

VC-1-SC VIDEO CONVERTER

Owner's Manual

Before using this unit, carefully read the sections entitled "USING THE UNIT SAFELY" (p. 3) and "IMPORTANT NOTES" (p. 6). These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature of your new unit, read Owner's Manual in its entirety. This manual should be saved and kept on hand as a convenient reference.



Scan Converter

For the U.K.

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

BLUE: NEUTRAL
BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

Under no circumstances must either of the above wires be connected to the earth terminal of a three pin plug.






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

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

When the power needs to be completely turned off, 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.



Concerning the Auto Off function

The power to this unit will be turned off automatically after a predetermined amount of time has passed since the last input of signal (AUTO OFF function). If you do not want the power to be turned off automatically, disengage the Auto Off function (p. 12).



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."



WARNING

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.



Do not place in an unstable location

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



USING THE UNIT SAFELY

WARNING

Use only the supplied AC adaptor and the correct voltage

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



Use only the supplied power cord

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



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

Otherwise, fire or electric shock may result.



Avoid extended use at high volume

Use of the unit at high volume for extended periods of time may cause hearing loss. If you ever experience any hearing loss or ringing in the ears, you should immediately stop using the unit and consult a specialized physician.



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 remove the AC adaptor 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 AC adaptor or 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

Place in a well ventilated location

The unit and the AC adaptor should be located so their location or position does not interfere with their proper ventilation.



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 from this unit or from a power outlet.



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.



CAUTION

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 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.

- Included Parts
- Rubber feet (p. 8)



Handle the ground terminal carefully

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



Take care not to get burned

This unit 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.
- The AC adaptor will begin to generate heat after long hours of consecutive use. This is normal, and is not a cause for concern.

Placement

- Using the unit near power amplifiers (or other equipment containing large power transformers) may induce hum. To alleviate the problem, change the orientation of this unit; or move it farther away from the source of interference.
- 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. You can place a piece of felt or cloth under the rubber feet to prevent this from happening. If you do so, please make sure that the unit will not slip or move accidentally.

- 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

- For everyday cleaning wipe the unit with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a cloth impregnated with a mild, non-abrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.
- 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 switches, 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.
- To avoid disturbing others nearby, try to keep the unit's volume at reasonable levels.

- When you need to transport the unit, pack it in shock-absorbent material. Transporting the unit without doing so can cause it to become scratched or damaged, and could lead to malfunction.

About Intellectual Property Rights

- 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.
- MMP (Moore Microprocessor Portfolio) refers to a patent portfolio concerned with microprocessor architecture, which was developed by Technology Properties Limited (TPL). Roland has licensed this technology from the TPL Group.
- 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.

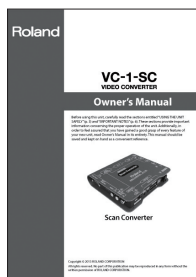
Check the Included Items

The following items are included. Please make sure that all items are present. If anything is missing, please contact your dealer.

VC-1-SC itself



Owner's Manual



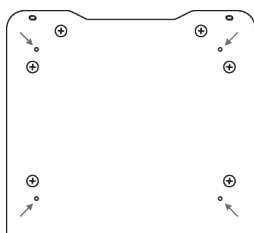
AC adaptor and power cord



Rubber feet



- * The rubber feet are arranged onto one pad. Remove each one from the pad if you wish to install them.
- * Attach the included rubber feet to the locations of bottom panel below as needed.



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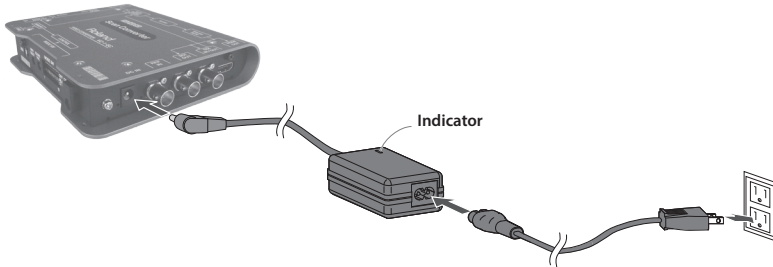
About the Power Supply

Connecting the AC Adaptor

Connect the AC Adaptor as shown in the figure below.

Place the AC adaptor so the side with the indicator (see illustration) faces upwards and the side with textual information faces downwards.

The indicator will light when you plug the AC adaptor into an AC outlet.



Ground terminal

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 this device, or the metal portions of other objects. 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" leaflet.



