
PC4

GETTING STARTED GUIDE

KURZWEIL®

It's the **sound.**®

FLASH  **PLAY™**

Features of the PC4

Sounds

- FlashPlay technology utilizing 2GB of instrument samples including:
 - Optimized German D and Japanese C7 Pianos, Triple Strike Piano, 73 Electric Piano, Clavinet, Harpsichords, Celeste, Bowed and Hit Crotales, Vector Synthesis Waveforms
 - Updated Rock, Synth and Orchestral sounds from Kurzweil's SP6, PC3, and KORE64
 - 13 Categories of Programs (Piano, E. Piano, Clav, Organ, Strings, Pad, Synth, Brass/Wind, Ensemble, Hybrid, Guitar/Bass, Drum/Perc, Misc)
- 2GB of user sample memory for loading samples from WAV, AIF, P3K, and K series files
- KB3 ToneReal™ organ simulations with 9 sliders as drawbars
- FM: Classic 6 operator FM synthesis
- KSR: Kurzweil String Resonance (piano string resonance simulation)
- Half-Damper pedal support (for piano "half pedaling" sustain techniques)
- Kurzweil's highly acclaimed VAST Synthesis and FX engine
- More than 1000 Factory Programs divided into 13 Categories
- More than 150 Factory Multis
- More than 4000 User IDs to save your own Programs and Multis
- Audio input jacks with FX (one 1/8" stereo line-in and 1/4" stereo line-in pair)
- 256 voices of polyphony
- 16 Zone MIDI controller in Multi Mode for Splits and Layers
- 16 MIDI Tracks in Song Mode
- Arpeggiator with dedicated front panel controls (up to 16 simultaneous in Multi Mode)

Keyboard and Controllers

The PC4 has an 88-key semi-weighted hammer action keyboard that provides you with a piano-like feel. The array of physical controllers includes:

- 9 assignable sliders
- 9 assignable knobs
- 10 assignable buttons
- Pitch Wheel and assignable Modulation Wheel
- Tap tempo button and tempo knob
- 2 Transpose buttons
- Monopressure (Aftertouch)
- 2 assignable switch pedal jacks (supports up to 4 switch pedals with 2 pedals per jack)
- 2 assignable CC pedal jacks
- Assignable ribbon controller jack

Pedals (Optional)

The PC4 has four jacks on the rear panel for optional pedal controllers.

Two switch pedal jacks are typically used to control two-state (i.e., on / off) parameters such as sustain, sostenuto, and soft pedal. A Half Damper pedal (also known as a continuous switch pedal) can be used to allow for “half pedaling” sustain techniques when playing PC4 piano programs. Each jack also supports dual switch pedals, allowing up to 4 switch pedals to be used.

Two continuous control (or CC) pedal jacks are typically used to control continuous parameters such as volume and wah.

Your Kurzweil dealer stocks the following pedals:

- KP-1 Single piano-style switch pedal
- KP-1H Single piano-style Half Damper pedal
- CC-1 Continuous pedal

Software Updates

Be sure to check the Kurzweil website at www.kurzweil.com for new sounds, documentation and software updates. See the Info page in Global mode to check the currently installed OS version.

Quick Start

Setting Up the PC4

1. If your PC4 has been out in the cold during shipping, give it time to warm up to room temperature before powering it on, since condensation may have formed inside.
2. Place the PC4 on a keyboard stand or on a hard, flat, level surface.
3. Connect the DC power adaptor to the PC4 DC Power jack.
4. Make sure your power outlet is compatible with the included power adaptor, then plug the power cable into the power outlet.
5. Plug the included Switch Pedal into the SW1 (SUSTAIN) jack on the PC4 rear panel.
6. If you have an additional switch pedal, plug it into the SW2 jack for Sostenuuto control.
7. If you have a MIDI CC pedal (also known as a MIDI expression or volume pedal), plug it into the CC1 (VOLUME) jack for volume control.
8. If you are using speakers, turn the master volume all the way down on your amplifier or mixer. Using standard (1/4-inch) audio cables, first plug into the input jacks of your amplifier or mixer, then plug the other end of the cables into the PC4 AUDIO OUT A jacks. (Connecting in this order minimizes the possibility of static discharge damage.) For a mono signal, only use the LEFT (MONO) A jack, and leave the RIGHT A jack unplugged. Balanced (“TRS” or “Stereo”) cables are recommended if your mixer or amp supports balanced inputs.
9. If you are using headphones, connect stereo headphones to the headphone jack on the rear panel.
10. Move the PC4 VOLUME slider (on the far left side of the front panel) to the minimum (closer to the keys).

