BD8909

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BD909

Introduction.

The BD909 is a recreation of Roland's TR-909 analog bass drum sound generator adapted for modular synthesizer use. The front panel contains all of the controls found on the original TR-909 drum machine, allowing you full control over the sound's volume levels to mix with other drums and accent levels, decay tune and the envelope attack and decay segments. In addition to those original controls we have also added new controls, further enhancing this legendary sound generator.

Let's get started.

To start using the BD909, just plug a gate signal into the GATE input, plug the BD OUT to your sound system, set the LEVEL half way, set the Overload knob to min, set the ACCENT to halfway.

Let's get started.

To start using the BD909, just plug a gate signal into the GATE IN and plug the BDOUT to your sound system and set the LEVEL half way.

Tuning explained.

The BD909 contains three tuning control knobs plus a VC tune with attenuator knob for scaling the control signal. This wide range of tune shaping enhances the original circuit, turning it into a real analog bass drum laboratory. The OSC TUNE knob is there to let you offset the starting and ending frequency of the bass drum sound. The Tune Decay is the original tune knob found in the 909 machine but with a slightly extended range. The Tune Attack is a new control which not only adds variation to the sound, it also affects the Tune Decay knob, therefore creating many more sweet spots than found on the original. The combination of these three knobs are the main synthesis tools of the BD909.

Overload explained.

The BD909 is based on a triangle VCO and a sine wave shaper that filters the triangle harmonics and producing a wave which sounds more like a sine wave. The overload knob and CV input form a control circuit that was added to the waveshaper, letting you overload the waveshaper circuit, therefore adding more odd harmonics to the wave shape. In low doses this means more punch, and as you keep overloading, the sounds get distorted up to total destruction.

Dynamics and Gain:

Accent and Levels:

Dynamic Accent and Level control of any drum sound in the mix is a big part of making a beat sound right. Dynamic Accent provides emphasis on a particular note through loudness. In analog circuits like the BD909, the accent pulse physically "hits" the internal envelope circuit harder and provides not only a louder sound but also slightly more attack (much like if you were to hit a real bass drum harder with a drum stick).
While the original 909 has one global accent knob for setting accents levels for all of its sounds, the BD909 (and all other drum modules in this series) offers an independent accent level control. This feature adds to richer dynamics than what was possible with the original machine.

Accent Explained:

The accent input can be driven by either a gate/trigger or CV signal. While the accent input is not in use, the incoming gate input is routed (normalized) to both the accent input and the gate input. This serves for two purposes:

1. To allow you to reach the hottest drum sound possible even when there is no accent input signal connected.

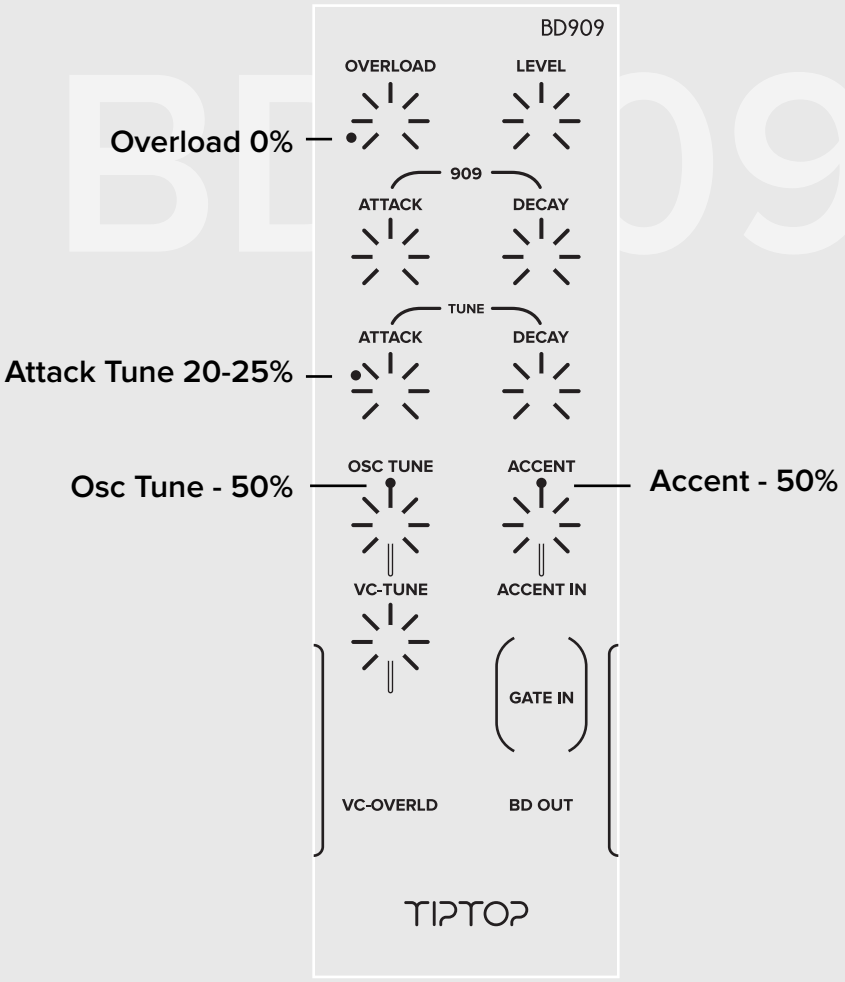
2. It makes the ACCENT knob act as a fine control of the output gain level. This is very useful in situations where the level knob range is too coarse for setting precise levels in a mix with other drum sounds.

Connecting a gate or CV signal into the accent input will break the internal routing mentioned above and will allow for independent control over accent regardless of the incoming gate signal. In this case as long as there is no accent signal present, the drum sound will be set to the minimum accent level set internally, and once the accent input gets hit by a gate or CV signal, the drum sound will get louder in proportion to the accent level set by the accent knob. In short: the higher the knob setting, the larger the difference will be in gain levels between the accented notes and the un-accented notes. Using CV allows for even greater variations.

The sound of the BD909.

The BD909 really shines when it is played alongside a nice big bass line. Most of the energy of the BD909 is centered in the mid range of the sonic spectrum, the result being that there is headroom for deep low bass lines to fill up the lower end without “fighting” the bass drum in the mix. This quality of the BD909 makes it a real joy to work and mix with. Try mixing two Z3000’s set to 30-50HZ into the Z2040 with a snappy envelope from the Z4000 to the Z2040 FM IN. Set the Z2040 frequency very low so it creates a bass line and mix that with the BD909; you get a great-feeling groove that is full of energy.

Original BD909 sound :



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