

English

Español

# ***Color Rear Video Projector***

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Operating Instructions \_\_\_\_\_

**EN**

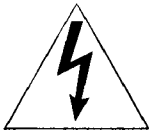
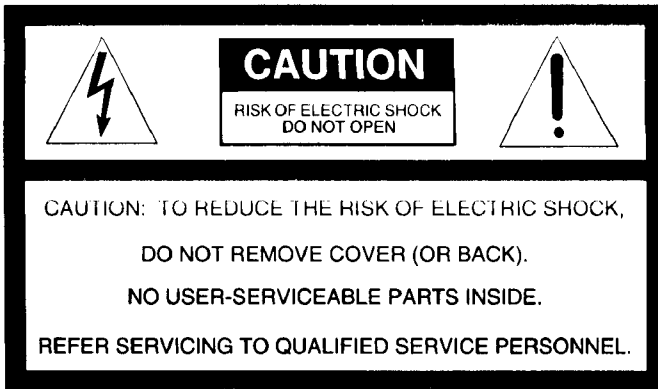
Manual de instrucciones \_\_\_\_\_

**ES**

*KP-41EXR96*  
*KP-46V15*  
*KP-46V16*  
*KP-53V15*  
*KP-53V16*  
*KP-61V15*



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



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



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

**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 Closed Caption**

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.

**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 a mild detergent solution. 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.

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**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. \_\_\_\_\_

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EN

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The captions in parentheses indicate menu names.

# Welcome!

Thank you for purchasing the Sony Color Rear Video Projection TV. Here are some of the features you will enjoy with your projection TV:

- 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-41EXR96, KP-46V15, KP-46V16, KP-53V15, KP-53V16 and KP-61V15. Before you start reading this manual, please check your model number, located at the rear of the projection TV. Model KP-61V15 is used for illustration purposes in this manual.

Any exceptions in operation between models are clearly indicated in the text. For example, "except for KP-41EXR96."

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.

# Precautions

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."

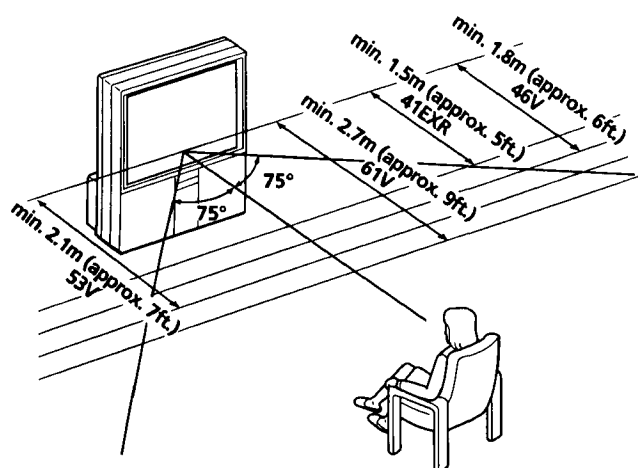
## Installing

- 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.

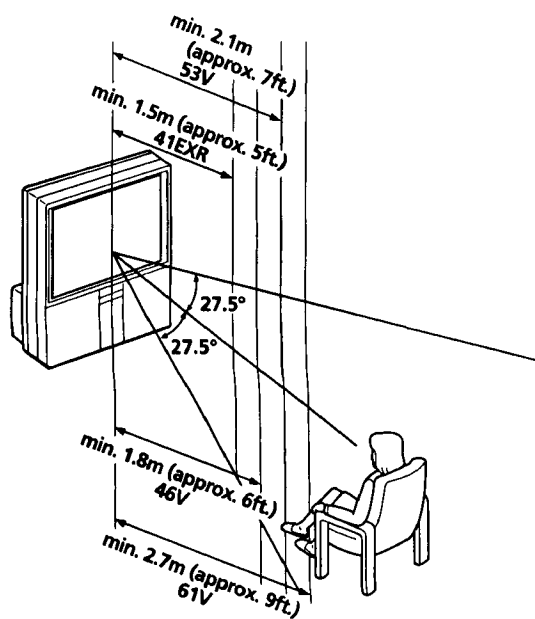
# Step 1: Installing the projection TV

For the best picture quality, install the projection TV within the areas shown below.

## Optimum viewing area (Horizontal)



## Optimum viewing area (Vertical)



## Preparing for your projection TV

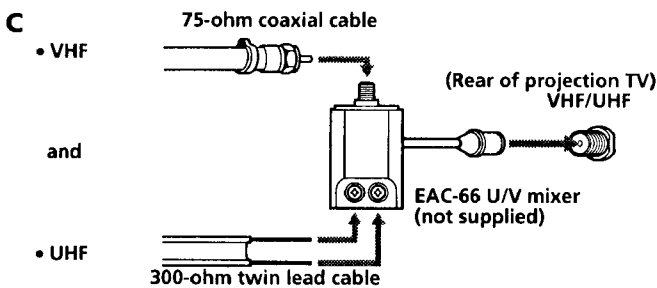
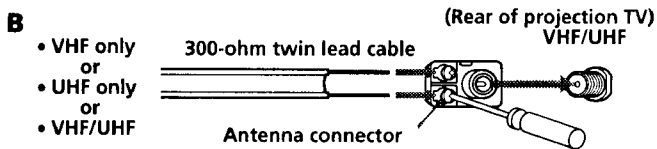
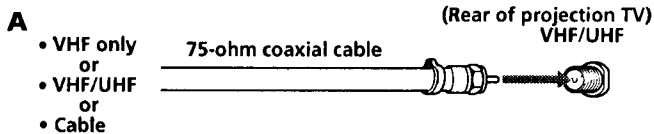
Before you use your projection TV, adjust convergence. For the procedure, see "Step 4: Adjusting convergence (CONVERGENCE)" on page 12.

# Step 2: Connections

Although you can use either an indoor antenna or outdoor antenna with your projection TV, we recommend connecting to an outdoor antenna or a cable TV system for improved picture quality.

## To an antenna

Connect your antenna cable to the VHF/UHF antenna terminal. If you cannot connect your antenna cable directly to the terminal, follow one of the instructions below depending on your cable type.



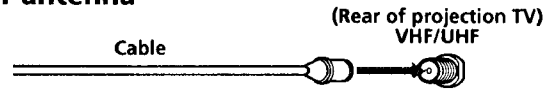
### Notes

- Most VHF/UHF combination antennas have a signal splitter. Remove the splitter before attaching the appropriate connector.
- If you use the U/V mixer, snow and noise may appear in the picture when viewing cable TV channels over 37(W+1).

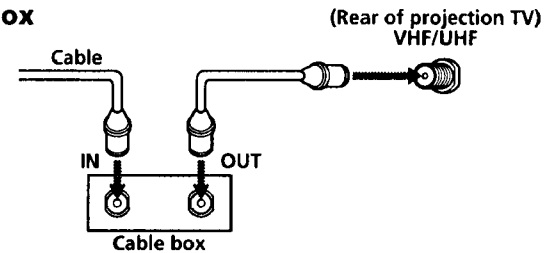
## Connecting an antenna/cable TV system without a VCR

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

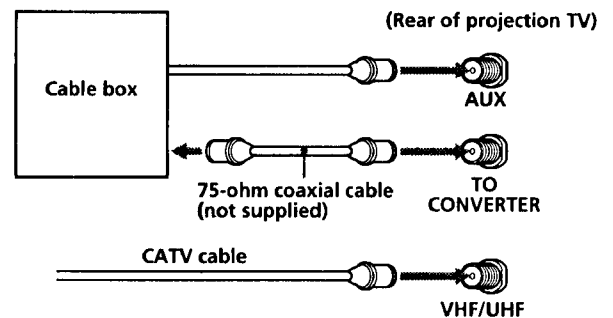
### Cable or antenna



### Cable box



### Cable box and cable (except for KP-41EXR96)



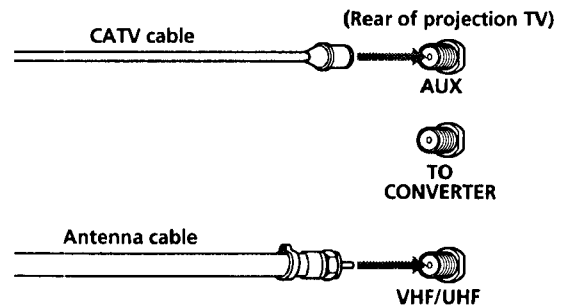
Pay cable TV systems use scrambled or encoded signals requiring the cable box\* in addition to the normal cable connection.

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

### Note

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

### Cable and antenna (except for KP-41EXR96)



### Note

- Do not connect anything to the TO CONVERTER connector in this case.

## Connecting an antenna/cable TV system with a VCR

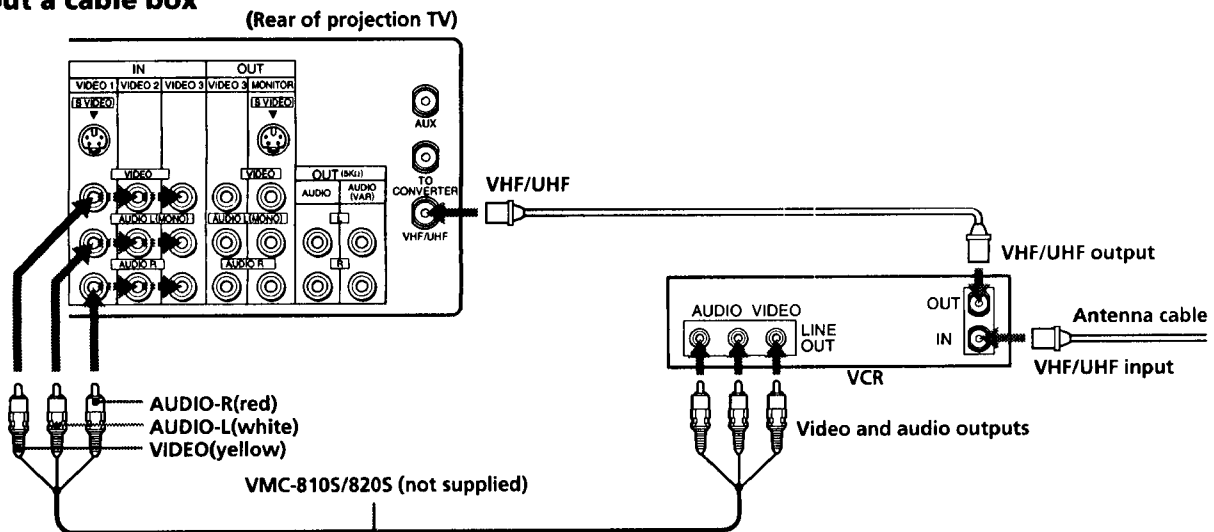
For details on connection, see the instruction manual of your VCR. Before connecting, disconnect the AC power cords of the equipment to be connected.

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 simultaneously using the PIP (Picture-in-Picture) feature (necessary for the KP-41EXR96)

### To a conventional VCR

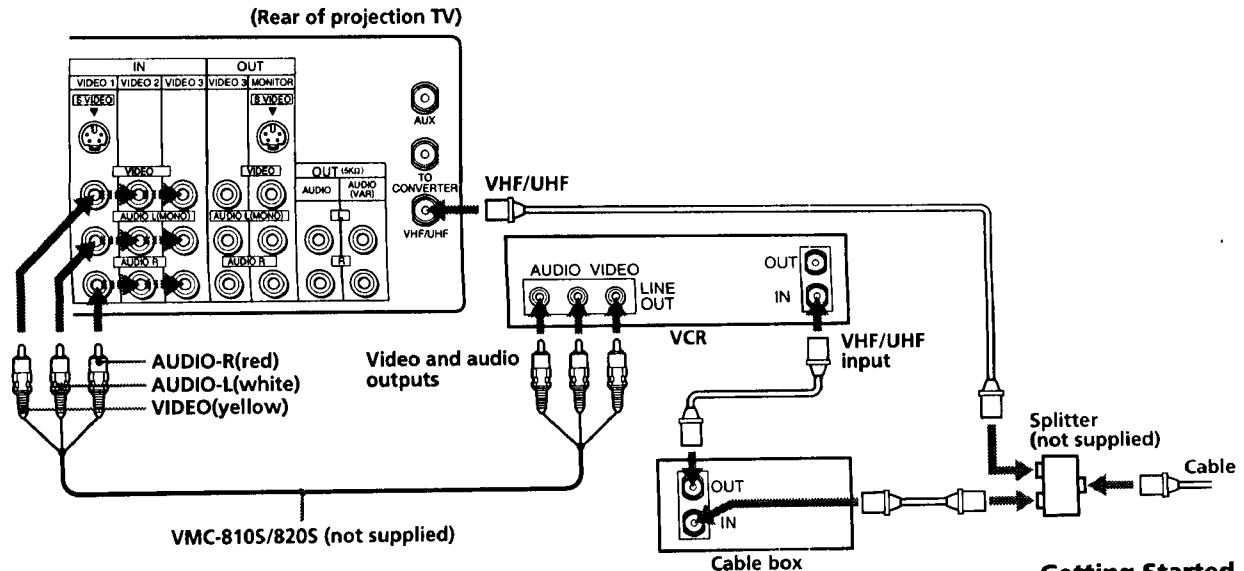
#### Without a cable box



#### Note

- To connect a monaural VCR, connect the audio output of the VCR to AUDIO-L (mono) of VIDEO 1/2/3 IN on the projection TV.

