Roland®

VariOS

User Guide

For details on all functions and screens of the VariOS, refer to “VariOS Reference Manual” (VariOS_Reference_E.pdf), found in the English – Manual (PDF) folder of the CD-ROM. This manual can also be viewed by using the V-Producer “Help” command. This manual also contains information such as a MIDI implementation chart for the VariOS. Adobe Corporation’s Acrobat Reader is required in order to read the PDF file. You can download Acrobat Reader from the Adobe website (http://www.adobe.com/). This address may change without notice.

Listening to the demo song

1. Hold down the **[EXIT]** button and press the **[> (CURSOR)]** button.
   The demo play screen will appear.
2. Press the **[VALUE]** dial (**[ENTER]**) to start playback.
3. Turn the **[PITCH]/[TIME]/[FORMANT]** knobs to adjust these parameters.
4. Press the **[ENTER]** button to stop playback.
   If you press the **[EXIT]** button, you're returned to the demo play screen.

* *In addition to the VariOS demo song described here, you can also listen to V-Producer demo songs (p. 47).*

* *Since the demo song is stored in internal memory, it will not play if you have deleted the demo song data from internal memory. In this case, refer to “Reloading the internal demo song into the VariOS”(p. 140).*

* *Use of the song data supplied with this product for any purpose other than private, personal enjoyment without the permission of the copyright holder is prohibited by law. Additionally, this data must not be copied, nor used in a secondary copyrighted work without the permission of the copyright holder.*

Before using this unit, carefully read the sections entitled: “IMPORTANT SAFETY INSTRUCTIONS” (p. 166), “USING THE UNIT SAFELY” (pp. 2–3), and “IMPORTANT NOTES” (pp. 4–5). 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, User Guide should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.

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

⚠WARNING

- The unit should be connected to a power supply only of the type described in the operating instructions, or as marked on the side of unit.
- Use only the attached power-supply cord.
- 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!
- This unit, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level, or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should immediately stop using the unit, and consult an audiologist.
- Do not allow any objects (e.g., flammable material, coins, pins); or liquids of any kind (water, soft drinks, etc.) to penetrate the unit.
- 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!)

⚠ WARNING

- 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.

- DO NOT play a CD-ROM disc on a conventional audio CD player. The resulting sound may be of a level that could cause permanent hearing loss. Damage to speakers or other system components may result.

- Do not put anything that contains water (e.g., flower vases) on this unit. Also, avoid the use of insecticides, perfumes, alcohol, nail polish, spray cans, etc., near the unit. Swiftly wipe away any liquid that spills on the unit using a dry, soft cloth.

⚠ CAUTION

- The unit should be located so that its location or position does not interfere with its proper ventilation.

- Always grasp only the plug on the power-supply cord when plugging into, or unplugging from, an outlet or this unit.

- At regular intervals, you should unplug the power plug 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 power cord or its plugs with wet hands when plugging into, or unplugging from, an outlet or this unit.

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

- Before cleaning the unit, turn off the power and unplug the power cord from the outlet.

- Whenever you suspect the possibility of lightning in your area, pull the plug on the power cord out of the outlet.

- Whenever you've removed any screws—whether it be when connecting something to the ground terminal, or when installing a rack-mount adaptor —be sure to place the screws out of reach of small children, so they won't be swallowed accidentally.

IMPORTANT NOTES

In addition to the items listed under "IMPORTANT SAFETY INSTRUCTIONS" and "USING THE UNIT SAFELY" on pages 2, 3 and 166, please read and observe the following:

Power Supply

- Do not use this unit on the same power circuit with any device that will generate line noise (such as an electric motor or variable lighting system).
- 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.
- Although the LCD and LEDs are switched off when the POWER switch is switched off, this does not mean that the unit has been completely disconnected from the source of power. If you need to turn off the power completely, first turn off the POWER switch, then unplug the power cord from the power 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.

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 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.
- Do not expose the unit to direct sunlight, place it near devices that radiate heat, leave it inside an enclosed vehicle, or otherwise subject it to temperature extremes. Excessive heat can deform or discolor the unit.
- To avoid possible breakdown, do not use the unit in a wet area, such as an area exposed to rain or other moisture.

Maintenance

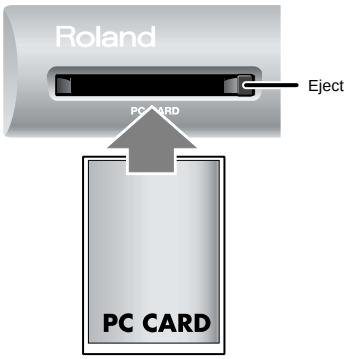
- For everyday cleaning wipe the unit with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a cloth impregnated with a mild, non-abrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.
- Never use benzine, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and / or deformation.

Additional Precautions

- Please be aware that the contents of memory can be irretrievably lost as a result of a malfunction, or the improper operation of the unit. To protect yourself against the risk of loosing important data, we recommend that you periodically save a backup copy of important data you have stored in the unit's memory on a PC card.
- Unfortunately, it may be impossible to restore the contents of data that was stored on a PC card once it has been lost. Roland Corporation assumes no liability concerning such loss of data.
- 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.
- Never strike or apply strong pressure to the display.
- 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.
- A small amount of heat will radiate from the unit during normal operation.
- To avoid disturbing your neighbors, try to keep the unit's volume at reasonable levels. You may prefer to use headphones, so you do not need to be concerned about those around you (especially when it is late at night).
- 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.
- Use a cable from Roland to make the connection. If using some other make of connection cable, please note the following precautions.
  - Some connection cables contain resistors. Do not use cables that incorporate resistors for connecting to this unit. The use of such cables can cause the sound level to be extremely low, or impossible to hear. For information on cable specifications, contact the manufacturer of the cable.
- Unauthorized duplication, reproduction, hiring, and lending prohibited.
- Before you open the included CD-ROM, you must read the "license agreement." Opening the CD-ROM will be taken to mean your acceptance of the license agreement.

Using PC Cards

- Carefully insert the PC card all the way in—until it is firmly in place.



- Never touch the terminals of the PC card. Also, avoid getting the terminals dirty.

Supported cards:
PC card, Compact Flash Type II compliant
You can use microdrives or media conversion cards that are compliant with "Compact Flash Type II."

Interface specification:
PC Card ATA

Operating voltage:
5 V

* Cards that operate on 5 V or 5 V / 3.3 V can be inserted. Cards that operate only on 3.3 V cannot be used.

NOTE

- In order to use a PC card, you must first format it using the VariOS, according to the procedure described in **"8-5 Format"** (p. 123). of this document.
- Do not insert cards whose specifications differ from those listed above. Doing so may damage the device.
- Never insert or remove a PC card while data is being written to the card or while a formatting operation is being executed. Doing so may damage the device.

Handling CD-ROMs

- Avoid touching or scratching the shiny underside (encoded surface) of the disc. Damaged or dirty CD-ROM discs may not be read properly. Keep your discs clean using a commercially available CD cleaner.

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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Introduction

Thank you, and congratulations on your choice of the VariOS.
The VariOS is a completely new type of audio-based music production environment, which consists of a VariPhrase sound generator (VariOS) and software (V-Producer for VariOS). VariPhrase not only lets you edit the tempo and pitch of audio material as easily as you can with MIDI data, it also provides pinpoint control—graphically, and in real time—over any region within a phrase sample that you choose to focus in on. Processes that were difficult to perform on previous audio-based music production systems can now be performed with breathtaking ease on the VariOS.

Conventions followed in this manual

- indicates Windows-related explanations.
- and MacOS indicate MacOS-related explanations.

Check the contents of the package

This package contains the following items. When you open the package, check that no items are missing. If any items are missing, please contact your dealer.

❑ **VariOS**

❑ **AC cable**

This is the only AC cable you should use with the VariOS.
Do not use any AC cable other than the supplied one, since doing so may cause malfunction.

❑ **Rackmount adaptor**

Use this if you want to install the VariOS in an audio rack.
For details on how to attach the adaptor, refer to **"Attaching the rackmount adaptors"** (p. 19).

❑ **VariOS CD-ROM**

This CD-ROM contains the VariOS drivers and software (V-Producer).

* *Please be sure to read the included license agreement before you open the CD-ROM case.*

* *Do not touch the shiny side (data side) of the disc, or allow it to become scratched. The disc may become unreadable if you do so. If the disc gets dirty, use a commercially available CD cleaner to clean it.*

❑ **License agreement**

This license agreement permits you to use specific software whose copyright is owned by Roland Corporation. You must read this before you open the CD-ROM case.

■ **VariOS User Guide**

This is the manual you are holding. It describes how to connect the VariOS and get it set up, guides you through its basic operation, and offers solutions for some of the problems you may run into.

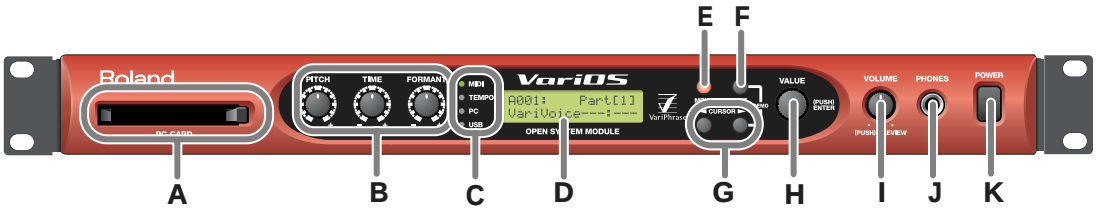
* *For details on all functions and screens of the VariOS, refer to "VariOS Reference Manual" (VariOS_Reference_E.pdf), found in the English -- Manual (PDF) folder of the CD-ROM. This manual can also be viewed by using the V-Producer "Help" command. This manual also contains information such as a MIDI implementation chart for the VariOS. Adobe Corporation's Acrobat Reader is required in order to read the PDF file.*
You can download Acrobat Reader from the Adobe website (http://www.adobe.com/). This address may change without notice.

Startup

This section introduces the basic concepts of the VariOS, and explains how to install the software and drivers, and how to make connections with external devices.

Names of Things and What They Do

Front Panel



A. PC Card Slot

This is used when saving VariOS data (p. 122).

B. PITCH/TIME/FORMANT Knobs

PITCH (C1) Knob	Modifies the pitch.
TIME (C2) Knob	Modifies the playback speed (time).
FORMANT (C3) Knob	Modifies the tonal character (formant).

You are free to assign the parameter that will be adjusted by each knob (p. 116). The above assignments are the power-on defaults.

C. Indicators

MIDI	Lights when a MIDI message is received.
TEMPO	Blinks at the tempo (p. 106).
PC	Lights when the MIDI mode of the VariOS is “PC” (p. 108).
USB	Lights when connected to a computer via USB.

D. Display

Various information is shown here according to the operations you perform.

E. MENU Button

Accesses the various functions of the VariOS.

F. EXIT Button

Returns you to the previously displayed screen (p. 102). Depending on the content of the menu, this button also functions as **CANCEL**.

G. CURSOR Buttons

Used to move the cursor (p. 103).

H. VALUE Dial

Turn this dial to edit a value. Pressing the **VALUE** dial will function as **ENTER** (confirm). If you turn the **VALUE** dial while pressing it, the value will change in larger steps (p. 103).

I. VOLUME Knob

Adjusts the overall volume that is output from the **MAIN OUT** jacks and the **HEADPHONE** jack. By pressing the **VOLUME** knob you can audition (preview) the current sample.

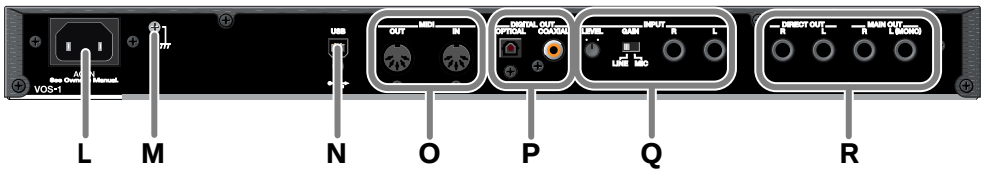
J. PHONES Jack

You can connect a set of headphones to this jack. Use headphones with an impedance in the range of 32–600 ohms.

K. POWER Switch

Turns the power of the VariOS on / off (p. 49). The power is on when the switch is in the inward position, and off when the switch is in the outward position.

Rear Panel



L. AC Inlet

Connect the supplied power cord here.

* *For details on the power consumption, refer to p. 162.*

The unit should be connected to a power source only of the type marked on the side of unit.

M. Grounding 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, microphones connected to it, 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" page.

● 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)

N. USB Connector

Use a USB cable to connect the VariOS to your computer.

O. MIDI Connectors

Connect external MIDI devices here (p. 20). Use MIDI cables (sold separately) to make connections.

IN	Receives MIDI messages from an external device.
OUT	Transmits MIDI messages to an external device.

P. DIGITAL OUT

These jacks output digital audio signals (stereo). Two types are provided; optical and coaxial. Output settings are made in the screen where you specify the effect signal flow (p. 92, p. 119). You can use both types of OUT connector simultaneously; they will output the same sound.

Q. INPUT

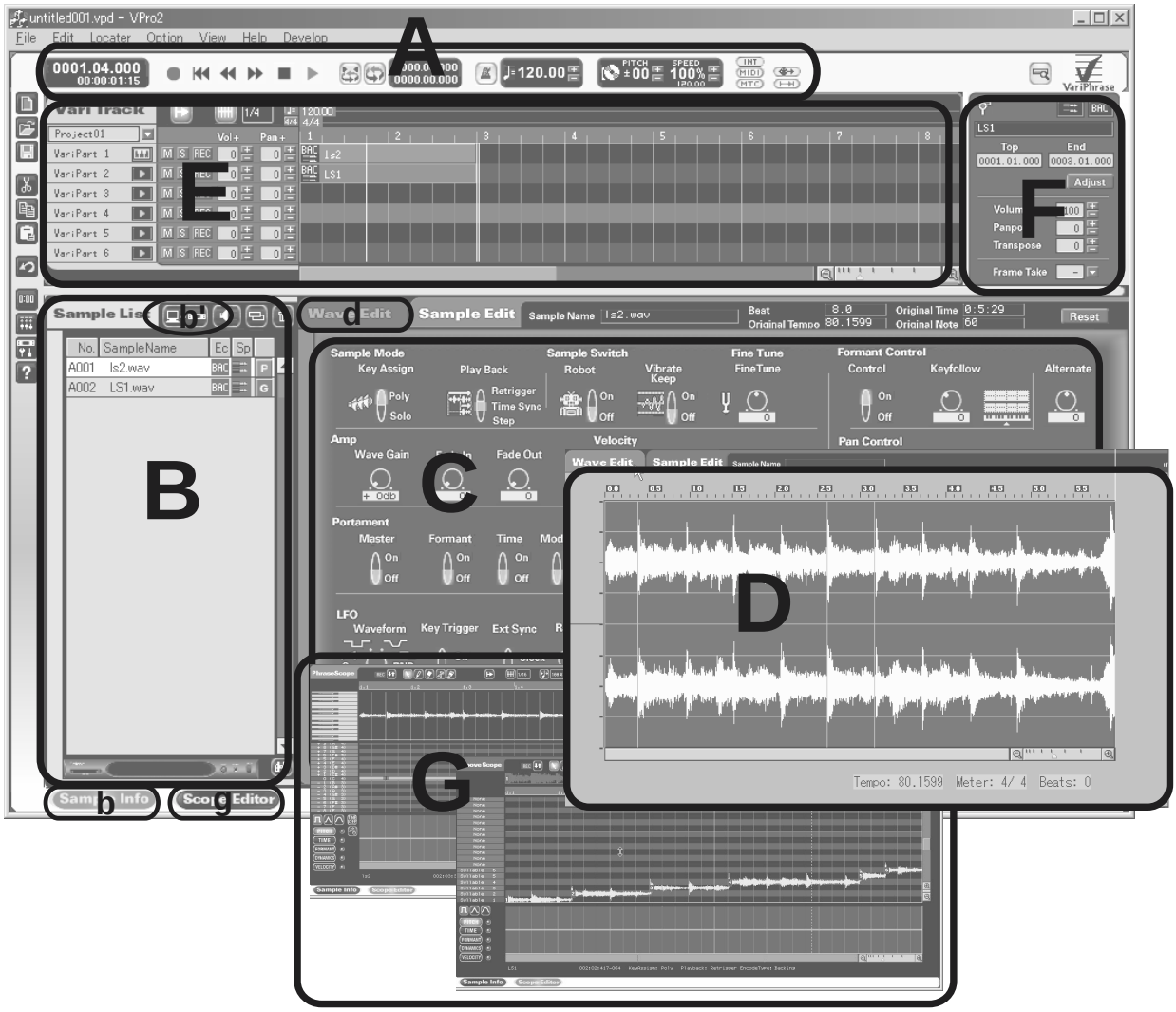
AUDIO IN Jacks	Connect a line-level source or mic here if you want to input audio into the VariOS. * The audio signal that is input to AUDIO IN will be mixed with the sound of the VariOS and output from MAIN OUT.
LEVEL Knob	Adjusts the level at which audio is input from the AUDIO IN jacks.
GAIN switch	Switches the AUDIO IN input jacks between line level and mic level.

R. OUTPUT

Connect your amp or mixer to these jacks. Output settings are made in the screen where you specify the effect signal flow (p. 92, p. 119).

DIRECT OUT Jacks	Output the sound unprocessed by effects or only the multi-effect sound in stereo.
MAIN OUT Jacks	Output the audio signal in stereo. If you want to use monaural output, connect only the L jack.

V-Producer screen



A. Locator (p. 47)

The locator contains functions for controlling the playback of V-Producer, such as song play / stop.

B. Sample List (p. 58)

Sample List displays a list of the samples that are loaded into the VariOS. To load a sample into the VariOS, press the **[b']** (Load Wave Files) button (p. 56) and load a wave file (.wav or aiff) from your computer. At this time the wave file will automatically be converted (encoded) into a format that allows VariPhrase processing to be used.

The samples shown in the sample list can be played directly from your MIDI keyboard. You can also drag and drop them to arrange them in the Vari Track.

To display the Sample List, click the **[b]** (Sample Info) button located at the bottom of the screen.

C. Sample Edit (p. 62)

Sample Edit lets you set various parameters for the samples in the sample list. These settings determine how the sample will sound.

To display Sample Edit, click the **[b]** (Sample Info) button located at the bottom of the screen.

D. Wave Edit (p. 65)

Wave Edit lets you re-encode samples from the sample list (e.g., to change their encoding type or modify the tempo data).
To display Wave Edit, click the **[b]** (Sample Info) button located at the bottom of the screen, and then click the **[d]** (Wave Edit) tab.

E. Vari Track (p. 68)

Vari Track is the basic screen you will use when creating a song. Drag and drop samples from the sample list to arrange them into a song. Samples that are placed in this way are called "**frames**."

F. Frame Properties (p. 74)

Frame Properties lets you modify the settings (volume, pitch, location, etc.) of a frame in the Vari Track.

G. Scope Editor (p. 76)

Scope Editor is where you edit playback data for the frames that are placed in the Vari Track. Here you can edit Pitch, Time, Formant, volume (Dynamics), and notes.
To display the Scope Editor, click the **[g]** (Scope Editor) button located at the bottom of the screen, or double-click a frame that has been placed in the Vari Track.

The Scope Editor provides two methods of editing.

- If you want to freely modify the melody by editing the notes (pitch) of a phrase:

Phrase Scope

[Edits apply to] ..... Green frames that were placed with the sample list Keyboard Map (p. 60) set to [P].

- If you want to divide a phrase into events and change the playback order:

Groove Scope

[Edits apply to] ..... Purple frames that were placed with the sample list Keyboard Map (p. 60) set to [G].

Restoring the factory settings (Factory Reset)

Here's how to restore the VariOS to the factory-set condition.

1. Press the **[MENU]** button so it's lighted. The MENU screen will appear.

* *Initially, the MENU screen will show the most recently selected menu. You need to go to the top level menu. You can get there by pressing and continuing to hold the **[MENU]** button for a few moments (when the **[MENU]** button is not illuminated), or by pressing the **[EXIT]** button.*

2. Turn the **[VALUE]** knob to select "**Menu 6 Utility**," and press the **[VALUE]** knob.
3. Turn the **[VALUE]** knob to select "**Menu 6-4 Factory Reset**," and press the **[VALUE]** knob.
4. The display will ask "**Factory Reset OK?**," so press the **[VALUE]** knob.

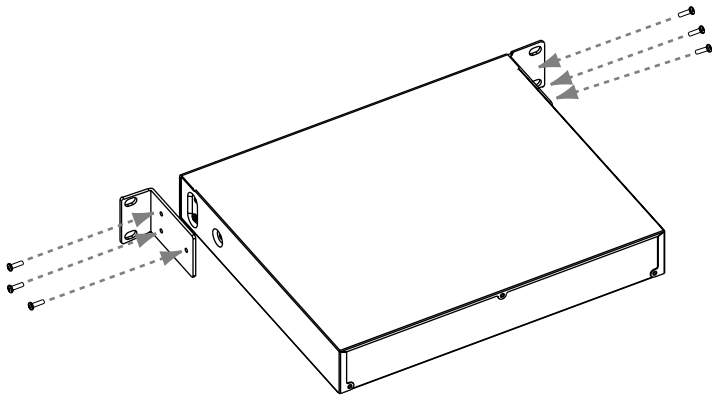
* *If you press the **[EXIT]** button, the Factory Reset operation will be cancelled.*

* *This operation will not restore the internal demo song of the VariOS. Please read "Reloading the VariOS internal demo song" (p. 140).*

Connections with external devices

Attaching the rackmount adaptors

If you want to install the VariOS in a rack, attach the rackmount adaptors as shown in the diagram.



1

Remove three screws (on each side) from the right and left panels of the VariOS.

2

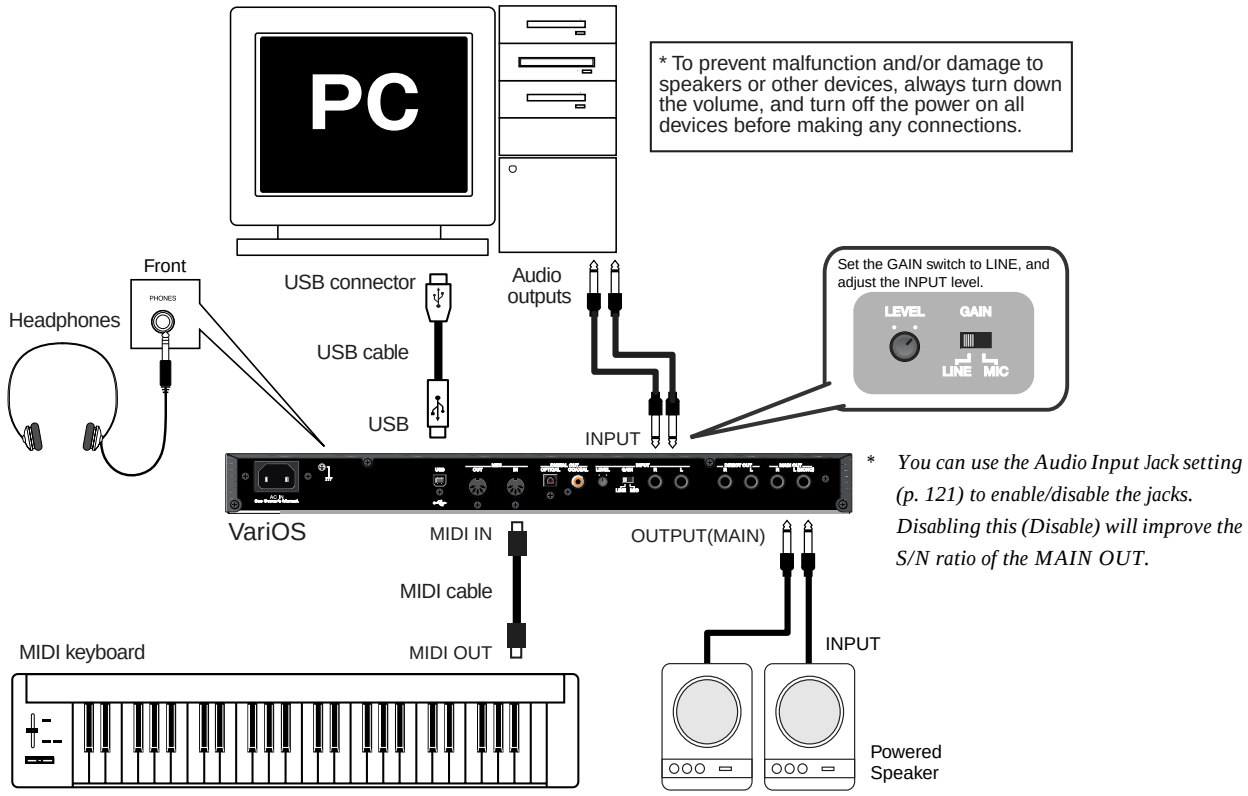
Using the screws you removed in **step 1**, attach the rackmount brackets to the VariOS.

You must use the screws that you removed. Do not use any other screws.

Connecting MIDI and audio devices

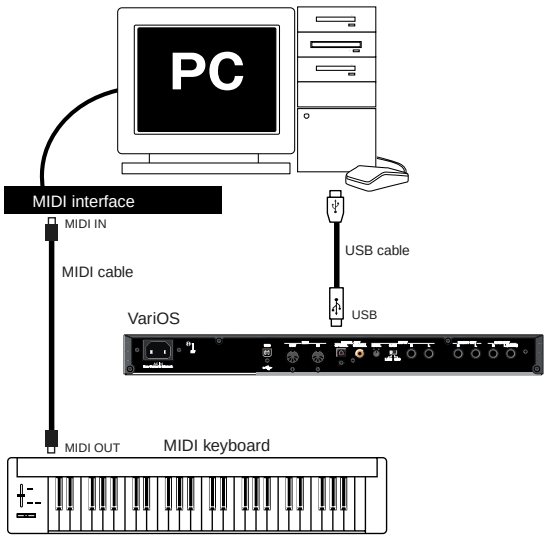
Connect your MIDI and audio devices to the VariOS as shown in the diagram below.

> ⚠ Do not connect the USB cable at this time. You will connect it later during the **"Installation"** (p. 21) procedure. (If you connect the USB cable to your computer, installation of the USB driver will begin.)



* *You can use the Audio Input Jack setting (p. 121) to enable/disable the jacks. Disabling this (Disable) will improve the S/N ratio of the MAIN OUT.*

If you have a MIDI interface that you are already using, you may connect your MIDI keyboard to the MIDI interface as shown below.



Installation

This chapter explains how to install the software and connect the VariOS with your equipment.

The installation procedure will differ depending on your system. Please proceed to one of the following sections, depending on the system you use.

Windows users

■ Installing V-Producer

If you are using Windows XP Professional / 2000, you must log on using a user name with an administrative account type (e.g., Administrator).

1

Insert the CD-ROM into the CD-ROM drive of your computer.

* *Exit all currently running software (applications) before you perform the installation.*

2

Click the Windows **start** menu, and from the menu, select **"Run..."**. Open the **"Run..."** dialog box.

3

In the dialog box that appears, input the following into the **"Open"** field, and click **[OK]**.

D:\ENGLISH\V-Producer\Setup.exe

4

When the **Choose Setup Language** dialog box appears, make sure that **"English"** is selected, and click **[OK]**.

The installer will start up. Follow the on-screen directions to perform the installation.

* *If an earlier version of V-Producer is already installed, you'll be presented with the **"Confirm File Deletion"** dialog box. Click **[OK]** to delete the old version of V-Producer.*

NOTE V-Producer 1.x (for VP-9000) cannot be used simultaneously with this version of V-Producer.

5

The **InstallShield Wizard Complete** dialog box will appear.

Next, install the driver.
(->**Installing the Driver** (p. 22))

MEMO

The drive name "D:" may be different for your system. Specify the drive name of your CD-ROM drive. To check the drive name of your CD-ROM drive, double-click the My Computer icon.

■ Installing the Driver

Here's how to install the driver that allows the VariOS to be detected and handled as a MIDI device and an external storage device (expansion drive) of your computer.

The installation procedure will differ depending on your system. Please proceed to one of the following sections, depending on the system you use.

NOTE

What is a driver?

A “driver” is software that transfers data between the VariOS and application software running on your computer, when your computer and the VariOS are connected by a USB cable. The driver sends data from your application to the VariOS, and from the VariOS to your application.

Windows XP users

◆ **Preparations for installing the driver**

1

With the VariOS disconnected, start up Windows.

You must log on using a user name with an administrative account type (e.g., Administrator).

NOTE

Disconnect all USB cables except for a USB keyboard and USB mouse (if used).

2

Open the **System Properties** dialog box.

1. Click the Windows **start** menu, and from the menu, select **Control Panel**.
2. In “**Pick a category”**, click **“Performance and Maintenance.”**
3. In “**or pick a Control Panel icon”**, click the **System** icon.

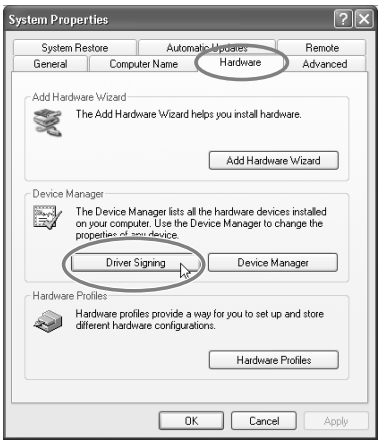
MEMO

Depending on how your system is set up, the **System** icon may be displayed directly in the **Control Panel** (the Classic view). In this case double-click the **System** icon.

3

Click the **Hardware** tab, and then click **[Driver Signing]**.

Open the **Driver Signing Options** dialog box.



4

Make sure that **“Driver Signing Options”** is set to **“Ignore.”**

If it is set to **“Ignore”**, simply click **[OK]**.
If it is not set to **“Ignore”**, make a note of the current setting (“Warn” or “Block”). Then change the setting to “Ignore” and click **[OK]**.

MEMO

After installing the driver, restore the original setting.

5

Click **[OK]** to close the System Properties dialog box.

6

Exit all currently running software (applications).

Also close any open windows. If you are using virus checking or similar software, be sure to exit it as well.

7

Prepare the CD-ROM.

Insert the CD-ROM into the CD-ROM drive of your computer.

8

Click the Windows **start** menu, and from the menu, select **"Run..."**.

Open the **"Run..."** dialog box.

9

In the dialog box that appears, input the following into the **"Open"** field, and click **[OK]**.

D:\ENGLISH\Driver\USB_XP2K\SETUPINF.EXE

* *The drive name **"D:"** may be different for your system. Specify the drive name of your CD-ROM drive.*

10

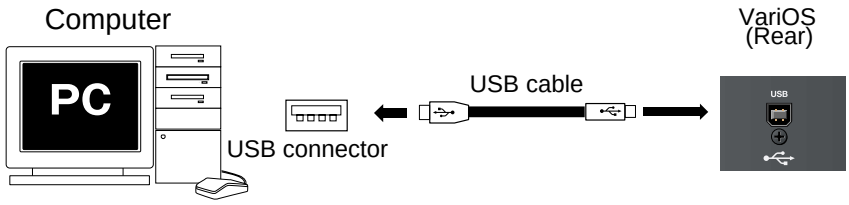
The **SetupInf** dialog box will appear.

You are now ready to install the driver.

◆ **Installing the driver**

11

Use the USB cable to connect the VariOS to your computer.



12

Set the VariOS's **power switch** to the **ON** position.

Near the task bar, your computer will indicate **"Found New Hardware"**. Please wait.

NOTE

You must power up the VariOS according to the procedure given on p. 49.

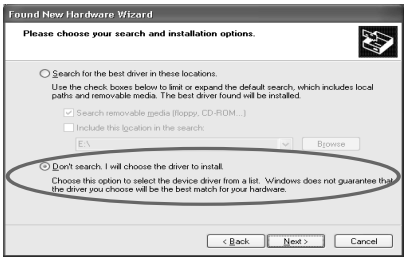
13

The **Found New Hardware Wizard** will appear.

Make sure that the screen indicates **"Roland VariOS,"** select **"Install from a list or specific location (Advanced),"** and click **[Next]**.

14

The screen will indicate **"Please choose your search and installation options."**



Select **"Don't search. I will choose the driver to install,"** and click **[Next]**.

15

Make sure that the **"Model"** field indicates **"Roland VariOS,"** and click **[Next]**. Driver installation will begin.

If the **"Driver Signing Options"** setting was not set to **"Ignore"**, a **"Hardware Installation"** dialog box will appear.

If **"Driver Signing Options"** is set to **"Warn,"**

1. Click **[Continue Anyway]**.
2. Continue the installation.

If **"Driver Signing Options"** is set to **"Block,"**

1. Click **[OK]**.
2. When the **"Found New Hardware Wizard"** appears, click **[Finish]**.
3. Using the procedure described in the **"Troubleshooting"** section **"Q. Device Manager shows "?", "!", or "USB Composite Device""** (p. 143), delete the data for the VariOS that was wrongly detected. Then install the driver using the procedure described in **"Installing the Driver"** (p. 22). When doing so, set **"Driver Signing Options"**in step 4 to **"Ignore."**

16

The **Insert Disk** dialog box will appear.

Click **[OK]**.
The **Insert Disk** dialog may not appear. In that case, proceed to next step.

17

The **Files Needed** dialog box will appear.

Input the following into the **"Copy files from"** field, and click **[OK]**.
D:\ENGLISH\Driver\USB_XP2K

18

The **Found New Hardware Wizard** will appear.

Make sure that the display indicated **"Roland VariOS,"** and click **Finish**.
Wait until **"Found New Hardware"** appears near the taskbar.
A **"VARIOS_DRV"** window will appear. Click the **[X]** (close) button to close the **"VARIOS_DRV"** window.

19

When driver installation has been completed, the **System Settings Change** dialog box will appear.

Click **[Yes]**. Windows will restart automatically.

MEMO

The drive name **"D:"** may be different for your system. Specify the drive name of your CD-ROM drive.

NOTE

If you were unable to (install the VariOS driver as directed, or if you are unable to use the VariOS even after installing the driver, please delete the driver.
(->**Deleting the driver** (p. 154))

You have finished installing the VariOS driver.

Next, proceed to **"MIDI and audio settings"** (p. 44).

If you changed the driver signature option...
If you changed the driver signature option in step 4, restore the original setting after Windows restarts. After you have restored the original setting, proceed to **"MIDI and audio settings"** (p. 44).

Windows 2000 users

◆ **Preparations for installing the driver**

1

With the VariOS disconnected, start up Windows.

2

Log on to Windows as a user with administrative privileges (such as Administrator).

3

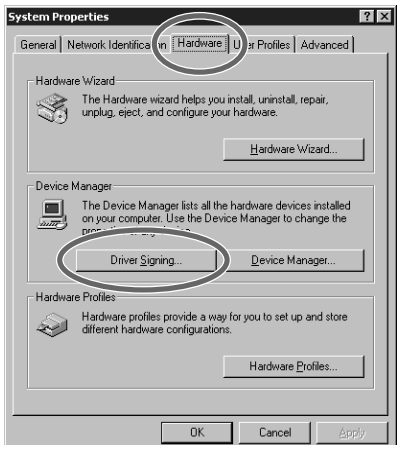
Open the **System Properties** dialog box.

Click the Windows **start** menu, and from the menu, select **Settings | Control Panel**.
In **Control Panel**, double-click the **System** icon.

4

Click the **Hardware** tab, and then click **[Driver Signature]**.

Open the Driver Signing Options dialog box.



5

Make sure that **"Driver Signing Options"** is set to **"Ignore."**

If it is set to **"Ignore"**, simply click **[OK]**.
If it is not set to **"Ignore"**, make a note of the current setting ("Warn" or "Block"). Then change the setting to **"Ignore"** and click **[OK]**.

6

Click **[OK]** to close the **System Properties** dialog box.

7

Exit all currently running software (applications).

Also close any open windows. If you are using virus checking or similar software, be sure to exit it as well.

8

Prepare the CD-ROM.

Insert the CD-ROM into the CD-ROM drive of your computer.

9

Click the Windows **start** menu, and from the menu, select **"Run..."**

Open the **"Run..."** dialog box.

NOTE

Disconnect all USB cables except for a USB keyboard and USB mouse (if used).

MEMO

After installing the driver, restore the original setting.

10

In the dialog box that appears, input the following into the **"Open"** field, and click **[OK]**.

D:\ENGLISH\DRIVER\USB_XP2K\SETUPINF.EXE

MEMO

The drive name "D:" may be different for your system. Specify the drive name of your CD-ROM drive.

11

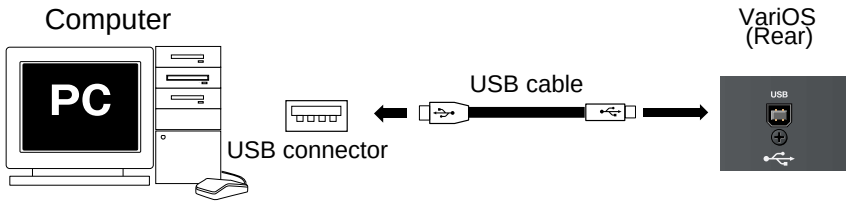
The **SetupInf** dialog box will appear.

You are now ready to install the driver.

◆ **Installing the driver**

12

Use the USB cable to connect the VariOS to your computer.



13

Set the VariOS's **power switch** to the **ON** position.

NOTE

You must power up the VariOS according to the procedure given on p. 49.

If the **"Driver Signing Options"** setting was not set to **"Ignore"**, a **"Digital Signature Not Found"** dialog box will appear.

If **"Driver Signing Options"** is set to "Warn,"

1. Click **[Yes]**.
2. Continue the installation.

If **"Driver Signing Options"** is set to "Block"

1. Click **[OK]**.
2. When the "Found New Hardware Wizard" appears, click **[Finish]**.
3. Using the procedure described in the **"Troubleshooting"** section **"Q. Device Manager shows "?", "!", or "USB Composite Device""** (p. 143), delete the data for the VariOS that was wrongly detected. Then install the driver using the procedure described in **"Installing the Driver"** (p. 22). When doing so, set **"Driver Signing Options"**in step 5 to **"Ignore."**

14

The Insert Disk dialog box will appear.

Click **[OK]**.

15

The **Files Needed** dialog box will appear.

Input the following into the **"Copy files from"** field, and click **[OK]**.

D:\ENGLISH\DRIVER\USB_XP2K

16

The **"Find New Hardware Wizard"** may be displayed.

Verify that **"Roland VariOS"** is displayed, and click **[Finish]**.

17

The **System Settings Change** dialog box may appear.

Click **[Yes]**. Windows will restart automatically.

MEMO

The drive name **"D:"** may be different for your system. Specify the drive name of your CD-ROM drive.

NOTE

If you were unable to install the VariOS driver as directed, or if you are unable to use the VariOS even after installing the driver, please delete the driver.
(->**Deleting the driver** (p. 154))

You have finished installing the VariOS driver.

Next, proceed to **"MIDI and audio settings"** (p. 44).

If you changed the driver signature option...
If you changed the driver signature option in **step 5**, restore the original setting after Windows restarts. After you have restored the original setting, proceed to **"MIDI and audio settings"** (p. 44).

Windows Me users

◆ Preparations for installing the driver

1

With the VariOS disconnected, start up Windows.

2

Exit all currently running software (applications).

Also, close any open windows. If you are using a virus checker or similar software, be sure to exit this as well.

3

Prepare the CD-ROM.

Insert the CD-ROM into the CD-ROM drive of your computer.

4

Click the Windows **start** menu, and from the menu, select **"Run..."**

Open the **"Run..."** dialog box.

5

In the dialog box that appears, input the following into the **"Open"** field, and click **[OK]**.

D:\ENGLISH\DRIVER\USB_98ME\SETUPINF.EXE

6

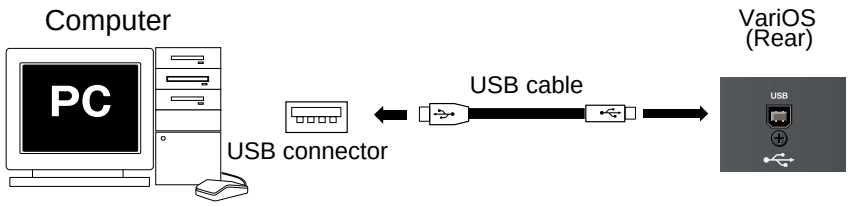
Open the **SetupInf** dialog box.

You are now ready to install the driver.

◆ Installing the driver

7

Use the USB cable to connect the VariOS to your computer.



8

Set the VariOS's **power switch** to the **ON** position.

9

The **New Hardware Found** dialog box will appear.

Input the following into the **"Copy files from"** field, and click **[OK]**.

D:\ENGLISH\DRIVER\USB_98ME

NOTE

Disconnect all USB cables other than those for a USB keyboard or USB mouse.

MEMO

The drive name "D:" may be different depending on your system. Type the name of your CD-ROM drive.

NOTE

You must power up the VariOS according to the procedure given on p. 49.

MEMO

The drive name **"D:"** may be different depending on your system. Type the name of your CD-ROM drive.

10

Once the driver has been installed, the **New Hardware Found** dialog box will close.

In the **SetupInf** dialog box, click **[OK]**. The **SetupInf** dialog box will close.

NOTE

If you were unable to install the VariOS driver as directed, or if you are unable to use the VariOS even after installing the driver, please delete the driver.
(->**Deleting the driver** (p. 154))

You have finished installing the VariOS driver.

Next, proceed to **"MIDI and audio settings"** (p. 44).

Windows 98SE users

◆ **Preparations for installing the driver**

1

With the VariOS disconnected, start up Windows.

2

Exit all currently running software (applications).

Also, close any open windows. If you are using a virus checker or similar software, be sure to exit this as well.

3

Prepare the CD-ROM.

Insert the CD-ROM into the CD-ROM drive of your computer.

4

Click the Windows **Start** menu, and from the menu, select **"Run..."**

Open the **"Run..."** dialog box.

5

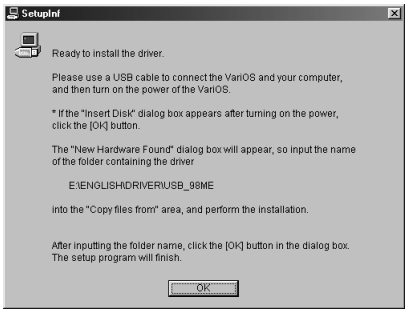
In the dialog box that appears, input the following into the **"Open"** field, and click **[OK]**.

D:\ENGLISH\DRIVER\USB_98ME\SETUPINF.EXE

6

Open the **SetupInf** dialog box.

You are now ready to install the driver.



NOTE

Disconnect all USB cables other than those for a USB keyboard or USB mouse.

