

# PC3A



## GETTING STARTED GUIDE

for  
PC3A8, PC3A7, PC3A6

**KURZWEIL®**

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[www.twitter.com/KurzweilMusic](http://www.twitter.com/KurzweilMusic)



[www.youtube.com/user/KurzweilTutorials](http://www.youtube.com/user/KurzweilTutorials)

# Introduction

Your new instrument offers amazing acoustic, electric, and synthesizer sounds, combined with advanced programming features that will let you create almost any sound you can imagine. The PC3A comes loaded with 256 MB of ROM sounds, including:

- The Original PC3K set.
- The KORE64 expansion set (featuring improved guitar, drums, synth, brass, and woodwind sounds).
- The German D Grand EXP expansion set (featuring improved acoustic piano sounds).

In Program Mode, press the Exp 1 Bank button to access KORE64 Programs (IDs 3200-3590), or press the Exp 2 Bank button to access the German D Grand EXP Programs (IDs 3700-3730). By default, program 3700 will be selected when the PC3A is first powered on.

## How to Use This Guide

This Quick Start Guide describes how to connect and power up your PC3A, and to hook up the PC3A to your sound system and MIDI system. It provides an overview of the front panel, and a brief description of the operating modes to help you start playing music with the instrument. It covers the PC3A in its 88, 76, and 61-note configurations (PC3A8, PC3A7, and PC3A6).

For detailed information on editing and advanced programming features, refer to the *PC3A Musician's Guide* provided on the Kurzweil website:

<http://www.kurzweil.com>

The best way to read this guide is with your PC3A in front of you. By trying the examples we give to illustrate various functions, you can get a quick understanding of the basics.

## Do I Have Everything?

Your PC3A shipping carton should include the following in addition to your instrument:

- Power cable
- Sustain pedal
- USB cable
- *Getting Started* manual (this book)

If you don't have all of these components, please call your Kurzweil/Young Chang dealer.

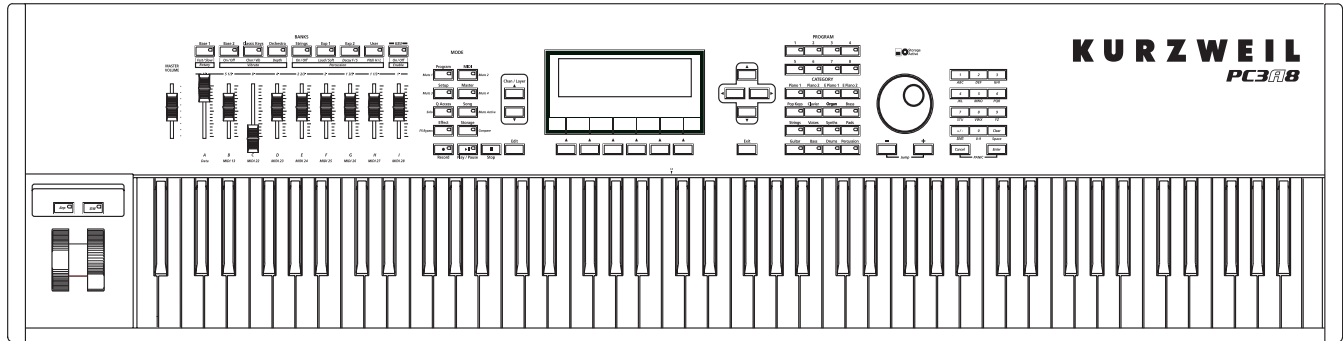
You may also want to purchase a USB thumb drive for portable backups and storage.

## Updates and Boot Loader

Check for new documentation and operating system upgrades before you start using your instrument. When new software is available for the PC3A, it will be posted at [www.kurzweil.com](http://www.kurzweil.com). You'll use the PC3A's Boot Loader to upgrade your instrument to use the new software. To bring up the Boot Loader, hold down the Exit button (below the cursor buttons, to the right of the display) while powering on your PC3A. When you've downloaded an upgrade, you can install it yourself in a matter of minutes. Follow the instructions included with the upgrade files.

## Overview of the PC3A

Pictured below is the 88-key PC3A8.



The PC3A's 1400+ programs include improved piano sounds from the German D Grand EXP expansion, and improved guitar, drums, synth, brass, and woodwind sounds from the KORE64 expansion. Also included are string sections from the Orchestral and Contemporary sound blocks, Stereo Triple Strike Piano, Classic Keys for realistic vintage electric piano sounds, and General MIDI (GM) sounds. Multi-zone performance setups are also provided; many of these setups use note triggers to play factory-recorded songs that provide grooves and arpeggiation that make great templates for performance or recording. An on-board sequencer with front panel transport buttons lets you record your ideas any time inspiration strikes. This sequencer (Song mode) lets you play back MIDI type 0 or 1 sequences, record and play back your own songs, and record multi-timbral sequences received via MIDI.

In addition to V.A.S.T. capability, a few of the features that by themselves make the PC3A an impressive stage and studio machine are:

- 128-voice polyphony
- Fully multi-timbral voices, so that different programs can be played on each MIDI channel.
- An on-board digital effects processor provides multiple simultaneous effects, including real-time effects control, internally or via MIDI.
- More effects processing power than Kurzweil's own KSP8 studio effects processor.
- Two additional balanced analog outputs in addition to the standard stereo audio output pair, as well as a digital output. All of the outputs are available simultaneously.

