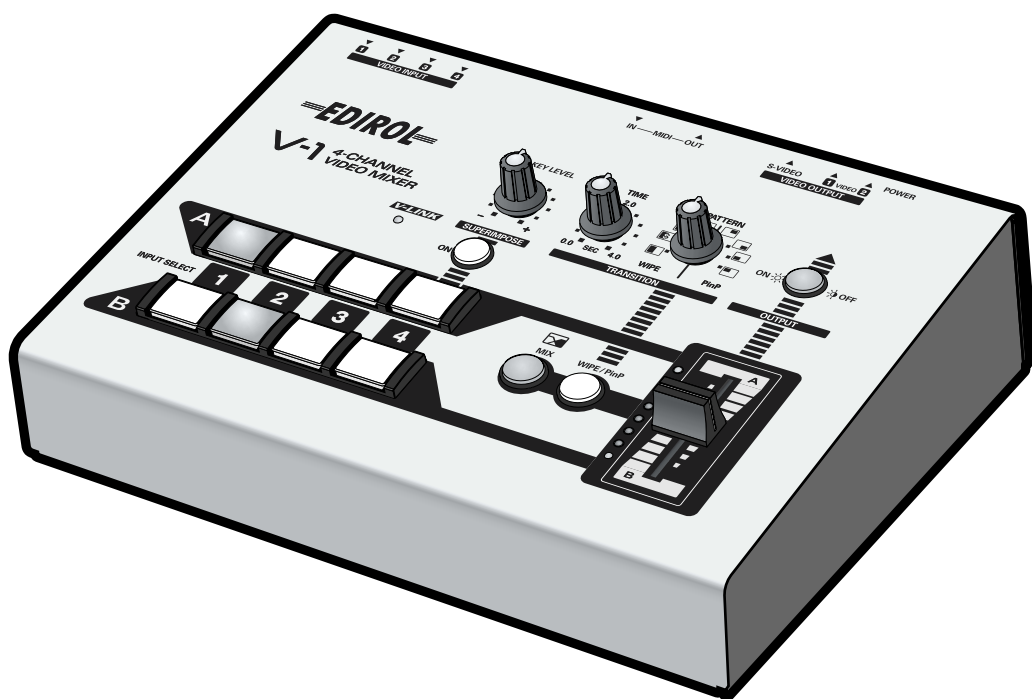


V-1

4-CHANNEL VIDEO MIXER

OWNER'S MANUAL

Before using this unit, carefully read the sections entitled: "USING THE UNIT SAFELY" and "IMPORTANT NOTES" (Owner's manual p. 3 - p. 5). 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 provided by your new unit, Owner's manual should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.



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For the U.K.

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

BLUE: NEUTRAL
BROWN: LIVE

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

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

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

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

For EU Countries



This product complies with the requirements of European Directive 89/336/EEC.

For the USA

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

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

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

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

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

Unauthorized changes or modification to this system can void the users authority to operate this equipment.
This equipment requires shielded interface cables in order to meet FCC class B Limit.

For Canada

NOTICE



This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.



AVIS

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.







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

- Before using this unit, make sure to read the instructions below, and the Owner's Manual. 
- Do not open (or modify in any way) the unit or its AC adaptor. 
- Do not attempt to repair the unit, or replace parts within it (except when this manual provides specific instructions directing you to do so). Refer all servicing to your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page. 
- Never use or store the unit in places that are:
 - 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 
 - Humid; or are
 - Exposed to rain; or are
 - Dusty; or are
 - Subject to high levels of vibration.
- Make sure you always have the unit placed so it is level and sure to remain stable. Never place it on stands that could wobble, or on inclined surfaces. 
- 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 attached power-supply cord. Also, the supplied power cord must not be used with any other device. 

- Do not excessively twist or bend the power cord, nor place heavy objects on it. Doing so can damage the cord, producing severed elements and short circuits. Damaged cords are fire and shock hazards! 
- Do not allow any objects (e.g., flammable material, coins, pins); or liquids of any kind (water, soft drinks, etc.) to penetrate the unit. 
- Immediately turn the power off, 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" page when:
 - The AC adaptor, the power-supply cord, or the plug has been damaged; or
 - If smoke or unusual odor occurs
 - 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.
- In households with small children, an adult should provide supervision until the child is capable of following all the rules essential for the safe operation of the unit. 
- Protect the unit from strong impact. (Do not drop it!) 

- Do not force the unit's power-supply cord to share an outlet with an unreasonable number of other devices. Be especially careful when using extension cords—the total power used by all devices you have connected to the extension cord's outlet must never exceed the power rating (watts/amperes) for the extension cord. Excessive loads can cause the insulation on the cord to heat up and eventually melt through. 
- Before using the unit in a foreign country, consult with your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page. 

CAUTION

- The unit and the AC adaptor should be located so their location or position does not interfere with their proper ventilation. 
- Always grasp only the plug on the AC adaptor cord when plugging into, or unplugging from, an outlet or this unit. 
- At regular intervals, you should unplug the AC adaptor and clean it by using a dry cloth to wipe all dust and other accumulations away from its prongs. Also, disconnect the power plug from the power outlet whenever the unit is to remain unused for an extended period of time. Any accumulation of dust between the power plug and the power outlet can result in poor insulation and lead to fire. 
- Try to prevent cords and cables from becoming entangled. Also, all cords and cables should be placed so they are out of the reach of children. 
- Never climb on top of, nor place heavy objects on the unit. 
- Never handle the AC adaptor or its plugs with wet hands when plugging into, or unplugging from, an outlet or this unit. 
- Before moving the unit, disconnect the AC adaptor and all cords coming from external devices. 
- Before cleaning the unit, turn off the power and unplug the AC adaptor from the outlet (p. **). 
- Whenever you suspect the possibility of lightning in your area, disconnect the AC adaptor from the outlet. 
- Should you remove the screw from the ground terminal (p. 12), make sure to put them in a safe place out of children's reach, so there is no chance of them being swallowed accidentally. 

IMPORTANT NOTES

In addition to the items listed under “USING THE UNIT SAFELY” on p. 3 - p.4, please read and observe the following:

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 (such as a refrigerator, washing machine, microwave oven, or air conditioner), or that contains a motor. 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.
- Before connecting this unit to other devices, turn off the power to all units. This will help prevent malfunctions and/or damage to speakers or other devices.

Placement

- Using the unit near power amplifiers (or other equipment containing large power transformers) may induce noise or unstable image on video output. To alleviate the problem, change the orientation of this unit; or move it farther away from the source of interference.
- This device may interfere with radio and television reception. Do not use this device 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.

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.

Additional Precautions

- 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 connecting / 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.
- When you need to transport the unit, package it in the box (including padding) that it came in, if possible. Otherwise, you will need to use equivalent packaging materials.
- This device allows you to switch images or turn video effects on/off at high speed. For some people, viewing such images can cause headache, nausea, or other discomfort. Do not use this device 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.

Copyright

- Unauthorized recording, distribution, sale, lending, public performance, broadcasting, or the like, in whole or in part, of a work (musical composition, video, broadcast, public performance, or the like) whose copyright is held by a third party is prohibited by law.
- Do not use this unit 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 unit.

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Main features

The V-1 is a video mixer that lets you switch among four channels of video at will.

Four channels of video input

The V-1 provides four channels of video input jacks, with both video (composite) and S-video inputs provided for each channel. Both video (composite) and S-video connectors are also provided for the output as well.

Two independent frame synchronizers

Even if the video signals you input are unstable, the built-in frame synchronizers will correct the synchronization signal of the video. You can work without having to worry about noise caused by synchronization problems.

Simple operation

Since illuminated buttons provide confirmation of the current operating status, switching and mixing images is easy.

Picture-In-Picture

The Picture-In-Picture effect lets you show a miniaturized image inside a different image.

Superimpose

The Superimpose effect lets you remove a specified portion of an image and combine it with a different image. This provides an easy way to superimpose text from the video output of your computer.

