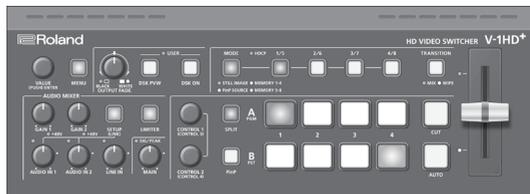


HD VIDEO SWITCHER V-1HD⁺



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Checking the Included Items

Check that all of the included items are present. If any of the included items are missing, contact your dealer.

- | | |
|--|--|
| <input type="checkbox"/> V-1HD ⁺ unit | <input type="checkbox"/> Startup Guide |
| <input type="checkbox"/> AC adaptor | <input type="checkbox"/> Leaflet "USING THE UNIT SAFELY" |
| <input type="checkbox"/> Power cord | |

PDF Manual (download from the Web)

For details on operation and a list of menus, refer to "Reference Manual" (PDF).

Downloading

1. Access the Roland website.
<https://proav.roland.com/>
2. Move to the product page → click "Support" → download the applicable PDF file.



Before using the unit, ensure that its system program is at the most recent version. For information on available upgrades for the system program, see the Roland website (<https://proav.roland.com/>).

You can check the system program version by Pressing the [MENU] button → "SYSTEM" → "VERSION."

Before using this unit, carefully read "USING THE UNIT SAFELY" and "IMPORTANT NOTES" (the leaflet "USING THE UNIT SAFELY" and the Startup Guide (p. 11, 12)). After reading, keep the document(s) where it will be available for immediate reference.

Panel Descriptions

Top Panel

[OUTPUT FADE] knob

The final output video and audio fade in/out. Rotating the knob counterclockwise fades to black, and rotating the knob clockwise fades to white. The indicators located at the left and right of the [OUTPUT FADE] knob show the status.

Blinking red	Fading in/out
Lit red	Fade-out completed
Unlit	Normal output

USER

[DSK PVW] button

When this is on (lit), it makes the DSK compositing results the preview output.

[DSK ON] button

Turns on/off DSK composition.

* The settings described above are the factory defaults. You can also assign other functions to each button. If a function is assigned, the USER indicator is lit.

Menu

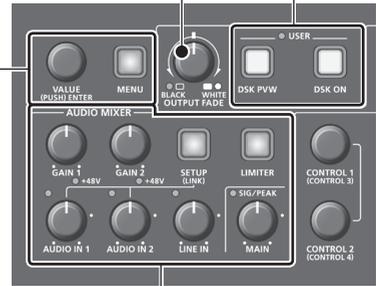
[MENU] button

When this is on (lit), the menu appears on the display that's connected to the OUTPUT 2 connector.

If you're in a lower level, this button returns to the next higher level. If the highest menu level is shown, this button closes the menu.

[VALUE] knob

Selects a menu item, or edits the value of a setting. Press this knob to confirm the menu item you selected or the value that you edited.



AUDIO MIXER

[GAIN 1] [GAIN 2] knobs

Adjusts the input gain (sensitivity) of AUDIO IN 1 or AUDIO IN 2.

+48V indicators (AUDIO IN 1, 2)

This is lit when phantom power is on.

[SETUP] button

Accesses the AUDIO INPUT menu. Long-press this button to turn the stereo link function on/off. When this is on (lit), AUDIO IN 1 and 2 are linked, and operate as a stereo channel.

[AUDIO IN 1] [AUDIO IN 2] [LINE IN] knobs

Adjust the volume of the AUDIO IN 1, AUDIO IN 2, or LINE IN.

SIG/PEAK indicators (AUDIO IN 1, 2/LINE IN)

These are lit green when audio input is detected. If the input is excessive, the indicator is lit red.

SIG/PEAK indicator (MAIN)

Indicates the overall volume level.

Lit red	Volume is excessive.
Lit yellow	Volume is appropriate.
Lit green	Volume is insufficient.

[MAIN] knob

Adjusts the overall volume.

[LIMITER] button

Turns the limiter (clipping prevention) on/off. When turned on, the [LIMITER] button is lit green.

[MODE] button, [1/5]–[4/8] buttons

Use the [MODE] button to select the function of the [1/5]–[4/8] buttons. An indicator located below the [MODE] button is lit to indicate the current function.

