

KORG PANDORA PX5D Multi-effects for Guitar and Bass

KORG PANDORA PX5D Multi-effects for Guitar and Bass By Jon Chappell

The Korg Pandora PX5D (\$250 street) is the latest in the series of Korg's well-established mini-multi-effects processors for guitars and basses. This device is similarly sized as its predecessors—slightly larger than a deck of cards and an easy fit into your shirt or pants pocket when unplugged. It sports the same sound-generating engine, Korg's own REMS (Resonant structure and Electronic circuit Modeling System), but the PX5D's interface is improved significantly, including the addition of several realtime controls (including dedicated gain/mid, bass, treble, and volume wheels).

The Pandora line has always packed tons of features into a small but intuitively manageable and completely readable format, but the PX5D offers even more bells and whistles than previous Pandoras. In addition to the effects, I/O, rhythm composer, phrase trainer, and utilities (noise reduction, tuner, backlight options, footswitch configuration, MIDI, etc.), the PX5D has USB audio and data capabilities, allowing it to interface with any digital recording software (it ships with a version of Ableton Live Lite) and the included editor/librarian program for programming and data management (Windows XP only as of this writing).

Korg has promoted the PX5D to serve equally well in three settings: live, practice, and recording, so we'll explore the unit with those activities always in mind.

PX5D can be powered one of three ways: 1) on two AA batteries (which offer about 7 hours of continuous use); 2) with an optional AC adaptor; 3) or through USB power. Whenever I was near a computer, I always opted for USB power, which saves on batteries. Using the display's backlight option with batteries drains them faster, but with USB, you can run the backlight 24/7. If you have a powered USB hub, you don't even need a computer, and you won't have to purchase the optional AC adaptor to run the PX5D.

The

Though the package doesn't come with the AC adaptor, it does include a stereo breakout cable to support two footswitches, which you'll definitely want to employ for live use. Footswitches allow you to step through programs as well as perform transport functions (start/stop/record) in the Phrase Trainer and Rhythm & Bass modes.

The PX5D accepts external audio signals in both its USB and 1/8" stereo inputs, so you can record your guitar and another source for use in the phrase trainer or sent to your software recorder. There is a three-way switch for USB power, On (using the batteries), and Standby (meaning "Off"), plus a low/high input switch for optimizing the signal of your particular type of pickup. The 1/4" output jack doubles as a stereo headphone out and stereo/mono line out for connecting to an amp or mixer.

For a detailed look at the features, we'll start with the modeling and effects and move on to the rhythm and bass patterns, the phrase trainer, the I/O (which includes live control), and finish up with the interfacing and utility capabilities. Even if you don't need to do heavy editing in some of these sections, you can appreciate the features just by sampling the pre-programmed versions the PX5D ships with. The PX5D offers 100 presets and 100 user locations with a four-point cursor switch that allows you to easily scroll up or down through both banks (preset and user), and will "wrap around the corner" (to go easily from U99 to P00 and P99 to U00 in any direction). You can assign four of your favorite sounds to four large, centrally located program memory switches (A, B, C, D) for one-touch access. You can also use a footswitch to go up and down through the presets or through the memory switches for hands-free operation. Each program allows up to 7 simultaneous effects, which includes the more "modeled" sounds of pickups, amps, and cabinets, as well as the more traditionally conceived effects, like dynamics (compressor, wah, exciter, etc.) modulation (chorus, flanger, phaser, pitch shifter, etc.), delay, and reverb.

Stepping through the presets gives an instant demonstration of the variety of sounds—distorted, clean, acoustic, complex, straightforward, spacey, high-tech, and non-guitar (e.g., resonator and synth simulations).

Here's a photo showing effects modules activated:

Effects

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The Pandora presents the fixed scheme of effects in this order.

DYNA (for dynamics—compression, auto-wah, etc.—and pickup modeling)

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AMP (amp modeling, including 15 guitar and 10 bass amps)

CAB (for speaker cabinet modeling, including the speakers themselves)

MOD (for modulation and filter effect modeling)

DLY (for delay effects, including tap tempo)

REV (for reverb and ambient effects)

NR (noise reduction, for cutting off the audio in high-gain settings)

Noise reduction is not shown in the display as the 6 other effects are, but is available and editable.

