

VIDEO SWITCHER V-1-4K

Reference Manual



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* Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation.

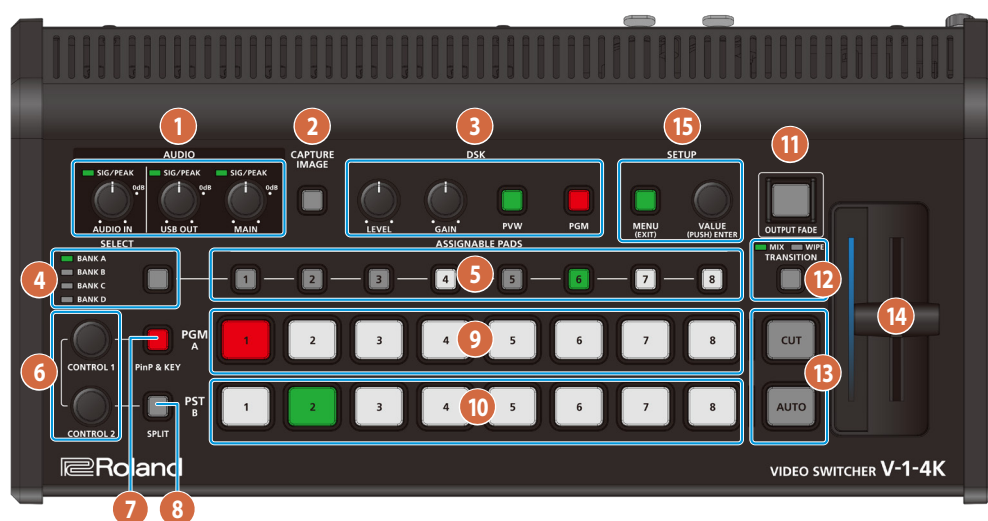
* Roland is either a registered trademark or a trademark of Roland Corporation in the United States and/or other countries.

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Panel descriptions

Top panel

* Do not block the intake and exhaust ports on the top panel. If the intake and exhaust ports are blocked, the internal temperatures may rise, causing malfunctions due to excessive heat.



1 AUDIO

SIG/PEAK indicator (AUDIO IN)

Shows the audio input level for the AUDIO IN connectors.

[AUDIO IN] knob

Adjusts the audio input level of the AUDIO IN connectors.

SIG/PEAK indicator (USB OUT)

Shows the audio output level for the USB STREAM port.

When the output level exceeds -50 dB, this lights up green. This lights up red when the output is excessive (0 dB or higher).

[USB OUT] knob

Adjusts the level of audio output from the USB STREAM port.

SIG/PEAK indicator (MAIN)

Shows the MAIN bus signal level.

When the output level exceeds -50 dB, this lights up green. This lights up red when the output is excessive (0 dB or higher).

[MAIN] knob

Adjusts the overall audio output level.

MEMO

You can change the audio bus that's adjusted by each of the AUDIO knobs, as well as the audio bus shown by the indicators (p. 28).

2 [CAPTURE IMAGE] button

Turns the still image capture mode on/off.

3 DSK

This uses DSK layer to composite video using a downstream keyer.

[LEVEL] knob

Adjusts the degree of extraction (transparency) for the key.

[GAIN] knob

Adjusts the degree of edge blur (semi-transmissive region) for the key.

[PVW] button

Turns the preview output of the DSK compositing result on/off.

[PGM] button

This switches DSK composition on/off.

4 [SELECT] button

Switches the bank for the 5 ASSIGNABLE PADS [1]-[8].

The bank switches from A through D each time you press the button.

5 ASSIGNABLE PADS [1]-[8]

Press these pads to execute their assigned functions.

You can assign functions to the assignable pads (8 pads x 4 banks from A to D).

Use the menu to set the functions that are assigned to the pads (p. 36).

6 [CONTROL 1] [CONTROL 2] knobs

These adjust the video compositing settings.

[PinP & KEY] button is lit

Knob	Explanation
[CONTROL 1]	Adjusts the horizontal position of the inset screen. Turn while pressing: Adjusts the size of the inset screen.
[CONTROL 2]	Adjusts the vertical position of the inset screen. Turn while pressing: Adjusts the zoom of the video shown in the inset screen.

[SPLIT] button is lit

Knob	Explanation
[CONTROL 1]	Adjusts the horizontal/vertical position of the video that's shown in the left or upper area. Turn while pressing: Adjusts the position of the boundary.
[CONTROL 2]	Adjusts the horizontal/vertical position of the video that's shown in the right or lower area. Turn while pressing: Adjusts the position of the boundary.

7 [PinP & KEY] button

Turns picture-in-picture (PinP) composition on/off.

8 [SPLIT] button

Turns on/off video compositing using split.

9 PGM/A cross-point [1]–[8] buttons

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

10 PST/B cross-point [1]–[8] buttons

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

11 [OUTPUT FADE] button

Fades the final output video and audio in/out.

Lit	Fade-out completed
Blinking	Now fading-in/out
Unlit	Normal output

12 [TRANSITION] button

Selects the video transition effects (MIX, WIPE).

The MIX or WIPE indicator lights to show that it is selected.

13 [CUT] [AUTO] buttons

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

Button	Explanation
[CUT]	The picture switches instantly.
[AUTO]	A transition effect is applied and the video is switched automatically.

14 Video fader

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

Transition indicator

The indicators light up to show the video fader position.

When the video fader is pushed all the way down, only the topmost or bottommost transition indicator lights.

15 SETUP**[MENU] button**

Switches the menu between visible and hidden.

This functions as the [EXIT] button when submenus are shown, which lets you exit the menu hierarchy or cancel an operation.

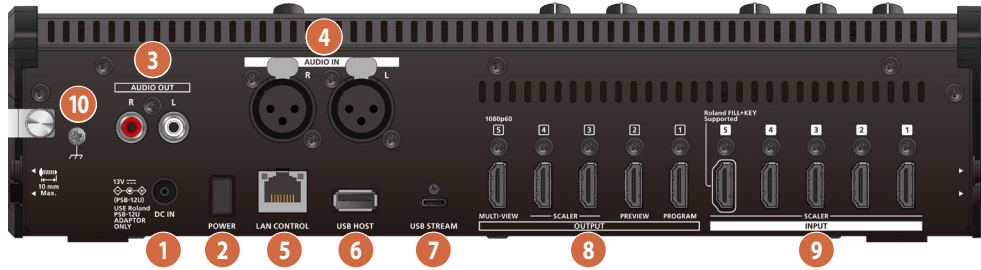
[VALUE] knob

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.

Rear panel

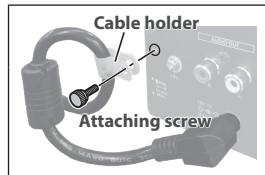
- * To prevent malfunction and equipment failure, always turn down the volume, and turn off all the units before making any connections.
- * Do not block the intake and exhaust ports on the rear panel. If the intake and exhaust ports are blocked, the internal temperatures may rise, causing malfunctions due to excessive heat.



1 DC IN jack

Connect the included AC adaptor to this jack.
You can use the cable holder to hold the AC adaptor cord in place.

- 1 Loosen the attaching screw and remove the cable holder.
- 2 Clamp the cable holder onto the AC adaptor cord, and use the attachment screw to hold it in place.



2 [POWER] button

Turns the power on/off.

3 AUDIO OUT L, R jacks

These jacks output audio.
Connect them to an audio recorder, amplifier, speakers, or other such equipment.

MEMO

For each jack, you can change the audio bus (MAIN bus, AUX 1 bus, AUX 2 bus) that is assigned for output from that jack.

4 AUDIO IN L, R connectors (XLR)

These jacks input audio.
Connect audio equipment such as an audio mixer here.

- * Pin assignment of AUDIO IN L, R connectors



5 LAN CONTROL port

- Use terminal software or other such applications to remotely control the V-1-4K from a computer that is connected here.
- Use the dedicated software to remotely control the V-1-4K from a computer or iPad that is connected here.
- This port lets you use the V-1-4K to remotely control the connected cameras.
- Displays a tally on your iOS or Android device (this is the "smart tally" function).

6 USB HOST port

You can connect this port to USB flash drive for backing up the settings of this unit, or for loading still images from USB flash drive.

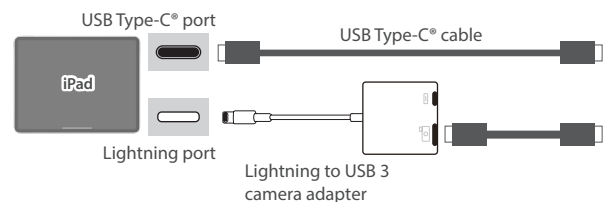
NOTE

Never turn off the power or remove the USB flash drive while the USB flash drive is being accessed.

7 USB STREAM port (USB Type-C®)

- Outputs the audio and video to your computer. This is also used to input audio played on your computer to the V-1-4K.
- Use the dedicated software to remotely control the V-1-4K from a computer or iPad that is connected here.

Connecting an iPad



NOTE

- When outputting an HD or 4K video signal via USB, use a commercially available cable that supports USB 3.0, and connect the cable to the USB 3.0 port on your computer.
- If you connect via an extension cable or a USB hub, the computer might not recognize this unit.
- Do not use a USB cable that is designed only for charging a device. Charge-only cables cannot transmit data.

8 OUTPUT 1–5 connectors

These connectors output video. Choose the connectors that are appropriate for the connected devices.

Connector	Explanation
1	PROGRAM Final output video
2	PREVIEW Preview output video
3	SCALER Outputs one of the following videos. • PROGRAM (final output video) • PREVIEW (preview output video) • Input video assigned to the cross-point buttons [1]–[8]
4	
5	MULTI-VIEW Outputs the input/output videos (final output, preview output, input channels 1–5) and the menu as a multi-view video. * The output format is always 1080p60.

MEMO

- The OUTPUT 1–5 connectors support 2-channel embedded audio. You can add input audio (sound) to an HDMI video that is output.
- On the menu screen, the OUTPUT 1–5 connectors are labeled as “HDMI OUT 1–5”.

9 OUTPUT 1–5 connectors (SCALER)

These connectors input video. Choose the connectors that are appropriate for the connected devices.

You can specify individual input formats, regardless of the system format.

MEMO

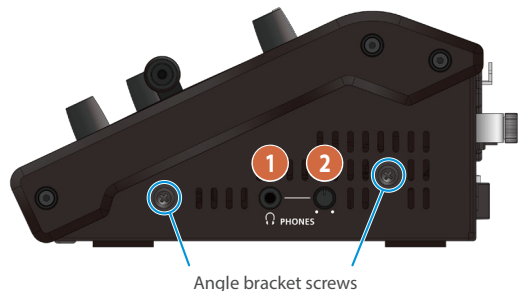
- The INPUT 1–5 connectors support 2-channel embedded audio. You can add input audio (sound) to an HDMI video that is output.
- The INPUT 5 connector supports connections with the “Roland Graphics Presenter” app. For details, refer to p. 27.
- On the menu screen, the INPUT 1–5 connectors are labeled as “HDMI IN 1–5”.

10 Ground terminal

Connect this to an external earth or ground if necessary.

Side panel

- * Do not block the intake and exhaust ports on the side panels. If the intake and exhaust ports are blocked, the internal temperatures may rise, causing malfunctions due to excessive heat.



1 PHONES jack

Connect your headphones here.

2 [PHONES] knob

Adjusts the headphone volume.

Screws for mounting an angle bracket

You can use the angle bracket screws to mount angle brackets onto the side panels.

NOTE

- You can make the angle brackets yourself, according to your needs. When designing the angle brackets, refer to the numbers shown in “Dimensions” (p. 67), found in the Reference Manual (Roland website).
- You can also use commercially available screws (M4 x 10 mm) to attach the angle brackets.
* Do not use screws that are longer than 10 mm. Doing so may damage the components inside the unit or cause a malfunction.
- When mounting the unit, take care not to pinch your fingers etc.

Multi-view display

The multi-view is shown on the display that's connected to the OUTPUT 5 (MULTI-VIEW) connector.
The final output video, preview output video and the videos allocated to the cross-point [1]–[8] buttons are shown in sections of the display (multi-view).



- 1 PVW (preview) section**
Displays the preview output video (the video to be output next).
* The fade-in/out effect (p. 21) is not reflected here.
- 2 PGM (program) section**
This displays the final output video.
- 3 Videos for cross-point [1]–[8] buttons**
This shows the video assigned to each cross-point button.
The final video output and preview output video are displayed with tally frames (red and green).

MEMO

- You can change the left-right videos that are shown in the upper part of the multi-view.
Set this by pressing the [MENU] button → “SYSTEM” → “MULTI-VIEW LAYOUT” and select “LEFT” or “RIGHT”.
- Items shown on the monitor**
You can individually set whether items like the tally frame, label and so on are shown or hidden.
Configure the settings of the following menu items from the [MENU] button → “SYSTEM”.

Menu item	Explanation
TALLY FRAME	Tally frame
PREVIEW LABEL	Label
- You can change the label names and label sizes that are shown in the monitor.
Edit this from the [MENU] button → “SYSTEM” → “PREVIEW LABEL” → “LABEL EDIT”.

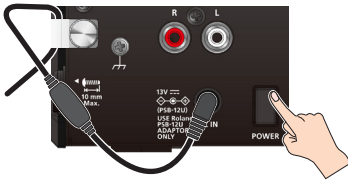
Basic operations

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.
- * This unit is not designed for continuous operation over long periods of time (one month or longer). If you want to use this unit over long periods of time, cycle the power periodically.

Turning the power on

1. Make sure that all devices are powered off.
2. Turn on the [POWER] button of the V-1-4K.



3. Turn on the power of the source devices.
Turn on the power of the source devices that are connected to the V-1-4K's input connectors, such as video cameras.
4. Turn on the power of the output devices.
Turn on the power of the devices that are connected to the V-1-4K's output connectors, such as projectors.

Turning the power off

1. Turn off the power of the output devices first, and then the source devices.
2. Turn off the [POWER] button of the V-1-4K.

NOTE

Never turn off the power while "PLEASE WAIT" or a similar message is shown in the menu display area of the multi-view. Doing so might cause your edited contents to fail to save.

Operating the menu

Here's how to access the menu to configure the video/audio settings and the settings for the V-1-4K.

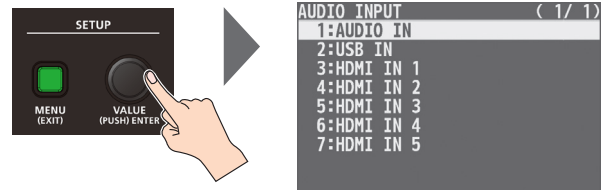
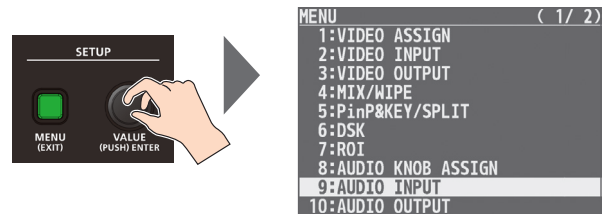
The menu is shown on the display that's connected to the OUTPUT 5 (MULTI-VIEW) connector.

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



The [MENU] button lights up, the menu categories are displayed.

2. Turn the [VALUE] knob to select a category, and press the [VALUE] knob to confirm.



The menu for the selected category is displayed.

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

The cursor moves to the setting value.

- If the menu item is located at a deeper level, repeat step 3.
- Pressing the [MENU] (EXIT) button moves you back one level higher.

4. Turn the [VALUE] knob to change the value of the setting.

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

5. Press the [VALUE] knob to apply the setting.

The cursor returns to the menu item.

6. Press the [MENU] button several times to quit the menu.

Using a USB flash drive

Using a USB flash drive lets you do the following.

- Import still images
- Import/export setting files

Formatting a USB flash drive

When using a USB flash drive with the V-1-4K, you must format it first.

NOTE

- USB flash drives that are formatted on a different device might not work normally on the V-1-4K. Be sure to format the USB flash drive on the V-1-4K.
- Formatting the USB flash drive erases all data saved on the USB flash drive (such as recorded video, audio and still image data). If the USB flash drive contains important data, back the data up to your computer before you format it.
- Never turn off the power or remove the USB flash drive while the message "PLEASE WAIT" is shown.

1. Connect the USB flash drive to the USB HOST port.



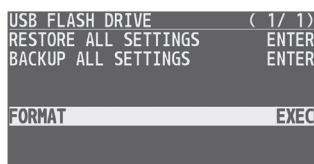
Rear panel



- * Be careful to orient the USB flash drive correctly front and back and in the correct direction for insertion, and insert it firmly, as far as it will go. Never insert using undue force.

2. Press the [MENU] button → "USB FLASH DRIVE" → select "FORMAT", and press the [VALUE] knob.

A confirmation message appears.



- * If you decide to cancel, press the [MENU] (EXIT) button.

3. Select "YES" and press the [VALUE] knob.

The USB flash drive is now formatted.

Video input/output settings

Setting the video input/output format

Here's how to specify the input/output format as appropriate for the device that's connected.

Setting the system format

On the V-1-4K, the input/output format is determined according to the system format. You set the input/output format to match the connected equipment.

You can specify separate input formats for the INPUT 1–5 connectors, regardless of the system format.

For details, refer to "Setting the input format for the INPUT 1–5 connectors" on this page.

System format	Input format	Output format	
	INPUT 1–5 connectors	OUTPUT 1, 2 connectors	OUTPUT 3, 4 connectors USB STREAM port
2160p	1080p, 1080i, 2160p	2160p	1080p, 2160p
1080p		1080p	1080p

* The output format of the OUTPUT 5 (MULTI-VIEW) connector is fixed at 1080p60.

* Set the format for the USB STREAM port with the computer that's used for inputting video.

1. Press the [MENU] button → "SYSTEM" → "SYSTEM FORMAT" → select "SYSTEM FORMAT", and press the [VALUE] knob.

OUTPUT FORMAT	(1 / 1)
SYSTEM FORMAT	2160p
FRAME RATE	59.94Hz
COLOR GAMUT	REC.709
DYNAMIC RANGE	SDR

2. Use the [VALUE] knob to select "2160p", or "1080p", and press the [VALUE] knob.

* A change in the setting is not applied until you press the [VALUE] knob to confirm.

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

Internal processing

The V-1-4K's internal processing is progressive. Interlaced input video is automatically converted to a progressive signal.

The video might appear jagged at this time, or the video in a PinP inset screen or on the multi-view might waver.

This is due to progressive conversion, and is not a malfunction.

About frame rates

Set the frame rate of the V-1-4K from the [MENU] button → "SYSTEM" → "SYSTEM FORMAT" → "FRAME RATE".

About color gamut and dynamic range

Set the color gamut and dynamic range of the V-1-4K from the [MENU] button → "SYSTEM" → "SYSTEM FORMAT" → "COLOR GAMUT", "DYNAMIC RANGE".

Setting the input format for the INPUT 1–5 connectors

Using the factory settings, the EDID assignment for the INPUT 1–5 connectors is "INTERNAL" (so that EDID values of all formats that can be input are sent).

To specify an input format of your choice, change the setting of the EDID information being sent so that it matches the incoming video signal.

What is EDID?

EDID is data that is transmitted from the V-1-4K to the source device when the V-1-4K is connected to a source device. EDID contains data such as the formats that can be input to the V-1-4K (resolution, color space, color depth) and audio information.

Based on the EDID information that the source device receives, it will output the most appropriate video format to the V-1-4K.

1. Press the [MENU] button → "VIDEO INPUT" → "HDMI IN 1" → "HDMI IN 5" → select "EDID", and press the [VALUE] knob.

HDMI IN 1	(1 / 1)
INPUT STATUS	ENTER
DYNAMIC RANGE	AUTO
EDID	INTERNAL
ZOOM	100.0%
SCALING TYPE	FULL
-MANUAL SIZE H	---
-MANUAL SIZE V	---
POSITION H	0
POSITION V	0

2. Use the [VALUE] knob to set the input format (the EDID information to send), and press the [VALUE] knob.

* A change in the setting is not applied until you press the [VALUE] knob to confirm.

Value	
INTERNAL (EDID information for all input table formats is sent.)	
1080i50	2160p(UHD)23.98/24
1080i59.94/60	2160p(UHD)25
1080p23.98/24	2160p(UHD)29.97/30
1080p25	2160p(UHD)50
1080p29.97/30	2160p(UHD)59.94/60
1080p50	2160p(UHD)50(YUV420)
1080p59.94/60	

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

Assigning video sources

Here's how to assign the video sources (input video, still images, etc.) to the cross-point [1]–[8] buttons.

1. Press the [MENU] button → “VIDEO ASSIGN” → select “INPUT 1”–“INPUT 8”, and press the [VALUE] knob.

```
VIDEO ASSIGN      ( 1 / 1 )
INPUT 1           HDMI IN 1
INPUT 2           HDMI IN 2
INPUT 3           HDMI IN 3
INPUT 4           HDMI IN 4
INPUT 5           HDMI IN 5
INPUT 6           STILL 1
INPUT 7           STILL 2
INPUT 8           BLACK
HDMI OUT 3        INPUT 6
-FADE TIME        1.0sec
HDMI OUT 4/USB OUT INPUT 4
-FADE TIME        1.0sec
```

Video Source	Explanation
HDMI 1–5	Video for INPUT 1–5 connectors
STILL 1, 2	Still images 1, 2
BLACK	Black screen
N/A	No video source

2. Use the [VALUE] knob to select the video source, and press the [VALUE] knob.
3. Press the [MENU] button several times to quit the menu.

MEMO

You can import still images by using the following methods.

- ➡ “Loading a still image from USB flash drive” (p. 19)
- ➡ “Capturing a still image from input video” (p. 20)

Outputting downsampled video from the OUTPUT 3–4 connectors

You can downsample (“down convert”) the output video to 1080p to match the devices to which the OUTPUT 3 and 4 connectors are connected.

1. Press the [MENU] button → “VIDEO OUTPUT” → select “HDMI OUT 3” or “HDMI OUT 4”, and press the [VALUE] knob.

```
HDMI OUT 3      ( 1 / 1 )
OUTPUT STATUS   2160/59.94p
COLOR GAMUT     SYSTEM
DYNAMIC RANGE   SYSTEM
1080p DOWN CONVERT OFF
```

2. Use the [VALUE] knob to select “1080p DOWN CONVERT”, and press the [VALUE] knob.

```
HDMI OUT 3      ( 1 / 1 )
OUTPUT STATUS   1080/59.94p
COLOR GAMUT     SYSTEM
DYNAMIC RANGE   SYSTEM
1080p DOWN CONVERT ON
```

3. Use the [VALUE] knob to select either DOWN CONVERT ON or OFF, and press the [VALUE] knob.
4. Press the [MENU] button several times to quit the menu.

MEMO

You can output a test pattern, useful for adjusting the image quality of a display.

Use the [MENU] button → “SYSTEM” → “TEST PATTERN” to specify the test pattern.

Adjusting input video

Here's how to adjust the size and the position of the input video.

1. Press the [MENU] button → "VIDEO INPUT" → select "HDMI IN 1" or "HDMI IN 5", and press the [VALUE] knob.

HDMI IN 4	(1 / 1)
INPUT STATUS	ENTER
DYNAMIC RANGE	AUTO
EDID	INTERNAL
ZOOM	100.0%
SCALING TYPE	FULL
-MANUAL SIZE H	---
-MANUAL SIZE V	---
POSITION H	0
POSITION V	0

2. Use the [VALUE] knob to select a menu item shown below, and press the [VALUE] knob.

HDMI IN 4	(1 / 1)
INPUT STATUS	ENTER
DYNAMIC RANGE	AUTO
EDID	INTERNAL
ZOOM	100.0%
SCALING TYPE	FULL
-MANUAL SIZE H	---
-MANUAL SIZE V	---
POSITION H	0
POSITION V	0

Menu item	Explanation
INPUT STATUS	When you press the [VALUE] knob, "ENTER" and the INPUT STATUS menu are shown.
DYNAMIC RANGE	Specifies the dynamic range.
EDID	Specifies the input format (EDID) (p. 11).
ZOOM	Adjusts the zoom ratio.
SCALING TYPE	This sets the scaling type.
- MANUAL SIZE H	Adjusts the horizontal size when scaling type is set to "MANUAL".
- MANUAL SIZE V	Adjusts the vertical size when scaling type is set to "MANUAL".
POSITION H	Adjusts the position in the horizontal direction.
POSITION V	Adjusts the position in the vertical direction.

3. Use the [VALUE] knob to edit the value of the setting, and press the [VALUE] knob.
4. Press the [MENU] button several times to quit the menu.

