JVC HD-ILA TV

HD-Z70RF7 HD-Z61RF7

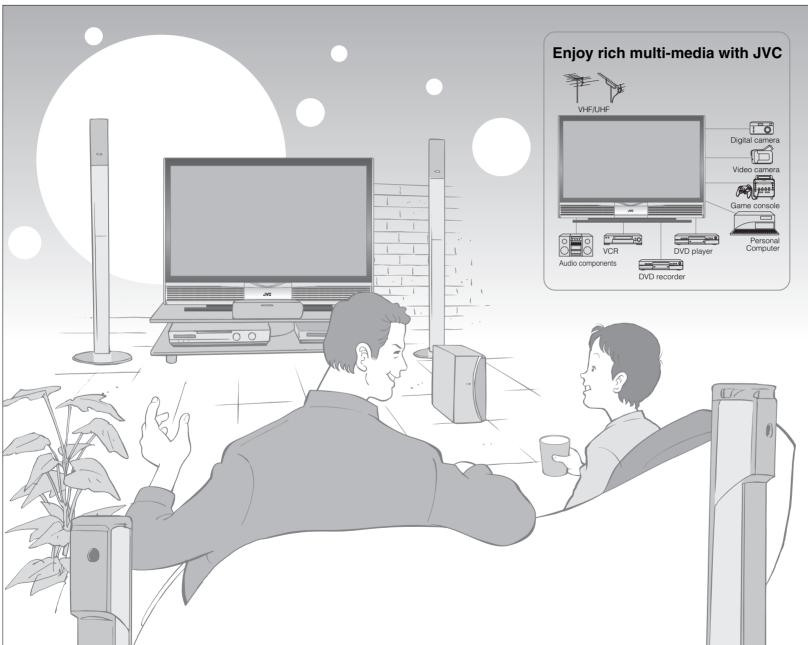
使用说明书 INSTRUCTIONS







Expanding the world of beautiful images



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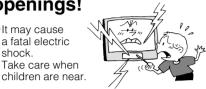
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Warning Please follow all the guidelines below

Never insert objects into the cabinet openings!

It may cause a fatal electric shock Take care when



Never place anything on the TV!

Placing liquids, open flames, cloths, paper, etc. on the TV may cause a fire.



0 0

Never expose to rain or moisture!

To prevent fire or electric shock, never allow liquids to enter the unit.



Do not allow the TV to fall!

Do not rest your elbows on, or allow children to hang from the TV. There is a risk that the TV will fall and cause injuries.

Never cut or damage the power cord!

If the AC plug is not the right shape, or the power cord is not long enough, use an appropriate plug adapter or extension cable. (Consult your retailer.)



Never try to repair the TV vourself!

→If the problem cannot be solved in "Troubleshooting" (P. 20), unplug the power cord and contact you

f the TV is damaged or behaving strangely, stop using it at once!

→Unplug the power cord and contact

Hold the TV so as not to scratch the screen!

Do not touch the screen when carrying the

Do not hold by the screen frame when moving the TV!

This could cause the screen frame to detach, causing the TV to fall. Hold the TV as illustrated on the right.

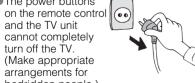


Follow this manual regarding setup!

Connect only to a 110-240V, 50/60Hz AC

Unplug the power cord when going out!

The power buttons on the remote control and the TV unit cannot completely turn off the TV. (Make appropriate arrangements for bedridden people.)



• Make sure that the cooling process (P. 3) has completed before unplugging the power cord.

Make enough room for inserting and removing the power pluq!

Place the TV as near as possible to the AC outlet

• The main power supply for this TV is controlled by inserting or removing the power plug.

Ensure ample room to avoid overheating

⇒ "Installation requirements" (P. 7)

Never dismantle the rear panel!

It may cause an electric shock.

Never block the ventilation holes!

• It may cause overheating or a fire.

Handle screen with care!

Use a soft, dry cloth when cleaning.

Never listen with headphones at high volume!

It may damage your hearing.

For more details on installation, usage and safety Consult your retailer

Precautions Please follow all the guidelines below

This TV uses a lamp to project the picture on the screen. Misoperations may shorten the lamp life or cause malfunction of the lamp

Before operating the TV, read all the instructions below.

This TV has a fan to cool the lamp

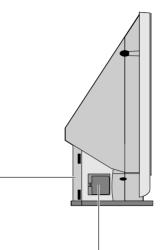
• When the lamp is hotter, the fan works harder to cool the lamp. In such a case, the noise of the fan becomes louder but it is not malfunction

Do not place the TV too closely to wallpaper

• The warm air from the air ducts may change the colour of the wallpaper.

Keep children or pets away from the air ducts

Long exposure to the warm air from the ducts may cause a minor burn.



The lamp is a consumable item

• When the lamp has blown, replace the lamp; otherwise, the picture cannot be displayed. For details • "Replacing the lamp" (P. 4. 5)

Follow the instructions on "Replacing the lamp" when replacing the lamp (P. 4)

• Handle the lamp carefully and correctly; otherwise, it may cause a burn or an electric shock. In addition, it may shorten lamp life or cause malfunction of the TV.

Never open the lamp cover except when replacing the lamp

- Exposing the lamp is dangerous because...
- The lamp becomes extremely hot while in use, it may cause a burn.
- Touching metallic portion of the lamp may cause electric shock.
- Ultraviolet rays are emitted from the

Never replace the lamp immediately after use

Since the lamp becomes extremely hot while in use, it may cause a burn.

Never touch the lamp glass

Dirt or oil from the finger may cause the lamp to break.

When the power is turned on, the warming up commences

- Immediately after the TV is turned on, the picture is displayed only dimly. It takes about one minute for the lamp to warm up. Once the lamp has warmed up, you can enjoy the pictures at their normal brightness.
- During this warming-up period, the LAMP indicator blinks every 2 seconds.

While the LAMP indicator is blinking, the TV cannot be turned off

When the power is turned off, the cooling down is performed

- When the TV is turned off, the picture on the screen disappears gradually. Once the screen is dark, cooling down is performed for about 1 minute.
- During this cooling-down period, the LAMP indicator blinks every 2 seconds.
- Do not unplug the TV while the lamp is cooling down. This may cause the internal circuits and the lamp to overheat and shorten the lamp life.

While the LAMP indicator is blinking, the TV cannot be turned on

You can turn on the TV within 15 seconds. after turning off.

Condensation on the lamp and screen

• When the heater is turned on or the TV is moved from a cold place to a warm place, droplets of water may form on the lamp and screen. This is called condensation. If the TV is used while this condensation is still present, the picture may seem distorted, and the inside of the screen may become dirty. In this case, wait until the condensation has gone before using the TV.

Do not turn the power on and off repeatedly in a short period

It subjects the TV and the lamp to stress and may lead to malfunctions and shorten the lamp life.

Do not keep the TV on for more than 24 hours consecutively

• The lamp life may be shortened.

Do not project a still picture for a long time

Because of the ILA characteristics, still picture may stick on the screen. (The picture will disappear over time.)

■ For more details on installation, usage and safety → Consult your retailer

Replacing the lamp Before replacing the lamp, read all the instructions.

The TV uses a lamp to project the picture onto the screen. When the lamp has blown or when the picture becomes dark, replace the lamp. Before replacing the lamp, read all the instructions carefully.

■If you feel unsure about replacing the lamp yourself ⇒ Consult your retailer

Preparation

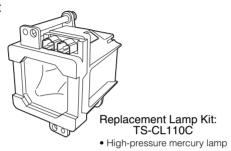
Prepare the Replacement Lamp Kit

For purchasing the Replacement Lamp Kit. consult your retailer.



Use only the specified Replacement Lamp Kit!

This lamp is for use with JVC model televisions. Using the lamp with a different television or other product could cause a malfunction and/or damage to the television or lamp.



When the lamp is near to its end...

• The following message appears on the screen.

Lamp needs to replaced. Refer to instructions book for replacement instructions.

After replacing the Lamp, please reset timer in the TV menu.

Press OK, if you do not want to see this message again.

To make the message disappear



After the usage time of the lamp has reached to 6500 hours, this message appears every time you turn on

- Possible causes of shortened lamp life
 - Turning on/off the TV repeatedly in a short amount of time
 - Keeping the TV turned on for more than 24 hours consecutively



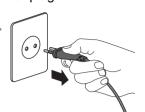
Turn the TV off



Wait until the LAMP indicator stops blinking

 LAMP indicator and Power lamp are refered as "LAMP LED" and "POWER LED" on the Instructions of Replacement Lamp Kit TS-CL 110C

Unplug the TV



Wait for at least 1 hour until the lamp has fully cooled

Remove the lamp unit



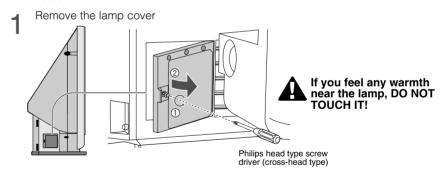
Never replace the lamp before it has fully cooled!

