Video Effect Operations

You can apply effects to the main output video. The V-1HD has nine types of built-in filter effects and ten types of built-in compositing effects.

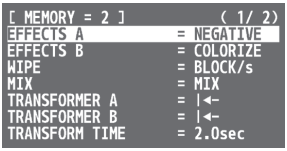
Using Filter Effects

These apply effects such as changes in video color tone and appearance to the entire video.
You can set filter effects separately for the video on bus A and on bus B.

Selecting a Filter Effect

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

2. Use the [▲] and [▼] buttons to select "EFFECTS A" or "EFFECTS B."



3. Use the A/B fader to select the filter effect to assign to the EFFECTS A or B [ON] button.

Value	Explanation
NEGATIVE	Inverts the brightness and colors.
EMBOSS	Adds a bas-relief effect to the video.
COLORIZE	Adds color to the video.
COLORPASS	Produces monochrome video with a specific color remaining.
POSTERIZE	Changes the gradations in brightness.
SILHOUETTE	Separates the video into light and dark areas, and makes the dark areas black and adds a different color to the light areas.
MONOCOLOR	Produces monochrome video.
FINDEDGE	Extracts contours.
FLIP	Flips the video.

4. Press the [MEMORY] button to quit the menu.

MEMO

- You can change the effect type by holding down the EFFECTS A [ON] button and turning the [EFFECTS A] knob. You can change EFFECTS B as well in the same way. Press and hold the [(TAP) BPM] button → set "EFFECTS TYPE CHANGE" at the SETUP menu to "ON."

Applying Filter Effects

1. Output the video to which you want to apply an effect.

2. Press the EFFECTS A or B [ON] button to turn on the effect (lighted).

You can turn on effects separately for the output video signals on bus A and bus B.

3. Turn the [EFFECTS A] or [EFFECTS B] knob to adjust the degree of effect applied.

4. To turn off an effect, press the EFFECTS A or B [ON] button a second time.

Using Compositing Effects

These composite the bus A video and the bus B video.

* When compositing effects are turned on for either bus A or bus B, no effects can be applied to the other bus.

Selecting a Compositing Effect

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

2. Use the [▲] and [▼] buttons to select "EFFECTS A" or "EFFECTS B."

3. Use the A/B fader to select the compositing effect to assign to the EFFECTS A or B [ON] button.

Value	Explanation
WHT-L. KEY	Makes white areas of the video transparent and composites it onto a background video.
BLK-L. KEY	Makes black areas of the video transparent and composites it onto a background video.
GRN-C. KEY	Extracts the green portions of the video and composites it onto a background video.
BLU-C. KEY	Extracts the blue portions of the video and composites it onto a background video.
PinP 1/4	Composites video in an inset screen onto a background video. The horizontal size of the inset screen is 1/4 the width of the background video.
PinP 1/3	Composites video in an inset screen onto a background video. The horizontal size of the inset screen is 1/3 the width of the background video.
PinP 1/2	Composites video in an inset screen onto a background video. The horizontal size of the inset screen is 1/2 the width of the background video.
SPLIT-VS	Composites the video stretched vertically.
SPLIT-VC	Composites the video with its center section vertically cropped.
SPLIT-HS	Composites the video stretched horizontally.
SPLIT-HC	Composites the video with its center section horizontally cropped.

4. Press the [MEMORY] button to quit the menu.

MEMO

- You can change the effect type by holding down the EFFECTS A [ON] button and turning the [EFFECTS A] knob. You can EFFECTS B as well in the same way.
  Press and hold the [(TAP) BPM] button → set "EFFECT TYPE CHANGE" at the SETUP menu to "ON."

Compositing Using Luminance Key

This composites video with white or black areas made transparent onto a background video.
Using luminance keying lets you superimpose logos or text onto a background picture.

1. Follow the procedure in "Selecting a Compositing Effect" on this page to select "WHT-L.KEY" or "BLK-L.KEY."

2. Press the EFFECTS A (or B) [ON] button to turn on the effect (lighted).

3. Press the [A-1] through [A-4] and [B-1] through [B-4] buttons to separately select the background and the picture you want to display in the foreground.
The video on the bus at the position where you turned on the effect in step 2 is displayed in the foreground.

4. Turn the [EFFECTS A] and [EFFECTS B] knobs to adjust the amount of effect applied.

[EFFECTS A] knob
This adjusts the amount of keying for the foreground video.

[EFFECTS B] knob
This adjusts the degree of edge blur for the foreground video.

5. To turn off an effect, press the EFFECTS A (or B) [ON] button a second time.

Compositing Using Chroma Key

This composites video shot against a blue or green background against a different background video.

NOTE

- Chroma-key composition sometimes leaves color or small artifacts at the edges of the extracted video, but this is not a malfunction.

1. Follow the procedure in "Selecting a Compositing Effect" (p. 22) to select "GRN-C. KEY" or "BLU-C.KEY."

2. Press the EFFECTS A (or B) [ON] button to turn on the effect (lighted).

3. Press the [A-1] through [A-4] and [B-1] through [B-4] buttons to separately select the background and the picture you want to display in the foreground.

The video on the bus at the position where you turned on the effect in step 2 is displayed in the foreground.

4. Turn the [EFFECTS A] and [EFFECTS B] knobs to adjust the amount of effect applied.

[EFFECTS A] knob

This adjusts the amount of keying for the foreground video.

[EFFECTS B] knob

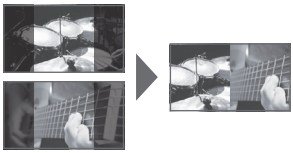
This adjusts the degree of edge blur for the foreground video.

5. To turn off an effect, press the EFFECTS A (or B) [ON] button a second time.

Compositing Using Split

This composites two video streams in a split screen.

The bus A video is displayed above or on the left, and the bus B video is displayed below or on the right.



MEMO

- While compositing of the video is in progress, the video switches with cuts regardless of the selected transition effect.

1. Follow the procedure in "Selecting a Compositing Effect" (p. 22) to select "SPLIT-VS," "SPLIT-VC," "SPLIT-HS," or "SPLIT-HC."

2. Press the EFFECTS A (or B) [ON] button to turn on the effect (lighted).

3. Press one of the [A-1] through [A-4] buttons to select the video you want to display above or on the left.

4. Press one of the [B-1] through [B-4] buttons to select the video you want to display below or on the right.

5. Turn the [EFFECTS A] and [EFFECTS B] knobs to adjust the center position.

* You can adjust this when you selected "SPLIT-HC" or "SPLIT-VC" in step 1.

When Set to SPLIT-HC

This adjusts the vertical position of the video displayed above or below.

[EFFECTS A] knob: Upper video

[EFFECTS B] knob: Lower video

When Set to SPLIT-VC

This adjusts the horizontal position of the video displayed on the left or right.

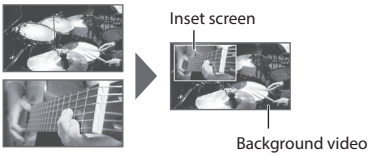
[EFFECTS A] knob: Video on the left

[EFFECTS B] knob: Video on the right

6. To turn off an effect, press the EFFECTS A (or B) [ON] button a second time.

Compositing Using Picture-in-Picture

This composites video in an inset screen onto a different background video.



1. Follow the procedure in "Selecting a Compositing Effect" (p. 22) to select "PinP 1/4," "PinP 1/3," or "PinP 1/2."

2. Press the EFFECTS A (or B) [ON] button to turn on the effect (lighted).

3. Use the [A-1] through [A-4] and [B-1] through [B-4] buttons to separately select the video you want to use as the background and as the inset screen.

The video on the bus at the position where you turned on the effect in step 2 becomes the inset screen.

4. Move the A/B fader to the bus A position.

The inset screen is composited onto the background video and the result is output.

* When the A/B fader has been moved all the way to the bus B position, no inset screen is displayed.

5. Turn the [EFFECTS A] and [EFFECTS B] knobs to adjust the display position of the inset screen.

[EFFECTS A] knob

This adjusts the inset screen's display position horizontally.

[EFFECTS B] knob

This adjusts the inset screen's display position vertically.

6. To turn off an effect, press the EFFECTS A (or B) [ON] button a second time.

Making detailed settings for the inset screen

You can change the width and color of the border applied to the inset screen, and adjust the size of the inset screen.

Color and width of border applied to inset screen

Long-press the [(TAP)BPM] button → in the SETUP menu, adjust the following items.

Menu item	Explanation
PinP BORDER	Adjusts the border width.
PinP BORDER COLOR	Specifies the color of the border.