Powering On the PC4

1. Power on the PC4 by pressing the POWER button on the right rear panel.
2. If you are using speakers, turn up the volume on your amplifier or mixer.
3. Slowly turn up the PC4 VOLUME Slider and play some notes to check the volume level. (If you have a CC pedal plugged into the CC (VOLUME) jack, make sure it is set to the maximum volume position).
4. If you are using speakers and the PC4 is not loud enough, turn up the volume on your amplifier or mixer.
5. If you are using a mixer and hear distortion, reduce the gain level on the mixer, or use the mixer's Pad button if it has one (a button that typically decreases the audio input level by 20dB).
6. After using the PC4, if you are using speakers, turn the master volume all the way down on your amplifier or mixer before powering off the PC4.

Auditioning PC4 Sounds

1. The PC4 starts up in Program Mode. Use the PREVIOUS and NEXT buttons, Alpha Wheel, or CATEGORY buttons to select a different Program. See [PC4 Sounds on page 13](#) for more details on selecting Programs or Multis.
1. To hear a Program Demo song for the current Program, press the 0/MISC and ENTER buttons simultaneously.
2. To hear the capabilities of the PC4, you can play the multi-channel demo songs. Press the USER and 0/MISC buttons simultaneously to listen to a multi-channel demo song.
3. To switch between auditioning Programs or Multis, press the PROGRAM or MULTI Mode button under the MODE label to the right of the display.

