

SONY

4-037-064-12 (1)

Flat Panel Color TV

US

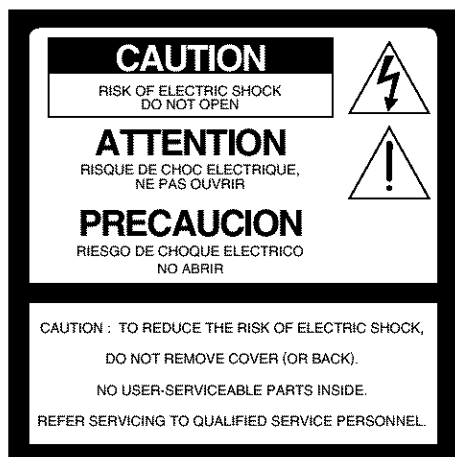
**KZ-32TS1U
KZ-42TS1U**

Operating Instructions

© 2001 Sony Corporation

WARNING

To Reduce the risk of fire or shock hazard,
do not expose the TV to rain or moisture.



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



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

CAUTION

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

CAUTION

When using TV games, computers, and similar products with your TV, keep the brightness and contrast functions at low settings. If a fixed (non-moving) pattern is left on the screen for long periods of time at a high brightness or contrast setting, the image can be permanently imprinted onto the screen. Continuously watching the same program can cause the imprint of station logos onto the TV screen. These types of imprints are not covered by your warranty because they are the result of misuse.

Note on Caption Vision

This television receiver provides display of television closed captioning in accordance with §15.119 of the FCC rules.

Notes on Cleaning the TV

Clean the TV with a soft dry cloth. Never use strong solvents such as thinner or benzine, which might damage the finish of the cabinet.

Note on use in highlands

When used at an altitude of greater than 1900m or 6248 feet (air pressure less than 800hPa), this Plasma Display Panel may generate a low buzzing sound as a result of the difference between the interior and exterior air pressure of the panels. This is not considered a defect and is not covered under by the Limited Warranty. This buzzing sound is the inherent characteristic of any Plasma Display Panels.

Note to CATV system installer

This reminder is provided to call the CATV system installer’s attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Use of this television receiver for other than private viewing of programs broadcast on UHF, VHF, transmitted by cable companies or satellite for the use of the general public may require authorization from the broadcaster/cable company and/or program owner.

NOTIFICATION

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

- Reorient or relocate the receiving antennas.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help. You are cautioned that any changes or modifications not expressly approved in this manual could void your warranty and your authority to operate this equipment.

Safety

- Operate the TV only on 120 V AC.
- The plug is designed, for safety purposes, to fit into the wall outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- If any liquid or solid object should fall inside the cabinet, unplug the TV immediately and have it checked by qualified service personnel before operating it further.

Installing

- To prevent internal heat buildup, do not block the ventilation openings.
- Do not install the TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.
- The AC power cord is attached to the rear of the TV with hooks. Do not attempt to remove the cord from these hooks. Doing so could cause damage to the TV.

Owner’s Record

The model and serial numbers are provided on the front of this instruction manual and at the rear of the TV. Refer to them whenever you call upon your Sony dealer regarding this products.

CAUTION

The following SONY appliance(s) for use only with the following TV STAND.

Use with other TV STAND is capable of resulting in instability causing possible injury.

SONY APPLIANCE MODEL NO.

KZ-32TS1U

KZ-42TS1U

TV STAND MODEL NO.:

SU-TS1U

SONY ELECTRONICS INC.

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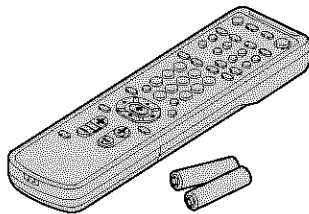
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Installing and Connecting the TV

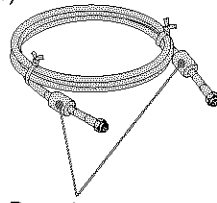
Unpacking

When you unpack this unit, make sure there is all the following:

Remote control (1) and size AA batteries (2)

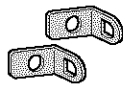


75-ohm coaxial cable (1)

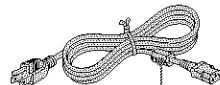


Do not remove ferrite cores.

Brackets (2)



AC power cord (1)



Do not remove ferrite core.

Cleaning cloth (1)

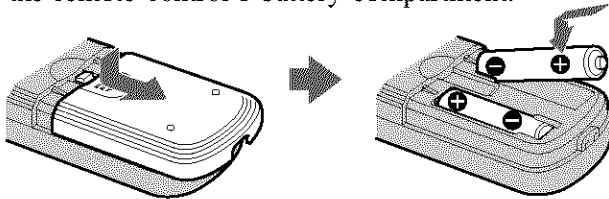
Operating Instructions (1)

Important Safeguards (1)

Warranty (1)

Inserting Batteries into the Remote Control

Insert two size AA batteries (supplied) by matching the + and - on the batteries to the diagram inside the remote control's battery compartment.



Notes

- Remove the batteries to avoid damage from possible battery leakage whenever you anticipate that the remote control will not be used for an extended period.
- Handle the remote control with care. Avoid dropping it, getting it wet, or placing it in direct sunlight, near a heater or where the humidity is high.
- Your remote control can be programmed to operate most video equipment. (See "Operating Video Equipment with Your TV Remote Control" on page 30.)

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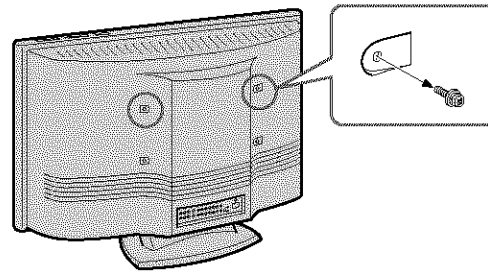
Preventing the TV from Falling Down

Attach the supplied bracket to the rear of the TV, and pass a sturdy cord or chain and attach it to a wall or pillar. Consult your dealer when attaching the bracket, since the screws for the bracket also hold the rear cabinet in a place.

- 1 Remove one of the screws attached at the rear of the TV.

Note

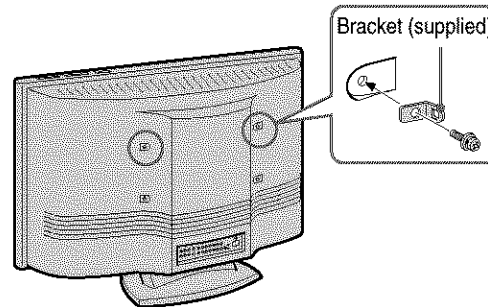
Do not remove both screws at the same time as these screws secure the rear cabinet. Never use the TV with the screws removed.



- 2 Attach the supplied bracket with the screw.

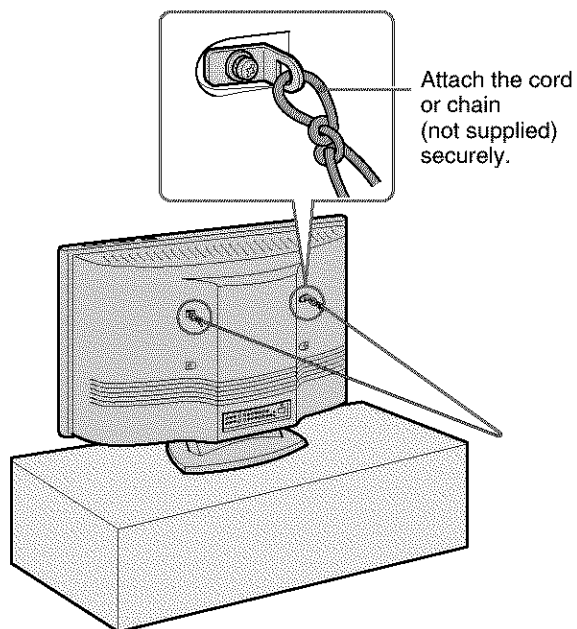
Note

Be sure to use the screw that attaches the rear cabinet. A different screw may damage the TV and result in electric shock.



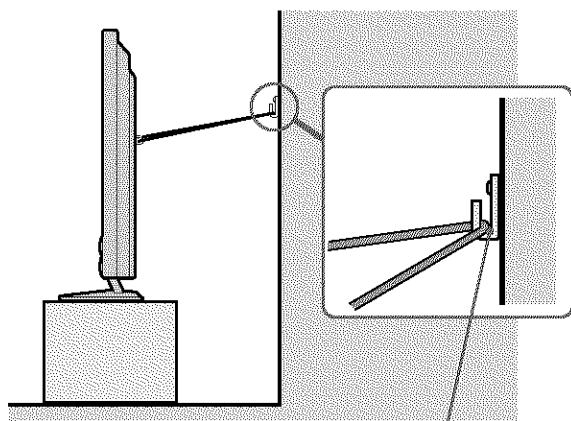
- 3 Repeat steps 1 and 2 to attach the other bracket.

- 4** Attach a sturdy cord or chain securely to each bracket on the rear of the TV.



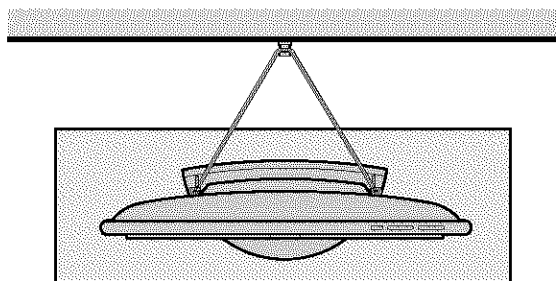
- 5** Attach the cord or chain to a wall or pillar.

Side view



Screw a hook (not supplied) to the wall or pillar securely.

Top view

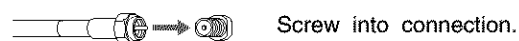


Connector Types

You may find it necessary to use some of the following connector types during set up.

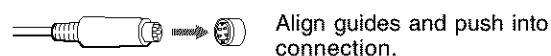
Supplied 75-ohm coaxial cable

Screw-on type



S VIDEO cable

High quality video cable for enhanced picture quality



AUDIO/VIDEO cable



VIDEO - Yellow
 AUDIO (Left) - White
 AUDIO (Right) - Red

Some DVD players are equipped with the following three video connectors:

Y - Green
 P_B (C_B, C_b or B-Y) - Blue
 P_R (C_R, C_r or R-Y) - Red

CONTROL S cable

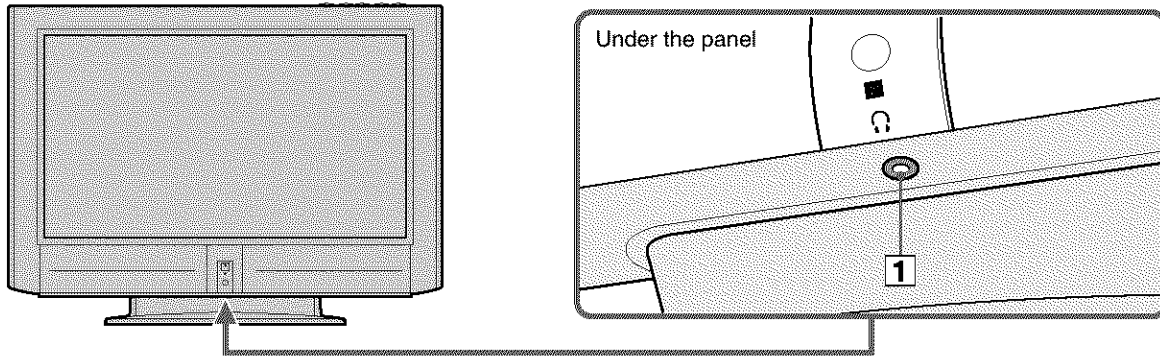
CONTROL S connections are exclusive to Sony equipment and allow greater control of all Sony equipment.



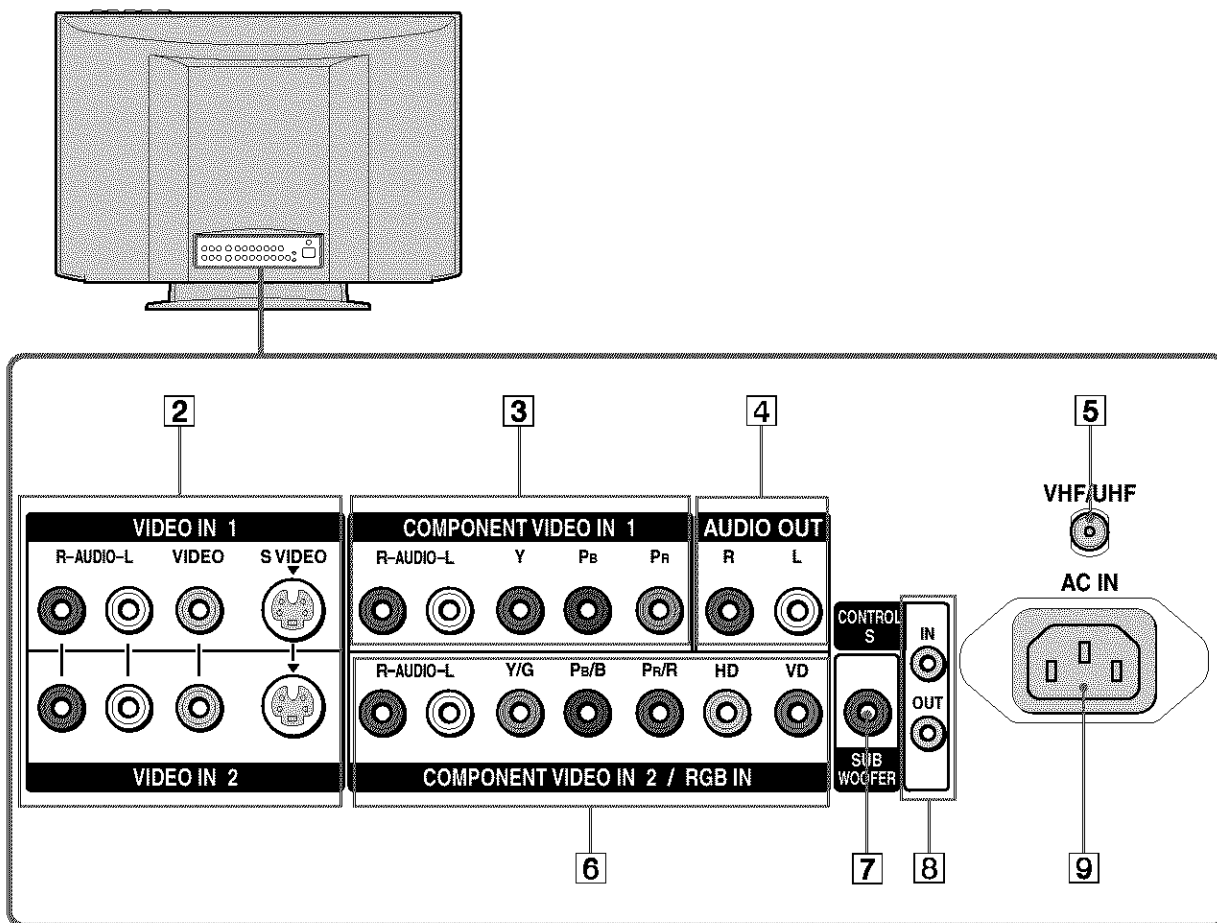
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Identifying Front and Rear Connectors

TV front panel



Rear of TV



6 (US)

1 Headphones jack

Connects to your headphones.

If your headphones do not match the jack, use a suitable plug adaptor (not supplied).

2 VIDEO IN 1, 2 (pages 8 - 10, 13)

Connects to the output jacks of your VCR or other video equipment.

3 COMPONENT VIDEO IN 1 (pages 12, 14)

Connects to the component video (Y, P_B, P_R) and audio (L/R) output jacks of your DVD player or digital TV receiver.

4 AUDIO OUT (page 11)

Connects to the input jacks of your audio equipment.

5 VHF/UHF (pages 8 - 10)

Connects to your VHF/UHF antenna or cable.

6 COMPONENT VIDEO IN 2/RGB IN (page 16)**Y/G, P_B/B, P_R/R input jacks:**

Connects to the component video (Y/C_B/C_R, Y/B-Y/R-Y or Y/P_B/P_R) output jacks of your DVD player, or video output jacks of your RGB equipment.

AUDIO (L/R) input jacks:

Connects to the audio output jacks of your DVD player or RGB equipment.

HD/VD input jacks:

Connects to the synchronized signal output jacks of your RGB equipment.

7 SUB WOOFER (page 15)

Connects to the input jack of your sub woofer.

8 CONTROL S IN/OUT

To control other Sony equipment with the TV's remote control,* connect the CONTROL S IN jack of the equipment to the CONTROL S OUT jack of the TV with the CONTROL S cable.

To control the TV with a remote control for another Sony equipment, connect the CONTROL S OUT jack of the equipment to the CONTROL S IN jack on the TV with the CONTROL S cable.

* Only when the TV is turned on, or the STANDBY/SLEEP indicator lights up in red. When the TV is turned off (the STANDBY/SLEEP indicator goes off), you cannot use this function.


9 AC IN

Connects the supplied AC power cord.

Basic Connections (Connecting Cable TV or Antenna)

Connecting directly to cable or an antenna

VHF only or VHF/UHF or cable

75-ohm coaxial cable (supplied)  Rear of TV
VHF/UHF

Note

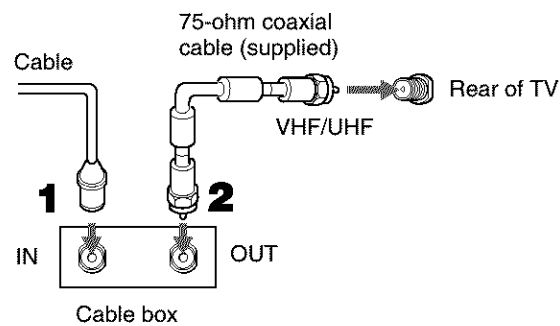
It is strongly recommended to connect the antenna using a 75-ohm coaxial cable to get optimum picture quality. A 300-ohm twin lead cable can be easily affected by radio noise and the like, resulting in signal deterioration. If you use a 300-ohm twin lead cable, keep it away as far as possible from the TV.


Cable box connections

Use this hookup if:

- You subscribe to a cable TV system that uses scrambled or encoded signals requiring a cable box to view all channels, and
- You do not intend to hook up any other audio or video equipment to your TV.

- 1 Connect the coaxial connector from your cable service to the cable box's IN jack.
- 2 Using the supplied 75-ohm coaxial cable, connect the cable box's OUT jack to the TV's VHF/UHF jack.



Also, set "Cable" to "On" in the  (TV Setup) menu (See page 18).

Tips

- Your Sony remote control can be programmed to operate your cable box. (See "Programming the remote control" on page 30).
- To change channels using the cable box, set your TV to channel 3 or 4 depending on the cable box channel output.



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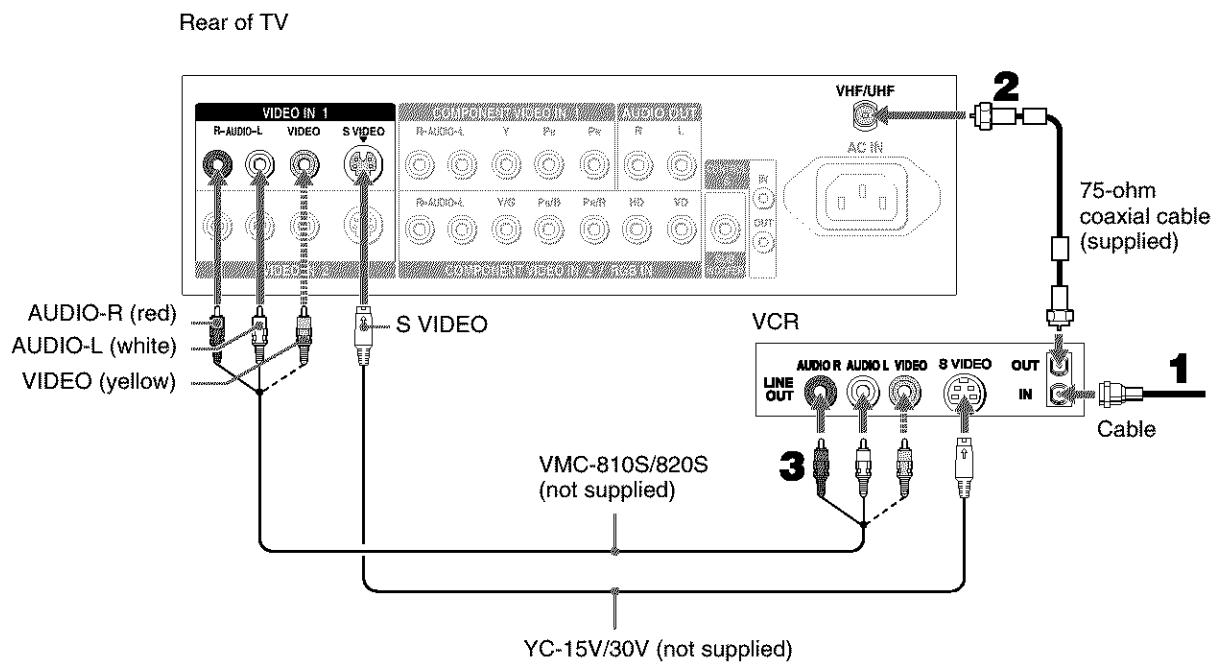
Connecting a VCR and Cable

Use this hookup if:

- You have cable TV that does not require a cable box.

Disconnect all power sources before making any connections.

- 1** Connect the cable TV cable to the VCR's IN jack.
- 2** Using the supplied 75-ohm coaxial cable, connect the VCR's OUT jack to the TV's VHF/UHF jack.
- 3** Using AUDIO and S VIDEO cables, connect the VCR's Audio and S Video OUT jacks to the TV's AUDIO and S VIDEO IN jacks.




Tip

If your VCR is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.

When connecting both VIDEO OUT and S VIDEO OUT

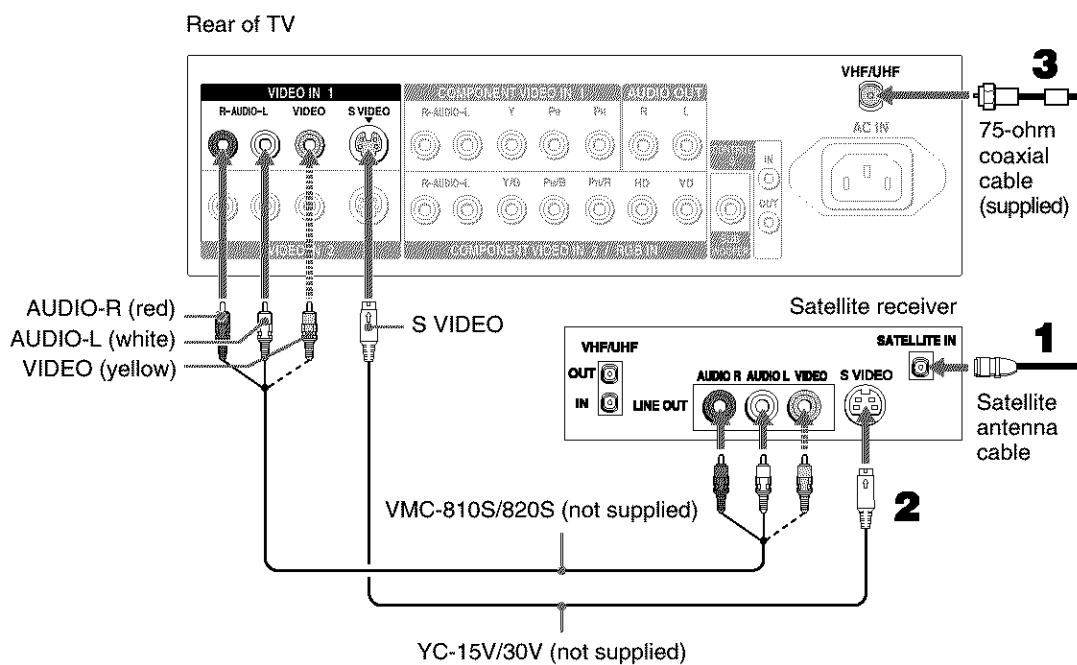
You can select which jack the TV receives the input signal from on the menu screen. You can set it for each video input (VIDEO IN 1 and VIDEO IN 2) separately. The TV is factory set to receive S video input signals.

