Roland

MULTI-FORMAT VIDEO SWITCHER

V-800HD MK II

Owner's Manual

Before using the V-800HD MK II, ensure that its system program is at the most recent version. For information on available upgrades for the system program, see the Roland website (https://proav.roland.com/).

You can check the system program version by pressing the [MENU] button → "System" → "System Information."

📖 Owner's Manual (this document)

Read this first. It explains the basic things you need to know in order to use the V-800HD MK II.

📖 PDF Manual (download from the Web)

- **Reference Manual**
  This manual covers all menu items of the V-800HD MK II.
  It also describes control via MIDI and RS-232.

📖 To obtain the PDF manual

1. Enter the following URL in your computer.
   https://proav.roland.com/

   ▼

2. Go to the V-800HD MK II product page and click the "Support."

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

ATTENTION: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

IMPORTANT SAFETY INSTRUCTIONS
SAVE THESE INSTRUCTIONS

WARNING - When using electric products, basic precautions should always be followed, including the following:

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

For the U.K.

WARNING: THIS APPARATUS MUST BE EARTHED
IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.
GREEN-AND-YELLOW: EARTH, 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 GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured GREEN or GREEN-AND-YELLOW.
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.

Contents

Before using this unit, carefully read "IMPORTANT SAFETY INSTRUCTIONS" (p. 2), "USING THE UNIT SAFELY" (p. 4), and "IMPORTANT NOTES" (p. 6).

After reading, keep the document(s) where it will be available for immediate reference.

Checking the Included Items

The V-800HD MK II includes the following items. Please take a moment to confirm that all of these items have been included with the V-800HD MK II. If you find that any item is missing, contact the nearest authorized Roland distributor in your country.

☐ **The Unit**

☐ **Power Cord**

☐ **Rack-mount Angle (two)**

☐ **Owner's Manual**

* The shape of the power cord's plug varies depending on the country.

USING THE UNIT SAFELY

INSTRUCTIONS FOR THE PREVENTION OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

About ⚠ WARNING and ⚠ CAUTION Notices

⚠**WARNING**	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly.
⚠ **CAUTION**	Used for instructions intended to alert the user to the risk of injury or material damage should the unit be used improperly. * Material damage refers to damage or other adverse effects caused with respect to the home and all its furnishings, as well to domestic animals or pets.

About the Symbols

⚠	The △ symbol alerts the user to important instructions or warnings. The specific meaning of the symbol is determined by the design contained within the triangle. In the case of the symbol at left, it is used for general cautions, warnings, or alerts to danger.
🚫	The ⃠ symbol alerts the user to items that must never be carried out (are forbidden). The specific thing that must not be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the unit must never be disassembled.
⬤	The ● symbol alerts the user to things that must be carried out. The specific thing that must be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the power-cord plug must be unplugged from the outlet.

ALWAYS OBSERVE THE FOLLOWING

⚠ WARNING

Make sure that the power cord is grounded

Connect mains plug of this model to a mains socket outlet with a protective earthing connection.

To completely turn off power to the unit, pull out the plug from the outlet

Even with the power switch turned off, this unit is not completely separated from its main source of power. When the power needs to be completely turned off, turn off the power switch on the unit, then pull out the plug from the outlet. For this reason, the outlet into which you choose to connect the power cord's plug should be one that is within easy reach and readily accessible.

Do not disassemble or modify by yourself

Do not carry out anything unless you are instructed to do so in the owner's manual. Otherwise, you risk causing malfunction.

Do not repair or replace parts by yourself

Refer all servicing to your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information."

Do not use or store in the following types of locations

• Subject to temperature extremes (e.g., direct sunlight in an enclosed vehicle, near a heating duct, on top of heat-generating equipment); or are
• Damp (e.g., baths, washrooms, on wet floors); or are
• Exposed to steam or smoke; or are
• Subject to salt exposure; or are
• Exposed to rain; or are
• Dusty or sandy; or are
• Subject to high levels of vibration and shakiness; or are
• Placed in a poorly ventilated location.

⚠ WARNING

Do not place in a location that is unstable

When using the unit with a rack recommended by Roland, the rack must be carefully placed so it is level and sure to remain stable. If not using a rack, you still need to make sure that any location you choose for placing the unit provides a level surface that will properly support the unit, and keep it from wobbling.

Use only the supplied power cord

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

Connect the power cord to an outlet of the correct voltage

The unit should be connected to a power supply only of the type described in the operating instructions, or as marked on the side of unit.

Do not bend the power cord or place heavy objects on it

Otherwise, fire or electric shock may result.

Do not allow foreign objects or liquids to enter unit; never place containers with liquid on unit

Do not place containers containing liquid (e.g., flower vases) on this product. Never allow foreign objects (e.g., flammable objects, coins, wires) or liquids (e.g., water or juice) to enter this product. Doing so may cause short circuits, faulty operation, or other malfunctions.

⚠ WARNING

Turn off the unit if an abnormality or malfunction occurs

Immediately turn the unit off, remove the power cord from the outlet, and request servicing by your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" when:

• The power cord has been damaged; or
• If smoke or unusual odor occurs; or
• Objects have fallen into, or liquid has been spilled onto the unit; or
• The unit has been exposed to rain (or otherwise has become wet); or
• The unit does not appear to operate normally or exhibits a marked change in performance.

Be cautious to protect children from injury

Always make sure that an adult is on hand to provide supervision and guidance when using the unit in places where children are present, or when a child will be using the unit.

Do not drop or subject to strong impact

Otherwise, you risk causing damage or malfunction.

Do not share an outlet with an unreasonable number of other devices

Otherwise, you risk overheating or fire.

Do not use overseas

Before using the unit in overseas, consult with your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information."

⚠ CAUTION

When disconnecting the power cord, grasp it by the plug

To prevent conductor damage, always grasp the power cord by its plug when disconnecting it.

Periodically clean the power plug

An accumulation of dust or foreign objects between the power plug and the power outlet can lead to fire or electric shock.

At regular intervals, be sure to pull out the power plug, and using a dry cloth, wipe away any dust or foreign objects that may have accumulated.

Disconnect the power plug whenever the unit will not be used for an extended period of time

Fire may result in the unlikely event that a breakdown occurs.

Route all power cords and cables in such a way as to prevent them from getting entangled

Injury could result if someone were to trip on a cable and cause the unit to fall or topple.

Avoid climbing on top of the unit, or placing heavy objects on it

Otherwise, you risk injury as the result of the unit toppling over or dropping down.

Never connect/disconnect a power plug if your hands are wet

Otherwise, you could receive an electric shock.

Disconnect all cords/cables before moving the unit

Before moving the unit, disconnect the power plug from the outlet, and pull out all cords from external devices.

Before cleaning the unit, disconnect the power plug from the outlet

If the power plug is not removed from the outlet, you risk receiving an electric shock.

Whenever there is a threat of lightning, disconnect the power plug from the outlet

If the power plug is not removed from the outlet, you risk causing malfunction or receiving an electric shock.

Keep small items out of the reach of children

To prevent accidental ingestion of the parts listed below, always keep them out of the reach of small children.

- Removable Part
  Screws (p. 7)

Handle the ground terminal carefully

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

⚠ CAUTION

Take care not to get burned

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

IMPORTANT NOTES

Power Supply

- Do not connect this unit to same electrical outlet that is being used by an electrical appliance that is controlled by an inverter or a motor (such as a refrigerator, washing machine, microwave oven, or air conditioner). Depending on the way in which the electrical appliance is used, power supply noise may cause this unit to malfunction or may produce audible noise. If it is not practical to use a separate electrical outlet, connect a power supply noise filter between this unit and the electrical outlet.

Placement

- This unit may interfere with radio and television reception. Do not use this unit in the vicinity of such receivers.

- Noise may be produced if wireless communications devices, such as cell phones, are operated in the vicinity of this unit. Such noise could occur when receiving or initiating a call, or while conversing. Should you experience such problems, you should relocate such wireless devices so they are at a greater distance from this unit, or switch them off.

- When moved from one location to another where the temperature and/or humidity is very different, water droplets (condensation) may form inside the unit. Damage or malfunction may result if you attempt to use the unit in this condition. Therefore, before using the unit, you must allow it to stand for several hours, until the condensation has completely evaporated.

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

- Do not place containers or anything else containing liquid on top of this unit. Also, whenever any liquid has been spilled on the surface of this unit, be sure to promptly wipe it away using a soft, dry cloth.

Maintenance

- Never use benzine, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

Repairs and Data

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

Additional Precautions

- Any data stored within the unit can be lost as the result of equipment failure, incorrect operation, etc. To protect yourself against the irretrievable loss of data, try to make a habit of creating regular backups of the data you've stored in the unit.

- Roland assumes no liability concerning the restoration of any stored content that has been lost.

- Use a reasonable amount of care when using the unit's buttons, sliders, or other controls; and when using its jacks and connectors. Rough handling can lead to malfunctions.

- When disconnecting all cables, grasp the connector itself—never pull on the cable. This way you will avoid causing shorts, or damage to the cable's internal elements.

- A small amount of heat will radiate from the unit during normal operation.

- This unit allows you to switch images at high speed. For some people, viewing such images can cause headache, nausea, or other discomfort. Do not use this unit to create video that might cause these types of health problems. Roland Corporation will accept no responsibility for any such health problems that may occur in yourself or in viewers.

Using External Memories

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

Intellectual Property Right

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

- Do not use this product for purposes that could infringe on a copyright held by a third party. We assume no responsibility whatsoever with regard to any infringements of third-party copyrights arising through your use of this product.

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

- Company names and product names appearing in this document are registered trademarks or trademarks of their respective owners.

About Rack Mounting

Attaching the included rack-mount angle brackets lets you install the V-800HD MK II in a 19-inch rack.

Attaching the Rack-mount Angles

1. **Turn off the power to the V-800HD MK II and disconnect the power cord and all connection cables.**

2. **Remove the mounting screws (6) specified in the figure.**
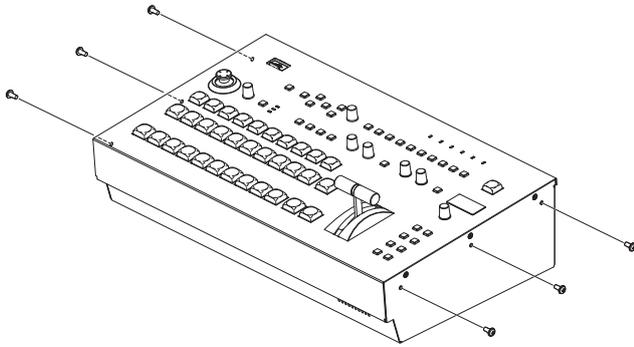
3. **Using the mounting screws (6) you removed in step 2, attach the rack-mount angles.**
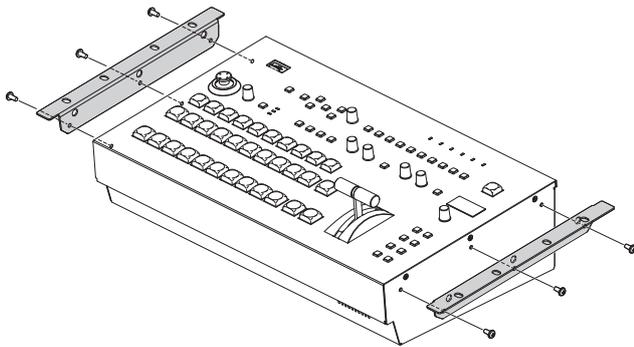
> **NOTE**
>
> **When Uninstalling the Rack-mount Angles**
>
> - Before uninstalling the rack-mount angles, turn off the power to the V-800HD MK II and disconnect the power cord and all connector cables.
> - Be sure to block the screw holes with the removed screws. Using different screws can result in malfunction.

Important Notes on Rack Mounting

- * The video fader protrudes beyond the mounting surface of the rack. Take care not to damage it when mounting the unit.
- * To prevent incorrect operation or malfunction, take care not to subject areas protruding beyond the rack to accidental impact.
- * To ensure room for connectors and cables, leave 2U of clearance above the unit.
- * Before mounting, turn off the power to the V-800HD MK II and detach the power cord and all connection cables.
- * Use all threaded holes (at 4 locations on each side, for a total of 8) to secure the unit to the rack using screws. Screws for rack-mounting are not included.
- * When mounting the unit, use due caution to ensure that your fingers do not get caught or pinched.
- * Never transport the rack with the unit installed in it. The impact of shaking or vibration might deform the rack-mount angles.
- * When mounting the V-800HD MK II in a rack enclosure, pay attention to the following points to ensure efficient cooling.
  - Install in a well-ventilated location.
  - Avoid obstructing the cooling-fan intake and exhaust ports on the side panels of the V-800HD MK II.
  - Avoid mounting the unit in a sealed-type rack. In this situation, warm air within the rack cannot escape and is drawn into the unit, making efficient cooling impossible.
  - If the back of the rack cannot be opened, install an exhaust port or ventilation fan at the top back surface of the rack where warm air collects.
- * Also read the "Placement" (p. 6) under "IMPORTANT NOTES."

Panel Descriptions

Top Panel/Side Panel

No.	Name		Explanation	Page
1	**USB MEMORY port**		This is for connecting a USB flash drive. You use this when importing still images, or when saving or loading settings.	p. 31 p. 32
2	**[MENU] button**		When this is turned on (lighted), the menu is displayed on the multi-view monitor connected to the HDMI OUT connector.	p. 13
	CURSOR	**[▲] [▼] buttons**	These select menu categories and menu items.	
		[◀] [▶] buttons	These switch between menu pages.	
	[EXIT] button		This exits the menus. When the system is at a lower-level menu, these return operation to the upper menu.	
	[ENTER] button		This moves to lower-level menus and executes operations.	
	[VALUE] knob		This changes setting values for menu items.	
3	**[POSITION] joystick**		This adjusts the display position of the input video, final video output, or PinP inset screen. You use the [CONTROL] button to select the video to adjust.	p. 19 p. 27
	[SIZE] knob		This enlarges or reduces the size of the input video, final video output, or PinP inset screen. You use the [CONTROL] button to select the video to adjust.	
	[CONTROL] button		This selects an item to manipulate using the [POSITION] joystick or the [SIZE] knob. Each press of the [CONTROL] button makes the indicator on the right change in the sequence shown below, displaying the item to work with. INPUT → OUTPUT → PinP → Dark Input video Final output video Inset screen	
4	**AUX [1]–[10] buttons**		These show the input status of signals sent to the AUX bus (input channels 1–10) and input to cross-points.	p. 17
		Lighted in red	A signal (input channel 1–10) is being sent to the AUX bus. You can use the AUX [1]–[10] buttons to change the signal sent to the AUX bus.	
		Lighted in green	Valid video is input.	
		Dark	No video is input.	
5	**Cross-point [1]–[10] buttons**		These select the final video output and preset video (the video to output next).	p. 22
		PGM section	The button for the final-output channel lights up in red.	
		PST/EFFECT section	These select the preset video (the video to output next) or the video source for a PinP inset screen or other video compositing. The selected button lights up in green. While compositing of the video is in progress it lights up in red.	
	* The system functions as just described when the operation mode is set to "PGM/PST mode." Operation differs when in the A/B mode.			
6	**PREFERENCE indicators**		These indicate the status of synchronization.	p. 21
		INTERNAL	This lights up when synchronized to the V-800HD MK II's internal clock.	
		EXTERNAL	This lights up when synchronized to an external source. It flashes when synchronization to an external source is not in effect.	