Size of inset screen and position of video shown in inset screen

If an effect is turned on for bus A, press the [MEMORY] button → adjust the following items in the MEMORY menu.

Menu item	Explanation
PinP A CROPPING H	Adjusts the horizontal size.
PinP A CROPPING V	Adjusts the vertical size.
PinP A VIEW POS H	Adjusts the horizontal position of the video shown in the inset screen.
PinP A VIEW POS V	Adjusts the vertical position of the video shown in the inset screen.

If an effect is turned on for bus B, press the [MEMORY] button → adjust the following items in the MEMORY menu.

Menu item	Explanation
PinP B CROPPING H	Adjusts the horizontal size.
PinP B CROPPING V	Adjusts the vertical size.
PinP B VIEW POS H	Adjusts the horizontal position of the video shown in the inset screen.
PinP B VIEW POS V	Adjusts the vertical position of the video shown in the inset screen.

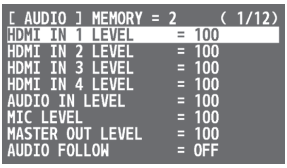
Audio Operations

Adjusting the Volume Level

This adjusts the volume level of input audio and output audio.

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

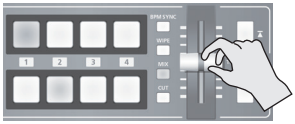
2. Use the [▲] and [▼] buttons to select the input audio whose volume level you want to adjust.



You use the following items to adjust the volume level of input audio.

Menu item	Explanation
HDMI IN 1–4 LEVEL	Input audio from respective HDMI sources
AUDIO IN LEVEL	Input audio from AUDIO IN
MIC LEVEL	Input audio from MIC

3. Use the A/B fader to adjust the volume level for the respective input audio.



Raise the volume level of audio you want to make more prominent, such as, for example, a - microphone, and lower the volume level for other audio.

When no audio is input, and for audio that is unused, set the volume level to "0" (zero).

4. Use the [▲] and [▼] buttons to select "MASTER OUT LEVEL."

5. Use the A/B fader to adjust the volume level of output audio.

6. Press the [AUDIO] button to quit the menu.

Audio level meter

With the factory settings, an audio level meter is shown at the lower right of the preview monitor. The level meter illumination lets you check whether the volume is adjusted appropriately.

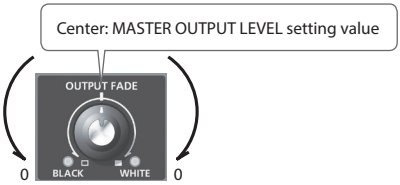
Indicator	Status
Red	Excessive. Lights up at 0 dB or higher.
Yellow	Appropriate. Lights up at -20 to -1 dB.
Green	Insufficient. Lights up at -50 to -21 dB.

MEMO

- When the [AUDIO] button is illuminated, the [A-1] through [A-4] and [B-1] through [B-3] buttons function as shortcuts for AUDIO menu selection. You can select audio whose volume level you want to adjust by pressing a shortcut button.

Button	AUDIO menu
[A-1]	HDMI IN 1 LEVEL
:	**:**
[A-4]	HDMI IN 4 LEVEL
[B-1]	AUDIO IN LEVEL
[B-2]	MIC LEVEL
[B-3]	MASTER OUT LEVEL

- By changing the function that's assigned to the [OUTPUT FADE] knob, you can make it adjust only the output volume or fade-in/out the output video and volume simultaneously. Press and hold the [(TAP) BPM] button → use "OUTPUT FADE LEFT" or "OUTPUT FADE RIGHT" at the SETUP menu to make the setting.



- To adjust MIC input sensitivity, you use the [MIC] knob on the side panel.
- The AUDIO indicator above the [AUDIO] knob lights up as follows according to audio input and output.

Indicator	Status
Lit green	This lights up in green when audio input is detected.
Lit red	This lights up in red when the volume level exceeds the maximum input/output level. Audio output from the V-1HD might be distorted in such cases.

* By factory default, the display of the AUDIO indicator is set to "MASTER OUT" (output audio signal level).
If you want to use the AUDIO indicator to monitor other audio signal, press and hold the [(TAP) BPM] button → make the setting using "AUDIO LED" at the SETUP menu.

- You can output a test tone, which is useful for adjusting the volume level. Press and hold the [(TAP) BPM] button → set "TEST TONE OUTPUT" at the SETUP menu to "ON."

Applying Effects to Audio

You can apply effects to audio that is input and output to adjust its tone quality.

Applying Effects to Input Audio

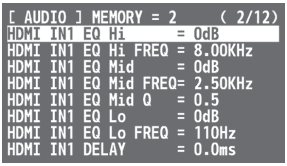
This applies effects and adjusts tone quality for audio input via AUDIO IN, MIC, and HDMI IN.

The following table shows the effects you can use with the different input audio streams.

Input audio	Effects				
	EQ	DELAY	GATE	COMP	HPF
AUDIO IN	✓	✓	—	—	—
MIC	✓	✓	✓	✓	✓
HDMI IN	✓	✓	—	—	—

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

2. Use the [▲] and [▼] buttons to select the effect menu item you want to use.



* For more information about effects, refer to the following section.

3. Use the A/B fader to adjust the setting value.

4. Press the [AUDIO] button to quit the menu.

Equalizer (EQ)

Adjusts the tone quality for each frequency band.

Menu item		Explanation
HDMI IN 1 : HDMI IN 4 AUDIO IN MIC	EQ Hi	Boosts or attenuates the high band.
	EQ Hi FREQ	Adjusts the center frequency when changing the tone quality in the high band.
	EQ Mid	Boosts or attenuates the middle band.
	EQ Mid FREQ	Adjusts the center frequency when changing the tone quality in the middle band.
	EQ Mid Q	Adjusts the width of the frequency band when boosting or attenuating the middle band.
	EQ Lo	Boosts or attenuates the low band.
	EQ Lo FREQ	Adjusts the center frequency when changing the tone quality in the low band.

Delay (DELAY)

Outputs audio with a delay.

Delaying audio output lets you align the output timing of video and audio.

Menu item		Explanation
HDMI IN 1 : HDMI IN 4 AUDIO IN MIC	DELAY	Adjusts the delay time for audio.

Compressor (COMP)

Compresses audio that exceeds a specified level.

Menu item	Explanation
MIC COMP	Turns the compressor on/off.
MIC COMP-THRESHOLD	Specifies the level used as the threshold when compressing audio. Compression is applied to audio that exceeds the level set here.
MIC COMP-RATIO	Specifies the degree of compression applied to the audio. The state in which no compression is applied is defined as "1."
MIC COMP-ATTACK	Specifies the time until compression starts when audio exceeding the threshold is input.
MIC COMP-RELEASE	Adjusts the length of time until compression ends after audio falls below the threshold.

Gate (GATE)

Mutes audio that is below a specified level.

Menu item	Explanation
MIC GATE	Turns the gate on/off.
MIC GATE-THRESHOLD	Specifies the level used as the threshold for removing audio. Audio below the level set here is removed.
MIC GATE-RELEASE	Adjusts the length of time until the audio is fully attenuated after audio falls below the threshold.

High-pass Filter (HPF)

Cuts off unneeded low-band audio. The cutoff frequency is 75 Hz.

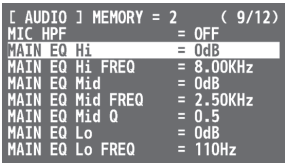
Menu item	Explanation
MIC HPF	Turns the high-pass filter on/off.

Applying Effects to Output Audio

This applies effects and adjusts the sound quality for output audio.

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

2. Use the [▲] and [▼] buttons to select the effect menu item you want to use.



* For more information about effects, refer to the following section.

3. Use the A/B fader to adjust the setting value.

4. Press the [AUDIO] button to quit the menu.

Equalizer (EQ)

Adjusts the tone quality for each frequency band.

Menu item	Explanation
MAIN EQ Hi	Boosts or attenuates the high band.
MAIN EQ Hi FREQ	Adjusts the center frequency when changing the tone quality in the high band.
MAIN EQ Mid	Boosts or attenuates the middle band.
MAIN EQ Mid FREQ	Adjusts the center frequency when changing the tone quality in the middle band.
MAIN EQ Mid Q	Adjusts the width of the frequency band when boosting or attenuating the middle band.
MAIN EQ Lo	Boosts or attenuates the low band.
MAIN EQ Lo FREQ	Adjusts the center frequency when changing the tone quality in the low band.

Mastering (MASTERING)

Adjusts the acoustic characteristics and tone quality.

