to parts and controls (continued)

Front panel, with cover opened



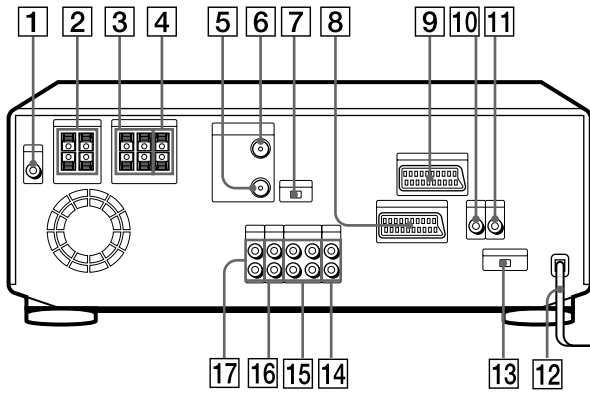
- 1 Display window (33)
- 2 VIDEO 2 INPUT VIDEO/AUDIO L/R jacks (12)
- 3 EASY SET UP button (14)
- 4 TIMER REC button (38)
- 5 QUICK TIMER button (71)
- 6 RF CHANNEL button (13)
- 7 AUDIO DUB button (78)
- 8 STANDBY DISPLAY ON/OFF switch (12)
- 9 VTR COMMAND MODE OFF/1/2/3 selector (47)
- 0 Tape operation indicators

Display window



- 1 Video input indicators (45)
- 2 TIMER indicator (38, 41, 71)
- 3 REC indicator (71)
- 4 ⊖ (audio dubbing) indicator (78)
- 5 VTR indicator (14)
- 6 OPC indicator (75, 76)
- 7 PDC indicator (41)
- 8 EDIT indicator (77)
- 9 STEREO indicator (72)
- 0 NICAM indicator (72)
- ! j RF indicator (13)
- !™ RF channel (13)/line/programme position indicator (35)
- ! £ Time counter/clock/operating function/sound field indications (33)
- ! ¢ Tape speed indicators (35)
- ! Ò (tape) indicator