Unsuitable places for connection

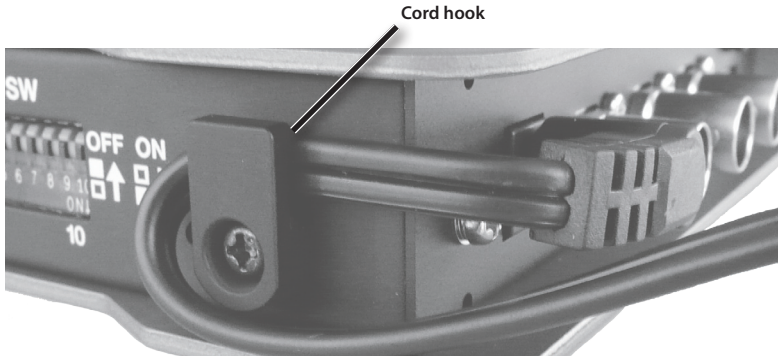
- Water pipes (may result in shock or electrocution)
- Gas pipes (may result in fire or explosion)
- Telephone-line ground or lightning rod (may be dangerous in the event of lightning)

About Securing the Power Cord

You can use either of the two methods described below to secure the power cord in place. Doing this can prevent inadvertent disruption of power to your unit (should the plug be pulled out accidentally) and avoid applying undue stress to the DC IN jack.

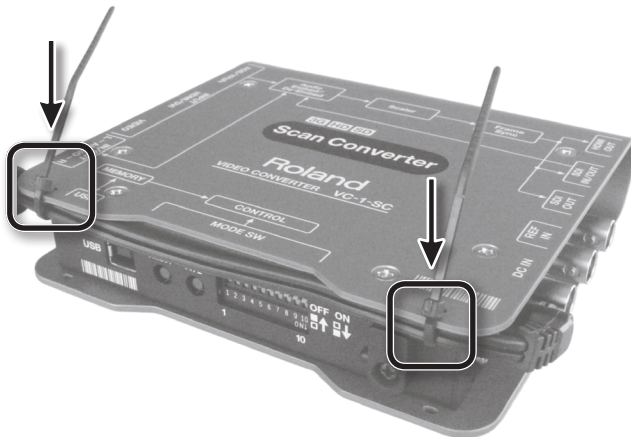
Securing using the cord hook

You can secure the cord in place as shown below.



Securing using the holes in the top/bottom panel

You can secure the cord using the holes in the top or bottom panel, as shown below.



About the Power Supply

Turning the Power On and Off

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

- * This unit is equipped with a protection circuit. A brief interval (a few seconds) after turning the unit on is required before it will operate normally.
- * Before turning the unit on/off, always be sure to turn the volume down. Even with the volume turned down, you might hear some sound from the audio output when switching the unit on/off. However, this is normal and does not indicate a malfunction.

Turning the power on

1. Connect the peripheral devices.

Connect any video cameras and other equipments. To prevent malfunction and equipment failure, turn off all the units before making any connections.

2. Turn on the power to the VC-1-SC.

Inserting the power cord starts the VC-1-SC.

3. Turn on the power to external equipment.

Turn on the power to the external devices connected to the VC-1-SC.

Turning the power off

1. Turn off the power to external equipment.

Turn off the power to the external devices connected to the VC-1-SC.

2. Turn off the power to the VC-1-SC.

Disconnecting the power cord turns off the power.

About AUTO OFF

The power to this unit will be turned off automatically after a predetermined amount of time (240 minutes) has passed since the last input of signal or others (AUTO OFF function). AUTO OFF function activates under following conditions.

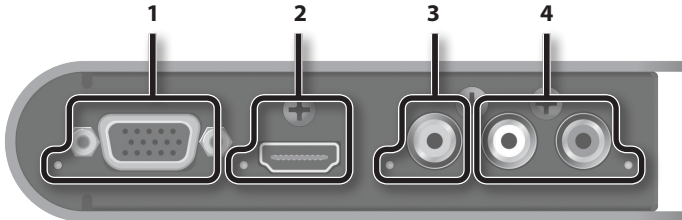
- Mode switch (MODE SW) 10 (CONTROL) is set to "ON"
- No USB connection to a computer
- No video input
- No audio input

To turn on the power again, disconnect and reinsert the power cord.

- * To disable the AUTO OFF function, set mode switch 10 (CONTROL) to "OFF" (p. 26).
You can also use dedicated remote-control software (VC-1 RCS) to change this setting (p. 24).

Panel Descriptions

Front Panel



cf.

For information on what the colors and the lighted and flashing states of the indicators mean, refer to "Indicator Colors/Operation" (p. 16).

1. RGB/YPbPr INPUT connector/indicator

Connect RGB signals from a computer, analog-component signals from a video camera, or other such equipment.

2. HDMI/DVI INPUT connector/indicator

Connect a video camera or other HDMI source equipment.

You can also input DVI-D signals from a computer by using a conversion cable.

3. VIDEO INPUT jack/indicator

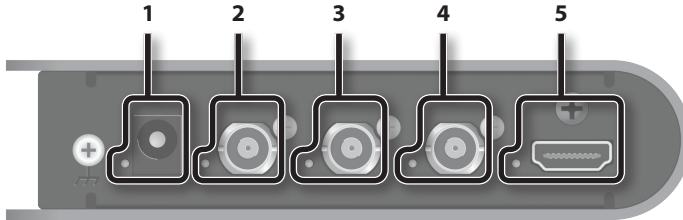
Connect composite signals from a video camera or other such equipment.