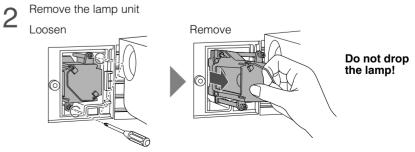
The lamp becomes extremely hot while in use, which may cause a burn. After turning off the TV, wait for at least 1 hour.



Never attempt to replace the lamp with the TV plugged in!

Attempting to replace the lamp with the TV plugged in could lead to a severe electrical





HD-Z70RF7 is used for explanation on the illustrations on this Instructions.



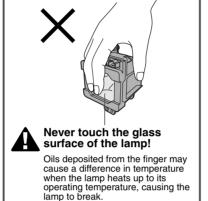
Install the NEW lamp unit

┫ Unpack



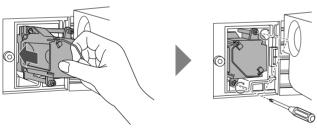
Do not drop the lamp! Do not shock the glass surface of the lamp!

It may shatter the lamp causing injuries.



Insert

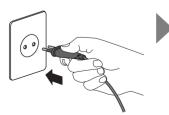
• Make sure the lamp sits securely and flat in the housing area.



Reinstall the lamp cover

Tighten the screw.

Plug in the TV



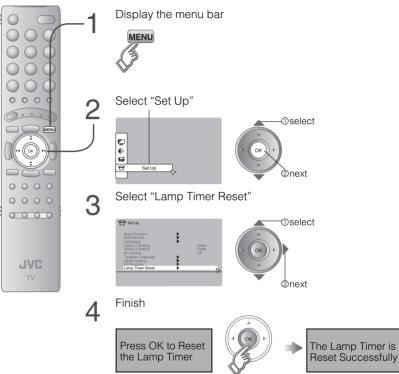
Turn the TV on

Re-tighten



• If the lamp unit is not installed securely (e.g. flat in the lamp housing area), the TV won't turn on. In this case, reinstall the lamp unit. Rese

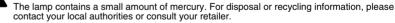
Reset the lamp timer





Finally, the lamp has been replaced!

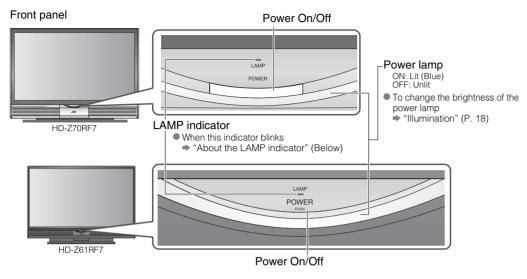
Never dispose of the lamp with normal trash!

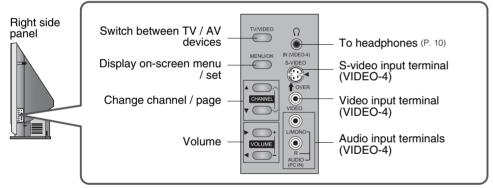


Dispose of it in the same way as disposing of fluorescent lamps.

■If the power lamp and LAMP indicator blink rapidly after turning on the TV → "Lamp" (P. 21)

Names of all the parts





Connecting terminals on the back of the TV ⇒ "Connecting external devices" (P. 10)

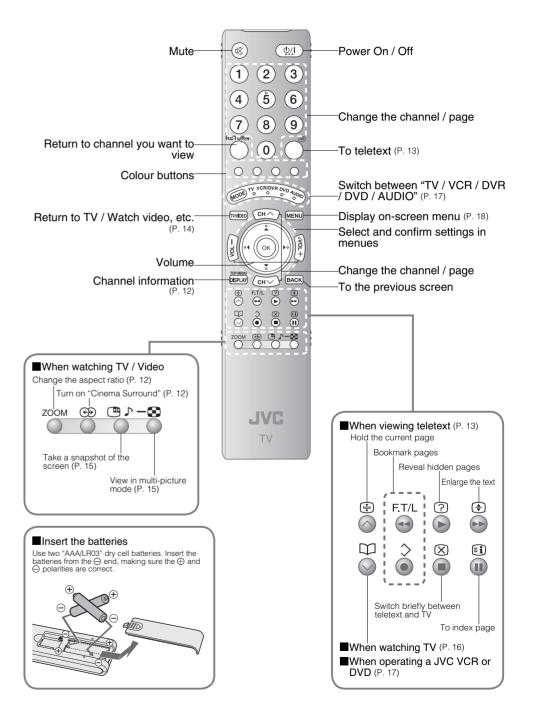
About the LAMP indicator

The LAMP indicator blinks as follows.

- When turning on the TV, the LAMP indicator blinks for about 1 minute every 2 seconds.
- → The lamp is warming up. During this period, the TV cannot be turned off.
- After turning off the TV, the LAMP indicator blinks for about 1 minute every 2 seconds.
- Cooling is performed. During the cooling period, the TV cannot be turned on.
- If the LAMP indicator blinks rapidly
- ⇒ "Lamp" (P. 21)

Remote control (RM-C1855) AAA/LR03 Batteries (For confirming the TV works)

Check accessories

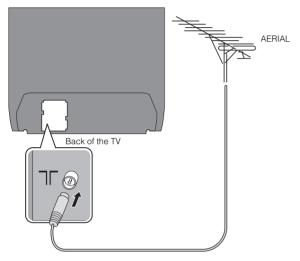


Basic connections

Please read the user manuals of each device carefully before setup. It is necessary to connect an aerial to watch TV.

Connect with other devices ⇒ "Connecting external devices" (P. 10)

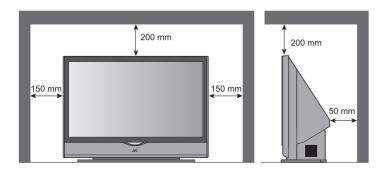
Connect the aerial



• After all the connections have been made, insert the plug into an AC outlet.

Care when setting

- Power requirements
- Connect the power cord only to a 110-240V, 50/60Hz AC outlet.
- ■Installation requirements
- To avoid overheating, ensure the unit has ample room.



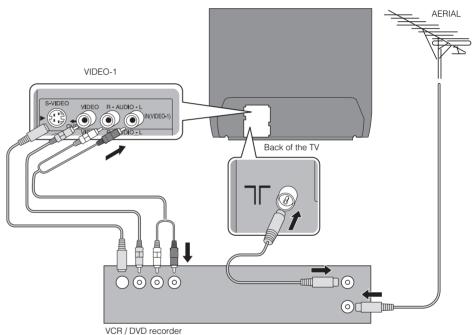
Do not place the TV too close to wallpaper

The warm air from the air ducts may change the colour of the wallpaper.

Keep children or pets away from the air ducts

Long exposure to the warm air from the ducts may cause a minor burn.

Connect a VCR / DVD recorder

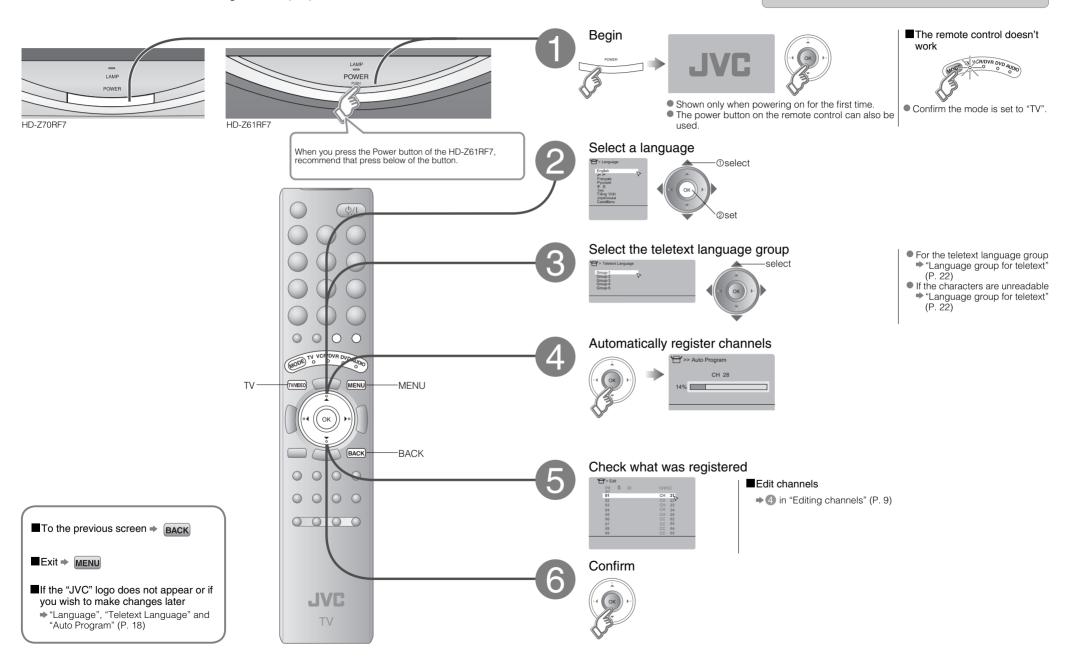


- After all the connections have been made, insert the plug into an AC outlet.
 If both composite and S-VIDEO cable are connected, S-VIDEO will be enable.