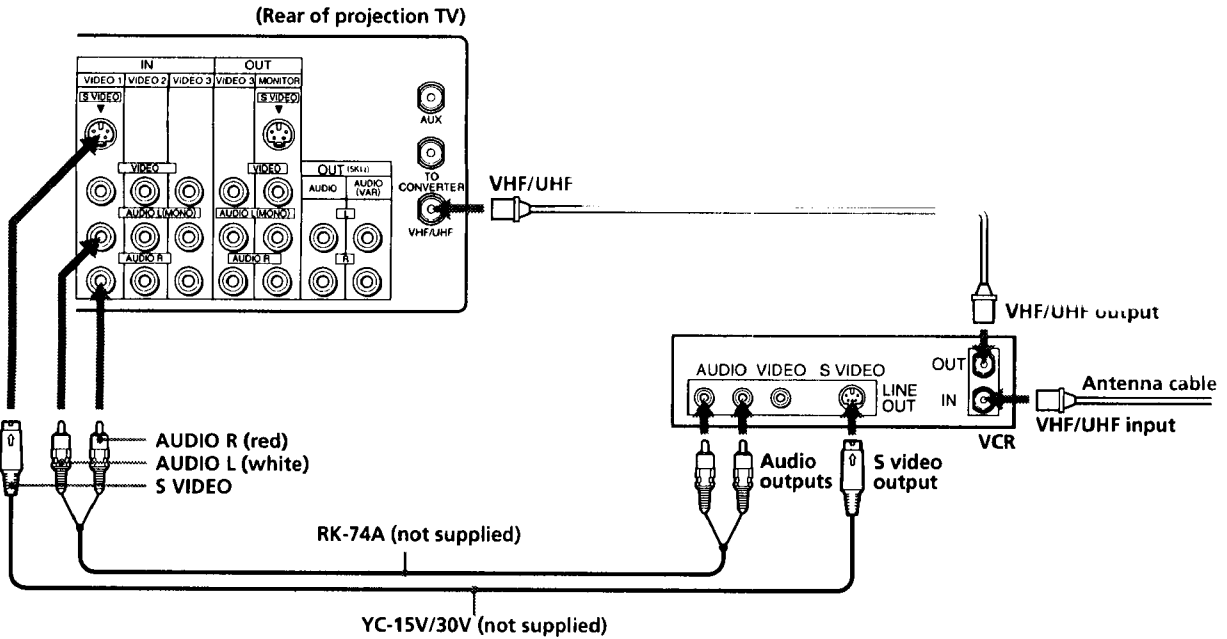
#### With a cable box



## To an S video equipped VCR

If your VCR has an S video output jack, make the connections as follows. S Video can be set to on or off in the MODE SET menu which is described on page 15. S Video is preset to ON at the factory.

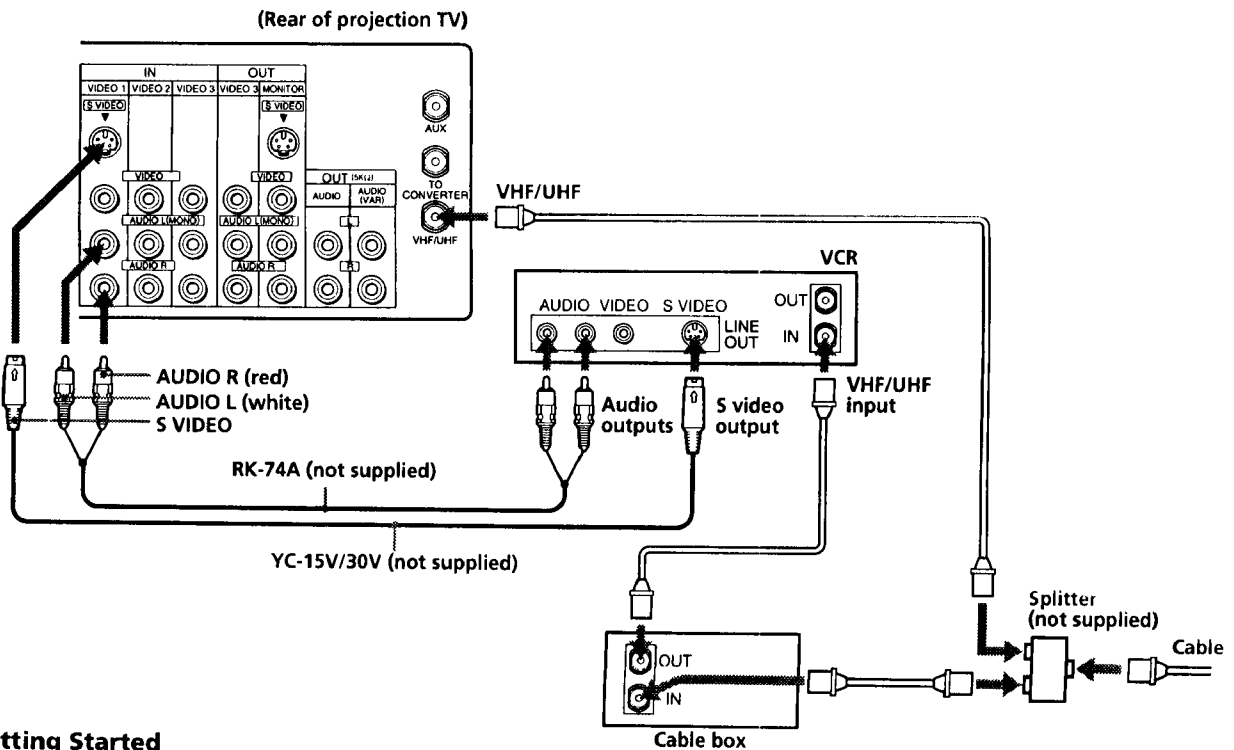
### Without a cable box



### 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.

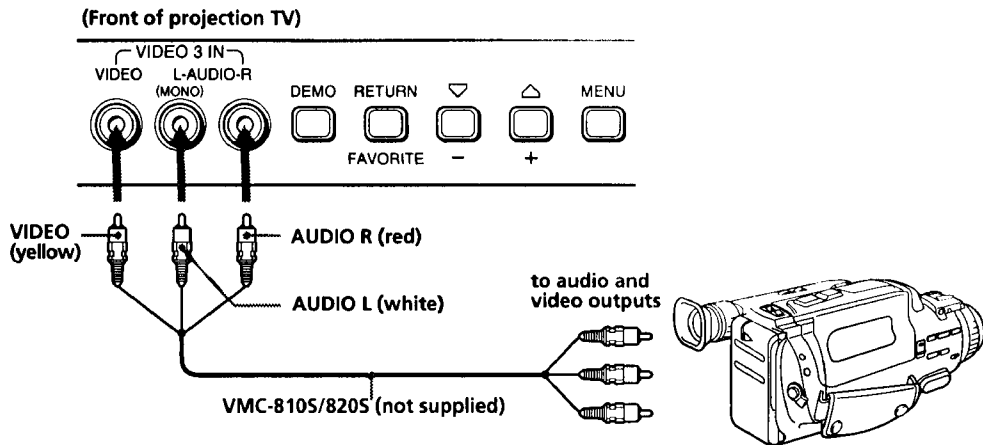
### With a cable box





## Connecting a camcorder

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



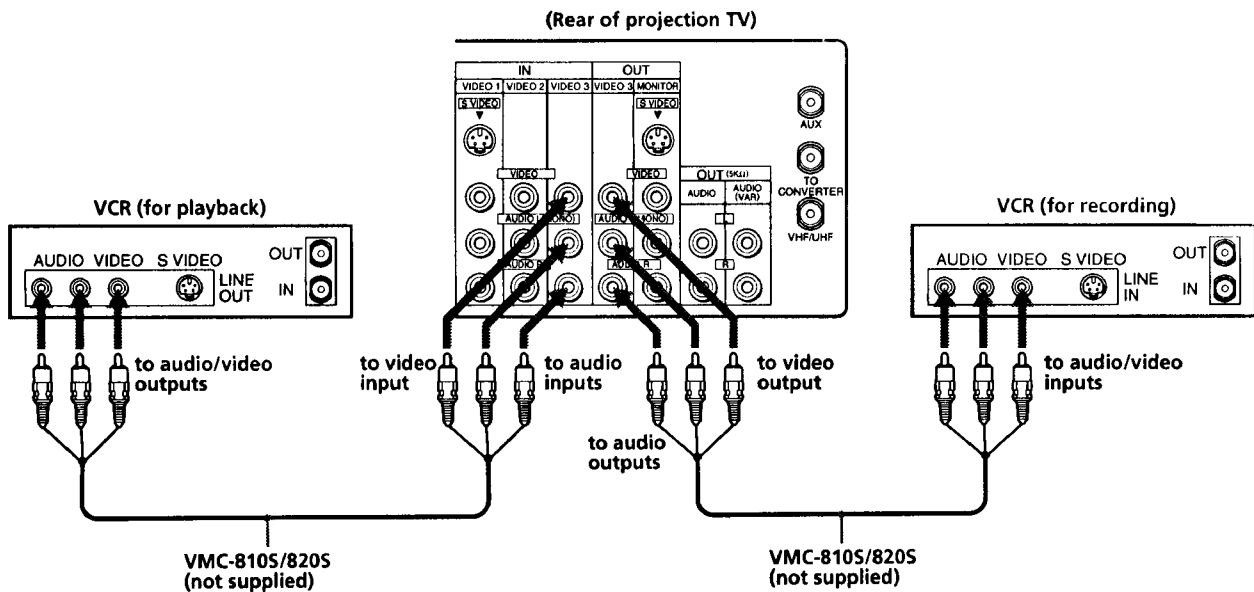
### Note

- To connect a monaural camcorder, connect the audio output of the camcorder to AUDIO-L (mono) of VIDEO 3 IN on the projection TV.

## Connecting two VCRs for tape editing using VIDEO 3 IN and OUT

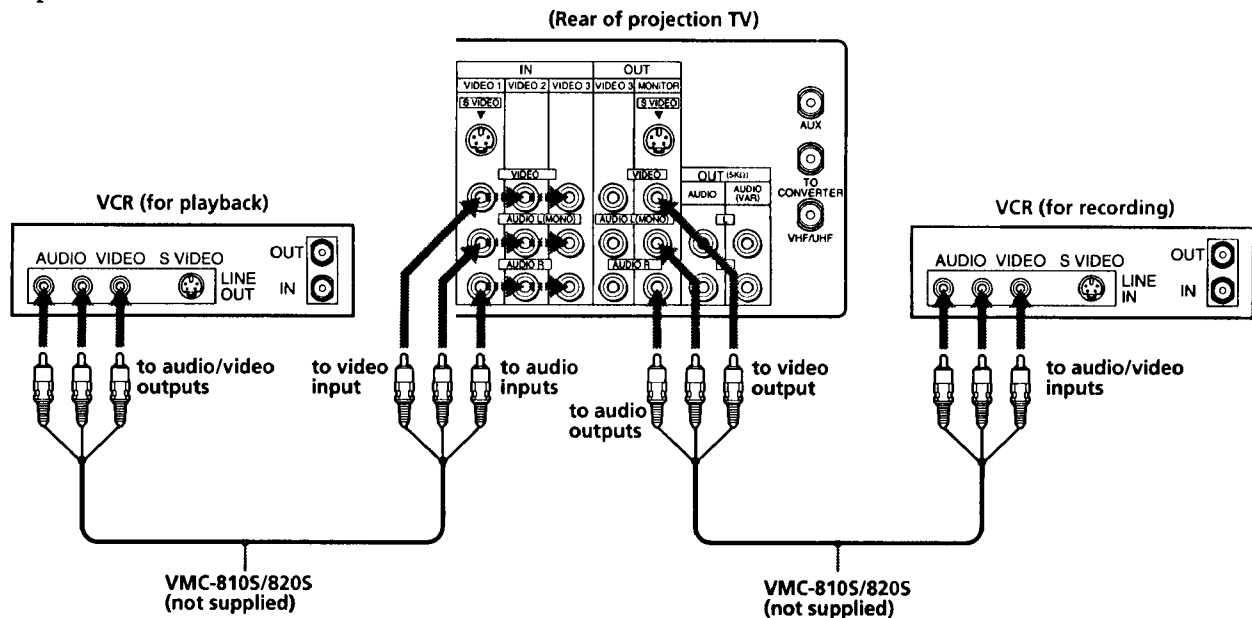
You can watch input images different from the image being recorded.

The VIDEO 3 OUT jacks output only the signal from the VIDEO 3 IN jacks. If you make the connection as shown below, you can watch images from either antenna, cable, VIDEO 1 IN or VIDEO 2 IN jacks during recording.



## Connecting two VCRs for tape editing using MONITOR OUT

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.