V-LINK capability

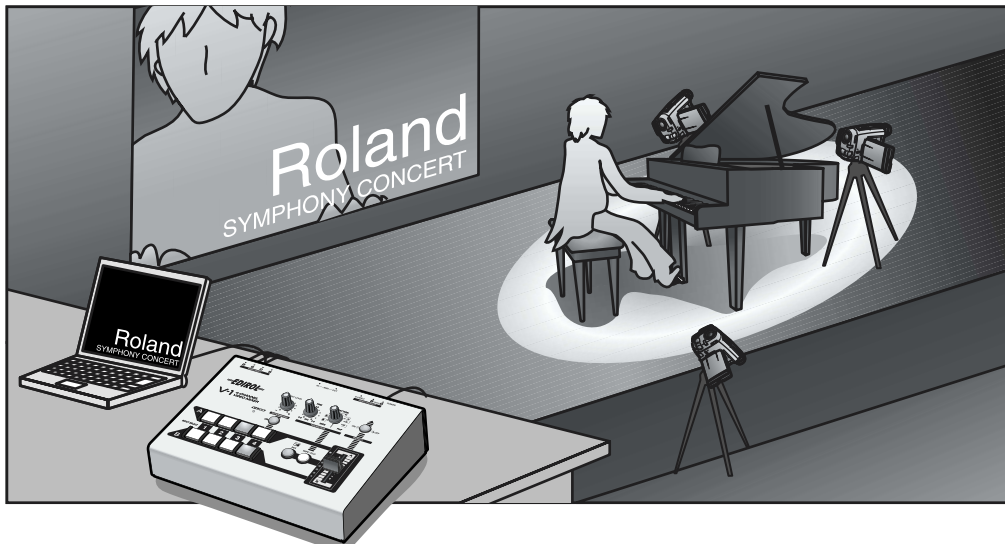
The V-1's MIDI connectors let you control the V-1 from a MIDI-equipped electronic musical instrument or other external MIDI device. When connected to a Roland or Edirol product that supports V-LINK, the V-1 can be remotely controlled as a V-LINK device.

Examples of use

In a concert

The V-1 is a great addition to a concert performance.

You can switch between images taken from video cameras at various angles, or use the video fader to smoothly move between them. The names or profiles of performers can be combined with live video using the Superimpose feature.

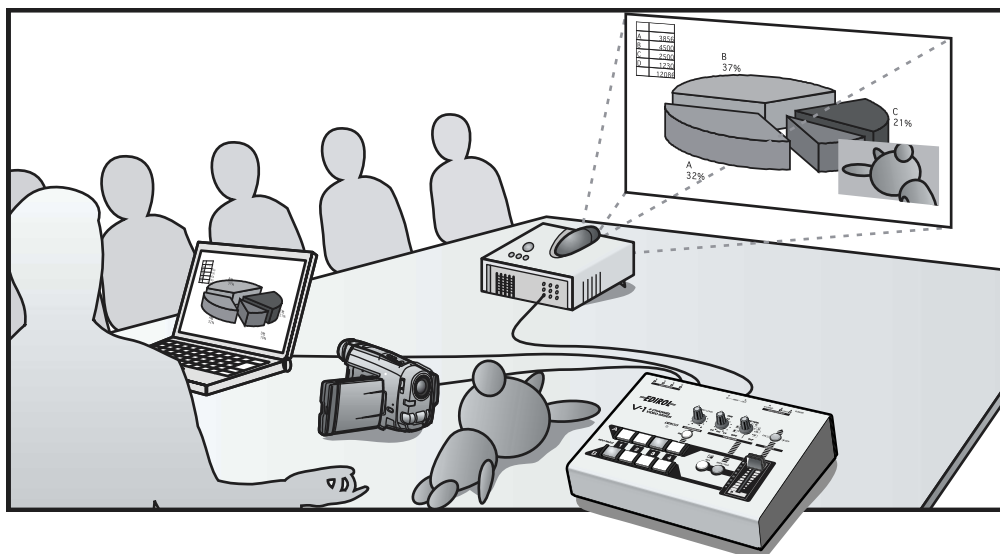


- See p. 16 for more about transitions.
- See p. 20 for more about Superimpose.

In a presentation

You can use the V-1 to add video to enhance your business presentations.

While displaying information created on your computer, you can use the Picture-In-Picture feature to add photographed images of products or people.

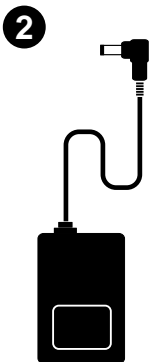
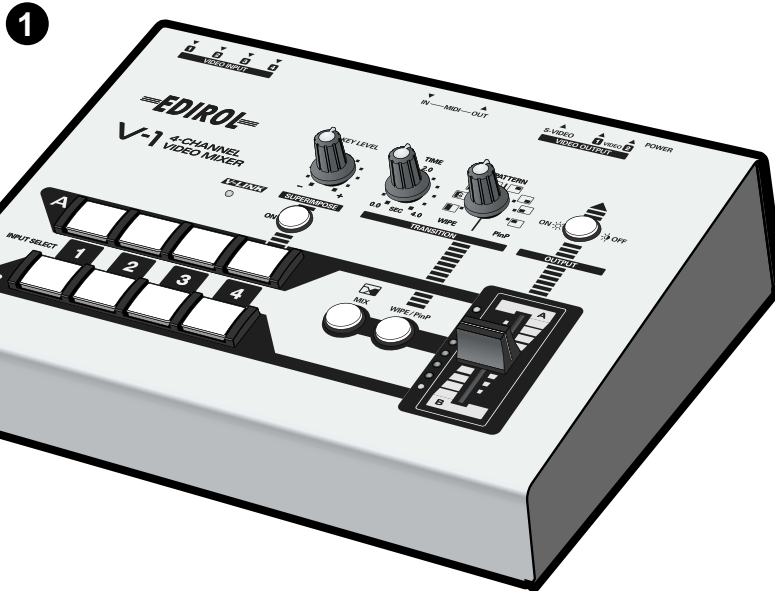


- See p. 19 for more about Picture-In-Picture.

Before you begin

Check the included items

The V-1 is shipped with the following items. Make sure that you have all of them.

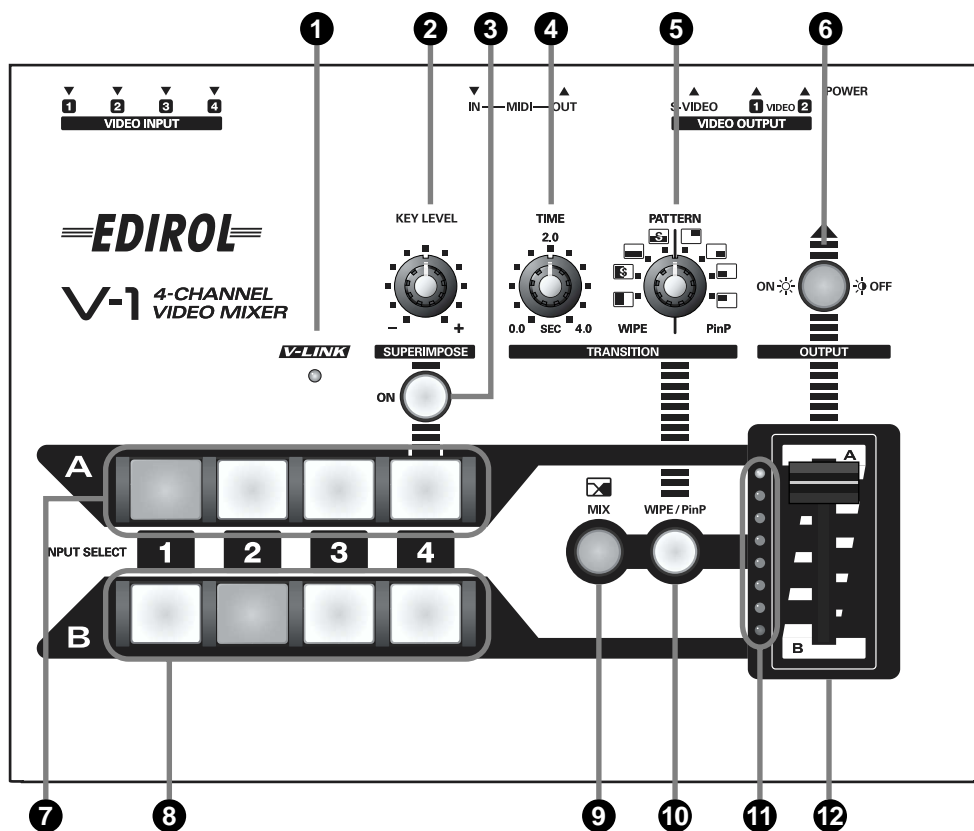


- 1 The V-1 itself
- 2 AC adaptor
- 3 Power cable
- 4 Owner's manual

Panel descriptions

Top panel

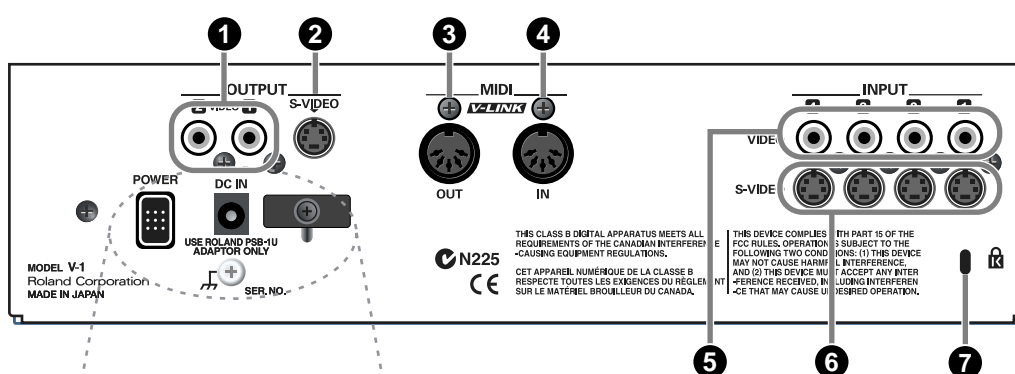
- 1 V-LINK indicator (p.23)**
Indicates the status of the V-LINK connection
- 2 Superimpose Level knob (p.20)**
Adjusts the superimpose level
- 3 Superimpose button (p.20)**
Switches the superimpose effect on/off
- 4 Transition Time knob (p.17)**
Adjusts the transition time
- 5 Transition Pattern knob (p.18, p.19)**
Specifies the type of Wipe or P in P
- 6 Output button (p. 21)**
Switches the video output on/off