For backup, storage, and moving files, two types of USB ports are provided on the back panel of the PC3A. A USB storage port allows you to connect a USB device such as a thumb drive, and a second USB Computer port lets you connect the PC3A to a computer for file transfer and MIDI connectivity.

## Options

Ask your Kurzweil dealer about the following PC3A options:

### Sound ROM Expansion Card

The PC3A has the KORE64 and German D Grand EXP cards installed as standard components.

### Pedals

The PC3A has jacks for three switch pedals (for functions like sustain or program /setup changes) and two continuous pedals (for functions like volume control and wah). Your Kurzweil dealer stocks the following optional pedals:

FS-1	Standard box-shaped switch pedal
KFP-1	Single piano-style switch pedal
KFP-2M	Double piano-style switch pedal unit
CC-1	Continuous pedal

### Ribbon Controller

There's a dedicated modular jack (like a telephone jack) on the rear panel of the PC3A for connecting this 600-mm (24-inch) ribbon controller. You can configure the PC3A to use the ribbon as a single large controller, or a three-section controller with independent settings for each section.

### Breath Controller

You can plug a Yamaha (or equivalent) breath controller into the dedicated jack on the PC3A's rear panel.

### USB Storage Device

You can plug a USB mass storage device such as a "thumb drive" or memory stick into the PC3A for backing up, archiving, sharing your work, and updating your software. Any size USB mass storage device will work, though thumb drives are recommended for their portability, durability, and low price.



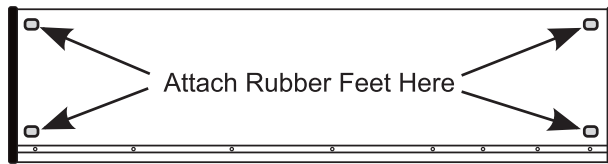
*Note: Most USB thumb drives are compatible with the PC3A, but some older USB thumb drives and larger USB bus powered drives will not work with the PC3A if they require more than 100 mA of current (high power USB devices). When attempting to use an incompatible USB device, the PC3A will display the message "USB device requires too much power." The PC3A is designed to work with low power USB devices and can provide a maximum of 100 mA to a USB device. Power requirement specifications for thumb drives are not always made clearly available by the manufacturer, but a newly purchased thumb drive will most likely be compatible. If possible, check the power requirement specifications of your USB device before purchase.*

# Startup summary

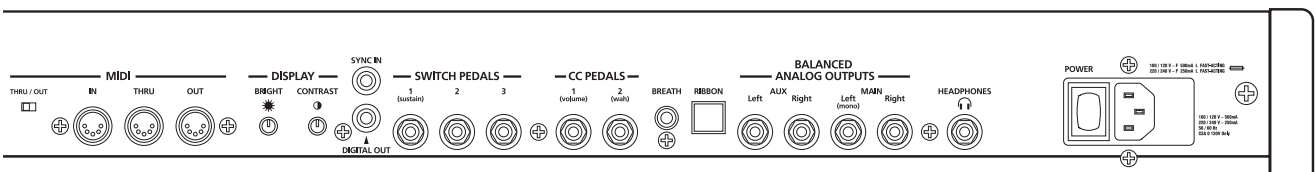
If you are familiar with Kurzweil instruments and are comfortable making system connections, here is a quick summary of the necessary steps. More detailed instructions are on the following pages.

## Making Connections

1. Set the keyboard on a hard, flat, level surface. Make sure to leave plenty of room for ventilation.
2. Four adhesive-backed rubber feet are provided with your PC3A. If you want to attach them to the bottom of the PC3A (recommended to prevent scratching your tabletop), carefully turn the keyboard over, remove the paper backing from the rubber feet and attach them now, near each corner, all on the same level.



3. Connect the AC power cable to the rear panel.
4. Make sure your sound system is at a safe volume level. Also make sure that the PC3A's MASTER VOLUME slider (on the far left side of the front panel) is all the way down.
5. Plug in a pair of stereo headphones to the jack labelled on the rear panel, or run standard (1/4-inch) audio cables from your amplifier or mixer to the MIX audio outputs on the PC3A. (Use the Main Left out for mono.) Balanced ("TRS" or "Stereo") cables are recommended.
6. You may also want to adjust the display contrast and brightness, using the two small knobs on the rear panel of the PC3A for this purpose.



## Making Music

1. Plug the power cable into an AC source and power up your PC3A with the switch on the rear panel, next to the power cord connector. Raise the level of the MASTER VOLUME slider, and check out some of the programs and setups. The PC3A starts up in Program mode by default.
2. If you hear distortion, reduce the gain on your mixing board (or use the pad if it has one).
3. Scroll through the program list with the Alpha Wheel, or the dedicated **Category** and **Program** buttons, to try the PC3A's many sounds.

# Startup in Detail

This section walks you through details of setting up your PC3A and connecting optional components.