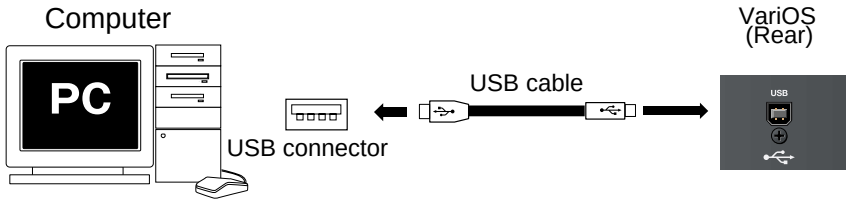
MEMO

The drive name **"D:"** may be different depending on your system. Type the name of your CD-ROM drive.

◆ Installing the driver

7

Use the USB cable to connect the VariOS to your computer.



8

Set the VariOS's **power switch** to the **ON** position.

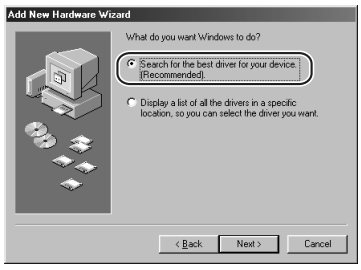
9

The **Add New Hardware Wizard** dialog box will appear.

Click **[Next]**.

10

Select **"Search for the best driver for your device,"** and click **[Next]**.



11

Check the **"Specify a location"** box, input the following into the location field, and click **[Next]**.

D:\ENGLISH\DRIVER\USB_98ME

12

The screen will indicate **"Windows driver file search for the device: Roland VariOS USB Driver."**

Click **[Next]**.

13

The screen will indicate **"Windows has finished installing the software that your new hardware device requires."**

Click **[Finish]**.

NOTE

You must power up the VariOS according to the procedure given on p. 49.

MEMO

The drive name **"D:"** may be different depending on your system. Type the name of your CD-ROM drive.

14

The **Insert Disk** dialog box will appear.

Click **[OK]**.

15

The **New Hardware Found** dialog box will appear.

Input the following into the **Copy files from** field, and click **[OK]**.

D:\ENGLISH\DRIVER\USB_98ME

MEMO

The drive name **"D:"** may be different depending on your system. Type the name of your CD-ROM drive.

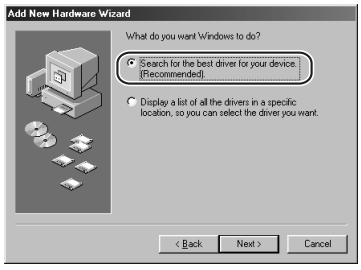
16

The **Add New Hardware Wizard** dialog box will appear.

Click **[Next]**.

17

Select **"Search for the best driver for your device,"** and click **[Next]**.



18

Check the **"Specify a location"** box, input the following into the location field, and click **[Next]**.

D:\ENGLISH\DRIVER\USB_98ME

MEMO

The drive name **"D:"** may be different depending on your system. Type the name of your CD-ROM drive.

19

The screen will indicate **"Windows driver file search for the device: USB Mass Storage Device."**

Click **[Next]**.

20

The screen will indicate **"Windows has finished installing the software that your new hardware device requires."**

Click **[Finish]**.
In the **SetupInf** dialog box, click **[OK]**. The **SetupInf** dialog box will close.

NOTE
If you were unable to install the VariOS driver as directed, or if you are unable to use the VariOS even after installing the driver, please delete the driver.
(->**Deleting the driver** (p. 154))

You have finished installing the VariOS driver.

Next, proceed to **"MIDI and audio settings"** (p. 44).

Macintosh users

The installation procedure will differ depending on your system.
Please proceed to the appropriate page for your system.

- Mac OS X users .....p. 35
- Mac OS 9 users.....p. 37

■ Mac OS X users

Installing V-Producer

1

Insert the CD-ROM into the Macintosh CD-ROM drive.

2

On the CD-ROM, open the **English - for OS X - V-Producer 2** folder.

3

Select the folder that is appropriate for the processor of your Macintosh, and copy it to the **application** folder of your Macintosh.

- If your Macintosh has a G4 processor
  the **V-Producer2(G4)** folder
- If your Macintosh has a G3 processor
  the **V-Producer2(G3)** folder

MEMO

To check which type of processor is in your Macintosh, choose the **Apple** menu item **About This Mac**.

Installing the VariOS USB driver for Mac OS X

Use the following procedure to install the VariOS USB driver for Mac OS X.

* *Disconnect the VariOS from your computer before you install the driver.*

1

Exit all currently running software (applications).

NOTE

If you are using a virus checker or similar software, be sure to exit this as well.

2

Insert the CD-ROM into the CD-ROM drive.

3

On the CD-ROM, navigate to **English - for OS X folder - VariOS USB Driver**, and double-click **VariOSUSBDriver**.

MEMO

In some cases, VariOSUSBDriver may be displayed as **VariOSUSBDriver.pkg**.

4

The **confirmation** dialog box will appear.

Input the administrator name and password, and click **[OK]**.

5

The screen will indicate **"Welcome to Roland VariOS USB Driver Installation."**

Click **[Continue]**.

6

The screen will indicate **"Choose location for installation."**

Click to select the drive in which the system is installed, and then click **[Continue]**.

7

The screen will indicate **"Default installation."**

Click **[Install]** or **[Upgrade]**.

8

A message like this appears: **"If you install this software, you will need to restart your computer after the installation is complete. ~"**

Click **[Continue installation]**.

9

A dialog box informing you that **"The software has been installed successfully"** will appear.

Click **[Restart]** to restart your Macintosh.

This completes the installation.
Proceed to **"MIDI and audio settings"** (p. 44).

■ Mac OS 9 users

Before installation

● To ensure that V-Producer will operate correctly, please make the following settings on your Macintosh.

1. Open **Control Panels** from the **Apple menu**.
2. Make the following settings:
   - In the **Memory** control panel, turn **virtual memory** "off."

   * *If virtual memory is "on," the performance of the Preview function will be impaired. V-Producer will operate regardless of whether virtual memory is turned on or off.*
   - In the **Energy Saver** control panel, set "never" as the idle time until the computer enters power-conserving sleep mode.
   - In the **Monitors** (or Monitors & Sound) control panel, set the Color Depth to "Millions."
   - From the "Apple Menu," select "**Chooser**," and set "Apple Talk" to "Inactive."
3. If you have installed an antivirus program, use the Extensions Manager to disable that program.
4. Restart your Macintosh.

● Disconnect the V-Producer from the Macintosh

If the power of the VariOS is turned on, a message like the following will appear when the Macintosh is started up. Perform the steps described below as appropriate for the message that is displayed.

- If the screen indicates:
  "Driver needed for the USB device "VariOS" are not available. Would you like to look for these drivers over the Internet?"
  > click **[Cancel]**.

- If the screen indicates:
  "Software required for using device 'unknown device' cannot be found. Please refer to the manual included with the device, and install the necessary software."
  > click **[OK]**.

■ About the included MIDI drivers

This product contains the following MIDI drivers.

Driver for OMS

This is a driver for using the VariOS with OMS.

Driver for FreeMIDI

This is a driver for using the VariOS with FreeMIDI. In order to use this driver, you will need to separately obtain version 1.35 or higher of FreeMIDI.

For instruction on how to install the VariOS Driver and how to make the FreeMIDI settings, refer to **Readme FM-E.HTM** file in the **English - for OS 9 - Driver - VariOS FreeMIDI Driver-E** folder on the CD-ROM.

■ Installing OMS

In order to use V-Producer you must have **OMS** (Open Music System). OMS is a MIDI driver that acts as a bridge in conveying data between V-Producer and the VariOS.

OMS uses an application named **OMS Setup** to create a document called **"Studio Setup."** The names of your MIDI devices and the state of the actual connections are registered in this document. Here we will give a brief explanation on how to install OMS and make settings, but for details please refer to the manual (OMS_2.3_Mac.pdf) included on the CD-ROM.

If you are already using OMS, proceed to **"Installing V-Producer"** (p. 39).

1

From the **English - for OS 9** folder of the CD-ROM, open **Driver**, then open **OMS2.3.8**, and double-click **Install OMS 2.3.8**.

2

Click **[Install]**.

3

When installation is completed, a dialog box will recommend that you restart your Macintosh. Click **[Restart]**.

You have now finished installing OMS. Next, you will install V-Producer.

MEMO

You will need the Adobe Acrobat Reader in order to view OMS_2.3_Mac.pdf. The latest version of Adobe Adrobat Reader can be downloaded from the Adobe website. http://www.adobe.com (This URL may change without notice.)

NOTE

The driver can be installed only on a drive on which the system is installed.

■ Installing V-Producer

1

Exit all currently running software (applications).

2

Insert the CD-ROM into the CD-ROM drive.

3

Double-click the **V-Producer Installer** Installer icon (found in the **English - for OS 9** folder of the CD-ROM) to start up the installer.

4

Verify the **[Install location]**, and click **[Install]**.

5

Follow the on-screen instructions to proceed with the installation.

When installation is completed, a message telling you that **"Installation is completed"** will appear. Click **[Quit]**.

About memory

The "Memory is full ..." error may appear if you open a large song or run out of memory while editing a song, or depending on the monitor resolution and color depth. It will not be possible to load files or edit further. If this occurs, exit V-Producer. Then, in the Finder, click "V-Producer" to select it. Next, from the Finder menu, choose File - Get Info - Memory, and under Memory Requirements, increase the amount of memory used by V-Producer.

**If you will be loading samples of the maximum length (150 seconds stereo; 300 seconds monaural), we recommend that you increase the memory allocation to 192 MB or more.*

NOTE

If you are using a virus checker or similar software, be sure to exit this as well.

MEMO

In the **Finder**, select the **V-Producer** icon. Then, from the Finder menu, choose **File - Get Info - Memory**, and under Memory Requirements, **Preferred Size of Memory Requirements.**

■ Connections and OMS setup

Installing the VariOS OMS driver

Use the following procedure to install the VariOS driver.
The included **VariOS OMS Driver-E** is an add-on module for using the VariOS with OMS. In order for you to use it, **OMS must already be installed on the hard disk from which you started up**.

* *Disconnect the VariOS from the Macintosh before you perform the installation.*

1

Exit all currently running software (applications).

2

Insert the CD-ROM into the CD-ROM drive.

3

Double-click the **VariOS OMS Driver-E Installer** icon (found in the **English - for OS 9 - Driver - VariOS OMS Driver-E** folder of the CD-ROM) to start up the installer.

4

Verify the **[Install Location]**, and click **[Install]**.

5

If a message like the following is displayed, click **[Continue]**.

The other currently running applications will exit, and installation will continue.

6

A dialog box will indicate Installation completed.

Click **[Restart]** to restart your Macintosh.

MEMO

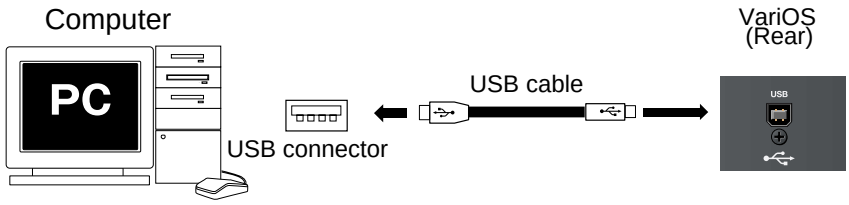
If you are using a virus checker or similar software, be sure to exit this as well.

OMS settings

Here's how to make OMS settings. Before you make these settings, make sure that the MIDI devices connected to your Macintosh and all peripherals are powered up.

1

Use a USB cable to connect the VariOS to your computer, and turn on the power of the VariOS.



Easy method using the sample settings

The "Driver" folder of the CD-ROM contains a sample OMS setup file named "VariOS OMS Studio." As an easy way to make OMS settings, you can copy this file into the "Opcode" folder of your hard disk, double-click to open it, and continue the setup procedure from step 9 of p. 43.

2

Within the location (hard disk) to which you installed OMS, go to the **Opcode - OMS Applications** folder, and double-click **OMS Setup**.

3

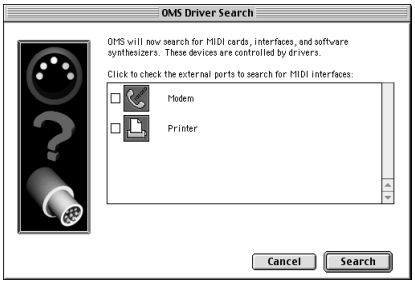
In the **"Create a New Studio Setup"** dialog box, click **[OK]**.

This creates a new studio setup.

4

In the **OMS Driver Search** dialog box, click **[Search]** without checking the check box.

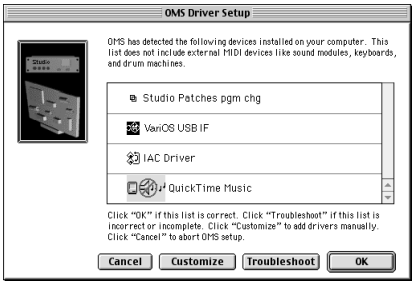
If your MIDI interface is connected to a serial port, check the port to which it is connected.



5

Make sure that the **OMS Driver Setup** dialog box correctly indicates **VariOS USB IF**.

Only the MIDI devices connected directly to the Macintosh are displayed here. Verify that your device(s) are displayed correctly, and click **[OK]**.



NOTE

You must power up the VariOS according to the procedure given on p. 49.

NOTE

If AppleTalk is on, a dialog box will appear, asking you whether to turn it off or leave it on. We recommend that you use the Chooser in the Apple menu to inactive AppleTalk.

MEMO

If the **"Create a New Studio Setup"** dialog box does not appear, select the **File** menu and click "New Studio Setup."

NOTE

If an error dialog box is displayed during the setup, disconnect all MIDI cables connected to the VariOS, and make the OMS settings once again.

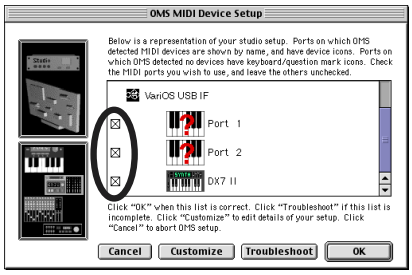
NOTE

MIDI devices that are not powered up will not be detected automatically by OMS. If a MIDI device that you thought was connected is not detected, click **[Troubleshoot]** and follow the on-screen directions.

6

The **OMS MIDI Device Setup** window will appear.

Add a check mark to all of the **VariOS USB IF** ports (Port 1, Port 2, DX7 II), and click **[OK]**.



NOTE

A problem with the OMS Setup program causes the third port to be displayed as **"DX7 II."** Please rename this port in step 8.

7

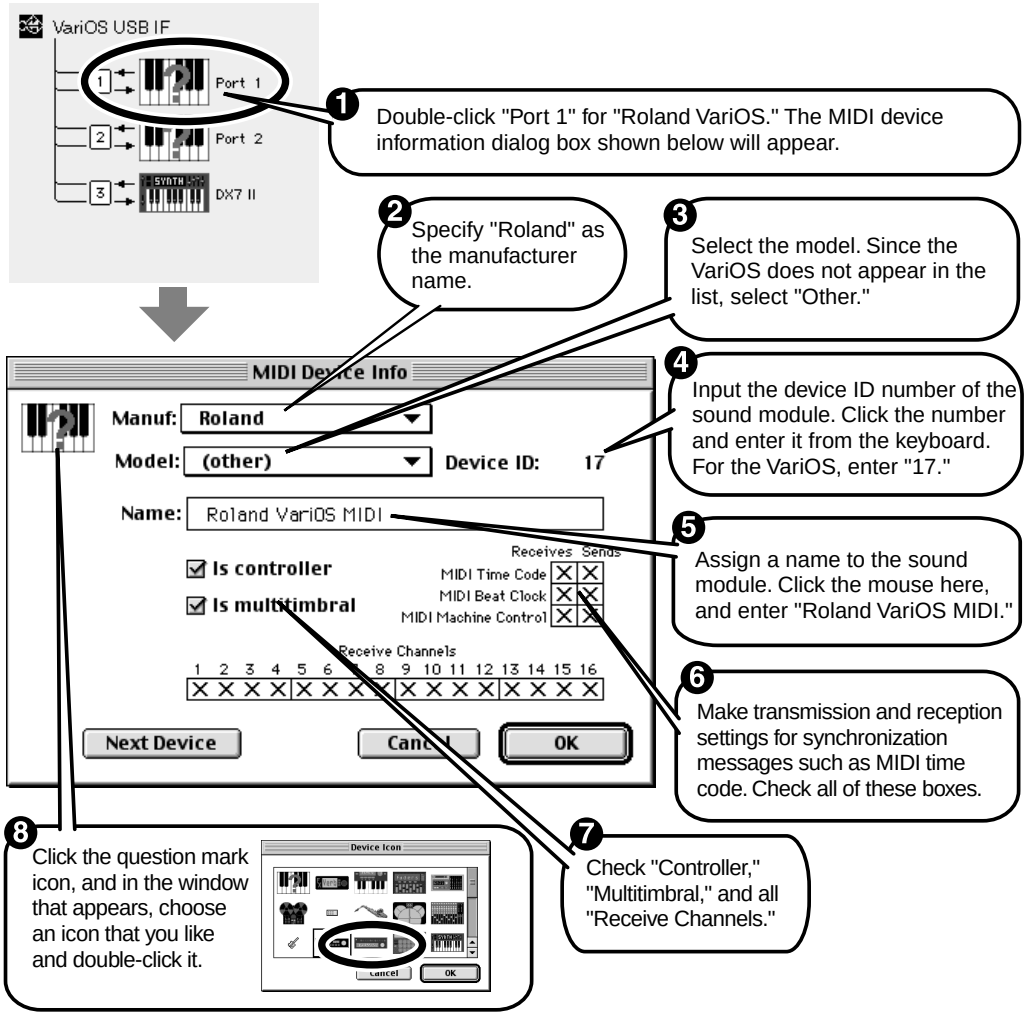
In the screen for saving the studio setup, click **[Save]** to save the setup.

8

The ports for VariOS USB IF will be displayed. Each port has the following function.

Port name displayed	Assign the following port name	Function
Port 1	Roland VariOS MIDI	Port for the VariOS sound module section
Port 2	Roland VariOS External MIDI	Port for the VariOS rear panel MIDI connector
DX7 II	Roland VariOS Sync	Macintosh internal synchronization (sync) port

Use the following procedure to specify the MIDI device for each VariOS port.

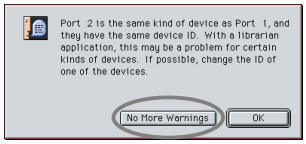


Use the same procedure to make settings for the other ports ("Port 2" and "DX7 II"). Input field ❺ as follows.

- Set “Port 2” to “Roland VariOS External MIDI”
- Set “DX7 II” to Roland VariOS Sync”

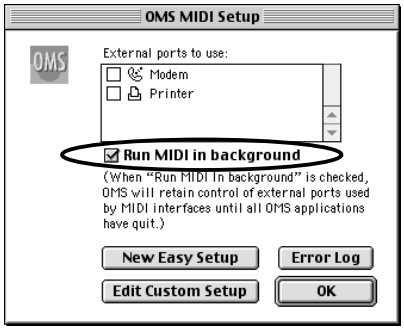
* *For “DX7 II,” you must check all of the items in field ❻. (By default these are unchecked.) If these are left unchecked, synchronization will not operate correctly.*

* *If a dialog box similar to this appears, click* ***“No More Warnings.”***



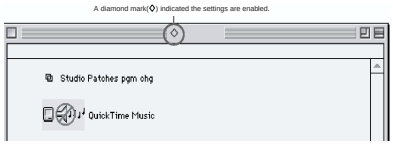
9

From the **Edit** menu choose **OMS MIDI Setup**. In the dialog box that appears, check **[Run MIDI in the background]**, and click **[OK]**.



10

From the **File** menu, choose **Make Current**. If you are unable to select **Make Current**, it has already been applied, and you may continue to the next step.



11

To verify that MIDI transmission and reception are occurring normally, choose **[Test Studio]** from the **Studio** menu.

You will enter MIDI transmission / reception test mode, and the cursor will change to a ♪ shape. When the cursor changes to the ♪ shape, click the **"Roland VariOS MIDI (Port 1)"** icon you specified earlier. If the **“MIDI”** indicator of the VariOS (front panel) blinks, the settings have been made correctly.
If MIDI transmission cannot be performed, the Macintosh warning sound will play. Once again, check that all devices are set correctly. Then choose **[Test Studio]** from the Studio menu, and exit test mode.

12

From the **File** menu choose **Quit** to exit **OMS Setup**. A dialog box will suggest that you save, so click **[Save]**. Basic settings for OMS are now completed.

You have now finished installing the VariOS driver.
Proceed to **“MIDI and audio settings”** (p. 44).

MIDI and audio settings

Here's how to make settings for the **MIDI port** and the computer's **audio device** that will be used to communicate with the VariOS.

1

Turn on the power of the VariOS.

Before starting up V-Producer, you must power up the VariOS and connect the VariOS to your computer via a USB cable.
If you inadvertently start up V-Producer before powering up the VariOS or connecting the USB cable, or if you power down the VariOS or disconnect the USB cable while V-Producer is running, you must exit V-Producer, and then restart it.

2

Start up V-Producer.

- **Windows:**
  From the start button, choose **Programs** (or **All Programs**) **- V-Producer - V-Producer for VariOS**.
- **Macintosh:**
  In the **Roland - V-Producer** folder, double-click the **V-Producer2** icon.

V-Producer will start up.

MEMO

(MacOS 9)
On Mac OS, V-Producer supports two MIDI drivers: OMS and FreeMIDI.
If your system has both of these MIDI drivers, a screen will appear the first time you start up V-Producer, allowing you to select either OMS or FreeMIDI. You can also choose between OMS or FreeMIDI in this MIDI Settings dialog box. (However, if no driver is installed in your system, you will not be able to choose between OMS and FreeMIDI.) For details on installing the OMS or FreeMIDI compatible drivers, refer to **"About the included MIDI drivers"** (p. 38) in this manual.

3

In V-Producer's Option menu, click **MIDI/Audio Settings**.

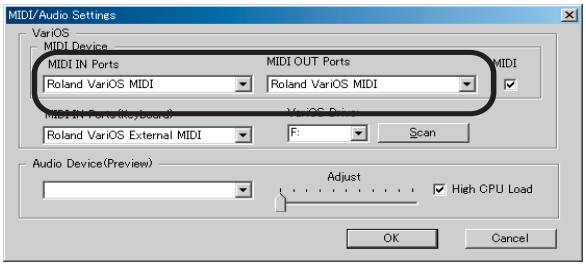
- **Macintosh:**
  Click **MIDI settings**.

MEMO

The first time you start up V-Producer, MIDI / Audio Settings (on the Mac, MIDI Settings) will open automatically, so this operation will not be necessary.

4

In the **MIDI Device** area, specify the MIDI port to which the VariOS is connected. Normally, you will select **"Roland VariOS MIDI,"** as shown in the diagram.



MEMO

If nothing is displayed in the port field, it is possible that the VariOS USB MIDI driver was not installed correctly. Check the connection between the VariOS and the computer, and install the USB MIDI driver using the procedure described in **"Installation"** (p. 21).

(OS 9)

On the Macintosh, the name you assigned in **step 8** of **"OMS Settings"** (p. 42) will be displayed. Select the port that corresponds to the VariOS sound generator port (Port 1).

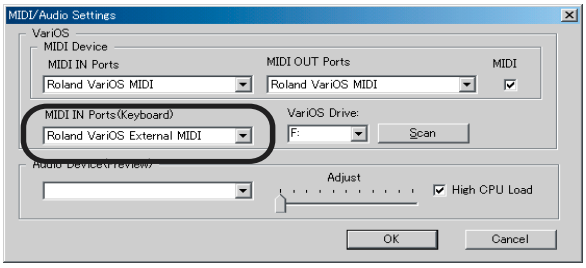
If you will not be using the USB MIDI functionality of the VariOS (i.e., **When not using the USB MIDI functionality of the VariOS (Connecting the VariOS to an external MIDI interface)**), refer to page 139.

About the MIDI Clock field

The MIDI Clock field is an on / off setting for the MIDI Clock (F8) messages transmitted from the port to the VariOS. The VariOS can receive MIDI Clock messages from V-Producer and synchronize to the master tempo of V-Producer. Normally, you will leave this field checked. On some MIDI interfaces, such as Mark Of The Unicorn Corporation's MIDI Express, or Emagic Corporation's amt8, MIDI Clock messages input to one port are output from all ports. This means that if you have specified one of these MIDI interfaces in the Sync Mode dialog box ([Option] - [MIDI Sync]) as the MIDI Clock output destination, duplicate MIDI Clock (F8) messages will be sent to the VariOS, causing the tempo to be doubled. In this case, uncheck the MIDI Clock box so that the VariOS will play back at the correct master tempo.

5

If you are using a MIDI keyboard, set the **[MIDI IN Port (Keyboard)]** field to the MIDI input port to which your MIDI keyboard is connected. If your MIDI keyboard is connected to the VariOS, select **"Roland VariOS External MIDI"** as shown in the diagram.



(OS 9)

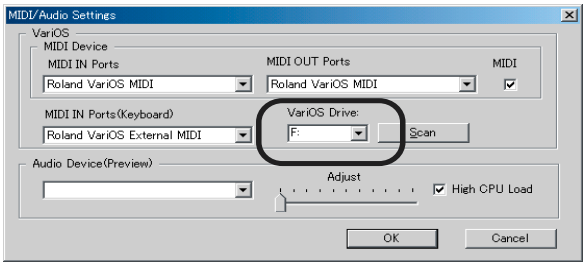
OS On the Macintosh, the name you assigned in **step 8** of **"OMS Settings"** (p. 42) will be displayed. Select the port that corresponds to the MIDI connector on the rear panel of the VariOS (Port 2).

6

(Windows only)

The **VariOS Drive** field indicates the drive letter given the VariOS when it was mounted on your computer. Press **[Scan]** to select the drive automatically.

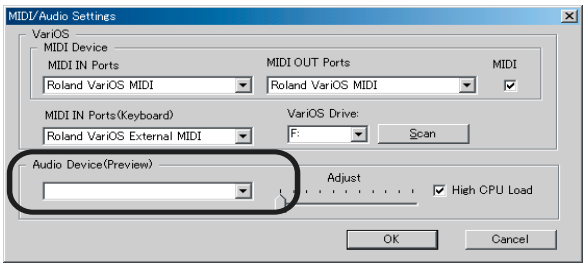
The VariOS Drive may not be detected automatically for some systems. In this case, open **My Computer** and check the drive name for VariOS (e.g., F:), and then select this for the **VariOS Drive** field.



7

(Windows only)

In the **Audio Device (Preview)** field, select the audio device that you will use for V-Producer's preview function.



MacOS OS On the Macintosh version there is no **Audio Device (Preview)** field. The internal sound functionality of the Mac will be selected.

MEMO The Preview function lets you use the audio device of your computer to audition sample data stored on your computer without loading it into the VariOS.

Audio device adjustments (Windows only)

Here you can make adjustments for the audio device in the **Wave Edit** screen (p. 65).

- Adjust slider

Adjusts the discrepancy between the Wave Edit screen display and when the audio is heard. Play back a waveform in the Wave Edit screen. If the cursor (vertical line) is later than the actual sound, move the slider toward the left. If the cursor (vertical line) is earlier than the actual sound, move the slider toward the right.

- High CPU Load

Adjusts the CPU load.
If you check this, the CPU load will be heavier, but you will get a faster response when you click the Wave Edit playback or stop button.
If you experience pops in the sound when you play something back in Wave Edit using USB-connected speakers, un-check this setting.

8

Click **[OK]**.

If a message of **"MIDI Offline!"** appears, V-Producer and the VariOS are not communicating correctly. Check the following points.

- Is the VariOS powered up?
- Is the VariOS connected correctly?

You have now completed preparations for using V-Producer.

Listening to the demo songs

Loading the demo songs

1

Start up V-Producer.

Before starting up V-Producer, you must power up the VariOS and connect the VariOS to your computer via a USB cable.

If you inadvertently start up V-Producer before powering up the VariOS or connecting the USB cable, or if you power down the VariOS or disconnect the USB cable while V-Producer is running, you must exit V-Producer, and then restart it.

2

In V-Producer, choose **Open Song** from the **File** menu. Browse to the **[Roland] - [V-Producer]** folder -> **Demo Songs** folder, and open demo song files (.vpd).

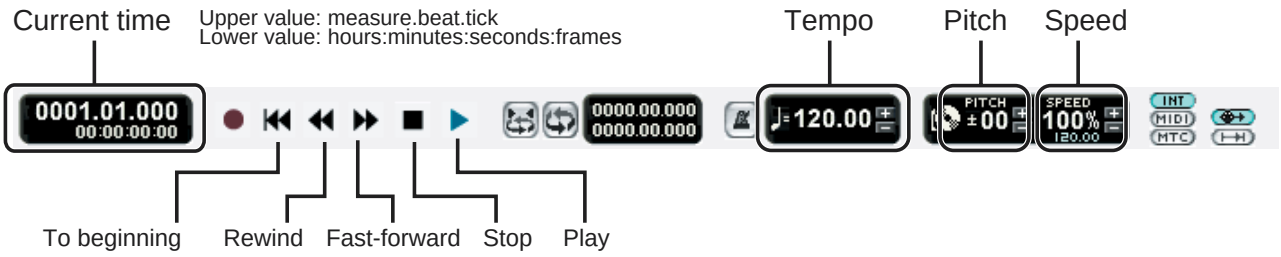
* *Loading the samples will require approximately one minute. Please wait until loading is complete.*

NOTE

In some cases when you open a song, a dialog box of **"[sample name] Load File Name"** may appear. This will appear if the user has moved a sample file that is used by the song file, or if V-Producer does not know the location of the sample file. Please specify the file location of the sample name shown in the dialog box.

Playing the demo song

You will use V-Producer's **Locator** to play back the songs.



1

Click the **[Play]** button in the Locator to play back the song.

When you play the song, the current time will change.

* *If the demo song does not play, read **"Q. No sound when you play back the demo song"** in the **"Troubleshooting"** section (p. 148).*

- To stop the song
  Click the **[Stop]** button.
- To move the current location a measure at a time
  Click the **[Fast-forward]** or **[Rewind]** buttons.
- To change the tempo of the song
  Master tempo: Drag the tempo value upward or downward.
  Relative tempo: Drag the speed value upward or downward.

* *Relative tempo (speed) smoothly adjusts the tempo even while the song is playing. Use this when you want to make a temporary change in tempo. This will not be saved in the song.*

- To transpose the overall playback pitch in semitone steps
  Drag the pitch value upward or downward.

To power down the VariOS, you must use the procedure described in "Turning the VariOS on / off" (p. 49). "Turning the VariOS on / off" (p. 49) contains important information about handling the VariOS, so please be sure to read it.

About the demo songs

For the song names and other details, refer to Readme.txt (found in the [Roland] - [V-Producer] - [DemoSongs] folder).

Turning the VariOS on/off

* *Once the connections have been completed, 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 speakers and other devices.*
* *This unit is equipped with a protection circuit. A brief interval (a few seconds) after power up is required before the unit will operate normally.*

Turning on the VariOS when connected to a computer

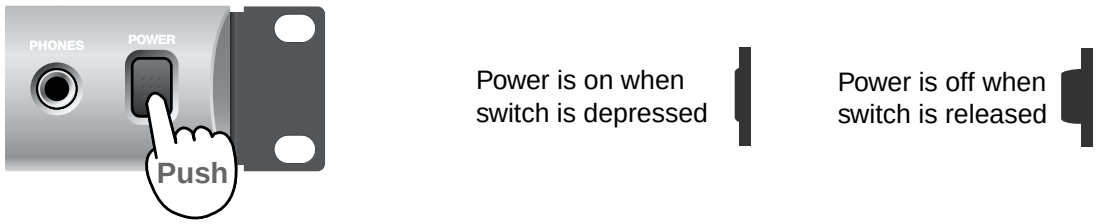
1

Start up your computer.

2

Make sure that the USB cable is connected, and turn on the power of the VariOS.

The power is **on** when the switch is pressed inward, and **off** when the switch is in the outward position.



3

The computer will detect the VariOS as a drive.

- **Windows 2000/Me/98:**

In My Computer or Explorer, the VariOS will be displayed under the name **"removable disk."**

- **Windows XP:**

In My Computer or Explorer, the VariOS will be displayed under the name **"VARIOS_DRV."**

NOTE In Windows XP, when you power up the VariOS and it is recognized by your computer as a USB drive, a **"VARIOS_DRV"** window will open, but you should click the [X] (close) button to close the **"VARIOS_DRV"** window. You must not write files directly into the VARIOS_DRV window or delete files from it. The system may fail to operate correctly if you do so.

- **Macintosh:**

VariOS will displayed on the desktop as **"VARIOS_DRV."**

Your computer will detect the VariOS as a drive (VariOS drive) that can be read or written, allowing wave files to be transferred to and from it. You must use the dedicated **V-Producer** software to transfer files between your computer and the VariOS.

NOTE Do not use the Explorer or Finder to directly write or delete files on the mounted VariOS drive. Doing so may cause the VariOS to malfunction.

* **"*Mounted*"** *means that your computer has recognized the VariOS drive.*

Turning off the VariOS when connected to a computer

Use the following procedure to turn off the power of the VariOS. If you fail to use the correct procedure to turn off the power, your computer may display a warning message.

NOTE In Windows Me, powering down the VariOS before unmounting the drive may cause an error to occur in Windows. You must use the following procedure when powering down.

1

If V-Producer is running, exit the program.

2

Unmount the VariOS drive that is mounted on your computer.

- **Windows:** (This is not necessary for Windows 98.)
  In the task tray, double-click the **eject** icon. Then click the item that indicates the VariOS drive (this will differ depending on your version of Windows; see below) to unmount the drive.

Windows XP, 2000	USB high-capacity storage device
Windows Me	USB disk

- **Macintosh:**
  Drag the **VARIOS_DRV** on the desktop into the **"Trash"**.

3

Turn off the power of the VariOS.

NOTE When you power down the VariOS, the entire contents of the VariOS drive recognized by your computer will be deleted. If you have stored important data in the VariOS drive, you must save the song in V-Producer (p. 91) before powering down the VariOS, or save it to the flash ROM or PC card of the VariOS.

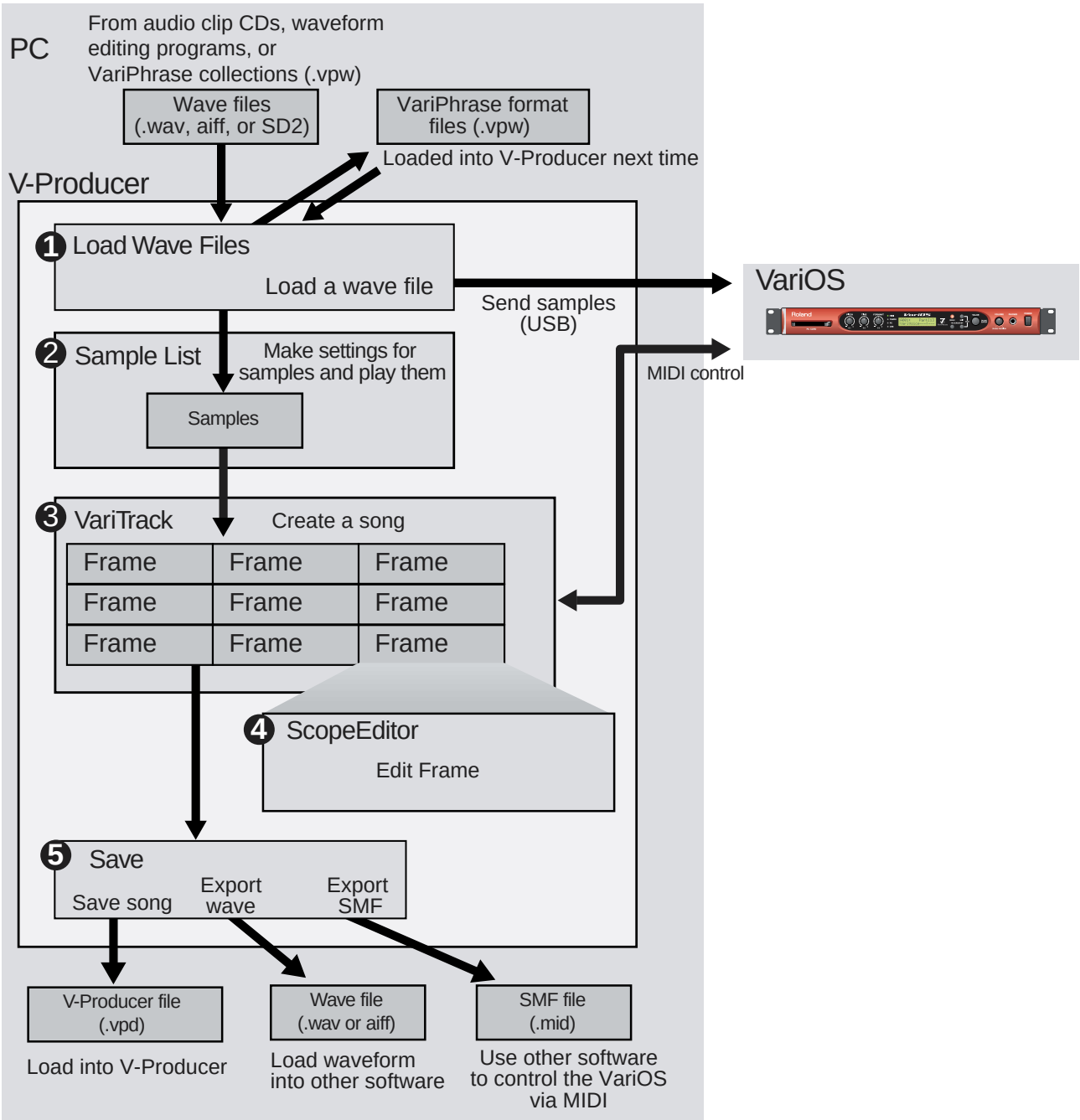
Operation Guide: Software (V-Producer)

This chapter explains the basic operation for V-Producer in the order of your actual workflow. Once you have read through this chapter, you will have mastered its basic operation.

An overview of V-Producer

V-Producer is software that controls a sound module (VariOS).
It reads wave files stored on your computer and sends them to the VariOS. At the same time, it also displays the files on the screen as samples. Simply by placing samples on a screen that corresponds to the six "parts" of the VariOS, you can automatically control the VariOS, making it sound accordingly. This lets you easily create a song using multiple tracks on the VariOS.
Since the VariOS uses Vari Phrase technology, there is no need for you to make time-consuming adjustments to the size of the samples. You can also use your MIDI keyboard to play samples in real time and record them. In addition, you can make use of a variety of editing features, which allow you to edit the Time, Pitch, Formant, as well as perform transpositions.

The following diagram shows the actual workflow.



1. Loading wave files (Load Wave Files) (p. 56)

Load wave files (.wav, aiff, or SD2) from your computer into V-Producer.

At this time the following processes will be performed automatically.

- The wave file will be converted into a VariPhrase format file that can be handled as VariPhrase data (Encoding, p. 55)
- The VariPhrase format file (.vpw) will be sent to the sound module (VariOS) via USB.
- The VariPhrase format file (.vpw) will be saved on the computer's hard disk.

2. Make settings for samples and play them (Sample List) (p. 58)

The wave files that were loaded in step 1 will be displayed as a list of samples.

You can use your MIDI keyboard to directly play the samples that are shown in the sample list.

You can also place samples in the Vari Track by dragging and dropping them.

In the Sample Edit screen (p. 62) you can edit various sample parameters to specify how the sample will play.

In the Wave Edit screen (p. 65) you can re-encode the sample (convert the encoding type or modify the tempo data).

3. Creating a song (Vari Track) (p. 68)

Create a song by dragging and dropping samples from the sample list. A sample that is placed in this way is called a "frame." You can also use your MIDI keyboard to play the samples in real time and record them.

In Frame Properties (p. 74) you can edit the settings (volume, pitch, location, etc.) of each frame placed in the vari track.

4. Phrase editing (Scope Editor) (p. 76)

Edit the performance data for the frames that you placed in the track. You can edit Pitch, Time, Format, volume (Dynamics), and notes. In the Scope Editor you can use two methods of editing.

Phrase Scope (p. 77)

The performance data in a frame is interpreted as a phrase. This method is used mainly to edit the melodic aspect of a phrase. For example, in the case of a vocal sample, you can vary the melody line, or add harmony to create chords. This type of editing is particularly useful for samples that contain a monophonic melody, such as vocals.

Groove Scope (p. 87)

The performance data in a frame is interpreted as a rhythm pattern. This method is used mainly to edit rhythm material.

For example, in the case of a drum pattern sample, each of the slices delineated by events will be a drum sound, such as bass drum or snare. By changing the time location of the slices you can re-configure the drum pattern. This type of editing is particularly useful for rhythm samples such as drum patterns.

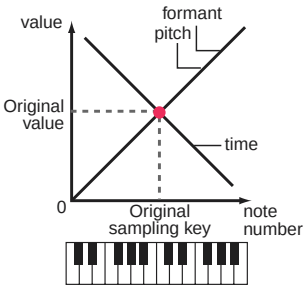
5. Saving (p. 91)

Save the results of your editing.

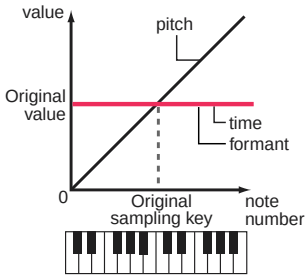
Save song	Save a V-Producer file (.vpd). This file can be loaded by V-Producer (p. 91).
Export wave	Convert the song into a wave file (.wav or aiff) and save it (p. 91)
Export SMF	Convert the song into an SMF (.mid) file and save it. This data (SMF) created by V-Producer can be played back in your MIDI sequencer (p. 138).

What is VariPhrase?

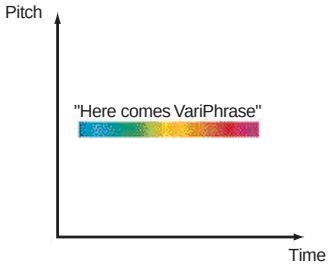
VariPhrase is proprietary Roland technology that uses newly developed encoding methods with several algorithms to analyze and extract the three elements of sound—pitch, time, and formant (tonal character)—from the sample, allowing you to control these independently in real time.



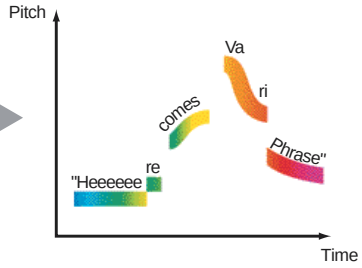
On a conventional sampler, pitch, time, and formant always change together.



When you use VariPhrase Solo encoding, time and formant will remain fixed, and only the pitch will vary. This lets a single sample cover a wider range of notes.



Original phrase
Record the words "Here comes VariPhrase" sung at a constant pitch.



VariPhrase lets you control the phrase in real time. As shown here, you can freely and independently control the pitch, time, and formant even while the phrase is playing.

This opens up possibilities for completely new performance expressions and sound design that were unavailable on previous synthesizers or samplers.