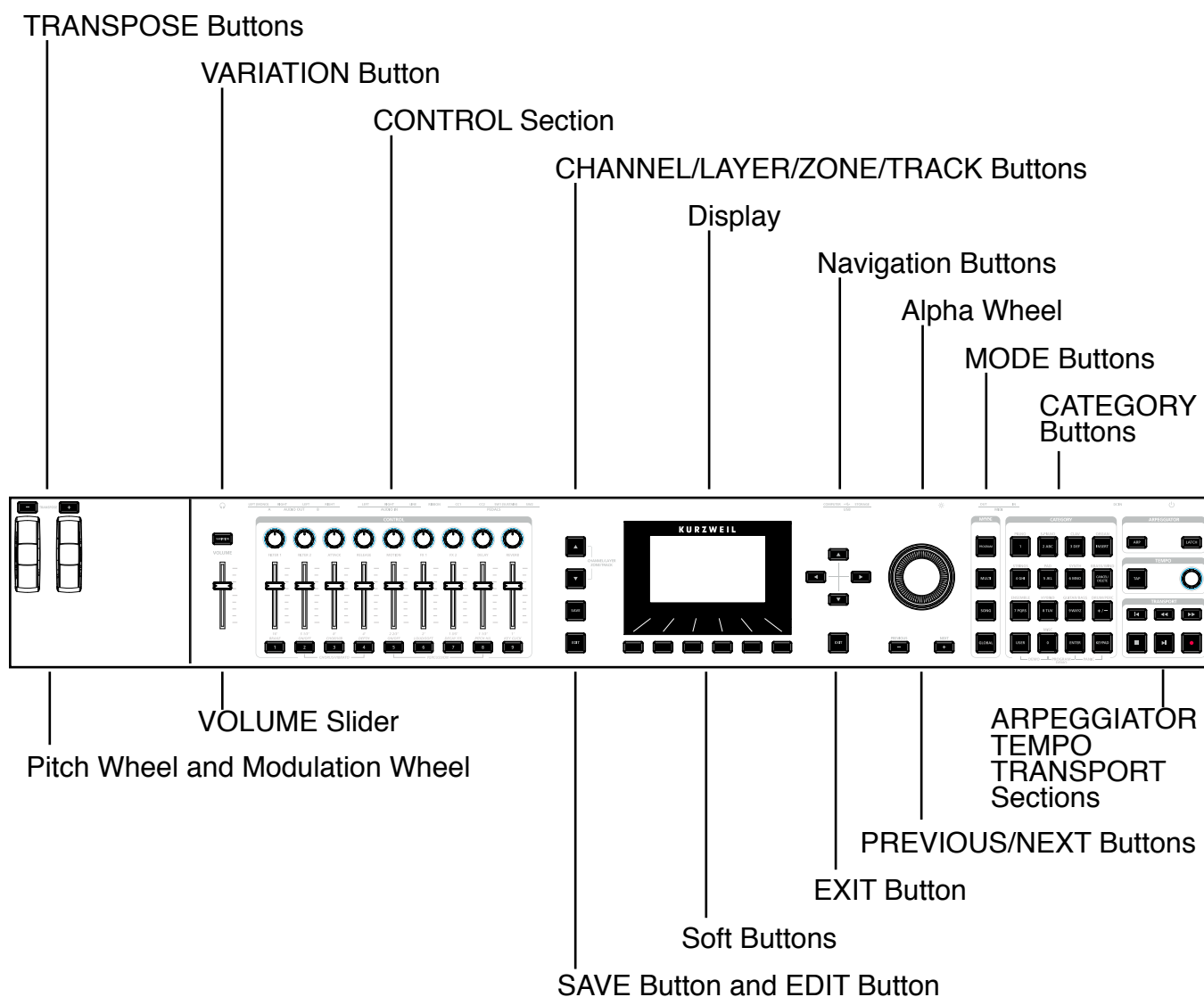
Automatic Power Saving

The PC4 has an automatic power saving feature (Auto Power Off) that can automatically power off the PC4 after a period of inactivity, in order to conserve electricity. The Auto Power Off feature is enabled by default. The default Power Off Time is 8 hours, which will cause the PC4 to power off after 8 hours of inactivity.

A count down timer warning will be shown in the display a few minutes before the PC4 is powered off. At any time, touching any PC4 control or playing a note will cause the PC4 to remain powered on, until the PC4 has been inactive for the set Power Off Time.

Auto Power Off can be disabled in Global Mode. The Power Off Time can also be adjusted in Global Mode.

The Front Panel



VOLUME Slider

The VOLUME Slider controls the volume level of the AUDIO OUT and HEADPHONE jacks.

Display

The display is the main user interface for the PC4. Use the display to view Program and Multi names, controller assignments, and editing functions.

Soft Buttons

The 6 buttons below the display are called soft buttons. Soft buttons change their functions depending upon which page is being displayed. The functions of the soft buttons on each page are described in the bottom row of the display.

Navigation Buttons

The Navigation buttons move the cursor in the display and allow you to select the current parameter to be edited.

Alpha Wheel

In Program and Multi Mode, use the Alpha Wheel to navigate through the Program or Multi list.

In Program Edit or Multi Edit Mode, use the Alpha Wheel to scroll through the list of values for the currently selected parameter. Turn the Alpha Wheel counter-clockwise or clockwise to select the previous or next value. Turn the Alpha Wheel slowly to change the value by one increment, or turn it quickly to jump several increments.

PREVIOUS and NEXT Buttons

In Program and Multi Mode, use the PREVIOUS and NEXT buttons to navigate through the Program or Multi list. In any mode, use the PREVIOUS and NEXT buttons to navigate through the list of values for the currently selected parameter.

MODE Buttons

Press the MODE buttons to access PROGRAM, MULTI, SONG or GLOBAL Mode. See [Modes on page 15](#) for a description of each Mode.

CATEGORY Buttons

In Program Mode, the CATEGORY buttons allow you to select and browse Programs in 13 categories of instruments. Engaging the KEYPAD button allows you to use the CATEGORY buttons as an alphanumeric keypad. The KEYPAD button is always on in Multi Mode, and where needed for editing parameter values.

TRANPOSE Buttons

The TRANPOSE buttons can be used to change the tuning of notes played on the PC4 keyboard in semitones (also known as half steps). The current transpose amount is shown in the display (for example, the default is “Xp:0st”). Press both TRANPOSE buttons simultaneously to reset the transposition to 0.

Pitch Wheel and Modulation Wheel

Use each wheel to respectively perform pitch bends or vary the modulation amount. The Modulation Wheel will control modulation for each Program or Multi. The name of the current modulation assignment is shown in the display when the wheel is moved.

VARIATION Button

Pressing the VARIATION button will perform an assigned variation for each Program or Multi. The name of the current assignment is shown in the display when the button is pressed.