Menu item	Explanation
MASTERING	Turns the mastering on/off.
MASTERING NS	Adjusts the degree of application of the noise suppressor.
MASTERING ENHANCER	Adjusts the degree of application of the enhancer.
MASTERING Hi	Suppresses high-frequency distortion and adjusts the sound to have sustained tones.
MASTERING Mid	Suppresses midrange distortion and adjusts the sound to have distinct tones.
MASTERING Lo	Suppresses low-frequency distortion and adjusts the sound to have stable tones.

Reverb (REVERB)

This adds lingering reverberations to the audio.

You can apply reverb to audio input via AUDIO IN, MIC, and HDMI IN.

Menu item	Explanation
REVERB LEVEL	Adjusts the return level from reverb of the audio. A setting of "0" results in no reverb applied.
REVERB TIME	Adjusts the length of the reverb.
REVERB TYPE	Specifies the type of reverb. ROOM: Produces the natural-sounding reverberation of a room. HALL: Produces the reverberation that is typical of a performance in a concert hall.

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

2. Use the [▲] and [▼] buttons to select "REV SEND" for the input audio on which you want to apply reverb.

Menu item		Explanation
HDMI IN 1 **:** **HDMI IN 4** **AUDIO IN** **MIC**	**REV SEND**	Adjusts the amount of audio sent to reverb for each different input audio stream.

3. Use the A/B fader to adjust the amount of audio sent to reverb.

Repeat steps 2 and 3 as needed to individually adjust the amount of reverb applied.

4. Use the [▲] and [▼] buttons to select "REVERB LEVEL."

5. Use the A/B fader to adjust the amount of audio returned from reverb.

This adjusts the depth of overall reverb applied while maintaining the balance in the degree of reverb applied to the individual input audio streams.

6. Press the [AUDIO] button to quit the menu.

Interlinking Audio Output to Video Switching (Audio Follow)

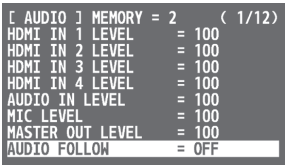
You can associate audio with a video switch so that when the video is switched, only the HDMI audio of the output video is output, and other HDMI audio is automatically muted.

You can also use Audio Follow with audio input via AUDIO IN or MIC.

1. Follow the procedure in "Adjusting the Volume Level" (p. 25) to adjust the volume to the level you want to output.

2. Press the [AUDIO] button to display the AUDIO menu.

3. Use the [▲] and [▼] buttons to select "AUDIO FOLLOW."



* When the [AUDIO] button is lighted, the [B-4] button functions as a shortcut for selecting "AUDIO FOLLOW." You can also select "AUDIO FOLLOW" by pressing the [B-4] button.

4. Select the input audio to use with Audio Follow.

Value	Explanation
ON	This sets the Audio Follow feature on. When the video is switched, only the interlinked HDMI audio of the output video is output, and other HDMI audio is muted.
OFF	This sets the Audio Follow feature off.

5. Press the [AUDIO] button to quit the menu.

6. Switch the video.

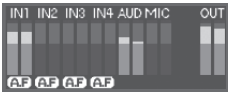
When the video input channel is switched, only the interlinked HDMI audio of the output video is output.

* Other settings are required to use Audio Follow with audio input via AUDIO IN or MIC. For details, refer to "Adding Audio Follow Associations" on this page.

MEMO

- The level meter shown in the preview monitor indicates the audio follow setting.

  The "A.F" symbol is shown to indicate audio for which audio follow is on.

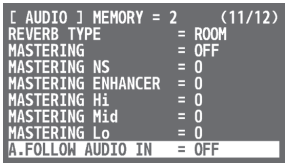


Adding Audio Follow Associations

You can use Audio Follow with audio input via AUDIO IN or MIC.

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

2. Use the [▲] and [▼] buttons to select "A. FOLLOW AUDIO IN" or "A. FOLLOW MIC."



Select the input audio to use with Audio Follow.

Menu item	Explanation
A. FOLLOW AUDIO IN	Input audio from AUDIO IN
A. FOLLOW MIC	Input audio from MIC

3. Use the A/B fader to specify the video input channel to use with Audio Follow.

Value	Explanation
1–4	This sets the video input channel to interlink with input audio using Audio Follow.
OFF	This assigns no video input channel to Audio Follow. Audio is always output, regardless of whether the Audio Follow feature is on or off.

4. Press the [AUDIO] button to quit the menu.

When the Audio Follow feature is turned on, audio input via AUDIO IN or MIC is muted on video input channels other than the channel specified in step 3.

Other Features

Returning to the Factory Settings (Factory Reset)

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

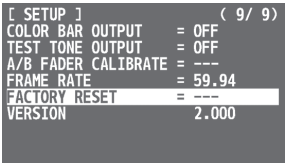
If operation that differs from what is described in the Owner's Manual occurs even when the steps described are followed correctly, try performing a factory reset.

NOTE

- Performing a factory reset causes all settings made and values saved in memory (p. 13) to be lost.

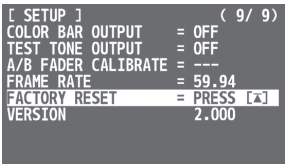
1. Press and hold the [(TAP) BPM] button (for 2 seconds or longer) to display the SETUP menu.

2. Use the [▲] and [▼] buttons to select "FACTORY RESET."



3. Move the A/B fader to the bus A position.

The screen indicates "PRESS [▲]."



4. Press the [▲] button.

(If you want to cancel the operation, move the A/B fader to the bus B position or press the [▼] button.)

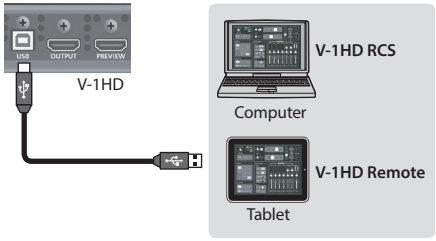
A factory reset is executed.

5. Press the [(TAP) BPM] button to quit the menu.

Operating the V-1HD by Remote Control

You can use V-1HD RCS or V-1HD Remote dedicated software to remotely control the following functions on the V-1HD from a computer or tablet connected via USB.

- V-1HD panel operations
- Selecting transition effects
- Audio mixer operation
- Memory save/load operations



V-1HD RCS and V-1HD Remote can be downloaded from the following Roland website.

https://proav.roland.com/

About Remote Control Via MIDI

The V-1HD also supports remote control by equipment compatible with MIDI Visual Control.

For information on remote control via MIDI, download and refer to the "V-1HD Remote Control Guide" (PDF) from the Roland website mentioned above.

What's MIDI Visual Control?

MIDI VISUAL CONTROL

MIDI Visual Control is an internationally-used recommended practice that was added to the MIDI specification so that visual expression could be linked with musical performance.

Video equipment that is compatible with MIDI Visual Control can be connected to electronic musical instruments via MIDI in order to control video equipment in tandem with a performance.

Appendices

Menu List

* The menu is shown on the monitor connected to the PREVIEW connector (p. 9).

MEMORY Menu ([MEMORY] button → [A-1]–[A-4] and [B-1]–[B-4] buttons)