Indicator	Function
STILL IMAGE	Output a still image.
PinP Source	When using PinP compositing, select the source video for the inset screen.
MEMORY 1–4	Recall the settings saved in a memory (1–8).
MEMORY 5–8	Long-press a button to save the current settings in a memory.

HDCP indicator

This indicator is lit, blinking, or unlit according to the HDCP (copy protection) setting and according to whether an HDCP-compliant device is connected.

[TRANSITION] button (p. 9)

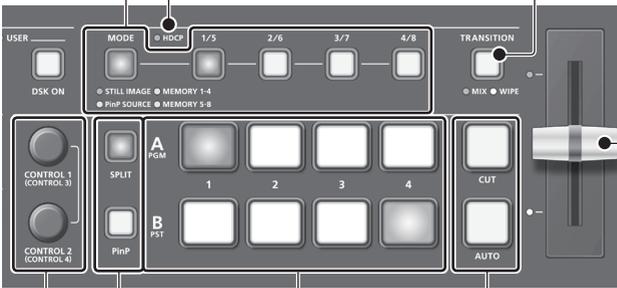
Selects the video transition effects (MIX, WIPE).

Video fader (p. 8, 9)

Manually switch between the videos being input to bus A/PGM and B/PST, and send them to the final output.

Transition indicators

The indicator for the final output bus and lights up.



[SPLIT] [PinP] buttons

Turns on/off video compositing using split or PinP (picture-in-picture). When turned on, the [SPLIT] or [PinP] button is lit.

[CUT] [AUTO] buttons (p. 9)

Automatically switch between the videos being input to bus A/PGM and B/PST, and send them to the final output.

[CUT]	The video switches instantly.
[AUTO]	The video switches with a transition effect applied.

[CONTROL 1] [CONTROL 2] knobs

Adjust the split or PinP compositing settings. If you turn a knob while pressing it, these knobs function as [CONTROL 3] [CONTROL 4] knobs.

Knob	Split	PinP
[CONTROL 1]	A-CENTER	POSITION H
[CONTROL 2]	B-CENTER	POSITION V
[CONTROL 3]	CENTER POSITION	SIZE
[CONTROL 4]	SPLIT TYPE	ZOOM

A/PGM cross-point [1]–[4] buttons

Selects the video to input to bus A/PGM. The selected button lights up.

B/PST cross-point [1]–[4] buttons

Selects the video to input to bus B/PST. The selected button lights up.

Rear Panel (Connecting Your Equipment)

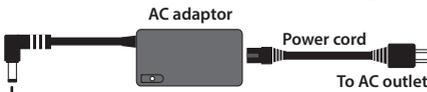
* To prevent malfunction and equipment failure, always turn down the volume, and turn off all the units before making any connections.

DC IN jack

Connect the included AC adaptor to this jack.

* Use the cord hook to secure the cord of the AC adaptor as shown in the illustration.

Cord hook



OUTPUT 1, 2 connectors

These output video. Connect projectors, displays, and recording equipment.

* The menu of this unit is shown on the display that's connected to the OUTPUT 2 connector.

* For each connector, you can change the video bus (PGM, PWV, MULTI-VIEW) that is assigned.



RS-232 connector

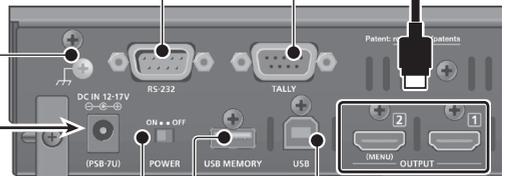
You can connect this to a computer equipped with an RS-232 connector, and remotely control this unit.

TALLY connector

This outputs a tally signal. Connect devices provided with a tally-light feature.

Ground terminal

Connect this to an external earth or ground if necessary.



[POWER] switch

Turns the power on/off.

USB MEMORY port

Connect a USB flash drive to this port. You use it when importing still images or when saving or loading settings for the unit.



USB port

This port is used to remotely control this unit from an external device.

* Do not block the ventilation openings (the slits located on the front and side panels, etc.). If the ventilation openings are blocked, the internal temperatures may rise, causing malfunctions due to excessive heat.

AUDIO IN 1, 2 jacks/LINE IN L, R jacks

These input audio. Connect a mic, audio mixer, CD players, or other such audio equipment.