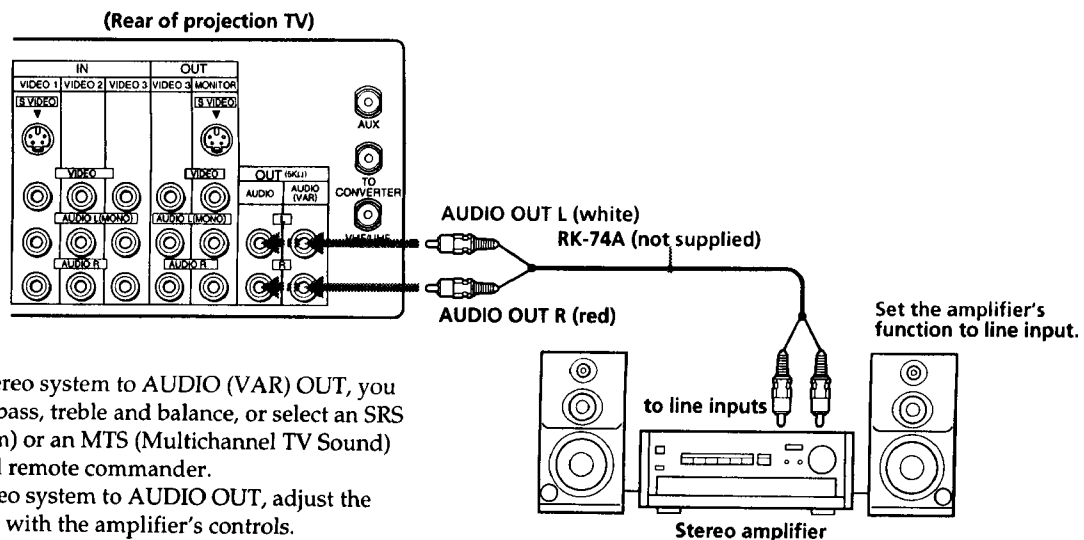


### Notes

- Do not change the input signal while editing through MONITOR OUT, 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 jack to connect a VCR for playback and either S video or composite video jack to connect a VCR for recording.

## Connecting an audio system

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



### Notes

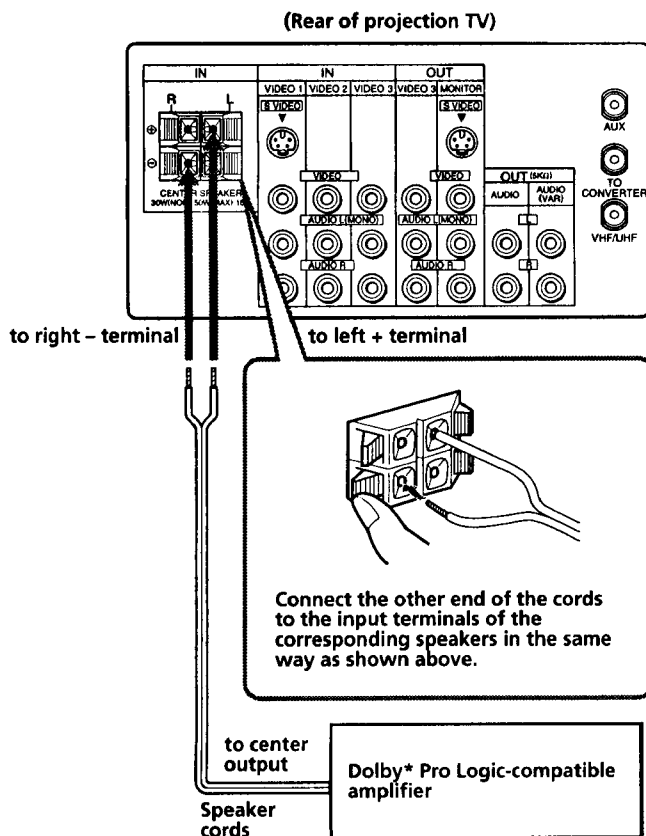
- When you connect a stereo system to AUDIO (VAR) OUT, you can adjust the volume, bass, treble and balance, or select an SRS (Sound Retrieval System) or an MTS (Multichannel TV Sound) mode with the supplied remote commander.
- When connecting a stereo system to AUDIO OUT, adjust the volume, bass and treble with the amplifier's controls.


## Using the projection TV speakers as center speakers

This feature allows you to enjoy the benefits of Dolby Pro Logic by using the speakers of the projection TV as the center speaker. To utilize this system, you must connect an amplifier that is Dolby Pro Logic compatible. Connect the speaker wires from the amplifier's center channel output terminals to the projection TV's CENTER SPEAKER IN. Both right and left terminals must be connected to receive an audio signal. After making the above connections, select "SPEAKER: CENTER" in the MODE SET menu (page 25). The left and right audio channels can be heard through your audio system speakers. In this connection, adjust the volume with your amplifier.

### Notes

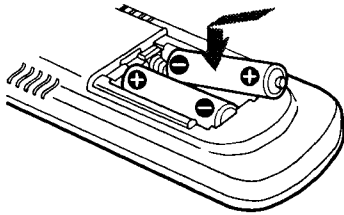
- Always match the speaker cord and terminal colors when making the connections.
- Unplug the projection TV when making the connections. If the exposed speaker cord wires touch while the projection TV is plugged in, the projection TV may short-circuit and be damaged.
- Do not pull on the speaker cords.
- Always turn off the amplifier's power before connecting to the CENTER SPEAKER IN terminals.



\* Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents; U.S. numbers 3,632,886, 3,746,792 and 3,959,590. "Dolby" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

## Step 3: Setting up the remote commander

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

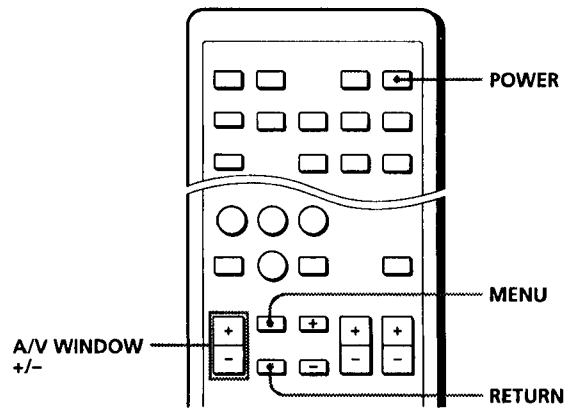


### Notes

- With normal use, the batteries should last for approximately six months.
- If you do not use the remote commander for an extended period of time, remove the batteries to avoid possible damage from battery leakage.
- Do not 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: Adjusting convergence (CONVERGENCE)

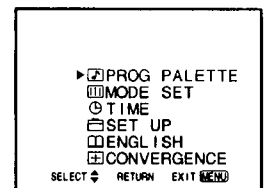
The projection tube image appears on the screen in three layers (red, green and blue). If they do not converge, the color is poor and the picture blurs. To correct this, adjust convergence.



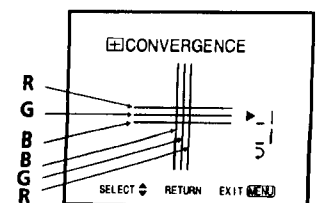
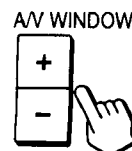
- 1 Press POWER to turn on the projection TV.**  
The TIMER/STAND BY indicator flashes until the picture appears.



- 2 Press MENU.**  
The main menu appears.

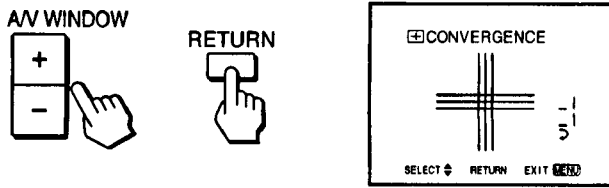


- 3 Press A/V WINDOW + or - to move the cursor (▶) to CONVERGENCE and press RETURN.**  
The CONVERGENCE adjustment screen appears.



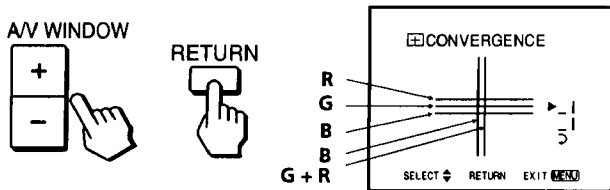
R=Red  
G=Green  
B=Blue

- 4** Press **A/V WINDOW +** or **-** to move the cursor (▶) to the symbol showing the line you want to adjust, and press **RETURN**.



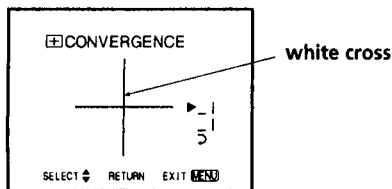
- |: Red vertical line (left/right adjustment)
- : Red horizontal line (up/down adjustment)
- |: Blue vertical line (left/right adjustment)
- : Blue horizontal line (up/down adjustment)

- 5** Press **A/V WINDOW +** or **-** to move the line until it converges with the center green line, and press **RETURN**.



To move up/right, press A/V WINDOW +.  
To move down/left, press A/V WINDOW -.

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



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

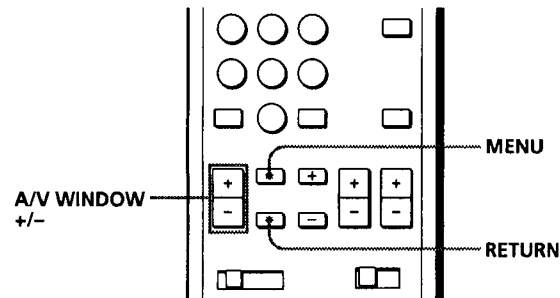


**Note**

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

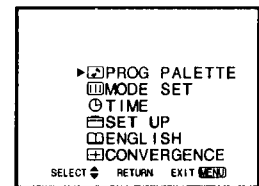
# Step 5: Setting cable TV on or off

If you have connected the projection TV to a cable TV system, you should set the cable connection on or off. Set **CABLE** to **ON**, the factory setting, to preset or watch cable TV channels. Set to **OFF** to preset or watch VHF/UHF channels.



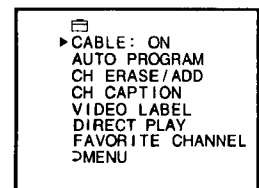
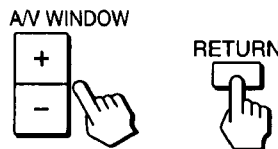
- 1** Press **MENU**.

The main menu appears.



- 2** Press **A/V WINDOW +** or **-** to move the cursor (▶) to **SET UP** and press **RETURN**.

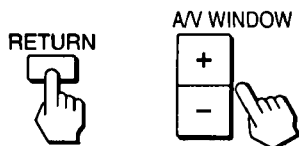
The SET UP menu appears.



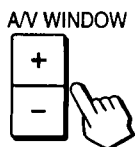
(Continued)

### 3 Set CABLE to ON or OFF:

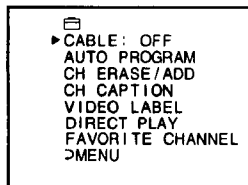
- (1) Make sure the cursor (▶) is beside CABLE and press RETURN.  
If the cursor is not beside CABLE, press A/V WINDOW + or - to move the cursor and press RETURN.



- (2) Press A/V WINDOW + or - to select ON or OFF.



- (3) Press RETURN.



### 4 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/VIDEO on the remote commander so that a channel number appears.

### Previewing the menu displays

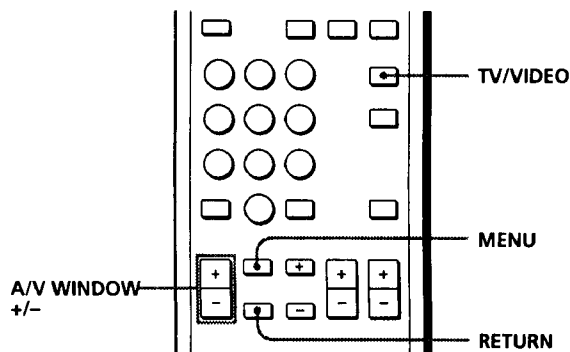
Press DEMO on the front of the projection TV.

Menus are displayed one by one.

To cancel Demo function, press any button.

## Step 6: Presetting channels

You can preset TV channels easily: first store all the receivable VHF, UHF or cable TV channels automatically following the procedure below, then erase unnecessary channels or add the channels you want.

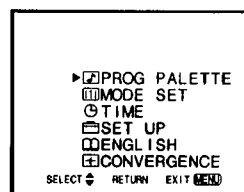


### Presetting all the receivable channels

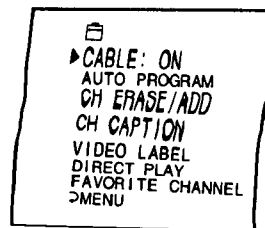
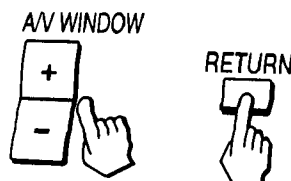
Before you begin, set the cable TV on or off according to the channels you want to preset. (page 13)

#### 1 Press MENU.

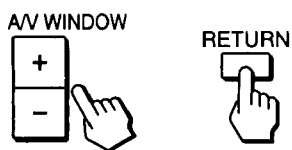
The main menu appears.



#### 2 Press A/V WINDOW + or - to move the cursor (▶) to SET UP and press RETURN.



- 3 Press A/V WINDOW + 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.

#### 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 on the remote commander until a channel number appears.
- To preset pay cable TV channels input from the AUX (auxiliary) terminal, first press ANT/AUX to display “AUX” beside the channel number. Then follow steps 1 to 3 (except for KP-41EXR96).
- If more than 90 seconds elapse after you press a button, the menu disappears automatically.

## Erasing or adding channels

- 1 Press MENU.**

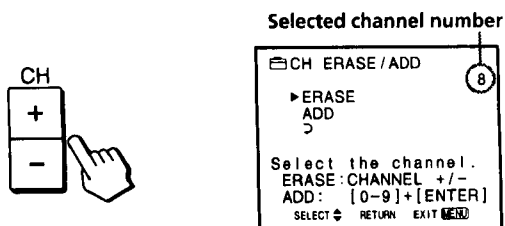
- 2 Press A/V WINDOW + or - to select SET UP and press RETURN.**

- 3 Press A/V WINDOW + or - to select CH ERASE/ADD and press RETURN.**

- 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.