So a typical program using all 7 effects might have this scheme:

DYNA: HUM -> SGL

AMP: UK BLUES

CAB: 4X 12CLS

MOD: PHASER 1

DLY: SLAP 1

REV: SPRING2

NR: 4.3

Translated, that means you've enlisted the pickup modeler to turn your humbucker into a single-coil; you chose a British vintage stack amp head and married it to a closed-back cabinet with four 25W 12-inch speakers; you're strapping on a vintage-style four-stage phaser with a thick midrange; you've thickened it with some slapback delay; and you're slathering the whole thing in a dense spring reverb. You've also dialed in some noise reduction, which helps quell the single-coil hum in a high-gain situation when you're not actually playing.

There are far too many selectable models to list here, and there's no online pdf available yet (though I'll post it as soon as it becomes live), but you can get an idea from looking at a scan of the manual I made that shows the models just from the DYNA section.

Sometimes you'll find an effect in the DYNA section that you thought might be somewhere else—like in the MOD section—so it pays to read carefully through the DYNA choices, as this contains the widest variety and most dissimilar types of effects. For example, in addition to the usual dynamics processors like compression and limiting, there are also “pedal models” such as wahs, octavers, fuzz, overdrives, a ring modulator, and lowcut (for reducing sub-audio frequencies when recording). Here's where I

found several neat effects for bass, including Preamp1 (for producing a clean clear bass tone), Balance (which models the sound of blending the output of two bass pickups), and my favorite, Fretless (which effectively simulates a fretless bass by adding slight envelope to the sound).

Sounds!

Korg already has recorded some impressive demos using just the presets, featuring David Spann and Paul Kramer. A more complete selection is available at <http://korg.com/PX5D>, but here are some of my favorites:

Distorted/Lead Sounds

[00_Metalic_Ds.mp3](#)
[Arena_p64.mp3](#)
[Battery_P50.mp3](#)
[BigLead_P55.mp3](#)
[Coheed_P04.mp3](#)
[Delayed_P48.mp3](#)
[LASHred_P61.mp3](#)
[Mr-SG_P12.mp3](#)

Clean/Acoustic

[12String_p38.mp3](#)
[40_Reso-Ds.mp3](#)
[AcoustC_p33.mp3](#)
[Blueyes_P01.mp3](#)
[BowAttk_P05.mp3](#)
[Jazzy_P25.mp3](#)
[Rotary_P47.mp3](#)

Weird/Effect-y Sounds

[16_Subsynth-Ds.mp3](#)
[43_Spaced_DS.mp3](#)
[Ascend_p35.mp3](#)
[Reverse_P49.mp3](#)
[Spaced_P43.mp3](#)

By the way, if you're thinking of checking out the PX5D at your local emporium, the numbers above represent the factory program locations **Effects Continued**

Okay, so you see that there are 7 effect blocks, and I've posted the page from the manual of the first effect, DYNA. There are 6 more effects to go, and within each block are numerous options, just as in the DYNA block. All told, there are 180 separate REMS-modeled effects to choose from, and each is editable in some way—including the ability to turn it off and keep it out of the chain entirely. Pretty flexible stuff here.

Following are the other 6 REMS-modeled blocks, and brief descriptions of their operation.

Amp

There are 34 different amp models here, from clean boutiques to British and American classics (Tweeds, Blackfaces, Boogies, Marshalls, Vox AC15's and AC30's, etc.). In the manual, each amp model comes with a recommended speaker cabinet, and it's a good idea to start off here, but you're certainly welcome to experiment with different cab combinations. Within the amp modeling section is where you find the guitar and bass synth simulations. If you listen to the mp3 from the previous post [16_Subsynth-Ds.mp3](#), you'll hear one of them in action. There are three guitar synths and three bass synths, and the parameters include filter cutoff range, envelope decay, waveform selection, synth and guitar or bass level.