- 1** Press VIDEO repeatedly until the desired video input appears.
- 2** Press MENU.
- 3** Press $\blacktriangle/\blacktriangledown$ to select  (Custom Setup), then press \oplus .
- 4** Press $\blacktriangle/\blacktriangledown$ to select "Auto YC," then press \oplus .
- 5** To watch the pictures input from the S VIDEO input jack:
Press $\blacktriangle/\blacktriangledown$ to select "On," then press \oplus .
To watch the picture input from the VIDEO input jack:
Press $\blacktriangle/\blacktriangledown$ to select "Off," then press \oplus .
- 6** Press MENU to exit the menu screen.

Connecting a Satellite Receiver

Disconnect all power sources before making any connections.

- 1** Connect the satellite antenna cable to the satellite receiver's SATELLITE IN jack.
- 2** Using AUDIO and S VIDEO cables, connect the satellite receiver's AUDIO and S VIDEO OUT jacks to the TV's AUDIO and S VIDEO IN jacks.
- 3** Connect the supplied 75-ohm coaxial cable from your cable or antenna to the TV's VHF/UHF jack.



Tip

If your satellite receiver is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.

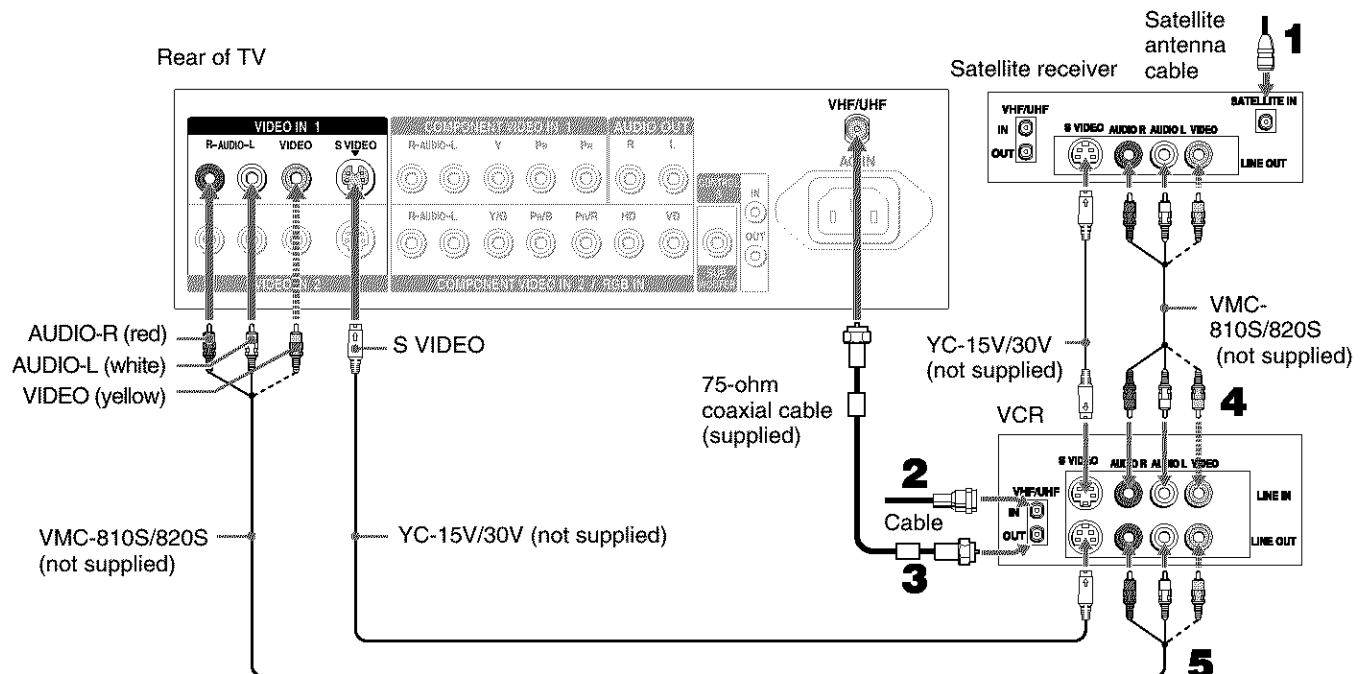
US

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Connecting a Satellite Receiver with a VCR

Disconnect all power sources before making any connections.

- 1** Connect the satellite antenna cable to the satellite receiver's SATELLITE IN jack.
- 2** Connect the CATV cable to the VCR's VHF/UHF IN jack.
- 3** Using the supplied 75-ohm coaxial cable, connect the VCR's OUT jack to the TV's VHF/UHF jack.
- 4** Using AUDIO and S VIDEO cables, connect the satellite receiver's AUDIO and S VIDEO OUT jacks to the VCR's AUDIO and S VIDEO IN jacks.
- 5** Using AUDIO and S VIDEO cables, connect the VCR's AUDIO and S VIDEO OUT jacks to the TV's AUDIO and S VIDEO IN jacks.



Tips

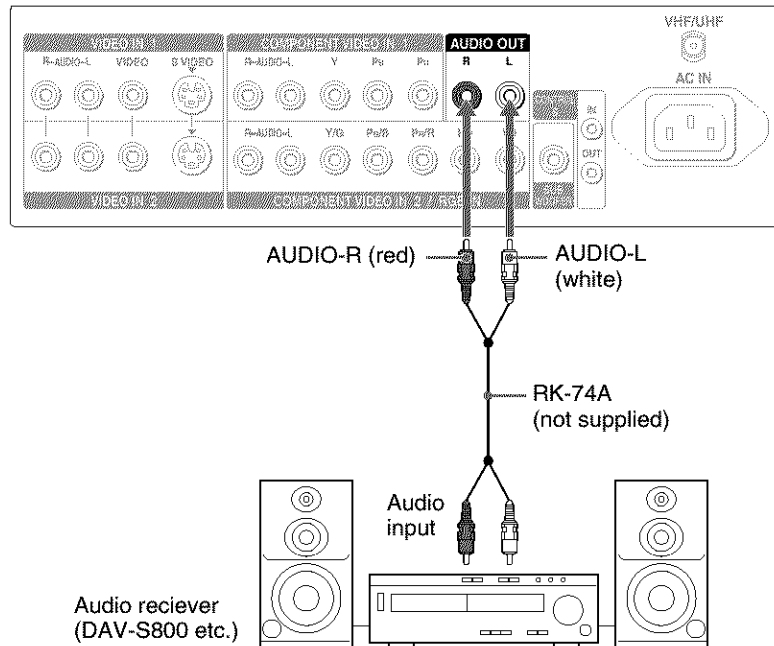
- Be sure your VCR's video input is set correctly. Consult your VCR's operating manual for instructions.
- Use VIDEO on the remote to select VIDEO IN 1 to watch satellite TV or the VCR (your VCR must be turned on). Use 0-9 and ENTER or CH +/- on the remote to watch cable TV.
- If your VCR or satellite receiver is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.

Connecting an Audio Receiver


Disconnect all power sources before making any connections.

Using an AUDIO cable, connect the TV's AUDIO OUT jacks to the audio receiver's AUDIO IN jacks.

Rear of TV



When using your audio system speakers

Set "Speaker" to "Off" on the  (Custom Setup) menu. Sound of the TV is not output through the TV's speakers.

Tip

The sound signal of an equipment connected to the COMPONENT VIDEO IN jacks is also output through the AUDIO OUT jacks. Note that the video signal is not output.

Note

Even though you change the TV's volume or other sound settings, the sound of your audio system does not change.

US

Connecting a DVD Player with Component Video Connectors

This is the preferred hookup to use if:

- Your DVD player has component (Y, B-Y, R-Y) jacks.

Disconnect all power sources before making any connections.

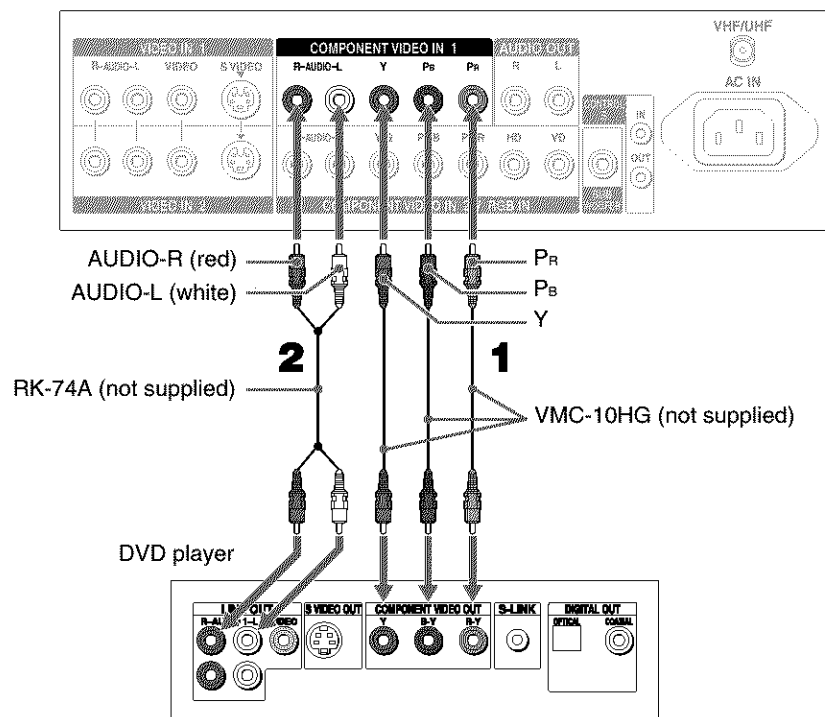
- 1** Using three separate component video cables, connect the DVD player's Y, B-Y and R-Y jacks to the Y, P_B and P_R jacks on the TV. Use the COMPONENT VIDEO IN 1 connections.

Tip

The Y, B-Y and R-Y jacks on your DVD player are sometimes labeled Y, C_B and C_R, or Y, P_B and P_R. If so, connect the cables to like colors.

- 2** Using an AUDIO cable, connect the DVD player's AUDIO OUT jacks to the TV's AUDIO IN jacks. Be sure to use the same row of inputs that you used for the video connection (COMPONENT VIDEO IN 1 or 2).

Rear of TV



Tips

- To take advantage of the Wide Screen Modes, set the TV's aspect ratio to 16:9 on your DVD player. For details, refer to the operating instructions supplied with your DVD player.
- Some DVD players are equipped with the three component video connectors; Y-Green, P_B (C_B, C_S or B-Y) -Blue and P_R (C_R, C_T or R-Y) -Red.

Connecting a DVD Player with A/V Connectors

Use this hookup if:

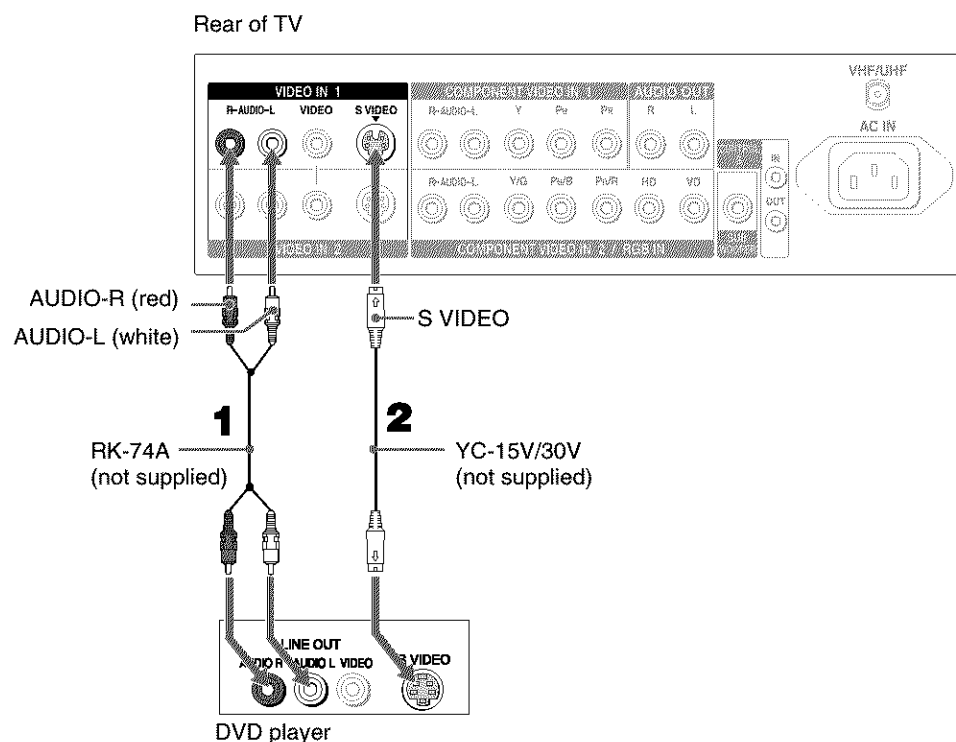
- Your DVD player does not have component (Y, P_B, P_R) jacks.

Tip

If your DVD player has video component output connectors: for best picture quality use the connection described on page 12.

Disconnect all power sources before making any connections.

- Using an AUDIO cable, connect the DVD player's AUDIO OUT jacks to the TV's AUDIO IN jacks.
- Using an S VIDEO cable, connect the DVD player's S VIDEO jack to the TV's S VIDEO jack.



Tips

- To take advantage of the Wide Screen Modes, set the TV's aspect ratio to 16:9 on your DVD player. For details, refer to the operating instructions supplied with your DVD player.
- Use VIDEO on the remote to switch between the VCR and DVD player inputs. Use 0-9 and ENTER or CH +/- on the remote to watch cable TV.
- If your DVD player is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.

US

Connecting a Digital TV Receiver

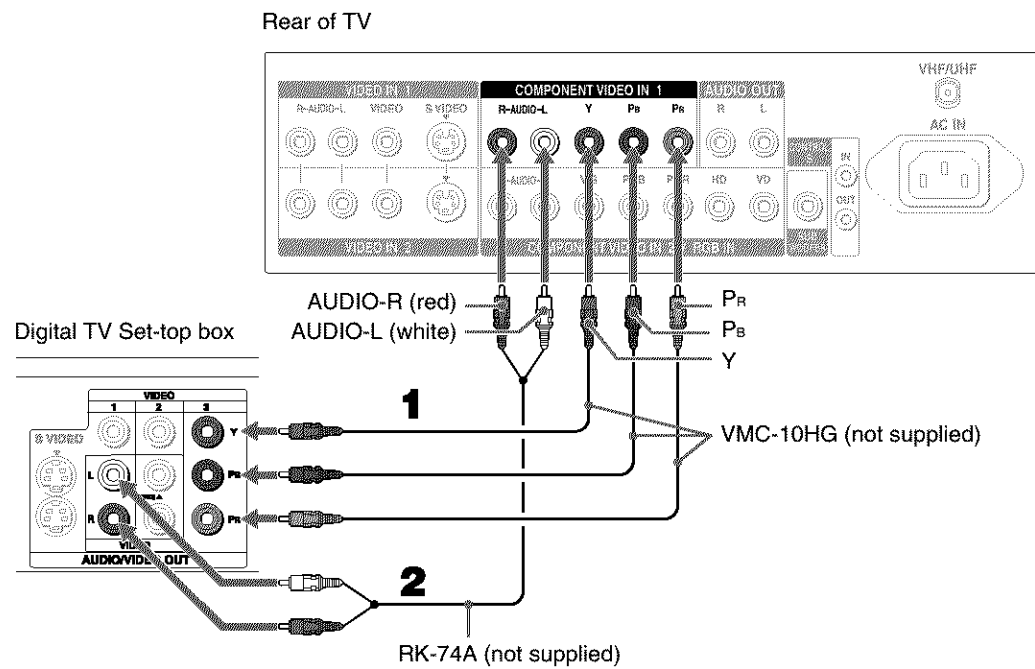
Disconnect all power sources before making any connections.

- 1 Using three separate component video cables, connect the Digital TV Set-top box's Y, P_B and P_R jacks to the TV.

Notes

- The Y, P_B and P_R jacks do not provide audio, so audio cables must be connected to provide sound.
- Component video (Y, P_B, P_R) connection is necessary to view 480i, 720p, and 1080i formats. Note that this TV displays all format types of picture in a resolution of 852 dots × 1024 lines (KZ-32TS1), or 1024 × 1024 (KZ-42TS1).

- 2 Using an AUDIO cable, connect the Digital TV Set-top box's Audio OUT jacks to the TV's AUDIO IN jacks.



Notes

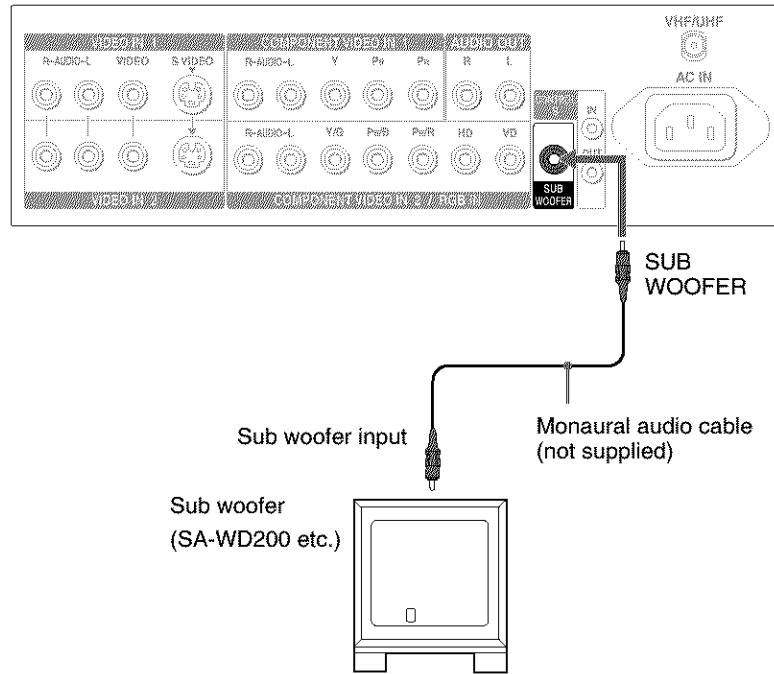
- You cannot record the signal from any equipment connected into the Y, P_B and P_R connectors.
- This TV is not compatible with digital TV receivers configured with RGB or VGA output connectors.

Connecting a Sub Woofer

Disconnect all power sources before making any connections.

Using a monaural audio cable, connect the TV's SUB WOOFER jack to the sub woofer's input jack.

Rear of TV



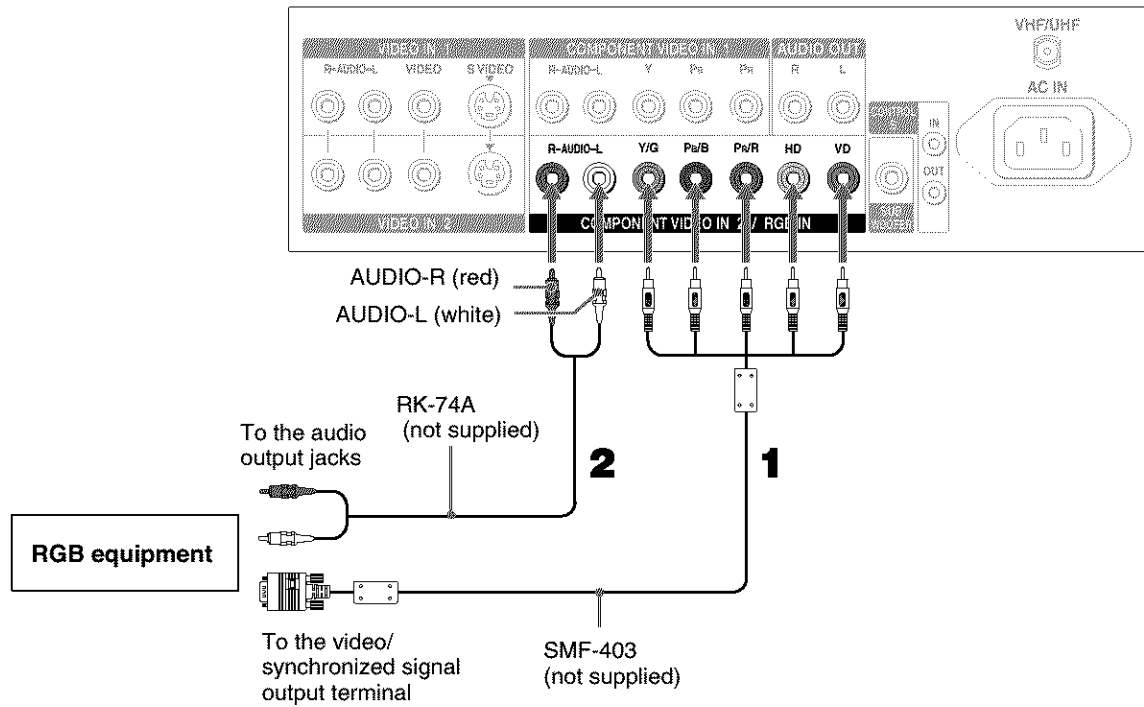
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Connecting an RGB Equipment

Disconnect all power sources before making any connections.

- 1** Using an RGB cable, connect the RGB equipment's video/synchronized signal output terminal to the Y/G, P_B/B, P_R/R, HD, and VD jacks on the TV. Use the COMPONENT VIDEO IN 2/RGB IN connections.
- 2** Using an AUDIO cable, connect the RGB equipment's AUDIO OUT jacks to the TV's AUDIO IN jacks. Be sure to use the same row of inputs that you used for the video connection (COMPONENT VIDEO IN 2/RGB IN).

Rear of TV

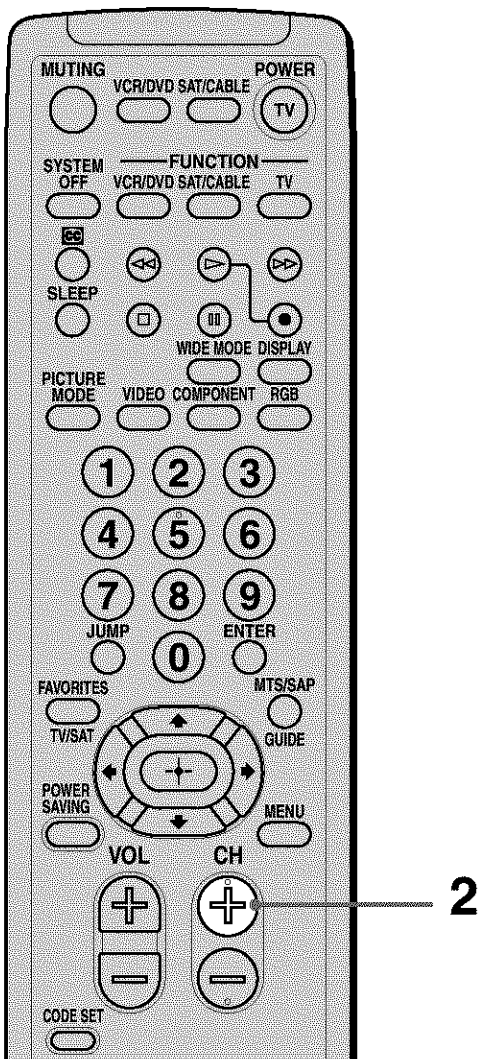
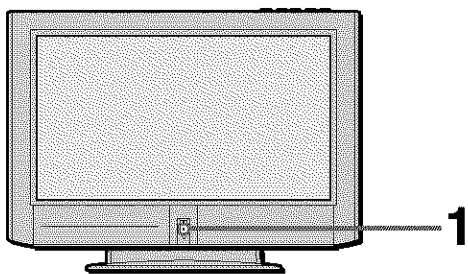


Setting the Channels

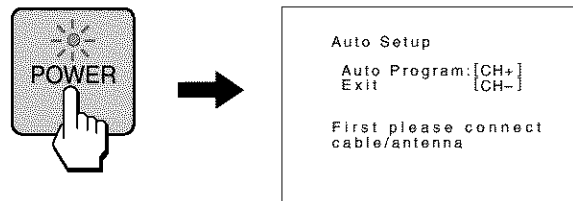
After you finish connecting your TV, you can run Auto Program to set up your channels. The Auto Program screen appears when you turn your TV on for the first time after installing it. To change or skip channels, see page 19.