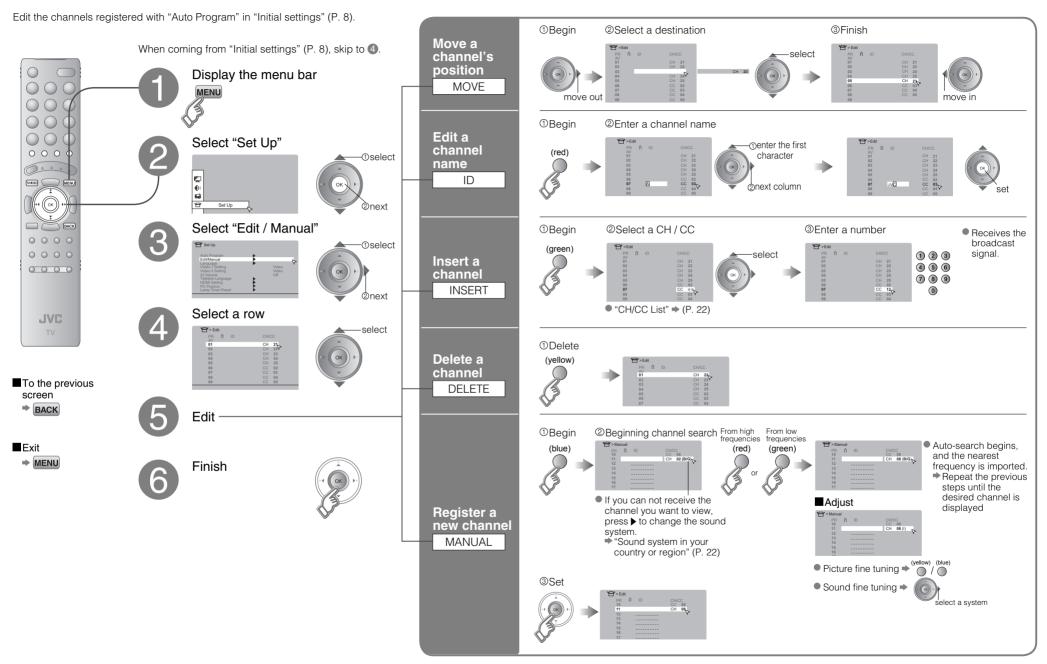
Initial settings Set the menu language, installation location and automatically resistance sheet.

Set the menu language, installation location and automatically register the TV channels. These channels can be edited later in "Editing channels" (P. 9).

- After turning on the TV, it takes about 1 minute to project the picture to its full brightness.
- After turning off the TV, it takes about 5 seconds to make the screen dark. After that, cooling is performed for about 1 minute.
- ⇒ "About the LAMP indicator" (P. 6)



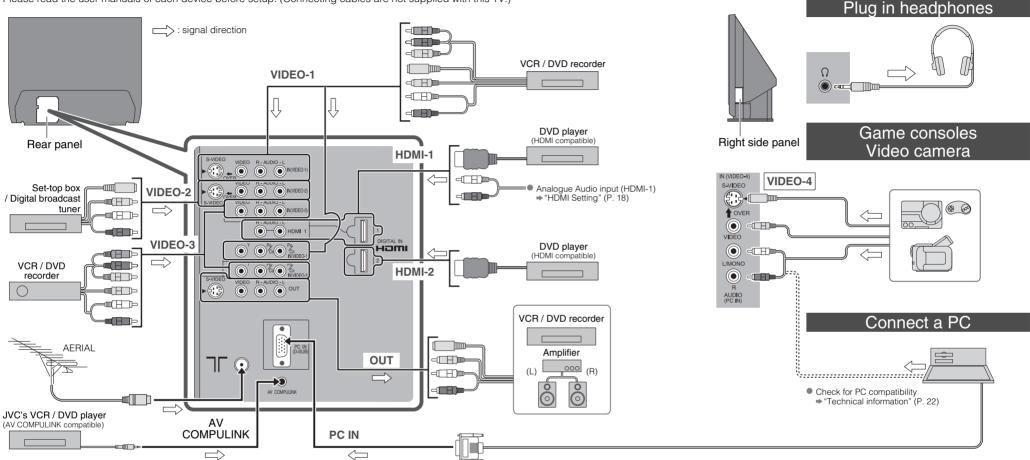
Editing channels



Connecting external devices VCR / DVD / other devices

You can connect many devices to the rear panel of the TV.

Please read the user manuals of each device before setup. (Connecting cables are not supplied with this TV.)



■ AV COMPULINK

This feature makes playing video tapes or DVDs totally automatic.

Simply insert a pre-recorded media into your JVC brand VCR or DVD player and the device will automatically turn on and begin playback. At the same time, using the AV CompuLink, the VCR or DVD player sends a signal to the television telling it to turn on and switch to the proper video input.

Refer to your DVD or VCR's instruction book for detailed connection information.

Output 🛖	Input ↓
	· Component signal / S-VIDEO / Composite signal · Sound L / R

- Use Component signal
- "Switch between video and component signal" (P. 14)
- ⇒ "Using S-VIDEO" (P. 14)

· S-VIDEO / Composite signal · Sound L / R

Use S-VIDEO ⇒ "Using S-VIDEO" (P. 14)

VIDEO-1 Watching videos VIDEO-2 Watching videos VIDEO-3 Watching videos

Output 🛖	Input 🖐
	· Component signal / Composite signal · Sound L / R

 Use Component signal "Switch between video and component signal" (P. 14)

VIDEO-4 Watching videos

Output 👚	Input ₩
	· S-VIDEO / Composite signal · Sound L / R

Use S-VIDEO ⇒ "Using S-VIDEO" (P. 14)

Connect DVI devices to

"HDMI-1"

→ (P. 22)

HDMI-1 HDMI-2

Connecting HDMI devices

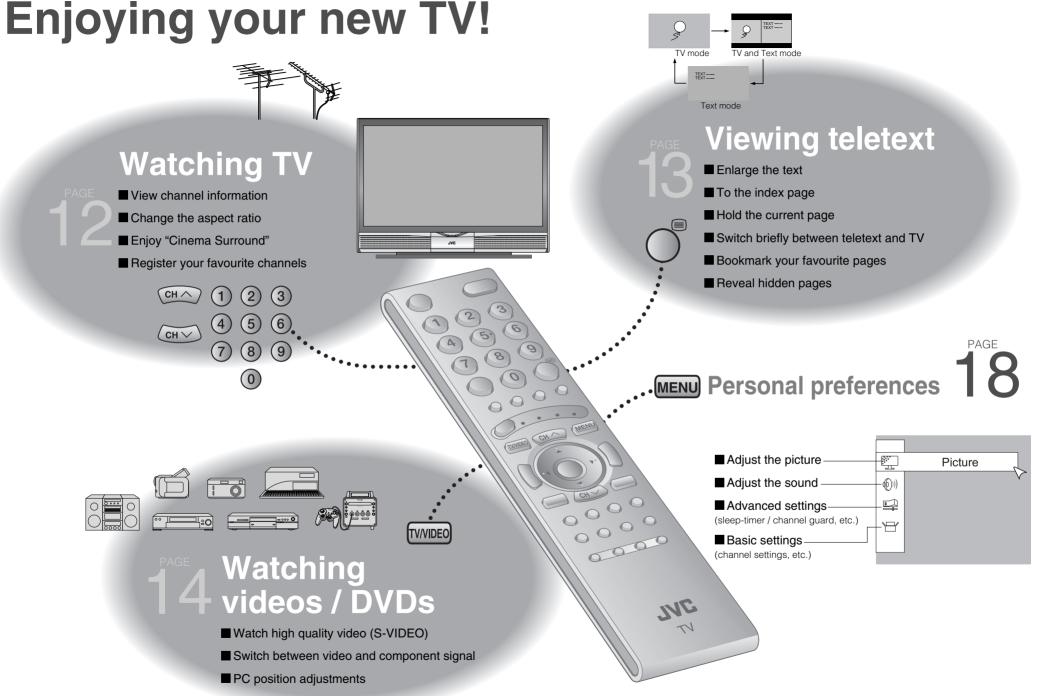
Output 👚	Input ₩
	· HDMI signal · Sound L / R (HDMI-1 only)

- "HDMI Setting" ⇒ (P. 18)
- HDMI-2 input does not support analogue sound.

