

MT Reviews

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MOOG Sub Phatty

The latest in Moog's synth arsenal is monophonic, has just 16 presets, and no screen. What's not to like, asks **Andy Jones**...

Details

Price **£859**
Contact **Source**
Distribution
020 8962 5080
Web **www.moogmusic.com**

Key Features

- 25 semi-weighted keys
- 16 presets (4 x 4 banks)
- Mod sources: triangle, square, saw, ramp, SH, filter envelope
- Destinations: pitch, osc 2 pitch only, filter, waveshape
- 1 x TS audio in, 1 x TS out and TRS headphone out
- MIDI I/O via DIN and USB MIDI (not audio)
- CV/Gate inputs: filter, pitch, volume, KB Gate

The brand-new Moog Sub Phatty is analogue, monophonic and described as 'Moog's grittiest synth' yet. This is down to it being the first Moog to feature a 'Multidrive' circuit, sitting just before the amplifier section, offering a few extra stones for the aforementioned grit. This, combined with a couple of other extras under the sonic bonnet, gives Sub Phatty an edgy Moog sound you might want to sell your gran for. Fortunately, you won't have to because, as well as being Moog's grittiest synth, it's also one of the company's cheapest yet.

First impressions

Out of the box, the quality is clear. Sub Phatty is reassuringly heavy, built well and has a rock-solid feel. I especially love the end plates and that curved back – cool, modern but retro all in one.

It's a subtractive synth with a layout that will be familiar to many but there are several tweaks that Moog's

designers have added to give the synth more interest. At its heart are two main oscillators, a sub and a noise generator. The two oscillators can move gradually between waveforms (unlike many other synths, where you switch between them) so you can sit between two

generator – where the better action lies. This square wave oscillator is locked one octave below that of oscillator 1's pitch, so dialling it in creates a huge base for your sound to sit on – and obviously more bass, too! It's tempting to dial it in on everything but it's probably best left to the end of your creations.

The Mixer section simply comprises four dials to adjust the levels for each internal generator, so straight to the Filter section. Here you get a low-pass filter with four slope types. The biggest knob on the Phatty is Cutoff – that dial you go to, along with Resonance, to instantly show off acid-stylee.

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waveforms. Already we have that little extra flexibility – and we've barely started. A Hard Sync button locks oscillator 2's phase to oscillator 1's so that its shape and their combined timbre become a lot more interesting, especially when 2's frequency is modulated. The Noise source obviously brings what it says to proceedings but it's perhaps the sub oscillator – a fourth

Resonance does what it says on the tin: emphasising frequencies at the cut-off and feeding them back in – basically making any changes you make to the frequency cut-off that bit more dramatic for instant results.

Filter cut-off can also, of course, be controlled by other factors, including two envelope generators. The EG Envelope controls how the filter cut-off

is modulated by the shape you've dialled into the filter envelope ADSR (Attack, Decay, Sustain, Release) section. Give it a short attack, for example, and your note will reach the filter cut-off frequency quickly. KB Envelope gives you a similar reaction, but this time dependent on the note played. Both offer some fantastic note movement options over both pitch and time.

The last dial in the Filter section is the aforementioned Multidrive circuit. It's quite a simple concept – basically, a drive circuit for added distortion and aggression placed between the filter and amp. But add it to the sub oscillator and those sweepable waves and you have three factors that already give this synth some extra sonic character.

Finally, on the right-hand side of the front panel is a standard ADSR for the note volume-over-time level and dials for master and headphone levels (plus a front-panel headphone socket).

The low-down

The LFO section is the last major one to cover, and again it's simple... on the surface at least. You get five waveform sources plus the aforementioned filter envelope so you can get more hands-on with the LFO shape using the ADSR dials. The rates at which these oscillate are determined by the LFO Rate dial, and what they oscillate – pitch, filter and waveform – are determined by the remaining three dials. The excellent manual takes you through how these can be used in practical situations – there's a particularly good pulse wave

modulation walkthrough that will have you pushing a waveform to its limits while remaining in time with the LFO. In fact, on first use of the Phatty I'd recommend everyone to initiate one of the presets (ie, so it's silent – again, this is clearly detailed in the manual) and then follow the walkthroughs. There's an excellent kick drum one in there that re-creates a classic 808. I took it further to create the ultimate bass kick – well, in my mind it was anyway...

Shifting up

Finally, we come to Shift mode. This is where you can go a lot deeper into the Sub Phatty programming by adding functions to existing buttons and dials. So, for example, in Shift mode the filter envelope Decay dial becomes an additional hold parameter, adding a stage to the ADSR and making it AHDSR, so your note can linger between attack and decay. Other additional features in Shift mode include the Noise dial changing to control the external signal input level; the filter and amplifier envelope Attack dials both becoming a delay; and the Hard Sync button becoming an oscillator reset so they start their cycle when you hit a key, which results in an edgier sound.

You can also access and change several other hidden parameters in Shift mode, such as those filter slopes I mentioned earlier. In Phatty's normal setup the filter is a 'classic' 24dB per octave one, while in Shift mode you can access 6, 12 or 18dB slopes. There are also additional hidden parameters to

Alternatives

The Arturia MiniBrute (£409) is an obvious alternative in terms of looks if nothing else. Sound-wise it features only a single oscillator but does have a 'Brute Factor' control to supply feedback crunch. It can certainly be filthy but probably not as low and rounded as the Sub Phatty, although it does have a more varied range of sounds overall.