Menu item	Value	Explanation
MEMORY1–MEMORY8		
EFFECTS A	NEGATIVE, EMBOSS, COLORIZE, COLORPASS, POSTERIZE, SILHOUETTE, MONOCOLOR, FINDEDGE, FLIP, WHT-L.KEY (*1), BLK-L.KEY (*1), GRN-C.KEY (*1), BLU-C.KEY (*1), PinP 1/4 (*1), PinP 1/3 (*1), PinP 1/2 (*1), SPLIT-VS (*1), SPLIT-VC (*1), SPLIT-HS (*1), SPLIT-HC (*1)	Specifies the effect assigned to the EFFECTS A [ON] button.
EFFECTS B	NEGATIVE, EMBOSS, COLORIZE, COLORPASS, POSTERIZE, SILHOUETTE, MONOCOLOR, FINDEDGE, FLIP, WHT-L.KEY (*1), BLK-L.KEY (*1), GRN-C.KEY (*1), BLU-C.KEY (*1), PinP 1/4 (*1), PinP 1/3 (*1), PinP 1/2 (*1), SPLIT-VS (*1), SPLIT-VC (*1), SPLIT-HS (*1), SPLIT-HC (*1)	Specifies the effect assigned to the EFFECTS B [ON] button.
WIPE (*2)	H-DOWN, H-UP, V-RIGHT, V-LEFT, V-IN, V-OUT, H-IN, H-OUT, R-DOWN, L-DOWN, R-UP, L-UP, BLOCK, V-GRID, H-GRID, H-DOWN/s, H-UP/s, V-RIGHT/s, V-LEFT/s, H-IN/s, H-OUT/s, V-IN/s, V-OUT/s, R-DOWN/s, L-DOWN/s, R-UP/s, L-UP/s, BLOCK/s, V-GRID/s, H-GRID/s	Specifies the transition pattern assigned to the [WIPE] button. * Setting values indicated with "/s" are soft edge transition patterns.
MIX (*2)	MIX, FAM, NAM, MOSAIC	Specifies the transition pattern assigned to the [MIX] button.
TRANSFORMER A	NONE, TRANSFORM, ◀–, ◀–▶, WHITE, BLACK, BPM SYNC, WIPE, MIX, CUT, EFFECTS	Specifies the Function assigned to the TRANSFORMER [▲] button.
TRANSFORMER B	NONE, TRANSFORM, ◀–, ◀–▶, WHITE, BLACK, BPM SYNC, WIPE, MIX, CUT, EFFECTS	Specifies the Function assigned to the TRANSFORMER [▼] button.
TRANSFORM TIME	0.0–4.0sec, BPM x 1/4, BPM x 1/2, BPM x 1, BPM x 2	Specifies the length of time for applying a video transition.
If PinP compositing is turned on for bus A, use the following items to adjust the inset screen.		
PinP A CROPPING H	1–100%	Adjusts the horizontal size of the inset screen.
PinP A CROPPING V	1–100%	Adjusts the vertical size of the inset screen.
PinP A VIEW POS H	-50–50%	Adjusts the horizontal position of the video shown in the inset screen.
PinP A VIEW POS V	-50–50%	Adjusts the vertical position of the video shown in the inset screen.
If PinP compositing is turned on for bus B, use the following items to adjust the inset screen.		
PinP B CROPPING H	1–100%	Adjusts the horizontal size of the inset screen.
PinP B CROPPING V	1–100%	Adjusts the vertical size of the inset screen.
PinP B VIEW POS H	-50–50%	Adjusts the horizontal position of the video shown in the inset screen.
PinP B VIEW POS V	-50–50%	Adjusts the vertical position of the video shown in the inset screen.

(*1) When effects are turned on for either bus A or bus B, no effects can be applied to the other bus.

(*2) For more information about transition patterns, refer to "Transition Effects List" (p. 37).

MEMORY 1–8 factory-default values

Menu item	MEMORY 1	MEMORY 2	MEMORY 3	MEMORY 4
EFFECTS A	COLORPASS	NEGATIVE	PinP 1/2	PinP 1/4
EFFECTS B	FLIP	COLORIZE	PinP 1/2	PinP 1/4
WIPE	V-RIGHT/s	BLOCK/s	H-UP	V-RIGHT
MIX	MIX	MIX	FAM	FAM
TRANSFORMER A	|←	|←	TRANSFORM	←→
TRANSFORMER B	|←	|←	TRANSFORM	←→
TRANSFORM TIME	1.0sec	2.0sec	1.0sec	1.0sec
PinP A CROPPING H	100%	100%	100%	100%
PinP A CROPPING V	100%	100%	100%	100%
PinP A VIEW POS H	0%	0%	0%	0%
PinP A VIEW POS V	0%	0%	0%	0%
PinP B CROPPING H	100%	100%	100%	100%
PinP B CROPPING V	100%	100%	100%	100%
PinP B VIEW POS H	0%	0%	0%	0%
PinP B VIEW POS V	0%	0%	0%	0%

Menu item	MEMORY 5	MEMORY 6	MEMORY 7	MEMORY 8
EFFECTS A	WHT-L.KEY	GRN-C.KEY	SPLIT-VC	POSTERIZE
EFFECTS B	WHT-L.KEY	GRN-C.KEY	SPLIT-HC	SILHOUETTE
WIPE	H-IN/s	V-IN/s	H-GRID/s	V-GRID/s
MIX	NAM	NAM	MOSAIC	MOSAIC
TRANSFORMER A	←→	WHITE	BPM	EFFECTS
TRANSFORMER B	←→	BLACK	BPM	EFFECTS
TRANSFORM TIME	2.0sec	1.0sec	1.0sec	1.0sec
PinP A CROPPING H	100%	100%	100%	100%
PinP A CROPPING V	100%	100%	100%	100%
PinP A VIEW POS H	0%	0%	0%	0%
PinP A VIEW POS V	0%	0%	0%	0%
PinP B CROPPING H	100%	100%	100%	100%
PinP B CROPPING V	100%	100%	100%	100%
PinP B VIEW POS H	0%	0%	0%	0%
PinP B VIEW POS V	0%	0%	0%	0%

AUDIO Menu ([AUDIO] button)

Menu item		Value (bold text: default value)	Explanation
MEMORY1–MEMORY8			
HDMI IN 1 : HDMI IN 4 AUDIO IN MIC	LEVEL	0–**100**–127	Adjusts the volume level of the respective input audio streams. * 100 = 0.0 dB, 127 = +6.0 dB
MASTER OUT LEVEL		0–**100**–127	Adjusts the volume level of output audio. * 100 = 0.0 dB, 127 = +6.0 dB
AUDIO FOLLOW		ON, **OFF**	Turns the Audio Follow function on/off.
HDMI IN 1 : HDMI IN 4 AUDIO IN MIC	EQ Hi	-15–**0**–15dB	Boosts or attenuates the high band.
	EQ Hi FREQ	700Hz–**8.00KHz**–11.0KHz	Adjusts the center frequency when changing the tone quality in the high band.
	EQ Mid	-15–**0**–15dB	Boosts or attenuates the middle band.
	EQ Mid FREQ	20.0Hz–**2.50KHz**–10.0KHz	Adjusts the center frequency when changing the tone quality in the middle band.
	EQ Mid Q	**0.5**–16.0	Adjusts the width of the frequency band when boosting or attenuating the middle band.
	EQ Lo	-15–**0**–15dB	Boosts or attenuates the low band.
	EQ Lo FREQ	55–**110**–800Hz	Adjusts the center frequency when changing the tone quality in the low band.
	DELAY	**0.0**–500.0ms	Adjusts the delay time for audio.
MIC COMP		ON, **OFF**	Turns the compressor on/off.
MIC COMP-THRESHOLD		-50– **-16**–0dB	Specifies the level used as the threshold when compressing audio. Compression is applied to audio that exceeds the level set here.
MIC COMP-RATIO		1.0:1–**INF:1**	Specifies the degree of compression applied to the audio. The state in which no compression is applied is defined as "1."
MIC COMP-ATTACK		0.2–**50**–100ms	Specifies the time until compression starts when audio exceeding the threshold is input.
MIC COMP-RELEASE		30–**500**–5000ms	Adjusts the length of time until compression ends after audio falls below the threshold.
MIC GATE		**ON**, OFF	Turns the gate on/off.
MIC GATE-THRESHOLD		-50– **-36**–0dB	Specifies the level used as the threshold for removing audio. Audio below the level set here is removed.
MIC GATE-RELEASE		30–**800**–5000ms	Adjusts the length of time until the audio is fully attenuated after audio falls below the threshold.
MIC HPF		ON, **OFF**	Turns the high-pass filter on/off.
MAIN EQ Hi		-15–**0**–15dB	Boosts or attenuates the high band.
MAIN EQ Hi FREQ		700Hz–**8.00KHz**–11.0KHz	Adjusts the center frequency when changing the tone quality in the high band.
MAIN EQ Mid		-15–**0**–15dB	Boosts or attenuates the middle band.
MAIN EQ Mid FREQ		20.0Hz–**2.50KHz**–10.0KHz	Adjusts the center frequency when changing the tone quality in the middle band.
MAIN EQ Mid Q		**0.5**–16.0	Adjusts the width of the frequency band when boosting or attenuating the middle band.
MAIN EQ Lo		-15–**0**–15dB	Boosts or attenuates the low band.
MAIN EQ Lo FREQ		55–**110**–800Hz	Adjusts the center frequency when changing the tone quality in the low band.
HDMI IN 1 : HDMI IN 4 AUDIO IN MIC	REV SEND	0–**100**–127	Adjusts the send level of audio to Reverb.