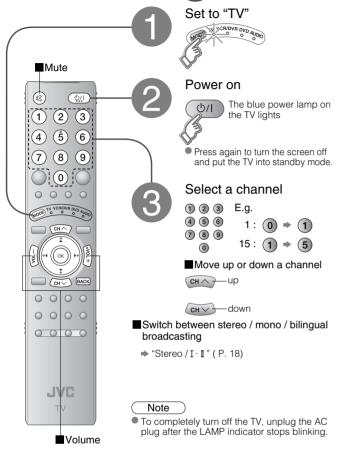
Video and sound signal of a TV channel you are viewing s from this terminal

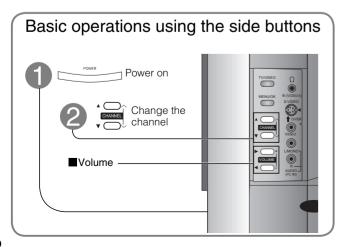
Output 🁚	Input ♣
· S-VIDEO / Composite signal · Sound L / R	

"Using OUT terminal" ⇒ (P. 14)

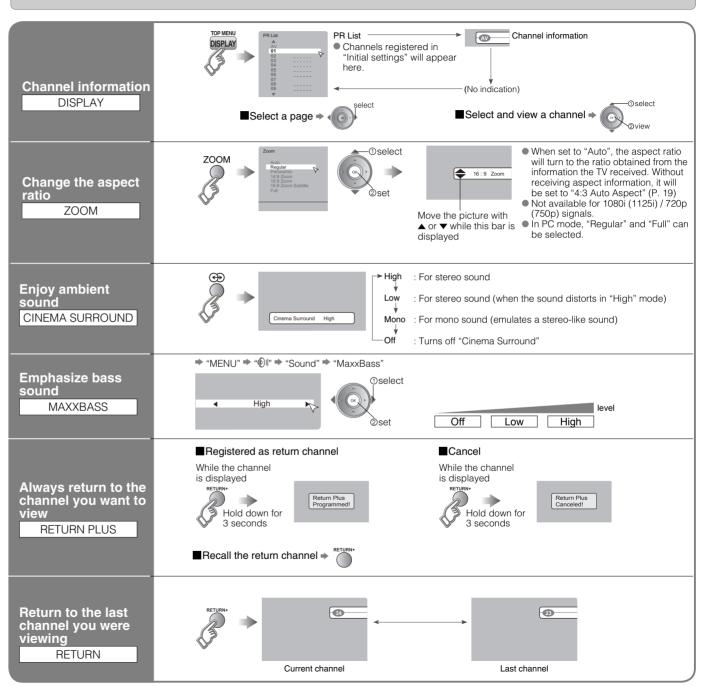


Watching TV

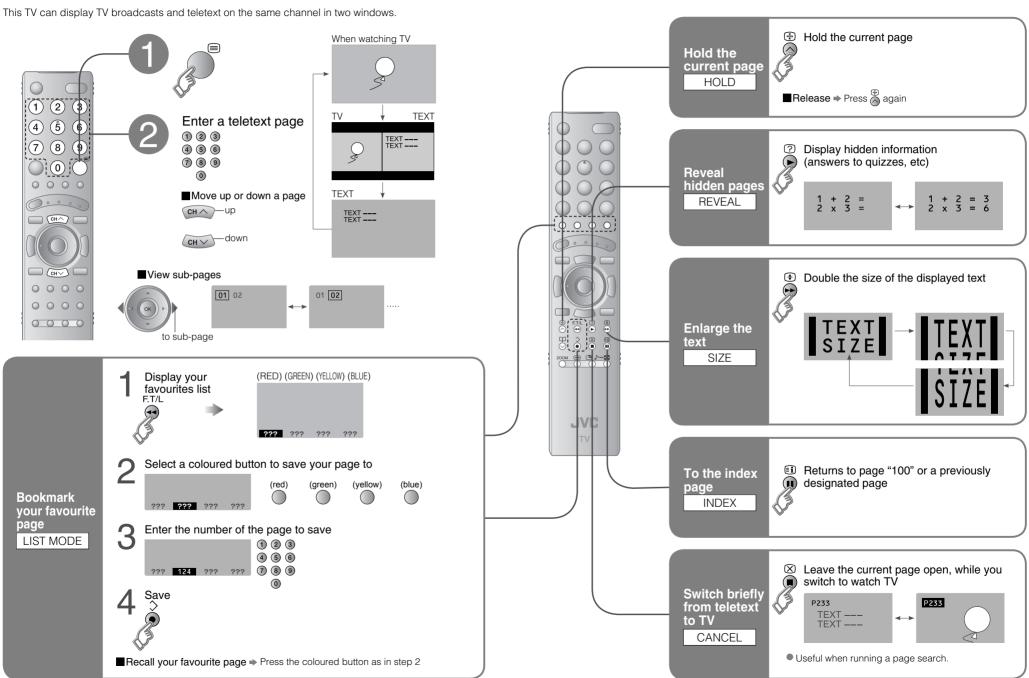




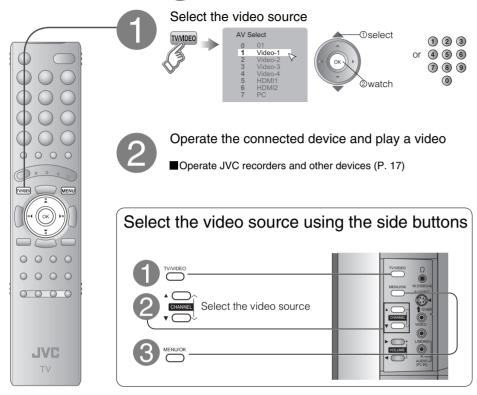
- After turning on the TV, it takes about 1 minute to project the picture to its normal brightness.
- After turning off the TV, it takes about 5 seconds to make the screen dark. After that, cooling down is performed for about 1 minute.
- → "About the LAMP indicator" (P. 6)



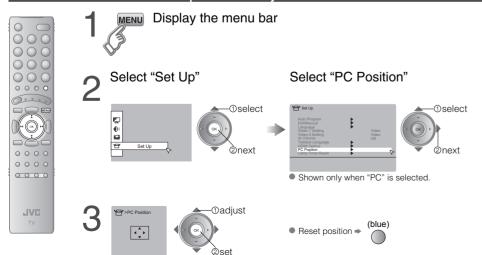
Viewing teletext

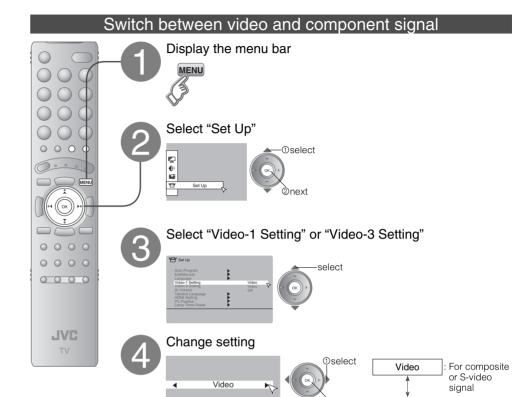


Watching videos / DVDs



PC position adjustment





Using S-VIDEO

For component

video signal

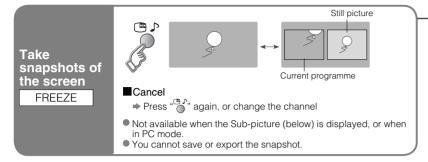
Component

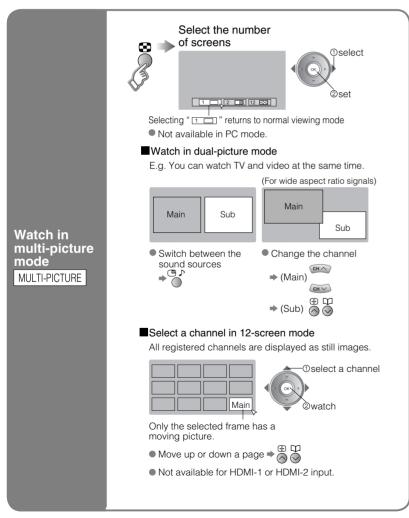
• If both composite and S-VIDEO cables are connected, S-VIDEO will be enable.

Using OUT terminal

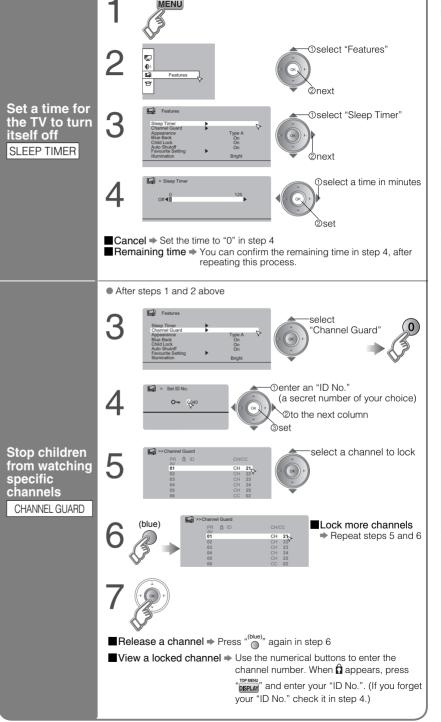
- Component and PC signals do not come out from this terminal.
- When you are viewing video signal, no signal will come out through the S-VIDEO terminal.
- HDMI-1 and HDMI-2 inputs does not come out from this terminal.

