

# SonicCell Expandable Synthesizer Module and Audio Interface



## Using SonicCell with a DAW

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SCWS01

## About the Workshop Booklets

Roland's SonicCell is designed for modern musicians. Using USB, it adds a huge set of sounds to your digital audio workstation (or "DAW") without adding to your computer's workload. It's also an audio interface that can get signals from mics, instruments, or other devices to DAW tracks for recording. SonicCell's Editor software allows you to program SonicCell from within your DAW. Onstage, its compact size also makes SonicCell the ideal companion for a laptop DAW, letting you perform and sing along with recorded tracks. Or use it to play back sequences and audio files from a USB memory stick.

Each SonicCell Workshop booklet focuses on one SonicCell topic, and is intended as a companion to *SonicCell Owner's Manual*. This booklet requires SonicCell O.S. Version 1.11 or higher. You can download the latest SonicCell O.S. for free from [www.RolandUS.com](http://www.RolandUS.com).

## About This Booklet

This booklet provides an overview of using SonicCell with a DAW. We'll also provide instructions for installing SonicCell's driver and Editor, Librarian, and Playlist Editor software, and for configuring your computer for use with SonicCell. Other booklets get into the details of using SonicCell as an audio interface and of using it with specific DAWs.

## Understanding the Symbols in This Booklet

Throughout this booklet, you'll come across information that deserves special attention—that's the reason it's labeled with one of the following symbols.



A note is something that adds information about the topic at hand.



A tip offers suggestions for using the feature being discussed.



Warnings contain important information that can help you avoid possible damage to your equipment, your data, or yourself.

## Hot Links

Each Workshop booklet is meant to be read in order from beginning to end. However, if we mention an upcoming section—and you see this arrow—you can click the arrow to jump there immediately.



## The Players in a SonicCell/DAW System

### SonicCell

Your SonicCell acts as

- *a synthesizer*—that contributes sounds to a musical arrangement in your DAW.
- *an audio interface*—that can send live audio from mics and instruments into the DAW, and through which you listen to what you're doing.
- *a MIDI THRU box*—that passes MIDI data from your controller to the DAW for recording, or "sequencing."



### Your Computer

Your computer acts as host for the software you use, including

- *your DAW*—in which you record and play back MIDI and/or audio data.
- *the SonicCell Editor*—in which you select and edit SonicCell's patches.
- *the SonicCell Librarian and Playlist Editor*—you use for archiving SonicCell patches and for organizing files to be played from a USB memory stick.



### A MIDI Controller



When you play your MIDI controller—typically a keyboard—the controller sends out MIDI data representing your performance through SonicCell to

your DAW, which records the data on a MIDI track. The DAW also passes the MIDI data back to SonicCell, where it triggers SonicCell's synth, causing notes to play.

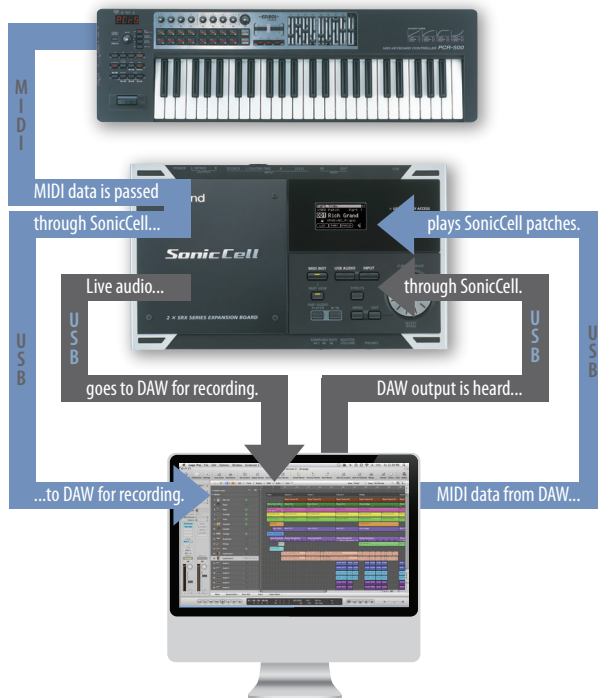


You can directly connect a MIDI controller to your computer and DAW if the controller supports MIDI over a USB connection or if you have a separate MIDI interface. In these booklets, though, we'll assume you're connecting your MIDI controller to SonicCell's MIDI IN jack.

After connecting your SonicCell, computer, and MIDI controller to AC power, you connect

- your MIDI controller—to SonicCell using a MIDI cable.
- SonicCell to your computer—using the included SonicCell USB cable.