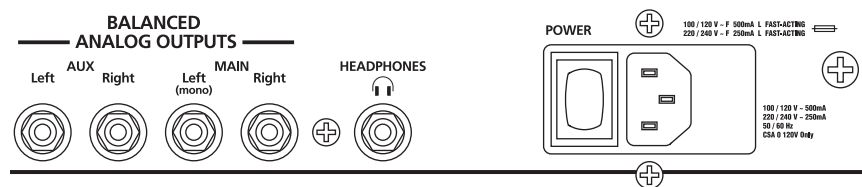
## Before You Start...

Don't connect anything until you make sure your PC3A is properly and safely situated. Also, if your PC3A has been out in the cold, give it time to warm up to room temperature before starting it, since condensation may have formed inside the PC3A. It is normal for the rear panel near the MIDI jacks to become warm after a while.

## Connecting the Power Cable (Line Cord)

The PC3A runs on AC power: 100, 120, 230, or 240 volts at 50–60 Hz. Your dealer will set the voltage selector to match the voltage in your area. The voltage level is set with a selector on the rear panel of the PC3A. Unless you are sure it needs to be changed, you shouldn't adjust this.

When you've connected the cable at the PC3A end (as you face the back of the PC3A, the power connection is at the right), plug it into a grounded outlet. If your power source does not have the standard three-hole outlet, you should take the time to install a proper grounding system. This will reduce the risk of a shock.



## Switching On the Power

The PC3A's power switch is on the rear panel, adjacent to the power cable connection.

When you power up, the display briefly shows some startup information. The Program mode display then appears. The first time you power up (or after a reset), your instrument will be set to operate on MIDI Channel 1 (as shown at the far right of the display's top line). It will look similar to the diagram below, though your PC3A may be different from the example.

```

ProgramMode  XPI0st  Grand Exp:1  #Ch:1
  1-4/15 layers  3589 BonzoLE
Damper Pedal fas  ∞  3590 KitLiteBeatbx101
Pedal Release 2  ∞  3700 Concert Piano
Db/7c/7a/7n DivL ∞  3701 Rock Piano
Db/7c/7a/7n DivL ∞  3702 Recital Piano
Octav- Octav+ Panic Info XPose- XPose+

```

## Connecting Audio Cables

### Analog

With the level on your sound system turned down, connect the PC3A's analog audio outputs using a pair of stereo or mono audio cables. Mono cables will always work. If you are going into balanced inputs, stereo cables will give a better signal-to-noise ratio and a bit more volume. The PC3A's analog outputs are balanced, and generate a "hotter" signal than some previous Kurzweil instruments.

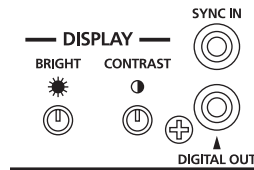
Four 1/4-inch balanced audio output jacks are on the rear panel. To begin, connect one end of each audio cable to your mixing board or PA system inputs, and connect the other end to the jacks marked **Main Left and Right** on the rear panel of the PC3A. If you have only one input available, use the PC3A's Main Left output to get the full signal in mono.

Using Master Mode you can set the Aux outputs to duplicate the Main Outs, which is useful for monitoring and other operations. They are always in stereo, as is the headphone output.

### Digital

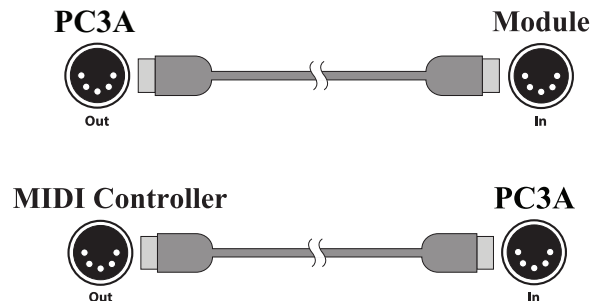
For digital audio output from the PC3A, connect a 75-Ohm coaxial cable from the PC3A's RCA Digital Out jack to the AES or S/PDIF input of the receiving device. You may need an RCA-to-XLR adapter to connect with the receiving device. If the receiving device receives only optical signals, you'll need a converter as well. The PC3A's Master Page (press the Master mode button) lets you select a range of useful sample rates for the digital output.

The RCA jack labeled "Sync In" allows you to synchronize the PC3A's S/PDIF Digital Audio output sample rate to an external S/PDIF source. Although no audio signal is received by the "Sync In" jack, its clock is received and may be used to set the output sample rate. For details, see the Master Mode OUTPUT page parameter. *NOTE: Sync In is NOT a "Word Clock" input. Only a valid S/PDIF signal is recognized.*



## Connecting MIDI

The simplest MIDI configuration uses a single 5-pin MIDI cable, either from the MIDI Out port of your PC3A to the MIDI In port of another instrument, or from the MIDI Out port of another MIDI controller to the MIDI In port of the PC3A.

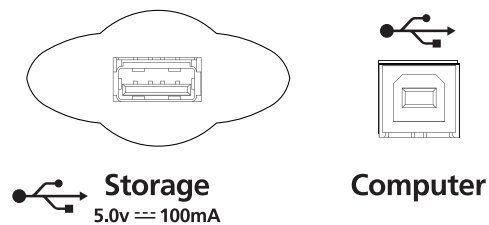




There are many possible MIDI configurations. Depending on your system, you may want to use the PC3A's MIDI Thru port to pass MIDI information from a MIDI controller to the PC3A and on to the next device in your system. The MIDI Thru port can be configured to serve as an additional MIDI Out by sliding the nearby switch to the Out position.