Useful functions

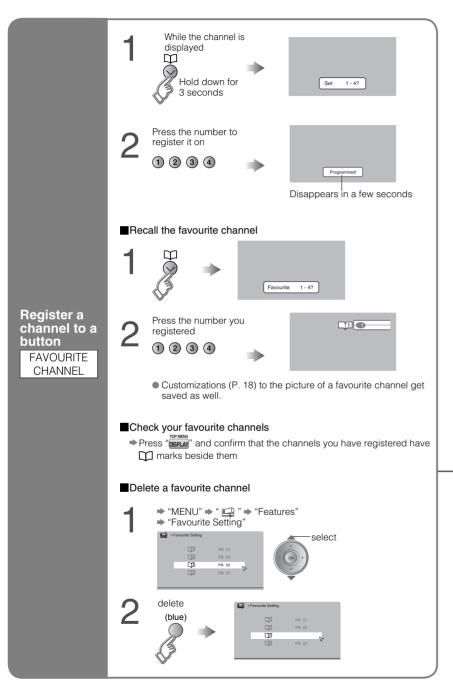


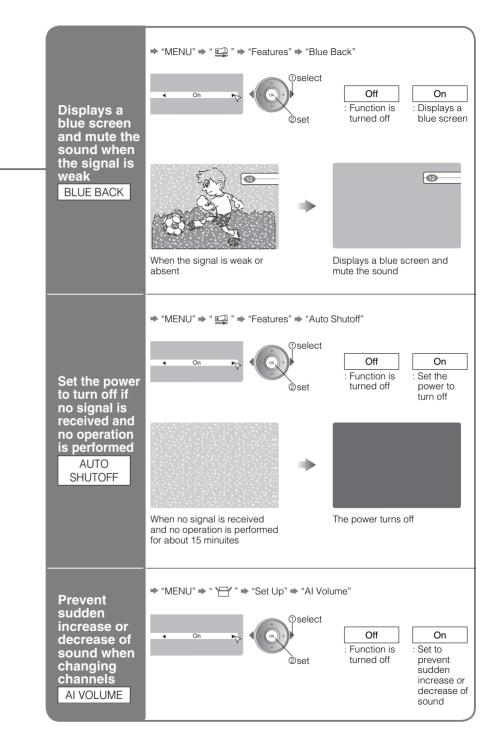






Useful functions (continued)





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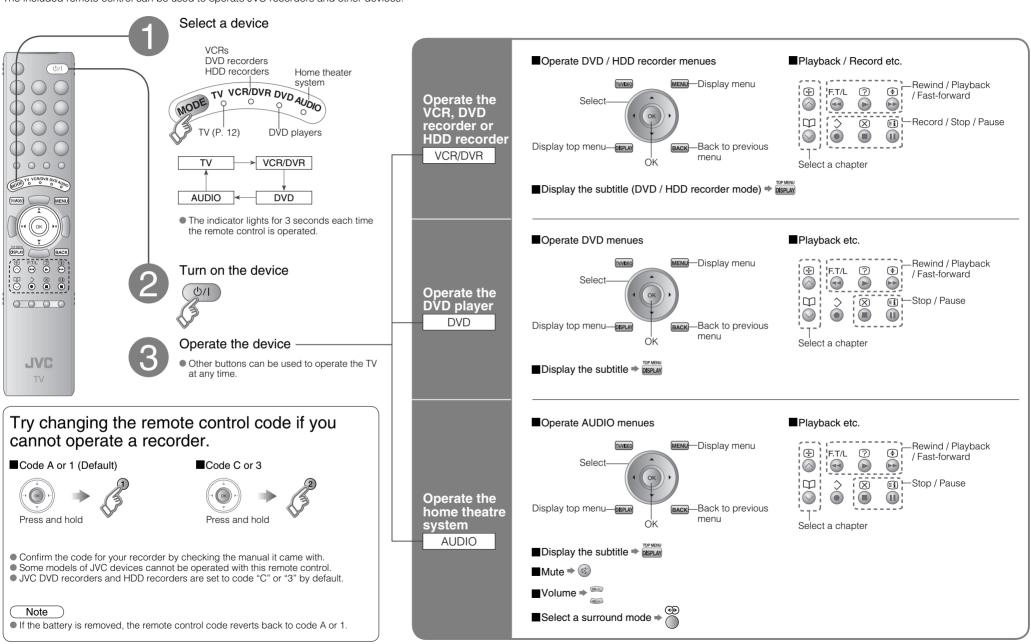
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JVC

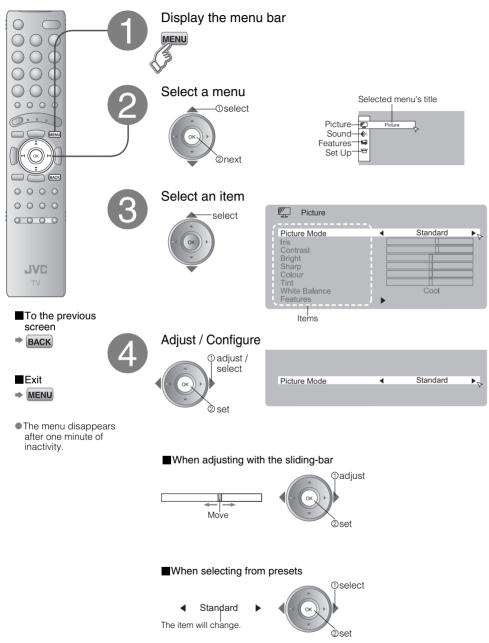
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Operate JVC recorders and other devices

The included remote control can be used to operate JVC recorders and other devices.



Customizing your TV



Some items have a sub-menu.

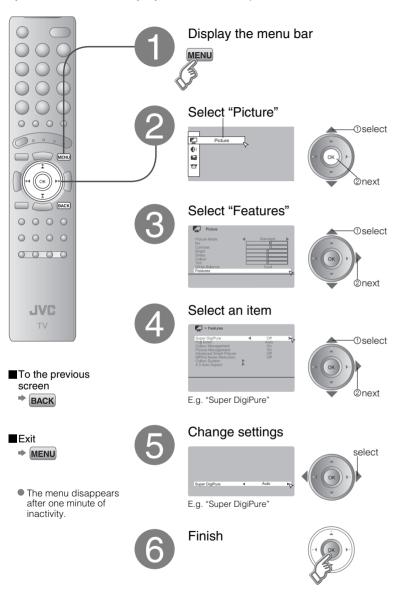
Menu	Item	Adjustments / Configurations
	Picture Mode	Picture mode (Bright / Standard / Soft)
	Iris	Adjust the amount of light projected on the screen (Darker ⇔ Brighter)
	Contrast	Contrast (Lower ⇔ Higher)
7	Bright	Brightness (Darker ⇔ Brighter)
Picture	Sharp	Sharpness (Softer ⇔ Sharper)
ţ	Colour	Colour (Lighter ⇔ Deeper)
Ō.	Tint	Tint for NTSC (Reddish ⇔ Greenish)
	White Balance	Colour temperature (Warm / Mid / Cool)
	Features	Finer picture adjustments (P. 19)
	Stereo / I · I	Mode / Language (○: Mono / ○ : Stereo / I: Sub1 / I: Sub2 / MONO)
6	Bass	Low tones (Weaker ⇔ Stronger)
	Treble	High tones (Weaker ⇔ Stronger)
Sound	Balance	Speaker balance (Left Stronger ⇔ Right Stronger)
J D	Cinema Surround	Ambience level (High / Low / Mono / Off)
<u>o</u>	MaxxBass *1	Emphasize the bass sound (Off / Low / High)
	Voice Enhancer	Sound enhancement technology (On / Off)
	Sleep Timer	Timer for turning off the TV (P. 15)
	Channel Guard	Stops children from watching specific channels (P. 15)
	Appearance	Format for displaying the channel number (TYPE A / TYPE B)
∯ Features	Blue Back	Displays a blue screen and mutes the sound when the signal is weak or absent (P. 16)
atı	Child Lock	Disables the front control buttons of the TV (On / Off)
ıres	Auto Shutoff	Set the power to turn off if no signal is received and no operation is performed for about 15 minuites. (P. 16)
0,	Favourite Setting	Clear favourite channel settings (P. 16)
	Illumination	Change the brightness of the Power lamp (P. 6) while the TV is on (Bright / Soft)
	Auto Program	Automatically registers channels (P. 8, 4)
	Edit / Manual	Change registered channels or add new ones (P. 9)
	Language	Select a language for on-screen menus (P. 8, 2)
	Video-1 Setting	For use with VCRs and other devices (P. 14)
S	Video-3 Setting	For use with VCRs and other devices (P. 14)
et L	Al Volume	Prevent sudden increase or decrease of sound when changing channels (P. 16)
Uр	Teletext Language	Select a language for Teletext programmes (P. 22)
	HDMI Setting	HDMI-1 : Size (1 / 2 / Auto) HDMI-2 : Size (1 / 2 / Auto) Audio (Digital / Analogue / Auto)
	PC Position	PC position adjustment (P. 14)
	Lamp Timer Reset	Resets the lamp timer (P. 5)
Othe	r settings · Change the aspe	ect ratio ⇒ "ZOOM" (P. 12)