No.	Name	Explanation	Page
7	**OUTPUT FORMAT indicators**	These indicators light up according to the output format setting for main output (the SDI OUT connector and the DVI-D/HDMI OUT connectors). The correspondences between the indicators and output formats are as follows. | SD	480/576i
HD	480/576p, 720p, 1080i, 1080p
RGB	VGA, SVGA, XGA, WXGA, SXGA, FWXGA, SXGA+, UXGA, WUXGA		p. 15
8	**HDCP indicator**	This lights up, flashes, or goes dark according to HDCP (digital content protection) settings and the connection status of HDCP-compatible equipment.	p. 20
9	**MEMORY [1]–[8] buttons**	These save video settings, the state of the operation panel, and other current settings, and call up settings saved in memory. Button functioning is switched according to whether the [STORE] button is on or off. | On (lighted)	The button saves current settings in memory.
Off (dark)	The button loads the memory.		p. 31
	[BANK] button	When this is turned on (lighted), the MEMORY [1]–[8] buttons function as bank selection buttons for memories.	
	[STORE] button	When this is turned on (lighted), you can save settings in memories.	
10	**[OUTPUT FADE] button**	This performs a fade-in or fade-out for the final output video. The [OUTPUT FADE] button indicates the status of the fade. | Lighted	Fade-out
Flashing	Fade-in/fade-out in progress
Dark	Normal output	 * You can also stop (freeze) final video output. During a freeze, the [OUTPUT FADE] button lights up.	p. 26
11	**PinP [1]–[4] buttons**	These turn picture-in-picture video compositing on and off. The selected button lights up when it is switched on. The color of the lighted button indicates the output destination of the compositing results. | Lighted in green	Preview output (displayed in the PVW section of the multi-view monitor)
Lighted in red	Final output		p. 27
12	**KEY [LEVEL] knob**	During key compositing, this adjusts the amount of keying (transparency).	p. 28
	KEY [GAIN] knob	During key compositing, this adjusts the degree of edge blur (the semi-transmissive region) for keying.	
	KEY [ON] button	This switches key composition on or off. When on, the KEY [ON] button lights up. The color of the lighted button indicates the output destination of the compositing results. | Lighted in green	Preview output (displayed in the PVW section of the multi-view monitor)
Lighted in red	Final output		
13	**DSK [LEVEL] knob**	During DSK compositing, this adjusts the amount of keying (transparency).	p. 30
	DSK [GAIN] knob	During DSK compositing, this adjusts the degree of edge blur (the semi-transmissive region) for keying.	
	DSK [PVW] button	When this is on (lighted), it makes the DSK compositing results the preview output (displayed in the PVW section of the multi-view monitor).	
14	**[DSK] button**	This switches DSK composition on or off. When on, the [DSK] button lights up.	
15	**Video fader**	This makes the preset video (the video to output next) the final output.	p. 22
16	**[CUT] button** **[AUTO] button**	These make the preset video (the video to output next) the final output. | [CUT] button	The picture switches instantly.
[AUTO] button	The picture switches with a transition effect applied.		p. 23
17	**TRANSITION display**	This displays the video transition time.	p. 23
	[TIME] knob	This sets the video transition time. * You can set "seconds," "frames," or "seconds + frames" as the unit for transition time.	
18	**WIPE PATTERN [1]–[7] buttons** **[MIX] button**	These select video transition effects. The selected button lights up. | WIPE PATTERN [1]–[7] buttons	The original video is broken into by the next video.
[MIX] button	The two pictures are blended together as the video is switched.		p. 22
19	**Cooling-fan exhaust port**	These expel internal heat to keep temperatures inside the V-800HD MK II cool. **NOTE** Never obstruct the cooling-fan intake and exhaust ports.	—
20	**Cooling-fan intake port**	Obstructing the intake and exhaust ports might result in a temperature rise inside the V-800HD MK II and lead to malfunction due to heat.	

Rear Panel (Connecting Your Equipment)

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

* Be sure to use cables and adaptor plugs with the proper connectors matching those of the other devices you are using.

REFERENCE (THRU, IN) connectors

REFERENCE IN connector: Here you connect an external source device for synchronization and input a synchronizing signal (p. 21).

REFERENCE THRU connector: This supplies the synchronizing signal input to the V-800HD MK II to a connected external device.

Synchronizing-signal input terminal

Synchronizing-signal output terminal

RS-232 connector

Here you connect a remote-control device (such as an RS-232-compatible computer) for operating the V-800HD MK II remotely (p. 34).

RS-232 connector

HDMI OUT connector

This outputs an input/output video list (final output, preview output, and input channels 1 through 8) and menus (p. 12). You connect a multi-view monitor here.

HDMI input connector

TALLY 1, 2 connectors

Here you connect devices provided with a tally-light feature (p. 34).

[POWER] switch

This turns the power on and off (p. 13).

Cord hook

This clamps the power cord to secure it in place.

This prevents power loss due to the plug being pulled out or excessive force being applied to the power source if the cord is accidentally yanked.

AC IN connector

This is for connecting the included power cord.

* Be sure to use the included power cord for connecting the power supply.

To AC Outlet

* The shape of the power cord's plug varies depending on the country.

Grounding terminal

You connect this to an external ground.

Depending on the circumstances of a particular setup, you may experience a discomforting sensation, or perceive that the surface feels gritty to the touch when you touch the metal portions of this device or other objects connected to the device. This is due to an infinitesimal electrical charge, which is absolutely harmless. However, if you are concerned about this, connect the ground terminal (see figure) with an external ground. When the unit is grounded, a slight hum may occur, depending on the particulars of your installation. If you are unsure of the connection method, contact the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information."

Unsuitable places for connection

• Water pipes (may result in shock or electrocution)

• Gas pipes (may result in fire or explosion)

• Telephone-line ground or lightning rod (may be dangerous in the event of lightning)

DVI-I/HDMI IN 5–8 connectors, RGB/COMPONENT IN 5–8 connectors

These are for inputting video signals from a computer or video devices such as video cameras and DVD players.

* Channels 5 through 8 are allocated to the respective inputs. These set the video source assigned to each input channel (p. 16).

* When inputting video to a DVI-I/HDMI IN connector, you must use the [SIGNAL] switch next to the connector to select "DVI-A" (analog) or "DVI-D" (digital).
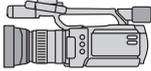
Analog RGB output connector

Component output connector

DVI output connector

HDMI output connector
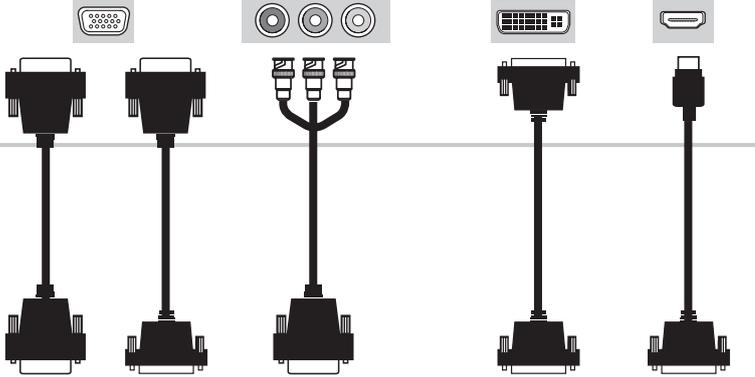
COMPOSITE IN 1–4 connectors, SDI IN1–4 connectors

These are for inputting video signals from video devices such as video cameras, DVD players, and video recorders.

* Channels 1 through 4 are allocated to the respective inputs. These set the video source assigned to each input channel (p. 16).

Composite output connector

SDI output connector
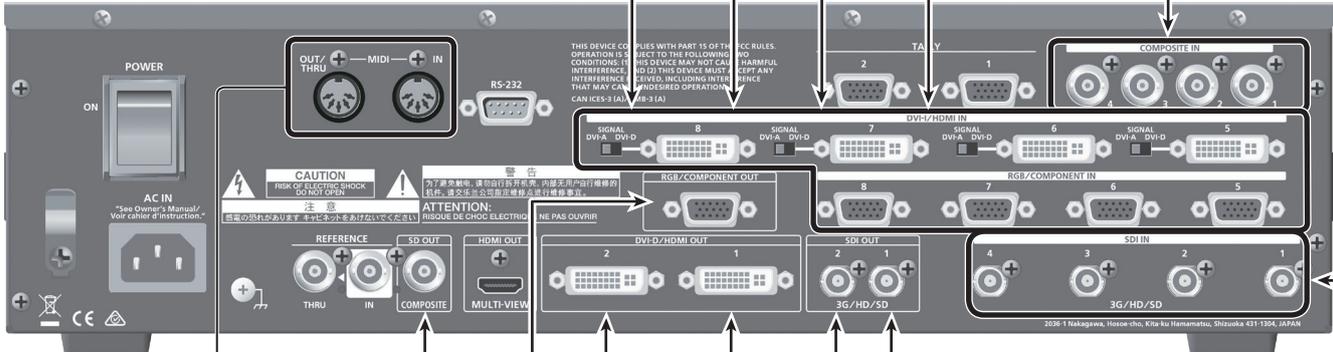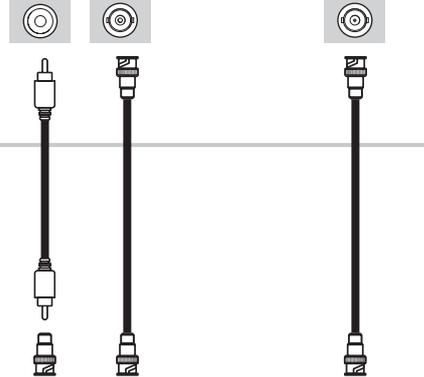
MIDI (OUT/THRU, IN) connectors

Here you connect a remote-control MIDI device for operating the V-800HD MK II remotely (p. 34).

SD OUT connector, RGB/COMPONENT OUT connector, DVI-D/HDMI OUT connectors, SDI OUT connector

This outputs the video. Here you connect devices such as projectors, recording equipment, and external displays.
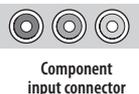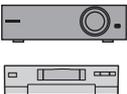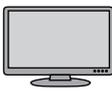
Composite input connector

Analog RGB input connector

Component input connector

DVI input connector

SDI input connector

Multi-view Monitor Display

An input/output video list (final output, preview output, and input channels 1 through 8) and menus are displayed on a multi-view monitor connected to the HDMI OUT connector.

Pressing the [MENU] button displays the menu superimposed over the multi-view (p. 13).

No.	Name	Explanation
1	**PVW (preview) section**	This displays the preset video (the video to be output next).
2	**PGM (program) section**	This displays the final output video.
3	**CH 1–8 section**	This monitors the video input via channels 1–8. A red border is displayed around the final video output. A green border is displayed around the preset video (the video to be output next). * Settings for image quality and scaling (p. 19) are not applied. * The frame rate for the DVI-I/HDMI inputs and RGB/Component inputs is reduced by about 5 fps. * Changing the channel assignments at the cross-point (p. 33) also changes the order of displayed sources. * Still images imported into the V-800HD MK II (p. 24) are assigned to channel 9 or 10, and so they are not displayed.

MEMO

You can change the label names displayed on the multi-view monitor. Use the [MENU] button → "System" → "Multi-view Label" to select "PGM," "PVW," or "Ch.1" to "Ch.8," then change the label name.

Also, using "Multi-view Label" to set "Indicate" to "OFF" lets you hide the tally borders and labels.

Setting the Color Format for the Multi-view Monitor

If nothing is displayed on the multi-view monitor when the V-800HD MK II is started, set the color format to match the type of monitor device that is connected. Once you set the color format, it remains in effect thereafter.

* The MEMORY [1] (Y/Cb/Cr) or [2] (RGB) button lights up just before startup, enabling you to check the current setting.

Output in Y/Cb/Cr

1. **Hold down the MEMORY [1] button and turn on the [POWER] switch to turn on the power.**
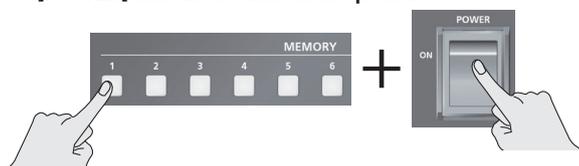
Output in RGB

1. **Hold down the MEMORY [2] button and turn on the [POWER] switch to turn on the power.**
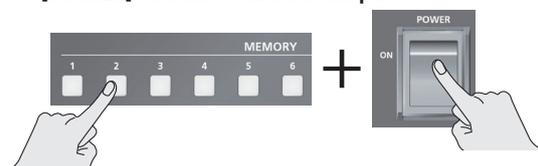
Basic Operations

Turning the Power On and Off

Turning the power on

* If still images are saved in internal memory (p. 24), startup takes longer time according to image size and the number of still images saved.

1. Make sure all devices are turned off.

2. Turn on the [POWER] switch on the V-800HD MK II to turn on the power.
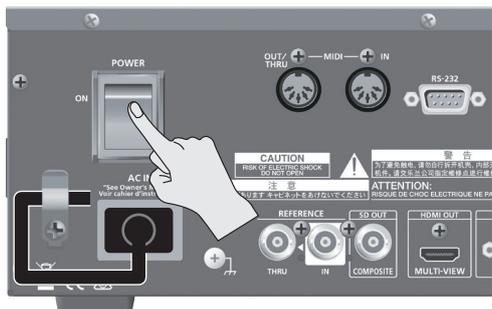
3. Turn on the power to the source devices.

Turn on the power to video cameras or other source equipment connected to input connectors on the DV-800HD MK II.

4. Turn on the power to the output devices.

Turn on the power to projectors or other devices connected to output connectors on the V-800HD MK II.

Turning the power off

1. Turn off the power in the sequence of first the output equipment, and then the sources.

2. Turn off the [POWER] switch on the V-800HD MK II to turn off the power.

> **NOTE**
> * Do not turn off the power while a message of "Processing..." is shown on menu display area of the multi-view monitor. Your settings may not be saved properly.
> * If you need to turn off the power completely, first turn off the V-800HD MK II, then unplug the power cord from the power outlet. Refer to "To completely turn off power to the unit, pull out the plug from the outlet" (p. 4).