4. AUDIO IN/OUT jacks/indicator

Connect video-camera audio signals or the like.

You can switch between input (embedding) and output (de-embedding) by operating mode switch 1 (MODE SW 1; p. 25).

Rear Panel



1. DC IN jack/indicator

Connect the included AC Adaptor. The indicator lights up when the VC-1-SC is receiving power.

2. REF IN connector/indicator

Connect a clock source device for synchronization.

* It is possible to use this unit as a frame synchronizer when supported sync signal is input.

3. SDI OUT connector/indicator

Connect a video deck, monitor, or other SDI input equipment.

4. SDI IN/OUT connector/indicator

This functions as input when SDI input has been selected and as output at other times.

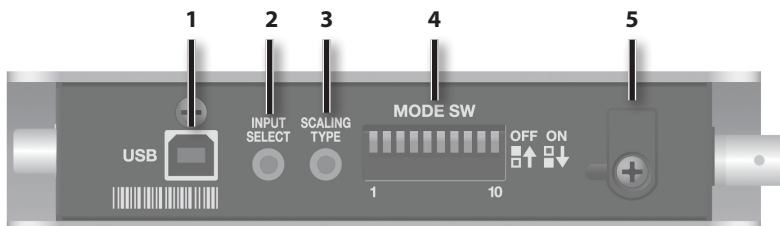
When using this for input, connect a video camera or other SDI source equipment.

When using this for output, connect a video deck, monitor, or other SDI input equipment.

5. HDMI OUT connector/indicator

Connect a TV monitor or other HDMI input equipment.

Side Panel



1. USB port

Connect a computer used for remote control (p. 24).

- * Operating the VC-1-SC by remote control requires downloading of the dedicated software (VC-1 RCS) and installing it on a computer. You can download the dedicated software from the following Roland website.

<http://www.rolandsystemsgroup.net/>

2. INPUT SELECT switch

Each press switches the input connector. Refer to “Setting the Operation Mode” (p. 25).

- * If the switch is difficult to press, use the tip of a pen or other narrow object to press it.

3. SCALING TYPE switch

Each press changes the screen aspect (scaling). Refer to “Setting the Operation Mode” (p. 25).

- * If the switch is difficult to press, use the tip of a pen or other narrow object to press it.

4. Mode switches (MODE SW)

These set the VC-1-SC's operation mode. Refer to “Setting the Operation Mode” (p. 25).

- * Use the tip of a pen or similar object to change the setting of a switch.

5. Cord hook

Use this to secure the AC Adaptor cord in place. Refer to “About Securing the Power Cord” (p. 11).

Panel Descriptions

Indicator Colors/Operation

SDI IN/OUT

Red	SD-SDI input/output	
Orange	HD-SDI input/output	
Green	3G-SDI input/output	
SDI IN	Lighted	Proper input
	Flashing	Input connector selected (no input)
SDI OUT	Lighted	Proper output
	Flashing	Cannot output properly

HDMI IN/OUT

Red	RGB input/output
Orange	YCC 444 input/output
Green	YCC 422 input/output
Flashing	Cannot input/output properly because of no HDCP support or input connector selected (no input)
Unlighted	Input connector unselected

AUDIO IN/OUT

Green/lighted	-24 dB input/output
Red/lighted	-6 dB input/output

REF IN

Lighted	The unit locks to clock from the source device
Flashing	Unsupported clock is input
Unlighted	No input via REF IN (video input locked or free-run)

RGB/YPbPr IN

Red	RGB input
Green	YPbPr input
Lighted	Input connector selected (no input)
Unlighted	Input connector unselected

VIDEO IN

Lighted	Signal input
Flashing	Input connector selected (no input)
Unlighted	Input connector unselected

About Input/Output Formats

Input Formats

RGB/YPbPr IN connector

YPbPr	1920 x 1080	60p, 59.94p, 50p, 60i, 59.94i, 50i, 24PsF, 23.98PsF
	1280 x 720	60p, 59.94p, 50p
	720 x 480	59.94p, 59.94i
	720 x 576	50p, 50i
RGB	640 x 480	60, 72, 75, 85 Hz
	800 x 600	56, 60, 72, 75, 85 Hz
	1024 x 768	60, 70, 75, 85 Hz
	1280 x 768	60, 75, 85 Hz
	1360 x 768	60 Hz
	1152 x 864	75 Hz
	1400 x 900	60, 75, 85 Hz
	1280 x 960	60, 85 Hz
	1280 x 1024	60, 75 Hz
	1400 x 1050	60, 75 Hz
	1680 x 1050	60 Hz
	1600 x 1200	60 Hz
	1920 x 1200	60 Hz Reduced blanking

* RGB IN compatible only with input compliant with VESA DMT Version 1.0 Revision 11.