The VARIATION button has two states, off (not lit) and on (lit). The VARIATION button will typically modify the sound by adding an orchestral string section or synth pad layer, or enabling an effect.

For KB3 Organ Programs, the VARIATION button controls the Rotary Speaker speed, changing between fast and slow. The display shows “KB3” when a KB3 Program is selected.

CONTROL Section

The CONTROL section is used to control various Program and Multi parameters.

In Program Mode: The knobs, sliders, and buttons control synthesis and FX parameters for the current Program. Controller assignments can be adjusted or set to user-assignable parameters in Program Edit Mode.

In Multi Mode: The knobs, sliders, and buttons typically control Zone volume, synthesis and FX parameters for the current Multi. Controller assignments can be adjusted or set to user-assignable parameters in Multi Edit Mode.

In Program and Multi Mode: When a KB3 Organ Program is selected, some of the knobs, sliders, and buttons may perform Organ functions labeled on the front panel. The display shows “KB3” when a KB3 Program is selected.

ARPEGGIATOR Section

Use the ARP and LATCH buttons to control the PC4’s Arpeggiator.

TEMPO Section

Use the TEMPO section to set the tempo of the Arpeggiator, the rate of tempo synced FX (such as Delay), or the tempo of the current Multi or Song. To set the tempo press the TAP button a few times at the desired rate, or use the TEMPO knob.

TRANSPORT Section

Use the buttons in the TRANSPORT section to control recording and playback in Song mode.

SAVE Button and EDIT Button

These buttons are used when editing Programs, Multis, or other User objects. In Program Mode, press the SAVE button to save a User Program with the current controller settings.

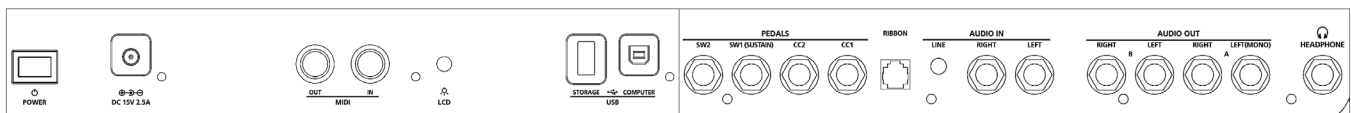
EXIT Button

Press the EXIT button to exit the current editor. Press the EXIT button repeatedly to return to Program Mode.

CHANNEL/LAYER/ZONE/TRACK Buttons

Use the CHANNEL/LAYER/ZONE/TRACK buttons to change the current MIDI Channel in Program Mode, the current Layer in Program Edit Mode, the current Zone in Multi Edit Mode, or the current Track in Song Mode.

The Rear Panel



POWER Button

Press the POWER button to power the PC4 on or off.

DC Power Jack

Plug the included power adaptor into the DC Power jack.

MIDI IN and OUT Ports

Use the MIDI ports to communicate with other MIDI modules and controllers. The OUT port is the MIDI transmitting port, and the IN port is the MIDI receiving port.

To use the PC4 as a MIDI controller for another sound module, use a MIDI cable to connect the PC4's MIDI OUT port to the MIDI input port of the module that you want to control.

To control the PC4 using another MIDI controller, use a MIDI cable to connect the PC4's MIDI IN port to the MIDI output port of the controller that you will be using.

LCD Knob

Use the LCD knob to control the display brightness.

USB Ports

Use the USB ports to connect the PC4 to a computer/tablet or USB hard drive in order to do the following:

- Use the PC4 as a MIDI controller to play software instruments on a computer/tablet.
- Use a computer/tablet to sequence multi-channel songs on the PC4.
- Backup and restore User Programs and Multis on a USB hard drive.
- Update the software and sounds of the PC4.

SW1 (SUSTAIN) and SW2 Jacks

Use the SW1 (SUSTAIN) and SW2 jacks to connect switch pedals. One switch pedal is included with the PC4.

In Program Mode, SW1 (SUSTAIN) defaults to controlling Sustain, and SW2 defaults to controlling Sostenuto. (For KB3 Organ Programs, SW1 (SUSTAIN) defaults to controlling the Rotary Speaker speed, changing between fast and slow. This assignment can be changed in Global Mode. The LCD display shows "KB3" when a KB3 Program is selected.)