Menu item	**Value** (bold text: default value)	Explanation
REVERB LEVEL	**0**–127	Adjusts the return level from reverb of the audio. A setting of "0" results in no reverb applied.
REVERB TIME	0.0–**1.0**–5.0sec	Adjusts the length of the reverb.
REVERB TYPE	Specifies the type of reverb.	
	ROOM	Produces the natural-sounding reverberation of a room.
	HALL	Produces the reverberation that is typical of a performance in a concert hall.
MASTERING	ON, **OFF**	Turns the mastering on/off.
MASTERING NS	**0**–127	Adjusts the degree of application of the noise suppressor.
MASTERING ENHANCER	**0**–127	Adjusts the degree of application of the enhancer.
MASTERING Hi	**0**–127	Suppresses high-frequency distortion and adjusts the sound to have sustained tones.
MASTERING Mid	**0**–127	Suppresses midrange distortion and adjusts the sound to have distinct tones.
MASTERING Lo	**0**–127	Suppresses low-frequency distortion and adjusts the sound to have stable tones.
A. FOLLOW AUDIO IN	1–4, **OFF**	Specifies the video channel to interlink by audio follow with audio input via AUDIO IN. * This is effective when "AUDIO FOLLOW" is set to "ON."
A. FOLLOW MIC	1–4, **OFF**	Specifies the video channel to interlink by audio follow with audio input via MIC. * This is effective when "AUDIO FOLLOW" is set to "ON."

SETUP Menu (Pressing and holding the [(TAP) BPM] button for 2 seconds or longer)

Menu item	**Value** (bold text: default value)	Explanation
BPM	20–**120**–250	Specifies the tempo when the BPM sync function is turned on.
BPM SYNC	x1/4, **x1/2**, x1, x2	When the BPM sync function is turned on, specifies the multiple of the BPM value to be used as the speed to switch video.
HDCP	ON, **OFF**	If this is "ON," copyright-protected (HDCP) video can be input. HDCP is also added to the video that is output.
OUTPUT CONTRAST	-64–**0**–63	Adjusts the contrast of the main output video.
OUTPUT SATURATION	-64–**0**–63	Adjusts the color saturation of the main output video.
OUTPUT BRIGHTNESS	-64–**0**–63	Adjusts the brightness of the main output video.
OUTPUT COLOR SPACE	**AUTO**, RGB-FULL, RGB-LIMIT, YPbPr	Specifies the color space (system for representing colors in video) of the OUTPUT connector.
OUTPUT DVI-D/HDMI	**AUTO**, DVI-D, HDMI	Specifies the type of signal that is output from the OUTPUT connector.
PREVIEW CONTRAST	-64–**0**–63	Adjusts the contrast of the preview output video.
PREVIEW SATURATION	-64–**0**–63	Adjusts the color saturation of the preview output video.
PREVIEW BRIGHTNESS	-64–**0**–63	Adjusts the brightness of the preview output video.
PREVIEW COLOR SPACE	**AUTO**, RGB-FULL, RGB-LIMIT, YPbPr	Specifies the color space (system for representing colors in video) of the PREVIEW connector.
PREVIEW DVI-D/HDMI	**AUTO**, DVI-D, HDMI	Specifies the type of signal that is output from the PREVIEW connector.
PREVIEW OUT	Specifies the view mode of preview output.	
	MULTI-VIEW	Displays the incoming video on channels 1–4 as a four-way split screen.
	OUTPUT	Displays the video currently being output.
	PREVIEW	Displays the video to be output next.
PinP BORDER	0–**10**–15	Adjusts the width of the border added to the PinP inset screen.
PinP BORDER COLOR	BLACK, WHITE, GRAY, **RED**, GREEN, BLUE, YELLOW	Specifies the color of the border added to the PinP inset screen.
AUTO SCAN	ON, **OFF**	Turns the Auto Scan function on/off. If this is "ON," channels 1–4 are switched automatically.

Menu item	Value (bold text: default value)	Explanation
AUTO SCAN TIME CH1 : AUTO SCAN TIME CH4	OFF, 1–**5**–120sec	When the Auto Scan function is on, specifies the video display interval. If this is "OFF," video switching does not affect.
AUTO SCAN TRANS TIME	0.0–**1.0**–4.0sec	When the Auto Scan function is on, this sets the length of time for applying a video transition.
AUTO SCAN SEQUENCE	**NORMAL**, RANDOM	Specifies the order in which video signals are shown.
DEINTERLACE MODE	Specifies the method used when converting interlaced input video to progressive video.	
	WEAVE	Joins the top field and bottom field in a single frame. This is optimal for video that contains little movement.
	BOB	Interpolates the top field and bottom field, and unites them in a single frame. This is optimal for video that contains much movement.
A/B MODE	Specifies the operation mode for video transitions.	
	A/B	The video on the bus toward which the A/B fader is flipped is output.
	PGM/PST	The video at the PGM (bus A) position is always output, and for PST (the bus B position), these select the video to be output next.
FREEZE MODE	Specifies the operation mode for freezes.	
	ALL	Freezes all input video.
	SELECT	Freezes only the selected input video.
MIDI Rx SOURCE **MIDI OUT** **MIDI Tx CHANNEL** **MIDI DEVICE ID** **MIDI Rx CHANNEL** **MIDI Rx TEMPO CLOCK**	For information on remote control via MIDI, download and refer to the "V-1HD Remote Control Guide" (PDF) from the following Roland website. **https://proav.roland.com/**	
POWER ON LOAD	**1**–8	Selecting a memory number causes the settings at the selected memory number to be recalled at startup.
PGM LED	**RED**, GREEN, YELLOW, BLUE, PURPLE, L.BLUE, WHITE	Specifies the color used when the output video channel buttons ([A-1]–[A-4], [B-1]–[B-4]) light up.
PST LED	RED, **GREEN**, YELLOW, BLUE, PURPLE, L.BLUE, WHITE	Specifies the color used when the buttons for the video channel to output next ([A-1]–[A-4], [B-1]–[B-4]) light up.
INPUT LED	**ON**, OFF	If this is "ON," the [A-1]–[A-4] and [B-1]–[B-4] buttons light up, flash, and go dark as shown below.

Button	Input video status
Lit white	Valid video is input.
Flashing white	Video whose format differs from the [FORMAT] switch setting is input.
Dark	No video is input.

TRANSFORMER LED	**ON**, OFF	If this is "ON," the TRANSFORMER buttons light up in white.
AUDIO LED	**MASTER OUT**, MIC, AUDIO IN, HDMI 1, HDMI 2, HDMI 3, HDMI 4	Specifies the audio signal monitored by the AUDIO indicator.
AUDIO LEVEL METER	OFF, LOWER L, LOWER, **LOWER R**, LEFT, CENTER, RIGHT, UPPER L, UPPER, UPPER R	Specifies the location of an audio level meter displayed on the preview monitor. If this is set to "OFF," an audio level meter is always hidden.
MEMORY PANEL LOAD	ON, **OFF**	Specifies whether the state of the operation panel is updated (ON) or not updated (OFF) when a memory is recalled.

Use the following items to enable (ON) or disable (OFF) panel lock. Panel lock is a function that disables operation of the operating panel buttons and knobs.

PANEL LOCK ALL	ON, **OFF**	Turns the setting on/off for all buttons and knobs.
A BUS SW	ON, **OFF**	[A-1]–[A-4] buttons
B BUS SW	ON, **OFF**	[B-1]–[B-4] buttons
TRANSFORMER SW	ON, **OFF**	TRANSFORMER [▲] and [▼] buttons
BPM SYNC SW	ON, **OFF**	[BPM SYNC] button