SDI IN connector

Video	1920 x 1080	60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.98p, 60i, 59.94i, 50i, 24PsF, 23.98PsF
	1280 x 720	60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.98p
	720 x 487	59.94i
	720 x 576	50i
Audio	Linear PCM, 24 bits/48 kHz, 16 channels	

HDMI/DVI IN connector

HDMI	1920 x 1080	60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.98p, 60i, 59.94i, 50i
	1280 x 720	60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.98p
	720 x 480	59.94p, 59.94i
	720 x 576	50p, 50i
DVI	640 x 480	60, 72, 75, 85 Hz
	800 x 600	56, 60, 72, 75, 85 Hz
	1024 x 768	60, 70, 75, 85 Hz
	1280 x 768	60, 75, 85 Hz
	1360 x 768	60 Hz
	1152 x 864	75 Hz
	1400 x 900	60, 75, 85 Hz
	1280 x 960	60, 85 Hz
	1280 x 1024	60, 75 Hz
	1400 x 1050	60, 75 Hz
	1680 x 1050	60 Hz
	1600 x 1200	60 Hz
	1920 x 1200	60 Hz Reduced blanking
Audio	Linear PCM, 24 bits/48 kHz, 8 channels	

- * The VC-1-SC supports HDCP (High-bandwidth Digital Content Protection system). When an HDCP-applied signal is input, output is possible from only the HDMI OUT connector. Output from the SDI OUT connector and AUDIO OUT connectors is stopped.

VIDEO IN jack

Video	NTSC, PAL
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AUDIO IN jacks

Analog audio	Nominal input level	-6 dBV
	Maximum input level	+6 dBV
	Input impedance	22 k Ω

About Input/Output Formats

Output Formats

SDI OUT connectors

Video	1920 x 1080	59.94p, 50p, 59.94i, 50i
	1280 x 720	59.94p, 50p
	720 x 487	59.94i
	720 x 576	50i
Audio	Linear PCM, 24 bits/48 kHz, 2 channels	

HDMI OUT connector

Video	1920 x 1080	59.94p, 50p, 59.94i, 50i
	1280 x 720	59.94p, 50p
	720 x 480	59.94i
	720 x 576	50i
Audio	Linear PCM, 24 bits/48 kHz, 2 channels	

AUDIO OUT jacks

Analog audio	Nominal output level	-6 dBV
	Maximum output level	+6 dBV
	Output impedance	2.2 k Ω

Connecting External Equipment

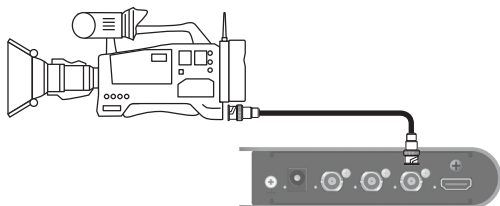
MEMO

For information on operation modes refer to "Setting the Operation Mode" (p. 25).

Connecting Source Equipment

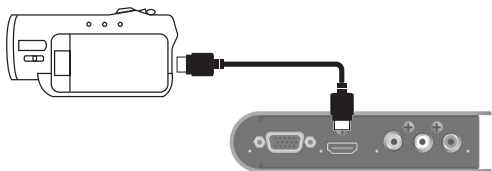
Connecting SDI equipment

Connect a video camera or other device capable of SDI output to the SDI IN connector.



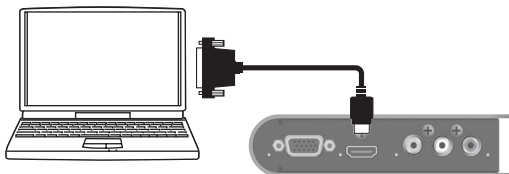
Connecting HDMI equipment

Connect a video camera or other device capable of HDMI output to the HDMI INPUT connector.



Connecting DVI equipment

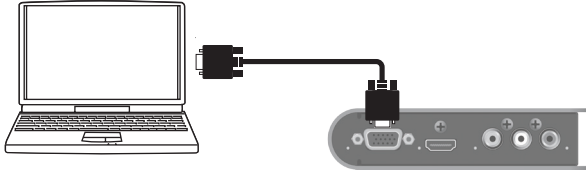
Using a conversion cable, connect a computer or other equipment capable of DVI output to the HDMI/DVI INPUT connector.



Connecting External Equipment

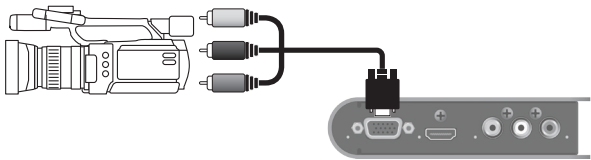
Connecting RGB equipment

Connect a computer or other equipment capable of RGB output to the RGB/YPbPr INPUT connector.

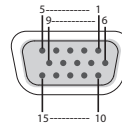


Connecting component equipment

Using a conversion cable, connect equipment capable of component output to the RGB/YPbPr INPUT connector.