You can also use the PC3A's USB Computer port to send and receive MIDI. By default the PC3A will show up as a USB MIDI device. USB MIDI and 5-pin MIDI can be used at the same time; the MIDI signals will be combined into a single 16-channel MIDI stream.



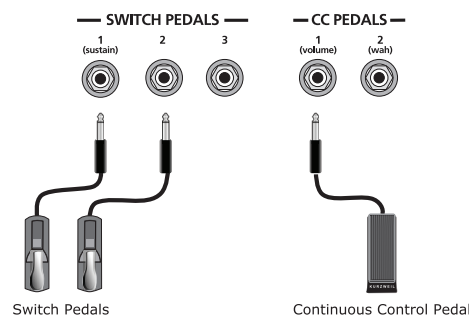
Consult the *PC3A Musician's Guide* Chapter on MIDI and Storage Mode for more information on using the USB ports.

## Pedals

Plug your switch or continuous pedals into the corresponding jacks on the PC3A's rear panel. Do not press any of your switch pedals while powering up, because the PC3A verifies each pedal's orientation during power up.

We recommend using Kurzweil pedals but you can use almost any switch or continuous pedal, as long as it adheres to the following specifications (as most pedals do): If you use a third-party (non-Kurzweil) switch pedal, make sure it's connected before you turn on your PC3A. This ensures that the pedal will work properly.

Switch pedals	$\frac{1}{4}$ -inch tip-sleeve plug
Continuous pedals	10-kOhm linear-taper potentiometer, $\frac{1}{4}$ -inch tip-ring-sleeve plug with the wiper connected to the tip.



The default settings for the five pedals you can use with the PC3A are:

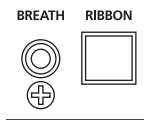
Switch Pedal 1	<b>Controller 64 (Sustain)</b>
Switch Pedal 2	<b>Controller 66 (Sostenuto)</b>
Switch Pedal 3	<b>Controller 67 (Soft)</b>
Continuous Control Pedal 1	<b>Controller 11 (Expression / Volume)</b>
Continuous Control Pedal 2	<b>Controller 4 (Foot Pedal)</b> <i>produces a “wah” effect in many setups</i>

The pedals are independently programmable within each zone of every setup. Consult the *PC3A Musician’s Guide* for instructions on programming.

## Breath

The 3.5mm jack labeled Breath accepts a standard breath controller, which sends standard MIDI Breath (MIDI 2) messages. The PC3A’s preset programs and setups don’t respond to Breath, but if you have other instruments that *do* respond to Breath, you can control them from the PC3A via MIDI.

You can also program the PC3A so that the breath controller sends a different MIDI message. This would enable you to use a breath controller to affect the PC3A, but then other instruments receiving MIDI from the PC3A would no longer respond to the PC3A’s breath controller (unless you also programmed them to receive the same MIDI Controller that the PC3A’s breath controller is sending).



## Ribbon

Plug the optional Kurzweil Ribbon Controller into the modular Ribbon jack on the rear panel. The ribbon controller itself should rest on a flat surface; it fits nicely between the keys and the buttons and sliders on the front panel.

The ribbon is a continuous controller. You can program the ribbon controller to send MIDI Controller messages 1–127, as well as several specialized messages. It generates values of 0–127 for whatever MIDI Controllers you assign it to send. Just press it, and slide your finger along the ribbon to change the value of the message it’s sending.

You can configure the ribbon to have one control section that runs its entire length, or to have three sections of equal length. It sends its highest values when you press it at the end where the cable connects. When you configure it to have three sections, each section sends its highest values at the end closest to the cable.



**CAUTION:** *The modular jack is designed for connection to the Kurzweil Ribbon Controller option only. Do not plug any other modular plugs into the Ribbon jack.*

## USB Storage Port

You can plug a USB mass storage device such as a “thumb drive” into the PC3A for backing up, archiving, sharing your work, and updating your software. Any size USB mass storage device will work.



**NOTE:** Do not remove a USB device while the display says **Loading...** or **Saving...**. Removing a USB device during a file transfer can cause data corruption.

## USB Computer Port

The USB Computer port on the rear panel works for MIDI (transmit and receive) or to connect your PC3A to a computer for file transfer. By default, the USB port is set to MIDI mode. When selecting USB PC connection in Storage mode, USB MIDI will temporarily be disabled.

We recommend that you use the USB cable provided with your PC3A and do not use extension USB cables. The PC3A’s USB Computer port is only intended for connection to a USB Type A port.

In USB Storage mode, a “PC3A” *virtual* drive will appear on your computer desktop. One important thing to know here is that this is a virtual drive. You can save to this drive from the PC3A, but you must immediately transfer that file to your desktop (or other folder). **You must copy data from the PC3A virtual drive to your computer’s drive or else the data will be lost.**

When you leave Storage Mode, a prompt will tell you that the PC3A is turning back into a USB MIDI device. Depending on your computer’s operating system, you may sometimes see a device removal warning on your desktop (for example, when the PC3A leaves the Boot Loader). You may disregard such a message without worries of damage to your PC3A or computer.

