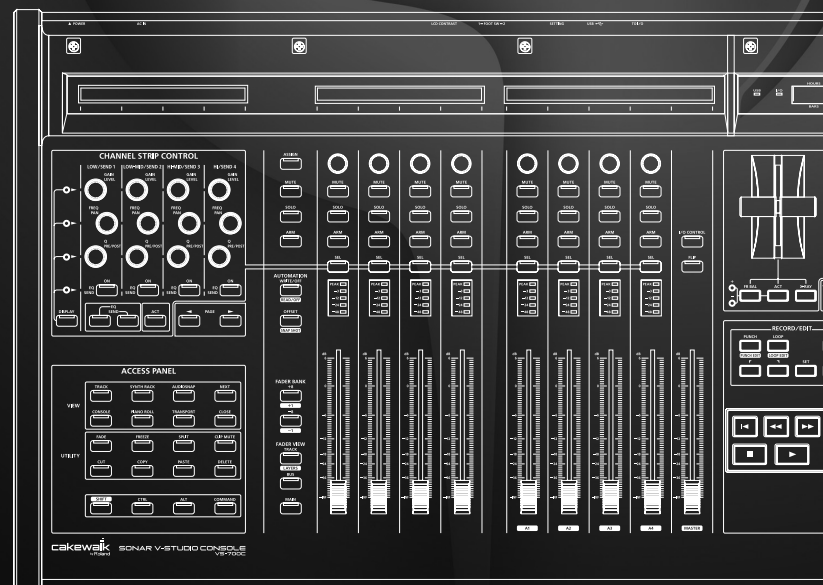
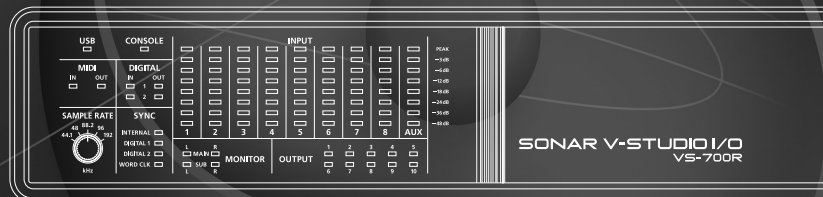


# SONAR V-STUDIO

VS-700 Getting Started



- ↓ INSTALLING
- ☎ REGISTERING
- 🔧 CONFIGURING
- 🎧 RECORDING
- ❓ TROUBLESHOOTING

# IMPORTANT NOTES

## Handling DVD-ROM/CD-ROMs

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

## Copyright

Recording, duplication, distribution, sale, lease, performance, or broadcast of copyrighted material (musical works, visual works, broadcasts, live performances, etc.) belonging to a third party in part or in whole without the permission of the copyright owner is forbidden 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.

## Additional Precautions

Unfortunately, it may be impossible to restore the contents of data that was stored on a hard disk etc. once it has been lost. Roland Corporation assumes no liability concerning such loss of data.

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).

Unauthorized duplication, reproduction, hiring, and lending prohibited.

Before you open the included DVD-ROM/CD-ROM, you must read the "license agreement." Opening the DVD-ROM/CD-ROM will be taken to mean your acceptance of the license agreement.


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

Use of the demosongs or 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.

The explanations in this manual include illustrations that depict what should typically be shown by the display. Note, however, that your unit may incorporate a newer, enhanced version of the system (e.g., includes newer sounds), so what you actually see in the display may not always match what appears in the manual.

While under most conditions, a computer similar to the "System Requirements" printed on package will permit normal operation of the SONAR V-STUDIO, Roland cannot guarantee compatibility solely on these factors. This is due to numerous variables that may influence the processing environment, such as differences in motherboard design and the particular combination of other devices involved.

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The screen shots in this document are used in compliance with the guidelines of the Microsoft Corporation.

Windows® is known officially as: "Microsoft® Windows® operating system."

ASIO and VST is a trademark of Steinberg Media Technologies AG.

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

All product names mentioned in this document are trademarks or registered trademarks of their respective owners.

Before using this unit, carefully read the sections entitled: "IMPORTANT SAFETY INSTRUCTIONS" (VS-700 Owner's Manual p. 2), "USING THE UNIT SAFELY" (VS-700 Owner's Manual p. 3), and "IMPORTANT NOTES" (VS-700 Owner's Manual p. 6). These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature provided by your new unit, VS-700 Owner's Manual should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.

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# About This Manual

This manual (SONAR V-STUDIO 700 Getting Started) provides basic information about how to set up the SONAR V-STUDIO 700, make initial settings, and set up your system. It also provides troubleshooting information.

- This manual uses the following icons to call your attention to explanations of terms or to important points you should note. These contain important information, so please be sure to read them.

## MEMO

Explanation of terms, or tips

## NOTE

Points you should be aware of

## cf.

Related information or detailed explanations

- In order to explain operations as simply as possible, this manual uses the following conventions.
  - The steps for selecting a menu item are delineated by “|” (vertical bar) symbols.  
For example, **File | New** means that you are to choose the “**File**” menu command **New**.
  - Material that is distinct from the main text or operating procedure, such as operating tips or related information, is enclosed by a heavy border.
  - Unless otherwise specified, Windows Vista and Windows XP are referred to simply as **Windows**.
  - Unless otherwise specified, the SONAR 8 software included with this product is referred to simply as **SONAR**.
- SONAR is designed to be flexibly customized for a wide range of systems in order to be used in a broad range of ways. Unless otherwise specified, this manual assumes that SONAR is in the state immediately after installation. If you have customized SONAR, the explanations and operating procedures described in this manual may not produce the intended result.
- If you have difficulty understanding the explanations of the operations (for example, when you’re using Windows for the first time), please refer to the documentation for your computer or for Windows.

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# Checking the Contents of the Package

As soon as you open the package, check that you have all of the included items.  
If anything is missing, contact your dealer.

## ❑ VS-700C Console



## ❑ VS-700R I/O Unit



## ■ Getting Started

This is the manual you're reading. It explains how to get SONAR V-STUDIO 700 up and running. It also explains what you need to know when setting up this product, and what you should know when using it.

## □ VS-700 Owner's Manual

This explains how to use the VS-700, as well as points of caution that you should remember. Keep this manual at hand for reference.

## □ SONAR User's Guide

This explains how to use SONAR 8.

The end of this guide contains the **License Agreement**. This license agreement is a contract that permits you, the customer, to use this software. You must read this before you open the DVD-ROM.

## □ Shortcuts and Quick Keys Guide

This is a table of shortcut operations for the VS-700C console.

## □ SONAR 8 DVD-ROM

This DVD-ROM contains SONAR 8.

## □ Beatscape DVD-ROM

This DVD-ROM contains Beatscape.

## □ Dimension Pro DVD-ROM

This DVD-ROM contains Dimension Pro.

## □ SONAR 8 additional content DVD-ROM

This DVD-ROM contains Expansion Pack and other material.

## □ SONAR V-STUDIO 700 CD-ROM

This contains the VS-700 driver and editor software.

\* Install the VS-700 driver from this CD-ROM.

## □ Power Cord (two)

The two power cords are for the VS-700R and for the VS-700C.

## □ Dedicated Connection Cable

This is a dedicated connection cable for connecting the VS-700C console and the VS-700R I/O unit.

\* Do not use any cable other than the dedicated connection cable to connect the VS-700C console and VS-700R I/O unit.

## □ VS-700R Rackmount Brackets (two)

You can use this hardware to install the VS-700R I/O unit in a 19" rack.

# Installation and Registration

Here's how to install the VS-700 driver, VS-700 software and SONAR on your computer.

## Please note before installing

### When installing, you must log on as a user with administrative privileges

In order to install SONAR, you must log on as a user who has administrative privileges. Once installed, the program can also be used by users who do not have administrative privileges.

### Close system monitoring software before installing

If system monitoring software such as anti-virus programs are installed on your computer, you must close them until you've finished installing SONAR. You must also remember to close applications that are not shown in the Windows taskbar.

### Before opening the CD-ROM, be sure to read the "License Agreement" at the end of the SONAR User's Guide.

By opening the CD-ROM, you agree to accept the terms of the License Agreement.

## Installing the VS-700 Driver

### What is a Driver?

A driver is software that transfers data between the VS-700 and application software on your computer when your computer and the VS-700 are connected via a USB cable. You will need to install the driver before connecting the VS-700 with your computer.

- \* Log on to Windows as a user whose account type is administrator (such as the Administrator account).
- \* The driver disk contains the VS-700R driver and the VS-700C driver. Normally, you will install only the VS-700R driver. Use the VS-700C driver if you'll be using the VS-700C console by itself.
- \* The driver(s) you install here also support ASIO (Steinberg Audio Stream I/O Interface).

### ● Windows Vista Users p. 9

### ● Windows XP Users p. 13

**cf.**

After installing the VS-700 drivers and SONAR 8, see **Running SONAR for the First Time** (p. 23) for information on how to configure the MIDI ports.

## To Uninstall the VS-700 Driver

**cf.**

Refer to **"Uninstalling VS-700 Driver"** (p. 57).



## Windows Vista Users

- 1. Disconnect all USB cables (except those for a USB keyboard and/or USB mouse, if used), then start up Windows.**
- 2. Close all currently running software (applications).**

Also close all windows that are open. If you are using software such as antivirus programs, be sure to close these programs as well.
- 3. Insert the included “SONAR V-STUDIO 700 CD-ROM” into your computer’s CD/DVD-ROM drive.**

The “VS-700 Setup” AutoRun appears.

If AutoRun is not enabled, you can start the installer by selecting **Start-Run** and entering **d:\VS-700\_Setup.exe** (where d:\ is your disc drive).
- 4. A user account control screen will appear; click [Continue].**
- 5. Click [Next].**
- 6. Select “Install VS-700 Drivers.”**
- 7. Click [Next].**
- 8. The screen will indicate “VS-700 Driver will be installed on your computer.” Click [Next].**
  - \* If any other message appears, proceed as directed by that message.
- 9. To begin the installation, click [Next].**
- 10. If a Windows security dialog box appears, click [Install].**
- 11. The screen will indicate “VS-700 driver has been installed.”**
  - \* If any other message appears, proceed as directed by that message.

Leave the screen open; do not close it at this point.

**12. Perform the following procedure before you connect the VS-700 to your computer.**

**MEMO**

Due to a circuitry-protection feature, the VS-700R requires a few moments after power-up before it is ready for normal operation.

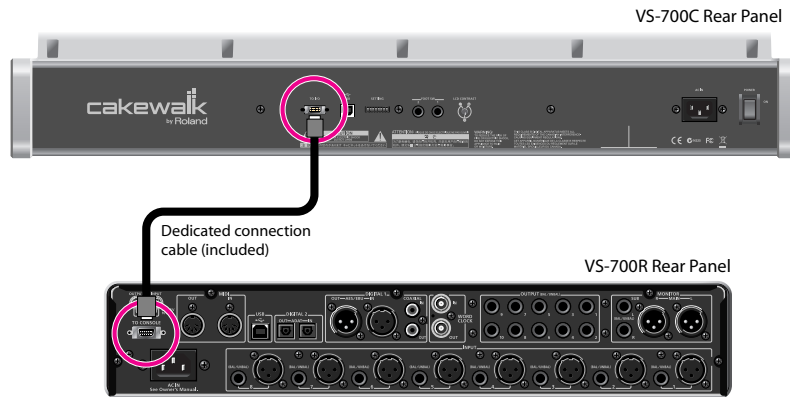
**NOTE**

Minimize the volume of the connected monitor speakers or external amp, and then connect the VS-700R to your computer. Even if the volume is minimized, some noise may be audible when you make connections, but this does not indicate a malfunction.

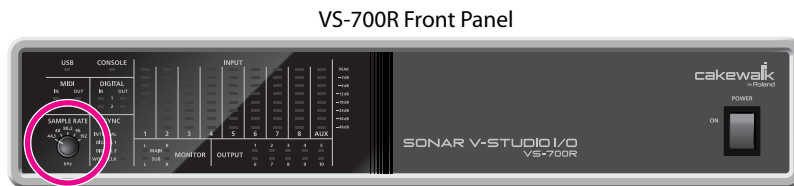
**MEMO**

The system may not be recognized correctly if you connect to a USB hub. If so, connect directly to a USB port on your computer.