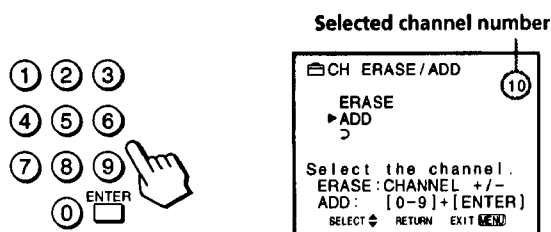


- (3) Press RETURN.

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 A/V WINDOW + 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.
- Erasing and adding channels are also available for the AUX input (except for KP-41EXR96).

## Setting S video on or off

- 1 Press TV/VIDEO to select VIDEO 1.**

- 2 Press MENU.**

- 3 Press A/V WINDOW + or - to move the cursor (▶) to MODE SET and press RETURN.**

- 4 Make sure the cursor (▶) is beside S-VIDEO and press RETURN.**

- 5 Press A/V WINDOW + or - to select ON or OFF and press RETURN.**

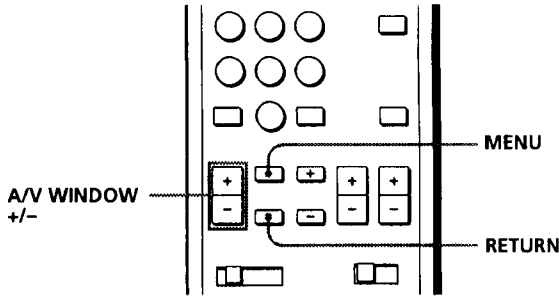
- 6 Press MENU to return to the original screen.**

#### Notes

- If S-VIDEO appears in black in the MODE SET menu, press TV/VIDEO until VIDEO 1 is selected.
- If you set S-VIDEO to ON, the TV automatically receives S video signals whenever a VCR with S video is connected.

# Changing the menu language

If you prefer Spanish or French to English, you can change the menu language.



**4** Press MENU to return to the original screen.

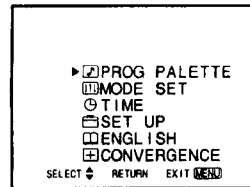


### Note

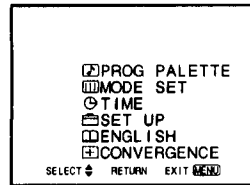
- Even when you select Spanish or French language, certain parts of the menus remain in English.

**1** Press MENU.

The main menu appears.

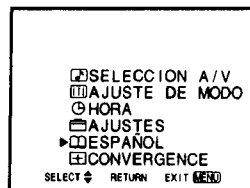


**2** Press A/V WINDOW + or - to move the cursor (▶) to ENGLISH and press RETURN.



**3** Press A/V WINDOW + or - to select the language and press RETURN.

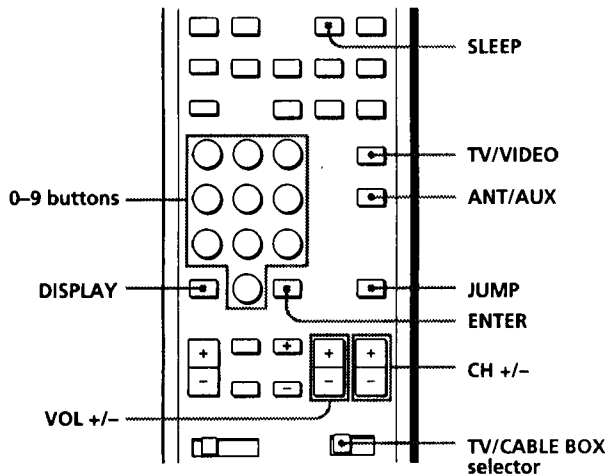
The menu in selected language appears.





# Watching TV programs

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



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

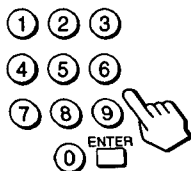


If "VIDEO" appears on the screen, press TV/VIDEO until a channel number appears.

**2 Select the channel you want to watch:**

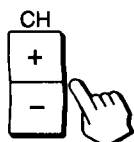
**To select a channel directly**

Press the 0 - 9 buttons and then press ENTER. For example, to select channel 10, press 1, 0 and ENTER.

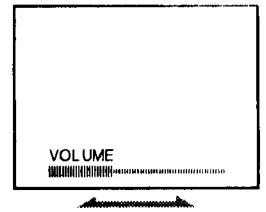
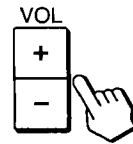


**To scan through channels**

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 watched previously appears.



Pressing JUMP again switches back the original channel.

## Muting the sound

**Press MUTING.**

"MUTING" appears on the screen.

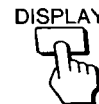


To restore the sound, press MUTING again, or press VOL +.

## Displaying on-screen information

Use this feature to check the channel number, current time (if set), channel caption (if set), and MTS mode (if SAP is selected).

**Press DISPLAY.**



To cancel the display, press DISPLAY again.

## Setting the Sleep Timer

The projection TV stays on for the length of time you specify and then shuts off automatically.

**Press SLEEP repeatedly until the time (in minutes) you want appears.**

Each time you press SLEEP, the time changes as follows: 30 → 60 → 90 → OFF.



"SLEEP" appears about one minute before the projection TV shuts off.

To cancel the Sleep Timer, press SLEEP repeatedly until "SLEEP OFF" appears, or turn off the projection TV.

## Watching a video input picture

**Press TV/VIDEO repeatedly until the desired video input appears.**

Each time you press TV/VIDEO, the display changes as follows: Channel number → VIDEO 1 → VIDEO 2 → VIDEO 3.



To return to TV picture, press TV/VIDEO again until a channel number appears.

## Changing the VHF/UHF input to the AUX input (except for KP-41EXR96)

**Press ANT/AUX.**

"AUX" appears beside the channel number.

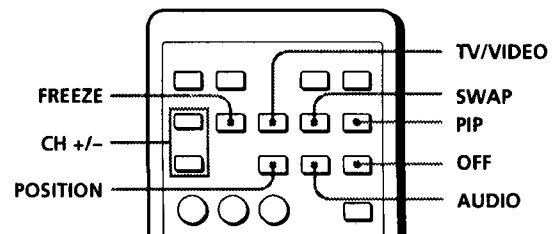


Pressing ANT/AUX again switches back to the previous input.

## Watching two programs at one time — PIP

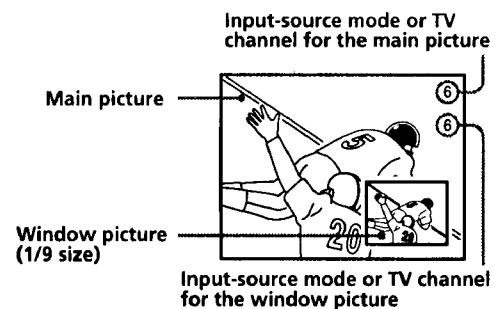
The Picture-in-Picture (PIP) feature allows you to watch two channels simultaneously by displaying a 1/9 size or 1/16 size window picture within the main picture.

For the KP-41EXR96 you have to connect a VCR to use the PIP feature. See "Connecting an antenna/cable TV system with a VCR" (page 7) for connections.

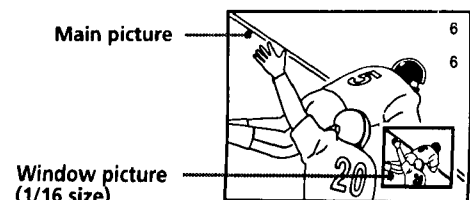


## Displaying a window picture

**Press PIP.**



**Press PIP again to display a smaller window picture.**



Each time you press PIP, a 1/9 or 1/16 size window picture appears alternately.

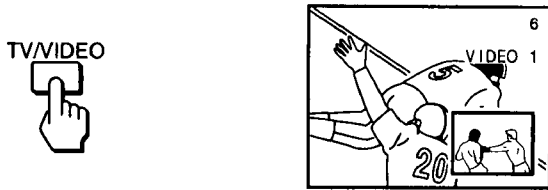
To remove the window picture, press OFF.

**Notes**

- If the main picture is not receiving an image, the window picture may be in black and white.
- The window picture may be affected by the condition of the main picture.
- You can listen to the window picture's sound through the AUDIO (VAR) OUT jacks.

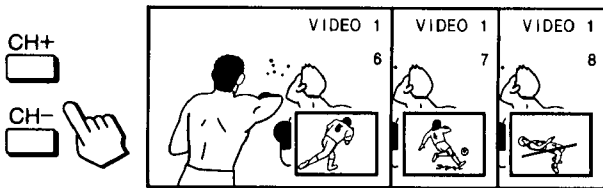
**Changing the window picture input mode**

**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.



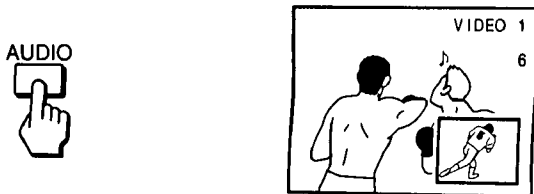
**Changing TV channels in the window picture**

**Press CH +/- in the PIP control area.**



**Listening to the sound of the window picture**

**Press AUDIO.** "♪" appears for a few seconds, indicating that the window picture sound is being received.

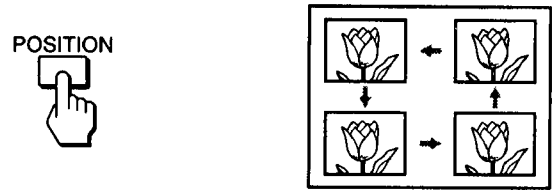


To restore the main picture sound, press AUDIO again.

**Changing the position of the window picture**

**Press POSITION.**

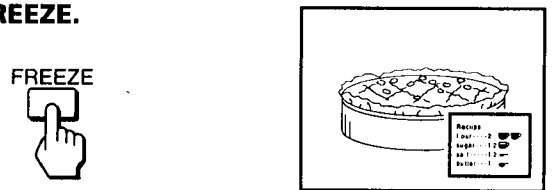
Each time you press POSITION, the window picture will move as illustrated.



**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.

**Press FREEZE.**

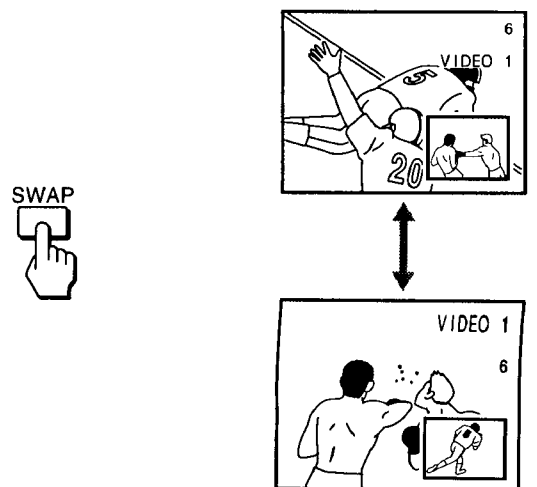


To restore the normal screen, press FREEZE again.

**Swapping the main and window pictures**

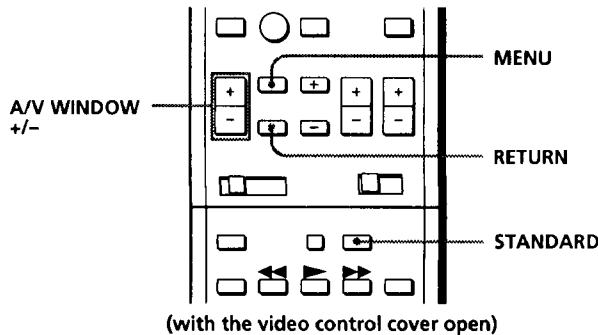
**Press SWAP.**

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



# Selecting picture and sound effects (PROGRAM PALETTE)

You can select one of four settings for picture and sound effects that best suits the program.

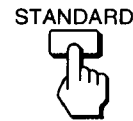


## Effect of four items

Item	Picture effect	Sound effect
STANDARD	Standard (factory preset levels)	Standard (factory preset levels)
MOVIE	Finely detailed picture	Theatrical audio effect
SPORTS	Vivid, bright picture	Sound with a sports stadium effect
NEWS	Reduced noise in picture	Clear voice reproduction

## Selecting STANDARD with a button on the remote commander

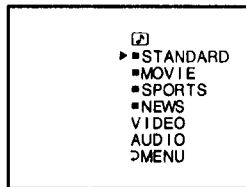
Press **STANDARD**.



**1 Press MENU.**

**2 Make sure the cursor (▶) is beside PROG PALETTE and press RETURN.**

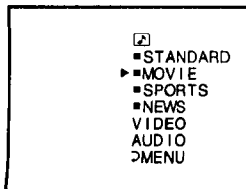
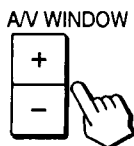
If the cursor is not beside PROG PALETTE, press A/V WINDOW + or - to move the cursor and press RETURN.



**3 Select the item you want.**

**For example:**

(1) To select MOVIE, press A/V WINDOW + or - to move the cursor to MOVIE.