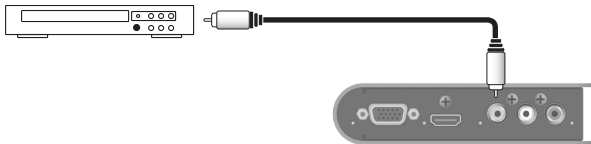
Female connector



- 1: Pr
- 2: Y
- 3: Pb
- 6: GND (Pr)
- 7: GND (Y)
- 8: GND (Pb)

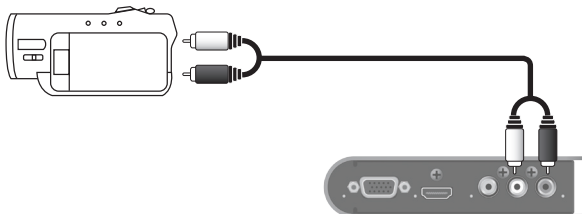
Connecting composite equipment

Connect equipment capable of composite output to the VIDEO INPUT jack.



Connecting audio source equipment

Connect analog audio output from a video camera or other equipment to the AUDIO IN jacks.

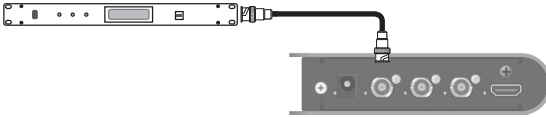


Set MODE SW 1 (p. 25) to "OFF" to switch to AUDIO IN jacks.

Connecting a clock source

Connect a clock source to the REF IN connector. The VC-1-SC supports the following external clocks.

- Black burst
- Bi-level/Tri-level synchronization



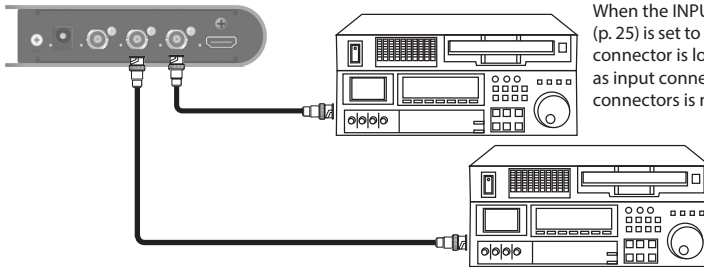
NOTE

Never input a signal that includes video. Doing so might cause synchronization to be lost.

Connecting Output Equipment

Connecting SDI equipment

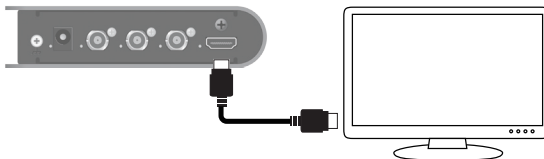
Connect a video deck or other equipment capable of SDI input to the SDI OUT connector.



When the INPUT SELECT switch (p. 25) is set to Auto, the SDI IN/OUT connector is locked to operation as input connector. Use as output connectors is not possible.

Connecting HDMI equipment

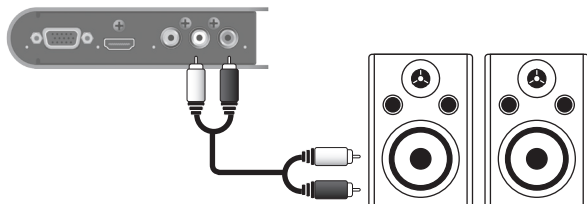
Connect a TV monitor or other equipment capable of HDMI input to the HDMI OUT connector.



Connecting External Equipment

Connecting audio output equipment

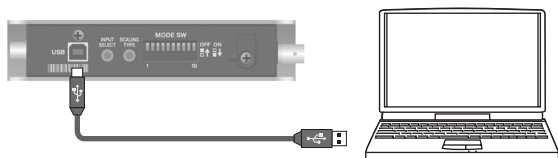
Connect powered speakers or the like to the AUDIO OUT jacks.



Set MODE SW 1 (p. 25) to "ON" to switch to AUDIO OUT jacks.

Connecting a Computer for Remote Control

Connect a computer for remote control to the USB port.



* Operating the VC-1-SC by remote control requires downloading of the dedicated software (VC-1 RCS) and installing it on a computer. You can download the dedicated software from the following Roland website.

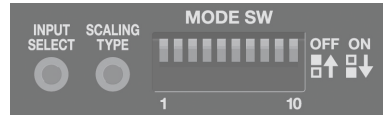
<http://www.rolandsystemsgroup.net/>

MEMO

The VC-1 RCS enables you to make detailed settings that cannot be made using the unit's mode switches. The values of the settings are saved to the unit's internal memory. You can use such saved settings even when you are using the unit alone, without connecting a computer.

Setting the Operation Mode

Use the mode switches (MODE SW) on the side panel to set the operation mode of the VC-1-SC. By default, only switch 10 is set to "ON." Before making any setting changes, first set switch 10 to "OFF."