**1. Use the dedicated connection cable (included) to connect the VS-700C and VS-700R.**



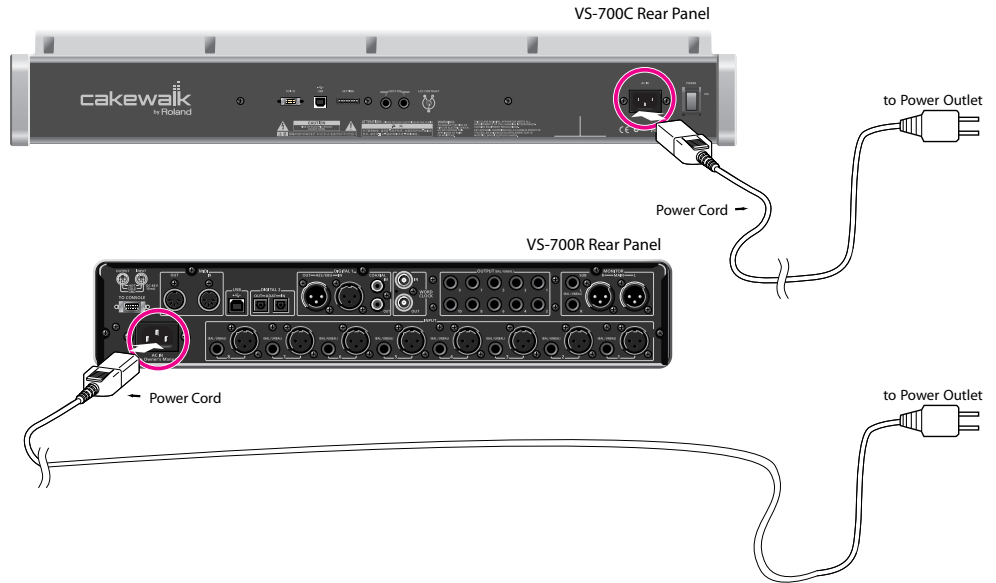
**2. Set the VS-700R's [SAMPLE RATE] knob to 44.1.**



**3. Minimize the VS-700C's [AUDIO OUTPUT] knobs (three knobs).**



**4. Use the included power cords to connect the VS-700C and VS-700R to AC outlets.**



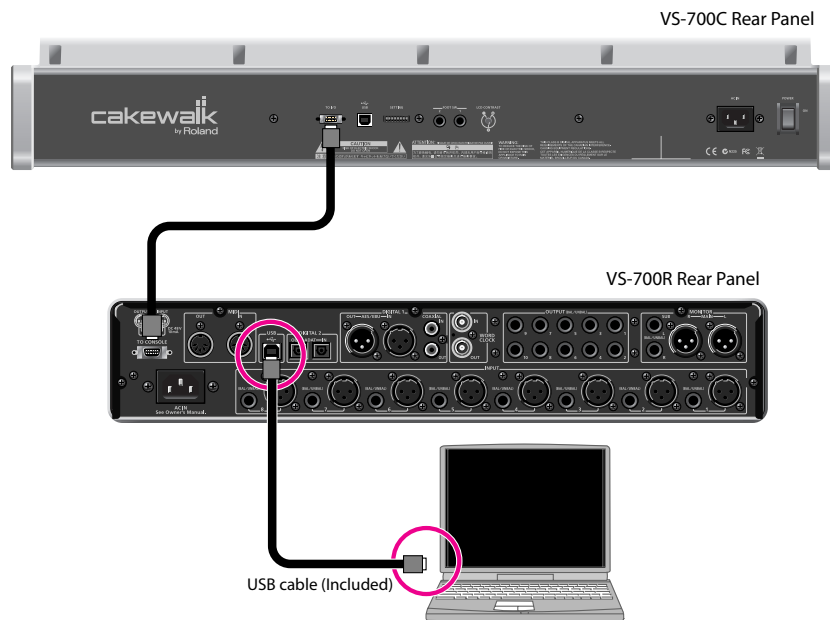
**5. Turn on the power switch of the VS-700C.**



**6. Turn on the power switch of the VS-700R.**



**7. Use the included USB cable to connect the VS-700R to your computer.**



**NOTE**

Connect the USB cable to the VS-700R. Don't connect it to the VS-700C console.

The **"Installing device driver software"** message appears in the lower right corner of the screen, and the driver will be installed automatically.

**NOTE**

If any other message appears, note the content of the message and close the message.

Installation is complete when the **"Installation has been completed"** message appears in the lower right corner of the screen.

**12. Click [Close] to close the "Driver Setup" dialog box.**

**13. If the "System settings changed" dialog box appears, click [Yes] and restart Windows.**

**NOTE**

If the installation was not completed successfully, disconnect the USB cable from the VS-700R, and uninstall the driver by executing **"Uninstall"**, found in the same folder as the driver setup. Then install the driver once again, being careful to follow the instructions for the installation procedure.

## Windows XP Users

1. **Disconnect all USB cables (except those for a USB keyboard and/or USB mouse, if used), then start up Windows.**
2. **Close all currently running software (applications).**  
Also close all windows that are open. If you are using software such as antivirus programs, be sure to close these programs as well.
3. **Insert the included “SONAR V-STUDIO 700 CD-ROM” into your computer’s CD/DVD-ROM drive.**  
The “VS-700 Setup” AutoRun appears.  
If AutoRun is not enabled, you can start the installer by selecting **Start-Run** and entering **d:\VS-700\_Setup.exe** (where d:\ is your disc drive).
4. **Click [Next].**
5. **Select “Install VS-700 Drivers.”**
6. **Click [Next].**
7. **To install the driver, click [Next].**

### MEMO

If a dialog box regarding Windows logo testing appears, click [Continue Anyway].  
This completes preparations for installing the driver.  
Leave the screen open; do not close it at this point.

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

**A dialog box with a “” symbol will appear.**

1. **Click [Continue Anyway] and continue the installation.**

**A dialog box with a “x” symbol will appear.**

1. **Click [OK].**
2. **When the “Found New Hardware Wizard” appears, click [Finish].**
3. **Return to step 1 (p. 13) and re-install the driver from the beginning of the procedure.**

8. The message “Ready to install the driver.—” will appear.
9. Perform the following procedure before you connect the VS-700 to your computer.

**MEMO**

Due to a circuitry-protection feature, the VS-700R requires a few moments after power-up before it is ready for normal operation.

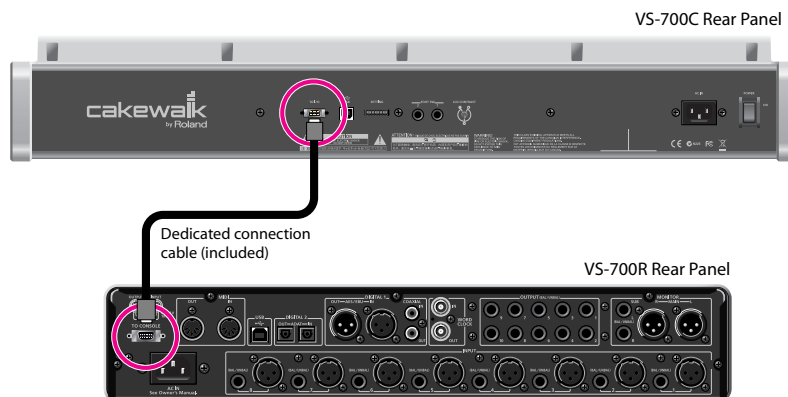
**NOTE**

Minimize the volume of the connected monitor speakers or external amp, and then connect the VS-700R to your computer. Even if the volume is minimized, some noise may be audible when you make connections, but this does not indicate a malfunction.

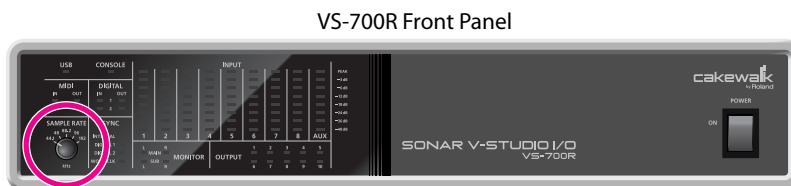
**MEMO**

The system may not be recognized correctly if you connect to a USB hub. If so, connect directly to a USB port on your computer.

1. Use the dedicated connection cable (included) to connect the VS-700C and VS-700R.



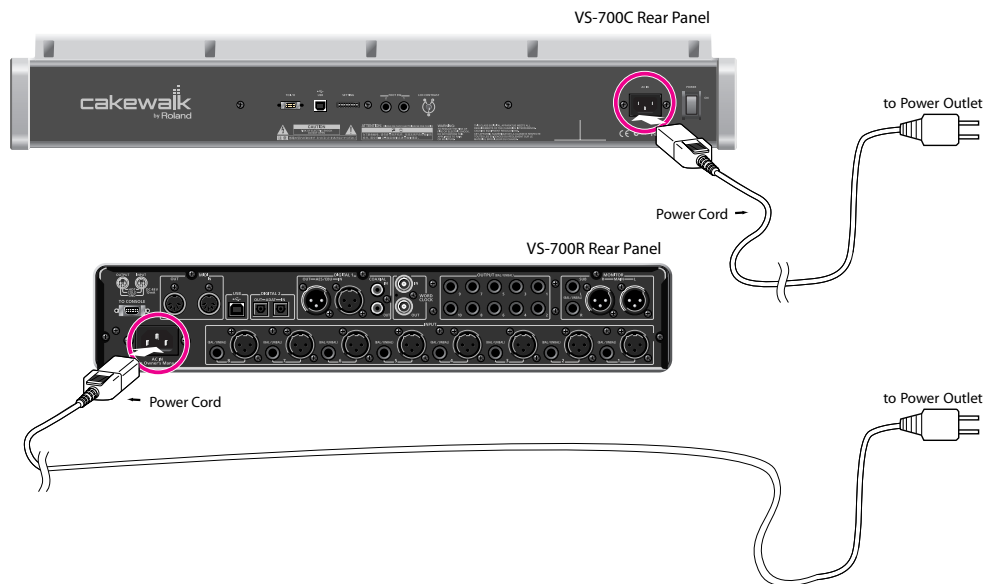
2. Set the VS-700R's [SAMPLE RATE] knob to 44.1.



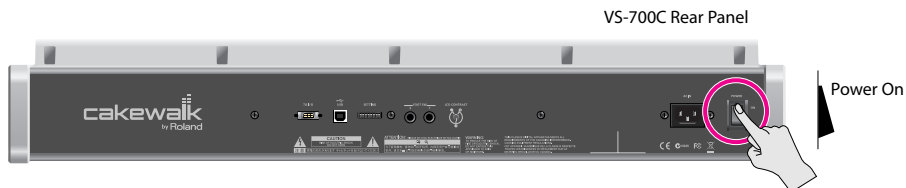
**3. Minimize the VS-700C's [AUDIO OUTPUT] knobs (three knobs).**



**4. Use the included power cords to connect the VS-700C and VS-700R to AC outlets.**



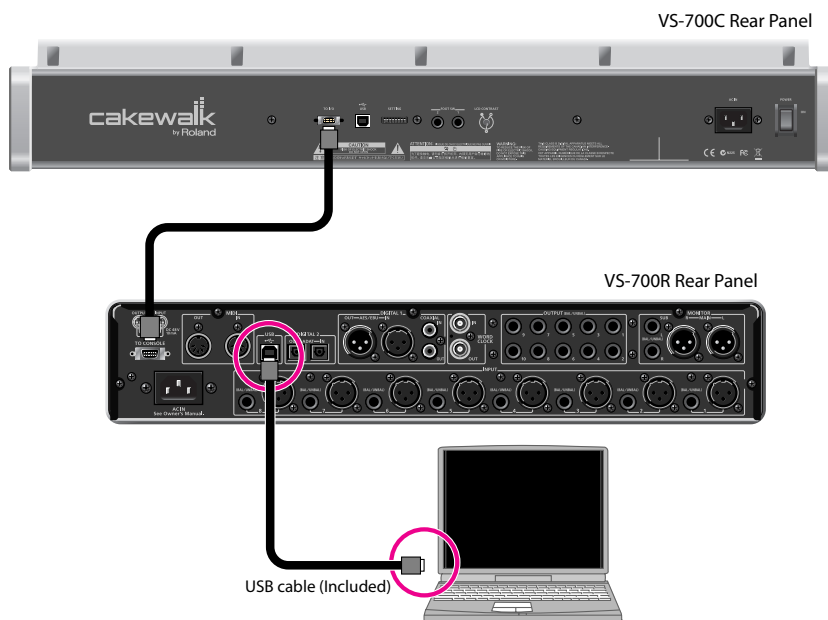
**5. Turn on the power switch of the VS-700C.**



**6. Turn on the power switch of the VS-700R.**



**7. Use the included USB cable to connect the VS-700R to your computer.**



**NOTE**

Connect the USB cable to the VS-700R. Don't connect it to the VS-700C console. Near the task bar, your computer will indicate **"Found New Hardware."** Please wait. The **"Found New Hardware Wizard"** appears.



10. Verify that “VS-700” is shown; then choose “Install the software automatically (recommended)” and click [Next].

**NOTE**

If you are asked whether you want to connect to Windows Update, choose “No” and click [Next].

**MEMO**

The system may not be recognized correctly if you connect to a USB hub. If so, connect directly to a USB port on your computer.

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

A dialog box with a “” symbol will appear.

1. Click [Continue Anyway] and continue the installation.

11. The screen will indicate “Completing the Found New Hardware Wizard.”

Click [Finish].

12. The “Found New Hardware Wizard” will appear.

Verify that “VS-700M1” is shown; then choose “Install the software automatically (recommended)” and click [Next].

13. The screen will indicate “Completing the Found New Hardware Wizard.”

Click [Finish].

14. The “Found New Hardware Wizard” will appear.

Verify that “VS-700M2” is shown; then choose “Install the software automatically (recommended)” and click [Next].

15. The screen will indicate “Completing the Found New Hardware Wizard.”

Click [Finish].

16. When the “Installation has been completed.” message appears, installation has been completed.

Click [Close] to close the “Driver Setup” dialog box.

17. If the “System Settings Change” dialog box appears, click [Yes] to restart Windows.

## Installing the VS-700 Software

The VS-700 Software installer includes the following:

- SONAR VS-700 Control Surface Plug-in
- Fantom VS Editor
- Rapture
- Rapture Expansion Packs

For more information, see **SONAR VS-700 software components** (p. 22).

## To Install the VS-700 Software

1. **Insert the included “SONAR V-STUDIO 700 CD-ROM” into your computer’s CD/DVD-ROM drive.**

The “**VS-700 Setup**” AutoRun appears.

If AutoRun is not enabled, you can start the installer by selecting **Start-Run** and entering **d:\VS-700\_Setup.exe** (where d:\ is your disc drive).

**NOTE**

If the VS-700 CD-ROM is already in your computer’s CD/DVD-ROM drive, eject the CD-ROM and insert it again.