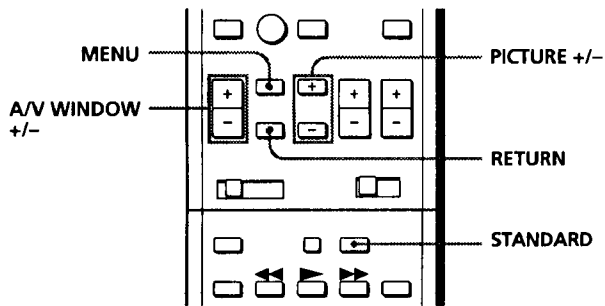
(2) Press RETURN.



For details on each item, see "Effect of four items" below.

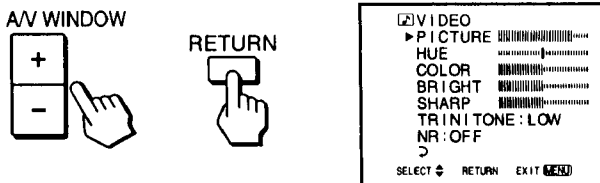
# Adjusting the picture (VIDEO)

When watching TV programs, you can adjust the quality of the picture to suit your taste. You can adjust the picture of video input(s) as well, and these settings are stored separately from those for the broadcast signal.

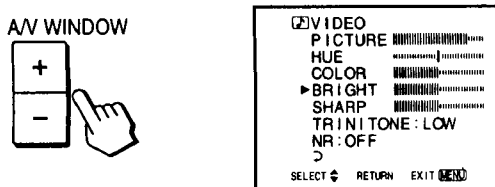


(with the video control cover open)

- 1 Press **MENU**.
- 2 Make sure the cursor (▶) is beside **PROG PALETTE** and press **RETURN**.
- 3 Press **A/V WINDOW + or -** to move the cursor to **VIDEO** and press **RETURN**.  
The VIDEO adjustment menu appears.



- 4 Select the item you want to adjust.  
**For example:**  
(1) To adjust brightness, press **A/V WINDOW + or -** to select **BRIGHT**.

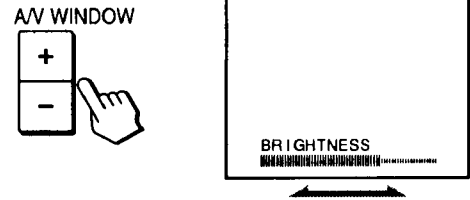


(2) Press **RETURN**.



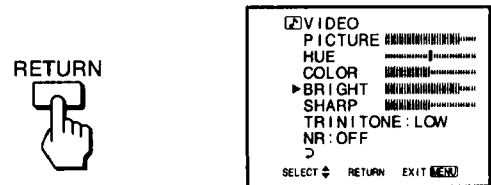
## 5 Adjust the selected item:

(1) Press **A/V WINDOW + or -** to adjust the item.



(2) Press **RETURN**.

The new setting appears in the VIDEO menu.



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

## 6 To adjust other items, repeat steps 4 and 5.

### Description of adjustable items

Item	Press <b>A/V WINDOW + to</b>	Press <b>A/V WINDOW - to</b>
PICTURE	Increase picture contrast for vivid color	Decrease picture contrast for soft color
HUE	Make overall picture greenish	Make overall picture purplish
COLOR	Increase color intensity	Decrease color intensity
BRIGHT	Brighten the picture	Darken the picture
SHARP	Sharpen the picture	Soften the picture

### To restore the factory settings

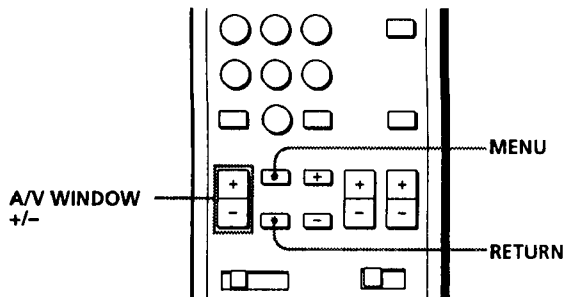
Press **STANDARD** on the remote commander. You can also do this by selecting **STANDARD** in the **PROG PALETTE** menu.

### To adjust picture contrast with the **PICTURE +/-** buttons on the remote commander

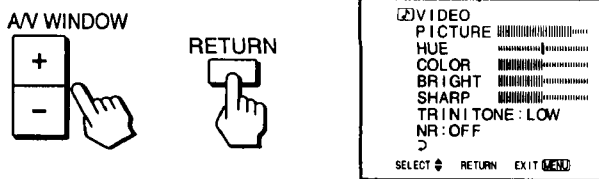
Press **PICTURE +** to increase picture contrast with vivid color and **-** to decrease picture contrast with soft color.

# Adjusting the color temperature (TRINITONE)

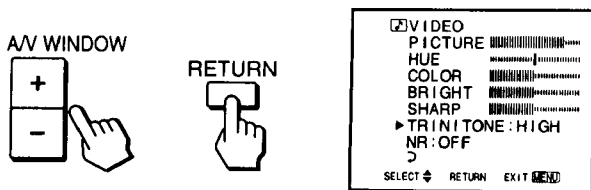
The TRINITONE feature controls the color temperature, permitting white balance preference adjustment without affecting skin tones.



- 1 Press MENU.
- 2 Make sure the cursor (▶) is beside PROG PALETTE, and press RETURN.
- 3 Press A/V WINDOW + or - to select VIDEO and press RETURN.
- 4 Press A/V WINDOW + or - to select TRINITONE and press RETURN.



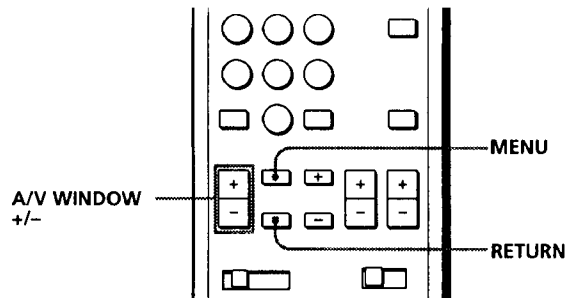
- 5 Press A/V WINDOW + or - to select LOW or HIGH and press RETURN.



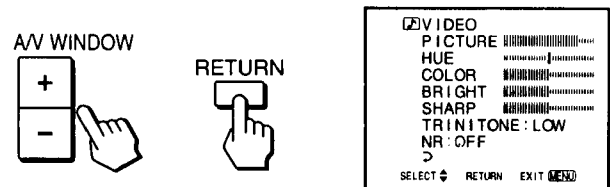
Choose	To
LOW	Make the white color reddish.
HIGH	Make the white color bluish.

# Reducing picture noise (NR)

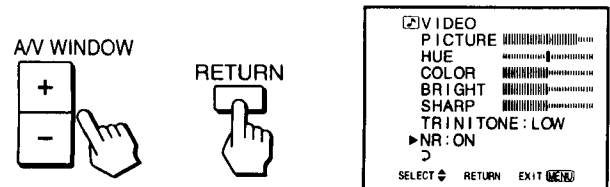
You can reduce picture noise when NR is set to ON.



- 1 Press MENU.
- 2 Make sure the cursor (▶) is beside PROG PALETTE, and press RETURN.
- 3 Press A/V WINDOW + or - to select VIDEO and press RETURN.
- 4 Press A/V WINDOW + or - to select NR and press RETURN.



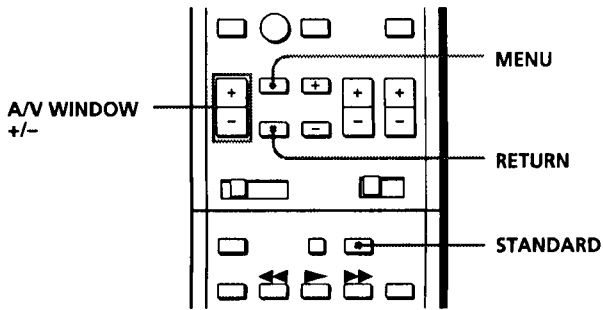
- 5 Press A/V WINDOW + or - to select ON and press RETURN.



# Adjusting sound

## (AUDIO)

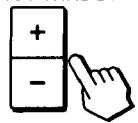
You can adjust the quality of the TV sound to suit your taste. You can adjust the sound of video input(s) as well, and these settings are stored separately from those for the broadcast signal.



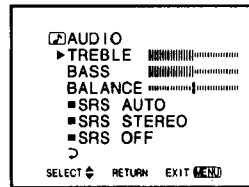
(with the video control cover open)

- 1 Press **MENU**.
- 2 Make sure the cursor (▶) is beside **PROG PALETTE**, and press **RETURN**.
- 3 Press **A/V WINDOW + or -** to select **AUDIO** and press **RETURN**.

A/V WINDOW



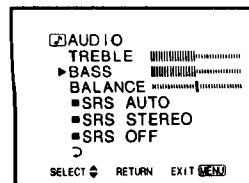
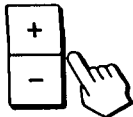
RETURN



- 4 Select the item you want to adjust.  
For example:

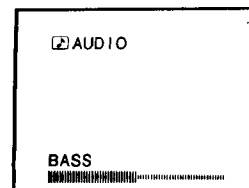
(1) To adjust bass, press **A/V WINDOW + or -** to select **BASS**.

A/V WINDOW



(2) Press **RETURN**.

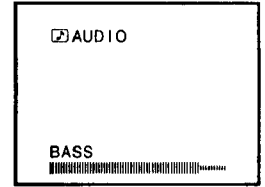
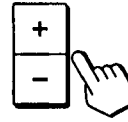
RETURN



## 5 Adjust the selected item:

(1) Press **A/V WINDOW + or -** to adjust the item.

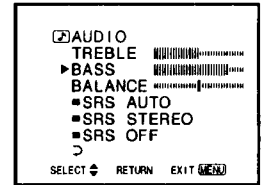
A/V WINDOW



(2) Press **RETURN**.

The new setting appears in the **AUDIO** menu.

RETURN



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

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

### Description of adjustable items

Item	Press A/V WINDOW + to	Press A/V WINDOW - to
TREBLE	Increase the treble response	Decrease the treble response
BASS	Increase the bass response	Decrease the bass response
BALANCE	Emphasize the right speaker's volume	Emphasize the left speaker's volume

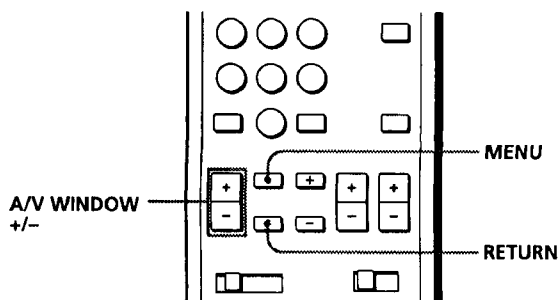
### To restore the factory settings

Press **STANDARD** on the remote commander.

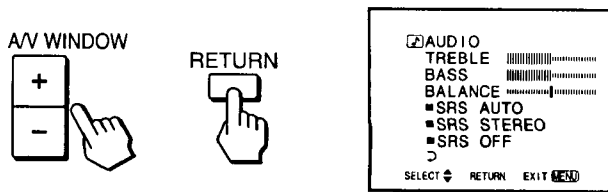
You can also do this by selecting **STANDARD** in the **PROG PALETTE** menu.

## Selecting SRS audio mode (SRS)

With both monaural and stereo signals, Sound Retrieval System (SRS) enhances the sense of spatial dimension and unmask sounds that were present in the original performance but hidden during the recording processing. It gives a totally new sensation of audio realism.



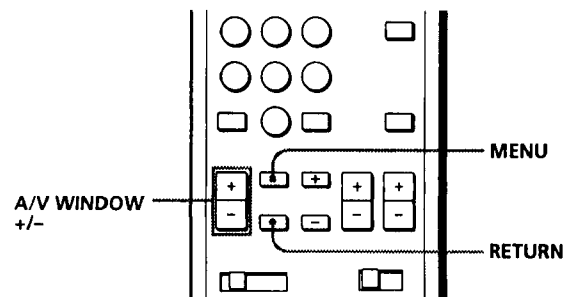
- 1 Press **MENU**.
- 2 Make sure the cursor (▶) is beside **PROG PALETTE**, and press **RETURN**.
- 3 Press **A/V WINDOW + or -** to select **AUDIO** and press **RETURN**.
- 4 Press **A/V WINDOW + or -** to select **SRS AUTO**, **SRS STEREO** or **SRS OFF** and press **RETURN**.



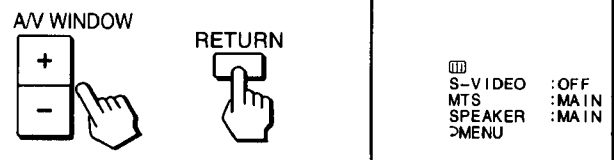
Choose	To
SRS AUTO	Add a new dimension of spatial realism and stereo imaging to both monaural and stereo sounds
SRS STEREO	Function only on stereo programs
SRS OFF	Restore normal sound

## Selecting stereo or bilingual programs (MTS)

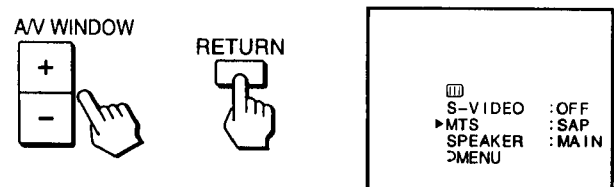
The Multichannel TV Sound (MTS) feature gives you the choice to enjoy stereo sound or Second Audio Programs (SAP) when available. The initial setting is stereo sound (MAIN).



