

# Kurzweil PCR-2

*Classic Keys Expansion board for the PC1*

## *Installation Instructions*

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**Part Number: 910412 Rev. C**

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<http://www.kurzweilmusicsystems.com>

*These Installation Instructions are valid for both the 88-key PC1x and the 61-key PC161 models. For statements that apply equally to both models, the generic name, PC1, will be used. Otherwise the specific model name, either PC1x or PC161, will be used.*

Thank you for purchasing a PCR-2 ROM Expansion Kit for the PC1. The PCR-2 for the PC1 provides an array of classic keyboard sounds, and adds 128 programs and 32 setups to your PC1.

Please read all of the introductory information in this document (through *Tools and Materials Required for Installation*) before proceeding with the installation. Finally, go to *Updating Software* on page 7 to update your PC1 software.

## Contents of the Kit

In addition to this installation guide, your PCR-2 kit should contain the following items:

- Expansion board (single inline memory module, or SIMM)
- CD containing updated PC1 software
- Keyboard overlay with ROM2 sound categories, cut to fit over the **Sound Select** buttons on the PC1's front panel
- User's Guide describing new software features, as well as information about programs and setups

## Safety Precautions

To prevent risk of electrocution, make sure that the PC1 is disconnected from its power supply before you begin disassembling the instrument.

Static electricity, even in small amounts, can cause damage to electronic components (especially memory). Before disassembling the instrument, touch a conductive metal surface to discharge any static electricity that you may have built up.

## Saving Your Data

You may be upgrading your PC1's software as part of this installation, which means that you'll need to do a hard reset before returning to normal operation. The hard reset initializes the PC1 so that it can use the new sounds and programs. It also deletes all user-defined data (programs, setups, and effects) from the PC1's memory. If you don't want to lose your user data when you install this option, do a SysEx dump of all objects before you begin the installation.

## System Requirements

If your instrument is a PC1x, it must have OS version 2.0 or later in order to work correctly with ROM 2. The PC161 supports ROM 2 from OS version 1.0. If you do not need to update your software, proceed to the installation procedure (page 6).

### Checking Software Versions

There are two ways to check the version of the operating system software. The first is to watch the display as the instrument powers up. During powerup, the display shows several messages. One of these messages is Wel come to the PC1x or PC161; this message also indicates the version of the operating system software on the bottom line of the display.

The second way to check the version of the operating system software is to check the value of the OS Version parameter in the Global menu. Press the **Global** button, then press the **Right** cursor button until you see a parameter called OS Version. If you do not see this parameter, then you will need to update your OS software.

Whichever method you use, if the operating system version is earlier than 2.0 and you have a PC1x, you need to update your operating system software. See page 7.

## Tools and Materials Required for Installation

- #2 (medium) cross-recess (Phillips head) screwdriver
- Two thick foam pads (keyboard models only)

You'll need a flat work area large enough to accommodate the disassembled instrument. The foam pads listed in the required materials will protect the Alpha Wheel and knobs on keyboard units.

### Tools and Materials Required for Software Updates

If you need to update your operating system software, you'll also need the following:

- Stand-alone sequencer or MIDI file player that has a CD-ROM drive and can send System Exclusive (SysEx) data—or a personal computer (either Windows-compatible or a Macintosh or other computer capable of reading DOS disks and files)

equipped with MIDI interface, CD-ROM drive, and sequencing software capable of sending SysEx data.

- MIDI cable

If you do not have a device with a CD-ROM drive, you can download the files from our website, [www.kurzweilmusicsystems.com](http://www.kurzweilmusicsystems.com).

## Sequencer Software for Windows-Compatible Computers

### Shareware/Freeware

Windows Media Player. You need to have version 5 or later of Media Player—older versions will not work correctly. You can download Windows Media Player from the following website

<http://www.microsoft.com/windows/windowsmedia/download/default.asp>

Please note that Alesis Freeloader, which we recommend for the Mac, is buggy in the PC version and will *not* work correctly.

### Commercial software

Logic (from EMAGIC)

## Sequencer Software for Macintosh Computers

### Shareware/Freeware

Alesis Freeloader is available at the following website:

<http://www.alesis.com/downloads/software/freeloader>

Please note that Windows Media Player, which we recommend for the PC, is buggy in the Mac version and does NOT work.

### Commercial software

Performer (from Mark of the Unicorn)

Logic (from EMAGIC)

## Installing in the PC1

### Removing the Access Panel

1. Make sure that the PC1 is disconnected from its power supply, and that you've discharged any residual static electricity by touching a conductive object (like the metal casing of the PC1 itself).
2. Position the foam pads on your work surface so that they'll support the ends of the keyboard.
3. Place the PC1 face-down on the foam pads, with the keyboard facing away from you. Make sure that the PC1 is not resting on the Alpha Wheel or sliders.
4. Using a #2 Phillips screwdriver, remove the seven screws that secure the access panel.
5. Remove the access panel by lifting its far edge and pulling it up and away from you.

### Installing the PCR-2 Board on the Engine Board

This section describes the basic installation.

1. Locate the SIMM socket. It is about 4" long and near the front of the access slot.
2. Grasp the board so that the chips face away from you when you insert the connecting edge of the board into the socket. Notice the semi-circular notch at the center of the connecting edge. This notch aligns with a key on the SIMM socket, and ensures that you position the board correctly in the socket.
3. Place the board in the connection slot of the SIMM socket, aligning the notch in the board with the key in the socket. The board will rotate toward you when you release it.
4. Press straight down on the top edge of the board until the locking tabs at each side of the socket snap into place.

