Color Rear Video Projector

Operating Instructions

Manual de instrucciones

KP-46S25
KP-53S25

©1996 by Sony Corporation
WARNING

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

CAUTION

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, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

CAUTION

When using TV games, computers, and similar products with your projection 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. 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.

Note on 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 or VHF or transmitted by cable companies for the use of the general public may require authorization from the broadcaster/cable company and/or program owner.

Note on convergence adjustment

Before you use your projection TV, make sure to adjust convergence. For the procedure, see page 12.

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 authority to operate this equipment.

This document is for the remote commander RM-Y118. MODELS: KP-46S25/53S25.

Please keep this notice with the instruction manual.

Owner’s Record

The model and serial numbers are located at the rear of the projection TV. Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. ____________________________
Serial No. ____________________________
# Getting Started

5 Step 1: Installing the projection TV  
6 Step 2: Connections  
12 Step 3: Setting up the remote commander  
12 Step 4: Setting up the projection TV automatically  
(AUTO SET UP)

# Operations

17 Watching TV programs  
18 Watching two programs at one time – PIP  
20 Selecting picture and sound effects (PROGRAM PALETTE)  
21 Adjusting the picture (VIDEO)  
22 Adjusting the color temperature (TRINITONE)  
22 Reducing picture noise (NR)  
23 Adjusting sound (AUDIO)  
24 Listening to surround sound (SURROUND)  
24 Selecting stereo or bilingual programs (MTS)  
25 Setting the speaker switch (SPEAKER)  
25 Setting audio out (AUDIO OUT)  
26 Setting daylight saving time (DAYLIGHT SAVING)  
27 Setting the clock (CURRENT TIME SET)  
28 Setting the timer to turn the projection TV on and off (ON/OFF TIMER)  
29 Blocking out a channel (CHANNEL BLOCK)  
30 Customizing the channel number buttons (CH CAPTION/GUIDE)  
31 Setting video labels (VIDEO LABEL)  
32 Displaying Caption Vision (CAPTION VISION/XDS)  
33 Operating video equipment  
35 Operating a cable box

# Additional Information

36 Troubleshooting  
37 Specifications

# Index

The captions in parentheses indicate menu names.
Thank you for purchasing the Sony Color Rear Video Projection TV. Here are some of the features you will enjoy with your projection TV:

- AUTO SET UP feature that allows you to set up your projection TV easily by pressing the SET UP button
- On screen menus that let you set the picture quality, sound, and other settings
- Picture-in-Picture that allows you to watch another TV channel, video or cable image as a window picture
- On/off timer that allows you to make the TV program of your choice be displayed on the screen for a specified duration
- Dynamic Focus circuitry that automatically focuses the scanning electron beam for enhanced sharpness, especially at the corners
- Universal remote commander supplied that allows you to operate Sony and other manufacturers' video equipment

About this manual
The instructions in this manual are for models KP-46S25 and KP-53S25. Before you start reading this manual, please check your model number, located at the rear of the projection TV. Model KP-46S25 is used for illustration purposes in this manual. There are no differences between these models in operation. The differences in specifications are indicated in the text.

Instructions in this manual are based on use of the remote commander. You can also use the controls on the projection TV if they have the same name as those on the remote commander.

This projection TV operates on extremely high voltage. To prevent fire or electric shock, please follow the precautions below.

Safety
- Operate the projection TV only on 120 V AC.
- One blade of the plug is wider than the other for safety purposes and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- Should any liquid or solid object fall into the cabinet, unplug the projection TV and have it checked by qualified personnel before operating it further.
- Unplug the projection TV from the wall outlet if you are not going to use it for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

For details concerning safety precautions, see the supplied leaflet "IMPORTANT SAFEGUARDS."

Note on cleaning
Clean the cabinet of the projection TV with a dry soft cloth. To remove dust from the screen, wipe it gently with a soft cloth using vertical strokes only. Stubborn stains may be removed with a cloth slightly dampened with solution of mild soap and warm water. Never use strong solvents such as thinner or benzine for cleaning. If the picture becomes dark after using the projection TV for a long period of time, it may be necessary to clean the inside of the projection TV. Consult qualified service personnel.

Installing
- To prevent internal heat build-up, do not block the ventilation openings.
- Do not install the projection TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.
- Avoid operating the projection TV at temperatures below 5°C (41°F).
- If the projection TV is transported directly from a cold to a warm location, or if the room temperature has changed suddenly, the picture may be blurred or show poor color. This is because moisture has condensed on the mirror or lenses inside. If this happens, let the moisture evaporate before using the projection TV.
- To obtain the best picture, do not expose the screen to direct illumination or direct sunlight. It is recommended to use spot lighting directed down from the ceiling or to cover the windows that face the screen with opaque drapery. It is desirable to install the projection TV in a room where the floor and walls are not of reflecting material. If necessary, cover them with dark carpeting or wall paper.
For the best picture quality, install the projection TV within the areas shown below.

**Optimum viewing area (Horizontal)**

![Optimum viewing area (Horizontal)](image)

**Optimum viewing area (Vertical)**

![Optimum viewing area (Vertical)](image)

---

**Carrying your projection TV**

Be sure to grasp the portions indicated when carrying the projection TV, and to use more than two people.

(Rear of projection TV)

---

**Preparing for your projection TV**

Before you use your projection TV, adjust convergence. For the procedure, see “Step 4: Setting up the projection TV automatically (AUTO SET UP)” on page 12.
Connecting an antenna/cable TV system without a VCR

To cable or antenna

To cable box

If your cable company requires you to connect a cable box, make the connection as follows:

To cable box and cable

Pay cable TV systems use scrambled or encoded signals requiring the cable box* in addition to the normal cable connection.

* The cable box will be supplied by the cable company.

Note

You cannot watch the signal through AUX connector as a window picture.

To cable and antenna

Note

Do not connect anything to the TO CONVERTER connector in this case.
Connecting an antenna/cable TV system with a VCR

For details on connection, see the instruction manual of your VCR. Before connecting, disconnect the AC power cords of the equipment to be connected.