Menu item	Value (bold text: default value)	Explanation
WIPE SW	ON, **OFF**	[WIPE] button
MIX SW	ON, **OFF**	[MIX] button
CUT SW	ON, **OFF**	[CUT] button
FREEZE SW	ON, **OFF**	[FREEZE] button
MEMORY SW	ON, **OFF**	[MEMORY] button
AUDIO SW	ON, **OFF**	[AUDIO] button
EFFECTS SW	ON, **OFF**	EFFECTS A and EFFECTS B [ON] buttons
EFFECTS VOL	ON, **OFF**	[EFFECTS A] and [EFFECTS B] knobs
OUTPUT FADE VOL	ON, **OFF**	[OUTPUT FADE] knob
A/B FADER	ON, **OFF**	A/B fader
NO SIGNAL BACK	**BLACK**, BLUE	Specifies the background color of channels that have no video input.
UNFIT SIGNAL BACK	BLACK, BLUE, **THRU**	Specifies the background color of channels on which video of an incompatible format is input. If this is set to "THRU," video in an unsupported format is output unchanged, allowing confirmation of the status of the input signal. Note, however, that the video might contain additional noise artifacts.
EFFECTS TYPE CHANGE	**ON**, OFF	If this is "ON," effect assignments are changed by holding down the EFFECTS A [ON] button and turning the [EFFECTS A] knob. Operation for EFFECTS B is the same.
WIPE TYPE CHANGE	**ON**, OFF	If this is "ON," the wipe transition pattern changes with each press of the [WIPE] button.
MIX TYPE CHANGE	**ON**, OFF	If this is "ON," the mix transition pattern changes with each press of the [MIX] button.
OUTPUT FADE LEFT	Specifies the functions when turning the [OUTPUT FADE] knob counter-clockwise.	
	BLACK	The output video is faded-in/out to a black screen.
	AUDIO	Adjusts the output volume.
	BLK & AUD	Fades-in/out the output video and audio simultaneously. The video fades to a black screen.
OUTPUT FADE RIGHT	Specifies the functions when turning the [OUTPUT FADE] knob clockwise.	
	WHITE	The output video is faded-in/out to a white screen.
	AUDIO	Adjusts the output volume.
	WHT & AUD	Fades-in/out the output video and audio simultaneously. The video fades to a white screen.
AUTO OFF	**ON**, OFF	Turns the Auto Off function on/off. When set to "ON," the power to the V-1HD is automatically turned off if 240 minutes elapse with no operation performed on the unit.
COLOR BAR OUTPUT	ON, **OFF**	Setting this to "ON" outputs a color bar.
TEST TONE OUTPUT	ON, **OFF**	Setting this to "ON" outputs a test tone.
A/B FADER CALIBRATE	—	Calibrates (adjusts) the A/B fader. When you move the A/B fader to the bus A position, instructions appear in the screen. In some cases, such as after extended use or after the unit is transported, it might occur that the video is no longer output at 100% when the A/B fader is moved all the way to the bus A or bus B position. If this occurs, execute A/B fader calibration.
FRAME RATE	59.94, 50	Specifies the frame rate.
FACTORY RESET	—	Returns the unit to its factory defaults. When you move the A/B fader to the bus A position, instructions appear in the screen.
VERSION	—	Displays the version of the system program.

Troubleshooting

If you suspect a malfunction, please check the following points. If this does not resolve the problem, contact a nearby Roland Service Center.

Problem	Items to check	Action	Page
Video-related problems			
No picture is input.	Are the [A-1] through [A-4] and [B-1] through [B-4] buttons flashing in white?	Video whose format differs from the [FORMAT] switch setting is input. Input video that is compatible with the specified format.	p. 14
	Is copyright-protected (HDCP) video being input?	When inputting copyright-protected (HDCP) video signals, go to the SETUP menu and set "HDCP" to "ON."	p. 15
Video from the computer is not displayed.	Is the format of the video output from the computer compatible with the V-1HD's input formats?	The supported input formats on the V-1HD are 1080p, 1080i, and 720p. VESA-standard resolutions are not supported.	p. 14
No picture is output.	Has the [OUTPUT FADE] knob been turned clockwise or counterclockwise?	With the factory settings, when the [OUTPUT FADE] knob is turned clockwise or counterclockwise, fade is applied to the main output video. When outputting video, adjust the [OUTPUT FADE] knob to its center position.	p. 20
	Is the display connected correctly?	When outputting copyright-protected (HDCP) video, connect an HDCP-compatible display.	—
"Snowy"-noise video is output.	It is possible that the HDMI signal is not being sent and received correctly.	Reconnect the HDMI cable.	—
Colors are incorrect.	Does the color space setting on the output-destination equipment (external display, projector, or other such device) match the color space setting on the V-1HD?	Go to the SETUP menu and make the setting for "OUTPUT COLOR SPACE" (OUTPUT connector) or "PREVIEW COLOR SPACE" (PREVIEW connector).	—
		Depending on the device, the color space might be interlinked with the selection of DVI or HDMI or the selected format. In such cases, changing the color space on the output device might bring about improvement for the problem.	—
The edges of video shown on the display are cut off.	Are the display settings compatible?	Depending on the device, the display might automatically overscan. Change the display's settings.	—
Switching video is not possible.	Is a menu (SETUP, MEMORY, or AUDIO) displayed?	Video-switching operations cannot be performed while a menu is displayed. Exit the menu screen.	—
Compositing a logo or text is not possible.	Has the effect been selected correctly?	• Select "WHT-L.KEY" (white) or "BLK-L.KEY" (black) luminance key to match the background color of the logo or text. • Use the [EFFECTS A] and [EFFECTS B] knobs to adjust the position to just the right degree of extraction for the logo or text.	p. 22
Audio-related Problems			
No audio is output. **Audio volume is low.**	Is the volume turned down on the connected amplifications or speakers?	Adjust to an appropriate volume level.	—
	Is the volume turned down on the V-1HD?	Adjust each input-audio stream to an appropriate volume level. Also, adjust the overall volume level.	p. 25
	Are you using connection cables that contain resistors?	If this happens, use connector cables that do not contain resistors.	—
No reverb is applied.	Is the amount of audio sent to Reverb set at an appropriate level?	If the send level for audio to Reverb is too low, the amount of reverb effect might be difficult to discern. Adjust the send level of the audio to Reverb.	p. 27

Transition Effects List

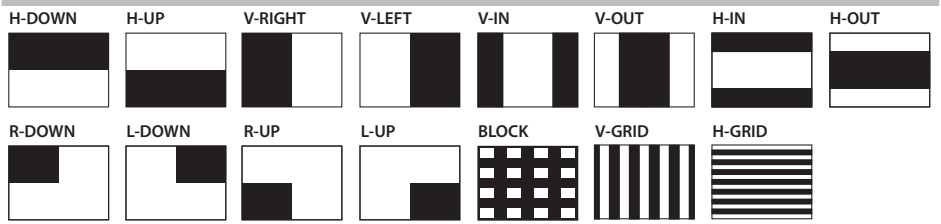
MIX

Effect	Explanation
MIX	As the original picture gradually disappears, the next video is overlaid and progressively grows more visible.
FAM	Video transitions are made with the luminance levels of the two video streams maintained unchanged. * This is an abbreviation of "full additive mix."
NAM	The two video streams are compared, and transitions are made with display during transition starting with levels of high luminance. * This is an abbreviation of "non-additive mix."
MOSAIC	Transitions are made with mosaic pixelation.

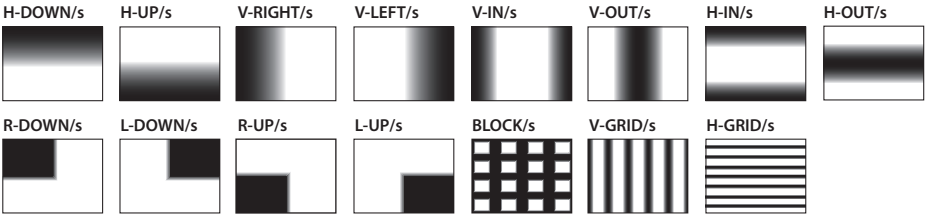
WIPE

The original video is broken into by the next video.

