

Korg Wavedrum

| £459

The innovative percussion module returns. Can it take on the HandSonic range, wonders **TJ Glover**



WHAT IS IT?
Acoustic/algorithmic/
PCM-based percussion
instrument

CONTACT
Who: Korg UK Ltd
Tel: +44 (0)1908 857100
Web: korg.co.uk

HIGHLIGHTS
1 Mind-blowingly playable
2 Excellent sounds
3 Powerful, organic
approach to sound
generation

In the world of digital hand percussion, the current roost is pretty much ruled by Roland's HPD-15 and HPD-10 HandSonic instruments, with very little in the way of contention from the other big music technology houses. Until now, that is, because Korg's magnificent Wavedrum has returned!

The original Wavedrum, released in 1994, was a stunning technical accomplishment but a much-lamented commercial failure. A boutique physical modelling drum synth capable of

extraordinary sonic subtlety and depth, it came with a £1,500 tag that put it thoroughly out of reach of all but the wealthiest of forward-thinking percussionists. It also had a rather hilarious wooden rim that made it look a lot like a toilet seat, but we can probably assume that that didn't contribute to its eventual discontinuation, after only about 3,000 of them had been built.

No, it was that hefty price tag wot dunnit, and this is just one of many areas in which the all-new Wavedrum

gets it very, very right. At less than a third of the price of the original, it's at the bottom of the 'mid-range synth' bracket, which is exactly where it should be.

Sensor drama

The second generation Wavedrum comprises a 13.5" wide metal rim around a regular, tunable 10" drum head, and a plastic base. It outputs via 1/4" jacks and a headphone mini-jack, and features a mini-jack auxiliary input for jamming along with your iPod. It's designed to be mounted on a snare drum stand or played in the lap, and at only 2kg, its weight belies an impressive level of solidity and sturdiness. The curved rim is very comfortable under the hand, clearly strong enough to withstand a limitless amount of battering, and features two rows of bumps – one fine, one coarse – for scraping, guiro-style. Incidentally, unlike the two HandSonic, the Wavedrum isn't meant to be played with bare hands only – sticks, mallets and brushes are all welcome.

Three contact sensors are built into the interior body of the Wavedrum – piezo microphones, essentially – one under the head and two under the rim.





These pick up the acoustic sounds of the head and rim being struck, rubbed, scratched or played in any other way you can think of, capturing all the dynamics, elaborations and manual tone-shaping of your performance.

There's also a pressure sensor, which turns pressure applied to the head into pitchbend and various control and triggering parameters. The sensors pass their audio signals and info on to the sound engine, which is where things get really interesting.

Sound construction

A Wavedrum patch is made up of two PCM sounds and a DSP algorithm combining various methods of synthesis, including analogue, physical modelling, additive and non-linear. There are 100 head samples, 100 rim

12 patches – preset and/or user – to the Wavedrum's programming buttons (three banks of four) for instant recall.

The 36 algorithms come in single- and double-size varieties (see Feel the Algorithm box), and each one has eight editable parameters specifically tailored to the instrument sound that it synthesises. For example, the Tabla algorithm offers Bend Curve, Shell Pitch and Shell Decay, among others, while Bonga (used for conga and bongo sounds) gives you control over such attributes as Shell Size, Brightness, Slap Decay and Sub Harmonics.

The PCM sounds are triggered via the head and rim and mixed with the algorithm. As you'd expect, they boast a lower level of editability than the synthesised algorithms, with tweaking limited to tuning, decay, level and pan.

display, which doesn't even try to give proper names to anything. Generic abbreviations are used throughout, so keeping the manual (which names and describes every algorithm parameter) handy is a must when programming. That rather irritating 'feature' aside, the adjustable options on offer are salient, well thought-out and suitably profound in terms of their impact on the sound of each algorithm, while the five buttons and single data entry knob do an adequate job of keeping navigation relatively straightforward.

Effects-wise, the action's limited to reverb (ten types) and delay (0.01-2 seconds, with feedback and HF damp) – a tad disappointing, perhaps, particularly in comparison to the extensive and colourful array of processors in the two HandSonics.