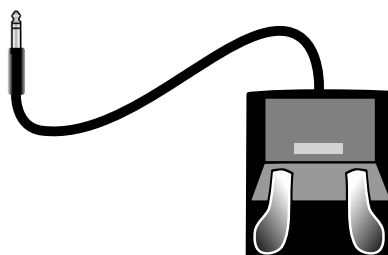
In Multi Mode, pedal assignments can vary per Multi. Pedal assignments can be adjusted for each Zone by using Multi Edit Mode.

Global Mode can be used to set pedal overrides, which can change the pedal assignments for all Programs and Multis.



Note: Switch pedals must be plugged in before powering on the PC4. Do not step on the switch pedals when powering on the PC4, as the state of the pedals is detected as part of the start up sequence.

Dual Switch Pedals



The SW1 (SUSTAIN) and SW2 jacks can be connected to dual switch pedals (2 pedals per jack), allowing up to four switch pedals to be used. Compatible pedals should use a single 1/4 inch tip-ring-sleeve plug.

Pedals plugged into the SW1 (SUSTAIN) jack are referred to as SW1a and SW1b, and pedals plugged into the SW2 jack are referred to as SW2a and SW2b. In Program Mode the default assignments are:

SW1a	Sustain
SW1b	Sostenuto
SW2a	Sostenuto
SW2b	Soft Pedal

To emulate the 3 pedals of an acoustic piano, plug a single switch pedal into the SW1 (SUSTAIN) jack, and a dual switch pedal into the SW2 jack.

Continuous Switch Pedals (Half-Damper)

The SW1 (SUSTAIN) jack is also compatible with continuous switch pedals (Half-Damper) that use a 1/4 inch tip-ring-sleeve plug (such as the Kurzweil KP-1H). When connected to the SW1 (SUSTAIN) jack, a Half Damper pedal enables finer control of Sustain than a standard switch pedal. Half Damper control is enabled for Programs in the Piano category. Programs outside of the Piano category will respond to a Half Damper pedal as if it is a standard switch pedal.

CC1 (VOLUME) and CC2 Jacks

Use the CC1 (VOLUME) jack to connect a MIDI CC pedal (also known as a MIDI expression or volume pedal). By default this pedal is assigned to control Program and Multi volume (pre-FX).

For KB3 Organ Programs, the CC1 (VOLUME) pedal controls organ swell. Organ swell is similar to Program volume, except volume can not be turned all the way down to silence. The LCD display shows “KB3” when a KB3 Program is selected.

For User Programs and Multis, the CC1 (VOLUME) and CC2 pedals can be assigned to different functions by using Program Edit or Multi Edit Mode.

The Rear Panel

The optional Kurzweil CC-1 continuous control pedal will work best with the PC4, but it is also possible to use third-party continuous control pedals designed for keyboards. Compatible pedals should use a 10 k Ω linear-taper potentiometer, with a 1/4 inch tip-ring-sleeve (stereo) plug with the wiper connected to the tip.

RIBBON Jack

Use the RIBBON jack to plug in the optional Kurzweil Ribbon Controller. By default the ribbon controls pitch bend, but you can also program the ribbon controller to send other MIDI messages. To use the ribbon controller, 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. Don't plug any other modular plugs into the Ribbon jack.

AUDIO IN LINE/LEFT/RIGHT Jacks

Use the AUDIO IN jacks to mix external audio sources with the sounds of the PC4. This is useful for playing along with backing tracks from a portable music player, computer, or other electronic instrument. The LINE jack accepts a stereo 1/8" plug at line level, suitable for input from MP3 players and computers. The LEFT and RIGHT jacks each accept a 1/4" plug at line level, suitable for input from mixers and electronic instruments. Sources that are not line level (typically guitars and microphones) should be amplified with a pre-amp, mixer, audio interface or other device. Input volume and FX can be adjusted in Global Mode.

AUDIO OUT LEFT (MONO) and RIGHT A/B Jacks

Use the AUDIO OUT A/B jacks to connect to an amplifier or mixer. See [Quick Start on page 4](#) for details.

HEADPHONE Jack

Use the HEADPHONE jack located on the left rear panel of the instrument to listen to the PC4 on stereo headphones. You will need a 1/8-inch-to-1/4-inch adapter in order to use headphones that have a smaller mini plug connector.