2. **Select “Install VS-700 Software.”**

3. **Click [Next].**

4. **To begin installation, click “Install.”**

**NOTE**

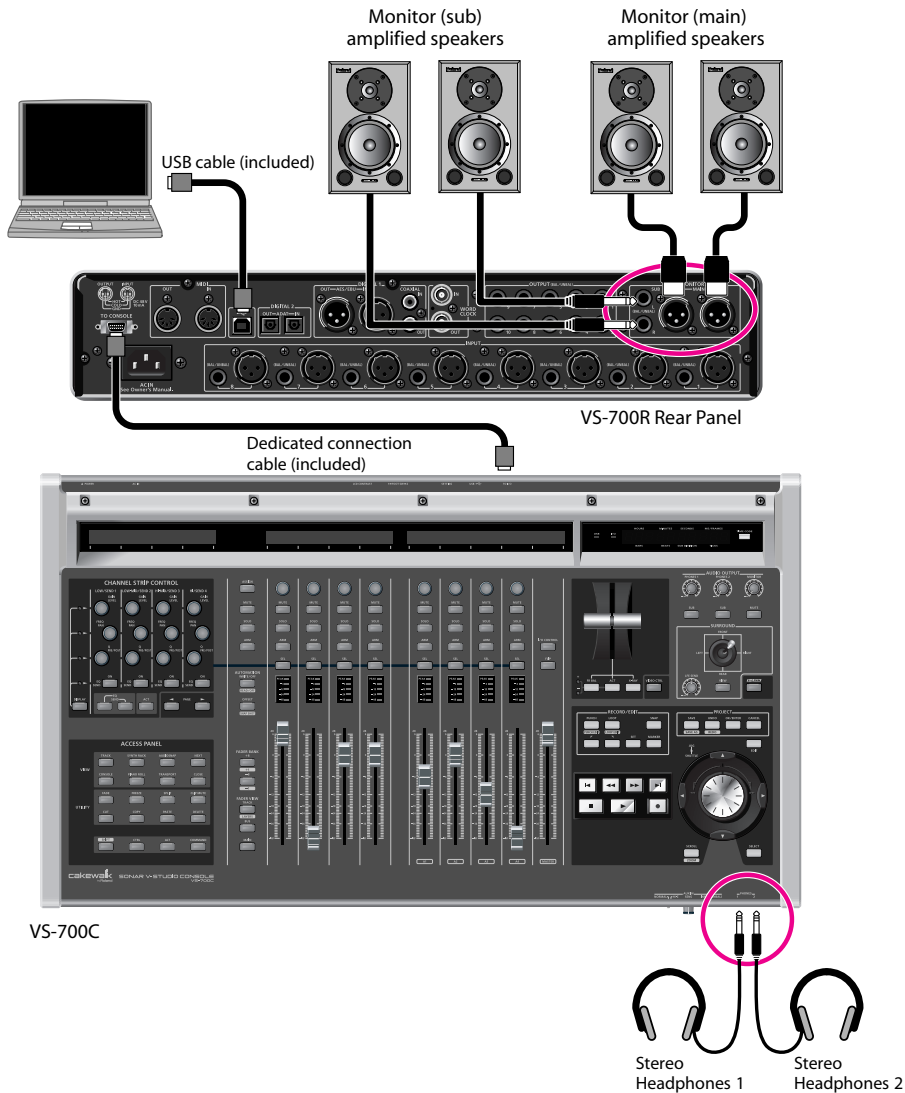
If SONAR 8 has already been installed, the VS-700 software will be installed. If SONAR 8 has not been installed yet, the VS-700 software installer (VStudioSetup.exe) will be copied to your hard drive and installed automatically by the SONAR 8 installer.

## Connecting your audio equipment

Connect your headphones and/or speakers to the VS-700.

\* This package does not include sound reproduction equipment such as headphones or speakers.

If you connect headphones or monitor speakers as shown in the illustration, you'll be able to monitor the playback audio.



For details on the VS-700 itself, refer to the included VS-700 Owner's Manual as well.

## Register SONAR

Before you install SONAR, take a minute to register the software so we can let you know when updates become available and provide you with technical support. To register anytime, log onto <http://www.cakewalk.com/register>, or call 888-CAKEWALK (U.S.) or +1 (617)-423-9004 (outside the U.S.) between 9 AM and 8 PM Eastern Standard Time. If you live outside of North America, please visit our distributor's page at <http://www.cakewalk.com/Dealers/International.asp> to get the telephone number of your local distributor. You'll need to supply your serial number, your name, and a valid email address.

## Installing SONAR

SONAR is easy to install. All you need to do is choose the folder where the program and sample project files should be stored. Before you start, make sure you have your serial number handy. Your serial number is located on the back of your DVD case.

Installation note: If you choose to not install the Sample files, you will not have the necessary content to use the tutorials in the SONAR User's Guide.

### To Install SONAR

1. **Start your computer.**
2. **Close any open programs you have running.**
3. **Place the SONAR installation disc in your disc drive.**

If you have autorun enabled, the SONAR AutoRun menu opens automatically, showing you a dialog box with several buttons. If autorun is not enabled, you can open the SONAR AutoRun menu by selecting **Start-Run** and entering `d:\AutoRun.exe` (where `d:\` is your disc drive).

4. **Click the [Install] button.**

**NOTE**

If you exit Setup without completing the installation, choose **"Start-Run"**, type **"D:\AutoRun.exe"** (where `D:\` is your DVD drive), and click **[OK]**. This will reopen the AutoRun window, and you can click Install to start installation again.

5. **Follow the installation instructions on the screen.**

You can also install SONAR by choosing **"Start-Run"** and running the application named **"SETUP.EXE"** from the DVD.

**NOTE**

When SONAR 8 has finished installing, additional VS-700 software components will also be installed. For more information, see **SONAR VS-700 software components** (p. 22).

### To Uninstall SONAR

**cf.**

Refer to **"Uninstalling SONAR and Other Components"** (p. 62).

## SONAR VS-700 software components

When SONAR 8 has finished installing, the following VS-700 software components will also be installed. The installer also presents an option to configure SONAR to default to the VS-700 hardware.

### SONAR VS-700 Control Surface Plug-in

The SONAR VS-700 control surface plug-in enables full control of all SONAR tracks, buses, plug-ins and other parameters from the SONAR VS-700C hardware surface. It also allows you to control the SONAR VS-700R audio interface.

For detailed instructions, see the SONAR VS-700 online Help.

#### NOTE

Before using the SONAR VS-700 control surface plug-in, you must assign the VS-700 MIDI ports. For more information, see **Configuring VS-700 MIDI Ports** (p. 58).

### Fantom VS Editor

Fantom VS Editor is a VSTi synth that lets you edit Fantom VS patches and parameters from within SONAR, and the results of your editing can be saved in a SONAR project file.

For detailed instructions, see the Fantom VS Editor online Help.

### Rapture

Rapture is a wavetable synthesizer with advanced sound manipulation capabilities, well suited for electronica-related music styles. A comprehensive Modulation Matrix provides expressive control and a unique Step Generator provides an intuitive interface for the creation of rhythmic parameter changes.

For detailed instructions, see the Rapture online Help.

### Rapture Expansion Packs

The Rapture Expansion Packs include hundreds of professional sound programs, wavetables and multisamples that expand the Rapture factory sound set. Programs include basses, drums, keys, leads, film textures and sound effects, micropiano, organs, pads, sequences, sweeps, and analog sounds. Wavetables and multisamples include analog synthesizers, vintage analog and vinyl drums, FM textures, and sound landscapes.

## Running SONAR for the First Time


Before SONAR 8 can communicate with the VS-700C console and Fantom VS Editor, you must enable and assign the VS-700 MIDI ports in SONAR, then insert the VS-700 control surface plug-in.

1. Set the VS-700R I/O's [SAMPLE RATE] knob to the desired sampling rate.
2. Power up the VS-700C console.
3. Power up the VS-700R I/O.
4. The first time you run SONAR 8, the following message appears: "SONAR will now personalize your setting by copying...," Click [OK].
5. In the "Tips of the Day" dialog, Click [Close].
6. The following message appears: "Do you have a MIDI controller that you would like to use to control track/bus and plug-in parameters?" Click [Yes] to open the "Controllers/Surfaces" dialog.
7. Click [MIDI Devices] to open the "MIDI Devices" dialog.
8. In the "Inputs" and "Outputs" lists, select the following VS-700 MIDI devices that you will use with SONAR.

Input	Output
CONSOLE (VS-700)	CONSOLE (VS-700)
DV-7 (VS-700)	DV-7 (VS-700)
V-LINK (VS-700)	FANTOM VS (VS-700)
FANTOM VS (VS-700)	IO MIDI (VS-700)
IO MIDI (VS-700)	ARX MIDI (VS-700)
ARX MIDI (VS-700)	

### NOTE

**Do NOT enable the "IO (VS-700)" port.**

9. Click [OK] to close the "MIDI Devices" dialog and return to the "Controllers/Surfaces" dialog.
10. Click the [Add New Controller/Surface] button  to open the "Controller/Surface Settings" dialog.
11. In the "Controller/Surface" box, select "VS-700."
12. Assign both "Input Port" and "Output Port" to "CONSOLE (VS-700)."
13. Click [OK] to close the "Controller/Surface Settings" dialog.
14. In the "Controllers/Surfaces" dialog, select the "WAI" and "ACT" check boxes and click [Close].

### cf.

If you have already run SONAR 8 and skipped these instructions, see **Configuring VS-700 MIDI Ports** (p. 58).

# Initial Settings

## Audio Driver Settings

As described below, configure SONAR so that you can use the VS-700 as an audio driver.

You'll need to make these settings in the following cases.

- Immediately after installing SONAR
- If you've updated the VS-700 driver
- If you've newly installed the VS-700 driver

### MEMO

Keep the VS-700 Owner's Manual at hand.

## Select the Drivers

Verify that the VS-700 is correctly recognized by SONAR.

1. Choose "Options | Audio" to display the "Audio Options" dialog box.
2. In the "Audio Options" dialog box, open the "Drivers" tab.
3. Verify that the VS-700 driver is shown in the "Input Drivers" and "Output Drivers" fields.

Select (check) the following drivers, and clear (uncheck) any other drivers.

Input Drivers	Output Drivers
VS-700 IN 1-2	VS-700 MAIN
VS-700 IN 3-4	VS-700 SUB
VS-700 IN 5-6	VS-700 OUT 1-2
VS-700 IN 7-8	VS-700 OUT 3-4
VS-700 IN DIGITAL1	VS-700 OUT 5-6
VS-700 IN DIGITAL2 1-2	VS-700 OUT 7-8
VS-700 IN DIGITAL2 3-4	VS-700 OUT 9-10
VS-700 IN DIGITAL2 5-6	VS-700 OUT DIGITAL1
VS-700 IN DIGITAL2 7-8	VS-700 OUT DIGITAL2 1-2
VS-700 AUX	VS-700 OUT DIGITAL2 3-4
VS-700 ARX	VS-700 OUT DIGITAL2 5-6
VS-700 FANTOM VS	VS-700 OUT DIGITAL2 7-8



### If the driver is not shown

**Did you connect the VS-700 before starting up SONAR?**

**Is the interface driver installed correctly?**

Refer to “**Installing the VS-700 Driver**” (p. 8), and verify that the VS-700 driver is installed correctly.

**Is the VS-700 correctly connected to your computer?**

**Is the VS-700 powered on?**

#### 4. Click [OK] to close the dialog box.

If you're asked to restart SONAR, do so.

\* If the window does not close or the settings are not applied when you click [OK], refer to “**Problems When Installing SONAR or Changing Settings**” (p. 48).

#### **MEMO**

If the screen indicates “**Audio Driver Error**”, click [Use Anyway].

## Other Audio Driver and Audio-Related Settings

You can also set the following options as necessary.

### 1. Execute the “Options | Audio” command to open the “Audio Options” dialog box.

#### MEMO

By clicking the help button in each dialog box, you can view detailed information about each option.

## Audio Options dialog—General tab

### Double-precision Engine

Enabling this check box chooses 64-bit (double-precision) mixing in SONAR throughout the entire signal path. This includes dithering and plug-ins. SONAR will send and receive 64-bit data to and from all plug-ins that accept 64-bit data. If a plug-in requires 32-bit data, SONAR will send and receive 32-bit data.

### Mixing Latency (MME and WDM drivers only)

If you're using a MIDI keyboard to play software synthesizers, or if you're using SONAR's input monitor, you can shorten the latency (delay until sound is heard) by reducing the I/O Buffer Size.

However, if you reduce the I/O buffer size too far, a greater processing load will be placed on your computer, causing pops, clicks, and dropouts (interrupted playback). If this occurs, increase the buffer size. -> “**About Mixing Latency**” (p. 61)

## Audio Options dialog—Advanced tab

### Driver Mode

If an Audio Driver Error appears, adjust “**Audio Buffer Size**” in the “**ASIO Panel.**” -> “**Troubleshooting**” (p. 45)

#### MEMO

If the driver mode is WDM/KS, try changing to **ASIO**.

### Use Multiprocessing Engine

Select this check box if you have a multi-core or multi-processor computer.

### Record Latency Adjustment

This specifies the offset when performing loopback recording. Measure the offset amount while actually performing loopback recording, and then enter this value.

## Audio Options dialog—Drivers tab

### Friendly Names

For each driver, you can change the driver names that are displayed in SONAR. If you want to use this function, enter the desired name in the Friendly Names field, and select the check box **“Use Friendly Names to Represent Audio Drivers”** located at the bottom of the dialog box.

## Global Options dialog—Audio Data tab

**MEMO**

To open the **“Global Options”** dialog box, choose the menu command **“Options | Global.”**

### Global Audio Folder

This specifies the folder where audio data will be held temporarily, for example when a new project is created. If you’re using a dedicated hard disk drive just for audio data, specify that drive in this field.

### File Bit Depths

This specifies the bit depth of the audio files created by recording, audio processing (e.g., freezing or bouncing), and importing audio.

Options	Default Value
Record Bit Depth	16
Render Bit Depth	32
Import Bit Depth	Original

# MIDI Devices Settings

Here's how to specify the MIDI devices that you want to use.