Note

The Auto Program feature does not apply for an installation that uses a cable box for all channels.



- 1 Press Power on the front panel of your TV. The Auto Setup menu appears.



- 2 Press CH+ on the remote control or on the front panel of your TV to perform Auto Program.

To perform Auto Program again

- 1 Press MENU.
- 2 Press \uparrow/\downarrow to select (TV Setup), then press \oplus .
- 3 Press \uparrow/\downarrow to select "Auto Program," then press \oplus .
- 4 Press \uparrow/\downarrow to select "OK," then press \oplus .

"Auto-Channel Set" appears and the TV starts scanning and presetting channels automatically. When all the receivable channels are stored, the highest numbered channel will be displayed, then the (TV Setup) menu appears.

- 5 Press MENU to exit the menu screen.

To cancel Auto Program

While "Auto-Channel Set" appears in step 4, press MENU on the remote.

US

(Continued)

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To watch CATV channels

You have to subscribe to a cable TV company. Note that cable TV cannot be received in some areas. This TV receives 1-125 cable TV channels. For details on cable TV subscription, consult your nearest cable TV company.

- 1 Press MENU.
- 2 Press \uparrow/\downarrow to select TV (TV Setup), then press + .
- 3 Press \uparrow/\downarrow to select "Cable," then press + .
- 4 Press \uparrow/\downarrow to select "On," then press + .
- 5 Perform steps 3 and 4 on page 17.

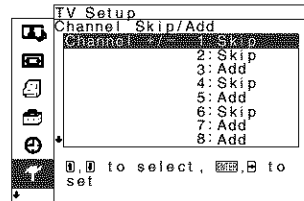
Note

You cannot receive and set the CATV channels and UHF channels at the same time.

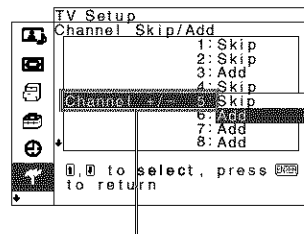
To skip channels

You can skip unnecessary channels when selecting channels using the CH +/- buttons.

- 1 Press MENU.
- 2 Press \uparrow/\downarrow to select TV (TV Setup), then press + .
- 3 Press \uparrow/\downarrow to select "Channel Skip/Add," then press + .

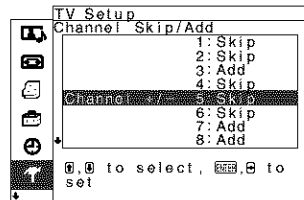


- 4 Press \uparrow/\downarrow to select the channel you want to skip, then press + .



Example: Select this to skip channel 5.

- 5 Press \uparrow/\downarrow to select "Skip," then press + .

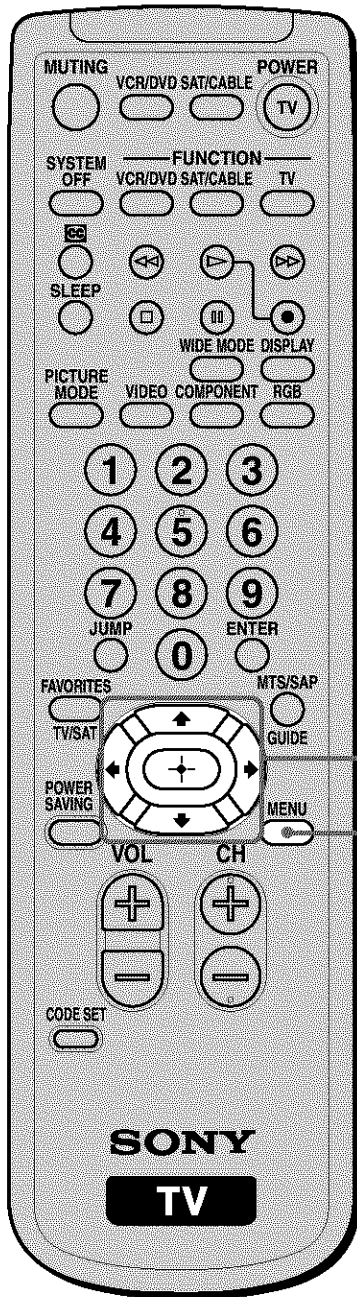


If you want to re-enter the skipped channel, select "Add."

- 6 Press MENU to exit the menu screen.

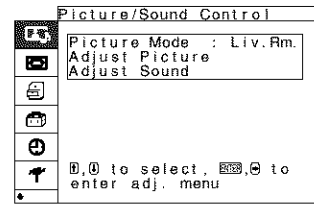
Selecting the On-screen Menu Language


You can select the language to be displayed in all menu.

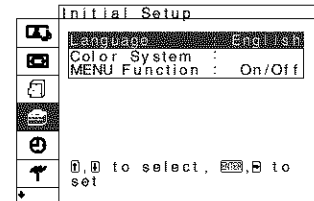
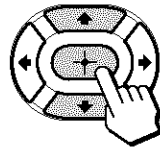


2 - 4
1, 5

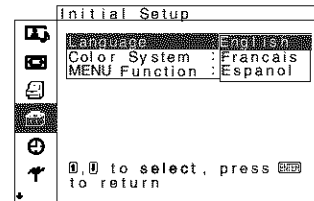
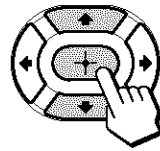
1 Press MENU.



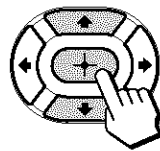
2 Press \uparrow/\downarrow to select , then press \leftarrow .



3 Press \uparrow/\downarrow to select "Language," then press \leftarrow .



4 Press \uparrow/\downarrow to select your preferred language, then press \leftarrow .

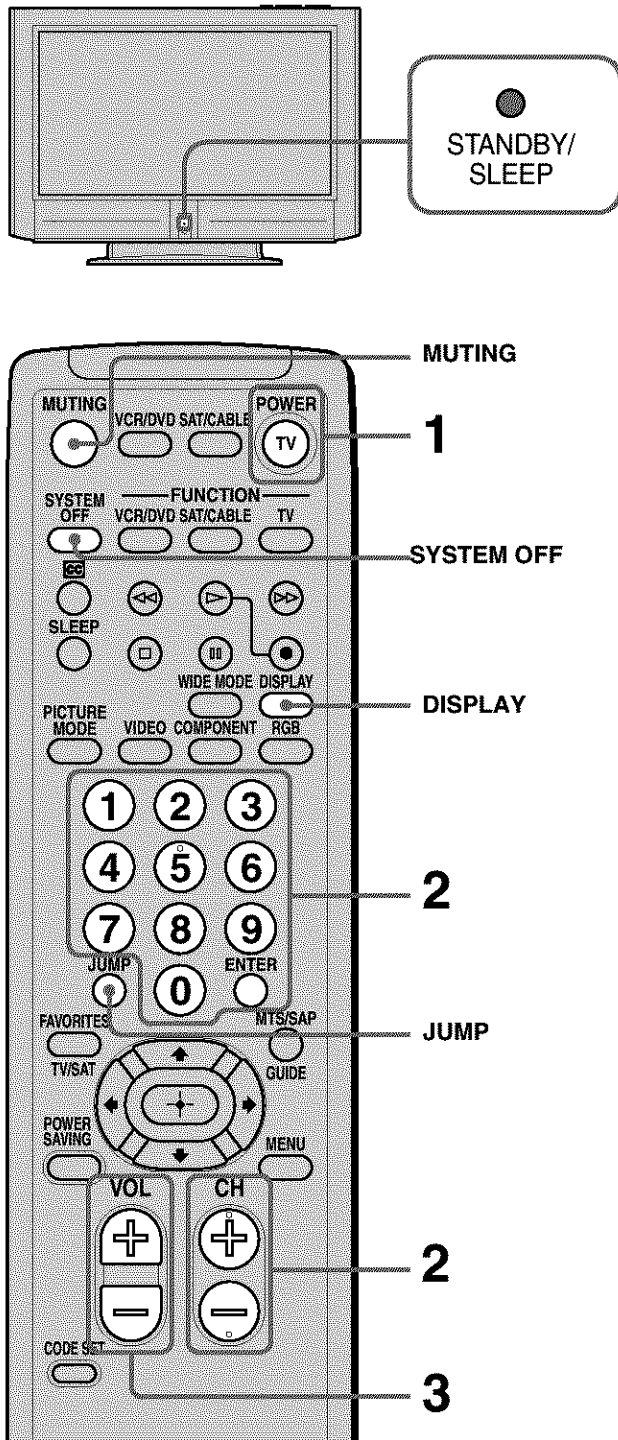


5 Press MENU to exit the menu screen.

US

Watching the TV

Watching the TV



- 1 Press POWER on the remote.

POWER



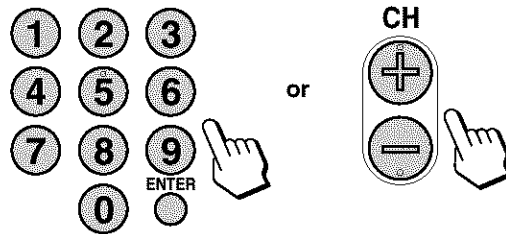
Tip

When the STANDBY/SLEEP indicator goes off, press POWER on the TV.

- 2 Select the desired channel using the 0-9 and ENTER buttons.

Press 0-9 to select a channel, the channel changes after 2 seconds. Press ENTER to select immediately.

Use the CH +/- buttons to scan through the channels.



Tip

When you press and hold CH + or - the channel number will change rapidly.

- 3 Adjust the volume using the VOL +/- buttons.

VOL



Other button operations

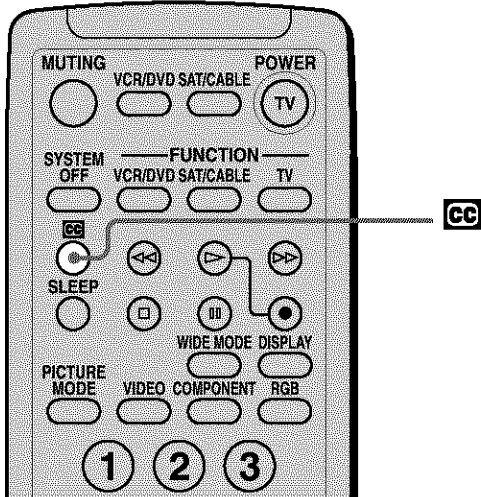
Press	To
MUTING	mute the sound. Press again or press VOL + to restore sound.
SYSTEM OFF	turn off the TV and all other Sony equipment.
DISPLAY	display the current channel number. Press again to turn display off. The channel display will automatically disappear after a few minutes. To display the channel again, press again.
JUMP	jump back and forth between two channels. The TV alternates between the current channel and the last channel selected using the 0-9 buttons.

Tips

- While the STANDBY/SLEEP indicator is lit, the TV turns on automatically if you press the 0-9 and ENTER buttons or CH +/- buttons on the remote.
- You can adjust the volume by referring to the value beside the volume indication (on screen).

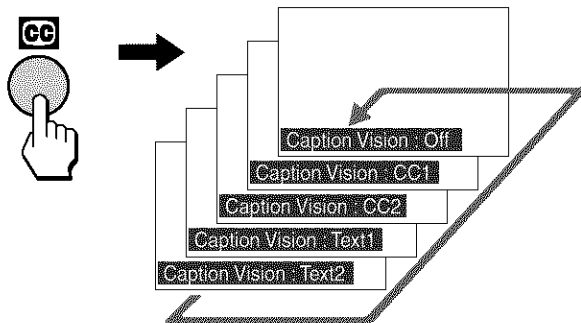
Watching with closed caption

You can display Caption Vision if the broadcaster offers this service.




Press **CC** repeatedly until the desired Caption Vision appears.

Each time you press the button, Caption Vision changes as follows:



Select	To
Off	turn off Caption Vision.
CC1 (Capture 1), CC2 (Capture 2)	display a printed version of the dialogue or sound effects of a program. (The mode should be set to CC1 (Capture 1) for most programs.)
Text1, Text2	display network/station information presented using either half or the whole screen.

Tip

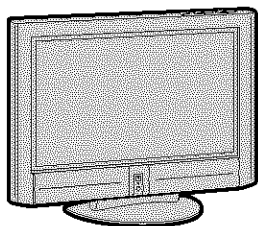
You can select Caption Vision on the menu screen. Select "Caption Vision" in the  (Custom Setup) menu, then select the desired Caption Vision.

US

Enjoying High-quality Pictures and Sounds

To enjoy high-quality pictures and sound, refer to the following and adjust the picture and audio options to best suit the program you are watching.

When watching TV



Set Picture Mode to "Standard" (page 23)

To adjust the picture quality

Select "Liv. Rm." (Living Room) and adjust the options, referring to the following (See page 36).

- Adjust "Brightness" and "Contrast" according to the light conditions in your room.
First, adjust the brightness. Note that increasing "Brightness" too much whitens black color. Next, adjust the contrast. If "Contrast" is reduced and there is little difference between bright and dark areas, increase "Gamma Correct." (Gamma Correction).
- If antenna reception level is too low, the picture may be noisy. In this case, increase "Noise Reduct." (Noise Reduction). If the picture is still noisy, decrease "Sharpness" to reduce any noise.
- Set "Cine Motion" to "Off" except when watching movies.

Set Sound Mode to "Standard" (page 23)

To adjust the sound quality

Select "Liv. Rm." (Living Room) and adjust the options, referring to the following (See pages 24, 38).

- Adjust "Treble" and "Bass" to your taste.
- Set "Effect" as follows:
 - When watching news: "Off"
 - When watching music programs: "Hall"
 - To add a surround-like effect to mono programs: "Simul." (Simulated).

Note

If "Auto Shutoff" is activated (page 50), the TV changes to the standby mode automatically when there is no broadcast. You can prevent the TV from remaining on even if you fall asleep.

When watching movies on videotapes or DVD



Set Picture Mode to "Movie" (page 23)

To adjust the picture quality

Select "Movie" and adjust the options, referring to the following (See page 36).

- Set "Cine Motion" to "Auto" for smoothest presentation of movies on screen (24 frame per second).
- If there is too much noise when watching a rental videotape, increase "Noise Reduct." (Noise Reduction). If the picture is still noisy, decrease "Sharpness" to reduce noise.
- To enjoy high-level picture quality of DVD, increase "Sharpness" to a degree where the picture appears clear, but not overly sharp (See page 37).

Set Sound Mode to "Movie" (page 23)

To adjust the sound quality

Select "Movie" and adjust the options, referring to the following (See page 24).

- For surround sound, set "Effect" to "TS" (TruSurround) (See page 24).

Tip

Caption Vision is displayed if you activate the Closed Caption feature (See page 21).

Notes on Image Retention

If the [1]-[5] images (below) are displayed for an extended period of time, image retention (afterimage) in areas of the screen may result due to the characteristics of the Plasma Display Panel. It is possible to reduce image retention by following steps **A-C**.

Situations which can result in burn-in and picture retention

- 1** Black bars at the top and bottom that appear with wide video source (Letter box picture)
- 2** Black bars to the left and right that appear with 4:3 video source (conventional TV broadcast)
- 3** Video game sources
- 4** DVD on-screen menu displays
- 5** On-screen menus, channel numbers, etc., of connected equipment such as DSS, Cable box, video decks, etc.

Precautions to avoid/reduce burn-in and picture retention

- A** Use the automatic orbiting Screen Saver function.
- B** Avoid displaying channel numbers, on-screen menus etc. of connected equipment such as DSS, Cable box, video decks, etc. To erase channel numbers, on-screen menus, refer to the user manual of connected equipment.
- C** Reduce brightness of the picture and/or display video source in Wide Zoom or Full Mode.



Selecting the Picture Mode

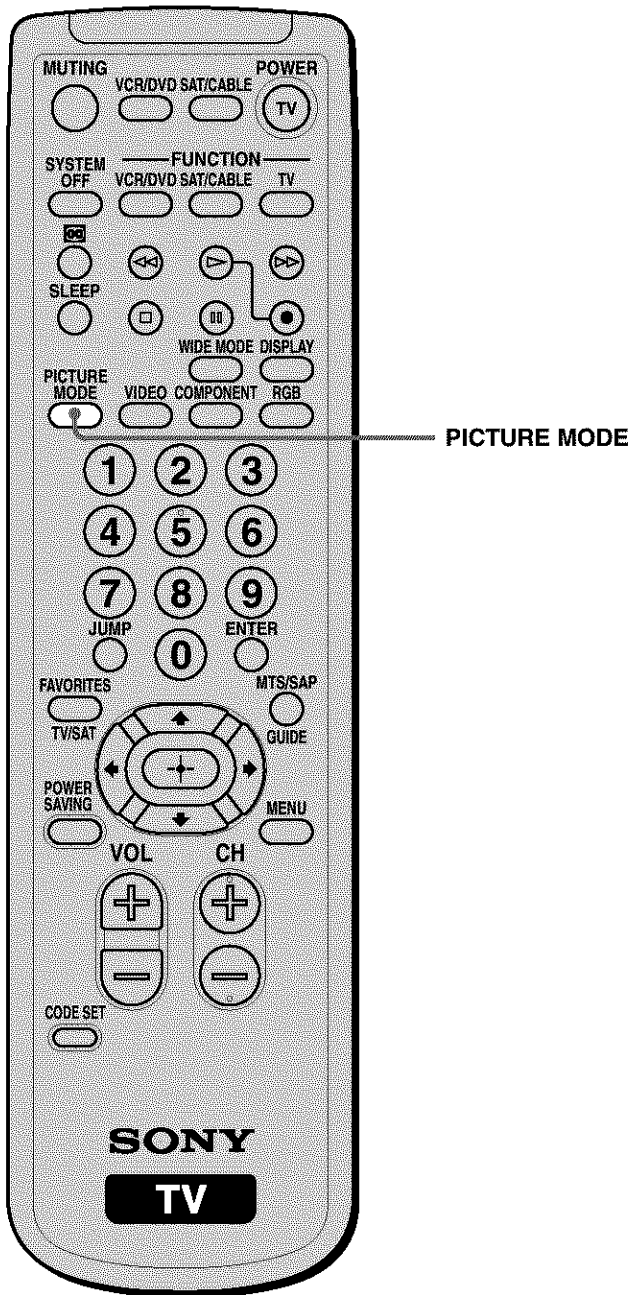
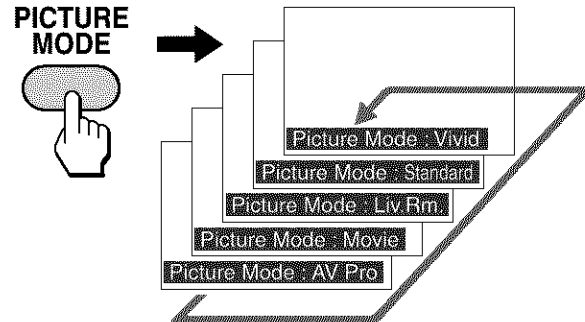
You can select one of five different picture modes that best suits the program you are watching. You can also adjust the picture quality for the Liv.Rm. (Living Room), Movie, and AV Pro modes to suit your taste (See page 36).

When selecting Picture Mode, see “Enjoying High-quality Pictures and Sounds” on page 22.

You can set a different Picture Mode for each picture signal format and store them in memory.

Press PICTURE MODE repeatedly until the desired mode appears.

If you press the button once, the current Picture Mode appears. Each time you press the button, the Picture Mode changes as follows.



Vivid

Select for enhanced picture contrast and sharpness.

Standard

Select to display a picture with contrast to suit your room's lighting conditions.

Liv.Rm. (Living Room)

Select to display a picture with moderate contrast, which may better suit the living room's lighting conditions.

Adjust the options to your taste (See pages 36, 38).

Movie

Select to display a finely detailed picture. The sound automatically changes to “TS” (TruSurround) (See page 25).

Adjust the options to your taste (See pages 36, 38).

AV Pro


Use this mode for your own custom settings (See pages 36, 38).



Selecting the Effect Mode

You can select one of three different Effect modes that best suits the program you are watching. You can select the Effect mode, when watching the picture of connected equipment as well. TruSurround* produces a virtual surround effect, and enables you to enjoy the sound effects of a movie theater.

You can set a different Effect mode for each picture signal format and store them in memory.

* TruSurround and the  symbol are trademarks of SRS Labs, Inc. TruSurround technology is incorporated under license from SRS Labs, Inc.

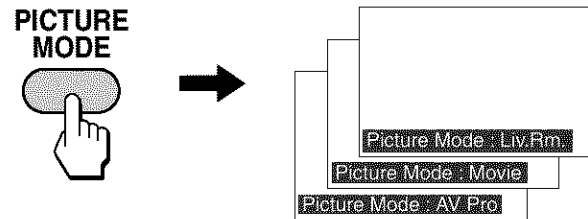
Tip

You can adjust other sound options. For details, see "Using the Sound Control Option" on page 38.

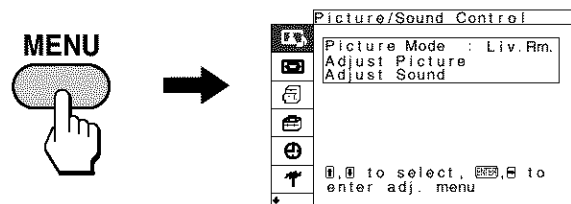
- 1 Press PICTURE MODE repeatedly to select "Liv.Rm." (Living Room), "Movie," or "AV Pro."




Note

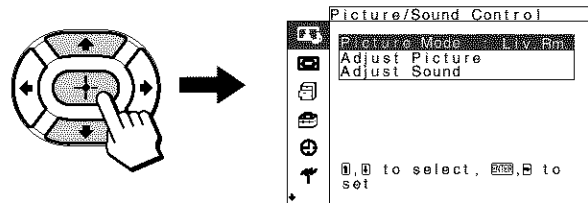
Effect mode cannot be set for the "Vivid" and "Standard" modes (See page 23).





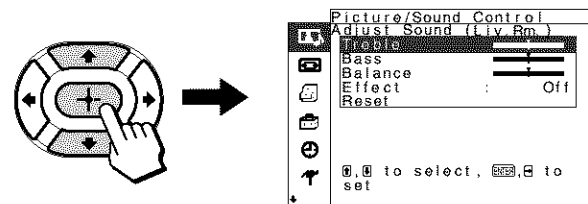
- 2 Press MENU.





