Lesson 2: The Bass line Synthesizer

The bass line synthesizer built into PSP Rhythm (4.0 to current version) is a real-time, virtual analogue, monophonic synth. This tutorial is going to assume that you know how to change system settings, program the sample sounds into drum patterns, and save all of your work. If you don't know how to do this, I recommend you read Lesson 1 first. As with Lesson 1, I'm going to teach you how to use the bass line synth by example, so we'll start off laying down a beat, I'll show you all of the bass line synth's features as we program the pattern, and then we will explore the real-time controls in action.

Part 1: Give me a beat

1) In the previous lesson we went over the most basic beat, the 4/4. This time around we'll program a simple break beat. Let's go into SYSTEM MODE and change the following settings (in this order):
   Load Bank: 2
   Tempo: 85.0
   Swing: 75
   Pattern Mode: - Classic
   Synth Waveform – Saw
   Load Kit: 4
2) Once you have those settings, Save the System settings.
3) Go back to PATTERN MODE
4) Let's start on an empty pattern. If you're doing this lesson right after lesson 1, then pattern 1 should have a beat on it, so let's go to PATTERN 2 by moving the D-pad until the button cursor is over STEP 2. Press the TRIANGLE button to change the current pattern from pattern 1 to pattern 2.
5) Now we can start programming our break beat. Activate the Kick drum on step 1 and 11.
6) Next, activate the Snare drum on steps 5 and 13. If you haven't pressed START to play the pattern go ahead and do it now. You can hear a simple break beat.
7) Let's check out what SWING does. Activate the CHH on every step (1-16). Can you hear the swing or shuffle that the CHH does? Swing is a crucial feature on all drum machines if you want to give your drum pattern that 'loose' or 'human' feel. Let's turn down the CHH volume just a bit, to around 50 so that it doesn't cover up our Kick or Snare drums.
8) Let's make this break beat a little more funky, so activate the Kick drum on step 7. Activate the Side Stick on step 8. Turn the Side Stick volume down to 50. Activate the HH pop on step 10. Turn the HH pop volume down to 50. Activate the Cross Stick on step 12, 14, and 16. Turn the Cross Stick volume down to 50. Isn't it fun to layer sounds as you play the program?!

Part 2: Give me some bass

I don't want to mislead you but the bass line synthesizer's tone is actually quite high. This is by design, because the original bass line synth was also high. Now the best thing about the bass line synth is that you can program just about anything and it will sound good! Let's start of by introducing what the bass line synth sounds like. So go to sound 16: Bass Line.

1) You'll notice that when you press SQUARE on an empty step, the bass line synth won't play a sound (as with the samples sounds). The only way to hear the synth is to activate some steps. So let's activate the synth on steps 1, 2, 3, and 4 by pressing the X button only once on each step.
2) Let's make sure that we're all hearing the same thing by changing the synth parameters (via the trigger buttons and analog stick) to these values:
   VOL: 75
   CUT: 1
   RES: 1
   ENV: 100
   DEC: 1
   ACC: 100
3) Now I'll introduce you to the TIE function. Press the X button once on step 2. What the TIE function does is extend the note that plays right before the tie. You can tell a step is "TIED" to the previous step by the green color of the step light. Activate TIE on step 3 to hear the extended note even better.
4) On step 4, press the X button twice, to activate ACCENT. You can hear that the accented step is much louder than the previous steps, as well as it being a much faster, punchier sound.
5) Let's learn about SLIDE. Go ahead and activate step 9. On step 9, press the X button 4 times, or until ACCENT is OFF, and SLIDE is ON. On step 10, activate the step normally (red step light) an change the pitch to C1 (Sem 24). You'll notice that when SLIDE is activated, it "slides" the step to the pitch on the following step. If the slide is hard to hear, change the bass line synth DEC parameter to 100.
6) Now let's hear what an ACCENT/SLIDE combo sounds like. Activate step 13 by pressing the X button 5 times. You'll see in the main display that Accent and Slide are both set to "On". You can hear the Accent, but the next step needs to be active to hear the slide. Activate step 14 by pressing X once. Change the pitch of step 14 to F –1 to get the notes to slide lower in pitch.

Well this example isn't very exciting, but we do go over the basic "hit states" the sequencer can do, so let's move on to getting the bass line to really scream! Also note that this synth was originally designed to simulate a bass guitar player.

Part3: Acid!

Obviously, this synth doesn't mimic a bass player very well, but it was pick up by techno producers and Acid House was born. This synthesizer has become loved and hated, but either way, it has made a big impact on electronic music. So let's make a bass line that is more along the lines of Acid House.

1) Before we start to program, let's get our tempo and swing to a more appropriate setting. Go to SYSTEM MODE and change Tempo to 130.0 and Swing to 50. This would be a good time to save your BANK and Save your SYSTEM SETTINGS. After that, go back to PATTERN MODE.
2) Go to a blank pattern by pressing the TRIANGLE button. I'm going to use pattern 3.
3) Program the Kick drum on steps 1, 5, 9, and 13. (The pitch setting may be saved from the bass line, so if the pitch isn't C0, then press the SQUARE button once to reset the pitch value). After that, activate the CHH on every step. Turn the CHH volume down to 25.
4) Go to the bass line synth and press X once on each step. The bass line pattern should hit in unison with the CHH.
5) Before we get any further, let's tweak some bass line settings in real time so that we can hear how they affect the sound. Use the trigger buttons and the analog stick to navigate to, then control the CUT parameter. You can hear that as the knob gets closer to 100, the sound gets brighter, while at 1, it is a little more dull. Right now, my parameter settings are:
   CUT: 1
   RES: 1
   ENV: 100
   DEC:100
   ACC:100
6) Let's get this sounding more "ACID" by turning the DEC down to 1, the RES up to 90, and the ENV to 1. This synth tends to get out of control, so make sure your volume isn't too loud!
7) Now try moving the CUT parameter. You can hear the filter sweep back and forth. If your analog stick setting is fast, then this synth gets really fun. For a future lesson, I'll show you how to manually program a filter sweep in extended mode so that you can automate your bass line synth!
8) Let's change the pitch of every step to anything you want. Sometimes these random patterns produce the best results!

9) After that, set up some TIES, ACCENTS, and SLIDES randomly to make this even crazier! (press the X button on the step, When you press the button it cycles from on – tie – accent – slide – accent/slide - off).
10) Now, tweak all of the real-time parameters (CUT, RES, ENV, DEC, and ACC) to get an idea of what they do. Like I mentioned in a previous step, The CUT, RES, ENV, and DEC knobs interact with each other, so combinations of the settings produce different results.

Thanks for sticking with this lesson. I didn't realize that there was so much to cover! I hope you have as much fun with the bass line synthesizer as I do! For the next lesson, we'll take what we've learned and make a complete song out of a single pattern by introducing you to EXTENDED MODE, SONG MODE, and rendering your audio to a .wav file.