Assigning video buses to OUTPUT 3, 4 connectors

You can assign the video bus of your choice to the OUTPUT 3–4 connectors.

* The same video bus that is assigned to the OUTPUT 4 connector is assigned to the USB STREAM port.

Video bus	Explanation
PROGRAM	Final output video
PREVIEW	Preview output video (the video to be output next) * The fade-in/out effect (p. 21) is not reflected here.
INPUT 1–8	Video assigned to the cross-point buttons [1]–[8]

1. Press the [MENU] button → "VIDEO ASSIGN" → select "HDMI OUT 3" or "HDMI OUT 4/USB OUT", and press the [VALUE] knob.

VIDEO ASSIGN	(1 / 1)
INPUT 1	HDMI IN 1
INPUT 2	HDMI IN 2
INPUT 3	HDMI IN 3
INPUT 4	HDMI IN 4
INPUT 5	HDMI IN 5
INPUT 6	STILL 1
INPUT 7	STILL 2
INPUT 8	BLACK
HDMI OUT 3	PROGRAM
-FADE TIME	1.0sec
HDMI OUT 4/USB OUT	INPUT 4
-FADE TIME	1.0sec

2. Use the [VALUE] knob to select the video bus to assign.
3. Press the [MENU] button several times to quit the menu.

MEMO

Assigning the video buses and audio outputs

You can also assign the desired audio buses (MAIN BUS, AUX 1 BUS, AUX 2 BUS, MONITOR BUS) for each connector, apart from the video bus (p. 33).

Inputting copyright-protected (HDCP) video

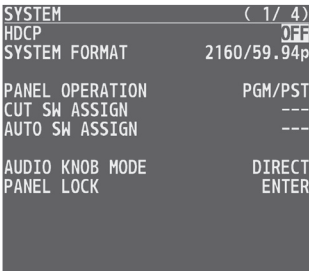
If you want to input HDCP-protected video from a BD player or other device, you can enable HDCP input.

* If you want to output copy-protected (HDCP) video or audio, connect a device that supports HDCP.

What's HDCP?

HDCP is copyright-protection technology that prevents unlawful copying of content by encoding the path when sending digital signals from a video playback device to a display monitor or other display equipment.

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



2. Use the [VALUE] knob to select “ON”, and press the [VALUE] knob.

Value	Explanation
ON	Copyright-protected (HDCP) video can be input. HDCP is also added to the video that is output. * Video/audio from the USB STREAM port are not outputted.
OFF	Copyright-protected (HDCP) video cannot be input.

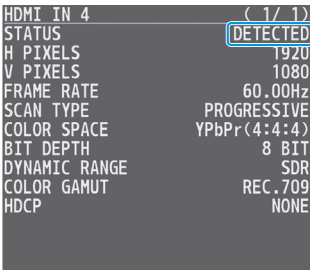
3. Press the [MENU] button several times to quit the menu.

Checking for HDCP-capable devices

Source devices

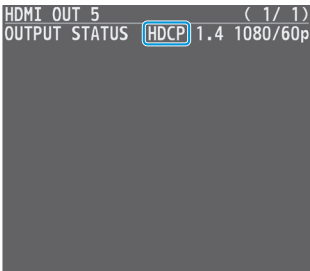
You can check the HDCP support status of the source device by pressing the [MENU] button → “VIDEO INPUT” → “HDMI IN 1”–“HDMI IN 5” → “INPUT STATUS”.

When inputting copy-protected (HDCP) video, “DETECT” is displayed.



Output devices

If a device that supports HDCP is connected, “HDCP” is displayed when you press the [MENU] button and select “VIDEO OUTPUT” → “HDMI OUT 1”–“HDMI OUT 5” → “OUTPUT STATUS”.



Video operations

Switching the video

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

Setting the operation mode

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

PGM/A bus video



PST/B bus video

PGM/PST mode (factory settings)

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

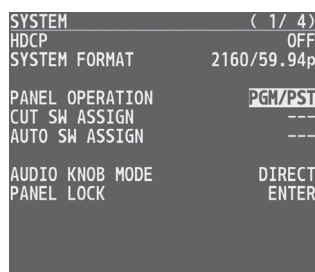
Operating the video fader or the [CUT] or [AUTO] button makes the final video output and the preview output video change places.

A/B Mode

When the video fader is operated, the video at the bus position toward which the video fader is flipped becomes the final output. The video of the other bus becomes the preview output video (the video that is output next).

When you operate the [CUT] or [AUTO] button, the video on the PGM/A bus and the video on the PST/B bus alternately become the final output.

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

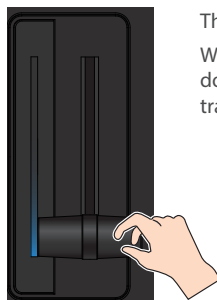


2. Use the [VALUE] knob to select the operating mode, then press the [VALUE] knob.
3. Press the [MENU] button several times to quit the menu.

Switching using the PGM/PST mode

Here are the steps when selecting “PGM/PST mode” in the operation mode settings.

1. Flip the video fader all the way upward or downward.

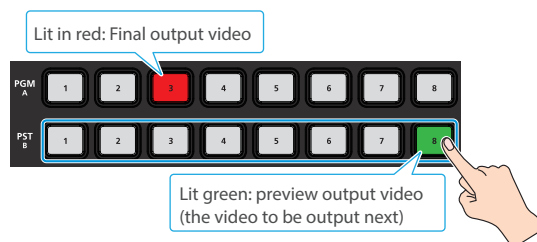


The video on the PGM/A bus is the final output.

When the video fader is pushed all the way down, only the topmost or bottommost transition indicator lights.

2. Press one of the PST/B cross-point buttons [1]–[8] and select the preview output video (the video to be output next).

You can check the preview output video in the PVW section of the multi-view



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



MIX

The two pictures are blended together as the video is switched.



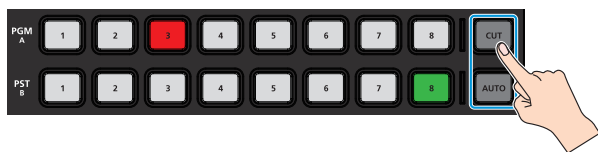
WIPE

The original video is broken into by the next video.



Switching with the buttons

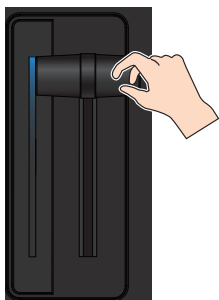
4. Press the [CUT] or [AUTO] button.



Button	Explanation
[CUT] (Lit red)	The video switches instantly.
[AUTO] (blink red)	A switch (transition) effect is applied, and the video switches automatically. Setting the video transition time [MENU] button → "MIX/WIPE" → "MIX" → "MIX TIME" [MENU] button → "MIX/WIPE" → "WIPE" → "WIPE TIME"

Switching with the fader

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



The video switches according to the movement of the video fader.

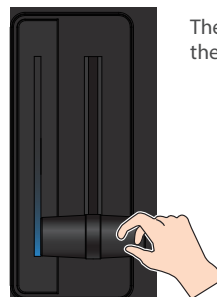
MEMO

- You can change the transition pattern by which the mix/wipe occurs.
→ "Changing the mix/wipe pattern" (p. 17)
- When you use the [AUTO] or [CUT] buttons to switch video, the actual output might differ from the position of the video fader. Operating the video fader while in this state does not change the output until the position of the video fader matches the actual output.

Switching in the A/B mode

Here are the steps when selecting "A/B mode" (p. 15) in the operation mode settings.

1. Flip the video fader all the way upward or downward.



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

2. Press one of the cross-point [1]–[8] buttons at the end where the video fader is not pulled down to select the preview output video (the video to output next).



Lit in red: Final output video

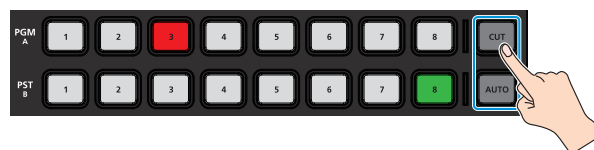
Lit Green: preview output video (the video to output next)

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



Switching with the buttons

4. Press the [CUT] or [AUTO] button.



Button	Explanation
[CUT] (Lit red)	The video switches instantly.
[AUTO] (blink red)	A switch (transition) effect is applied, and the video switches automatically. Setting the video transition time [MENU] button → "MIX/WIPE" → "MIX" → "MIX TIME" [MENU] button → "MIX/WIPE" → "WIPE" → "WIPE TIME"

Switching with the fader

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

The video switches according to the movement of the video fader.

MEMO

- You can change the transition pattern by which the mix/wipe occurs.
 - ➡ “Changing the mix/wipe pattern” (p. 17)
- You can change what happens when you press the [CUT] and [AUTO] buttons.
 - ➡ “Changing the functions of the [CUT] and [AUTO] buttons” (p. 17)
- When you use the [CUT] or [AUTO] buttons to switch video, the actual output might differ from the position of the video fader. Operating the video fader while in this state does not change the output until the position of the video fader matches the actual output.

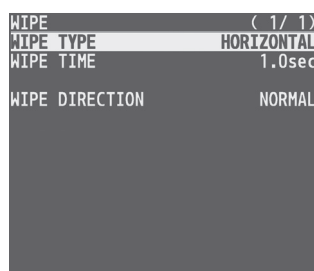
Changing the mix/wipe pattern

You can change the mix/wipe transition pattern, wipe direction and other properties.

1. Press the [MENU] button → select “MIX/WIPE”, and press the [VALUE] knob.



2. Use the [VALUE] knob to select “MIX” or “WIPE”, and press the [VALUE] knob.



Menu item	Explanation
MIX	Specifies the video transition time for mix.
WIPE	Specifies the transition pattern for wipe and the video transition time.

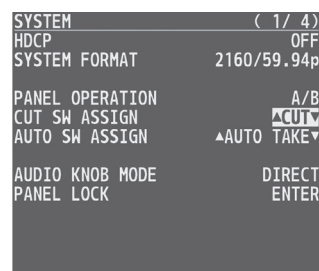
3. Use the [VALUE] knob to select a menu item, and press the [VALUE] knob.
4. Use the [VALUE] knob to edit the value of the setting, and press the [VALUE] knob.
5. Press the [MENU] button several times to quit the menu.

Changing the functions of the [CUT] and [AUTO] buttons

When the operation mode is set to A/B mode (p. 15), you can change what happens when you press the [CUT] and [AUTO] buttons.

* In PGM/PST mode, the functions of the [CUT] and [AUTO] buttons are fixed.

1. Press the [MENU] button → “SYSTEM” → select “CUT SW ASSIGN” or “AUTO SW ASSIGN”, and press the [VALUE] knob.



2. Use the [VALUE] knob to select the button function, and press the [VALUE] knob.

Value	Explanation
CUT SW ASSIGN	
▲Auto Take	When the video of the PST/B bus is selected, this switches to the video of the PGM/A bus.
▲Auto Take▼	Switches between the PGM/A bus and PST/B bus videos.
▲Cut	When the video of the PST/B bus is selected, this switches to the video of the PGM/A bus as a cut.
▲Cut▼	Automatically switches between PGM/A bus and PST/B bus videos as a cut.
AUTO SW ASSIGN	
Auto Take▼	When the video of the PGM/A bus is selected, this switches to the video of the PST/B bus.
▲Auto Take▼	Switches between the PGM/A bus and PST/B bus videos.
Cut▼	When the video of the PGM/A bus is selected, this switches to the video of the PST/B bus as a cut.
▲Cut▼	Automatically switches between PGM/A bus and PST/B bus videos as a cut.

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

Switching the video automatically (auto switching)

The video of INPUT 1–8 can be switched automatically (the auto switching function). You can make operation easier by letting the video switch automatically.

This automatically switches the Input 1–8 video when a specified length of time elapses. You can change the duration that each video is shown, and also switch randomly between videos.

This is convenient when you want to switch between video signals of multiple cameras, for example when live-streaming a singer-instrumentalist.

* If there is no video input, this is skipped.

Turning the auto switching function on/off

1. Press the [MENU] button → “AUTO SWITCHING” → select “AUTO SWITCHING”, and press the [VALUE] knob.

AUTO SWITCHING	(1/ 1)
AUTO SWITCHING	OFF
SCAN SEQUENCE	NORMAL
SCAN TRANSITION TIME	1.0sec
INPUT 1 TIME	5sec
INPUT 2 TIME	5sec
INPUT 3 TIME	5sec
INPUT 4 TIME	5sec
INPUT 5 TIME	5sec
INPUT 6 TIME	5sec
INPUT 7 TIME	5sec
INPUT 8 TIME	5sec

2. Use the [VALUE] knob to select “ON” or “OFF”, and press the [VALUE] knob.
3. Press the [MENU] button several times to quit the menu.

MEMO

You can assign the function for turning auto-switching on/off to the assignable pads (p. 36).

Setting the operation for auto-switching

1. Press the [MENU] button → select “AUTO SWITCHING”, and press the [VALUE] knob.

AUTO SWITCHING	(1/ 1)
AUTO SWITCHING	OFF
SCAN SEQUENCE	NORMAL
SCAN TRANSITION TIME	1.0sec
INPUT 1 TIME	5sec
INPUT 2 TIME	5sec
INPUT 3 TIME	5sec
INPUT 4 TIME	5sec
INPUT 5 TIME	5sec
INPUT 6 TIME	5sec
INPUT 7 TIME	5sec
INPUT 8 TIME	5sec

2. Use the [VALUE] knob to select a menu item shown below, and press the [VALUE] knob.

AUTO SWITCHING	(1/ 1)
AUTO SWITCHING	OFF
SCAN SEQUENCE	REVERSE
SCAN TRANSITION TIME	1.0sec
INPUT 1 TIME	5sec
INPUT 2 TIME	5sec
INPUT 3 TIME	5sec
INPUT 4 TIME	5sec
INPUT 5 TIME	5sec
INPUT 6 TIME	5sec
INPUT 7 TIME	5sec
INPUT 8 TIME	5sec

Menu item	Explanation
SCAN SEQUENCE	Specifies the order in which video signals are shown. NORMAL: Switches in the order of Input 1→8. REVERSE: Switches in the order of Input 8→1. RANDOM: Switches randomly.
SCAN TRANSITION TIME	This sets the video transition time.
INPUT 1–8 TIME	Specifies the time that the video is shown. Turn this “OFF” to skip.

* For details on the parameter, refer to “17: AUTO SWITCHING” (p. 61).

3. Use the [VALUE] knob to edit the value of the setting, and press the [VALUE] knob.
4. Press the [MENU] button several times to quit the menu.

Importing a still image

You can load a still image, and output it in the same way as video (p. 21) or use it as a source for DSK compositing (p. 26).

There are two ways to load a still image: you can load from USB flash drive, or you can capture the image from the input video.

You can save up to two still images on this unit.

* When still images are saved on this unit, the startup time takes longer according to the number of still images saved.

Loading a still image from USB flash drive

Here's how to load a still image from USB flash drive into the unit.

NOTE

- The still image is scaled to the output format size.
- When using USB flash drive for the first time, you must format it using the V-1-4K (p. 10).
- Never turn off the power or remove the USB flash drive while the message "PLEASE WAIT" is shown.
- Depending on the USB flash drive, it may take some time to be recognized.

Formats supported for importing

Format	Bitmap file (.bmp), 24-bit color, uncompressed
Resolution	In conformity with system format (p. 11)
File name	No more than 64 single-byte alphanumeric characters The extension ".bmp" must be added.

1. Use your computer to save the still image beforehand to the root directory of your USB flash drive.
2. Connect the USB flash drive to the USB HOST port.
3. Press the [MENU] button → "STILL IMAGE" → select "LOAD FROM STORAGE", and press the [VALUE] knob.



A "*" symbol is displayed for memory where a still image is already saved.

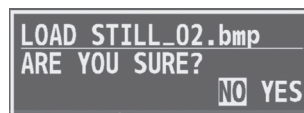
4. Use the [VALUE] knob to select "STILL 1" or "STILL 2", and press the [VALUE] knob.

A list of the still images in the USB flash drive is shown.



5. Use the [VALUE] knob to select the still image you want to load, and press the [VALUE] knob.

A confirmation message appears.



* If you decide to cancel, press the [MENU] (EXIT) button.

6. Use the [VALUE] knob to select "YES", and then press the [VALUE] knob.

The still image is imported into the unit. When the operation is finished, the message "COMPLETED" appears.

7. Press the [MENU] button several times to quit the menu.

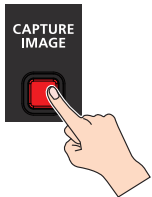
Capturing a still image from input video

This shows you how to capture the video that's input from the INPUT 1–5 connectors and save it as a still image to this unit.

NOTE

- When capturing, a different input video from the one that is captured is shown in the preview output.
- It may take up to three minutes to save the captured still image.

1. Press the [CAPTURE IMAGE] button to turn on (lit).



The CAPTURE IMAGE screen appears, and the PGM/A cross-point [1]–[2] buttons blink yellow.



2. Press the PGM/A cross-point [1] or [2] button to select the save destination memory (STILL 1 or STILL 2) for the still image.

PGM/A cross-point [1] button: STILL 1

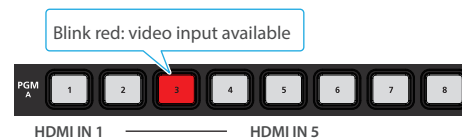
PGM/A cross-point [2] button: STILL 2

* If you decide to cancel, press the [MENU] (EXIT) button.



3. Press the PGM/A cross-point [1]–[5] button to select the input video to capture.

The PGM/A cross-point [1]–[5] buttons correspond to HDMI IN 1–5.



The capture begins right when you press the button.

When the operation is finished, the message "COMPLETED" appears.

* If you press a button for which there is no video input, "INPUT ERROR" appears and the capture is not performed.

4. To exit the operation, press the [CAPTURE IMAGE] button to turn it off (the button goes dark).

MEMO

When you capture a video source for which HDCP is enabled and the HDCP setting (p. 14) on the system is set to "OFF", the video is treated as a black screen and cannot be shown.

Outputting a loaded still image

You can assign a still image to the cross-point buttons and output it in the same way as with video.

1. Load a still image into this unit as described by the following procedures.
 - ➡ "Loading a still image from USB flash drive" (p. 19)
 - ➡ "Capturing a still image from input video" (p. 20)
2. Follow the steps in "Assigning video sources" (p. 12) to assign a still image to the cross-point buttons.
3. Follow the steps in "Switching the video" (p. 15) to output the still image.

Deleting a still image

Here's how to delete the still image that's saved in the unit.

1. Press the [MENU] button → "STILL IMAGE" → select "DELETE STILL IMAGE", and press the [VALUE] knob.



A "*" symbol is displayed for memory where a still image is already saved.

2. Use the [VALUE] knob to select the still image (ALL, STILL 1, STILL 2) you want to delete, and press the [VALUE] knob.

A confirmation message appears.



* If you decide to cancel, press the [MENU] (EXIT) button.

3. Use the [VALUE] knob to select "YES", and then press the [VALUE] knob.

The still image is deleted. When the operation is finished, the message "COMPLETED" appears.

4. Press the [MENU] button several times to quit the menu.

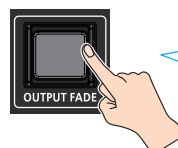
Fading-in/out the final output video

Here's how to perform a fade-out from the final output video to a black screen, or a fade-in from a black screen to the final output video.

A scene that you don't want to output as video can be changed to a black screen.

- * The final output video and audio fades in/out together when using the factory settings.
- * The fade-in/out effect is applied only to the final output.

1. Press the [OUTPUT FADE] button.



Unlit: Normal output
Blinking: Now fading-in/out
Lit: Faded out

The final output video fades-out to a black screen.

When the fade-out is complete, the [OUTPUT FADE] button lights up.

2. To perform a fade-in, press the [OUTPUT FADE] button again.

The [OUTPUT FADE] button blinks, and final output begins.

When the fade-in is complete, the [OUTPUT FADE] button goes dark.

MEMO

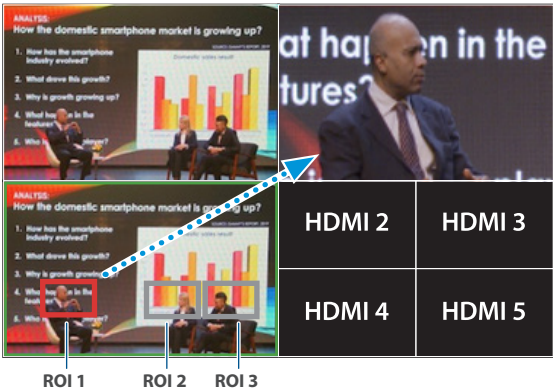
- To specify the fade-in/out time, press the [MENU] button → "SYSTEM" → OUTPUT FADE "TIME".
- To create a fade-in/out effect for the video without changing the volume, press the [MENU] button → "SYSTEM" → OUTPUT FADE "AUDIO FADE" to "DISABLE".

Specifying a certain image region to use (ROI)

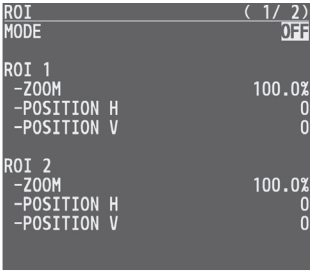
By using the ROI (Region of Interest) function, you can specify up to four regions from the video of a 4K camera (for example), and use those regions as input videos.

This widens the scope of the video production without the need to add more cameras.

Multi-view screen when ROI mode is ON

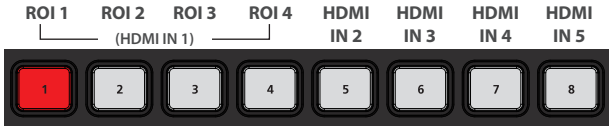


1. Press the [MENU] button → “ROI” → select “MODE”, and press the [VALUE] knob.

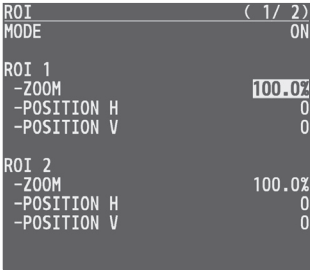


2. Use the [VALUE] knob to select “ON”, and press the [VALUE] knob.

- ROI mode turns on, and the multi-view screen layout changes to the ROI layout.
- You can specify a region of the video signal that’s input via HDMI 1 (INPUT 1 connector) with the ROI function.
- The ROI (regions of interest) and HDMI inputs are assigned to the cross-point buttons, as shown below.



3. Use the [VALUE] knob to select a ROI menu item shown below, and press the [VALUE] knob.



This sets the specified region within the video signal. You can specify up to four regions (ROI 1–4).

Menu item	Explanation
ZOOM	Specifies the zoom ratio for the selected region, relative to the original video.
POSITION H	Specifies the horizontal position at which the selected region is shown.
POSITION V	Specifies the vertical position at which the selected region is shown.

- Use the [VALUE] knob to edit the value of the setting, and press the [VALUE] knob.
- Press the [MENU] button several times to quit the menu.

MEMO

- You can also assign still images to the HDMI input. To make this setting, press the [MENU] button → “VIDEO ASSIGN”.
- You can apply mix, wipe, split, PinP and key composite effects to the ROI videos.

Video composition operations

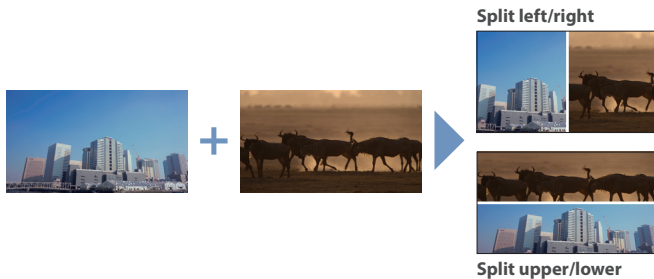
Compositing video with split

Here's how to composite two videos in dividing the screen into left/right or upper/lower.

Positioning a video

Left or upper: video on the PGM/A bus

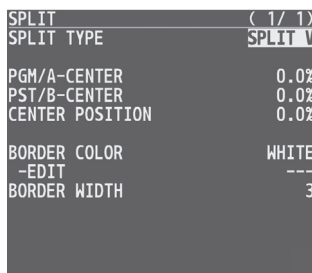
Right or lower: video on the PST/B bus



Configuring the screen layout

You can configure how the screen is laid out when the images are split.