Cabinet

The PX5D provides 23 different cabinets: open- and closed-back, speaker size (10" bass vs. 12" guitar) and configuration (1x12, 2x10, 4x12, etc.). The cabinets are also labeled by quality, so you have selections such as "4x12 Vox closed back with neodymium speakers" vs. "4x12 closed back with 30W speakers" vs. "4x12 closed back with 25W speakers." There are several bass amp cabs here, too.

Modulation

There are 56 total modulation effects here, but many are variations of each other (like 4 flangers and 4 talk boxes). But it's an impressive array, and you get an intelligent pitch shifter as well as the usual time-based effects (phaser, chorus, flanger, rotary, etc.). Some of the more interesting effects in this section include a feedback generator that artificially produces feedback at pitch or one octave higher. There are the aforementioned talkboxes, random step filters, a drone generator that sounds like a tambura, an envelope pitch shifter (which varies the pitch according to the strength of your pick attack), "infinite" flangers that raise or lower the pitch "forever" (listen to [Ascend_p35.mp3](#)), and other sonic mischief you can get into.

Delay

You can choose from 6 different delays (Slap, Echo, Clear Delay, Ping-pong, Multi, Reverse), and each has 5 variations with different feedback amounts. This isn't as versatile as having individual and continuous control over the feedback parameter itself, but you can get pretty close to any sound just by stepping through choices 1-5. To hear a reverse delay, listen to [Reverse_P49.mp3](#).

Because it's more critical to have control over delay time, the Delay block includes a sub-block just for adjusting the delay time. You can go from 20 ms to 1,000 ms in 20 ms increments. You can also tap the tempo in via the front panel button or a footswitch, and the display will reflect the millisecond (but not the tempo) interval.

Reverb

11 Reverbs round out the last of the true effects (there's one more to go, Noise Reduction), and include plates and springs, as well as simulated rooms and halls. Three novel programs appear: Dryair, which produces a sensation of dry air, and Wetair, which does the same thing in a moisturized version. Then there's a non-natural, but nevertheless pleasing "Bright" selection which makes the air sparkle. Check out [12String_p38.mp3](#) to hear this program.

Noise Reduction

The final block has only one program, but it's treated as an effect with respect to the signal chain architecture. It appears last in the chain, and as such will cut off any reverb tails. Some people would prefer to put their noise gate in front of the reverb, but none of the effects in the PX5D is movable. A noise gate is a welcome addition to any effect multi-effect, and better to have it than not.

That concludes the tour of the effects section. The wide variety of sounds is truly impressive, and there are many surprises and unorthodox sounds (like the synth sounds and the reverse delay) to be found in and amongst the standard fare. Changing sounds within the blocks is quick and easy, and I used the manual often here, not because I needed help navigating the interface, but because I could see the listings and descriptions of the effects themselves.

Rhythm & Bass Mode

As with previous Pandoras, the PX5D comes with a programmable rhythm unit, called "Rhythm & Bass" mode. It works in the modular way, similar to drum machines, where you have existing patterns that can be chained into songs and arrangements. There are 128 total patterns and you can organize up to 16 of these patterns in a single chain. You can save up to 20 chains inside the machine itself. If that isn't enough, you can offload them into SoundEditor, the included editor/librarian (assuming you're running a Windows XP computer). So while the number of patterns is fixed, the ways to chain them together are infinite if you employ SoundEditor.

Initially, I thought there was one more level, called "Song," but it turns out this option just selects the demo songs pre-programmed (and uneditable) into the unit. It's a bit of a drag to have the demo mode get equal billing in the interface, making you cycle through it (pattern/chain/song, pattern/chain/song, etc.) every time you want to work in the rhythm composer. I don't mind a hard-wired demo song, but it's better to have it accessed through some obscure combination of button presses so that it doesn't get in the way of daily work.