Using the Menus

This explains how to display menus and make settings for video and for the V-800HD MK II itself.

* Menus are shown only on the multi-view monitor connected to the HDMI OUT connector (p. 12).

1. Press the [MENU] button to display the menu.
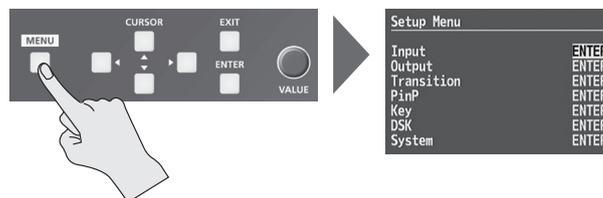
The [MENU] button lights up, the menu categories are displayed.

2. Press the CURSOR [▲] [▼] buttons to select a category, then press the [ENTER] button to confirm the selection.
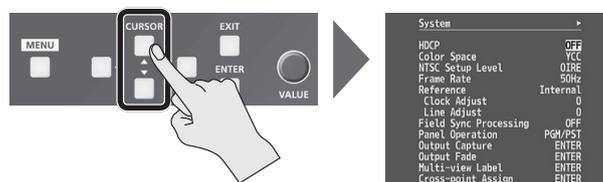
The menu items for the selected category are displayed.

3. Press the CURSOR [▲] [▼] buttons to select a menu item.

* When menu items span two or more pages, a ◀ ▶ icon is displayed at the top of the screen. Press the CURSOR [◀] [▶] buttons to switch between the pages.
* When the value area indicates "ENTER," you can press the [ENTER] button to proceed to a lower level.

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

* When a setting value has menu items that let you make more-detailed settings, ENTER is displayed at the top of the screen. Press the [ENTER] button to go down a level.
* To execute an operation, press the [ENTER] button.
* You can change a setting value rapidly by holding down the [ENTER] button and turning the [VALUE] knob.
* Holding down the [ENTER] button and pressing the [EXIT] button returns the currently selected setting to its default value.

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

Pressing the [EXIT] button once returns you to the previous screen.

> **MEMO**
> For detailed information on menu items, refer to the "Reference Manual" (PDF) available for download at the Roland website.
> **https://proav.roland.com/**

List of Supported Formats

Input Formats

Input connector	Frame rate	
	When set at "59.94 Hz"	When set at "50 Hz"
SDI IN	480/59.94i	576/50i
	720/59.94p	720/50p
	1080/59.94i	1080/50i
	1080/59.94p	1080/50p
RGB/COMPONENT IN (component signal)	480/59.94i	576/50i
	480/59.94p	576/50p
	720/59.94p	720/50p
	1080/59.94i	1080/50i
	1080/59.94p	1080/50p
RGB/COMPONENT IN (RGB signal)	640 x 480/60 Hz	640 x 480/60 Hz
	800 x 600/60 Hz	800 x 600/60 Hz
	1024 x 768/60 Hz	1024 x 768/60 Hz
	1280 x 768/60 Hz	1280 x 768/60 Hz
	1280 x 1024/60 Hz	1280 x 1024/60 Hz
	1366 x 768/60 Hz	1366 x 768/60 Hz
	1400 x 1050/60 Hz	1400 x 1050/60 Hz
	1600 x 1200/60 Hz	1600 x 1200/60 Hz
	1920 x 1200/60 Hz	1920 x 1200/60 Hz
DVI-I/HDMI IN	480/59.94i	576/50i
	480/59.94p	576/50p
	720/59.94p	720/50p
	1080/59.94i	1080/50i
	1080/59.94p	1080/50p
	640 x 480/60Hz	640 x 480/60 Hz
	800 x 600/60 Hz	800 x 600/60 Hz
	1024 x 768/60 Hz	1024 x 768/60 Hz
	1280 x 768/60 Hz	1280 x 768/60 Hz
	1280 x 1024/60 Hz	1280 x 1024/60 Hz
	1366 x 768/60 Hz	1366 x 768/60 Hz
	1400 x 1050/60 Hz	1400 x 1050/60 Hz
	1600 x 1200/60 Hz	1600 x 1200/60 Hz
	1920 x 1200/60 Hz	1920 x 1200/60 Hz
COMPOSITE IN	480/59.94i	576/50i

* The refresh rates are the maximum value for each resolution.
* The input format is detected automatically.

Output Formats

Output connector	Frame rate	
	When set at "59.94 Hz"	When set at "50 Hz"
SDI OUT	480/59.94i	576/50i
	720/59.94p	720/50p
	1080/59.94i	1080/50i
	1080/59.94p	1080/50p
RGB/COMPONENT OUT (component signal) (*1)	480/59.94p	576/50p
	720/59.94p	720/50p
	1080/59.94p	1080/50p
RGB/COMPONENT OUT (RGB signal)	640 x 480/60 Hz	640 x 480/75 Hz
	800 x 600/60 Hz	800 x 600/75 Hz
	1024 x 768/60 Hz	1024 x 768/75 Hz
	1280 x 768/60 Hz	1280 x 768/75 Hz
	1280 x 1024/60 Hz	1280 x 1024/75 Hz
	1366 x 768/60 Hz	1366 x 768/75 Hz
	1400 x 1050/60 Hz	1400 x 1050/75 Hz
	1600 x 1200/60 Hz	1600 x 1200/60 Hz
	1920 x 1200/60 Hz	1920 x 1200/60 Hz
DVI-D/HDMI OUT	480/59.94i	576/50i
	480/59.94p	576/50p
	720/59.94p	720/50p
	1080/59.94i	1080/50i
	1080/59.94p	1080/50p
	640 x 480/60 Hz	640 x 480/75 Hz
	800 x 600/60 Hz	800 x 600/75 Hz
	1024 x 768/60 Hz	1024 x 768/75 Hz
	1280 x 768/60 Hz	1280 x 768/75 Hz
	1280 x 1024/60 Hz	1280 x 1024/75 Hz
	1366 x 768/60 Hz	1366 x 768/75 Hz
	1400 x 1050/60 Hz	1400 x 1050/75 Hz
	1600 x 1200/60 Hz	1600 x 1200/60 Hz
	1920 x 1200/60 Hz	1920 x 1200/60 Hz
HDMI OUT	1920 x 1080/60 Hz	1920 x 1080/60 Hz
SD OUT	480/59.94i	576/50i

(*1) Interlaced signals cannot be output.

Video Input/Output Settings

Setting the Output Format

You set the output format to match the equipment you connect to the V-800HD MK II. You can output signals of different resolutions for the main output (SDI OUT connectors and DVI-D/HDMI OUT connectors) and for analog output (RGB/COMPONENT OUT connector and SD OUT connector).

* The output format of the SD OUT connector is fixed at "480/576i" and cannot be changed.

Setting the Output Format

1. **Select the [MENU] button → "Output" → for Format, select "Main," "RGB/Component," or "Composite."**

```
Output                    ENTER
Format
  Main                    1080i
  RGB/Component           SXGA
  Composite               576i4:3
Aux Source       DSK Source
Source Assign
  SDI 1            PGM( 1080i)
  SDI 2            PWV( 1080i)
  DVI-D/HDMI 1     PGM( 1080i)
  DVI-D/HDMI 2     PWV( 1080i)
  RGB/Component    PGM(  SXGA)
  Composite        PGM(576i4:3)
  HDMI        Multi-view( 1080p)
```
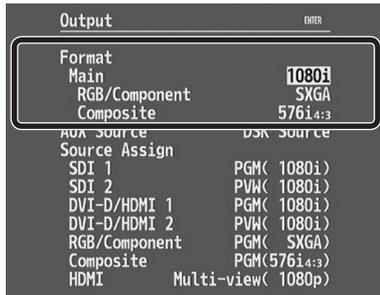
2. **Use the [VALUE] knob to set the output format.**

Main: SDI OUT connectors and DVI-D/HDMI OUT connectors

Value			Video signal that is output	
			SDI OUT	DVI-D/HDMI OUT
480/576i4:3 (*1)			SDI	DVI-D/HDMI
480/576i16:9 (*1)				
720p	1080i	1080p		
480/576p4:3 (*1)			* No picture is output.	
480/576p16:9 (*1)				
VGA	SVGA	XGA		
WXGA	SXGA	FWXGA		
SXGA+	UXGA	WUXGA		

(*1) At "480/576i" or "480/576p," for the aspect ratio, select either "4:3" or "16:9."

RGB/Component: RGB/COMPONENT OUT connector

Value			Video signal that is output
480/576p4:3 (*2)			Component
480/576p16:9 (*2)			
720p	1080p		
VGA	SVGA	XGA	RGB
WXGA	SXGA	FWXGA	
SXGA+	UXGA	WUXGA	

(*2) At "480/576p," for the aspect ratio, select either "4:3" or "16:9."

Composite: SD OUT connector

Value	Explanation
480/576i4:3	The output format is fixed at 480/576i and cannot be changed. For the aspect ratio, select either "4:3" or "16:9."
480/576i16:9	

3. **Press the [MENU] button to quit the menu.**

About Frame Rates

Frame rates which can be input and output are "59.94 Hz" and "50 Hz." Inputting video at a frame rate other than these might result in no output or dropped frames.

To change the frame rate, press the [MENU] button → "System" → set "Frame Rate" to "59.94 Hz" or "50 Hz."

Operation of the OUTPUT FORMAT indicators

These indicators light up according to the output format setting for main output (the SDI OUT connector and the DVI-D/HDMI OUT connectors).

```
REFERENCE        OUTPUT FORMAT        HDCP
INT    EXT      SD    HD    RGB
```

The correspondences between the indicators and output formats are as follows.

SD	480/576i
HD	480/576p, 720p, 1080i, 1080p
RGB	VGA, SVGA, XGA, WXGA, SXGA, FWXGA, SXGA+, UXGA, WUXGA

Assigning a Video Source to Input Channels

You can specify an assigned video source for each individual input channel. You can assign the following video sources.

Channel 1–4	Video input via an SDI IN connector or COMPOSITE IN connector
Channel 5–8	Video input via an RGB/COMPONENT IN connector or DVI-I/HDMI IN connector
Channel 9	Still picture
Channel 10	Still picture or monochrome picture (background color)

1. Select the [MENU] button → "Input" → "Ch.1" through "Ch.10."

```
Input                    ENTER ▶

Ch.1             No Signal
                 3G/HD/SD-SDI

Ch.2             No Signal
                 3G/HD/SD-SDI

Ch.3             No Signal
                 3G/HD/SD-SDI

Ch.4             No Signal
                 3G/HD/SD-SDI
```
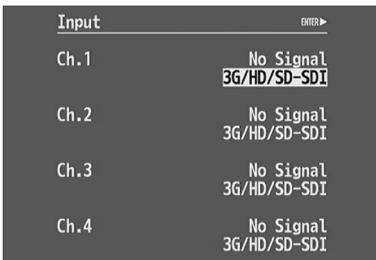
2. Use the [VALUE] knob to specify the video source to assign to the channel (1 through 10).

Ch.1–Ch.4

Value	Explanation
3G/HD/SD-SDI	This inputs video via an SDI IN connector. The type of input signal (3G-SDI, HD-SDI, or SD-SDI) is detected automatically.
Composite	This inputs video via a COMPOSITE IN connector.
Shared Input	This shares the video source on the previous channel among channels 1 through 4. For details, refer to the "Sharing a Video Source" column on this page. * "Shared Input" can be set for channels 2–4.

Ch.5–Ch.8

Value	Explanation
DVI-D/HDMI or DVI-A	This inputs video via a DVI-I/HDMI IN connector. * The displayed setting value differs depending on the setting of the [SIGNAL] switch (p. 11).

[SIGNAL] switch	Value
DVI-D	DVI-D/HDMI
DVI-A	DVI-A

Value	Explanation
RGB/Component	This inputs video via an RGB/COMPONENT IN connector.
Shared Input	This shares the video source on the previous channel among channels 5 through 8. For details, refer to the "Sharing a Video Source" column on this page. * "Shared Input" can be set for channels 6–8.

Ch.9

Value	Explanation
Still Image	This assigns a still image (p. 24).

Ch.10

Value	Explanation
Still Image	This assigns a still image (p. 24).
Background	This assigns a monochrome picture (background color).

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

Sharing a Video Source

You can share separate video sources among channels 1 through 4 or among channels 5 through 8. Sharing a video source assigns a single video source to two or more channels.

The only source that can be shared with several channels is the video source from the immediately previous channel. For example, to share the video on channel 1 with channels 2 through 4, you set the video source for channels 2 through 4 to "Shared Input."

Channel 1–4
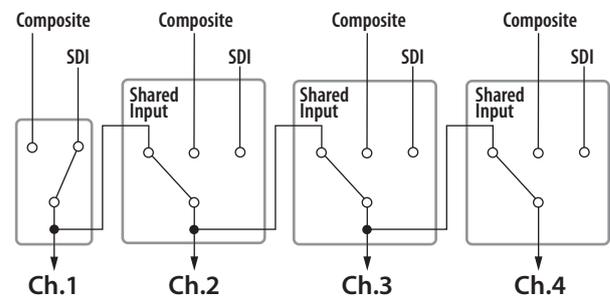
Channel 5–8
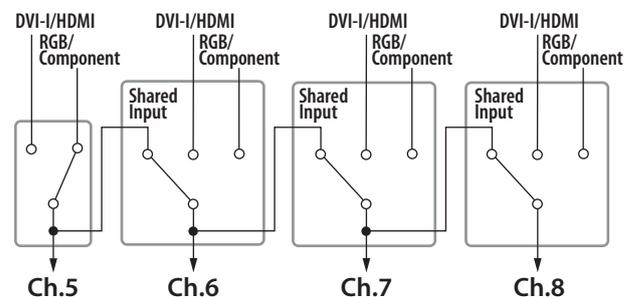
Changing the Output Bus

The V-800HD MK II has three internal buses (PGM, PVW, and AUX). For each individual output connector, you can select which bus to output.

NOTE

Sending video on an input channel to the AUX bus makes DSK (p. 30) unusable.

Specifying a Signal to Send to the AUX Bus

1. Select the [MENU] button → "Output" → "AUX Source."

```
Output

Format
  Main                1080i
    RGB/Component     SXGA
    Composite         576i4:3
  AUX Source          DSK Source
Source Assign
  SDI 1               PGM( 1080i)
  SDI 2               PVW( 1080i)
  DVI-D/HDMI 1        PGM( 1080i)
  DVI-D/HDMI 2        PVW( 1080i)
  RGB/Component       PGM( SXGA)
  Composite           PGM(576i4:3)
  HDMI         Multi-view( 1080p)
```
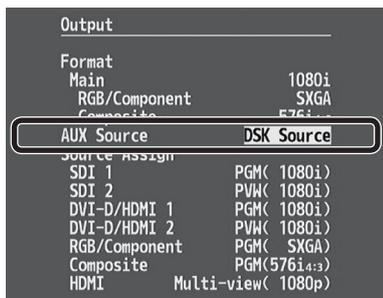
2. Use the [VALUE] knob to specify the signal to send to the AUX bus.