## Setting the Clock

The first time you start up your PC3A is probably a good time to set the instrument’s clock to your current local time. Select Master mode from the front panel (described below) and click the softbutton for CLOCK. The clock will time-stamp your files that have been stored via USB.

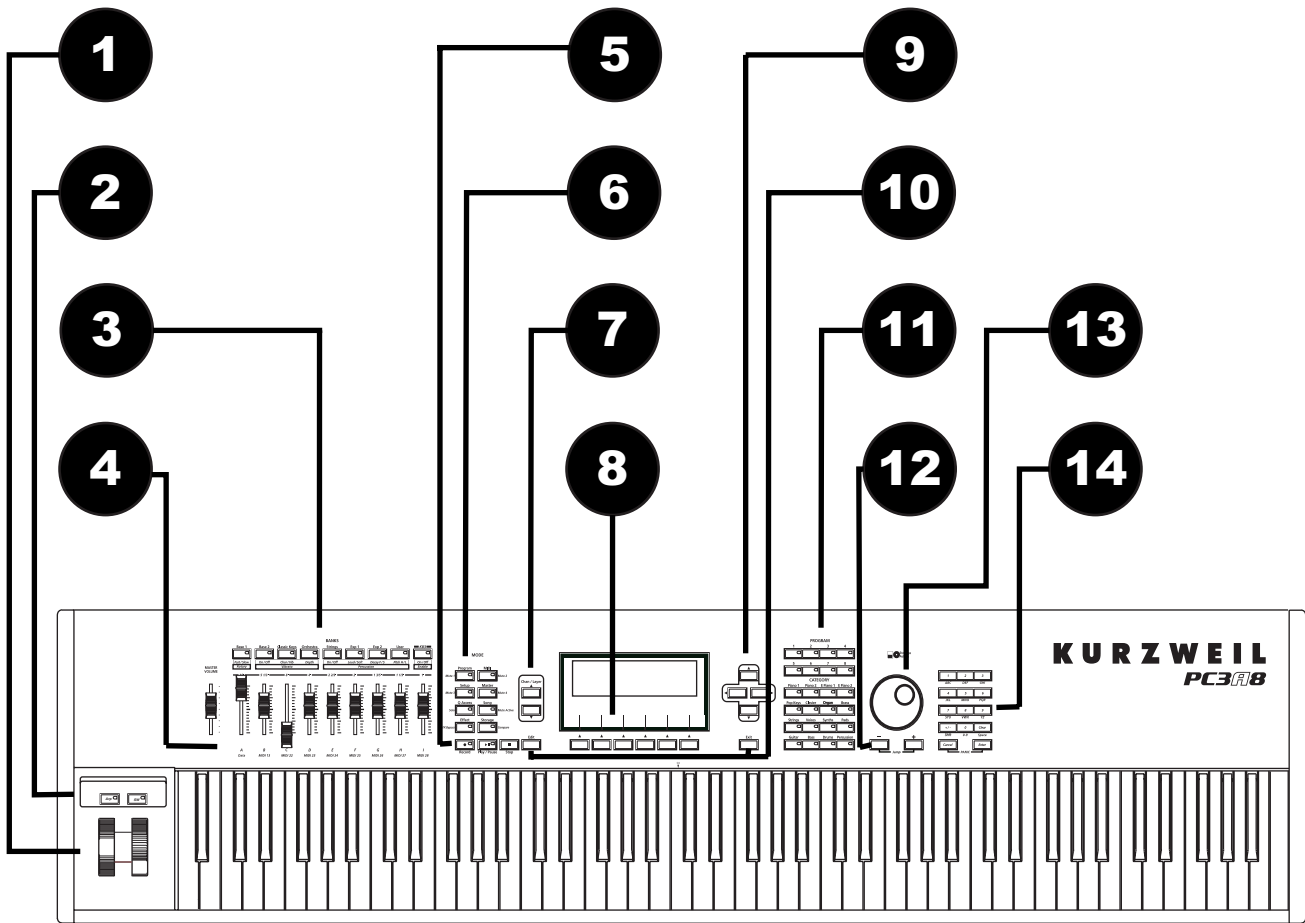
## Battery

The PC3A uses a CR2032 battery to power its clock. The battery should last five years, and a message will tell you when the battery needs replacing. The access panel on the bottom of the PC3A (which you can easily remove with a screwdriver) allows you to get at the battery for removal and replacement.



**CAUTION:** Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type (CR2032).

# Front Panel Overview



1 Pitch and Modulation Wheels

2 Arpeggiator & Software buttons

3 Bank Buttons

4 Sliders

5 Record/Playback controls

6 Mode Selection buttons

7 Channel/Layer buttons

8 Display and Soft buttons

9 Cursor navigation buttons

10 Edit and Exit buttons

11 Program & Category buttons

12 Plus & Minus buttons

13 Alpha Wheel

14 Alphanumeric buttons

## 1 - Pitch and Modulation wheels

Push the **Pitch Wheel** away from you to raise the pitch of the note(s) you are playing. Pull it towards you to lower the pitch. Most programs are set so that the pitch wheel will raise and lower pitch by a whole step, although some programs use the pitch wheel to lower pitch by as much as an octave. The Pitch Wheel has a spring so that it will snap back to place (i.e., back to the original pitch) when you release it.