- 7 "A" Input selectors (p. 17)**
Select input A
- 8 "B" Input selectors (p. 17)**
Select input B
- 9 Mix button (p. 18)**
Switches the mix
- 10 Wipe/P in P button (p. 18,p. 19)**
Wipes between images
Combines two images
- 11 Video fader indicator (p. 16)**
Indicates the position of the video fader
- 12 Video fader (p. 16)**
Switches between A and B

Rear panel

- 1 Video (composite) output jacks (p.12)**
These jacks output the video (composite) signal
- 2 S-video output jack (p.12)**
This jack outputs the video (S-video) signal
- 3 MIDI OUT connector (p.24)**
MIDI messages are output from this connector
- 4 MIDI IN connector (p.23)**
MIDI messages are received here



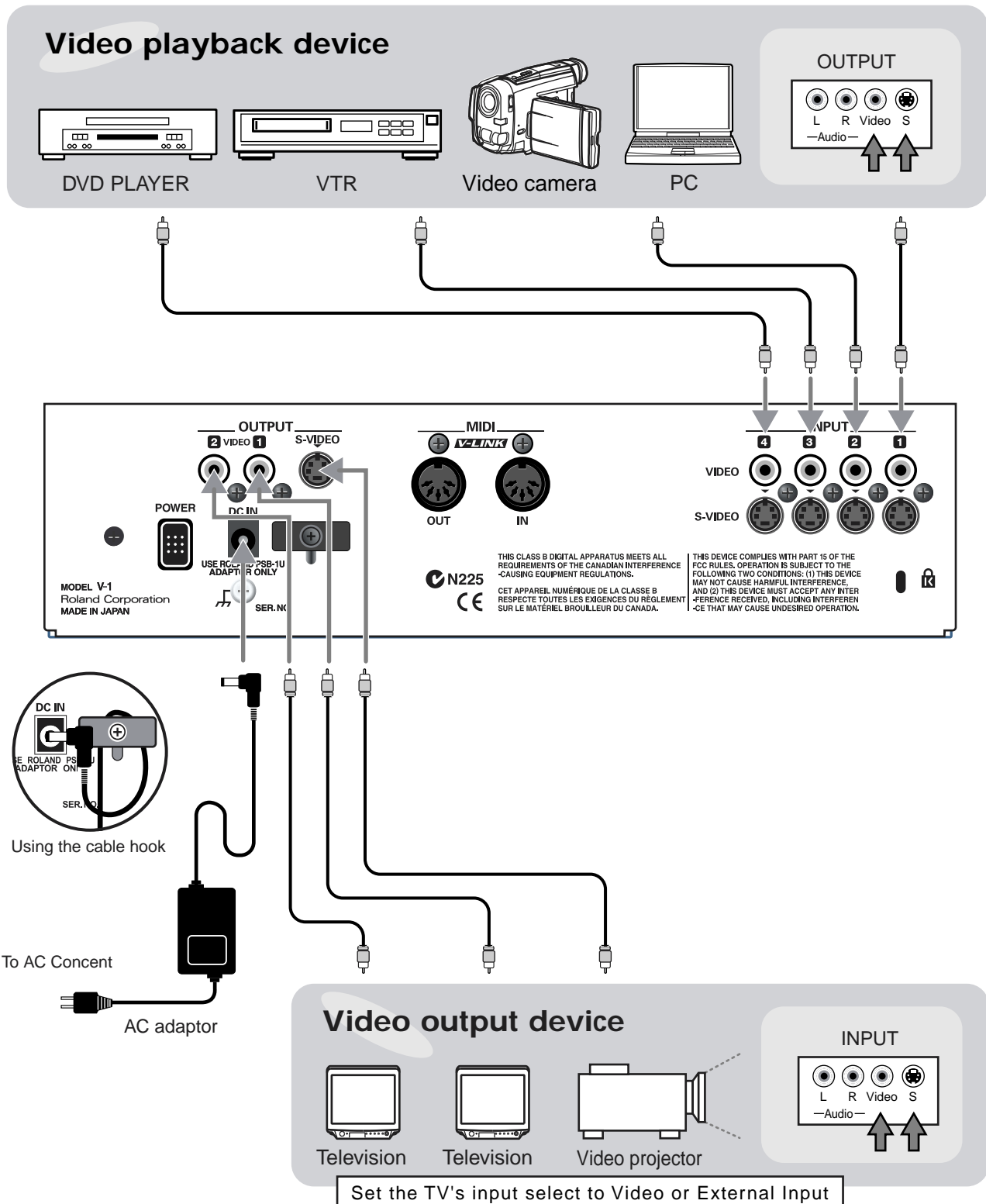
- 5 Video (composite) input jacks (p.12)**
These jacks accept the input of video (composite) signals
- 6 S-video input jacks (p.12)**
These jacks accept the input of video (S-video) signals
- 7 Theft-prevention lock receptacle**
Security Slot ()
<http://www.kensington.com/>
- 8 Power button (p.14)**
Switches the power on/off
- 9 DC In jack (p.12)**
Connect the AC adaptor here
- 10 Power cable hook (p.12)**
Use this to secure the power cable
- 11 Ground terminal (p.14)**
Connect this to an external ground

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

Connections

Making connections

Here's how to connect the V-1 to your video equipment. You can connect up to four video playback devices, such as a video camera, VCR, or DVD player, and take advantage of a wide range of creative possibilities.



1

Use the appropriate type of video cable to connect the video (composite) or S-video output jack of your video device to the V-1's input jack.

2

Use the appropriate type of video cable to connect the V-1's video (composite) or S-video output jack to the input jack of your video output device (e.g., television or video projector).

- * *The V-1 supports only signals that comply with NTSC/PAL formats. Operation may not be stable if non-compliant signals are input.*
- * *If a signal is input to both the video (composite) and S-video input jacks, the S-video signal will take priority.*
- * *To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.*
- * *The video cables needed for making connections are not included with the V-1. You will need to obtain commercially available video cables.*
- * *If the cable length is not too long, you will obtain a better image by using an S-video cable to make connections. However, if you cannot avoid using an extremely long video cable, use a video (composite) cable rather than an S-video cable.*

HINT

To prevent the inadvertent disruption of power to your unit (should the plug be pulled out accidentally), and to avoid applying undue stress to the AC adaptor jack, anchor the power cord using the cord hook, as shown in the illustration.

HINT

The V-1 does not contain an audio mixer. Connect the audio output of your video device directly to your audio system. If you want to mix the audio from two or more sources, you will need to use a commercially available audio mixer.

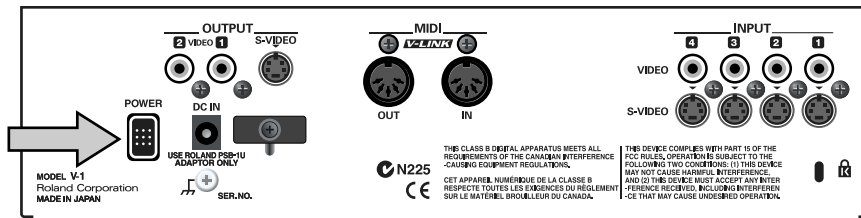
Turning the power on

Once the connections have been completed (p. 12), turn on power to your various devices in the order specified. By turning on devices in the wrong order, you risk causing malfunction and/or damage to TV monitor and other devices.

1

Check the power cable

Make sure that the power cable from the AC adaptor is firmly plugged into the V-1.



2

Press the POWER button located on the rear of the V-1.



- * Due to its circuitry-protection feature, the V-1 requires about five seconds after power-up before it is ready for normal operation.
- * The startup screen will appear in video (composite) output 2. This screen lets you check the current system settings.

Turning the power off

1

Press the rear panel POWER button

Press the POWER button located on the rear panel. All buttons and indicators on the front panel will go dark.

About the grounding connector

Depending on the conditions in which you use it, the V-1's panel may feel slightly "gritty" to the touch. This is due to an extremely low level of static electricity that poses absolutely no danger to you. However, if you find this annoying, you may connect the grounding connector to an external ground. Under some conditions, connecting an external ground may cause the video image to be disrupted. If you are not sure how to connect the ground, consult a Roland service center.