Value		Explanation
Mixer Input	1	These send signal 1 through 5 in the flowchart below to the AUX bus.
Mixer Output	2	
DSK Source	3	**When set to "Input Ch. 1–10"**
DSK Output	4	• You can use the AUX [1] through [10] buttons to select "Input Ch. 1–10" settings directly.
Input Ch.1–10	5	• DSK (p. 30) becomes unusable.

INPUT
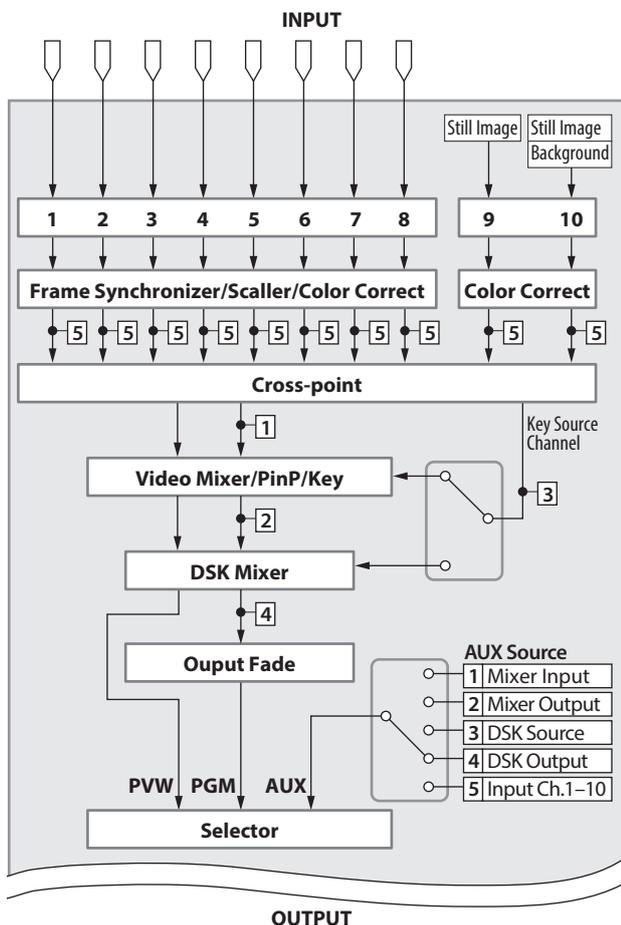
3. Press the [MENU] button to quit the menu.

Assigning a Bus to an Output Connector

1. Select the [MENU] button → "Output" → Source Assign to select the output connector whose bus assignment you want to change.

```
Output

Format
  Main                1080i
    RGB/Component     SXGA
    Composite         576i4:3
  AUX Source          DSK Source
Source Assign
  SDI 1               PGM( 1080i)
  SDI 2               PVW( 1080i)
  DVI-D/HDMI 1        PGM( 1080i)
  DVI-D/HDMI 2        PVW( 1080i)
  RGB/Component       PGM( SXGA)
  Composite           PGM(576i4:3)
  HDMI         Multi-view( 1080p)
```
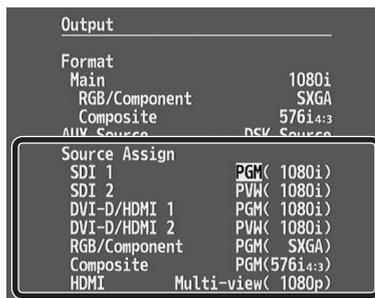
Menu item	Explanation
Source Assign	You use the items below to select the connector whose bus assignment you want to set.
SDI 1	SDI OUT 1 connector
SDI 2	SDI OUT 2 connector
DVI-D/HDMI 1	DVI-D/HDMI OUT 1 connector
DVI-D/HDMI 2	DVI-D/HDMI OUT 2 connector
RGB/Component	RGB/COMPONENT OUT connector
Composite	SD OUT connector (*1)
HDMI	The output of the HDMI OUT connector is fixed and cannot be changed.

(*1) "RGB/Component" and "Composite" become shared settings. Making settings for separate buses us not possible.

2. Use the [VALUE] knob to select "PGM," "PVW," or "AUX" and set the assigned bus.

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

Adjusting Final Output Video

You adjust the final video output to match the equipment receiving output from the V-800HD MK II.

1. Select the [MENU] button → "Output" → for Format, select "Main," "RGB/Component," or "Composite," the press the [ENTER] button.

```
Output                        ENTER

  Format
    Main                    1080i
    RGB/Component            SXGA
    Composite             576i 4:3
  AUX Source           DSK Source
  Source Assign
    SDI 1               PGM( 1080i)
    SDI 2               PVW( 1080i)
    DVI-D/HDMI 1        PGM( 1080i)
    DVI-D/HDMI 2        PVW( 1080i)
    RGB/Component       PGM(  SXGA)
    Composite           PGM(576i 4:3)
    HDMI           Multi-view( 1080p)
```
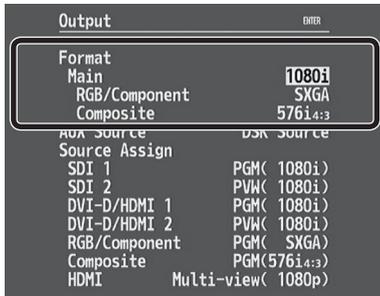
The screen for making detailed settings appears.

2. Select a menu item, then use the [VALUE] knob to adjust the output video.

Main: SDI OUT connectors and DVI-D/HDMI OUT connectors

Menu item	Explanation
Scaling	You use the following items to make settings for scaling.
Zoom	This adjusts the zoom ratio.
Size H	This adjusts the size in the horizontal direction.
Size V	This adjusts the size in the vertical direction.
Position H	This adjusts the display position in the horizontal direction.
Position V	This adjusts the display position in the vertical direction.
Cropping	You use the following items to make settings for cropping.
Orientation	This sets the orientation of cropping.
Type	This sets the cropping type.
Manual Size H	This adjusts the horizontal size. (*1)
Manual Size V	This adjusts the vertical size. (*1)
Color Correction	You use the following items to perform color correction.
Brightness	This adjusts the brightness.
Contrast	This adjusts the contrast.
Saturation	This adjusts the saturation.
Red	This adjusts the red level.
Green	This adjusts the green level.
Blue	This adjusts the blue level.
3G-SDI Mapping	This sets the mapping structure for 3G-SDI output.
DVI-D/HDMI	You use the following items to make settings for the DVI-D/HDMI OUT connectors.
Output 1	(DVI-D/HDMI OUT 1 connector)
Signal Mode	This sets the output mode for HDMI output.
Color Space	This sets the color space.
Output 2	(DVI-D/HDMI OUT 2 connector)
Signal Mode	This sets the output mode for HDMI output.
Color Space	This sets the color space.

(*1) This is available when "Type" is set to "Manual."

RGB/Component: RGB/COMPONENT OUT connector

Menu item	Explanation
Color Space	This sets the color space.
Scaling	You use the following items to make settings for scaling.
Zoom	This adjusts the zoom ratio.
Type	This sets the scaling type.
Manual Size H	This adjusts the horizontal size. (*2)
Manual Size V	This adjusts the vertical size. (*2)
Position H	This adjusts the display position in the horizontal direction.
Position V	This adjusts the display position in the vertical direction.
Color Correction	You use the following items to perform color correction.
Brightness	This adjusts the brightness.
Contrast	This adjusts the contrast.
Saturation	This adjusts the saturation.
Red	This adjusts the red level.
Green	This adjusts the green level.
Blue	This adjusts the blue level.

(*2) This is available when "Type" is set to "Manual."

Composite: SD OUT connector

Menu item	Explanation
Scaling	You use the following items to make settings for scaling.
Zoom	This adjusts the zoom ratio.
Type	This sets the scaling type.
Manual Size H	This adjusts the horizontal size. (*3)
Manual Size V	This adjusts the vertical size. (*3)
Position H	This adjusts the display position in the horizontal direction.
Position V	This adjusts the display position in the vertical direction.
Color Correction	You use the following items to perform color correction.
Brightness	This adjusts the brightness.
Contrast	This adjusts the contrast.
Saturation	This adjusts the saturation.
Red	This adjusts the red level.
Green	This adjusts the green level.
Blue	This adjusts the blue level.

(*3) This is available when "Type" is set to "Manual."

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

MEMO

You can also use the [POSITION] joystick and the [SIZE] knob to adjust the display position and size of the picture.

For more information, refer to the "Using the [POSITION] Joystick and [SIZE] Knob to Adjust Video Display Position and Size" column on the following page.

Adjusting the Input Video

You can adjust the image quality and scaling of video input via channels 1 through 8.

1. **Select the [MENU] button → "Input" → "Ch.1" through "Ch.8," then press the [ENTER] button.**

```
Input                              ENTER▶

Ch.1                          No Signal
                            3G/HD/SD-SDI

Ch.2                          No Signal
                            3G/HD/SD-SDI

Ch.3                          No Signal
                            3G/HD/SD-SDI

Ch.4                          No Signal
                            3G/HD/SD-SDI
```
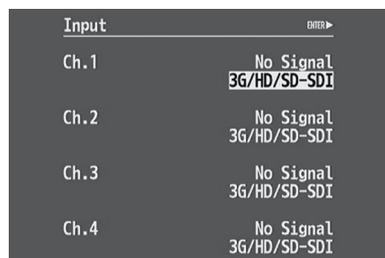
A screen for making detailed settings for the video sources (p. 16) assigned to the respective channels is displayed.

2. **Select a menu item, then use the [VALUE] knob to adjust the input video.**

Ch.1–4: 3G/HD/SD-SDI, Composite, Shared Input

Menu item		Explanation
Scaling		You use the following items to make settings for scaling.
	Zoom	This adjusts the zoom ratio.
	Type	This sets the scaling type.
	Manual Size H	This adjusts the horizontal size. (*4)
	Manual Size V	This adjusts the vertical size. (*4)
	Position H	This adjusts the display position in the horizontal direction.
	Position V	This adjusts the display position in the vertical direction.
Color Correction		You use the following items to perform color correction.
	Brightness	This adjusts the brightness.
	Contrast	This adjusts the contrast.
	Saturation	This adjusts the saturation.
	Red	This adjusts the red level.
	Green	This adjusts the green level.
	Blue	This adjusts the blue level.

(*4) This is available when "Type" is set to "Manual."

Ch.5–8: DVI-D/HDMI

Menu item	Explanation
Color Space	This sets the color space.
Flicker Filter	This turns on/off the flicker filter.
Scaling	This sets the scaling. The menu items are similar for channels 1–4.
Color Correction	This performs color correction. The menu items are similar for channels 1–4.

Ch.5–8: DVI-A, RGB/Component

Menu item		Explanation
Color Space		This sets the color space.
Flicker Filter		This turns on/off the flicker filter.
Scaling		This sets the scaling. The menu items are similar for channels 1–4.
Color Correction		This performs color correction. The menu items are similar for channels 1–4.
Sampling		You use the following items for make settings for sampling.
	Auto Sampling	Pressing the [ENTER] button executes automatic settings for sampling.
	Position H	This adjusts the horizontal start position of sampling.
	Position V	This adjusts the vertical start position of sampling.
	Frequency	This adjusts the sampling frequency.
	Phase	This adjusts the sampling phase.

Ch.5–8: Shared Input

Menu item	Explanation
Scaling	This sets the scaling. The menu items are similar for channels 1–4.
Color Correction	This performs color correction. The menu items are similar for channels 1–4.

3. **Press the [MENU] button to quit the menu.**

Using the [POSITION] Joystick and [SIZE] Knob to Adjust Video Display Position and Size

You can change the display position of input video and final video output and enlarge or reduce video by operating the [POSITION] joystick and the [SIZE] knob. You can also adjust the position and size of the inset screen in PinP (p. 27).

1. **Press the [CONTROL] button to select the target for operation of the [POSITION] joystick and the [SIZE] knob.**
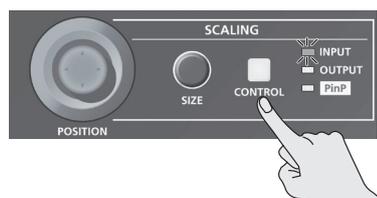
Each press of the [CONTROL] button makes the indicator on the right change in the sequence shown below, displaying the item to work with.

INPUT	→	OUTPUT	→	PinP	→	Dark
Input video (*1)		Final output video		Inset screen		

(*1) You can adjust the input video selected as the preset video.

2. **Use the [POSITION] joystick to adjust the display position of the video. Also, use the [SIZE] knob to enlarge or reduce the video.**
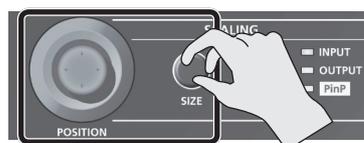
The operation results are applied in the PVW section of the multi-view monitor.

* The video in the CH 1–8 section of the multi-view monitor is not updated.

Inputting Copyright-protected (HDCP) Video

To input copyright-protected (HDCP) video from a Blu-ray Disc player or the like, follow the steps described below to change the "HDCP" setting.

* The V-800HD MK II must be connected to an HDCP compatible display for HDCP protected video to be connected.

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. Select the [MENU] button → "System" → "HDCP."

System	▶
HDCP	OFF
Color Space	YCC
NTSC Setup Level	0IRE
Frame Rate	50Hz
Reference	Internal
Clock Adjust	0
Line Adjust	0
Field Sync Processing	OFF
Panel Operation	PGM/PST
Output Capture	ENTER
Output Fade	ENTER
Multi-view Label	ENTER
Cross-point Assign	ENTER
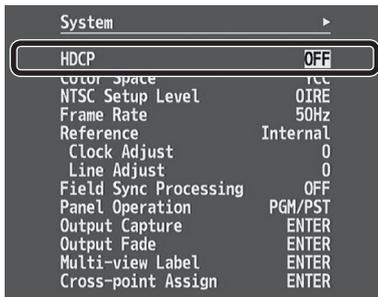
2. Use the [VALUE] knob to set this to "ON."

Value	Explanation
ON	Copyright-protected (HDCP) video can be input. HDCP is also added to the video that is output.
OFF	Copyright-protected (HDCP) video cannot be input.

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

Checking HDCP-compatible Equipment

When "HDCP" is set to "ON," you can use the [MENU] button → "Input" → the Input menu to check the status of HDCP compatibility of source equipment.