**1. Execute the “Options | MIDI Devices” command to open the “MIDI Devices” dialog box.**

In the input field and output field of the “MIDI Devices” dialog box, select the following VS-700 MIDI devices that you will use with SONAR.

Input	Output
CONSOLE (VS-700)	CONSOLE (VS-700)
DV-7 (VS-700)	DV-7 (VS-700)
V-LINK (VS-700)	FANTOM VS (VS-700)
FANTOM VS (VS-700)	IO MIDI (VS-700)
IO MIDI (VS-700)	ARX MIDI (VS-700)
ARX MIDI (VS-700)	

**NOTE**  
**Do NOT enable the “IO (VS-700)” port.**

- MEMO** If you're using an external MIDI sound module, you can use “Instrument Definitions” so that SONAR will show the bank names, patch names, and controller function names of typical MIDI sound modules. For details on “Instrument Definitions”, refer to the SONAR User's Guide or the online Help.
- \* If you've connected an external MIDI device such as an external MIDI keyboard (Edirol PCR series) to your computer via a USB cable, select such MIDI devices as well. (For details on these MIDI devices, refer to the manuals for the devices you're using.)
  - \* In SONAR, don't use the following MIDI devices shown in the “MIDI Devices” dialog box. (Clear the check box for these devices.)
    - **MIDI Mapper/Microsoft MIDI Mapper**  
These are virtual MIDI ports used by Windows, and are not used by SONAR.
    - **Microsoft GS Wavetable SW Synth**  
This monopolizes the audio driver, making it impossible to use audio functionality in SONAR.
    - **Roland VSC (stand-alone version)/ the stand-alone versions of other software synthesizers**  
These are not suitable for use in SONAR, since their latency cannot be managed from SONAR.

**2. Click [OK] to close the dialog box.**

**NOTE** If you're using Controllers or Surfaces in your system, and you've changed the settings of the “MIDI Devices” dialog box, you may need to re-make the Controllers/Surfaces plug-in settings. When you change the contents of the “MIDI Devices” dialog box, the entire state of the Controllers/Surfaces plug-ins will be initialized.

**MEMO** If you want to use an external MIDI device that's connected to the VS-700's MIDI connectors, select the “I/O MIDI (VS-700)” MIDI port in the “MIDI Devices” dialog box.

## Caution regarding MIDI Devices

### When using the VS-700 with a ReWire client such as Project5

Set your MIDI keyboard or other MIDI input device so that it will be used by either SONAR or the ReWire client (not both). If you attempt to use the MIDI input device simultaneously by both, the following problems will occur.

- Your plug-in synthesizer will be triggered twice; once by the MIDI messages sent to the ReWire client via SONAR, and also by the MIDI messages that are input directly to the ReWire client.
- The ReWire client will be unable to receive MIDI messages from your MIDI keyboard.

### When using a controller or surface that supports bi-directional communication

Place this device so that it is at the bottom of the selected MIDI Devices in the “MIDI Devices” dialog box “Outputs” field.

In SONAR, when you open an SMF or create a new MIDI track, priority is given to the higher of the devices selected in the “Outputs” field. In this case, if the MIDI Device used to control the controller/surface is higher in the list, performance data will be sent to the controller/surface, possibly causing unintended results.

#### MEMO


To re-order the devices, select the device that you want to move upward, and click the [Move Checked Devices to Top] button.

3. In the “Inputs” and “Outputs” lists, select the following VS-700 MIDI devices that you will use with SONAR.

## MIDI Controllers/Surfaces Settings

Before you use the VS-700C console to control SONAR, load the VS-700 plug-in and make settings to enable it.

### Loading the Controllers/Surfaces Plug-in

1. Make sure that the VS-700 is connected to your computer, and then start up SONAR.
2. In SONAR, choose “Options | Controllers/Surfaces” to open the “Controllers/Surfaces” dialog box.
3. Click the “Add Controller/Surface”  button. The “Controller/Surface Settings” dialog box will appear.
4. In the “Controller/Surface Settings” dialog box, in the “Controller/Surface Settings” field, choose “VS-700.”
5. Select the controllers’ Input Port and Output Port. Select “CONSOLE (VS-700 CONSOLE)” for both the Input Port and the Output Port.
6. Click [OK] to close the dialog box.
7. In the “Controllers/Surfaces” dialog, make sure that the “WAI” check boxes and the “ACT” check boxes are enabled, and click [Close].

#### MEMO

If you’re using an Edirol PCR series unit as an external MIDI keyboard, use the dedicated plug-in for the PCR series. Details on settings and using the plug-in are provided in the section “**Edirol PCR Controllers**” of the “**SONAR 8 Reference Guide**” (PDF file) on the SONAR 8 DVD-ROM.

#### What is ACT?

ACT (Active Controller Technology) is functionality that lets you operate SONAR from an external device such as a controller or surface. The plug-in effect or software synthesizer that’s active in SONAR will automatically be the target of control.

For details, refer to the section “**ACT**” in the “**SONAR 8 Reference Guide**” (PDF file) on the SONAR 8 DVD-ROM.

## VST/VSTi Registration and Settings

By default, the VST plug-ins included with SONAR are installed in the following folder, and can be used from SONAR without changing any settings.

**C:\Program Files\Cakewalk\VstPlugins**

If you have VST plug-ins installed in any other folders, you'll need to register them in SONAR as follows.

1. Execute the **"Options | Global"** command and click the **"VST Plug-Ins"** tab.
2. If the folder in which your VST plug-ins are installed does not appear in the **"VST Scan Folder(s) list"**, click the **[Add]** button and specify the folder in which your VST plug-ins are installed.  
If a folder in which no VST plug-ins are installed is shown, click the folder name to select it, and then click **[Remove]**.
3. When you've finished specifying the folders that SONAR should scan, click **[OK]**.
4. In the **"VST Scan"** section, click the **[Scan VST Folders]** button.

Your VST plug-ins have now been registered in SONAR.

### About Cakewalk Plug-in Manager

Cakewalk Plug-in Manager allows you to edit the plug-in menu, manage presets, and configure settings for each VST plug-in.

For details on using Cakewalk Plug-in Manager, refer to the **"SONAR 8 Reference Guide"** (PDF file), and to the online Help for Cakewalk Plug-in Manager.

## Playing a Demo Song


### Playing an Audio Demo Song

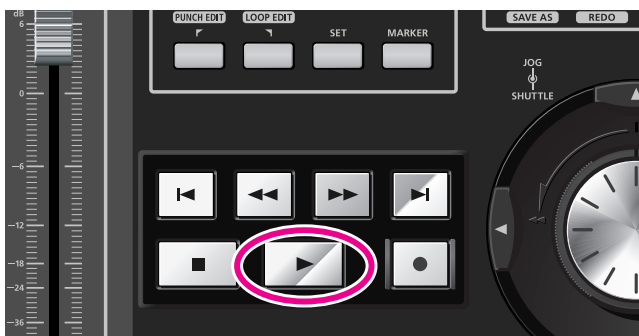
The SONAR 8 DVD-ROM contains audio demo songs. Here's how to enjoy these demo songs.

**NOTE**

If you listen to the demo songs in SONAR directly from the SONAR 8 DVD-ROM, dropouts (interruptions in the playback) are likely to occur during playback because data will have to be read from the DVD-ROM. Copy the demo songs to your desktop or other location before you play them (a good location is the same drive that you record audio to).

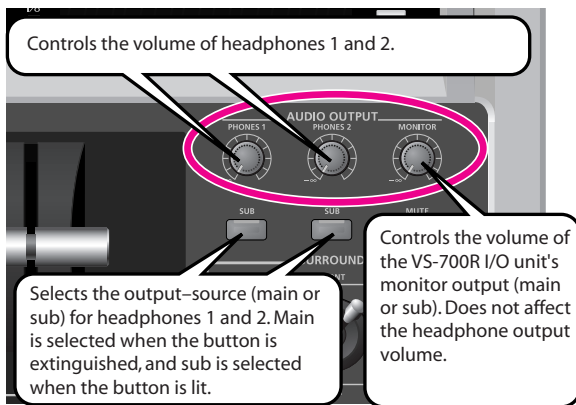
The demo songs included with SONAR are created at a sampling rate of 44.1 kHz. To play them, both the VS-700R's [SAMPLE RATE] knob and the SONAR Audio Driver must be set to the 44.1 kHz setting. If the audio driver's sampling rate has been set otherwise, change the sampling rate to 44.1 kHz as described in **"About Sampling Rates"** (p. 60).

1. **Using Windows Explorer, copy the entire demo song folder "Urban Authentic" from the "Demo Projects" folder on the "SONAR 8 additional content" DVD-ROM to your hard disk (e.g., the audio drive).**  
  
\* When you've finished copying the data, remove the DVD-ROM from your computer and keep it in a safe place.
2. **Start up SONAR, execute the "File | Open" command to open the "Open" dialog box, and select the project file "Still\_Dreamin" within the folder you copied in step 1.**
3. **Click [Open] to open the project. Wait until the project has finished loading.**
4. **Press the VS-700C's  (PLAY) button.**





## 5. Adjust the volume of the VS-700C and your sound reinforcement equipment (monitor speakers, etc.).



If the song does not play correctly, check the following items

### If an error occurs during playback

Does the project's Sampling Rate match the VS-700R's [SAMPLE RATE] knob?

The project's Sampling Rate is shown in the bottom right of the SONAR window in the form of **"44.1kHz, 16-bit."** If this does not match the VS-700R's [SAMPLE RATE] knob, change the [SAMPLE RATE] knob to **"44.1"**, turn the VS-700R's power off, then on again, and restart SONAR. Also make sure that the sampling rate is set to **"44100"** as described in **"About Sampling Rates"** (p. 60).

### If you don't hear sound

If you don't hear sound, check the settings of the audio interface and your sound reinforcement equipment.

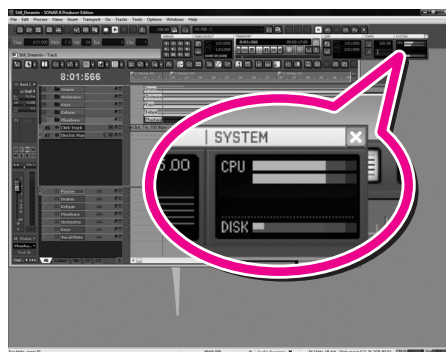
If you don't hear sound and the audio track's level meters are not moving either, there may be a problem with the settings of the audio driver. Check the settings as described in **"Audio Driver Settings"** (p. 24).

### If the CPU meter indicates a high value

If the CPU meter is staying in the green area, there is probably no problem. If you don't hear noise or dropouts (interruptions in the playback) even though the meter reaches the yellow area, this means that your computer's capabilities are being used nearly to their limit.

#### MEMO

The CPU meter is displayed as part of the Large Transport. If the Large Transport is not shown, press the F4 key to make it appear.



## If you hear noise, or if the playback halts

### NOTE

Dropouts may occur during playback or recording if you connect/disconnect another USB device (such as a memory key), or switch a device's power on/off at the same time that the VS-700 is being used.

### NOTE

Data transfer using USB could get congested if you use the VS-700 and a USB-connected hard disk at the same time. As a result, the data transfer speed for the hard disk could be significantly reduced. As a storage location for the audio data that you record and play back, you should avoid using a hard disk that is connected via USB.

### NOTE

Dropouts during playback/recording sometimes occur immediately after the system has started up, or after it has woken from sleep. Wait for a while, then try the playback/recording again.

Either the project is a very large one that your computer has insufficient power to play back, or there is a problem with the settings of the audio driver.

Check the settings as described in **“Audio Driver Settings”** (p. 24) and try playing it back again.

If this does not solve the problem, refer to **“Eliminating Clicks and Dropouts”** (p. 54).

## If the DISK meter indicates a high value

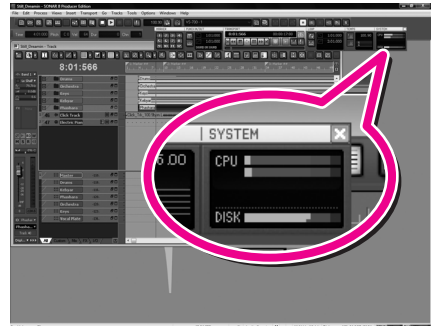
Could you be playing the demo song directly from the SONAR 8 DVD-ROM?

Copy the demo song to your hard disk, and play back the copied demo song.

If the DISK meter is staying in the green area, there is probably no problem. If the meter is reaching the yellow area but you don't hear noise or dropouts (interruptions in the playback), this means that your computer's capabilities are being used nearly to their limit.

If you copied the demo song to a hard disk that's connected via USB or IEEE 1394 (FireWire), the DISK meter may indicate a relatively high value.

The DISK meter may also indicate a relatively high value if you're using a notebook PC.



### MEMO

The DISK meter is displayed as part of the Large Transport. If the Large Transport is not shown, press the F4 key to make it appear.

6. When you've finished listening to the demo song, choose **“File | Close.”** If you're asked whether you want to save the changes, click [No].

## Playing Back the MIDI Demo Songs

Here's how to play back a MIDI demo song to play the "Fantom VS" synthesizer that's built into the VS-700R.

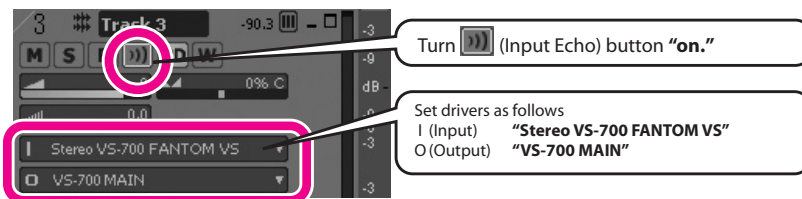
1. Execute the "File | Open" command to open the "Open" dialog box.
2. In the "<USER NAME>/Documents/Cakewalk/Sonar 8 Producer Edition/Sample Content" folder, select the project file "2-Part Invention #13 in A minor" and click "Open."