Phantom power settings

You can supply phantom power (+48 V) from the AUDIO IN 1 and 2 jacks. Turn on phantom power when you're using a condenser microphone that requires phantom power.

Use the [SETUP] button → "AUDIO IN 1" or "AUDIO IN 2" → set "PHANTOM +48V" to "ON." When this is on, the +48V indicator is lit.

NOTE

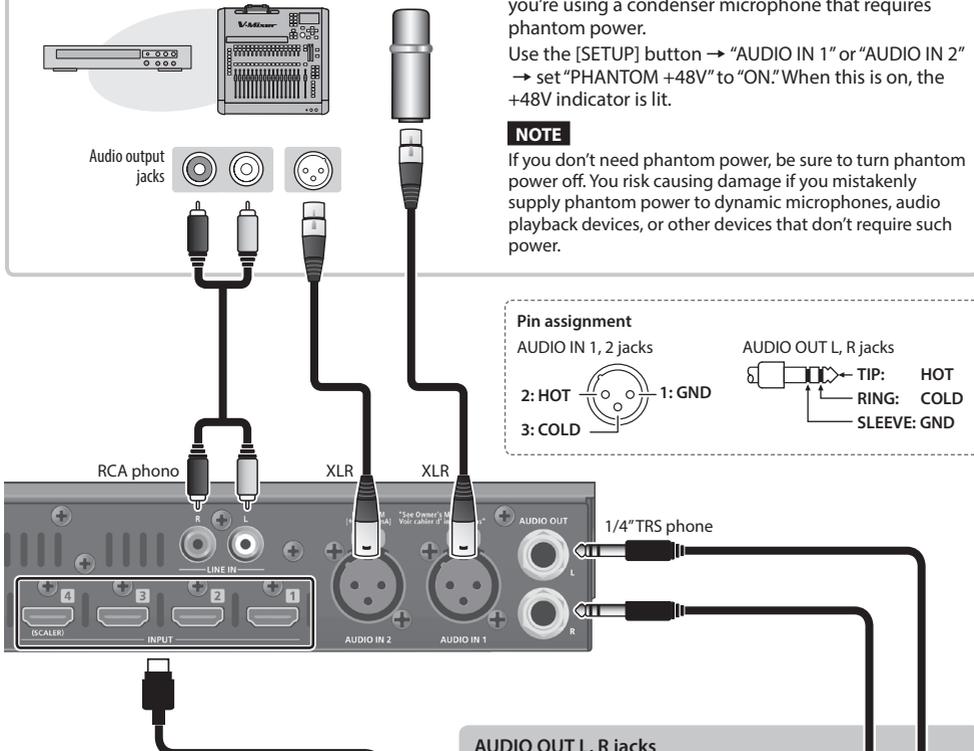
If you don't need phantom power, be sure to turn phantom power off. You risk causing damage if you mistakenly supply phantom power to dynamic microphones, audio playback devices, or other devices that don't require such power.

Pin assignment

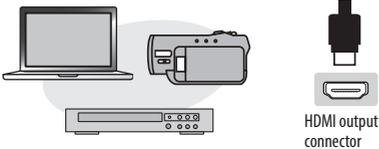
AUDIO IN 1, 2 jacks



AUDIO OUT L, R jacks

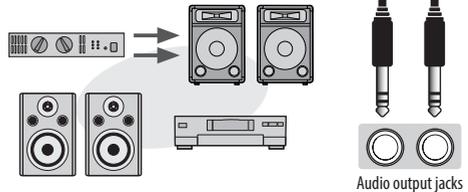


INPUT 1-4 connectors



These input video. Connect a video camera, video device such as a BD player, or a computer.

AUDIO OUT L, R jacks



These output the results of audio mixing. Connect an audio recording deck, amplifier, speakers, or other such equipment.

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Side Panel (Connecting Your Equipment)

MIC/AUX IN jack

This inputs audio. Connect a mic, audio mixer, CD players, or other such audio equipment.

* Plug-in Power type mics are supported.