Here's how MIDI and audio data moves between the system's components:



## The SonicCell/DAW Workflow

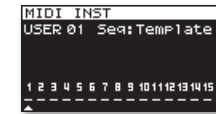
While we'll discuss each of the following actions in greater detail in subsequent booklets, here's an overview of how you can use SonicCell with a DAW.

### Some SonicCell Synth Stuff You Need to Know First

#### About SonicCell's Performance Mode

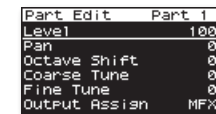
SonicCell is a 16-part multitimbral synth module, meaning that you can play 16 of its patches at once when SonicCell is in Performance mode. This is generally the best mode to use for sequencing. Here are a few things you need to know about Performance mode:

- Each patch is played by one of Performance mode's 16 available "parts."



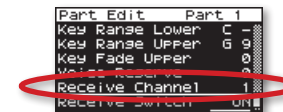
Parts 1-16 appear in SonicCell's default startup screen.

- Each part has its own settings that determine how its patch plays.



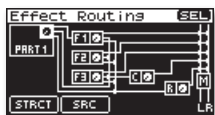
This is the first screenful of settings for Part 1.

- Each part receives MIDI data from the DAW on a specific MIDI channel.

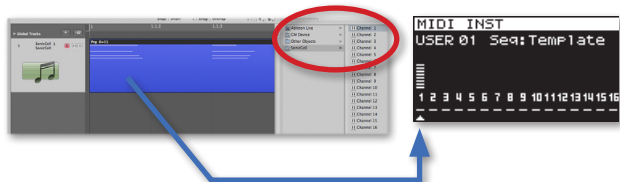


The MIDI channel to which Part 1 is currently set to respond.

- All 16 parts share an effect setup consisting of three multi-effects (MFX 1-3), a global reverb, and a global chorus.



- When you record and play back MIDI tracks in your DAW, the data is sent to SonicCell on the MIDI channel assigned to the desired part and patch.



- You'll bring your SonicCell sounds into the DAW—as audio tracks. You can do this as you develop your arrangement, or, since you'll be able to hear SonicCell's output as you work, when you've finished it.



If your DAW allows you to do a realtime, online bounce to capture your final stereo mix, you don't *have* to record SonicCell's sounds as audio tracks at all. You can simply set up an audio track to listen to SonicCell's output so that its sounds are included in the mix.

## Listening Strategy



When you use SonicCell with a DAW, the best way to work is to listen through SonicCell. Plug your headphones into SonicCell's PHONES output, or connect your speaker amp or powered speakers to SonicCell's L/MONO and R OUTPUT jacks. Once you've connected SonicCell to your computer, the DAW's output will automatically be sent into SonicCell so you'll hear:

- *SonicCell's own patches*—playing from SonicCell.
- *the output of your DAW*—including your already-recorded DAW audio tracks and soft synths.
- *mics or instruments plugged into SonicCell*—live through SonicCell.

This setup provides zero-latency monitoring that allows you to work without hearing any time lag between your patches, live sounds, and the DAW.



If you're an advanced Mac user, you can take advantage of Audio/MIDI Setup's ability to receive audio from SonicCell while monitoring through a different audio interface by creating an aggregate audio interface that includes both SonicCell and that other audio interface.



To learn more about MIDI, see the *Introduction to MIDI* InFocus booklet, which you can download from [here](#).

## About SonicCell's Patch Mode

If you need only one of SonicCell's patches, you can use SonicCell's Patch mode, where all of SonicCell's effect-processing power is dedicated to making that single patch sound its best. When you use Patch mode, send MIDI data to SonicCell on its Patch Receive Channel (shown as "RX Ch" on the Patch Play screen).



To learn about changing between Performance and Patch mode, see the *SonicCell Owner's Manual*.

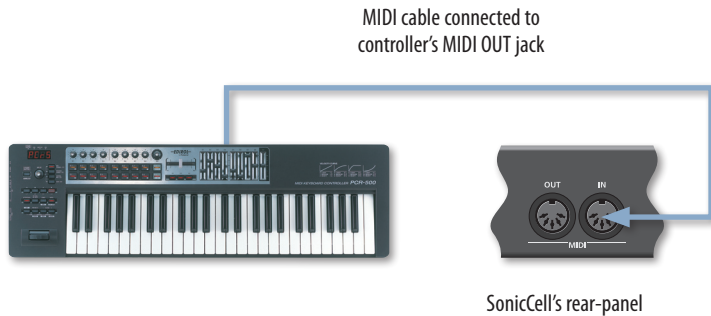
## What You'll Do with Your SonicCell and DAW

- You'll sequence a MIDI track in your DAW—for each SonicCell patch you want to use. For a new song, use SonicCell's PRST 01 Seq: Template performance, with its 16 parts conveniently set to MIDI Channels 1-16.
- You'll select, set up, and edit SonicCell's sounds and effects—using the SonicCell Editor plug-in on one of your DAW's other tracks.