\* For Windows XP users, this file is located in "My Documents/Cakewalk/Sonar 8 Producer Edition/Sample Content."

\* If the "Auto-Send Sysx dialog" dialog box appears, click [OK].

3. Prepare an audio track for the "Fantom VS" internal synthesizer.

1. Execute "Insert | Audio Track" to add an audio track to the project.
2. For the audio track you added (Track 3), configure the controls as shown in the illustration.

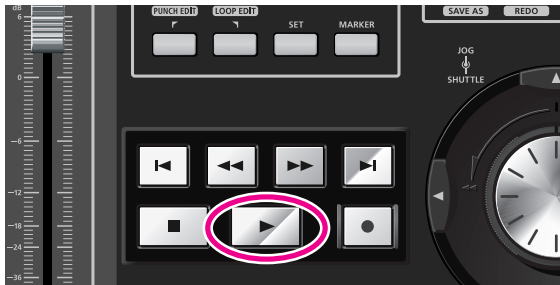


\* For details on the track display, refer to "About the track display" (p. 38).

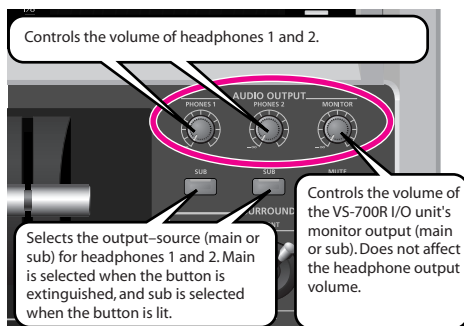
4. Change the output destination of each MIDI track to "Fantom VS (VS-700)."

1. Execute "Edit | Select | All."
2. Choose "Tracks | Property | Outputs" to open the track outputs.
3. In the "MIDI Outputs" field, choose "Fantom VS (VS-700)."
4. Click [OK] to close the dialog box.

5. Press the VS-700C's  (PLAY) button.



6. Adjust the volume of the VS-700C and of your sound reinforcement equipment (monitor speakers, etc.).



7. When you've finished listening to the demo song, choose "File | Close." If you're asked whether you want to save the changes, click [No].

# Recording Audio

## 1. Connect Instruments and Mics

In order to record audio, you must connect your instruments and mics to the VS-700. Here are some typical ways to make connections.

### Connecting a Mic

#### VS-700R Rear Panel

The eight audio inputs (INPUT 1–8) contain phantom power supplies. From SONAR's "Tools" menu, open "VS-700" and select the "MIC PRE" tab, and click **[+48]** button to make settings. When the system is powered up, the phantom power will be turned off. When you load a project in SONAR, the state that is saved in the project will be reflected.



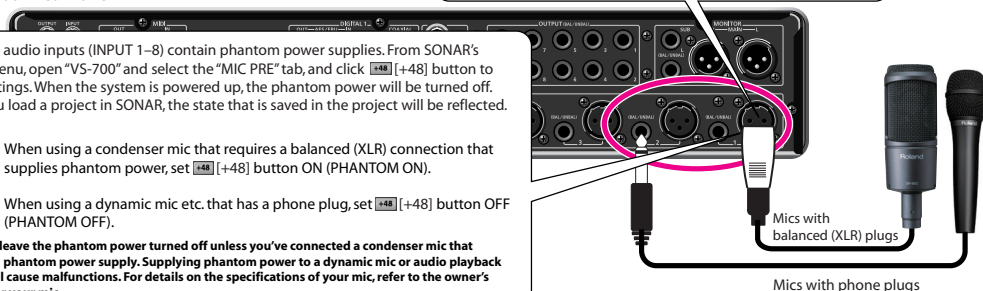
When using a condenser mic that requires a balanced (XLR) connection that supplies phantom power, set **[+48]** button ON (PHANTOM ON).



When using a dynamic mic etc. that has a phone plug, set **[+48]** button OFF (PHANTOM OFF).

**You must leave the phantom power turned off unless you've connected a condenser mic that requires a phantom power supply. Supplying phantom power to a dynamic mic or audio playback device will cause malfunctions. For details on the specifications of your mic, refer to the owner's manual for your mic.**

The VS-700R provides a balanced (XLR) type connector that is wired as shown in the illustration. Check the wiring of your device before connecting it.



#### VS-700C Front Panel

For a mic, select the "NORMAL" setting.



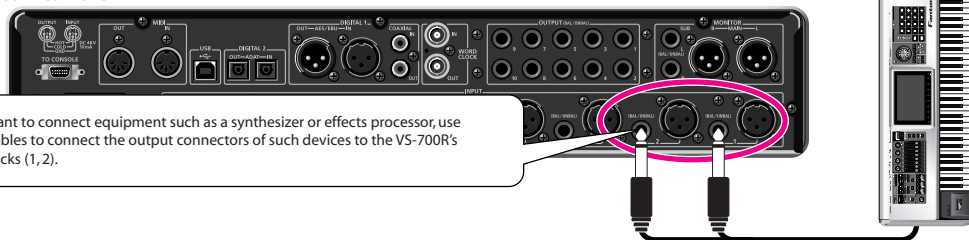
Use this to adjust the recording level.

Mics with phone plugs

### Connecting Synthesizers or Audio Equipment

#### VS-700R Rear Panel

If you want to connect equipment such as a synthesizer or effects processor, use audio cables to connect the output connectors of such devices to the VS-700R's INPUT jacks (1, 2).



### Connecting a Guitar or Bass

If you want to connect a guitar or bass directly, connect it to the AUX IN jack located on the front panel of the VS-700C console.

For a guitar or bass, select the "Hi-Z" setting.



#### VS-700C Front Panel

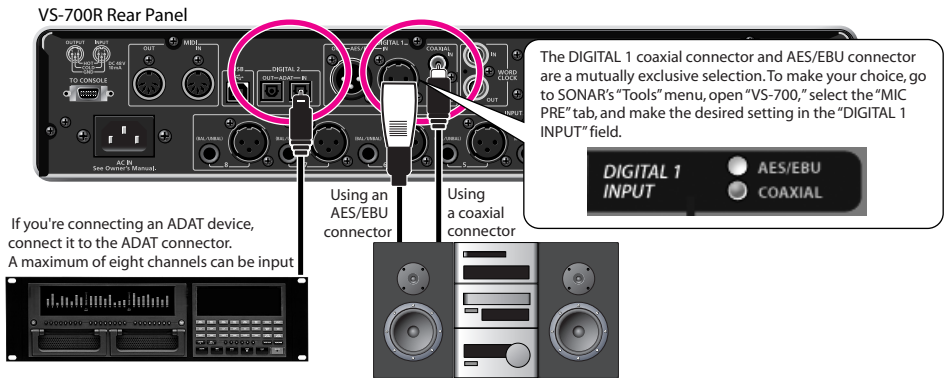
Use this to adjust the recording level.



\* The VS-700 provides mic preamps and compressors on each of the eight audio inputs (INPUT 1–8). You can produce a fatter sound by applying a compressor to the input signal from the mic or other audio source. For details, refer to the "VS-700R I/O" chapter in the VS-700 Owner's Manual.

## Connecting a Digital Audio Source

If you want to digitally connect a DAT or similar device, connect its output connector (e.g., DIGITAL OUT connector) to the VS-700R's DIGITAL IN connector.



## 2. Create a New File

Start up SONAR, and from the "File" menu choose "New" to access the "New Project File" dialog box. In the "Name" field, enter the desired name for the song you'll be creating. Then, in the "Template" field, choose "Normal" and press the [OK] button to open SONAR's initial screen.

By default, two audio tracks and two MIDI tracks will be created.

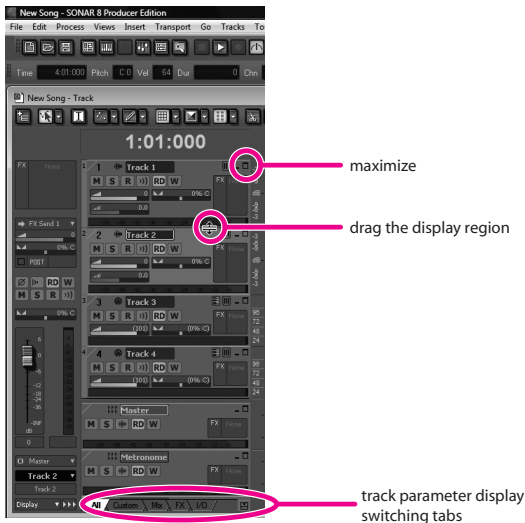
In this example, we'll start by recording an audio track (track 1).

### About the track display

A track in SONAR has numerous parameters. Depending on the display settings, some parameters might not be shown, or might be shown in different locations.

To change the track display, you can press the [maximize] button, "drag the display region", or use the "track parameter display switching tabs."

If you select "ALL" from the "track parameter display switching tabs", all parameters will be shown.



### 3. Select the Input for the Track

Click the **“Input”** field of Track 1 (Audio 1), and select the following as the audio driver that will be used for recording.

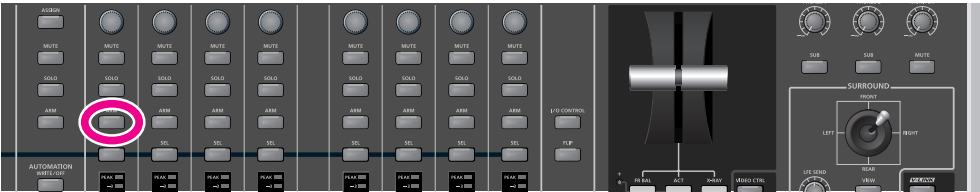


Jack/Connector	Audio Driver
INPUT1, 2 Jacks	VS-700 IN 1-2
INPUT3, 4 Jacks	VS-700 IN 3-4
INPUT5, 6 Jacks	VS-700 IN 5-6
INPUT7, 8 Jacks	VS-700 IN 7-8
AUX IN Jack (VS-700C)	VS-700 AUX
DIGITAL 1 Connector	VS-700 IN DIGITAL1
DIGITAL 2 Connector (ADAT)	VS-700 IN DIGITAL2 1-2
	VS-700 IN DIGITAL2 3-4
	VS-700 IN DIGITAL2 5-6
	VS-700 IN DIGITAL2 7-8

\* If you select **“Stereo–”** when recording a single mic or guitar, the audio will be recorded only for one side of the stereo pair. To record on both channels, select either **“left–”** or **“right–”**.

# 4. Arm the Track for Recording

We'll start by recording Track 1 (Audio 1).  
Press the VS-700C's TRACK 1 **[ARM]** button.



**MEMO**

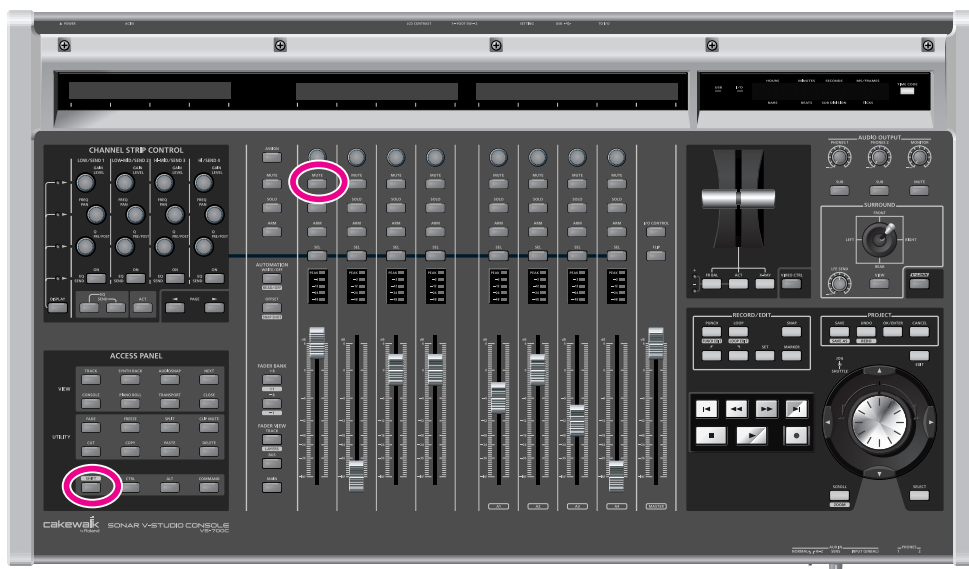
Alternatively, you can arm this track for recording by pressing the **[R]** button for “Audio 1” in SONAR.






## 5. Enable Input Monitoring for Recording

Next, you need to enable input monitoring on the track so you can monitor the audio signal that is being recorded. Hold down the VS-700C's **[SHIFT]** modifier button and press the TRACK 1 **[MUTE]** button.



### MEMO

Alternatively, you can enable input monitoring for this track by pressing the  button for "Audio 1" in SONAR.



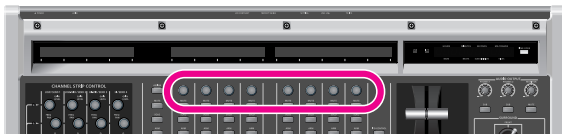
## 6. Adjust the Level

In order to record at the best possible audio quality, you should adjust the input level (mic pre gain) until it is as high as you can get it without causing the input/output level indicator on the VS-700R audio interface to light in red.

1. Press the VS-700C's [I/O CONTROL] button.



2. To adjust the input level, use the channel strip encoder knob that corresponds to the channel your instrument or microphone is connected to.



