



Crash Test #1

BOOM THEORY SPACEMUFFINS 0.0 MODULE

By Norm Weinberg

There's a new kit in town! Spacemuffins has been around for a few years, but the big news from Boom Theory is the company's new 0.0 drum module. This is the only drum brain designed and manufactured in the USA, and it's definitely got its own style and attitude.

The Basics. The front panel is a sight to behold — it's well laid out, organized and clear in form and function. The left side of the rack contains ten channel strips that correspond to the module's ten trigger inputs. Each strip has a knob for trigger gain, trigger volume, treble and bass. Along with all those cool knobs (40 in all!) is a trigger signal LED and a trigger edit/preview button.

I can't tell you how fast and painless it is to reach over and make these adjustments right on the front panel of the unit. Instead of going into various menus and editing screens, you can simply adjust the sensitivity, volume and tone quality of each trigger.

The right side of the rack contains the normal stuff, like the power switch and the menu screen. All programming is done through a selection knob, five edit buttons and four edit knobs. Rounding out the front

panel are three volume knobs: auxiliary input volume, headphone/monitor volume and main volume.

The 0.0 module's back panel sports ten trigger inputs, and ten individual audio outputs. In addition to the individual outs, there are main stereo outputs and a mono monitor output. There is also an auxiliary input (stereo) for connecting your CD player or other sound source to the system. There is a CV (control voltage) pedal input, an input for a dual foot switch, and the three MIDI port jacks. If you use the 0.0 module with the company's Spacemuffins Integrated System, you can bypass the ten trigger inputs and use the multi-input port that is included on the back of the unit. Unfortunately, the review unit did not include this cable, so I wasn't able to test the multi-input port.

The audio features of the 0.0 module are very well conceived and extremely versatile. When using the individual outputs from the back of the unit, the signal bypasses the front panel's volume, treble and bass controls. The aux input is not combined through the main outs. Instead, this signal is only sent through the headphone and the monitor outputs. Both the monitor and the headphone outputs share the exact same signal (including

aux, volume and tone controls), except that the monitor output is a mono signal and the headphone output is a stereo signal.

The 0.0 module is very easy to understand and to program. The module's operating system is so straightforward that you should be up and running with this unit in less than an hour. The 0.0 module has locations for 64 drum kits, and comes from the factory with ten kits pre-programmed into memory. Here are the kits and their descriptions as stated in the manual: "Standard Set," a standard kit with MIDI out on channel 10; "Rat Race," a good example of "roll" mode; "Al's Stack," use of velocity switching on snare; "Quazi Industrial," industrial set;

Model: Spacemuffins 0.0

Suggested Retail Price:

\$1,600

SPECS

Feature Set: Ten trigger inputs, ten individual audio outputs, stereo, mono, and headphone outputs, front panel gain, volume, treble and bass tone controls for each trigger, 250 onboard samples, 64 drum sets, up to eight parts per trigger, 64-note polyphony.

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"Acid Flash," flashback to the techno-type sets; "URI," velocity stack on kick drum ... can you hear it saying "URI?"; "Velocity 8," eight levels of velocity switching example; "Latin Loop," loop on trigger 6 (use optional foot switch to sustain loop); "Multi Ethnic," ethnic drum set; "Snare Charmers," optional CV pedal for pitch bend.

One of the most impressive features of the brain is the ability to play up to eight "parts" from a single trigger. Parts could best be described as single sounds with all of the various programming options attached. For example, a part might be a tambourine sound, a snare rimshot, a bass guitar note or any one of the 250 internal sounds in the 0.0 module. Be sure to listen to the demo songs to hear what this power can do.

Part Editing. The programming options that are available for each of the eight possible parts are fairly extensive. They include: "Internal Sound," any one of 250 internal sounds; "Velocity Curve," six curves to adjust the response to your playing; "Note Value," this can better be described as pitch or tuning; "Velocity Mode," two choices here: multiple mode, to let a sound decay to the end (even if the same sound is struck again), and single mode, to cut off a sound if it receives another strike (good for loops); "Volume," to control the individual volume of each part separately; "Pan," stereo position setting from -64 to +64; "Minimum Velocity," determines the low-end playing velocity that will fire the sound; "Maximum Velocity," determines the upper-end playing velocity that will fire the sound; "Gate Time," two uses here: one is to determine the hold time before the decay begins (which is most useful on long sounds and loops), and the second is to control external MIDI modules and assign the amount of time between note-on and note-off MIDI messages; "Decay Time," only for internal sounds, this value determines the speed of

the decay after the gate time value; "MIDI Channel," each part can send (or receive) on any of the 16 MIDI channels; "MIDI Note," each part can send its own MIDI note number; "Sustain Foot switch," with an optional dual foot switch, you can turn on a part's ability to sustain sounds (again, it must be a sound with a long enough sustain, such as loops or keyboard sounds); "CV Pedal" and "Modulation Depth," with the optional pedal, you can control the volume or pitch bend. Higher values allow for greater volume changes or wider variation to the pitch.

Each trigger input can be played in one of four different modes: normal, roll, random and hi-hat. In normal mode (the default mode), any of the stacking or switching functions between the eight parts are available. Playing a trigger programmed in roll mode will "roll" or alternate through all eight parts on each strike. In random mode, the parts will randomly fire each time the trigger is hit. With an optional foot switch, you can use the hi-hat mode to assign an "open" sound, a "closed" sound and a "closing" sound to parts 1, 2 and 3.

Tracking. The 0.0 tracks great! I tried it with two different brands of electronic pads and I've got to say that the module made the pads feel more sensitive than they have in the past. Adjusting pads or triggers is really a snap! Adjust the gain with the knob on the front panel, and if that's not perfect, make minor adjustments to the threshold and cross-talk values in the editing mode.