## Setting Up Your MIDI Controller

### Connecting the MIDI Controller

First, connect your controller to SonicCell by connecting a MIDI cable from the controller's MIDI OUT jack of to SonicCell's MIDI IN jack.

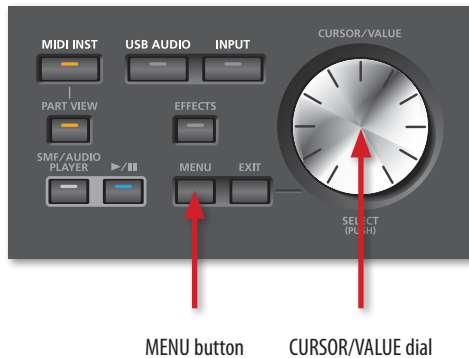


To learn how to use your MIDI controller, see its documentation.

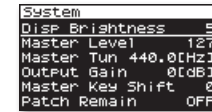
### Configuring SonicCell

Here's how to set SonicCell to pass a connected MIDI controller's data to your DAW via USB:

- 1 Press SonicCell's MENU button, and then turn the CURSOR/VALUE dial to select SYSTEM.

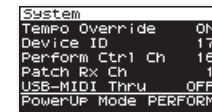


- 2 Press the CURSOR/VALUE dial to display the System menu.



The top of the System menu

- 3 Turn the CURSOR/VALUE dial to select the USB-MIDI Thru parameter.



- 4 Press the CURSOR/VALUE dial and set USB-MIDI Thru to ON.
- 5 Press EXIT twice to complete the operation.

To preserve this setting, press USB AUDIO or INPUT, and then MENU, and then the CURSOR/VALUE dial. Select **Ok** and press the dial again.

## Setting Up Your Computer

### Installing the SonicCell Driver and Editor

SonicCell works with the following computer operating (OS) systems:

- Windows XP™
- Windows XP 64-bit Edition™
- Mac OS X™
- Windows Vista 32-bit Edition™
- Windows Vista 64-bit Edition™

In the following steps we'll describe the installation of drivers for Windows XP 32-bit and Mac OS X, the two most common operating systems. (All of the SonicCell driver installers come with installation instructions in any event.)

The following instructions assume you're familiar with the operation of your computer. If you're not, consult its documentation.

## Downloading the Driver and Editor



Each driver installer includes details regarding the OS system requirements for its driver, as well as a list of cautions and limitations.

- 1 Point your browser to the following URL or click the link below:  
<http://www.rolandus.com/products/productdetails.aspx?ObjectId=897>
- 2 In your browser, click the Downloads tab.
- 3 Locate the desired driver, and click its name.
- 4 In the “End-User License Agreement,” click “I AGREE AND WISH TO PROCEED WITH DOWNLOAD”—the file downloads to your computer.
- 5 On a
  - *PC*—the downloaded file is automatically uncompressed. Locate the driver folder called “SonicCell\_WinXPDrvXXX,” and the Editor folder called “SonicCell\_PLE\_vXXX.” (“XXX” in both folder names here is the current version number.)
  - *Mac*—go to your standard download location and find the driver folder called “SonicCell\_MAC\_USBDrvXXX” and an Editor folder called “SonicCell\_PLE\_vXXX.” (“XXX” in both folder names here is the current version number.)

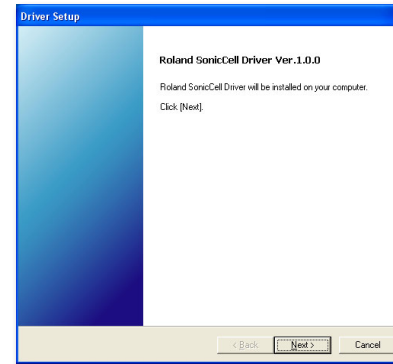


Depending on your version of Mac OS X, you may need to double-click the downloaded driver and Editor files to create the folders above—the files are called “SonicCell\_MAC\_USBDrvXXX.zip” and “SonicCell\_MAC\_PLE\_vXXX.zip,” respectively.

- 6 Inside each download’s folder, you’ll find its installer file.