On a conventional sampler, using phrase samples involved the following problems:

- Changing the tempo affected the pitch.
- Changing the pitch of a vocal sample would also change the playback speed (time) and tonal character (formant).
- The sampled phrase was simply played back, and could not be varied.
- Since one sample could cover a range of only a few keys, you needed samples at multiple pitches if you wanted to play a wider range.
- If you wanted to play multiple samples in synchronization, the samples had to be at the identical tempo.
- If you play the keys in a chord at different moments, the sounds are heard out of sync with each other.
- Changing the pitch or tempo degrades the sound quality.

VariPhrase eliminates all of the above problems.

What is encoding?

In order use VariPhrase to freely control the pitch or time, the sample must be encoded in order to extract its pitch / time / formant data.
There are three encoding types. Choose the encoding type that is most suitable for each phrase.

● SOLO

This type accurately extracts the pitch, time, and formant data. This encoding type is ideal for single-note and melodic audio phrases such as vocals or sax, and lets you take full advantage of VariPhrase's potential. If you use this encoding type, you will be able to control the formants and use the robot voice function (refer to "Sample Edit" p. 62). Even if you encode using SOLO, you will still be able to play polyphonically.

● BACKING

This type extracts pitch and time data. It is the ideal encoding type for percussive phrases, such as drum or percussion rhythm patterns.

● ENSEMBLE

This type extracts pitch and time data. It is the ideal encoding type for chordal phrases with ambience.

The pitch and time data that is extracted is simply added to the audio file, and the wave data itself is not processed in any way; i.e., this is a non-destructive process. This means that you can later re-encode using a different encoding type, or re-edit the wave.

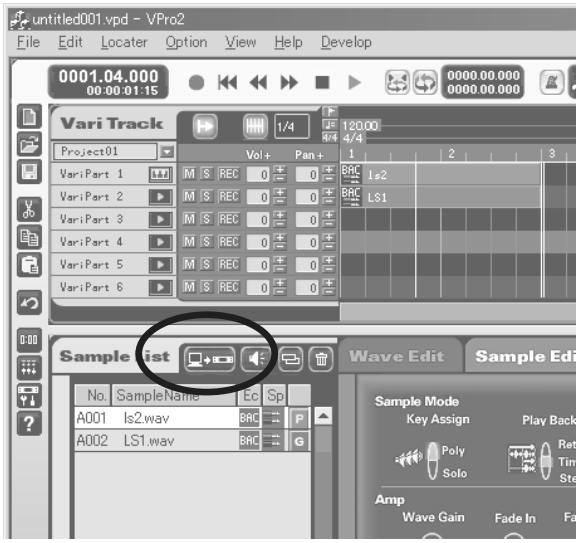
Loading wave files (Load Wave Files)

Here's how you can load wave files from the hard disk of your computer and send them to the VariOS. When you execute this command, the Load Wave Files dialog box will appear.

1. Start up V-Producer.

* *Before starting up V-Producer, you must power up the VariOS and connect the VariOS to your computer via a USB cable. If you inadvertently start up V-Producer before powering up the VariOS or connecting the USB cable, or if you power down the VariOS or disconnect the USB cable while V-Producer is running, you must exit V-Producer, and then restart it.*

2. At the bottom of the screen, click the **[Sample Info]** button (Sample Info) to access the Sample List screen. In Sample List, click the [**Load Wave Files]** button (or choose **File - Load Wave Files** menu).



* *V-Producer is able to load wave files in Wave file format (.WAV), AIFF file format (.AIF), SD2 format, or VariPhrase format (.VPW).*

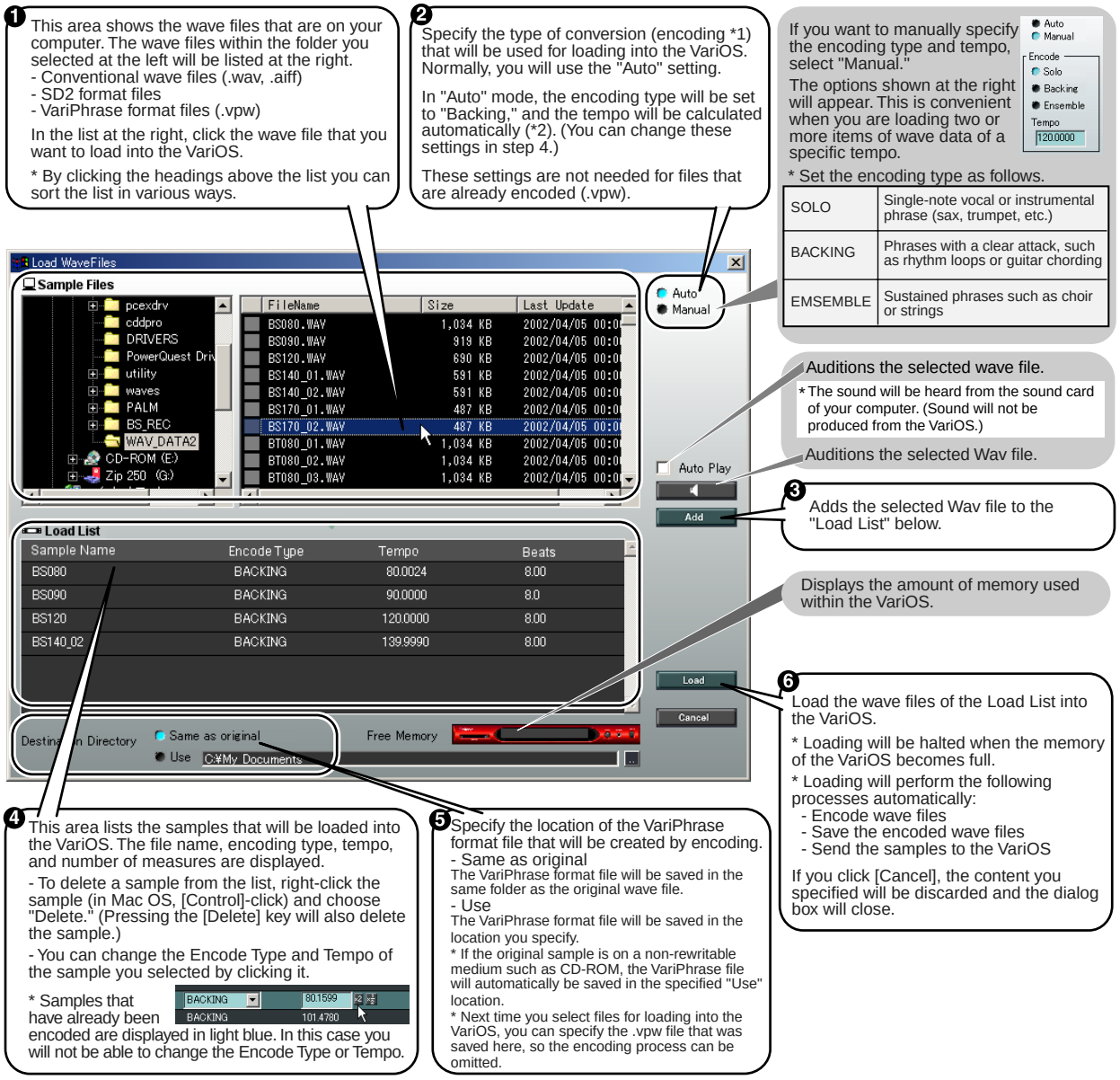
A note about file names

Do not use the following characters in a file name.
If you load a file with a name that includes any of the following characters, V-Producer may fail to operate correctly.

\ / : , ; * ? " < > |

Before loading such a file into V-Producer, you must delete these characters from the file name.

3. Load the wave file as described in the illustration below.



* What is encoding?
To make it possible for you to make realtime changes in the pitch, time, and formant of the samples used by the VariOS, the wave data must be "encoded." There are three encoding types.

SOLO	This encoding type is suitable for monophonic vocals or instruments (sax, trumpet, flute, etc.). If you use this encoding type, you will be able to control the formants and use the robot voice function (refer to "Sample Edit"). Even if you encode using SOLO, you will still be able to play polyphonically.
BACKING	This encoding type is suitable for decay-type instruments. In particular it is suitable for phrases that contain instruments with a clear attack (rhythm loops, drums, percussion, guitar chording).
EMSEMBLE	This encoding type is suitable for sustained-type instruments. It is particularly suitable for sounds that contain gradual changes in tone (such as choir or strings). This encoding type handles the broadest range of sounds.

* If you encode using BACKING or ENSEMBLE, you will not be able to control the formant or use the robot voice function.

* About tempo
"Auto" mode will automatically calculate the tempo of loop audio materials.
Audio material that has been trimmed for looping and has a 4/4 time signature will be automatically calculated in a tempo range of 80--160. If the automatically set tempo of the sample is double or half what it should be, you can adjust it using the Tempo [x 2] or [x 1/2] button of the "Load List" (❹).

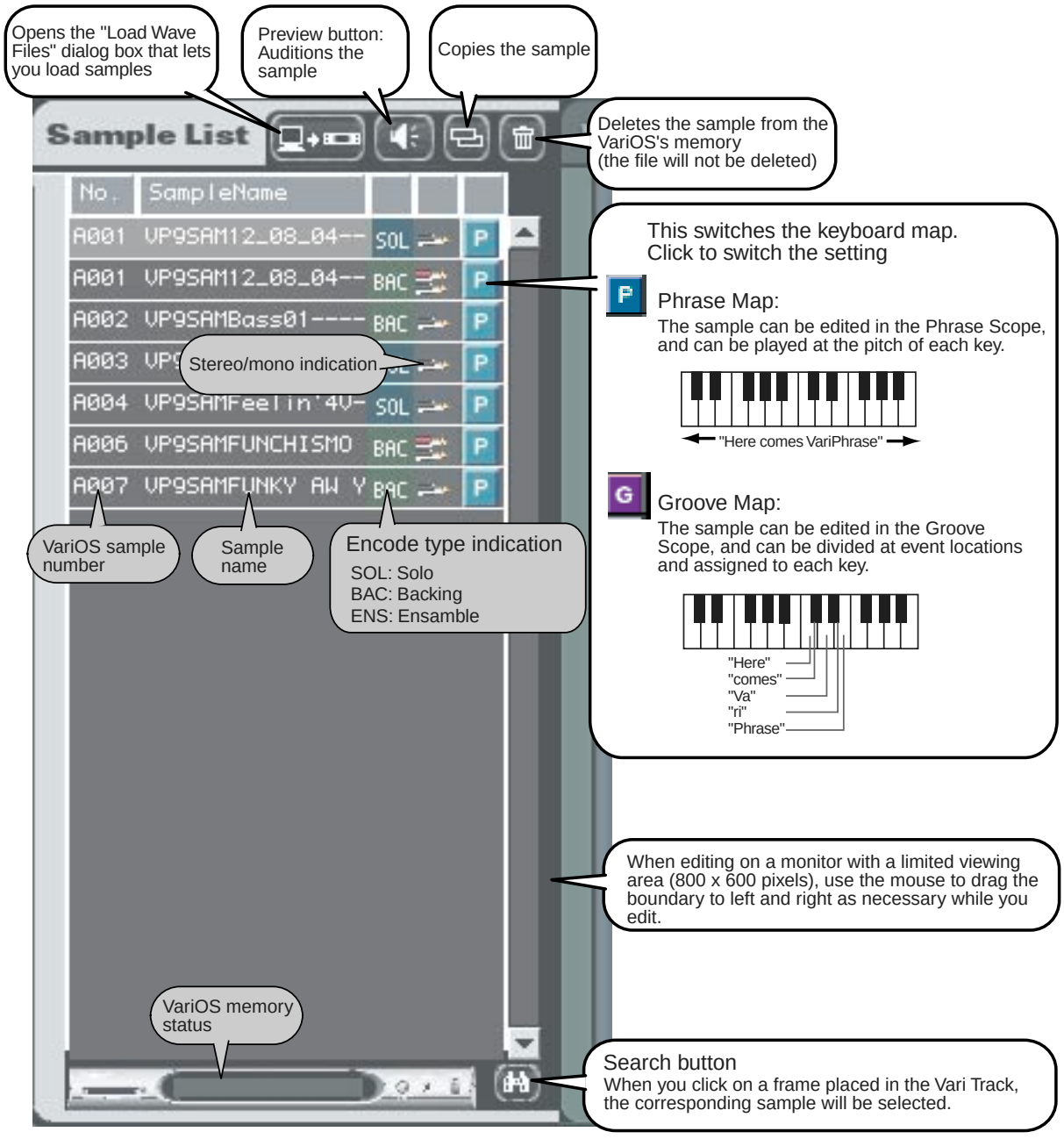
MEMO Original tempo

The sample tempo (original tempo) you specify here is the basic tempo used to synchronize the sample to the master tempo of V-Producer. You must set this to the correct tempo. Otherwise, the length of the note will not be correct.

[Example: if the original tempo of the sample is ♩=100]
If the master tempo is set to ♩=200, the sample will play back at double the speed at which it was sampled.
If the master tempo is set to ♩=50, the sample will play back at half the speed at which it was sampled.

Make settings for samples and play them (Sample List)

At the bottom of the screen, click the [Sample Info] button (Sample Info) to access the Sample List screen.



Auditioning a sample

1. Use the mouse to select the sample you want to audition.

   You can also use the [↑][↓] keys of your computer keyboard to select a sample.

2. Click the **[Preview]** button shown in the diagram, or press the **[P]** key of your computer keyboard to audition the sample.

   • The sound will be heard from the VariOS.

3. You can play your MIDI keyboard to audition the selected sample.

* *One free part in the Vari Track (p. 68) is required in order to audition the sample. If you have used all six parts of the Vari Track, you will not be able to audition samples from the sample list while the song is playing. The part being previewed will be indicated as*  *in the Vari Track indicator.*

* *While you are auditioning a sample from your MIDI keyboard, you can turn the PITCH/TIME/FORMANT knobs of the sound module (VariOS) to adjust the pitch, playback speed, and tonal character (formant).*

* *FORMANT is available only for samples with an encoding type (p. 57) of SOLO.*

Switching the keyboard map

"Keyboard Map" is a parameter that specifies how a sample loaded by V-Producer will be sounded when it is triggered via MIDI. You can select one of the following two modes.
To switch between modes, press the P button that is shown at the far right of each sample in the sample list.

■ P (Phrase Map)

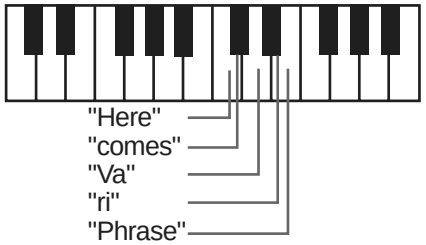
The sample will be sounded at the pitch corresponding to the note number. When you edit a sample for which this mode is specified, the Phrase Scope will automatically be used for editing (p. 77).
Samples set to this mode will be displayed as green frames on the Vari Track.

[Example: If the sample is of a voice saying "Here comes VariPhrase," the pitch will vary according to the key you play.]

■ G (Groove Map)

The sample will be divided at event locations, and each slice of the waveform will be assigned to its own note number (in semitone steps from C3). When you edit a sample for which this mode is specified, the Groove Scope will automatically be used for editing (p. 87).
Samples set to this mode will be displayed as purple frames on the Vari Track.

[Example: If the sample is of a voice saying "Here comes VariPhrase," each slice of the waveform will be played by different semitones starting at C3.]



Use your MIDI keyboard to try out each map, and listen to the difference.

Deleting a sample

To make best use of the memory of the VariOS, here's how you can delete unwanted samples from VariOS memory.

1. At the bottom of the screen, click the **[Sample Info]** button (Sample Info) to display the sample list.
2. Click the sample that you want to delete.
3. Click the **[Delete Sample]** () button.

   The selected sample will be deleted from the memory of the VariOS.
   If the sample has already been placed in the Vari Track, the following message will appear:* *"Since this sample is being used in the Vari Track, it cannot be deleted. This sample on the Vari Track will be selected, so press the [Delete] key to delete it."*** *After this message is displayed, press the* ***[Delete]*** *key to delete the selected sample from the Vari Track, and then click the* ***[Delete Sample]*** *button once again.*

If you select **[Delete All Unused Samples]** from the **Option** menu, all samples not used in any part of the Vari Track will be deleted in one operation.

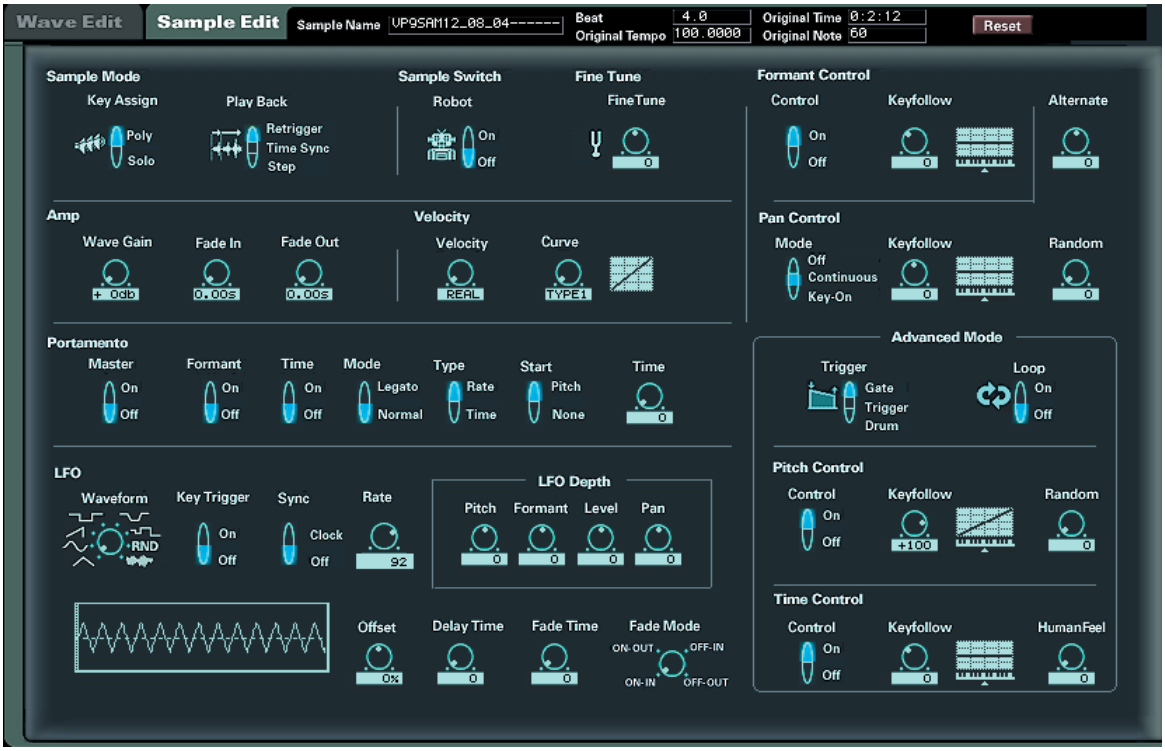
Copying a sample

If you want to play the identical sample with different settings, use the following procedure to copy the sample.

1. At the bottom of the screen, click the **[Sample Info]** button (Sample Info) to display the sample list.
2. Click the sample that you want to copy.
3. Click the **[Copy Sample]** () button.

   The selected sample will be copied within the VariOS.
4. The Save dialog box will appear. Specify a location on your computer in which to save the copied sample.

Editing the sample parameters (Sample Edit)



In this screen you can edit various parameters for a sample that was sent to the VariOS.

Click the **[Sample Info]** button (Sample Info) located at the bottom of the screen to display this screen.

Here we will explain the basic parameters used to play a sample on the VariOS.

■ Key Assign mode

The Key Assign mode selects whether the sample will be played polyphonically (POLY) or monophonically (SOLO). If you want to play a monophonic instrument (such as sax or flute) legato, it is effective to select SOLO.

Values

Poly:	More than one note can be played simultaneously.
Solo:	Only the last-played note will sound.

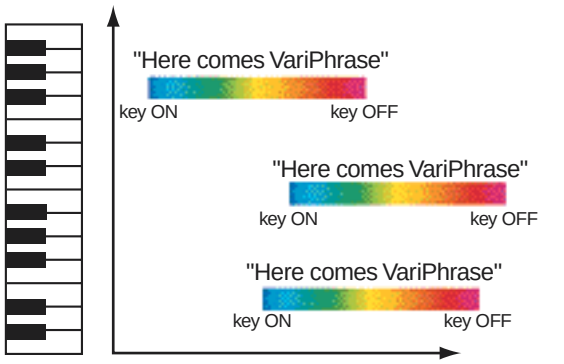
Default setting: Poly

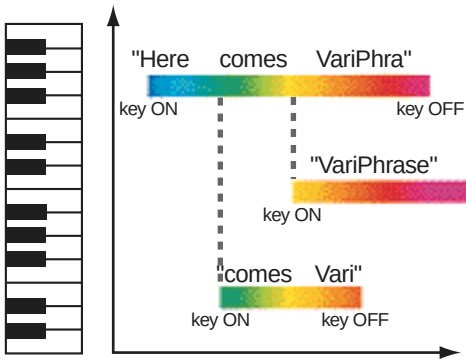
■ Playback mode

The Playback mode selects how the sample will be played. If you want to use legato (*) playing to play a melody different than the original sample, choose **"Time Sync."** If you want the sample to play back from the beginning each time you press a key, choose **"Retrigger."**

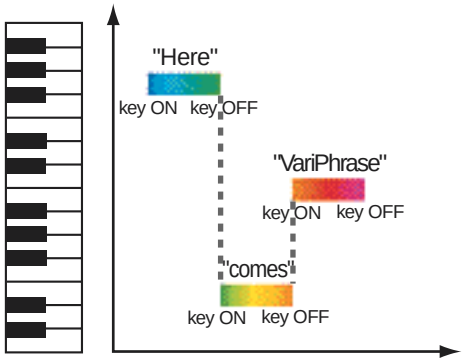
* *"Legato" originally means to "play smoothly," but here it refers to the technique of playing the next key (note-on) before releasing the previous key (note-off) so that the sound is never halted.*

Values:

<table>
<tr><td>Retrigger:</td><td> 

Each time you press a key, the sample will play back from the beginning. This will produce an effect like a musical "round."</td></tr>
<tr><td>Time Sync:</td><td> 

● Key Assign: Poly
When you play legato, the playback point (of the newly played sounds) will be synchronized to the sound that is playing from the beginning. As shown in the diagram, you can produce chords even in the middle of a phrase.

● Key Assign: Solo
If you set the Key Assign mode to SOLO and play legato, the pitch will change starting at the playback point of the previously played note. You can play your keyboard to produce a melody that is completely different than the original phrase.</td></tr>
<tr><td>Step:</td><td>Each time you play a key, the sample will play to the next event (p. 67) and then stop.</td></tr>
</table>

Default setting:

In Phrase Scope mode	Time Sync
In Groove Scope mode	Retrigger

NOTE

If you set a G (Groove Map) sample to anything other than "Retrigger," the sound will be interrupted and will not play back correctly.

If you set a P (Phrase Map) sample to anything other than "Time Sync," you cannot play legato.

■ Robot (robot voice switch)

Turn this ON if you want to remove the sense of pitch from the sample (i.e., to ignore the original pitch of the sample and sound it at the pitch that you play). In the case of a phrase sample, you can use your keyboard to play a melody that is entirely different than the original sample, in this way using a single sample to play a variety of melodies.

Values: OFF, ON

Default value: OFF

* *This setting is valid only for samples whose Encode Type (p. 57) is set to SOLO.*

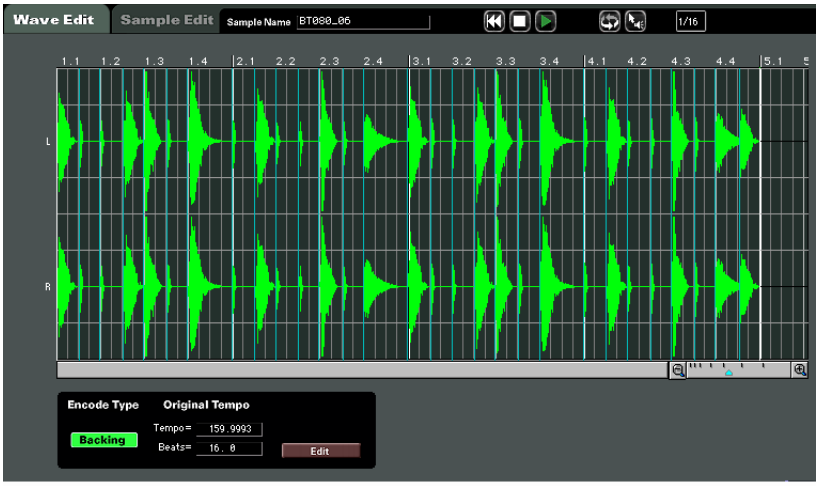
* *If slight pitch changes in the original phrase are an important part of the performance expression, the Robot Voice function may not produce satisfactory results. The results may also be unsatisfactory if the key you play is far away from the pitch of the original phrase.*

■ Reset

If you press this button, the values you edited in Sample Edit will return to their default settings. Try pressing this button if you have been editing the parameters and can no longer hear any sound, or if you experience similar problems.

Re-encoding a sample (Wave Edit)

If you want to change the encoding type of a sample that is already loaded into the VariOS (for example, if the sample is a solo vocal phrase, and you want to change it from “Backing” to “Solo”), or if you want to change the original tempo of the sample (for example, if the sample tempo does not match the song, you can re-encode the sample in the Wave Edit screen).
At the bottom of the screen, click the **[Sample Info]** button (Sample Info) and then click the **[Wave Edit]** tab (Wave Edit) to access the following screen.



To re-encode, click the **[Edit]** button (Edit) to enter edit mode.

* *For details on encoding, refer to* ***“What is encoding?”*** *(p. 55) .*

■ Waveform preview

Rewind

Moves the cursor location to the beginning of the waveform.

Stop

Stops playback of the waveform.

Play

Plays the waveform starting from the cursor location.

* *Waveform playback in the Wave Edit screen will be heard from the sound card of your computer (not from the VariOS).*

Play step

Plays the waveform one slice at a time (i.e., an individual region of the waveform separated by events)

Loop

 If you want playback to occur repeatedly, turn looping on.

Display Grid

Switches the display grid.

Zoom tool

 Expands or contracts the waveform display.

■ Changing the encoding type

For details on the encoding type, refer to ***"What is encoding?"*** (p. 55).

1. At the bottom of the screen, click the **[Sample Info]** button (

), and then click the **[Wave Edit]** tab (

) to access the Wave Edit screen.
2. In the sample list shown at the left, click the sample that you want to edit.
3. Click the **[Edit]** button (

) to enter Edit mode.
4. Press a button in the diagram to specify the encoding type.

: Solo encoding

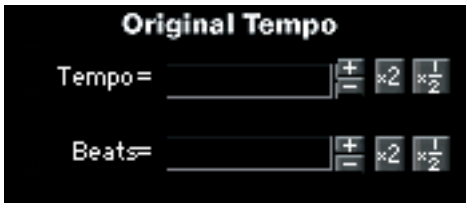
: Backing encoding

: Ensemble encoding

5. Finally, click the **[Save]** button. The sample will be saved, and re-sent to the VariOS. If you click the **[Cancel]** button, your changes will be discarded and you will exit Edit mode.

■ Changing the original tempo

If the tempo of the sample does not match the song, you can change the original tempo of the sample.



1. As described in **steps 1–3** of **"Changing the encoding type,"** enter Edit mode.
2. Adjust the tempo by entering a new value in either the **"Tempo"** or **"Beats"** field.

To edit numerically, double-click the value and edit it in the dialog box that appears.

: Doubles the value


: Halves the value

3. Finally, click the **[Save]** button. The sample will be saved, and re-sent to the VariOS. If you click the **[Cancel]** button, your changes will be discarded and you will exit Edit mode.

■ Changing the location of a event

Events demarcate the notes that you edit in the Scope Editor screens (p. 76). In the Groove Scope (p. 87), you can slice the sample at the locations of the events you specify here, and reassemble the slices as desired.

Initially, V-Producer will automatically place events in the sample, but you are free to add, delete, or adjust the location of the events.

1. As described in **steps 1–3** of **"Changing the encoding type,"** enter Edit mode.
2. The events are shown in the event display area.

3. Click one of the Event Edit tools to select a tool, and edit the events in the event display area.

Arrow..... Drag an event to move it
Pen..... Click to add an event
Eraser ..... Click to delete an event

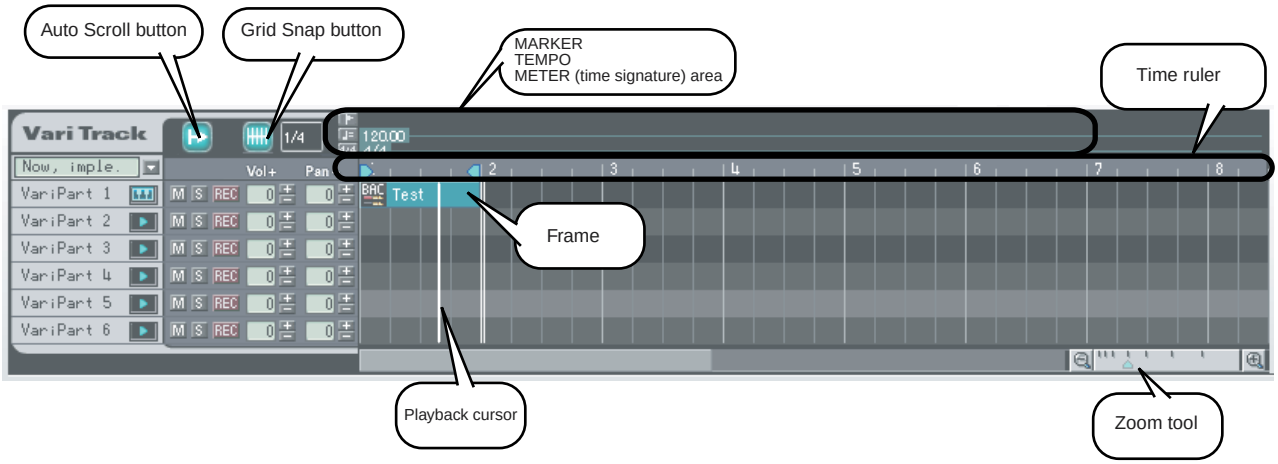
Slider (Depth) ..... Moving the slider will cause an event to be automatically assigned wherever a strong attack (a point where the volume changes suddenly) is detected.

* *Try using the play step*  *button to play individual slices (waveform divided by events).*

4. Finally, click the **[Save]** button. The sample will be saved, and re-sent to the VariOS. If you click the **[Cancel]** button, your changes will be discarded and you will exit Edit mode.

Creating a song (Vari Track)

Now let's actually create a song. Songs are created using the Vari Track.
To create a song, you will drag and drop samples from the sample list into the Vari Track. The samples placed in this way are called "frames." You can also use your MIDI keyboard to play samples in real time and record your performance.



Changing the tempo

1. Double-click the **TEMPO** area

2. The **Add Tempo** dialog box will appear. Specify the desired tempo.

* *You can also right-click (Control-click in MacOS) a tempo event you added, and edit or delete it by choosing* ***[Add Tempo]*** *or* ***[Delete Tempo]*** *from the menu that appears.*

Setting the time signature

1. Double-click the **METER** (time signature) area.

2. The Add Meter dialog box will appear. Specify the desired time signature.

* *You can also right-click (Control-click in MacOS) a time signature event you added, and edit or delete it by choosing* ***[Add Meter]*** *or* ***[Delete Meter]*** *from the menu that appears.*

Arranging samples

The Vari Track consists of six parts, which correspond to the six parts of the sound module (VariOS).
The time ruler in the upper area of the screen indicates the measure numbers.
Now let's place some samples in the Vari Track.

1. Drag a sample from the sample list (hold down the mouse button).
2. Continuing to hold the mouse button, move the sample over the Vari Track, and release the mouse button (i.e., drag and drop the sample).
3. The sample will be placed at the location of the mouse cursor.

Editing a frame

Samples placed in the Vari Track are shown as rectangular bars, which are called “frames.” You can edit the structure of your song by moving, copying, and pasting frames.

■ Select the frame to edit

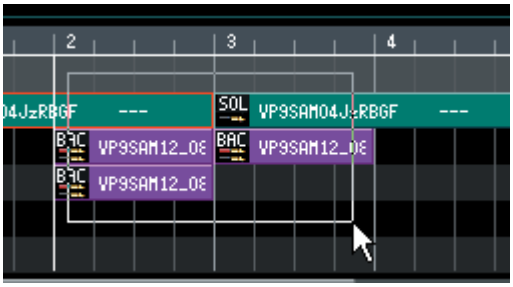
First you need to select the frame(s) that you want to edit. There are several ways to do this.

To select one frame

Use the mouse to click the frame

To select multiple frames

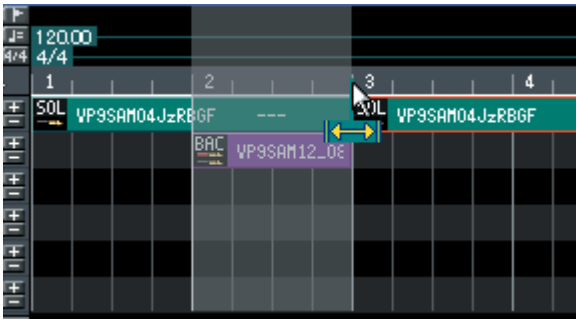
Drag the mouse to describe a rectangle that includes the desired frames.



* *To select a rectangle from above a frame, hold down the **[Ctrl]** key and **[Shift]** key of your computer keyboard while you drag (On MacOS, hold down the [ ] key and **[Shift]** key while you drag). You can hold down the **[Shift]** key of your keyboard and click a frame to add it to your selection.*

To select a region of time

Drag the mouse over the time ruler to select the frames that are included in that region.



If the Grid Snap button (1/4) is pressed at this time, the starting point and ending point of the selected region will be automatically adjusted to the nearest grid to the left.

* *If you select a region of time, the marker, time signature, and tempo data can also be selected for copying. In addition, you can select all parts that are in that region of time.*

■ Moving a frame

1. Select the frame that you want to move. It will be highlighted.
2. Press and hold the mouse button on the selected frame, drag it to the desired destination, and release the mouse button ("drag and drop").

* *You cannot move multiple frames that were selected as a time region (p. 70).*

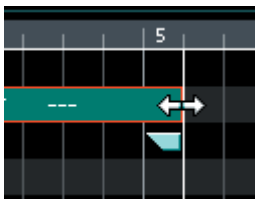
* *If you turn off the Grid Snap button (), you will be able to make precise moves regardless of the grid size.*

* *Using the zoom tool () located in the lower right of Vari Track you can expand or contract the size of the display grid.*

■ Changing the length of a frame

1. When you move the mouse near the beginning or end of a frame, the cursor will change shape as shown in the diagram.

* *When dragging the left edge to shorten the frame, it is not possible to move it any further toward the right than the note data existing in the frame.*



2. Continuing to hold down the mouse button, drag to left or right and then release the mouse button.

* *Extending a frame will not affect the length of the phrase (sample). This means that if you extend a frame beyond the length of the phrase, the extended portion will be silent.*

■ Copying a frame

You can copy a frame any number of times to the desired locations. This is an easy way to create repeated rhythms, etc.
Here are several ways in which you can copy a frame.

Copy by dragging and dropping

1. Select the frame that you want to copy.
2. Press and hold the mouse button on the selected frame, drag it to the desired location, and release the mouse button while pressing the **[Ctrl]** key of your keyboard (in MacOS, the **[Option]** key).

* *Two or more frames selected by time region (p. 70) cannot be copied by dragging and dropping.*

Copy by using the Copy and Paste commands

1. Select the frame that you want to copy.
2. Use one of the following methods to copy the frame.
   - Choose Copy from the **Edit** menu.
   - Right-click (in MacOS, **Control-click**) the selected frame, and choose Copy from the menu that appears.
   - Press **[Ctrl] + [C]** on your keyboard (in MacOS, [ ] + **[C]**).
3. Click the copy-destination location.

   The **part** you clicked will be highlighted, and the playback cursor (vertical line) will move to the location you clicked.
4. Use one of the following methods to paste the frame you copied.
   - Choose **Paste** from the **Edit** menu.
   - Right-click (in MacOS, **Control-click**), and choose Paste from the menu that appears.
   - Press **[Ctrl] + [V]** on your keyboard (in MacOS, [ ] + **[V]**)

Copy a frame more than once (the Repeat function)

You can use the Repeat function to easily create repeated rhythm patterns.

1. Select the frame that you want to copy.
2. Use one of the following methods to execute the Repeat function.
   - Choose **Repeat** from the **Edit** menu.
   - Right-click the selected frame (in MacOS, **Control-click**), and choose **Repeat** from the menu that appears.
   - Press **[Ctrl] + [R]** on your keyboard (in MacOS, [ ] + [R]).
3. When the **Repeat Copy** dialog box appears, specify the number of repetitions.
4. Click **OK**.

■ Deleting a frame

1. Select the frame that you want to delete.
2. Use one of the following methods to delete the frame.
   - Choose **Cut** or **Delete** from the **Edit** menu.
   - Right-click the selected frame (in MacOS, **Control-click**), and choose **Cut** or Delete from the menu that appears.
   - Press ***[Ctrl] + [X]*** (in MacOS, ***[ ] + [X]***) or the ***[Delete]*** key on your keyboard.

* *When you use these delete commands to delete a frame, the original location will become a blank, and the overall length of the song will not change. If you want to shorten the song by deleting measures (for example if you want to remove two measures from the introduction), use the* ***Delete Measure*** *command on the* ***Edit*** *menu.*

* *If you right-click the PART name (in MacOS,* ***Control-click****) and choose* ***"Delete Frames"] from the menu that appears, all frames will be deleted from that part.***

Loop playback

You can use loop playback to listen repeatedly to a specific region.

1. In the **locator**, turn on the **loop** button.

2. The **loop markers** will be displayed in the **time ruler**.

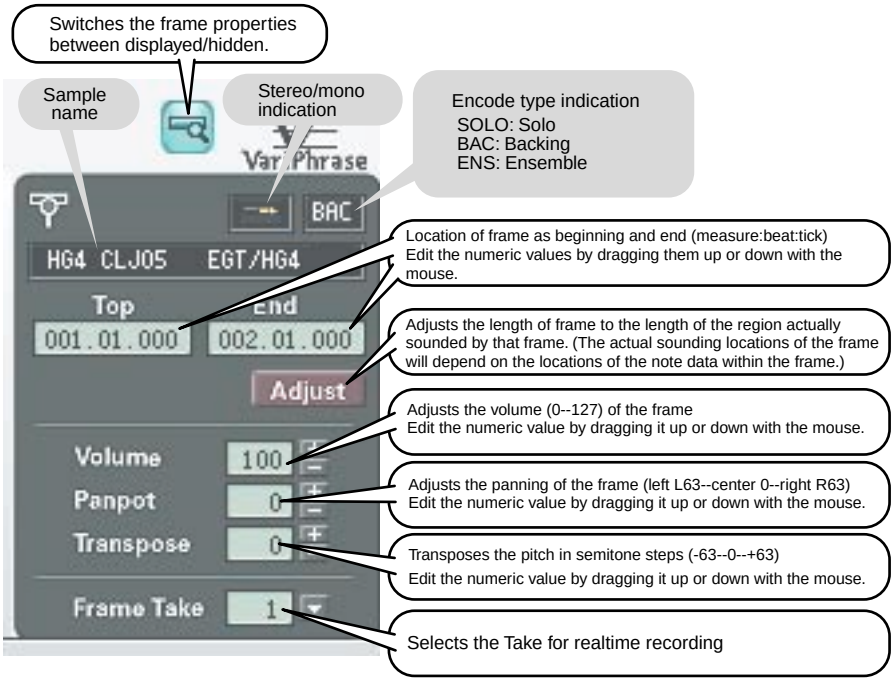
3. Drag the **loop markers** to left or right to specify the start point and end point of the loop.
4. Press the **play** button, and playback will loop between the loop markers.

■ Using the Quick Loop function to set the loop region

The Quick Loop function sets the selected region as the loop region.
Select a frame in the Vari Track, and click the Quick Loop Position button in the locator. The beginning and end of the frame will be set as the loop region. If you drag over the time ruler to select a region and then click the Quick Loop Position button, that region will be set as the loop region.

Editing the settings of a frame (Frame Properties)

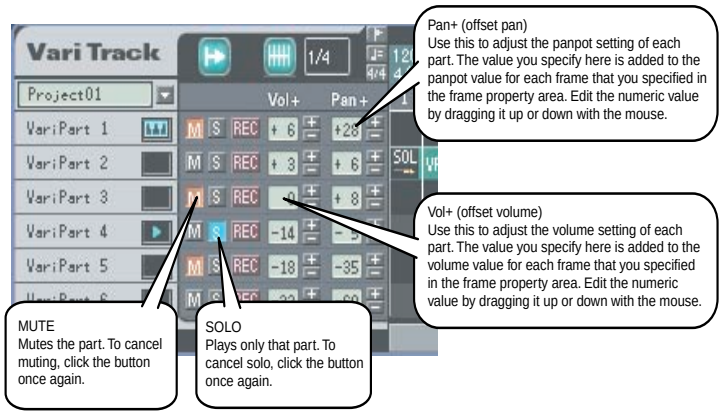
You can edit the frame properties to change the settings (volume, pan, pitch, etc.) of a frame that was placed on the Vari Track. Click to select the frame you want to edit. (It will be enclosed in a red border.)



If you loop the playback as described in **"Loop playback" (p. 73) while editing the various frame property parameters, you can hear the results of your edits while you make them. This makes it easier for you to get exactly the right pitch and volume.*

Solo / Mute / Volume / Pan settings

The Vari Track contains six parts, and you can make Solo / Mute / Volume / Pan settings for each part.



Playing your MIDI keyboard and recording (RealTime Rec)

1. In the sample list, click to select the sample that you want to record.

   When you play your MIDI keyboard you will hear the selected sample.

   * *If you do not hear sound when you play your MIDI keyboard, make sure that your keyboard is connected as described in* ***"Connecting MIDI and audio devices"*** *(p. 20). Then click the Options menu item* ***"MIDI/Audio Settings"*** *(in MacOS,* ***"MIDI Settings"****), and make sure that the port for your MIDI keyboard is selected in the [MIDI IN Ports (Keyboard)" field.*

2. In the Vari Track, select the part that you want to record.

   * *Click a [Rec] (record-part) button (REC) to select the part that you want to record. The indicator of that part will change to (MIDI keyboard is being thru-ed). When the song is played, the frames placed in this part will not be heard.*
   * *Frames that have already been placed in the part whose [Rec] (record-part) button (REC) is clicked will be overwritten and lost when you record.*

   - If you do not press a (REC) button, recording will occur on an empty part.
   - The state of each part is shown by the indicator as follows.