- 1 Press **MENU**.
- 2 Press **A/V WINDOW + or -** to select **MODE SET** and press **RETURN**.
- 3 Press **A/V WINDOW + or -** to select **MTS** and press **RETURN**.



- 4 Press **A/V WINDOW + or -** to select **MAIN**, **SAP** or **MONO** and press **RETURN**.



Choose	To
MAIN	Listen to stereo sound. The <b>STEREO</b> 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. Refer to your local TV program listings.

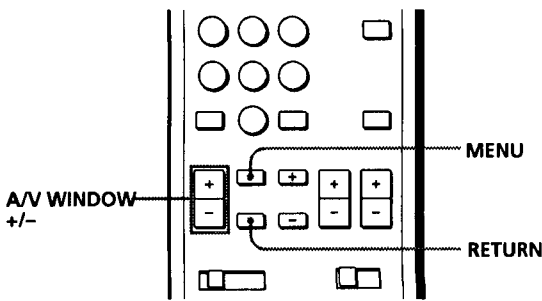


# Setting the speakers (SPEAKER)

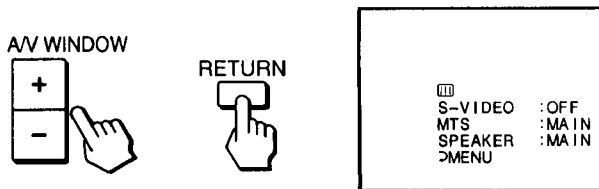
You may switch off the projection TV speakers when, for example, you want to listen to the sound through a stereo system.

If you connect a Dolby Pro Logic-compatible amplifier to the CENTER SPEAKER IN terminals, you can use the projection TV speakers as center speakers.

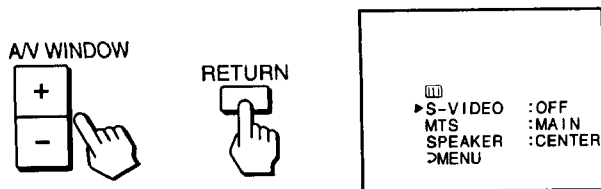
After making the connections (pages 10, 11), set SPEAKER to "CENTER".



- 1 Press MENU.**
- 2 Press A/V WINDOW + or - to select MODE SET and press RETURN.**
- 3 Press A/V WINDOW + or - to select SPEAKER and press RETURN.**



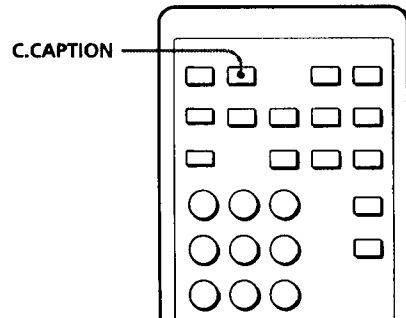
- 4 Press A/V WINDOW + or - to select MAIN or CENTER and press RETURN.**



# Displaying closed caption

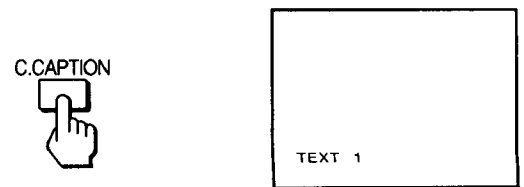
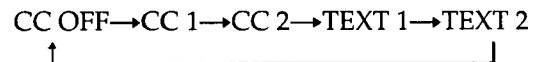
Some programs are broadcast with Closed Caption (Caption Vision). To display Closed Caption, select either CC1, CC2, TEXT1 or TEXT2 with the C.CAPTION button.

CC1 or CC2 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 or TEXT2 shows you text, that is information presented using either half or the whole screen. It is usually not related to the program.



**Press C.CAPTION repeatedly to select the closed caption mode.**

Each time you press C.CAPTION, the mode changes as shown below.



If you do not want to display Closed Caption or Text, select CC OFF.

## 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.

# Setting daylight saving time (DAYLIGHT SAVING)

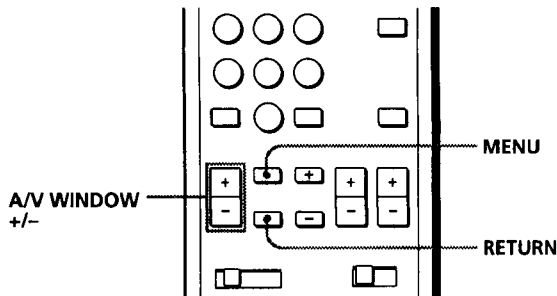
If your area uses daylight saving time, change DAYLIGHT SAVING setting depending on the season, before setting the current time.

## Daylight saving start

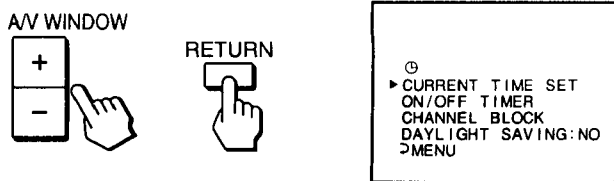
- After the first Sunday in April, set DAYLIGHT SAVING to YES. Current time (page 27), On/off Timer (page 28) and Channel Block (page 29) settings automatically move one hour ahead.

## Daylight saving end

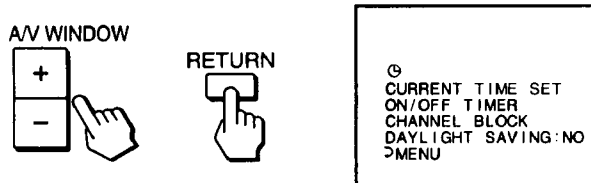
- After the last Sunday in October, set DAYLIGHT SAVING to NO. Current time, On/off Timer and Channel Block settings automatically move one hour back.



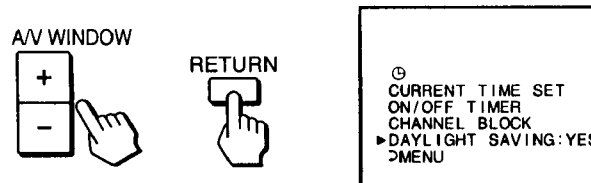
- Press MENU.
- Press A/V WINDOW + or - to move the cursor (▶) to TIME and press RETURN.



- Press A/V WINDOW + or - to select DAYLIGHT SAVING and press RETURN.



- Press A/V WINDOW + or - to select YES or NO and press RETURN.

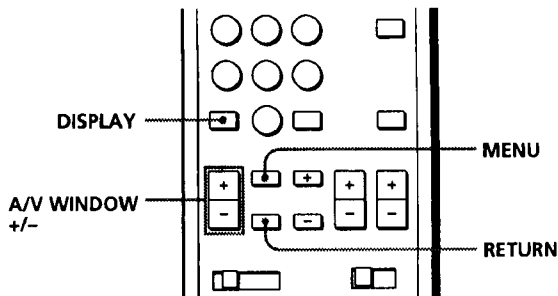


Choose	To
YES	Set for daylight saving start
NO	Set for daylight saving end

# Setting the clock

## (CURRENT TIME SET)

Set the current time before using On/off Timer (page 28) and Channel Block features (page 29). For example, set the clock to 3:15 p.m., Monday.

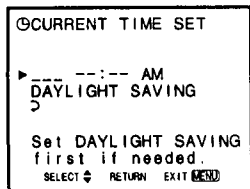


### 1 Press MENU.

### 2 Press A/V WINDOW + or - to select TIME and press RETURN.

### 3 Make sure the cursor (▶) is beside CURRENT TIME SET, and press RETURN.

If the cursor is not beside CURRENT TIME SET, press A/V WINDOW + or - to move the cursor and press RETURN.



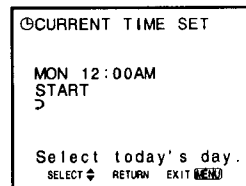
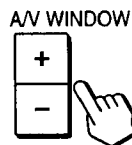
If you need to set DAYLIGHT SAVING, press A/V WINDOW + or - to move the cursor to DAYLIGHT SAVING and press RETURN. Then follow the procedure on the previous page.

### 4 Set the current time.

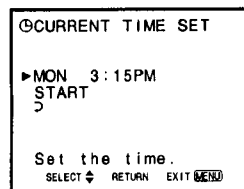
(1) Press RETURN to start setting the time.



(2) Press A/V WINDOW + or - to select the day of the week and press RETURN.



(3) Using A/V WINDOW + or - and RETURN, select hour and minute in the same way as in step (2).



### 5 Press A/V WINDOW + or - to select START and press RETURN.

The clock starts working.

#### To correct the time

Display the CURRENT TIME SET menu and repeat steps above.

#### To display the current time

Press DISPLAY.

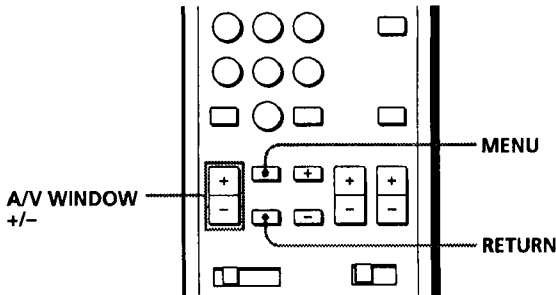
#### Note

- 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)

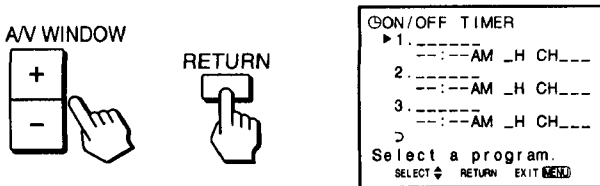
You can set the TV to turn on and off at the time you specify. Make sure the clock is set correctly. If it is not, set the clock first (page 27).



**1 Press MENU.**

**2 Press A/V WINDOW + or - to select TIME and press RETURN.**

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

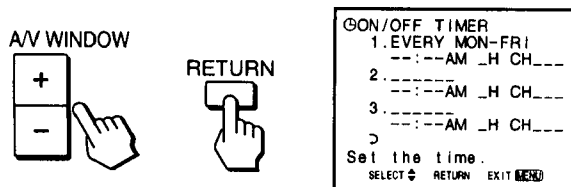


**4 Enter the ON/OFF TIMER setting.**

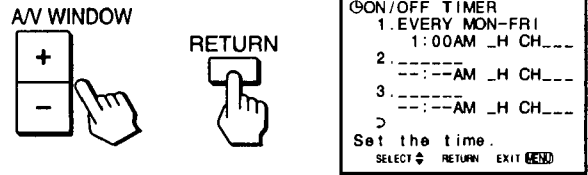
(1) Press A/V WINDOW + or - to select the program 1, 2 or 3 and press RETURN.

(2) Press A/V WINDOW + or - to select the day of the week and press RETURN.

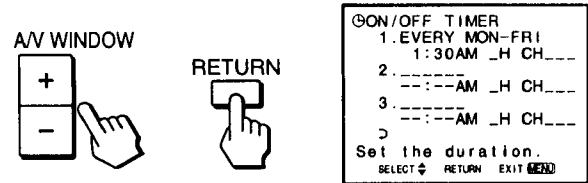
Each time you press A/V WINDOW + or -, the day of the week changes as shown below.  
 EVERY SUN-SAT → EVERY MON-FRI → SUNDAY → MONDAY → ... → SATURDAY → "-----"(blank)" → EVERY SUN → EVERY MON → ... → EVERY SAT



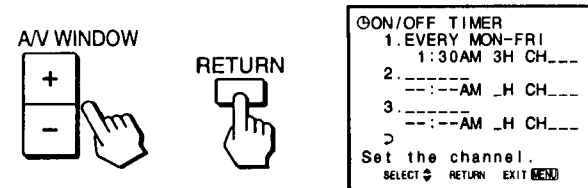
(3) Press A/V WINDOW + or - to select the starting hour and press RETURN.



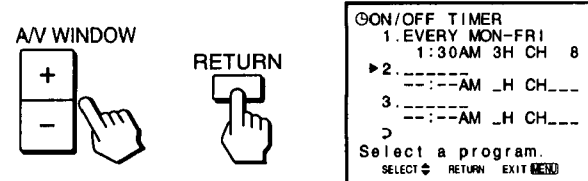
(4) Press A/V WINDOW + or - to select the starting minute and press RETURN.



(5) Press A/V WINDOW + or - to select the hour duration and press RETURN.



(6) Press A/V WINDOW + or - to select the channel and press RETURN.



The TIMER/STAND BY indicator on the projection TV lights.

**5 To set other programs, 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 an ON/OFF TIMER setting**

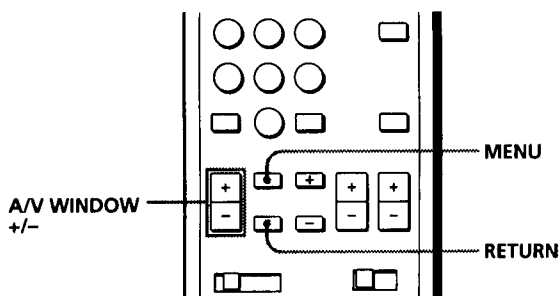
Display the ON/OFF TIMER menu, select the setting you want to cancel with A/V WINDOW + or -, and select the blank (-----) for the day of the week.