After making these connections, you will be able to do the following:
- View the playback of video tapes
- Record one TV program while viewing another program
- Watch two TV programs at one time using a window picture (Picture-in-Picture)

To a conventional VCR

Without a cable box

With a cable box

Notes
- To connect a monaural VCR, connect the audio output of the VCR to AUDIO-L (MONO) of VIDEO 1/3 IN on the projection TV.
- Do not connect the cable to the S VIDEO connector on the projection TV.
- There are many possible methods to connect a cable box and a VCR. For best picture, the connection below is recommended.
To an S video equipped VCR

If your VCR has an S video output jack, make the connection as follows. Whenever you connect the cable to the S VIDEO connector, the projection TV automatically receives S video signals.

**Without a cable box**

![Diagram showing connection without cable box]

**Note**
- Video signals are composed of Y (luminance) and C (chroma) signals. The S connection sends the two signals separately preventing degradation, and gives better picture quality compared to conventional connection.

**With a cable box**

![Diagram showing connection with cable box]
Connecting a DBS receiver

For connection details, see the instruction manual of the DBS (Digital Broadcasting Satellites) receiver.

To a TV

(Rear of projection TV)

To a TV and VCR

Note
• You can use the S VIDEO jack or the composite video jack for video connection.
Connecting a camcorder

This connection is convenient for watching the picture from a camcorder.

(Front of projection TV)

Note
• To connect a monaural camcorder, connect the audio output of the camcorder to AUDIO L (MONO) of VIDEO 2 INPUT on the projection TV.

Connecting two VCRs for tape editing

You can record input images displayed on the screen. This type of connection should be used only when you connect from the line input of one VCR, and from the line output of a second VCR.

(Rear of projection TV)

Notes
• Do not change the input signal while editing, or the output signal will also change.
• When connecting a single VCR to the projection TV, do not connect MONITOR OUT to the VCR's line input, while at the same time connecting from the projection TV's VIDEO IN jacks to the VCR's line output.
• You can use the S video connector to connect a VCR for playback and the composite video jack to connect a VCR for recording.
Connecting an audio system

When connecting audio equipment, see page 25 for more information.

![Diagram of audio connections](image)

**Note**
- You can adjust the bass, treble and balance, or select surround or an MTS (Multichannel TV Sound) mode with the supplied remote commander.

Connecting other Sony equipment with CONTROL S jack

This feature allows you to control your projection TV and other Sony equipment with one remote commander.

- To control other Sony equipment with the projection TV's remote commander, connect the input of the equipment to CONTROL S OUT jack on the projection TV.
- To control the projection TV with the remote commander of other Sony equipment, connect the output of the equipment to CONTROL S IN jack on the projection TV.
Step 3: Setting up the remote commander

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

Notes
- With normal use, the battery should last for approximately six months.
- If you do not use the remote commander for an extended period of time, remove the battery to avoid possible damage from battery leakage.
- Do not handle the remote commander roughly. Do not drop it, step on it or let it get wet.
- Do not place the remote commander in direct sunlight, near a heater, or where the humidity is high.

Step 4: Setting up the projection TV automatically (AUTO SET UP)

You can set up your projection TV easily by using AUTO SET UP feature. It presets all the receivable channels, adjusts the convergence and changes the on-screen menu language. To set up the TV manually, see “Presetting channels” (page 16), “Setting cable TV on or off” (page 15), “Adjusting convergence” (page 14) and “Changing the menu language” (page 16).

If the TV is set to a video input, you cannot execute AUTO SET UP. Press TV/VIDEO so that a channel number appears.

1 Press POWER to turn the projection TV on.

2 Press SET UP on the front of the projection TV.

3 Press CHANNEL+ to start AUTO SET UP.

If you prefer Spanish or French to English, you can change the on-screen menu language. Press CHANNEL – for Spanish or VOLUME+ for French.

All of the menus will be set to the factory preset condition in the selected language.
4 Press CHANNEL+ to preset channels.

"AUTO PROGRAM" appears on the screen and the TV starts scanning and presetting channels automatically. When all the receivable channels are stored, "AUTO PROGRAM" disappears and the following menu appears. If the projection TV receives cable TV channels, CATV is set to ON automatically.

5 Adjust convergence.

(1) Press CHANNEL+.

The CONVERGENCE adjustment screen appears.

(2) Press TV/VIDEO to select RED or BLUE.

(3) Using CHANNEL+- or VOLUME+-, move the line until it converges with the center green line.

To move horizontal line up/down, press CHANNEL+-.

To move vertical line right/left, press VOLUME+-.

(4) Repeat steps (2) and (3) to adjust the other lines until all three lines converge and are seen as a white cross.

Notes
• If more than 90 seconds elapse after you press a button, the menu disappears automatically.
• In case of using the AUX connector, press the TV button on the remote commander first and make sure that "AUX" is displayed beside the channel number on the screen. Then follow steps 2 to 5 above to perform AUTO SET UP.

To preview the main functions (DEMO)
Press VOLUME– in step 3. The functions and menus are displayed one by one.

Erasing or adding channels

After AUTO SET UP you can erase unnecessary channels or add the channels you want. Preset channels during the day rather than late at night, when some channels may not be broadcasting.

1 Press MENU.

The main menu appears.

2 Press + or – to move the cursor (↑) to SET UP and press RETURN.

The SET UP menu appears.

(continued)
3 Make sure the cursor (►) is beside CHANNEL ERASE/ADD and press RETURN.
If the cursor is not beside CHANNEL ERASE/ADD, press + △ or - ▼ to move the cursor and press RETURN.
The CHANNEL ERASE/ADD menu appears.

4 Erase and/or add the channel you want:
To erase an unwanted channel
(1) Make sure the cursor (►) is beside ERASE.
(2) Press CH + or - to select the channel you want to erase.
(3) Press RETURN.
The indication “−” appears beside the channel number, showing that the channel is erased from the preset memory.

To add a channel that you want
(1) Press + △ or - ▼ to select ADD.
(2) Press 0 – 9 button to select the channel you want to add and press ENTER.
(3) Press RETURN.
The indication “+” appears beside the channel number, showing that the channel is added to the preset memory.