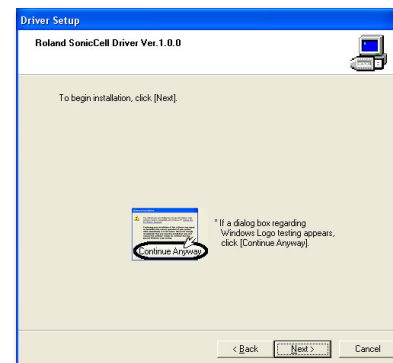
## Windows XP Driver Installation

- 1 Power up your PC with all USB cables disconnected except for your keyboard and mouse.
- 2 If any applications are running, quit them.
- 3 Open up the SonicCell\_WinXPDrvXXX [“XXX” is the current driver version] folder, and double-click the Setup file inside to display the following window:



If an “Install Program as Other User” dialog appears, quit the installer, and then log in as the system administrator before re-launching the Setup application from Step 3.

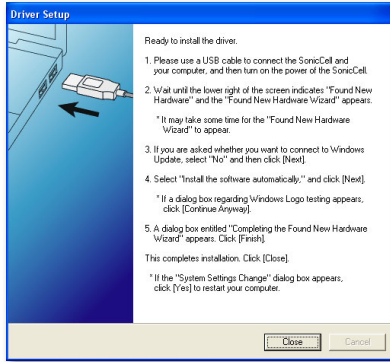
- 4 Click Next to display the installation start window:





If you see the Software Installation window instead of the one shown above, click Continue Anyway. If you can't continue, see "About Driver Signing Options" later in this booklet.

- 5 Click Next—the driver is installed and instructions appear telling you what to do next.

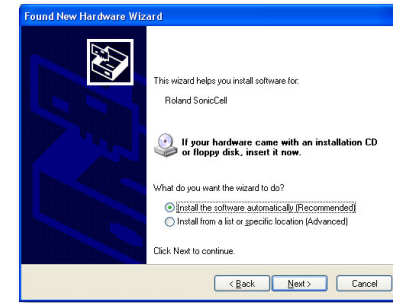


We'll take you through these instructions in this booklet, so you can close this window or drag it over to the side of the screen if you want to keep it open.

- 6 With SonicCell's power turned off, plug one end of the included USB cable into its USB jack, and the other end into the USB jack you want to use on your computer.
- 7 Turn on SonicCell—after a few moments, the PC's Found New Hardware Wizard window appears, as shown in the following screenshot.



If, instead of seeing the Found New Hardware window, you're asked if you want to connect to Windows Update, select **No, not this time**, and then click Next to display the Found New Hardware window.



- 8 Click the button to the left of "Install the software automatically (Recommended)," and then click Next to install the driver.

When the driver's installed, the wizard announces the completion of the installation process.



If the "Software installation" window appears after you click Next, click Continue Anyway. If you can't continue, see "About Driver Signing Options" later in this booklet.



If the "System Settings Change" window appears, click Yes to restart Windows, and jump ahead to "System Settings on Your Computer" after restarting.



- 9 Click Finish.  
Windows displays "Your new hardware is ready to use."
- 10 If the Driver Setup window's still open, click its Close button.
- 11 Jump ahead to "System Settings on Your Computer:"

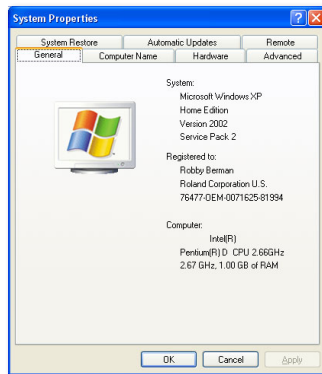


Should you ever need to remove the SonicCell driver from your system, the driver installer folder also contains an uninstaller. You can hold onto this file, or re-download the driver folder later should you need it.

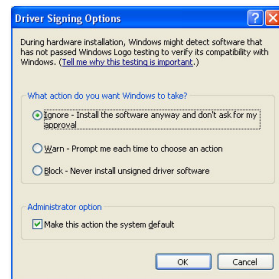
## About Driver Signing Options

The Driver Signing window lets you select whether Windows should block the installation of an unknown driver, warn you about it, or just install it.

- 1 In the Start menu, select Control Panel.
- 2 If you're in
  - *Category View*—click Performance and Maintenance, and then click System.
  - *Classic View*—double-click System.



- 3 Click the Hardware tab, and then click Driver Signing.
- 4 Set "What action do you want Windows to take?" to **Ignore** or **Warn**.
- 5 Click OK to close the Driver Signing window.