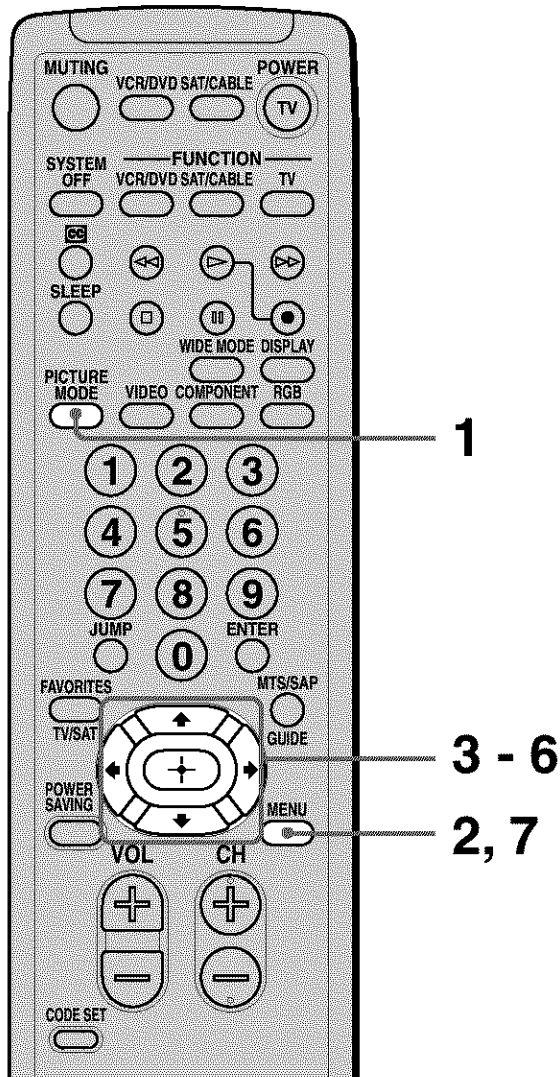
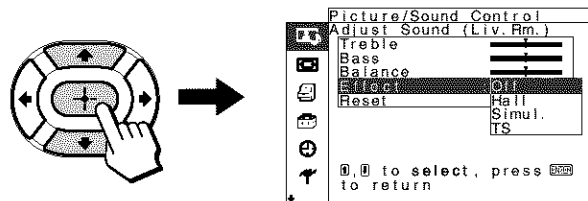
- 3 Press  to select , then press .



- 4 Press  to select "Adjust Sound," then press .



- 5 Press  to select "Effect," then press .



- 6** Press \uparrow/\downarrow to select “Hall,” “Simul.” (Simulated), or “TS” (TruSurround), then press \oplus .

Hall

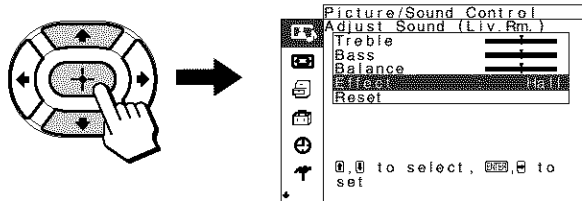
Select for movies and music programs.

Simul. (Simulated)

Select for normal broadcast. It adds a surround-like effect to mono programs.

TS (TruSurround)

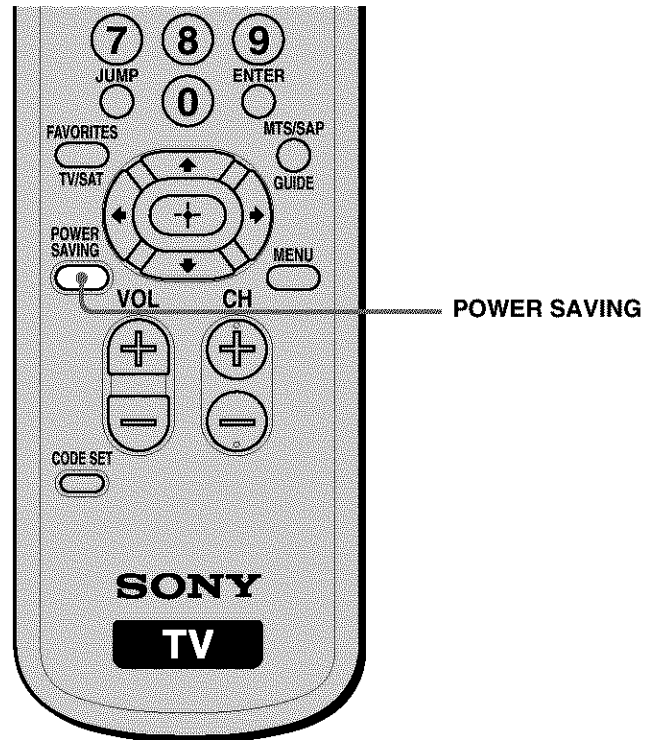
Select for surround sound (for example, DVD software). It produces a virtual surround effect.



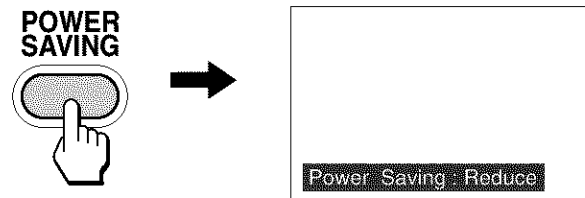
- 7** Press MENU to exit the menu screen.

Saving the Power Consumption

You can save the power consumption of the TV.



Press POWER SAVING.



To cancel the Power Saving mode

Press POWER SAVING again.

“Power Saving: Standard” appears.

Tips

- If you turn off the TV while the Power Saving mode is on, the mode stays on next time you turn on the TV.
- You can set the Power Saving mode to on using the menu screen. Select “Power Saving” in the \square (Custom Setup) menu, then set it to “Standard” or “Reduce.”
- If you select “Liv.Rm.” (Living Room), “Movie” or “AV Pro” using the PICTURE MODE button, you can adjust the picture option even if the Power Saving mode is set to on (page 36). Note that if you increase “Contrast” or “Brightness,” the power consumption is not reduced.

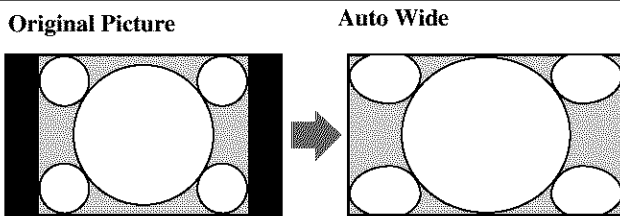


Using the Wide Screen Mode

Changing the Wide Screen Mode automatically

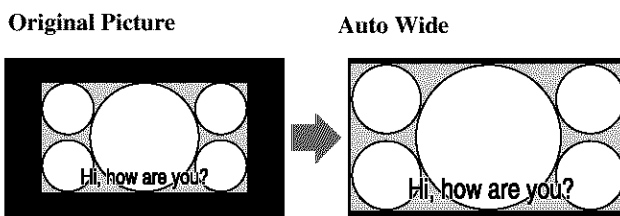
The Auto Wide Mode lets you watch 4:3 normal broadcasts or other sizes of the picture such as movies in several Wide Screen Modes (16:9 aspect ratio). The following example shows the default settings. (The "Auto Wide" screen mode is set to "Mode2," and "4:3 Default" is set to "Widezoom.")

Widezoom



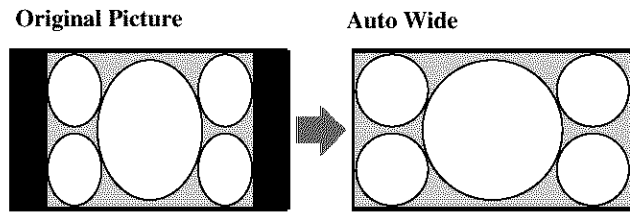
- Normal 4:3 aspect ratio picture
 - DTV 4:3 aspect ratio picture
- "Widezoom" enlarges the 4:3 picture to fill the 16:9 screen, keeping the original image as much as possible.

Zoom



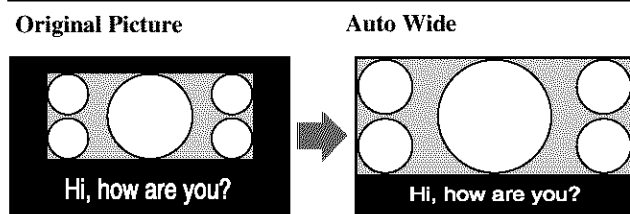
- Letterbox movie of a video tape or a DVD disc
- "Zoom" enlarges the 4:3 picture horizontally and vertically to an equal aspect ratio that fills the 16:9 screen. Useful for watching Letterbox movies.

Full



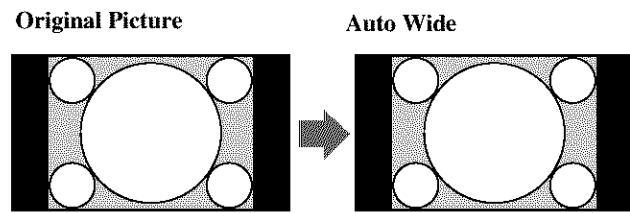
- 4:3 squeezed video camera or DVD picture
 - DTV 16:9 aspect ratio picture
- "Full" stretches the 4:3 picture horizontally only, to fill the 16:9 screen.

Subtitle



- Letter box movies with subtitles outside the picture (2.35:1 aspect ratio)
- "Subtitle" enlarges the picture horizontally and vertically to an equal aspect ratio that fills the screen, while the subtitle area is compressed to fit the screen.

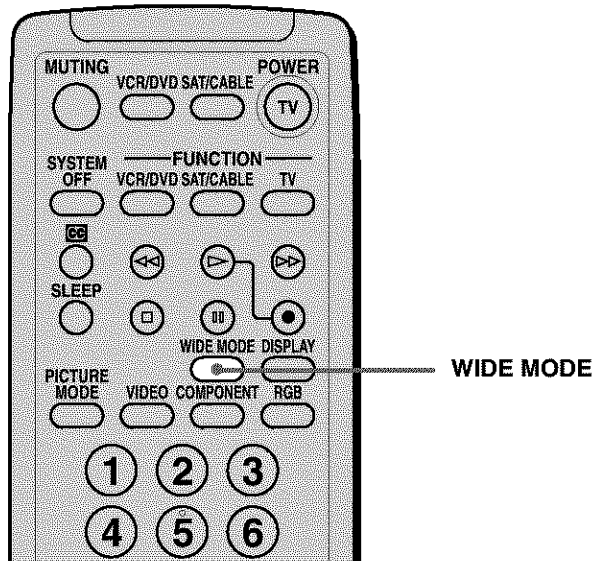
Normal



- Normal 4:3 aspect ratio picture
 - DTV 4:3 aspect ratio picture
- "Normal" returns the 4:3 picture to its original size.

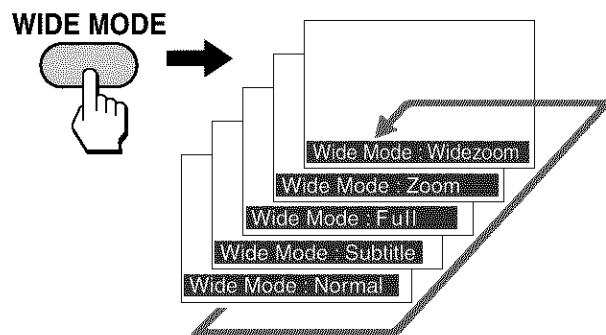
Changing the Wide Screen Mode manually


You can change the Wide Screen Mode manually with the WIDE MODE button. When the antenna reception is low, or the picture is too dark, the Auto Wide function may not work properly. In this case, set the Wide Screen Mode manually.



Press WIDE MODE repeatedly until the desired Wide Screen Mode appears.

Pressing the WIDE MODE button once lets the TV select the best Wide Screen Mode, and the selected Wide Screen Mode appears.* Each time you press the button, Wide Screen Mode changes as follows. For details on Wide Screen Mode, see page 26.



* When "Auto Wide" in the  (Screen Control) menu is set to "Mode2," and the "4:3 Default" is set to "Normal" (page 28), the picture remains 4:3 aspect ratio ("Normal").

Tip

Set "Auto Wide" to "Off" when changing the Wide Screen Mode manually (See page 28).

Changing the Wide Setup

Auto Wide setting has two options: "Mode1" and "Mode2."

Auto Wide: "Mode1"

Normal broadcast (4:3 aspect ratio) transmits the control signal together with the picture signal. Some video equipment, such as camcorders, transmit the control signal*¹ as well. In "Mode1," the TV detects the control signal and displays the picture with its original aspect ratio. Note that black bands may appear near the frame, or part of the picture may not appear, if you select the Wide Screen Mode manually while watching the picture without the control signal.

Auto Wide: "Mode2"

In "Mode2," the TV selects the best Wide Screen Mode automatically to fit the wide screen, regardless of the control signal.

The factory setting of this TV is:

"Auto Wide" is set to "Mode2," and "4:3 Default" is set to "Widezoom."

*¹ Control signal which returns the picture to its original aspect ratio. The following include the control signal.

- Pictures from camcorder with specified aspect ratio
- Broadcasts with the 4:3 aspect ratio signal

(Continued)

(US) 27

How Wide Screen Mode works in Auto Wide “Mode1” and “Mode2”

Original picture	Wide Screen Mode	
	Auto Wide: “Mode1”	Auto Wide: “Mode2”
Normal broadcasts	Wide Screen Mode selected with the WIDE MODE button	“Widezoom” or “Normal” ^{*2}
Broadcasts with the 4:3 aspect ratio signal ^{*3}	“Normal”	“Widezoom” or “Normal” ^{*2}
Letterbox movies with subtitles inside the picture	Wide Screen Mode selected with the WIDE MODE button	“Zoom”
Letterbox movies with subtitles outside the picture	Wide Screen Mode selected with the WIDE MODE button	“Subtitle”
Pictures from camcorder or DVD software with the 16:9 aspect ratio signal ^{*3}		“Zoom” or “Full”
Pictures from camcorder or DVD software with the 4:3 aspect ratio signal ^{*3}	“Normal”	“Widezoom” or “Normal” ^{*2}

^{*2} Set it on the menu screen (See below right). When purchasing, it is set to “Widezoom.”

^{*3} Pictures with control signal (page 27)

Tips

- If you select the Wide Screen Mode manually (page 27), the Wide Screen Mode may not change as noted above.
- If you press the WIDE MODE button (page 27) with Auto Wide set to on, Auto Wide functions noted above. If you press the WIDE MODE button repeatedly, Wide Screen Mode changes as follows (according to the control signal).
 - If the TV receives a picture with control signal, Wide Screen Mode changes according to the control signal.
 - If the TV receives a picture without control signal, Auto Wide does not function even if “Auto Wide” is set to “Mode2.” Note that it functions again when you select other channels or inputs, or turn the TV off and on again.
- This TV features superior presentation of movie films by identifying movie signals and processing them accordingly.

When Wide Screen Mode changes automatically with Auto Wide set to on




- The TV receives the picture with a control signal and selects the best Wide Screen Mode automatically to fit the wide screen (See page 26).
- While “Auto Wide” is set to “Mode2,” the picture size may change during commercial breaks. This is because the TV selects the best Wide Screen Mode automatically for each program (See page 26).



Notes on Wide Screen Mode


- The Wide Screen Mode function of this TV allows for various display options: select the appropriate Wide Screen Mode for the original aspect ratio of the picture you are watching.
- If you change the screen size using the WIDE MODE feature with the TV installed in a public space for commercial use or public purpose, it might be an infringement of copyright.
- If you select “Widezoom” when watching the picture with 4:3 aspect ratio, part of the picture is transformed. You can watch the picture with its original aspect ratio in “Normal” mode.
- The upper and lower parts may not appear or subtitles may not go in the screen according to the size of the original picture. In this case, adjust the size or position (See page 35).

Changing the Auto Wide setting

For details on Auto Wide, see page 26.


- 1 Press MENU.
- 2 Press \uparrow/\downarrow to select  (Screen Control), then press .
- 3 Make sure that “Wide Setup” is selected, then press .

If not, press \uparrow/\downarrow to select “Wide Setup,” and then press .
- 4 Press \uparrow/\downarrow to select “Auto Wide,” and then press .
- 5 To set “Auto Wide” to “Off”:

Press \uparrow/\downarrow to select “Off,” then press .




(Go to step 8.)

To set “Auto Wide” to “Mode1”:

Press \uparrow/\downarrow to select “Mode1,” then press .

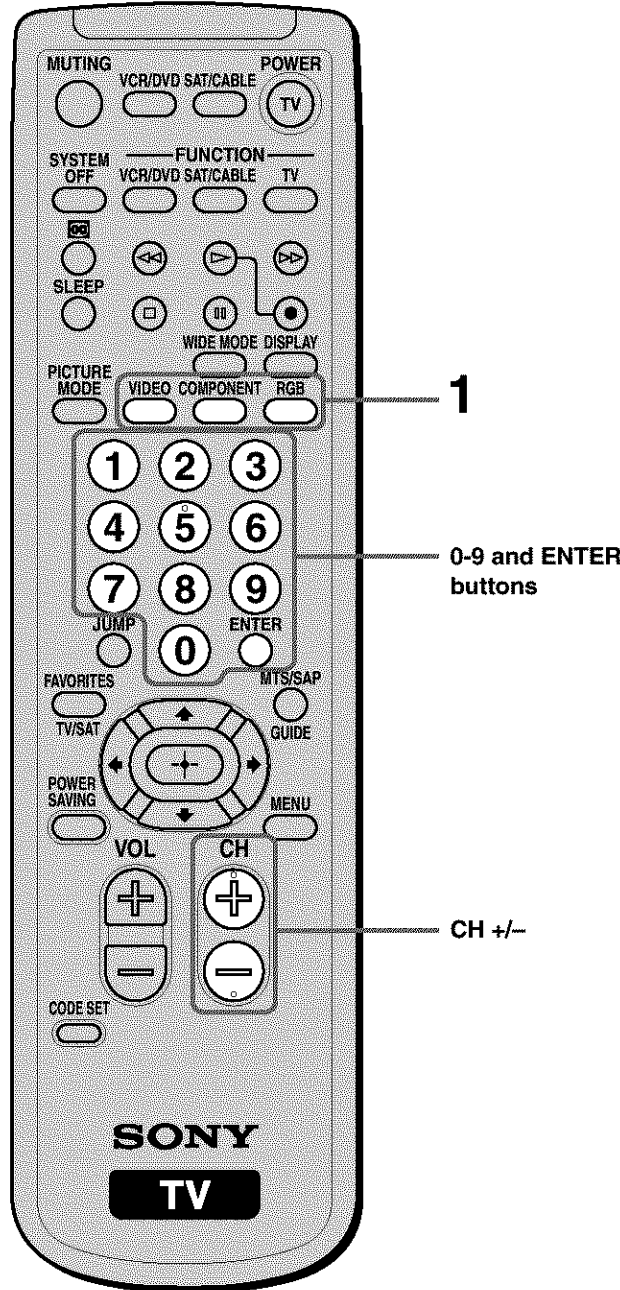
(Go to step 8.)

To set “Auto Wide” to “Mode2”:

Press \uparrow/\downarrow to select “Mode2,” then press .
- 6 If you set “Auto Wide” to “Mode2,” press \uparrow/\downarrow to select “4:3 Default,” then press .
- 7 Press \uparrow/\downarrow to select “Normal” or “Widezoom,” then press .
- 8 Press MENU to exit the menu screen.

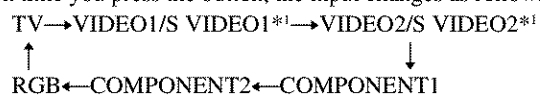
Setting the Video Inputs

You can enjoy images (and sound) from optional video equipment connected to this unit by selecting the appropriate input. For details on connection, see pages 7 through 16.



Tip

You can select the inputs by using the INPUT button on the TV. Each time you press the button, the input changes as follows:



1 Press the desired input button.

Each time you press the button, the input changes as follows:

Press	To select	Display indication
VIDEO	• VIDEO IN 1	VIDEO1*1
	• VIDEO IN 2	VIDEO2*1
COMPONENT	• COMPONENT VIDEO IN 1	COMPONENT1
	• COMPONENT VIDEO IN 2/ RGB IN	COMPONENT2*2
	• COMPONENT VIDEO IN 2/ RGB IN	RGB*3

*1 If a video equipment is connected to S VIDEO input and “Auto YC” in the (Custom Setup) menu is set to “On” (page 8), “S VIDEO1,” or “S VIDEO2” appears.

*2 If a Y, PB/CB, PR/CR signal is applied to the COMPONENT VIDEO IN 2/RGB IN jack, press the COMPONENT button to indicate “COMPONENT2.” Note that if you press the RGB button to indicate “RGB,” in this case, the picture may turn green.

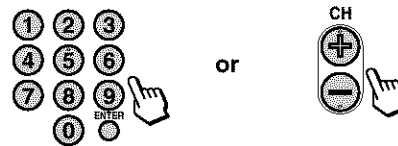
*3 If an RGB signal is applied to the COMPONENT VIDEO IN 2/RGB IN jack, press the RGB button to indicate “RGB.” Note that if you press the COMPONENT button to indicate “COMPONENT2,” in this case, the picture may redder.

2 Operate the selected optional equipment.

For details, see “Operating Video Equipment with your TV Remote Control” on page 30, or refer to the instructions supplied with each equipment.

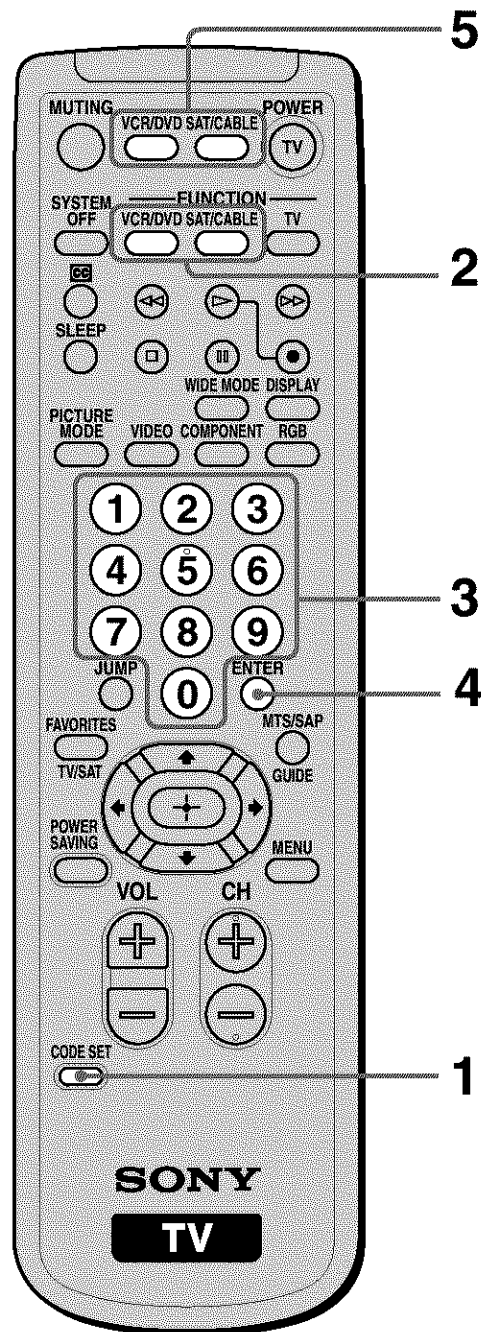
To watch the TV

Press the 0-9 and ENTER buttons or CH +/-.



Operating Video Equipment with Your TV Remote Control

Programming the remote control



The remote control is preset to operate Sony brand video equipment.

Sony equipment	Programmable code number
Beta, ED Beta VCRs	303
8mm VCR	302
VHS VCR	301
DV VCR	348
DVD player	751

If you have video equipment other than Sony brand that you want to control with the TV's remote control, use the following procedures to program the remote control.

Note

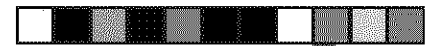
The equipment must have infrared (IR) remote capability in order to be used with this remote control.