You can use the [MENU] button → "Output" → the Output menu to check the status of HDCP compatibility of output-destination equipment.

"HDCP" is displayed on screen according to the status of HDCP support.

Input	◀ENTER▶
Ch.5	No Signal DVI-D/HDMI
Ch.6 HDCP	920x1080@59.94i DVI-D/HDMI
Ch.7	No Signal DVI-D/HDMI
Ch.8 HDCP	720x 480@59.94i DVI-D/HDMI
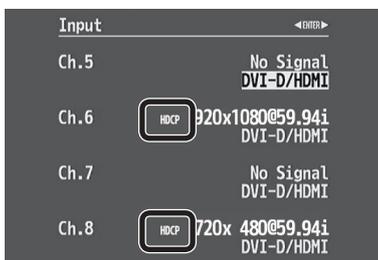
Menu	HDCP support status
Input	Copyright-protected (HDCP) video is being input.
Output	An HDCP-compatible device is connected.

Output from Connectors

When "HDCP" is set to "ON," video is output only from the DVI-D/HDMI OUT and HDMI OUT connectors.

No video is output via the RGB/COMPONENT, SDI OUT, and SD OUT connectors.
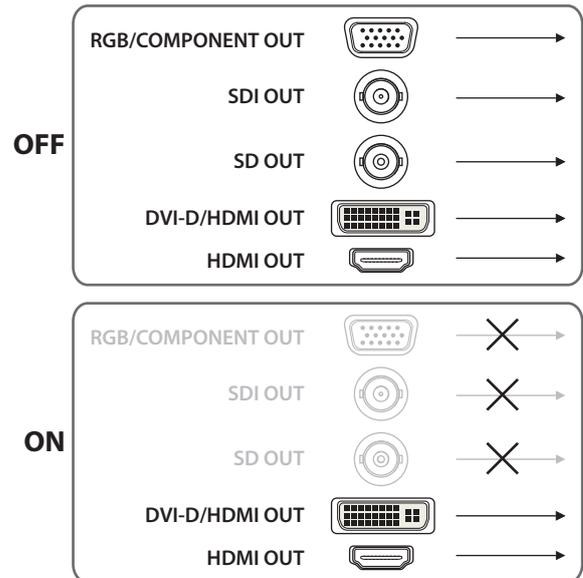
MEMO

If you set "HDCP" to "ON" while an HDCP-incompatible monitor is connected to the HDMI OUT connector, only menu display is possible.

Operation of the HDCP indicator

The HDCP indicator operates as follows, regardless of input.
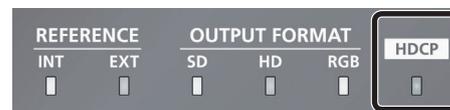
Indicator	"HDCP" setting	Connection status
Lighted	ON	An HDCP-compatible device is connected to the DVI-D/HDMI OUT or HDMI OUT connector.
Flashing	ON	No HDCP-compatible device is connected to the DVI-D/HDMI OUT or HDMI OUT connector. Alternatively, a device that does not support HDCP is connected.
Dark	OFF	—

Specifying a Reference Clock

You can specify a clock to which operation of the V-800HD MK II is referenced (a reference clock).

NOTE

Video output from the SD OUT connector is referenced to the V-800HD MK II's internal clock irrespective of the reference-clock setting.

1. Select the [MENU] button → "System" → "Reference."

```
System                        ▶

HDCP                        OFF
Color Space                 YCC
NTSC Setup Level           0IRE
Frame Rate                 50Hz
Reference              Internal
Clock Adjust                  0
  Line Adjust                 0
Field Sync Processing       OFF
Panel Operation         PGM/PST
Output Capture            ENTER
Output Fade              ENTER
Multi-view Label         ENTER
Cross-point Assign       ENTER
```
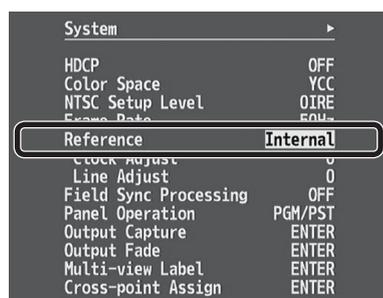
2. Use the [VALUE] knob to specify the reference clock.

Value	Explanation
Internal	The V-800HD MK II's internal clock is used as the reference clock.
External	A synchronizing signal input via the REFERENCE IN connector is used as the reference clock.
	Black-burst (frame synchronization), bi-level, and tri-level synchronizing signals are supported.
Input SDI 1–4	A signal input via one of the SDI IN 1–4 connectors is used as the reference clock.
	The VSYNC (vertical synchronizing) signal output from the V-800HD MK II is synchronized to the VSYNC signal input via SDI.

- **When Set to "External" or "Input SDI 1–4"**

Adjust the following System menu items as needed.

MENU item	Explanation
Clock Adjust	This adjusts the phase horizontally.
	Adjust this when output is horizontally out of sync with the operation of other devices using the same clock.
Line Adjust	This adjusts the phase vertically.
	Adjust this when output is vertically out of sync with or field-shifted from the operation of other devices using the same clock.
Field Sync Processing	This is a feature that automatically aligns the fields in interlaced input and output.
	Setting this to "ON" lengthens processing time between video input and output, but the fields are automatically synchronized.

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

MEMO

You can use the REFERENCE indicator to check the status of synchronization.

INTERNAL	This lights up when synchronized to the V-800HD MK II's internal clock.
EXTERNAL	This lights up when synchronized to an external source.
	It flashes when synchronization to an external source is not in effect.

Video Operations

Switching the Video

You can switch the output of video input into the V-800HD MK II.

About the Operation Mode for Video Transitions

Two operation modes are available for video transitions made using the video fader: the "PGM/PST mode" and the "A/B mode."

By factory default, the operation mode is set to the PGM/PST mode.

PGM/PST Mode

The video at the PGM position is always output, and for PST/EFFECT position, these select the preset video (the video to be output next).

When the video fader or a button is operated, the video selected using the PST/EFFECT section becomes the final output.

A/B Mode

When the video fader is operated, the video at the side toward which the video fader is flipped always becomes the final output.

Setting the Operation Mode

1. Select the [MENU] button → "System" → "Panel Operation"

2. Use the [VALUE] knob to select "PGM-PST" or "A/B" and set the operation mode.

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

Switching Using the PGM/PST Mode

The video in the PGM section always becomes the final output. You use the PST/EFFECT section to select and check the preset video (the video to output next), then switch it.

1. Move the video fader all the way to one end or the other.
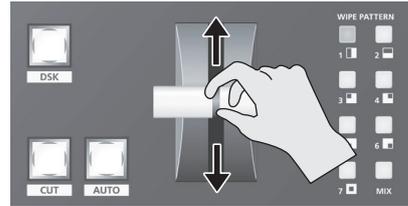
2. Press one of the WIPE PATTERN [1] through [7] buttons or the [MIX] button to select the transition effect.

The selected button lights up.

WIPE PATTERN [1]–[7] buttons

In this transition, the original video is broken into by the next video.

A ▶ A ▶ B

* You can change the wipe pattern and wipe direction. Select the [MENU] button → "Transition" → choose one of the selections from "Wipe Patter 1" through "Wipe Patter 7" → make settings for "Pattern" and "Direction."

[MIX] button

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

A ▶ A ▶ B

3. Press a cross-point button in the PST/EFFECT section to select the preset video (the video to output next).
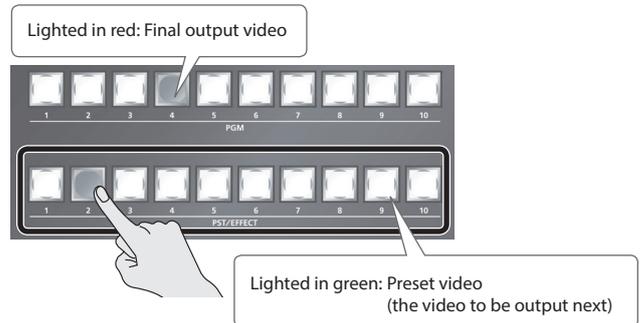
Lighted in red: Final output video

Lighted in green: Preset video (the video to be output next)

The preset video appears in the PVW section of the multi-view monitor.

MEMO
- Channel 9 is used for still-image output. Channel 10 is used when outputting a still image or monochrome picture (background color) (p. 16).
- You can freely assign channels of your choosing to cross-point buttons. For details, refer to "Changing Cross-point Assignments" (p. 33).

4. **Move the video fader in the direction opposite to the direction in step 1.**
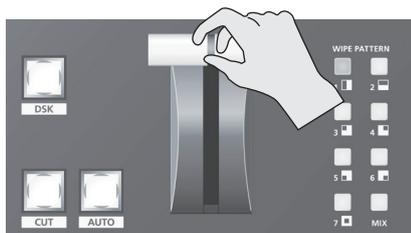
The output video is switched.

When the video has been switched completely, the lighted buttons for the PGM position and PST/EFFECT position change places.

MEMO

Directly selecting the video channel at the PGM position of the video currently being output switches the video with a cut, regardless of any selection of a transition effect.

Using the [AUTO] or [CUT] Button to Switch Video Automatically

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

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

1. **Use the [TIME] knob to set the transition time.**

The setting for the video transition time is applied when you use the [AUTO] button to switch video.
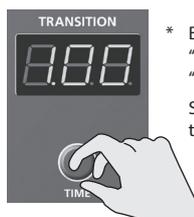
* By factory default, transition times are set using "seconds" as the unit. You can also use "frames" or "seconds + frames" as the units for transition times.

Select the [MENU] button → "Transition" → use "Unit" to make the setting.

2. **Press the [AUTO] or [CUT] button at the desired timing for switching the video.**
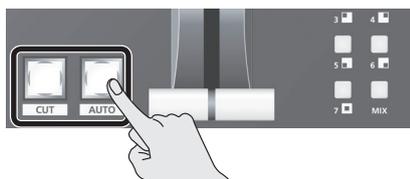
| [AUTO] button | The picture switches with a transition effect applied. |
| [CUT] button | The picture switches instantly. |

MEMO

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

Operating the video fader while in this state yields no change in output until the position of the video fader matches the actual output.

Switching in the A/B Mode

The video at the end to which the video fader is flipped is always the final output.

1. **Move the video fader all the way to one end or the other.**

2. **Press a cross-point button at the end to which the video fader is not flipped to select the preset video (the video to output next).**

Lighted in red: Final output video
Lighted in green: Preset video (the video to be output next)

The preset video appears in the PVW section of the multi-view monitor.

MEMO

* Channel 9 is used for still-image output. Channel 10 is used when outputting a still image or monochrome picture (background color) (p. 16).
* You can freely assign channels of your choosing to cross-point buttons. For details, refer to "Changing Cross-point Assignments" (p. 33).

3. **Press one of the WIPE PATTERN [1] through [7] buttons or the [MIX] button to select the transition effect.**

The selected button lights up.

WIPE PATTERN [1]–[7] buttons

In this transition, the original video is broken into by the next video.

$$A \blacktriangleright A \blacktriangleright B$$

* You can change the wipe pattern and wipe direction. Select the [MENU] button → "Transition" → choose one of the selections from "Wipe Patter 1" through "Wipe Patter 7" → make settings for "Pattern" and "Direction."

[MIX] button

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

$$A \blacktriangleright B \blacktriangleright B$$

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

The output video is switched.

MEMO

Directly selecting a channel at the final-output end switches the video with a cut regardless of any transition-effect selection.

Using Imported Still Images

You can take a still image imported from a USB flash drive or captured from final video output and assign it to channel 9 or 10, then output it in the same way as video. You can save up to 16 still images in internal memory.

> **NOTE**
> * When still images are saved in internal memory, startup times become correspondingly longer according to the image size and the number of saved still images.
> * Depending on the USB flash drive, recognition of the flash drive might take some time.

Importing a Still Image from a USB Flash Drive

This imports into the unit a still image saved on a USB flash drive.

Supported Still-image Formats and Resolutions

Still-image file formats that can be imported are as follows.

Format	Bitmap (.bmp), 24-bit, uncompressed
Resolution	Maximum 1,920 x 1,200 pixels
File name	No more than 8 single-byte alphanumeric characters
	* Be sure to append the ".bmp" file extension.

Importing a Still Image

* When you're using a USB flash drive for the first time, be sure to format it on the V-800HD MK II (p. 33).

1. Save the still image in the root directory of the USB flash drive.

2. Connect the USB flash drive containing the saved still image to the USB MEMORY port.

3. Select the [MENU] button → "System" → for USB Memory, select "Still Image," then press the [ENTER] button.
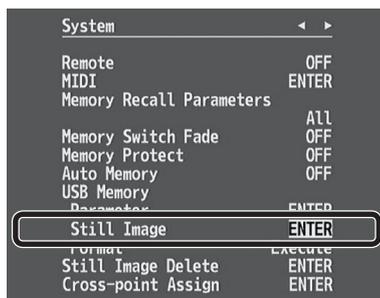
USB Memory ▶ Still Image screen is displayed.

4. Select "Still Image Memory No.," then use the [VALUE] knob to select a memory number (1 through 16) for saving the still image.

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

5. Select "Load," then press the [ENTER] button.

The Load File Select screen appears. The names of the files on the USB flash drive are displayed on this screen.

6. Select the still image file you want to import, then press the [ENTER] button.

7. When the message "Push ENTER to execute." appears, press the [ENTER] button.

(If you want to cancel the operation, press the [EXIT] button.)

The still image is imported into the unit.

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

Capturing a Still Image from Final-output Video

This captures a still image from final video output and saves it in the unit.

* The captured still image cannot be saved to a USB memory device.

1. Select the [MENU] button → "Input" → set "Ch. 10" to "Background."

* If "Ch. 10" is set to "Still Image," still-image capture is not possible.

2. Select the [EXIT] button → "System" → "Output Capture," then press the [ENTER] button.
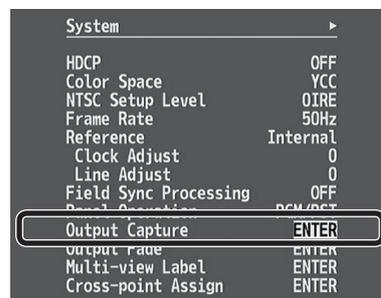
System ▶ Output Capture screen is displayed.

3. Select "Source Bus," then use the [VALUE] knob to specify the bus for the video source (PGM, PVW, or AUX).
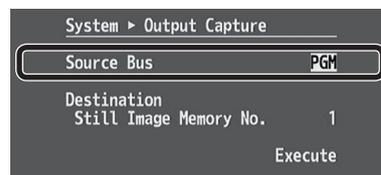
The video is displayed in the PGM section of the multi-view monitor.