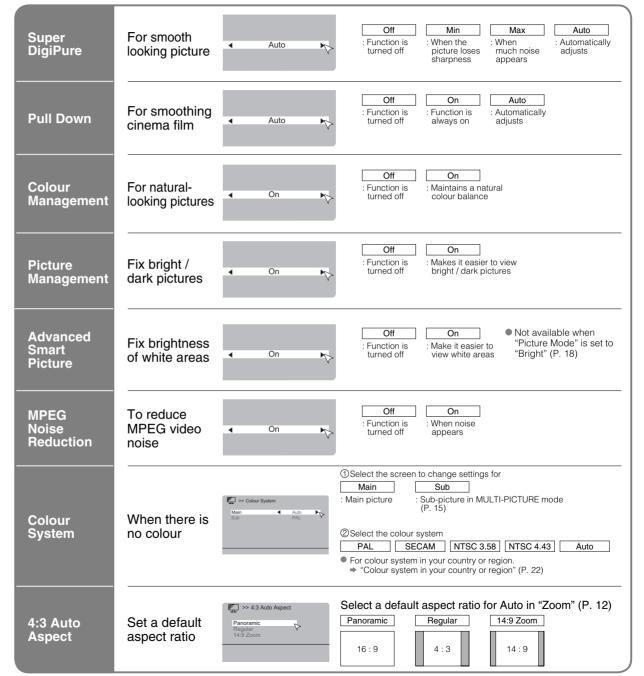
[·] Turn on "Cinema Surround" → "CINEMA SURROUND" (P. 12)

^{*1} MaxxBass is a registered trademark of Waves Audio Ltd. in the USA, Japan and other countries.

Advanced picture adjustment

By default, the TV automatically adjusts itself for the best picture.





Troubleshooting

Severe noise or snow



- Is the TV connected correctly to the aerial?
- Change the direction of the aerial.
- Is the aerial or its cable damaged?Consult your retailer

Patterns, stripes or noise

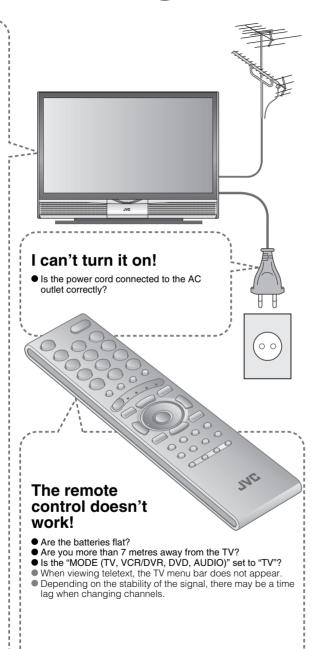


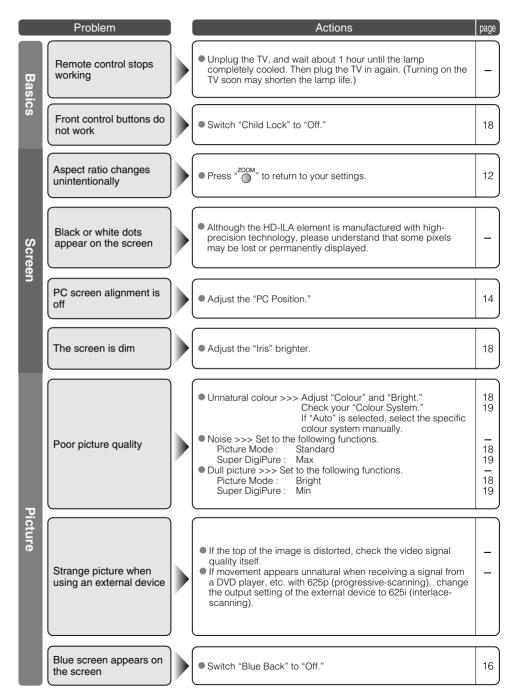
- Is the aerial receiving interference from high-voltage power lines or wireless transmitters?
- → Consult your retailer
- Are connected devices too close to the TV?
- ▶ Insert the minimum distance between the aerial and the cause of interference until no interference

Ghosting (Doubling of images)



- Are you receiving interference from signals reflected off mountains or buildings?
 - Adjust the direction of your aerial, or change to a good-quality directional aerial





	Problem		Actions	page
Sound	Poor sound	•	 Adjust the "Bass" and "Treble." If receiving a poor signal in "Stereo / I ⋅ I ", switch to "Mono." Adjust the channel reception using "Manual." 	18 18 9
nd	"Voice Enhancer" does not work	•	"Al Volume" makes the effect of "Voice Enhancer" weak. Switch "Al Volume" to "Off."	18
	Wrong screen size		Switch "Size" in "HDMI Setting" to "1" or "2."	18
	No picture, no sound		● Use the cable with HDMI logo. H □ⅢI	
HDMI	No sound	>	 Check if the device is compliant with HDMI. Switch "Audio" in "HDMI Setting" to "Digital" or "Auto" for HDMI devices, or "Analogue" or "Auto" for DVI devices. (Not available for HDMI-2) 	_ 18
	Green and distorted screen	•	Wait a little for the signal to stabilize when switching the signal format for an "HDMI" device.	_
Func	Some functions do not work	•	It is not a malfunction. Some functions (dark background) in the menu do not work depending on the situation.	_
Functions	Some inputs cannot be selected in the sub-picture		"VIDEO-1 (Component signal)", "VIDEO-3 (Component signal)", "HDMI-1", "HDMI-2" inputs and PC mode cannot be selected in the sub-picture.	_
OUT terminal	No picture, no sound	•	Some inputs are not output from the OUT terminal.	14

	Problem		Actions	page
	The LAMP indicator blinks rapidly		• Keep the TV off for a while and then turn the power on again. If the TV goes into warning mode, unplug the TV after the cooling has completed and consult your retailer. (It may be a malfunction of the internal electrical circuits.)	_
Lamp	The power lamp and LAMP indicator blink alternately	•	Keep the TV off for a while and then turn the power on again. If the TV goes into warning mode, unplug the TV after the cooling has completed and consult your retailer. (The internal temperature rises abnormally or the fan may be blocked.)	_
q	The power lamp and LAMP indicator blink rapidly simultaneously	•	 If this condition occurs soon after replacing the lamp, reinstall the new lamp unit. (The lamp unit may not be inserted into the lamp housing correctly.) Repeat the lamp installation steps, taking care to observe all warnings. Make sure the lamp sits flat inside the housing area. Make sure the lamp cover is reinstalled. If this condition occurs except for replacing the lamp, keep the TV off for a while and then turn the power on again. If the TV goes into warning mode, unplug the TV after the cooling has completed and consult your retailer. (It may be a lamp malfunction.) 	6

Technical information

Language group for teletext

Group	Languages
Group-1	Turkish, Hungarian, English, German, French, Italian, Spanish, Portuguese, Greek, Swedish, Finnish
Group-2	Polish, Serbian, Croatian, Slovenian, Czech, Slovak, Rumanian, Hungarian, German, French, Italian, Swedish, Finnish
Group-3	Russian, Bulgarian, Lettish, Lithuanian, Estonian, Ukrainian, Serbian, Croatian, Slovenian, Czech, Slovak, English, German
Group-4	Arabic, Czech, Slovak, Hungarian, English, German, French, Italian, Spanish, Portuguese, Swedish, Finnish
Group-5	Farsi, Czech, Slovak, Hungarian, English, German, French, Italian, Spanish, Portuguese, Swedish, Finnish

• If the characters are unreadable. ⇒ Select different teletext language group.

Bahrain, Kuwait, Oman, Qatar, United Arab Emirates, Yemen, etc. Indonesia, Malaysia, Singapore, Thailand, India, etc. China, Vietnam, etc. Asia, Middle East Hong Kong, etc. Islamic Republic of Iran, Lebanon, Saudi Arabia, etc. SECA Philippines, Taiwan, Myanmar, etc. NTSI Russia, etc. SECA SECA Republic, Poland, etc. SECA Czech Republic, Poland, etc. Germany, Holland, Belgium, etc. PAL UK, etc. UK, etc. PAL Republic of South Africa etc. PAL PA		Colour system in your country or region			
China, Vietnam, etc.	Area	Country or Region	System		
Asia, Middle East Hong Kong, etc. Islamic Republic of Iran, Lebanon, Saudi Arabia, etc. SECA Philippines, Taiwan, Myanmar, etc. SECA Russia, etc. Czech Republic, Poland, etc. Germany, Holland, Belgium, etc. UK, etc. Decania Australia, New Zealand, etc. PAL PAL Republic of South Africa etc.		Bahrain, Kuwait, Oman, Qatar, United Arab Emirates, Yemen, etc. Indonesia, Malaysia, Singapore, Thailand, India, etc.			
Islamic Republic of Iran, Lebanon, Saudi Arabia, etc. SECA		China, Vietnam, etc.	PAL		
Philippines, Taiwan, Myanmar, etc. Russia, etc. Czech Republic, Poland, etc. Germany, Holland, Belgium, etc. UK, etc. Decania Australia, New Zealand, etc. PAL Republic of South Africa etc.	Asia, Middle East	Hong Kong, etc.	٦		
Russia, etc. SECA		Islamic Republic of Iran, Lebanon, Saudi Arabia, etc.	SECAM		
Czech Republic, Poland, etc. Germany, Holland, Belgium, etc. PAL UK, etc. Cceania Australia, New Zealand, etc. PAL Republic of South Africa. etc. PAL Company PAL		Philippines, Taiwan, Myanmar, etc.	NTSC		
Germany, Holland, Belgium, etc.		Russia, etc.	SECAM		
Germany, Holland, Belgium, etc. UK, etc. Decenia Australia, New Zealand, etc. PAL Renublic of South Africa. etc.		Czech Republic, Poland, etc.			
ceania Australia, New Zealand, etc. PAL Republic of South Africa, etc	Europe	Germany, Holland, Belgium, etc.	PAL		
Republic of South Africa, etc.		UK, etc.			
Republic of South Africa, etc.	ceania	Australia, New Zealand, etc.	PAL		
		Republic of South Africa, etc.	PAI		
	Africa				
Egypt, Morocco, etc. SECA		Egypt, Morocco, etc.	SECAM		