128 patterns certainly already seems like a lot, but it's really more when you consider that each of the patterns offer two variations, which you can access by hitting the Enter/Rec switch. The usual complement of grooves are presented here, including Rock, Pop, Metal, Disco, Drums 'n' Bass,

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Ska, various Latin grooves, 6/8, 7/8, 9/8, 2/4, 3/4, 5/4, Blues, Reggae, etc. Also included are 8 basic metronome sounds, which is nice, as some instructional situations don't require a "groove," just a nice steady tick from the metronome. Even these have two variations each!

I decided to include the page from the manual listing the rhythms. You'll see there's everything here but the kitchen sink.

To hear what the bass and drums sound like, here's a recording of about one minute's worth of Demo Song 1. Pretty good quality, and not over-hyped with respect to EQ or ambient treatment. I especially like the bass guitar, snare, and hi-hats (closed, open, half-open). Interestingly, the audio from the drums and bass will capture some artifacts from the guitar and bass programs if you have an outrageous effect going. Aside from that, you can't isolate the drums from the guitar (say, for separate processing in your DAW). Both are mixed to the PX5D's stereo output with no panning options.

[PX5D Demo Song 1](#)

One very cool feature is that you can record the rhythm and your guitar playing in the Phrase Trainer (discussed later), for repeated looping and tempo adjustments.

SoundEditor -- the editor librarian for sounds and rhythms

Since we've explored the preset sounds and the Rhythm & Bass mode, it's a good time to take a look at SoundEditor, the editor/librarian that ships with the PX5D. It's available only for Windows XP at this time, but Mac and Vista versions should be coming soon. Check korg.com/PX5D for details if you're on one of those operating systems.

If you're not used to a USB editor for a multi-effects, and you like to tweak sounds, then this is for you. I've already mentioned the two benefits of plugging your PX5D into a computer using the USB cable: 1) it draws power from the computer and saves batteries (and you can keep the backlight on indefinitely; 2) it allows you to record your guitar and the rhythm sounds directly into an audio program (GarageBand, Audacity, Traktion, Live, Cubase, Cakewalk, etc.). But the third option is that you can use the computer screen to edit your sounds. This has several advantages. For one, you can see all the parameters at once, so if you're editing an amp sound, you really want to see all the parameters at once—like you would on your amp panel. And you can't do this if you're just looking at the PX5D. Take a look at this image to see P22, "SupacIn," to see all the amp parameters (as well as the effects selection and settings) at once.

Remember, tweaking on the computer screen makes changes on the unit itself, though the magic of USB (and the converse is also true).

Of course, because SoundEditor is not just an editor, but a librarian as well, you can save any sound you create into a user location. You can make several versions of the same sound with just one slight difference and load them all in, which is a good way to A/B (or A/B/C/D, etc., as necessary) a pair or group of sounds.

Rhythm & Bass Programming with SoundEditor

SoundEditor also works with the PX5D Rhythm & Bass Mode, and it's just as valuable for creating chains—Korg's parlance for drum-machine-style programming of songs. Here, you chain together patterns and their variations, transposing as necessary the bass part to match the chords of the song.

For example, take a look at the image below, which is "Chain_01," a 12-bar blues. If you look at the patterns while listening along to the mp3, you can really see how the patterns work. You will also realize how much easier it would be to program songs, jams, and grooves using SoundEditor than trying to use the PX5D's front panel. But you can do that too. It just takes longer and it requires a lot of concentration.

The chain mode allows up to 16 different patterns, but that doesn't mean your music is limited to 16 bars. Note that in the "Repeat" slot, you can specify how many times a pattern plays. This is not as good as being able to, say, write your own drum fills or the individual bass notes, but it's pretty versatile.

[Check out Chain_01: PX5D's 12-bar blues.mp3](#)

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Remember: Listen along to the mp3 while "reading" the above image. It's one bar (four beats) for all the Repeat windows that say "x1" and two bars for all patterns with "x2." After you get familiar with the form (and can keep your place in the music), then you can see how the basic, variation, and transposed patterns interact to create a usable blues groove.

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I picked the 12-bar blues because most people will have a pretty good feel for this anyway. (Note that the following 4 slots of the available 16 are left blank.)