4. Select "Still Image Memory No.," then use the [VALUE] knob to select a memory number (1 through 16) of the destination for saving.

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

5. Select "Execute," then press the [ENTER] button.

Capturing is carried out.

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

Assigning a Still Image to Channel 9 or 10

This takes a still image imported from a USB flash drive or captured from final video output and assigns it to channel 9 or 10.

1. Channel 9

Select the [MENU] button → "Input" → "ch.9," then press the [ENTER] button.

Input ► Ch. 9 (Still Image) screen is displayed.

Channel 10

Select the [MENU] button → "Input" "Ch. 10" → specify "Still Image" as the source assignment → press the [ENTER] button.

Input ► Ch. 10 (Still Image) screen is displayed.

NOTE

When the operation mode for output fades (p. 26) is set to "Fade to Still Image" or "Output Freeze," assigning a still image to channel 10 is not possible.

2. Select a menu item, then use the [VALUE] knob to make the detailed settings.

```
Input ▶ Ch.9 (Still Image)

Still Image Memory No.        1
Position H                    0
Position V                    0
Color Correction
 Brightness                   0
 Contrast                     0
 Saturation                   0
 Red                          0
 Green                        0
 Blue                         0
```
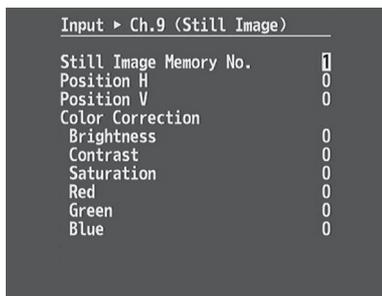
Menu item	Explanation
Still Image Memory No.	You select the memory number where the still image is saved and assign it to the channel. * A "✳" symbol is displayed for memory numbers where a still image is already saved.
Position H	This adjusts the horizontal display position of the still image.
Position V	This adjusts the vertical display position of the still image.
Color Correction	You use the following items to perform color correction for the still image.
Brightness	This adjusts the brightness.
Contrast	This adjusts the contrast.
Saturation	This adjusts the saturation.
Red	This adjusts the red level.
Green	This adjusts the green level.
Blue	This adjusts the blue level.

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

Deleting a Still Image

This deletes a still image saved in internal memory.

1. Select the [MENU] button → "System" → "Still Image Delete," then press the [ENTER] button.

```
System                    ◄  ►

Remote                        OFF
MIDI                          ENTER
Memory Recall Parameters
                              All
Memory Switch Fade            OFF
Memory Protect                OFF
Auto Memory                   OFF
USB Memory
 Parameter                    ENTER
 Still Image                  ENTER
 Format                       Execute
Still Image Delete            ENTER
```
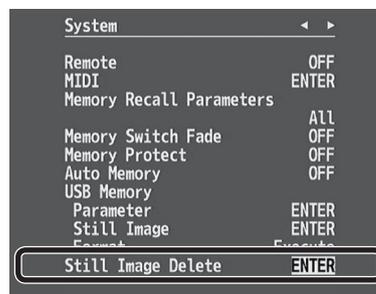
System ► Still Image Delete screen is displayed.

2. Select "Still Image Memory No.," then use the [VALUE] knob to select the memory number (1 through 16) for the still image you want to delete.

```
System ▶ Still Image Delete

Still Image Memory No.        10
                              Execute
```

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

3. Select "Execute," then press the [ENTER] button.

Deletion is executed.

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

Applying a Fade to the Final Output Video (Output Fade)

This applies a fade to final video output. This lets you make the final output fade to a monochrome picture (background color) or still image at times when you want to suppress video output, such as during intervals in a band performance. You can also stop (freeze) the final video output.

Setting the Operation Mode

The [OUTPUT FADE] button has three operation modes.

Select the [MENU] button → "System" → "Output Fade" → press the [ENTER] button → use "Mode" to make the setting.

* By factory default, this is set to "Fade to Background"

Value	Explanation
Fade to Background	This makes the final video output fade to a monochrome picture (background color).
Fade to Still Image	This makes the final video output fade to a still picture. (*1)
Output Freeze	This makes the final video output stop (freeze). (*1)

(*1) When a still image is assigned to channel 10 (p. 25), setting the operation mode to "Fade to Still Image" or "Output Freeze" is not possible.

Detailed Settings for "Fade to Still Image"

1. **Select the [MENU] button → "System" → "Output Fade," then press the [ENTER] button.**

   System ▶ Output Fade screen is displayed.

2. **Select a menu item, then use the [VALUE] knob to make the detailed settings.**

   ```
   System ▶ Output Fade

   Mode            Fade to Still Image
   Time                         0.5s
   Still Image Memory No.          1
   Position H                      0
   Position V                      0
   Color Correction
     Brightness                    0
     Contrast                      0
     Saturation                    0
     Red                           0
     Green                         0
     Blue                          0
   ```
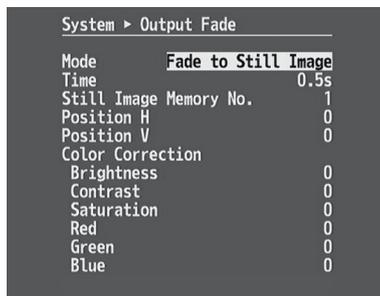
Menu Item	Explanation
Time	This sets the fade time (0.0–10.0 seconds).
Still Image Memory No.	This selects the memory number where a still image is saved and specifies the still image to use during a fade. * A "✳" symbol is displayed for memory numbers where a still image is already saved.
Position H	This adjusts the horizontal display position of the still image.
Position V	This adjusts the vertical display position of the still image.
Color Correction	You use the following items to perform color correction for the still image.
Brightness	This adjusts the brightness.
Contrast	This adjusts the contrast.
Saturation	This adjusts the saturation.
Red	This adjusts the red level.
Green	This adjusts the green level.
Blue	This adjusts the blue level.

3. **Press the [MENU] button to quit the menu.**

Detailed Settings for "Fade to Background" (Monochrome Picture)

1. **Select the [MENU] button → "System" → "Output Fade," then press the [ENTER] button.**

   System ▶ Output Fade screen is displayed.

2. **Select a menu item, then use the [VALUE] knob to make the detailed settings.**

   ```
   System ▶ Output Fade

   Mode              Fade to Background
   Time                           0.5s
   Color Setting
     Red                            16
     Green                          16
     Blue                           16
   ```
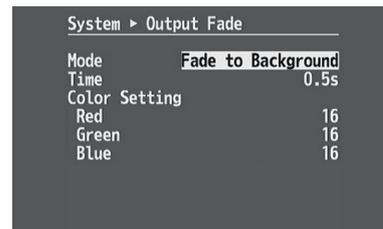
Menu item	Explanation
Time	This sets the fade time (0.0–10.0 seconds).
Color Setting	You use the following items to set the background color.
Red	This adjusts the red level.
Green	This adjusts the green level.
Blue	This adjusts the blue level.

3. **Press the [MENU] button to quit the menu.**

Making the Final Video Output Fade Out/ Fade In
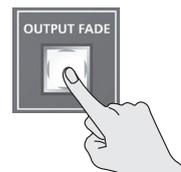
OUTPUT FADE

* During the fade, the [OUTPUT FADE] button flashes.

1. **Press the [OUTPUT FADE] button to perform a fade-out.**

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

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

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

Freezing the Final Output Video

1. **Press the [OUTPUT FADE] button to turn on freeze (lighted).**

   The final video output freezes.

2. **To turn off freeze, press the [OUTPUT FADE] button a second time.**

   The [OUTPUT FADE] button goes dark and normal output is resumed.

Video Composition Operations

This composites video. The V-800HD MK II has four built-in types of composition.

Compositing Using Picture-in-Picture (PinP)

This composites video in an inset screen onto a different background video. This section describes operations when in the PGM/PST mode (p. 22).

Inset screen   Background video
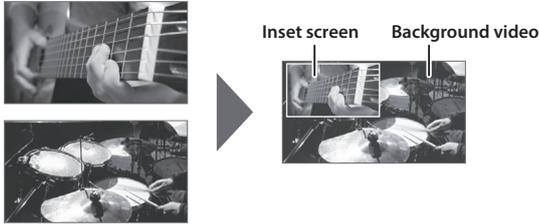
1. **Press a cross-point button in the PGM section to select the video you want to make the background video.**

2. **Press a cross-point button in the PST/EFFECT section to select the video you want to make the inset screen.**

3. **Press one of the PinP [1] to [4] buttons to turn on video composition (lighted).**
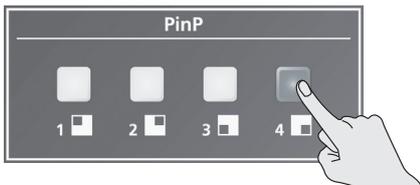
The selected button lights up in green, and a preview of the composition results is displayed in the PVW section of the multi-view monitor.

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

4. **Use the [POSITION] joystick and the [SIZE] knob to adjust the position and size of the inset screen.**

Press the [CONTROL] button several times to make the PinP indicator light up. The enables you to manipulate the inset screen.
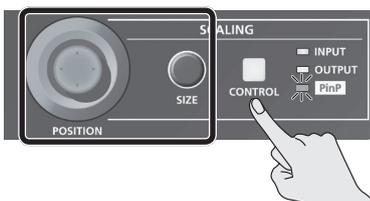
5. **Press the [AUTO] or [CUT] button.**

At this time, the PinP button and the cross-point button in the PST/EFFECT section light up in red.

Pressing the [AUTO] or [CUT] button a second time makes the inset screen disappear.

* You can also display or hide the inset screen by operating the video fader.

6. **To turn off video compositing, press the PinP button a second time.**

MEMO

The video transition-time setting is applied as the fade time when you use the [AUTO] button to display or hide the inset screen.

Making Detailed Settings for the Inset Screen

You can make separate sets of settings for inset-screen position and size, the border around the inset screen, and other values for each PinP button.

Select the [MENU] button → "PinP" → choose one of the selections from "Position 1" through "Position 4" → press the [ENTER] button, then make the settings for the following menu items.

Menu item			Explanation
PinP			Use the following items to make the settings for the inset screen.
	Size		This adjusts the zoom ratio.
	Position H		This adjusts the display position in the horizontal direction.
	Position V		This adjusts the display position in the vertical direction.
	Cropping Type		This sets the cropping type.
		Manual Cropping H	This sets the horizontal cropping width. (*1)
		Manual Cropping V	This sets the vertical cropping width. (*1)
	Border		Use the following items to adjust the border.
		Width	This adjusts the border width.
		Color	Use the following items to adjust the color of the border.
		Red	This adjusts the red level.
		Green	This adjusts the green level.
		Blue	This adjusts the blue level.
View			Use the following items to adjust the video displayed in the inset screen.
	Size		This adjusts the zoom ratio.
	Position H		This adjusts the display position in the horizontal direction.
	Position V		This adjusts the display position in the vertical direction.

(*1) This is available when "Cropping Type" is set to "Manual."

Compositing Using Luminance Key/Chroma Key

This makes a portion of the video transparent and composites it onto a background video. This section describes operations when in the PGM/PST mode (p. 22).

Luminance Key

This takes video in which white or black areas are made transparent, and composite it overlaid on a background picture.

Black or White
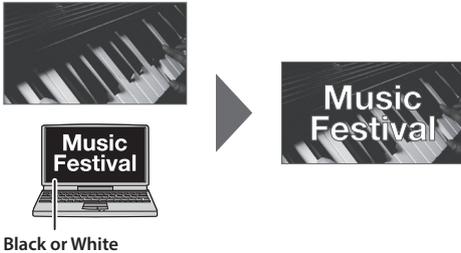
Chroma Key

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

Blue or Green

Setting the Key Type and Extraction Color

To change the key type and extraction color to match the video you want to composite.

1. Select the [MENU] button → "Key" → "Type."
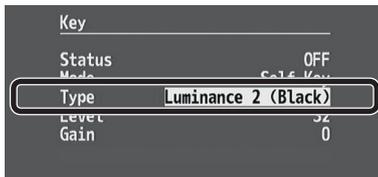
2. Use the [VALUE] knob to specify the key type (extraction color) to use when compositing.

Value	Explanation
Luminance 1 (White)	This uses a brightness threshold to make white transparent.
Luminance 2 (Black)	This uses a brightness threshold to make black transparent.
Chroma 1 (Blue)	This uses a color threshold to make blue transparent.
Chroma 2 (Green)	This uses a color threshold to make green transparent.

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

Compositing Using Key

1. **Press a cross-point button in the PST/EFFECT section to select the video you want to make the inset screen.**

2. **Press a cross-point button in the PST/EFFECT section to select the video to overlay.**

3. **Press the KEY [ON] button to turn on key composition (lighted).**

The KEY [ON] button lights up in green, and a preview of the composition results is displayed in the PVW section of the multi-view monitor.

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

4. **Turn the KEY [LEVEL] or [GAIN] knob to adjust the degree of effect applied.**
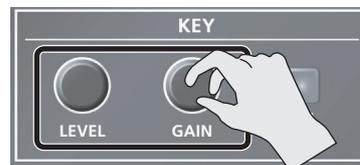
KEY [LEVEL] knob
This adjusts the degree of extraction (transparency) for the key.

KEY [GAIN] knob
This adjusts the degree of edge blur (semi-transmissive region) for the key.

5. **Press the [AUTO] or [CUT] button.**

The video you selected in steps 1 and 2 is composited and output. At this time, the KEY [ON] button and the cross-point button in the PST/EFFECT section light up in red.

Pressing the [AUTO] or [CUT] button a second time makes the overlaid video disappear.

* You can also display or hide the overlaid video by operating the video fader.

6. **To turn off key compositing, press the KEY [ON] button a second time.**

> **MEMO**
> * The video transition-time setting is applied as the fade time for key-composited text and video.
> * When you combine PinP (p. 27) with the compositing results from luminance or chroma key, the superimposed video becomes the inset screen.
>   You can also use the [POSITION] joystick and the [SIZE] knob to adjust the display position and size of the overlaid video.

Making Advanced Settings for Chroma Key

When the key type is chroma key ("Chroma 1 (Blue)" or "Chroma 2 (Green)"), you can use the Key menu to fine-tune the key color.

Menu item	Explanation
Hue	You use the following items to adjust the hue of the key color.
Fine	This adjusts the center position for hue.
Width	This adjusts the hue width (range).
Saturation	This adjusts the saturation of the key color.

Compositing Using an External Key

You can perform key composition that uses an external key.