INPUT SELECT switch

Each press switches the input connector as shown below.

Auto → SDI IN → HDMI/DVI IN → RGB/YpPr IN → VIDEO IN → Auto →

* The indicator for the currently selected connector flashes or lights up steadily.

NOTE

When the Auto setting has been made, the SDI IN/OUT connector is locked to operation as input connector. Use as output connector is not possible. Also, when the Auto setting is in effect, never make simultaneous connections to multiple input connectors.

SCALING TYPE switch

Each press changes the screen aspect (scaling) as shown below.

Full (full-screen output, regardless of differences in input and output aspect)

→ Letterbox (black borders inserted according to differences in input and output aspect)

→ Cropped (parts of the screen cut off according to differences in input and output aspect)

→ Dot by dot (output as-is, with no scaling performed)

→ Full →

MODE SW 1

This specifies audio input and output (embedding/de-embedding).

OFF	Audio jacks are used for input (embedding).
ON	Audio jacks are used for output (de-embedding).

MODE SW 2

This specifies the groups for embedding/de-embedding the SDI audio.

OFF	8 channels of Group 1 and Group 2
ON	8 channels of Group 3 and Group 4

MODE SW 3/4

These specify the channels for embedding/de-embedding the audio.

3	OFF	4	OFF	Channels 1 and 2
3	ON	4	OFF	Channels 3 and 4
3	OFF	4	ON	Channels 5 and 6
3	ON	4	ON	Channels 7 and 8

Setting the Operation Mode

MODE SW 5

This specifies the frame rate of output.

OFF	59.94 Hz
ON	50 Hz

MODE SW 6/7

This specifies the output resolution.

6	OFF	7	OFF	Output at SD resolution
6	ON	7	OFF	Output at 1280 x 720 progressive resolution
6	OFF	7	ON	Output at 1920 x 1080 interlaced resolution
6	ON	7	ON	Output at 1920 x 1080 progressive resolution

MODE SW 8

This specifies the setup level for composite input and SD component input.

* This is valid only for NTSC input and 480i input.

OFF	Used mainly in Japan
ON	Used mainly in NTSC regions other than Japan

MODE SW 9

This specifies the type of 3G-SDI output coming out from the SDI OUT connector.

* The signal type of SDI IN is detected automatically.

OFF	Output with Level A mapping structure
ON	Output with Level B mapping structure

MODE SW 10

This specifies the control mode.

* This also enables/disables the AUTO OFF function (p. 12).

OFF	Mode is controlled by switches 1–9.
ON	The unit operates according to the settings in the internal memory (Set with VC-1 RCS software).

Appendices

Main Specifications

Input/Output formats

Refer to “About Input/Output Formats” (p. 18).

Input connectors

SDI	BNC type x 1 (combined use with one output connector)
HDMI/DVI	Type A (19 pins) x 1
RGB/YPbPr	15-pin mini D-Sub type x 1
VIDEO	RCA phono type x 1
AUDIO	RCA phono type x 1 pair (L/R) (combined use with output jacks)

Output connectors

SDI	BNC type x 2 (one in combined use with input connector)
HDMI	Type A (19 pins) x 1
AUDIO	RCA phono type x 1 pair (L/R) (combined use with input jacks)

Other connectors

Reference (REF IN)	BNC type x 1
USB	Type B (Hi-Speed USB) x 1

Signal standards

SDI	SMPTE 424M (SMPTE 425M-AB), SMPTE 292M, SMPTE 259M-C
Reference (REF IN)	Black Burst, bi-level/tri-level

Appendices

Signal level/impedance

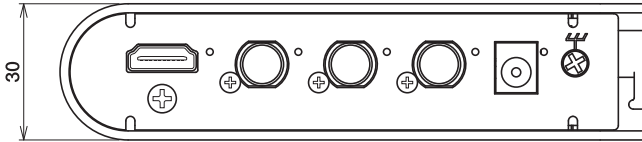
Analog Audio	Nominal Input Level	-6 dBV
	Maximum Input Level	+6 dBV
	Input Impedance	22 k Ω
Reference (REF IN)	Output Impedance	75 Ω