Do not connect this to the following:

- 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)

Checking the inputs and outputs

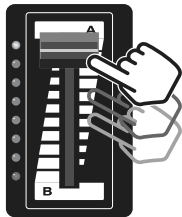
Checking the final output

Here's how to check that connections are correct.

* Before you proceed, check that your video equipment is connected as described in *Connections* (p. 12).

1

Set the video fader to "A."



2

Output an image from your video device.

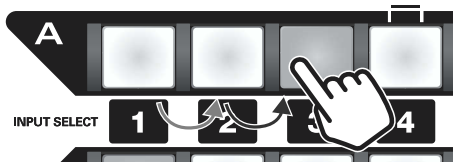
Power up the connected video device, and get it to output a video signal. If you're using a video deck or DVD player, press its Play button.

The image from the connected video device is input to an input channel of the V-1.

3

Select the channel to which the video signal is being input.

Press the Input Select "A" button for the channel that's receiving the video signal.



4

Check the output.

Power up the TV or projector that's connected to the V-1's video output connector, and verify that you see the image being output by the V-1.

If everything is working properly, the image(s) from the device(s) connected to the V-1 will be output.

* If no video signal is being input, a blue screen will be output.

5

Switch the input channel.

If more than one video source is connected to the V-1, press the Input Select A buttons to verify that each source is output.

If you don't see anything

- Make sure that the output jack of your video device is correctly connected to the V-1's input jack. (p. 12)
- Check that the video device connected to the V-1 is actually outputting an image.
- Make sure that the V-1's output jack is correctly connected to the input jack of your TV or projector.
- Make sure that you've selected the correct input on your TV or projector.
- Make sure that the video cables you're using are not broken.

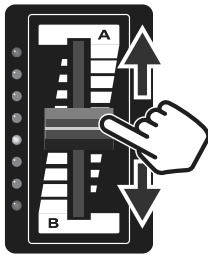
Basic operation

Transitioning between video input sources

Here's how to transition (move) between video input sources.

Using the video fader to switch video sources

If you're using a transition effect (Mix or Wipe), you can move between images A and B by moving the video fader up or down. If you're using a compositing effect (Superimpose or P in P), the video fader adjusts the transparency of the composited images.

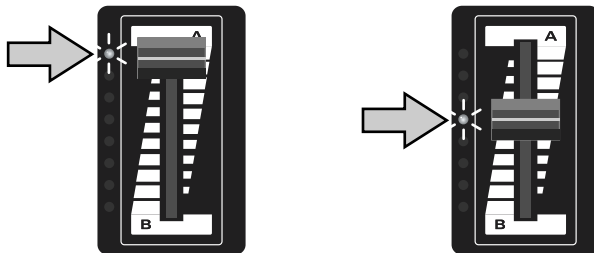


Video fader indicators

These indicate the position of the video fader. The indicators will light in one of two ways depending on the function you're using.

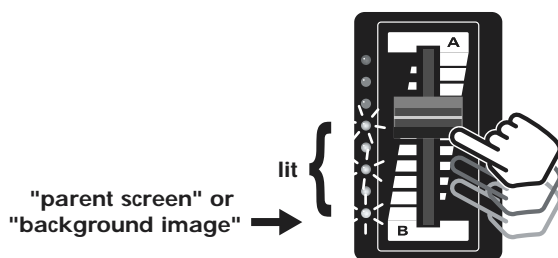
- **When using a transition effect (Mix or Wipe)**

If the video fader is all the way up (A) or down (B), a single green video fader indicator will be lit. If the video fader is between A and B, a single red video fader indicator at the left of the video fader will be lit.



- **When using a compositing effect (P in P or Superimpose)**

The green video fader indicator beside the "background image" will light. If the video fader is in the center, red video fader indicators up to that position will light.



Transition effects
Mix (p. 18)
Wipe (p. 18)



Compositing effects
P in P (p. 19)
Superimpose (p. 20)

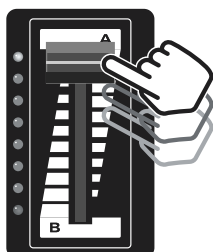
Using the input selector to switch video sources

You can use the [1] through [4] buttons to switch the video source for each channel.

1

Set the video fader to the “A” position.

The green video fader indicator for “A” will light.

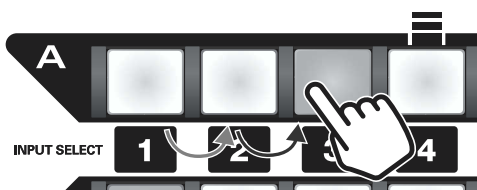


2

Press one of the “A” Input Select buttons.

Press one of the “A” Input Select buttons to choose the input channel.

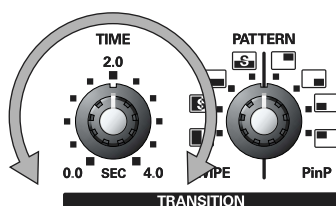
The image of the selected channel will be output, and the button will light.



- * You can switch the video source for “B” in the same way.
- * If you use the input selector to switch images when the video fader is between “A” and “B,” the image may be garbled for a moment.

Adjusting the Transition Time

When using a transition effect, you can adjust the time (0–4 seconds) over which images will change when you use the input selector. The input selector button will blink while the image transition takes place.



- * The Transition Time knob will work only when the green video fader indicator is lit.
- * If you press an unlit Input Select button while turning the Transition Time knob, the transition effect will end at that point.
- * You cannot press the Mix button or Wipe button while using the Transition Time knob to switch between images.
- * This knob is not available when you’re using a compositing function (P in P or Superimpose).

NOTE

You cannot use the video fader while using the input selector to switch between images.

MEMO

The input selector buttons blink in one of two ways depending on the function you’re using.

Blinking slowly

When using a transition time knob. The blinking ends after a fixed time.

Blinking rapidly

When using a compositing effect (P in P or Superimpose). The blinking continues.

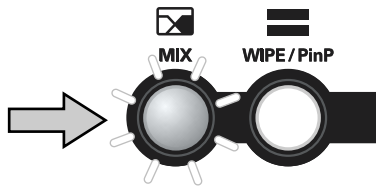
Changing the transition effect

You can make use of a variety of transition effects when using the video fader or input selector to switch images.

Mixing images

You can smoothly mix between two images.

- 1 Press the **MIX** button.
The MIX button will light.

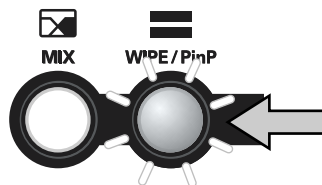


- 2 Use the video fader or input selector to switch between images.

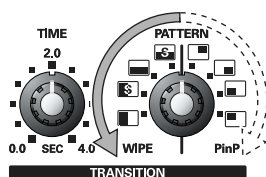
Wiping

You can “wipe” between images in a manner similar to the way a windshield wiper on a car wipes off rainwater.

- 1 Press the **WIPE / P in P** button.



- 2 Use the transition pattern knob to select the type of wipe.
Knob settings on the left side select a wipe pattern. Knob settings on the right side select P in P compositing.



Wipe Pattern

- Horizontal wipe (soft)
- Horizontal wipe
- Vertical wipe (soft)
- Vertical wipe

* The wipe will occur in a single fixed direction for each type of wipe.

- 3 Use the video fader or input selector to switch between images.

MEMO

If you use the input selector, you'll need to adjust the Transition Time knob.

MEMO

Mix



MEMO

Wipe



?

Soft wipe

This is a wipe effect in which the transition boundary is blurred. The images in the vicinity of the border will be mixed.

Using compositing effects

These effects combine images "A" and "B" into a single screen.

Using P in P (Picture In Picture) to composite two screens

This effect layers a small image (the "foreground image") on top of an image displayed in the full screen (the "background image").

As an example, here's how to layer "foreground image B" on top of "background image A."

1

Set the video fader to "A."

2

Use output selector "A" to select the background image.

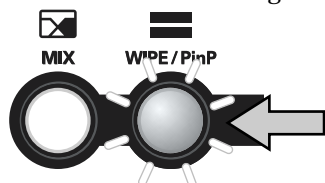
3

Use output selector "B" to select the foreground image.

4

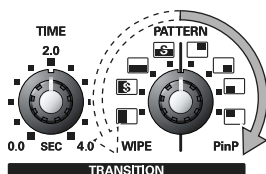
Press the WIPE/P in P button.

The Input Select "B" button for the foreground image will blink rapidly.



5

Use the transition pattern knob to select the desired P in P pattern.



P in P pattern

- upper right
- lower right
- lower left
- upper left

6

Choose one of the settings in the right half of the knob range.

Move the video fader to the "B" position.

* The setting of the Transition Time knob is ignored at this time.

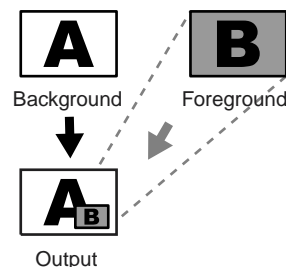
The background image and foreground image are determined as follows: the background image will be the image (A or B) to which the video fader is closest when the following two conditions are satisfied, and the other image will be the foreground image.

