

MOOG MUSIC

Little Phatty Analog Synthesizer

While the rest of the world churns out “virtual analog” and soft synths with bells and whistles galore, Moog Music continues to make elegant, mono analog performers. *FM*'s James Rotondi asks, will the new affordable Little Phatty prove they were right all along?



Since the passing last year of legendary synthesizer pioneer Bob Moog, he and his company, the North Carolina-based Moog Music, have received countless tributes and respects paid. As the man who put synthesizer technology into the hands of ordinary—and often extraordinary—musicians, Moog changed the role of the synthesizer forever with his revolutionary Minimoog.

THE TIP SHEET

LIST PRICE \$1,475

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KEY FEATURES 37-key monophonic synthesizer; two ultra-stable VCOs; one Lowpass Classic Moog Ladder Filter; four-stage analog envelope generators; RAC (Real Analog Control) enables 100% analog control of circuitry with no digital processing; MIDI IN/Out; External Audio Input; Pitch, Filter and Volume CV inputs for expression pedals; Keyboard Gate input; oscillator Sync function.

But even with as great a legacy as Bob left them, Moog Music the company knew that eventually it needed to do more than simply rest its laurels on Bob's past accomplishments. With their stylish and portable new Little Phatty two-oscillator, 37-key mono synth, Moog Music—now under the directorship of Mike Adams—have brought Bob's final vision to life and to the marketplace. By offering it at a substantially lower price point than their flagship Minimoog Voyager, they're also continuing their founder's tradition of making top-shelf analog synthesis affordable for working musicians.

It wouldn't be the first time Moog have sought to make their trademark sound available in a more cost-effective package. If anything, the Little Phatty, with its simple two-oscillator design, clean and logical front-panel layout and stunning—if stripped-down—filter section, harkens back to earlier Moog staples, notably the Moog Prodigy (released in 1979) and the sleek Moog Source (see “Back to the Future, page 98), both of which brought the basic characteristics of the flagship Minimoog into a more stripped-down design. (Interestingly, both the Prodigy and Source were designed after Bob left Moog Music in 1977.)

Ironically, both of these “little brother” synths are almost as coveted today as their more expensive and elaborate vintage cousins, the Minimoog and the polyphonic MemoryMoog, and Little Phatty seems destined for the same kind of appeal. While the Minimoog Voyager costs well over twice as much, Little Phatty offers many—if not most—of the Voyager's performance and timbral possibilities, with a quirky charm and simplicity that would have made its spiritual creator proud.

PHAT FARM

If you're already familiar with the layout and architecture of a Minimoog or Minimoog Voyager, you'll be ready to fly on the Little Phatty in no time. Compared to most contemporary digital synths and even the many software emulations of Moogs past, it's



decidedly simple, and that's part of the beauty of it. It's also a built-in limitation that may frustrate those accustomed to similarly priced synths with wider feature sets that offer polyphony, DSP effects, sequencers and arpeggiators, which the Little Phatty—like its big brother—does not include.

Built around two “ultra-stable” voltage controlled oscillators, one lowpass filter (Moog's classic 24dB-per-octave ladder filter) and two four-stage analog envelope generators (filter and VCA), Little Phatty is a genuine analog synth, despite the presence of a digital microprocessor that is used to store sounds, switch presets and perform other global tasks. When you tweak Little Phatty's parameters, for instance, using one of the four “Value” knobs assigned to each synthesis section, Little Phatty kicks into RAC, or Real Analog Control mode; in other words, the microprocessor keeps presets stable, but once you begin programming, you're interfacing with good old-fashioned voltage controlled analog circuitry, not software.

Along with its relatively straightforward construction, the Little Phatty is blessed with a smart, sleek layout. Each main section of the signal path represented on the front control panel—Modulation, Oscillators, Filter and Envelope Generators—includes a single large “Value” knob with 15 blue LEDs arranged around its perimeter that indicate the current stored or edited value of your currently selected parameter. You choose which parameter to view or edit by pressing any one of the soft buttons assigned to that section—the selected parameter button glows a bright blue—and you're off

to the races. While this means that you can tweak only one parameter within a given section at a time (no simultaneous sweeping of Cutoff and Resonance, for instance) it also means that you've always got a visual indication of where you are in your edit, a useful mnemonic device especially when tweaking different sections rapidly.

SLANTED AND ENCHANTED

The slanted main control panel is distributed along logical lines: Global controls, including a two-line 32 character LCD screen, +/-2 octave up/down buttons, Master and Preset mode buttons, Fine Tune and Value (preset select, among other duties), Glide On/Off, and Cursor and Store/Enter buttons are positioned on the far left. To its right, sagely positioned just above and to the right of the Modulation Wheel (and hard-wired to it), is the Modulation Routing section—Moog calls it a “Mod Bus”—including buttons for LFO Rate and Amount, and two rubber switches

PANELS Little Phatty's handsome wood side panel includes Filter, Volume, Pitch and Keyboard Gate CV Ins, plus MIDI IN/Out and an External audio input.



Listen to MP3 audio examples of Little Phatty as you read, and watch the video tour with keyboard ace Brian Kehew.

WHY YOU SHOULD BUY IT

Because you crave Moog tones, but can't afford to spring for a Voyager; you want a Prodigy, but want to be able to store and edit presets and keep the damn thing in tune; you want a serious performance synth for live gigs, especially for bass lines and leads; you want a piece of history.



to select between six modulation sources (LFO triangle, LFO square, LFO sawtooth, LFO ramp, Filter EGR and Osc. 2) and four destinations (Pitch, Osc. 2, Filter and Wave); again, a single large LED-equipped Value knob tops the section.