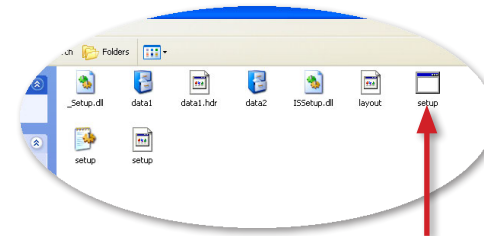
- 6 Click OK to close the System Properties window.
- 7 Return to the driver installation instructions earlier in this booklet.

## Windows XP Editor Installation



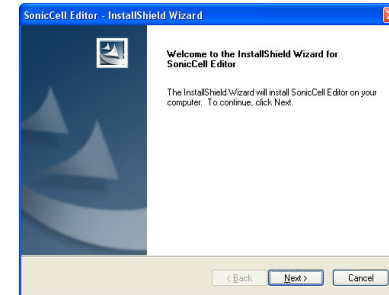
By default, this procedure also installs the SonicCell Librarian and Playlist Editor onto your computer's hard drive.

- 1 Locate the SonicCell\_PLE\_vXXX—where "XXX" is the current version number—and double-click the Setup executable file.



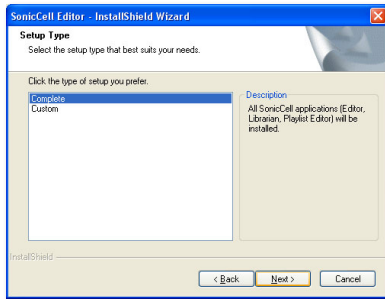
Double-click this Setup file.

The installer opens.



- 2 Click Next.
- 3 Read the License Agreement, and if you'd like to proceed with the installation, click Yes.
- 4 In the Choose Destination Location window, you can select a location on your hard drive for the SonicCell Editor—unless you have a specific reason to choose a different location, leave the default location as is—and then click Next to display the Setup Type window, shown on the next page.





- 5 Highlight the Complete installation to install all of the SonicCell applications, and then click Next.



If you'd like to install only particular SonicCell applications, click Custom to highlight it, and then click Next. Checkmark the items you want to install, and then click Next.

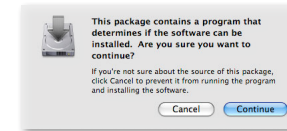
- 6 Again, unless you have a reason to select a new location for the installed SonicCell files, leave the installer set to the default location, and click Next. (To select another location, click Browse...)
- 7 The installer displays your installation selections and tells you it's now ready to install the SonicCell Editor. Click Next to proceed—the files are installed.
- 8 When the installer tells you it's finished, click Finish to close the installer.



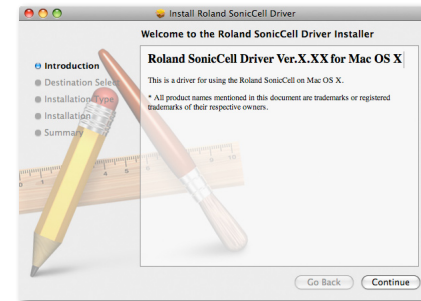
If you ever decide to remove the SonicCell Editor from your computer's hard drive, simply run the same Setup file you ran back in Step1. If the installer sees the Editor is already installed, it presumes you now want to remove it. You can hold onto your Editor installer folder, or re-download it later on should you decide you need it.

## Mac OS X Driver Installation

- 1 Close all other applications, and In the SonicCell\_MAC\_USBDrv101 folder, double-click the SonicCellUSBDriver.pkg file to launch the driver installer.
- 2 If you see the following sheet, click Continue.

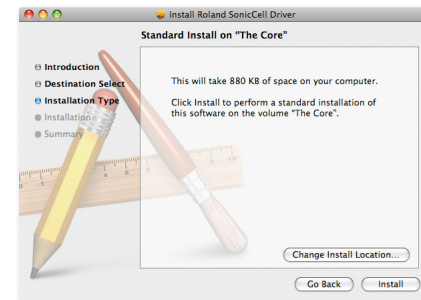


The installer splash screen opens:



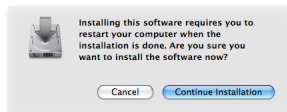
On some Macs, this screen may look different, with the smaller text on top telling you you're working with the driver installer and the larger text saying it's the Editor installer. This doesn't indicate a problem.

- 3 Click Continue.

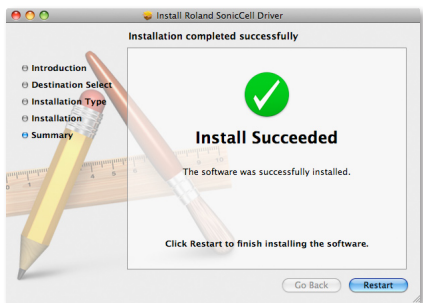


The installer presents this window in which you can change the installation location for the driver if you wish to. By default, the driver will be installed at /Library/Audio/MIDI Drivers so that any user of your computer can use the SonicCell. While we recommend you click Install without changing the default location, you can limit the use of the SonicCell to a specific user by changing the location to [user name]/Library/Audio/MIDI Drivers if you like.