- The WIPE / P in P button is pressed and lit

* If you want to layer image "A" on top of image "B," simply exchange "A" and "B" in the procedure described above.

MEMO

P in P



MEMO

The input selector buttons blink in one of two ways depending on the function you're using.

Blinking slowly

When using a transition time knob. The blinking ends after a fixed time.

Blinking rapidly

When using a compositing effect (P in P or Superimpose). The blinking continues.

Superimposing text on the screen

Superimpose is an effect that cuts out the dark portion of an image and places it on top of a background image. Use this effect when you want to add text you created with your computer or with the P-1 (sold separately).

As an example, here's how to superimpose text from image "B" into the background image "A."

* The superimpose effect is available only for channel 4.

1 Input a background image into a video input [1]–[3], and input the text image into [4].

2 Set the video fader to "A."
Also use Input Select "A" [1]–[3] to select the background image.

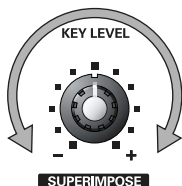
3 Press the Superimpose button.
The Superimpose button will blink.



4 Use Input Select "B" to select the (text) image that you want to add.
Input controller "B" channel 4 will blink rapidly. At the same time, the Superimpose button will light.

5 Move the video fader to "B."
The superimposed image will appear.

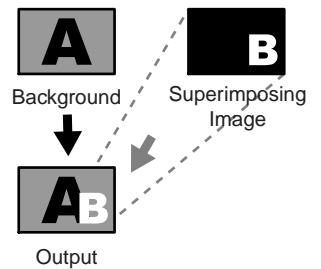
6 Use the superimpose level knob to adjust the range that is cut out.
As desired, you can adjust the range of color that will be cut out.



* If you want to superimpose image "A" on top of image "B," simply exchange "A" and "B" in the procedure described above.

MEMO

Superimpose



MEMO

If the Superimpose button is lit, using the input selector to select a channel other than 4 for the superimposed image (A or B) will automatically "suspend" the superimpose effect; the Superimpose button will blink.

MEMO

The input selector buttons blink in one of two ways depending on the function you're using.

Blinking slowly

When using a transition time knob. The blinking ends after a fixed time.

Blinking rapidly

When using a compositing effect (P in P or Superimpose). The blinking continues.

?

Easily extracted images

As the image to be superimposed, try to use an image that has a clear demarcation between dark and light areas. This will provide the cleanest extraction.

If you're using text, choosing white text on a black background will provide the cleanest extraction.

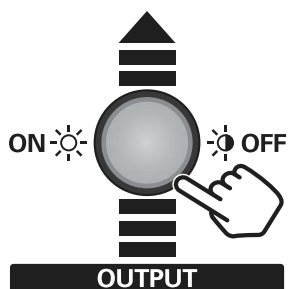
Blacking out the output image

Here's how you can temporarily black out the output image.

1

Press the Output button.

The Output button will blink; a black screen will be output, and the image will disappear.



* If you press the Output button once again, the Output button will revert to steadily lit and the output image will reappear.

Changing the System settings

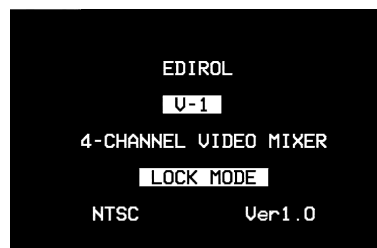
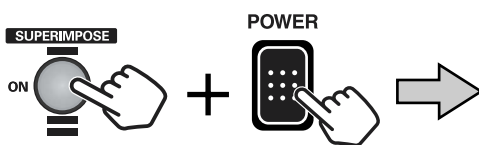
Using Lock mode

Lock mode lets you obtain a more stable image, which will prevent the image from distorting. This mode restricts operations that might cause the image to distort (such as input switching).

1

While holding down the Superimpose button, turn on the power.

The words "LOCK MODE" will appear in the output image of video output 2 (composite).



Lock mode restricts the following operations.

- You can't use the Input Select, Mix, Or Wipe/P in P buttons unless the video fader is all the way to "A" or "B"
- If the Superimpose button is blinking, pressing input 4 will not switch the image

** To return to original mode*

Once again turn on the power while holding down the Superimpose button.

NOTE

You can operate the transition pattern knob even in Lock mode. However, the image may distort if you operate this knob while using P in P or Wipe. To avoid distortion, move the video fader so that a green video fader indicator is lit, and then operate the transition pattern knob.

Switching between NTSC and PAL

The V-1 can be switched to support either NTSC or PAL format signals. If you are using the V-1 in areas that use other format video (such as foreign country), switch the setting as described below.

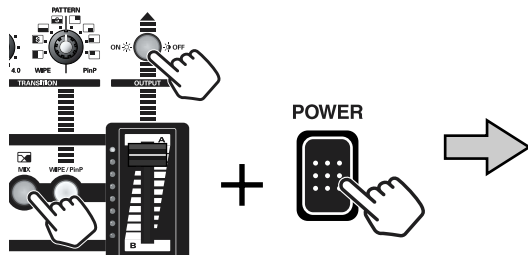
1

While holding down the Output button and the Mix button, turn on the power.

The characters "PAL" or "NTSC" that switched will appear in the output image of video output 2 (composite). The next time you power up the V-1, it will start up in the mode.

** To return to original mode*

Once again turn on the power while holding down the Output button and Mix button.



MEMO

NTSC and PAL

NTSC is the color television broadcast standard used in areas such as North America and Japan.

PAL is the broadcast standard used in Europe and Southeast Asia.

Using MIDI to control the V-1 from an external device

You can use the MIDI connectors to connect the V-1 to an external MIDI device, and control the V-1 from your external MIDI device.

What is MIDI?

MIDI stands for Musical Instrument Digital Interface, and is a worldwide standard for transferring musical performance data and related information. MIDI-compatible devices can be easily connected via MIDI cables to transfer data or control operations and settings.

Using V-LINK to remotely control the V-1

If the V-1 is connected to a Roland or Edirol V-LINK compatible device, you can make basic settings for controlling the V-1 simply by pressing a single button on the device to be controlled.

What is V-LINK?

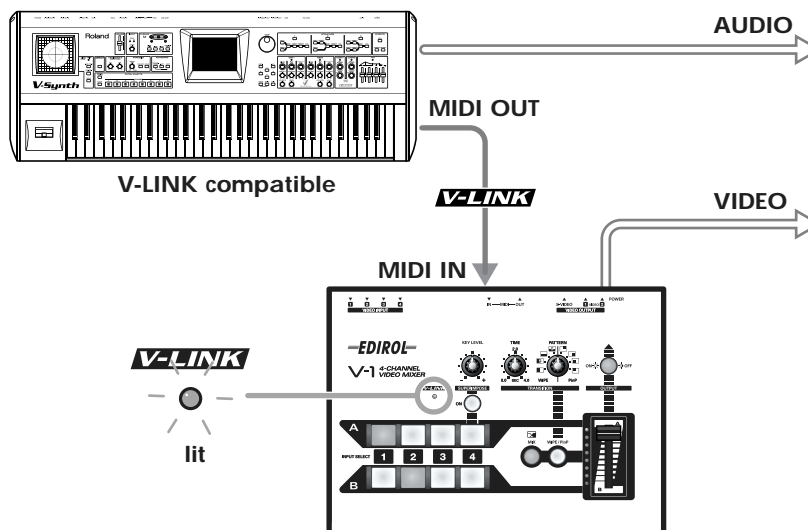
V-LINK (**V-LINK**) is a function that makes it easy to “perform video” in conjunction with music. It’s easy to use a V-LINK compatible device to remotely control the V-1. V-LINK lets you perform a wide variety of video effects that are linked with your musical performance.



MIDI cables are not included with the V-1. Please use commercially available MIDI cables.

Using V-LINK

Use a MIDI cable to connect your V-LINK device to the V-1. For details on how to switch V-LINK on/off, refer to the owner’s manual of the V-LINK device connected to the V-1. The V-LINK indicator will light when V-LINK is on.

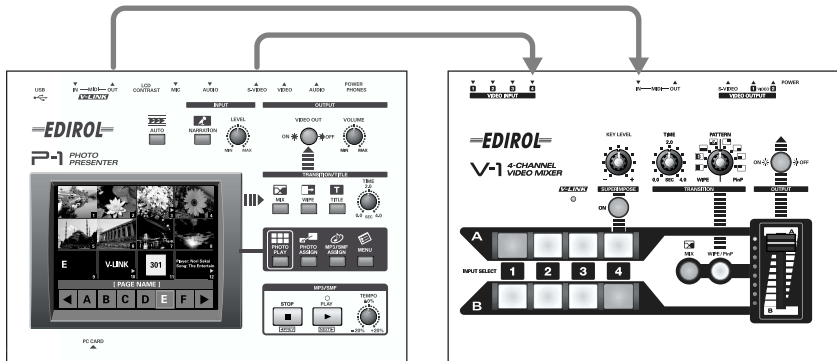


Default settings for the V-1 (if only the V-LINK ON message is received)

Rx Channel	1
Tx Channel	1
Input Select	A ch : 1 B ch : 2
Transition Time (CC#5)	0.0sec
Transition Select	MIX
Output Fade	On
Video Fader (CC#11)	0

Controlling the V-1 from a connected P-1

By using a connected P-1 (sold separately) to control the V-1, you can easily add still images or text to a video image.