	Playback: the part can be played back (normal state)
	Muted: the part is muted (the [M] button is pressed, or another part is soloed [S])
	Record: the indicator will be in this state when you press the [REC] button and then press the [●] button
	MIDI thru: the MIDI keyboard is being thru-ed. The part for which you press the [REC] button will be in this state. (During playback, the frames placed in this part will not sound.) If you have not pressed the [REC] button, MIDI thru will be assigned automatically. When stopped, part 1 will be selected as the MIDI thru part. While playing, a part containing no frames will be selected as the MIDI thru part.

3. In the locator, press the record button (●) and then press the play button (▶) to begin recording. Perform by playing your MIDI keyboard and turning the PITCH / TIME / FORMANT knobs of the VariOS.

   * *If desired, you can first press the play button (▶) to begin playback, and then press the record button (●). In this case, recording will begin at the moment you press the record button. You may find it convenient to use loop playback while you practice, and then press the record button when you are ready to begin recording.*

4. In the locator, press the stop button ([■]) to stop recording. The frame you recorded will be created in the Vari Track.

5. If you recorded repeatedly while using loop-playback, a recorded take will be created for each repetition of the loop. "Take 1" will be the recording for the first iteration, "take 2" for the second, and so on. Use the Frame Take field in Frame Properties to select your favorite take.

   * *As an alternative to the recording method described here, you can use* ***"Modify Recording"*** *(p. 85), in which you will add data while looping a single frame.*

Phrase editing (Scope Editor)

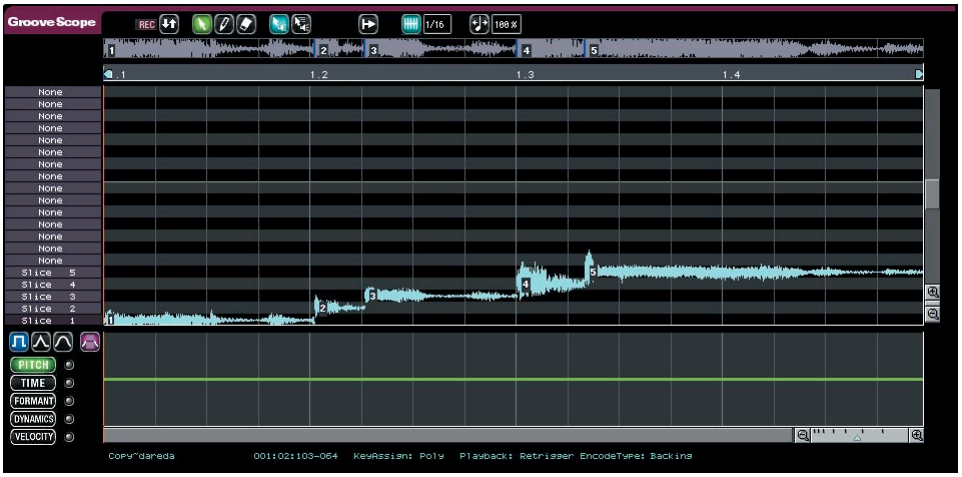
The scope editor lets you edit the performance data within a frame. By using the scope editor you can visually edit pitch, time, and formant data for any location within a phrase.
The scope editor will be either the Phrase Scope or the Groove Scope, depending on the keyboard map (p. 60) setting in the sample list.
Since you can edit while listening to the playback loop, you can hear the results of your editing while you work. In addition, it's easy to restore a phrase to its previous state, so you can repeat cycles of trial and error as many times as you like.

■ Phrase scope

The Phrase Scope will appear when you edit a frame that was pasted with the sample's "Keyboard Map" set to P (Phrase Map). As its name suggests, the Phrase Scope interprets the performance data within the frame as a phrase, and is used mainly to edit melodic elements of the phrase. For example, in the case of a vocal sample, you can change the melody line or even add harmony to turn the sound into a chord. This technique is particularly powerful when applied to single-line samples such as vocals.

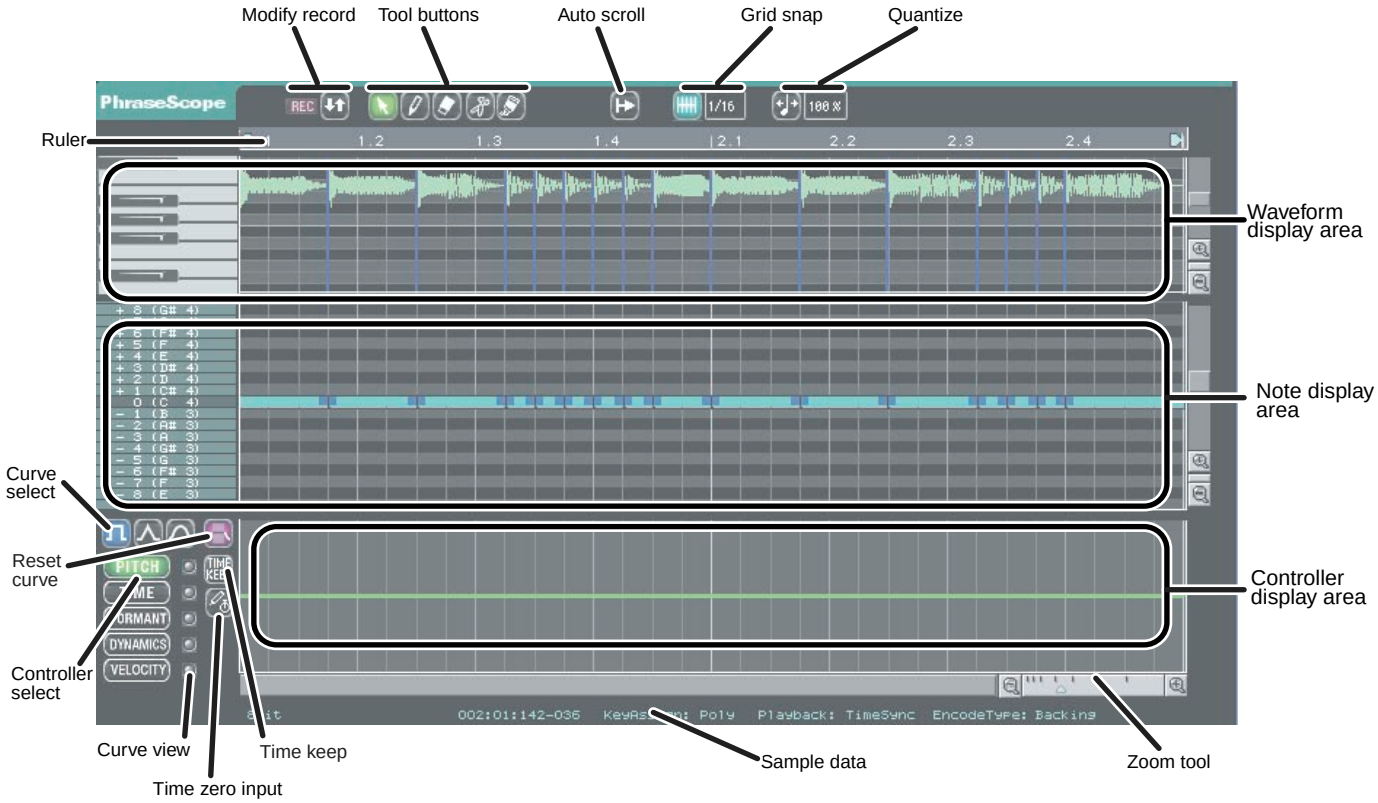
■ Groove scope

The Groove Scope will appear when you edit a frame that was pasted with the sample's "Keyboard Map" set to G (Groove Map). The Groove Scope interprets the performance data within the frame as a rhythm pattern, and is used mainly to edit rhythmic elements.
For example, in the case of a drum pattern sample, each slice (a waveform region divided by events) will be a drum sound such as bass drum, snare, etc., and you can re-configure the drum pattern by changing the time location of these slices.
This is particularly useful when used on rhythm part samples such as drum patterns.



Editing in the Phrase Scope

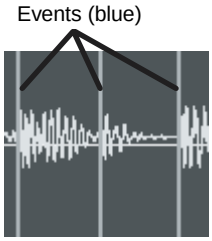
The phrase scope will open when you double-click a green frame that was pasted with the sample's "Keyboard Map" (p. 60) set to (Phrase Map).



● Waveform display area

The waveform of the encoded sample is displayed here. When you edit notes or time, the results will appear in this area. You cannot directly edit the waveform in the waveform display area.

* *If the waveform is not displayed, try using the scroll bar located at the right of the waveform display area to adjust the displayed area (upward or downward).*



If you play from the middle of a phrase, the sound will be heard starting at the location of an event (blue line).

About pitches in the waveform display area

- For samples encoded in the SOLO type, the waveform will be displayed at the positions of the notes.
- Pitches in the waveform display area are only approximate, and may not be accurate for some samples.
- For samples encoded in a type other than SOLO, the entire waveform will be displayed at the same pitch.

● Note display area

The notes corresponding to the waveform display area are shown here. You can use these notes to edit the pitches of the phrase. To edit a note, select a tool from the **tool** buttons.

● Controller display area

In this area you can edit the PITCH, TIME, FORMANT, DYNAMICS, and VELOCITY parameters. Use the **[Controller select]** buttons at the left to select the parameter you want to edit. Edit the selected parameter by using the mouse to drag the curve directly.

Editing the Pitch/Time/Formant/Dynamics

Here's how to edit the Pitch / Time / Formant / Dynamics in the specified region of the phrase.

1. Select the parameter that you want to edit.

At the left of the controller display area, press one of the **[Controller select]** buttons to select the parameter you want to edit: **[PITCH]**, **[TIME]**, **[FORMANT]**, or **[DYNAMICS]**.

PITCH (Control change number 16)	Varies the pitch.
TIME (control change number 17)	Varies the playback speed.
FORMANT (control change number 18)	If the sample was encoded as "SOLO," varies the tonal character (formant).
DYNAMICS (control change number 11 Expression)	Varies the volume.

* *You cannot edit the formant if the sample was encoded in a type other than* ***"SOLO."*** *Even if you press the FORMANT button, the red line indicating the formant will not be displayed.*

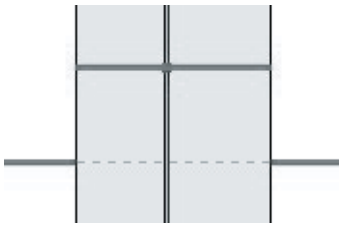
2. Use one of the following methods to specify the region that you want to edit.

To select a desired region	Drag the mouse to left or right in the **controller display area**. To select a region in grid units, turn on the Grid Snap button.
To extend the selected region	Hold down the **[Shift]** key of your keyboard and click in the **controller display area**.
To select an event	Click the **waveform display area**.
To select multiple events	Drag the mouse to left or right in the **waveform display area**.
To cancel your selection	Click in an unselected part of the **controller display area**, or click the border.

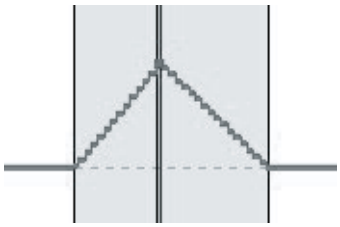
3. Use the **[Curve select]** buttons to select the type of curve.

You can select one of three curves to specify how the parameter will change. Click either the Flat, Linear, or Rounded curve button.

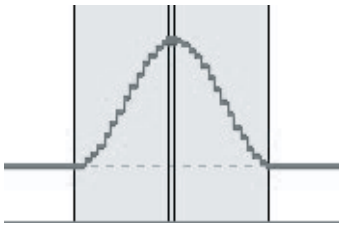
● Flat  : The parameter will be increased or decreased equally.



● Linear  : The parameter will be increased or decreased in a straight line.

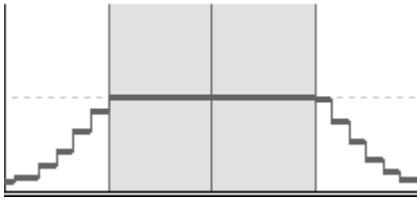


● Rounded  : The parameter will be increased or decreased in a rounded curve.



* *You can also right-click (in MacOS, **control-click**) the controller display area and choose a curve from the menu that appears.*

● Reset curve  : Resets the curve in the selected region.



4. Hold down the mouse button on the selected region in the **controller display area**, and drag upward or downward. When you reach the desired value, release the mouse button.

* *If you selected the Linear or Rounded curve, the value will be increased or decreased around the point at which you pressed the mouse button.*

Time Keep function

When editing the time in Curve Edit mode, you can use the Time Keep function. If the Time Keep function is turned on, the curve will be adjusted when you edit the Time so that the length of the selected region will stay the same. You can use this when you want to create a slight change in the Time parameter, but want the overall length to remain unchanged.

Click the **[Time Keep]** button () to switch the Time Keep function on / off.

* *This is not valid for Time Zero input.*

Time Zero input

If you want to stop (“zero”) time in the Phrase Scope, click the **[Time Zero]** button () to change the cursor to the **Time Zero input tool**.

To use this, drag the **Time Zero input tool** across the Time curve, moving the mouse toward the right and then releasing it. When you input Zero Time, a Time Zero line (a dark blue line shown at the bottom of the control area when displaying the Time parameter) will appear, and the waveform display area will be striped.

If you want to cancel the Time Zero line, click it with the eraser tool.

■ Erasing controller data

There are two ways to erase controller data.

● Using the Reset Curve button

1. Select a region.
2. Click the Reset Curve button ().

● Using the eraser tool

1. Select the eraser () tool button.
2. When you drag the eraser tool over the controller display area to select a region, the controller data in the selected region will be erased. You can also erase this data by clicking the selected region of the controller display area.

To delete control data other than Pitch / Time / Formant / Dynamics that you input during realtime recording, etc., select a region in the control display area, right-click (in MacOS, **control-click**), and choose **"Clear Other Controls"** to delete the data.

Editing notes

By editing notes you can modify the melody of a phrase or create chords.
By default (when a frame is first pasted), a note is placed at the original pitch of the sample (the key that will sound the sample at its original pitch). One note will be displayed for each event.
In the **phrase scope** you can move or add notes to freely play the sample just as if you were controlling the VariOS from your keyboard. For example, you can create a chorus melody from just a single vocal melody.

If you want to play legato in the phrase scope, go to the Sample Edit screen (p. 62) and set the sample Playback mode (p. 63) to "TIME SYNC."
If you edit a note with the **Playback mode** set to **"RETRIGGER,"** the beginning of the sample will be played each time the pitch changes, and you will be unable to play legato.

■ Grid Snap setting

Turn this on if you want to place notes or select regions at intervals of the grid spacing.

When you drag a note to move it, the note will move in units of the grid. For example, if the grid spacing is set to one measure, a note that was intentionally placed a 1/16th note ahead of the bar line will move in steps of one measure, maintaining its position 1/16th note ahead of the bar line.
To switch the display grid, drag the numerical value shown at the right of the grid button, and choose from the pulldown menu that appears.

Values:

BAR	1 measure
1/2	Half note
1/4	Quarter note
1/8	Eighth note
1/8T	Eighth note triplet
1/16	16th note
1/16T	16th note triplet
1/32	32nd note
1/32T	32nd note triplet
1/64	64th note
1/64T	64th note triplet

Default setting: 1/16

■ Selecting multiple notes

1. Choose the arrow () from the **tool** buttons.
2. You can use the following methods to select multiple notes. The selected notes will turn red.

- Use the arrow cursor to drag left or right in the note area to select a region. The notes in that region will be selected.
- Hold down the **[Shift]** key of your computer keyboard and click the mouse on each desired note to select two or more notes.

■ Changing the pitch (fixed movement of the note upward or downward)

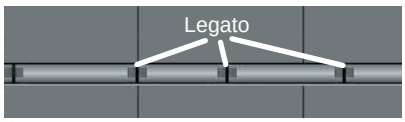
1. Choose the arrow ( ) from the **tool** buttons.
2. Use the mouse to drag the note, and then press the [SHIFT] key of your computer.
   The mouse cursor will be shown as an up / down arrow.
3. Drag the note upward or downward.

   The waveform display area will show how the phrase has changed.
   The keyboard shown in the vertical axis of the waveform display area will give you an idea of the pitch that will sound. The vertical axis of the note area will indicate the note number with which the phrase will be played.

■ Adjusting the legato timing

A note will be colored light blue to indicate that it is played legato with the adjacent notes.

* *Notes colored light blue are the default notes generated when you paste a sample into the Vari Track. In contrast, the notes you add by recording or by using the pen tool are colored purple. You cannot delete light blue notes.*



By moving a light blue note to left or right, you can adjust the note-on and note-off timing while preserving the legato playback.

1. Choose the arrow ( ) from the **tool** buttons.
2. Move the mouse near either end of the note.
3. Drag the note to left or right.

   The notes at either side of the note you dragged will contract or expand automatically to preserve the legato playback.

■ Moving a note to another position

You can move a note to a desired position. At this time, light blue notes will preserve the legato playback.

1. Choose the arrow ( ) from the **tool** buttons.
2. Drag the note upward, downward, left, or right.

   * *If you want to limit the movement of the note to the vertical direction, hold down the [Shift] key and drag the note upward or downward.*

■ Adding a note

You can add new notes. Notes you add are displayed in purple.

1. Choose the pen ( ) from the **tool** buttons.
2. At the location where you want to add a note, press and hold the mouse button, drag to the right, and then release the mouse button.

   A purple note will be added.

■ Changing the length of a note

You are free to change the length of a purple note.

1. Choose the arrow () from the **tool** buttons.
2. Move the mouse near either end of the note.
3. Drag the note to left or right.

■ Erasing a note

Purple notes can be erased. Light blue notes cannot be erased.

1. Choose the eraser () from the **tool** buttons.
2. Click the mouse on the note that you want to erase.

* *By dragging the **eraser** cursor across the note display area to select a region, you can delete all the purple notes in that region.*

■ Copying a note

Purple notes can be copied. Light blue notes cannot be copied.

1. Select the note that you want to copy.
2. Use one of the following methods to copy the note.
   - Choose **Copy** from the **Edit** menu.
   - Right-click (in MacOS, **control-click**) the selected note, and choose **Copy** from the menu that appears.
   - On your computer keyboard, press **[Ctrl] + [C]** (on MacOS, press [ ] + [C]).
3. Click the ruler of the **phrase scope** to move the **playback cursor** (the vertical line) to the starting location at which you want to copy the note.
4. Once again click the note display area, and use one of the following methods to paste the note you copied.
   - Choose **Paste** from the **Edit** menu.
   - Right-click (in MacOS, control-click) and choose Paste from the menu that appears.
   - On your computer keyboard, press **[Ctrl] + [V]** (on MacOS, press **[ ] + [V]**).

■ Dividing a note

You can divide a note into two notes. For example, you can divide a note at the point where you want to modify the melody, and then move the divided notes upward or downward to change the pitch at the desired timing.

1. Choose the scissors () from the **tool** buttons.
2. Click the mouse at the location where you want to divide the note.

■ Joining two notes

You can join two notes that were divided.

1. Adjust the two notes so that they are horizontally aligned.
2. Choose the bond () from the **tool** buttons.
3. Click between the two notes that you want to join.

■ Editing the velocity

1. Using the **[Controller select buttons]** located at the left of the controller display area, choose **[VELOCITY]**.

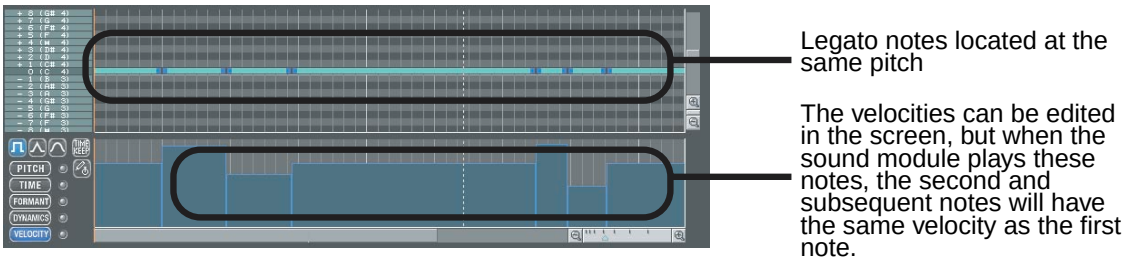
   A graph of the velocities will be displayed.

2. Use the arrow cursor to directly drag the velocity graph upward or downward.

   The graph you are editing will turn red.

3. If more than one note exists at the identical timing, click in the note display area on the note that you want to edit, and the corresponding velocity graph will turn red.

* *In the phrase scope, adjacent legato notes are located at the same pitch, the velocity of the second and subsequent notes will be ignored. Even though you will be able to edit the velocity of the second and subsequent notes on the screen, the sound produced by the VariOS when you play legato will use the velocity of the first note located at that pitch.*



Modify Recording

This function lets you modify or edit the selected frame in real time.
Modify Recording differs from conventional realtime recording (p. 75) in that when you loop-record, the data will be added to the same take. For example, you would use Modify Recording if you want to record the kick on the first cycle, snare on the second, and hi-hat on the third.

Realtime Recording	When loop-recording, the first cycle is recorded on take 1, the second as take 2, and so on. Use the frame property parameter Frame Take to select your favorite take.
Modify Recording	When loop-recording, the data recorded on each cycle is added to the same take. Events will be added, and Pitch, Time, Formant, and Dynamics data will be overwritten over the previously recorded data.

1. Loop-playback a frame.

2. Click the Modify Record button shown below.

● **Punch-in/out button**

When you press the **punch-in/out** button, the punch-in / out anchors will be displayed at the beginning and end of the selected region in the time ruler of the scope editor screen. Recording will apply to the region indicated by the **punch-in/out anchors**—anything you play outside this region will not be recorded.

**The location of the punch-in/out anchors will move according to any increases or decreases due to TIME editing.*

3. In the **locator area**, press the **record button** (●) and then press the **play button** (▶) to begin recording. Perform by playing your MIDI keyboard and / or turning the **PITCH/TIME/FORMANT knobs** of the VariOS.

* *You can also press the* **play button** *(▶) first, and then press the record button (●). In this case, recording will begin at the moment you press the record button, so you can practice while the playback continues looping, and then press the record button when you are ready to record.*

4. In the **locator area**, press the **stop** button (■) to stop recording.

Quantize

Quantize is a function that adjusts the note locations to left or right so that the notes line up with intervals of the displayed grid.

1. As described in **"Selecting multiple notes"** (p. 81), specify the region that you want to quantize.
2. Set the numeric value at the right of the **quantize button** to specify the quantization rate (the amount of adjustment).

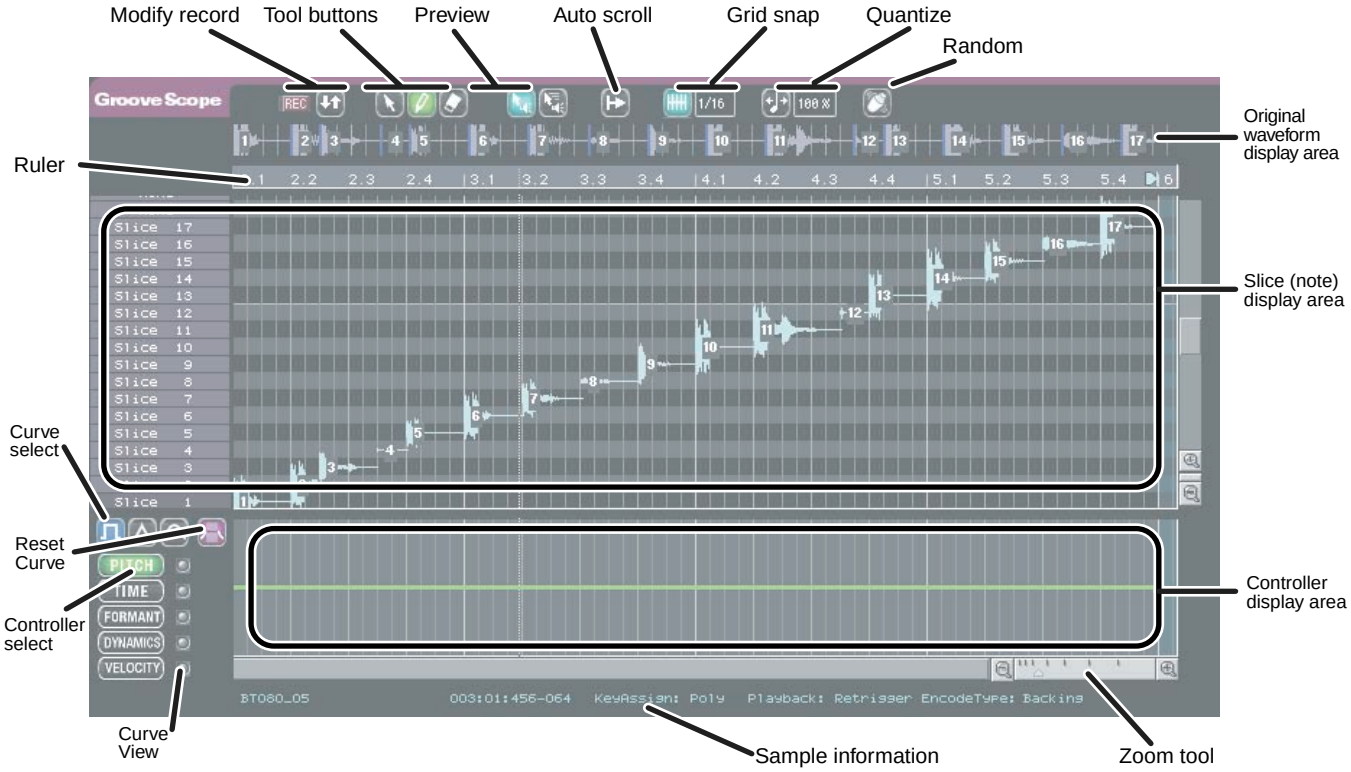
   You can adjust the quantization rate in a range of 0%–100% by dragging the numeric value upward or downward. With a setting of 100%, the note locations will be aligned precisely with the grid intervals.
3. Click the **quantize button** to execute the quantize operation.

If you did not get the result you expected, choose **[Undo]** from the **[Edit]** menu, then try the operation over again using other settings.

NOTE If notes are connected by legato, the first note will adhere to the grid, and subsequent notes will move in parallel with the first.

Editing in the Groove Scope

The groove scope will open when you double-click a purple frame that was pasted with the sample's "Keyboard Map" (p. 60) set to G (Groove Map).



● Original waveform display area

The sample waveform is divided into slices at event locations, and the slices are displayed in this area. Slices are numbered sequentially from the beginning.

If you hold down **[Shift]** and click a slice in the **original waveform display area**, the slice whose number you clicked will be added to the original location of the slice display area.

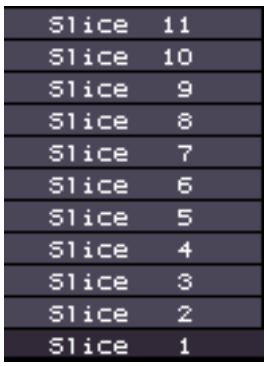
● Slice (note) display area

Here you can edit slices (notes). Slices (waveforms) are displayed in stair-step fashion. The vertical axis shows the type of slice (arranged in order from the bottom), and the horizontal axis shows the timing at which each slice will be heard.

Slice name display area

The name of the slice is shown here. You can double-click the slice name to re-name it.

By right-clicking the **slice name** (on MacOS, **control-clicking**), you can switch the display between the slice name and the note name.



● Controller display area

Here you can edit the **PITCH**, **TIME**, **FORMANT**, **DYNAMICS**, and **VELOCITY** parameters. Use the **[Controller select buttons]** at the left to switch parameters. Use the mouse to directly edit the curve. Basic operation is the same as in the phrase scope.

Editing the Pitch/Time/Formant/Dynamics

You can edit the **Pitch/Time/Formant/Dynamics** in the desired region of the phrase. The procedure is the same as in the phrase scope, as described in **"Editing the Pitch/Time/Formant/Dynamics"** (p. 78).

* *Unlike the phrase scope, the groove scope does not change the timing of a slice (note) when you edit the TIME parameter. For this reason, the groove scope does not have the* **"Time Keep"** *and* **"Time zero input"** *functions that are provided in the phrase scope. (Moving the TIME curve to the bottom will produce a zero time.)*

Editing a slice (note)

Editing a slice is essentially the same as editing a note in the phrase scope.

When you want to edit slices in the groove scope, go to the Sample Edit screen (p. 62) and set the playback mode of the sample to **"Retrigger"** (p. 63). If the playback mode is anything other than **"Retrigger,"** editing an event will cause the sound to be interrupted or otherwise fail to play correctly.

* *The groove scope provides a preview function for each slice.*

- If the  button is on, you can audition a sample by clicking it.
- If the  button is on, you can audition a sample by moving the mouse cursor over it.

■ Selecting multiple slices

1. Choose the arrow () from the tool buttons.
2. You can use the following methods to select multiple slices. Selected slices will turn red.

- Drag the arrow cursor to the left or right in the event display area or controller display area to specify a region. The slices in the region will be selected.
- Hold down the **[Shift]** key of your computer and click the mouse on a slice to add it to or remove it from your selection.

■ Moving a slice

You can freely move a note to another location.

1. Choose the arrow () from the tool buttons.
2. Drag the slice up, down, left, or right.

   If there is no original waveform corresponding to the slice, the waveform display of the slice will be a straight line.

   * *If you want to limit the movement of the slice to the vertical direction, hold down the* **[Shift]** *key and drag the slice upward or downward.*

■ Adding a slice

Here's how to add a new slice.

1. Choose the pen () from the tool buttons.
2. Hold down the mouse button at the location where you want to add a slice, drag to the right, and then release the mouse button.

   If you extend the slice beyond the length of its original waveform, the waveform display of the slice will be a straight line.
   If you hold down **[Shift]** and click a slice in the **original waveform display area**, the slice of the number you clicked will be added to the original location of the slice display area.

■ Adjusting the length of a slice

1. Choose the arrow () from the tool buttons.
2. Move the mouse near either end of the slice.
3. Drag the slice to left or right.

   If you extend the slice beyond the length of its original waveform, the waveform display of the slice will be a straight line.

■ Deleting a slice

1. Choose the eraser () from the tool buttons.
2. In the slice display area, click the mouse on the slice you want to delete.

* *By dragging the eraser tool across the slice display area to select a region, you can delete the slices from the corresponding region.*

■ Copying a slice by dragging and dropping

1. Select the slice that you want to copy.
2. Press and hold the mouse button on the selected slice, move it to the desired destination, and then hold down the **[Ctrl]** key (in MacOS, the **[Option]** key) of your keyboard and release the mouse button (drag and drop).

■ Copying a slice with the Copy and Paste commands

1. Select the slice that you want to copy.
2. Use one of the following methods to copy the slice.
   - Choose Copy from the **Edit** menu.
   - Right-click (in MacOS, **control-click**) the selected slice, and choose **Copy** from the menu that appears.
   - Press **[Ctrl] + [C]** (in MacOS, **[ ] + [C]**) on your keyboard.
3. Click the ruler of the **groove scope| to move the playback cursor** (the vertical line) to the location at which you want the pasted slice to begin.
4. Use one of the following methods to paste the copied slice.
   - Choose **Paste** from the **Edit** menu.
   - Right-click (in MacOS, **control-click**) and choose **Paste** from the menu that appears.
   - Press **[Ctrl] + [V]** (in MacOS, **[ ] + [V]**) on your keyboard.

■ Random

Random is a function that randomly replaces the selected slice with another slice of a different number. This can create unexpected and interesting beats.

1. As described in **"Selecting multiple notes"** (p. 81), specify the area to which Random will be applied.
2. Click the **Random** button ().

   The Random function will be executed.

If you are not satisfied with the results, choose the menu command **[Edit] - [Undo]**, and then execute Random again.

Modify Recording

The procedure is the same as for **"Modify Recording"** (p. 85) in the phrase scope.

Quantize

The procedure is the same as for **"Quantize"** (p. 86) in the phrase scope.

Saving

Saving a song

In the same way as in most programs, you will save your work by choosing **[Save Song]** or **[Save As]** from the File menu. The song will be saved in V-Producer format (in Windows, the file name extension is .vpd).

In V-Producer, the actual audio data used by a song (.vpw files) is handled separately from the song file (.vpd file) that uses this audio data. The song file contains only references to these audio files. This means that if you copy or back up only the song file to another computer, you will be unable to play back the song.
If you select **"Save song with the sample files"** when saving, all sample files (.vpw files) used by the song will be copied to the same folder as the song file. By moving this entire folder, you can move your song to another computer or create a backup.

MEMO

About the sample files (.vpw) used by the song

The settings file named "song name + PRM.ini" that is saved in the same folder as the song file (.vpd) stores the location (absolute path) of the sample files (.vpw) used in the song. For this reason, if you change the location of the samples used in the song, V-Producer will lose track of the sample file locations. In this case, the next time you open the song, the "[sample name] Load File Name" dialog box will appear. Please specify the file location of the sample name shown in the dialog box.

* *The **[Export SMF]** command on the **File** menu will save the song in SMF format, so you can load it into another sequencer and use it to play the VariOS. For details, refer to* **"Using your MIDI sequencer to play data (SMF) created by V-Producer"** *(p. 138).*

Exporting a wave file

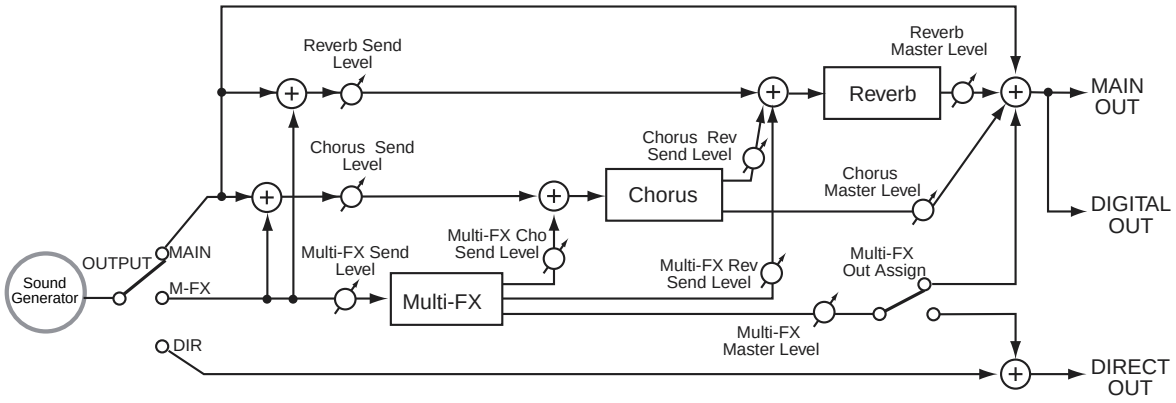
The **[Export Wave File]** command on the **File** menu will export data as a wave file.
Since wave files are a standard format, they can be loaded into virtually any program.
When exporting wave files, you have the following options:

Song	Export a single wave file for the entire song
Multiple Part	Export separate wave files for each part of the song When you save, the parts that are checked in the "Export Part" field will be output. Each part will be saved in the folder you've specified, using this format: "specified file name _ part number.'

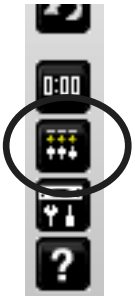
* *The internal effects of the VariOS (see* **"Using effects"** *(p. 93)) will not be reflected by the wave file export function.*

Using the effects of the VariOS (Mixer)

V-Producer has a Mixer window in which you can control the level, pan, etc., of the six parts of the VariOS, and an Effect window in which you can adjust the effect parameters.
The following diagram shows the effect signal flow.



Using the Mixer



The mixer window will appear when you click the mixer button in the tool bar of the main window.

M-FX send level
Adjusts the depth of the multi-effect
* Valid only when output assign is set to [M-FX]

Chorus send level
Adjusts the depth of the chorus
* This has no effect if output assign is set to [DIR]

Reverb send level
Adjusts the depth of the reverb
* This has no effect if output assign is set to [DIR]

Panpot
Adjusts the stereo position of each part

Slider (level)
Adjusts the volume of each

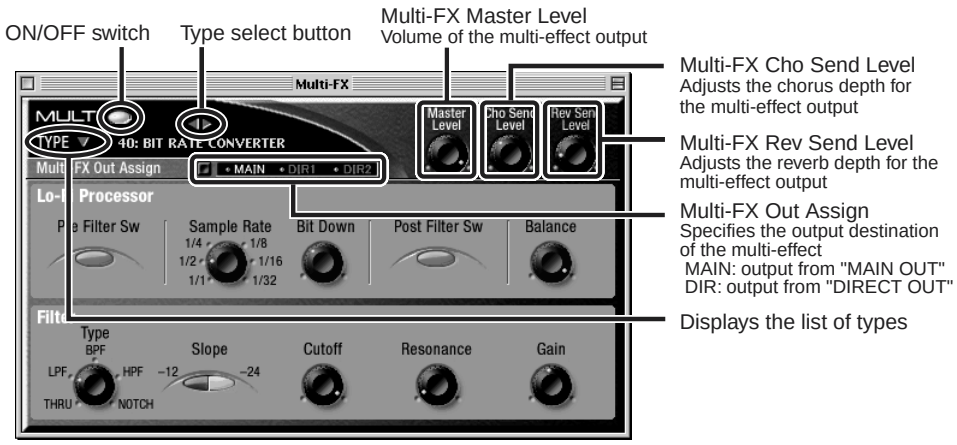
Output assign
Specifies the output destination of the original sound

Effects
Opens the effect window corresponding to each button

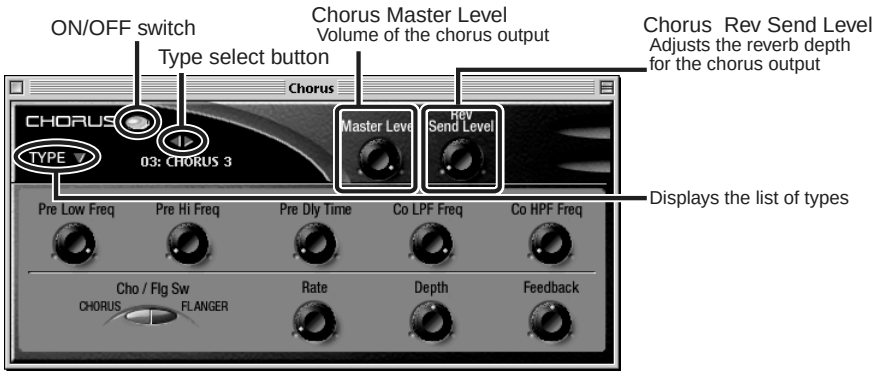
Using effects

When you press the **[MULTI]**, **[REVERB]**, or **[CHORUS]** button of the mixer window, the corresponding effect window will open.

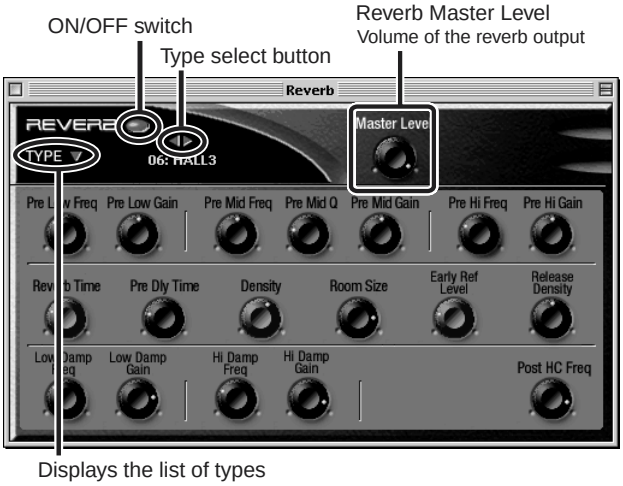
■ MULTI (Multi-effect)



■ CHORUS



■ REVERB



■ Switching the effect type

There are 40 types of multi-effect, eight types of chorus, and nine types of reverb.

1. Click the type select buttons (◀▶) located above the displayed effect type name. The effect type will change.

Alternatively, you can click the TYPE field (TYPE ▼) to view a list of effect types, and directly select the desired type.

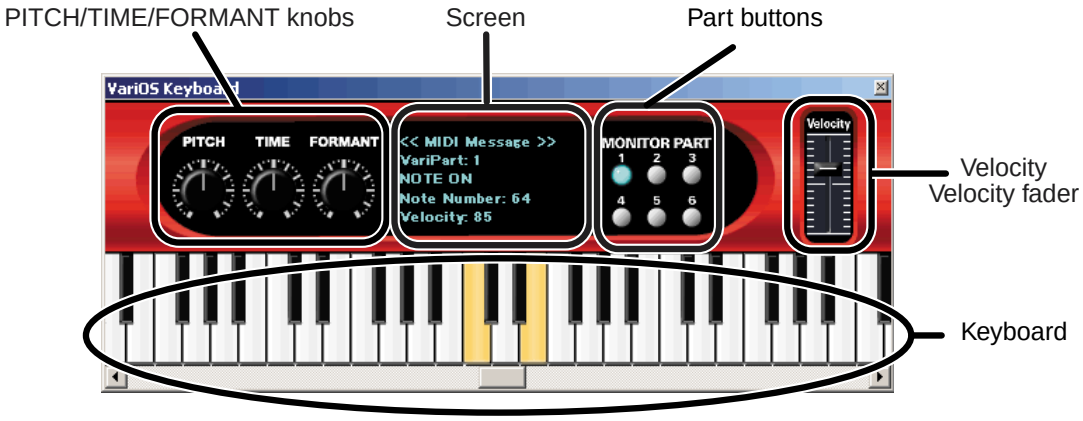
* *For details on the parameters of each effect, refer to the Reference Manual (pdf).*

Taking advantage of the VariOS Keyboard (VariOS Keyboard)

Using the VariOS Keyboard

Click the keyboard button in the toolbar to open the keyboard.

PITCH/TIME/FORMANT knobs	Control the pitch / time / formant of the part.
Screen	Shows the MIDI messages of the part being auditioned and the part(s) specified by the MONITOR PART buttons.
Part buttons	Specify the part(s) whose MIDI messages will be displayed in the screen.
Velocity fader	Adjusts the velocity of the notes.
Keyboard	Click the keyboard to listen to the part being auditioned.



■ Selecting a part

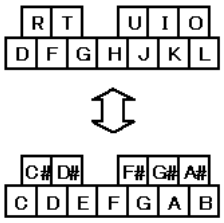
When you click a Part button, the performance data of the selected part will be reflected by the screen and keyboard. This is also the part that will be used when you perform using the VariOS keyboard's controllers or an external MIDI keyboard. If all of the Part buttons are off, the sample that is selected in the Sample List will be used.

* *If a Part button is on, the sample selected in the Sample List will not sound when you play the VariOS keyboard or an external MIDI keyboard. The sample that is currently assigned to the selected part will be sounded.*

■ Turning a note on/off from your computer keyboard

1. Press the **[Shift]**+**[K]** keys.

If you place the mouse pointer on the keyboard and right-click (in MacOS, control-click), and choose **"Change PC Keyboard"** from the menu that appears, you will be able to turn notes on / off from the keyboard of your computer.