In the Oscillator section, each VCO boasts a dedicated rubber button to select between 16', 8', 4' and 2' octave settings, as well as a Wave control button which, using the Value Knob, allows you to cycle in continuously variable fashion—a kind of waveform morphing—from triangle through sawtooth to square to skinny pulse wave. Adjusting the relative amplitude of each VCO is

»Little Phatty's savvy control layout and portable dimensions accentuate its strength as a performance synthesizer.



accomplished with Level buttons, and common controls include a Glide button and a 1-2 Sync button, which allies the oscillators by causing Osc. 1 to restart the “period” or start point of the waveform coming from Osc. 2, thus giving both VCOs the same base frequency. Using Osc. 2's Frequency control, you can adjust its timbre separately—Sync is great for locking in tunings and then offsetting them for those classic Moog “shredding” effects or raising upper partials with a Ring Mod-like intensity. It's worth noting that—like the Prodigy before it—Little Phatty does not include a

Noise generator, though for most bass sounds and pure-sounding leads, it may not be necessary for your palette.

The Filter section, controlling Little Phatty's single Voltage Controlled Lowpass 24dB/octave Ladder Filter, boasts another fat Value knob assignable to buttons for Cutoff and Resonance (usually dubbed “Emphasis” on vintage Moog synths), Keyboard (KB) and Envelope Generator (EG) Amount, and Overload, a cool new feature—similar in spirit to the filter overdrive capabilities of the Moog Rogue, but with far more control—that really helps accentuate those

growling timbres that Moog are famous for. The Envelope Generator is a traditional ADSR setup, with buttons for each envelope parameter in both Volume and Filter Envelope modules. A Master Volume knob, Output On/Off and Headphone jack round out Little Phatty's far right display, while the solid synth-action 37-note keyboard is flanked by glowing blue Pitch and Mod wheels on the far left.

BLUE BALLS

Little Phatty, then, has one less oscillator than the bigger, more expensive Voyager (and thus no 3-

1 FM switch or 3 Freq switch), only four frequency ranges per oscillator (as opposed to six on the Voyager, although the Phatty's octave up/down buttons compensate for this somewhat) and no Noise source. It has just one filter, not two, with no pre-filter audio routing mixer, and its Modulation section is stripped-down as well; there's no sample-and-hold function, for example.

But despite these and other differences, the Little Phatty, within its range, arguably sounds just as good as a Voyager, and while it lacks the complexity that makes the Voyager so versatile, it tackles a surprisingly wide array of timbres extremely well, with the grain and presence one associates with “the Moog sound.” While subjectively it's arguable that many newer analog synths don't exhibit quite the same warmth and body as original vintage Minimoogs, Prodigys and Sources, that idea is belied by the massive bass tones and rich, complex harmonics we were able to extract from Little Phatty with minimal tweaking.

While our testing model, a prototype Moog sent us dubbed “Proto #6,” was loaded with 40 presets that ran the gamut from bearish sawtooth grinds to squirrely squarewave leads, production models will contain 100 user-editable presets; users will also be able to arrange their own preset “Performance Sets”; up to four groups of eight presets designed to make sound selection a snap during gigs or sessions.

To get an idea of how Little Phatty actually sounds, it may be wise at this point to access the Little Phatty MP3 Audio Examples featured on this issue's CD-ROM in the Extras section: play the “Bassline” sound for an example of Phatty's low-end girth and syrupy, expressive filter; “Bombastic” combines a stinging square with a final LFO pitch mod to great effect; in the higher range, “Plectrum Lead” gives a good idea of LP's beady lead timbres, the kind of signature sound that virtuoso players will really go for; engaging filter and a quick attack envelope, the plucky sound of “RobotSync” suggests the pairing of synced oscillators and jagged waveforms; the filter

envelope really shines on “Vox,” with KB Amount clearly cranked to get the most vocal quality out of each stroke; the classic synth bass sound of “SynthPopBass,” is characteristic of Little Phatty's lower frequencies.

These are just the tip of the iceberg however. By adding quality delay and other time-domain effects after the Little Phatty, and exploiting its left-side Input/Output section—which houses 1/4-inch Pitch CV Input, Filter CV Input, Volume CV Input, Keyboard Gate Input and MIDI In/Out, along with AC IN, Power On/Off and 1/4-inch Audio Out and an External Input (for processing audio through the filter)—its possibilities grow exponentially. While bass and lead sounds are, as with all Moogs, its bread-and-butter, creative synthesists will find gorgeous muted (monophonic) pads, chugging filter-assisted LFO patterns and wildly detuned solo tones at every Value knob turn. Quite simply, the thing sounds good—damn good.

THE FINAL MIX

While it boasts plenty of programming possibilities, it must be said that Phatty's savvy control layout and portable dimensions accentuate this new synth's main strength: Little Phatty is a *performance* synthesizer, designed both in terms of its size, weight and ergonomics to respond to the touch of keyboard players—on the keys themselves—and in the kind of two-handed tweaking/playing moves that experienced keyboardists like to pull off. With the absence of an onboard arpeggiator, Little Phatty is less likely to appeal to sequence freaks or one-fingered sound sculptors; but it's ideal for players who want to perform big bass lines, classic leads and raw textures in a live setting. Sure, it has the kind of in-your-face analog sound that sticks to tape beautifully, but there are scads of synths—many soft synths among them—that record well; few are designed with the cool retro-future looks, beer-goggle tweaking simplicity and PA-busting sonics that earmark Moog's Little Phatty. **fm**

PHOTOGRAPH: ANNA DICKSON