* For details, refer to the P-1 owner's manual.

MEMO

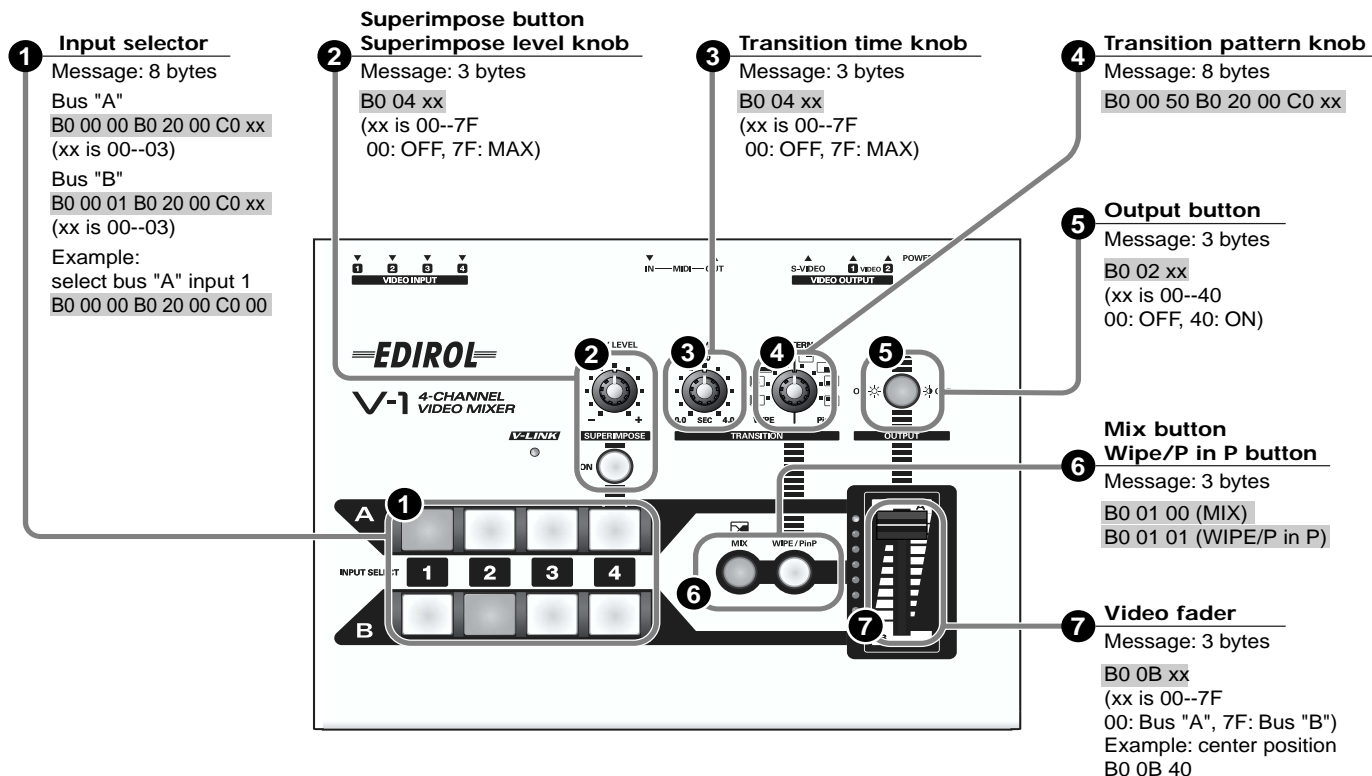
For the best image quality, use an S-video cable to connect the P-1 and V-1.

Correspondence between controls and MIDI messages

After the power is turned on (if V-LINK is OFF), the following MIDI messages will be transmitted from MIDI OUT when you operate the V-1's buttons or knobs. If these messages are received at MIDI IN, the V-1 will behave in the same way as it would if you were to operate the corresponding button or knob.

MEMO

MIDI messages (shaded in the diagram) are given in hexadecimal notation.



Recording Control Data Output from MIDI OUT

Control data, which describes fader movements and other operations, can be transmitted in the form of MIDI messages from MIDI OUT. You can record these messages using a MIDI sequencer. To find out which messages can be sent in this manner, refer to the implementation chart.

Refer to your MIDI sequencer's manual for further information.

MIDI implementation

1. Note Mode setting

- * The Note Mode setting lets you use MIDI note numbers to switch inputs.
- * Use a system exclusive message to set the Note Mode.
- * If the Note Mode is set to 49Keys Mode or Assign Mode, the velocity value of the note message will vary the transition time.
- * The velocity value will control the transition time only when switching to the "A" channel if the video fader is at "A," or when switching to the "B" channel if the video fader is at "B."
- * There are four Note Modes.

●1-1. OFF

- * Note Mode is not used.

●1-2. 49Keys Mode

- * If you select 49Keys Mode, the V-1 will be controlled by the following note numbers.

Note No.	Input
24H	A Ch. 1
26H	A Ch. 2
28H	A Ch. 3
29H	A Ch. 4
2BH	B Ch. 1
2DH	B Ch. 2
2FH	B Ch. 3
30H	B Ch. 4

●1-3. Assign Mode

- * In Assign Mode, the V-1 will be controlled by the range of note numbers you specify using Note Assign. The factory settings are shown below.
- * If you want to change the values used in Assign Mode, switch the Note Mode to Note Assign and make the desired assignments.

Note No.	Input
24H(C +2)	A Ch. 1
25H(C#+2)	A Ch. 2
26H(D +2)	A Ch. 3
27H(D#+2)	A Ch. 4
28H(E +2)	B Ch. 1
29H(F +2)	B Ch. 2
2AH(F#+2)	B Ch. 3
2BH(G +2)	B Ch. 4

●1-4. Note Assign

- * In this mode you can modify the settings used in Assign Mode. You must specify two note numbers; a lower limit and an upper limit. When you have specified these numbers, the corresponding range of note numbers will be assigned to "A" channel 1, 2, 3,... through "B" channel 4.

- (1) Change the Note Mode to Note Assign.
<Example> F0H 41H 10H 00H 6FH 12H 12H 00H 01H 03H 6AH F7H
- (2) Specify the range of notes by transmitting two note-on messages with a velocity value of 1 or higher.
<Example> 90H 10H 7FH 90H 20H 7FH
- (3) Transmit two note-on messages with a velocity of 0 for the specified range of notes.
<Example> 90H 10H 00H 90H 20H 00H
- (4) Change the Note Mode back to Assign Mode.
<Example> F0H 41H 10H 00H 6FH 12H 12H 00H 01H 02H 6BH F7H

2. Parameter address map

●2-1. V-1 (Model ID = 00H 6FH)

- * For addresses marked by #, divide the data and transmit it as two bytes; an upper nibble (upper 4 bits) and lower nibble (lower 4 bits).
- * Example) If the original data is BCH, send 0BH as the first byte, and send 0CH as the second byte. For reception, the data will be ignored unless the two bytes are received together.
- * DEVICE ID = 10H

Start Address	Description
00H 00H 00H	System Common Preference Area (See 2-1-1)
01H 00H 00H	Fader Control Preference Area (See 2-1-2)
02H 00H 00H	Effects Control Preference Area (See 2-1-3)
03H 00H 00H	Reserved Area
12H 00H 00H	Fader Control Parameter Area (See 2-1-4)
13H 00H 00H	Reserved Area
14H 00H 00H	Reserved Area

●2-1-1. System Common Preference

Address	Parameter Name	Sys.Ex.Value	Meaning of Value
00H 00H 00H	MIDI Receive Channel	00H - 10H.	1 - 16 Ch, OFF

●2-1-2. Fader Control Preference

Address	Parameter Name	Sys.Ex.Value	Meaning of Value
#01H 10H 00H	Tx/Rx Setting (Transition Time)	01H-05H,07H-1FH, 40H-5FH,D0H,E0H,FFH	Control Change, Channel Press, Pitch Bend, OFF
#01H 10H 02H	Tx/Rx Setting (Video Fader)	01H-05H,07H-1FH, 40H-5FH,D0H,E0H,FFH	Control Change, Channel Press, Pitch Bend, OFF
#01H 10H 04H	Tx/Rx Setting (MIX, WIPE / P in P)	01H-05H,07H-1FH, 40H-5FH,D0H,E0H,FFH	Control Change, Channel Press, Pitch Bend, OFF
#01H 10H 0AH	Tx/Rx Setting (Output Fade)	01H-05H,07H-1FH, 40H-5FH,D0H,E0H,FFH	Control Change, Channel Press, Pitch Bend, OFF