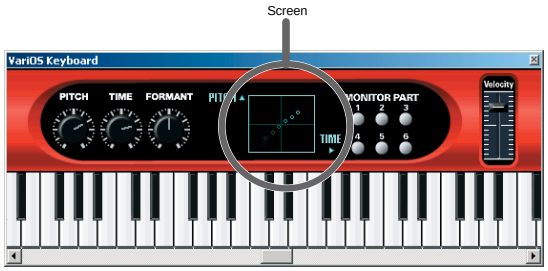
The keys of your computer keyboard will correspond to notes as shown in the diagram..

You can use the left / right keys [←][→] to shift the octave.

Once again, press the **[Shift]**+**[K]** keys. Alternatively, right-click (in MacOS, control-click) and uncheck **"Change PC Keyboard"** in the menu that appears to exit this function.

■ Surface controller

When you double-click in the screen, a rectangular frame as shown in the diagram will appear. By dragging the mouse inside this frame, you can simultaneously control both pitch and time. When you click the parameter name, the parameter indication will change in the order of PITCH-TIME-FORMANT, and the parameter to be controlled will be assigned to each axis.



It is possible to specify the same parameter for the X-axis and Y-axis, such as PITCH-PITCH or TIME-TIME. However in this case, the X-axis movement will be ignored, and control will occur only on the Y-axis.

■ Resetting PITCH/TIME/FORMANT

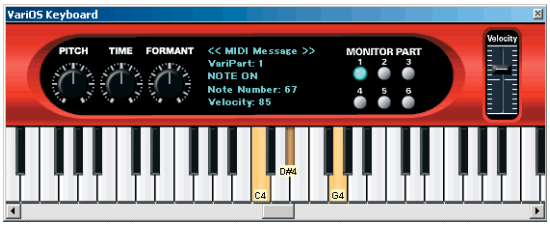
When you press the [X] key, any pitch / time / formant values that have been modified by means of the knobs or Surface controller will be reset to their center values.

■ Inputting TIME zero

TIME zero will be input while you hold down the [Z] key. When you release the key, the time will return to the center value. This is a convenient way to rhythmically input a TIME zero value to create the distinctive VariPhrase “buzz.”

■ Note name display

By pressing the **[Shift]**+**[N]** keys, you can switch the note names of the note-on keys between displayed and hidden.



By placing the mouse pointer on the keyboard and right-clicking (in MacOS, control-clicking), and choosing “View Note Name” from the menu that appears, you can show or hide the note name display for the note-on keys.

Operation guide: Sound module (VariOS)

An overview of the VariOS

Internal structure of the VariOS

■ “Samples” and “performances”

The VariOS uses two units of sound: “samples” and “performances.”
A “sample” consists of a wave with VariOS sample parameters. Data that assigns samples to the six parts is called a “performance.” The internal memory of the VariOS can contain only one performance. A performance has six parts, and can use up to a total of 128 samples. By assigning samples to the six parts and sending MIDI messages to each part, you can play multiple samples simultaneously. The six parts in V-Producer’s Vari Track (p. 68) correspond to the six parts of the performance.

■ To play sounds

The VariOS is not ready to produce sound immediately after you turn on the power. Samples must first be loaded into internal memory. Connect the VariOS to your computer via a USB cable, and use the V-Producer’s “Load Wave Files” command (p. 56) to send wave files (WAV or AIFF) or Vari Phrase format files (VPW) from your computer to the VariOS. At this time, V-Producer will convert (encode) (p. 55) the wave files into Vari Phrase format. If you want to re-encode a previously loaded sample in a different format, use V-Producer’s “Wave Edit” command (p. 65).

■ Saving sounds

The samples that are loaded into the VariOS can be saved in the internal flash ROM of the VariOS, or on a PC card inserted into its card slot.
When you save a performance (p. 122), not only the performance settings but also all samples in internal memory will be saved (excluding samples for which there is no wave data, or samples that cannot be saved). In other words, a “performance” contains all the data necessary for playing one song.
When you load a performance into the VariOS, the samples that were saved with it will also be loaded. You can also save or load samples individually (p. 121).

■ What is “keyboard map”?

The VariOS has a “Keyboard Map”(p. 115) parameter that describes the state of the keyboard. This parameter is set separately for each part, and has two states.
If keyboard map is set to “Phrase Map,” the sample assigned to the part can be played at the pitch of each key.
If keyboard map is set to “Groove Map,” the sample assigned to a part is divided at events (p. 67), and assigned to each key. This means that you can randomly play different sections of the sample from different keys without regard to their original order within the sample. If you turn on the Loop switch (p. 114), you can repeatedly play a section within the sample.

■ Sample playback

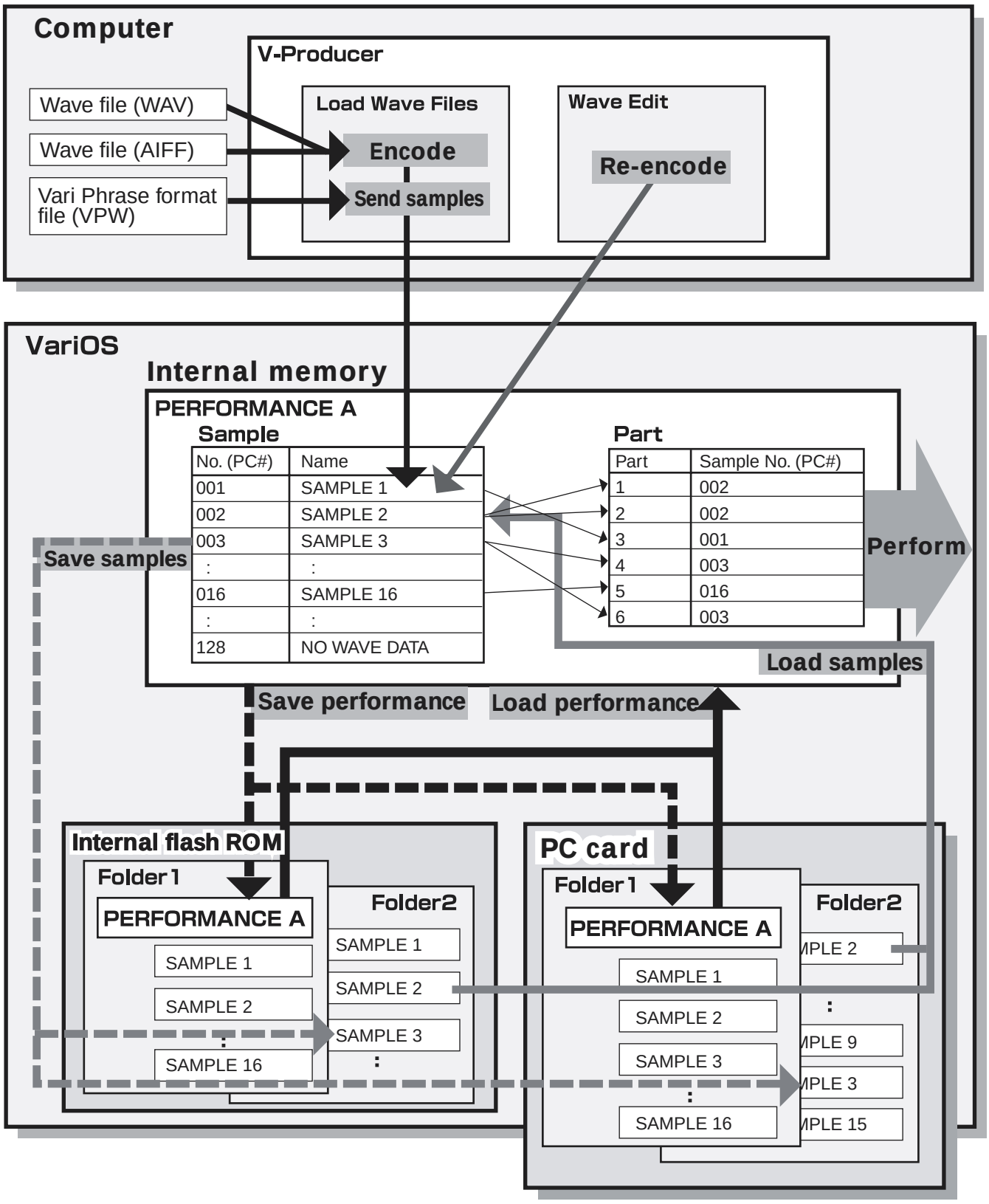
Samples will normally play from the beginning of the wave. You cannot play a sample from some arbitrary point.
If you want to play a sample from some point in the middle, set the keyboard map to “Groove Map.” Alternatively, you can set the playback mode (p. 113) to “STEP” so that each press of the keyboard will sound successive slices (regions between events) of the sample. When playing a sample from the middle in this way, playback will be in units (slices) divided by events (p. 67).

■ Maximum sample time

The maximum sample length is 2 minutes 30 seconds stereo, or 5 minutes monaural. Samples longer than this cannot be loaded. Also, the total time of all samples in the internal memory of the VariOS cannot exceed this amount.

■ Maximum polyphony

The maximum polyphony is 14 notes (voices). If the VariOS receives data attempting to play more than this number of voices simultaneously, notes will be omitted. If the number of requested voices exceeds 14, the VariOS will give priority to the most recently played sounds, and will begin turning off older notes.
A stereo sample will use up two notes (voices) for each sound.


Computer
V-Producer
Wave file (WAV)
Wave file (AIFF)
Vari Phrase format file (VPW)
Load Wave Files
Encode
Send samples
Wave Edit
Re-encode
VariOS
Internal memory
PERFORMANCE A
Sample
No. (PC#) Name
001 SAMPLE 1
002 SAMPLE 2
003 SAMPLE 3
: :
016 SAMPLE 16
: :
128 NO WAVE DATA
Part
Part Sample No. (PC#)
1 002
2 002
3 001
4 003
5 016
6 003
Perform
Save samples
Load samples
Save performance
Load performance
Internal flash ROM
Folder1
PERFORMANCE A
SAMPLE 1
SAMPLE 2
SAMPLE 16
Folder2
SAMPLE 1
SAMPLE 2
SAMPLE 3
PC card
Folder1
PERFORMANCE A
SAMPLE 1
SAMPLE 2
SAMPLE 3
SAMPLE 16
Folder2
MPLE 2
MPLE 9
MPLE 3
MPLE 15

Basic operation of the VariOS

The screen and basic operation

The VariOS has the following two modes.

Sample select mode (MENU button dark)

In this screen you can select a sample to play.

Here you can also select parts and adjust the tempo of the sample.

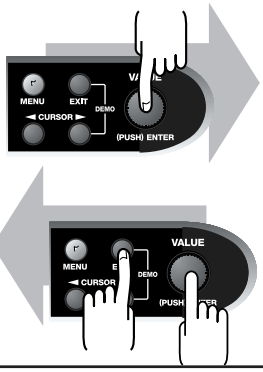
MENU mode (MENU button lit)

Here you can make various settings for the VariOS.

Switching the screen

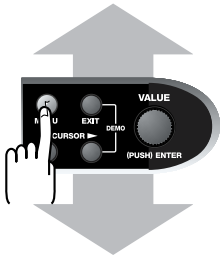
■ Sample select switch

Press the [MENU] button so it's not lighted, and the sample select screen wil0l appear.



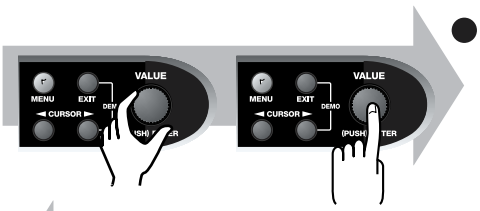
■ Tempo adjustment screen

In the "sample select screen," press the [VALUE] knob and the tempo adjustment screen will appear. To return to the "sample select screen," once again press the [Volume] knob or press the [EXIT] button.



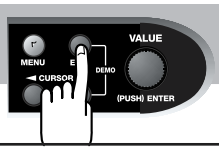
■ MENU screen

Press the [MENU] button so it's lighted, and the MENU screen will appear. (Initially, the MENU screen will show the menu that you last selected.) To see the top menu, press and hold the [MENU] button.



● Moving to a lower level

Turn the [VALUE] knob to select a menu, and then press the [VALUE] knob.



● Moving to a higher level

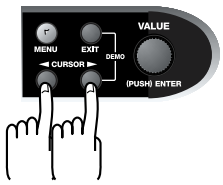
Press the [EXIT] button.

Editing a value

■ Moving the cursor

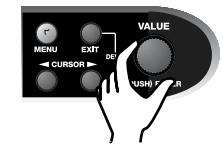
Use the [CURSOR] buttons to move the cursor to the value you want to edit.
* If the screen contains only one value that can be edited, the cursor will not move.

Cursor (underline)



■ Editing the value

Turn the [VALUE] knob to edit the value.
If you press in on the [VALUE] knob while you turn it, the value will change in larger steps.



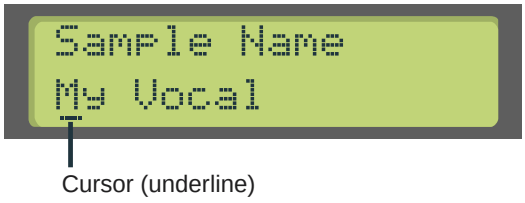
Assigning a name

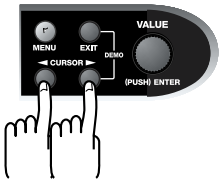
Several screens of the VariOS allow you to assign a name. (For example, Menu 6-2 Sample Rename or 8-2 Save.)
Regardless of the type of name you are assigning, the procedure is the same.

Performance:	up to 16 characters
Sample:	up to 12 characters
Folder:	up to 16 characters
Volume label:	up to 11 characters

Access the screen in which you want to assign a name, and use the following procedure.

1. Use the **[CURSOR]** buttons to move the cursor to the location where you want to enter a character.





2. Turn the **[VALUE]** knob to specify the desired character.

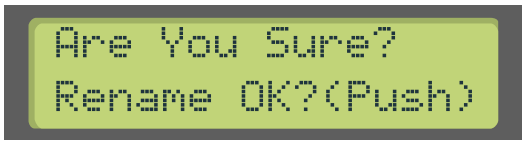
   You can use the following characters and symbols.

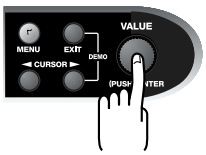
For a performance, sample, or folder	A--Z a--z 0--9 ! # $ % & ' ( ) + - = @ [ ] ^ _ ` { } space
For a volume label	A--Z 0--9 $ % ' - _ @ ! ` ( ) ~

MEMO By turning the **[VALUE]** knob while pressing it, you can conveniently shift between uppercase characters, lowercase characters, numerals, symbols, and spaces. (Lowercase characters will not be displayed for a volume label.)

3. Press the **[VALUE]** knob, and the display will ask **"Are You Sure?"** Press the **[VALUE]** knob once again to finalize the name.

   If you press the **[EXIT]** button you're returned to the name entry screen.
   In any of the name entry screens, you can press the **[EXIT]** button to discard the currently edited name and return to the previous screen.

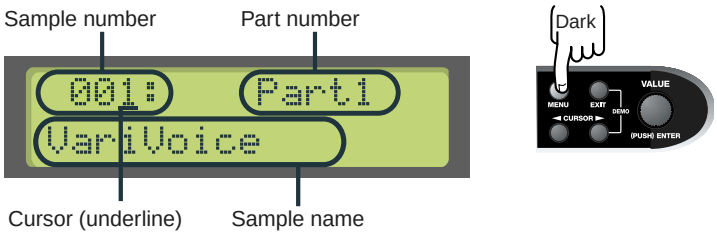




Selecting a sample

* *When the VariOS has just been powered up, it is not ready to produce sound. You must load samples into its internal memory. Before you continue with the following procedure, you must use the V-Producer's "Load Wave Files" command to send samples to the VariOS (p. 56).*

1. Press the **[MENU]** button so it's not lighted. The sample select screen will appear.

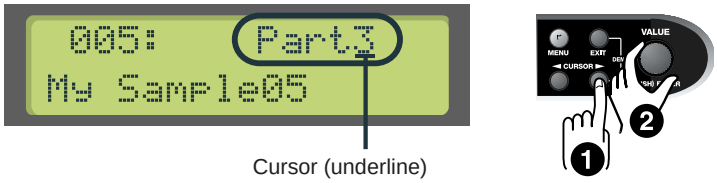


2. Make sure that the cursor is located at the sample number, and turn the **[VALUE]** knob to select the desired sample.

3. You can press the **[VOLUME]** knob to preview (audition) the selected sample.

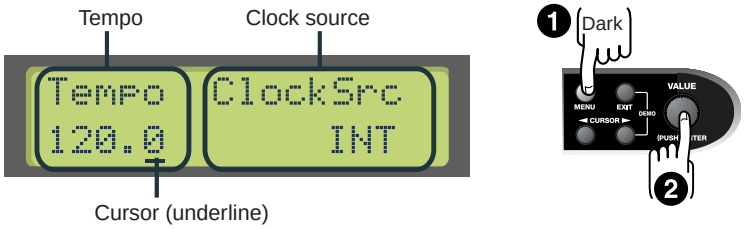
* *If there is no sample, the display will indicate* **"NO WAVE DATA,"** *and no sound will be heard.*

4. To select a different part, use the **[CURSOR]** buttons to move the cursor to the part number, and turn the **[VALUE]** knob to select a part.



Changing the tempo of a sample

1. Press the **[MENU]** button so it's not lighted. Access the sample select screen, and then press the **[VALUE]** knob to access the tempo change screen.

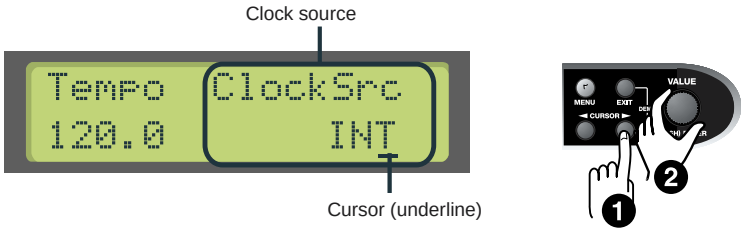


2. Move the cursor to ClockSrc (clock source), and use the **[VALUE]** knob to select either INT or MIDI.

   Clock Src (clock source) specifies whether the tempo clock of the VariOS will use its own internal clock (INT) or an external clock (MIDI).

   If you are using the VariOS by itself, select INT.

   If you are using the VariOS in synchronization with a sequencer or other device, select MIDI. For details, refer to **"Controlling the VariOS from your MIDI sequencer"** (p. 137).



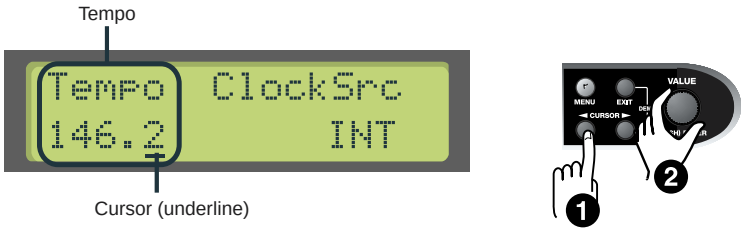
MEMO When you are using V-Producer, V-Producer will automatically set the clock source to "MIDI." This will cause the VariOS to synchronize to the tempo of V-Producer.

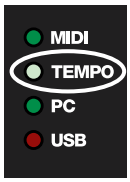
3. Move the cursor to Tempo (master tempo), and turn the **[VALUE]** knob to adjust the tempo in steps of 0.1. If you turn **[VALUE]** knob while pressing it, the tempo will change in steps of 1.

   Master Tempo specifies the master tempo of the VariOS.

   If the Clock Src parameter is set to MIDI, the master tempo will be displayed as "—.-."

   Available Settings: 20.0–250.0





The tempo indicator on the front panel of the VariOS will blink to indicate the tempo.

* *If the tempo does not change when you adjust the master tempo, make sure that the* **"Tempo sync setting"** *(p. 107) explained on the next page is turned on.*

■ Tempo sync setting

If you want to play back the sample at its original tempo, turn off Tempo Sync (this is a part parameter).

Tempo Sync specifies whether the playback speed of the sample assigned to each part will synchronize to the master tempo or external clock (ON), or will not synchronize (OFF).

Procedure:

1. Press the **[MENU]** button so it's lighted, and access the MENU screen.

* *The MENU screen displays the menu that you selected most recently. You need to go to the top level menu. You can get there by pressing and continuing to hold the* **[MENU]** *button for a few moments (when the [MENU] button is not illuminated), or by pressing the* **[EXIT]** *button.*

2. Turn the **[VALUE]** knob to select **"MENU2 Part Edit,"** and press the **[VALUE]** knob.

3. Turn the **[VALUE]** knob to select **"Menu2-3 Tempo Sync,"** and press the **[VALUE]** knob.

4. Use the **[CURSOR]** buttons to move the cursor to the part number, and turn the **[VALUE]** knob to select a part.

5. Use the **[CURSOR]** buttons to move the cursor to the **"ON"** (or OFF) location, and turn the **[VALUE]** knob to switch the setting ON / OFF.

MEMO While V-Producer is being used, V-Producer will automatically turn tempo sync "ON" for all parts. This will cause the VariOS to synchronize to the tempo of V-Producer.

* *If the master tempo is set to a value four times or more of the original tempo of the sample (p. 57), it will not be possible to synchronize the sample to the master tempo.*

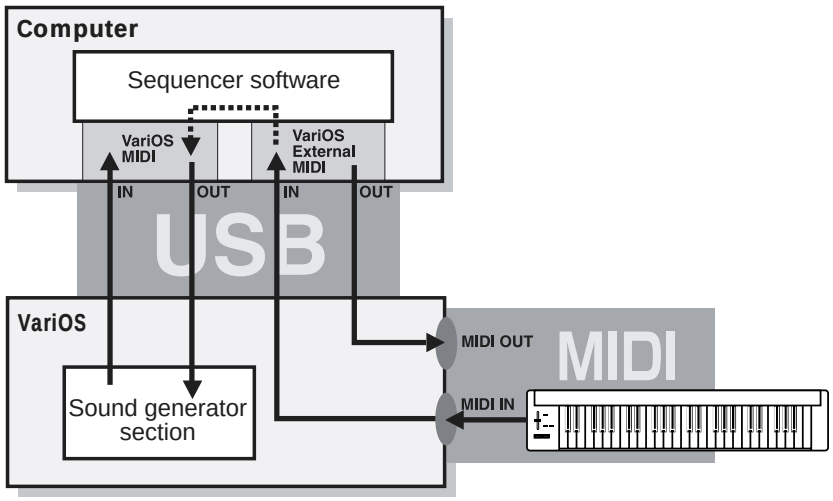
Playing the VariOS from a connected keyboard (MIDI Mode)

You can connect your MIDI keyboard to the VariOS. In this case, you can change the MIDI routing in the following ways.

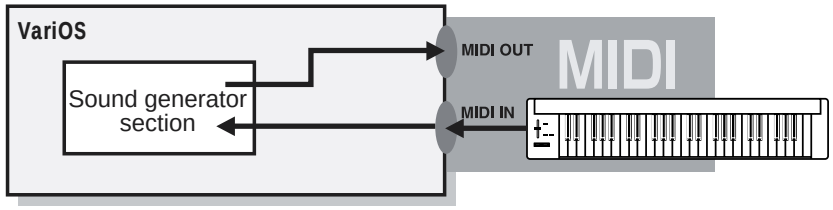
■ PC mode

When using a USB connection, the MIDI connectors on the rear panel of the VariOS will function as a USB MIDI interface (Roland VariOS External MIDI). When USB is not connected (and when your computer is not powered up), the MIDI connectors on the rear panel of the VariOS are connected directly to the sound generator section.

● When USB is connected

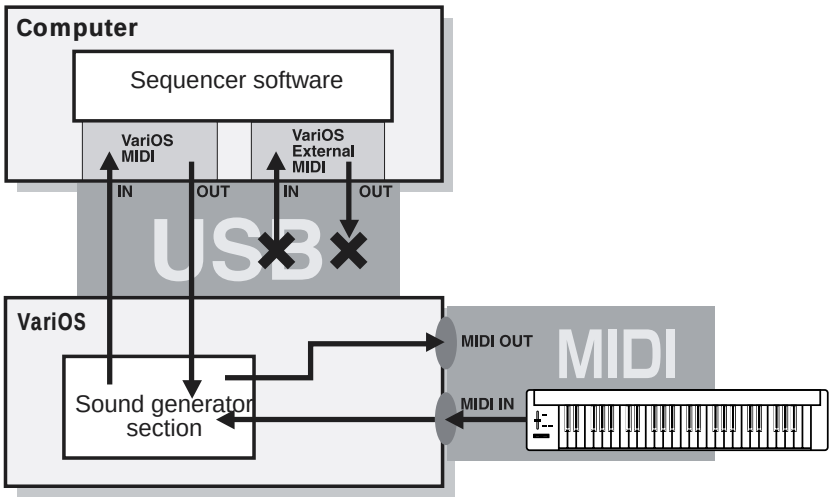


● When USB is not connected



■ Internal mode

The MIDI connectors of the rear panel of the VariOS are connected directly to the sound generator section.

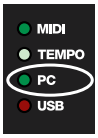


Procedure:

1. Press the **[MENU]** button so it's lighted, and access the MENU screen.

   * *The MENU screen displays the menu that you selected most recently. You need to go to the top level menu. You can get there by pressing and continuing to hold the* **[MENU]** *button for a few moments (when the* **[MENU]** *button is not illuminated), or by pressing the* **[EXIT]** *button.*

2. Turn the **[VALUE]** knob to select **"Menu7 System,"** and press the **[VALUE]** knob.
3. Turn the **[VALUE]** knob to select **"Menu7-3 MIDI Mode,"** and press the **[VALUE]** knob.
4. Turn the **[VALUE]** knob to switch the setting between **"Internal" or "PC."**



The "PC indicator" on the front panel of the VariOS shows the current MIDI Mode status. When this is lit, "PC" mode is selected. When dark, "Internal" mode is selected.

Changing how the sounds are produced

Parameters determining how the sound is produced, such as keyboard map (p. 115), key assign mode (p. 113), and playback mode (p. 113), which you set using V-Producer, can also be set from the front panel of the VariOS itself.

■ Changing the Keyboard Map setting

* *For details on the Keyboard Map parameter, refer to* **"2-1 Keyboard Map"** *(p. 115).*

Procedure:

1. Press the **[MENU]** button so it's lighted, and access the MENU screen.

   * *The MENU screen displays the menu that you selected most recently. You need to go to the top level menu. You can get there by pressing and continuing to hold the* **[MENU]** *button for a few moments (when the* **[MENU]** *button is not illuminated), or by pressing the* **[EXIT]** *button.*

2. Turn the **[VALUE]** knob to select **"Menu2 Part Edit,"** and press the **[VALUE]** knob.
3. Turn the **[VALUE]** knob to select **"Menu2-1 Keyboard Map,"** and press the **[VALUE]** knob.
4. Use the **[CURSOR]** buttons to move the cursor to the part number, and turn the **[VALUE]** knob to select the desired part.
5. Use the **[CURSOR]** buttons to move the cursor to the right, and turn the **[VALUE]** knob to switch the keyboard map setting.

Available Settings: Phrase Map / Groove Map

■ Changing the Key Assign Mode

* *For details on the Key Assign Mode, refer to* **"1-1 Key Assign mode"** *(p. 113).*

Procedure:

1. Press the **[MENU]** button so it's lighted, and access the MENU screen.
2. The MENU screen displays the menu that you selected most recently. You need to go to the top level menu. You can get there by pressing and continuing to hold the **[MENU]** button for a few moments (when the **[MENU]** button is not illuminated), or by pressing the **[EXIT]** button.
3. Turn the **[VALUE]** knob to select **"Menu1 Sample Edit,"** and press the **[VALUE]** knob.
4. Turn the **[VALUE]** knob to select **"Menu1-1 Key Assign,"** and press the **[VALUE]** knob.
5. Turn the **[VALUE]** knob to change the key assign mode.

Available Settings: Poly / Mono

■ Changing the Playback Mode

* *For details on the Playback Mode, refer to* **"1-2 Playback Mode"** *(p. 113)).*

Procedure:

1. Press the **[MENU]** button so it's lighted, and access the MENU screen.

   * *The MENU screen displays the menu that you selected most recently. You need to go to the top level menu. You can get there by pressing and continuing to hold the* **[MENU]** *button for a few moments (when the* **[MENU]** *button is not illuminated), or by pressing the* **[EXIT]** *button.*

2. Turn the **[VALUE]** knob to select **"Menu1 Sample Edit,"** and press the **[VALUE]** knob.
3. Turn the **[VALUE]** knob to select **"Menu1-2 Playback Mode,"** and press the **[VALUE]** knob.
4. Turn the **[VALUE]** knob to change the playback mode.

Available Settings: RETRIGGER / TIME SYNC (LEGATO) / STEP

Loading and saving

You can save performance or sample data into the internal flash ROM or on a PC card, or load this data back into memory. For the procedure, refer to the following pages.

- Loading: **"8-1 Load"** (p. 121)
- Saving: **"8-2 Save"** (p. 122)

VariOS Menu Reference

* *For details on how to switch between the screens of MENU mode and how to edit the settings, refer to* **"Basic operation of the VariOS"** *(p. 102).*

Menu structure

Menu1 Sample Edit		Sample settings
1-1	Key Assign Mode	Solo / poly selection (p. 113)
1-2	Playback Mode	How a sample is played (p. 113)
1-3	Trigger Mode	How a key is sounded (p. 114)
1-4	Loop Switch	Loop on / off (p. 114)
1-5	Robot Voice	Robot Voice on / off (p. 114)
1-6	Wave Gain	Sample volume (p. 114)
1-7	Fade In / Out	Fade in / out (p. 114)

Menu2 Part Edit		Part settings
2-1	Keyboard Map	Keyboard map selection (p. 115)
2-2	Voice Reserve	Voice allocation setting (p. 115)
2-3	Tempo Sync	Master tempo synchronization on / off (p. 115)
2-4	Pitch Sync	Tuning enable on / off (p. 115)
2-5	Level / Pan	Part volume and pan (p. 115)
2-6	Tune	Part tuning (coarse, fine) and octave shift (p. 115)
2-7	Key Range	Key range setting (p. 115)
2-8	Receive Channel	Receive MIDI channel (p. 115)

Menu3 Controller Edit		Controller settings
3-1	CTRL Setting	Range of parameter change (p. 116)
3-2	Knob Assign	CC: numbers transmitted by knobs (p. 118)
3-3	Knob Output Mode	MIDI output destination of knobs (p. 118)
3-4	Knob Control	Parts for which knobs are enabled (p. 118)

Menu4 Effect Edit		Effect settings
4-1	Effect Switch	Effect on / off (p. 119)
4-2	Part Routing	Settings for each part (p. 119)
4-3	Effect Type MFX	Multi-effect type (p. 119)
4-4	Effect Type Cho	Chorus type (p. 119)
4-5	Effect Type Rev	Reverb type (p. 119)
4-6	Common Routing	Settings for the entire performance (p. 119)

Menu5 Tune		Tuning settings
5-1	Master Tune	Tuning of the entire VariOS (p. 120)
5-2	Master Coarse / Fine Tune	Coarse tune and fine tune of the entire VariOS (p. 120)
5-3	Transpose	Pitch adjustment in semitone units (p. 120)
5-4	Octave Shift	Pitch adjustment in octave units (p. 120)

Menu6 Utility		Utility
6-1	Sample Delete	Delete a sample (p. 120)
6-2	Sample Rename	Rename a sample (p. 120)
6-3	Sample Swap	Move a sample (p. 120)
6-4	Factory Reset	Restore the factory settings (p. 120)

Menu7 System		System
7-1	Control Channel	MIDI settings that control all parts (p. 121)
7-2	Audio Input Jack	Settings for the rear panel audio input jacks (p. 121)
7-3	MIDI Mode	Rear panel MIDI connector setting (p. 121)
7-4	Panic Key	Panic key setting (p. 121)
7-5	LCD Contrast	LCD contrast setting (p. 121)
7-6	M.Attenuation	Output level setting (p. 121)

Menu8 DISK		Disk
8-1	Load	Load (p. 121)
8-2	Save	Save (p. 122)
8-3	Delete	Delete (p. 122)
8-4	Rename	Rename (p. 123)
8-5	Format	Load (p. 123)

Menu 1 Sample Edit (sample settings)

1-1 Key Assign mode

Selects whether a sample will be played polyphonically (POLY) or monophonically (MONO). It is effective to select SOLO when you want to play a monophonic instrument (such as sax or flute) legato.

Available Settings:

Poly:	Multiple notes can be played simultaneously.
Solo:	Only the last-played note will be sounded, one note at a time.

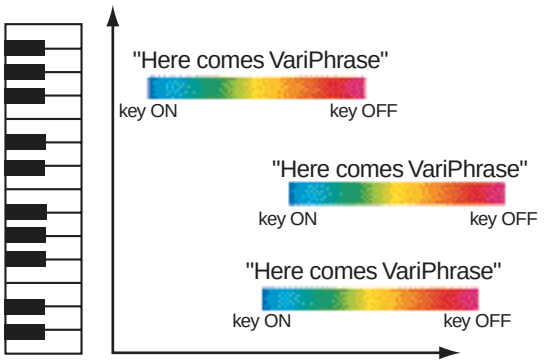
1-2 Playback Mode

Selects how the sample will be played. Select "Time Sync" if you want to use legato playing (*) to play the sample phrase in a different melody than it originally had. Select "Retrigger" if you want the sample to play back from the beginning each time you press a key.

* *"Legato playing" normally means "to play smoothly," but here it is used in the special sense of playing the next key (note-on) before releasing the previous key (note-off).*

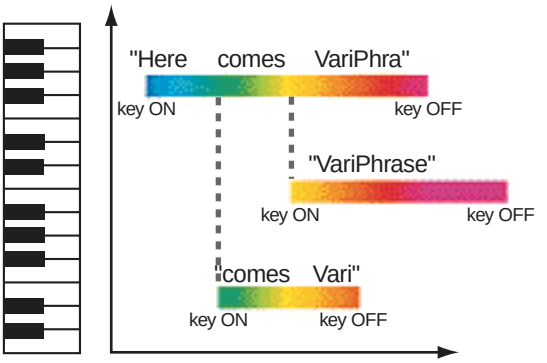
Available Settings:

Retrigger:



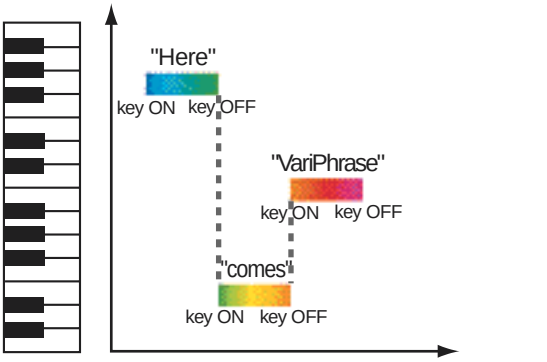
The sample will play back from the beginning each time you press a key. This can be used to produce the effect of a "musical round" as shown in the diagram.

Time Sync:



● **Key Assign: Poly**

When you play legato, the second and subsequently played keys will synchronize their playback point to the first-played key. This lets you produce chords in the middle of a phrase, as shown in the diagram.



● **Key Assign: Solo**

When you play legato, the pitch will be changed from the current playback point of the previous sound. You can play the keyboard to produce a melody that is completely different than that of the original phrase.

Step: Each time you press a key, the sample will play back to the next event (p. 67) and then stop.

1-3 Trigger mode

Specifies how the sample will be triggered when you press a key.

Available Settings:

GATE:	The sample will sound only while you continue holding down the key. In other words, the sample will begin sounding when a note-on is received, and will stop sounding when a note-off is received.
TRIGGER:	Each time you press the key, the sample will begin sounding or will stop. In other words, the sample will begin sounding when a note-on is received, and will stop sounding when the next note-on is received.
DRUM:	When you press the key, the sample will continue sounding. In other words, the sample will begin sounding when a note-on is received. If you use this setting on decay-type sounds (such as cymbals), you will not need to continue holding down the key.

* *When using the TRIGGER setting, you may forget which keys have been pressed, so that samples continue sounding. Or, if you are playing the VariOS from a sequencer, samples may continue sounding even after the sequencer has stopped. In such cases, play the key that you have assigned as the Panic Key (p. 121). This will stop all currently sounding notes.*

1-4 Loop Switch

Turn this ON if you want a sample to play as a loop. The region enclosed by the Loop Start and Loop End you specified in V-Producer's Wave Edit screen (p. 65) will continue playing as a loop.

Available Settings: OFF, ON

* *If Trigger = Drum, the Loop setting will be ignored, and loop playback will not occur.*

* *If Trigger = Gate, loop playback will continue as long as the note remains on. If Trigger = Trigger, loop playback will start at the first note-on, and end at the second note-on.*

* *If you want to adjust the Loop Start and Loop End locations, refer to p. 65.*

1-5 Robot Voice switch

Turn this ON if you want to remove the sense of pitch from the sample. (The original pitch of the sample will be ignored, allowing you to play it at the pitches of your keyboard.) If this is used with a phrase sample, you can use your keyboard to play a completely different melody than the original phrase, producing a variety of melodies.

Available Settings: OFF, ON

* *This function can be used only for samples whose Encode Type (p. 55) is SOLO.*

* *If subtle pitch changes in the original phrase are an important element of what is to be expressed during performance, the Robot Voice function may not produce good results. It may also be impossible to obtain good results if the keys you play are distant from the pitch of the original phrase.*

1-6 Wave Gain

Specifies the gain (boost) of the waveform. A 6 dB (decibel) increase will double the gain.

Available Settings: 0–+18 [dB]

1-7 Fade In/Out

Fade-in gradually increases the volume of the sample from the moment of note-on. Set the time over which the volume will rise from zero up to the specified volume.

Available Settings: 0.00–2.00 [sec]

Fade-out gradually decreases the volume of the sample from the moment of note-off. Set the time over which the volume will decrease from the specified volume down to zero.

Available Settings: 0.00–6.00 [sec]

Menu 2 Part Edit (part settings)

2-1 Keyboard Map

Specifies the keyboard status of each part. When you play a sample via MIDI, this parameter will determine how the sample is sounded.

Available Settings:

Phrase Map

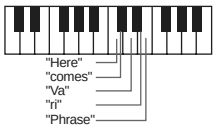
The sample will be sounded at a pitch that corresponds to the note number.

Example: When using a vocal sample of “Here comes VariPhrase,” the pitch will change depending on the key that you play.

Groove Map

The sample will be divided into musical segments at the location of events, and each segment (“slice”) of the waveform is assigned to successive note numbers (semitone steps beginning at C3) for playing.

Example: When using a vocal sample of “Here comes VariPhrase,” separate slices will be played by the keys C3 and above.



2-2 Voice Reserve

Specifies the number of voices that will be reserved for each part if the maximum polyphony of the VariOS (14 voices) is exceeded.

Available Settings: 0–14

* *It is not possible for the total values of all parts to exceed 14.*

2-3 Tempo Sync

Specifies whether the playback speed of the samples assigned to each part will be synchronized to the master tempo or external clock (ON), or not synchronized (OFF).

Available Settings: OFF, ON

If the master tempo (p. 57) is set to more than four times greater than the original tempo of the sample, the sample cannot be synchronized to the master tempo.

2-4 Pitch Sync

Specifies whether the master coarse tune and master fine tune (p. 120) of the VariOS performance will be enabled for each part (ON) or disabled (OFF). For example, if you want to adjust the tuning of the entire song, but do not want to change the pitch of the rhythm part, you can turn pitch sync “OFF” for the rhythm part.

Available Settings: OFF, ON

2-5 Level/Pan

Level sets the volume of each part. Use this to adjust the volume balance between parts.

Available Settings: 0–127

Pan sets the stereo position (panpot) of each part. L64 is far left, 0 is center, and R63 is far right.

Value: L64–R63

2-6 Tune

These parameters adjust the tuning (coarse and fine) and octave shift of each part.

2-6-1 Coarse Tune

Adjusts the basic pitch of each part in semitone steps over a range of +/-1 octave.

Available Settings: -12–+12

2-6-2 Fine Tune

Relative to the Coarse Tune pitch setting, adjusts the pitch in one-cent steps over a range of half a semitone upward or downward.

Available Settings: -5—+50

2-6-3 Octave Shift

Adjusts the pitch of each part in one-octave units.

Available Settings: -3–+3

2-7 Key Range

These parameters specify the key range of each part. Make these settings when you want to play different samples from different ranges of your keyboard.

Lwr (key range lower)

Specifies the lower limit of the key range.

Available Settings: C-1–Upper

Upr (Key range upper)

Specifies the upper limit of the key range.

2-8 Receive Channel (Receive MIDI channel)

Specifies the MIDI receive channel for each part.

Available Settings: 1–16

If the MIDI receive channel of a part has the same setting as the control channel (p. 121), the control channel setting will take priority.

Menu 3 Controller Edit (Controller settings)

3-1 CTRL Setting

Here you can specify the amount of change produced by the three knobs or by external MIDI controllers.
Turn the [VALUE] knob to access the desired screen. When you press the [VALUE] knob, the setting can be edited. Use the [CURSOR] buttons (left / right) to select the item that you want to edit.

3-1-1 C1:	The parameter controlled by the C1 knob
3-1-2 C2:	The parameter controlled by the C2 knob
3-1-3 C3:	The parameter controlled by the C3 knob
3-1-4 VC:	The parameter controlled when the controller number specified by VC Assign is received
3-1-5 Modulation:	The parameter controlled when a modulation message is received.
3-1-6 Pitch Bend:	The parameter controlled when a pitch bend message is received.
3-1-7 Aftertouch:	The parameter controlled when an aftertouch message is received.
3-1-8 Hold:	The function that will occur when a hold message is received.

* *Larger values in the positive (+) or negative (-) direction will allow a correspondingly greater change to occur.*
* *Changes you make to the sound using the controllers are temporary. They do not rewrite the parameter values.*

Pitch (Pitch depth)

Specifies the range of control over pitch. When using a knob, positive (+) settings of this parameter allow you to raise the pitch by turning the knob toward the right. With negative (-) settings, the pitch will fall as you turn the knob toward the right.

Available Settings: -64–+63

* *In order to vary the pitch in this way, you must turn on the pitch control switch for the sample in V-Producer's Sample Edit screen (p. 62) in addition to setting the depth here.*
* *The pitch bend change settings do not contain this parameter.*

Time (Time depth)

Specifies the range of control over playback speed (time). When using a knob, positive (+) settings of this parameter allow you to speed up the playback by turning the knob toward the right. With negative (-) settings, the playback will slow down as you turn the knob toward the right.

Available Settings: -64–+63

* *In order to vary the time in this way, you must turn on the time control switch for the sample in V-Producer's Sample Edit screen (p. 62) in addition to setting the depth here.*

Formant (Formant depth)

Specifies the range of control over timbral character (formant). When using a knob, positive (+) settings of this parameter allow you to modify the timbral character so it approaches a "duck-like voice" (smaller vocal cords) by turning the knob toward the right. With negative (-) settings, the character will change toward a "giant-like voice" (larger vocal cords) as you turn the knob toward the right.