When headphones are plugged in, audio is still transmitted from the AUDIO OUT jacks.

PC4 Sounds

The PC4 contains Programs and Multis. A Program is typically a single instrument sound such as a Piano, Organ, or Synth. Programs are organized by instrument type in 13 categories.

A Multi is a combination of Programs arranged as layers and/or splits across the keyboard. Multis are not categorized by instrument type, so the KEYPAD button is always on when in Multi Mode.

Selecting Programs

In Program Mode, use any of the methods below to select a Program.

Browse All Programs

Make sure the USER button is off, then use the Alpha Wheel or PREVIOUS and NEXT buttons to select a Program from all of the available Programs.

Select a Program by Category

Make sure the KEYPAD button is off, then press one of the CATEGORY buttons to select the first Program of a category (or the current Category Default Program). The selected CATEGORY button will turn on. Use the Alpha Wheel or PREVIOUS and NEXT buttons to select Programs from the selected category.

Select a Previously Saved User Program

Press and turn on the USER button, then use the Alpha Wheel or PREVIOUS and NEXT buttons to browse only User Programs. To return to browsing Factory and User Programs, press and turn off the USER button.

Select a Program by ID Number

Press and turn on the KEYPAD button. The keypad button allows you to use the numbers labeled on the CATEGORY buttons to select Programs or Multis by ID number. Type an ID number followed by pressing the ENTER button to select the associated Program.

Select a Category Default Program

Each category has a Category Default Program (the Program which is selected when each CATEGORY button is pressed). By default the Category Default Program is set to the first Program of each category. To set a different Category Default Program, select a Program, make sure the KEYPAD button is off, then press and hold the currently lit CATEGORY button.

Selecting Multis

In Multi Mode, use any of the methods below to select a Multi.

Browse All Multis

Make sure the USER button is off, then use the Alpha Wheel or PREVIOUS and NEXT buttons to select a Multi from all of the available Multis.

Select a Multi by ID Number

Use the CATEGORY buttons to type an ID number followed by pressing the ENTER button.

Select a Previously Saved User Multi

Press and turn on the USER button, then use the Alpha Wheel or PREVIOUS and NEXT buttons to browse only User Multis. To return to browsing Factory and User Multis, press and turn off the USER button.

Controllers

The Sliders, Knobs, Buttons, Wheels, and Pedals can control each of the Factory Programs and Multis, to produce variations to the sound. Don't forget to try these out as you explore the Factory sounds on the PC4.

Generally, each control will perform the assignment labeled on the front panel, although some controls may have different assignments per Program or Multi. When a controller is moved, the name of the current assignment is shown in the display. Controller assignments can be adjusted in Program and Multi Edit Mode.

Splits and Layers

The Split and Layer function can be used to Split or Layer the current Program or Multi. Different keyboard regions can play different Programs, or multiple Programs can be played from the same region. To Split or Layer a Multi, it must contain at least one Zone which is unused (Off).

In Program or Multi Mode, press the SPLIT or LAYER soft button to view the Split or Layer Page. You will then be able to configure up to three additional Programs to create a Split or Layered Multi containing up to four Programs.

Press the SAVE button once to view the Save Dialog. The Save Dialog allows you to choose an ID number and name for the Split/Layer Multi you are saving. On the Multi Save Page, press the SAVE button again to save the Split/Layer Multi. After saving the Split or Layer as a Multi, additional Multi Controller and FX settings can be edited in Multi Edit Mode.

Modes

Program Mode

The PC4 always powers up in Program Mode, where single instrument sounds can be played directly from the keyboard, or multitimbrally via MIDI.

Saving Programs

If you make changes to the current Program using any of the controllers (Knobs, Wheels or Buttons), the SAVE button turns on to indicate that a change has been made to that Program.

To save a copy of the Program with the changes you've made, press the SAVE button once to view the Save Dialog. The Save Dialog allows you to choose an ID number and name for the Program you are saving. On the Program Save Page, press the SAVE button again to save the Program as a User Program.

Program Edit Mode

Program Edit Mode allows you to select parameters for the assignable knobs, sliders and buttons, adjust the current Program's Arpeggiator settings, and adjust many other Program parameters.

Multi Mode

Multi Mode allows you to play Multis, which are arrangements of up to 16 Programs split and/or layered in Zones across selected ranges of the keyboard.