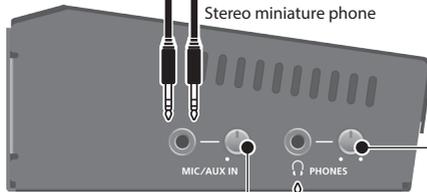
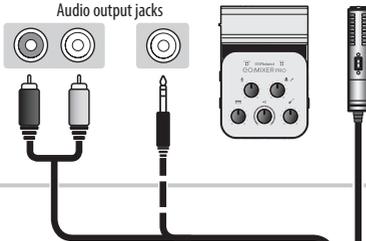
Plug-in Power settings

If you're using a Plug-in Power type mic, turn plug-in power on.

Use the [SETUP] button → "MIC/AUX IN" → set "PLUG-IN POWER" to "ON."

NOTE

When connecting a dynamic mic or a mic that does not support Plug-in Power, be sure to turn Plug-in Power off. If Plug-in Power is on when such a mic is connected, malfunctions will occur.



[PHONES] knob

Adjusts the volume of the headphones.

[MIC/AUX] knob

Adjusts the volume of the MIC/AUX IN.

PHONES () jack

Connect headphones.



Basic Operations

Turning the Power On/Off

Once everything is properly connected, be sure to follow the procedure below to turn on their power. If you turn on equipment in the wrong order, you risk causing malfunction or equipment failure.

* Before turning the unit on/off, always be sure to turn the volume down. Even with the volume turned down, you might hear some sound when switching the unit on/off. However, this is normal and does not indicate a malfunction.

Turning the power on

1. Make sure that all devices are powered-off.
2. Turn on this unit's [POWER] switch.



3. Turn on the power in the order of source devices → output devices.

Turning the power off

1. Turn off the power in the order of output devices → source devices.
2. Turn off this unit's [POWER] switch.

About the Auto Off function

The power to the unit turns off automatically when all of the following states persist for 240 minutes (Auto Off function).

- No operation performed on the unit
- No audio or video input
- No equipment is connected to the OUTPUT 1 and 2 connectors

If you do not want the power to be turned off automatically, disengage the Auto Off function. Use the [MENU] button → "SYSTEM" → set "AUTO OFF" to "OFF."

- * Unsaved data is lost when the power turns off. Before turning the power off, save the data that you want to keep.
- * To restore power, turn the power on again.

Operating the Menu

Here's how to access the menu, and make video/audio settings and settings for this unit.

The menu is shown on the monitor that's connected to the OUTPUT 2 connector.

1. Press the [MENU] button to display the menu.



The menu is organized into functions.

2. Turn the [VALUE] knob to select a menu item, then press the [VALUE] knob to confirm.



3. Repeat step 2 as needed.

Pressing the [MENU] button moves you back one level higher.

4. Turn the [VALUE] knob to change the setting value, and then press the [VALUE] knob to confirm.

MEMO

- By turning the [VALUE] knob while pressing it, you can change the value more greatly.
- Long-pressing the [VALUE] knob returns the current menu item you're setting to its default value.

5. Press the [MENU] button several times to close the menu.

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Switching the Video

You can switch between the videos of the A/PGM bus and B/PST bus to specify the final output.

Setting the Operation Mode

There are two operation modes for switching the video: the “PGM/PST mode” and the “A/B mode.”

Video on the A/PGM bus



Video on the B/PST bus

A/B mode (factory settings)

When you operate the video fader, the video of the bus toward which you slide the video fader becomes the final output.

The video of the other bus becomes the preset video (the video that is output next).

When the [CUT] or [AUTO] button is operated, the video on the A/PGM bus and the video on the B/PST bus become the final output in alternation.

PGM/PST mode (p. 9)

The video on the A/PGM bus is always the final output. The video on the B/PST bus is preset video (the video to be output next).

Operating the video fader or the [CUT] or [AUTO] button makes the final video output and the preset video change places.

1. Press the [MENU] button → “SYSTEM” → select “PANEL OPERATION,” and press the [VALUE] knob.

SYSTEM	(1 / 4)
HDCP	OFF
FRAME RATE	59.94Hz
SYSTEM FORMAT	1080p
CUT SW ASSIGN	▲CUT▼
AUTO SW ASSIGN	▲AUTO TAKE▼
PANEL OPERATION	A/B
PANEL LOCK	ENTER
CONTROL KNOB PRIORITY	PINP

2. Turn the [VALUE] knob to select “A/B” or “PGM/PST,” then press the [VALUE] knob.
3. Press the [MENU] button several times to close the menu.