1. Press the [MENU] button → "PinP&KEY/SPLIT" → "SPLIT" → select "SPLIT TYPE", and press the [VALUE] knob.



2. Turn the [VALUE] knob to select "SPLIT V" or "SPLIT H", and press the [VALUE] knob.

Value	Explanation
SPLIT V	This vertically crops the center section of the video (split left/right).
SPLIT H	This horizontally crops the center section of the video (split upper/lower).

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

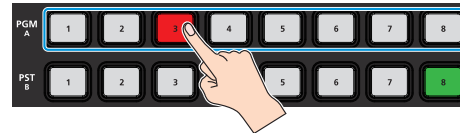
MEMO

You can change the color and width of the boundary.

To make this setting, press the [MENU] button → "PinP&KEY/SPLIT" → "SPLIT" → "BORDER COLOR", "BORDER WIDTH".

Compositing using split

1. Press a PGM/A cross-point [1]–[8] button to select the video you want to display above or on the left.

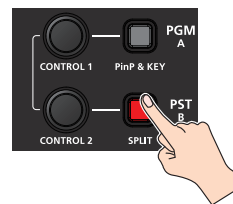


2. Press a PST/B cross-point [1]–[8] button to select the video you want to display below or on the right.



3. Press the [SPLIT] button to turn on split compositing (the button lights up).

The video you selected in steps 1 and 2 is composited.



4. Adjust the position of the video or border with the [CONTROL 1] or [CONTROL2] knob.



Knob	Explanation
[CONTROL 1]	Adjusts the horizontal and vertical positions of the video placed on the left and top sides. Turn while pressing: Adjusts the position of the border.
[CONTROL 2]	Adjusts the horizontal and vertical positions of the video placed on the right and bottom sides. Turn while pressing: Adjusts the position of the border.

5. To turn off split compositing, press the [SPLIT] button again.

Compositing video with picture-in-picture (PinP)

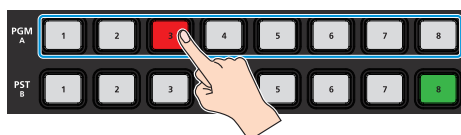
This composites video in an inset screen over a background video.



NOTE

- Wipe (p. 15) is not available.
- If the inset screen is a still image, you cannot make the still image show in a reduced size.

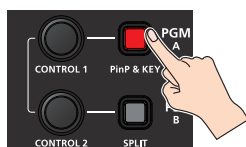
1. Press the PGM/A cross-point [1]–[8] buttons to select the video you want to use for the background video.



2. Press the [PinP & KEY] button to turn it on (the button lights up).

The inset screen appears in the PVW section of the multi-view, allowing you to check the inset screen's location and size.

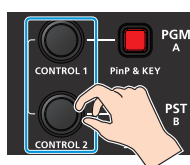
At this stage, the final output has not yet been changed.



3. Press the PST/B cross-point [1]–[8] buttons to select the video you want to use for the inset screen.



4. Use the [CONTROL 1] [CONTROL 2] knobs to adjust the inset screen.



Knob	Explanation
[CONTROL 1]	Adjusts the horizontal position of the inset screen. Turn while pressing: Adjusts the size of the inset screen.
[CONTROL 2]	Adjusts the vertical position of the inset screen. Turn while pressing: Adjusts the zoom ratio of the inset screen video.

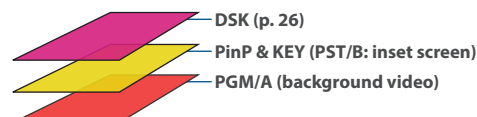
5. Operate the video fader, [CUT] or [AUTO] buttons to create the final output for the PinP composite video.

* You can do this again to remove the inset screen from the final output.

6. To turn off PinP compositing, press the [PinP & KEY] button once again.

MEMO

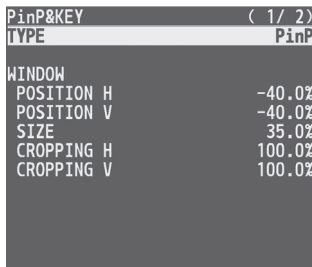
The output video layers are structured as shown in the illustration below.



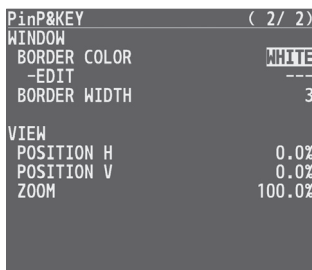
Making detailed settings for the inset screen

Detailed settings for size, shape, and border width etc. can be made for the inset screens.

1. Press the [MENU] button → “PinP&KEY/SPLIT” → select “PinP&KEY”, and press the [VALUE] knob.



2. Use the [VALUE] knob to select a menu item shown below, and press the [VALUE] knob.



Menu item	Explanation
TYPE	Specifies the type of PinP compositing.
WINDOW	Adjusts the inset screen.
POSITION H	Adjusts the position in the horizontal direction.
POSITION V	Adjusts the position in the vertical direction.
SIZE	Adjusts the size (enlarge or reduce).
CROPPING H	Adjusts the horizontal size.
CROPPING V	Adjusts the vertical size.
BORDER COLOR	Specifies the color of the border.
BORDER WIDTH	Adjusts the width of the border.
VIEW	Adjusts the video that is shown in the inset screen.
POSITION H	Adjusts the position in the horizontal direction.
POSITION V	Adjusts the position in the vertical direction.
ZOOM	Adjusts the zoom of the video.

3. Use the [VALUE] knob to edit the value of the setting, and press the [VALUE] knob
4. Press the [MENU] button several times to quit the menu.

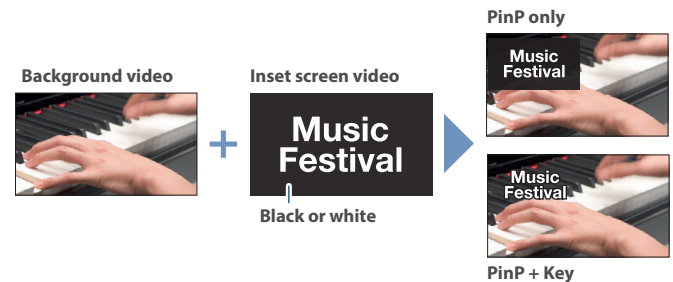
Key compositing the inset screen

This process makes part of the inset screen transparent, and composites the image with the background video.

You can use luminance key with either a black or a white background, or a chroma key with either a blue or green background.

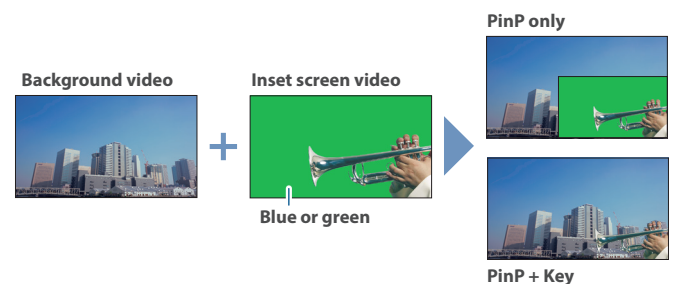
Luminance key

You can cut out text or an image by turning its black or white portion transparent, and then superimpose it on the background video.

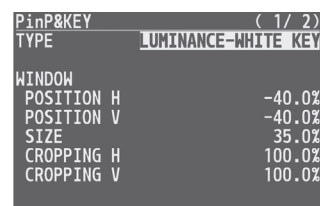


Chroma key

Here's how you can cut out a video by turning its blue or green portion transparent, and then superimpose it on the background video.



1. Press the [MENU] button → “PinP&KEY/SPLIT” → “PinP&KEY” → select “TYPE”, and press the [VALUE] knob.



2. Use the [VALUE] knob to select the PinP composition type, and press the [VALUE] knob.

Value	Explanation
LUMINANCE-WHITE KEY	A combination of PinP and luminance key (white). Makes the white portions of the inset screen transparent, and composites the image with the background.
LUMINANCE-BLACK KEY	A combination of PinP and luminance key (black). Makes the black portions of the inset screen transparent, and composites the image with the background.
CHROMA KEY	A combination of PinP and chroma key. Makes the blue or green portions of the inset screen transparent, and composites the image with the background.

3. Select the menu item and adjust the intensity of the effect.

* For details on the menu items, refer to “5: PinP&KEY/SPLIT” (p. 51).

4. Press the [MENU] button several times to quit the menu.

Compositing video with downstream keyer (DSK)

You can further composite titles, subtitles/captions and other video on video composited using split (p. 23) or PinP (p. 24).

* There is one DSK on the V-1-4K, and the DSK layer is shown in front of other layers (see the “MEMO” on p. 24).

Compositing a caption or image

Here’s how you can cut out text or image by turning its black or white portion transparent, and then superimpose it on the background video.



Setting the DSK video source and DSK type

1. Press the [MENU] button → “DSK” → “DSK SOURCE” → select “DSK TYPE”, and press the [VALUE] knob.

DSK	(1 / 1)
DSK SOURCE	STILL 1
TIME	1.0sec
DSK TYPE	LUMINANCE-BLACK
DSK LEVEL	60
DSK GAIN	0
MIX LEVEL	255

DSK	(1 / 1)
DSK SOURCE	STILL 1
TIME	1.0sec
DSK TYPE	LUMINANCE-BLACK
DSK LEVEL	60
DSK GAIN	0
MIX LEVEL	255

2. Use the [VALUE] knob to change the setting as shown below.

Menu item	Explanation
DSK SOURCE	Selects the DSK composite video source.
DSK TYPE	LUMINANCE-WHITE
	Makes white portions transparent according to brightness.
	LUMINANCE-BLACK
	Makes black portions transparent according to brightness.

* When Roland Fill+Key mode is ON, “Roland FILL+KEY MODE IS ENABLED.” is shown, and the key composition is done by Roland Graphics Presenter (p. 27).

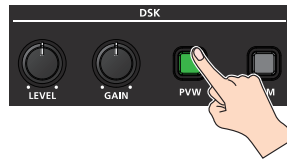
In this case, you can’t set the DSK SOURCE and DSK TYPE.

DSK	(1 / 1)
DSK MODE	Roland FILL+KEY
DSK SOURCE	HDMI 5
MIX LEVEL	255
Roland FILL+KEY MODE IS ENABLED.	

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

Compositing using DSK

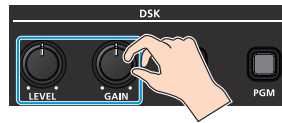
1. Press the DSK [PVW] button to turn on (lit).



A preview of the composition results is displayed in the PVW section of the multi-view.

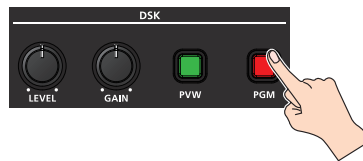
At this stage, the final output has not yet been changed.

2. Use the DSK [LEVEL] and [GAIN] knobs to adjust the degree of effect applied.



Knob	Explanation
[LEVEL]	Adjusts the degree of extraction (transparency) for the key.
[GAIN]	Adjusts the degree of edge blur (semi-transmissive region) for the key.

3. Press the DSK [PGM] button to turn on DSK compositing (lit).



The composition results is sent to final output.

4. To turn off DSK compositing, press the DSK [PGM] button once again.

MEMO

Set the fade-in/out time for the DSK video source from the [MENU] button → “DSK” → “TIME”.

Compositing content from Graphics Presenter (Roland Fill+Key mode)

You can use the dedicated Roland Graphics Presenter app to input and composite content (titles, images and videos) from your computer to the V-1-4K using a single HDMI cable. No adjustments are required on this unit for key compositing.

Roland Graphics Presenter (hereafter “Graphics Presenter”) is available for download from the Roland website.

<https://proav.roland.com/>

- * Graphics Presenter is a dedicated application for Windows.
- * For detailed operating instructions, refer to the “Graphics Presenter” owner’s manual (Roland website).

Connection procedure

1. Press the [MENU] button → select “Roland FILL+KEY”, and press the [VALUE] knob.



2. Press the [VALUE] knob.
3. Turn the [VALUE] knob to select “ON”, and press the [VALUE] knob.

Set Roland Fill+Key mode to ON.

4. Press the [MENU] button several times to quit the menu.
5. Connect your computer to the INPUT 5 connector on the V-1-4K with an HDMI cable.



6. Launch the Graphics Presenter app on your computer.
7. Select “V-1-4K” from the Graphics Presenter “Output Display” menu.
8. Click on the [ON AIR] button in Graphics Presenter.
The [ON AIR] button lights up red, and a black image is shown for HDMI 5 (multi-view) on the V-1-4K.
9. Follow the steps shown in Graphics Presenter to output the title video.
The contents outputted from Graphics Presenter are shown for HDMI 5 (multi-view) on the V-1-4K.
10. Press the DSK [PVW] or [PGM] button to activate it (the button lights up).



The Graphics Presenter video is composited with the output video of the V-1-4K.

For details on outputting the title video, refer to the “Graphics Presenter” owner’s manual (Roland website).

Required items

- V-1-4K unit
- A Windows computer with Graphics Presenter installed
- HDMI cable

Limitations of Roland Fill+Key mode

- Split (p. 23) and PinP composition (p. 24) are not available.
- When you use the PGM/A cross-point [1]–[8] buttons to switch the video, the video on the PST/B bus turns to black because the PST/B bus is temporarily used for internal processing.
- When you use the PST/B cross-point [1]–[8] buttons to switch the video image, the PST/B bus video stops for a few frames.

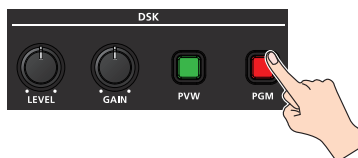
Turning Roland Fill+Key mode off

When you turn off Roland Fill+Key mode, be sure to do so as follows.

NOTE

If you do not follow these steps, the video may not output as expected.

1. Press the DSK [PVW] button or the [PGM] button to turn them off (the buttons go dark).



1. Press the [MENU] button → select “Roland FILL+KEY”, and press the [VALUE] knob.
2. Press the [VALUE] knob.
3. Turn the [VALUE] knob to select “OFF”, and press the [VALUE] knob.

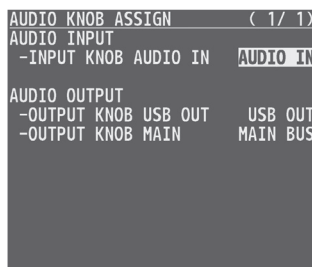
This turns off Roland Fill+Key mode.

Audio operations

Assigning audio sources to [AUDIO IN] knob

Here's how to assign the input audio to the [AUDIO IN] knob.

1. Press the [MENU] button → “AUDIO KNOB ASSIGN” → select AUDIO INPUT “INPUT KNOB AUDIO IN”, and press the [VALUE] knob.



2. Use the [VALUE] knob to select the audio source to assign to the knob.

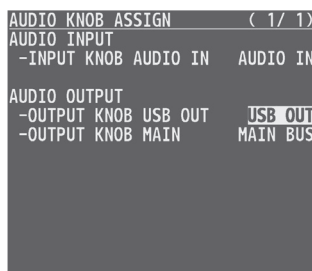
Value	Explanation
AUDIO IN	Audio from AUDIO IN L, R connectors
USB IN	Audio from USB STREAM port
HDMI 1-5	Audio from INPUT 1-5 connectors

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

Assigning audio sources to [USB OUT] and [MAIN] knobs

Here are the steps for assigning the output audio to the [USB OUT] and [MAIN] knobs.

1. Press the [MENU] button → “AUDIO KNOB ASSIGN” → select AUDIO OUTPUT “OUTPUT KNOB USB OUT” or “OUTPUT KNOB MAIN”, and press the [VALUE] knob.



2. Use the [VALUE] knob to select the audio source to assign to the knob.

Value	Explanation
MAIN BUS	MAIN bus output audio
AUX 1, 2 BUS	AUX 1-2 bus output audio
USB OUT	USB STREAM port output audio

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

Adjusting the input gain (sensitivity)

Adjust the input gain of AUDIO IN so that the audio input is at an appropriate level.

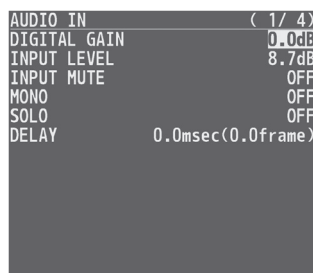
1. Set the [AUDIO IN] knob to around “0dB”.



2. Set the [MAIN] knob to around “0dB”.



3. Press the [MENU] button → “AUDIO INPUT” → “AUDIO IN” → select “DIGITAL GAIN”, and press the [VALUE] knob.



4. Turn the [VALUE] knob fully counterclockwise, minimizing the input gain (to a setting of 42 dB).

5. While playing the actual input sound, slowly turn the [VALUE] knob clockwise to adjust the input gain.

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



6. Press the [MENU] button several times to quit the menu.

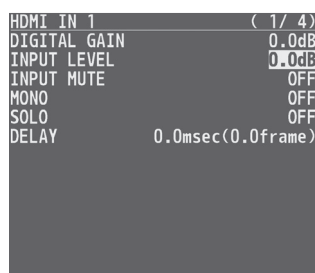
Adjusting the volume balance

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

1. Set the [AUDIO IN] knob to around "0dB".



2. Press the [MENU] button → "AUDIO INPUT" → "AUDIO IN", "USB IN", or "HDNI IN 1-5" → select "INPUT LEVEL", and press the [VALUE] knob.



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

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).

4. Press the [MENU] button several times to quit the menu.

5. Use the [MAIN] knob to adjust the output volume.

The SIG/PEAK indicator of MAIN lights up yellow when the volume is appropriate.

MEMO

- With the factory settings, if you use the [OUTPUT FADE] button to fade in/out the final output video, the output audio also fades in/out simultaneously (p. 21).
- **Adjusting the USB output volume**
The USB output volume can be adjusted with the [USB OUT] knob (factory settings).
- You can output a test tone, which is useful for adjusting the level.
Press the [MENU] button → "SYSTEM" → "TEST TONE" to specify the test tone to output.

Applying effects to input audio

You can apply effects to the input audio (AUDIO IN, USB IN, HDMI IN 1-5) to adjust the character of the sound.

High-pass filter

This cuts off unneeded low-band audio.

Noise gate

Eliminates audio that is lower than the specified threshold level. This is effective when the noise that you want to remove is separate from the audio that you want to keep, and can be used to remove hiss or other noise that is heard during periods of silence.

Compressor

Audio that exceeds the specified threshold level is compressed. This reduces the difference between the maximum volume and minimum volume, making the audio more comfortable for listening.

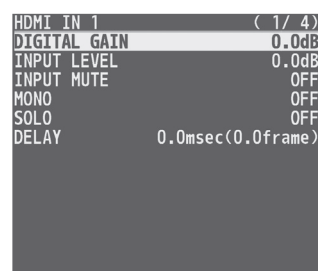
Equalizer

This is a four-band equalizer. It lets you adjust the volume by boosting or cutting four frequency regions.

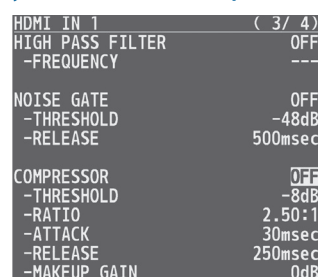
Delay (p. 30)

This outputs audio with a delay.

1. Press the [MENU] button → "AUDIO INPUT" → select "AUDIO IN", "USB IN", or "HDNI IN 1-5", and press the [VALUE] knob.



2. Using the [VALUE] knob, select the menu item of the effect you want to use, and press the [VALUE] knob.



* For details on the menu items, refer to "9: AUDIO INPUT" (p. 54).

3. Use the [VALUE] knob to edit the value of the setting, and press the [VALUE] knob.
4. Press the [MENU] button several times to quit the menu.

MEMO

You can assign functions to the assignable pads for turning the effects on/off (p. 36).

Correcting a time difference between video and audio (delay)

If there is a timing discrepancy between the video and audio, you can correct the output timing by delaying the input audio.

1. Press the [MENU] button → “AUDIO INPUT” → “AUDIO IN”, “USB IN”, or “HDMI IN 1–5” → select “DELAY”, and press the [VALUE] knob.

```
HDMI IN 1 ( 1 / 4 )
DIGITAL GAIN 0.0dB
INPUT LEVEL 0.0dB
INPUT MUTE OFF
MONO OFF
SOLO OFF
DELAY 0.0msec(0.0frame)
```

2. Use the [VALUE] knob to adjust the latency (delay time) of the input audio, and press the [VALUE] knob.
3. Press the [MENU] button several times to quit the menu.

Applying effects to output audio

You can apply effects to the input audio (MAIN bus, AUX 1 bus, AUX 2 bus) to adjust the character of the sound.

Equalizer

This is a four-band equalizer. It lets you shape the character of the sound by boosting or cutting four frequency regions.

Delay

This outputs audio with a delay. Delaying the output lets you correct timing problems in the audio signal that is input to the output destination device.

Compressor/Limiter

Compresses audio levels that exceed the threshold you set, or limits the output level so that it does not exceed the threshold.

Graphic Equalizer

This lets you shape the character of the sound by boosting or cutting each of the 15 frequency regions into which the sound is divided.

1. Press the [MENU] button → “AUDIO OUTPUT” → select “MAIN BUS”, “AUX 1 BUS”, or “AUX 2 BUS”, and press the [VALUE] knob.

```
MAIN BUS ( 1 / 5 )
LEVEL -INFdB
MUTE OFF
SOLO OFF
DELAY 0.0msec(0.0frame)
```

2. Use the [VALUE] knob to select the menu item of the effect you want to use, and press the [VALUE] knob.

```
MAIN BUS ( 2 / 5 )
EQUALIZER OFF
-Hi GAIN 0.0dB
-Hi FREQUENCY 10.0kHz
-Hi-Mid GAIN 0.0dB
-Hi-Mid FREQUENCY 2.00kHz
-Hi-Mid Q 1.0
-Low-Mid GAIN 0.0dB
-Low-Mid FREQUENCY 500Hz
-Low-Mid Q 1.0
-Low GAIN 0.0dB
-Low FREQUENCY 100Hz
```

* For details on the menu items, refer to “10: AUDIO OUTPUT” (p. 55).

3. Use the [VALUE] knob to adjust the value, and press the [VALUE] knob.
4. Press the [MENU] button several times to quit the menu.

Interlinking audio output to video switching (audio follow)

Here's how the audio output can be automatically switched in tandem with video switching (the audio follow function).

1. Press the [MENU] button → select "AUDIO FOLLOW", and press the [VALUE] knob.

AUDIO FOLLOW	(1 / 1)
ALL AUDIO FOLLOW	OFF
HDMI IN 1	OFF
HDMI IN 2	OFF
HDMI IN 3	OFF
HDMI IN 4	OFF
HDMI IN 5	OFF
AUDIO IN	OFF
USB IN	OFF
DSK FOLLOW	ON

2. Use the [VALUE] knob to select the input video that uses audio follow.

Select "ALL AUDIO FOLLOW" to edit the audio follow settings all at once.

AUDIO FOLLOW	(1 / 1)
ALL AUDIO FOLLOW	OFF
HDMI IN 1	OFF
HDMI IN 2	OFF
HDMI IN 3	OFF
HDMI IN 4	OFF
HDMI IN 5	OFF
AUDIO IN	OFF
USB IN	OFF
DSK FOLLOW	ON

3. Press the [VALUE] knob to turn it "ON".

Value	Explanation
ON	The audio is output only when the video is selected. The audio is automatically muted if another video is selected.
OFF	The audio is always output regardless of the video selection.

4. Press the [MENU] button several times to quit the menu.

Adding an object for audio follow

You can set Audio Follow to apply to the audio from the AUDIO IN, USB IN.

1. Press the [MENU] button → "AUDIO FOLLOW" → select "AUDIO IN" or "USB IN", and press the [VALUE] knob.

AUDIO FOLLOW	(1 / 1)
ALL AUDIO FOLLOW	OFF
HDMI IN 1	OFF
HDMI IN 2	OFF
HDMI IN 3	OFF
HDMI IN 4	OFF
HDMI IN 5	OFF
AUDIO IN	OFF
USB IN	HDMI 1
DSK FOLLOW	ON

2. Use the [VALUE] knob to select the input video that uses audio follow.

Value	Explanation
HDMI 1-5	For each audio source, these settings specify the input video that will use the audio follow function. Audio is output only when the specified input video is selected.
STILL 1, 2	
INPUT 1-8	
OFF	The audio is always output regardless of the video selection.

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

Linking the audio with the DSK video output

You can link the audio to the DSK source video.