5 To erase and/or add other channels, repeat step 4.

6 When you finish, press MENU.

Notes
• If you erase or add a VHF or UHF channel, the cable TV channel with the same number is also erased or added, and vice versa.
• If more than 90 seconds elapse after you press a button, the menu disappears automatically.
• Erasing and adding channels are also available for the AUX input.

Adjusting convergence (CONVERGENCE)
The projection tube image appears on the screen in three layers (red, green and blue). If they do not converge, the color is poor and the picture blurs. To correct this, adjust convergence.
You do not have to do this procedure if you execute AUTO SET UP (page 12). Do this procedure only when you want to adjust it manually.

1 Press MENU.

2 Press + △ or - ▼ to move the cursor (►) to SET UP and press RETURN.
3 Press + △ or - ▽ to move the cursor (►) to CONVERGENCE and press RETURN.
The CONVERGENCE adjustment screen appears.

4 Press + △ or - ▽ to move the cursor (►) to the symbol showing the line you want to adjust, and press RETURN.

5 Press + △ or - ▽ to move the line until it converges with the center green line, and press RETURN.

6 Repeat steps 4 and 5 to adjust other lines until all three lines converge and are seen as a white cross.

7 Press MENU to return to the original screen.

Setting cable TV on or off

If you have connected the projection TV to a cable TV system, set CABLE to ON, the factory setting. If not, set CABLE to OFF.
You do not have to do this procedure if you execute AUTO SET UP (page 12). Do this procedure only when you want to set it manually.

1 Press MENU.

2 Press + △ or - ▽ to move the cursor (►) to SET UP and press RETURN.

3 Press + △ or - ▽ to move the cursor (►) to CABLE and press RETURN.

4 Press + △ or - ▽ to select ON or OFF and press RETURN.

5 Press MENU to return to the original screen.

Note
• If CABLE appears in black, the projection TV is set to a video input and you cannot select CABLE. Press TV on the remote commander so that a channel number appears.

Getting Started
Presetting channels

You can preset TV channels easily by AUTO PROGRAM feature.
You do not have to do this procedure if you execute AUTO SET UP (page 12). Do this procedure only when you want to set it manually.

1 Press MENU.

2 Press + Δ or – ▼ to move the cursor (►) to SET UP and press RETURN.

3 Press + Δ or – ▼ to move the cursor (►) to AUTO PROGRAM and press RETURN.

“AUTO PROGRAM” appears on the screen and the projection TV starts scanning and presetting channels automatically. When all the receivable channels are stored, “AUTO PROGRAM” disappears and the lowest numbered channel is displayed.

4 Press MENU to return to the original screen.

Notes
• If AUTO PROGRAM appears in black in the SET UP menu, the projection TV is set to a video input and you cannot select AUTO PROGRAM. Press TV/VIDEO or TV on the remote commander so that a channel number appears.
• Presetting channels is also available for the AUX input.

Changing the menu language

If you prefer Spanish or French to English, you can change the menu language.
You do not have to do this procedure if you execute AUTO SET UP (page 12). Do this procedure only when you want to set it manually.

1 Press MENU.

2 Press + Δ or – ▼ to move the cursor (►) to SET UP and press RETURN.

3 Press + Δ or – ▼ to move the cursor (►) to LANGUAGE and press RETURN.

4 Press + Δ or – ▼ to select the language and press RETURN.

The menu in selected language appears.

5 Press MENU to return to the original screen.

Note
• Even when you select Spanish or French language, certain parts of the menus remain in English.
Watching TV programs

Check that the CABLE BOX/TV selector is set to TV.

1 Press POWER to turn on the projection TV. The TIMER/STAND BY indicator flashes until the picture appears.

If “VIDEO” appears on the screen, press the TV/VIDEO or TV button so that a channel number appears.

2 Select the channel you want to watch:

To select a channel directly
Press the 0 – 9 buttons and then press ENTER. For example, to select channel 10, press 1, 0 and ENTER.

To scan through channels
Press CH +/- until the channel you want to watch appears.

3 Press VOL +/- to adjust the volume.

Switching quickly between two channels

Press JUMP. The channel you previously selected with the 0-9 buttons appears.

Pressing JUMP again switches back the channel.

Muting the sound

Press MUTING. “MUTING” appears on the screen.

To restore the sound, press MUTING again, or press VOL +.

Displaying on-screen information

Press DISPLAY repeatedly until the desired display appears.

Each time you press DISPLAY, the display changes as follows:

- Status display* → XDS** → Caption Vision***
- DISPLAY OFF

* Channel number, the current time, channel caption (if set), and MTS mode (if SAP is selected) are displayed. SAP indication disappears after three seconds.
** Some programs are broadcast with XDS (Extended Data Service) which shows a network name, program name, program type, program length, call letters, and time of the show. When you select XDS with the DISPLAY button, this information will be displayed on the screen if the broadcaster offers this service.

(continued)
Watching two programs at one time — PIP

The Picture-in-Picture (PIP) feature allows you to watch both the main picture and a window picture simultaneously. You can also watch two TV channels at one time.

Press PIP again to display a smaller window picture.

Each time you press PIP, the size of the window picture changes as follows: 1/9 size → 1/16 size → OFF.

To remove the window picture, press PIP repeatedly until the window picture disappears.

Changing the VHF/UHF input to the AUX input

Press TV.
“ AUX” appears beside the channel number.

Pressing TV again switches back to the previous input.
Notes

- If the main picture is not receiving an image, the window picture may be in black and white.
- The window picture sound is also output from the AUDIO (VAR/FIX) OUT jacks when you listen to it.

Changing the window picture input mode

Press TV/VIDEO in the PIP control area of the remote commander to select the input mode. Each time you press TV/VIDEO, “TV,” “VIDEO 1,” “VIDEO 2” and “VIDEO 3” appear in sequence.

Changing TV channels in the window picture

Press CH +/- in the PIP control area.

Listening to the sound of the window picture

Press AUDIO. “b” appears for a few seconds, indicating that the window picture sound is being received.

Freezing the window picture

This feature is useful when you want to write down a recipe from a cooking program, a displayed address or a phone number and so on.