**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)

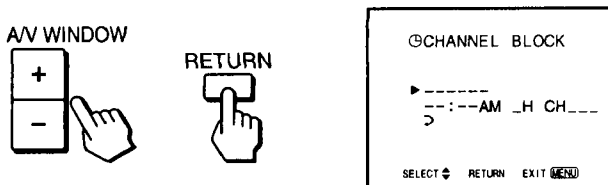
This feature allows you to prevent children from watching unsuitable programs. Make sure the clock is set correctly. If it is not, set the clock first (page 27). For example, set CHANNEL BLOCK for every Saturday at 4:30 p.m. for one hour, on channel 12.



**1 Press MENU.**

**2 Press A/V WINDOW + or - to select TIME and press RETURN.**

**3 Press A/V WINDOW + or - to select CHANNEL BLOCK and press RETURN.**



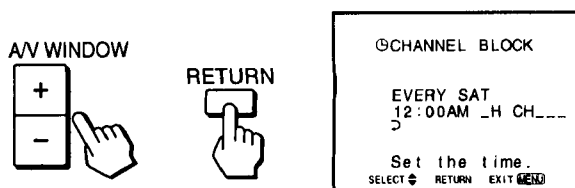
**4 Enter a CHANNEL BLOCK setting.**

(1) Press RETURN to start setting.

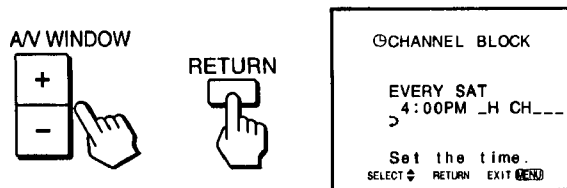
(2) Press A/V WINDOW + or - to select the day of the week and press RETURN.

Each time you press A/V WINDOW + or -, the day of the week changes as shown below.

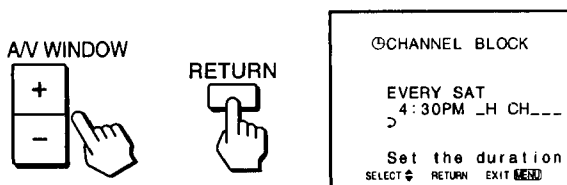
EVERY SUN-SAT → EVERY MON-FRI → SUNDAY → MONDAY → ... → SATURDAY → "----- (blank)" → EVERY SUN → EVERY MON → ... → EVERY SAT



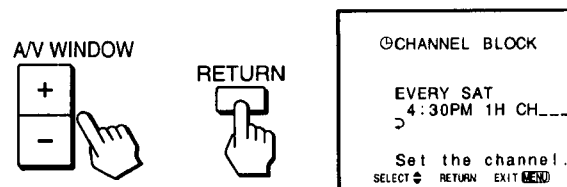
(3) Press A/V WINDOW + or - to select the hour to start channel block setting and press RETURN.



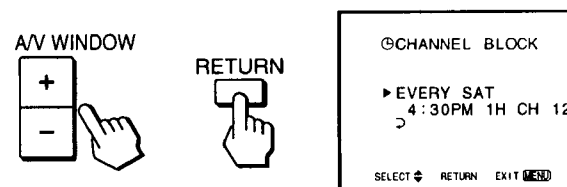
(4) Press A/V WINDOW + or - to select the minute and press RETURN.



(5) Press A/V WINDOW + or - to select the hour duration you want to block and press RETURN. Each time you press A/V WINDOW + or -, the hour duration increases by one hour up to a maximum of six hours.



(6) Press A/V WINDOW + or - to select the channel and press RETURN.



At the preset time, a message "BLOCKED" is displayed in red on the screen if the blocked channel is selected. During the preset duration, the picture of the preset channel is blocked and the sound is muted.

## To cancel a CHANNEL BLOCK setting

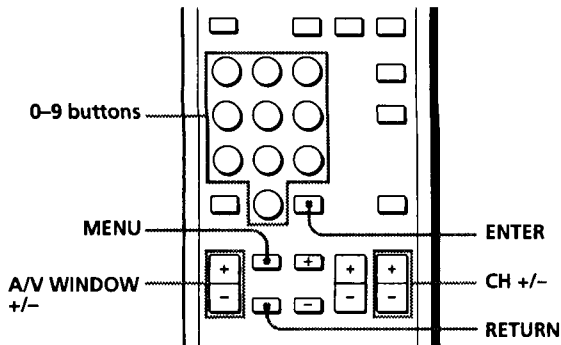
Display the CHANNEL BLOCK menu and select a blank (-----) for the day of the week.

## Note

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

# Customizing channel names (CH CAPTION)

You can caption each channel number using up to four letters or numbers to be displayed on the screen. This feature allows you to easily identify which channel you are watching. For example, you can name channel 20 "ESPN."

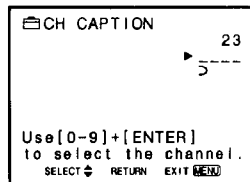
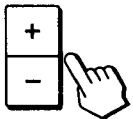


**1 Press MENU.**

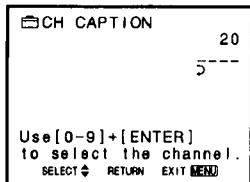
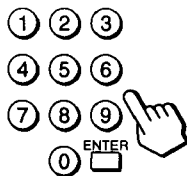
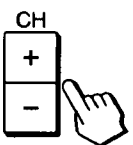
**2 Press A/V WINDOW + or - to select SET UP and press RETURN.**

**3 Press A/V WINDOW + or - to select CH CAPTION and press RETURN.**

A/V WINDOW



**4 Press CH +/- or press 0-9 buttons and ENTER to enter the channel number that you want to caption, and press RETURN.**



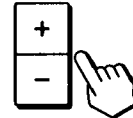
**5 Enter the letters or numbers (up to four) to caption the channel:**

(1) Press A/V WINDOW + or - to select the first letter (number).

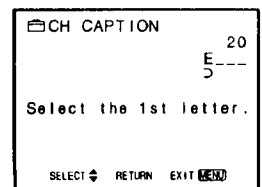
Each time you press A/V WINDOW + or -, the letter (number) changes as shown below.

0→1→...→9→A→B→...→Z→&→/→\_(blank space)

A/V WINDOW

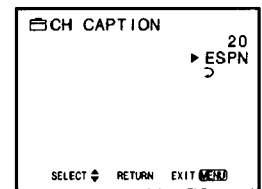


(2) Press RETURN.



(3) Repeat steps (1) and (2) to select the remaining letters (numbers) and press RETURN.

For the caption space you want to leave blank, select "\_ (blank)."



**6 Repeat steps 4 and 5 to caption other channels.**

## To erase a caption

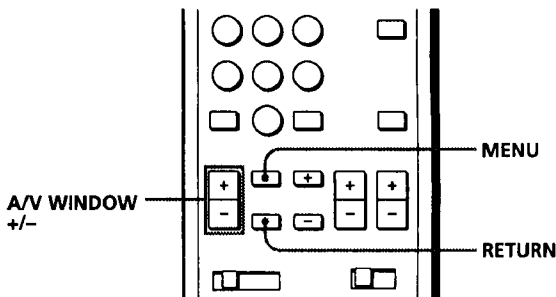
Select the channel number with the caption you want to erase in the CH CAPTION menu, select "\_ (blank)" for the caption, and press RETURN.

## Notes

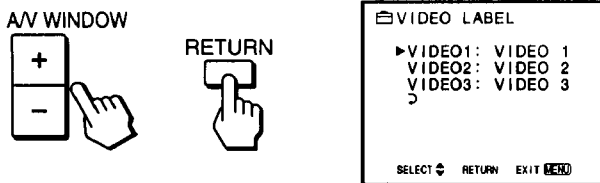
- You can set up to 32 channel captions. If 32 captions have been set, "The memory is full, sorry" appears on the screen.
- If the CH CAPTION menu appears in black, the projection TV is set to a video input, and you cannot select CH CAPTION. Press TV/VIDEO until a channel number appears.
- If more than 90 seconds elapse after you press a button, the menu disappears automatically.

# Setting video labels (VIDEO LABEL)

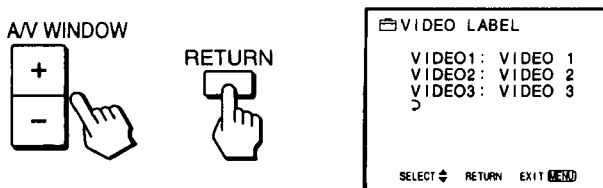
This feature allows you to label each input mode so that you can easily identify the connected equipment. For example, you can label VIDEO 1 IN as VHS.



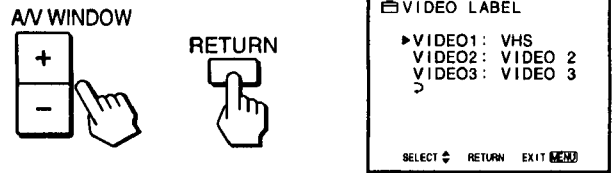
- 1 Press MENU.**
- 2 Press A/V WINDOW + or - to select SET UP and press RETURN.**
- 3 Press A/V WINDOW + or - to select VIDEO LABEL and press RETURN.**



- 4 Press A/V WINDOW + or - to select the input mode you want to label and press RETURN.**



- 5 Press A/V WINDOW + or - to select the label and press RETURN.**



Each time you press A/V WINDOW + or -, the label changes as shown below.

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

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

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

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

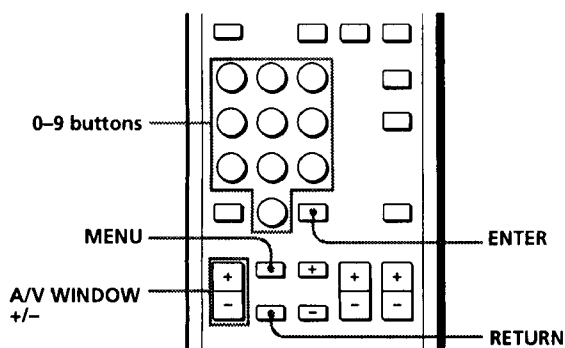
### Note

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

# Selecting your favorite channels (FAVORITE CHANNEL)

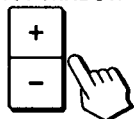
This feature allows you to select the channels (up to seven channels) you use frequently by pressing RETURN (FAVORITE).

## Setting the favorite channels

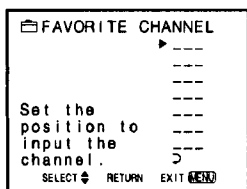


- 1 Press **MENU**.
- 2 Press **A/V WINDOW + or -** to select **SET UP** and press **RETURN**.
- 3 Press **A/V WINDOW + or -** to select **FAVORITE CHANNEL** and press **RETURN**.

A/V WINDOW



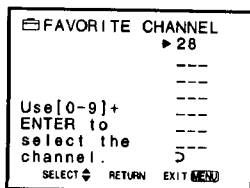
RETURN



- 4 Press **A/V WINDOW + or -** to select the position (up to seven) and press **RETURN**.
- 5 Press **0 - 9** and **ENTER** to set your favorite channel number and press **RETURN**.



RETURN

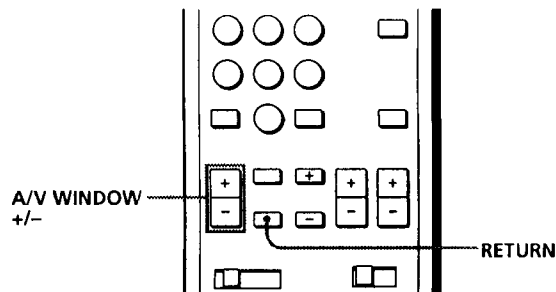


- 6 Repeat steps 4 and 5 to set other favorite channels.

## To erase a favorite channel setting

Press **A/V WINDOW + or -** to select the channel number you want to erase and press **RETURN**. Then press the **0** button and **ENTER**.

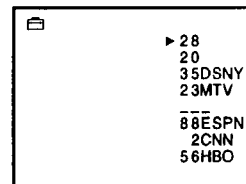
## Selecting a favorite channel



- 1 Press **RETURN**.

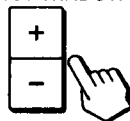
The **FAVORITE CHANNEL** list appears showing the channel numbers you set with the captions (if set.)

RETURN



- 2 Press **A/V WINDOW + or -** to select the channel you want to watch and press **RETURN**.

A/V WINDOW



RETURN





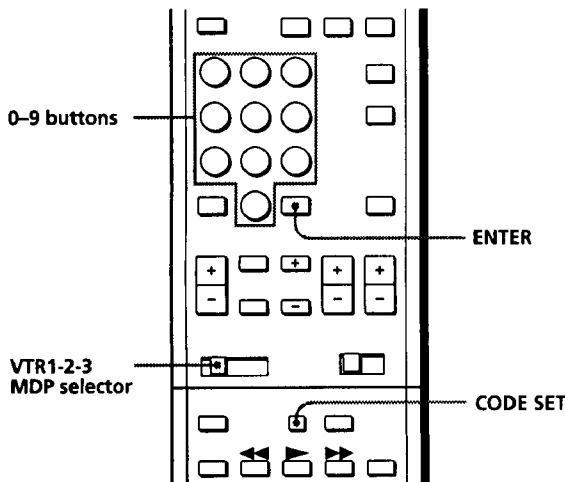
# Operating video equipment

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. You can set the manufacturer's code to each of four positions of the VTR1-2-3 MDP selector, so that you can operate four different pieces of equipment.