From the "Manufacturer's codes" listed on page 31, select the three-digit code number for the manufacturer's code of your equipment. If more than one code number is listed, start with the number listed first. Use the code number to complete the following procedure.

- 1 Press CODE SET.
- 2 Press the function button you want to program.
 - To program a cable box or a satellite receiver**
Press SAT/CABLE (FUNCTION).
 - To program video equipment**
Press VCR/DVD (FUNCTION).
- 3 Enter the three-digit manufacturer's code number using the 0-9 buttons.
- 4 Press ENTER.
- 5 To check if the code number works, aim the TV's remote control at the equipment and press the VCR/DVD and/or SAT/CABLE (POWER) button that corresponds with that equipment. If it responds, the programming is completed. If not, try using the other codes listed for that manufacturer.

Tips

- If more than one number is listed, try entering them one by one until you come to the correct code for your equipment.
- If you enter a new code number, the code number you previously entered at that setting is erased.
- In some rare cases, you may not be able to operate your equipment with the Sony remote control. In this case, use the equipment's own remote control unit.



Manufacturer's codes

VCRs

Manufacturer	Code
Sony	301
Admiral (M. Ward)	327
Aiwa	338, 344
Audio Dynamic	314, 337
Broksonic	319, 317
Canon	309, 308
Citizen	332
Craig	302, 332
Criterion	315
Curtis Mathes	304, 338, 309
Daewoo	341, 312, 309
DBX	314, 336, 337
Dimensia	304
Emerson	319, 320, 316, 317, 318, 341
Fisher	330, 335
Funai	338
General Electric	329, 304, 309
Go Video	322, 339, 340
Goldstar	332
Hitachi	306, 304, 305, 338
Instant Replay	309, 308
JC Penney	309, 305, 304, 330, 314, 336, 337
JVC	314, 336, 337, 345, 346, 347
Kenwood	314, 336, 332, 337
LXI (Sears)	332, 305, 330, 335, 338
LG	332
Magnavox	308, 309, 310
Marantz	314, 336, 337
Marta	332
Memorex	309, 335
Minolta	305, 304
Mitsubishi/MGA	323, 324, 325, 326
Multitech	325, 338, 321
NEC	314, 336, 337
Olympic	309, 308
Optimus	327
Panasonic	308, 309, 306, 307

Manufacturer	Code
Pentax	305, 304
Philco	308, 309
Philips	308, 309, 310
Pioneer	308
Quasar	308, 309, 306
RCA/PROSCAN	304, 305, 308, 309, 311, 312, 313, 310, 329
Realistic	309, 330, 328, 335, 324, 338
Sansui	314
Samsung	322, 313, 321
Sanyo	330, 335
Scott	312, 313, 321, 335, 323, 324, 325, 326
Sharp	327, 328
Shintom	315
Signature 2000 (M. Ward)	338, 327
SV2000	338
Sylvania	308, 309, 338, 310
Symphonic	338
Tashiro	332
Tatung	314, 336, 337
Teac	314, 336, 338, 337
Technics	309, 308
Toshiba	312, 311
Wards	327, 328, 335, 331, 332
Yamaha	314, 330, 336, 337
Zenith	331

DVD Players

Manufacturer	Code
Sony	751
Panasonic	753
Pioneer	752
RCA	755
Toshiba	754

Cable Boxes

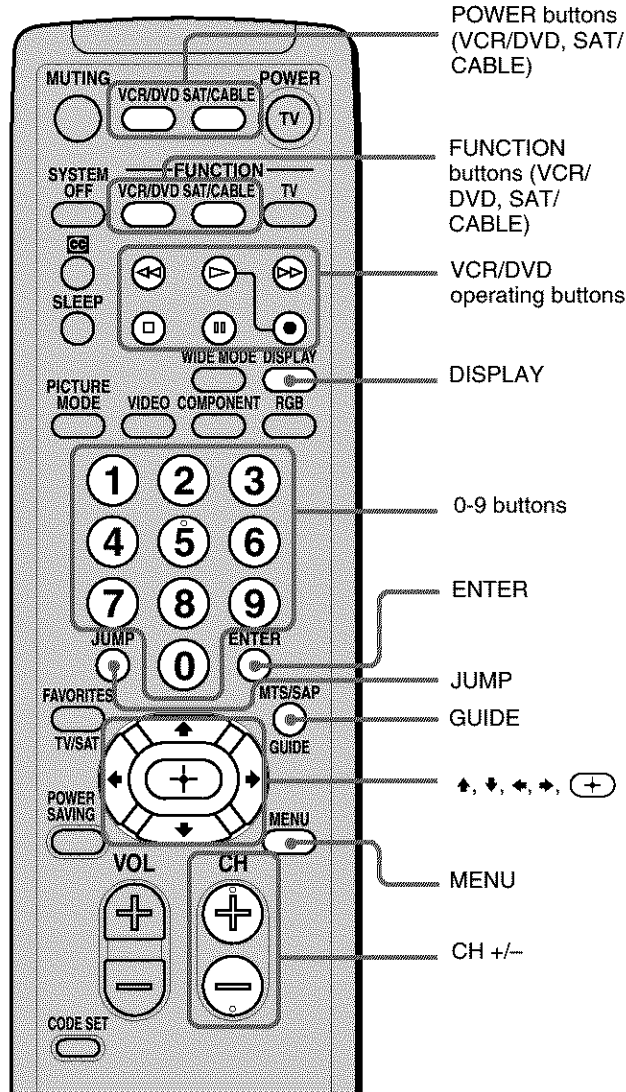
Manufacturer	Code
Sony	230
Hamlin/Regal	222, 223, 224, 225, 226
Jerrold/G. I.	201, 202, 203, 204, 205, 206, 207, 208, 218
Oak	227, 228, 229
Panasonic	219, 220, 221
Pioneer	214, 215
Scientific Atlanta	209, 210, 211
Tocom	216, 217
Zenith	212, 213

Satellite Receivers

Manufacturer	Code
Sony	801
General Electric	802
Hitachi	805
Hughes	804
Panasonic	803
RCA/PROSCAN	802, 808
Toshiba	806, 807



Operating optional equipment



Operating a VCR

To	Press
Turn on/off	VCR/DVD (POWER)
Control a VCR	VCR/DVD (FUNCTION)
Change channels	CH +/-
Record	▷ and ● simultaneously
Play	▷
Stop	□
Fast forward	▷▷
Rewind the tape	◁◁
Pause	⏸ (press again to resume normal playback)
Search the picture forward or backward	▷▷ or ◁◁ during playback (release to resume normal playback)

Operating a DVD player

To	Press
Turn on/off	VCR/DVD (POWER)
Control a DVD player	VCR/DVD (FUNCTION)
Play	▷
Stop	□
Pause	⏸ (press again to resume normal playback)
Step through different tracks of an audio disc	▷▷ to step forward or ◁◁ to step backward
Step through different chapters of a video disc	CH + to step forward or CH - to step backward
Select tracks directly	0-9 buttons
Display the menu (Setup)	MENU
Operate the DVD menu	↑, ↓, ←, →, (+)

Operating a cable box

To	Press
Turn on/off	SAT/CABLE (POWER)
Select cable box	SAT/CABLE (FUNCTION)
Select a channel	0-9 buttons, ENTER
Change channels	CH +/-
Go to previous channel	JUMP

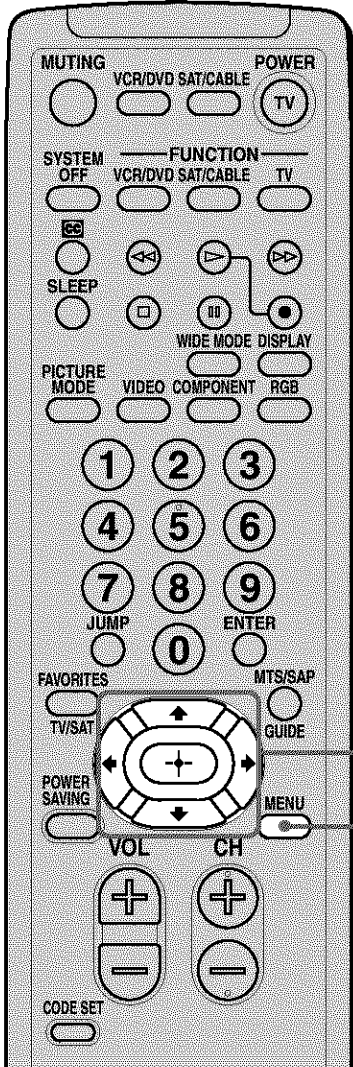
Operating a satellite receiver

To	Press
Turn on/off	SAT/CABLE (POWER)
Select satellite receiver	SAT/CABLE (FUNCTION)
Select a channel	0-9 buttons, ENTER
Change channels	CH +/-
Go to previous channel	JUMP
Display channel number	DISPLAY
Display DBS guide	GUIDE
Display DBS menu	MENU
Move highlight (cursor)	↑, ↓, ←, →
Select item	(+)

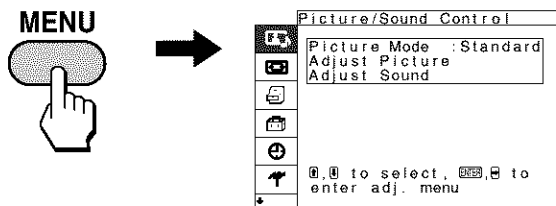
Using Favorite Channels

You can select programs from a list of favorite channels that you preset.

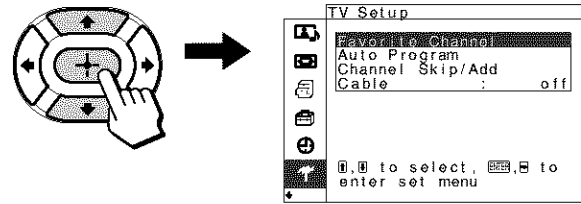
Setting your favorite channels



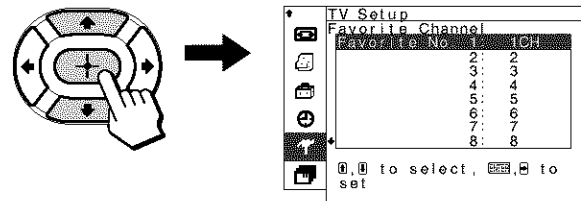
1 Press MENU.



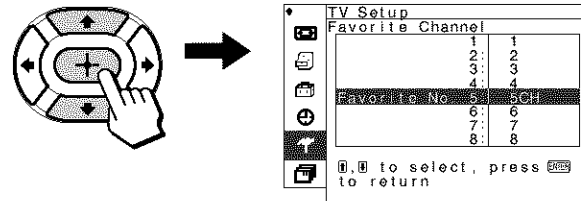
2 Press \uparrow/\downarrow to select (TV Setup), then press \oplus .



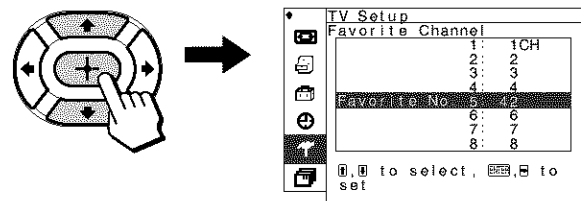
3 Press \uparrow/\downarrow to select "Favorite Channel," then press \oplus .



4 Press \uparrow/\downarrow to select the position you want to change, then press \oplus .



5 Press \uparrow/\downarrow to select the desired channel, then press \oplus .



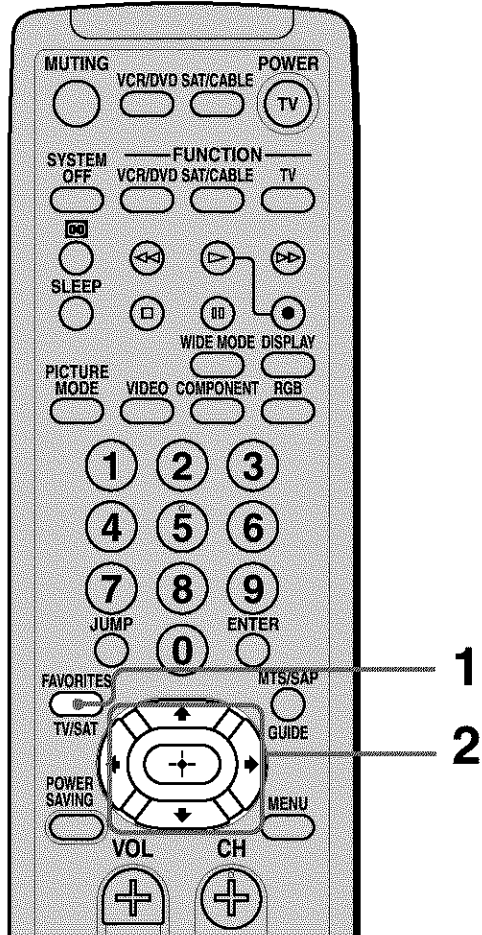
You have now selected a favorite channel for the position selected in step 4.

6 Repeat steps 4 and 5 to program other favorite channels.

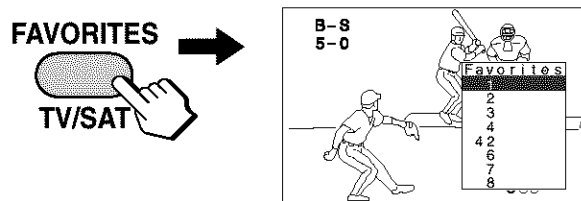
7 Press MENU to exit the menu screen.



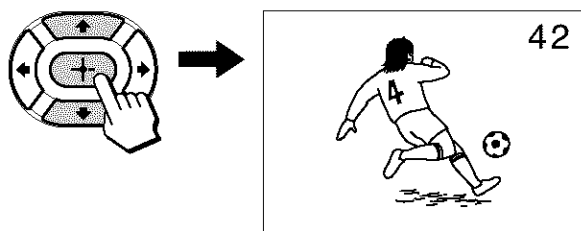
Watching Favorite Channel



- 1 Press FAVORITES.
The Favorite Channel options appear.



- 2 Press \uparrow/\downarrow to select the desired channel, then press \oplus .
The selected channel will be displayed.



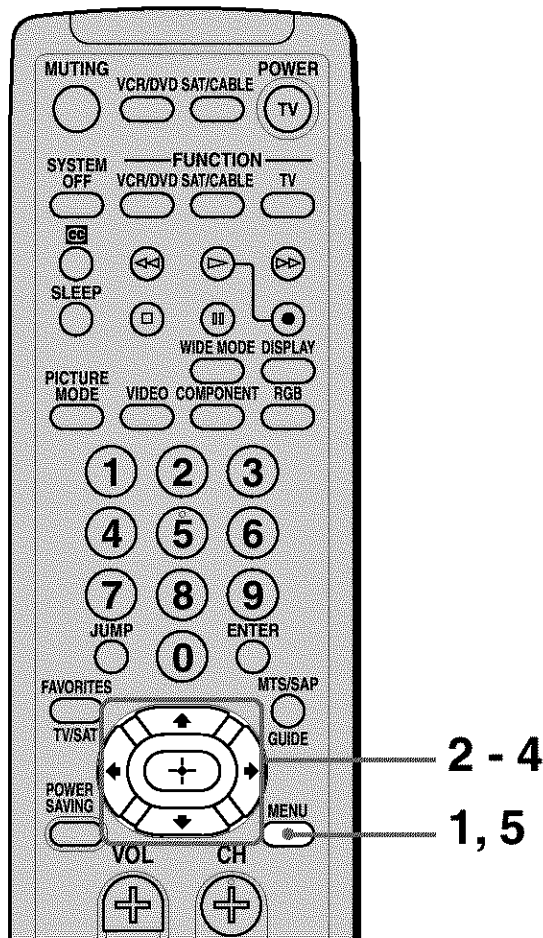
Adjusting Your Setup

Adjusting the Picture Size/Position

You can adjust the size and position of the picture for each Wide Screen Mode (page 26) in the following cases:

- To move the position of the picture in “Widezoom” and “Zoom” modes
- When subtitles may not go in the screen in “Subtitle” mode

“H Size” (Horizontal Size) and “H Shift” (Horizontal Shift) cannot be adjusted in “Widezoom.”

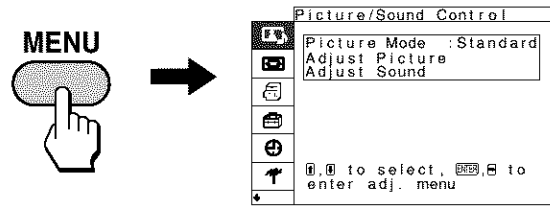


2 - 4

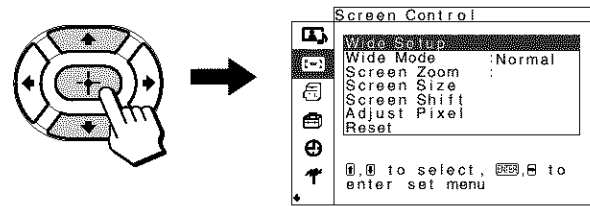
1, 5

Adjusting Your Setup

- 1 Receive the picture you want to adjust, then press MENU.



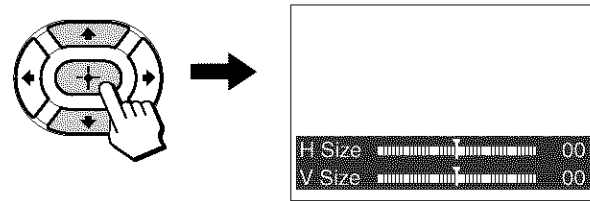
- 2 Press \uparrow/\downarrow to select the (Screen Control), then press $+$.



- 3 Press \uparrow/\downarrow to select the option you want to adjust.

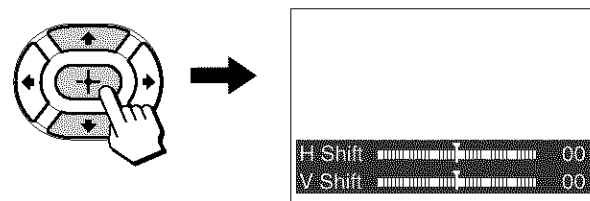
To adjust screen size

Press \uparrow/\downarrow to select “Screen Size,” then press $+$.



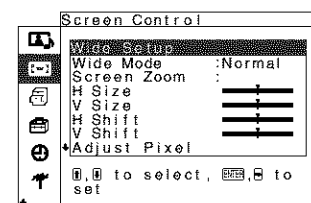
To adjust screen position

Press \uparrow/\downarrow to select “Screen Shift,” then press $+$.



Note

The menu screen changes as follows when “Menu Function” is set to “Return” in the (Initial Setup) menu.

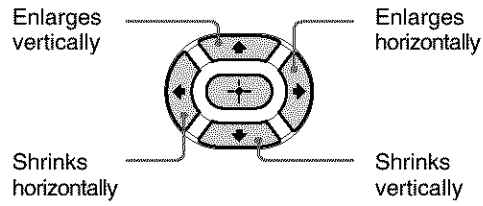


(Continued)

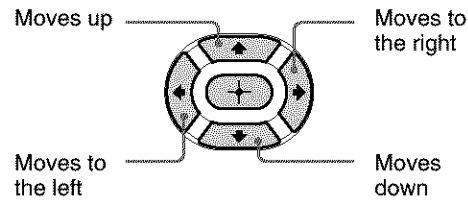


- 4** Press $\uparrow/\downarrow/\leftarrow/\rightarrow$ to adjust each option, then press \oplus .

To adjust the "Screen Size"



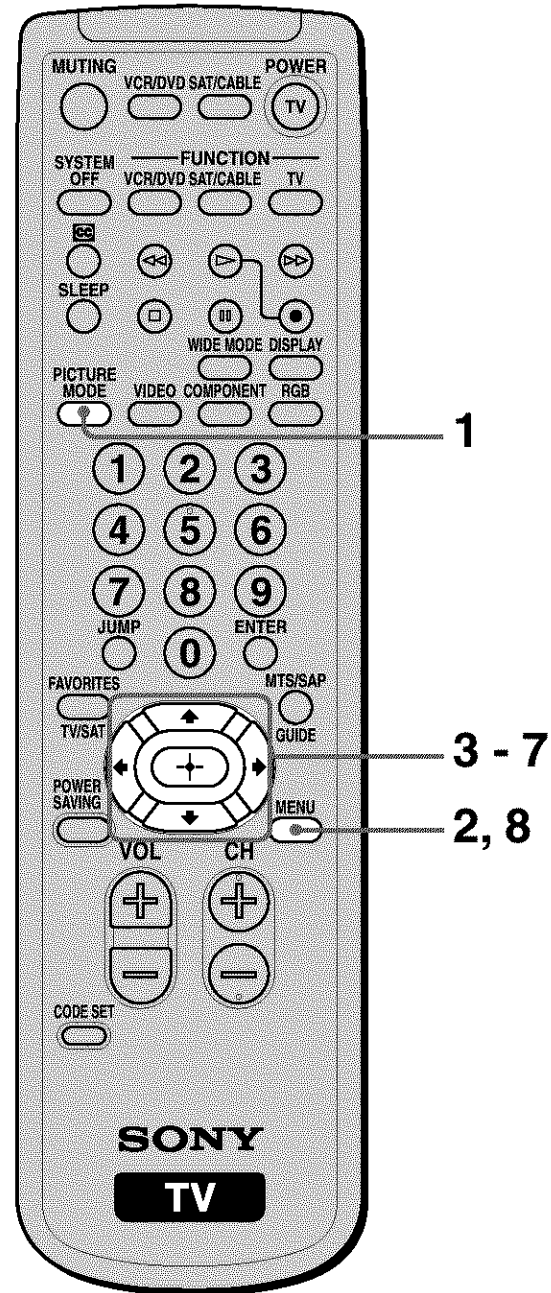
To adjust the "Screen Shift"



- 5** Press MENU to exit the menu screen.

Using the Picture Control Mode Option

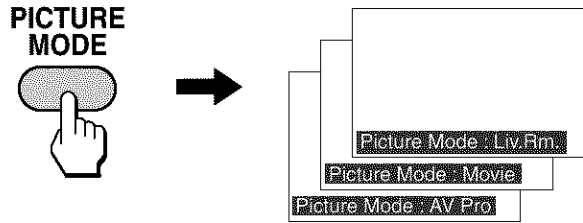
You can precisely set the picture quality with "Liv.Rm." (Living Room), "Movie," or "AV Pro" (selected with the PICTURE MODE button). You can set a different picture control option for each picture signal format and store them in memory.



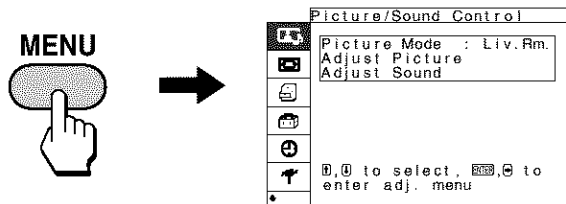
- 1 Press PICTURE MODE repeatedly until "Liv.Rm." (Living Room), "Movie," or "AV Pro" appears.

Note

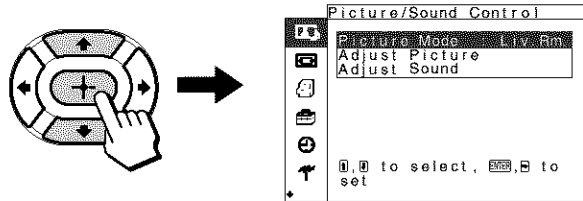
The picture control option cannot be adjusted in "Vivid" or "Standard" modes (See page 23).



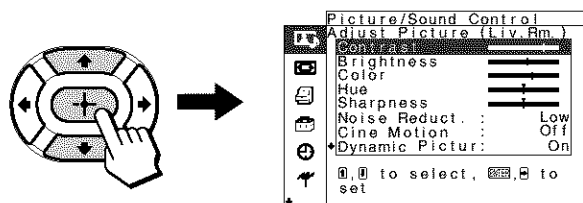
- 2 Press MENU.