Sub Phatty has a splendid, smooth back panel...

access for transposition, legato, glide, the LFO and both envelopes, plus a huge amount of MIDI and system information.

Shift mode is clever, but constant reference to the manual to determine which dial does what soon becomes tedious – differently coloured labels for each 'extra' parameter next to the dials might have made it easier to use.

Everything you change in Shift mode can be saved with the preset, something that I haven't touched on yet. The Phatty comes with 16 presets and you will have to save over them – a simple two-button-press process – if you come up with a great sound. Just 16 presets does sound limiting and Shift mode is a little clunky. Luckily, Moog has supplied free software to add unlimited →

MT Navigation Free Phatty software

a SUB OSCILLATOR
A square wave oscillator locked one octave below osc 1 – the first element to help give Phatty's deep sound.

b LOWER PANEL
The lower panel in the free software is dedicated to the features found in Shift mode, such as the external input level dial shown here.



c FILTER CUTOFF
A classic Moog low-pass with four slope types to choose from.

d MULTIDRIVE
The Grit section! This drive circuit sits just before the amp stage and adds punch and weight.

→ presets and make programming a lot easier. As you can see in the Free Phatty software box, the software replicates the Phatty front panel and shows more of the Shift mode functions as well as the load/save preset options. It makes using all of this extra functionality (and preset management) a breeze.

Drive time

So what do all of these parameters give us in terms of sound? It would be very easy for me to simply say 'really fat sounds' and move on, but you deserve more – and, in fact, the synth is capable of more. But first let's concentrate on the low end. I've already touched on the sub oscillator and this will give you plenty of bottom. That's not to say that the two main oscillators are lacking anything down there, but it's the Multidrive section that really enables you to add grit – and grit is what this synth is all about.

One of the presets – no names included, but it's number three – has a fantastic filter envelope that takes it from an almost punchy lead to a deep bass in a second. The grime you get with it is palpable and it's all from the Multidrive – there is almost no sub oscillator on it as it simply isn't needed (well, there wasn't until I got my hands on it!). The next preset is all bass; again, a lot from the Multidrive and this time with heaps of sub, short attack times and long releases for a sound that could be the backbone of any bass tune.

Other sounds include a fantastic punchy, almost metallic bass that was produced, on further discovery, by two pulse waveforms, plenty of sub for a massive analogue finish and almost no Multidrive. It would have been nice to have different banks of 16 different presets to load in to really hear what the

synth is capable of from the off but I suspect that these will come with updates to the software.

All of which leads me to conclude that the bass is big, yes, but the Sub is capable of more than that. Within the 16 presets are superb examples of this, both the biggest basses you can imagine along with incredibly punchy leads. Once again I ask you to reach for the manual and tweak, tweak and tweak some more. Try their examples and delve into Shift mode for the extra programmability that it brings because you will get great results very quickly.

Sounds right

It would be easy to focus on negatives with the Sub Phatty. Certainly, the lack of a screen will put many post-1985-synth users off, as will the number of presets and their selection. But hook it up to a

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computer and both negatives are pretty much negated – and who doesn't use a computer in music-making these days? And, sure, the keyboard's not exactly a playing vehicle – two octaves does not a Richard Clayderman make – but do you need more than that to play bass or lead? These sounds are where this synth's strengths lie, so it will be used for playing either bass or occasional tearing leads, not both simultaneously.

The Sub Phatty excels at sound creation and manipulation – exact and effective tweaking, dramatic dialling and almost constant saving as you



Not only does the Sub Phatty sound gorgeous, it looks gorgeous, too...

come across sounds you will want to return to. And I really do see its home within a creative programming environment like this, something to take your sounds higher, and in that respect it fills its tight brief superbly and your sounds will benefit hugely.

And the word 'your' is probably the crux of Moog's argument – and, to a certain extent, mine. If you want 'your' sound to be the same as that produced

by everyone else with a similar set of VA soft synths, look elsewhere. But if you want one item to take elements of your sonics to another level and make you stand out that little bit, the Sub Phatty is a great option. It might cost to do that – £859 is not cheap for any synth these days – but it once cost a lot more to make music and that resulted in people being more creative with their kit. So perhaps if we spend more on higher-quality beasts like the Sub Phatty we might get more original results and rediscover our creative selves in the process. I can only dream... **MT**

Method Spot

We haven't covered the fact that you can put external signals through the Sub Phatty's architecture. Simply connect your input signal with a standard TS jack. Make sure you have your levels low by keeping both your input signal low at source and the input level low. This can't be done from the front panel straightaway – you'll have to enter Shift mode or use the software (we've highlighted where it is in the Free Phatty software box on the previous page) then gradually raise the levels and enjoy getting hands-on with Sub Phatty's features with, well, pretty much any signal you want.



At £859 the Sub Phatty might seem a little on the expensive side, but for the legendary Moog sound and the company's enviable heritage it's actually a bit of a bargain...

MT Verdict

- + Stunning sound
- + Easy signal flow
- + Great drive circuit and bassy sub oscillator
- + Extra layer of options for deep programmability
- + Easy preset management within the software

- Could have done with more 'banks' to show off the sounds

A boutique synth that will give you some great lows and punchy highs. Use it in conjunction with the accompanying software and you won't look back...

8/10