The **Mod Wheel** performs a variety of functions. Different programs may use it for filter sweeps, tremolo / vibrato, wah, or layer volume.

## 2 - Arp and SW buttons

The **Arp** button turns on and off the PC3A's Arpeggiator.

The **SW** button (MIDI 29) can be programmed to do a variety of things. Often it is used for layer enable or effect enable.

## 3 - Bank Buttons

The Bank buttons let you choose different banks of programs (e.g., KB3 programs or Classic Keys programs). Within each bank, you can use the Program and Category buttons to select individual programs. The Bank buttons have special functions in KB3 mode, indicated by labels beneath each button.

## 4 - Sliders

In KB3 mode, the PC3A's nine sliders emulate an organ's drawbars. For example, slider A emulates an organ's 16' drawbar. In other modes, the sliders can be used to send values for different MIDI controllers. Press the Info soft button on the Program mode or Setup mode main page to see the slider assignments of the current program or setup.

## 5 - Record/Playback controls

These control the recording and playback of songs from any mode. However, you'll need to make sure that the Demo Button parameter on Master Mode Page 2 is set to "Off." Otherwise these buttons are used for Easy Audition (described below).

## 6 - Mode Selection buttons

The eight primary operating modes are described below. Each mode button has an LED that lights to indicate the current mode. Only one mode can be selected at a time.

## 7 - Channel/Layer buttons

The function of these buttons depends upon the current mode. In Program mode, for example, they shift through the MIDI channels, showing the program assigned to each channel. In Quick Access mode, they scroll through the Quick Access banks, and in Song mode they scroll through recording tracks. They are also useful in the Program and Setup editors.

## 8 - Display and Soft buttons

This is the primary interface with the PC3A. As you press various buttons, the display reflects the commands you enter and the editing changes you make.

The soft buttons are called “soft” because their functions change depending on the currently selected mode and page. The bottom line of the display indicates each button’s current function. If a soft button’s label is in all capital letters (**KEYMAP**, for example), pressing the corresponding soft button takes you to a page of parameters. If the soft button is labeled in lower-case or mixed-case letters (**Save**, for example), the soft button performs some kind of function.

## 9 - Cursor navigation buttons

These move the display screen cursor around the currently selected page, in the direction indicated by their labels. The cursor is a highlighted (reversed) rectangle (sometimes it’s an underscore). It marks the value of the currently selected parameter. Programming the PC3A involves selecting various parameters with the cursor and changing their values. You can change the highlighted value with the Alpha Wheel, alphanumeric buttons, or plus/minus buttons.

## 10 - Edit and Exit buttons

The **Edit** button activates each of the PC3A’s editors, and acts as a shortcut to many pages within the Program Editor. There are editors accessible from just about every operating mode.

Press **Exit** to leave the current editor. If you’ve changed the value of any parameter while in that editor, the PC3A will ask you whether you want to save your changes before you can leave the editor. If at some point you have difficulty navigating, pressing **Exit** one or more times will return you to Program mode.

## 11 - Program and Category buttons

Use the Program and Category buttons, in conjunction with the Bank buttons, to select PC3A programs by Bank type and instrument category. Each Bank contains 128 programs divided into 16 categories. Each of the 16 categories contains 8 programs.

## 12 - Plus and Minus buttons

The **Plus** button increases the value of the currently selected parameter by one, and the **Minus** button decreases it by one. These buttons are most useful when you’re scrolling through a short list of values, or when you want to be sure you’re changing the value by one increment at a time.

## 13 - Alpha Wheel

Use the Alpha Wheel to quickly enter large or small changes in value. One click to the right will increase the value of the currently selected parameter by one increment; to the left decreases the value. Turning it rapidly jumps by several increments. You can also use the Alpha Wheel to enter names when you’re saving objects.

## 14- Alphanumeric buttons

These let you enter numeric values, and to enter names one character at a time. Depending on where you are, the PC3A automatically enters letters or numerals as appropriate.

## How the PC3A Works

The PC3A integrates three MIDI-driven components:

- a MIDI controller (the keyboard, or an external MIDI controller)
- a sound engine
- and an effects processor that employs the same effects used in Kurzweil's KSP8.

The sound engine responds to the MIDI events generated by the MIDI controller, and turns them into sounds that are processed within the variable architecture of the algorithms—or by oscillators for KB3 programs. The resulting sound can then be routed through the PC3A's effects and to the audio outputs.

## Operating Modes

The PC3A is always in one of eight primary operating modes.

<b>Program mode</b>	Select and play programs, and modify them with the <i>Program Editor</i> .
<b>Setup mode</b>	Select and play setups (16 keyboard zones with independent MIDI channel, program and control assignments), and modify them with the <i>Setup Editor</i> .
<b>Quick Access mode</b>	Select from a list of preset banks, each containing a list of ten programs and /or setups that can be viewed in the display for easy selection. Modify the preset banks and create your own with the <i>Quick Access Editor</i> .
<b>Effect mode</b>	Enable / disable effects or set Aux overrides for Program Mode (or a program selected from Quick Access mode.)
<b>MIDI mode</b>	Define how your PC3A sends and receives MIDI information, and configure each channel to receive independent program, volume, and pan messages that override the normal Program mode settings.
<b>Master mode</b>	Define performance and control characteristics for the entire PC3A.
<b>Song mode</b>	Use the PC3A's sequencer to record and play back your keyboard performance, play Type 0 and Type 1 MIDI sequences, and record multi-timbral sequences received via MIDI.
<b>Storage mode</b>	Interface with the PC3A's USB storage or computer ports to load and save programs, setups, and more.