Others

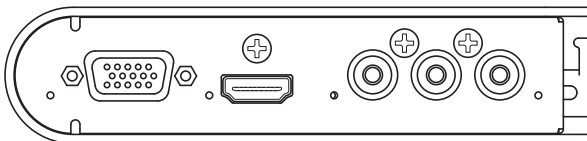
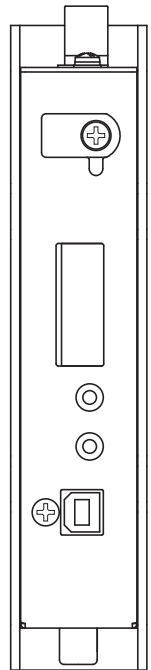
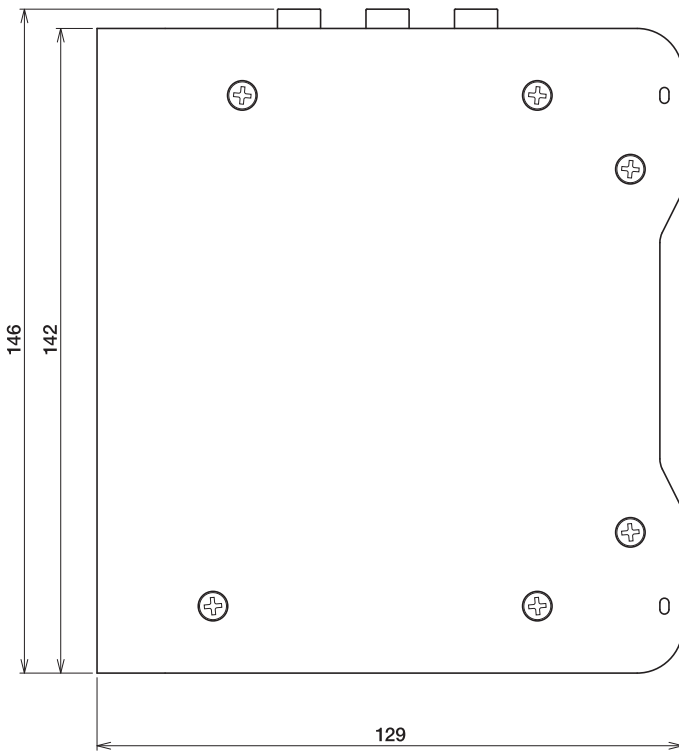
Power Supply	DC 9 V (AC Adaptor)
Power Consumption	18 W
Dimensions	150 (W) x 130 (D) x 30 (H) mm 5-15/16 (W) x 5-1/8 (D) x 1-3/16 (H) inches
Weight	500 g 1 lb 2 oz (excluding AC adaptor)
Operation Temperature	± 0 –+40 degrees Celsius
Accessories	AC adaptor, Power Cord, Rubber Foot (four), Owner's Manual

* In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.

Dimensions



Unit: mm



Troubleshooting

Nothing is output from the SDI OUT connector.

Is an HDCP-applied signal being input via the HDMI IN connector?

The VC-1-SC supports HDCP, and when an HDCP-applied signal is input, output via the SDI OUT connector stops. When this happens, output is made only via the HDMI OUT connector.

No audio from the HDMI IN connector is output.

Does the connected HDMI source device support linear PCM output?

The VC-1-SC supports linear PCM at only 48 kHz. Accordingly, if a different format is input, audio might not be output.

After a period of no operation, the unit turned itself off.

Is the AUTO OFF function activated?

By default, the AUTO OFF function is set to ON. When the unit is to be left powered up for a long time, set mode switch 10 to "OFF" to turn off the AUTO OFF function.

Settings cannot be changed using the mode switches.

Is mode switch 10 at the "ON" position?

When making setting changes, be sure to set switch 10 to "OFF"

The volume level of the equipment connected to AUDIO IN/OUT jacks is too low.

Could you be using a connection cable that contains a resistor?

Use a connection cable that does not contain a resistor.



This product complies with the requirements of EMC Directive 2004/108/EC.

For EU Countries

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

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

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment requires shielded interface cables in order to meet FCC class B limit.

Any unauthorized changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For the USA

For Canada

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

For Korea

사용자 안내문

기종별	사용자 안내문
B 급 기기 (가정용 방송통신기자재)	이 기기는 가정용(B 급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

For C.A. US (Proposition 65)

WARNING

This product contains chemicals known to cause cancer, birth defects and other reproductive harm, including lead.

For the USA

DECLARATION OF CONFORMITY Compliance Information Statement

Model Name : VC-1-SC
 Type of Equipment : Video Converter
 Responsible Party : Roland Systems Group U.S.
 Address : 5100 S.Eastern Avenue, Los Angeles, CA 90040-2938, U.S.A.
 Telephone : (323) 890 3700