1. Press the [MENU] button → "AUDIO FOLLOW" → select "DSK FOLLOW", and press the [VALUE] knob.

AUDIO FOLLOW	(1 / 1)
ALL AUDIO FOLLOW	OFF
HDMI IN 1	OFF
HDMI IN 2	OFF
HDMI IN 3	OFF
HDMI IN 4	OFF
HDMI IN 5	OFF
AUDIO IN	OFF
USB IN	OFF
DSK FOLLOW	ON

2. Press the [VALUE] knob to turn it "ON".

Value	Explanation
ON	When you turn DSK compositing on (the DSK [PGM] button lights up), audio is output. The audio is automatically muted if another video is selected.
OFF	The audio is always output regardless of the video selection.

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

Controlling the volume automatically (auto mixing)

The volume adjustments that would normally be done by the operator can be controlled automatically (auto mixing function).

Since this lets you leave the volume adjustments up to the V-1-4K, it can be used in situations where there is no dedicated operator. This is especially useful for meetings, discussions, debates, and other situations where multiple microphones are used.

1. Press the [MENU] button → “AUDIO AUTO MIXING” → select “AUDIO AUTO MIXING”, and press the [VALUE] knob.

The AUDIO AUTO MIXING menu is shown.

AUDIO AUTO MIXING	(1 / 2)
AUDIO AUTO MIXING	OFF
-AUDIO IN	DISABLE
-WEIGHT	100%
-USB IN	DISABLE
-WEIGHT	100%

2. Use the [VALUE] knob to select “ON”, and then press the [VALUE] knob.

Auto mixing function turns on.

3. Use the [VALUE] knob to select “AUDIO IN”, “USB IN”, or “HDMI IN 1–5”, and press the [VALUE] knob.

AUDIO AUTO MIXING	(2 / 2)
-HDMI IN 1	DISABLE
-WEIGHT	100%
-HDMI IN 2	DISABLE
-WEIGHT	100%
-HDMI IN 3	DISABLE
-WEIGHT	100%
-HDMI IN 4	DISABLE
-WEIGHT	100%
-HDMI IN 5	DISABLE
-WEIGHT	100%

4. Use the [VALUE] knob to set auto mixing as the target (“ENABLE”) or not (“DISABLE”), and press the [VALUE] knob.
5. Use the [VALUE] knob to select “WEIGHT”, then press the [VALUE] knob.
6. Use the [VALUE] knob to set the volume weighting priority (0–100%), and press the [VALUE] knob.
 - If there is audio that you want to make more prominent, raise the weight level of that audio to emphasize it, and lower the weight level for other audio.
 - When air conditioner noise or the like is a concern, set the weight level to a low value.
7. Press the [MENU] button several times to quit the menu.

Silencing only specific audio (mute)

Here’s how you can temporarily mute specific audio (the mute function).

Muting the input audio

1. Press the [MENU] button → “AUDIO INPUT” → select “AUDIO IN”, “USB IN”, or “HDMI IN 1–5”, and press the [VALUE] knob.

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

2. Use the [VALUE] knob to select “INPUT MUTE”, and then press the [VALUE] knob.

HDMI IN 1	(1 / 4)
DIGITAL GAIN	0.0dB
INPUT LEVEL	0.0dB
INPUT MUTE	ON
MONO	OFF
SOLO	OFF
DELAY	0.0msec(0.0frame)

3. Use the [VALUE] knob to select “ON”, and then press the [VALUE] knob.

The mute function turns on.

4. Press the [MENU] button several times to quit the menu.

Muting the output audio

1. Press the [MENU] button → “AUDIO OUTPUT” → select “MAIN BUS”, “AUX 1 BUS”, or “AUX 2 BUS”, and press the [VALUE] knob.

MAIN BUS	(1 / 5)
LEVEL	-INFdB
MUTE	OFF
SOLO	OFF
DELAY	0.0msec(0.0frame)

2. Use the [VALUE] knob to select “MUTE”, and then press the [VALUE] knob.

MAIN BUS	(1 / 5)
LEVEL	-INFdB
MUTE	ON
SOLO	OFF
DELAY	0.0msec(0.0frame)

3. Use the [VALUE] knob to select “ON”, and then press the [VALUE] knob.

The mute function turns on.

4. Press the [MENU] button several times to quit the menu.

MEMO

You can assign the mute on/off function to an assignable pad (p. 36).

Checking a specific audio (solo)

Here's how you can temporarily monitor a specific audio via the headphones (solo function).

- * The solo function is normally applied to the headphone output. If you want to enable the solo function with an output jack other than the headphone output, select "MONITOR BUS" as the audio bus.

Using the solo function for input audio

1. Press the [MENU] button → "AUDIO INPUT" → select "AUDIO IN", "USB IN", or "HDMI IN 1-5", and press the [VALUE] knob.

```
HDMI IN 1 ( 1 / 4 )
DIGITAL GAIN 0.0dB
INPUT LEVEL 0.0dB
INPUT MUTE OFF
MONO OFF
SOLO OFF
DELAY 0.0msec(0.0frame)
```

2. Use the [VALUE] knob to select "SOLO", and then press the [VALUE] knob.

```
HDMI IN 1 ( 1 / 4 )
DIGITAL GAIN 0.0dB
INPUT LEVEL 0.0dB
INPUT MUTE OFF
MONO OFF
SOLO OFF
DELAY 0.0msec(0.0frame)
```

3. Use the [VALUE] knob to select "ON", and then press the [VALUE] knob.

The solo function turns on.

4. Press the [MENU] button several times to quit the menu.

Using the solo function for output audio

1. Press the [MENU] button → "AUDIO OUTPUT" → select "MAIN BUS", "AUX 1 BUS", or "AUX 2 BUS", and press the [VALUE] knob.

```
MAIN BUS ( 1 / 5 )
LEVEL -INFdB
MUTE OFF
SOLO OFF
DELAY 0.0msec(0.0frame)
```

2. Use the [VALUE] knob to select "SOLO", and then press the [VALUE] knob.

```
MAIN BUS ( 1 / 5 )
LEVEL -INFdB
MUTE OFF
SOLO OFF
DELAY 0.0msec(0.0frame)
```

3. Use the [VALUE] knob to select "ON", and then press the [VALUE] knob.

The solo function turns on.

4. Press the [MENU] button several times to quit the menu.

MEMO

You can assign the solo function to an assignable pad to turn it on/off (p. 36).

Outputting audio from the AUX bus

The V-1-4K has four different audio buses: MAIN, AUX 1, AUX 2 and MONITOR.

You can assign a desired bus to each output connector or jack.

Audio bus	Explanation
MAIN bus	All input audio is mixed and output (main output).
AUX 1 bus AUX 2 bus	Only the input audio sent to the AUX bus is mixed and output. This allows you to output audio that is different than the main output. For example, in a live event, you might output a mix of all audio inputs, while separately outputting a mix of only specific audio inputs (the AUX bus) for recording or streaming.
MONITOR bus	This outputs the same audio as what you hear in the headphones. Use "MONITOR LEVEL" to adjust the volume.

Assigning the AUX bus

1. Press the [MENU] button → "AUDIO OUTPUT" → select "OUTPUT ASSIGN", and press the [VALUE] knob.

The OUTPUT ASSIGN menu is shown.

```
OUTPUT ASSIGN ( 1 / 1 )
AUDIO OUT MAIN BUS
PHONES OUT/MONITOR MAIN BUS
USB OUT MAIN BUS
HDMI OUT 1 MAIN BUS
HDMI OUT 2 MAIN BUS
HDMI OUT 3 MAIN BUS
HDMI OUT 4 MAIN BUS
HDMI OUT 5 MAIN BUS
```

2. Use the [VALUE] knob to select the output connector you wish to assign to the AUX bus, and press the [VALUE] knob.

```
OUTPUT ASSIGN ( 1 / 1 )
AUDIO OUT MAIN BUS
PHONES OUT/MONITOR MAIN BUS
USB OUT MAIN BUS
HDMI OUT 1 MAIN BUS
HDMI OUT 2 MAIN BUS
HDMI OUT 3 MAIN BUS
HDMI OUT 4 MAIN BUS
HDMI OUT 5 MAIN BUS
```

3. Use the [VALUE] knob to select the bus to assign, and press the [VALUE] knob.

Connector	Buses you can choose from
AUDIO OUT	MAIN BUS, AUX 1 BUS, AUX 2 BUS, MONITOR BUS
PHONES OUT/MONITOR	MAIN BUS, AUX 1 BUS, AUX 2 BUS
USB OUT	MAIN BUS, AUX 1 BUS, AUX 2 BUS, MONITOR BUS
HDMI OUT 1-5	MAIN BUS, AUX 1 BUS, AUX 2 BUS, MONITOR BUS

4. Press the [MENU] button several times to quit the menu.

Sending audio to the AUX bus

1. Press the [MENU] button → “AUDIO OUTPUT” → select “AUX 1 BUS” or “AUX 2 BUS”, and press the [VALUE] knob.

```
AUX 1 BUS ( 1/ 5)
LEVEL 0.0dB
MUTE OFF
SOLO OFF
DELAY 0.0msec(0.0frame)
AUX 1 SEND LEVEL ENTER
AUX 1 SEND POINT ENTER
```

2. Use the [VALUE] knob to select “AUX 1 SEND LEVEL” or “AUX 2 SEND LEVEL”, and press the [VALUE] knob.

The AUX 1, 2 SEND LEVEL menu is shown.

```
AUX 1 SEND ( 1/ 1)
AUDIO IN -INFdB
USB IN -INFdB
HDMI IN 1 -INFdB
HDMI IN 2 -INFdB
HDMI IN 3 -INFdB
HDMI IN 4 -INFdB
HDMI IN 5 -INFdB
```

3. Use the [VALUE] knob to select the input audio, and press the [VALUE] knob.

```
AUX 1 SEND ( 1/ 1)
AUDIO IN -INFdB
USB IN -INFdB
HDMI IN 1 -INFdB
HDMI IN 2 -INFdB
HDMI IN 3 -INFdB
HDMI IN 4 -INFdB
HDMI IN 5 -INFdB
```

4. Use the [VALUE] knob to adjust the amount of audio sent to the AUX 1 and AUX 2 buses, and press the [VALUE] knob.
5. Press the [MENU] button several times to quit the menu.

MEMO

You can also adjust the AUX bus output volume by assigning the AUX bus to [USB OUT], [MAIN] knobs (p. 28).

Configuring the audio that's sent to the AUX bus

You can select whether to send either the original audio or the audio processed with effects to the AUX bus.

1. Press the [MENU] button → “AUDIO OUTPUT” → select “AUX 1 BUS” or “AUX 2 BUS”, and press the [VALUE] knob.

```
AUX 1 BUS ( 1/ 5)
LEVEL 0.0dB
MUTE OFF
SOLO OFF
DELAY 0.0msec(0.0frame)
AUX 1 SEND LEVEL ENTER
AUX 1 SEND POINT ENTER
```

2. Use the [VALUE] knob to select “AUX 1 SEND POINT” or “AUX 2 SEND POINT”, and press the [VALUE] knob.

The AUX 1, 2 SEND POINT menu is shown.

```
AUX 1 SEND POINT ( 1/ 1)
AUDIO IN PRE FADER
USB IN PRE FADER
HDMI IN 1 PRE FADER
HDMI IN 2 PRE FADER
HDMI IN 3 PRE FADER
HDMI IN 4 PRE FADER
HDMI IN 5 PRE FADER
```

3. Use the [VALUE] knob to select the input audio, and press the [VALUE] knob.

```
AUX 1 SEND POINT ( 1/ 1)
AUDIO IN PRE FADER
USB IN PRE FADER
HDMI IN 1 PRE FADER
HDMI IN 2 PRE FADER
HDMI IN 3 PRE FADER
HDMI IN 4 PRE FADER
HDMI IN 5 PRE FADER
```

4. Use the [VALUE] knob to select “DRY”, “PRE FADER”, or “POST FADER”, and then press the [VALUE] knob.

Value	Explanation
DRY	This sends the source audio with no effects applied.
PRE FADER	Sends the effect-applied audio. The send volume is constant, regardless of the volume (INPUT LEVEL).
POST FADER	Sends the effect-applied audio. The send volume can be changed by adjusting the volume (INPUT LEVEL).

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

NOTE

If AUDIO KNOB MODE (p. 63) is set to “CATCH”, the fader operations are ignored until the knob's position “catches up” to the current level.

Outputting video/audio to a computer for streaming

Here's how the video and audio mixed by the V-1-4K can be output to a connected computer. You can also input audio that's played back by the computer. By using an internet-connected computer with streaming app, you can distribute content as a live internet stream.

To correctly view the audio and video from the V-1-4K on your computer, an app that supports the USB video and USB audio class specifications must be installed on the computer.

* For the latest operating requirements, refer to the Roland website (<https://proav.roland.com/>).

Outputting video and audio to the computer

1. **Using a USB 3.0 cable, connect a USB 3.0 port on the computer to the USB STREAM port on the V-1-4K.**

2. **Power-on the V-1-4K.**

3. **Start the computer.**

When communication with the computer has been established, the computer recognizes the V-1-4K as a USB video device and USB audio device.

The first time that the V-1-4K is connected to the computer, the standard drivers of the operating system are installed automatically.

4. **Operate the V-1-4K to prepare the video and audio that you want to output to the computer.**

5. **On your computer, verify the input from the V-1-4K.**

Start app that supports the USB video class and audio class, and verify the video and audio that are being input from the V-1-4K.

MEMO

If the video is garbled or operation is otherwise unstable

Press the [MENU] button → "VIDEO OUTPUT" → USB OUT" → execute "CONNECTION RESET" to try reconnecting the computer with the V-1-4K.

Video formats

You can edit the USB output video format and compression method from the livestreaming app or other app used at the output destination.

The following video formats are supported.

USB OUT frame rate	Video formats		
59.94 Hz	1080/59.94p	720/59.94p	640 x 480/59.94p
60 Hz	1080/60p	720/60p	640 x 480/60p
29.97 Hz	1080/29.97p	720/29.97p	640 x 480/29.97p
30 Hz	1080/30p	720/30p	640 x 480/30p
50 Hz	1080/50p	720/50p	640 x 480/50p
25 Hz	1080/25p	720/25p	640 x 480/25p
23.98 Hz	1080/23.98p	720/23.98p	640 x 480/23.98p
24 Hz	1080/24p	720/24p	640x 480/24p

* Uncompressed (YUY2) and compressed (Motion JPEG) video are supported.

Using the loopback function

Audio from the computer can be input to the V-1-4K via USB, mixed with other audio, and returned to the computer (the loopback function).

You can add a narration to music that's played back from your computer and live-stream it, or record it using app on your computer.

Streaming video from a computer

Use the dedicated "Roland Live Streamer" app to stream the video and audio from the USB output of the V-1-4K with your computer.

For details on operation, refer to the Owner's Manual of "Roland Live Streamer".



You can download "Roland Live Streamer" from the Roland website.

<https://proav.roland.com/>

* Compressed (Motion JPEG) video is not supported.

Capturing video on the computer

Using dedicated "Roland Live Recorder" app, the video and audio that are output from the V-1-4K via USB can be recorded on your computer.

For details on operation, refer to the Owner's Manual of "Roland Live Recorder".



You can download "Roland Live Recorder" from the Roland website.

<https://proav.roland.com/>

* Compressed (Motion JPEG) video is not supported.

Using the assignable pads

You can assign functions to the assignable pads (8 pads x 4 banks from A to D).

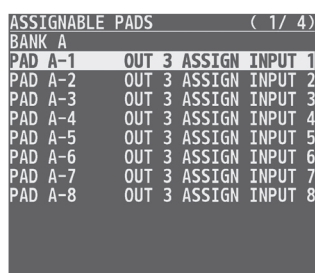
By doing this, the function you assigned to the assignable pad is executed when you press the pad.



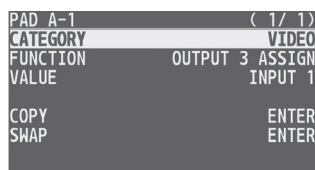
Assigning functions to the assignable pads

Here's how to assign functions to the assignable pads.

1. Press the [MENU] button → select "ASSIGNABLE PADS", and press the [VALUE] knob.



2. Use the [VALUE] knob to select the pad to which you want to assign a function, and press the [VALUE] knob.



3. Use the [VALUE] knob to select "CATEGORY", and press the [VALUE] knob.
4. Use the [VALUE] knob to select the category of function you wish to assign, and press the [VALUE] knob.
5. Use the [VALUE] knob to select "FUNCTION", and press the [VALUE] knob.
6. Use the [VALUE] knob to select the function to assign, and press the [VALUE] knob.

FUNCTION	Explanation
CATEGORY: N/A	
---	No function is assigned.
CATEGORY: VIDEO	
OUTPUT 3 ASSIGN	Switches to the output video from the OUTPUT 3 connector with the specified video.
OUTPUT 4 ASSIGN	Switches to the output video from the OUTPUT 4 connector with the specified video.
DSK SOURCE	Switches the DSK compositing video source to the specified video.
CATEGORY: AUDIO	
INPUT MUTE	Turns the mute function on/off for the specified input audio.
OUTPUT MUTE	Turns the mute function on/off for the specified output audio.
INPUT SOLO	Turns the solo function on/off for the specified input audio.
OUTPUT SOLO	Turns the solo function on/off for the specified output audio.
HPF ON/OFF	Turns the high-pass filter on/off for the specified input audio.
NOISE GATE	Turns the noise gate on/off for the specified input audio.

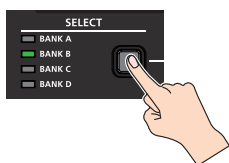
FUNCTION	Explanation
INPUT COMPRESSOR	Turns the compressor filter on/off for the specified input audio.
INPUT EQUALIZER	Turns the equalizer on/off for the specified input audio.
OUTPUT EQUALIZER	Turns the equalizer on/off for the specified output audio bus.
OUTPUT GEQ	Turns the graphic equalizer on/off for the specified output audio bus.
AUTO MIXING ON/OFF	Turns the auto mixing function on/off.
OUTPUT COMP/LIMIT	Turns the compressor/limiter on/off for the specified output audio bus.
CATEGORY: MEMORY	
---	Press a pad to recall the memory. Long-press a pad to save the current settings to a memory.
CATEGORY: AUTO SWITCHING	
AUTO SWITCHING	Turns the auto switching function on/off.
INPUT SCAN	When auto-switching, the video is switched in the specified order.
CATEGORY: CAMERA	
MODE	Turns camera control mode on/off.
PAN	Orients the camera in the specified direction (left or right).
TILT	Orients the camera in the specified direction (up or down).
ZOOM	The camera zooms in with the specified operation.
FOCUS	The camera focuses on the specified position.
AUTO FOCUS	Turns auto focus on/off for the camera.
AUTO EXPOSURE	Turns auto-exposure on/off for the camera.
PRESET RECALL	Recalls the specified preset.
CAMERA SELECT	Selects the specified camera as the camera to be operated.
CATEGORY: SYSTEM	
---	Switches the operation mode to the specified operation mode, which is used when switching between videos.

7. Use the [VALUE] knob to select "VALUE", and press the [VALUE] knob.
8. Use the [VALUE] knob to edit the value of the setting, and press the [VALUE] knob.
* For details on the parameter, refer to "15: ASSIGNABLE PADS" (p. 60).
9. Repeat steps 2–8 to assign functions to each pad.
10. Press the [MENU] button several times to quit the menu.

Executing the functions assigned to the assignable pads

This shows how to execute the functions assigned to the assignable pads.

1. Press the [SELECT] button to cycle through banks A–D.



2. Press pads [1]–[8].

This executes the functions assigned to the pads.



Copying/swapping the functions assigned to the assignable pads

You can copy or swap (exchange) the functions that are assigned to the assignable pads.

1. Press the [MENU] button → select “ASSIGNABLE PADS”, and press the [VALUE] knob.

ASSIGNABLE PADS (1 / 4)			
BANK A			
PAD A-1	OUT 3 ASSIGN	INPUT 1	
PAD A-2	OUT 3 ASSIGN	INPUT 2	
PAD A-3	OUT 3 ASSIGN	INPUT 3	
PAD A-4	OUT 3 ASSIGN	INPUT 4	
PAD A-5	OUT 3 ASSIGN	INPUT 5	
PAD A-6	OUT 3 ASSIGN	INPUT 6	
PAD A-7	OUT 3 ASSIGN	INPUT 7	
PAD A-8	OUT 3 ASSIGN	INPUT 8	

2. Use the [VALUE] knob to select the copy (or swap) source assignable pad, and press the [VALUE] knob.

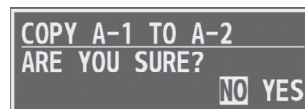
PAD A-1 (1 / 1)			
CATEGORY	VIDEO		
FUNCTION	OUTPUT 3 ASSIGN		
VALUE	INPUT 1		
COPY	ENTER		
SWAP	ENTER		

3. Use the [VALUE] knob to select “COPY” or “SWAP”, and press the [VALUE] knob.

COPY PAD A-1 (1 / 4)			
BANK A			
PAD A-1	OUT 3 ASSIGN	INPUT 1	
PAD A-2	OUT 3 ASSIGN	INPUT 2	
PAD A-3	OUT 3 ASSIGN	INPUT 3	
PAD A-4	OUT 3 ASSIGN	INPUT 4	
PAD A-5	OUT 3 ASSIGN	INPUT 5	
PAD A-6	OUT 3 ASSIGN	INPUT 6	
PAD A-7	OUT 3 ASSIGN	INPUT 7	
PAD A-8	OUT 3 ASSIGN	INPUT 8	

4. Use the [VALUE] knob to select the copy (or swap) destination pad, and press the [VALUE] knob.

A confirmation message appears.



* If you decide to cancel, press the [MENU] (EXIT) button.

5. Use the [VALUE] knob to select “YES”, and then press the [VALUE] knob.

This copies/swaps the pad settings. When the operation is finished, the message “COMPLETED” appears.

6. Press the [MENU] button several times to quit the menu.

Assignable pad settings (factory settings)

The functions that are assigned to the assignable pads when this unit is shipped from the factory are shown below.

BANK-PAD	CATEGORY	FUNCTION	VALUE
A-1	VIDEO	OUTPUT 3 ASSIGN	INPUT 1
A-2			INPUT 2
A-3			INPUT 3
A-4			INPUT 4
A-5			INPUT 5
A-6			INPUT 6
A-7			INPUT 7
A-8			INPUT 8
B-1	VIDEO	OUTPUT 4 ASSIGN	INPUT 1
B-2			INPUT 2
B-3			INPUT 3
B-4			INPUT 4
B-5			INPUT 5
B-6			INPUT 6
B-7			INPUT 7
B-8			INPUT 8
C-1	MEMORY	---	MEMORY 1
C-2			MEMORY 2
C-3			MEMORY 3
C-4			MEMORY 4
C-5			MEMORY 5
C-6			MEMORY 6
C-7			MEMORY 7
C-8			MEMORY 8
D-1	CAMERA	PRESET RECALL	PRESET 1
D-2			PRESET 2
D-3			PRESET 3
D-4			PRESET 4
D-5			PRESET 5
D-6			PRESET 6
D-7			PRESET 7
D-8			PRESET 8

Other features

Saving/recalling settings (memory)

You can save the current settings, including the video/audio settings and the state of the operating panel, in memory and recall those settings for use when necessary.

The V-1-4K is provided with 8 memories.

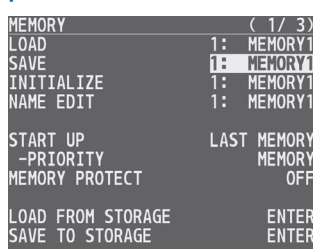
About the Last Memory Function

The V-1-4K has a built-in Last Memory feature. Last Memory is a feature that saves the state of the unit that is in effect immediately before power-down, and automatically restores the state at the next startup. The Last Memory feature is enabled by default.

If you want the unit to recall a memory when it starts up, press the [MENU] button → "MEMORY" → "START UP" to specify the memory number.

Saving to a scene memory

1. Press the [MENU] button → "MEMORY" → select "SAVE", and press the [VALUE] knob.



2. Use the [VALUE] knob to select the save destination memory (1–8), and press the [VALUE] knob.

A confirmation message appears.

* If you decide to cancel, press the [MENU] (EXIT) button.



3. Use the [VALUE] knob to select "YES", and then press the [VALUE] knob.

This saves the current settings to the selected scene memory. When the operation is finished, the message "COMPLETED" appears.

4. Press the [MENU] button several times to quit the menu.

MEMO

- You can prohibit settings from being saved or initialized (p. 39) to protect the memories.