The PC3A's tone wheel organ emulation is called **KB3 mode**. You automatically enter this mode when you select a KB3 program. The KB3 Bank button takes you there directly.

Consult the *PC3A Musician's Guide* for more detailed descriptions of the modes.

## VAST Synthesis

The PC3A's Variable Architecture Synthesis Technology (V.A.S.T.) lets you build sounds from realistic instrumental samples and sampled synth waveforms—then modify the nature of those sounds through a wide variety of digital signal-processing (DSP) functions. The PC3A also generates its own synth waveforms, which can be combined with the samples or used on their own. The PC3A's Variable Architecture lets you arrange a combination of DSP functions from a long list of choices. The functions you choose define the type of synthesis you use.

Each layer of every program has its own DSP architecture, or *algorithm*. Within each algorithm, you can select from a variety of DSP functions. Each function can be independently controlled by a variety of sources including LFOs, ASRs, envelopes, a set of unique programmable functions (FUNs), as well as any MIDI control message. The many different DSP functions and the wealth of independent control sources give you an extremely flexible, truly vast collection of tools for sound creation and modification. When you're ready to jump in and start creating programs, consult the *PC3A Musician's Guide*.

## KB3 Tone Wheel Emulation

In addition to VAST synthesis, the PC3A offers many oscillator-based programs that give you the classic sound of tone-wheel organs like the Hammond B3. KB3 mode, as it is called, is completely independent of VAST, and has its own set of editing procedures. Nine dedicated sliders on the PC3A's front panel give you real-time drawbar control over these organ sounds. Buttons above the sliders control rotating speaker speed, percussion, and other organ features.

The quickest way to get to the KB3 programs is by pressing the KB3 button (above the sliders, to the left of the screen). The blue LED in the KB3 button will light when the current program is a KB3 program.

## PC3A Programs

The PC3A powers up in Program mode, where you can select and play programs (called patches, presets, or voices on other instruments). Programs are preset sounds composed of up to 32 *layers* of samples or waveforms. If you've left Program mode, just press the **Program** mode button or **Exit** button to return.

### Selecting Programs

When you are in Program mode, there are three basic ways to select a PC3A program:

- Press one of the **Bank** buttons (above the sliders on the left side of the front panel) to select a bank, then press a **Category** button and a **Program** button. The Category and Program buttons are on the front panel, between the screen and the alpha wheel.  
*Note: The instrument names above the Category buttons are relevant for Banks 1 and 2 (**Base 1** and **Base 2**). For all other Banks, the Category buttons select a group of 8 programs to be selected by the Program buttons, but the group of programs may not match the instrument name of the selected Category button.*
- Type the program's ID (number) on the alphanumeric buttonpad, then press **Enter**. If you make a mistake, press **Clear**, then start over.
- Scroll through the list using the Alpha Wheel, the **Plus** or **Minus** button under the Alpha Wheel, or the cursor buttons (the arrow buttons to the right of the display).

The PC3A has various settings for responding to MIDI Program Change commands from external sources. These are explained in the *PC3A Musician's Guide*, which can be downloaded at [www.kurzweil.com](http://www.kurzweil.com).



## Easy Audition

Any time you want to hear what a program sounds like, highlight the program's name (while in Program mode) then press the **Play/Pause** button to play a brief sample. The Demo Button parameter on the Master Mode MAIN page must be on for Easy Audition to work; the parameter is on by default. Master mode is described in detail in the *PC3A Musician's Guide*.

## VA-1 Programs

The VA-1 (Virtual Analog Synthesizer) programs included with the PC3A offer realistic emulations of classic analog synthesizers, built from Kurzweil's unique anti-aliased DSP-generated oscillators. The PC3A's power-shaped oscillators let you transition smoothly from one waveform into another in real time, without using cross-fades.

VA-1 programs are scattered throughout the PC3A. Look for them in the Synth Category and the Classic Keys Bank. You'll see "KVA Oscillator" appear in the Keymap screen on the left hand side of the display.

## Program Mode Display

Take a minute to familiarize yourself with the Program mode display. It gives you some helpful basic information, like the MIDI transposition, what MIDI channel you're on, and which program is currently selected.

Programmode	XP:Oct	Base:PrZl	Ch:1
Percussion 1		119 Analog Machine	
Percussion 4		120 Produced Kit '08	
Perc Layers 5		121 Natural Perc	
Conga Moose Lyr		122 Rhythm 4 Reel	
		123 New Marimba	
Octav-	Octav+	Panic	Info
		Xpose-	Xpose+

## Info Box

At the left side of the display is an outlined area which displays information about the current program. This info box contains details about the different layers in each program, usually indicating the keymap used in each layer. The line under the keymap name indicates the layer's keyboard range. In the case shown above, only the first two displayed layers extend across the entire keyboard (A0 to C8). A double circle infinity symbol ( $\infty$ ) to the right of each layer shows that the keymap is a stereo keymap.