●2-1-3. Effects Control Preference

Address	Parameter Name	Sys.Ex.Value	Meaning of Value
#02H 10H 00H	Tx/Rx Setting (Superimpose)	01H-05H,07H-1FH, 40H-5FH, D0H, E0H,FFH	Control Change, Channel Press, Pitch Bend, OFF

●2-1-4. Fader Control Parameter

Address	Parameter Name	Sys.Ex.Value	Meaning of Value
12H 00H 01H	Note Mode	00H - 03H	OFF, 49Keys Mode, Assign Mode, Note Assign

●2-2. V-LINK (Model ID = 00H 51H)

- * For addresses marked by #, divide the data and transmit it as two bytes; an upper nibble (upper 4 bits) and lower nibble (lower 4 bits).
- * Example) If the original data is BCH, send 0BH as the first byte, and send 0CH as the second byte. For reception, the data will be ignored unless the two bytes are received together.
- * If the value is shown as..., this is a parameter not supported by the V-1. It will be ignored if received.
- * DEVICE ID = 10H

Start Address	Description
00H 00H 00H	DV-7PR Presenter Reserved Area
10H 00H 00H	V-LINK System Preference Area (See 2-2-1)
10H 10H 00H	V-LINK Clip Control Preference Area (See 2-2-2)
10H 20H 00H	V-LINK Effects Control Preference Area (See 2-2-3)
10H 30H 00H	V-LINK Reserved Area
11H 00H 00H	DV-7PR Presenter Reserved Area

●2-2-1. System Common Preference

Address	Parameter Name	Sys.Ex.Value	Meaning of Value
10H 00H 00H	V-LINK Enabled	00H - 01H	OFF, ON
10H 00H 01H	V-LINK MIDI Rx Channel (Clip)	00H - 0FH	1 - 16 Ch.
10H 00H 02H	V-LINK MIDI Rx Channel (Color)	---	---
10H 00H 03H	V-LINK Note Message Enabled	00H - 03H	Note Mode: OFF, 49Keys Mode, Assign Mode, Note Assign
10H 00H 04H	V-LINK Fast Control Enabled	---	---
10H 00H 05H	V-LINK MMC Control Mode	---	---
10H 00H 06H	V-LINK MTC Control Mode	---	---
10H 00H 07H	V-LINK Auto Mix Mode	---	---

●2-2-2. Clip Control Preference

Address	Parameter Name	Sys.Ex.Value	Meaning of Value
#10H 10H 00H	V-LINK Rx Setting (Playback Speed)	---	---
#10H 10H 02H	V-LINK Rx Setting (Dissolve Time)	01H-05H,07H-1FH, 40H-5FH, D0H, E0H, FFH	Transition Time: Control Change, Channel Press, Pitch Bend, OFF
#10H 10H 04H	V-LINK Rx Setting (Audio Level)	---	---
#10H 10H 06H	V-LINK Rx Setting (T-Bar Control)	01H-05H,07H-1FH, 40H-5FH, D0H, E0H, FFH	Video Fader: Control Change, Channel Press, Pitch Bend, OFF
#10H 10H 08H	V-LINK Rx Setting (Dual Stream)	---	---
#10H 10H 0AH	V-LINK Reserved	---	---
#10H 10H 0CH	V-LINK Reserved	---	---
#10H 10H 0EH	V-LINK Reserved	---	---
#10H 10H 10H	V-LINK Rx Setting (Transition Select)	01H-05H,07H-1FH, 40H-5FH, D0H, E0H, FFH	MIX, WIPE / P in P: Control Change, Channel Press, Pitch Bend, OFF
#10H 10H 12H	V-LINK Rx Setting (Transformer A)	---	---
#10H 10H 14H	V-LINK Rx Setting (Transformer B)	---	---
#10H 10H 16H	V-LINK Rx Setting (BPM Sync)	---	---

●2-2-3. Color Control Preference

Address	Parameter Name	Sys.Ex.Value	Meaning of Value
#10H 20H 00H	V-LINK Rx Setting (Color Cb)	---	---
#10H 20H 02H	V-LINK Rx Setting (Color Cr)	---	---
#10H 20H 04H	V-LINK Rx Setting (Brightness)	---	---
#10H 20H 06H	V-LINK Rx Setting (VFX A 1)	01H-05H,07H-1FH, 40H-5FH, D0H, E0H, FFH	Superimpose: Control Change, Channel Press, Pitch Bend, OFF
#10H 20H 08H	V-LINK Rx Setting (VFX A 2)	---	---
#10H 20H 0AH	V-LINK Rx Setting (VFX A 3)	---	---
#10H 20H 0CH	V-LINK Rx Setting (VFX A 4)	---	---
#10H 20H 0EH	V-LINK Reserved	---	---
#10H 20H 10H	V-LINK Reserved	---	---
#10H 20H 12H	V-LINK Reserved	---	---
#10H 20H 14H	V-LINK Reserved	---	---
#10H 20H 16H	V-LINK Rx Setting (VFX B 1)	---	---
#10H 20H 18H	V-LINK Rx Setting (VFX B 2)	---	---
#10H 20H 1AH	V-LINK Rx Setting (VFX B 3)	---	---
#10H 20H 1CH	V-LINK Rx Setting (VFX B 4)	---	---
#10H 20H 1EH	V-LINK Reserved	---	---
#10H 20H 20H	V-LINK Rx Setting (Output Fader)	01H-05H,07H-1FH, 40H-5FH, D0H, E0H, FFH	Output: Control Change, Channel Press, Pitch Bend, OFF

3. Additional information

MIDI transmission/reception settings when the V-1 is shipped from the factory.

●Note Mode

This specifies whether note-on messages will switch the inputs.

The factory setting is OFF.

This can be set via MIDI to 0-3, corresponding to OFF, 49Keys Mode, Assign Mode, and Note Assign.

●MIDI Rx Channel

Specifies the MIDI receive channel of the V-1.

The factory setting is 1.

This can be set via MIDI to 0-16, corresponding to 1-16 and OFF.

●MIDI Tx Channel

Specifies the MIDI transmit channel of the V-1.

The factory setting is 1.

●Transition Time

Specifies the transition time.

When shipped, this is assigned to CC#07 (Volume).

The range is 0-127, corresponding to 0.0 seconds through 4.0 seconds.

●Superimpose

Turns the Superimpose effect on/off and specifies its value.

When shipped, this is assigned to CC#04 (Foot type).

The range is 0, 1-127, corresponding to OFF, ON: 0-Max.

●Transition Pattern

Selects the type of transition.

When shipped, this is assigned to CC#01 (Modulation).

The range is 0-1, corresponding to MIX through WIPE/P in P.

●Output

Controls the output.

When shipped, this is assigned to CC#02 (Breath type).

The MIDI value range is 0-64-127, corresponding to OFF (black)-ON-OFF (white).

●Video Fader

Controls the video fader.

When shipped, this is assigned to CC#11 (Expression).

The MIDI value range is 0-127, corresponding to A-B.

●Default V-LINK settings

The default V-LINK state (i.e., when only the V-LINK ON message has been received) is as follows.

Parameter	Assignment	Value
Note Mode	-	OFF
Rx Channel	-	1
Tx Channel	-	1
Input Select	-	Ach:1 Bch:2
Pattern Select	-	1
Transition Time	CC#5	0.0sec
Superimpose	OFF	OFF
Transition Pattern	OFF	1
Output	OFF	ON
Video Fader	CC#11	A 100%

* When V-LINK is OFF, any V-LINK messages received will be ignored.

* Settings that were modified while V-LINK was on (i.e., settings that can be modified via MIDI) are not saved.

* When changing from V-LINK ON to OFF, the V-1 will revert to the settings it had before V-LINK was turned on.

4ch-VIDEO MIXER
Model V-1

Data : Dec.10.2003
Version 1.00

MIDI Implimentation Chart

Function...	Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1 ×	1 1 - 16
Mode	Default Messages Altered	Mode 3 × *****	Mode 3 × *****
Note Number	× :True Voice	× ×	○ 0 - 127 *1
Velocity	Note ON Note OFF	× ×	○ ×
After Touch	Key's Ch's	× ○	× ○ Control various parameters
Pitch Bend		○	○ Control various parameters
Control Change	0,32 1 - 5 7 - 31 64 - 95	○ ○ ○ ○	○ ○ ○ ○ Select inputs or transition patterns Control various parameters Control various parameters Control various parameters
Program Change		○ 0-3,0-7	○ 0-3,0-7 Select inputs: INPUT 1-4 Transition patterns 1-8
System Exclusive		×	○ Set parameters, V-LINK
System Common	:Song position :Song select :Tune	× × ×	× × ×
System Realtime	:Clock :Command	× ×	× ×
Aux Messages	:All sound off :Reset all controllers :Local ON / OFF :All Notes off :Active Sense :System Reset	× × × × ○ ×	× × × × ○ ×
Notes	*1 Only if the Note Mode is Assign Mode or Note Assign. If the Note Mode is 49Keys Mode, note numbers 36, 38, 40, 41, 43, 45, 47, and 48 are received.		