Normal

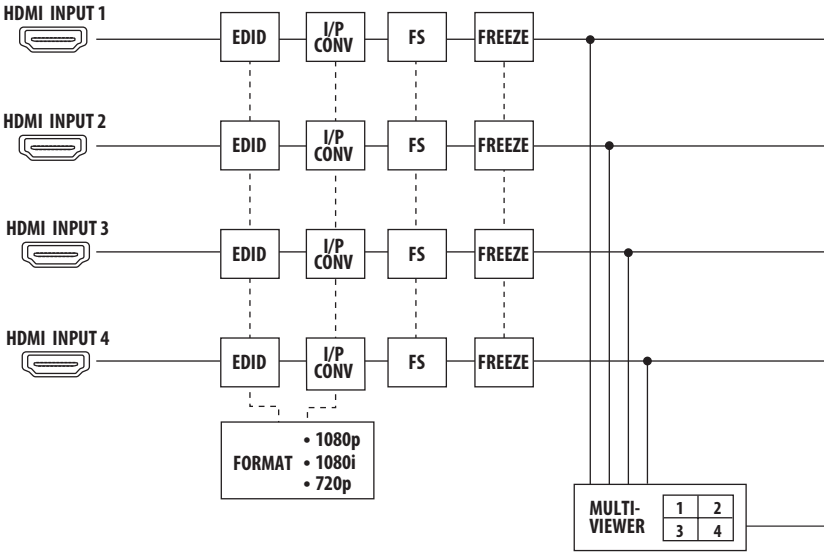


Soft Edge

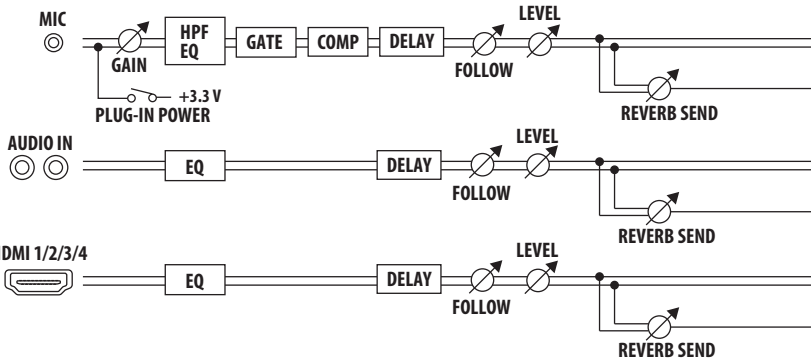


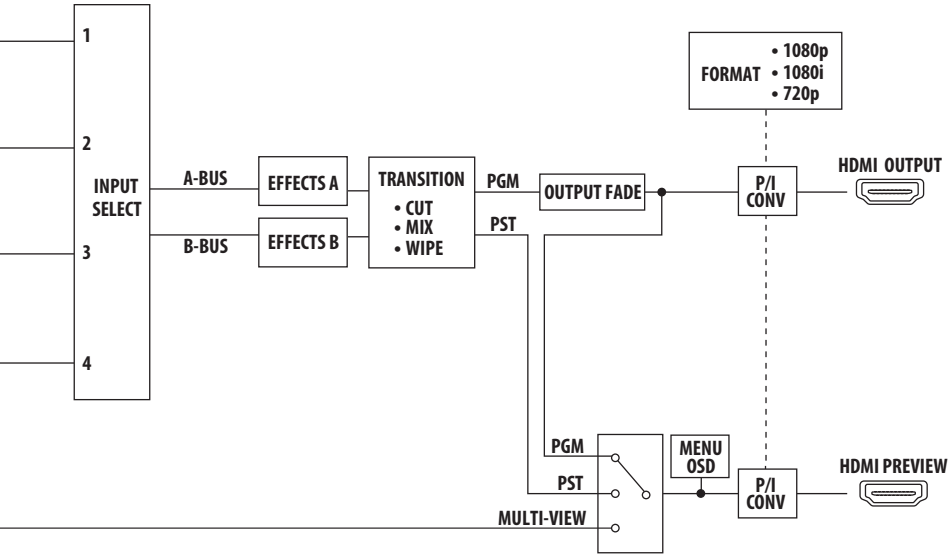
Block Diagram

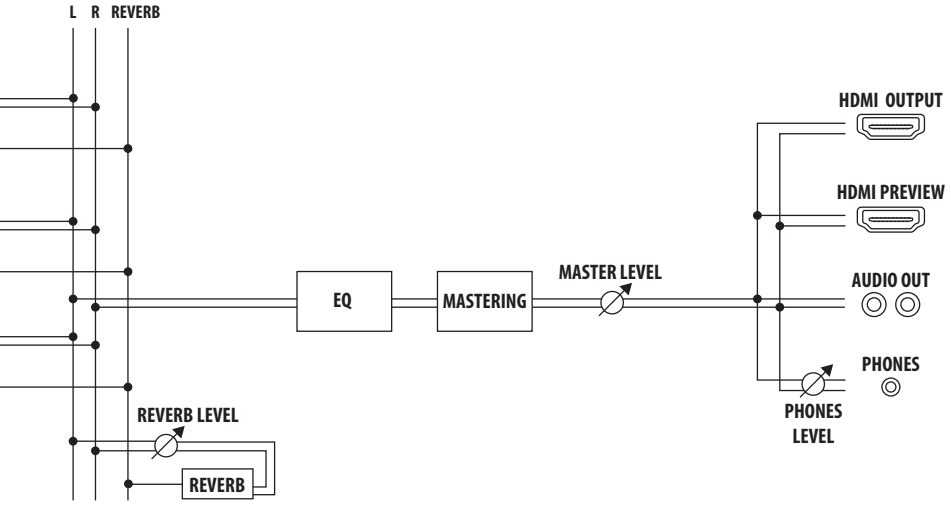
Video Block



Audio Block




1
2
3
4
INPUT SELECT
A-BUS
B-BUS
EFFECTS A
EFFECTS B
TRANSITION
• CUT
• MIX
• WIPE
PGM
PST
OUTPUT FADE
FORMAT
• 1080p
• 1080i
• 720p
P/I CONV
HDMI OUTPUT
PGM
PST
MULTI-VIEW
MENU OSD
P/I CONV
HDMI PREVIEW


L
R
REVERB
EQ
MASTERING
MASTER LEVEL
HDMI OUTPUT
HDMI PREVIEW
AUDIO OUT
PHONES
PHONES LEVEL
REVERB LEVEL
REVERB

Main Specifications

Roland V-1HD: HD Video Switcher

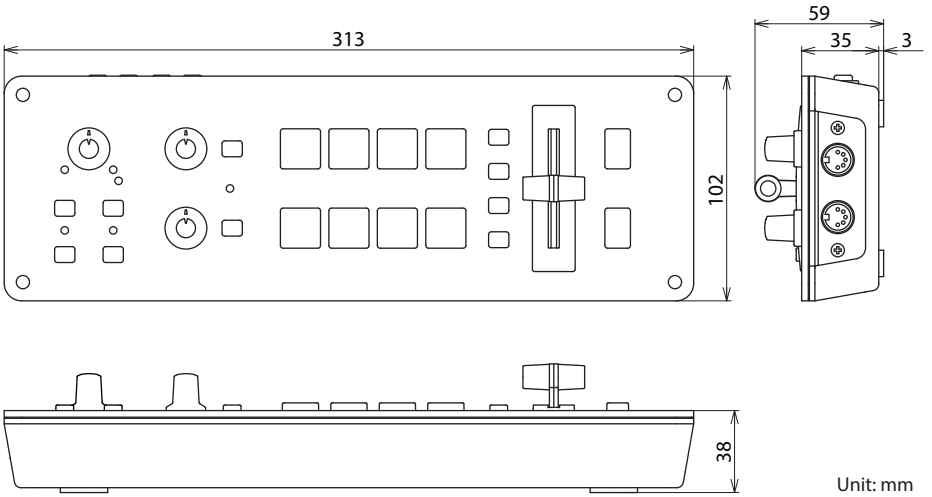
■ Video		
Video Processing	4:2:2 (Y/Pb/Pr), 8-bit	
Input Connectors	HDMI INPUT 1–4	Type A (19 pins) x 4 * HDCP Supported
Output Connectors	HDMI OUTPUT	Type A (19 pins) * HDCP Supported
	HDMI PREVIEW	Type A (19 pins) * HDCP Supported
Input Formats	HDMI	720/59.94p, 720/50p (FORMAT switch = 720p)
		1080/59.94i, 1080/50i 1080/59.94p, 1080/50p (FORMAT switch = 1080i or 1080p)
		* The input interlaced video signal is converted to progressive video signal by internal processing. * The video signal frame rate is selected by SETUP parameters (59.94 or 50).
Output Formats	HDMI	720/59.94p, 720/50p (FORMAT switch = 720p)
		1080/59.94i, 1080/50i (FORMAT switch = 1080i)
		1080/59.94p, 1080/50p (FORMAT switch = 1080p)
		* The video signal frame rate is selected in SETUP parameters (59.94 or 50).
Video Effects	Transition	CUT, MIX (DISSOLVE/FAM/NAM/MOSAIC), WIPE (30 types), TRANSFORMER (11 types)
	EFFECTS	NEGATIVE, EMBOSS, COLORIZE, COLORPASS, POSTERIZE, SILHOUETTE, MONOCOLOR, FINDEDGE, FLIP, WH-LUMIKEY@, BK-LUMIKEY@, GR-CHROMAKEY@, BL-CHROMAKEY@, PinP (1/4)@, PinP (1/3)@, PinP (1/2)@, SPLIT (H-STRETCH)@. SPLIT (H-CENTER)@, SPLIT (V-STRETCH)@, SPLIT (V-CENTER)@ * @ marked Effects are effected common to A-BUS and B-BUS.
■ Audio		
Audio Processing	Sampling rate	24 bits/48 kHz
Input Connectors	Digital	HDMI INPUT 1–4 (19 pins) x 4
	Analog	AUDIO IN (RCA pin type)
		MIC (Stereo mini type, plug-in power supported)
Output Connectors	Digital	HDMI OUTPUT (HDMI Type A 19 pins)
		HDMI PREVIEW (HDMI Type A 19 pins)
	Analog	AUDIO OUT (RCA pin type)
		PHONES (Stereo mini type)
Input Level	AUDIO IN	-10 dBu (Maximum: +8 dBu)
	MIC	-41– -13 dBu (Maximum: -1 dBu)
Input Impedance	AUDIO IN	15 k ohms
	MIC	10 k ohms
Output Level	AUDIO OUT	-10 dBu (Maximum: +8 dBu)
	PHONES	72 mW + 72 mW (32 ohms)
Output Impedance	AUDIO OUT	1k ohms
	PHONES	10 ohms
Audio Effects	EQ, Delay, Compressor, HPF, Gate, Reverb, Mastering effect	
■ Other Connectors		
USB	B Type (for remote control from PC)	
MIDI	IN, OUT/THRU	
■ Other Functions		
MEMORY (8 types), FREEZE (input video captured), BPM SYNC (auto transition synchronized to tempo), OUTPUT FADE (WHITE/BLACK/AUDIO)		