Switching in the A/B Mode

1. Slide the video fader all the way to the top or bottom.



The video of the bus toward which you slide the video fader becomes the final output.

2. To select the preset video (the video that is output next), press a cross-point [1]–[4] button that is on the opposite side as the direction in which you slid the video fader.



Lit red: Final output video
Lit Green: Preset video (the video to be output next)

3. Press the [TRANSITION] button to select the transition effect (MIX, WIPE).



4. Slide the video fader in the direction opposite to the direction in step 1.

The transition indicator for the video that is the final output is lit.



The video is switched according to the movement of the video fader.

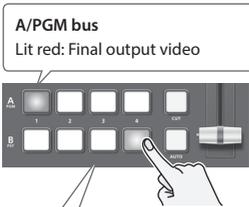
Switching in the PGM/PST Mode

1. Slide the video fader all the way to the top or bottom.



The video on the A/PGM bus is the final output.

2. Press a B/PST cross-point [1]–[4] button to select the preset video (the video to be output next).



B/PST bus
Lit Green: Preset video (the video to be output next)

3. Press the [TRANSITION] button to select the transition effect (MIX, WIPE).



4. Slide the video fader in the direction opposite to the direction in step 1.

The transition indicator on the A/PGM bus side is lit.



The video is switched according to the movement of the video fader.

Using the [AUTO] or [CUT] button to switch video

You can use the [AUTO] or [CUT] button to switch video, without using the video fader.

- * You can perform operations using the [AUTO] and [CUT] buttons both in the PGM/PST mode and in the A/B mode.

1. Press the [AUTO] or [CUT] button at the desired timing for switching the video.



[AUTO] button

A transition effect is applied and the video is switched automatically. The [AUTO] button flashes while the video transition is in progress.

- * To specify the video transition time, use the [MENU] button → "TRANSITION TIME" → "MIX/ WIPE TIME."

[CUT] button

The video switches instantly.

MEMO

When you use the [AUTO] or [CUT] button to switch video, the actual output might come to differ from the position of the video fader.

If you operate the video fader in this state, the output does not change until the position of the video fader matches the actual output.

Adjusting the Audio

Adjusting the Input Gain (Sensitivity)

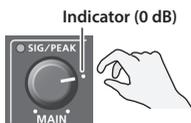
Here's how to adjust the input gain so that the audio is at the appropriate level.

Here we explain using the AUDIO IN 1 audio as an example.

1. Move the [AUDIO IN 1] knob to a position near the indicator (0 dB).



2. Move the [MAIN] knob to a position near the indicator (0 dB).



3. Turn the [GAIN 1] knob fully counter-clockwise, minimizing (0 dB) the input gain.



4. While producing the sound that will actually be input, slowly turn the [GAIN 1] knob clockwise to adjust the input gain.

Raise the input gain as high as possible without allowing the SIG/PEAK indicator of AUDIO IN 1 to light red when the loudest sound level occurs.



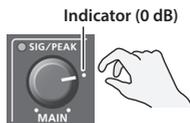
MEMO

To adjust the input gain of MIC/AUX IN, use the [SETUP] button → "MIC/AUX IN" → "ANALOG GAIN."

Adjusting the Volume Balance

Here's how to adjust the volume balance of each input and the overall volume.

1. Move the [MAIN] knob to a position near the indicator (0 dB).



2. While monitoring the audio via speakers or headphones, adjust the volume balance for the respective inputs.

Raise the volume level of audio you want to make more prominent, for example, an emcee microphone, and lower the volume level for other audio. When no audio is input, and for audio that is unused, lower the volume level to minimum (-INF dB).

AUDIO IN 1-2, LINE IN, MIC/AUX IN

- 1 Use the [AUDIO IN 1], [AUDIO IN 2], [LINE IN], and [MIC/AUX IN] faders to adjust the volume.



INPUT 1-4

- 1 Press the [SETUP] button → "INPUT 1" → "INPUT 4" → select "INPUT LEVEL," and press the [VALUE] knob.