Sound system in your country or region

Area	Country or Region	System
Asia, Middle East	Bahrain, Kuwait, Oman, Qatar, United Arab Emirates, Yemen, etc. Indonesia, Malaysia, Singapore, Thailand, India, etc.	B/G
	China, Vietnam, etc.	D/K
	Hong Kong, etc.	1
	Islamic Republic of Iran, Lebanon, Saudi Arabia, etc.	B/G
	Philippines, Taiwan, Myanmar, etc.	M
Europe	Russia, etc.	D/K
	Czech Republic, Poland, etc.	
	Germany, Holland, Belgium, etc.	B/G
	UK, etc.	1
Oceania	Australia, New Zealand, etc.	B/G
Africa	Republic of South Africa, etc.	1
	Nigeria, etc. Egypt, Morocco, etc.	

Monoaural sound

Use this function when stereo sound or bilingual sound is hard to hear.

Set "Stereo / I · II" to "Mono." ⇒ (P. 18)

PC Signals that can be displayed

 If the signal doesn't appear, check that the vertical frequency on the PC is set to 60 Hz.

Resolution	640 x 480 (VGA)	1024 x 768 (XGA)	
Vertical frequency (Hz)	60.0	60.0	
Horizontal frequency (kHz)	31.5	48.4	

Connect DVI devices

Connect a "DVI" device to "HDMI-1" using "DVI-HDMI" conversion cable. Connect analogue sound output of the DVI device to L and R terminals in IN HDMI-1.

- Set "Audio" in "HDMI Setting" to "Analogue" or "Auto" → (P. 18)
- HDMI-2 input does not support analogue sound (IN HDMI-1).
- HDMI-2 input does not support DVI devices.

CH/CC List

To use the INSERT function (P. 9), find the "CH/CC" number corresponding to the TV's Channel number from this table.

US: The US channel numbers are the channel numbers used in the United States, Philippines, etc.

CCIR: The CCIR channel numbers are the channel numbers used in the Middle East, Southeast Asia, etc.

OIRT: The OIRT channel numbers are the channel numbers used in Eastern Europe, Russia, Vietnam, etc.

AUSTRALIA: The AUSTRALIA channel numbers are the channel numbers used in Australia, etc.

CH US CARD OIRT AUSTRALIA CH 02 US-02 E2 R1 AU-0 CH 03 US-03 E3 AU-1 CH 04 US-04 E4 R2 AU-2 CH 05 US-05 E5 R6 AU-6 CH 06 US-06 E6 R7 AU-7 CH 07 US-07 E7 R8 AU-7 CH 07 US-07 E7 R8 AU-9 CH 09 US-09 E9 CH 10 US-10 E10 R10 AU-10 CH 11 US-11 E11 R11 AU-11 CH 11 US-11 E11 R11 AU-11 CH 13 US-13 CH 14 US-14, W+29 CH 15 US-15, W+30 CH 16 US-16, W+31 CH 16 US-16, W+31 CH 17 US-17, W+32 CH 18 US-18, W+33 CH 19 US-19, W+34 CH 20 US-20, W+35 CH 21 US-22, W+36 CH 21 US-22, W+37 E22 CH 23 US-23, W+38 E23 CH 24 US-24, W+39 E24 CH 25 US-25, W+40 E25 CH 26 US-26, W+11 E26 CH 27 US-27, W+42 E27 CH 28 US-28, W+48 E30 CH 29 US-29, W+44 E29 CH 29 US-29, W+44 E29 CH 29 US-29, W+48 E31 CH 34 US-31, W+46 E31 CH 34 US-31, W+46 E31 CH 35 US-33, W+48 E33 CH 34 US-34, W+49 E34 CH 29 US-29, W+44 E29 CH 29 US-29, W+44 E29 CH 29 US-29, W+44 E29 CH 29 US-29, W+48 E31 CH 30 US-30, W+48 E31 CH 34 US-31, W+46 E31 CH 35 US-35, W+46 E31 CH 36 US-36, W+46 E31 CH 37 US-37, W+46 E31 CH 38 US-38, W+46 E31 CH 39 US-39, W+46 E31 CH 39 US-39, W+46 E31 CH 30 US-30, W+45 E30 CH 31 US-31, W+46 E31 CH 32 US-32, W+49 E34 CH 39 US-39, W+46 E33 CH 34 US-34, W+49 E34 CH 39 US-39, W+56 E40 CH 31 US-31, W+66 E41 CH 35 US-35, W+69 E35 CH 36 US-36, W+51 E36 CH 37 US-37, W+62 E47 CH 38 US-38, W+59 E38 CH 34 US-34, W+49 E34 CH 35 US-35, W+56 E35 CH 36 US-36, W+51 E36 CH 37 US-37, W+62 E47 CH 38 US-38, W+59 E38 CH 34 US-38, W+59 E38 CH 34 US-34, W+49 E34 CH 35 US-35, W+66 E61 CH 47 US-47, W+62 E47 CH 48 US-48, W+69 E44 CH 45 US-48, W+69 E44 CH 45 US-48, W+69 E44 CH 46 US-46, W+79 E64 CH 47 US-47, W+62 E67 CH 48 US-48, W+79 E64 CH 49 US-49, W+76 E61 CH 50 US-56, W+71 E66 CH 66 US-56, W+71 E66 CH 67 US-67, W+72 E67 CH 68 US-68, W+73 E63 CH 69 US-68, W+73 E63 CH 66 US-66, W+71 E66 CH 67 US-67, W+72 E67 CH 68 US-68, W+73 E68 CH 69 US-68, W+73 E63 CH 66 US-66, W+71 E66 CH 67 US-67, W+72 E67 CH 68 US-68, W+73 E63 CH 66 US-66, W+71 E66 CH 67 US-67, W+72 E67 CH 68 US-68, W+73 E63 CH 66 US-66, W+81 E66 CH 66 US-66					
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CH 03 US-03 E3 AU-1 CH 04 US-04 E4 R2 AU-2 CH 05 US-05 E5 R6 AU-6 CH 06 US-05 E5 R6 AU-6 CH 07 US-07 E7 R8 AU-8 CH 08 US-08 E8 R9 AU-9 CH 09 US-09 E9 R9 CH 10 US-10 E10 R10 AU-10 CH 11 US-11 E11 R11 AU-11 CH 12 US-12 E12 R12 CH 13 US-13 CH 14 ST 15 ST 15 ST 16 ST	CH 02				
CH 04 US-04 E4 R2 AU-6 CH 05 US-05 E5 R6 AU-6 CH 06 US-06 E6 R7 AU-7 CH 07 US-07 E7 R8 AU-8 CH 09 US-09 E9 R9 CH 09 US-09 E9 R10 AU-9 CH 11 US-11 E11 R11 AU-11 CH 11 US-11 E11 R11 AU-11 CH 13 US-13 R12 CH 14 US-14, W+29 CH 15 US-15, W+30 CH 16 US-16, W+31 CH 17 US-17, W+32 CH 18 US-18, W+33 CH 19 US-19, W+34 CH 20 US-20, W+35 CH 21 US-22, W+37 CH 22 US-22, W+37 CH 23 US-22, W+37 CH 25 US-25, W+40 CH 26 US-26, W+41 CH 26 US-26, W+41 CH 27 US-27, W+42 CH 28 US-28, W+43 CH 29 US-28, W+43 CH 29 US-28, W+44 CH 20 US-28, W+45 CH 29 US-28, W+46 CH 29 US-28, W+47 CH 29 US-28, W+48 CH 29 US-28, W+49 CH 30 US-30, W+56 CH 31 US-31, W+56 CH 31 US-31, W+56 CH 32 US-32, W+46 CH 35 US-35, W+59 CH 36 US-36, W+51 CH 37 US-37, W+42 CH 38 US-38, W+39 CH 38 US-38, W+39 CH 39 US-38, W+49 CH 39 US-38, W+40 CH 30 US-30, W+41 CH 26 CH 27 US-27, W+42 CH 29 CH 28 US-28, W+44 CH 29 CH 29 US-28, W+44 CH 29 CH 30 US-30, W+56 CH 31 US-31, W+66 CH 37 US-37, W+52 CH 38 US-38, W+50 CH 36 US-36, W+51 CH 36 US-36, W+51 CH 37 US-37, W+52 CH 38 US-38, W+65 CH 36 US-36, W+61 CH 37 US-37, W+52 CH 38 US-38, W+65 CH 37 US-37, W+52 CH 38 US-38, W+65 CH 36 US-36, W+61 CH 37 US-37, W+52 CH 38 US-38, W+65 CH 36 US-36, W+61 CH 37 US-37, W+68 CH 39 US-39, W+68 CH 30 US-40, W+67 CH 30 US-40, W+67 CH 30 US-40, W+67 CH 30 US-40, W+68 CH 30 US-40, W+69 CH 40 US-40, W+69 CH 40 US-40, W+69 CH 40 US-40, W+69 CH 41 US-41, W+69 CH 42 US-42, W+77 CH 42 US-42, W+77 CH 43 US-43, W+78 CH 44 US-44, W+79 CH 45 US-64, W+71 CH 47 US-67 CH 56 US-66, W+71 CH 56 CH 67 US-67, W+82 CH 56 CH 67 US-67, W+82 CH 66 US-66, W+71 CH 67 US-67, W+82 CH 66 US-66, W+71 CH 66 US-66, W+71 CH 67 US-67, W+82 CH 66 US-66, W+81 CH 66 US-66 US-66 US-66 US-66 US					
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CH 55 US-55, W+70 E55 CH 55 CH 55 US-56, W+71 E56 CH 57 US-57, W+72 E57 CH 58 US-58, W+73 E58 CH 59 US-59, W+74 E59 CH 60 US-60, W+75 E60 CH 61 US-61, W+76 E61 CH 62 US-62, W+77 E62 CH 63 US-63, W+78 E63 CH 64 US-64, W+78 E63 CH 64 US-65, W+80 E65 CH 67 US-67, W+80 E65 CH 67 US-67, W+82 E66 CH 67 US-67, W+82 E67 CH 68 US-68, W+81 E66 CH 67 US-67, W+82 E67 CH 68 US-68, W+81 E66 CH 67 US-67, W+82 E67 CH 68 US-68, W+81 E66 CH 67 US-67, W+82 E67 CH 68 US-68, W+81 E66 CH 67 US-67, W+82 E67 CH 68 US-68, W+81 E66 CH 67 US-68, W+81 E66 CH 68 US-68, W+81 E66 CH 67 US-68, W+81 E66 CH 67 US-68, W+81 E66 CH 68 US-68, W+81 E68 CH 68 US-68, W+81 US-68, W					
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CH 58 US-58, W+73 E58 CH 59 US-59, W+74 E59 CH 60 US-60, W+75 E60 CH 61 US-61, W+76 E61 CH 62 US-62, W+77 E62 CH 63 US-63, W+78 E63 CH 64 US-64, W+79 E64 CH 65 US-66, W+80 E65 CH 66 US-66, W+81 E66 CH 67 US-67, W+82 E67 CH 68 US-68, W+83 E68	CH 56	US-56, W+71			
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CH 67 US-67, W+82 E67 CH 68 US-68, W+83 E68					
CH 68 US-68, W+83 E68					
	CH 69	US-69, W+84	E69		

