



Moog

# Slim Phatty

Moog's new synth is one of the company's most affordable to date. **Mike Willox** finds out if quality has been compromised.

## Slim Phatty

Manufacturer **Moog**

Price **£699**

Contact **Source Distribution**

**020 8962 5080**

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### Key Features

- 2 variable oscillators
- Versatile filter
- CV inputs
- DIN/USB MIDI
- Tap tempo
- Arpeggiator
- Pot mapping

Ask anyone who has even the most tenuous grasp of music technology to name a brand of synthesizer and they'll probably say 'Moog'. The continuity of Moog's success is down to several factors, but the key has always been in the quality of the oscillators and Moog's inimitable filter. The latest incarnation of the company's Little Phatty range is a Moog at its most basic, but the classic Moog oscillators and filter are at the heart of this excellent-sounding synth, which brings the essentials of subtractive synthesis at a more affordable price.

## Phat boy Slim

The Slim Phatty is a superbly built, 3U-high desktop module that has the option to be either rackmounted (optional ears are available for around £25) or be surrounded in a very lovely looking bespoke wood surround that's available from Moog for a smidgeon over £100. The solid sheet-metal casing is cut in a way that angles the fascia up

to the user, enabling very ergonomic use of the well laid-out control surface, whichever way you choose to mount it.

The 100% analogue signal path comprises two VCOs, a voltage-controlled low-pass filter, two envelope generators (one for volume and the other to shape the filter cut-off frequency) and an LFO. The inclusion of an arpeggiator – which can be clocked externally as well as to the LFO – makes it an incredibly versatile synth, ideally suited to all types of dance music.

## The ins and outs

As with the larger models in the range, the connectivity options are excellent: CV inputs for volume, pitch and filter as well as a keyboard gate input. There's a mono output and a single input socket for using the 24dB/oct Moog ladder filter to process external audio signals. There's also a headphone output.

how you want the synth to handle MIDI – although, sadly, it doesn't accept aftertouch, which is a big omission. If you're using the synth as part of a DAW setup (and have a spare port) then you're probably best off using the USB connection (the Moog declared itself immediately in the Input Routing options of our MIDI track in Cubase 5), enabling your controller to be routed straight to the Slim Phatty.

Essentially, the Slim shares the same control surface as its stablemates in the Phatty family. An incredible depth of subtractive synthesis is possible from so few retro-styled knobs and red and amber backlit buttons.

The control surface is divided into six sections. On the far left is the Master panel, from where the more advanced preset settings can be accessed as well as global settings. The middle four panels – from where modulation, oscillator, filter and envelope parameters are adjusted – each have their own large rotary controller for each step of the synthesis path. Finally, on the far right of the control surface is the main volume control. You can turn off the signal from the audio output (and hear the output only via the headphone socket on the back) by pressing the backlit button under the

/// The **classic Moog oscillators** and inimitable Moog filter are at the heart of this **excellent-sounding synth** ///

MIDI connectivity is served by DIN in and out sockets as well as USB, and there's a comprehensive range of options in the Master menu to set up

volume knob. This is a useful function for live and studio work, when the synthesist may want to program the synth before bringing it up into the mix.



Both oscillators are controlled by selecting a parameter from a series of rubber backlit buttons, then using the rotary controller to adjust the amount. A series of LEDs tracks your progress around the dial, giving you a useful at-a-glance view as to where things are.

Waveforms are continuously variable, all the way from triangle through saw and square to narrow pulse; octaves can be selected from 16' to 2', with only Oscillator 2's frequency being adjustable.

There's a Level control for each oscillator, and if you wanted to process an external signal without mixing it with the Slim Phatty's sound engine these will need to be turned off – we just created a preset with the oscillators turned down and saved it as audio in for using the Moog as a standalone signal processor. Oscillator 2 can also be hard-sync'd to Oscillator 1.

### Up the ladder

As we said at the beginning, the filter section is the real business end of any Moog product: the oscillators on their own sound incredibly full and solid in a way that digital technology just can't produce, but it's the filter that gives the warmth and 'creaminess' that defines the Moog sound. Bob Moog realised that the slight distortion produced by his ladder filter had a positive musical quality that others might have removed in the design process.