- 4 Click Install, or Upgrade if you've previously installed an earlier version of the driver.
- 5 If the computer asks you to enter your computer's administrator password, type it in and click OK.



- 6 When a sheet appears telling you that you'll need to restart your Mac after installation is complete, click Continue Installation to install the SonicCell driver.
- 7 When you see "Install Succeeded," click Restart to restart your Mac.



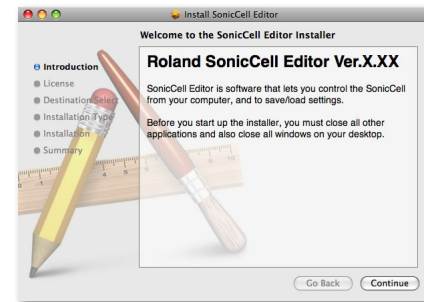
Should you ever need to remove the SonicCell driver from your system, the driver installer folder also contains an uninstaller. You can hold onto this file, or re-download the driver folder later should you need it.

## Mac OS X Editor Installation



By default, this procedure also installs the SonicCell Librarian and Playlist Editor onto your computer's hard drive.

- 1 Double-click the SonicCell Editor Installer.mpkg file. The installer window appears.



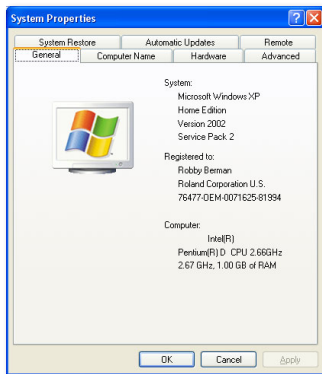
- 2 Click Continue.
- 3 After reading the software license agreement, click Continue, and the click Agree in the sheet that appears.  
  
A window appears in which you can change the installation location for the editor software, we recommend you leave the default setting as is and simply proceed to the next step.
- 4 Click Install.
- 5 When the installer asks for your administrator password, type it in, and then click OK to install the software.  
  
After the software's been installed, the SonicCell Editor folder opens and "Installation Successful" appears.
- 6 Click OK to close the installer.

## System Settings for Your Computer

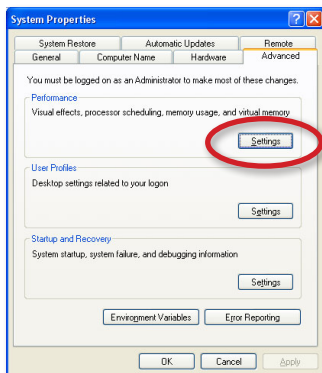
### Optimizing Your Windows PC for Audio

To optimize Windows XP for DAW audio operations

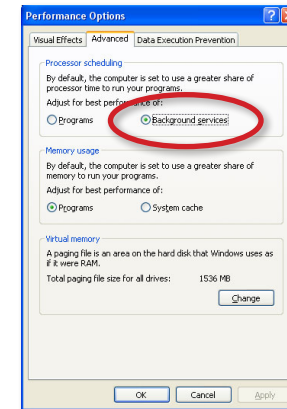
- 1 In the Start menu, select Control Panel.
- 2 If you're in
  - *Category View*—click Performance and Maintenance, and then click System.
  - *Classic View*—double-click System.



- 3 Click the Advanced tab, and then click the Performance Settings button.



- 4 In the Performance Options window, click the Advanced tab.
- 5 Select **Background Services** as shown here.



- 6 Click OK to close the Performance Options window, and then click OK to close the System Properties window.

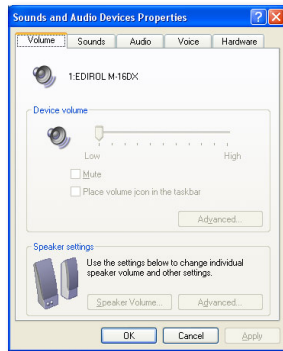


You'll find more tips on tweaking Windows XP for recording and playback at MusicXP.net, [http://musicxp.net/tuning\\_tips.php](http://musicxp.net/tuning_tips.php).