Rear panel

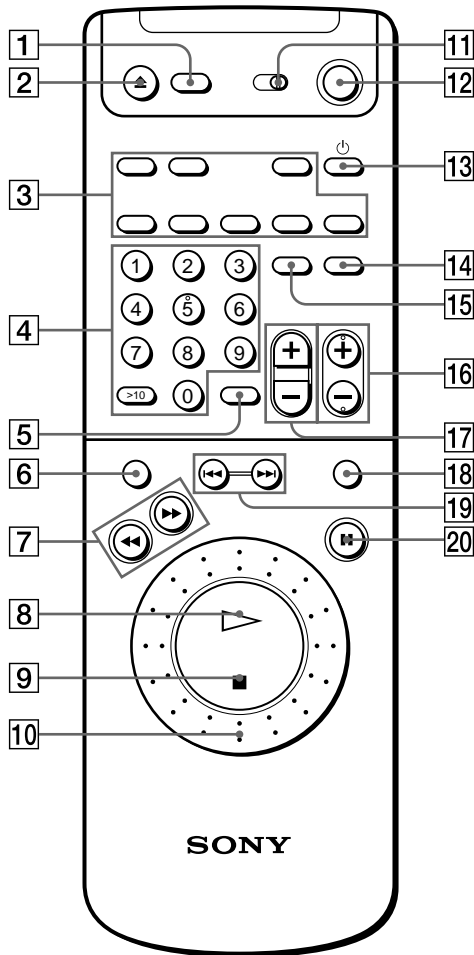


- 1 MIX OUT jack (9)
- 2 FRONT SPEAKERS L/R connectors (8)
- 3 SURROUND SPEAKERS REAR L/R connectors (9)
- 4 SURROUND SPEAKERS CENTRE connectors (8)
- 5 AERIAL IN connector (6)
- 6 AERIAL OUT connector (6)
- 7 RF MODULATOR ON/OFF switch (6)
- 8 EURO LINE IN connector (11)
- 9 VIDEO OUT (EURO-AV) connector (6)
- 0 MONITOR VIDEO OUT jack (11)
- ! j VIDEO 1 IN VIDEO jack (11)
- !™ Mains lead (11)
- ! £ NTSC PB switch (32)
- ! ¢ VIDEO 1 IN AUDIO L/R jacks (11)
- ! TAPE/MD REC OUT/IN AUDIO L/R jacks (11)
- ! § CD IN AUDIO L/R jacks (11)
- ! ¶ TUNER IN AUDIO L/R jacks (11)

continued

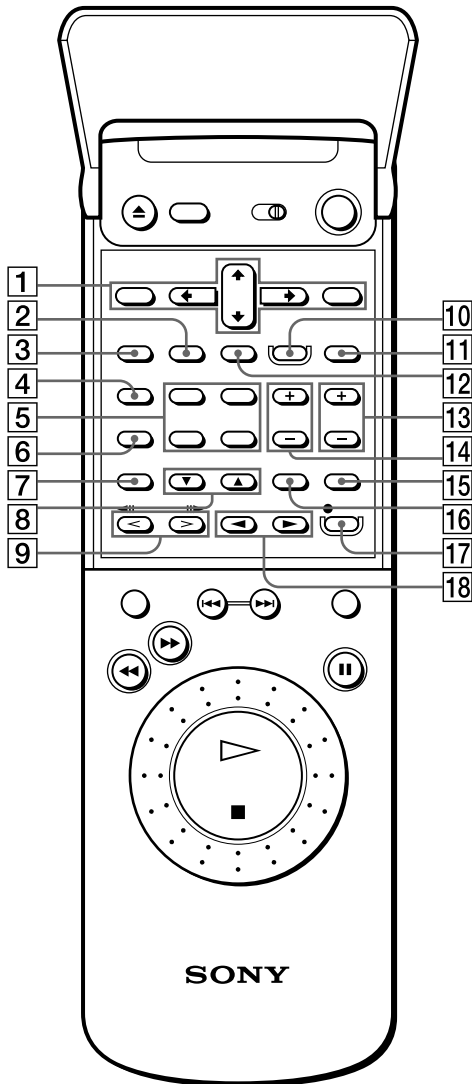
Index to parts and controls (continued)

Remote commander



- 1 TV CONTROL ON button (50)
- 2 6 EJECT button (32)
- 3 SYSTEM CONTROL/FUNCTION buttons (44-60, 80)
- 4 Number/? (ten's digit) (35, 49)/>10 (52, 57, 60)/SHIFT (51) buttons
- 5 ENTER/RMS/START button (38)
- 6 SKIP/D.SKIP button (52, 70)
- 7 0 REW/ FF buttons (32, 52, 53, 55, 57, 59, 70)
- 8 · PLAY button (32, 52, 55, 57, 59)
- 9 p STOP button (32, 52, 53, 55, 57, 59)
- 10 CLICK SHUTTLE ring (70)
- ! j COMMAND MODE VTR1/2/3 selector (47, 80)
- !™ SYSTEM OFF button (46)
- ! £ u button (48, 50, 60)
- ! ¢ TV/VIDEO button (50)
- ! VIDEO Plus+ button (37)
- ! § PROG/PRESET +/- buttons (19, 51)
- ! ¶ MASTER VOL +/- buttons (32, 46)
- ! • MUTING button (33, 46)
- ! ^a =/+ INDEX SEARCH (74)/AMS (52, 55, 57, 59) buttons
- @ P PAUSE button (32, 52, 53, 56, 57, 59)