## Soft buttons

On most PC3A screens, the bottom line of the display identifies the function of each of the buttons beneath the display. These are called *soft* buttons, because they do different things depending on the current software mode, as shown in the label displayed.

In Program and Quick Access modes, you can change octaves with the **Octav-** and **Octav+** buttons under the display. The **Info** soft button shows you relevant details about the current item. The **Xpose-/Xpose+** buttons are a shortcut for quick transposition in semitone (half step) increments. You can use them to transpose the entire PC3A as much as three octaves up or down. The top line of the display shows the current amount of transposition (Xpose). Press both **Xpose** buttons simultaneously to return transposition to zero.

The **Panic** button (or a double press of Cancel and Enter at the bottom of the alphanumeric keypad) sends an All Notes Off message and an All Controllers Off message—both to the PC3A and over all 16 MIDI channels.

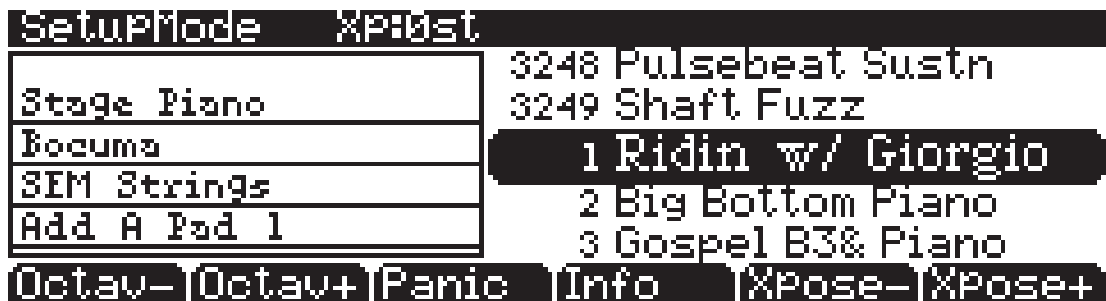
## KB3 Programs

KB3 (organ) programs differ from VAST programs in that they don't have layers. Instead they rely on oscillators that mimic the tone wheels used in many popular organs. Consequently, the info box shows only the waveform used in the program. Because of their architecture, KB3 programs require different processing within the PC3A. KB3 programs play *only* on a single channel at a time (VAST programs will work fine on that channel, too).

The quickest way to get to the KB3 programs is by pressing the KB3 button above the sliders.

## Setups

Setups are preset combinations of programs. Setups can have up to 16 zones, each of which can be assigned to any range of the keyboard (overlapping or split). Each zone can have its own program, MIDI channel, and MIDI control assignments, as well as riff and arpeggiator settings. Press the **Setup** mode button to the left of the display. Its LED will light, telling you that you're in Setup mode. Notice that the Setup mode display is similar to the Program mode display. If the setup has four or fewer zones, the box at the left shows you the programs assigned to each of the setup's zones. If the setup is composed of more than four zones, the box displays the first four zones; text at the top of the box will show the total number of zones. See the *PC3A Musician's Guide* for a more detailed description.



Many setups include arpeggiation and note-triggered songs to create some pretty amazing grooves that you can use as is, or as templates for your own material. As you play with these setups, experiment with the sliders and other controllers for a wide range of effects. Some of these grooves keep playing after you've released the keys that got them going. When you want to stop them, select another setup, or press the **Setup** mode button (or **Stop** for riffs).

## Quick Access

A really convenient way to select programs and setups is to use Quick Access mode, where you select a Quick Access **bank** from a list of factory preset or user-programmed banks. Each bank contains ten memory slots, or entries, where you can store any combination of programs or setups. While you're in Quick Access mode, you can select any program or setup in the bank with buttons 0 through 9 or the **cursor keys**.

The PC3A comes with a few Quick Access banks already programmed so you can get an idea of how they work. You'll probably create your own Quick Access banks to help you select programs and setups with a minimum of searching. Press the **Quick Access** mode button to the left of the display. Its LED lights, to tell you you're in Quick Access mode.

The top line of the display tells you which Quick Access bank is selected. Use the **Chan/Layer** buttons (to the left of the display) to scroll through the banks. The names of each of the ten entries in the bank are listed in the center of the display. Many of their names will be abbreviated. The currently selected entry's full name is shown near the bottom of the display. The amount of transposition is displayed to the left of the entry name. If the current entry is a program, you'll see the current keyboard (MIDI) channel displayed to the right of the entry's name. If it's a setup, you'll see the word Setup.

The entries on the Quick Access page are arranged to correspond to the layout of the numeric buttons on the alphanumeric pad.

When you're ready to create your own Quick Access banks, consult the *PC3A Musician's Guide* learn about the Quick Access Editor.

## Other Operating Modes

The four other modes - Effects, Master, MIDI, Song and Storage mode- allow you to adjust specific performance characteristics and system functions. These are described in detail in the complete *PC3A Musician's Guide*, which can be downloaded at [www.kurzweil.com](http://www.kurzweil.com).