Cut-off and resonance are user-adjustable along with the amount that the keyboard tracks the cut-off frequency (KB). The EG parameter, meanwhile, enables you to set the amount that the filter envelope generator affects the filter cut-off frequency. This is a bi-polar parameter, meaning that when you set a negative value it will lower the cut-off frequency; at a positive setting it will raise the frequency. When used in conjunction with the modulation section this can produce the kind of dramatic frequency sweeps that were synonymous with the early outings of artists such as Vangelis, Yes and Emerson, Lake & Palmer.

### Into overdrive

Last but certainly not least in the filter section is the Overload. This important little circuit does a couple of things at once. On the pre-filter side, it simply boosts the signal going from the mixer into the filter. Overdriving the signal into the filter creates a warm and saturated distortion, boosting the low end while only minimally reducing the effects of filter resonance.

Post-filter, the Overload control sends the signal through a diode clipping circuit, which adds increasing amounts of soft-clipping distortion to the already fattened and overdriven signal. Moog claims that the combination of filter saturation with additional soft-clipping after the filter

## ▨ The oscillators on their own sound incredibly full and solid, but it's the filter that gives the warmth ▨

is unique to the Phatty Overload circuit – it certainly kicks out a scorching load of level when you want it to.

The two envelope generators each have their own dedicated A, D, S and R buttons. The amplifier envelope is used to shape the oscillator's sound and the filter envelope affects how the cut-off frequency is shaped, relative to the amount of EG that's been set in the Filter panel. These are the two essential envelope generators in any subtractive synthesis signal path and, again, however basic this device may look at first, really complex and unique sounds are possible from the Slim Phatty – providing that you understand the simple fundamentals of how electronic music is produced.

### Deep thoughts

The Modulation section is where you can get really creative with the Slim Phatty. There are eight modulation sources available in total, but only six of these can be accessed directly from the control surface. Going into the Advanced Preset menu, however,

### ■ Measuring Up

There's not a lot of competition in the true analogue synth market at this price point. Dave Smith Instruments' Mopho Keyboard – £749 – is the only real contender. It has a 32-note keyboard as well as three envelopes, a 4 x 16 step sequencer and mod/pitch wheels. If you're looking for the classic and inimitable Moog sound then, obviously, the Slim Phatty would be your first choice. If you're looking for an all-in-one true analogue solution, you should try out the Mopho as well.

enables modulation sources 5 and 6 to be changed from Filter Envelope and Oscillator 2, to S/H and Noise respectively, enabling you to create all kinds of sci-fi blips, beeps and washes.

The four modulation destinations are Pitch, Filter, Wave and Oscillator 2. Again, using the Advanced Preset menu, a secondary destination can be set from the same four options. All of this is controlled by the LFO, for which Rate

and Amount are definable. The LFO speed can be set either by the dial on the front or by tap tempo and can be sync'd internally or by MIDI clock.

Finally, the Slim Phatty's Master panel's global functionality has everything you'd need to integrate it into any studio or live setup: the 99 presets available can all be overwritten with your own sounds and, with reKon's optional editor software (\$69 from Moog Music), an infinite amount of presets can be stored to disk.

If you're looking for a real analogue sound that sits in the mix like any digital synth could only dream of, then the Slim Phatty, with its classic Moog sound and excellent build quality, would make an excellent choice. **MTF**

### MTF Verdict

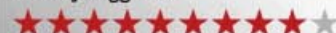
#### WHY BUY

- + 100% true analogue signal path
- + Very solidly constructed
- + Very versatile
- + Audio input
- + Arpeggiator

#### WALK ON BY

- No aftertouch
- No MIDI input indicator

*A superbly built, great-sounding synth in the Moog tradition with a depth of subtractive synthesis that's much more sophisticated than the size of the control surface initially suggests.*



### ■ Method Spot

Any kind of real-time tweaking in a live situation benefits from a tap tempo function and the Slim Phatty's arpeggiator and LFO rate can be adjusted from it. Many of the wealth of backlit buttons have dual functionality, and to select the tap tempo function press and hold the LFO Rate button until it starts to flash, then tap in the tempo you want using the same button. The light will flash at the rate to which the tempo's been set.



The Slim Phatty has the usual array of connections you'd expect from any Moog and, thanks to the audio in, can be used to process any external audio signal as well as those it generates itself.