Background video	
Fill clip	
Key clip	
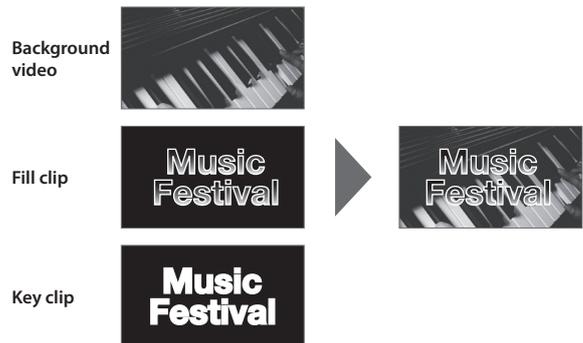
> **NOTE**
> Using an external key makes DSK (p. 30) unusable.

1. **Select the [MENU] button → "Key" → "Mode."**
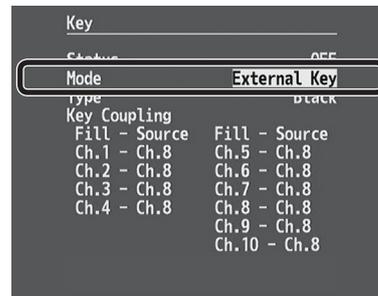
2. **Use the [VALUE] knob to set this to "External Key."**

Value	Explanation
Self Key	This performs key composition using luminance key or chroma key.
External Key	This performs key composition using a key signal input from an external source.

3. **Select "Type," then use the [VALUE] knob to specify "Black" or "White" as the extraction color for key composition.**

4. **Select "Key Coupling," then use the [VALUE] knob to set the fill-channel and key-channel combination.**

5. **Press the [MENU] button to quit the menu.**

The steps of key compositing are similar to the procedure in "Compositing Using Key" on the previous page.

Compositing Using DSK

This takes video composited upstream using PinP or the like, and performs further downstream compositing with text or images. Using DSK (downstream keying), you can switch the background video while text or images remain displayed. This section describes operations when in the PGM/PST mode (p. 22).
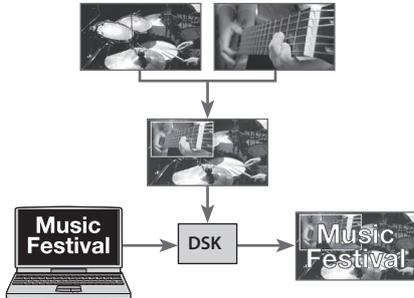
NOTE

- When the setting for sending the input-channel signal to the AUX bus is in effect, DSK cannot be used. Change the signal sent to the AUX bus to something other than the input channel (p. 17).
- When the setting to use an external key is in effect, DSK cannot be used. Select the [MENU] button → "Key" → change "Mode" to "Self Key" (p. 29).

Setting the Key Type and Extraction Color

To change the key type and extraction color to match the video you want to composite.

1. Select the [MENU] button → "DSK" → "Type."
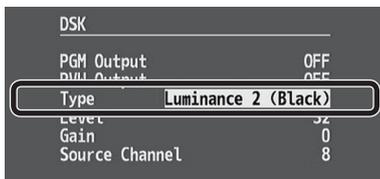
2. Use the [VALUE] knob to specify the key type (extraction color) to use when compositing.

Value	Explanation
Luminance 1 (White)	This uses a brightness threshold to make white transparent.
Luminance 2 (Black)	This uses a brightness threshold to make black transparent.
Chroma 1 (Blue)	This uses a color threshold to make blue transparent.
Chroma 2 (Green)	This uses a color threshold to make green transparent.

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

MEMO

When the key type is chroma key ("Chroma 1 (Blue)" or "Chroma 2 (Green)"), you can use the DSK menu to fine-tune the key color.

Menu item	Explanation
Hue	You use the following items to adjust the hue of the key color.
Fine	This adjusts the center position for hue.
Width	This adjusts the hue width (range).
Saturation	This adjusts the saturation of the key color.

Compositing Using DSK

1. **Input the logo or image.**

By factory default, the settings are such that text and image input on channel 8 are used in DSK composition.

When you want to use text or image on another channel, use the [MENU] button → "DSK" → "Source Channel" to change the channel.

2. **Output the background video.**

At the PVW section of the multi-view monitor, check the video to be made the background.

3. **Press the DSK [PVW] button to turn on the preview output (lighted).**

The DSK [PVW] button lights up in green, and a preview of the composition results is displayed in the PVW section of the multi-view monitor.

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

4. **Turn the DSK [LEVEL] or [GAIN] knob to adjust the degree of effect applied.**

DSK [LEVEL] knob
This adjusts the degree of extraction (transparency) for the key.

DSK [GAIN] knob
This adjusts the degree of edge blur (semi-transmissive region) for the key.

5. **Press the [DSK] button to turn on DSK composition (lighted).**

The [DSK] button lights up in red, and the text or image is composited and the results are output.

6. **To turn off DSK compositing, press the [DSK] button a second time.**

The [DSK] button goes dark and the text and images disappear from the output.

MEMO

The video transition-time setting is applied as the fade time for DSK-composited text and image.

Other Features

Saving/Recalling Settings (Memory)

You can save video settings, the state of the operation panel, and other current settings in memory and call them up for use when needed.

The V-800HD MK II has 8 internal banks for saving settings in memory. You can save settings in 8 memories in each bank, letting you use up to 64 memories for saving.

> **About the Last Memory Function**
>
> When you use the Last Memory function, the current settings are automatically saved in memory 1 of bank 1 when you exit a menu or recall a memory. To use the Last Memory function, go to the System menu and set "Auto Memory" to "ON."

Saving a Memory

NOTE
- When the System menu item "Memory Protect" is set to "ON," settings cannot be saved to a memory.
- When memory 1-1 has been selected as a destination for saving, the values saved there might be overwritten by the Last Memory function.

1. Press the [STORE] button to enable saving settings to a memory.
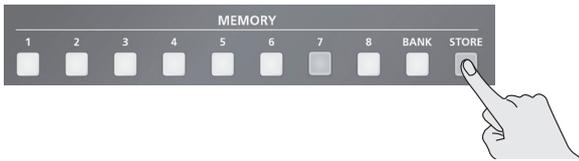
The currently selected MEMORY button flashes.

2. Press the [BANK] button, then press the MEMORY button for the bank number where you want to save the settings.
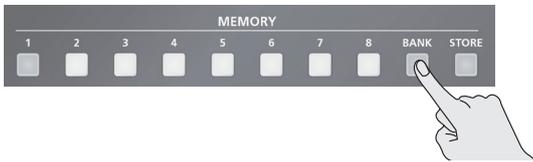
The bank changes.

While the [BANK] button is lighted, the button for the currently selected bank number lights up.

3. Press the MEMORY button for the number whose setting you want to save.
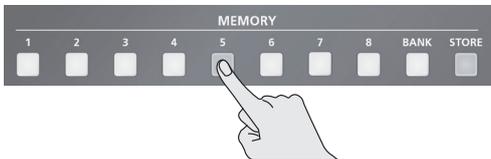
The current settings are saved.

MEMO

The state of the [OUTPUT FADE] button on the operation panel is not saved in memory.

The following settings are also not saved in memory. Only a single set is saved in the unit.

Menu	Setting items saved in the unit
System	All menu items except "Status" of detailed settings for "MIDI" and "Test Pattern"

* "Status" of detailed settings for "MIDI" and "Test Pattern" are always set to defaults at startup.

Recalling a Memory

The settings in memory 1-1 are always loaded at startup of the V-800HD MK II.

1. Press the [BANK] button, then press the MEMORY button for the bank number whose settings you want to recall.
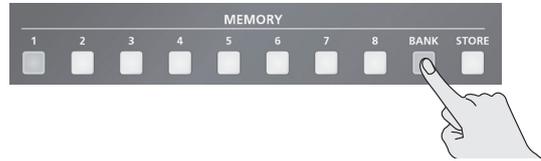
The bank changes.

While the [BANK] button is lighted, the button for the currently selected bank number lights up.

2. Press the MEMORY button for the number whose setting you want to recall.
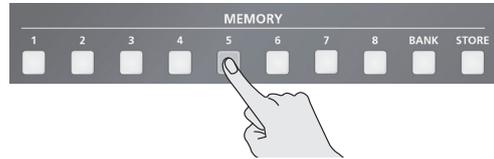
The settings are recalled.

MEMO

You can automatically apply an output fade when a memory is recalled. When a memory is recalled and the settings are switched, the output fade is canceled.

[MENU] button → "System" → "Memory Switch Fade" to set the value "ON."

Saving the Unit's Settings to File on a USB Flash Drive

You can group together the values in the unit's memories (1-1 through 8-8) into a single file and save it to a USB flash drive connected to the USB MEMORY port. You can access the saved file (*.V08) on the USB flash drive and load it into the unit for use when needed.

* When you're using a USB flash drive for the first time, be sure to format it on the V-800HD MK II (p. 33).

* Depending on the USB flash drive, recognition of the flash drive might take some time.

Choose Save New

1. **Select the [MENU] button → "System" → for USB Memory, select "Parameter," then press the [ENTER] button.**

```
System                    ◀  ▶
Remote                       OFF
MIDI                       ENTER
Memory Recall Parameters
                             All
Memory Switch Fade           OFF
Memory Protect               OFF
Auto Memory                  OFF
USB Memory
  Parameter               ENTER
  Still Image             ENTER
  Format                 Execute
  Still Image Delete      ENTER
```

The USB Memory ▶ Parameter screen is displayed.

2. **Select "Save As," then press the [ENTER] button.**

```
USB Memory ▶ Parameter
Load                       ENTER
Save                       ENTER
Save As                    ENTER
Delete                     ENTER
```

The Save File Name screen is displayed.

3. **Specify the file name, then press the [ENTER] button.**

```
Save File Name

        "NEW_FILE.V08"

        ▲ : Insert
        ▼ : Delete
        ◀ : Cursor Left
        ▶ : Cursor Right
    VALUE : Character Select
    ENTER : Execute
     EXIT : Cancel
```

The extension of the file name is "V08."

* If you have edited the file name on your computer, small letters are displayed after conversion to capitals.

4. **When the message "Push ENTER to execute." appears, press the [ENTER] button.**
(If you want to cancel the operation, press the [EXIT] button.)
The file (*.V08) is newly saved on the USB flash drive.

5. **Press the [MENU] button to quit the menu.**

MEMO

Still images (p. 24) are not saved in the file (*.V08).

Saving by Overwriting

1. **Select the [MENU] button → "System" → for USB Memory, select "Parameter," then press the [ENTER] button.**
The USB Memory ▶ Parameter screen is displayed.

2. **Select "Save," then press the [ENTER] button.**
The Save File Select screen is displayed.

3. **Select the file to overwrite, then press the [ENTER] button.**

4. **When the message "Push ENTER to execute." appears, press the [ENTER] button.**
(If you want to cancel the operation, press the [EXIT] button.)
The file is saved by overwriting.

5. **Press the [MENU] button to quit the menu.**

Recalling

This recalls the settings in the unit's memories (1-1 through 8-8) that have been saved on a USB flash drive. Recalling settings overwrites any values in the unit's memories.

1. **Select the [MENU] button → "System" → for USB Memory, select "Parameter," then press the [ENTER] button.**
The USB Memory ▶ Parameter screen is displayed.

2. **Select "Load," then press the [ENTER] button.**
The Load File Select screen is displayed.

3. **Select the file (*.V08) you want to recall, then press the [ENTER] button.**

4. **When the message "Push ENTER to execute." appears, press the [ENTER] button.**
(If you want to cancel the operation, press the [EXIT] button.)
The settings are recalled, and the values in the unit's memories are overwritten.

Deleting a File on a USB Flash Drive

1. **Select the [MENU] button → "System" → for USB Memory, select "Parameter," then press the [ENTER] button.**
The USB Memory ▶ Parameter screen is displayed.

2. **Select "Delete," then press the [ENTER] button.**
The Delete File Select screen is displayed.

3. **Select the file you want to delete, then press the [ENTER] button.**

4. **When the message "Push ENTER to execute." appears, press the [ENTER] button.**
(If you want to cancel the operation, press the [EXIT] button.)
The settings are deleted from the USB flash drive.

Formatting USB Flash Drives

When you're using a USB flash drive for the first time, it must first be formatted on the V-800HD MK II.

> **NOTE**
> - The V-800HD MK II does not recognize unformatted USB flash drives.
> - Operation has been tested for commonly available USB memory devices, but operation of all USB memory devices is not assured. Depending on the manufacturer and type of the USB memory device, correct operation may not be possible.
> - Performing formatting causes all data already saved on the USB flash drive to be deleted. If the flash drive contains necessary data, back it up onto a computer or elsewhere before formatting the drive.
> - Depending on the USB flash drive, recognition of the flash drive might take some time.

Making the Connection

1. **Open the sliding cover on the USB MEMORY port and connect the flash drive to the port.**
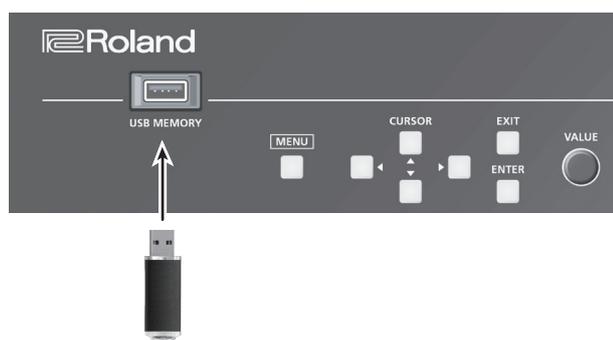
* Be careful to orient the USB memory device correctly front and back and in the correct direction for insertion, and insert it firmly, as far as it will go. Never insert using undue force.

* When the USB MEMORY port is not in use, be sure to keep the sliding cover closed to protect the connector.

Performing Formatting

1. **Select the [MENU] button → "System" → for USB Memory, select "Format," then press the [ENTER] button.**

2. **When the message "Push ENTER to execute." appears, press the [ENTER] button.**
(If you want to cancel the operation, press the [EXIT] button.)

Formatting of the USB flash drive is carried out.

3. **Press the [MENU] button to quit the menu.**

Changing Cross-point Assignments

You can change the channels assigned to the cross-point [1] through [10] buttons.

You can also disable operation of a cross-point button by assigning no channel to the button.

1. **Select the [MENU] button → "System" → "Cross-point Assign," then press the [ENTER] button.**
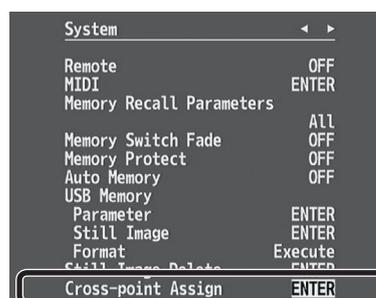
The System ▶ Cross-point Assign screen is displayed.

2. **Select cross-point cross point (from 1 to 10), then use the [VALUE] knob to specify the channel number (Ch. 1 to 10) to assign to the cross point.**

* To assign no channel, specify "None."