Available Settings: -64–+63

* *The formant can be controlled only for a sample whose encoding type (p. 55) is SOLO.*
* *In order to control the formant in this way, you must turn on the formant control switch (p. 62) for the sample in addition to setting the depth here.*

Level (Level depth)

Specifies the range of control over volume. When using a knob, positive (+) settings of this parameter allow you to increase the volume by turning the knob toward the right. With negative (-) settings, the volume will decrease as you turn the knob toward the right.

Available Settings: -64–+63
Default: 0

LFO Rate (LFO rate depth)

Specifies the range of control over LFO rate. When using a knob, positive (+) settings of this parameter allow you to speed up the rate by turning the knob toward the right. With negative (-) settings, the rate will slow down as you turn the knob toward the right.

Available Settings: -64–+63
Default: 0

LFO Pitch (LFO pitch depth)

Specifies the range of control over how the LFO will affect the pitch (Pitch LFO Depth). When using a knob, positive (+) settings of this parameter allow you to change the Pitch LFO Depth in the positive (+) direction by turning the knob toward the right. With negative (-) settings, the Pitch LFO Depth will change in the negative (-) direction as you turn the knob toward the right.

Available Settings: -64–+63
Default: 0

LFO Formant (LFO formant depth)

Specifies the range of control over how the LFO will affect the formant (Formant LFO Depth). When using a knob, positive (+) settings of this parameter allow you to change the Formant LFO Depth in the positive (+) direction by turning the knob toward the right. With negative (-) settings, the Formant LFO Depth will change in the negative (-) direction as you turn the knob toward the right.

Available Settings: -64–+63
Default: 0

LFO Pan (LFO pan depth)

Specifies the range of control over how the LFO will affect the pan (LFO Pan Depth). When using a knob, positive (+) settings of this parameter allow you to change the LFO Pan Depth in the positive (+) direction by turning the knob toward the right. With negative (-) settings, the LFO Pan Depth will change in the negative (-) direction as you turn the knob toward the right.

Available Settings: -64–+63
Default: 0

3-1-6 Pitch Bend

For pitch bend, you can set the bend range (the range over which the pitch can be changed) in addition to the items listed in the preceding section.

Range U (bend range up)

Specify how far the pitch will rise when the pitch bend lever is moved to the far right (or in the case of a wheel, fully upward). With a setting of +12, moving the pitch bend lever to the far right will raise the pitch one octave.

Available Settings: 0–+12

Range D (bend range down)

Specify how far the pitch will rise when the pitch bend lever is moved to the far left (or in the case of a wheel, fully downward). With a setting of -48, moving the pitch bend lever to the far left will lower the pitch four octaves.

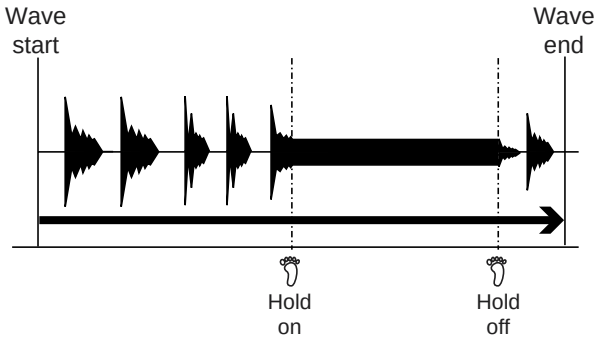
Available Settings: -48–0

3-1-8 Hold

MIDI messages Hold 1 (controller number 64) and Hold 2 (controller number 69) can be used to change how a sample sounds.

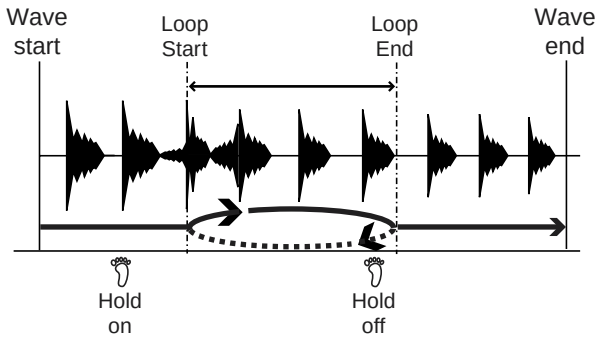
OFF: Pressing the pedal will not change anything.

PAUSE: The waveform that was playing at the instant that the pedal was pressed will continue playing as long as you hold down the pedal. Even if you take your finger off the key, the sound will continue as long as you hold down the pedal.

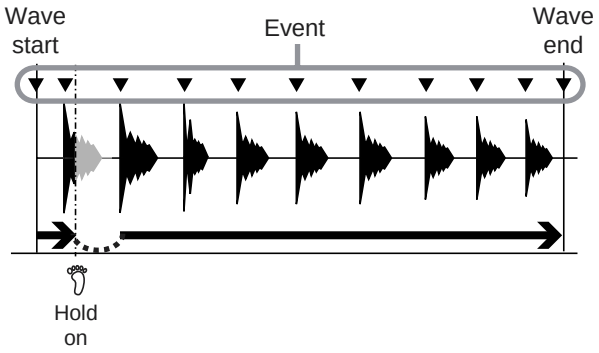


* *Since this repeatedly plays a single cycle of the waveform at the point where the pedal was pressed, it may not produce the result that you expect, or may sound like oscillation (feedback).*

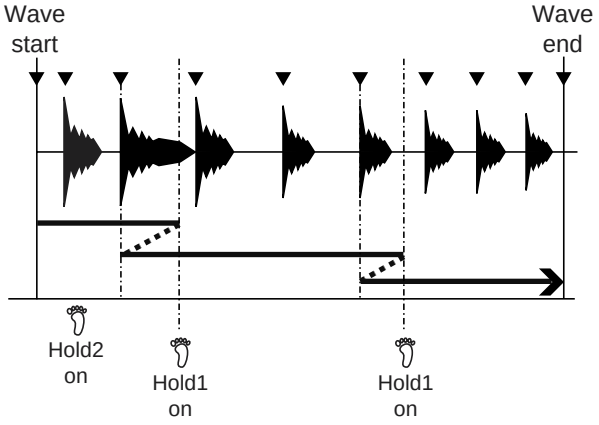
LOOP: The sound from Loop Start to Loop End will continue playing repeatedly as long as you hold down the pedal. Even if you take your finger off the key, the sound will continue as long as you hold down the pedal. For example if you had a drum loop of several measures, you could make settings beforehand to set the loop range as the measure you wanted to play repeatedly. Then you would press the pedal at the section that you wanted to play, and allow that measure to play the desired number of times.



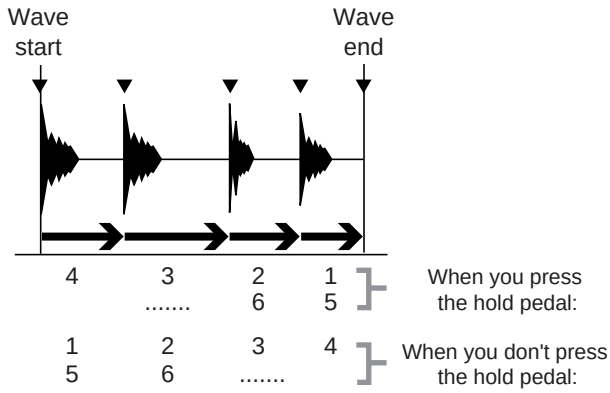
EVENT (event step): Pressing the pedal while the sample is playing will cause playback to jump to the next section divided by an event.



By using this together with the STEPD explained below, you can jump to the previous section divided by an event, and play it. For example, you could set Hold1 Destination to "EVENT" and Hold2 Destination to "STEPD." Then while the sample was playing, hold down the pedal that transmits Hold2 and press the pedal that transmits Hold1.



STEPD (step direction): This function reverses the direction of the step. When using this, set the Playback Mode (p. 63, p. 113) to STEP. As long as you do not press the pedal, each key you play (each note-on that is received) will cause playback to continue to the next event, and then stop. If you play a key while holding down the pedal, the previous region divided by events will sound. If you hold down the pedal from the beginning and play a note, the sound will begin from the last region of the sample.



This can also be used together with EVENT. For details refer to the explanation of EVENT.

PO/SO (poly/solo): The Key Assign Mode (p. 62, p. 113) setting will be switched temporarily as long as you continue holding down the pedal. For example if you are playing a vocal sample in solo mode, you can hold down the pedal to play a chord.

LOCKL (lock legato): Regardless of how you are playing the keyboard, notes will be sounded as legato while you hold down the pedal. This means that you can use this function to play legato chords.

* *You can play legato chords even if the Playback Mode (p. 63, p. 113) is set to RETRIGGER.*

3-2 Knob Assign

C1–C3

Here you can specify the controller numbers that will be output when you turn the C1–C3 knobs. If the controller numbers you specify here are received at the MIDI IN connector, the result will be the same as when the corresponding knob is turned.

Available Settings: CC02–CC05, CC07–CC31, CC64–CC95

VC

This parameter lets you use an external MIDI controller as a fourth knob. When the controller number you specify here is received at the MIDI IN connector, the function you assigned in 3-1-4 VC will be controlled.

Available Settings: CC02–CC05, CC07–CC31, CC64–CC95

* *VC stands for Virtual Controller.*

3-3 Knob Output Mode

Specifies the destination(s) to which control change messages will be sent when you turn the C1–C3 knobs.

Available Settings:

OFF:	Control changes will not be sent; the knobs will have no effect.
INT:	Control changes will be sent only to the internal sound generator.
MIDI:	Control changes will be sent only to the MIDI OUT connector.
INT&MIDI:	Control changes will be sent both to the internal sound generator and to the MIDI OUT connector.

3-4 Knob Control

Specifies the part(s) that will be affected when you turn the C1–C3 knobs.

Available Settings:

MULTI PART:	All six parts will be affected.
CURRENT PART:	Only the currently selected part (the "current part") will be affected.

Menu 4 Effect Edit (Effect settings)

4-1 Effect Switch

Switches the effects on / off.

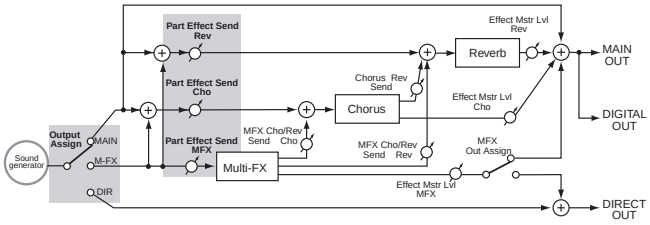
Switch the multi-effect (MULTI), chorus (CHORUS), and reverb (REVERB) on / off. It is useful to switch this off when you want to edit while listening to the unprocessed sound, or if you want to use an external effects processor instead of the internal effects.

The multi-effect, chorus, and reverb on / off setting is remembered even when you turn off the power.

Available Settings: ON / OFF

4-2 Part Routing (settings for each part)

Here you can specify the effect routing for each part.



4-2-1 Output Assign

Specifies the output destination of the unprocessed sound.

Available Settings:

MAIN:	The sound will be output to reverb, chorus, and the "MAIN OUT" output jacks. Choose this setting if you want to use reverb and chorus, but not the multi-effect.
M-FX:	The sound will be output to reverb, chorus, and multi-effect. Choose this setting if you want to use reverb, chorus, and multi-effect.
DIR:	The sound will be output to the "DIRECT OUT" output jacks. Choose this setting if you want to use an external effects processor instead of the VariOS's internal effects.

4-2-2 Part Effect Send

Specifies the effect depth of each part.

Available Settings: 0–127

MFX	Specifies the multi-effect depth
Cho	Specifies the chorus depth
Rev	Specifies the reverb depth

4-3 Effect Type MFX

Selects the type of multi-effect.

* *The parameters of the effect cannot be edited on the VariOS itself. To edit the effect parameters, you need to use the Mixer screen (p. 92) in V-Producer.*

* *For details on each effect, refer to "The effects of the sound generator section" in the reference manual (PDF).*

4-4 Effect Type Cho

Selects the type of chorus.

* *The parameters of the effect cannot be edited on the VariOS itself. To edit the effect parameters, you need to use the Mixer screen (p. 92) in V-Producer.*

* *For details on each effect, refer to "The effects of the sound generator section" in the reference manual (PDF).*

4-5 Effect Type Rev

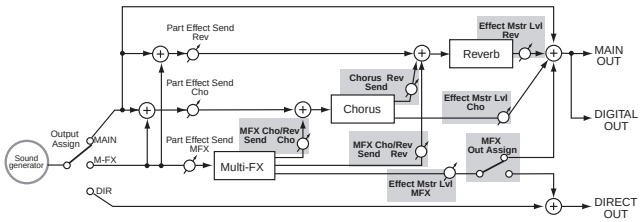
Selects the type of reverb.

* *The parameters of the effect cannot be edited on the VariOS itself. To edit the effect parameters, you need to use the Mixer screen (p. 92) in V-Producer.*

* *For details on each effect, refer to "The effects of the sound generator section" in the reference manual (PDF).*

4-6 Common Routing

These parameters specify the effect routing for the entire performance. (These settings apply to all parts.)



4-6-1 MFX Out Assign (Multi-effect output assign)

Specifies how the sound that has been processed through the multi-effect will be output.

Available Settings:

MAIN	Output from the "MAIN OUT" output jacks
DIR	Output from the "DIRECT" output jacks

4-6-2 EFX Master Level (Effect master level)

Specifies the volume of the sound that has been processed through each effect.

Available Settings: 0–127

MFX	Specify the volume of the multi-effect sound
Cho	Specify the volume of the chorus sound
Rev	Specify the volume of the reverb sound

4-6-3 MFX Cho/Rev Send (Multi-effect chorus/reverb send)

Specify the depth of chorus or reverb that will be applied to the sound processed by the multi-effect.

Available Settings: 0–127

Cho	Specify the depth of chorus that will be applied to the sound processed by the multi-effect.
Rev	Specify the depth of reverb that will be applied to the sound processed by the multi-effect.

4-6-4 Chorus Rev Send (Chorus reverb send)

Specify the depth of reverb that will be applied to the sound processed by the chorus.

Available Settings: 0–127

Menu 5 Tune (Tuning settings)

5-1 Master Tune

Adjusts the tuning of the entire VariOS. The displayed value is the frequency of the A4 key.

Available Settings: 427.4–452.6 [Hz]

* *This value is remembered even when the power is turned off.*

5-2 Master Coarse/Fine Tune

Coarse adjusts the basic pitch of the performance in semitone steps over a +/-1 octave range.

Available Settings: -12–+12

Fine adjusts the pitch specified by **Coarse** in one-cent steps (1/100th of a semitone) over a range of one-half semitone upward or downward.

Available Settings: -50–+50

* *Since this value is saved for each performance, it will change if you load another performance or turn off the power.*

5-3 Transpose (System transpose)

Adjusts the pitch in semitone steps. Incoming note numbers will be converted by this transpose setting.

Available Settings: -5–+6

* *This value is saved even when the power is turned off.*

5-4 Octave Shift (System octave shift)

Adjusts the pitch in steps of one octave. Incoming note numbers will be converted by this octave shift setting.

Available Settings: -3–+3

* *This value is saved even when the power is turned off.*

Menu 6 Utility

6-1 Sample Delete

In order to make efficient use of memory, samples that you no longer need should be deleted from internal memory.
When you delete a sample, its number will appear as "NO WAVE DATA."

1. As described in **"Switching the screen"** (p. 102), access MENU "6-1 Sample Delete" and press the [VALUE] knob.
2. Turn the [VALUE] knob to select the sample that you want to delete, and press the [VALUE] knob.
3. The display will ask "Are You Sure?" Press the [VALUE] knob once again to delete the sample. If you press the [EXIT] button you will return to the previous screen.

When the deletion is completed, the display will indicate "Completed!"

6-2 Sample Rename

Here's how to rename a sample.

1. As described in **"Switching the screen"** (p. 102), access MENU "6-2 Sample Rename," and press the [VALUE] knob.
2. Turn the [VALUE] knob to select the sample that you want to rename, and press the [VALUE] knob.
3. Assign the name as described in **"Assigning a name"** (p. 104).

When the operation is completed, the display will indicate "Completed!"

6-3 Sample Swap

Here's how you can change the order of the samples in internal memory.
The Source Sample and Destination will be exchanged.
If you execute this when the destination contains no sample, the source number will change to "NO WAVE DATA."

1. As described in **"Switching the screen"** (p. 102), access MENU "6-3 Sample Swap" and press the [VALUE] knob.
2. When the display indicates "Source Sample," turn the [VALUE] knob to select the move-source sample, and then press the [VALUE] knob.
3. When the display indicates "Destination," turn the [VALUE] knob to select the move-destination sample, and then press the [VALUE] knob.
4. The display will ask "Swap OK?" Press the [VALUE] knob once again to carry out the move. If you press the [EXIT] button you will return to the previous screen.

When the operation is completed, the display will indicate "Completed!"

6-5 Factory Reset (Restoring the factory settings)

This operation restores the VariOS to the factory-set condition.
In the screen that reads "Factory Reset," press the [VALUE] knob. A message of "Factory Reset OK?" will ask you for confirmation. Press [VALUE] once again to carry out the factory reset operation.
When the operation is completed, the display will indicate "Completed!"

* *If you select [EXIT] the factory reset operation will not be executed.*
* *This operation will not restore the demo song. If you want to restore the demo song, refer to* **"Reloading the internal demo song into the VariOS"** *(p. 140).*

Menu 7 System

7-1 Control Channel

This specifies the channel on which MIDI messages from an external device will simultaneously control all parts of the VariOS. If you do not need to control all parts simultaneously, turn this setting "OFF."

Available Settings: 1–16, OFF

If the MIDI receive channel of an individual part (p. 115) is the same as the control channel, the control channel setting will take priority. You should avoid setting the control channel to the same setting as the MIDI receive channel of an individual part.

7-2 Audio Input Jack

This enables or disables the audio input jacks of the rear panel.

Available Settings: Enable, Disable

You can improve the S/N ratio of the VariOS by setting this to Disable.

7-3 MIDI Mode

This setting changes the routing of the MIDI connectors on the rear panel of the VariOS. For details, refer to **"Playing the VariOS from a connected keyboard (MIDI Mode)"** (p. 108).

7-4 Panic Key

When the VariOS receives the note message that you specify as the Panic Key, it will stop the sound of all parts regardless of the channel, and will reset each controller. This gives you a convenient way to stop "stuck notes" in cases such as when the trigger mode (p. 114) is set to TRIGGER, and you have forgotten which keys have been played.

Available Settings: OFF, C-1–G9

7-5 LCD Contrast

Adjusts the contrast (brightness) of the display. Increasing this value will darken the display.

Available Settings: 1–8

7-6 M. Attenuation (Master attenuation)

Adjust this setting if the output level from the four OUTPUT jacks is too loud. With a setting of -60 dB, the output level will be at its minimum setting.

Available Settings: -60–0 [dB]

* *This parameter will also reduce the output level of the DIGITAL AUDIO output jacks (OPTICAL and COAXIAL).*

Menu 8 DISK

8-1 Load

Here you can load performances or samples that you saved in internal flash ROM or on a PC card.

* *When you load a performance, the samples that were saved at the same time as the program will also be loaded.*

* *When you load a performance, the performance that had previously been in internal memory will be overwritten.*

* *Due to the amount of wave memory in the VariOS, the samples that can be loaded are limited to a total of 2 minutes 30 seconds in stereo, or a total of 5 minutes in monaural. Samples that exceed this amount cannot be loaded.*

* *The VariOS can load only performances and samples that were saved by the VariOS itself. Wave files (.WAV) or Vari-format files (.VPW) that you copied from your computer onto a PC card cannot be loaded correctly.*

1. As described in **"Switching the screen"** (p. 102), access MENU "8-1 Load" and press the [VALUE] knob.
2. When the display indicates "Select Media," turn the [VALUE] knob to select the media from which you want to load, and then press the [VALUE] knob.

You can select either internal flash ROM (Flash ROM) or PC card (PC Card).

3. When the display indicates "Select Folder," turn the [VALUE] knob to select the folder from which you want to load, and press the [VALUE] knob.
4. When the display indicates "Select Type," turn the [VALUE] dial to select either Performance or Sample, and press the [VALUE] knob.
5. The performances or samples in the selected folder will be displayed. Turn the [VALUE] knob to select the data that you want to load, and press the [VALUE] knob.

The display will indicate "Now Loading..." while the data is being loaded, and will indicate "Completed!" when loading is completed.

8-2 Save

When you save a performance, all samples in internal memory at that time will be saved along with the performance. Since you can create a folder when you save a performance, we recommend that you save a performance in its own folder. If you do so, it will be easy to see which samples belong to which performance when you look at the contents of the disk.

* *A sample for which there is no wave cannot be saved.*

* *You cannot use the following names for saving:*

Performance

- "NEW PERFORMANCE" (case of letters is irrelevant)
- All spaces

Samples

- "NO WAVE DATA" (case of letters is irrelevant)
- All spaces

1. As described in **"Switching the screen"** (p. 102), access MENU "8-2 Save," and press the [VALUE] knob.
2. When the display indicates "Select Media," turn the [VALUE] knob to select the save-destination media, and press the [VALUE] knob.

You can select internal flash ROM (Flash ROM) or PC card (PC Card).

3. When the display indicates "Select Folder," turn the [VALUE] knob to select the save-destination folder, and press the [VALUE] knob.

> **Creating a new folder**
>
> If you turn the [VALUE] knob all the way to the right in **step 3**, the display will indicate "Make New Folder" in the folder name field, allowing you to create a new folder. When the display indicates "Make New Folder," press the [VALUE] knob and assign a folder name as described in **"Assigning a name"** (p. 104).

4. When the display indicates "Select Type," turn the [VALUE] knob to select either Performance or Sample, and press the [VALUE] knob.

When saving a performance:

5. The display will indicate "File Name," so assign a file name as described in **"Assigning a name"** (p. 104).
6. The display will ask "Are You Sure?" Press the [VALUE] knob once again to carry out the save operation. If you press the [EXIT] button you will return to the previous screen.

The display will indicate "Now saving..." while the data is being saved, and "Completed!" when saving is completed.

When saving a sample:

7. The display will indicate the name of the sample being saved and "Are You Sure?" Turn the [VALUE] knob to select the sample that you want to save, and then press the [VALUE] knob to execute the save operation. If you press the [EXIT] button you will return to the previous screen.

The display will indicate "Now saving..." while the data is being saved, and "Completed!" when saving is completed.

8-3 Delete

Here's how to delete a file or folder.

1. As described in **"Switching the screen"** (p. 102), access MENU "8-3 Delete," and press the [VALUE] knob.
2. When the display indicates "Select Media," turn the [VALUE] knob to select the media that contains the file (or folder) you want to delete, and press the [VALUE] knob.

You can select internal flash ROM (Flash ROM) or PC card (PC Card).

3. When the display indicates "Select Type," turn the [VALUE] knob to select Performance, Sample, or Folder, and then press the [VALUE] knob.

Deleting a performance or sample

4. When the display indicates "Select Folder," turn the [VALUE] knob to select the folder that contains the file you want to delete, and then press the [VALUE] knob.
5. The display will show the name of the file to be deleted and "Delete OK?" Turn the [VALUE] knob to select the file that you want to delete, and press the [VALUE] knob.
6. The display will ask "Are You Sure?" Press the [VALUE] knob once again to carry out the deletion. If you press the [EXIT] button you will return to the previous screen.

When the deletion is completed the display will indicate "Completed!"

* *Even if you delete a performance file, the samples used by that performance will not be deleted.*

Deleting a folder

4. When the display indicates "Select Folder," turn the [VALUE] knob to select the folder that you want to delete, and press the [VALUE] knob.
5. The display will ask "Are You Sure? Delete OK?" Press the [VALUE] knob once again to carry out the deletion. If you press the [EXIT] button you will return to the previous screen.

When the deletion is completed the display will indicate "Completed!"

8-4 Rename

Here's how to rename a file or folder.

1. As described in **"Switching the screen"** (p. 102), access MENU "8-4 Rename," and press the [VALUE] knob.
2. When the display indicates "Select Media," turn the [VALUE] knob to select the media that contains the file (or folder) you want to rename, and press the [VALUE] knob.

You can select internal flash ROM (Flash ROM) or PC card (PC Card).

3. When the display indicates "Select Type," turn the [VALUE] knob to select Performance, Sample, or Folder, and then press the [VALUE] knob.

Renaming a performance or sample

4. When the display indicates "Select Folder," turn the [VALUE] knob to select the folder that contains the file you want to rename, and then press the [VALUE] knob.
5. The display will indicate "Select File." Turn the [VALUE] knob to select the file that you want to rename, and press the [VALUE] knob.
6. The display will indicate "File Name." Assign the desired file name as described in **"Assigning a name"** (p. 104).
7. The display will ask "Are You Sure? Rename OK?" Press the [VALUE] knob once again to carry out the rename operation. If you press the [EXIT] button you will return to the previous screen.

When the rename operation is completed the display will indicate "Completed!"

Renaming a folder

4. When the display indicates "Select Folder," turn the [VALUE] knob to select the folder that you want to rename, and press the [VALUE] knob.
5. The display will ask "Folder Name." Assign the desired folder name as described in **"Assigning a name"** (p. 104).
6. The display will ask "Are You Sure? Rename OK?" Press the [VALUE] knob once again to carry out the rename operation. If you press the [EXIT] button you will return to the previous screen.

When the rename operation is completed the display will indicate "Completed!"

8-5 Format

Here's how to format (initialize) the internal flash ROM or a PC card. A PC card must be formatted for use by the VariOS before it can be used.

1. As described in**"Switching the screen"** (p. 102), access MENU "8-5 Format," and press the [VALUE] knob.
2. When the display indicates "Select Media," turn the [VALUE] knob to select the media that you want to format, and press the [VALUE] knob.

You can select internal flash ROM (Flash ROM) or PC card (PC Card).

3. Only if you are formatting a PC card, the display will indicate "Volume Label." Assign a volume label as described in **"Assigning a name"** (p. 104).
4. The display will ask "Are You Sure? Format OK?" Press the [VALUE] knob once again to carry out the format operation. If you press the [EXIT] button you will return to the previous screen.

While formatting is in progress the display will indicate "Now Processing...," and will indicate "Completed!" when formatting is completed.

* *Since the demo song inside the VariOS is saved in the internal flash ROM of the VariOS, it will not play back correctly if you format the internal flash ROM of the VariOS or if you delete the demo song data. Reload the demo song using the procedure described in* **"Reloading the internal demo song into the VariOS"** *(p. 140).*

Appendix

Synchronization settings

V-Producer can use **MIDI Clock** or **MTC** (MIDI Time Code) to synchronize with a variety of other software. This section explains various methods of synchronization.

Synchronizing as a slave (MIDI Clock)

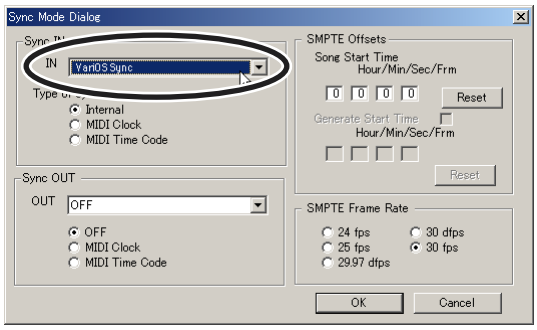
If you want to synchronize V-Producer to a MIDI sequencer (ProTools, Logic, Cubase, Digital Performer, etc.) installed in the same computer, using MIDI Clock for synchronization is the simplest, so it is the recommended method. When synchronizing with MIDI Clock, V-Producer will play according to the tempo of the master sequencer program.
If you want to synchronize with a MIDI sequencer that is running on the same computer, select the MIDI device as “Roland VariOS Sync” (the dedicated synchronization port for the VariOS). Here we will describe settings for some typical MIDI sequencers.

V-Producer synchronization settings

Make the following settings so that V-Producer will operate (as a slave) according to the MIDI clock of your MIDI sequencer.

1

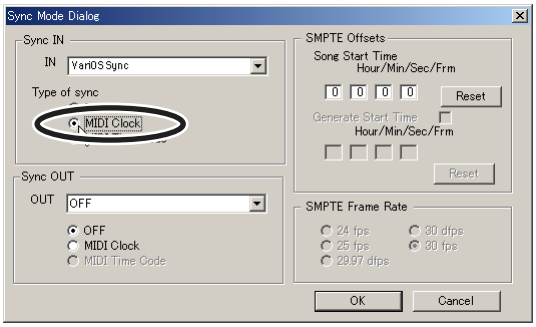
Choose **Option - MIDI Sync**.



2

In the **Sync IN** area of the **Sync Mode** dialog box, set the IN field to the MIDI device you are using as the synchronization input.

* *If you are synchronizing with a MIDI sequencer that is running on the same computer, select "Roland VariOS Sync" as the MIDI device.*



3

Set the Type of sync field to **"MIDI Clock."**

* *You can also switch the **Sync mode** by using the Sync buttons in the locator.*

4

Click **[OK]**.

V-Producer will now synchronize to the playback of the master program.

* *If V-Producer's loop mode is on, V-Producer will give priority to its own looping rather than to the playback location of the master MIDI sequencer.*

* *If Sync mode is **[MIDI]**, you cannot use the controls of the locator section to start playback or control the tempo. If you want to control playback from the locator, set the Sync mode to **[INT]**.*

MEMO

Most sequencers do not re-transmit playback position data at the beginning of a loop. Thus, if your master sequencer is set to loop the playback, V-Producer will ignore the looping of the sequencer, and will simply continue playing as it had been. To avoid this problem, set V-Producer to the same loop region as the loop region in your master sequencer, and turn on loop mode.

Synchronization settings

ProTools

1

Choose **MIDI - MIDI Beat clock**.

2

Check the **"Enable MIDI Beat Clock"** and **"Roland VariOS Sync"** check boxes.

3

Click **[OK]**.

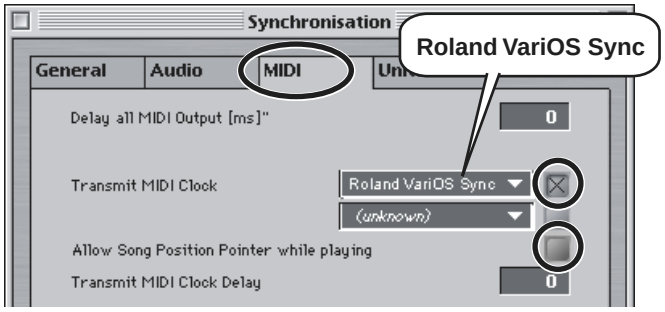
Logic Audio

1

Choose **[Options] - [Song Settings] - [Synchronization Settings...]**.

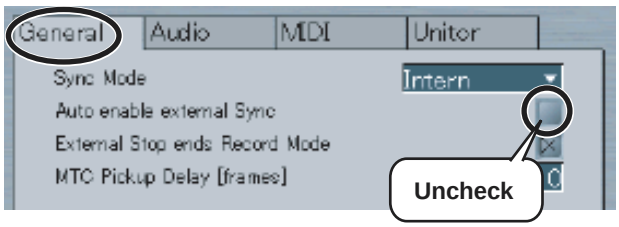
2

Click the **[MIDI]** tab, check the **"Transmit MIDI Clock"** option, and choose **"Roland VariOS Sync"** as the output destination.
Uncheck **"Allow Song Position Pointer while playing."**



3

Click the **[General]** tab, and uncheck **"Auto enable external Sync."**



NOTE

MIDI Clock loop happened inside Logic may freeze the programs if you do not make this setting.

4

Close the dialog box.

MEMO

The explanation in this manual uses Pro Tools LE 5.0.1 for MacOS. Please be aware that some screens and menu names may differ in other versions.

NOTE

If you are running ProTools and V-Producer on the same computer and synchronizing them, you must first start up ProTools and then V-Producer. If an application that uses OMS (such as V-Producer) is already running, ProTools may fail to start up.

MEMO

The explanation in this manual is for Logic Audio 5.2.0. Please be aware that differences in the software version may mean that the windows or menu items may be slightly different.

MEMO

If you are not using OMS with Logic, check "Use OMS if available" in [Options] - [Preferences] - [MIDI Interface Communication...].

MacOS

If you are using Logic for Mac, and you experience hangups even after making the settings on the preceding page, please try making the following settings.

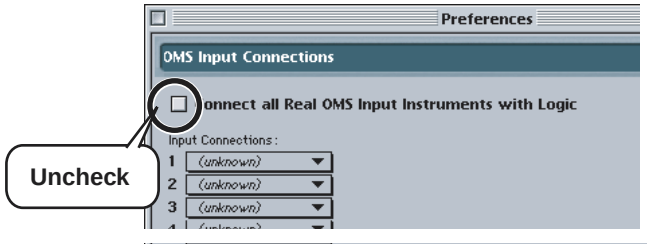
1

Choose **[Options]** - **[Preferences]** - **[OMS Preferences]** - **[Input Mapping...]**.

2

Uncheck the **"Connect all Real OMS Input Instruments with Logic"** check box.

Do not select **"Roland VariOS Sync"** for **"Input Connections."**



3

Close the dialog box.

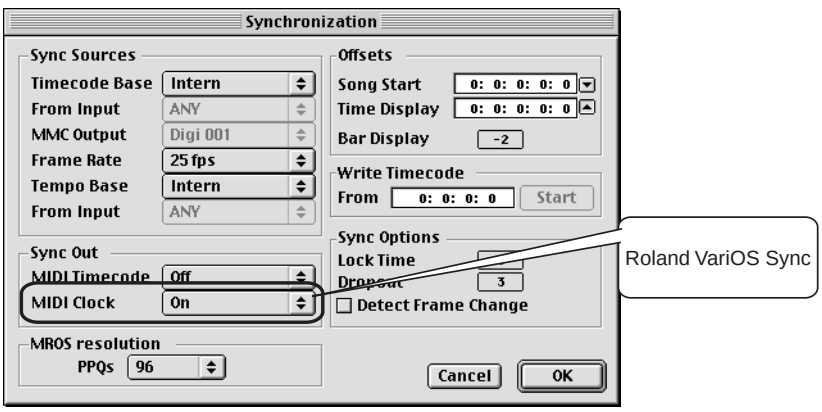
Cubase VST

1

Choose **Options - Synchronization**.

2

In the **Sync Out** area of the **Synchronization** dialog box, select **"Roland VariOS Sync"** for the **MIDI Clock** field, and turn it **"On"** as shown below.



3

Click **[OK]**.

MEMO

The explanation in this manual uses Cubase VST 5.0 for MacOS. Please be aware that some screens and menu names may differ in other versions.

MEMO

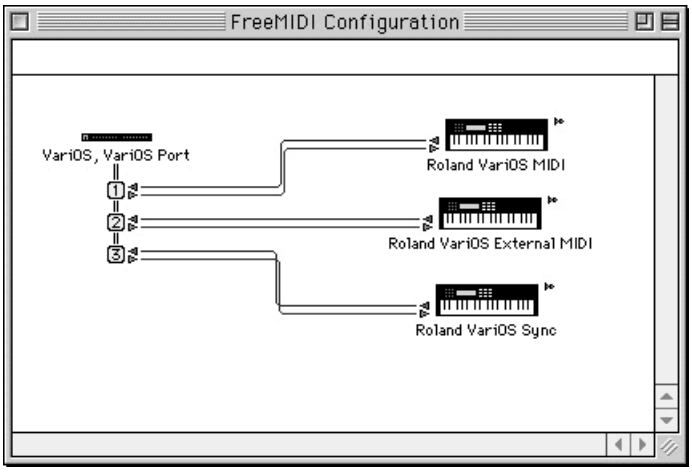
If you are not using OMS in Cubase, go to Options - MIDI Setup - System, and change the OMS Compatibility setting from "No OMS" to "IN & OUT." Then re-start Cubase.

Digital Performer

FreeMIDI settings for using the VariOS

1

Create the following FreeMIDI Configuration for the VariOS.

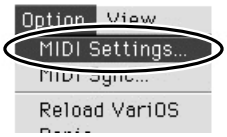


V-Producer synchronization settings

Select FreeMIDI as the MIDI driver that V-Producer will use.

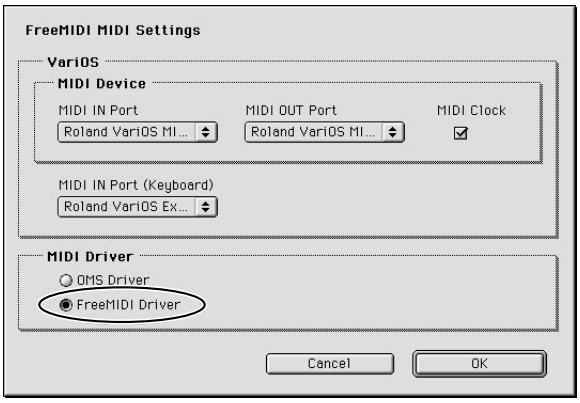
2

From V-Producer's **[Option]** menu, choose **"MIDI Settings..."**



3

In the **FreeMIDI MIDI Settings** dialog box, set **MIDI Driver** to **"FreeMIDI Driver."**



4

Click **[OK]** to close the **FreeMIDI MIDI Settings** dialog box.

MEMO

The explanation in this manual uses Digital Performer 3.0. Please be aware that some screens or menu names may differ in other versions.

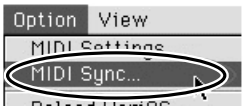
MEMO

For details on installing the FreeMIDI driver for VariOS and on making FreeMIDI Configuration settings, refer to [ReadmeFM-E.HTM] located in the [VariOS FreeMIDI Driver-E] folder on the CD-ROM.

Next, make settings so that V-Producer will synchronize to the MIDI clock data transmitted from Digital Performer.

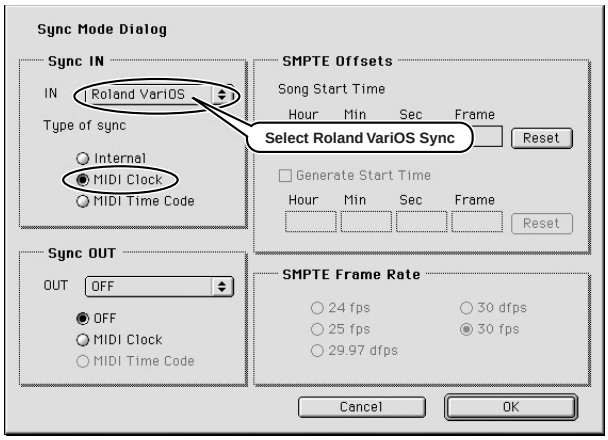
5

From V-Producer's **[Option]** menu, choose **"MIDI Sync..."**



6

In the **Sync Mode** dialog box, set the **Sync IN "IN"** field to **"Roland VariOS Sync"** as shown below.



7

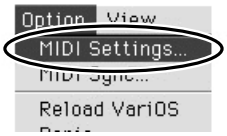
In the **Sync IN "Type of sync"** field, select **"MIDI Clock."**

8

Click **[OK]** to close the **Sync Mode** dialog box.

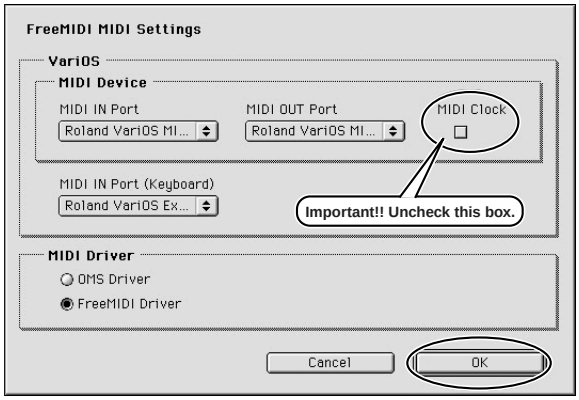
9

From V-Producer's **[Option]** menu, choose **"MIDI Settings..."**



10

In the **FreeMIDI MIDI Settings** dialog box, uncheck the **"MIDI Clock"** box.



11

Click **[OK]** to close the **FreeMIDI MIDI Settings** dialog box.

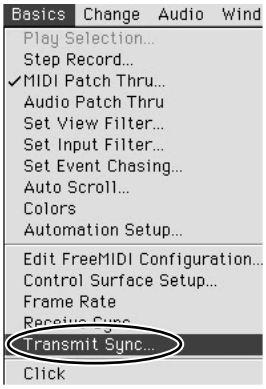
MEMO

Step **10** is a special setting used when you want to synchronize V-Producer and Digital Performer. If you fail to uncheck this box, V-Producer will play at double speed when synchronized. If you want to play V-Producer in Internal Mode, check this box once again.

Digital Performer settings

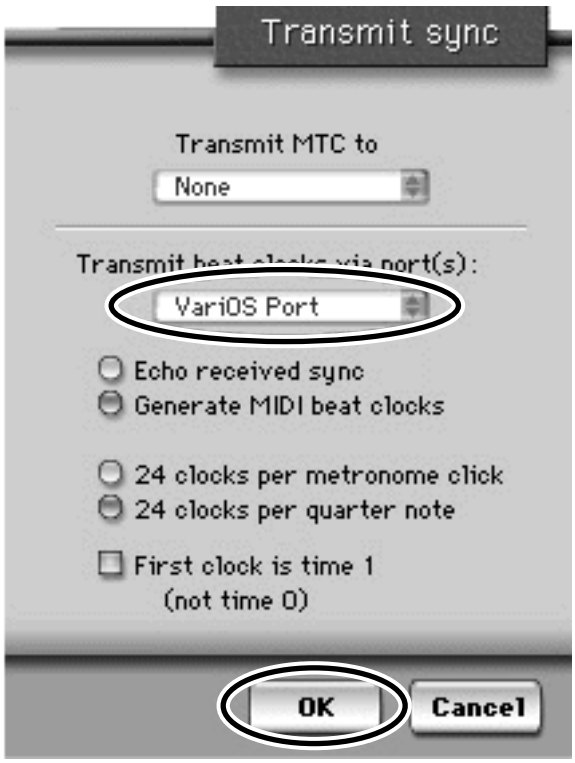
12

From Digital Performer's **[Basics]** menu, choose **"Transmit Sync..."**



13

In the **Transmit** dialog box, set the **"Transmit beat clocks via port(s)"** field to **"VariOS Port."**



14

Click **[OK]** to close the **Transmit** dialog box.

SONAR 2.0

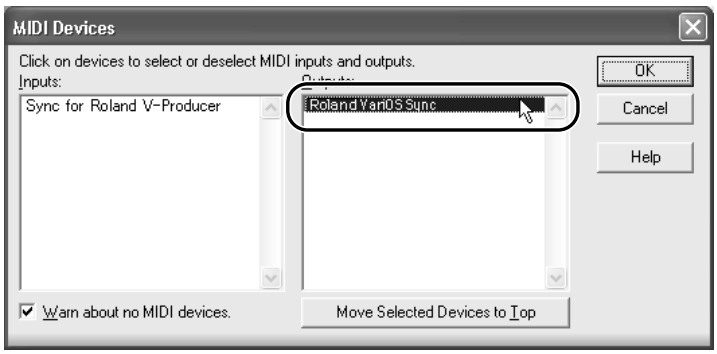
1

Choose **Options - MIDI Devices**.