Remote commander, with top cover opened



- 1 MENU/CURSOR >/.?//EXECUTE buttons (15, 19)
- 2 DISPLAY button (33, 35)
- 3 AUDIO MONITOR button (72, 76)
- 4 f (Teletext) button (49)
- 5 FASTTEXT buttons (49)
- 6 COUNTER RESET (33)/; (Teletext off) (49) button
- 7 TRACKING AUTO/MANUAL (75)/ANALOG/' (CX) (60) button
- 8 \$/4 TRACKING NORMAL/SLOW (75)/\$/4 STILL ADJUST (70) buttons
- 9 ' /7 FRAME buttons (60, 70)
- 0 TIMER REC ON/OFF button (38, 41)
- ! j TIMER CLEAR button (38, 42)
- !™ TV WIDE button (49)
- ! £ PROG +/- / (Teletext up/down) (49) buttons
- ! ¢ TV VOL +/- buttons (50)
- ! § TAPE SPEED (SP/LP) button (35)
- ! § STATUS button (33)
- ! ¶ r REC button (35, 54, 56, 58)
- ! • 9/(DIRECTION (53, 58, 60)/(SIDE A/9 SIDE B (59) buttons

Index

A, B

- Accessories supplied 4
- Adjusting
 - delay time 63
 - picture 21, 70, 75
 - speaker volume 17, 32, 68
 - tone 65
 - tracking 75
- Aerial hookup 6
- AFT (Auto Fine Tuning) 21
- Audio component hookups 10, 12
- Audio dubbing 78
- Audio track 73, 78
- Audio/video equipment control 44
- Auto Clock Set 16, 31

C

- Cancelling timer settings 42
- Centre mode 18
 - NORMAL mode 18
 - PHANTOM mode 18
 - 3CH LOGIC mode 18
 - WIDE mode 18
- Changing timer settings 42
- Cleaning the video heads 81
- Clock setting 29
- Colour system
 - compatible colour systems 2
- Connecting
 - aerial 6
 - mains lead 11
 - the unit and your TV 6
 - to audio/video equipment 10, 12
 - to a TV with a EURO-AV connector 6
 - to speaker systems 8
- Counter 33

D

- Delay time 63
- Disabling programme position 21
- Display 33
- Dolby Pro Logic Surround 61, 63
- Dolby Surround sound 63
 - centre mode 18
- Dubbing. See Editing

E, F

- EASY SET UP 14
- Editing 77
- EURO-AV connection 6

G

- Guide channel
 - list 24
 - setting 15, 22

H

- Hi-fi audio track 73
- Hookups. See Connecting

I, J, K

- Index
 - searching 74
- ITP 15

L

- LP mode 35

M

- Monitoring
 - during playback 73
 - during recording 72

N

- NICAM broadcasts 72
- Normal audio track 73
- NORMAL mode 18

O

- OPC (Optimum Picture Control) 75

P

- PDC (Programme Delivery Control) 41
- PHANTOM mode 18
- Picture adjustment. See Adjusting
- Playback 32
 - at various speeds 32, 70
 - frame-by-frame 70
 - skip 70
 - slow motion 70
- PlusCode 37
- Power conservation 12
- Presetting channels 14, 19
- Programme source selection 44

Q

- Quick timer 71

R

- Recording 35
 - bilingual programmes 72
 - saving 36
 - stereo programmes 72
 - using VIDEO Plus+ 37
 - while watching another programme 35
- Remote commander 5
 - Audio/video control 44
- RF channel 13

S

- Safety tab 36
- Searching
 - at various speeds 32, 70
 - using the index function 74
- SP mode 35
- Speakers
 - connection 8
 - impedance 84
 - placement 9
 - selecting speaker system 18
- Surround sound 61, 62

T, U

- Test tone 16, 68
- 3CH LOGIC mode 18
- Timer recording 37, 40, 71
 - cancelling timer settings 42
 - changing timer settings 42
 - checking timer settings 42
 - daily/weekly recording 41
 - overlapping timer recordings 43
 - using VIDEO Plus+ 37
- Tracking adjustment. See Adjusting

V

- VIDEO Plus+
 - recording 37
 - setting up 15, 22

W, X, Y, Z

- WIDE mode 18