3. **Press the [MENU] button to quit the menu.**

Returning Settings to the Factory-default State (Factory Reset)

You can return the values of settings on the V-800HD MK II 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**
> Executing a factory reset causes all values that have been set, settings saved in memories (p. 31), and still images saved in the unit to be lost.

1. **Select the [MENU] button → "System" → "Factory Reset," then press the [ENTER] button.**
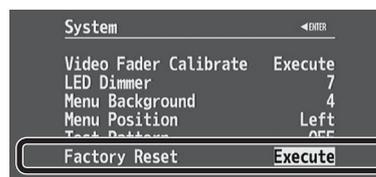
2. **When the message "Push ENTER to execute." appears, press the [ENTER] button.**
(If you want to cancel the operation, press the [EXIT] button.)

A factory reset is executed.

3. **Press the [MENU] button to quit the menu.**

Operating the V-800HD MK II by Remote Control

Using MIDI or RS-232, you can operate the V-800HD MK II remotely from an external device.
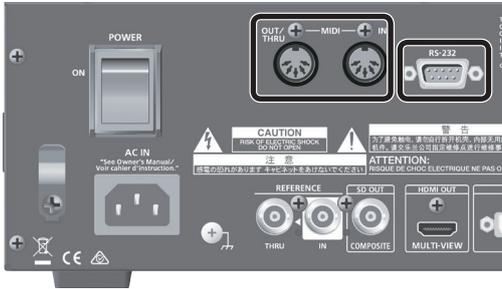
For more information on the specifications of the RS-232 connector and how to operate the unit remotely, refer to the Reference Manual (PDF) available for download at the Roland website.

https://proav.roland.com/

About Remote Control Via MIDI

The V-800HD MK II also supports remote control by equipment compatible with MIDI Visual Control.

What's 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.

Outputting a Tally Signal

This outputs a tally signal from the TALLY 1 or 2 connector.
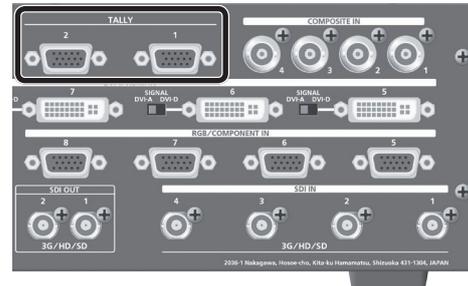
Specification of the TALLY Connector
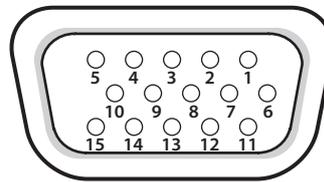
Mini D-sub 15-pin (female)

Trigger method	Open collector
Maximum input	12 V/200 mA

TALLY 1 connector

Pin No.	Channel
1	PGM Ch.1
2	PST Ch.1
3	N.C.
4	GND
5	PGM Ch.4
6	PGM Ch.2
7	PST Ch.2
8	N.C.
9	GND
10	PST Ch.4
11	PGM Ch.3
12	PST Ch.3
13	N.C.
14	GND
15	N.C.

TALLY 2 connector

Pin No.	Channel
1	PGM Ch.5
2	PST Ch.5
3	N.C.
4	GND
5	PGM Ch.8
6	PGM Ch.6
7	PST Ch.6
8	N.C.
9	GND
10	PST Ch.8
11	PGM Ch.7
12	PST Ch.7
13	N.C.
14	GND
15	N.C.

Appendices

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
Nothing is displayed on the multi-view monitor.	Does the connected monitor support a resolution and refresh rate of 1920 x 1080/60 Hz (progressive)?	Nothing is displayed if the monitor is not compatible. Also, if "HDCP" is set to "ON" when an HDCP-incompatible monitor is connected, only menus can be displayed.	—
Composite input is not output.	Is the video source at the connected channel set to composite?	In the factory-default state, SDI input is assigned to channels 1 through 4. The assignment must be changed to composite input.	p. 16
Analog RGB input is not output.	Is the video source at the connected channel set to analog RGB?	In the factory-default state, DVI/HDMI input is assigned to channels 5 through 8. The assignment must be changed to analog RGB input. * The same operation is also necessary when using a conversion cable to make an analog component connection.	p. 16
DVI input is not output.	Is the [SIGNAL] switch for the DVI-I/HDMI IN connectors correctly set to select "DVI-A" or "DVI-D"?	The signal cannot be detected if this is not set correctly. Select "DVI-A" (analog) or "DVI-D" (digital) according to the input signal type.	—
Nothing is output from the SD OUT connector, SDI OUT connectors, or RGB/COMPONENT OUT connector.	Has the setting for inputting HDCP signals been made?	When "HDCP" at the System menu is set to "ON," video is output only from the DVI-D/HDMI OUT and HDMI OUT connectors. No video is output via the RGB/COMPONENT, SDI OUT, and SD OUT connectors.	p. 20
The AUX [1] through [10] buttons are inoperable.	Is a signal other than an input channel being sent to the AUX bus?	To work with the AUX [1] through [10] buttons, change the settings in the sequence described below. This enables you to use the AUX [1] through [10] buttons to directly select the input channel to send. 1. At the DSK menu, set "PGM Output" to "OFF." 2. At the Output menu, set "AUX Source" to any one of the "Input Ch. 1–10" settings.	p. 17
	Is "Mode" at the Key menu set to "External Key"?	When you're using an external key, sending an input-channel signal to the AUX bus is not possible. Change the settings in the sequence described below. This enables you to use the AUX [1] through [10] buttons to directly select the input channel to send. 1. At the key menu, set "Mode" to "Self Key." 2. At the Output menu, set "AUX Source" to any one of the "Input Ch. 1–10" settings.	—
No still image can be assigned to an output fade.	Is the still image assigned to channel 10?	A still image cannot be assigned to channel 10 and output fade at the same time. When assigning a still image to an output fade, change the channel-10 assignment to a monochrome picture (background color).	p. 16 p. 25
Compositing with DSK is not possible.	Is "Mode" at the Key menu set to "External Key"?	Using an external key makes DSK unusable. When using DSK, set "Mode" to "Self key."	p. 29
	Is "AUX Source" at the Output menu set to "Input Ch. 1–10"?	Sending input-channel video to the AUX bus makes DSK unusable. To use DSK, set "AUX Source" to a value other than "Input Ch. 1–10."	p. 17
Still-image cannot be imported.	Are you importing a still image whose format and resolution are supported by the V-800HD MK II?	Still images of unsupported formats or resolutions are not recognized. Prepare a still image whose format and resolution are supported by the V-800HD MK II.	p. 24
	Does still image have a proper file name?	Use a file name composed of no more than 8 single-byte alphanumeric characters. Also, be sure to append the "*.bmp" file extension. Still images without proper file names are not recognized.	
Switching is not complete even when the video fader is moved.	Factors such as continued use and transportation can sometimes cause the video to fail to be switched completely.	Perform calibration of the video fader. Move the video fader all the way and calibrate .Execute calibration, select "Video Fader Calibrate" in System menu.	—
Startup takes a long time.	Have still images been loaded into internal memory?	Startup takes longer when still images have been loaded into internal memory. Delete still image data from internal memory.	p. 25
The panel indicators are too bright/dark.	Has indicator brightness been adjusted appropriately?	Go to the System menu and use "LED Dimmer" to adjust indicator brightness.	—
A USB flash drive cannot be read.	Has the USB memory device been formatted on the V-800HD MK II?	The V-800HD MK II does not recognize unformatted USB flash drives. Operation has been tested for commonly available USB memory devices, but operation of all USB memory devices is not assured. Depending on the manufacturer and type of the USB memory device, correct operation may not be possible.	p. 33

Block Diagram

INPUT 1 — SDI / COMPOSITE — Input Select
INPUT 2 — SDI / COMPOSITE
INPUT 3 — SDI / COMPOSITE
INPUT 4 — SDI / COMPOSITE — Shared Input

Signal Select
INPUT 5 — DVI-I/HDMI (DVI-D, DVI-A) / RGB/COMPONENT
INPUT 6 — DVI-I/HDMI (DVI-D, DVI-A) / RGB/COMPONENT
INPUT 7 — DVI-I/HDMI (DVI-D, DVI-A) / RGB/COMPONENT
INPUT 8 — DVI-I/HDMI (DVI-D, DVI-A) / RGB/COMPONENT — Shared Input

INPUT 9 — STILL IMAGE
INPUT 10 — BACKGROUND / * STILL IMAGE — Input Select

REFERENCE — REFERENCE IN — REFERENCE THRU

FRAME SYNCHRONIZER
SCALER
COLOR CORRECTOR

COLOR CORRECTOR

CROSS POINT

1
PGM
PST/EFFECT
Key Mode
Self Key
External Key
DSK Source
3
Input Ch.1
Input Ch.10
5

VIDEO MIXER
PinP
KEY

MULTI-VIEW

HDMI MULTI-VIEW OUTPUT

Mode
Fade to Background
＊Output Freeze
＊Fade to Still Image

OUTPUT FADE

2

4

PGM

PVW

DSK

SELECTOR

AUX Source
Mixer Input 1
Mixer Output 2
DSK Source 3
DSK Output 4
Still Image 5
:

AUX

＊Output Capture
Source Bus

to Still Image Mmeory

COLOR CORRECTOR

SDI SDI OUTPUT 1

SDI SDI OUTPUT 2

DVI-D/HDMI DVI-D/HDMI OUTPUT 1

DVI-D/HDMI DVI-D/HDMI OUTPUT 2

SCALER COLOR CORRECTOR

RGB/COMPONENT RGB/COMPONENT OUTPUT

SCALER COLOR CORRECTOR

COMPOSITE SD OUTPUT

＊ : Cannot be used at the same time.

Main Specifications   Roland V-800HD MK II: MULTI-FORMAT VIDEO SWITCHER

Video Processing		
Processing	4:4:4 (Y/Pb/Pr, RGB), 10-bit	
Supported Formats	Video	480/59.94i, 576/50i, 480/59.94p, 576/50p, 720/59.94p, 720/50p,1080/59.94i, 1080/50i, 1080/59.94p, 1080/50p * SDI and Composite input can input the same frame rate as a setup menu setting.
	PC	640 x 480/60 Hz (*1), 800 x 600/60 Hz (*1) (*3), 1024 x 768/60 Hz (*1), 1280 x 768/60 Hz (*1), 1280 x 1024/60 Hz (*1), 1366 x 768/60 Hz (*1), 1400 x 1050/60 Hz (*1), 1600 x 1200/60 Hz, 1920 x 1080/60 Hz, 1920 x 1200/60 Hz (*2) * Conforms to VESA DMT Version 1.0 Revision 10 *1 Output refresh rate is 75 Hz when frame rate is set to 50 Hz *2 Reduced blanking *3 When Reference is set to External, the resolution of 800 x 600 and refresh rate of 60 Hz are no longer compliant with the VESA standard. This means that display on some devices may not be possible in this situation.
	Still Image	Windows Bitmap File (.bmp) * Maximum 1900 x 1200 pixels, 24-bit per pixel, uncompressed

Input/Output Level and Impedance	
Composite	1.0 Vp-p 75 ohms
Analog HD/RGB	0.7 Vp-p 75 ohms (H, V: 5 VTTL)

Input Connectors	
3G/HD/SD-SDI	BNC type x 4 * Conforms to SMPTE 424M (Level-A, Level-B), 292M, 259M-C
DVI-I/HDMI	DVI-I type x 4 * Select DVI-A or DVI-D/HDMI using switch per channel
Analog Video (HD)	Component (Mini D-sub 15-pin type) x 4 * Combined use with Analog RGB
Analog Video (SD)	Composite (BNC type) x 4 * Select Composite or SDI using menu per channel
Analog RGB	Mini D-sub 15-pin type x 4 * Combined use with Analog Video (HD) * Select DVI-D/HDMI or Analog RGB using menu per channel

Output Connectors	
3G/HD/SD-SDI	BNC type x 2 * Conforms to SMPTE 424M (Level-A, Level-B), 292M, 259M-C
DVI-D/HDMI	DVI-I type x 2, HDMI x 1 (for multi-view monitor)
Analog Video (HD)	Component (Mini D-sub 15-pin type) x 1 * Combined use with Analog RGB
Analog Video (SD)	Composite (BNC type) x 1 * Combined use with Analog Video (HD) * Does not synchronize with Reference Input.
Analog RGB	Mini d-sub 15-pin type x 1 * Combined use with Analog Video (HD)

Other Connectors	
Tally	Mini D-sub 15-pin type x 2 * Input (max): 12 V, 200 mA Open collector Type
Reference	BNC type (IN, THRU) * Black Burst (Sync to frames), Bi-Level, Tri-Level
MIDI	5 pin DIN type (IN, OUT/THRU)
RS-232	D-sub 9 pin type x 1
USB port (host)	A type x 1 (for USB memory)

Effects	
Transition	Mix, Cut, Wipe (9 patterns)
Composition	PinP, DSK, Chrominance Key, Luminance Key, External Key
Others	Output Fade, Output Freeze

Others	
Power Supply	AC 115 V, AC 117 V, AC 220 V, AC 230 V, AC 240 V (50/60 Hz)
Power Consumption	75 W/0.7 A (115 V, 117 V), 75 W/0.4 A (220 V, 230 V, 240 V)
Operation Temperature	+0 to +40 degrees Celsius +32 to +104 degrees Fahrenheit
Dimensions	482 (W) x 275 (D) x 116 (H) mm 19 (W) x 10-7/8 (D) x 4-5/8 (H) inches * When rack mount angles are fitted.
Weight	5.5 kg 12 lbs 3 oz
Accessories	Owner's Manual, Power cord, Rack-mount angle x 2

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

有关产品中所含有害物质的说明

本资料就本公司产品中所含的特定有害物质及其安全性予以说明。
本资料适用于2007年3月1日以后本公司所制造的产品。

环保使用期限

此标志适用于在中国国内销售的电子信息产品，表示环保使用期限的年数。所谓环保使用期限是指在自制造日起的规定期限内，产品中所含的有害物质不致引起环境污染，不会对人身、财产造成严重的不良影响。
环保使用期限仅在遵照产品使用说明书，正确使用产品的条件下才有效。
不当的使用，将会导致有害物质泄漏的危险。

产品中有毒有害物质或元素的名称及含量

部件名称	有毒有害物质或元素					
	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）	X	O	O	O	O	O
电子部件（印刷电路板等）	X	O	X	O	O	O
附件（电源线、交流适配器等）	X	O	O	O	O	O
O： 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T11363-2006 标准规定的限量要求以下。						
X： 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T11363-2006 标准规定的限量要求。 因根据现有的技术水平，还没有什么物质能够代替它。						