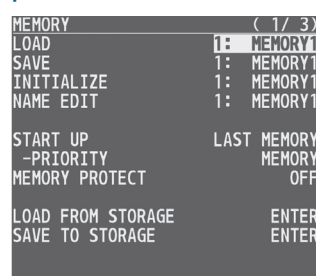
Press the [MENU] button →

"MEMORY" → and set "MEMORY PROTECT" to "ON".

- Since settings related to the system, network and so on are common to the entire unit, they are not saved in a memory.
- If "MEMORY" is specified for an assignable pad function, long-pressing the pad saves the current settings (p. 60) for that pad. With the factory settings, the "MEMORY" function is assigned to pads [1]–[8] of bank C.

Recalling a memory

1. Press the [MENU] button → "MEMORY" → select "LOAD", and press the [VALUE] knob.



2. Use the [VALUE] knob to select the memory (1–8) you want to recall, and press the [VALUE] knob.

A confirmation message appears.

* If you decide to cancel, press the [MENU] (EXIT) button.



3. Use the [VALUE] knob to select "YES", and then press the [VALUE] knob.

The memory is recalled. When the operation is finished, the message "COMPLETED" appears.

* A black screen is shown while the memory is being recalled.

4. Press the [MENU] button several times to quit the menu.

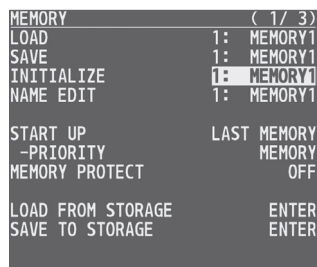
MEMO

- You can choose not to recall a certain setting when recalling a memory.
For each Load Parameters item selected using the [MENU] button → "MEMORY" → "LOAD PARAMETERS", you can set whether to recall that setting.
- If "MEMORY" is specified for an assignable pad function, pressing the pad recalls the memory (p. 60).
With the factory settings, the "MEMORY" function is assigned to pads [1]–[8] of bank C.

Initializing a memory

Here's how you can initialize and erase the settings of a memory.

1. Press the [MENU] button → "MEMORY" → select "INITIALIZE", and press the [VALUE] knob.



2. Use the [VALUE] knob to select the memory (1–8) that you want to initialize, and press the [VALUE] knob.

A confirmation message appears.

* If you decide to cancel, press the [MENU] (EXIT) button.



3. Use the [VALUE] knob to select "YES", and then press the [VALUE] knob.

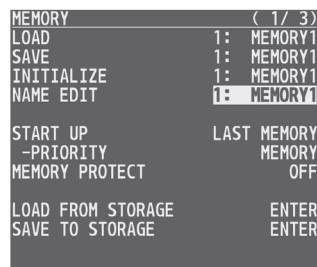
The memory is initialized. When the operation is finished, the message "COMPLETED" appears.

4. Press the [MENU] button several times to quit the menu.

Renaming a memory

Here's how to rename a preset memory. You can input up to 8 characters.

1. Press the [MENU] button → "MEMORY" → select "NAME EDIT", and press the [VALUE] knob.



2. Use the [VALUE] knob to select the memory (1–8) whose name you wish to edit, then press the [VALUE] knob.

The MEMORY NAME screen appears.



3. Use the [VALUE] knob to select the item that you want to execute, and then press the [VALUE] knob.

Item	Explanation
CLOSE	Saves the memory name and closes the MEMORY NAME screen.
INIT	Initializes the memory name.
(memory name)	Edits the memory name (to step 4).

4. Input the memory name.

- 1 Use the [VALUE] knob to move the cursor.

If you move the cursor to a place where there is no text, more characters are added.

- 2 Press the [VALUE] knob to highlight the character at the cursor location.

- 3 Use the [VALUE] knob to change the character, and then press the [VALUE] knob.

- If you press the [MENU] (EXIT) button, the character at the cursor location is deleted.

5. When you have finished inputting the name, use the [VALUE] knob to select "CLOSE", and then press the [VALUE] knob.

* If you decide to cancel, press the [MENU] (EXIT) button.

6. Press the [MENU] button several times to quit the menu.

Saving memories to a USB flash drive

You can group together the memories (1–8) into a single file (.V14Kpreset) and save the file to USB flash drive connected to the V-1-4K.

You can access the saved memory file on the USB flash drive and load it into the unit for use when needed.

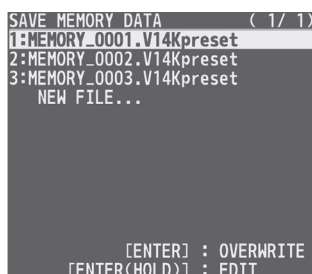
NOTE

- When using a USB flash drive for the first time, you must format it using the V-1-4K (p. 10).
- Never turn off the power or remove the USB flash drive while the message “PLEASE WAIT” is shown.
- Depending on the USB flash drive, it may take some time to be recognized.

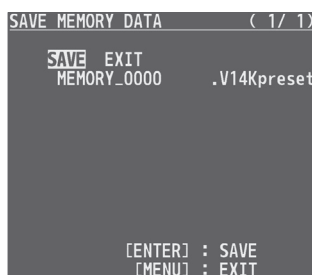
Saving a new settings file

1. Connect the USB flash drive to the USB HOST port.

2. Press the [MENU] button → “MEMORY” → select “SAVE TO STORAGE”, and press the [VALUE] knob.



3. Use the [VALUE] knob to select “NEW FILE...”, and press the [VALUE] knob.



4. Use the [VALUE] knob to select the item that you want to execute, and then press the [VALUE] knob.

Item	Explanation
SAVE	Saves the file and closes the SAVE MEMORY DATA screen.
EXIT	Stops the operation and returns to the file selection screen.
(file name)	Edits the file name (to step 5).

5. Input the file name.

① Use the [VALUE] knob to move the cursor.

If you move the cursor to a place where there is no text, more characters are added.

② Press the [VALUE] knob to highlight the character at the cursor location.

③ Use the [VALUE] knob to change the character, and then press the [VALUE] knob.

- If you press the [MENU] (EXIT) button, the character at the cursor location is deleted.
- You can input up to 16 characters.

6. When you have finished inputting the name, use the [VALUE] knob to select “SAVE”, and then press the [VALUE] knob.

A confirmation message appears.

* If you decide to cancel, press the [MENU] (EXIT) button.



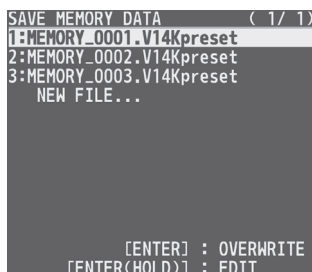
7. Use the [VALUE] knob to select “YES”, and then press the [VALUE] knob.

The memory file is saved to the USB flash drive. When the operation is finished, the message “COMPLETED” appears.

8. Press the [MENU] button several times to quit the menu.

Overwrite-saving a settings file

1. Connect the USB flash drive to the USB HOST port.
2. Press the [MENU] button → “MEMORY” → select “SAVE TO STORAGE”, and press the [VALUE] knob.



3. Use the [VALUE] knob to select the memory file that you want to overwrite, and press the [VALUE] knob.

A confirmation message appears.

- * If you decide to cancel, press the [MENU] (EXIT) button.
- * If you long-press the [VALUE] knob, the edit screen opens with the file name preserved.



4. Use the [VALUE] knob to select “YES”, and then press the [VALUE] knob.

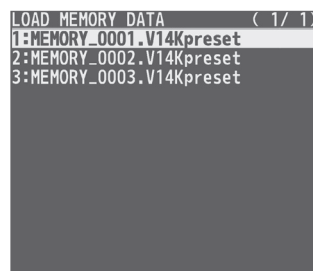
The memory file is overwritten. When the operation is finished, the message “COMPLETED” appears.

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

Recalling

Here's how to load the memory settings that are saved on USB flash drive. When you load the settings, the current scene memory settings are overwritten.

1. Connect the USB flash drive to the USB HOST port.
2. Press the [MENU] button → “MEMORY” → select “LOAD FROM STORAGE”, and press the [VALUE] knob.



3. Use the [VALUE] knob to select the memory file that you want to load, and press the [VALUE] knob.

A confirmation message appears.

- * If you decide to cancel, press the [MENU] (EXIT) button.



4. Use the [VALUE] knob to select “YES”, and then press the [VALUE] knob.

The scene memory settings are recalled. When the operation is finished, the message “COMPLETED” appears.

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

Backing up and restoring the unit's settings

You can group together the unit's settings into a single file (.V14K) and back up it to USB flash drive connected to the V-1-4K.

You can access the backed up setting file on the USB flash drive and restore it into the unit for use when needed.

NOTE

- When using a USB flash drive for the first time, you must format it using the V-1-4K (p. 10).
- Never turn off the power or remove the USB flash drive while the message "PLEASE WAIT" is shown.
- Depending on the USB flash drive, it may take some time to be recognized.

Backing up

Saving a new file

1. Connect the USB flash drive to the USB HOST port.
2. Press the [MENU] button → "USB FLASH DRIVE" → select "BACKUP ALL SETTINGS", and press the [VALUE] knob.

```

BACKUP ALL SETTINGS ( 1/ 1)
1:BACKUP_0001.V14K
2:BACKUP_0002.V14K
3:BACKUP_0003.V14K
NEW FILE...

[ENTER] : OVERWRITE
[ENTER(HOLD)] : EDIT
  
```

3. Use the [VALUE] knob to select "NEW FILE...", and press the [VALUE] knob.

```

BACKUP ALL SETTINGS ( 1/ 1)

SAVE EXIT
BACKUP_0000 .V14K

[ENTER] : SAVE
[MENU] : EXIT
  
```

4. Use the [VALUE] knob to select the item that you want to execute, and then press the [VALUE] knob.

Item	Explanation
SAVE	Saves the file and closes the BACKUP ALL SETTINGS screen.
EXIT	Stops the operation and returns to the file selection screen.
(file name)	Edits the file name (to step 5).

5. Input the file name.

- 1 Use the [VALUE] knob to move the cursor.

If you move the cursor to a place where there is no text, more characters are added.

- 2 Press the [VALUE] knob to highlight the character at the cursor location.

- 3 Use the [VALUE] knob to change the character, and then press the [VALUE] knob.

- If you press the [MENU] (EXIT) button, the character at the cursor location is deleted.
- You can input up to 16 characters.

6. When you have finished inputting the name, use the [VALUE] knob to select "SAVE", and then press the [VALUE] knob.

A confirmation message appears.

- * If you decide to cancel, press the [MENU] (EXIT) button.

```

SAVE BACKUP_0004.V14
ARE YOU SURE?
NO YES
  
```

7. Use the [VALUE] knob to select "YES", and then press the [VALUE] knob.

The settings file is backed up on the USB flash drive. When the operation is finished, the message "COMPLETED" appears.

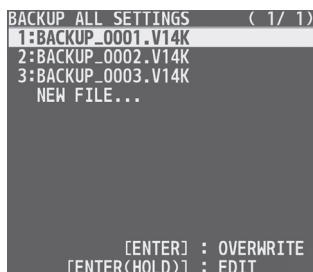
8. Press the [MENU] button several times to quit the menu.

MEMO

Some settings are not saved to the file, such as the "TEST PATTERN" and "TEST TONE" settings in the SYSTEM menu.

Overwrite-saving

1. Connect the USB flash drive to the USB HOST port.
2. Press the [MENU] button → “USB FLASH DRIVE” → select “BACKUP ALL SETTINGS”, and press the [VALUE] knob.



3. Use the [VALUE] knob to select the backup file that you want to overwrite, and press the [VALUE] knob.

A confirmation message appears.

- * If you decide to cancel, press the [MENU] (EXIT) button.
- * If you long-press the [VALUE] knob, the edit screen opens with the file name preserved.



4. Use the [VALUE] knob to select “YES”, and then press the [VALUE] knob.

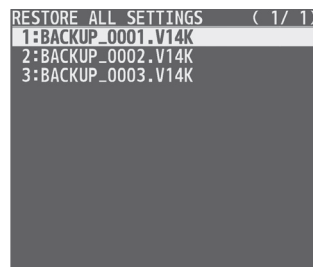
The settings file is overwrite-saved. When the operation is finished, the message “COMPLETED” appears.

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

Restoring

Here's how to restore this unit's settings that you saved on a USB flash drive. When you restore settings, the current settings are overwritten.

1. Connect the USB flash drive to the USB HOST port.
2. Press the [MENU] button → “USB FLASH DRIVE” → select “RESTORE ALL SETTINGS”, and press the [VALUE] knob.



3. Use the [VALUE] knob to select the file you want to restore, and press the [VALUE] knob.

A confirmation message appears.

- * If you decide to cancel, press the [MENU] (EXIT) button.



4. Use the [VALUE] knob to select “YES”, and then press the [VALUE] knob.

The settings are restored. When the operation is finished, the message “COMPLETED” appears.

Remotely controlling a PTZ camera

You can connect up to five cameras via the LAN CONTROL port and remotely control them from the V-1-4K.

This allows you to control cameras made by JVC, Panasonic, Canon, PTZOptics, and Avonic, and cameras that support VISCA over IP (such as Sony).

* Refer also to the owner's manual of your camera.

Network settings on the camera

In order to control a camera from the V-1-4K, you need to make network settings on the camera. You can register up to five cameras.

1. Press the [MENU] button → "CAMERA CONTROL" → select from the menu items below, and press the [VALUE] knob.

CAMERA CONTROL (1 / 2)	
CAMERA ID	CAMERA 1
PROTOCOL	JVC
IP ADDRESS	192.168. 0.101
PORT	80
LOGIN NAME	ENTER
PASSWORD	ENTER
CAMERA PRESET RECALL PRESET 1	
-ALL CAMERAS RECALL	OFF
CAMERA PRESET STORE	PRESET 1

Menu item	Explanation
CAMERA ID	Selects the camera to be controlled.
PROTOCOL	Specifies the camera's protocol.
IP ADDRESS	Input the camera's IP address.
PORT	When PROTOCOL is set to "PTZOptics" or "Avonic", this configures the network port.
LOGIN NAME	When PROTOCOL is set to "JVC", enter the login name required to connect to the camera. After entering the login name, use the [VALUE] knob to select "CLOSE", and press the [VALUE] knob.
PASSWORD	When PROTOCOL is set to "JVC", enter the password required to connect to the camera. After entering the password, use the [VALUE] knob to select "CLOSE", and press the [VALUE] knob.

2. Use the [VALUE] knob to edit the value of the setting, and press the [VALUE] knob.
3. Press the [MENU] button several times to quit the menu.

Registering camera settings in a preset

Up to 8 sets of settings such as camera position and focus can be registered as presets.

A registered preset can be recalled when needed.

* Presets are saved in the camera itself. The settings that are saved depend on the camera you are using.

1. Press the [MENU] button → "CAMERA CONTROL" → select "CAMERA ID", and press the [VALUE] knob.

CAMERA CONTROL (1 / 2)	
CAMERA ID	CAMERA 1
PROTOCOL	JVC
IP ADDRESS	192.168. 0.101
PORT	80
LOGIN NAME	ENTER
PASSWORD	ENTER
CAMERA PRESET RECALL PRESET 1	
-ALL CAMERAS RECALL	OFF
CAMERA PRESET STORE	PRESET 1

2. Use the [VALUE] knob to select the camera to operate, and press the [VALUE] knob.

CAMERA CONTROL (1 / 2)	
CAMERA ID	CAMERA 2
PROTOCOL	Canon PTZ
IP ADDRESS	192.168. 0.102
PORT	80
LOGIN NAME	---
PASSWORD	---
CAMERA PRESET RECALL PRESET 1	
-ALL CAMERAS RECALL	OFF
CAMERA PRESET STORE	PRESET 1

3. Use the [VALUE] knob to select a menu item shown below, and press the [VALUE] knob.

CAMERA CONTROL (2 / 2)	
PAN	RIGHT
TILT	UP
SPEED	12
ZOOM	TELE(SLOW)
FOCUS	---
AUTO FOCUS	ON
AUTO EXPOSURE	OFF
TALLY CH	HDMI 1

Menu item	Explanation
PAN	Adjusts the orientation in the horizontal direction. (*1)
TILT	Adjusts the orientation in the vertical direction. (*1)
SPEED	Adjusts the speed at which the camera changes direction.
ZOOM	Sets the zoom operation. (*1)
FOCUS	Adjusts the focus. (*1)
AUTO FOCUS	Turns the auto focus on/off.
AUTO EXPOSURE	Switches the automatic exposure on/off.
TALLY CH	Specifies the connector from which the camera video is input. When the camera video from the V-1-4K is the final output, the camera's tally light is lit.

(*1) You can operate the camera while you hold the [VALUE] knob.

4. Use the [VALUE] knob to edit the value of the setting, and press the [VALUE] knob.
5. Use the [VALUE] knob to go back one page.
6. Use the [VALUE] knob to select “CAMERA PRESET STORE”, and then press the [VALUE] knob.

```

CAMERA CONTROL      ( 1 / 2 )
CAMERA ID           CAMERA 2
PROTOCOL            Canon PTZ
IP ADDRESS          192.168. 0.102
PORT                80
LOGIN NAME          ---
PASSWORD            ---

CAMERA PRESET RECALL PRESET 1
-ALL CAMERAS RECALL OFF
CAMERA PRESET STORE PRESET 9

```

7. Use the [VALUE] knob to select the preset (PRESET 1–100) for registration, and press the [VALUE] knob.

The camera settings are registered in the preset.

8. Press the [MENU] button several times to quit the menu.

Recalling a preset

This shows you how to recall the presets registered in your camera. You can also recall presets from multiple cameras at the same time.

1. Press the [MENU] button → “CAMERA CONTROL” → select from the menu items below, and press the [VALUE] knob.

```

CAMERA CONTROL      ( 1 / 2 )
CAMERA ID           CAMERA 1
PROTOCOL            JVC
IP ADDRESS          192.168. 0.101
PORT                80
LOGIN NAME          ENTER
PASSWORD            ENTER

CAMERA PRESET RECALL PRESET 1
-ALL CAMERAS RECALL OFF
CAMERA PRESET STORE PRESET 1

```

■ Recalling presets from a single camera

Menu item	Explanation
CAMERA ID	Select the camera from which you want to recall a preset.
ALL CAMERAS RECALL	Choose “OFF”.

■ Recalling from all cameras simultaneously

Menu item	Explanation
ALL CAMERAS RECALL	Choose “ON”.

2. Use the [VALUE] knob to edit the value of the setting, and press the [VALUE] knob.
3. Use the [VALUE] knob to select “CAMERA PRESET RECALL”, and then press the [VALUE] knob.

```

CAMERA CONTROL      ( 1 / 2 )
CAMERA ID           CAMERA 1
PROTOCOL            JVC
IP ADDRESS          192.168. 0.101
PORT                80
LOGIN NAME          ENTER
PASSWORD            ENTER

CAMERA PRESET RECALL PRESET 1
-ALL CAMERAS RECALL OFF
CAMERA PRESET STORE PRESET 1

```

4. Use the [VALUE] knob to select the preset (PRESET 1–100) to recall, and press the [VALUE] knob.

The settings are recalled from the cameras.

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

MEMO

By assigning the camera control functions to the assignable pads (p. 36), you can control the camera or recall presets using the pads.

Pads [1]–[8] of bank D are assigned to recall the presets when using the factory settings.

Using Smart Tally

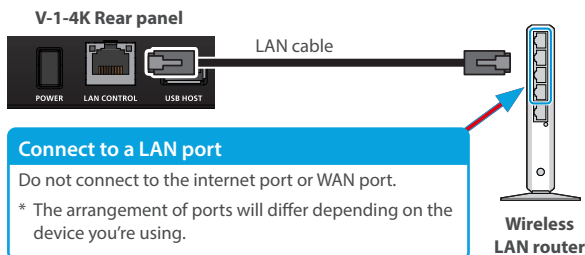
Roland's own Smart Tally system turns your smart device or computer that's connected to the V-1-4K into a tally box. This lets you access your smart device or computer via a wireless LAN access point to display a tally on that device.

Connecting via a wireless LAN router

Connect your Wi-Fi enabled smart device or computer to the wireless LAN router via Wi-Fi.

* If you connect multiple smart devices or computers, operation might be slower.

1. Use a LAN cable to connect the LAN port on your wireless LAN master device to the LAN CONTROL port on the V-1-4K.



2. Turn on the wireless LAN master device, and connect your smart device or computer via wireless LAN (Wi-Fi).

Enable the DHCP function of the wireless LAN router.

* For details on how to connect the wireless LAN (Wi-Fi), refer to the manual of the device that you're using.

3. Power-on the V-1-4K.

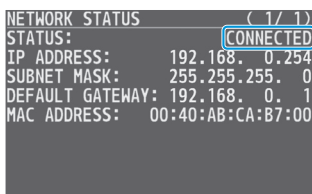
4. Press the [MENU] button → "NETWORK" → "LAN SETUP" → set "CONFIGURE" to "USING DHCP", and press the [VALUE] knob.

The IP address, subnet mask, and default gateway are obtained automatically.

5. Press the [MENU] (EXIT) button to return to the previous screen.

6. Use the [VALUE] knob to select "NETWORK STATUS", and press the [VALUE] knob.

The NETWORK STATUS screen appears.



MEMO

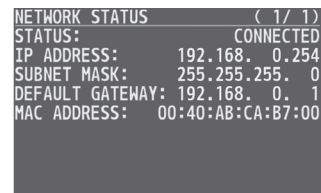
If you fix the IP address, you'll always be able to start Smart Tally with the same IP address.

For details on how to specify a fixed IP address, refer to the manual of the wireless LAN router that you're using.

Starting smart tally

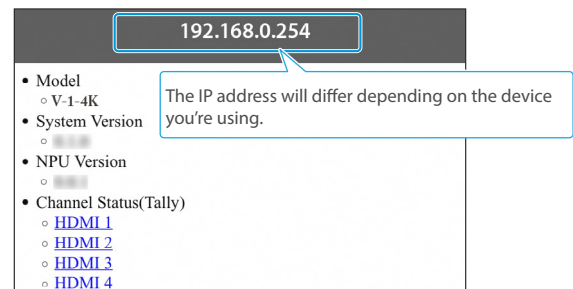
1. Press the [MENU] button → "NETWORK" → select "NETWORK STATUS", and press the [VALUE] knob.

The NETWORK STATUS screen appears.



2. Start a browser on your smart device or computer.
3. In the URL input field of your browser, enter the IP address that's shown in the NETWORK STATUS screen to access the website.

The Smart Tally settings screen appears.



4. In "Channel Status (Tally)", select the video source that you want to assign to the smart device or computer.

The device's display switches to the tally information screen.

This shows the tally information corresponding to the video source output from the V-1-4K.



Red: PGM



Green: PST



Gray: Not selected

NOTE

- Depending on the network conditions, the wireless LAN (Wi-Fi) communication speed or connection might be unstable, so that the tally indication is not displayed correctly. In this case, reload the page.
- Depending on the version of the browser that you're using, the tally indication might not be displayed correctly. Use the latest version of the browser whenever possible.

Preventing unintended operation (panel lock)

You can disable operation of the panel's buttons and knobs to prevent unintended operations (Panel Lock function).

1. Press the [MENU] button → "SYSTEM" → select "PANEL LOCK", and press the [VALUE] knob.

The PANEL LOCK menu appears.

PANEL LOCK	(1 / 5)
ALL	OFF
PGM/A ALL	OFF
-PGM/A 1 BUTTON	OFF
-PGM/A 2 BUTTON	OFF
-PGM/A 3 BUTTON	OFF
-PGM/A 4 BUTTON	OFF
-PGM/A 5 BUTTON	OFF
-PGM/A 6 BUTTON	OFF
-PGM/A 7 BUTTON	OFF
-PGM/A 8 BUTTON	OFF

2. Use the [VALUE] knob to select a target for panel lock, and press the [VALUE] knob.

Menu item	Explanation
ALL	All controllers
PGM/A ALL	All PGM/A cross-point buttons
- PGM/A 1-8 BUTTON	PGM/A cross-point [1]-[8] buttons
PST/B ALL	All PST/B cross-point buttons
- PST/B 1-8 BUTTON	PST/B cross-point [1]-[8] buttons
TRANSITION BUTTON	[TRANSITION] button
CUT BUTTON	[CUT] button
AUTO BUTTON	[AUTO] button
VIDEO FADER	Fader
ASSIGNABLE PADS ALL	All ASSIGNABLE PADS
ASSIGNABLE PAD BUTTON	ASSIGNABLE PADS [1]-[8]
- BANK A-D BUTTON	[SELECT] button
PinP&KEY SPLIT ALL	[PinP & KEY] and [SPLIT] buttons
- PinP&KEY BUTTON	[PinP & KEY] button
- SPLIT BUTTON	[SPLIT] button
- CONTROL 1-2 KNOB	[CONTROL 1] and [CONTROL 2] knobs
DSK ALL	Buttons and knobs in DSK section
- LEVEL KNOB	DSK [LEVEL] knob
- GAIN KNOB	DSK [GAIN] knob
- PVW BUTTON	DSK [PVW] button
- PGM BUTTON	DSK [PGM] button
AUDIO MIXER ALL	Knobs in AUDIO section
- AUDIO IN KNOB	[AUDIO IN] knob
- USB OUT KNOB	[USB OUT] knob
- MAIN KNOB	[MAIN] knob
CAPTURE IMAGE BUTTON	[CAPTURE IMAGE] button
OUTPUT FADE BUTTON	[OUTPUT FADE] button

3. Use the [VALUE] knob to specify whether panel lock is enable (ON) or disable (OFF), and press the [VALUE] knob.
4. Press the [MENU] button several times to quit the menu.