### Reassembly and Hardware Verification

1. Replace the access panel, and replace the retaining screws.

2. Turn the PC1 on, and watch the display. The display should show Welcome to the PC1x or PC161, then should go to the program mode.
3. Press the **Global** button, then press the **Right** cursor button repeatedly to scroll through the parameters until you find the parameter named **Expansion**, which should have a value of **Yes**. If the value of the **Expansion** parameter is **No**, the PCR-2 board isn't installed properly on the main engine board. You should repeat the installation procedure or consult a Kurzweil dealer or certified service center.

## Updating Software

If you have not checked the software versions yet, you should do so now. If your instrument is the PC1x, the "Classic Keys" option requires version 2.00 or higher. The PC161 do not need to update the software.

See *System Requirements* on page 4 to learn how to check software versions.

You update your OS by using a sequencer application to load a MIDI file(.mid) into the PC1's flash ROM. The file is named **pc1x200.mid**. The version number is indicated by the last three digits in the filename. A more recent version would have a higher number in the filename.

### Saving Objects

Updating software components requires you to do a hard reset before resuming normal operations. This deletes all user-defined information from the PC1's memory. You should dump all user-defined programs, setups, and effects to an external storage system (like a computer sequencer) before updating your software. Otherwise, they'll be lost.

See the programming chapter in your PC1 *Musician's Guide* for information about dumping programs and other objects.

### Preparing Your Sequencer

You'll need either a standalone sequencer, or a personal computer with a MIDI interface and sequencing software.

1. Connect a MIDI cable from your sequencer's or computer's MIDI Out port to the PC1's MIDI In port.
2. Launch the sequencer application.

### Launching the PC1's Boot Block

You'll need to run the boot block for any software updates you make (including updating the boot block itself).

1. If the PC1 is on, turn it off.
2. Turn the PC1 on, and watch the display.
3. When you see `Please wait . . .`, press and release the **Panic** button. After a few seconds, you'll see `Install FlashROM via MIDI`. This is the boot block.
4. Follow the instructions below.

### Updating Operating System

The operating system software, together with the soundware data, are part of the PC1 sound engine. You'll use the `Install FlashROM via MIDI (sound engine)` option to install both the operating system software and the soundware.

1. If the boot block is not already running, launch it as described above.
2. When the boot block has finished launching, the display shows `Install engine via MIDI`.
3. Press **Yes** again. The display changes to `Waiting for MIDI`.
4. If necessary, insert the PC1 CD into the sequencer's or computer's CD-ROM drive.
5. Find and open the appropriate MIDI file for your PC1. The version number (last three digits) must read 200 or higher.
6. Play the MIDI file. The top line of the display shows `SYS3-0 file 1 of 1`, and the bottom line shows `segment 1 of 31`. When the display shows `Done`, stop the sequencer if it doesn't stop automatically. As soon as you see `Done`, you can go on to the next step.



7. Proceed to *Doing a Hard Reset* below.

### **Doing a Hard Reset**

This procedure assumes that you're in the boot block menu. If you aren't, relaunch the boot block (see page 8 if you need a reminder), then proceed.

1. Press the **Left** or **Right** cursor button until you see Hard RESET in the bottom line of the display.
2. Press **Yes**. The display prompts you with a question: Erase RAM objects?
3. Press the **Right** cursor button. This performs the hard reset and returns you to the boot block menu.
4. Follow the instructions in *Returning to Normal Operations From the Boot Block Menu* below.

### **Returning to Normal Operations From the Boot Block Menu**

1. Press the **Left** or **Right** cursor button until you see Run engine in the bottom line of the display.
2. Press **Yes**. After a few seconds, you'll be back in performance mode. You're now ready to verify the software installation.

### **Verifying the Software Installation**

This procedure assumes that you've properly installed the hardware portion of the PCR-2 option, verified the installation (as described on page 6), executed a hard reset, and returned to a performance mode.

1. Press the **Global** button to enter the menu of global parameters.
2. Press the **Right** cursor button repeatedly until you see the parameter named OS Version. The version number in the display should match the version number in the name of the operating system file you installed (the version must be 2.0 or later for the PCR-2 option to work with the PC1x).

See the troubleshooting section below if any of the steps in the verification procedure gave you the wrong result.

## Troubleshooting for Software Updates

You're not likely to have problems updating your software. In fact, there are very few things that can go wrong:

### **Display is Stuck at Waiting for MIDI**

The MIDI signal isn't getting to the PC1. Make sure that the computer or sequencer's MIDI Out is connected to the PC1's MIDI In. Make sure the cable isn't defective. Try another cable if necessary.

### **Display Never Shows Done**

It's possible that the PC1 isn't receiving all of the MIDI file data. Try playing the MIDI file at a slower tempo.

It's also possible that there's an issue with your MIDI interface. Installing the latest version of your interface's USB driver (available from the interface's manufacturer) may help. You might also try a different MIDI interface.

### **Version in Display Doesn't Match Version of File**

If the version number you see in the display doesn't match the version number on the file you installed, the file didn't get installed properly.

Try installing the file again. Watch the display carefully to make sure the instrument is receiving data from the sequencer. Make sure that you see Done in the display before stopping the playback of the file.

If you downloaded or copied any of the files, one or more of them may be corrupted. Try downloading the files again. The address for the Kurzweil website is [www.kurzweilmusicsystems.com](http://www.kurzweilmusicsystems.com).

If you're still having problems, consult a Kurzweil dealer or service center.