Swapping the main and window pictures

Press SWAP. Each time you press SWAP, the images and sound from the main and window pictures switch places with another.

Note

- The channels being received through the AUX jack cannot be displayed as a window picture.
Selecting picture and sound effects  
(PROGRAM PALETTE)

You can select one of three settings for picture and sound effects that best suits the program. You can also adjust picture effect for each setting to suit your taste.

<table>
<thead>
<tr>
<th>Item</th>
<th>Picture effect</th>
<th>Sound effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>STANDARD</td>
<td>Standard</td>
<td>Standard</td>
</tr>
<tr>
<td>MOVIE</td>
<td>Finely detailed picture</td>
<td>Theatrical audio effect</td>
</tr>
<tr>
<td>SPORTS</td>
<td>Vivid, bright picture</td>
<td>Sound with a sports stadium effect</td>
</tr>
</tbody>
</table>

### Adjusting the picture in PROGRAM PALETTE

1. Press MENU.
2. Press + △ or - ▽ to select VIDEO and press RETURN.
3. Press + △ or - ▽ to select MODE and press RETURN.
4. Press + △ or - ▽ to select the item which you want to adjust and press RETURN.
5. Adjust the picture according to steps 3 to 5 in “Adjusting the picture” on page 21.

To restore the factory setting
Press RESET while the VIDEO menu is displayed.

For details on each item, see “Effect of three items” in the right column.
Adjusting the picture (VIDEO)

When watching TV programs, you can adjust the quality of the picture to suit your taste. The adjusted level is stored in PROGRAM PALETTE in which that adjustment is done.

1 Press MENU.
2 Press +△ or -▽ to move the cursor to VIDEO and press RETURN.
   The VIDEO adjustment menu appears.

3 Select the item you want to adjust.
   For example:
   (1) To adjust brightness, press +△ or -▽ to select BRIGHTNESS.

4 Adjust the selected item:
   (1) Press +△ or -▽ to adjust the item.

   (2) Press RETURN.

   The new setting appears in the VIDEO menu, and is stored in the displayed PROGRAM PALETTE mode.

   (2) Press RETURN.

   For details on each item, see “Description of adjustable items” below.

5 To adjust other items, repeat steps 3 and 4.

Description of adjustable items

<table>
<thead>
<tr>
<th>Item</th>
<th>Press +△ to</th>
<th>Press -▽ to</th>
</tr>
</thead>
<tbody>
<tr>
<td>PICTURE</td>
<td>Increase picture contrast for vivid color</td>
<td>Decrease picture contrast for soft color</td>
</tr>
<tr>
<td>HUE</td>
<td>Make overall picture greenish</td>
<td>Make overall picture purplish</td>
</tr>
<tr>
<td>COLOR</td>
<td>Increase color intensity</td>
<td>Decrease color intensity</td>
</tr>
<tr>
<td>BRIGHTNESS</td>
<td>Brighten the picture</td>
<td>Darken the picture</td>
</tr>
<tr>
<td>SHARPNESS</td>
<td>Sharpen the picture</td>
<td>Soften the picture</td>
</tr>
</tbody>
</table>

To restore the factory settings
Press RESET on the remote commander.
Adjusting the color temperature (TRINITONE)

The TRINITONE feature controls the color temperature, permitting white balance preference adjustment without affecting skin tones.

1 Press MENU.

2 Press + A or - V to select VIDEO and press RETURN.

3 Press + A or - V to select TRINITONE and press RETURN.

4 Press + A or - V to select NTSC STD, MEDIUM or HIGH and press RETURN.

<table>
<thead>
<tr>
<th>Choose</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTSC STD</td>
<td>Make the white color reddish.</td>
</tr>
<tr>
<td>MEDIUM</td>
<td>Make the white color whitish.</td>
</tr>
<tr>
<td>HIGH</td>
<td>Make the white color bluish.</td>
</tr>
</tbody>
</table>

Reducing picture noise (NR)

You can reduce picture noise when NR is set to ON.

1 Press MENU.

2 Press + A or - V to select VIDEO and press RETURN.

3 Press + A or - V to select NR and press RETURN.

4 Press + A or - V to select ON and press RETURN.

Note
* This feature is useful when watching a weak broadcast signal.
Adjusting sound
(AUDIO)

You can adjust the quality of the TV sound to suit your taste.

1 Press MENU.

2 Press + Δ or – V to select AUDIO and press RETURN.

3 Select the item you want to adjust.
   For example:
   (1) To adjust bass, press + Δ or – V to select BASS.

4 Adjust the selected item:
   (1) Press + Δ or – V to adjust the item.

   (2) Press RETURN.
   The new setting appears in the AUDIO menu.

5 To adjust other items, repeat steps 3 and 4 above.

Description of adjustable items

<table>
<thead>
<tr>
<th>Item</th>
<th>Press + Δ to</th>
<th>Press – V to</th>
</tr>
</thead>
<tbody>
<tr>
<td>TREBLE</td>
<td>Increase the treble response</td>
<td>Decrease the treble response</td>
</tr>
<tr>
<td>BASS</td>
<td>Increase the bass response</td>
<td>Decrease the bass response</td>
</tr>
<tr>
<td>BALANCE</td>
<td>Emphasize the right speaker’s volume</td>
<td>Emphasize the left speaker’s volume</td>
</tr>
</tbody>
</table>

To restore the factory settings
Press RESET on the remote commander.
Listening to surround sound
(SURROUND)

The SURROUND feature simulates sound reproduction with the atmosphere of a movie theater or a concert hall. Surround sound is only effective for stereo programs (stereo light indication on).

1 Press MENU.
2 Press + △ or - ▼ to select AUDIO and press RETURN.
3 Press + △ or - ▼ to select SURROUND and press RETURN.
4 Press + △ or - ▼ to select ON and press RETURN.

Selecting stereo or bilingual programs
(MTS)

The Multichannel TV Sound (MTS) feature gives you the choice to enjoy stereo sound or Second Audio Programs (SAP) when available. The initial setting is stereo sound (MAIN).