### NOTE

In I/O CONTROL mode, the channel strip encoders are assigned to **"Mic Pre Gain"** by default. If the encoders are currently assigned to **"Threshold"**, **"Attack"** or **"Release"**, press the [ASSIGN] button until the encoders are assigned to **"Mic Pre Gain."**

As you adjust the fader, pay attention to the level indicators on the VS-700R and the audio track's record meter in SONAR.

Input level adjustments can also be made from the VS-700 property page.

1. Do one of the following to open the VS-700 property page:
  - On SONAR's **"Tools"** menu, click **"VS-700."**
  - Hold down the VS-700C's [COMMAND] modifier button and press the [I/O CONTROL] button
 The SONAR VS-700 property page appears.
2. Click the **"MIC PRE"** tab.
3. Use the **"Input Sensitivity"** fader (for the channel that your instrument or microphone is connected to) to adjust the input level.

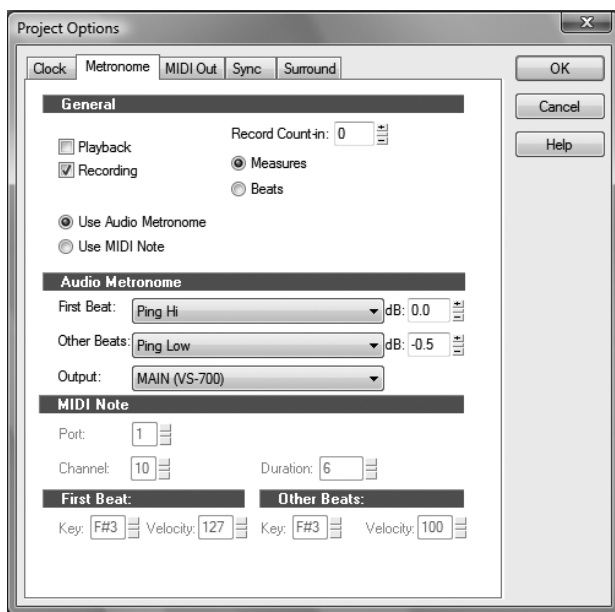


## 7. Turn On the Metronome

From the menu, choose **"Options | Project"**, and choose the **"Metronome"** tab.

Choose **"Use Audio Metronome."**

Then select the **"Output"** menu, choose the metronome output port, and click **[OK]**.

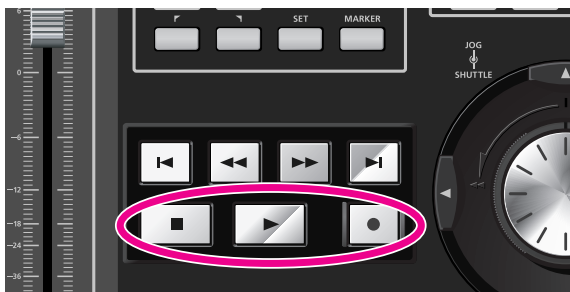



You can double-click the tempo indication and type the desired tempo value. Type a numerical value, and press the [Enter] key to confirm it.




This completes the preparations.

## 8. Now Let's Record!



Press the  (Record) button to start recording.

Press the  (Stop) button to stop recording.

Press the  (Play) button to hear what you recorded.

If you're not satisfied with your performance, you can easily re-record it.



After stopping recording but before performing any other operation, press the VS-700C's **[UNDO]** button; the waveform that had been displayed will disappear. Re-recording is as simple as that, so you can continue recording until you've captured a performance you're satisfied with.

### **MEMO**

You can also Undo by holding down **[Ctrl]** and pressing **[Z]** on your computer keyboard.

### **NOTE**

Dropouts may occur during playback or recording if you connect/disconnect another USB device (such as a memory key), or switch a device's power on/off at the same time that the VS-700 is being used.

### **NOTE**

Data transfer using USB could get congested if you use the VS-700 and a USB-connected hard disk at the same time. As a result, the data transfer speed for the hard disk could be significantly reduced. As a storage location for the audio data that you record and play back, you should avoid using a hard disk that is connected via USB.

### **NOTE**

Dropouts during playback/recording sometimes occur immediately after the system has started up, or after it has woken from sleep. Wait for a while, then try the playback/recording again.

You've successfully installed SONAR.

Your next step is to read the SONAR User's Guide and master the basic operations!

# Troubleshooting

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1. This chapter lists problems that might occur when setting up this product, and explains how to solve these problems. If you experience a problem during installation, read this chapter first.
2. If the system still does not operate as you expect even though you've checked the points listed in this chapter, refer to the following documents as well.

## VS-700 Owner's Manual

The VS-700 Owner's Manual contains cautions and detailed information about using the VS-700.

## SONAR User's Guide

This explains how to operate SONAR; read this guide when you're not sure how to use SONAR's basic functionality.

## Online Help

SONAR's Online Help is an organized collection of information that covers everything from operation to full details of all functions and commands. To view this, start up SONAR, and from the **"Help"** menu choose **"Help Topics."**

You can open the Search tab and type a keyword to search for related topics.

## README.RTF (online document; Rich Text Format)

This contains supplementary information about SONAR, information about changes from older versions of Cakewalk products, and cautions regarding use in specific types of systems. To view this, access SONAR's **"Help"** menu and execute **"View README.RTF."**

## Read1st.rtf (online document; Rich Text Format)

This is located in the root directory of the SONAR 8 DVD-ROM. The SONAR 8 DVD-ROM contains various tools and sample data to help you take full advantage of SONAR. Read1st.rtf contains detailed information about the files on the DVD-ROM, so be sure to read it before you use the various tools or data.

## Cakewalk Website (<http://www.cakewalk.com/>)

Here you can obtain the latest information about Cakewalk products.

## Problems When Installing VS-700 Driver or Changing Settings

Problem	Points to check	Action
Can't Install/Uninstall/ Use the Driver	Is the USB connector of your computer usable?	Refer to the owner's manual of your computer, and verify that the USB connector is usable. You can't install the driver unless the USB connector is usable.
	Can your computer or USB hub supply enough power?	Check whether the following cases might apply. <ul style="list-style-type: none"> <li>• If you're using a notebook computer that's running on batteries, the VS-700 might not operate stably with some computers. If so, connect your computer to its AC adaptor.</li> <li>• The power conservation settings of your computer may be limiting the power that is supplied to USB. Take another look at the settings of your computer.</li> <li>• Some bus powered USB hubs cannot be used with the VS-700. Use a USB hub that contains a power supply.</li> </ul>
	Does your computer meet the requirements of the USB specifications?	If your computer does not meet the electrical requirements of the USB specifications, the VS-700 may not operate stably. If so, you may be able to solve the problem by using a self-powered USB hub.
	Did you log on to Windows with the appropriate user privileges?	You must log onto Windows using one of the following user names. <ul style="list-style-type: none"> <li>• A user belonging to the Administrators group (e.g., Administrator)</li> <li>• A user whose account type is Computer Administrator</li> </ul>
	Driver Signing Option Setting	You may be unable to install the driver because of the <b>"Driver Signing Option"</b> setting. Check the following points, and make the appropriate setting. <ol style="list-style-type: none"> <li>1. Open the System <b>"Properties"</b> dialog box. <ol style="list-style-type: none"> <li>1. From the Windows <b>"Start"</b> menu, open the <b>"Control Panel."</b></li> <li>2. In <b>"Pick a category,"</b> click <b>"Performance and maintenance."</b></li> <li>3. Under <b>"Pick a Control Panel icon,"</b> click the <b>"System"</b> icon. <ul style="list-style-type: none"> <li>* Depending on your setup, the System icon may be shown directly in the Control Panel (the Classic view). If so, double-click the System icon.</li> </ul> </li> </ol> </li> <li>2. Click the <b>"Hardware"</b> tab, and then click <b>[Driver Signing]</b>.</li> <li>3. The <b>"Driver Signing Options"</b> dialog box will appear. In the <b>"Driver Signing Options"</b> dialog box, choose <b>"Warn"</b> or <b>"Ignore,"</b> and then click <b>[OK]</b>.</li> <li>4. Click <b>[OK]</b> to close the <b>"System Properties"</b> dialog box.</li> <li>5. Install the driver as described in the <b>"Installation"</b> procedure.</li> </ol> <p>* After you've completed the installation, you can return the driver signing options setting to its original state.</p>
	Is the VS-700's MIDI/WAVE device name shown?	If the device name is not shown, close all applications that are using the VS-700, disconnect the USB cable from the VS-700, and then reconnect it. If this does not solve the problem, uninstall the driver as described in <b>"Uninstalling VS-700 Driver"</b> (p. 57), and then install the driver once again.(p. 8)

Problem	Points to check	Action
Can't Select the VS-700 Device	Was the driver installed correctly?	If you are unable to use the VS-700 even though the driver was installed, it is possible that the driver was not installed correctly. Uninstall the driver as described in <b>"Uninstalling VS-700 Driver"</b> (p. 57), and then install the driver once again.(p. 8)
	Could the computer have entered standby (suspend) mode or hibernation while the VS-700 was connected?	If the VS-700 does not operate correctly after your computer resumes from standby (suspend) mode or hibernation, close all applications you're using, disconnect the USB cable from the VS-700, and then reconnect it.
	Could you have disconnected and reconnected the USB cable while using the VS-700?	The VS-700 may stop operating correctly if you disconnect and reconnect the USB cable during use. In this case, close all applications that are using the VS-700, disconnect the USB cable from the VS-700, and then reconnect it.
	On some computers, the driver will not be loaded correctly if the VS-700 is already connected when Windows starts up, making the VS-700 unusable via USB.	In this case, connect the VS-700 after Windows has started up.
Some devices are not shown	Have you allowed sufficient time between disconnecting and reconnecting the USB cable, or turning the VS-700R I/O unit's power off and then on again?	Depending on the computer you're using, it may take some time for processing to be completed when you disconnect and reconnect a USB cable, or when you turn the VS-700R I/O unit's power off and then on again. Reconnect the USB cable as described in the following procedure. <ol style="list-style-type: none"> <li>1. Close SONAR.</li> <li>2. Disconnect the USB cable, and wait several seconds.</li> <li>3. Connect the USB cable, and wait several seconds.</li> <li>4. Start SONAR.</li> </ol>
The Computer Asks You for the Driver File Even Though You've Installed it	Windows XP: If you connect the VS-700 to a different USB connector than previously, the computer may ask you for the driver file.	This is normal behavior, and should not be a cause for concern. Install the driver according to the following procedure. <ol style="list-style-type: none"> <li>1. Use the USB cable to connect the VS-700 to your computer. The indication <b>"Found new hardware"</b> will appear in the lower right corner of the screen. Wait for the <b>"Found New Hardware Wizard"</b> to appear.</li> <li>* It may take some time for the <b>"Found New Hardware Wizard"</b> to appear.</li> <li>2. If you are asked whether you want to connect to Windows Update, choose <b>"No"</b> and click <b>[Next]</b>.</li> <li>3. Choose <b>"Install the software automatically (recommended),"</b> and click <b>[Next]</b>.</li> <li>4. If the <b>"Hardware Installation"</b> dialog box appears, click <b>[Continue]</b> to continue the installation. * If you are unable to continue, click <b>[OK]</b> to halt the installation, and refer to <b>"Driver signing option settings."</b></li> <li>5. When <b>"Completing the Found New Hardware Wizard"</b> appears, click <b>[Finish]</b>.</li> </ol>

## Problems When Installing SONAR or Changing Settings

Problem	Points to check	Action
Can't install SONAR	Could you have attempted to install SONAR as a user without administrative privileges?	In order to install SONAR, you must log on as a user who has administrative privileges. Installation will not occur correctly if any other user attempts this.
	Is the SONAR 8 DVD-ROM correctly inserted in the DVD drive?	If the DVD drive or the SONAR 8 DVD-ROM is dirty, use a commercially available cleaner to clean it.
	Could system monitoring software such as an anti-virus program be running?	Close such software until installation is completed. For details on how to close the software, refer to the documentation for your computer or for the software you're using.
	Did you attempt to install from a network drive?	You must install from a local drive.
	Is there enough hard disk space?	Your hard drive must have at least 30 GB of free space.
Plug-ins are not installed	The plug-ins are not installed (registered) in the Start menu.	The software synthesizers included with SONAR are all plug-in versions. Unlike the stand-alone versions, <b>they will not be registered in the Windows Start menu</b> . In order to use the plug-in software synthesizers included with SONAR, you must call them up from within SONAR. For details on how to do this, refer to the separate User's Guide.
	By default, some of the plug-ins are not installed.	Some of the plug-ins are not installed by default. You can install them later if desired.
Plug-ins are installed but not shown	It may be that a plug-in is disabled.	Check whether the plug-in might be disabled in the plug-in manager. For more about the plug-in manager, refer to the separate User's Guide.
"Audio Driver Error" appears	Is the Audio Driver setting appropriate?	Make sure that SONAR's Sampling Rate (p. 60) is the same as the setting of the VS-700R's <b>[SAMPLE RATE]</b> knob. If an audio driver not being used by SONAR is installed, try either disabling that driver or disconnecting the corresponding audio interface from your computer. Try changing the Driver Mode (p. 26).
Clicking [OK] in the Audio Options dialog does not close the dialog box	Could you be using a stand-alone version of a software synthesizer (such as the stand-alone version of the Roland VSC)?	In this case, your settings might not be applied when you click <b>[OK]</b> in the Audio Options dialog box. Try uninstalling the stand-alone version of the software synthesizer.
	Could an input-only or output-only audio driver be installed, such as for a USB speaker or USB mic?	In this case, your settings might not be applied when you click <b>[OK]</b> in the Audio Options dialog box. Try disabling those audio drivers.
	Could your computer's internal sound card be enabled?	Some internal sound cards may cause problems for other audio drivers. In this case, try disabling the internal sound card in the device manager or in your computer's BIOS screen.