MEMO

The [MENU] button blinks when you try to operate a locked button, knob or other control.

Returning to the factory settings (factory reset)

You can return the values of settings on the V-1-4K to their factory defaults.

If operation that differs from what is described in the owner's manual occurs even when the steps described are followed correctly, try performing a factory reset.

NOTE

- When you execute a factory reset, all the settings you've made as well as the data saved on the V-1-4K (preset memory, macros, sequencer, and still images) is lost.
- Do not turn off the power while the message "PLEASE WAIT" is shown.

1. Press the [MENU] button → "SYSTEM" → select "FACTORY RESET", and press the [VALUE] knob.

SYSTEM	(4 / 4)
TEST PATTERN	OFF
TEST TONE	
-LEVEL	OFF
-FREQUENCY L	1kHz
-FREQUENCY R	1kHz
VIDEO FADER CALIBRATE	ENTER
FACTORY RESET	EXEC
VERSION	1.00.056

2. Press the [VALUE] knob.

A confirmation message appears.

* If you decide to cancel, press the [MENU] (EXIT) button.

FACTORY RESET
ARE YOU SURE?
NO YES

3. Use the [VALUE] knob to select "YES", and press the [VALUE] knob.

A factory reset is executed. When the operation is finished, the message "COMPLETED" appears.

Remotely controlling the V-1-4K

To remotely control the V-1-4K, you can use a dedicated app, or use LAN commands.

Using the dedicated apps “V-1-4K RCS” and “V-1-4K Remote”

Dedicated apps are available for computers (“V-1-4K RCS”) and for the iPad (“V-1-4K Remote”).

These apps can be downloaded from the Roland website.

<https://proav.roland.com/>

* For operating details, refer to the “V-1-4K RCS” (for computer) or “V-1-4K Remote” (for iPad) connection guide.

V-1-4K RCS (Windows/Mac)

Use the dedicated “V-1-4K RCS” app to operate the V-1-4K from your computer.

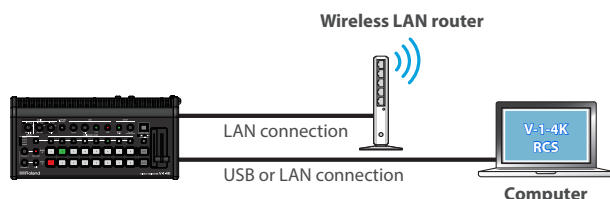
You can connect either wirelessly or via cable.

Wireless connection

- Connection via wireless LAN master device (Wi-Fi)

Wired connection (via cable)

- USB connection (USB Type-C® cable)
- LAN connection (LAN cable)



V-1-4K Remote

Use the dedicated “V-1-4K Remote” app to operate the V-1-4K from your iPad.

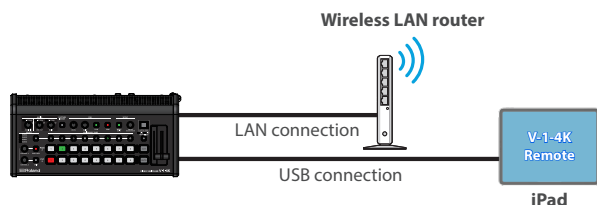
You can connect either wirelessly or via cable.

Wireless connection

Connection via wireless LAN master device (Wi-Fi)

Wired connection

USB connection (USB Type-C® cable, Lightning to USB 3 camera adapter)



LAN command

The V-1-4K support two types of remote-interface communication: LAN. Using the USB STREAM port or LAN CONTROL port to send specific commands to the V-1-4K from a controlling device lets you operate the V-1-4K.

See “Remote Control Guide” (Roland website) for details on each interface and for a list of LAN commands.

https://roland.cm/v-1-4k_om

MEMO

MIDI implementation

The V-1-4K supports MIDI remote control.

See “MIDI Implementation” in the “Remote Control Guide” (Roland website) for details.

Menu list

1: VIDEO ASSIGN

Menu item	Value	Explanation
When ROI MODE (p. 53) is "OFF"		
INPUT 1–5	HDMI IN 1–5, STILL 1–2, BLACK, N/A The default values are as follows. INPUT 1: HDMI IN 1 INPUT 2: HDMI IN 2 INPUT 3: HDMI IN 3 INPUT 4: HDMI IN 4 INPUT 5: HDMI IN 5	Sets the video source (input video and still images) to assign to the cross-point [1]–[5] buttons.
INPUT 6–8	STILL 1–2, BLACK, N/A The default values are as follows. INPUT 6: STILL 1 INPUT 7: STILL 2 INPUT 8: BLACK	Sets the still images to assign to the cross-point [6]–[8] buttons.
HDMI OUT 3 (*1)	Specifies the video bus that is assigned to the OUTPUT 3 connector.	
	PROGRAM	Final output video.
	PREVIEW	Preview output video.
	INPUT 1–8	Video assigned to the cross-point buttons [1]–[8]
– FADE TIME	0.0–2.0sec	Sets the fade-in/out time. The fade-in/out effect is applied when switching the video assigned to HDMI OUT 3.
HDMI OUT 4/ USB OUT (*1)	Specifies the video bus that is assigned to the OUTPUT 3 connector/USB STREAM port.	
	PROGRAM	Final output video.
	PREVIEW	Preview output video.
	INPUT 1–8	Video assigned to the cross-point buttons [1]–[8]
– FADE TIME	0.0–2.0sec	Sets the fade-in/out time. The fade-in/out effect is applied when switching the video assigned to HDMI OUT 4/USB OUT.
When ROI MODE (p. 53) is "ON"		
INPUT 1	ROI 1, STILL 1–2, BLACK, N/A Default value: ROI 1	Sets the video source (ROI 1, still image) to assign to the cross-point [1] button. * If you select anything other than ROI 1, this is not reflected in the multi-view.
INPUT 2	ROI 2, STILL 1–2, BLACK, N/A Default value: ROI 2	Sets the video source (ROI 2, still image) to assign to the cross-point [2] button. * If you select anything other than ROI 2, this is not reflected in the multi-view.
INPUT 3	ROI 3, STILL 1–2, BLACK, N/A Default value: ROI 3	Sets the video source (ROI 3, still image) to assign to the cross-point [3] button. * If you select anything other than ROI 3, this is not reflected in the multi-view.
INPUT 4	ROI 4, STILL 1–2, BLACK, N/A Default value: ROI 4	Sets the video source (ROI 4, still image) to assign to the cross-point [4] button. * If you select anything other than ROI 4, this is not reflected in the multi-view.
INPUT 5–8	STILL 1–2, BLACK, N/A The default values are as follows. INPUT 5: HDMI IN 2 INPUT 6: HDMI IN 3 INPUT 7: HDMI IN 4 INPUT 8: HDMI IN 5	Sets the still images to assign to the cross-point [5]–[8] buttons.
HDMI OUT 3 (*1)	Specifies the video bus that is assigned to the OUTPUT 3 connector.	
	PROGRAM	Final output video.
	PREVIEW	Preview output video.
	INPUT 1–8	Video assigned to the cross-point buttons [1]–[8]
– FADE TIME	0.0–2.0sec	Sets the fade-in/out time. The fade-in/out effect is applied when switching the video assigned to HDMI OUT 3.
HDMI OUT 4/ USB OUT (*1)	Specifies the video bus that is assigned to the OUTPUT 3 connector/USB STREAM port.	
	PROGRAM	Final output video.
	PREVIEW	Preview output video.
	INPUT 1–8	Video assigned to the cross-point buttons [1]–[8]
– FADE TIME	0.0–2.0sec	Sets the fade-in/out time. The fade-in/out effect is applied when switching the video assigned to HDMI OUT 4/USB OUT.

(*1) A change in the setting is not applied until you press the [VALUE] knob to confirm.

2: VIDEO INPUT

Menu item	Value	Explanation
HDMI IN 1–5	Adjusts the video that is input from the INPUT 1–5 connectors.	
INPUT STATUS	ENTER	Displays information about the incoming video (format, size, etc.).
DYNAMIC RANGE	Specifies the dynamic range.	
	AUTO	Automatically sets the dynamic range according to the input format.
	SDR	Standard dynamic range
	HDR (PQ)	High dynamic range: PQ format
	HDR (HLG)	High dynamic range: HLG format
EDID (*2)	INTERNAL 1080i50, 1080i59.94/60 1080p23.98/24, 1080p25 1080p29.97/30, 1080p50 1080p59.94/60 2160p(UHD)23.98/24 2160p(UHD)25 2160p(UHD)29.97/30 2160p(UHD)50 2160p(UHD)59.94/60 2160p(UHD)50(YUV420) 2160p(UHD)59.94/60(YUV420)	Specifies the input format (EDID). If this is set to "INTERNAL", EDID data for all formats that can be input to the V-1-4K is transmitted. What is EDID? EDID is data that is transmitted from the V-1-4K to the source device when the V-1-4K is connected to a source device. EDID contains data such as the formats that can be input to the V-1-4K (resolution, color space, color depth) and audio information. Based on the EDID information that the source device receives, it will output the most appropriate video format to the V-1-4K.
	ZOOM	10.0–1000.0%
	Adjusts the zoom ratio.	
	This sets the scaling type.	
	FULL	Always displays the picture expanded to full screen, irrespective of the aspect ratio of the input video.
	LETTERBOX	Enlarges or reduces the incoming video to a full-screen view while keeping the aspect ratio unchanged.
	CROP	Enlarges or reduces the incoming video so that the output picture has no blank margins while keeping the aspect ratio unchanged. Video extending beyond the borders is cut off.
	DOT BY DOT	Performs no scaling.
	MANUAL	Scale according to the "MANUAL SIZE H" and "MANUAL SIZE V" settings below.
	– MANUAL SIZE H (*3)	–19200–19200 (*2)
	– MANUAL SIZE V (*3)	–10800–10800 (*2)
POSITION H (*1)	–19200–19200	Adjusts the position in the horizontal direction.
POSITION V (*1)	–10800–10800	Adjusts the position in the vertical direction.

(*1) When MODE of ROLAND FILL+KEY is "ON", the setting is disabled (only for HDMI IN 5)

(*2) A change in the setting is not applied until you press the [VALUE] knob to confirm.

(*3) This can be set if "SCALING TYPE" is "MANUAL".

3: VIDEO OUTPUT

Menu item	Value	Explanation
HDMI OUT 1, 2, 5	Adjusts the video that is output from the OUTPUT 1, 2, 5 connectors.	
OUTPUT STATUS	---	Displays information about the connection status and the output video. If there is no connection, "NOT CONNECTED" is shown.
HDMI OUT 3, 4	Adjusts the video that is output from the OUTPUT 3, 4 connectors.	
OUTPUT STATUS	---	Displays information about the connection status and the output video. If there is no connection, "NOT CONNECTED" is shown.
COLOR GAMUT	SYSTEM, REC.709	Specifies the color gamut. When set to "SYSTEM", this follows the COLOR GAMUT setting (p. 63) in the SYSTEM menu.
DYNAMIC RANGE	Specifies the dynamic range.	
	SYSTEM	Follows the DYNAMIC RANGE (p. 63) setting in the SYSTEM menu.
	SDR	Standard dynamic range
1080p DOWN CONVERT	OFF, ON	Turns downsampling to 1080p on/off. * This is disabled when SYSTEM FORMAT (p. 63) is "1080p".
USB OUT	Adjusts the video that is output from the USB STREAM port. * You can edit the USB output video format and compression method from the livestreaming app or other app used at the output destination.	
OUTPUT STATUS	---	Displays information about the connection status and the output video. If not connected to a computer, this indicates "NOT CONNECTED". * When "HDCP" (p. 63) in the SYSTEM menu is "ON", "HDCP MASKED" is displayed, and video/audio is not outputted from the USB STREAM port.
CONNECTION RESET	EXEC	Reconnects the computer and the V-1-4K when the video is garbled or when operation is otherwise unstable.

4: MIX/WIPE

Menu item	Value	Explanation
MIX	This is the detailed mix setting.	
MIX TIME	0.0–4.0sec	This sets the video transition time.
WIPE	These are the detailed wipe settings.	
WIPE TYPE	Specifies the transition pattern for wipe.	
	HORIZONTAL  VERTICAL  UPPER LEFT  UPPER RIGHT  LOWER LEFT  LOWER RIGHT 	
	H-CENTER  V-CENTER  BOX 	
WIPE TIME	0.0–4.0sec	This sets the video transition time.
WIPE DIRECTION	NORMAL, REVERSE, ROUND TRIP	Specifies the direction of wipe. * When WIPE DIRECTION is set to “ROUND TRIP” and PANEL OPERATION (p. 63) is “PGM/ PST”, the direction of the wipe when the [AUTO] button is pressed is determined by the position of the video fader (top or bottom).

5: PinP&KEY/SPLIT

Menu item	Value	Explanation
PinP&KEY	These are the detailed settings for PinP and key composition.	
TYPE	Specifies the type of PinP compositing.	
	PinP	This composites video in an inset screen over a background video.
	LUMINANCE-WHITE KEY	A combination of PinP and luminance key (white). Makes the white portions of the inset screen transparent, and composites the image with the background.
	LUMINANCE-BLACK KEY	A combination of PinP and luminance key (black). Makes the black portions of the inset screen transparent, and composites the image with the background.
When TYPE = PinP	CHROMA KEY	
	A combination of PinP and chroma key. Makes the specified key color portions of the inset screen transparent, and composites the image with the background.	
WINDOW	Adjusts the inset screen.	
POSITION H	-50.0–50.0%	Adjusts the horizontal position of the inset screen.
POSITION V	-50.0–50.0%	Adjusts the vertical position of the inset screen.
SIZE	0.0–100.0%	Adjusts the size of the inset screen.
CROPPING H	0.0–100.0%	Adjusts the horizontal size of the inset screen.
CROPPING V	0.0–100.0%	Adjusts the vertical size of the inset screen.
BORDER COLOR	WHITE, YELLOW, CYAN, GREEN, MAGENTA, RED, BLUE, BLACK, CUSTOM	Specifies the color of the border for the inset screen.
– EDIT	ENTER	Sets a custom color.
BORDER WIDTH	0–14	Adjusts the width of the border for the inset screen.
VIEW	Adjusts the video that is shown in the inset screen.	
POSITION H	-50.0–50.0%	Adjusts the horizontal position at which the inset screen is shown.
POSITION V	-50.0–50.0%	Adjusts the vertical position at which the inset screen is shown.
ZOOM	100–400%	Adjusts the zoom of the video shown in the inset screen.
When TYPE = LUMINANCE-WHITE KEY OR LUMINANCE-BLACK KEY		
WINDOW	Adjusts the inset screen.	
POSITION H	-50.0–50.0%	Adjusts the horizontal position of the inset screen.
POSITION V	-50.0–50.0%	Adjusts the vertical position of the inset screen.
SIZE	0.0–100.0%	Adjusts the size of the inset screen.
CROPPING H	0.0–100.0%	Adjusts the horizontal size of the inset screen.
CROPPING V	0.0–100.0%	Adjusts the vertical size of the inset screen.
VIEW	Adjusts the video that is shown in the inset screen.	
POSITION H	-50.0–50.0%	Adjusts the horizontal position at which the inset screen is shown.
POSITION V	-50.0–50.0%	Adjusts the vertical position at which the inset screen is shown.
ZOOM	100–400%	Adjusts the zoom of the video shown in the inset screen.

Menu item	Value	Explanation
KEY LEVEL	0–255	Adjusts the degree of extraction (transparency) for the key.
KEY GAIN	0–255	Adjusts the degree of edge blur (semi-transmissive region) for the key.
When TYPE = CHROMA KEY		
WINDOW	Adjusts the inset screen.	
POSITION H	-50.0–50.0%	Adjusts the horizontal position of the inset screen.
POSITION V	-50.0–50.0%	Adjusts the vertical position of the inset screen.
SIZE	0.0–100.0%	Adjusts the size of the inset screen.
CROPPING H	0.0–100.0%	Adjusts the horizontal size of the inset screen.
CROPPING V	0.0–100.0%	Adjusts the vertical size of the inset screen.
VIEW	Adjusts the video that is shown in the inset screen.	
POSITION H	-50.0–50.0%	Adjusts the horizontal position at which the inset screen is shown.
POSITION V	-50.0–50.0%	Adjusts the vertical position at which the inset screen is shown.
ZOOM	100–400%	Adjusts the zoom of the video shown in the inset screen.
KEY LEVEL	0–255	Adjusts the degree of extraction (transparency) for the key.
KEY GAIN	0–255	Adjusts the degree of edge blur (semi-transmissive region) for the key.
CHROMA	Make detailed settings for chroma key.	
COLOR	GREEN, BLUE	Specifies green or blue as the key color.
HUE WIDTH	-30–30	Adjusts the hue width for the key color.
HUE FINE	0–360	Adjusts the center position of the hue for the key color.
SATURATION WIDTH	-128–127	Adjusts the saturation width for the key color.
SATURATION FINE	0–255	Adjusts the center position of saturation for the key color.
VALUE WIDTH	-128–127	Adjusts the brightness (luminosity) width for the key color.
VALUE FINE	0–255	Adjusts the center position of brightness for the key color.
SPLIT	These are the detailed settings for the split composite.	
SPLIT TYPE	Specifies the split screen layout.	
	SPLIT V	This vertically crops the center section of the video (split left/right). 
	SPLIT H	This horizontally crops the center section of the video (split upper/lower). 
PGM/A CENTER	-50.0–50.0%	When at SPLIT V Adjusts the horizontal position of the video placed on the left. When at SPLIT H Adjusts the horizontal position of the video placed above. * This positions the PGM/A bus video to the left or upper side.
PST/B CENTER	-50.0–50.0%	When at SPLIT V Adjusts the horizontal position of the video placed on the right When at SPLIT H Adjusts the horizontal position of the video placed below * This positions the PST/B bus video to the right or lower side.
BORDER COLOR	WHITE, YELLOW, CYAN, GREEN, MAGENTA, RED, BLUE, BLACK, CUSTOM	Specifies the color of the border.
– EDIT	ENTER	Sets a custom color.
BORDER WIDTH	0–14	Adjusts the width of the border.

6: DSK

Menu item	Value	Explanation
When Roland FILL+KEY MODE = OFF		
DSK SOURCE	HDMI 1–5, STILL 1–2, INPUT 1–8	Specifies the source of the caption or video that is overlaid.
TIME	0.0–4.0sec	This sets the video transition time.
DSK TYPE	Specifies the DSK type used during DSK composition.	
	LUMINANCE-WHITE	Makes white portions transparent according to brightness.
	LUMINANCE-BLACK	Makes black portions transparent according to brightness.
DSK LEVEL	0–255	Adjusts the degree of extraction (transparency) for the key.
DSK GAIN	0–255	Adjusts the degree of edge blur (semi-transmissive region) for the key.
MIX LEVEL	0–255	Adjusts the key's overall density (output level).
When Roland FILL+KEY MODE = ON		
DSK SOURCE	HDMI IN 5	The value is fixed because key composition is performed using Roland Graphics Presenter.
TIME	0.0–4.0sec	This sets the video transition time.

7: ROI

Menu item	Value	Explanation
MODE	OFF, ON	Turns the ROI function on/off.
		What is ROI? By using the ROI (Region of Interest) function, you can specify up to four regions from the video of a 4K camera (for example), and use those regions as input videos.
ROI 1–4	This specifies the region to select within the video signal.	
– ZOOM	100.0–400.0%	Specifies the zoom ratio for the selected region, relative to the original video.
– POSITION H	–1920–1920	Specifies the horizontal position at which the selected region is shown.
– POSITION V	–1080–1080	Specifies the vertical position at which the selected region is shown.

8: AUDIO KNOB ASSIGN

Menu item	Value	Explanation
AUDIO INPUT	Selects the audio input to assign to [AUDIO IN] knob.	
– INPUT KNOB AUDIO IN	AUDIO IN	Audio from AUDIO IN L, R connectors
	USB IN	Audio from USB STREAM port
	HDMI 1–5	Audio from INPUT 1–5 connectors
AUDIO OUTPUT	Selects the audio to assign to [USB OUT] and [MAIN] knobs.	
– OUTPUT KNOB USB OUT – OUTPUT KNOB MAIN	MAIN BUS	MAIN bus output audio
	AUX 1–2 BUS	AUX 1–2 bus output audio
	USB OUT	USB STREAM port output audio

9: AUDIO INPUT

Menu item	Value	Explanation
AUDIO IN	Adjusts the audio that is input from the AUDIO IN L, R connectors.	
USB IN	Adjusts the audio that is input from the USB STREAM port.	
HDMI IN 1–5	Adjusts the audio that is input from the INPUT 1–5 connectors.	
DIGITAL GAIN	-42.0–42.0dB	Adjusts the input gain (sensitivity) in the digital domain (after conversion from analog to digital).
INPUT LEVEL	-INF–10.0dB	Adjusts the input volume. This can also be adjusted by the [AUDIO IN] knob.
INPUT MUTE	OFF, ON	Turns the mute function on/off. If this is “ON”, the input audio is temporarily silenced.
MONO	Converts the input audio from stereo to mono.	
	OFF	Sends the stereo input audio without change.
	L ONLY	The audio of the L channel is sent to both L and R.
	R ONLY	The audio of the R channel is sent to both L and R.
	LR MIX	The audio of the L channel and R channel is mixed, and sent to both L and R.
SOLO	OFF, ON	Turns the solo function on/off. Only the audio for which this is “ON” is heard in the headphones. * The solo function applies to the headphone output. It does not affect output other than the headphones.
DELAY	0.0–500.0msec (0.0–29.9 frame)	Adjusts the delay time of the audio. Effect This outputs audio with a delay. * The effect is also applied to the MONITOR bus audio.
MAIN BUS	This configures the MAIN bus.	
– SEND	OFF, ON	When this is “ON”, audio is sent to the MAIN bus.
AUX 1 BUS	This configures the AUX 1 bus.	
– SEND LEVEL	-INF–10.0dB	Adjusts the amount of audio sent to the AUX 1 bus.
– SEND POINT	DRY	This sends the source audio with no effects applied.
	PRE FADER	Sends the effect-applied audio. The send volume is constant, regardless of the volume (INPUT LEVEL).
	POST FADER	Sends the effect-applied audio. The send volume can be changed by adjusting the volume (INPUT LEVEL).
AUX 2 BUS	This configures the AUX 2 bus.	
– SEND LEVEL	-INF–10.0dB	Adjusts the amount of audio sent to the AUX 2 bus.
– SEND POINT	DRY	This sends the source audio with no effects applied.
	PRE FADER	Sends the effect-applied audio. The send volume is constant, regardless of the volume (INPUT LEVEL).
	POST FADER	Sends the effect-applied audio. The send volume can be changed by adjusting the volume (INPUT LEVEL).
HIGH PASS FILTER	OFF, ON	Turns the high-pass filter on/off. Effect This cuts off unneeded low-band audio.
– FREQUENCY	20.0Hz–1.00kHz	Adjusts the cutoff frequency of the high-pass filter.
NOISE GATE	OFF, ON	Turns the noise gate on/off. Effect This mutes audio that is below a specified level. This is effective when the noise that you want to remove is separate from the audio that you want to keep, and can be used to remove hiss or other noise that is heard during periods of silence.
– THRESHOLD	-80–0dB	Specifies the level used as the threshold for removing audio. Audio below the level set here is removed.
– RELEASE	30–5000msec	Adjusts the length of time until the audio is fully attenuated after audio falls below the threshold.
COMPRESSOR	OFF, ON	This sets the compressor on or off. Effect Audio that exceeds the specified threshold level is compressed. This reduces the difference between the maximum volume and minimum volume, making the audio more comfortable for listening.
– THRESHOLD	-50–0dB	Specifies the level used as the threshold at which the compressor is applied. Compression is applied to audio that exceeds the threshold.
– RATIO	1.00:1, 1.12:1, 1.25:1, 1.40:1, 1.60:1, 1.80:1, 2.00:1, 2.50:1, 3.20:1, 4.00:1, 5.60:1, 8.00:1, 16.0:1, INF:1	This species the degree of compression applied to the audio. The state in which no compression is applied is defined as “1”.
– ATTACK	0.0–100msec	Specifies the time until compression starts when audio exceeding the threshold is input.
– RELEASE	30–5000msec	Adjusts the length of time until compression ends after audio falls below the threshold.
– MAKEUP GAIN	-40–40dB	Adjusts the final output volume level after applying the compressor.
EQUALIZER	OFF, ON	Turns the equalizer on/off. Effect This is a 4-band parametric equalizer. It lets you shape the character of the sound by boosting or cutting four frequency regions.