2

In the **MIDI Device** dialog box, choose **"Roland VariOS Sync"** in the Output Devices field. At this time, make a note of the port number for **Roland VariOS Sync**.

The top MIDI device that is selected in the list of output devices is assigned to MIDI output port 1, and the next MIDI device is assigned to MIDI output port 2, and so on.



3

Click **[OK]**.

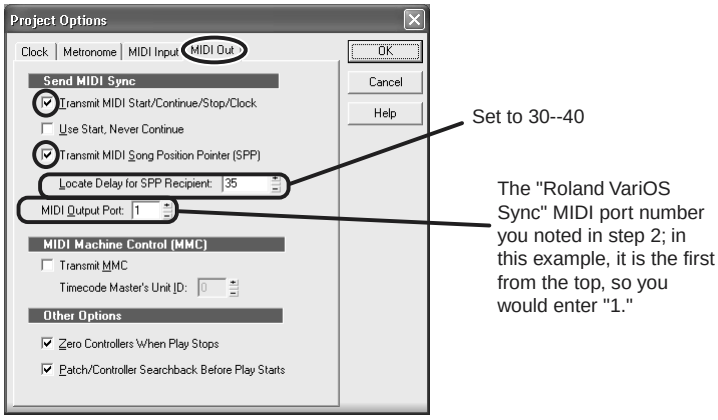
4

Choose **Options - Project**.

5

In the **Project Options** dialog box, click the **[MIDI Out]** tab.

Set the **"Send MIDI Sync"** fields as shown below.



* *Set the **"Locate Delay for SPP Recipient"** in the range of 30–40.*

* *Set the MIDI output port to the Roland VariOS Sync MIDI port number you noted in step 2.*

6

Click **[OK]**.

MEMO

The explanation in this manual uses SONAR 2.0. Please be aware that some screens and menu names may differ in other versions.

NOTE

Depending on the MIDI interface you are using, you may be unable to hear the sound from the VariOS if you first start SONAR 2.0 and then start V-Producer. If this occurs, start V-Producer first, and then start SONAR 2.0.

Synchronizing as a slave (MTC)

V-Producer can synchronize as a MTC slave.
Use the following procedure to set V-Producer so that it will operate according to MTC.

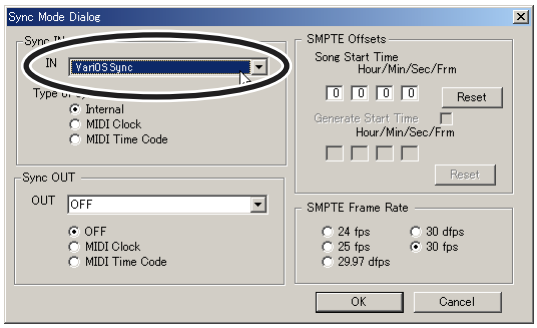
1

Choose**Option - MIDI Sync**.

2

In the **Sync Mode** dialog box, set the **Sync IN** field **IN** to the MIDI device that you will use to input the synchronization signal.

* *If you are synchronizing to a MIDI sequencer that is running on the same computer, select "Roland VariOS Sync" as the MIDI device.*



3

In the **Sync IN** field Type of sync, choose **"MIDI Time Code."**

* *You can obtain the same result by pressing the **[MTC]** button in the locator section.*

4

Click **[OK]**. V-Producer will now synchronize to the master playback.

* *If the Sync mode is **"MTC,"** you will not be able to start playback from the locator controls. If you want to play back using the locator controls, switch the Sync mode to **"INT."***

* *After V-Producer receives MTC clock messages, it requires approximately two seconds of adjustment time before synchronized playback can begin. If you want to synchronize V-Producer from the beginning of the song, please insert two or more seconds of blank space at the beginning of the song on the master device.*

MEMO

Since V-Producer will automatically set its reception SMPTE Frame Rate to match the transmitting device, you do not need to set V-Producer's SMPTE Frame Rate when synchronizing it as a slave.

Synchronization settings on the master device

For details on how to make MTC master settings in your other software or external device, refer to the manual for your software or device.
If you are using another program installed in the same computer as the master, and want to synchronize V-Producer to that program, select **"Roland VariOS Sync"** as the MIDI device to which MTC will be transmitted. This will allow synchronization to occur without having to send the data through an external MIDI interface.

Synchronizing as the master (MIDI Clock)

1

Choose **Option - MIDI Sync**.

2

In the **Sync Mode** dialog box's **Sync IN** area, set Type of sync to **"Internal."**

* *You can obtain the same result by pressing the **[INT]** button of the locator section.*

3

In the **Sync OUT** area, set the **OUT** field to the MIDI device that you will use to output the synchronization data.

4

In the **Sync OUT** field, select **MIDI Clock**.

5

Click **[OK]**.

Now V-Producer will transmit MIDI clock data as the master.

Synchronization settings on the slave device(s)

For details on how to make settings in your other software or external device so that it will operate as a MIDI Clock slave, refer to the manual for your software or device.

Synchronizing as the master (MTC)

1

Choose **Option - MIDI Sync**.

2

In the **Sync Mode** dialog box's **Sync IN** area, set **Type of sync** to **"Internal."**

* *You can obtain the same result by pressing th **[INT]** button of the locator section.*

3

In the **Sync OUT** area, set the **OUT** field to the MIDI device that you will use to output the synchronization data.

4

In the **Sync OUT** field, select **MIDI Time Code**.

5

In the **SMPTE Offsets** field, specify the starting time of the **SMPTE time code** that will be transmitted.

6

In the **SMPTE Frame Rate** field, specify the **MTC frame rate** to be transmitted.

7

Click **[OK]**. Now V-Producer will transmit MTC as the master device.

MEMO

For details on setting the starting time of the SMPTE time code, refer to "SMPTE Offsets" within the "MIDI Sync" section of the reference manual (PDF).

MEMO

For details on the SMPTE Frame Rate, refer to "SMPTE Frame Rate" within the "MIDI Sync" section of the reference manual (PDF).

Synchronization settings on the slave device(s)

For details on how to make settings in your other software or external device so that it will operate as a MTC slave, refer to the manual for your software or device.

Controlling the VariOS from your MIDI sequencer

When using the VariOS with your MIDI sequencer (ProTools, Logic, Cubase, Digital Performer, etc.), you can set the VariOS's clock source to **"MIDI"** so that the VariOS's internal tempo will synchronize to the tempo of your MIDI sequencer.

1

Turn on the power of the VariOS, and load the samples that you want to play (p. 121).

2

Set the VariOS **clock source** to **"MIDI"** (p. 106).

3

Start up your MIDI sequencer.

4

Send the MIDI clock of your MIDI sequencer to **"Roland VariOS MIDI"** (the port of the VariOS sound generator section).

For details on MIDI clock settings in your software program, refer to the explanation for each program in **"Synchronization settings"** (p. 126), but read any references to **"Roland VariOS Sync"** as **"Roland VariOS MIDI."**

- **ProTools** (p. 128)
- **Logic Audio** (p. 128)
- **Cubase VST** (p. 129)
- **Digital Performer** (p. 130)
- **SONAR 2.0** (p. 133)

Now the internal tempo of the VariOS will be synchronized with the tempo of your MIDI sequencer.

5

Specify **Roland VariOS MIDI** (the port of the VariOS sound generator section) as the output port for the tracks of your sequencer, so that it will control the VariOS.

MEMO

When you are using V-Producer, V-Producer will automatically set the clock source to "MIDI."

Using your MIDI sequencer to play data (SMF) created by V-Producer

Here's how SMF data you've exported from V-Producer using the **File - Export SMF...** command can be played on your MIDI sequencer (ProTools, Logic, Cubase, Digital Performer, etc.).

■ Export SMF data

1

In V-Producer, execute **File - Export SMF...** to export the SMF data.

2

In the VariOS, save the samples that are used by the SMF (p. 122).

■ Load the SMF data into your MIDI sequencer

1

Turn on the power of the VariOS, and load the samples that are used by the song that you exported as SMF data (p. 121).

2

Set the **clock source** of the VariOS to **"MIDI"** (p. 106).

3

Start up your sequencer, and load the SMF data that you created in V-Producer.

4

Send the MIDI clock output of your MIDI sequencer to **"Roland VariOS MIDI"** (the port of the VariOS sound generator section).

For details on MIDI clock settings for your software, refer to the explanation for each program in **"Synchronization settings"** (p. 126), but read any references to **"Roland VariOS Sync"** as **"Roland VariOS MIDI."**

- **ProTools** (p. 128)
- **Logic Audio** (p. 128)
- **Cubase VST** (p. 129)
- **Digital Performer** (p. 130)
- **SONAR 2.0** (p. 133)

5

Specify **Roland VariOS MIDI** (the port of the VariOS sound generator section) as the output port for the tracks used by the SMF data.

NOTE

Please note that a song saved in SMF format cannot be re-loaded back into V-Producer.

NOTE

A song saved in SMF format does not contain the samples and setting data for the sound module (VariOS), so you will need to save this data on the VariOS itself.

MEMO

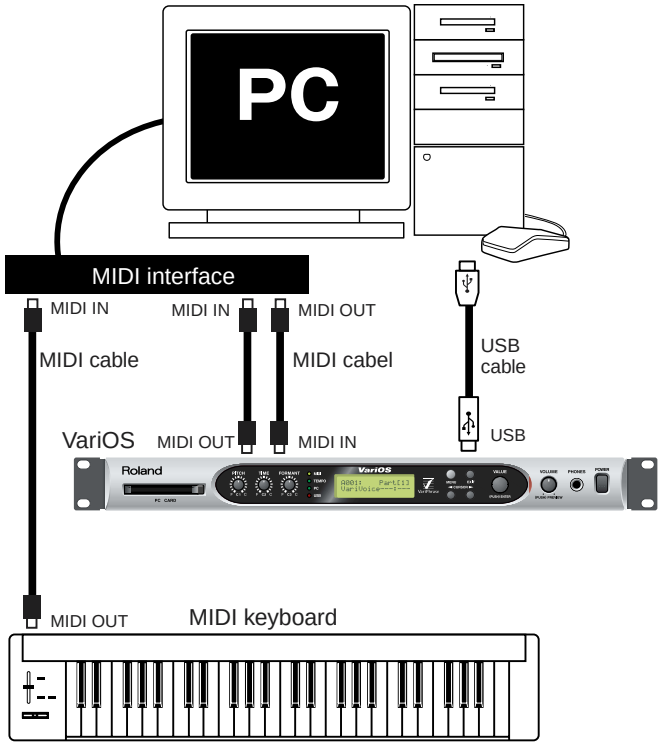
While V-Producer is being used, it will automatically set the clock source to "MIDI."

When not using the USB MIDI functionality of the VariOS (Connecting the VariOS to an external MIDI interface)

Here's how to make connections and settings when you are not using the USB MIDI functionality of the VariOS (i.e., when you are connecting the VariOS to an external MIDI interface).

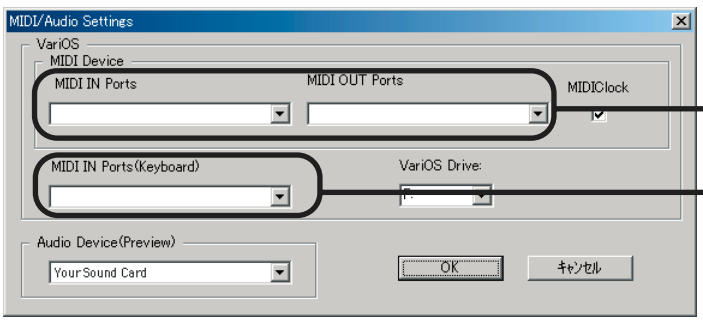
MEMO Normally, you will not need to use these connections unless you have problems, such as the VariOS's USB MIDI functionality failing to operate reliably on your computer.

Connections



* *Since the VariOS uses the USB cable to transfer wave files from the computer, you must use a USB cable to connect the VariOS and your computer even when you are connecting to a MIDI interface.*

MIDI port settings in V-Producer



MIDI MODE setting on the VariOS

In the procedure for **"Playing the VariOS from a connected keyboard (MIDI Mode)"** (p. 108), set the VariOS's MIDI MODE to **"Internal."**

Reloading the internal demo song into the VariOS

Since the demo song inside the VariOS is saved in the internal flash ROM of the VariOS, it will not play back correctly if you format the internal flash ROM of the VariOS or if you delete the demo song data. Reload the demo song using the following procedure.

NOTE If you execute this procedure, all user data will be erased from the internal flash ROM. Please re-save the user data to a PC card before you proceed.

1

Start up your computer, and insert the CD-ROM that was included with the VariOS.

NOTE If your computer does not contain the VariOS driver, you must first install the VariOS driver as described in **"Installation"** (p. 21).

2

Use a USB cable to connect the VariOS to your computer, and power up the VariOS.

3

Windows:

Using Explorer, copy the **"VariOS_DemoSong"** (located within the "BackUp" folder of the CD-ROM) into the removable disk (the mounted VariOS drive).
When the copy is finished, double-click the **"remove"** icon in the task tray, and click the item that represents the VariOS drive (this will vary depending on your version of Windows) to unmount the drive.

Windows XP, 2000	USB high-capacity storage device
Windows Me	USB disk

Macintosh:

Use the mouse to drag the **"VariOS_DemoSong"** (located within the "BackUp" folder of the CD-ROM in the Finder), and copy it into the **"VARIOS_DRV"** disk (the mounted VariOS drive) in the Finder.
When the copy is finished, drag the **"VARIOS_DRV"** (the VariOS drive) from the desktop into the recycling bin. Alternatively, you can click VARIOS_DRV on your desktop, and execute Unmount from the Special menu (shortcut [ ] + [E]).

4

Press the **[MENU]** button of the VariOS so it's lighted, and the Menu screen is displayed.

* *Initially, the Menu screen will show the most recently selected menu. Hold down the **[MENU]** button for a time or press the **[EXIT]** button to move to the top-level menu.*

5

Turn the **[VALUE]** knob to select **"MENU8 DISK,"** and then press the **[VALUE]** knob.

6

Turn the **[VALUE]** knob to select **"Menu8-5 Format,"** and then press the **[VALUE]** knob.

7

When **"Select Media"** appears, choose **"Flash ROM"** and press the **[VALUE]** knob.

8

A message of **"Are You Sure? Format OK?"** will ask you for confirmation. Press the **[VALUE]** knob once again to execute formatting. If you press the **[EXIT]** button you will return to the previous screen.

During formatting, the display will indicate **"Now Processing..."** When formatting is finished, the display will indicate **"Completed!"**

The demo song has now been reloaded.

Troubleshooting

Problems related to the USB driver (Windows)

●Q. When I start (or restart) my computer with the VariOS connected via USB, it freezes at the startup screen and fails to work

- Switch off the VariOS and then restart your computer.
  It has been found that on some computers, starting (or restarting) the computer while the VariOS is powered up and USB is connected will cause the computer to freeze at the startup screen and fail to work. In this case, power down the VariOS and restart your computer.

● Q. When I turned off the power of the VariOS, an error occurred in Windows

- When using Windows Me, powering down the VariOS without unmounting the drive may cause an error to occur in Windows. You must power down the VariOS using the procedure described on p. 50.

●Q. When I attempt to exit Windows while leaving the VariOS powered up, the computer does not turn off

On some Windows computers, it has been reported that the computer cannot be powered down if you exit Windows when the VariOS is still powered up (without unmounting the drive). (The shutdown process halts before the computer's power is switched off.)
In this case, please use the procedure described on p. 50 to power down the VariOS before you exit Windows.

●Q. VariOS driver is not mounted in Windows XP

If a network drive is mounted in Windows XP, that drive number may conflict with the VariOS drive, causing the VariOS drive to not be recognized. If this occurs, change the assignment of the network drive.

●Q. When I connect the VariOS via USB and wake up my computer from Suspend, it stops functioning

- Make sure to power down the VariOS before you wake up your computer from Suspend. On some computers, waking up the computer from the Suspend state while a powered-up VariOS is connected via USB will cause the computer to freeze. Before you Suspend your computer, power down the VariOS using the procedure described on p. 50.

●Q. “Find new hardware wizard” does not execute automatically

●Q. The “Insert Disk” dialog box does not appear

●Q. “Find new hardware wizard” ends before the process is completed

It may take about 15 seconds (or more) after the USB cable is connected for the VariOS to be detected.

- **Is the USB cable connected correctly?**
  Make sure that the VariOS and your computer are correctly connected via a USB cable.
- **Is USB enabled on your computer?**
  Refer to the operation manual for your computer, and make sure that USB is enabled.
- **Does your computer meet the USB specifications?**
  If you are using a computer that does not fulfill the electrical requirements of the USB specifications, operation may be unstable. In this case, you may be able to solve the problem by connecting a USB hub.

If the above actions do not solve the problem, it is possible that the VariOS has been incorrectly detected by the computer.
As described in **<Deleting incorrect device information>** (p. 143), delete the incorrect device information, then re-install the driver. (➔**“Installing the Driver”** (p. 22))

●Q. “Found unknown device” appears even though you installed the driver

If your computer or USB hub has two or more USB connectors, and you connect the VariOS to a USB connector to which the VariOS has never been connected before, the **“Unknown device”** dialog box may appear even on a computer onto which you have already installed the driver.
Refer to **“Installing the Driver”** (p. 22), and install the driver once again. This is not a malfunction.

If the "Found unknown device" dialog box appears even though the VariOS is connected to the same USB connector as before, it is possible that the computer has detected the VariOS incorrectly. As described in **<Deleting incorrect device information>** (p. 143), delete the incorrect device information, then re-install the driver. (➔**“Installing the Driver”** (p. 22))

●Q. An “Unknown driver found” dialog box appears, and you are unable to install the driver

●Q. Device Manager shows “?”, “!”, or “USB Composite Device”

●Q. Driver is not installed correctly

It is possible that the computer has detected the VariOS incorrectly.
As described in **<Deleting incorrect device information>** (p. 143), delete the incorrect device information, then re-install the driver. (➔**“Installing the Driver”** (p. 22))

<Deleting incorrect device information>
Use the following procedure to re-install the driver.

1. Turn off the power of your computer, and start up Windows with all USB cables disconnected (except for keyboard and mouse).
2. After Windows restarts, use a USB cable to connect the VariOS to your computer.
3. Turn on the power of VariOS.

4. Click the Windows **Start** button, and from the menu that appears, choose **Settings** | **Control Panel**.
5. Double-click the **System** icon. The **System Properties** dialog box will appear.
6. Click the **Device Manager** tab.

   In Windows XP, select the **System Properties Hardware** tab, and click **Device Manager**.
7. Check whether **"Roland VariOS"** with an **"!"** or **"?"** symbol is displayed below **"Other Devices," "Sound, Video, and Game Controllers,"** or **"Universal Serial Bus Controller."** If you find any such indication, select it and click **[Delete]**.
8. A dialog box will ask you to confirm deletion of the device. Verify the contents of the dialog box, and then click **[OK]**. In the same way, delete all occurrences of **"Roland VariOS"** that have an **"!"** or **"?"** symbol.
9. Check whether **"Composite USB Device," "USB Device,"** or **"USB Composite Device"** with an **"!"** or **"?"** symbol is displayed below **"Other Devices," "Sound, Video, and Game Controllers,"** or **"Universal Serial Bus Controller."** If you find any such indication, you need to determine whether it has appeared because the VariOS has been detected incorrectly, or because there is a problem with some other device. To determine this, switch off the power of the VariOS.

   If the **"Composite USB Device"** (or other) indication disappears when you turn off the power of the VariOS, then it is the VariOS that has been incorrectly detected. Return to step 2 and continue the procedure, and when you reach step 8, delete the information that was detected incorrectly. If the indication does not disappear when you turn off the power of the VariOS, then this indication refers to a different device. Do not delete it.
   "Composite USB Device," "USB Device," or **"USB Compatible Device"** may sometimes indicate a device other than the VariOS. Be careful not to accidentally delete the registration for another device. If you delete the registration for another device, you will have to reinstall the driver for that device.
10. A dialog box will ask you to confirm deletion of the device. Verify the contents of the dialog box, and click **[OK]**. Delete each unwanted occurrence of **"Composite USB Device," "USB Device,"** or **"USB composite device"** indications with an **"!"** or **"?"** symbol.
11. Turn off the power of the VariOS, then delete the driver. (→ **Deleting the driver** (p. 154))
12. Restart Windows. Then install the driver once again. (→ **Installing the Driver** (p. 22)).

* *If the problem still occurs after you have taken the above measures, please refer also to the Readme file for the USB driver. The Readme file is on the CD-ROM.*

●Q. Can't install/delete/use the driver in Windows XP/2000

- **Did you log on to Windows as a user with administrative privileges?**
  In order to install / delete / re-install the driver in Windows XP / 2000, you must be logged into Windows as a user with administrative privileges, such as Administrator. For details, please contact the system administrator for your computer system.
- **Did you make "Driver Signing Options"?**
  In order to install / re-install the driver, you must make "**Driver Signing Options**."
  (**Windows XP** → p. 22, **Windows 2000** → p. 26)

●Q. Windows XP/2000 displays a “Hardware Installation” or “Digital Signature Not Found” dialog box

- **Did you make “Driver Signing Options”?**
  In order to install / re-install the driver, you must make the settings described in “**Driver Signing Options**.” (**Windows XP** → p. 22, **Windows 2000** → p. 26)

Problems related to the USB driver (Macintosh)

●Q. USB indicator on the VariOS's panel is not lit

The USB indicator will not light if the VariOS is not recognized by the computer. Please check the following items.

- **Is the USB cable connected correctly?**
  Make sure that the VariOS and your computer are correctly connected by a USB cable.
- **Did you install the VariOS OMS driver correctly?**
  Install the VariOS OMS driver using the procedure described in **“Installing the VariOS OMS driver”** (p. 40).
- There may be a conflict with the driver (Extension) of another USB device.
  Use the "Extensions Manager" control panel to disable unneeded extensions.
  From the "Selected Set" popup menu, select "Mac OS Base," and restart your Macintosh. Then install the VariOS OMS driver once again using the procedure described in **“Installing the VariOS OMS driver”** (p. 40).

●Q. A message of "Drivers needed for the USB device “VariOS” are not available. Would you like to look for these drivers over the internet?" is displayed

- It is possible that the VariOS's USB MIDI driver has not been correctly installed in your computer. Correctly install the USB MIDI driver as described in **“Installation”** (**“Macintosh users”** (p. 35)).
- It is possible that there is a conflict with the driver (function extension) of another USB device. We are aware of a problem that causes the VariOS to not be recognized correctly if a driver for I-O Data Corporation's USB CD-R drive is installed. In this case, disable **“ISD 200 BOTBridge”** or other driver file by moving it out of the Extensions folder, located within the system folder.

●Q. When the computer returns from the Sleep state, an indication of “MIDI off line!” appears

- The VariOS's USB MIDI driver does not support the Sleep functionality of Mac OS. Do not use the Sleep functionality of Mac OS. When you use the VariOS, open the “Energy Saver” control panel and specify “Never” as the period of inactivity before the system goes to sleep.

Problems when using the VariOS

●Q. Can't install

- Make sure that the CD-ROM is inserted correctly.
- If other applications are running, exit all of them before you begin the installation.
- Make sure that your hard disk has enough free space. If it does not have enough free space, delete unneeded files and then empty the recycle bin.

●Q. Can't start up V-Producer

- **Are numerous applications running?**
  Sometimes a new application cannot start up if there is not enough memory. Exit other applications before you start V-Producer. If an error is still displayed, restart you computer.
- **Is OMS installed correctly?**
  V-Producer will not start on a system in which OMS is not installed. Please re-install OMS correctly.
- Remove unneeded device drivers and/or antivirus software before you start V-Producer.
  Before starting up V-Producer, you must power up the VariOS and connect the VariOS to your computer via a USB cable.
  If you inadvertently start up V-Producer before powering up the VariOS or connecting the USB cable, or if you power down the VariOS or disconnect the USB cable while V-Producer is running, you must exit V-Producer, and then restart it.

●Q. A type 3 error occurs when I start up V-Producer (if ATM 4.6.1 is installed in Mac OS 9.0.4)

It has been reported that if ATM (Adobe Type Manager) 4.6.1 is installed in Mac OS 9.0.4, a type 3 error can occur when V-Producer is started up. This problem can be avoided by doing either of the following:

- Update ATM to version 4.6.2.
  The ATM update can be found on the Adobe website. (http://www.adobe.com)
- Use the "Extensions Manager" control panel to disable ATM.

●Q. MIDI device is not displayed in the PORT field of the MIDI/Audio settings (on the Macintosh, MIDI Settings) dialog box

Before starting up V-Producer, you must power up the VariOS and connect the VariOS to your computer via a USB cable.

If you inadvertently start up V-Producer before powering up the VariOS or connecting the USB cable, or if you power down the VariOS or disconnect the USB cable while V-Producer is running, you must exit V-Producer, and then restart it.

- It is possible that the VariOS's USB MIDI driver has not been correctly installed in the computer. Correctly install the USB MIDI driver as described in **"Installing the Driver" (p. 22)**.
- It is possible that OMS has not been correctly installed in the computer. Correctly install OMS as described in **"Connections and OMS setup" (p. 40)**.
- Make sure that you have a valid OMS Studio Setup (p. 43).
- Check whether the VariOS is powered on, and that it is connected to your computer by a USB cable. If you have turned on the VariOS, exit V-Producer and then start it up once again.
- Exit all other MIDI software, and re-start V-Producer.

●Q. A message of "MIDI Offline!" appears when you start up V-Producer or while it is running

Before starting up V-Producer, you must power up the VariOS and connect the VariOS to your computer via a USB cable.

If you inadvertently start up V-Producer before powering up the VariOS or connecting the USB cable, or if you power down the VariOS or disconnect the USB cable while V-Producer is running, you must exit V-Producer, and then restart it.

- Make sure that the VariOS is powered on.
- Make sure that the VariOS is connected correctly. (**"Connections with external devices" (p. 19)**)
- Make sure that MIDI device settings are correct. (**"MIDI and audio settings" (p. 44)**)
- Re-start your computer.
- Exit all other MIDI software, and re-start V-Producer.
- Check whether the VariOS may be in DISK mode (saving or loading).
- Make sure that you have a valid OMS Studio Setup (**p. 43**).
- The VariOS's USB MIDI driver does not support the Sleep functionality of Mac OS. Do not use the Sleep functionality of Mac OS.

  When you use the VariOS, open the "Energy Saver" control panel and specify "Never" as the period of inactivity before the system goes to sleep.

●Q. An error of "Memory is full..." appears, and further editing is impossible

- The "Memory is full ..." error may appear if you open a large song or run out of memory while editing a song, or depending on the monitor resolution and color depth. It will not be possible to load files or edit further. If this occurs, exit V-Producer. Then, in the Finder, click "V-Producer" to select it. Next, from the Finder menu, choose File - Get Info - Memory, and under Memory Requirements, increase the amount of memory used by V-Producer.

* *If you will be loading samples of the maximum length (150 seconds stereo; 300 seconds monaural), we recommend that you increase the memory allocation to 192 MB or more.*

●Q. No sound when you play back the demo song

- Make sure that the VariOS is powered on.
- Make sure that the VariOS is connected correctly. (**"Connections with external devices" (p. 19)**)
- Make sure that MIDI device settings are correct. (**"MIDI and audio settings" (p. 44)**)
- Exit all other MIDI software, and re-start V-Producer.

●Q. The VariOS's output contains noise

- **Is something plugged into an audio input on the rear panel of the VariOS?**
  If the audio output of your computer or some other source is plugged into an audio input connector on the rear panel of the VariOS, you may hear noise in the VariOS's output. You can eliminate this noise by setting the VariOS menu item **"7-2 Audio Input Jack"** (p. 121) to "Disable" so that the audio input is disabled.

●Q. The volume level of the instrument connected to AUDIO IN is too low

- **Could you be using a connection cable that contains a resistor?**
  Use a connection cable that does not contain a resistor(e.g., Roland PCS series).

●Q. Sound is interrupted

- **Has the maximum polyphony of the VariOS been exceeded?**
  The VariOS can produce a maximum of 14 voices of polyphony (in stereo, 7 voices).

●Q. In the Groove Scope, sound is interrupted, or pops and crackles occur

- When editing events in the Groove Scope, go to the Sample Edit screen (p. 62) and set the **Playback mode of the sample** to "RETRIGGER" (p. 63). If you edit an event with the **Playback mode** set to anything other than **"RETRIGGER,"** the event will not play correctly.

●Q. Can't play legato in the Phrase Scope

●Q. Phrase plays from the beginning when a note is edited in the Phrase Scope

- If you want to play legato in the Phrase Scope, go to the Sample Edit screen (p. 62) and set the **Playback mode of the sample** to "TIME SYNC" (p. 63). If you edit a note with the **Playback mode** set to **"RETRIGGER,"** the beginning of the sample will play each time the pitch changes, and you will be unable to play legato.

●Q. Triggering occurs when you specify a chord in the Phrase Scope

- **Has the maximum polyphony of the VariOS been exceeded?**
  The VariOS can produce a maximum of 14 voices of polyphony (in stereo, 7 voices).

●Q. When you edit a curve in the Phrase Scope, the start and end points of the selected region are not the same as the location where the curve changes

The control data that is edited exists at **20-tick** intervals. In other words, if you edit a region that is smaller than 20 ticks, the selected region will not match the location of the data that actually changes, and will be absorbed into 20-tick steps.

●Q.No sound

- **Is the power of the connected equipment turned on?**
  Make sure that the power of the connected amp / mixer system is turned on.
- **Has the volume been lowered?**
  Check the volume of the VariOS, and the volume of the connected amp / mixer system.
- **Are the connections correct?**
  If there is sound in the headphones, it is possible that theconnection cables are broken, or that your amp / mixer has malfunctioned. Check the connection cables and your equipment once again.
- **Does the transmit channel match the receive channel?**
  Make sure that the MIDI transmit channel(s) of the connected device matches the receive channel (Menu 2-8 Receive Channel) of each VariOS part (p. 115).
- **Has the level of each part been turned down?**
  Check the level setting (Menu 2-5 Level / Pan) of each part (p. 115).
- **Are the note range settings correct?**
  Check the key range (Menu 2-7 Key Range) settings of each part (p. 115).
- **Are the effect settings correct?**
  Check settings such as effect on / off (Menu 4-1 Effect Switch) (p. 119), multi-effect send level(Menu 4-2-2 Part Effect Send) (p. 119), and effect balance and level.
- **Are the output destination settings correct?**
  Check the settings for output assign and multi-effect output assign (p. 119).
- **Has the Master Attenuation been turned to a low value?**
  Set the Master Attenuation (Menu 7-6 M.Attenuation) to a higher value (p. 121).

●Q. Tempo indicator is not blinking (The VariOS does not produce sound)

The Tempo indicator on the VariOS's front panel always blinks in time with the tempo. If the Tempo indicator does not light, check the following points.

- **[If the VariOS is not connected to a computer]**
  The VariOS's MIDI Source may have been set to "MIDI."
  Change the Clock Source to "INT" (p. 106).
- **[If the VariOS is connected to a computer]**
  MIDI Clock data from your sequencer software is not being correctly output to the VariOS port (Roland VariOS MIDI).
  For V-Producer:
  In the **Options** - **MIDI/Audio Settings** (in Macintosh, **"MIDI Settings"**) dialog box, choose **"Roland VariOS MIDI"** as the **MIDI Device**, and check the **"MIDI Clock"** field.

  For other sequencer software:
  Using the procedure on p. 142, output the **MIDI Clock** data from your sequencer software to **"Roland VariOS MIDI."**

●Q.Sound does not play correctly

- If you use SOLO to encode a sound that contains large amounts of reverberation or which has no sense of pitch, the sound may not play as you expect.
  When encoding with the SOLO setting, you should select sounds that have as little reverberation as possible. If the sound includes reverberation, use ENSEMBLE or BACKING to encode it (p. 57).

●Q. Notes are stuck

- In the Sample Edit screen (p. 62), the Trigger mode of the sample may be set to “Trigger.”
  Set the **Trigger mode of the sample** to **“GATE.”** If it is set to TRIGGER, the sample will continue sounding if you forget the key that you pressed. Sometimes if you are playing the VP-9000 from a sequencer, the sample may continue sounding even when you stop the sequencer. If this occurs, choose "Panic" from the Option menu in V-Producer. Alternatively, you can play the key that is assigned as the Panic Key (p. 121). All sounds will stop.

●Q. Tempo does not synchronize

●Q. The VariOS does not play at the tempo of the song

●Q. Playback timing is slightly skewed between samples

- The Clock Source of the VariOS may be set to INT.
  Set the **Clock Source** to **“MIDI”** (p. 106).
  * *If you are playing the VariOS by itself, set Clock Src to INT. If you are synchronizing the VariOS to an external device, set Clock Src to MIDI.*
- **Is tempo sync turned off for the applicable part?**
  Turn on tempo sync for the applicable part (p. 115).
- **Was the original tempo set correctly?**
  Check the setting (p. 57, p. 66).
- **Have you used a TIME knob to modify the time?**
  Return the TIME knob to the center position.

●Q. LFO or effect parameters do not synchronize to tempo

- **Has tempo sync been turned off for the corresponding part?**
  Turn tempo sync on for the part to which the sample is assigned, or for the part to which the effect is being applied (p. 115).

●Q. The VariOS plays at double-tempo when played by V-Producer’s preview or song playback

The VariOS synchronizes to the **master tempo** of V-Producer by receiving **MIDI Clock messages** from V-Producer. On some MIDI interfaces, such as Mark Of The Unicorn Corporation’s MIDI Express or Emagic Corporation’s amt8, MIDI Clock messages that are input to one port are output from all ports. This means that if in the **Sync Mode** dialog box (Option - MIDI Sync) you select one of these interfaces as the MIDI Clock output destination, duplicate MIDI Clock (F8) messages will be sent to the VariOS, causing the playback tempo to double. If this problem occurs, access the **Options - MIDI/Audio settings** (**“MIDI Settings”** on the Macintosh) dialog box, and un-check the **MIDI Clock** check box. This will allow the VariOS to play at the correct master tempo.

●Q. An exported SMF does not play correctly on your sequencer

- An SMF file exported by V-Producer contains song setup data at 1:1:0. This means that if you have pasted a frame at a timing location of 1:1:0, and export the song using Export SMF, the setup data and the note-on data will be output at the identical timing. Some sequencers may be unable to play this correctly. If you want to use Export SMF in such cases, you should paste the frames starting at measure 2 so that there is sufficient space between the setup data and the note-on data.
- It is possible that the VariOS is not synchronized to the tempo of your sequencer. Set the VariOS's Clock Source to MIDI, and make settings on your sequencer so that it will transmit MIDI Clock messages to the VariOS.
- For a song in which a single sample is shared by different keyboard maps (Phrase Map / Groove Map), the playback may differ slightly depending on the Playback Mode of the sample. In particular when playing a phrase that is set to Groove Map, you should set the Playback Mode of the sample to RETRIGGER.

●Q. The VariOS plays at double-tempo when played by a MIDI sequencer

If you use a MIDI sequencer to play the VariOS while V-Producer is running, duplicate **MIDI Clock (F8) messages** may be sent to the MIDI port to which the VariOS is connected, causing the VariOS to play at double-tempo. If this problem occurs, you can either exit V-Producer, or access the **Options - MIDI/Audio Settings** (**"MIDI Settings"** on the Macintosh) dialog box and un-check the MIDI Clock check box. (However, if this box is un-checked, tempo data will not be sent to the VariOS when it is played by V-Producer alone. If you are using only V-Producer without another sequencer, this check box should be checked.)

●Q. When you audition a phrase, effects are sometimes applied to the sound

This happens because the part used by the audition function is assigned automatically each time. You can assign a specific part as the MIDI-thru destination by pressing its [REC] (record-part) button in the vari-track (p. 75), so do this to specify a part to which effects are not applied.

●Q.Effects do not apply

- **Are the various effect settings correct?**

If the send level of each effect is set to 0, the effect will not be applied. Check the settings (p. 92).
Even if the send level to each effect is higher than 0, there will be no effect if the master level of each effect is 0. Check the settings (p. 93).
If output assign is set to MAIN or DIR, the sound of the multi-effect will not be output (p. 92).

●Q. The Undo function does not work as expected

In V-Producer, an Undo function is provided for each screen. In order to use Undo, the appropriate screen must be active. Be aware that when you close a screen other than the vari-track, the Undo data will also be cleared.

●Q. When you operate the knobs of the VariOS to edit PITCH/TIME/FORMANT, some parameters do not reflect your edits

Check the Knob Assign settings of the VariOS. Choose the **View - VariOS Performance Editor** command, click the **Knob Assign** tab, and click the [Reset] button located in the upper right of the screen.

●Q. The PITCH, TIME, and FORMANT knobs don't work when using the VariOS by itself

- **Could the Knob Output Mode be set to OFF or MIDI?**
  When V-Producer starts up, it changes the Knob Output Mode to MIDI. When V-Producer shuts down, it changes this setting to INT&MIDI. If the setting is still MIDI, the knobs will not work when the VariOS is used by itself. Please change the setting to INT or INT&MIDI.

●Q. You attempted to make MIDI synchronization settings, but don't see the "Roland VariOS Sync" that was mentioned in the manual.

- The VariOS USB MIDI driver may not be installed.
  Install the driver as described in **"Installation"** (p. 21).

●Q. When a song exported as SMF is loaded into Cubase, the notes at the beginning of the song are not played.

- It has been found that when a song created in V-Producer is exported as SMF and loaded into Cubase, the order of the Program Change and Note On messages at the first beat of the first measure gets switched around, and as a result, a frame placed at measure one, beat one will fail to sound. If this occurs, use V-Producer to move that frame to a point after measure one, beat one, and then export it as an SMF once again.

●Q. Keyboard shortcuts cannot be registered correctly, or fail to operate.

- Some combinations of keys may be used by your system, and therefore cannot be registered or will not work.

●Q. Can't open Help or Readme menu

- You will need Adobe Corporation's Acrobat Reader in order to read the Help (pdf file). Acrobat Reader can be downloaded from the Adobe Corporation's website (http://www.adobe.com).
- You will be unable to open Help or Readme if the name of your hard disk or folder contains a **"/" (slash)**. Please rename your hard disk or folder.

●Q. Can't add or move events in some locations in the Wave Editor.

When adding or moving events in the Wave Editor, there must be at least 5 msec between adjacent events. You cannot add or move events any closer than this.

●Q. Can't load wave. An error is displayed when you attempt to encode.

- An error will be displayed if the WAV file you are attempting to encode is not suitable for the selected encoding type. In this case, try a different encoding type.
- An error will be displayed if the WAV file you are attempting to encode is too long. In this case, use a waveform editing program to shorten the WAV file. The maximum sampling time for one sample is 150 seconds of stereo or 300 seconds of monaural.

●Q. Encode does not finish

- It is possible that the selected encode type is not appropriate for the sample. Try changing the encode type.

●Q. Can't transfer data successfully to the VariOS.

- If a Zip or similar drive is connected, the drive name of the VariOS will change each time you start up your system, causing it not to be recognized by V-Producer. In this case, choose **Options - MIDI/Audio Settings** (**"MIDI Settings"** on the Macintosh), and re-specify **"VariOS Drive."** Press the **[Scan]** button to select the drive automatically.
- Make sure that the VariOS is powered on.
- Make sure that the VariOS is connected correctly. (**"Connections with external devices"** (p. 19))

●Q. No sound when you play a MIDI keyboard. Can't record.

- Make sure that your MIDI keyboard is connected as described in **"Connections with external devices"** (p. 19). Then choose the Options menu, click **MIDI/Audio Settings**, and make sure that the port of your MIDI keyboard is selected in the **MIDI IN Ports (Keyboard)** field.
- If your MIDI keyboard is connected to the MIDI IN on the rear panel of the VariOS, make sure that the MIDI MODE setting (p. 108) of the VariOS is set to **PC mode**.
- **In the V-Producer locator, is the MIDI Thru switch ( ) turned ON?**
  If this is OFF, playing your MIDI keyboard will not cause the VariOS (sound module) to sound.

●Q. When I play a waveform in the Wave Edit screen (p. 65) there are pops in the sound

- If you hear pops in the sound when you play back in Wave Edit through USB-connected speakers, uncheck the **"High CPU Load"** setting in **MIDI/Audio Settings** (p. 46)
- On the Macintosh, open the **"Memory"** control panel, and turn off **"Virtual Memory."**

●Q. When I play a waveform in the Wave Edit screen (p. 65) there is a discrepancy between the display and the playback

Adjust the **"Adjust"** slider in **MIDI/Audio Settings** (p. 46). The "Adjust" slider adjusts the difference between the Wave Edit screen display and the audio that is heard. Play back the waveform in the Wave Edit screen, and move the slider toward the left if the cursor (vertical line) is displayed later than the actual sound, or toward the right if it is displayed before the actual sound.

Deleting the driver

If you were unable to install the driver according to the procedure given, the VariOS may not be recognized correctly by the computer. In this case, use the following procedure to delete the driver, and then follow the procedure in **Installing the Driver** (Windows, p. 22; Macintosh, p. 35) to install the driver once again.

Windows XP/2000 users

In order to delete (uninstall) the driver, a user with administrative privileges such as Administrator must be logged onto Windows. For details, contact the system administrator of your computer.

1. With all USB cables disconnected, start Windows. (USB keyboard and USB mouse excepted)
2. Log on to Windows under a user name belonging to the Administrator group, such as "**Administrator**."
3. After connecting the VariOS to your computer via a USB cable, turn on the power of the VariOS.
4. Exit all applications before deleting the driver.
5. Open the **Control Panel**, and double-click **System**.

   * *In Windows XP, click "**Switch to classic view**" to switch the display to the classic view. **Roland VariOS** will not be displayed unless the classic view is selected.*

6. Click the **Hardware** tab, and in the "**Device Manager**" area, click **[Device Manager]**.
7. Double-click "**Sound, Video, and Game Controllers**" to view the list of devices.
8. From the list, click "**Roland VariOS**" to select it. Then right-click, and from the menu that appears, select "**Delete.**"

   * *If "**Roland VariOS**" does not appear in the list, refer to the **"Q. Can't install/delete/use the driver in Windows XP/2000"** (p. 144) section in "**Troubleshooting**."*

9. A dialog box will ask you to confirm that you want to delete the device. Verify the contents of the dialog box, and click **[OK]**.
10. Close the **Device Manager** window, and click **[OK]** in **System Properties**.
11. Disconnect the USB cable from the VariOS.
12. Restart Windows.

Windows Me/98 users

1. With all USB cables disconnected, start up Windows. (USB keyboard and USB mouse excepted)
2. After connecting the VariOS to your computer via a USB cable, turn on the power of the VariOS.
3. Exit all applications before deleting the driver.
4. Open the **Control Panel**, and double-click **System**.