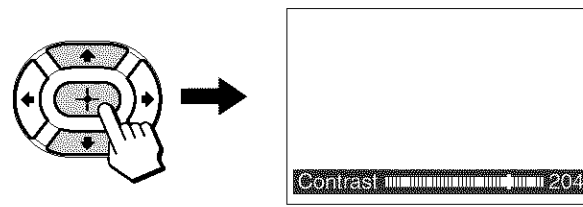
- 3 Press \uparrow/\downarrow to select (Picture/Sound Control), then press \oplus .



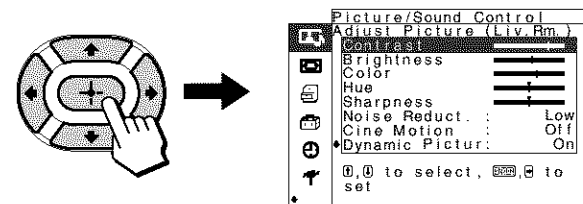
- 4 Press \uparrow/\downarrow to select "Adjust Picture," then press \oplus .



- 5 Press \uparrow/\downarrow to select the option you want to adjust, then press \oplus .



- 6 Press $\uparrow/\downarrow/\leftarrow/\rightarrow$ to make the desired adjustment, then press \oplus .



Adjustable options

Option	Press \downarrow/\leftarrow	Press \uparrow/\rightarrow
Contrast	To reduce picture contrast	To enhance picture contrast
Brightness	To darken the picture	To brighten the picture
Color	To decrease color intensity	To increase color intensity
Hue	To decrease the green tones	To increase the green tones
Sharpness	To soften the picture	To sharpen the picture

Tip

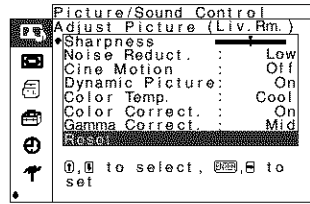
Option adjustments are indicated by a numerical value.

US

(Continued)

Adjusting Your Setup

If you press and hold **↓**, the following options appear.



Adjustable options

Option	Description	Setting
Noise Reduct. (Noise Reduction)	Select to reduce the noise level of equipment connected to the VHF/UHF, VIDEO IN, COMPONENT VIDEO IN*1 jacks. It is most effective on the signal from the VHF/UHF jack.	Off/Low/ Mid (Middle)/ High
Cine Motion	Obtains a smooth picture movement that approaches the original film-like quality when reproducing movies or other video sources on 24 frame per second films.	Auto/Off
Dynamic Picture	Select to enhance the picture contrast.	On/Off
Color Temp. (Color Temperature)	Select to give bright colors a red tint (Setting variable from "Cool" to "Warm").	Cool/Neutral/ Warm/ USER1*2/ USER2*2/ USER3*2
Color Correct. (Color Correction)	Select to emphasize reds and blues.	On/Off
Gamma Correct. (Gamma Correction)	Select to adjust the balance between bright and dark areas of the picture.	High/ Mid (Middle)/ Low

*1 You cannot adjust "Noise Reduct." (Noise Reduction) for an equipment connected only to the RGB (Y/G, P/B, P/R) input.

*2 For details on these settings, see page 48.

7 Repeat steps 5 and 6 to adjust other options.

8 Press MENU to exit the menu screen.

To reset to the factory settings

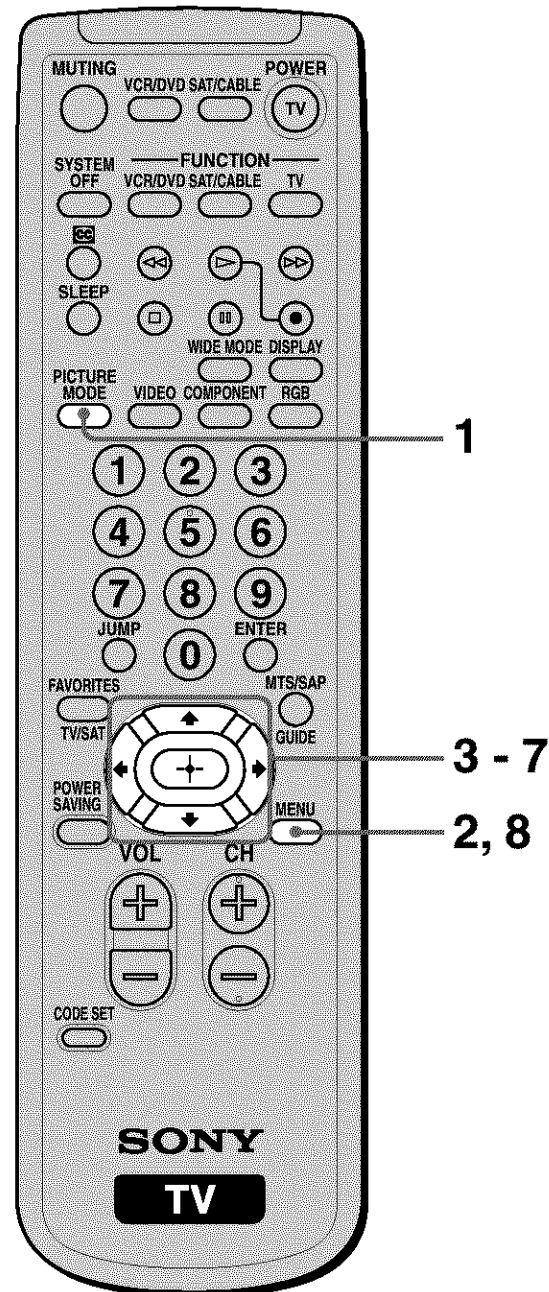
Select "Reset" in step 5, then press **+**.

Using the Sound Control Option

You can precisely adjust the sound settings for "Liv.Rm." (Living Room), "Movie," or "AV Pro" (selected with the PICTURE MODE button).

You can set a different sound control option for each picture signal format and store them in memory.

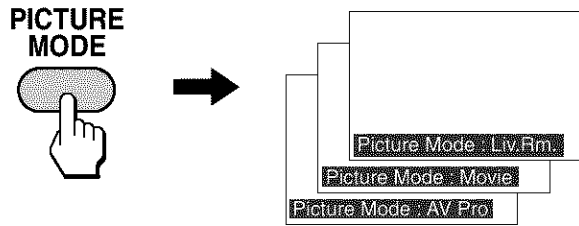
For details on Effect mode, see page 24.



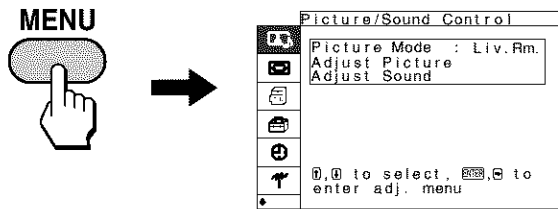
- 1 Press PICTURE MODE repeatedly until "Liv.Rm." (Living Room), "Movie," or "AV Pro" appears.

Note

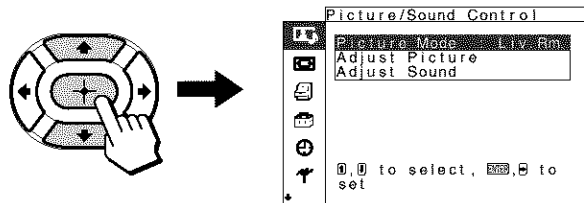
The sound control option cannot be adjusted in "Vivid" or "Standard" modes (page 23).



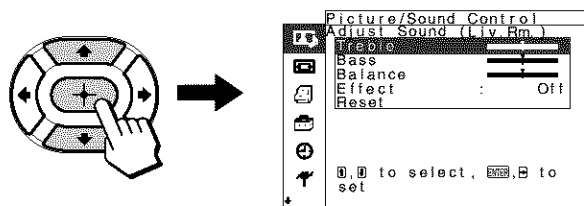
- 2 Press MENU.



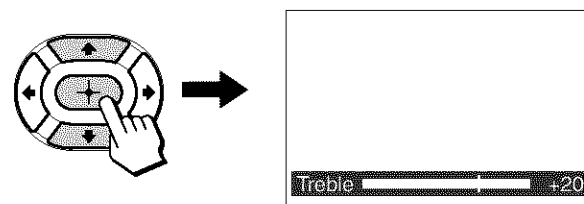
- 3 Press \uparrow/\downarrow to select (Picture/Sound Control), then press \oplus .



- 4 Press \uparrow/\downarrow to select "Adjust Sound," then press \oplus .



- 5 Press \uparrow/\downarrow to select the option you want to adjust, then press \oplus .



- 6 Press $\uparrow/\downarrow/\leftarrow/\rightarrow$ to make the desired adjustment, then press \oplus .



Option	Press \downarrow/\leftarrow	Press \uparrow/\rightarrow
Treble	To decrease higher-pitched sounds.	To increase higher-pitched sounds.
Bass	To decrease lower-pitched sounds.	To increase lower-pitched sounds.
Balance	To emphasize the left speaker.	To emphasize the right speaker.
Effect	See page 24.	

Tip

Option adjustments are indicated by a numerical value.

- 7 Repeat steps 5 and 6 to adjust other options.
- 8 Press MENU to exit the menu screen.

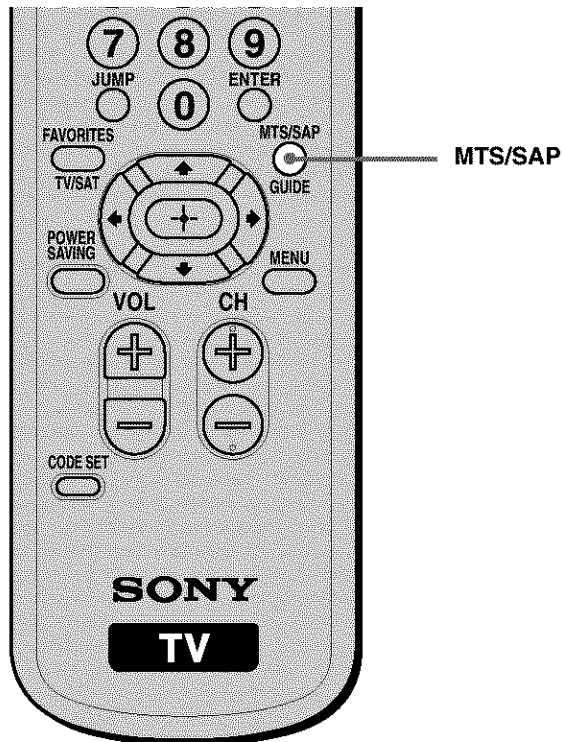
To reset to the factory settings

Select "Reset" in step 5, then press \oplus .

US

Selecting Stereo or Bilingual Programs

You can enjoy stereo, bilingual and mono programs.



Using the Parental Control Feature

The TV programs and movies shown on TV are given a rating signal based on the following rating systems.

In U.S.A.: U.S. Television Parental Guidelines to rate television programs (U.S. TV ratings), and Motion Picture Association of America (MPAA) Guidelines to rate movies including those shown on TV (movie ratings).

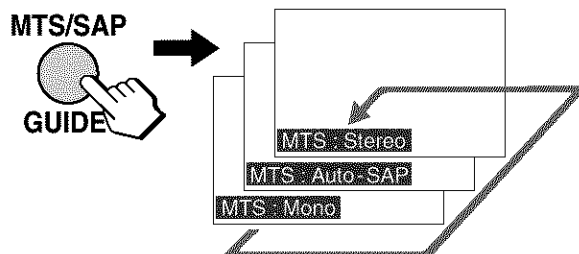
In Canada: Canadian English Language ratings to rate television programs in English, and Canadian French Language ratings to rate those in French.

To block programs you feel are unsuitable for your children, you need to set the TV for the desired rating systems. Sony's predetermined ratings are also available. See page 45 for a description of the ratings.

The TV's Parental Control feature functions by receiving the rating signal from your local broadcasting station or cable service provider.

Press MTS/SAP repeatedly until the desired sound indication appears.

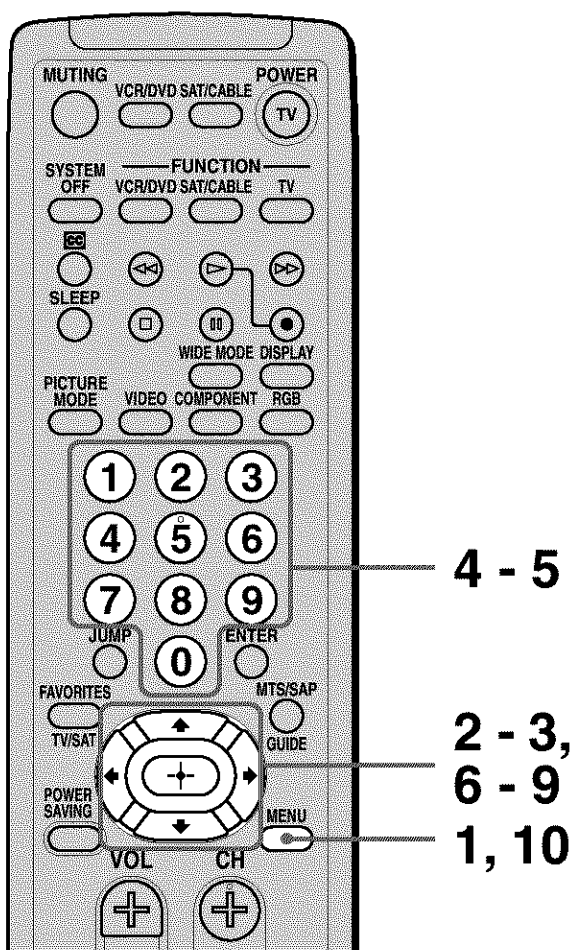
Each time you press the button, the sound indication changes as follows:



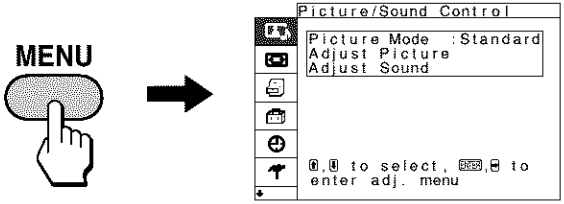
Sound indication	Description
Stereo	Select for stereo reception when viewing a program broadcast in stereo.
Auto-SAP	Select to automatically switch the TV to second audio programs when a signal is received. (If no SAP signal is present, the TV remains in Stereo mode.)
Mono	Select for mono reception. (Use to reduce noise during weak stereo broadcasts.)



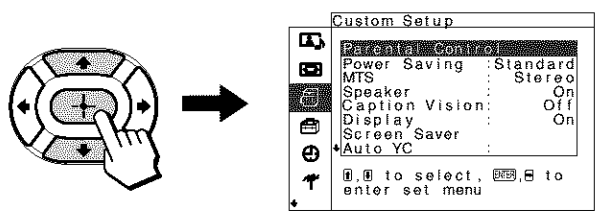
Activating the Parental Control feature



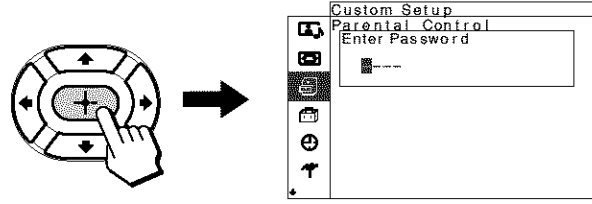
1 Press MENU.



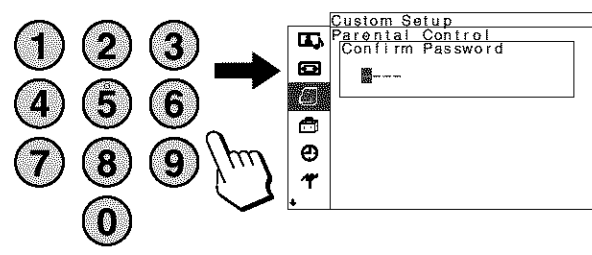
2 Press ↑/↓ to select (Custom Setup), then press (+).



3 Make sure that "Parental Control" is selected, then press (+).

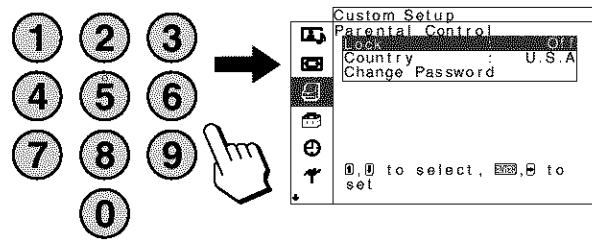


4 Enter a four digit password using the 0-9 buttons.



Note
Do not enter "4357" corresponding to "HELP" on a phone number pad (See page 42).

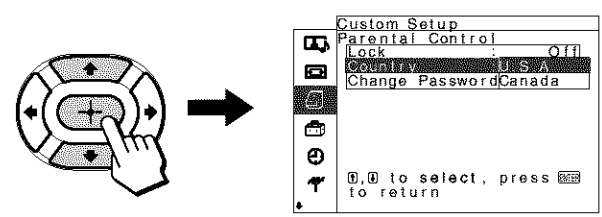
5 Confirm your password by entering it again. Your password is stored and the Parent menu options appear.



Tips

- You need to enter the password here for any feature access into the Parental Control menu. If you lose your password, see "Tip" on page 42.
- If you want to change the password, see page 42.

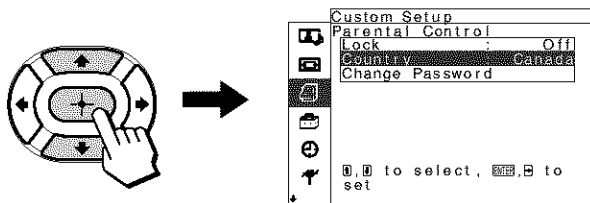
6 Press ↑/↓ to select "Country," then press (+).



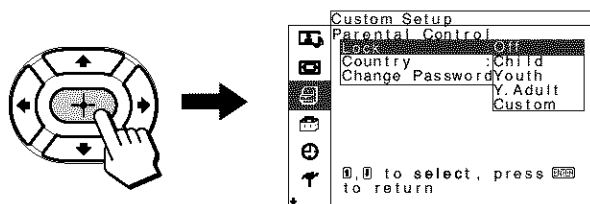
(Continued)



- 7** Press \uparrow/\downarrow to select your country (U.S.A. or Canada), then press \oplus .

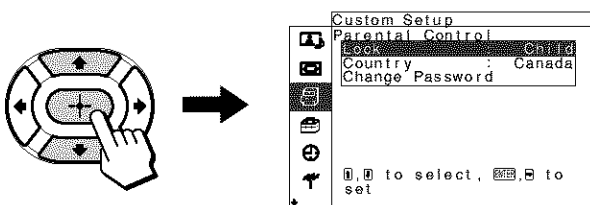


- 8** Press \uparrow/\downarrow to select "Lock," then press \oplus .



- 9** Press \uparrow/\downarrow to select a desired rating, then press \oplus .

If you select "Child," "Youth," or "Y. Adult" (Young Adult), the Parental Control is activated automatically.



If you want to select the ratings from "Custom," see "Selecting a Custom Rating" on page 43.

- 10** Press MENU to exit the menu screen.

Viewing blocked programs

You can view a blocked programs by entering the password.

- 1 Press ENTER to display the "Password" screen.
- 2 Enter your password using the 0-9 buttons.

The Parental Control feature will be canceled ("Lock" set to "Off") until you turn the TV off.

To deactivate the Parental Control feature
Set "Lock" to "Off" in the Parental Control menu.

To change the password

- 1 Select "Parental Control" from the ☰ (Custom Setup) menu (See page 41).

- 2 Enter your four digit password using the 0-9 buttons.

The "Parental Control" menu appears.

- 3 Press \uparrow/\downarrow to select "Change Password," then press \oplus .

- 4 Enter a new four digit password using 0-9 buttons.

- 5 Enter the password set in step 4 again to confirm, then press \oplus .

- 6 Press MENU to exit the menu screen.

Tip

If you have forgotten your password, enter the master password "4357" (corresponding to "HELP" on a phone number pad) in step 2. You can then store a new password.

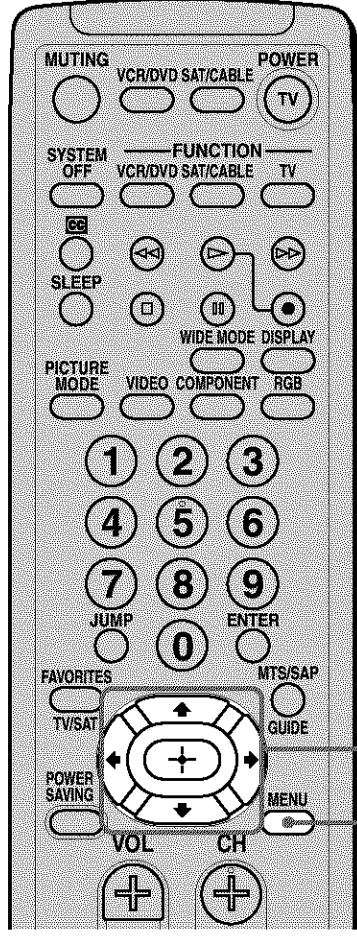
Notes

- If you entered "4357" as your password the first time, you cannot store a new password (See step 4 of "Activating the Parental Control feature" on page 41).
- When you select a Parental Control program and the \square indicator is displayed on the screen, you cannot view that program even if you enter "4357." (See "Viewing blocked programs" on the left.)

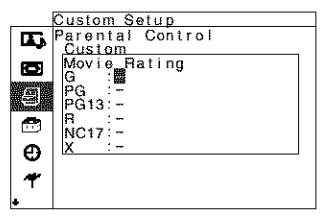
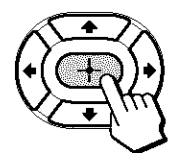


Selecting a Custom Rating

If you want to select the ratings to be blocked from Custom once you have activated the Parental Control feature (page 41), follow the procedure below. For a detailed description of each rating, see "What the Ratings Mean" on page 45.

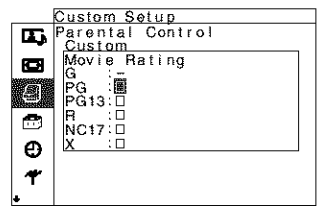
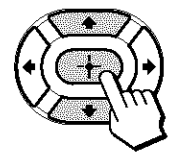


3 Make sure that "Movie Rating" is selected, then press (+).

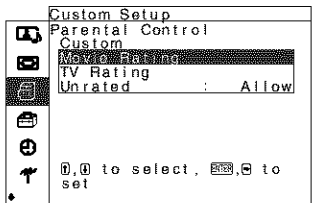
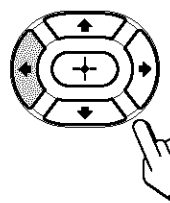


4 Press \uparrow/\downarrow to select the rating to be blocked, then press (+).

The indication automatically appears beside the selected rating and all "higher" ratings, indicating that the programs that match the ratings will be blocked.