Menu item	Value	Explanation
– Hi GAIN	-12.0–12.0dB	This boosts or attenuates the high band.
– Hi FREQUENCY	1.00–20.0kHz	Adjusts the center frequency when changing the tone quality in the high band.
– Hi-Mid GAIN	-12.0–12.0dB	Boosts or attenuates the high-midrange band.
– Hi-Mid FREQUENCY	20.0Hz–20.0kHz	Adjusts the center frequency when changing the tone quality in the high-midrange band.
– Hi-Mid Q	0.5–16.0	Adjusts the width of the frequency band when boosting or attenuating high-midrange band.
– Lo-Mid GAIN	-12.0–12.0dB	Boosts or attenuates the low-midrange band.
– Lo-Mid FREQUENCY	20.0Hz–20.0kHz	Adjusts the center frequency when changing the tone quality in the low-midrange band.
– Lo-Mid Q	0.5–16.0	Adjusts the width of the frequency band when boosting or attenuating low-midrange band.
– Lo GAIN	-12.0–12.0dB	This boosts or attenuates the low band.
– Lo FREQUENCY	20Hz–2.00kHz	Adjusts the center frequency when changing the tone quality in the low band.

10: AUDIO OUTPUT

Menu item	Value	Explanation
OUTPUT ASSIGN	Specifies the audio bus that is assigned to each connector.	
AUDIO OUT	MAIN BUS, AUX 1 BUS, AUX 2 BUS, MONITOR BUS	MAIN BUS: All input audio is mixed and output (master output). AUX 1 BUS, AUX 2 BUS: Only the input audio sent to the AUX bus is mixed and output. This allows you to output audio that is different than the master output. MONITOR BUS: This outputs the same audio as what you hear in the headphones.
PHONES OUT/MONITOR	MAIN BUS, AUX 1 BUS, AUX 2 BUS	
USB OUT	MAIN BUS, AUX 1 BUS, AUX 2 BUS, MONITOR BUS	
HDMI OUT 1–5	MAIN BUS, AUX 1 BUS, AUX 2 BUS, MONITOR BUS	
MAIN BUS	Adjusts the audio of the MAIN bus.	
LEVEL	-INF–10.0dB	Adjusts the output volume. You can also adjust the output volume by assigning MAIN Bus to [USB OUT] or [MAIN] knobs.
MUTE	OFF, ON	Turns the mute function on/off. If this is “ON”, the output audio is temporarily silenced.
SOLO	OFF, ON	Turns the solo function on/off. Only the audio for which this is “ON” is heard in the headphones. * The solo function applies to the headphone output. It does not affect output other than the headphones.
DELAY	0.0–500.0msec (0.0–29.9 frame)	Adjusts the delay time of the audio. Effect This outputs audio with a delay.
EQUALIZER	OFF, ON	Turns the equalizer on/off. Effect This is a 4-band parametric equalizer. It lets you shape the character of the sound by boosting or cutting four frequency regions.
– Hi GAIN	-12.0–12.0dB	This boosts or attenuates the high band.
– Hi FREQUENCY	1.00–20.0kHz	Adjusts the center frequency when changing the tone quality in the high band.
– Hi-Mid GAIN	-12.0–12.0dB	Boosts or attenuates the high-midrange band.
– Hi-Mid FREQUENCY	20.0Hz–20.0kHz	Adjusts the center frequency when changing the tone quality in the high-midrange band.
– Hi-Mid Q	0.5–16.0	Adjusts the width of the frequency band when boosting or attenuating high-midrange band.
– Lo-Mid GAIN	-12.0–12.0dB	Boosts or attenuates the low-midrange band.
– Lo-Mid FREQUENCY	20.0Hz–20.0kHz	Adjusts the center frequency when changing the tone quality in the low-midrange band.
– Lo-Mid Q	0.5–16.0	Adjusts the width of the frequency band when boosting or attenuating low-midrange band.
– Lo GAIN	-12.0–12.0dB	This boosts or attenuates the low band.
– Lo FREQUENCY	20.0Hz–2.00kHz	Adjusts the center frequency when changing the tone quality in the low band.
COMPRESSOR/LIMITER	OFF, ON	Turns the compressor or limiter on/off.
TYPE	Selects the compressor or limiter.	
	COMPRESSOR	Effect Audio that exceeds the specified threshold level is compressed. This reduces the difference between the maximum volume and minimum volume, making the audio more comfortable for listening.
	LIMITER	Effect Compresses the audio so that the mixed audio does not exceed the specified threshold level. * Distortion will occur if audio that exceeds the allowable range of the limiter is input.
When TYPE = COMPRESSOR		
– THRESHOLD	-50–0dB	Specifies the level used as the threshold at which the compressor is applied. Compression is applied to audio that exceeds the threshold.
– RATIO	1.00:1, 1.12:1, 1.25:1, 1.40:1, 1.60:1, 1.80:1, 2.00:1, 2.50:1, 3.20:1, 4.00:1, 5.60:1, 8.00:1, 16.0:1, INF:1	This species the degree of compression applied to the audio. The state in which no compression is applied is defined as “1”.
– ATTACK	0.0–100ms	Specifies the time until compression starts when audio exceeding the threshold is input.

Menu item	Value	Explanation
– RELEASE	30–5000ms	Adjusts the length of time until compression ends after audio falls below the threshold.
– MAKEUP GAIN	-40–40dB	Adjusts the final output volume level after applying the compressor.
When TYPE = LIMITER		
– THRESHOLD	-40–0dB	Adjusts the level that becomes the threshold at which the limiter is applied. Compression is applied to audio that exceeds the threshold. The volume level of audio that is output is limited so as to stay to below the threshold.
GEQ	OFF, ON	These are the settings for the graphic equalizer. Effect This lets you shape the character of the sound by boosting or cutting each of the 15 frequency regions into which the sound is divided.
– ALL FLAT	EXEC	Sets the equalizer settings to flat (0.0 dB).
– 25Hz	-15.0–+15.0dB	Boost/cut each frequency region.
– 40Hz		
– 63Hz		
– 100Hz		
– 160Hz		
– 250Hz		
– 400Hz		
– 630Hz		
– 1kHz		
– 1.6kHz		
– 2.5kHz		
– 4kHz		
– 6.3kHz		
– 10kHz		
– 16kHz		
AUX 1 BUS	Adjusts the audio of the AUX 1 bus.	
AUX 2 BUS	Adjusts the audio of the AUX 2 bus.	
LEVEL	-INF–10.0dB	Adjusts the output volume. You can also adjust the output volume by assigning AUX 1, 2 BUS to [USB OUT] or [MAIN] knobs.
MUTE	OFF, ON	Turns the mute function on/off. If this is “ON”, the output audio is temporarily silenced.
SOLO	OFF, ON	Turns the solo function on/off. Only the audio for which this is “ON” is heard in the headphones. * The solo function applies to the headphone output. It does not affect output other than the headphones.
DELAY	0.0–500.0msec (0.0–29.9 frame)	Adjusts the delay time of the audio. Effect This outputs audio with a delay.
AUX 1 BUS SEND LEVEL AUX 2 BUS SEND LEVEL	ENTER	Adjusts the amount of audio sent to the AUX 1, 2 buses.
AUDIO IN USB IN HDMI IN 1–5	-INF–10.0dB	Adjusts how much signal from each input connector/port (AUDIO IN L/R, USB STREAM, INPUT 1–5) is sent to the AUX 1, 2 bus.
AUX 1 BUS SEND POINT AUX 2 BUS SEND POINT	ENTER	Sets whether the effect is applied to the audio sent to the AUX 1, 2 bus.
AUDIO IN USB IN HDMI IN 1–5	DRY	This sends the source audio with no effects applied.
	PRE FADER	Sends the effect-applied audio. The send volume is constant, regardless of the volume (INPUT LEVEL).
	POST FADER	Sends the effect-applied audio. The send volume can be changed by adjusting the volume (INPUT LEVEL).
EQUALIZER	OFF, ON	Turns the equalizer on/off. Effect This is a 4-band parametric equalizer. It lets you shape the character of the sound by boosting or cutting four frequency regions.
– Hi GAIN	-12.0–12.0dB	This boosts or attenuates the high band.
– Hi FREQUENCY	1.00–20.0kHz	Adjusts the center frequency when changing the tone quality in the high band.
– Hi-Mid GAIN	-12.0–12.0dB	Boosts or attenuates the high-midrange band.
– Hi-Mid FREQUENCY	20.0Hz–20.0kHz	Adjusts the center frequency when changing the tone quality in the high-midrange band.
– Hi-Mid Q	0.5–16.0	Adjusts the width of the frequency band when boosting or attenuating high-midrange band.
– Lo-Mid GAIN	-12.0–12.0dB	Boosts or attenuates the low-midrange band.
– Lo-Mid FREQUENCY	20.0Hz–20.0kHz	Adjusts the center frequency when changing the tone quality in the low-midrange band.
– Lo-Mid Q	0.5–16.0	Adjusts the width of the frequency band when boosting or attenuating low-midrange band.
– Lo GAIN	-12.0–12.0dB	This boosts or attenuates the low band.
– Lo FREQUENCY	20.0Hz–2.00kHz	Adjusts the center frequency when changing the tone quality in the low band.

Menu item	Value	Explanation
COMPRESSOR/LIMITER	OFF, ON	Turns the compressor or limiter on/off.
TYPE	Selects the compressor or limiter.	
	COMPRESSOR	Effect Audio that exceeds the specified threshold level is compressed. This reduces the difference between the maximum volume and minimum volume, making the audio more comfortable for listening.
	LIMITER	Effect Compresses the audio so that the mixed audio does not exceed the specified threshold level. * Distortion will occur if audio that exceeds the allowable range of the limiter is input.
When TYPE = COMPRESSOR		
– THRESHOLD	-50–0dB	Specifies the level used as the threshold at which the compressor is applied. Compression is applied to audio that exceeds the threshold.
– RATIO	1.00:1, 1.12:1, 1.25:1, 1.40:1, 1.60:1, 1.80:1, 2.00:1, 2.50:1, 3.20:1, 4.00:1, 5.60:1, 8.00:1, 16.0:1, INF:1	This species the degree of compression applied to the audio. The state in which no compression is applied is defined as “1”.
– ATTACK	0.0–100ms	Specifies the time until compression starts when audio exceeding the threshold is input.
– RELEASE	30–5000ms	Adjusts the length of time until compression ends after audio falls below the threshold.
– MAKEUP GAIN	-40–40dB	Adjusts the final output volume level after applying the compressor.
When TYPE = LIMITER		
– THRESHOLD	-40–0dB	Adjusts the level that becomes the threshold at which the limiter is applied. Compression is applied to audio that exceeds the threshold. The volume level of audio that is output is limited so as to stay to below the threshold.
GEQ	OFF, ON	Effect These are the settings for the graphic equalizer. This lets you shape the character of the sound by boosting or cutting each of the 15 frequency regions into which the sound is divided.
– ALL FLAT	EXEC	Sets the equalizer settings to flat (0.0 dB).
– 25Hz	-15.0–+15.0dB	Boost/cut each frequency region.
– 40Hz		
– 63Hz		
– 100Hz		
– 160Hz		
– 250Hz		
– 400Hz		
– 630Hz		
– 1kHz		
– 1.6kHz		
– 2.5kHz		
– 4kHz		
– 6.3kHz		
– 10kHz		
– 16kHz		
PHONES OUT/MONITOR Adjusts the output audio from the PHONES jack and the MONITOR bus audio.		
PHONES LEVEL	-INF–10.0dB	Adjusts the output audio from the PHONES jack.
MONITOR LEVEL	-INF–10.0dB	Adjust the monitor volume.
USB OUT Adjusts the audio that’s output from the USB STREAM port.		
LEVEL	-INF–10.0dB	Adjusts the output volume. You can also adjust the output volume by assigning MAIN BUS to the [USB OUT] or [MAIN] knob.
MUTE	OFF, ON	Turns the mute function on/off. If this is “ON”, the output audio is temporarily silenced.
DELAY	0.0–500.0msec (0.0–29.9 frame)	Adjusts the delay time of the audio. Effect This outputs audio with a delay.
EQUALIZER	OFF, ON	Turns the equalizer on/off. Effect This is a 4-band parametric equalizer. It lets you shape the character of the sound by boosting or cutting four frequency regions.
– Hi GAIN	-12.0–12.0dB	This boosts or attenuates the high band.
– Hi FREQUENCY	1.00–20.0kHz	Adjusts the center frequency when changing the tone quality in the high band.
– Hi-Mid GAIN	-12.0–12.0dB	Boosts or attenuates the high-midrange band.
– Hi-Mid FREQUENCY	20.0Hz–20.0kHz	Adjusts the center frequency when changing the tone quality in the high-midrange band.
– Hi-Mid Q	0.5–16.0	Adjusts the width of the frequency band when boosting or attenuating high-midrange band.
– Lo-Mid GAIN	-12.0–12.0dB	Boosts or attenuates the low-midrange band.
– Lo-Mid FREQUENCY	20.0Hz–20.0kHz	Adjusts the center frequency when changing the tone quality in the low-midrange band.
– Lo-Mid Q	0.5–16.0	Adjusts the width of the frequency band when boosting or attenuating low-midrange band.
– Lo GAIN	-12.0–12.0dB	This boosts or attenuates the low band.
– Lo FREQUENCY	20.0Hz–2.00kHz	Adjusts the center frequency when changing the tone quality in the low band.

11: AUDIO FOLLOW

Menu item	Value	Explanation
ALL AUDIO FOLLOW	OFF, ON	Turns on/off the audio follow function for HDMI IN 1–5, AUDIO IN, and USB IN with a single action. Audio follow is a function that automatically switches the audio output in tandem with video switching.
HDMI IN 1–5	Turns the audio follow function on/off.	
	OFF	The audio is always output regardless of the video selection.
	ON	The audio is output only when the video is selected. The audio is automatically muted if another video is selected.
AUDIO IN	OFF, HDMI 1–5, STILL 1–2, INPUT 1–8	For each audio source, these settings specify the input video that will use the audio follow function. Audio is output only when the specified video is selected. When this is "OFF", the audio is always output regardless of the video selection.
USB IN		
DSK FOLLOW	OFF, ON	When DSK is "ON", this sets whether the sound associated with the source video is linked.

12: AUDIO AUTO MIXING

Menu item	Value	Explanation
AUDIO AUTO MIXING	OFF, ON	Turns the auto mixing function on/off. Auto mixing is a function that automatically controls the volume adjustments.
– AUDIO IN	DISABLE, ENABLE	Sets whether auto-mixing applies (ENABLE) to the input audio signals from the AUDIO IN L, R jacks or does not apply (DISABLE).
– Weight	0–100%	Specifies the weight level (the priority of volume distribution). * Setting the weight level to "0" results in no audio output.
– USB IN	DISABLE, ENABLE	Sets whether auto-mixing applies (ENABLE) to the input audio signals from the USB STREAM port or does not apply (DISABLE).
– WEIGHT	0–100%	Specifies the weight level (the priority of volume distribution). * Setting the weight level to "0" results in no audio output.
– HDMI IN 1–5	DISABLE, ENABLE	Sets whether auto-mixing applies (ENABLE) to the input audio signals from the INPUT 1–5 connectors or does not apply (DISABLE).
– WEIGHT	0–100%	Specifies the weight level (the priority of volume distribution). * Setting the weight level to "0" results in no audio output.

13: STILL IMAGE

Menu item	Value	Explanation
LOAD STILL IMAGE	STILL 1, STILL 2	Specifies where to save still images imported from USB flash drive to this unit's internal memory. * A "*" symbol is displayed for internal memory where a still image is already saved.
CAPTURE SAVE	DISABLE, ENABLE	Sets whether still images that are captured from the input video are saved to this unit's memory (ENABLE) or not (DISABLE).
DELETE STILL IMAGE	ALL, STILL 1, STILL 2	Selects the still images to delete. * A "*" symbol is displayed for internal memory where a still image is already saved.

14: MEMORY

Menu item	Value	Explanation
LOAD	1 (memory name)– 8 (memory name)	Specifies the memory from which to recall the settings.
SAVE	1 (memory name)– 8 (memory name)	Specifies the memory to which the settings are saved.
INITIALIZE	ALL, 1 (memory name)– 8 (memory name)	Specifies the memory for which the settings are to be initialized.
NAME EDIT	1 (memory name)– 8 (memory name)	Specifies the memory to be renamed. Press the [VALUE] knob to display the NAME EDIT screen.
START UP	Specifies the settings loaded at startup.	
	LAST MEMORY	Restores the state that was in effect immediately before the power was turned off (Last Memory feature). The current settings (Last Memory values) are saved every 4 seconds, and when you exit a menu.
	1 (memory name)– 8 (memory name)	Recall the settings at the selected scene memory.
– PRIORITY	MEMORY, PANEL	Sets whether to give the scene memory or the panel state priority.
MEMORY PROTECT	OFF, ON	When this is “ON”, prohibits settings from being saved or initialized. This protects the memories. * Protected scene memories are erased if you perform a factory reset.
LOAD FROM STORAGE	ENTER	Shows a list of memory setting files (.V14Kpreset) on the USB flash drive. You can select a memory setting file to recall a memory (1–8) on this unit.
SAVE TO STORAGE	ENTER	Shows a list of memory setting files (.V14Kpreset) on the USB flash drive. When the filename is set, this is saved as a new memory setting file. When the memory setting file is selected, it is overwritten with the existing filename.
LOAD PARAMETER	Specifies whether to recall the following items when recalling a memory. Items that are turned off are excluded from the preset memories that are recalled.	
– VIDEO ASSIGN	OFF, ON	VIDEO ASSIGN menu
– VIDEO INPUT	OFF, ON	VIDEO INPUT menu
– VIDEO OUTPUT	OFF, ON	VIDEO OUTPUT menu
– TRANSITION TYPE	OFF, ON	Status of [TRANSITION] button
– MIX/WIPE	OFF, ON	MIX/WIPE menu
– PinP&KEY	OFF, ON	Status of [PinP & KEY] button
– SPLIT	OFF, ON	Status of [SPLIT] button
– DSK	OFF, ON	DSK menu
– PGM/A, PST/B	OFF, ON	Status of PGM/A bus, PST/B bus and video switching
– VIDEO FADER	INITIALIZE, ON	Video switching status When set to “INITIALIZE”, the video fader is pushed all the way up or pulled all the way down when the memory is recalled.
– AUDIO KNOB ASSIGN	OFF, ON	AUDIO KNOB ASSIGN menu
– AUDIO INPUT	OFF, ON	AUDIO INPUT menu
– AUDIO OUTPUT	OFF, ON	AUDIO OUTPUT menu
– AUDIO FOLLOW	OFF, ON	AUDIO FOLLOW menu
– AUDIO AUTO MIXING	OFF, ON	AUDIO AUTO MIXING menu
– ROI MODE	OFF, ON	Status of ROI mode
– ROI SETTINGS	OFF, ON	ROI menu

15: ASSIGNABLE PADS

Menu item	Explanation
BANK A–D	Displays the functions assigned to the pads [1]–[8] of each bank. Press the [VALUE] knob to switch to the setting screen for each pad.
PAD A-1–D-8	

CATEGORY	FUNCTION	VALUE	Explanation
N/A	---	---	No function is assigned.
VIDEO	OUTPUT 3 ASSIGN	PROGRAM, PREVIEW, INPUT 1–8	Switches to the output video from the OUTPUT 3 connector with the specified video.
	OUTPUT 4 ASSIGN	PROGRAM, PREVIEW, INPUT 1–8	Switches to the output video from the OUTPUT 4 connector with the specified video.
	DSK SOURCE	HDMI IN 1–5, STILL 1–2, INPUT 1–8	Switches the DSK compositing video source to the specified video.
AUDIO	INPUT MUTE	AUDIO IN, USB IN, HDMI IN 1–5	Turns the mute function on/off for the specified input audio.
	OUTPUT MUTE	MAIN BUS, AUX 1 BUS, AUX 2 BUS, USB OUT	Turns the mute function on/off for the specified output audio.
	INPUT SOLO	AUDIO IN, USB IN, HDMI IN 1–5	Turns the solo function on/off for the specified input audio.
	OUTPUT SOLO	MAIN BUS, AUX 1 BUS, AUX 2 BUS	Turns the solo function on/off for the specified output audio.
	HPF ON/OFF	AUDIO IN, USB IN, HDMI IN 1–5	Turns the high-pass filter on/off for the specified input audio.
	NOISE GATE	AUDIO IN, USB IN, HDMI IN 1–5	Turns the noise gate on/off for the specified input audio.
	INPUT COMPRESSOR	AUDIO IN, USB IN, HDMI IN 1–5	Turns the compressor filter on/off for the specified input audio.
	INPUT EQUALIZER	AUDIO IN, USB IN, HDMI IN 1–5	Turns the equalizer on/off for the specified input audio.
	OUTPUT EQUALIZER	MAIN BUS, AUX 1 BUS, AUX 2 BUS, USB OUT	Turns the equalizer on/off for the specified output audio bus.
	OUTPUT GEQ	MAIN BUS, AUX 1 BUS, AUX 2 BUS	Turns the graphic equalizer on/off for the specified output audio bus.
	AUTO MIXING ON/OFF	---	Turns the auto mixing function on/off.
	OUTPUT COMP/LIMIT	MAIN BUS, AUX 1 BUS, AUX 2 BUS	Turns the compressor/limiter on/off for the specified output audio bus.
MEMORY	---	MEMORY 1–8	Press a pad to recall the memory. Long-press a pad to save the current settings to a memory.
AUTO SWITCHING	AUTO SWITCHING	---	Turns the auto switching function on/off.
	INPUT SCAN	NORMAL	Each time you press a pad, the final output switches from Input 1 to 8 in sequential order.
		REVERSE	Each time you press a pad, the final output switches from Input 8 to 1 in reverse order.
CAMERA CONTROL	MODE	---	Turns camera control mode on/off.
	PAN	LEFT	Pans the camera to the left.
		RIGHT	Pans the camera to the right.
	TILT	DOWN	Tilts the camera down.
		UP	Tilts the camera up.
	ZOOM	WIDE (FAST)	Zooms the camera out wide (fast).
		WIDE (SLOW)	Zooms the camera out wide (slow).
		TELE (SLOW)	Telephoto zooms the camera in (slow).
		TELE (FAST)	Telephoto zooms the camera in (fast).
	FOCUS	NEAR	Sets the focus near the camera.
		FAR	Sets the focus far from the camera.
	AUTO FOCUS	---	Turns auto focus on/off for the camera.
	AUTO EXPOSURE	---	Turns auto-exposure on/off for the camera.
	PRESET RECALL	PRESET 1–100	Recalls presets 1 through 100.
	CAMERA SELECT	CAMERA 1–5	Switches to the camera to be controlled.
SYSTEM	---	PANEL OPERATION A/B, PANEL OPERATION PGM/PST	Switches the operation mode to the specified operation mode, which is used when switching between videos.

16: Roland FILL + KEY

Menu item	Value	Explanation
MODE	OFF, ON	Turns Roland Fill + Key Mode on/off.

17: AUTO SWITCHING

Menu item	Value	Explanation
AUTO SWITCHING	OFF, ON	Turns the auto switching function on/off. When this is "ON", the video or scene memory are switched automatically.
SCAN SEQUENCE	Specifies the order in which video signals are shown. * If there is no video input, this is skipped.	
	NORMAL	Switches in the order of Input 1→8.
	REVERSE	Switches in the order of Input 8→1.
	RANDOM	Switches randomly.
SCAN TRANSITION TIME	0.0–4.0sec	This sets the video transition time.
INPUT 1–8 TIME	OFF, 1–120sec	Specifies the time that the video is shown. Turn this "OFF" to skip.