1 Press MENU.
2 Press + △ or - ▼ to select AUDIO and press RETURN.
3 Press + △ or - ▼ to select MTS and press RETURN.
4 Press + △ or - ▼ to select MAIN, SAP or MONO and press RETURN.

Choose To
MAIN Listen to stereo sound. The STEREO indicator on the projection TV lights up while a stereo broadcast is received.
SAP Listen to bilingual programs. The sound of non-SAP programs will be muted when SAP is selected.
MONO Reduce noise during stereo broadcasts.

Note
• Stereo and SAP sounds are subject to program sources.
Setting the speaker switch (SPEAKER)

You may switch off the projection TV speakers when, for example, you want to listen to the sound through a stereo system.

1 Press MENU.
2 Press \(\Delta\) or \(\nabla\) to select AUDIO and press RETURN.
3 Press \(\Delta\) or \(\nabla\) to select SPEAKER and press RETURN.
4 Press \(\Delta\) or \(\nabla\) to select OFF and press RETURN.

Setting audio out (AUDIO OUT)

You can select audio out to variable or fixed when SPEAKER is set to OFF. Audio out is variable when SPEAKER is set to ON.

1 Press MENU.
2 Press \(\Delta\) or \(\nabla\) to select AUDIO and press RETURN.
3 Press \(\Delta\) or \(\nabla\) to select AUDIO OUT and press RETURN.
4 Press \(\Delta\) or \(\nabla\) to select VARIABLE or FIXED and press RETURN.

VARIABLE: Sound output varied according to the TV settings. You can adjust the volume, bass, treble and balance.

FIXED: Sound output is always fixed to a certain level. You cannot adjust the volume.
Setting daylight saving time (DAYLIGHT SAVING)

If your area uses daylight saving time, change DAYLIGHT SAVING setting depending on the season, before setting the current time.

Daylight saving start
• After the first Sunday in April, set DAYLIGHT SAVING to YES. Current time (page 27) setting automatically moves one hour ahead.

Daylight saving end
• After the last Sunday in October, set DAYLIGHT SAVING to NO. Current time setting automatically moves one hour back.

1 Press MENU.

2 Press + △ or - ▼ to move the cursor (►) to TIMER/CH BLOCK and press RETURN.

3 Press + △ or - ▼ to select DAYLIGHT SAVING and press RETURN.

4 Press + △ or - ▼ to select YES or NO and press RETURN.

<table>
<thead>
<tr>
<th>Choose</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>Set for daylight saving start</td>
</tr>
<tr>
<td>NO</td>
<td>Set for daylight saving end</td>
</tr>
</tbody>
</table>
4 Set the current time.
(1) Press RETURN to start setting the time.

(2) Press + or - to set the day and press RETURN.

(3) Using + or - and RETURN, set hour and minute in the same way as in step (2).
When you press RETURN after setting the minute, the clock starts.

If you make a mistake while setting the time
Press RESET while the CURRENT TIME SET menu is displayed, then repeat step 4.

To display the current time
Press DISPLAY.

Note
- If you unplug the projection TV or a power interruption occurs, the clock will be erased. Reset the current time.
Setting the timer to turn the projection TV on and off (ON/OFF TIMER)

You can set the projection TV to turn on and off at the time you specify. Make sure the clock is set correctly. If it is not, set the clock first.

1 Press MENU.

2 Press + Δ or - V to select TIMER/CH BLOCK and press RETURN.

3 Press + Δ or - V to select ON/OFF TIMER and press RETURN.

4 Enter the ON/OFF TIMER setting.
   (1) Press + Δ or - V to select program 1 or 2 and press RETURN.
   (2) Press + Δ or - V to set the days and press RETURN. Each time you press + Δ or - V, the days cycle as shown below.
       EVERY SUN-SAT → EVERY MON-FRI →
       SUNDAY → MONDAY → ... → SATURDAY →
       EVERY SUNDAY → EVERY MONDAY →
       ... → EVERY SATURDAY

5 To set the other program, press RETURN and repeat step 4.

One minute before the projection TV switches to turn off, a message "TV will turn off." is displayed on the screen.

To cancel the timer
Press RESET on the remote commander.

Note
• If you unplug the projection TV or a power interruption occurs, ON/OFF TIMER settings will be erased. Reset the current time, then set the timer.
Blocking out a channel (CHANNEL BLOCK)

This feature allows you to prevent children from watching unsuitable programs. Make sure the clock is set correctly. If it is not, set the clock first (page 27).

1 Press MENU.

2 Press + Δ or - ν to select TIMER/CH BLOCK and press RETURN.

3 Press + Δ or - ν to select CHANNEL BLOCK and press RETURN.

4 Enter a CHANNEL BLOCK setting.
   (1) Press + Δ or - ν to select program 1 or 2 and press RETURN.

   (2) Press + Δ or - ν to set the days and press RETURN. Each time you press + Δ or - ν, the days cycle as shown below.
   EVERY SUN-SAT—EVERY MON-FRI—SUNDAY—MONDAY—...—SATURDAY
   EVERY SUNDAY—EVERY MONDAY—...

5 Press + Δ or - ν to select the channel and press RETURN.

If you select the blocked channel during the time you set, the message "BLOCKED" appears and the picture is blocked and the sound is muted.

To cancel a CHANNEL BLOCK setting
Press RESET on the remote commander.

Note
- If the CHANNEL BLOCK and ON/OFF TIMER settings are overlapped, the later time setting has priority over the other setting.

(3) Press + Δ or - ν to set the time (hour then minute) that you want to start blocking the channel and press RETURN.

(4) Press + Δ or - ν to select the hour duration you want to block and press RETURN. Each time you press RETURN, the hour duration increases by one hour up to a maximum of 12 hours.

(5) Press + Δ or - ν to select the channel and press RETURN.
You can choose up to 12 channels, caption each channel, and assign a specific channel number button to each channel. This feature allows you to select your favorite channels easily by name. For example, you can name channel 20 "ESPN," and assign the channel number 4 button to it.