■ Others	
Power Supply	AC Adaptor
Current Draw	1.5 A
Power Consumption	18 W
Operation Temperature	+0 to +40 degrees Celsius +32 to +104 degrees Fahrenheit
Dimensions	313 (W) x 102 (D) x 59 (H) mm
Weight	1.2 kg (excluding AC adaptor) 2 lbs 10-2/5 oz
Accessories	Owner's Manual, AC adaptor, Power cord, Cord hook

* 0 dBu=0.775 Vrms

* 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

For the U.K.

IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.

BLUE: NEUTRAL
BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.
Under no circumstances must either of the above wires be connected to the earth terminal of a three pin plug.

For the USA

SUPPLIER'S DECLARATION OF CONFORMITY
Compliance Information Statement

Model Name : V-1HD
Type of Equipment : HD VIDEO SWITCHER
Responsible Party : Roland Corporation U.S.
Address : 5100 S. Eastern Avenue Los Angeles, CA 90040-2938
Telephone : (323) 890-3700

For the USA

FEDERAL COMMUNICATIONS COMMISSION
RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment requires shielded interface cables in order to meet FCC class B limit.
Any unauthorized changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For Canada

CAN ICES-3 (B)/NMB-3 (B)

For EU Countries

Manufacturer: Roland Corporation
2036-1 Nakagawa, Hosoe-cho, Kita-ku, Hamamatsu, Shizuoka 431-1304, JAPAN
Importer: Roland Corporation
ENA 23 Zone 1 nr. 1620 Klaus-Michael Kuehnelaan 13, 2440 Geel, BELGIUM

For EU Countries

UK This symbol indicates that in EU countries, this product must be collected separately from household waste, as defined in each region. Products bearing this symbol must not be discarded together with household waste.

DE Dieses Symbol bedeutet, dass dieses Produkt in EU-Ländern getrennt vom Hausmüll gesammelt werden muss gemäß den regionalen Bestimmungen. Mit diesem Symbol gekennzeichnete Produkte dürfen nicht zusammen mit den Hausmüll entsorgt werden.

FR Ce symbole indique que dans les pays de l'Union européenne, ce produit doit être collecté séparément des ordures ménagères selon les directives en vigueur dans chacun de ces pays. Les produits portant ce symbole ne doivent pas être mis au rebut avec les ordures ménagères.

IT Questo simbolo indica che nei paesi della Comunità europea questo prodotto deve essere smaltito separatamente dai normali rifiuti domestici, secondo la legislazione in vigore in ciascun paese. I prodotti che riportano questo simbolo non devono essere smaltiti insieme ai rifiuti domestici. Ai sensi dell'art. 13 del D.Lgs. 25 luglio 2005 n. 151.

ES Este símbolo indica que en los países de la Unión Europea este producto debe recogerse aparte de los residuos domésticos, tal como esté regulado en cada zona. Los productos con este símbolo no se deben depositar con los residuos domésticos.

PT Este símbolo indica que nos países da UE, a recolha deste produto deverá ser feita separadamente do lixo doméstico, de acordo com os regulamentos de cada região. Os produtos que apresentem este símbolo não deverão ser eliminados juntamente com o lixo doméstico.

NL Dit symbool geeft aan dat in landen van de EU dit product gescheiden van huishoudelijk afval moet worden aangeboden, zoals bepaald per gemeente of regio. Producten die van dit symbool zijn voorzien, mogen niet samen met huishoudelijk afval worden verwijderd.

DK Dette symbol angiver, at i EU-lande skal dette produkt opsamles adskilt fra husholdningsaffald, som defineret i hver enkelt region. Produkter med dette symbol må ikke smides ud sammen med husholdningsaffald.

NO Dette symbolet indikerer at produktet må behandles som spesialavfall i EU-land, iht. til retningslinjer for den enkelte regionen, og ikke kastes sammen med vanlig husholdningsavfall. Produkter som er merket med dette symbolet, må ikke kastes sammen med vanlig husholdningsavfall.

SE Symbolen anger att i EU-länder måste den här produkten kasseras separat från hushållsavfall, i enlighet med varje regions bestämmelser. Produkter med den här symbolen får inte kasseras tillsammans med hushållsavfall.

FI Tämä merkintä ilmaisee, että tuote on EU-maissa kerättävä erillään kotitalousjätteistä kunkin alueen voimassa olevien määräysten mukaisesti. Tällä merkinnällä varustettuja tuotteita ei saa hävittää kotitalousjätteiden mukana.

HU Ez a szimbólum azt jelenti, hogy az Európai Unióban ezt a terméket a háztartási hulladéktól elkülönítve, az adott régióban érvényes szabályozás szerint kell gyűjteni. Az ezzel a szimbólummal ellátott termékeket nem szabad a háztartási hulladék közé dobni.

PL Symbol oznacza, że zgodnie z regulacjami w odpowiednim regionie, w krajach UE produktu nie należy wyrzucać z odpadami domowymi. Produktów opatrzonych tym symbolem nie można utylizować razem z odpadami domowymi.

CZ Tento symbol udává, že v zemích EU musí být tento výrobek sbírán odděleně od domácího odpadu, jak je určeno pro každý region. Výrobky nesoucí tento symbol se nesmí vyhazovat spolu s domácím odpadem.

SK Tento symbol vyjadruje, že v krajinách EÚ sa musí zber tohto produktu vykonávať oddelene od domového odpadu, podľa nariadení platných v konkrétnej krajine. Produkty s týmto symbolom sa nesmú vyhadzovať spolu s domovým odpadom.

EE See sümbol näitab, et EL-i maades tuleb see toode olemprügist eraldi koguda, nii nagu on igas piirkonnas määratletud. Selle sümboliga märgitud tooteid ei tohi ära visata koos olmeprügiga.

LT Šis simbolis rodo, kad ES šalyse šis produktas turi būti surenkamas atskirai nuo buitinių atliekų, kaip nustatyta kiekvienam regione. Šiuo simboliu paženklinti produktai neturi būti išmetami kartu su buitinėmis atliekomis.

LV Šis simbols norāda, ka ES valstīs šo produktu jāievāc atsevišķi no mājsaimniecības atkritumiem, kā noteikts katrā reģionā. Produktus ar šo simbolu nedrīkst izmest kopā ar mājsaimniecības atkritumiem.

SI Ta simbol označuje, da je treba proizvod v državah EU zbirati ločeno od gospodinjskih odpadkov, tako kot je določeno v vsaki regiji. Proizvoda s tem znakom ni dovoljeno odlagati skupaj z gospodinjskimi odpadki.

GR Το σύμβολο αυτό υποδηλώνει ότι στις χώρες της Ε.Ε. το συγκεκριμένο προϊόν πρέπει να συλλέγεται χωριστά από τα υπόλοιπα οικιακά απορρίμματα, σύμφωνα με όσα προβλέπονται σε κάθε περιοχή. Τα προϊόντα που φέρουν το συγκεκριμένο σύμβολο δεν πρέπει να απορρίπτονται μαζί με τα οικιακά απορρίμματα.

For China

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部件名称	有害物质					
	铅(Pb)	汞(Hg)	镉(Cd)	六价铬(Cr(VI))	多溴联苯(PBB)	多溴二苯醚(PBDE)
外壳（壳体）	×	O	O	O	O	O
电子部件（印刷电路板等）	×	O	×	O	O	O
附件（电源线、交流适配器等）	×	O	O	O	O	O

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http://roland.cm/proav_service

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