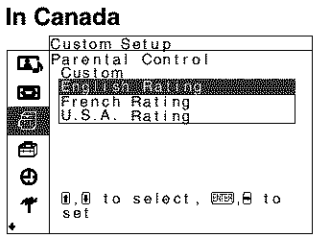
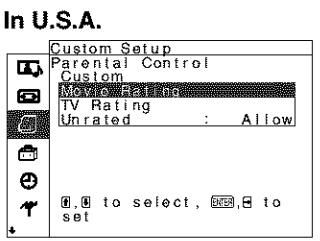
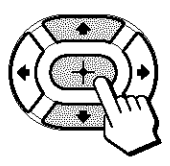


5 Press \leftarrow to return to the "Custom" menu.

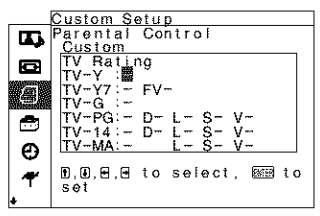
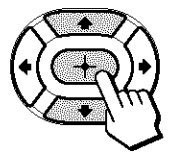


1 Perform the steps 1 to 8 in "Activating the Parental Control feature" on page 41 to display the Parental Lock options.

2 Press \uparrow/\downarrow to select "Custom," then press (+).



6 To select a TV rating in U.S.A.:
Press \uparrow/\downarrow to select "TV Rating," then press (+).



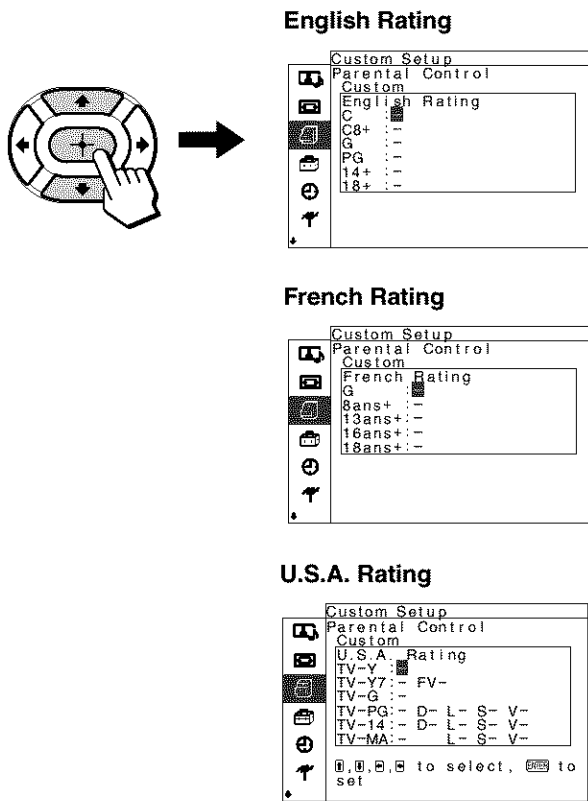
(Continued)



To select a rating in Canada, go to step 6.

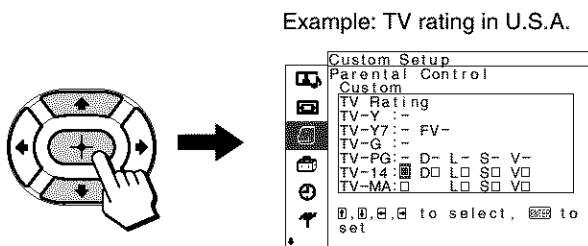


To select a TV ratings in Canada:
 Press \uparrow/\downarrow to select “English Rating,” “French Rating,” or “U.S.A. Rating,” then press \oplus .



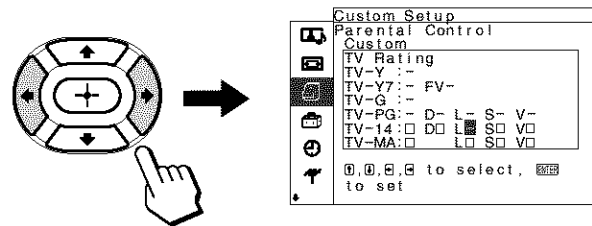
7 Press \uparrow/\downarrow to select the TV rating to be blocked, then press \oplus .

The \square indication automatically appears beside the selected rating and all “higher” ratings, indicating that the programs that match the ratings will be blocked.



Some U.S.TV ratings have additional content ratings called “extenders.” The extenders are defined as follows: D (sexually suggestive Dialog), FV (Fantasy Violence), L (coarse Language), S (Sexual situations) and V (Violence). By setting the extenders, you can define additional viewing limits. For more details of extenders, see page 46.
 All of the extenders included in the selected ratings will be blocked. If you wish to allow any of them to be viewed, go to step 8.

8 Press \leftarrow/\rightarrow to select the extender to be viewed, then press \oplus .



“-” appears beside the selected extender, indicating that the programs that match the extender can be viewed.
 If you re-press \oplus , \square is displayed to show that the programs that match the extender will be blocked again.

9 Repeat step 8 for other extenders.

All programs that match the ratings you select and higher, except for the extenders that were canceled, will be blocked.

10 Press MENU to exit the menu screen.

To block TV programs and/or movies for which a rating is not given (NR and N/A)

For a description of the NR and N/A ratings, see page 45.

- 1** Perform steps 1-2 of “Selecting a Custom Rating” on page 43.
- 2** Press \uparrow/\downarrow to select “Unrated,” then press \oplus .
- 3** Press \uparrow/\downarrow to select “Block,” then press \oplus .
- 4** Press MENU to exit the menu screen.

What the Ratings Mean

Ratings in the U.S.A.

Sony's predetermined ratings

These are original ratings that Sony has predetermined according to the viewer's age. Each rating allows for viewing of certain programs, as follows. (See the next column for a description of TV and movie ratings.)

Option	Description
CHILD:	Suitable for children under the age of 6. Viewable U.S. movie ratings: G, NR, and N/A Viewable U.S. TV ratings: TV-Y, TV-G, and TV-NR
YOUTH:	Suitable for children aged 7 and older. Viewable U.S. movie ratings: G, PG, NR, and N/A viewable U.S. TV ratings: TV-Y, TV-Y7, TV-G, TV-PG, and TV-NR
YOUNG ADULT:	Suitable for children aged 13 and older. Viewable U.S. movie ratings: G, PG, PG-13, NR, and N/A Viewable U.S. TV ratings: TV-Y, TV-Y7, TV-G, TV-PG, TV-14, and TV-NR

U.S. movie ratings

U.S. movie ratings are for movies (including those shown on TV) rated according to the Motion Picture Association of America (MPAA) Guidelines.

Option	Description
G (General Audiences—All Ages Admitted):	In G-rated films no strong words are used, the violence is at a minimum, nudity and sex scenes are not present, nor is there any drug use.
PG (Parental Guidance Suggested. Some Material May Not Be Suitable For Children):	This is a film which may need to be monitored first by parents.
PG-13 (Parents Strongly Cautioned. Some Material May Be Inappropriate For Children Under 13):	Parents are alerted to be very careful about the attendance of their under-teenage children when viewing.
R (Restricted, Under 17 Require Accompanying Parent Or Adult Guardian):	This film includes hard language, tough violence, nudity, drug abuse or other elements of concern.

Option	Description
NC-17 or X (No One 17 Or Under Admitted.):	This is a film that most parents would consider not suitable for children aged 17 and under. There may be violence, sex, abhorrent behavior, drug abuse or other elements of concern.
NR (Not Rated):	This is a film that a producer has not rated, intending to have his film widely released.
N/A (Not Applicable):	This is a film that a producer considers outside the scope of the MPAA ratings.

Note

NR and N/A ratings are shown together as "Unrated" in the menu.

U.S. TV ratings

U.S. TV ratings are for TV programs rated according to the U.S. Television Parental Guidelines.

Option	Description
TV-Y (All Children):	This program is designed for young children aged 2–6 and is appropriate for all children.
TV-Y7 (Directed to Older Children):	This program is designed for children aged 7 and above. Themes and elements in this program may include mild fantasy violence or slapstick violence, or may frighten children under the age of 7.
TV-G (General Audience):	Most parents would find this program suitable for all ages. It contains little or no violence, no strong language and little or no sexual dialog or situations.
TV-PG (Parental Guidance Suggested):	This program contains some material that parents may find unsuitable for younger children.
TV-14 (Parents Strongly Cautioned):	This program contains some material that many parents would find unsuitable for children under the age of 14.
TV-MA (Mature Audience Only):	This program is specifically designed to be viewed by adults and therefore may be unsuitable for children under the age of 17.
TV-NR (Not Rated/Unrated):	This is a program broadcast without any rating, such as news, news flashes or sports.

Note

The TV-NR rating is shown as "Unrated" in the menu.

(Continued)

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About the extenders of U.S. TV ratings

TV-Y7, TV-PG, TV-14 and TV-MA ratings have additional content ratings called “extenders” to define additional viewing limits. The extenders are defined as follows:

Option	Description
D (sexually suggestive Dialog):	Programs containing suggestive dialog, or sexual innuendo
FV (Fantasy Violence):	Programs containing cartoon violence occurring in TV-Y7 programs only
L (coarse Language):	Programs containing coarse language
S (Sexual situations):	Programs containing sexual content
V (Violence):	Programs containing violence There may be some profanity, violence or brief nudity in these programs.

Ratings in Canada

Sony’s predetermined ratings

These are original ratings that Sony predetermined according to the viewer’s age. Each rating allows you to view the certain programs, as follows. See the next column for a description of each rating.

Option	Description
CHILD:	Suitable for children under the age of 7. Viewable Canadian English Language ratings: C and G Viewable Canadian French Language ratings: G Viewable U.S. TV ratings: TV-Y, TV-G, and TV-NR
YOUTH:	Suitable for children aged 8 and older. Viewable Canadian English Language ratings: C, G, C8+ and PG Viewable Canadian French Language ratings: G and 8 ans+ Viewable U.S. TV ratings: TV-Y, TV-Y7, TV-G, TV-PG, and TV-NR
YOUNG ADULT:	Suitable for children aged 14 and older. Viewable Canadian English Language ratings: C, G, C8+, PG and 14+ Viewable Canadian French Language ratings: G, 8 ans+, 13 ans+ Viewable U.S. TV ratings: TV-Y, TV-Y7, TV-G, TV-PG, TV-14, and TV-NR

Canadian English Language ratings

The Canadian English Language Ratings are for TV programs in English broadcast in Canada.

Option	Description
C (Programming intended for children under age 8):	There will be no realistic scenes of violence or no offensive language, nudity or sexual content. Careful attention is paid to themes, which could threaten children's sense of security and well-being.
C8+ (Programming generally considered acceptable for children 8 years and over to watch on their own):	Violence will not be portrayed as the preferred, acceptable, or only way to resolve conflict; or encourage children to imitate dangerous acts which they may see on television. There will be no profanity, nudity or sexual content.
G (General Audience):	Will contain very little violence, either physical or verbal or emotional. There may be some inoffensive slang, no profanity and no nudity.
PG (Parental Guidance):	Programming intended for a general audience but which may not be suitable for younger children. Parents may consider some content inappropriate for unsupervised viewing by children aged 8 – 13.
14+ (Programming contains themes or content which may not be suitable for viewers under the age of 14):	Parents are strongly cautioned to exercise discretion in permitting viewing by pre-teens and early teens.
18+ (Adult):	May contain violence integral to the development of the plot, character or theme, intended for adult audiences. May contain graphic language and explicit portrayals of nudity and/or sex.
E (Exempt):	Exempt programming includes: news, sports documentaries and other information programming: talk shows, music videos, and variety programming.

Note

The E (Exempt) rating is not shown in the menu.

Canadian French Language ratings

The Canadian French Language Ratings are for TV programs in French broadcast in Canada.

Option	Description
G (General):	Programming intended for audience of all ages. Contains no violence, or the violence it contains is minimal or is depicted appropriately with humor or caricature or in an unrealistic manner.
8 ans+ (8+ General - Not recommended for young children):	Programming intended for a broad audience but contains light or occasional violence that could disturb young children. Viewing with an adult is recommended for young children (under the age of 8).
13 ans+ (Programming may not be suitable for children under the age of 13):	Viewing with an adult is strongly recommended for children under 13.
16 ans+ (Programming is not suitable for children under the age of 16):	Contains frequent scenes of violence or intense violence.
18 ans+ (Programming restricted to adults):	Contains constant violence or scenes of extreme violence.
E (Exempt):	Exempt programming.

Note

The E (Exempt) rating is not shown in the menu.



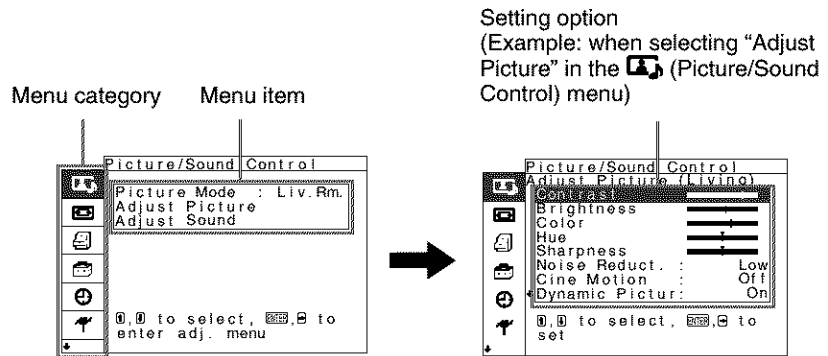
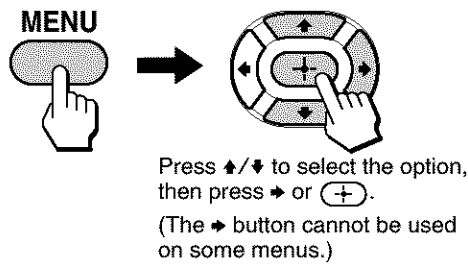
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Adjusting Advanced AV Setting Options

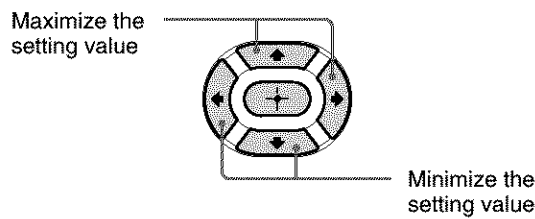
Advanced AV settings can be optimally set on the menu screen.

- Items which appear in yellow are selected.
- You cannot select items which appear in pale color.

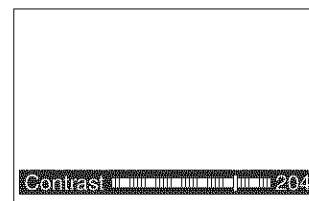
To select the option


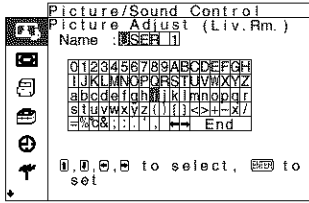




To adjust the setting



Example: when selecting "Contrast" from the setting options



Menu category	Menu item	Setting option
 Picture/Sound Control	Adjust Picture	"USER1," "USER2," and "USER3" of "Color Temp." (Color Temperature): Select to customize the "Color Temp."(Color Temperature) by adjusting "Red Gain," "Green Gain," and "Blue Gain" (tint) in the range of "-127" – "+126," and store these 3 settings as the user setting. Name Set: Select to name your original settings. Press ▲/▼/◀/▶ to select the letter, then press (+). To correct the letter, select ◀ on the screen to go back. If you set "Menu Function" to "Return" in the (Initial Setup) menu (page 50), you can select letters by ▲/▼ buttons.
		




Menu category	Menu item	Setting option
 Screen Control	Screen Zoom	Select to enlarge the picture with the center position fixed (only when "Wide Mode" is set to "Full"). Select from "Standard" (normal size), "×2" (doubled), "×3" (tripled), or "×4" (quadrupled).
	Adjust Pixel	<p>Select to adjust the picture from an RGB equipment.</p> <p>Auto Adjust: Select "OK" to make best possible adjustment for the input signal automatically. Note that it may not be adjusted perfectly depending on the input signal condition or picture pattern. In this case, perform "Auto Adjust" again.</p> <p>Dot Phase: Adjust in the range of "01" – "62" if part of a displayed text or image is not clear.</p> <p>Total H Pixel (Total Horizontal Pixel): Adjust when the letter or picture is not clear as a whole.</p> <p>Reset: Reset to the factory settings.</p>
 Custom Setup	Display	Select "On" to display which input is selected.
	Screen Saver	<p>Select to reduce image retention.</p> <p>Pic. Orbit (Picture Orbit) (To prevent image retention)</p> <p>Move the picture position to reduce image retention. This does not prevent image retention completely if the same picture is displayed for an extended period of time.</p> <p>Orbit: Select "On" to move the position. If you select "On," set "Orbit Range" and "Orbit Cycle."</p> <p>Orbit Range: Select the moving range from "Large," "Mid" (Middle), and "Small."</p> <p>Orbit Cycle: Select the moving time from "10sec," "30sec," "1min," and "5min."</p>
	Color Matrix	Select to give the picture a neutral tint, if the output signal from the DVD player connected to the COMPONENT VIDEO IN jacks is 525p (480p), 1125i (1080i), or 750p (720p) signal format. Adjust this only when the picture tint goes out of tune. Select the signal format for each input, then set it to "Y/Cb/Cr," or "Y/Pb/Pr." When purchasing, all formats are set to "Y/Pb/Pr."
	RGB Mode	<p>Select if an equipment which outputs the RGB signal is connected to the Y/G, Pb/B, Pr/R jacks of the COMPONENT VIDEO IN 2/RGB IN jacks.</p> <p>DTV: Select when a digital tuner with RGB signal is connected.</p> <p>Others: Select when other RGB equipment is connected.</p>
	Sync Mode	<p>Set according to the input signal from the HD jack of the COMPONENT VIDEO IN 2/RGB IN jacks.</p> <p>H/Comp: Select when the input signal is a horizontal synchronized signal or a composite signal.</p> <p>Video: Select when the input signal is a video signal.</p>

US

(Continued)

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Adjusting Your Setup

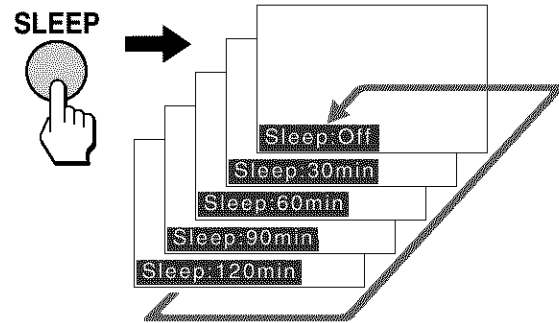
Menu category	Menu item	Setting option
 Initial Setup	Color System	Select when the picture from a VCR of other television system is not very good. You can adjust the setting only when the VIDEO input is selected.
	Menu Function	Select how the MENU button on the remote functions. On/Off: If the MENU button is pressed, the menu screen appears. If the button is pressed again, the menu screen disappears. (factory setting) Return: If the MENU button is pressed, the menu screen appears. If the button is pressed while the menu screen appears, the menu returns to the previous screen. Some menu operation changes.
 Timer/Clock	Auto Shutoff	Select to set the TV to change to the standby mode automatically if there is no broadcast or input signal through the connected equipment. Off: "Auto Shutoff" does not function. 5min: Changes to the standby mode after 5 minutes if there is no broadcast or input signal. 10min: Changes to the standby mode after 10 minutes if there is no broadcast or input signal.
	 Unit Status	Model Name Serial Number Temperature Fan

Using the Timer

Using the Timer

Press SLEEP repeatedly until the desired period of time appears.

Each time you press the button, the period of time changes as follows. While the Sleep timer is activated, the STANDBY/SLEEP indicator on the TV lights up in red.



Turning Off the TV Automatically

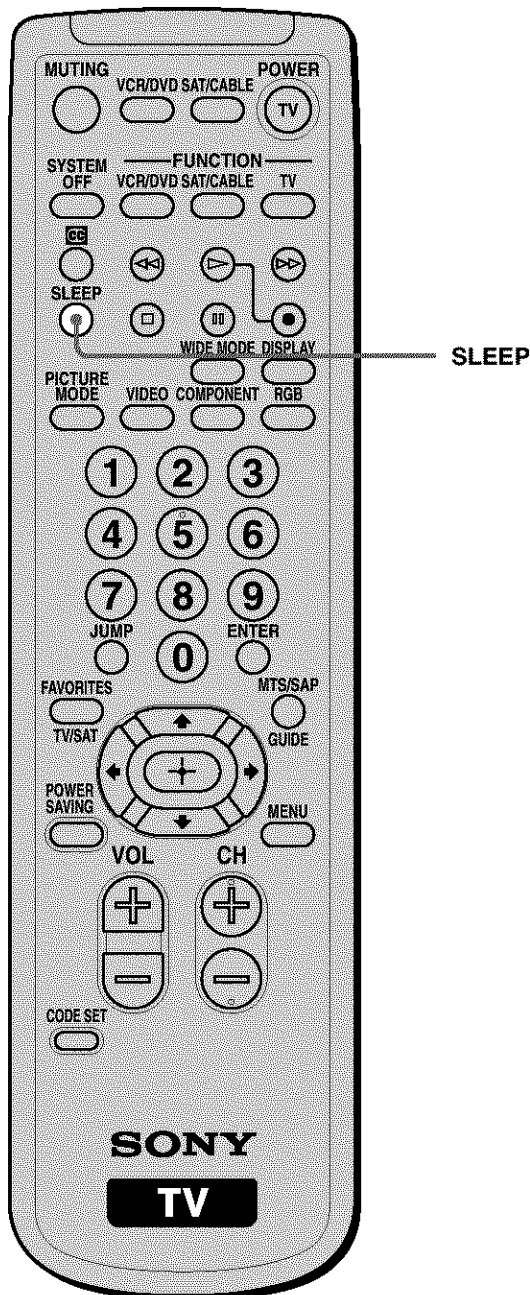
You can set the TV to turn off automatically after a predetermined period of time (30, 60, 90 or 120 minutes).

To cancel the Sleep timer

Press SLEEP repeatedly until "Sleep: Off" appears.

Tips

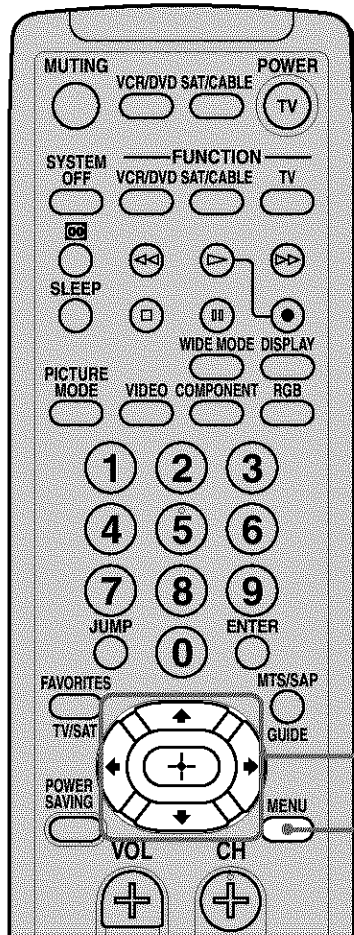
- If you press the SLEEP button while the Sleep timer is activated, the remaining time appears for a few seconds.
- If you turn off and on the TV, the Sleep timer returns to "Off."
- You can set the Sleep timer on the menu screen. Select "Sleep" in the Ⓢ (Timer/Clock) menu, then set the desired period of time.



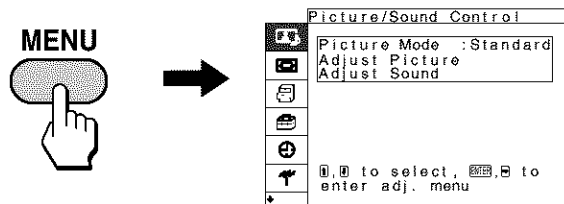
US

Setting the Current Time

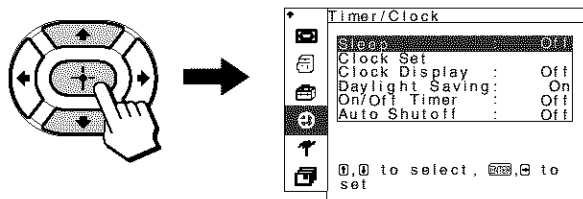
The error range of the built-in clock is ± 30 seconds a month.