The Sounds. The 0.0 module has 250 internal sounds. This might not sound like a large number of samples until you realize that each of them can be assigned to multiple triggers. Editing a voice assigned to one trigger does not alter that sound if it's assigned to another trigger. This means you can use the same sample for all eight parts (or multiple triggers) and edit each of them differently. Very Cool.

Some of the sounds have obvious loops. In other words, they are not "full" samples that decay in a completely natural manner.

Instead, they are shorter samples that have a portion of the decay looped.

The tuning of the internal sounds (called internal note value, a confusing parameter name) is displayed as half-steps. For example, you can tune a tom sample to E, F, F# and so on. For many of the drum and percussion sounds, each half-step shown on the display does not actually correspond to a half-step in the actual pitch of the sample. When triggers are set up with timpani sounds, the interval shown on the display can be an octave, while the actual pitches you hear produce a perfect fourth. This is good, because I don't usually want a drum's relative pitch to imply harmonic structures. You can tune the pitches for some of the melodic instruments, such as the MT sounds (which include steel drums), and the display matches your tuning.

The 0.0 module is full of useful sounds. There's a good selection that includes everything from good old rock and roll drum sounds to some of the newest trip-hop timbres, and everything in between. Just to give you a flavor of some of the sounds, they include: 33 kick drums, 37 snares, six toms, eight closed hi-hats, six open hi-hats, one pedal hi-hat, two crash cymbals, two Chinas, two ride cymbals, four cowbells, 11 shakers, five timbales, two timpani, seven udu drums, six djembes, one gong, six bells, three organs, 12 basses, six strings, eight brass, ten "Hits" and assorted grooves and special effects.

The Manual. Okay, Boom Theory. Put together a more complete manual! It's great to have a short manual (20 pages) that doesn't require a personal tutor and Master's degree in linguistics. But it would be nice to have a list of sounds. I don't really care whether or not the sounds are named (i.e. resonant brass piccolo snare with long decay in an auditorium on a Tuesday afternoon), but I would like to know how many snare or tom samples there are, and where in the 250 sounds the djembe samples begin.

I've been playing electronic percussion instruments since 1984, and once I look at

the manual and see what's available in the feature set, my creative juices begin to flow. But there may be players who would like to get this kit but don't have extensive experience with layers, stacking, decay levels and random modes. The manual does include a single tutorial that creates a trigger with a timbale sound, stacked with a China cymbal at the highest playing levels, but that's it. It would be a good idea to include tutorials on the various features of the module.

The Kit. The Spacemuffins kit that was sent for review was a five-piece with an 18" bass drum, 10", 12" and 15" toms, and a metal-shell 13" x 4" snare drum. The drums are not your typical electronic pad. These are real drums! The only difference between normal acoustic drums and Spacemuffins is an internal baffling system that deadens the acoustic sound of the drum and also acts as the electronic triggering system. On the side of each instrument, in an unobtrusive location, is the output jack. The drums aren't silent — you can definitely hear the contact sound when the stick hits the head — but they are highly muffled.

How do the drums feel? Very good. To be totally honest, they don't feel exactly like acoustic drums. Each drum has a piece of foam under the drumhead that somewhat inhibits the natural resilience of a totally unrestricted head. At impact, the head feels just a little stiff. On rebound, the stick has a little less bounce off the head. If you've ever played on a Quiet-Tone drum mute, you'll recognize the feel of these drums. Since

Spacemuffins are real drums, you can adjust the feel a great deal by tightening or loosening the heads.

How do the drums track? Outstanding! It took just minutes — really! — only about ten minutes to plug the drums in and adjust the gain, threshold and crosstalk controls to optimum levels. If you're looking for an electronic drum that will track a closed roll, offer a full range of playable dynamics, track well over 100 percent of the head's surface and not have any hot spots, this is the drum! Without a doubt, the Spacemuffins drums feel and track as good or better than anything that's ever been available.

Pros. The 0.0 module has a very simple user interface, yet it contains enough muscle to please the most demanding electronic drummer. The flexibility of minimum and maximum velocity settings makes it easy to layer sounds for a more "acoustic" timbral response, or experiment with creative expression.

The hi-hat mode can be used with all triggers to essentially make two different drum sets (one with the "up" pedal position and one with the "down" pedal position). The preset kits are good illustrations of the power and flexibility of this module. There is even a "Note Chase" feature so that you can check out your editing without programming other pads by mistake.

Not only is it great that a single sample can be edited and used in all eight parts in all ten triggers, but each sample can be tuned over an eight-octave range! Oh, did I

mention that this unit is fast? I detected absolutely no delay from my stroke to the sound coming out of the speakers. No matter what I played, the combination of the 0.0 and Spacemuffins drums could take it.

Cons. Not much! Besides the manual, programming multiple parts requires that you move back to a screen to select the part, then move up a screen to set the sound and edit it. This extra step is going to be fixed in a new update just announced by Boom Theory. By using a pedal, you will be able to play through the eight parts and freeze one for programming. This should bypass the need to jump from screen to screen.

The brain that was provided for review was extremely noisy. The master volume knob outputs a nasty hash as it is turned. It might be something as minor as a noisy part, but it's something that should be fixed. A bigger problem is somewhere in the amplifier section. When the gate time and/or the decay are set to off (to play sounds at their full length) or to high values, there are several very weird artifacts in the samples. These might be due to the wide range of pitches available by tuning. When the decay portion of the envelope kicks in, you can hear the sound of the audio gate closing.

To be honest, these artifacts and noisy envelopes are extremely soft and I didn't notice them until after I had played with the unit for a while. But it might be quite a problem in a studio environment where an absolutely clean sound is required. **D!**