### Setting captions to favorite channels

1. Press MENU.
2. Press + \(\Delta\) or – \(\nabla\) to select SET UP and press RETURN.
3. Press + \(\Delta\) or – \(\nabla\) to select CH CAPTION/GUIDE and press RETURN.
4. Press RETURN again.
5. Press + \(\Delta\) or – \(\nabla\) to select a channel guide number button and press RETURN.
   Each time you press + \(\Delta\) or – \(\nabla\), the channel positions change to red in turns. The channel number button you select will be the one you press to call up your favorite channel.
6. Press + \(\Delta\) or – \(\nabla\) to select the channel that you want to caption and press RETURN.
7. Enter the letters or numbers (up to four) to caption the channel:
   (1) Press + \(\Delta\) or – \(\nabla\) to select the first letter (number).
      Each time you press + \(\Delta\) or – \(\nabla\), the letter (number) changes as shown below.

   \[
   0 \rightarrow 1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5 \rightarrow 6 \rightarrow 7 \rightarrow 8 \rightarrow 9 \rightarrow A \rightarrow B \rightarrow C \rightarrow \ldots \rightarrow Z \rightarrow & \rightarrow \ldots \rightarrow _{{(blank\ space)}}
   \]

   (2) Press RETURN.
7. Enter the letters or numbers (up to four) to caption the channel:
   (1) Press + \(\Delta\) or – \(\nabla\) to select the first letter (number).
      Each time you press + \(\Delta\) or – \(\nabla\), the letter (number) changes as shown below.

   \[
   0 \rightarrow 1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5 \rightarrow 6 \rightarrow 7 \rightarrow 8 \rightarrow 9 \rightarrow A \rightarrow B \rightarrow C \rightarrow \ldots \rightarrow Z \rightarrow & \rightarrow \ldots \rightarrow _{{(blank\ space)}}
   \]

   (2) Press RETURN.
7. Enter the letters or numbers (up to four) to caption the channel:
   (1) Press + \(\Delta\) or – \(\nabla\) to select the first letter (number).
      Each time you press + \(\Delta\) or – \(\nabla\), the letter (number) changes as shown below.

   \[
   0 \rightarrow 1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5 \rightarrow 6 \rightarrow 7 \rightarrow 8 \rightarrow 9 \rightarrow A \rightarrow B \rightarrow C \rightarrow \ldots \rightarrow Z \rightarrow & \rightarrow \ldots \rightarrow _{{(blank\ space)}}
   \]

   (2) Press RETURN.
(3) Repeat steps (1) and (2) to select the remaining letters (numbers) and press RETURN.
8 Repeat steps 4 to 7 to caption other channels.

To erase a caption
Press RESET after step 4.

Notes
• The position number you already selected appears in yellow.
• If the CH CAPTION/GUIDE menu appears in black, the
projection TV is set to a video input, and you cannot select CH
CAPTION/GUIDE. Press TV so that a channel number
appears.
• If more than 90 seconds elapse after you press a button, the
menu disappears automatically.
• The channel caption feature is not available for the AUX input.

Selecting a captioned channel

1 Press CH GUIDE.
The CHANNEL GUIDE menu appears showing
channel captions and the corresponding channel
number buttons.

2 Press a channel number button, the
DISPLAY or ENTER button to select the
channel you want.

To cancel the CHANNEL GUIDE menu
Press CH GUIDE again.

Setting video labels
(VIDEO LABEL)

This feature allows you to label each input mode so
that you can easily identify the connected equipment.
For example, you can label VIDEO 1 IN as VHS.

1 Press MENU.

2 Press + or - to select SET UP and press
RETURN.

3 Press + or - to select VIDEO LABEL and
press RETURN.

4 Press + or - to select the input mode
you want to label and press RETURN.

(continued)
5 Press + △ or - ▼ to select the label and press RETURN.

Each time you press + △ or - ▼, the label changes as shown below.

VIDEO 1
VIDEO 1 → S-VIDEO → BETA → 8 mm → VHS → LD → DBS

VIDEO 2
VIDEO 2 → BETA → 8 mm → VHS → LD → DBS

VIDEO 3
VIDEO 3 → BETA → 8 mm → VHS → LD → DBS

6 Repeat steps 4 and 5 to label other input modes.

Note
- If more than 90 seconds elapse after you press a button, the menu disappears automatically.

Displaying Caption Vision (Caption Vision/ XDS)

Some programs are broadcast with Caption Vision. To display Caption Vision, select either CC1, CC2, CC3, CC4, TEXT1, TEXT2, TEXT3 or TEXT4 from the menu. CC1, CC2, CC3 or CC4 shows you a caption, that is a printed version of the dialog or sound effects of a program. (The mode should be set to CC1 for most programs.) TEXT1, TEXT2, TEXT3 or TEXT4 shows you text, that is information presented using either half or the whole screen. It is not usually related to the program.

1 Press MENU.

2 Press + △ or - ▼ to select CAPTION VISION/ XDS and press RETURN.

3 Press + △ or - ▼ to select the caption type and press RETURN.

The selected caption type is colored green.
**To turn off the captions or text**

Press DISPLAY on the remote commander. Each time you press DISPLAY, the display changes as follows:

- on-screen information → XDS* → Caption Vision or Text → DISPLAY OFF

“DISPLAY OFF” goes off after three seconds.

* Some programs are broadcast with XDS service which shows a network name, program name, program length, call letters and time of the show. When you select XDS with the DISPLAY button, this information will be displayed on the screen if the broadcaster offers this service.

**Note**

- Captions may appear with a white box or another error instead of a certain word. Poor reception of TV programs can also cause errors in Closed Caption.

You can operate a piece of video equipment that has an infrared remote sensor with the supplied remote commander. Before operating, set the manufacturer’s code number.