## Problems at Startup with SONAR

Problem	Points to check	Action
Can't start up	Could numerous applications be running?	It may be that SONAR cannot start up because there is insufficient memory. Close other applications before you start up SONAR. If an error still appears, try restarting Windows.
	Could memory-resident programs be running?	Memory-resident programs such as anti-virus software may prevent SONAR from running correctly. Try closing such software before starting SONAR.
"Audio Driver Error" is displayed	Could you be using other music application software?	If Media Player or any other application that has audio playback capability is running, SONAR won't be able to use the audio driver, and an error will appear when SONAR is started. Close the audio playback application, and then start SONAR again.
	Are the audio driver settings appropriate?	Make sure that SONAR's Sampling Rate (p. 60) matches the settings of the VS-700R's <b>[SAMPLE RATE]</b> knob. If an audio driver not being used by SONAR is installed, try either disabling that driver or disconnecting the corresponding audio interface from your computer. Try changing the Driver Mode (p. 26).
	Do the audio data format settings match?	Make sure that the Sampling Rate of the audio used in your project, the Sampling Rate of SONAR, and the setting of the VS-700R's <b>[SAMPLE RATE]</b> knob all match. <b>"About Sampling Rates"</b> (p. 60)
Notation displayed incorrectly in Staff View	It may be that Windows has become temporarily unstable.	Try restarting Windows.
An error such as "Unknown Error in Sequencer.DLL" appears	SONAR was not installed correctly.	Proceed as follows to re-install SONAR. <ol style="list-style-type: none"> <li>1. Log on as a user who has administrative privileges.</li> <li>2. Click the Windows Start button, and then click Control Panel.</li> <li>3. Click Programs and Features (in Windows XP, Add or Remove Programs)</li> <li>4. In the list of programs, click SONAR 8.</li> <li>5. Click Uninstall (in Windows XP, Remove) to uninstall SONAR.</li> </ol> <p>* If a User Account Control dialog box appears, click Continue.</p> <ol style="list-style-type: none"> <li>6. After uninstalling SONAR, restart Windows.</li> <li>7. When Windows has restarted, re-install SONAR as described in <b>"Installing SONAR"</b> (p. 21).</li> </ol>

# Problems with Playback

Problem	Points to check	Action
Can't open song data	Is there sufficient free space on the hard disk?	When opening a bundled file, make sure that there is sufficient space on the hard disk (at least as much as the size of the song data)
	A message indicates "Not a Cakewalk Format File."	It may be that the file has been damaged. You may be able to recover some of the data by opening the file in <b>Safe Mode</b> . For details, refer to the online help file section <b>File Recovery Mode</b> .
No sound at all	Is your sound reproduction equipment (speakers, headphones) connected correctly?	Connect your audio reproduction equipment. "Connecting your sound reproduction system" (p. 19)
	Is the power switch turned on?	Make sure that your sound reproduction system and the VS-700 are powered up.
	Are the volume knobs raised?	Make sure that the volume knobs of your sound reproduction system and the VS-700's <b>[AUDIO OUTPUT]</b> knob are raised.
	Is the VS-700's driver correctly installed?	Make sure that the VS-700's driver is installed correctly.
	Do the audio data format settings match?	Make sure that the Sampling Rate of the audio used in your project, the Sampling Rate of SONAR, and the setting of the VS-700R's <b>[SAMPLE RATE]</b> knob all match. "About Sampling Rates" (p. 60)
	Could you have switched off the VS-700's power or disconnected the USB cable while SONAR was running?	If you perform such actions while SONAR is running, communication between SONAR and the VS-700 will be interrupted, and SONAR may stop responding. Check the connection to the VS-700, restart your computer, and restart SONAR.
	Could your computer has entered Suspend mode while SONAR was running?	
No sound at all	Could a message be indicating "Unable to Open Audio Playback Device"?	If Media Player or another application that has audio playback capability is running, SONAR won't be able to use the audio driver, and an error will appear when SONAR is started. Close the audio playback application, and then start SONAR again.
		Make sure that SONAR's Sampling Rate (p. 60) matches the settings of the VS-700R's <b>[SAMPLE RATE]</b> knob. If an audio driver not being used by SONAR is installed, try either disabling that driver or disconnecting the corresponding audio interface from your computer. Try changing the Driver Mode (p. 26).
		Make sure that the Sampling Rate of the audio used in your project, the Sampling Rate of SONAR, and the setting of the VS-700R's <b>[SAMPLE RATE]</b> knob all match. "About Sampling Rates" (p. 60)
No MIDI sounds	Does the song contain only MIDI data?	MIDI data can be played using the "Fantom VS" synthesizer that's built into the VS-700R. "Playing Back the MIDI Demo Songs" (p. 35)
	Could more than one music application be running?	If multiple music applications are running at the same time, close the other software. If an indication remains in the taskbar even after you close the window, the software is still running; you must also close the software that's shown in the taskbar.
	Are the MIDI Devices settings correct?	Make MIDI device settings as described in "MIDI Devices Settings" (p. 28).

Problem	Points to check	Action
Fantom VS: GM or other MIDI data will not play correctly	Specify the System Exclusive output destination	<ol style="list-style-type: none"> <li>1. Make a note of the number (port number) that's shown before the MIDI OUT port of the track.</li> <li>2. Open "Views   Sysx."</li> <li>3. Select the System Exclusive message that will be output.</li> <li>4. In the "Sysx Bank Output" dialog box, specify the port number you noted in step 1.</li> </ol>
There are Interruptions, Dropouts, or Other Problems in the Sound During Playback	Could you have connected/ disconnected another USB device, such as a memory key?	Dropouts may occur during playback or recording if you connect/disconnect another USB device (such as a memory key), or switch a device's power on/off at the same time that the VS-700 is being used.
	Are you using a hard disk that is connected via USB?	Data transfer using USB could get congested if you use the VS-700 and a USB-connected hard disk at the same time. As a result, the data transfer speed for the hard disk could be significantly reduced. As a storage location for the audio data that you record and play back, you should avoid using a hard disk that is connected via USB.
	Did the dropout occur immediately after the system started up, or after it woke from sleep?	Dropouts during playback/recording sometimes occur immediately after the system has started up, or after it has woken from sleep. Wait for a while, then try the playback/recording again.
	Windows Update/ Microsoft Update	Use Microsoft Corporation's Windows Update or Microsoft Update to update your system to the most recent state.
	Windows XP: System "Performance Options" settings	Follow the procedure described in " <b>Giving Priority to Background Service (Windows XP)</b> " (p. 59).
	"Audio Buffer Size" in the setting dialog box	<ol style="list-style-type: none"> <li>1. Open the Settings dialog box as described in "<b>VS-700 Driver settings</b>" (p. 56).</li> <li>2. Increase the "<b>Audio Buffer Size.</b>"</li> </ol>
	Clicks or pops may occur in the sound if a LAN is operating	Try disabling the LAN in Device Manager. If this eliminates the clicks or pops, you may be able to solve the problem by updating your LAN driver or BIOS.
	Windows XP: "Hardware Acceleration" in the Display Details	<p>You may be able to eliminate noise during audio playback by adjusting the graphics acceleration setting.</p> <ol style="list-style-type: none"> <li>1. Open the "<b>Control Panel,</b>" and double-click "<b>Display.</b>"</li> <li>* If you don't see the above icon, click "<b>Appearance and Themes,</b>" and then click "<b>Display.</b>"</li> <li>2. Click the "<b>Settings</b>" tab.</li> <li>3. Click [<b>Advanced</b>] - "<b>Troubleshoot</b>" tab.</li> <li>4. Adjust the "<b>Hardware acceleration</b>" slider, and click [<b>OK</b>].</li> <li>5. In "<b>Display Properties,</b>" click [<b>OK</b>] to close the dialog box. Then restart your computer.</li> </ol>
	You may be able to solve the problem by selecting the " <b>Light Load</b> " check box in the Settings dialog box.	<p>To view or change this setting, follow the procedure described in "<b>VS-700 Driver settings</b>" (p. 56)</p> <p>*After you've changed this setting, you must disconnect the USB cable from the VS-700 and then reconnect it so that the change will take effect. If you are not experiencing problems, leave this check box cleared (the default setting).</p>
	Try adjusting the audio buffer size in SONAR.	First, try adjusting the audio buffer size in SONAR. (" <b>Change the I/O Buffer Size</b> " (p. 54)) If you still experience clicks or pops during playback or recording, try adjusting the " <b>Audio Buffer Size</b> " in the driver settings panel.(p. 56)
	Could you have connected the VS- 700 to a USB hub?	Try connecting the VS-700 directly to a USB connector on your computer.

Problem	Points to check	Action
There are Interruptions, Dropouts, or Other Problems in the Sound During Playback	Windows XP: The power management settings in the control panel may be causing audio playback to be interrupted.	<p>Use the following procedure to check the settings.</p> <ul style="list-style-type: none"> <li>* The contents of the power properties that appear when you double-click power management will depend on your computer system.</li> <li>* The example shown here is for a typical system. You should refer to the owner's manual of your computer for details.</li> <li>* Some computers may not have the following settings.</li> </ul> <ol style="list-style-type: none"> <li>1. From the Windows "<b>Control Panel</b>," double-click the "<b>System</b>" icon. The "<b>System Properties</b>" dialog box will appear.</li> <li>2. Click the "<b>Hardware</b>" tab.</li> <li>3. Click "<b>Device Manager</b>" to access the list of devices.</li> <li>4. From the list, choose "<b>Advanced Power Management Support</b>," and click "<b>Properties</b>." The "<b>Advanced Power Management Support Properties</b>" dialog box will appear.</li> <li>5. Click the "<b>Settings</b>" tab. In Troubleshooting, select the "<b>Don't poll the power supply status</b>" check box, and click [OK].</li> <li>6. In the "<b>System Properties</b>" dialog box, click [OK].</li> <li>7. Restart Windows.</li> </ol>
Playback Halts Midway, and Subsequent Playback is Not Possible	While you were using the VS-700, could your computer have performed a task with a heavy processing load, such as accessing a CD-ROM drive or the network?	<p>If a heavy processing load occurs while the VS-700 is being used, it may not work correctly. In this case, stop playback, and then start playback once again.</p> <p>If you are still unable to play, close all software that was using the VS-700, disconnect the USB cable from the VS-700, and then reconnect it.</p>

## Problems with Recording

Problem	Points to check	Action
Can't record	Could a message be indicating "Unable to open audio record device"?	<p>If Media Player or another application that has audio playback capability is running, SONAR won't be able to use the audio driver, and an error will appear when SONAR is started. Close the audio playback application, and then start SONAR again.</p>
		<p>Make sure that SONAR's Sampling Rate (p. 60) matches the settings of the VS-700R's [SAMPLE RATE] knob.</p> <p>If an audio driver not being used by SONAR is installed, try either disabling that driver or disconnecting the corresponding audio interface from your computer.</p> <p>Try changing the Driver Mode (p. 26).</p>
		<p>Make sure that the Sampling Rate of the audio used in your project, the Sampling Rate of SONAR, and the setting of the VS-700R's [SAMPLE RATE] knob all match.</p> <p>"<b>About Sampling Rates</b>" (p. 60)</p>
Dropouts occur in the recording	Could you have connected/disconnected another USB device, such as a memory key?	Dropouts may occur during playback or recording if you connect/disconnect another USB device (such as a memory key), or switch a device's power on/off at the same time that the VS-700 is being used.
	Are you using a hard disk that is connected via USB?	Data transfer using USB could get congested if you use the VS-700 and a USB-connected hard disk at the same time. As a result, the data transfer speed for the hard disk could be significantly reduced. As a storage location for the audio data that you record and play back, you should avoid using a hard disk that is connected via USB.
	Did the dropout occur immediately after the system started up, or after it woke from sleep?	Dropouts during playback/recording sometimes occur immediately after the system has started up, or after it has woken from sleep. Wait for a while, then try the playback/recording again.

Problem	Points to check	Action
Recording Halts Midway, and Subsequent Recording is Not Possible	While you were using the VS-700, could your computer have performed a task with a heavy processing load, such as accessing a CD-ROM drive or the network?	If a heavy processing load occurs while the VS-700 is being used, it may not work correctly. In this case, stop recording, and then start recording once again. If you are still unable to record, close all software that was using the VS-700, disconnect the USB cable from the VS-700, and then reconnect it.
Can't Record via a Digital Connection	Does the sample rate setting of SONAR match the sample rate of the digital device that's connected to the digital input connector?	Set them to the same sample rate.
Noise or Distortion is Heard in Sound that's Not Played by Your Computer	Could a microphone or guitar be left connected?	If a microphone or guitar is connected to the AUX IN jack, unplug the microphone or guitar and turn <b>[SENS]</b> (input sensitivity) knob all the way to the left so that the input level is lowered.
	Have you grounded the computer?	You may be able to solve the problem by grounding the computer's chassis, or the ground pin of the computer's AC power supply plug. Also check whether there might be a device nearby that generates a strong magnetic field, such as a television or microwave oven.
Noise is Heard with the Guitar Sound	Does lowering your guitar's volume decrease the noise?	If the noise decreases when you lower the volume of your guitar, it may be that your guitar's pickups are being affected by noise from your computer or display. Move your guitar as far away from your computer as possible.
Guitar Sound is Not Loud Enough	Are you using the correct connector?	Connect your guitar to the AUX IN jack.
	Is the input impedance select switch set correctly?	Set <b>[AUX IN]</b> (input impedance select) switch to the <b>"Hi-Z"</b> position.
	Could you be using a connection cable that contains a resistor?	Use a connection cable that does not contain a resistor.
Microphone is Not Loud Enough	Connect your microphone to the INPUT 1-8 or AUX IN jack.	
	Is the input level set appropriately?	Adjust the input level. (p. 42)
	Could you be using a connection cable that contains a resistor?	Use a connection cable that does not contain a resistor.
Sound of the Device Connected to the Input Jacks is Distorted	Could the peak indicator of the VS-700R front panel be lighting?	If you are inputting audio via the INPUT 1-8 or AUX IN jacks, decrease the input level. (p. 42)

## Eliminating Clicks and Dropouts

If data cannot be recorded while recording audio, or if data cannot be fully processed during playback, SONAR will automatically halt. This is called a **dropout**. Clicks or pops may also occur if problems occur in communication between SONAR and the VS-700.