Mode 1 : OMNI ON , POLY
Mode 3 : OMNI OFF , POLY

Mode 2 : OMNI ON , MONO
Mode 4 : OMNI OFF , MONO

○ : Yes
× : No

Troubleshooting

Before you suspect a malfunction, please check the following points. If this does not resolve the problem, contact your dealer or a Roland service center.

Operating the video fader does not switch between images

If the same input is selected for "A" and "B," moving the video fader won't affect the output image.

Operating the input selector does not switch between images

In Lock mode, the input selector may be inoperable because of the position of the video fader. For details, refer to Lock mode.

The input selector doesn't switch images as expected

Could you be inputting a signal to both the video (composite) and the S-video inputs of the same channel? If so, the S-video will take priority.

The image is distorted when you operate the input selector

Is the green video fader indicator lit? The image may be distorted if you use the input selector while "A" and "B" are being composited. You can use Lock mode to prevent such operations so that this distortion will not occur.

Transition effect does not occur when you operate the input selector

If the Transition Time knob is near "0" the transition effect will not occur when you use the input selector to switch images.

The images don't switch as specified by the Transition Time knob setting

If two images are displayed under the conditions listed below, operating the input selector will not switch the images according to the specified transition time.

- If the video fader is stopped midway
- If you're using P in P
- If you're using Superimpose

Your video device is playing, but no image is output

Could the Output button be OFF (blinking)? If this is off, no image will be output. Press the blinking Output button to turn it ON (lit), and the image will be output.

The V-1 is operating, but no image is output to your TV

Perhaps your video device is designed for a different video format than the V-1 is using. If so, switch between NTSC mode and PAL mode (p. 20) to set the V-1 to the same video format as your video device.

** If you experience other problems, you should first try connecting the output of the device connected to the V-1's input directly to a display (TV) to see whether an image is output correctly.*

** Recalling the factory settings Restoring the factory settings*

While holding down the channel 4 button of the Input Select "B" buttons together with the Mix button, turn on the power. This will restore the factory settings.

Main specifications

Video format

NTSC or PAL (ITU601)

Video sampling rate

13.5 MHz

4:2:2 (Y: B-Y:R-Y)

8-bit

Frame Synchronizer

2 Systems

Input Level and Impedance

S-video: 1 Vp-p, 75 ohms

Video (composite): 1 Vp-p, 75 ohms

Chrominance signal: 0.286 mVp-p, 75 ohms

Output Level and Impedance

S-video: 1 Vp-p, 75 ohms

Video (composite): 1 Vp-p, 75 ohms

Chrominance signal: 0.286 mVp-p, 75 ohms

Interface

MIDI: 5-pin DIN type

Connectors

Input Video (composite) 1--4 : RCA phono type

S-video 1--4 : 4-pin mini DIN type

Output Video (composite) 2 : RCA phono type

S-video 1 : 4-pin mini DIN type

MIDI IN: 5-pin DIN type

MIDI OUT: 5-pin DIN type

Transition Effects

Mix

Wipe (4 types)

P in P (4 types)

Compositing Effects

Superimpose (remove black)

Power Supply

DC 9 V (AC Adaptor)

Current Draw

1500 mA

Dimensions

282 W) x 209 (D) x 77 mm (H)

11-1/8 (W) x 8-1/4 (D) x 3-1/16 (H) inches

Weight

1.8 kg

4 lbs

Accessories

AC adaptor, Power Cable

Owner's manual

Information

When you need repair service, call your nearest EDIROL/Roland Service Center or authorized EDIROL/Roland distributor in your country as shown below.



EUROPE

EDIROL (Europe) Ltd.
Studio 3.4 114 Power Road
London W4 5PY
U. K.
TEL: +44 (0)20 8747 5949
FAX:+44 (0)20 8747 5948
<http://www.edirol.com/europe>

Deutschland
TEL: 0700 33 47 65 20
France
TEL: 0810 000 371
Italia
TEL: 02 93778329

U. S. A. / CANADA EDIROL Corporation North America

425 Sequoia Drive, Suite 114
Bellingham, WA 98226
U. S. A.
TEL: (360) 594-4276
FAX: (360) 594-4271
<http://www.edirol.com/>

Roland

ASIA

TAIWAN

ROLAND TAIWAN ENTERPRISE CO., LTD.
Room 5, 9fl. No. 112 Chung Shan N.Road Sec.2, Taipei, TAIWAN, R.O.C.
TEL: (02) 2561 3339

AUSTRALIA

AUSTRALIA

Roland Corporation Australia Pty., Ltd.
38 Campbell Avenue
Dee Why West. NSW 2099
AUSTRALIA
TEL: (02) 9982 8266

CENTRAL/LATIN AMERICA

BRAZIL

Roland Brasil Ltda
Rua San Jose, 780 Sala B
Parque Industrial San Jose
Cotia - Sao Paulo - SP, BRAZIL
TEL: (011) 4615 5666

EUROPE

AUSTRIA

Roland Austria GES.M.B.H.
Siemensstrasse 4, P.O. Box 74,
A-6063 RUM, AUSTRIA
TEL: (0512) 26 44 260

BELGIUM/HOLLAND/ LUXEMBOURG

Roland Benelux N. V.
Houtstraat 3, B-2260, Oevel
(Westerlo) BELGIUM
TEL: (014) 575811

CZECH REP.

K-AUDIO
Kardasovska 626,
CZ-198 00 Praha 9,
CZECH REP.
TEL: (2) 666 10529

DENMARK

Roland Scandinavia A/S
Nordhavnsvej 7, Postbox 880,
DK-2100 Copenhagen
DENMARK
TEL: 3916 6200

FRANCE

Roland France SA
4, Rue Paul Henri SPAAK,
Parc de l'Esplanade, F 77 462 St.
Thibault, Lagny Cedex FRANCE
TEL: 01 600 73 500

FINLAND

**Roland Scandinavia As,
Filial Finland**
Elannontie 5
FIN-01510 Vantaa, FINLAND
TEL: (09) 68 24 020

GERMANY

Roland Elektronische Musikinstrumente HmbH.
Oststrasse 96, 22844 Norderstedt,
GERMANY
TEL: (040) 52 60090

GREECE

**STOLLAS S.A.
Music Sound Light**
155, New National Road
Patras 26442, GREECE
TEL: 2610 435400

HUNGARY

Roland East Europe Ltd.
Warehouse Area 'DEPO' Pf.83
H-2046 Torokbalint, HUNGARY
TEL: (23) 511011

IRELAND

Roland Ireland
G2 Calmount Park, Calmount
Avenue, Dublin 12
Republic of IRELAND
TEL: (01) 4294444

ITALY

Roland Italy S. p. A.
Viale delle Industrie 8,
20020 Arese, Milano, ITALY
TEL: (02) 937-78300

NORWAY

**Roland Scandinavia Avd.
Kontor Norge**
Lilleakerveien 2 Postboks 95
Lilleaker N-0216 Oslo
NORWAY
TEL: 2273 0074

POLAND

MX MUSIC SP.Z.O.O.
UL. Gibraltarska 4,
PL-03664 Warszawa POLAND
TEL: (022) 679 44 19

PORTUGAL

**Tecnologias Musica e Audio,
Roland Portugal, S.A.**
Cais Das Pedras, 8/9-1 Dto
4050-465 PORTO
PORTUGAL
TEL: (022) 608 00 60

ROMANIA

FBS LINES
Piata Libertatii 1,
535500 Gheorgheni, ROMANIA
TEL: (266) 364 609

RUSSIA

MuTek
3-Bogatyrskaya Str. 1.k.l
107 564 Moscow, RUSSIA
TEL: (095) 169 5043

SPAIN

Roland Electronics de España, S. A.
Calle Bolivia 239, 08020
Barcelona, SPAIN
TEL: (93) 308 1000

SWEDEN

**Roland Scandinavia A/S
SWEDISH SALES OFFICE**
Danvik Center 28, 2 tr.
S-131 30 Nacka SWEDEN
TEL: (08) 702 00 20

SWITZERLAND

Roland (Switzerland) AG
Landstrasse 5, Postfach,
CH-4452 Itingen,
SWITZERLAND
TEL: (061) 927-8383

UKRAINE

TIC-TAC
Mira Str. 19/108
P.O. Box 180
295400 Munkachevo, UKRAINE
TEL: (03131) 414-40

UNITED KINGDOM

Roland (U.K.) Ltd.
Atlantic Close, Swansea
Enterprise Park, SWANSEA
SA7 9FL,
UNITED KINGDOM
TEL: (01792) 702701

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