CC		. Cl	nannel	
	US	CCIR	OIRT	AUSTRALIA
CC 01		S-1		AU-5
CC 02		S-2		
CC 03		S-3		
CC 04		S-4 S-5		
CC 05 CC 06		S-6		AU-5A
CC 00		S-7		170-37
CC 07 CC 08		S-8		
CC 09		S-9		
CC 09 CC 10		S-10		
CC 11		S-11		
CC 12		S-12		
CC 13		S-13		
CC 14	A	S-14		
CC 15	В	S-15		
CC 16	С	S-16		
CC 17	D	S-17		
CC 18	E	S-18		
CC 19	F G	S-19		
CC 20		S-20		
CC 21	H	S-21		
CC 22 CC 23	J	S-22 S-23		
CC 24	K	S-23		
CC 25	L	S-25		
CC 25 CC 26	M	S-26		
CC 27	N	S-27		
CC 27 CC 28	0	S-28		
CC 29	P	S-29		
CC 30	Q	S-30		
CC 31	R	S-31		
CC 32	S	S-32		
CC 33	T	S-33		
CC 34	U	S-34		
CC 35	V	S-35		
CC 36	W	S-36		
CC 37 CC 38	W+1	S-37		
00 38	W+2	S-38		
CC 39 CC 40	W+3 W+4	S-39 S-40		
CC 40	W+5	S-41		
CC 42	W+6	13-41		
CC 43	W+7			
CC 44	W+8			
CC 45	W+9			
CC 46	W+10			
CC 47	W+11			
CC 48	W+12			
CC 49	W+13			
CC 50	W+14			
CC 51	W+15			
CC 52	W+16			
CC 53	W+17			
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CC 56	W+20 W+21			
CC 57 CC 58	W+22			
CC 58	W+23			
CC 60	W+24			
CC 61	W+25			
CC 62	W+26			
CC 63	W+27			
CC 64	W+28			
CC 75		X		
CC 76		Υ	R3	
CC 77		Z	R4	AU-3
CC 78		Z+1	R5	
CC 79 CC 95		Z+2		AU-4
CC 95	A-5			
CC 96	A-4			
CC 96 CC 97 CC 98	A-4 A-3 A-2			

Specifications

Main unit

Model	HD-Z70RF7	HD-Z61RF7		
Broadcasting systems	B/G/I/D/K/K1/M (See "Technical information", P. 22)			
Colour systems	PAL, SECAM, NTSC 3.58/4.43MHz			
Channels and frequencies	VHF low channel (VL) = 46.25 to 140.25 MHz VHF high channel (VH) = 147.25 to 423.25 MHz UHF channel (U) = 431.25 to 863.25 MHz Receives cable channels in mid band (X to Z+2, S1 to S10), super band (S11 to S20) and hyper band (S21 to S41).			
Sound-multiplex systems	NICAM (I / B / G / D / K), A2 (B / G / D / K)			
Teletext systems	FLOF (Fastext), WST (standard system)			
Power requirements	AC 110 V - 240 V, 50/60 Hz			
Audio output (Rated power output)	10 W + 10 W			
Speakers	10 cm round x 2	(8.5 x 12.5cm) oval x 2		
Power consumption [standby]	195 W [0.9 W]			
Screen size (visible area size measured diagonally)	178 cm	155 cm		
Dimensions (W x H x D: mm)	1626 x 1167 x 519	1403 x 1015.5 x 483.6		
Weights	70 kg	44 kg		
Accessories	(See "Check accessories", P. 6)			

Terminals / Connectors

Terminal name		Terminal type	Signal type (IN)	Signal type (OUT)
Input terminals	VIDEO-1	RCA connectors x 6 S-VIDEO connector x 1	Composite video, S-video, Analogue component (576i (625i) / 480i (525i), Progressive : 576p (625p) / 480p (525p), HD : 1080i (1125i), 720p (750p)) Audio L / R	
	VIDEO-2	RCA connectors x 3, S-VIDEO connector x 1	Composite video, S-video, Audio L / R	
	VIDEO-3	RCA connectors x 6	Composite video, Analogue component (576i (625i) / 480i (525i), Progressive : 576p (625p) / 480p (525p), HD : 1080i (1125i), 720p (750p)) Audio L / R	
	VIDEO-4	RCA connectors x 3, S-VIDEO connector x 1	Composite video, S-video, Audio L / R	
	HDMI-1	HDMI connector x 2	HDMI (576i (625i) / 480i (525i) /	
	HDMI-2	7.5.m oo:oo: x 2	576p (625p) / 480p (525p), 1080i (1125i), 720p (750p))	
	IN HDMI-1	RCA connectors x 2	Audio L / R	
	PC IN	D-SUB (15 pins) x 1	Analogue PC signal (P. 22)	
Output terminals	OUT	RCA connectors x 3, S-VIDEO connector x 1		Composite video, S-video, Audio L / R
	Headphone	Stereo mini-jack x 1 (3.5 mm in diameter)		Headphone output

[•] We may change the design and specifications without notice.

Demonstration

To start the demonstration:

Press the **MENU** button to display the menu bar. Then press the yellow button.

Select DEMO 1 (Super Digipure), DEMO 2 (Maxx Bass) or DEMO 3 (Iris Meter) from the DEMO MODE menu.

Press the **▼**/**▲** buttons, then press the **OK** button.

To guit the demonstration:

Press the yellow button, **BACK** button, **CHANNEL** \lor / \land buttons or any of the number buttons.



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