   * *Depending on the state of your computer, **System** may not appear in the **Control Panel**. In this case, click "**Show all control panel options**."*

5. Click the **Device Manager** tab.
6. Double-click "**Sound, video, and game controllers**" to see the list of devices.
7. From the list, click "**Roland VariOS**" to select it, and click **[Remove]**.
8. A dialog box will appear, asking you to confirm that you want to delete the driver. Verify the contents, and click **[OK]**.
9. Click **[Close]** to close **System Properties**.
10. Disconnect the USB cable from the VariOS.
11. Click **Folder Options** in the **Control Panel** (in Windows 98, **Start → Settings → Folder Options**), and click the **View** tab.
12. In **Advanced settings** of the **View** tab, remove the check mark for "**Hide protected operating system files**" (for Windows 98, "**Hide file extensions for known file types**"), click "**Show hidden files and folders**" (for Windows 98, "**Show all files**"), and then click **[OK]**.Click **Start → Find → Files or folders**.
13. In "**Search location**," select "**Local hard drive**." Then in "**Name of file or folder**," type "***0026.***" and click **[Begin search]**.
14. Of the files that are found, delete the four files **Rddp0026.dat**, **Rddv0026.drv**, **Rdvx0026.vxd**, and **Rdwm0026.sys**. If the list shows **Rdas0026.dll, Rdif0026.inf** or **RolandRDIF0026.INF**, delete these files as well.

    * *Never delete any file other then the files specified here.*

15. Restart Windows.

Macintosh (MacOS 9) users

1. Disconnect the USB cable (by which the VariOS is connected) from your Macintosh.
2. From the **system extensions** folder, drag "**USB VariOS Driver**" into the trash to delete it.
3. Delete **VariOS** from the **OMS Folder** inside the System folder.
4. Restart the Macintosh.

List of messages

Error messages displayed by V-Producer

● VariOS (sound module) related errors

<VariOS> USB communication with VariOS (sound module) is not possible. Please exit Disk mode on the VariOS.
This will appear if USB communication with the VariOS (sound module) is not possible. Check the connection between the VariOS and your computer. This error may also appear if a Disk mode operation is being performed on the VariOS. In this case, please exit Disk mode.
<VariOS> Can't close the USB port of VariOS (sound module). **<VariOS> Initialization of VariOS (sound module) failed.** **<VariOS> Transfer to VariOS (sound module) was interrupted.** **<VariOS> Transfer to VariOS (sound module) failed.** **<VariOS> VariOS (sound module) failed to load the sample.**
Check the connection between the VariOS and your computer.
<VariOS> Sample number loaded by VariOS (sound module) is incorrect.
This will be displayed if the sample number loaded by the VariOS is incorrect. Save the data, exit V-Producer, and then restart it.
<VariOS> VariOS (sound module) CPU memory is full.
This will be displayed if the CPU memory of the VariOS is full. Save the data, exit V-Producer, and then switch the power of the VariOS off, then on again.
<VariOS> VariOS (sound module) cannot load the sample because the wave format is incorrect. **<VariOS> VariOS (sound module) cannot load the sample because the PCM wave format is incorrect.** **<VariOS> VariOS (sound module) cannot load the sample because it contains three or more channels (more than stereo).** **<VariOS> VariOS (sound module) cannot load the sample because the sampling frequency is incorrect.** **<VariOS> VariOS (sound module) cannot load the sample because the RDAC format is incorrect.**
These messages will be displayed if the wave data being loaded into the VariOS is incorrect. The wave file you attempted to load may be damaged.
<VariOS> Undefined error occurred on the VariOS (sound module). **<VariOS> VariOS (sound module) has timed-out.**
These messages will be displayed if the VariOS is not operating correctly, or if the connection is broken. Please check the connection. If this does not solve the problem, save the data, exit V-Producer, and turn the power of the VariOS off, then on again.

● V-Producer errors

MIDI Offline! Cannot access VariOS (sound module). **Check the connection with the VariOS. Choose "Option - MIDI/Audio Settings," and make the correct MIDI Device setting for the VariOS.**
MIDI connections have not been made correctly. Refer to "C Q. The 'MIDI Offline!' message appears when V-Producer starts up or while using it," in the Troubleshooting section (p. 133).
Disk full error.
The computer's hard disk is full. Please delete unneeded files.
Memory is full, and further operation is not possible. Save the song and exit V-Producer.
This will be displayed if the computer memory is full and further operation is not possible. Save the song, and then exit V-Producer.
Access was denied. **Disk access error.** **Disk error.**
These are errors produced by your computer's hard disk.
This wave (vpd) file cannot be loaded since it was not created by V-Producer or has been damaged.
This will be displayed if an illegal file is selected when loading a song or adding a sample file in the Load Wave File dialog box. The wave (vpd) file has been damaged. Please re-encode it from the original wave file.
Input the Tempo value in a range of 20.0000 –> 250.0000.
An incorrect Tempo value has been input. Please input a value in the correct range (20.0000 –> 250.0000).
Can't write! Select a different directory.
This will be displayed if the "Use" directory you selected in the Load Wave File dialog box does not allow writing (for example if you have selected a CD-ROM). Please select different media (directory).
Input a Velocity value in the range of 0 -> 127.
An incorrect Velocity value has been input. Please input a value in the correct range (0 -> 127).
Delete samples from the VariOS (sound module)?
When you execute Song New, this message asks whether the samples within the VariOS will be left or deleted.

Discard edits?
When you cancel your editing in the Wave Edit screen, this message asks whether you want to discard the changes made by your editing.
Save the sample by overwriting it?
After you perform editing in the Wave Edit screen, this message asks whether you want to save the sample.
Since this sample is being used in the Vari Track, it cannot be deleted. This sample on the Vari Track will be selected, so press the [Delete] key to delete it.
When you delete a sample in the Sample List, this message will appear if that sample is being used in the Vari Track. As the message directs, press the [Delete] key to delete the sample from the Vari Track.
Since this sample is being used in the Wave Edit, it cannot be deleted.
When you delete a sample in the Sample List, this message will appear if that sample is being edited in Wave Edit. Exit the Wave Edit screen, and then delete the sample.
Failed to delete the sample.
When you attempt to delete a sample in the Sample List, this message will appear if that sample cannot be deleted (for unknown reasons).
“Destination Directory” selection “Same as original” is not writable. (You cannot write to CD, etc.) Change the “Destination Directory” to “use.”
This message will appear if the Original Directory selected in the Load Wave File dialog box is not writable. The switch will be forcibly set to “Use” (for example, when reading files from a CD).
This sample has already been loaded.
When adding a sample in the Load Wave File dialog box, this message will appear if an identically named sample has already been loaded.
sample has already been added.
When adding a sample in the Load Wave File dialog box, this message will appear if an identically named sample has already been added.
The destination directory “Same as original” is not writable. (You cannot write to CD, etc.) *.vpw will be saved in the “use” directory.**
When loading in the Load Wave File dialog box, this message will appear if the Original Directory is not writable. The destination will forcibly be changed to Use Directory.
*****.vpw already exists. Overwrite?**
When loading in the Load Wave File dialog box, this message will appear if an identically named ***.vpw file already exists at the save destination.
VARIOS_DRV (the mounted VariOS USB drive) cannot be found. Exit V-Producer, and check the connection between your computer and the VariOS.
Windows: This will be displayed when you execute MIDI / Audio Settings [Scan] if the removable disk (the mounted VariOS drive) was not found. (This is checked each time V-Producer starts up.) Exit V-Producer, power up the VariOS, and check the connection with your computer. **Macintosh:** This will be displayed if the “VARIOS_DRV” disk (the mounted VariOS drive) in the MIDI Settings field VariOS Drive was not found. (This is checked each time V-Producer starts up.) Exit V-Producer, power up the VariOS, and check the connection with your computer.
Encoding Error! Sample is too short.
This will be displayed if the sample is too short (less than 50 ms).
Encoding Error! Sample is too long.
This will be displayed if the sample is too long (more than approximately 300 seconds monaural or approximately 150 seconds stereo).
Encoding Error! Memory is full, and further operation is not possible. Save the song, and exit V-Producer.
This will be displayed if computer memory fills up during encoding, and further operation is not possible. Save the song, and then exit V-Producer.
Encoding Error!
This will be displayed if encoding fails.
"Save by overwriting? * If this sample is being used in a song, it is possible that your edits in the Scope Editor may be ignored."
This message will appear when you use the Wave Editor to edit a sample that is being used in the Vari Track. If you use the Wave Editor to edit a sample that is being used in the Vari Track, the event location and the waveform length can change, which means that in some cases your edits in the Scope Editor may be ignored or may not sound correctly. In this case, re-paste the Vari Track frame once again.
"The file type of ~.vpw is old. OK to re-encode it and save it to .\..\~.vpw ?"
This message will appear if you attempt to load a vari-file (VPW) of an old version or an otherwise invalid data format. To save the file and have it be re-encoded in the correct data format, click [OK].
"Can't save. Media is not writable."
This message will appear if you attempt to execute the Save operation after loading a vari-phrase format file (VPW) from a non-writable medium such as CD. In this case, copy the vari-phrase format file (VPW) from the CD to the hard disk of your computer, then try saving it again.
"Can't open Help. Please install Acrobat Reader."
Adobe Corporation’s Acrobat Reader is required in order to read the Help file. You can download Acrobat Reader from the Adobe website (http://www.adobe.com/). This address may change without notice.

Errors displayed by the VariOS (sound module)

● MIDI-related

MIDI OFFLINE!
This will be displayed if there is a problem with the MIDI cable connected to MIDI IN, or if the connected MIDI cable was disconnected.
MIDI BUFFER FULL!
This will be displayed if an extremely large amount of MIDI data was received.
MIDI Error!
This will be displayed if a problem occurs in the hardware that transmits and receives MIDI data.

● Hardware-related

EEPROM Error!
This will be displayed if there is a problem with the memory that stores system settings. Please contact the dealer from whom you purchased the product, or have the product serviced as described in Information on the back cover of this manual.

● Disk and file-related

No Media Found
This will be displayed if you attempt to access a PC card when no PC card is inserted. Please insert a PC card.
PhysicalUnformat
This will be displayed if the media has not been physically formatted. Please format the media.
Logical Unformat
This will be displayed if the media has not been logically formatted. Please format the media.
Write Protected
This will be displayed if the media is write-protected. Please format the media.
Read Error
This will be displayed if the data on the media is unreadable because it has been damaged. Do not use this file.
Write Error
This will be displayed if data cannot be written because the media is of an unsupported format. Please use media of a format that can be written.
Too Many Files
This will be displayed if the maximum number of files that can be created in a folder has been exceeded. Please delete unneeded files.
Too Many Folders
This will be displayed if the maximum number of folders that can be created has been exceeded. Please delete unneeded folders.
Max Folder Depth
This will be displayed if the folder hierarchy you attempted to create is too deep. Please delete unneeded folders.
Too Many Path! –> Path Too Long!
This will be displayed if the path name is too long. Either shorten the path name, or move the file to a higher level. * The “path” indicates the location of the file. It is given as a series of folder names.
End Of File
This will be displayed if the loaded file is missing the “EOF” that indicates the end of the file. This file cannot be used.
Illegal Format
This will be displayed if the file is in an incorrect format. Do not use this file.
RolandMasterDisk
This will be displayed if you attempt to write to a PC card that Roland produced and which must not be modified. You cannot write to the card that produced this error.
Status Error
This will be displayed if the file cannot be accessed normally. This file cannot be used.
Access Denied
This will be displayed while files are being written or read by V-Producer. If you want to select the Disk menu, please wait until V-Producer has finished writing or reading.
Bad File Number
This will be displayed if an incorrect file number was specified when accessing a file.
Permission Deny
This will be displayed if you attempt to overwrite a file that has a read-only attribute. Please change the name before you save the file.
Same File/Folder
This will be displayed if you attempt to create an identically named file or folder. Please assign a different name.
Not File
This will be displayed if the file cannot be opened because the selected name is not a file. Please select the correct file name.
Filename Long
This will be displayed if the filename is too long. Please shorten the filename.

No File/Folder
This will be displayed if the specified file is not in the folder, or if the folder does not exist. Please specify the correct file.
Media Full
This will be displayed if writing is not possible because the media is full. Either delete unneeded files, or write the data to different media (PC card).
Not Save Sample
Since it has no wave data, this sample cannot be saved.
Memory Full
Since the wave memory has become full, the operation was halted.
Not Sample Empty –> No Sample Space
This will be displayed if no more samples can be loaded. Please delete unneeded samples.
Not Folder
This will be displayed if you cannot move to the next lower level because the selected name is not a folder. Please select the correct folder name.
Folder Not Empty
When deleting a folder, this message will be displayed if the file contains extraneous files (files other than samples or performances). Use your computer to delete files other than samples and performances.
Are You Sure? Delete OK? (Push)
This message asks you for confirmation when deleting a file. Press [Enter] to execute the deletion, or [Exit] to cancel.
Are You Sure? Rename OK? (Push)
This message asks you for confirmation when renaming a file. Press [Enter] to execute, or [Exit] to cancel.
Are You Sure? Swap OK? (Push)
This message asks you for confirmation when exchanging sample files. Press [Enter] to execute, or [Exit] to cancel.
Sample Edited Continue? (Push)
This message asks you for confirmation that you want to continue file operations even though the sample file has been edited. Press [Enter] to execute, or [Exit] to cancel.
Pfm Edited Continue?(Push)
This message asks you for confirmation that you want to continue file operations even though the performance file has been edited. Press [Enter] to execute, or [Exit] to cancel.
Are You Sure? Overwrite? (Push)
This message asks you for confirmation that you want to save by overwriting. Press [Enter] to execute, or [Exit] to cancel.
Are You Sure? Save OK? (Push)
This message asks you to confirm that you want to proceed with the save.Press [Enter] to execute, or [Exit] to cancel.
Are You Sure? Format OK? (Push)
This message asks you to confirm that you want to proceed with formatting. Press [Enter] to execute, or [Exit] to cancel.
Are You Sure? Delete OK?(Push)
This message asks you to confirm that you want to proceed with the deletion. Press [Enter] to execute, or [Exit] to cancel.
Reserved Name
This message is asking you to specify a name other than Make New Folder (for a folder name), NEW PERFORMANCE (for a performance name), or NO WAVE DATA (for a sample name).
Now Loading...
This message is displayed while a file is being loaded.
Now Saving...
This message is displayed while a file is being saved.
Now Processing...
This message is displayed while a file is being deleted, or while formatting is taking place.
Writing...
This message is displayed while a file is being renamed.
Completed!!
This message is displayed when processing is completed.
No Demo Data
This message is displayed when you attempt to play a demo song if flash ROM does not contain demo data, or if the data is damaged.
System Error
An error of unknown causes has occurred. Contact your dealer or a nearby Roland servicecenter for service.

List of shortcuts

Command	Windows	Macintosh
New	[Ctrl] + N	[ ] + N
Open Song	[Ctrl] + O	[ ] + O
Save Song	[Ctrl] + S	[ ] + S
Load WaveFiles...	[Ctrl] + 1	[ ] + 1
Quit		[ ] + Q
Close Window		[ ] + W
Undo	[Ctrl] + Z	[ ] + Z
Cut	[Ctrl] + X	[ ] + X
Copy	[Ctrl] + C	[ ] + C
Paste	[Ctrl] + V	[ ] + V
Delete	[Del]	[delete]
Select All	[Ctrl] + A	[ ] + A
Repeat...	[Ctrl] + R	[ ] + R
Quantize	[Shift] + Q	[Shift] + Q
Play & Stop	[Space]	[Space]
Rewind	[Home]	[Home]
Song End	[End]	[clear]
Rec Standby	*	*
Move Current Position	J	J
Prev Marker	[Ctrl] + [Page Up]	[ ] + [Page Up]
Next Marker	[Ctrl] + [Page Down]	[ ] + [Page Down]
Prev Measure	[Page Up]	[Page Up]
Next Measure	[Page Down]	[Page Down]
MIDI Thru	T	T
Loop On	[Ctrl] + L	[ ] + L
Quick Loop Position	L	L
GridSnap	G	G
AutoScroll	[Shift] + S	[Shift] + S
[View] Sample Editor	[Ctrl] + 2	[ ] + 2
[View] Wave Editor	[Ctrl] + 3	[ ] + 3
[View] Vari Track	[Ctrl] + 4	[ ] + 4
[View] Scope Editor	[Ctrl] + 5	[ ] + 5
[View] SMPTE Display	[Ctrl] + 6	[ ] + 6
[View] VariOS Performance Editor	[Ctrl] + 7	[ ] + 7
[View] VariOS Keyboard	[Ctrl] + 8	[ ] + 8
[View] Part Property	[Ctrl] + 9	[ ] + 9
[View] Frame Property	[Ctrl] + 0	[ ] + 0
[View] VariOS Mixer	[Ctrl] + M	[ ] + M
[View] Tempo List	[Ctrl] + [Shift] + T	[ ] + [Shift] + T
[View] Marker List	[Ctrl] + [Shift] + M	[ ] + [Shift] + M
[View] Meter List	[Ctrl] + [Shift] + C	[ ] + [Shift] + C

Command	Windows	Macintosh
Help	[F1]	[help]
Solo Current Part	S	S
Show Current PhraseEditor	[Enter]	[Return]
[SampleList] Preview	P	P
[SampleList] Select Prev Phrase	[Up]	[Up]
[SampleList] Select Next Phrase	[Down]	[Down]

Specifications

VariOS: Open System Module

●Sound Generator
VariPhrase

●Parts
1 to 6

●Maximum Polyphony
14 voices

●Internal Memory
Performance: 1
Samples: 128
Wave memory (RAM): 46 M bytes
Backup memory (FLASH): 32 M bytes

●External Storage Device
PC CARD slot
(Microdrive, SmartMedia or CompactFlash can be used with PC card adapter.)

●Sampling Frequency
44.1 kHz (Internal)

●Data Format
16-bit linear

●Signal Processing
AD Conversion: 24 bits
DA Conversion: 24 bits
Internal processing
(sound generating section): 32 bits (floating point)
(effects section): 24 bits (fixed point)

●Nominal Input Level
INPUT (LINE): -18 dBu
INPUT (MIC): -43 dBu

●Nominal Output Level
MAIN OUT: +4 dBu
DIRECT OUT: +4 dBu

●Effects
Reverb: 9 sets
Chorus: 1 set (8 types)
Multi: 40 sets

●Display
16 characters, 2 lines (backlit LCD)

●Connectors
USB Connector
Headphones Jack
Main Output Jacks (L/MONO, R)
Direct Output Jacks (L, R)
Input Jacks (L, R)
MIDI Connectors (IN, OUT)
Digital Audio Output:
S/P DIF Connectors
(COAXIAL, OPTICAL)
(24-bit, 44.1 kHz)
AC Inlet

●Power Supply
AC 117 V, AC 230 V, AC 240 V

●Power Consumption
10 W (AC 117 V)
12 W (AC 230 V, AC 240 V)

●Dimensions
430 (W) x 222 (D) x 44 (H) mm
16-15/16 (W) x 8-3/4 (D) x 1-3/4 (H) inches
(EIA-1U Rack Mount Type)

●Weight
2.2 kg
4 lbs 14 oz

●Accessories
Owner's Manual
CD-ROM (V-Producer, Driver)
Power Cord
USB Cable
Rackmount adapter (two pcs.)

(0 dBu = 0.775 V rms)

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

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CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

ATTENTION: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR

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

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

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

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

IMPORTANT SAFETY INSTRUCTIONS
SAVE THESE INSTRUCTIONS

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

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Never use with a cart, stand, tripod, bracket, or table except as specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

For the U.K.

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 Directives EMC 89/336/EEC and LVD 73/23/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.

Tested To Comply With FCC Standards

FOR HOME OR OFFICE USE

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.

For the USA

DECLARATION OF CONFORMITY
Compliance Information Statement

Model Name :	VariOS
Type of Equipment :	Sound Module
Responsible Party :	Roland Corporation U.S.
Address :	5100 S.Eastern Avenue, Los Angeles, CA 90040-2938
Telephone :	(323)890-3700

Information

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

AFRICA

EGYPT
Al Fanny Trading Office
9, EBN Hagar A1 Askalany Street,
ARD E1 Golf, Heliopolis,
Cairo 11341, EGYPT
TEL: 20-2-417-1828

REUNION
Maison FO - YAM Marcel
25 Rue Jules Hermann,
Chaudron - BP79 97 491
Ste Clotilde Cedex,
REUNION ISLAND
TEL: (0262) 218-429

SOUTH AFRICA
That Other Music Shop (PTY) Ltd.
11 Melle St., Braamfontein,
Johannesbourg, SOUTH AFRICA

P.O.Box 32918, Braamfontein 2017
Johannesbourg, SOUTH AFRICA
TEL: (011) 403 4105

Paul Bothner (PTY) Ltd.
17 Werdmuller Centre,
Main Road, Claremont 7708
SOUTH AFRICA

P.O.BOX 23032, Claremont 7735,
SOUTH AFRICA
TEL: (021) 674 4030

ASIA

CHINA
Roland Shanghai Electronics Co.,Ltd.
5F. No.1500 Pingliang Road
Shanghai, CHINA
TEL: (021) 5580-0800

Roland Shanghai Electronics Co.,Ltd.
(BEIJING OFFICE)
10F. No.18 Anhuaxili
Chaoyang District, Beijing,
CHINA
TEL: (010) 6426-5050

HONG KONG
Tom Lee Music Co., Ltd.
Service Division
22-32 Pun Shan Street, Tsuen
Wan, New Territories,
HONG KONG
TEL: 2415 0911

INDIA
Rivera Digitec (India) Pvt. Ltd.
409, Nirman Kendra Mahalaxmi
Flats Compound Off. Dr. Edwin
Moses Road, Mumbai-400011,
INDIA
TEL: (022) 2493 9051

INDONESIA
PT Citra IntiRama
J1. Cideng Timur No. 15J-150
Jakarta Pusat
INDONESIA
TEL: (021) 6324170

KOREA
Cosmos Corporation
1461-9, Seocho-Dong,
Seocho Ku, Seoul, KOREA
TEL: (02) 3486-8855

MALAYSIA
BENTLEY MUSIC SDN BHD
140 & 142, Jalan Bukit Bintang
55100 Kuala Lumpur,MALAYSIA
TEL: (03) 2144-3333

PHILIPPINES
G.A. Yupangco & Co. Inc.
339 Gil J. Puyat Avenue
Makati, Metro Manila 1200,
PHILIPPINES
TEL: (02) 899 9801

SINGAPORE
Swee Lee Company
150 Sims Drive,
SINGAPORE 387381
TEL: 6846-3676

CRISTOFORI MUSIC PTE LTD
Blk 3014, Bedok Industrial Park E,
#02-2148, SINGAPORE 489980
TEL: 6243-9555

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

THAILAND
Theera Music Co. , Ltd.
330 Verng NakornKasem, Soi 2,
Bangkok 10100, THAILAND
TEL: (02) 2248821

VIETNAM
Saigon Music
138 Tran Quang Khai St.,
District 1
Ho Chi Minh City
VIETNAM
TEL: (08) 844-4068

AUSTRALIA / NEW ZEALAND

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

NEW ZEALAND
Roland Corporation Ltd.
32 Shaddock Street, Mount Eden,
Auckland, NEW ZEALAND
TEL: (09) 3098 715

CENTRAL/LATIN AMERICA

ARGENTINA
Instrumentos Musicales S.A.
Av.Santa Fe 2055
(1123) Buenos Aires
ARGENTINA
TEL: (011) 4508-2700

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

COSTA RICA
JUAN Bansbach Instrumentos Musicales
Ave.1. Calle 11, Apartado 10237,
San Jose, COSTA RICA
TEL: 258-0211

CHILE
Comercial Fancy II S.A.
Rut.: 96.919.420-1
Nataniel Cox #739, 4th Floor
Santiago - Centro, CHILE
TEL: (02) 688-9540

EL SALVADOR
OMNI MUSIC
75 Avenida Norte y Final
Alameda Juan Pablo II,
Edificio No.4010 San Salvador,
EL SALVADOR
TEL: 262-0788

MEXICO
Casa Veerkamp, s.a. de c.v.
Av. Toluca No. 323, Col. Olivar
de los Padres 01780 Mexico D.F.
MEXICO
TEL: (55) 5668-6699

PANAMA
SUPRO MUNDIAL, S.A.
Boulevard Andrews, Albrook,
Panama City, REP. DE PANAMA
TEL: 315-0101

PARAGUAY
Distribuidora De Instrumentos Musicales
J.E. Olear y ESQ. Manduvira
Asuncion PARAGUAY
TEL: (021) 492-124

URUGUAY
Todo Musica S.A.
Francisco Acuna de Figueroa 1771
C.P.: 11.800
Montevideo, URUGUAY
TEL: (02) 924-2335

VENEZUELA
Musicland Digital C.A.
Av. Francisco de Miranda,
Centro Parque de Cristal, Nivel
C2 Local 20 Caracas
VENEZUELA
TEL: (212) 285-8586

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

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: (0)9 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
Audio House, Belmont Court,
Donnybrook, Dublin 4.
Republic of IRELAND
TEL: (01) 2603501

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
P. P. H. Brzostowicz
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,
RO-4200 Gheorghehi
TEL: (095) 169-5043

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: (0)8 702 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 9FJ,
UNITED KINGDOM
TEL: (01792) 702701

MIDDLE EAST

BAHRAIN
Moon Stores
No.16, Bab Al Bahrain Avenue,
P.O.Box 247, Manama 304,
State of BAHRAIN
TEL: 211 005

CYPRUS
Radex Sound Equipment Ltd.
17, Diagorou Street, Nicosia,
CYPRUS
TEL: (022) 66-9426

IRAN
MOCO, INC.
No.41 Nike St., Dr.Shariyati Ave.,
Roberoye Cerahe Mirdamad
Tehran, IRAN
TEL: (021) 285-4169

ISRAEL
Halilit P. Greenspoon & Sons Ltd.
8 Retzif Ha'aliya Hashnya St.
Tel-Aviv-Yafo ISRAEL
TEL: (03) 6823666

JORDAN
AMMAN Trading Agency
245 Prince Mohammad St.,
Amman 1118, JORDAN
TEL: (06) 464-1200

KUWAIT
Easa Husain Al Yousifi Est.
Abdullah Salem Street,
Safat, KUWAIT
TEL: 243-6399

LEBANON
Chahine S.A.L.
Gerge Zeidan St., Chahine Bldg.,
Achrafieh, P.O.Box: 16-5857
Beirut, LEBANON
TEL: (01) 20-1441

QATAR
Al Emadi Co. (Badie Studio & Stores)
P.O. Box 62,
Doha, QATAR
TEL: 4423-554

SAUDI ARABIA
aDawliah Universal Electronics APL
Corniche Road, Aldossary Bldg.,
1st Floor, Alkhobar,
SAUDI ARABIA

P.O.Box 2154, Alkhobar 31952
SAUDI ARABIA
TEL: (03) 898 2081

SYRIA
Technical Light & Sound Center
Khaled Ebn Al Walid St.
Bldg. No. 47, P.O.BOX 13520,
Damascus, SYRIA
TEL: (011) 223-5384

TURKEY
Barkat muzik aletleri ithalat ve ihracat Ltd Sti
Siraselviler Caddesi Siraselviler
Pasaji No:74/20
Taksim - Istanbul, TURKEY
TEL: (0212) 2499324

U.A.E.
Zak Electronics & Musical Instruments Co. L.L.C.
Zabeel Road, Al Sherooq Bldg.,
No. 14, Grand Floor, Dubai, U.A.E.
TEL: (04) 3360715

NORTH AMERICA

CANADA
Roland Canada Music Ltd. (Head Office)
5480 Parkwood Way Richmond
B. C., V6V 2M4 CANADA
TEL: (604) 270 6626

Roland Canada Music Ltd. (Toronto Office)
170 Admiral Boulevard
Mississauga On L5T 2N6
CANADA
TEL: (905) 362 9707

U. S. A.
Roland Corporation U.S.
5100 S. Eastern Avenue
Los Angeles, CA 90040-2938,
U. S. A.
TEL: (323) 890 3700

As of April 1, 2003 (Roland)

About the VariOS Trial Applications

The included CD contains two trial applications (VariOS-8 and VariOS 303), which let you experience the open system architecture of the VariOS.

If you install these trial application programs into the internal flash ROM of the VariOS, you will be able to start up the VariOS as a synthesizer module by pressing a few buttons. Since the core program of the VariOS will remain as it was, you will still be able to start it up as a normal VariOS instrument by powering up in the usual way. Dedicated control software is also included, allowing you to create a broad variety of original sounds using your personal computer.

For details on installation and use, refer to the PDF manuals found in the **VariOS-8** and **VariOS 303** folders located in the **ENGLISH – VariOS Trial Applications** folder on the VariOS CD-ROM.

■ VariOS-8

Screen of the control software for the "VariOS-8" Two-Oscillator Analog Modeling Synthesizer

■ VariOS 303

Screen of the control software for the "VariOS 303" Analog Modeling Bass Synth with Step Sequencer

■ System requirements (Windows)

- Operating system: Microsoft® Windows® XP Home / XP Professional / 2000 Professional / Me / 98
- CPU: Pentium® / Celeron™ or compatible processor, 400 MHz or better (Pentium® III 500 MHz or better is recommended)
- RAM: 128 MB or more (256 MB or more is recommended) ● Free space required on hard disk: 15 MB or more
- Display resolution / Color depth: 800 x 600 pixels, 65,536 colors (16-bit High Color) or better

■ System requirements (Macintosh)

- Operating system: Mac OS 9.0.4 or later (Mac OS X is excepted) ● CPU: PowerPC G3, 233 MHz or better
- RAM: 128 MB or more (256 MB or more is recommended) ● Free space required on hard disk: 15 MB or more
- Display resolution / Color depth: 800 x 600 pixels, 32,000 colors or better ● Other: OMS support

40562934 '03-5-1N

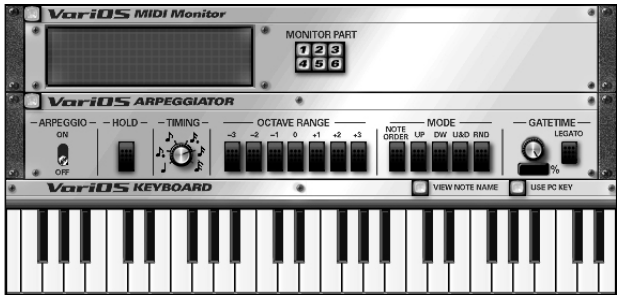
New functionality added to the V-Producer

VariOS Keyboard

☞ Owner's Manual p.95

The design of the VariOS Keyboard has been revised, and a new arpeggiator function has been added.

(Click this icon to) Start up the VariOS Keyboard.



Open/Close buttons

Close the MIDI Monitor screen or Arpeggiator screen.

MIDI Monitor Screen

Displays the MIDI messages of the part(s) specified by the part buttons.

Monitor Part buttons

When you click a Part button, the performance data of the selected part will be reflected by the screen and keyboard.

ARPEGGIO switch

Switches the Arpeggio function on/off.

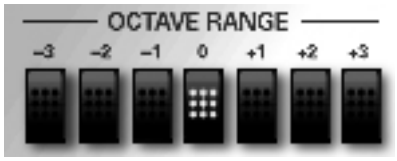
HOLD button

By clicking this button, you can have arpeggios continue even after you've released your fingers from the keyboard. If you play a different chord or notes while an arpeggio is being held, the arpeggio will change accordingly. To cancel Arpeggio Hold, press [HOLD] again.

TIMING knob

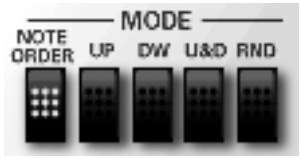
The arpeggios are synchronized to the tempo of V-Producer. This knob specifies the note value (note timing step) for each note of the arpeggiator when synchronized.

OCTAVE RANGE buttons



Sets the key range in octaves over which arpeggios will be produced. If you want the arpeggio to sound using only the notes that you actually play, set this parameter to "0." To have the arpeggio sound using the notes you play and notes one octave higher, set this parameter to "+1." A setting of "-1" will cause the arpeggio to sound using the notes you play and notes one octave lower.

ARPEGGIO MODE buttons



Sets the order in which notes of the chord will sound.

NOTE ORDER: Notes will be sounded in the order in which you press them.

UP: Notes you press will be sounded upward, from low to high.

DW: Notes you press will be sounded downward, from high to low.

U&D: Notes you press will first be sounded upward, from low to high, and then back downward, from high to low.

RND: Notes you press will be sounded in random order.

GATE TIME knob

Specifies the gate time of each arpeggiated note as a percentage of its timing value.

LEGATO button

If this button is ON, each note of the arpeggio will be played legato; the gate time knob setting will be ignored. You can use this to produce a distinctive arpeggio effect that occupies the entire phrase.

Keyboard

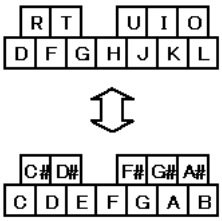
You can click the keyboard area to audition the sample selected in the Sample List. At this time, the keys will light yellow according to the note you clicked. The keys will also light yellow in response to note-on messages from an external MIDI keyboard, or note-on data from a playing part specified by the part buttons.

VIEW NOTE NAME button

By pressing this button you can switch the note names of the note-on keys between displayed and hidden.

USE PC KEY button

After pressing this button, you will be able to turn notes on / off from the keyboard of your computer.



The keys of your computer keyboard will correspond to notes as shown in the diagram.

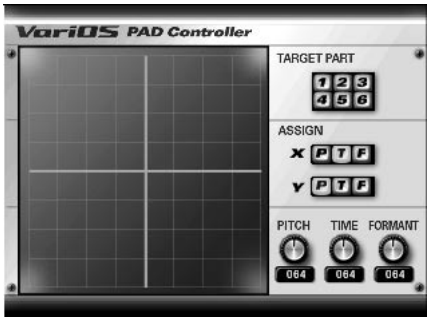
Use the left / right keys to shift the octave. To exit this function, press this button again.

VariOS Pad

Owner's Manual p.96

The VariOS Keyboard's Surface controller is now independent, and a new VariOS Pad screen has been added.

(Click this icon to) Start up VariOS Pad.



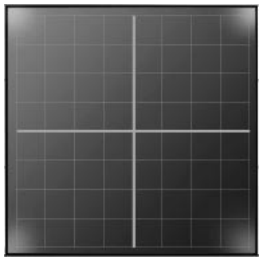
Target Part button

When you click the Part button, VariOS Pad control data will be sent to the selected part. Pitch, time, and formant data for the selected part will be reflected by the Surface controller and knobs. If all part buttons are off, the sample selected in the Sample List will be controlled.

* *If you use the VariOS Pad to control the selected part while you perform, the pitch, time, and formant data originally stored in the frame of the part will be ignored; the control data from the VariOS Pad will take priority. If the part button is off, the pitch, time, and formant data stored in the frame of the part will be used.*

* *When you specify the target part, knob operations on the VariOS itself will also apply to the part you select here.*

Surface controller



By dragging the mouse inside this frame, you can simultaneously control both pitch and time.

By clicking an ASSIGN button you can assign the [P] pitch, [T] time, and [F] formant parameters to each axis.

It is possible to specify the same parameter for the X-axis and Y-axis; e.g., PITCH-PITCH or TIME-TIME.

However, in this case, the X-axis movement will be ignored, and control will occur only on the Y-axis.

ASSIGN buttons

PITCH / TIME / FORMANT knobs

You can drag these knobs to control the pitch / time / formant.

These knobs are linked with the Surface controller.

Resetting PITCH / TIME / FORMANT

When you press the [X] key, any pitch / time / formant values that have been modified by means of the knobs or Surface controller will be reset to their center values.

Inputting TIME zero

TIME zero will be input while you hold down the [Z] key. When you release the key, the time will return to the center value. This is a convenient way to rhythmically input a TIME zero value to create the distinctive VariPhrase "buzz."

Editing in the Phrase Scope: Waveform display area

☞ Owner's Manual p.77

You can now use your mouse to directly edit the waveform area of the PhraseScope.

In the waveform display area you can use the Arrow button, Scissors button, and Bond button.

Arrow button

- To select a region in units of events, click and drag in an area that does not contain a waveform.
- To edit the pitch of a selected region, drag upward or downward on the waveform. When you edit the pitch in this way, the corresponding note will also move.
- To edit the timing of the selected region, drag left or right on the waveform. You can also edit the timing of an event (blue line) by dragging it left or right. When you edit the timing in this way, the Time parameter in the controller display area will also change. For example, you can make approximate timing adjustments in the waveform display area, and directly edit the Time curve to make fine changes. You can reset the Time curve to restore the settings to their original state.

* *If you want to limit the movement of the waveform to the vertical direction, hold down the [Shift] key and drag the waveform upward or downward.*

* *If the Grid button is on, the waveform will "stick to" the grid lines as you move it.*

* *If the Time parameter reaches the maximum or minimum limits of its value, you will not be able to move the waveform any further to left or right.*

Scissors button

This lets you divide the waveform into two. As with the original waveform, you can move the divided waveform up, down, left, or right. The dividing point is shown in light blue, and can be moved left / right in the same way as an event (blue line). For example, you can divide the waveform at breaks in the song lyrics, and change the melody or timing of the vocal notes. When you divide the waveform, the note will also be divided at the corresponding location. When you move the divided notes to left / right, the dividing points of the waveform will also move. However, the location of the event (blue line) is fixed in relation to the waveform; moving the note will not move the event.

Bond button

This lets you re-join waveforms that were divided by the Scissors button. To join two waveforms, place them on the same horizontal level, and click the point where they join (light blue line).

Differences between editing in the Waveform display area and the Note display area

The difference between moving a waveform left / right and moving a note left / right is that in the former the Time parameter is used to stretch / shrink the waveform, while in the latter, the legato timing or trigger timing of the note is controlled, so the waveform is not stretched or shrunk. Another difference is that you can add or delete notes in the Note display area, but cannot add or delete waveforms in the Waveform display area.

PhraseScope: Harmony function

☞ Owner's Manual p.77

A Harmony function has been added to the PhraseScope.

Harmony is a function that generates chords with the selected note as the root. This is an easy way to create harmonies.

1. **Click the note from which you want to create a chord.**
2. **Click the Harmony button (maj), and choose the desired chord from the list of chord types.**

NOTE

The Harmony function applies to each note that you have selected. For example, if you select several notes that already form a chord, and apply this function, a chord will be generated from each note, producing an unexpectedly large number of notes. Be sure to select only the root note.
Also, if notes already exist at the same time-axis location, executing the Harmony function will automatically delete these notes, replacing them with the newly generated notes.

Inversion button

You can press the Inversion button to move the lowest (highest) of the selected notes one octave upward (downward). By selecting notes in the chord and clicking the Inversion button you can create inverted forms of the chord.

Export Wave File

☞ Owner's Manual p.91

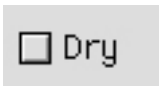
When you use the File menu command [Export Wave File] to export a wave file, the VariOS's internal effect will now be applied to the wave file.

Also, a new [Selected Frames] option has been added in addition to [Stereo Wave File] and [Multiple Wave Files].

Selected Frames: Export the frames selected in the Vari Track as a single Wave file.

Dry checkbox

The dialog boxes of the Export Wave File command have a [Dry] check box. If [Dry] is checked, the VariOS's internal effects will not be applied to the Wave file that is exported.



NOTE

Even if the sound does not clip (distort) when played back by the VariOS's sound generator, there may be cases in which clipping (distortion) is present in the exported sample. If this occurs, use the mixer to lower the overall level, or lower the Master Level of the effect.

NOTE

If you use an effect of a type that varies cyclically, the sound will be slightly different each time you play something back. In such cases, the exported Wave file may sound different than what you hear from the VariOS's sound generator. Also, the exported Wave file may not perfectly match the sound you hear from the VariOS's sound generator.

Export to SampleList

Owner's Manual p.68, 91

An [Export to Sample List] command has been added to the File menu. Also, an [Export to SampleList] button ( ) has been added to the Vari Track screens.

Export to SampleList exports the selected frame to a single file (.vpw), and automatically encodes it and sends it to the VariOS. The exported file is registered in the Sample List.

1. **Select a frame, and click the Export to SampleList button.**

* *This is not available during playback, or if no frame is selected in the VariTrack.*

2. **The Save File dialog box will appear. Specify the name and save destination for the file (.vpw) to be exported.**
3. **The data will be exported as a Wave file, encoded, and sent to the VariOS itself. When this processing is completed, the exported file will be registered in the Sample List.**

Dry checkbox

If [Dry] is checked, the VariOS's internal effects will not be applied to the Wave file that is exported.

NOTE

The Export to SampleList function automatically adjusts the gain of the exported file so that the perceptual loudness will be the same whether you play the corresponding frame, or export it to a file and load the exported file back into the VariOS and play it. This means that in cases where you are mixing multiple parts (frames) to a single file, it is possible that the exported sample may be distorted even if it does not distort when played back by the VariOS sound generator. If this occurs, either use the mixer to lower the level of each part, or use the [Load Wave Files] dialog box to load the Wave file that was exported by the File menu [Export Wave File] command into the VariOS.

NOTE

If you use an effect of a type that varies cyclically, the sound will be slightly different each time you play something back. In such cases, the exported Wave file may sound different than what you hear from the VariOS's sound generator. Also, the exported Wave file may not perfectly match the sound you hear from the VariOS's sound generator.

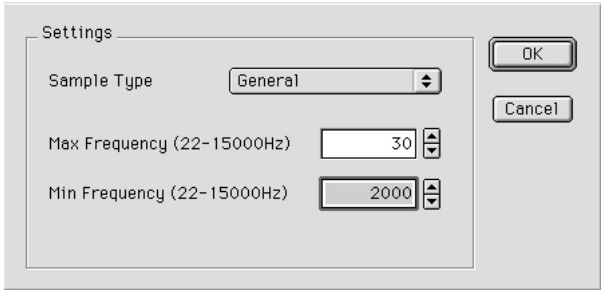
Wave Edit: Solo Encode Option

Owner's Manual p.66

A [Solo Enc Option] button has been added to the Edit mode in the Wave Edit screen.

If you have selected Solo as the Encode Type, you can make detailed encoding settings in the Solo Encode Option dialog box.

You will find that this option comes in handy if you experience problems, such as noisy or distorted sound, when encoding in Solo mode. In most cases, these problems are due to incorrect pitch detection when encoding. In the Solo Encode Option dialog box you can avoid pitch detection mistakes by specifying a frequency that is as close as possible to the pitch of that waveform.



Sample Type: Selects one of the following templates to specify the lower and upper frequency limits.

- General (30--2000 Hz): This is the typical setting. If you are not successful using this setting, try a different template.
- Bass (22--600 Hz): Setting for low-range sounds such as bass
- Tenor (60--1000 Hz): Setting for midrange sounds
- Alto (100--2000 Hz): Setting for upper-midrange sounds
- Soprano (200--3000 Hz): Setting for high-range sounds

Min Frequency: Specifies the lower frequency limit for pitch detection.

Max Frequency: Specifies the upper frequency limit for pitch detection.

* *The best results will be obtained if you specify values that are close to the waveform you are processing.*

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