For EU Countries



- UK** This symbol indicates that in EU countries, this product must be collected separately from household waste, as defined in each region. Products bearing this symbol must not be discarded together with household waste.
- DE** Dieses Symbol bedeutet, dass dieses Produkt in EU-Ländern getrennt vom Hausmüll gesammelt werden muss gemäß den regionalen Bestimmungen. Mit diesem Symbol gekennzeichnete Produkte dürfen nicht zusammen mit dem Hausmüll entsorgt werden.
- FR** Ce symbole indique que dans les pays de l'Union européenne, ce produit doit être collecté séparément des ordures ménagères selon les directives en vigueur dans chacun de ces pays. Les produits portant ce symbole ne doivent pas être mis au rebut avec les ordures ménagères.
- IT** Questo simbolo indica che nei paesi della Comunità europea questo prodotto deve essere smaltito separatamente dai normali rifiuti domestici, secondo la legislazione in vigore in ciascun paese. I prodotti che riportano questo simbolo non devono essere smaltiti insieme ai rifiuti domestici. Ai sensi dell'art. 13 del D.Lgs. 25 luglio 2005 n. 151.
- ES** Este símbolo indica que en los países de la Unión Europea este producto debe recogerse aparte de los residuos domésticos, tal como está regulado en cada zona. Los productos con este símbolo no se deben depositar con los residuos domésticos.
- PT** Este símbolo indica que nos países da UE, a recolha deste produto deverá ser feita separadamente do lixo doméstico, de acordo com os regulamentos de cada região. Os produtos que apresentem este símbolo não deverão ser eliminados juntamente com o lixo doméstico.
- NL** Dit symbool geeft aan dat in landen van de EU dit product gescheiden van huishoudelijk afval moet worden aangeboden, zoals bepaald per gemeente of regio. Producten die van dit symbool zijn voorzien, mogen niet samen met huishoudelijk afval worden verwijderd.
- DK** Dette symbol angiver, at i EU-lande skal dette produkt opsamles adskilt fra husholdningsaffald, som defineret i hver enkelt region. Produkter med dette symbol må ikke smides ud sammen med husholdningsaffald.
- NO** Dette symbolet indikerer at produktet må behandles som spesialavfall i EU-land, iht. til retningslinjer for den enkelte regionen, og ikke kastes sammen med vanlig husholdningsavfall. Produkter som er merket med dette symbolet, må ikke kastes sammen med vanlig husholdningsavfall.


- SE** Symbolen anger att i EU-länder måste den här produkten kasseras separat från hushållsavfall, i enlighet med varje regions bestämmelser. Produkter med den här symbolen får inte kasseras tillsammans med hushållsavfall.
- FI** Tämä merkintä ilmaisee, että tuote on EU-maissa kerättävä erillään kotitalousjätteenä kunkin alueen voimassa olevien määräysten mukaisesti. Tämä merkintällä varustettuja tuotteita ei saa hävittää kotitalousjätteen mukana.
- HU** Ez a szimbólum azt jelenti, hogy az Európai Unióban ezt a terméket a háztartási hulladéktól elkülönítve, az adott régióban érvényes szabályozás szerint kell gyűjteni. Az ezzel a szimbólummal ellátott termékeket nem szabad a háztartási hulladék közé dobni.
- PL** Symbol oznacza, że zgodnie z regulacjami w odpowiednim regionie, w krajach UE produktu nie należy wyrzucać z odpadami domowymi. Produktów opatrzonych tym symbolem nie można utylizować razem z odpadami domowymi.
- CZ** Tento symbol udává, že v zemích EU musí být tento výrobek sbírán odděleně od domácího odpadu, jak je určeno pro každý region. Výrobky nesoucí tento symbol se nesmí vyhazovat spolu s domácím odpadem.
- SK** Tento symbol vyjadruje, že v krajinách EÚ sa musí zber tohto produktu vykonávať oddelene od domového odpadu, podľa nariadení platných v konkrétnej krajine. Produkty s týmto symbolom sa nesmú vyhazovať spolu s domovým odpadom.
- EE** See sümbol näitab, et EL-i maades tuleb see toode olemprügist eraldi koguda, nii nagu on ligas piirkonnas määratletud. Selle sümboliga märgitud tooteid ei tohi ära visata koos olemprügiga.
- LT** Šis simbolis rodo, kad ES valstīs šis produkts turi būti surenkamas atskirai nuo buitinio atliekų, kaip nustatyta kiekviename regione. Šiuo simboliu paženklininti produktai neturi būti išmetami kartu su buitinėmis atliekomis.
- LV** Šis simbols norāda, ka ES valstīs šo produktu jāievie atsevišķi no mājsaimniecības atkritumiem, kā noteikts katrā reģionā. Produktus ar šo simbolu nedrīkst iznest kopā ar mājsaimniecības atkritumiem.
- SI** Ta simbol označuje, da je treba proizvodov v državah EU zbrati ločeno od gospodinjinskih odpadkov, tako kot je določeno v vsaki regiji. Proizvoda s tem znakom ni dovoljeno odlagati skupaj z gospodinjinskimi odpadki.
- GR** Το σύμβολο αυτό υποδηλώνει ότι στις χώρες της Ε.Ε. το συγκεκριμένο προϊόν πρέπει να συλλέγεται χωριστά από τα απόβλητα οικιακά απορριμμάτων, σύμφωνα με όσα προβλέπονται σε κάθε περιοχή. Τα προϊόντα που φέρουν το συγκεκριμένο σύμβολο δεν πρέπει να απορριπτούν μαζί με τα οικιακά απορριμμάτα.

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限。所谓环保使用期限是指在自制造日起的规定的期限内，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)	×	○	○	○	○	○
电子部件(印刷电路板等)	×	○	×	○	○	○
附件(电源线、交流适配器等)	×	○	○	○	○	○

○：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。
×：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。