There are a variety of possible reasons why clicks, pops, and dropouts might occur. To eliminate the cause of the problem, follow the checkpoints listed below.

### If problems occurs even with small projects

#### Increase the Mixing Latency

Extremely short Mixing Latency settings will place an excessive processing load on your computer.

**cf.**

“About Mixing Latency” (p. 61)

#### Try changing the Driver Mode

Since the VS-700 supports both **WDM/KS** and **ASIO**, you can try changing the driver mode (p. 26).

**cf.**

“Audio Driver Settings” (p. 24)

#### Change the I/O Buffer Size

You may be able to solve the problem by changing the “**I/O Buffer Size**” in the “**Advanced**” tab of the “**Audio Options**” dialog box. The **I/O Buffer Size** specifies the size of the buffer used when reading from, or writing to the disk. This value will not affect the Mixing Latency. The default setting is 256, but you can try changing this to 512 if audio-related problems occur.

#### Install the correct device driver

Even for your non-audio devices, make sure that the correct device drivers for your computer system are installed and that your computer is running correctly. You should pay particular attention to this if you’ve modified your computer or added peripheral devices, or if you’re using a computer that you assembled yourself.

#### Lower the screen resolution

Some computers have graphics functionality that places a heavy load on the CPU. You may be able to lighten this load by lowering the screen resolution.

#### Uninstall the drivers of audio interfaces you’re not using

Some audio interfaces not intended for use in music production may cause problems with other audio interfaces (the VS-700). If SONAR does not perform as well as you expect, try using the **Device Manager** to **disable** the standard audio functionality of your computer, or physically remove it and then uninstall the device.

#### Disable other hardware devices

Other hardware devices may interfere with the performance of your audio device. We recommend that you disable any unnecessary hardware devices, such as network adapters and internal sound cards.

## If problems occur more frequently with large (heavy) projects

### Increase the Mixing Latency

Extremely short Mixing Latency settings may place an excessive load on your computer.

**cf.**  **“About Mixing Latency”** (p. 61)

### Use freezing or bouncing to reduce the load on your computer

If the size of the project exceeds the processing capability of your computer, you can reduce the processing load by freezing synthesizers or bouncing audio tracks.

### Update the driver of your audio device

In most cases, newer driver versions of the audio interface will have fewer problems and improved performance.

### Close other programs

If other programs are running, they will reduce the CPU resources and memory that are available to SONAR. It is best to close all programs that are not needed for your work.

### Change the VS-700 driver's buffer size

In some cases, reducing the VS-700 driver's buffer size may allow stable operation even with a shorter Mixing Latency.

**1. Before you change the driver settings, you must close all programs that are using the VS-700. This is not necessary if you're merely viewing the settings.**

**2. Open the “Control Panel” and click “VS-700.”**

\* If you don't see the above icon, click **“Switch to classic view.”**

The **“VS-700 Driver settings”** dialog box will appear.

**3. Adjust the “Audio Buffer Size.”**

To change the setting, make the desired setting and click [OK]. If you merely want to view the setting without changing it, be sure to click [Cancel] after you've noted the setting.

\* Execute SONAR's **“Wave Profiler...”** if you've changed the buffer size (unless you're using ASIO mode).

# Appendix

## VS-700 Driver settings

### Changing or Viewing the Settings

1. **Before you change the driver settings, you must close all programs that are using the VS-700. This is not necessary if you're merely viewing the settings.**
2. **Open the "Control Panel" and click "VS-700."**
  - \* If you don't see the above icon, click **"Switch to classic view."**The **"VS-700 Driver settings"** dialog box will appear.
3. **If you want to change the settings, change the settings and then click [OK]. If you merely want to view the settings, be sure to click [Cancel].**

For details about each item, refer to **"Controls in the Settings Dialog Box"** (p. 56).

### Controls in the Settings Dialog Box

- \* If you change the buffer size, you must restart the applications that are using the VS-700, or if your application has an audio device test function, you must execute that test function. Some applications may also have a buffer size adjustment as part of their own audio settings.

#### **"Audio Buffer Size" option**

Normally, you should leave the buffer size setting at the fifth position from the left.

#### **"Use Smaller ASIO Buffer Size" check box**

By selecting this check box you can minimize the buffer size when using an ASIO-compatible application.

If you hear clicks or pops in the sound when this check box is selected, **"clear the check box."**

- \* Adjust the **"Audio buffer size"** setting with this **"check box cleared."**

#### **"Use ASIO Direct Monitor" check box**

Select this check box if you want to use ASIO Direct Monitor functionality in your ASIO-compatible application.

#### **"Light Load" check box**

Normally, you should leave this **"check box cleared."**

- \* If you've made a change to the settings, you must disconnect the USB cable from the VS-700 and then reconnect it in order for the new settings to take effect.

#### **Driver information**

This shows the version of the currently installed driver.



## Uninstalling VS-700 Driver

### Windows Vista Users

1. **Start up Windows with all USB cables disconnected (except those for a USB keyboard and/or USB mouse, if used).**
2. **Close all applications before performing the uninstallation.**
3. **Open “Control Panel” and click “Uninstall a program.”**
  - \* If you’re using the Classic View, double-click the “Programs and Features” icon.
4. **In the list, choose VS-700 Driver, and click “Uninstall/Change.”**
5. **If a dialog box regarding User Account Control appears, click [Continue].**
  - \* If you are asked to enter the password for an administrative account, log on to Windows as a user whose account type is Administrator, and then perform the uninstallation.
6. **The display will indicate “The installed VS-700 Driver will be uninstalled.” and click the [OK].**
7. **When the message “Uninstallation was completed.” is displayed, click [OK] to restart Windows.**

### Windows XP Users

1. **Start up Windows with all USB cables disconnected (except those for a USB keyboard and/or USB mouse, if used).**
2. **Close all applications before performing the uninstallation.**
3. **Open “Control Panel” and click “Add or Remove Programs.”**
4. **In the list, choose VS-700 Driver, and click “Change/Remove.”**
5. **The display will indicate “The installed VS-700 Driver will be uninstalled.” and click the [OK].**
  - \* If any other message appears, follow the directions of the message.
6. **When the message “Uninstallation was completed.” is displayed, click [OK] to restart Windows.**


## Configuring VS-700 MIDI Ports

In order for SONAR 8 to communicate with the VS-700C console and Fantom VS Editor, you must enable and assign the VS-700 MIDI ports in SONAR.

### To Enable VS-700 MIDI Ports in SONAR

1. On SONAR's "Options" menu, click "MIDI Devices" to open the "MIDI Devices" dialog.
2. In the "Inputs" and "Output lists", select both "IO MIDI (VS-700)" and "FANTOM VS (VS-700)."

### To Configure SONAR VS-700 Control Surface Plug-in

1. On SONAR's "Options" menu, click "Controllers/Surfaces" to open the "Controllers/Surfaces" dialog.
2. Click the [Add Controller/Surface] button  to open the "Controller/Surface Settings" dialog.
3. In the "Controller/Surface" box, select "VS-700."
4. Assign both "Input Port" and "Output Port" to "CONSOLE (VS-700)."
5. Click [OK] to close the "Controller/Surface Settings" dialog.

### To Configure Fantom VS Editor

1. In Fantom VS Editor, click the [SETUP] menu button  and select "Set Up MIDI Devices" to open the "Set Up MIDI Devices" dialog.



**cf.**

For information on how to insert the Fantom VS Editor VSTi synth, refer to the SONAR VS-700 Owner's Manual.

2. In the "Fantom VS Editor Input/Output" lists, choose "Fantom VS" and click [OK].

## Giving Priority to Background Service (Windows XP)

On Windows XP, if you omit making this setting, you may experience sound dropout. By making this setting you may be able to solve such problems. Be sure to make this setting before you begin using the VS-700.

1. **Open the “Control Panel,” and double-click “System.”**
  - \* If you don’t see the above icon, click **“Performance and Maintenance,”** and then click **“System.”**
2. **Click the “Advanced” tab, click [Settings] located in the Performance area, and click the “Advanced” tab.**
3. **Choose “Background services,” and click [OK].**
4. **Click [OK] to close “System Properties.”**

# About Sampling Rates

\* SONAR does not allow you to change the sampling rate of a project that contains audio data.

The VS-700 allows you to choose from the following sampling rates: 44,100 Hz, 48,000 Hz, 88,200 Hz, 96,000 Hz, and 192,000 Hz.

**MEMO** Selecting a higher sampling rate will allow you to handle audio at a higher quality, but will require greater performance from your CPU, memory, and hard disk. If you are unsure of your computer’s capabilities, we recommend that you use 44,100 Hz or 48,000 Hz.

- 1. **Close SONAR.**
- 2. **Switch off the power on the VS-700R I/O unit and the VS-700C console.**
- 3. **Use the VS-700R I/O unit’s [SAMPLE RATE] knob to change the sampling rate.**
- 4. **Switch on power to the VS-700C console, then switch on the VS-700R I/O unit.**

Wait for the VS-700R I/O unit’s USB indicator to light.

- 5. **Start up SONAR. Even if an “Audio Driver Error” is displayed during startup, click [Use Anyway].**

**MEMO** An error message will not be displayed if you’re using ASIO.

- 6. **Execute the “Options | Audio” command to access the “Audio Options” dialog box.**
- 7. **Open the “General” tab, and specify the same “Sampling Rate” as you selected on the VS-700R I/O unit.**
- 8. **Click [OK] to close the dialog box.**

If you are asked to restart SONAR, proceed as directed by the screen. We recommend that if you’ve changed the Sampling Rate, you also execute “Wave Profiler...” located in the same dialog box.

- 9. **Restart SONAR.**

The changed sampling rate will take effect.

**MEMO** The sampling rate setting will also be reflected in new project files that you subsequently create.

\* The number of channels that can be used will depend on the sampling rate.

	44.1/48 kHz	88.2/96 kHz
Input 1–8	8	8
Digital 1 In	2	2
Digital 2 In	8	4
AUX	1	1
Total input channels	19	15
Main Out	2	2
Sub Out	2	2
Output 1–10	10	10
Digital 1 Out	2	2
Digital 2 Out	8	4
Total output channels	24	20

## About Mixing Latency

### MEMO

If the driver mode is set to ASIO, you won't be able to adjust the Mixing Latency from SONAR. Adjust the **"Audio Buffer Size"** from the **[ASIO Panel]**.

The Mixing Latency setting is closely related to how SONAR can take full advantage of your computer's performance. **Increasing** the mixing latency will allow more audio processing to be performed within SONAR. However, increasing the mixing latency will lengthen the time (latency) from when SONAR begins processing the audio until you actually hear the sound. Increasing the latency will adversely affect your MIDI keyboard playing.

The most suitable Mixing Latency setting will depend on the performance of your computer and on various settings, such as the sampling rate you're using. If you experience the following problems with the default settings, try adjusting the mixing latency.

### Notes are delayed when you play a software synthesizer from a MIDI keyboard

Lower settings for Mixing Latency will shorten the delay (latency) from when you play a key until you hear the sound from the software synthesizer.

However, shortening the latency may cause interruptions or dropouts in the sound; if this occurs, you won't be able to shorten the latency any further.

### Interruptions or dropouts occur during playback in SONAR

You may be able to reduce interruptions or dropouts by increasing the Mixing Latency.

### Procedure for setting the Mixing Latency

1. Execute the **"Options | Audio"** command to access the **"Audio Options"** dialog box. Open the **"General"** tab.
2. Click the **[Wave Profiler...]** button. If you see an indication that the operation ended successfully, the setting is OK. If the screen indicates **"Audio Driver Error,"** there may be a problem with the setting; check once again from step 1. on p. 24.
3. In the **"Mixing Latency"** area, use the **"Buffer Size"** slider to change the latency.  
The size of the specified Mixing Latency is shown in the latency field located below the slider. The size of the Mixing Latency is determined by two factors: **"Buffers in Playback Queue"** and **"Buffer Size."** Normally, you'll adjust the **"Buffer Size."** If you're trying to eliminate interruptions in the sound, you may be successful by increasing **"Buffers in Playback Queue"** to a value of 3–5.
4. Click **[OK]** to close the dialog box.  
If the screen indicates **"Audio Driver Error,"** there may be a problem with the setting; check once again from step 1. on p. 24.
5. Play back the project in SONAR, and listen to the playback. If necessary, return to step 1. and adjust the latency again.

\* If the driver mode is ASIO, adjust the **"Audio Buffer Size"** in the **[ASIO Panel]**.

## Multi-user Use

In order to install SONAR, you must log on as a user who has administrative privileges.

Once installed, SONAR can be used by any user (in Windows Vista) or a limited user (in Windows XP), as well as by a user who has administrative privileges.

## Uninstalling SONAR and Other Components

If you want to uninstall a component of SONAR or Rapture, use the following procedure to uninstall that component.

- 1. Log on as a user who has administrative privileges.**
- 2. Click the Windows “Start” button, and then click “Control Panel.”**
- 3. Click “Programs and Features” (in Windows XP, “Add or Remove Programs”).**
- 4. In the list of programs, click the component that you want to uninstall.**
  - \* Choose from “SONAR 8 Producer Edition,” “Rapture 1.1,” “VS-700,” etc.
- 5. Click “Uninstall” (in Windows XP, “Remove”) to uninstall SONAR.**
  - \* If a user account control dialog box appears, click Continue.
- 6. After uninstalling SONAR, restart Windows.**



**cakewalk**  
by Roland