18: NETWORK

Menu item	Value	Explanation				
LAN SETUP	ENTER	Accesses the LAN settings. Press the [VALUE] knob to switch to the LAN SETUP screen.				
CONFIGURE	Selects how settings are made for the IP address, subnet mask, and default gateway.					
	MANUAL	This is to be configured manually.				
	USING DHCP	The IP address and other information needed for connecting to the network is obtained automatically from the DHCP server of the LAN.				
IP ADDRESS (*1)	---.---.---.---	Specifies the IP address as appropriate for the network to which the unit is connected.				
SUBNET MASK (*1)	---.---.---.---	Specifies the subnet mask as appropriate for the network to which the unit is connected.				
DEFAULT GATEWAY (*1)	---.---.---.---	Specifies the default gateway as appropriate for the network to which the unit is connected.				
USER NAME	Display only	Shows the user name required to connect to the network.				
NETWORK PASSWORD	ENTER	Shows the NETWORK PASSWORD screen. Set the necessary password for network connection, using eight characters. Show password				
		<table><tr><td>Password not set</td><td></td></tr><tr><td>Password set</td><td>*****</td></tr></table>	Password not set		Password set	*****
		Password not set				
		Password set	*****			
* Input the password that's set here when connecting a computer or other device on the same network to access the V-1-4K.						
NETWORK STATUS	ENTER	Shows the NETWORK STATUS screen.				
	Displays the following information.					
	Item	Explanation				
	STATUS	Connection status				
	IP ADDRESS	IP address				
	SUBNET MASK	Subnet mask.				
	DEFAULT GATEWAY	Default gateway				
	MAC ADDRESS	MAC address of the V-1-4K.				

(*1) This can be set if "CONFIGURE" is "Manual".

19: CAMERA CONTROL

Menu item	Value	Explanation
CAMERA ID	CAMERA 1–5	Selects the camera to be controlled.
PROTOCOL	N/A, JVC, Panasonic, Canon PTZ, VISCA over IP, PTZOptics, Avonic	Specifies the camera's protocol.
IP ADDRESS	192.168.0.101	Input the camera's IP address.
PORT	80	Specifies the camera's network port. When PROTOCOL is set to "PTZOptics" or "Avonic", the network port can be changed.
LOGIN NAME	ENTER	Shows the CAMERA LOGIN NAME screen. Enter the log-in name needed to connect with the camera when PROTOCOL is "JVC".
PASSWORD	ENTER	Shows the Password screen. Enter the password needed to connect with the camera when PROTOCOL is "JVC".
CAMERA PRESET RECALL	PRESET 1–100	Selects the preset used when recalling or registering the settings.
– ALL CAMERAS RECALL	OFF	Recall presets from the camera that is being controlled.
	ON	Simultaneously recall presets from all cameras (CAMERA 1–5).
CAMERA PRESET STORE	PRESET 1–100	By pressing the [VALUE] knob you can register the camera settings to a preset. * Presets are saved in the camera itself.
PAN	This adjusts the horizontal position of the camera. You can control the camera when the cursor is on the setting value.	
	LEFT	While you hold the [VALUE] knob, the camera pans left.
	RIGHT	While you hold the [VALUE] knob, the camera pans right.
TILT	This adjusts the vertical position of the camera. You can control the camera when the cursor is on the setting value.	
	DOWN	While you hold the [VALUE] knob, the camera tilts down.
	UP	While you hold the [VALUE] knob, the camera tilts up.
SPEED	1–24	Adjusts the speed at which the camera changes direction.
ZOOM	Adjusts the camera's zoom position. You can control the camera when the cursor is on the setting value.	
	WIDE (FAST)	While you hold the [VALUE] knob, the camera zooms out at high speed.
	WIDE (SLOW)	While you hold the [VALUE] knob, the camera zooms out at low speed.
	TELE (SLOW)	While you hold the [VALUE] knob, the camera zooms in at low speed.
	TELE (FAST)	While you hold the [VALUE] knob, the camera zooms in at high speed.
FOCUS (*1)	Adjusts the focal point of the camera. You can control the camera when the cursor is on the setting value.	
	NEAR	While you hold the [VALUE] knob, the focus moves closer to the camera.
	FAR	While you hold the [VALUE] knob, the focus moves further away from the camera.
AUTO FOCUS	OFF, ON	Turns the auto focus on/off.
AUTO EXPOSURE	OFF, ON	Switches the automatic exposure on/off.
TALLY CH	HDMI 1–5	Specifies the connector from which the camera video is input. When the camera video from the V-1-4K is the final output, the camera's tally light is lit.

(*1) This can be set if AUTO FOCUS is "Off".

20: USB FLASH DRIVE

Menu item	Value	Explanation
RESTORE ALL SETTINGS	ENTER	Shows a list of the setting files (.V14K) that are on the USB flash drive. You can select a setting file and restore the settings into the unit. The current settings are overwritten.
BACKUP ALL SETTINGS	ENTER	Shows a list of the setting files (.V14K) that are on the USB flash drive. By selecting "NEW FILE..." when setting the filename, you can save the file as a new settings file. When you select an existing file, that file is overwritten. * Some settings are not saved to the file, such as the "TEST PATTERN" and "TEST TONE" settings in the SYSTEM menu, and the still images (STILL 1, 2).
FORMAT	EXEC	Formats the USB flash drive.

21: SYSTEM

Menu item	Value	Explanation
HDCP	Specifies whether HDCP is enabled (ON) or disabled (OFF).	
	OFF	Copyright-protected (HDCP) video cannot be input.
	ON	Copyright-protected (HDCP) video can be input. HDCP is also added to the video that is output. * Video/audio from the USB STREAM port are not outputted.
SYSTEM FORMAT	Specifies the system format. Press the [VALUE] knob to switch to the OUTPUT FORMAT screen.	
SYSTEM FORMAT (*1)	2160p, 1080p	Specifies the system format.
FRAME RATE (*1)	60, 59.94, 50, 30, 29.97, 25, 24, 23.98Hz	Specifies the frame rate.
COLOR GAMUT	REC.709, REC.2020	Specifies the color gamut.
DYNAMIC RANGE	Specifies the dynamic range.	
	SDR	Standard dynamic range
	HDR PQ	High dynamic range: PQ format
	HDR HLG	High dynamic range: HLG format
PANEL OPERATION	Specifies the operation mode for video transitions.	
	A/B	The video of the bus toward which the video fader is slid becomes the final output.
	PGM/PST	The video on the PGM/A bus is always the final output. Select the preview output video (the video to be output next) for the PST/B bus side.
CUT SW ASSIGN (*2)	Specifies the function of the [CUT] button.	
	▲AUTO TAKE	When the video of the PST/B bus is selected, this switches to the video of the PGM/A bus.
	▲AUTO TAKE▼	Switches between the PGM/A bus and PST/B bus videos.
	▲CUT	When the video of the PST/B bus is selected, this switches to the video of the PGM/A bus as a cut.
	▲CUT▼	Automatically switches between PGM/A bus and PST/B bus videos as a cut.
AUTO SW ASSIGN (*2)	Specifies the function of the [AUTO] button.	
	AUTO TAKE▼	When the video of the PGM/A bus is selected, this switches to the video of the PST/B bus.
	▲AUTO TAKE▼	Switches between the PGM/A bus and PST/B bus videos.
	CUT▼	When the video of the PGM/A bus is selected, this switches to the video of the PST/B bus as a cut.
	▲CUT▼	Automatically switches between PGM/A bus and PST/B bus videos as a cut.
AUDIO KNOB MODE	CATCH	When a knob is operated, if the position of the fader or knob does not match the value of the parameter, the operation is ignored until the position matches the parameter's value. * The [MENU] button or the SIG/PEAK indicators blink while operations are being ignored. The closer the knob position gets to the parameter's value, the faster the button blinks.
	DIRECT	The value of the parameter in question immediately changes to match the position of the knob when you operate it.

(*1) A change in the setting is not applied until you press the [VALUE] knob to confirm.

(*2) Enabled when PANEL OPERATION is "A/B".

PANEL LOCK	ENTER	Press the [VALUE] knob to switch to the PANEL LOCK screen. Enable (ON) or disable (OFF) the panel lock.
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Menu item	Value
ALL	All controllers
PGM/A ALL	All PGM/A cross-point buttons
– PGM/A 1–8 BUTTON	PGM/A cross-point [1]–[8] buttons
PST/B ALL	All PST/B cross-point buttons
– PST/B 1–8 BUTTON	PST/B cross-point [1]–[8] buttons
TRANSITION BUTTON	[TRANSITION] button
CUT BUTTON	[CUT] button
AUTO BUTTON	[AUTO] button
VIDEO FADER	Fader
ASSIGNABLE PADS ALL	All ASSIGNABLE PADS
ASSIGNABLE PAD BUTTON	ASSIGNABLE PADS [1]–[8]
– BANK A–D BUTTON	[SELECT] button
PinP&KEY SPLIT ALL	[PinP & KEY] and [SPLIT] buttons
– PinP&KEY BUTTON	[PinP & KEY] button
– SPLIT BUTTON	[SPLIT] button
– CONTROL 1, 2 KNOB	[CONTROL 1] and [CONTROL 2] knobs
DSK ALL	Buttons and knobs in DSK section

Menu item	Value
– LEVEL KNOB	DSK [LEVEL] knob
– GAIN KNOB	DSK [GAIN] knob
– PVW BUTTON	DSK [PVW] button
– PGM BUTTON	DSK [PGM] button
AUDIO MIXER ALL	Knobs in AUDIO section
– AUDIO IN KNOB	[AUDIO IN] knob
– USB OUT KNOB	[USB OUT] knob
– MAIN KNOB	[MAIN] knob
CAPTURE IMAGE BUTTON	[CAPTURE IMAGE] button
OUTPUT FADE BUTTON	[OUTPUT FADE] button

Menu list

Menu item	Value	Explanation
OUTPUT FADE	Specifies the function of the [OUTPUT FADE] button.	
– TIME	0.0–4.0sec	Sets the fade-in/out time.
– AUDIO FADE	ENABLE, DISABLE	When this is set to “ON”, the output audio also fades in/out along with the video.
LED DIMMER	1–8	Adjusts the brightness when the buttons or indicators are lit.
MENU POSITION	LEFT, RIGHT	This sets where the menu is displayed.
TALLY FRAME	OFF, ON	Turns the tally frame on/off in the multi-view.
PREVIEW LABEL	OFF, ON	Turns the label view on/off in the multi-view.
– LABEL EDIT	HDMI 1–5, STILL 1–2, PROGRAM, PREVIEW, BLACK, ROI 1–4	Edit the label name shown in the multi-view. Select the label name you want to change, and press the [VALUE] knob to display the LABEL EDIT screen.
LABEL SIZE	SMALL, NORMAL	Specifies the text size of the label in the multi-view.
MULTI-VIEW LAYOUT	This specifies the screen layout of the PVW and PGM sections shown in the multi-view.	
	PVW/PGM	Left: PVW section, Right: PGM section
	PGM/PVW	Left: PGM section, Right: PVW section
TEST PATTERN	OFF, (COLOR BARS)	Shows or hides (OFF) the test pattern.
TEST TONE	Specifies the test tone.	
– LEVEL	OFF, -20, -10, 0dB	Adjusts the test tone volume.
– FREQUENCY L	500Hz, 1kHz, 2kHz	Specifies the frequency of the test tone for the L-channel.
– FREQUENCY R	500Hz, 1kHz, 2kHz	Specifies the frequency of the test tone for the R-channel.
VIDEO FADER CALIBRATE	ENTER	Calibrates the video fader. Press the [VALUE] knob to show the VIDEO FADER SET screen. Follow the onscreen instructions to operate the video fader.
FACTORY RESET	EXEC	Returns the unit to its factory defaults.
VERSION	---	Displays the version of the system program.

Main specifications

■ Video							
Video Processing	4:2:2 (Y/Pb/Pr), 8-bit						
Number of video channels	5 channels						
Input formats	HDMI IN 1–5 (INPUT 1–5 connectors)	720/60p, 59.94p, 50p					
		1080/59.94i (*1), 50i (*1)					
		1080/60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.98p					
		2160/60p (*2), 59.94p (*2), 50p (*2), 30p, 29.97p, 25p, 24p, 23.98p					
		UXGA (1600 x 1200/60 Hz), WUXGA (1920 x 1200/60 Hz) (*3), WQHD(2560 x 1440/60 Hz) (*3)					
		* Conforms to CEA-861-G, VESA CVT.					
		* HDMI IN 5 support Roland FILL+KEY signal					
		* Color Gamut and Dynamic Range are the same as the system format.					
Output formats	HDMI OUT 1–2 (OUTPUT 1–2 connectors)	System format	Frame rate				
			60 Hz	59.94 Hz	50 Hz	30 Hz	
		1080p	1080/60p	1080/59.94p	1080/50p	1080/30p	
		2160p	2160/60p	2160/59.94p	2160/50p	2160/30p	
		System format	Frame rate				
			29.97Hz	25Hz	24Hz	23.98Hz	
			1080p	1080/29.97p	1080/25p	1080/24p	1080/23.98p
			2160p	2160/29.97p	2160/25p	2160/24p	2160/23.98p
	HDMI OUT 3–4 (OUTPUT 3–4 connectors)	System format	Frame rate				
			60 Hz	59.94 Hz	50 Hz	30 Hz	
		1080p	1080/60p	1080/59.94p	1080/50p	1080/30p	
		2160p	2160/60p	2160/59.94p	2160/50p	2160/30p	
		2160p and when downsampling is set	1080/60p	1080/59.94p	1080/50p	1080/30p	
		System format	Frame rate				
			29.97 Hz	25 Hz	24 Hz	23.98 Hz	
		1080p	1080/29.97p	1080/25p	1080/24p	1080/23.98p	
2160p		2160/29.97p	2160/25p	2160/24p	2160/23.98p		
2160p and when downsampling is set		1080/29.97p	1080/25p	1080/24p	1080/23.98p		
* Color Gamut: Rec.709, Rec.2020							
* Dynamic Range: SDR, HDR PQ (HDR10), HDR HLG							
* HDMI OUT 3–4 can be Down-convert out (1080p) when system format is 2160p.							
* Conforms to CEA-861-G.							
HDMI OUT 5 (MULTI-VIEW) (OUTPUT 5 connector)		1080/60p					
		* Color Gamut: Rec.709					
USB STREAM		* Dynamic Range: SDR					
		* Conforms to CEA-861-G.					
	1080/60p, 59.94p, 50p, 30p, 29.97p, 25p						
2160/60p, 59.94p, 50p, 30p, 29.97p, 25p							
* Supports Uncompressed Video (YUY2) and Compressed Video (Motion JPEG).							
Still Image	Windows Bitmap File (.bmp) Up to 3840 x 2160 pixels, 24-bit color, uncompressed.						
* It can be stored up to 2 files in the internal memory.							
Video Effects	Transition	Cut, Mix (Dissolve), WIPE (8 types), SPLIT (2 types)					
	Composition	PinP x 1 (Square), Keyer x 1 (Luminance Key, Chroma Key), DSK (Luminance Key), Roland FILL+KEY Mode					
	Others	Multi-View (1 types), Still Image capture, Still Image playback, Output fade (Audio, Video: Black), Test pattern output					

■ Audio			
Audio Processing	Sample rate	24 bits, 48 kHz	
Number of audio channels	14 channels		
Audio Formats	USB STREAM (input/output)	Linear PCM, 16 bits, 48 kHz, 2 ch	
	HDMI IN (INPUT)	Linear PCM, 24 bits, 48 kHz, 2 ch	
	HDMI OUT (OUTPUT)	Linear PCM, 24 bits, 48 kHz, 2 ch	
Audio Effects	Channel Effects	High pass filter, Noise gate, Compressor, 4-Band equalizer, Delay, Auto mixing	
	Master Effects	4-Band equalizer, Compressor/Limiter, 15-Band GEQ, Delay	
	Others	Output fade, Test tone output	
■ Common Section			
Functions	Memory (8 types), Panel lock function, EDID Emulator, Auto Switching, Smart Tally, Remote Camera Control (Up to 5 units)		
■ Audio Input/Output Characteristics			
Input Level	AUDIO IN L, R	+4 dBu (Maximum: +24 dBu)	
Input Impedance	AUDIO IN L, R	16 kΩ	
Output Level	AUDIO OUT L, R	-10 dBu (Maximum: +10 dBu)	
	PHONES	92 mW + 92 mW (32 Ω)	
Output Impedance	AUDIO OUT L, R	1 kΩ	
	PHONES	10 Ω	
■ Connectors			
Video Input Connectors	HDMI IN 1–5 (INPUT 1–5 connectors)	HDMI type A x 5 (HDMI2.0)	
		* HDCP 1.4, 2.2 Supported * Multi-format Supported	
Video Output Connectors	HDMI OUT 1–4 (OUTPUT 1–4 connectors)	HDMI type A x 4 (HDMI2.0)	
		* HDCP 1.4, 2.2 Supported	
	HDMI OUT 5 (OUTPUT 5 connector)	HDMI type A (HDMI1.4)	
		* HDCP 1.4 Supported	
	USB STREAM	USB Type-C® (USB2.0 / USB3.2 Gen1)	
Audio Input Connectors	Analog	AUDIO IN L, R	XLR type
	Digital	USB STREAM	USB Type-C®
		HDMI IN 1–5 (INPUT 1–5 connectors)	HDMI type A x 5
Audio Output Connectors	Analog	AUDIO OUT L, R	RCA phono type
		PHONES	Stereo miniature phone type
	Digital	USB STREAM	USB Type-C®
		HDMI OUT 1–5 (OUTPUT 1–5 connectors)	HDMI type A x 5
Other Connectors	USB HOST	USB A (for USB flash drive)	
	USB STREAM	USB Type-C® (for remote control from computer and iPad)	
	LAN CONTROL	RJ45, 100BASE-T (for Remote Control)	
■ Others			
Power Supply	AC Adaptor		
Current Draw	4 A		
Power Consumption	52 W		
Operation Temperature	+0 to +40 degrees Celsius +32 to +104 degrees Fahrenheit		
Dimensions	330 (W) x 164 (D) x 79 (H) mm 13 (W) x 6-1/2 (D) x 3-1/8 (H) inches		
Weight (excluding AC adaptor)	1.9 kg 4 lbs 4 oz		
Accessories	Startup Guide, Leaflet “USING THE UNIT SAFELY”, AC adaptor, Power cord		

* 0 dBu = 0.775 Vrms

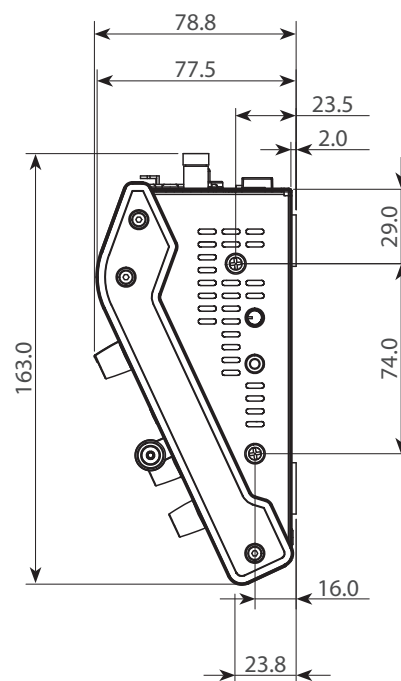
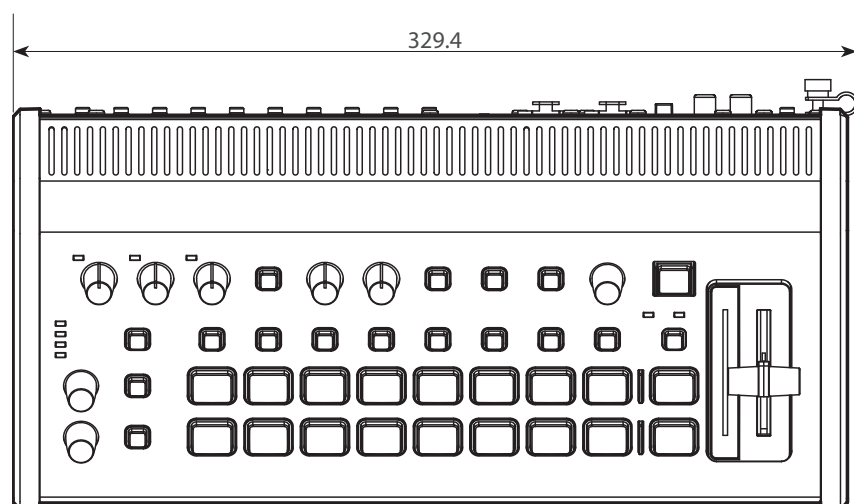
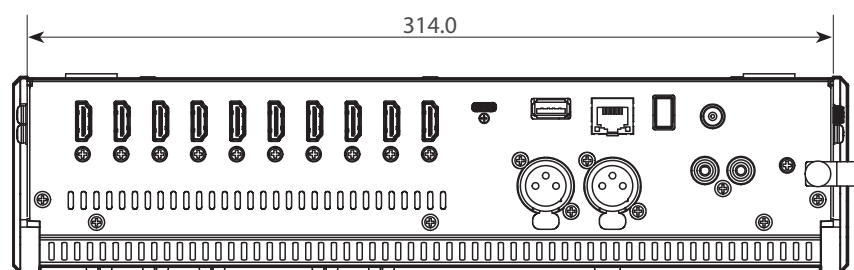
* This product is a Class A digital device under FCC part 15.

* The terms HDMI, HDMI High-Definition Multimedia Interface, HDMI Trade dress and the HDMI Logos are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

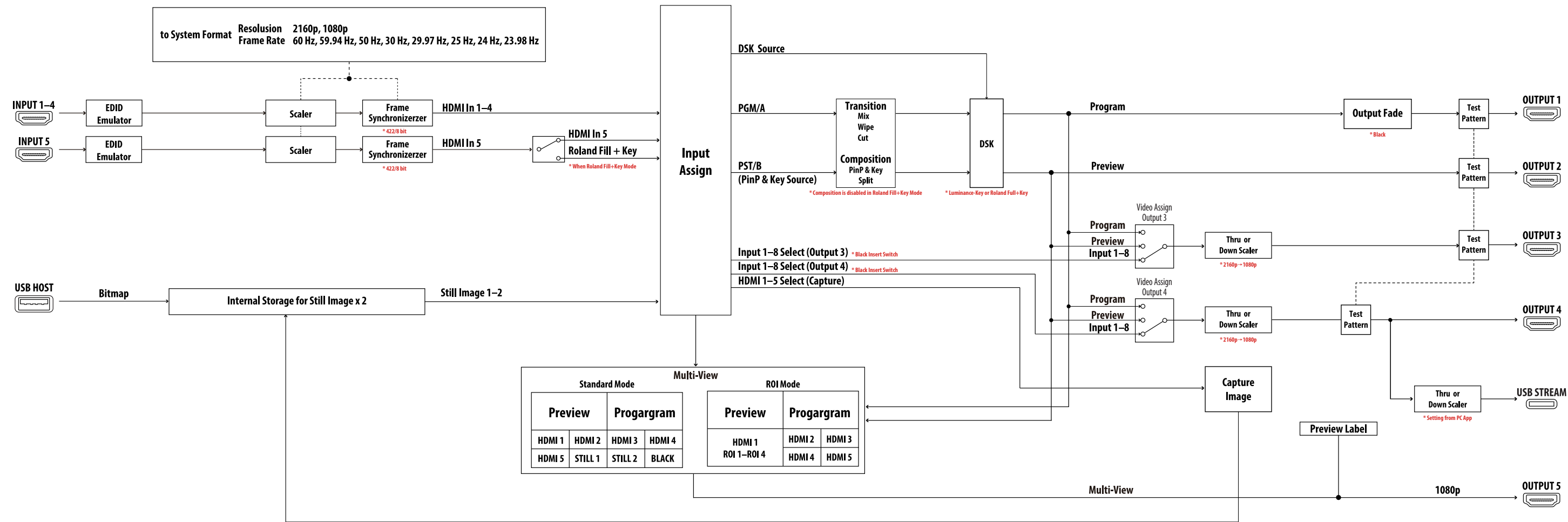
* This document explains the specifications of the product at the time that the document was issued. For the latest information, refer to the Roland website.

Dimensions

Unit: mm



Video block diagram



Audio block diagram