## Setting the manufacturer's code

The following Sony video equipment is assigned to each position of the VTR1-2-3 MDP selector at its factory preset:

- VTR1 Beta, ED Beta VCRs
- VTR2 8 mm VCR
- VTR3 VHS VCR
- MDP Multi-disc player's



(with the video control cover open)

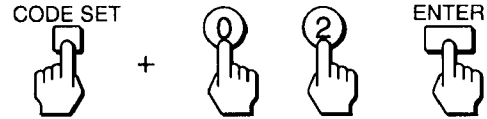
### Note

- To use another manufacturer's equipment besides a Sony VCR, set the selector to a position not being used for your Sony VCR.

**1** Set the VTR1-2-3 MDP selector to the position you want to set the code.



**2** While pressing CODE SET, press 0 - 9 to enter the manufacturer's code number (see the chart below) and press ENTER. For example, to operate a Sony 8 mm VCR, press 0, 2 and ENTER.



## VCR manufacturer code numbers

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

## MDP manufacturer code number

Manufacturer	Code number
SONY	04
KENWOOD	58
MAGNAVOX	52
MARANZ	54
MITSUBISHI	51
PANASONIC	55
PHILIPS	52
PIONEER	51
RCA	51
SANYO	57
SHARP	56
YAMAHA	53

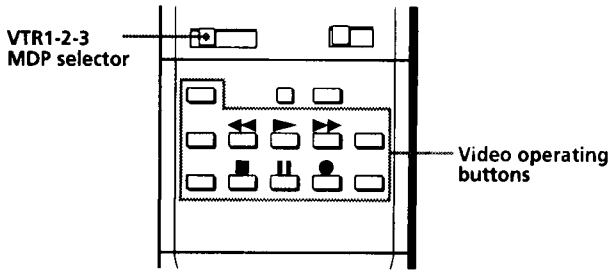
**Notes**

- 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  
 8 mm VCR                02  
 VHS VCR                 03  
 MDP                        04

**Caution**

If you leave the batteries removed from the remote commander for approximately 30 minutes or more, the code may revert to the factory setting. Reset the codes if necessary.

**Operating video equipment**



(with the video control cover open)

- 1 Set the VTR1-2-3 MDP selector according to the video equipment you want to operate.**
- 2 Use the video operating buttons on the remote commander to operate the video equipment.**

Operating a VCR	Buttons on the remote commander
To turn on or off	Press 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
To change input mode	Press TV/VTR

Operating a multi-disc player	Buttons on the remote commander
To turn on or off	Press POWER.
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.
To search the chapter forward and backward	Press CH +/-

**Note**

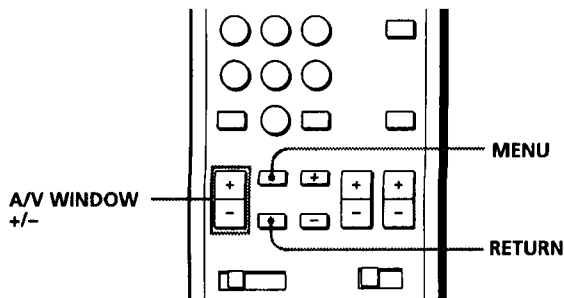
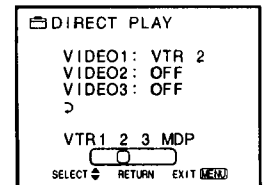
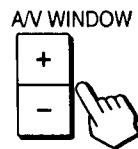
- If the video equipment does not have a certain function, the corresponding button on this remote commander will not operate.

# Selecting a VCR input directly (DIRECT PLAY)

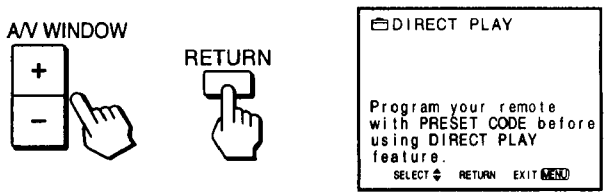
This feature allows you to switch from TV input to VCR input selected with the VTR1-2-3 MDP selector and to start playback directly by pressing the ► (playback) button on the remote commander. For example, connect your VCR to VIDEO 1 IN and set the VTR1-2-3 MDP selector to VTR2. After you set DIRECT PLAY as below, the VCR connected to VIDEO 1 IN starts playback when you press ►.

- 5 Press **A/V WINDOW + or -** to select the video input to which the equipment is connected and press **RETURN**.
- 6 Press **A/V WINDOW + or -** to select the position of the VTR1-2-3 MDP selector you have set on the remote commander and press **RETURN**.

Each time you press A/V WINDOW + or -, the display changes as follows: VTR1 → VTR2 → VTR3 → MDP → OFF.

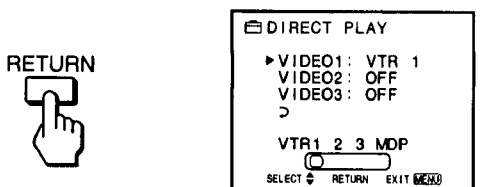


- 1 Press **MENU**.
- 2 Press **A/V WINDOW + or -** to select **SET UP** and press **RETURN**.
- 3 Press **A/V WINDOW + or -** to select **DIRECT PLAY** and press **RETURN**.



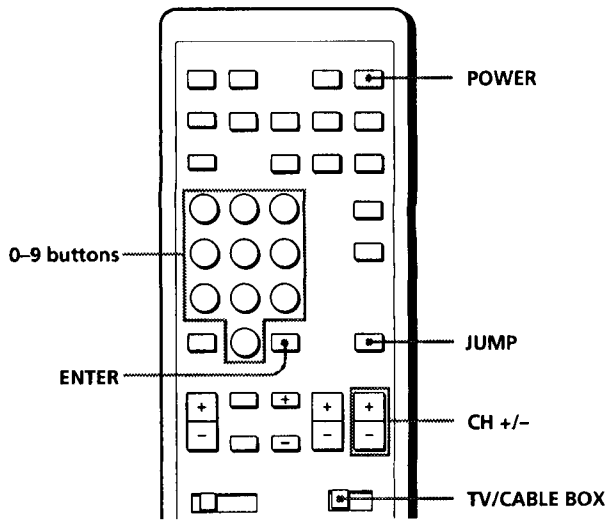
If you have not set the manufacturer's code for the connected equipment, follow the procedure in "Setting the manufacturer's code" on page 33.

- 4 Press **RETURN**.

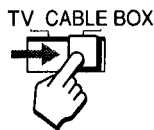


# Operating a cable box

You can operate a connected cable box with the supplied remote commander. Before operating, set the manufacturer's code number.



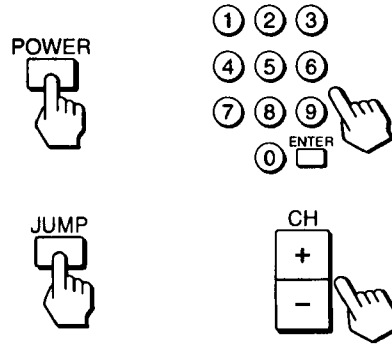
**1** Set the TV/CABLE BOX selector to CABLE BOX.



**2** While pressing 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 the projection TV control buttons (POWER, 0 - 9, ENTER, JUMP and CH +/-) to operate the cable box.



## To operate the projection TV

Set the TV/CABLE BOX 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)

Manufacturer	Code number
JERROLD	60, 61, 62, 63, 64, 65, 73
PIONEER	69, 70
SCIENTIFIC ATLANTA	66, 67
TOCOM	71, 72
ZENITH	68

## 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 control unit. In this case, use the equipment's own remote control unit.
- When you remove the batteries from the remote commander, the code may be erased. Reset the code each time you replace the batteries, if necessary.

# Troubleshooting

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 TV/CABLE BOX selector is in the correct position (pages 17, 36).
- ➔ 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 BRIGHT in the VIDEO menu (page 21).
- ➔ Adjust the convergence (page 12).
- ➔ Check antenna/cable connections (page 6).
- ➔ Make sure S-VIDEO is set to ON in the MODE SET menu, when watching video tapes with an S video equipped VCR (page 15).

## Good picture, no sound

- ➔ Press MUTING so that "MUTING" disappears from the screen (page 17).
- ➔ Check the MTS setting in the MODE SET menu (page 24).
- ➔ Make sure SPEAKER is set to MAIN in the MODE SET 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 13).
- ➔ 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 hair-dryers.

## 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 13).

## Cannot receive upper channels (UHF) when using an antenna

- ➔ Check if CABLE is OFF in the SET UP menu (page 13).
- ➔ Use AUTO PROGRAM to add receivable channels that are not presently in the memory (page 14).

## Cannot receive any channels when using cable TV

- ➔ Check if CABLE is ON in the SET UP menu (page 13).
- ➔ Use AUTO PROGRAM to add receivable channels that are not presently in the memory (page 14).

## Remote commander does not operate

- ➔ Batteries could be weak. Replace the batteries (page 12).
- ➔ Make sure the projection TV's power cord is connected securely to wall outlet.
- ➔ Are fluorescent lights too close to the projection TV? Move lights at least a meter (3 - 4 feet) away from the projection TV.

## Commander's power, channel up/down, channel buttons do not function

- ➔ Set the TV/CABLE BOX selector to the correct position (page 17).

## Cannot gain enough volume when using a cable box

- ➔ Increase the volume at the cable box. Then set the TV/CABLE BOX selector to TV and adjust the projection TV's volume.

# Specifications

## Projection system

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

## Picture tube

7-inch high-brightness  
monochrome tubes (5.5 raster size),  
with optical coupling and liquid  
cooling system

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

## Screen size (measured diagonally)

KP-41EXR96	41 inches
KP-46V15/46V16	46 inches
KP-53V15/53V16	53 inches
KP-61V15	61 inches

## Resolution

KP-41EXR96	790 lines
KP-46V15/46V16	890 lines
KP-53V15/53V16	1,020 lines
KP-61V15	1,180 lines

## Screen brightness

KP-41EXR96	2,000 cd/m <sup>2</sup>
KP-46V15/46V16	1,600 cd/m <sup>2</sup>
KP-53V15/53V16	1,250 cd/m <sup>2</sup>
KP-61V15	900 cd/m <sup>2</sup>

**Television system** American TV standards

**Channel coverage** 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 (4-pin mini DIN):  
Y: 1 Vp-p, 75 ohms unbalanced,  
sync negative  
C: 0.286 Vp-p (Burst signal),  
75 ohms

VIDEO (phono jacks): 1 Vp-p,  
75 ohms unbalanced, sync negative

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

VIDEO IN 2 and 3

VIDEO (phono jacks): 1 Vp-p, 75  
ohms unbalanced, sync negative

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

## MONITOR OUT

S VIDEO (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): 500mVrms  
(100% modulation),  
Impedance: 10 kilohms

VIDEO OUT 3

VIDEO (phono jack): 1 Vp-p, 75 ohms  
unbalanced, sync negative

AUDIO (phono jacks): 500 mVrms  
(100% modulation),  
Impedance: 10 kilohms

AUDIO (VAR) OUT (phono jacks):

More than 900 mVrms (100%  
modulation) at the maximum volume  
setting (variable),  
Impedance: 5 kilohms

AUDIO OUT (phono jacks): 900 mVrms

(100% modulation) (fixed),  
Impedance: 5 kilohms

**Speaker output** 12 W × 2

**Center speaker** 16 ohm, 30 W (NOR), 50 W (max.)

## Power requirements

120 V AC, 60 Hz

## Power consumption

When in use: 310 W (max.)

In standby: 7 W

	Dimensions (w/h/d)	Mass
KP-41EXR96	930 × 1,185 × 505 mm (36 <sup>5</sup> / <sub>8</sub> × 46 <sup>3</sup> / <sub>4</sub> × 20 inches)	64.4 kg (142 lb)
KP-46V15/ 46V16	1,029 × 1,287 × 543 mm (40 <sup>5</sup> / <sub>8</sub> × 50 <sup>3</sup> / <sub>4</sub> × 21 <sup>1</sup> / <sub>2</sub> inches)	84.4 kg (186 lb 20 oz)
KP-53V15/ 53V16	1,164 × 1,336 × 651 mm (45 <sup>7</sup> / <sub>8</sub> × 52 <sup>5</sup> / <sub>8</sub> × 25 <sup>3</sup> / <sub>4</sub> inches)	97 kg (213 lb 14 oz)
KP-61V15	1,337 × 1,490 × 780 mm (52 <sup>5</sup> / <sub>8</sub> × 58 <sup>5</sup> / <sub>8</sub> × 30 <sup>11</sup> / <sub>16</sub> inches)	141.6 kg (312 lb 14 oz)

## Supplied accessories

Remote commander RM-Y112A (1)

(For KP-41EXR96)

Remote commander RM-Y115 (1)

(For KP-46V15/46V16/53V15/  
53V16/61V15)

Size AA (R6) battery (2)

## Optional accessories

U/V mixer EAC-66

Connecting cables RK-74A,

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

VMC-720M

VCR tray SU-PJT1

Design and specifications are subject to change without  
notice.

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## **(●) SOUND RETRIEVAL SYSTEM**

The (●) Sound Retrieval System is manufactured by Sony Corporation under license from the Hughes Aircraft Company, a subsidiary of GM Hughes Electronics. It is covered by U.S. Patent No. 4,748,669. Other U.S. and foreign patents pending.

(●), SOUND RETRIEVAL SYSTEM and SRS® are trademarks of the Hughes Aircraft Company, a subsidiary of GM Hughes Electronics.

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