### Setting the manufacturer’s code

While holding down CODE SET, press 0 – 9 to enter the manufacturer’s code number (see the chart on page 34) and press ENTER. For example, to operate a Sony 8 mm VCR, press 0, 2 and ENTER.
**Manufacturer code numbers**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Code number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SONY</td>
<td>01, 02, 03, 04</td>
</tr>
<tr>
<td>CANON</td>
<td>05</td>
</tr>
<tr>
<td>EMERSON</td>
<td>22, 30, 33</td>
</tr>
<tr>
<td>FISHER</td>
<td>10, 11, 12, 15</td>
</tr>
<tr>
<td>FUNAI</td>
<td>29</td>
</tr>
<tr>
<td>GENERAL ELECTRIC</td>
<td>05, 08</td>
</tr>
<tr>
<td>GOLDSTAR</td>
<td>25</td>
</tr>
<tr>
<td>HITACHI</td>
<td>07, 08, 36</td>
</tr>
<tr>
<td>JVC</td>
<td>16, 35</td>
</tr>
<tr>
<td>MAGNAVOX</td>
<td>05, 06, 09</td>
</tr>
<tr>
<td>MITSUBISHI</td>
<td>18, 19, 26, 27</td>
</tr>
<tr>
<td>MULTITECH</td>
<td>29</td>
</tr>
<tr>
<td>NEC</td>
<td>16, 23, 31</td>
</tr>
<tr>
<td>PANASONIC</td>
<td>05, 06</td>
</tr>
<tr>
<td>PHILCO</td>
<td>05, 06</td>
</tr>
<tr>
<td>PHILIPS</td>
<td>05, 06, 09</td>
</tr>
<tr>
<td>QUASAR</td>
<td>05, 06</td>
</tr>
<tr>
<td>RCA</td>
<td>07, 08</td>
</tr>
<tr>
<td>SAMSUNG</td>
<td>24, 32</td>
</tr>
<tr>
<td>SANYO</td>
<td>11, 15</td>
</tr>
<tr>
<td>SCOTT</td>
<td>21</td>
</tr>
<tr>
<td>SHARP</td>
<td>13, 14</td>
</tr>
<tr>
<td>SHINTOM</td>
<td>34</td>
</tr>
<tr>
<td>SYLVANIA</td>
<td>05, 06, 09</td>
</tr>
<tr>
<td>SYMPHONIC</td>
<td>29</td>
</tr>
<tr>
<td>TEKNIKA</td>
<td>28, 29</td>
</tr>
<tr>
<td>TOSHIBA</td>
<td>20, 21</td>
</tr>
<tr>
<td>TOTE VISION</td>
<td>25</td>
</tr>
<tr>
<td>ZENITH</td>
<td>17</td>
</tr>
</tbody>
</table>

**Notes**

- If more than one code number is listed, try entering them one by one, until you come to the correct code for your equipment.
- In some rare cases, you may not be able to operate your non-Sony video equipment with this remote commander. This is because your equipment may use a code that is not provided with this remote commander. In this case, please use the equipment's own remote control unit.
- The code numbers for Sony equipment are assigned at the factory as follows:
  - Beta, ED Beta VCRs: 01 (preset code for this remote commander)
  - 8 mm VCR: 02
  - VHS VCR: 03
  - MDP: 04

**Caution**

When you remove a battery from the remote commander, the code may revert to 01. Reset the codes each time you replace the battery, if necessary.

---

**Operating video equipment**

**Operating a VCR**

- **Buttons on the remote commander**
  - To turn on or off: Press VIDEO POWER
  - To change channels: Press CH +/–
  - To record: Press ● and REC simultaneously
  - To play: Press ▶
  - To stop: Press ■
  - To fast forward: Press ▶▶
  - To rewind the tape: Press ◀◀
  - To pause: Press ■
  - To search the picture forward and backward: Press ▶▶ or ◀◀ during playback

**Operating a laser-disc player**

- **Buttons on the remote commander**
  - To play: Press ▶
  - To stop: Press ■
  - To pause: Press ■
  - To resume normal playback, press again.
  - To search the picture forward and backward: Keep pressing ▶▶ or ◀◀ during playback
  - To resume normal playback, release the button.

**Note**

- If the video equipment does not have a certain function, the corresponding button on this remote commander will not operate.
You can operate a connected cable box with the supplied remote commander. Before operating, set the manufacturer’s code number.

1. Set the CABLE BOX/TV selector to CABLE BOX.

2. While holding down CODE SET, press 0 - 9 to enter the manufacturer’s code number (see the chart below) and press ENTER. For example, to operate a Zenith cable box, press 6 and 8 and press ENTER.

3. Use CABLE POWER and the projection TV control buttons (0 - 9, ENTER, JUMP and CH +/-) to operate the cable box.

To operate the projection TV
Set the CABLE BOX/TV selector to TV. Then use the projection TV control buttons to control the projection TV.

For more details on operating the cable box
Refer to the operating instructions that come with the cable box.

Manufacturers and code numbers (cable box)

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Code number</th>
</tr>
</thead>
<tbody>
<tr>
<td>JERROLD</td>
<td>60, 61, 62, 63, 64, 65, 73</td>
</tr>
<tr>
<td>PIONEER</td>
<td>69, 70</td>
</tr>
<tr>
<td>SCIENTIFIC ATLANTA</td>
<td>66, 67</td>
</tr>
<tr>
<td>TOCOM</td>
<td>71, 72</td>
</tr>
<tr>
<td>ZENITH</td>
<td>68</td>
</tr>
</tbody>
</table>

Notes
- If more than one code 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, your equipment may use a code that is not provided with this remote commander and you may not be able to operate your cable box with the supplied remote commander. In this case, use the equipment’s own remote control unit.
- When you remove a battery from the remote commander, the code may be erased. Reset the code each time you replace the battery, if necessary.
After trying the methods below, if the problem persists, contact your nearest Sony dealer.

**No picture (screen not lit), no sound**
- Make sure the power cord is connected securely.
- Check to see if the TV/VIDEO setting is correct: when watching TV, set to TV, and when watching video tapes, set to VIDEO. (page 18)
- Make sure the CABLE BOX/TV selector is in the correct position. (page 17)
- Try another channel. It could be station trouble.