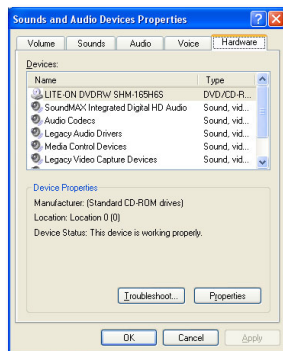
## Using SonicCell for System Sounds

### Sending Windows XP System Sounds to SonicCell

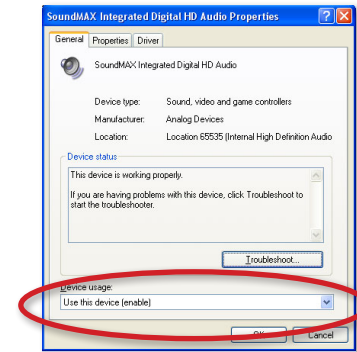
- 1 In the Start menu, select Control Panel.
- 2 If you're in
  - *Category View*—click Sounds, Speech, and Audio Devices, and then click Sounds and Audio Devices.
  - *Classic View*—double-click Sounds and Audio Devices.



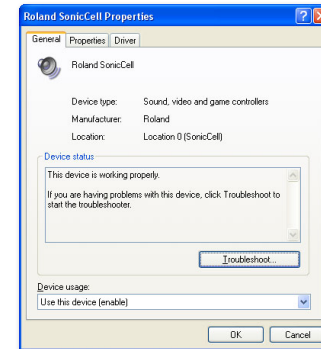
- 3 Click the Hardware tab to display a list of devices.



- 4 Double-click your current sound card in the list.



- 5 You'll need to disable the sound card so it doesn't conflict with SonicCell. If you want to disable the card
  - *for the current user of the PC*—set Device usage to **Do not use this device in the current hardware profile (disable)**.
  - *for all users of the PC*—set Device usage to **Do not use this device in any hardware profile (disable)**.
- 6 Click OK.
- 7 In the list, double-click **Roland SonicCell**.



- 8 Set Device usage to **Use this device (enable)**, and then click OK.

## Sending Mac OS X System Sounds to SonicCell

- 1 Open your System Preferences window.



- 2 Click Sound—circled above—to open the Sound control panel.
- 3 Click the Output tab, and select Roland SonicCell.

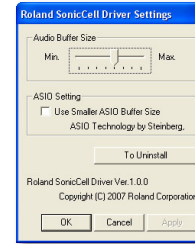


In the Sound control panel, you'll see SonicCell's current sample rate after "Roland SonicCell." We'll discuss sample rates in a bit.

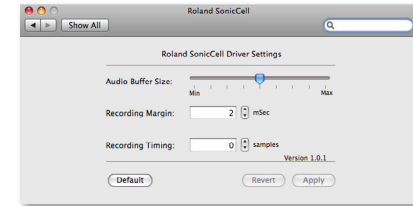
- 4 Close the Preferences window.

## The SonicCell Driver Settings

The SonicCell driver installer adds an SonicCell control panel to Windows, and a Preferences pane to Mac OS X. In these windows, you'll find controls you may need as you work with your DAW.



Windows XP



Mac OS X

The Audio Buffer size parameter can be helpful if you're having trouble successfully record or playing back in your DAW. Larger buffer settings can get rid of clicks and pops, though they also increase latency in the DAW.

## Matching Sample Rates



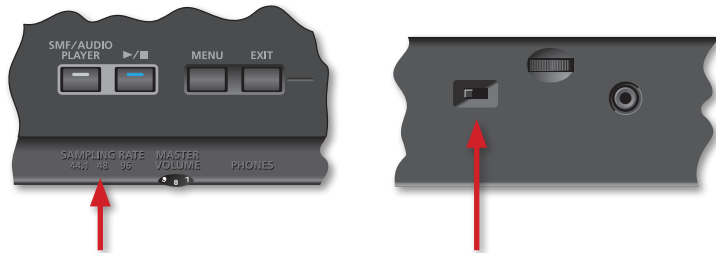
In digital audio, the number of times per second that a sample—essentially a snapshot—is taken of your audio is called the "sample rate." CDs use a sampling rate of 44.1 kHz, or 44,100 samples per second.

SonicCell can operate at 44.1 kHz, 48 kHz, and 96 kHz sampling rates, and you can select any one with which your DAW is also compatible. Use

- **44.1 kHz**—if you're recording music strictly for CD. Since 44.1 kHz is the sampling rate CDs use, you'll avoid having to apply sample-rate conversion later on.

- 48 kHz—for slightly better audio quality than 44.1 kHz if your destination media isn't a CD. If it is, you can still use 48 kHz, but the sample-rate conversion process you'll need to get the recording onto a CD will probably take away any benefits the higher sample rate's gotten you.
- 96 kHz—for very high-quality audio. Again this is mostly for recordings not destined for CD, for the same reasons as 48 kHz.