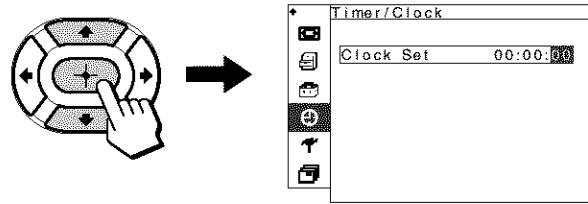
1 Press MENU.



2 Press \uparrow/\downarrow to select \oplus (Timer/Clock), then press \oplus .



3 Press \uparrow/\downarrow to select "Clock Set," then press \oplus .



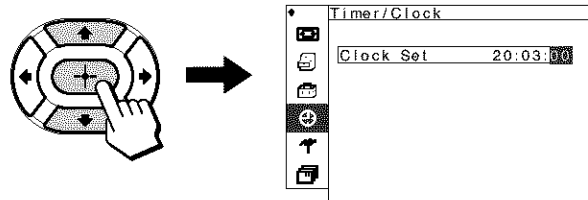
4 Set the current time.

1 Press \uparrow/\downarrow to set the hour, then press \oplus .

2 Press \uparrow/\downarrow to set the minute, then press \oplus .

3 Press \oplus at the time signal.

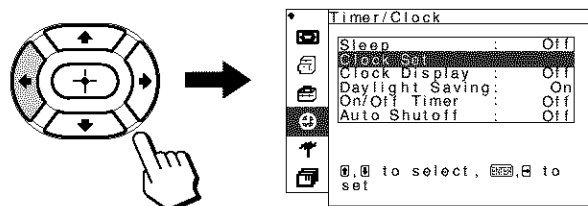
The clock starts.



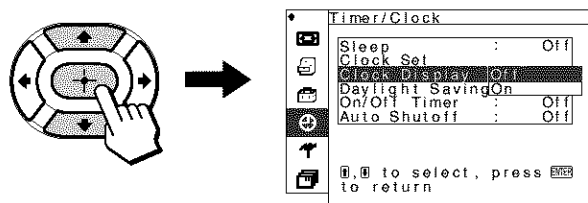
Tip

Pressing and holding the \uparrow/\downarrow buttons moves the hours or minutes quickly.

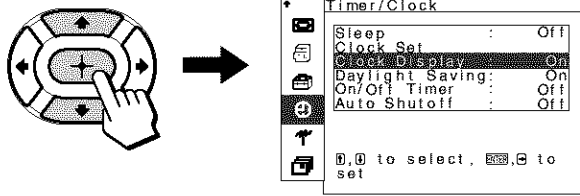
5 Press \leftarrow three times.



6 Press \uparrow/\downarrow to select "Clock Display," then press \oplus .



- 7 Press \uparrow/\downarrow to select "On," then press \oplus .



To cancel Clock Display, select "Off."

- 8 Press MENU to exit the menu screen.

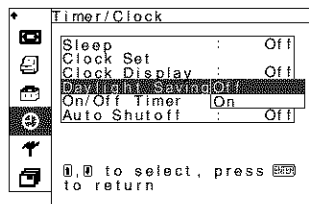
Note

The clock display will automatically disappear after 5 minutes. To display the clock again, select "On" for the "Clock Display" in the menu screen.

Setting the daylight saving

The clock adjusts the time for daylight-saving time automatically.

- 1 Press MENU.
- 2 Press \uparrow/\downarrow to select \oplus (Timer/Clock), then press \oplus .
- 3 Press \uparrow/\downarrow to select "Daylight Saving," then press \oplus .



- 4 Press \uparrow/\downarrow to select "On" or "Off," then press \oplus .

Daylight-saving setting	Description
On	Select to compensate for daylight-saving time in spring. The current time automatically moves ahead one hour.
Off	Select at the end of daylight-saving time in fall. The current time moves back one hour.

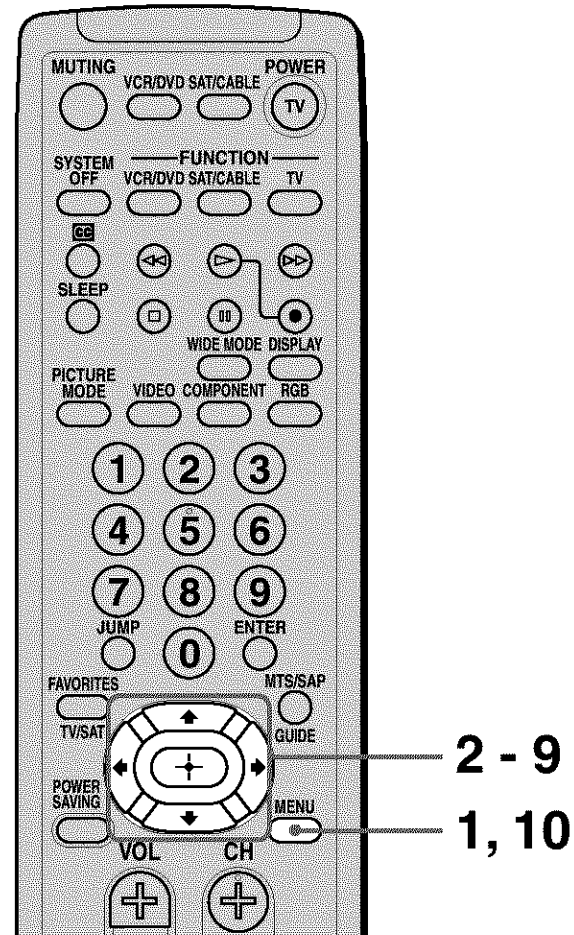
- 5 Press MENU to exit the menu screen.

Controlling Power On/Off Automatically

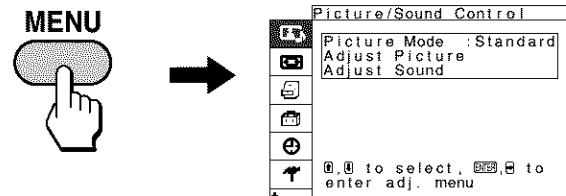
You can turn the TV on and off at a specified time automatically. To use this function, set the clock in advance (page 52).

Note

When using this function, do not turn off the TV with the POWER button on the TV as the On Timer function will not work.



- 1 Press MENU.



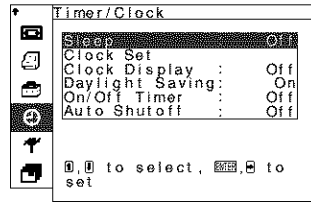
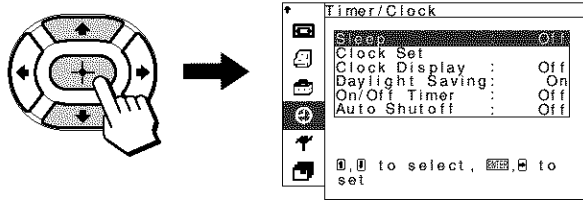
US

(Continued)

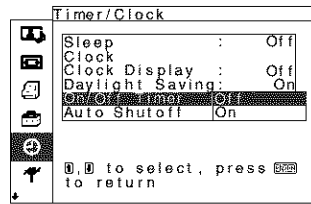
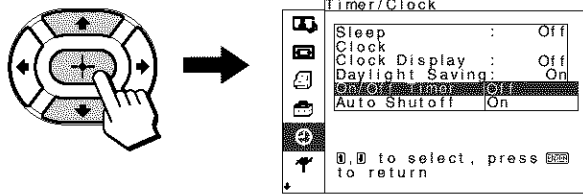
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Using the Timer

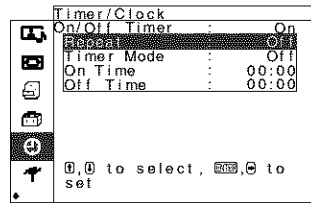
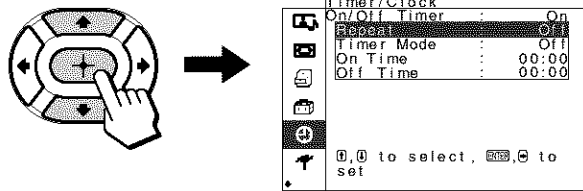
- 2** Press \uparrow/\downarrow to select \oplus (Timer/Clock), then press \oplus .



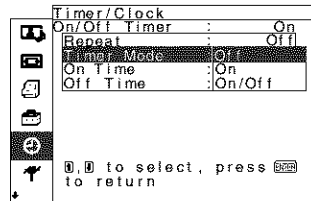
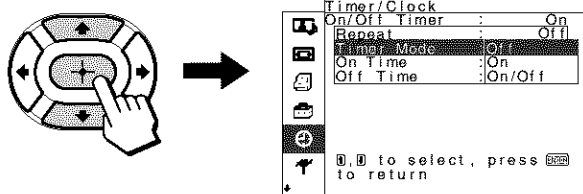
- 3** Press \uparrow/\downarrow to select "On/Off Timer," then press \oplus .



- 4** Press \uparrow/\downarrow to select "On," then press \oplus .

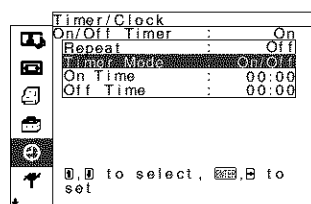
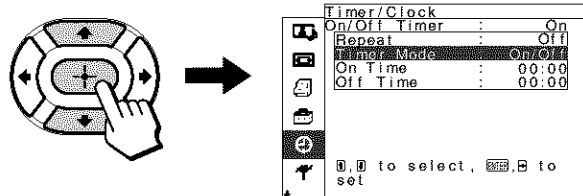


- 5** Press \uparrow/\downarrow to select "Timer Mode," then press \oplus .



- 6** Press \uparrow/\downarrow to select "Off," "On," or "On/Off," then press \oplus .

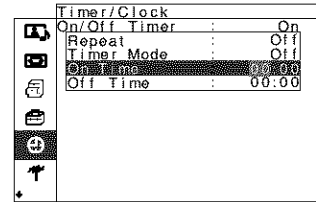
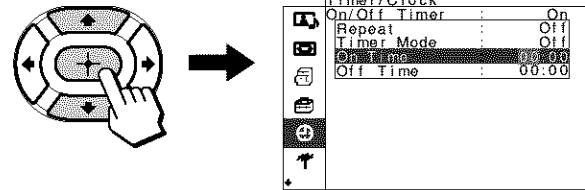
Timer Mode	Description
Off	Select to set the time to turn off the TV.
On	Select to set the time to turn on the TV.
On/Off	Select to set the time to turn on and off the TV.



- 7** To set the time to turn off the TV:
Press \uparrow/\downarrow to select "Off Time," then press \oplus .

To set the time to turn on the TV:

- Press \uparrow/\downarrow to select "On Time," then press \oplus .

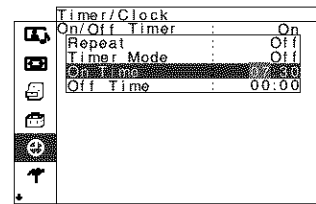
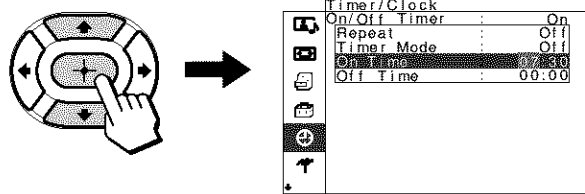


- 8** Set the time.

- Press \uparrow/\downarrow to set the hour, then press \oplus .
- Press \uparrow/\downarrow to set the minute, then press \oplus .
- Press \leftarrow .

Tip

Pressing and holding the \uparrow/\downarrow buttons moves the hours or minutes quickly.



- 9** If you select "On/Off" in step 6, repeat steps 7 and 8 to set both "Off Time" and "On Time."

- 10** Press MENU to exit the menu screen.

To turn the TV on and off at a specified time everyday

After step 4, do the following, then go to step 5.

- Press \uparrow/\downarrow to select "Repeat," then press \oplus .
- Press \uparrow/\downarrow to select "On," then press \oplus .
To cancel, select "Off."
- Go to step 5.

To cancel On/Off Timer

Select "Off" in step 4.

Tip

You can set the TV to turn off automatically after a certain period if there is no broadcast or input signal (Auto Shutoff, see page 50).

Additional Information

Troubleshooting

If, after reading the following instructions, you have additional questions related to the use of your Sony TV, please call one of the following numbers (English only).

Customers in the continental United States contact the Direct Response Center at:
1-800-222-SONY (7669)

Customers in Canada contact the Customer Relations Center at:
(416) 499-SONY (7669)

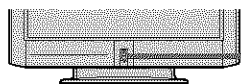
Self-diagnosis function

The TV is equipped with a self-diagnosis function. If there is a problem with your TV, the STANDBY/SLEEP indicator on the front panel will flash repeatedly. Counting the number of flashes helps you inform qualified Sony personnel of the TV's condition.

Case 1:

When the picture turns off and the STANDBY/SLEEP indicator on the front panel flashes

- 1 Count how many times the STANDBY/SLEEP indicator flashes in total. It flashes at 3 second intervals. If, for example, the indicator flashes twice, stops flashing for 3 seconds, and flashes twice again, that counts as twice.





STANDBY/SLEEP indicator

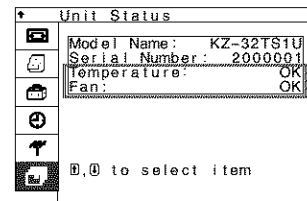
- 2 Press POWER on the TV to turn it off, and disconnect the AC power cord, then inform qualified Sony personnel or the above Direct Response Center of the number of flashes.

Additional Information

Case 2:

When the STANDBY/SLEEP indicator on the front panel flashes while the picture is turned on

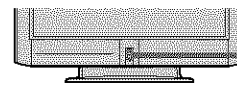
- 1 Press MENU on the remote.
- 2 Press \uparrow/\downarrow to select  (Unit Status), then press .



"Temperature" and "Fan"

- 3 Check the indication of "Temperature" and "Fan" columns.

If "NG" lights in red, and the STANDBY/SLEEP indicator flashes, press POWER on the TV to turn off the TV, and disconnect the AC power cord.



STANDBY/SLEEP indicator

Case 2-a: If "NG" appears in the "Temperature" column

Install the TV in a cool location so that the temperature of the TV falls.

If the ventilation openings are blocked

The ventilation openings must never be blocked or covered. Install the TV in an well ventilated place to allow adequate air circulation.

Make sure that the STANDBY/SLEEP indicator stops flashing. If the STANDBY/SLEEP indicator still flashes, consult your nearest Sony dealer or Direct Response Center (See the left column).

Case 2-b: If "NG" appears in the "Fan" column



Consult your nearest Sony dealer or Direct Response Center (See the left column).



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(Continued)

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Trouble symptoms and remedies

Problem	Possible remedies
No picture.	
Cannot receive any channels.	<ul style="list-style-type: none"> • Make sure the power cord is connected securely. • Turn on the power of the TV. • Check antenna/cable connections.
Cannot receive certain channels.	<ul style="list-style-type: none"> • Set the channels again (page 17).
The TV turns off automatically. (The TV enters the standby mode.)	<ul style="list-style-type: none"> • Check that the Sleep timer is activated (page 51). • Check that the On/Off Timer is activated (page 53). • Check that Auto Shutoff is activated (page 50).
Some video sources do not appear. "No Sync" appears, or the STANDBY/SLEEP indicator lights up in red.	<ul style="list-style-type: none"> • Check the connection between the optional video equipment and the TV. • Press the input buttons on the remote (page 29). • If you connect the video equipment to the S VIDEO input of the TV, set "Auto YC" in the  (Custom Setup) menu to "On" (page 8).
Poor picture.	
Double images or ghosts.	<ul style="list-style-type: none"> • Check antenna/cable connections. • Check the antenna location and direction.
Only snow and noise appear on the screen.	<ul style="list-style-type: none"> • Check if the antenna is broken or bent. • Check if the antenna has reached the end of its serviceable life. (3-5 years in normal use, 1-2 years at the seaside)
Dotted lines or stripes	<ul style="list-style-type: none"> • Keep the TV away from noise sources such as cars, motorcycles, or hair-dryers.
No color. Color is not correct. Dark picture.	<ul style="list-style-type: none"> • Press PICTURE MODE to select the desired Picture Mode (page 23). • Adjust the picture mode options in the  (Picture/Sound Control) menu. • If you set the POWER SAVING function to "Reduce," the picture may become dimmer (page 25).
Some tiny black points and/or bright points on the screen.	<ul style="list-style-type: none"> • The picture of a flat panel display is composed of pixels. Tiny black points and/or bright points (pixels) on the screen, this does not indicate a malfunction.
The screen flickers when turning on the TV.	<ul style="list-style-type: none"> • This is caused by the Plasma Display Panel feature, and does not indicate a malfunction.
The picture is too bright.	<ul style="list-style-type: none"> • Press PICTURE MODE to select the desired Picture Mode (page 23).
Picture (stripe) noise.	<ul style="list-style-type: none"> • Make sure that the antenna is connected using the supplied 75-ohm coaxial cable. • Keep the antenna cable away from other connecting cords. • Do not use 300-ohm twin lead cables as interference may occur.
Distorted picture and noisy sound.	<ul style="list-style-type: none"> • Check if the connected optional equipment are installed in front of the TV or at the side of the TV. When installing optional equipment, leave some space between the optional equipment and TV.
Striped noise during playback/recording of a VCR.	<ul style="list-style-type: none"> • Video head interference. Keep your VCR away from the TV. • Leave a space of 30 cm (11 7/8 inch) between your VCR and the TV to avoid noise. • Avoid installing your VCR in front of the TV or at the side of the TV.
The whole screen is green when RGB input is selected.	<ul style="list-style-type: none"> • Y, PB/CB, PR/CR signal is applied to the COMPONENT VIDEO IN 2/RGB IN jacks. Press the COMPONENT button on the remote control to indicate "COMPONENT 2" on the screen.
The whole screen reddens when COMPONENT 2 input is selected.	<ul style="list-style-type: none"> • RGB signal is applied to the COMPONENT VIDEO IN 2/RGB IN jacks. Press the RGB button on the remote control to indicate "RGB" on the screen.

Problem	Possible remedies
No sound./Noisy sound. Good picture, no sound.	<ul style="list-style-type: none"> • Check the volume control. • Press MUTING or VOL + so that "Muting" disappears from the screen (page 20). • Disconnect your headphones. • Set "Speaker" to "On" in the  (Custom Setup) menu (page 11). If it is set to "Off," sound is not output from the TV's speakers regardless of the TV's volume control.
Audio noise.	<ul style="list-style-type: none"> • Make sure that the antenna is connected using the supplied 75-ohm coaxial cable. • Keep the antenna cable away from other connecting cords. • Do not use 300-ohm twin lead cables as interference may occur. • Press MTS/SAP to select "MONO" (page 40).
Cannot operate the menu.	<ul style="list-style-type: none"> • If the item you want to select appears in a pale color, you cannot select it.
Wide Screen Mode changes automatically. Wide Screen Mode changes automatically while Auto Wide is set to on.	<ul style="list-style-type: none"> • The picture size may change when the program has commercial breaks, because the TV selects the best Wide Screen Mode automatically for each program (See page 26). • The TV receives the picture with control signal and selects the best Wide Screen Mode automatically to fit the wide screen (See page 26). • When you change the channel or input, the TV selects the best Wide Screen Mode automatically. If you want to fix the Wide Screen Mode selected with the WIDE MODE button, set "Auto Wide" to "Off" in the  (Screen Control) menu (page 28).
Strange sound. The TV cabinet creaks.	<ul style="list-style-type: none"> • Changes in room temperature sometimes causes the TV cabinet to expand or contract, which can make slight noises. This does not indicate a malfunction.
The TV whirs.	<ul style="list-style-type: none"> • The TV's fan setting is working. This does not indicate a malfunction.
The TV ticks.	<ul style="list-style-type: none"> • An electrical circuit inside the TV is activated when the TV is turned on. This does not indicate a malfunction.
The TV buzzes.	<ul style="list-style-type: none"> • There might be a surge sound when turning on the TV. This does not indicate a malfunction.
Remote control does not operate.	<ul style="list-style-type: none"> • The batteries could be weak. Replace the batteries. • Check the polarity of the batteries. • If the STANDBY/SLEEP indicator on the TV does not light in red, press POWER on the TV. • Point the remote control at the remote control sensor of the TV. • Install the TV away from fluorescent lights.

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Specifications

Television system:

American TV standard

Channel coverage:

VHF: 2–13/UHF: 14–69/CATV: 1–125

Antenna:

75 ohm external terminal for VHF/UHF

Screen size (measured diagonally):

32 inches (KZ-32TS1)

42 inches (KZ-42TS1)

Panel System:

Plasma Display panel

Display resolution:

852 dots (horizontal) × 1024 lines (vertical)

(KZ-32TS1)

1024 dots (horizontal) × 1024 lines (vertical)

(KZ-42TS1)

VIDEO IN 1/2:

S VIDEO IN (4-pin mini DIN):

Y:1 Vp-p, 75-ohms unbalanced,
sync negative

C:0.286 Vp-p (Burst signal),
75 ohms

VIDEO (phono jack):

1 Vp-p, 75-ohms unbalanced, sync
negative

AUDIO (phono jacks):

500 mVrms (100% modulation),
Impedance: 47 kilohms

COMPONENT VIDEO IN 1:

Y:1 Vp-p, 75 ohms, 0.3 V negative sync

P_B:± 350m Vp-p, 75 ohms

P_R:± 350m Vp-p, 75 ohms

AUDIO (phono jacks):

500 mVrms (100% modulation),
Impedance: 47 kilohms

COMPONENT VIDEO IN 2/RGB IN:

Y:1 Vp-p, 75 ohms, 0.3 V negative sync

P_B:0.7 Vp-p, 75 ohms

P_R:0.7 Vp-p, 75 ohms

or

G:0.7 Vp-p, 75 ohms, Sync on Green

B:0.7 Vp-p, 75 ohms, Sync on Green

R:0.7 Vp-p, 75 ohms, Sync on Green

or

G:0.7 Vp-p, 75 ohms, non Sync on Green

B:0.7 Vp-p, 75 ohms, non Sync on Green

R:0.7 Vp-p, 75 ohms, non Sync on Green

HD:1–5 Vp-p

VD:1–5 Vp-p

AUDIO (phono jacks):

500 mVrms (100% modulation),
Impedance: 47 kilohms

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SUB WOOFER: phono jack

AUDIO OUT (phono jacks):

500 mVrms (100% modulation)

Headphones: Stereo minijack

CONTROL S IN/OUT:

minijacks

Speaker: 50 × 130 mm (2 × 5 1/8 inches)
× 2

Speaker output: 7W × 2 (KZ-32TS1)
9W × 2 (KZ-42TS1)

Power requirement:

120 V AC, 60 Hz

Power consumption:

In use (Max.): KZ-32TS1:270W
KZ-42TS1:360W

In standby: KZ-32TS1:1.7W
KZ-42TS1:2.0W

Dimensions (W/H/D):

856 × 627 × 132 mm
(33 3/4 × 24 3/4 × 5 1/4 inch)

(KZ-32TS1)

1,056 × 764 × 124 mm

(41 5/8 × 30 1/8 × 5 inch)

(KZ-42TS1)

Mass:

25.5 kg (56 lbs 3 oz.)

(KZ-32TS1)

37.0 kg (81 lbs 9 oz.)

(KZ-42TS1)

Supplied accessories

Remote control RM-923Y (1)

Batteries size AA (2)

75-ohm coaxial cable (1)

AC power cord (1)

Brackets (2)

Cleaning cloth (1)

Operating instructions (1)

Important Safeguards (1)

Warranty (1)

Optional accessories

Note that some optional accessories may be out of stock.

Headphones plug adapter

Connecting cables

VMC-810S/820S, YC-15V/30V,

RK-74A, VMC-10HG, SMF-403

Design and specifications are subject to change without notice.

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