**Poor or no picture (screen lit), good sound**
- Adjust PICTURE in the VIDEO menu. (page 21)
- Adjust BRIGHTNESS in the VIDEO menu. (page 21)
- Adjust the convergence. (page 14)
- Check antenna/cable connections. (page 6)

**Good picture, no sound**
- Press MUTING so that “MUTING” disappears from the screen. (page 17)
- Check the MTS setting in the AUDIO menu. (page 24)
- Make sure SPEAKER is set to ON in the AUDIO menu. (page 25)

**No color**
- Adjust COLOR in the VIDEO menu. (page 21)
- Confirm that black and white program is not being broadcast.

**Only snow and noise appear on the screen**
- Check the CABLE setting in the SET UP menu. (page 15)
- Check the antenna/cable connections. (page 6)
- Make sure the channel is broadcasting programs.

**Dotted lines or stripes**
- Adjust the antenna.
- Move the projection TV away from noise sources such as cars, neon signs, and hairdryers.

**Double images or ghosts**
- Use a highly directional outdoor antenna or a cable (when the problem is caused by reflections from nearby mountains or tall buildings.)

**Cannot operate menu**
- If the item you want to choose appears in black, you cannot select it. Press TV/VIDEO correctly.
- Check the CABLE setting in the SET UP menu. (page 15)

**Cannot receive upper channels (UHF) when using an antenna**
- Check if CABLE is OFF in the SET UP menu. (page 15)
- Use AUTO PROGRAM to add receivable channels that are not presently in the memory. (page 16)

**Cannot receive any channels when using cable TV**
- Check if CABLE is ON in the SET UP menu. (page 15)
- Use AUTO PROGRAM to add receivable channels that are not presently in the memory. (page 16)

**Remote commander does not operate**
- Battery could be weak. Replace the battery. (page 12)
- Make sure the projection TV’s power cord is connected securely to wall outlet.
- Set the CABLE BOX/TV selector to TV when operating your projection TV.
- Are fluorescent lights too close to the projection TV? Move lights at least 3 – 4 feet away from the projection TV.

**Commander’s power, channel up/down, channel buttons do not function**
- Set the CABLE BOX/TV selector to the correct position. (page 35)

**Cannot gain enough volume when using a cable box**
- Increase the volume at the cable box. Then set the CABLE BOX/TV selector to TV and adjust the projection TV’s volume. (page 35)
### Specifications

**Projection system**
3 picture tubes, 3 lenses, horizontal in-line system

**Picture tube**
7 inch high-brightness monochrome tubes (6.3 raster size), with optical coupling and liquid cooling system

**Projection lenses**
High performance, large-diameter hybrid lens F1.0

**Screen size (measured diagonally)**
- KP-46S25: 46 inches
- KP-53S25: 53 inches

**Screen brightness**
- KP-46S25: 1500 cd/m²
- KP-53S25: 1200 cd/m²

**Television system**
American TV standards
VHF: 2 - 13 / UHF: 14 - 69 / CATV: 1 - 125

**Antenna**
75 ohm external antenna terminal for VHF/UHF

**Inputs/outputs**
- VIDEO IN 1
- 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
- VIDEO INPUT 2 and VIDEO IN 3
- VIDEO (phono jacks):
  - 1 Vp-p, 75-ohms unbalanced, sync negative

**Speaker**
- Full range speaker
  - 100 mm (3.9 inches) diameter

**Speaker output**
10 W x 2

**Power requirement**
120 V, 60 Hz

**Power consumption**
220 W

**Dimensions (W/H/D)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>KP-46S25</td>
<td>1,066 x 1,306 x 543 mm</td>
<td>70 kg (154 lbs 5 oz)</td>
</tr>
<tr>
<td>KP-53S25</td>
<td>1,218 x 1,413 x 594 mm (48 x 55 3/4 x 23 1/2 inches)</td>
<td>75 kg (165 lbs 6 oz)</td>
</tr>
</tbody>
</table>

**Supplied accessories**
- Remote commander RM-Y118 (1)
- Size AA (R6) battery (1)

**Optional accessories**
- U/V mixer EAC-66
- Connecting cables RK-74A, VMC-8105/8205, YC-15V/30V, VMC-720M
- Video tray SU-PJT2
- High-contrast protective screen
  - SCN-46X1 (For KP-46S25)
  - SCN-53X1 (For KP-53S25)

Design and specifications are subject to change without notice.
Adjusting
  convergence 13, 14
  sound 23
  the picture 21
Antenna 6
Auto program 13, 16
Battery 12
Cable box 35
Cable TV 15
Caption Vision 32
Changing the menu language 12
Channel block 29
Channel Caption/Guide 30
Connection
  with a DBS receiver 9
  with a VCR 7
  with an antenna 6
  without a VCR 6
Daylight saving 26
DBS 9, 32
DEMO 13
Erase/add 13
Jump 17
MTS (Multichannel TV Sound) 24
Muting 17
Picture-in-picture (PIP) 18
Presetting channels 13, 16
PROGRAM PALETTE 20
Remote commander 12
S video 8
SAP (Second Audio Program) 24
Setting
  daylight saving time 26
  the clock 27
Sleep timer 18
STEREO indicator 24
Surround 24
TIMER/STAND BY indicator 17, 28
Video label 31
Watching
  TV 17
  video tapes 18
XDS 33

Names of controls
  + A/- V buttons 13
  AUDIO button 19
  AUDIO L(MONO)/R IN jacks 7-9
  AUDIO L/R OUT jacks 10
  AUDIO (VAR/FIX) OUT jacks 11
  CABLE BOX/TV selector 17, 35
  CABLE POWER button 35
  CH(channel) +/- buttons 14, 17
  CH (channel) GUIDE button 31
  CODE SET button 33
  CONTROL S Jacks 11
  DISPLAY button 17
  ENTER button 17
  FREEZE button 19
  JUMP button 17
  MONITOR OUT jacks 11
  MENU button 13
  MUTING button 17
  PIP button 18
  POSITION button 19
  POWER button 12
  RESET button 20
  RETURN button 13
  S VIDEO input jack 8
  SLEEP button 18
  SWAP button 19
  TV button 18
  TV/VIDEO button 18
  VIDEO (VIDEO POWER, CH +/-, I, II, REC ●, TV/VTR) buttons 34
  VHF/UHF antenna terminal 6, 7
  VIDEO 1 IN jack 7-9
  VIDEO 2 INPUT jack 10
  VIDEO 3 IN jack 7-9
  VOL (volume) +/- buttons 17