You set the sample rate for SonicCell using its front-panel SAMPLING RATE switch—simply set the switch to the desired sample rate.



Switch location viewed from the top.

SAMPLE RATE switch on front panel



After you change SonicCell's sample rate while it's connected to a computer via USB, you've got to either power it off and back on for the sample rate change to take effect, or unplug and re-plug either end of the USB cable connecting SonicCell and the computer.

If you're using Windows, you should now head over to the *Using SonicCell as an Audio Interface* Workshop booklet.

## Mac OS X Audio/MIDI Setup Settings

For some DAWs—such as Logic Pro™, GarageBand™, and Ableton™ Live—there's no further setup required before you launch your DAW. For others—such as Mark of the Unicorn's Digital Performer™—you'll need to create a SonicCell device in Mac OS X's Audio/MIDI Setup (AMS) application.



If you can't see SonicCell among the destinations you can select for MIDI data in your DAW, you need to create a SonicCell Audio/MIDI Setup MIDI device.

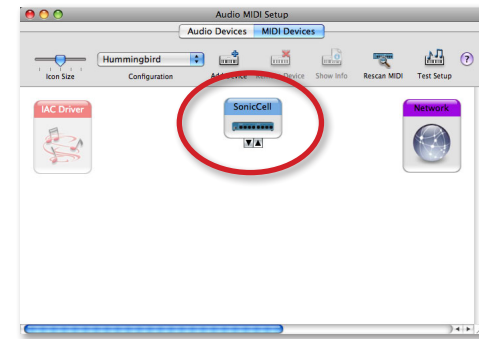
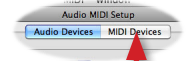
If you're using LogicPro, GarageBand, or Ableton Live, you should now head over to the *Using SonicCell as an Audio Interface* Workshop booklet.

Here's how to create an Audio/MIDI Setup SonicCell device:

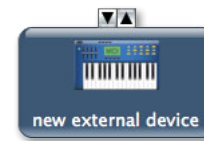
- 1 Launch Audio/MIDI Setup by double-clicking it—you'll find Audio/MIDI Setup in the Utilities folder within your Applications folder.
- 2 At the top of the Audio/MIDI Setup window, click the MIDI Devices button to open the MIDI pane of Audio/MIDI Setup.



Audio MIDI Setup

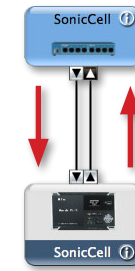
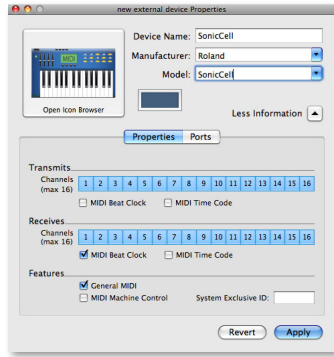


- 3 In the Audio/MIDI Setup window—and circled in red above—you see SonicCell as a MIDI interface. This object represents the MIDI jacks SonicCell provides to your Mac.
- 4 Click the Add Device button at the top of the screen—or select Add New External Device from the MIDI menu—to create a new external device object in the window.



This device will represent SonicCell's synthesizer, with its 16 parts.

- 5 Double-click the device, and enter its settings as shown on the next page.



The red arrows here show the direction in which you drag—you won't see them in Audio/MIDI Setup

- 8 Quit Audio/MIDI Setup. If you're using Digital Performer, head over now to the *Using SonicCell as an Audio Interface Workshop* booklet.

## The End

We hope you've found this workshop helpful. Keep an eye out for other SonicCell Workshop booklets available for downloading at [www.RolandUS.com](http://www.RolandUS.com).

You can make the SonicCell Audio/MIDI Setup device look like SonicCell. Go to your Library/Audio/MIDI Devices folder, and create a Roland folder there. Place a picture of SonicCell in the Roland folder. Once you do this, you'll be able to click the Open Icon Browser button shown above and select the SonicCell picture for your new device. If you have a live internet connection, you can download a picture to use by clicking [here](#).

- 6 Click Apply and close the window. Your new device is now called "SonicCell."



If you didn't add an icon to it, the SonicCell MIDI device looks like this.



If you added an icon to it, the SonicCell MIDI device looks like this.

- 7 Click and drag the left-hand arrow at the bottom of the SonicCell MIDI interface object—the one on top—to the left-hand arrow on the SonicCell synth object, and do the same for the objects' right-side arrows until the connection between the two looks like the following picture.

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