By default the volume of the Program in the first 4 Zones can be easily adjusted while playing by using the sliders 1-4, and each Zone can be turned on or off by using the buttons below these sliders. The remaining controls are typically assigned to FX and Synth parameters. Controller settings can be adjusted in Multi Edit Mode.

Multi Edit Mode

Multi Edit Mode is used to modify the many parameters that make up Multis, including Program Selection, Key Range, Volume, Pan, and Controller assignments. Use Multi Edit Mode to create custom sound combinations.

To save a copy of the Multi with the changes you've made, press the SAVE button once to view the Save Dialog. The Save Dialog allows you to choose an ID number and name for the Multi you are saving. On the Multi Save Page, press the SAVE button again to save the Multi as a User Multi.

Song Mode

Song Mode allows you to record and play back songs, using up to 16 tracks of Programs.

Global Mode

Use Global Mode to adjust common settings that are shared between all Modes, such as velocity sensitivity and power saving options. Global Mode is also used for storing or loading User backup files, and restoring Factory default settings. Some of the more common settings are summarized below.

Info

The Info Page shows the currently installed operating system and sound object versions. Use this page to check if your PC4 is up to date with the most recent software and sounds posted at www.kurzweil.com.

Reset

You can return the PC4 to the Factory default state by doing a Reset.



Caution: Reset will delete ALL User objects, so it is important to back up your User objects before doing a Reset. Factory objects are not deleted

Saving to External Storage

User objects that you have created can be saved to a USB Flash Drive.

Loading from External Storage

User objects can be loaded onto the PC4 from a USB Flash Drive. This allows you to load new sounds from Kurzweil or other developers, or to load sounds that you have previously saved.

Double Button Presses

Reset Transposition

To reset the current Program or Multi transposition to 0, simultaneously press both of the TRANSPOSE -/+ buttons, or the OCTAVE+ and OCTAVE- soft buttons.

Program Demo

In Program Mode, to hear a Program Demo song for the current Program, press the 0/MISC and ENTER buttons simultaneously.

Song Demo

To hear the capabilities of the PC4, you can play the multi-channel demo songs. Press the USER and 0/MISC buttons simultaneously to listen to a multi-channel demo song.

Panic

Pressing the ENTER and KEYPAD buttons simultaneously deactivates all sounding notes by sending an “all notes off” message on all 16 MIDI channels.

Select Channel / Layer / Zone / Track 1

In Program Mode, pressing both of the CHANNEL/LAYER/ZONE/TRACK buttons simultaneously will select MIDI channel 1.

In Program Edit Mode, pressing both of the CHANNEL/LAYER/ZONE/TRACK buttons simultaneously will select Layer 1.

In Multi Edit Mode, pressing both of the CHANNEL/LAYER/ZONE/TRACK buttons simultaneously will select Zone 1.

In Song Mode, pressing both of the CHANNEL/LAYER/ZONE/TRACK buttons simultaneously will select Track 1

Select Next Unused ID

When selecting an ID number to save a previously saved User object, press the PREVIOUS and NEXT buttons simultaneously to jump between selecting the previously used ID number, and the next unused ID number.

Search

The Search page allows you to find any term or series of characters within the currently selected list or range of values. Hold the ENTER button and press one of the numeric buttons 1-9 to view the Search page.

On the search page, use the category buttons to type the term you want to find, then press the ENTER button to search. For example, if the program list is selected and you want to find all programs containing the word “Horn,” you would type h-o-r-n followed by the ENTER button. The Search page is not case-sensitive; it will find upper and lower case characters regardless of what you type.

After typing a term and pressing the ENTER button, the search page finds and selects the first instance of the term in the list (if it exists in the list). To find and select the next or previous instance of the term in the list, hold the ENTER button and press one of the NEXT or PREVIOUS button to search for the next higher-numbered or previous lower numbered object that contains the search term.



Note: Each combination of the ENTER button and a numeric button 1-9 allows you store a different search term. For example, hold the ENTER button and press the 1 button, then search for a term like “piano”. The term “piano” will now be available whenever you hold the ENTER button and press the 1 button. Next, hold the ENTER button and press the 2 button, then search for “string”. The term “string” will now be available whenever you hold the ENTER button and press the 2 button. A different term can be stored for each of the numeric buttons 1-9. These terms are stored until power off.