INPUT 1	(1 / 4)
DIGITAL GAIN	0.0dB
INPUT LEVEL	0.0dB
INPUT MUTE	OFF
SOLO	OFF
MONO	OFF
REVERB SEND	0.0dB
DELAY	0.0msec (0.0frame)

- 2 Use the [VALUE] knob to adjust the volume, and press the [VALUE] knob.

- 3 Press the [MENU] button several times to close the menu.

3. Use the [MAIN] knob to adjust the volume of the output.

When this is adjusted appropriately, the SIG/PEAK indicator will light yellow.

USING THE UNIT SAFELY

WARNING

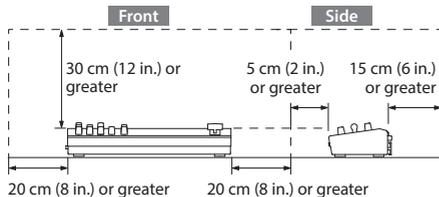
Concerning the Auto Off function

The power to this unit will be turned off automatically after a predetermined amount of time has passed since it was last used for playing music, or its buttons or controls were operated (Auto Off function). If you do not want the power to be turned off automatically, disengage the Auto Off function (p. 7).



Secure a sufficient amount of space at the setup location

Since this unit normally emits a slight amount of heat, make sure to secure sufficient space around it, as shown below.



Use only the supplied AC adaptor and the correct voltage

Be sure to use only the AC adaptor supplied with the unit. Also, make sure the line voltage at the installation matches the input voltage specified on the AC adaptor's body. Other AC adaptors may use a different polarity, or be designed for a different voltage, so their use could result in damage, malfunction, or electric shock.



Use only the supplied power cord

Use only the attached power cord. Also, the supplied power cord must not be used with any other device.



CAUTION

Handle the ground terminal carefully

If you remove the screw from the ground terminal, be sure to replace it; don't leave it lying around where it could accidentally be swallowed by small children. When refastening the screw, make that it is firmly fastened, so it won't come loose.



Take care not to get burned

The bottom panel may become hot, so take care to avoid burns.



Precautions concerning use of phantom power supply

Always turn the phantom power off when connecting any device other than condenser microphones that require phantom power. You risk causing damage if you mistakenly supply phantom power to dynamic microphones, audio playback devices, or other devices that don't require such power. Be sure to check the specifications of any microphone you intend to use by referring to the manual that came with it.



(This instrument's phantom power: 48 V DC, 14 mA Max)

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IMPORTANT NOTES

Power Supply

- Place the AC adaptor so the side with the indicator faces upwards. The indicator will light when you plug the AC adaptor into an AC outlet.

Placement

- Depending on the material and temperature of the surface on which you place the unit, its rubber feet may discolor or mar the surface.

Repairs and Data

- Before sending the unit away for repairs, be sure to make a backup of the data stored within it; or you may prefer to write down the needed information. Although we will do our utmost to preserve the data stored in your unit when we carry out repairs, in some cases, such as when the memory section is physically damaged, restoration of the stored content may be impossible. Roland assumes no liability concerning the restoration of any stored content that has been lost.

Additional Precautions

- Any data stored within the unit can be lost as the result of equipment failure, incorrect operation, etc. To protect yourself against the irretrievable loss of data, try to make a habit of creating regular backups of the data you've stored in the unit.
- Roland assumes no liability concerning the restoration of any stored content that has been lost.
- When disposing of the packing carton or cushioning material in which this unit was packed, you must observe the waste disposal regulations that apply to your locality.
- This unit allows you to switch images at high speed. For some people, viewing such images can cause headache, nausea, or other discomfort. Do not use this unit to create video that might cause these types of health problems. Roland Corporation will accept no responsibility for any such health problems that may occur in yourself or in viewers.
- Do not use connection cables that contain a built-in resistor.
- This document explains the specifications of the product at the time that the document was issued. For the latest information, refer to the Roland website.

Using External Memories

- Please observe the following precautions when handling external memory devices. Also, make sure to carefully observe all the precautions that were supplied with the external memory device.
 - Do not remove the device while reading/writing is in progress.
 - To prevent damage from static electricity, discharge all static electricity from your person before handling the device.

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- It is forbidden by law to make an audio recording, video recording, copy or revision of a third party's copyrighted work (musical work, video work, broadcast, live performance, or other work), whether in whole or in part, and distribute, sell, lease, perform or broadcast it without the permission of the copyright owner.
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