Unusually for this day and age, the Wavedrum has no MIDI implementation whatsoever. Consider the way the instrument works, though: it's

taking an audio input and processing it – it's not triggering multiple samples via note data in the same way that the HandSonics do, so the amount of MIDI it could output would be limited to two notes (head and rim) and their accompanying velocity, and pitchbend. It's just not that kind of device, so if you're after a percussion-orientated MIDI controller, look elsewhere.

Just like its predecessor before it, the new Wavedrum is never less than a joy to play

samples and 36 DSP algorithms onboard, combined in various ways across 100 read-only presets and 100 user patches, the latter of which mirror the former by default but can be fully edited and overwritten. The very handy Live mode enables the assignment of

Thanks to the comprehensive programmability of the algorithms, a staggering wealth of sonic possibilities awaits those prepared to put the effort in and design their own drums. And actually, the only thing that really makes it an effort is the three-character LED

Feel the Algorithm

The Wavedrum's 36 algorithms are divided into 'single-size' and 'double-size' varieties.

Essentially, double-size algorithms are more realistic than single-size ones, enabling more effective stroke variation and combining the rim and head into one fully integrated instrument, rather than generating

separate sounds from each. The two PCM sounds that accompany each double-size algorithm are hardwired and can't be swapped out, but single-size algorithms and the rest of the PCMs can be mixed and matched freely.

This is because the double-size algorithm itself actually controls the

response of its accompanying PCMs, so they're specifically designed to work together in the interest of creating as convincing an emulation as possible, as opposed to the straight triggering of PCMs in single-size algorithm patches, which doesn't involve the same ultra-tight relationship.

Playability: the critical factor

Just like its predecessor before it, the new Wavedrum is never less than a joy to play – a performance instrument in every sense of the word, with almost all the dynamism and tonal flexibility of an acoustic drum. Adjustable sensitivity levels and an input-shaping EQ enable the engine to be tuned to hands or sticks, and both are equally effective. Using the pressure sensor, all manner of modulation and clever melodic control

SPECS

Synthesis: DSP + PCM Combination
DSP Algorithms: 36 Total
PCM Instruments: 100 Head, 100 Rim
Programs: 100 Preset, 100 User
Loop Phrases: 100
Effects: Reverb, Delay
Panel Controls: Volume, Bank/Mode/Page select, Program/Parameter select, Value control, Write
Output: 2x ¼" unbalanced jack, headphones mini-jack
Input: Stereo mini-jack
Display: 3-character 7-segment LED
Sampling frequency: 48kHz
A/D, D/A conversion: 24-bit
Dimensions: 350 x 344 x 75mm
Weight: 2kg

ALTERNATIVES



Roland HPD-15 HandSonic
£969

The HPD-15 offers more in terms of features, raw sounds and effects than the Wavedrum, but can't touch it in terms of playability.

rolanduk.com



Roland HPD-10 HandSonic
£579

Less pads and effects than the HPD-15, but its improved sound library make the HPD-10 a great module for the price.

rolanduk.com



Akai MPC2500
£999

Akai's groovebox isn't an instrument in the same sense that the Wavedrum is, but it's certainly a powerful workstation.

akai.com

is possible – and since the head is tunable, and every element of the system can be tweaked, you can get the head, rim and pressure calibration set up exactly the way you want them. The skilled percussionist will be blown away by the Wavedrum's responsiveness, sensitivity and tactile beauty, but you certainly don't need any experience of

they're just not as expressive as the DSP algorithms. They're certainly very well deployed in the presets, by and large, but I did find myself turning them off or heavily velocity-scaling them quite often when making my own sounds, preferring the sublime expressiveness.

So, does the Wavedrum signal the end of the road for the HandSonic's?

unarguably a much deeper proposition, more fascinating, inspiring, organic and 'human'. It's a real musical instrument of endless potential, taking every nuance of the player's physical contact with it and directly turning it into fully malleable sound, rather than just using it to trigger samples. That silly, puzzlingly archaic display, a paucity of

effects and the completely closed nature of the library aren't ideal, but when you actually play the thing, any such negatives simply fade away.

the real thing to be able to create rich-sounding percussion parts with it.

The only real fly in the aural ointment is the fact that the PCMs can sometimes detract a little from the fluidity of the sound in single-size algorithm patches: being samples,

Not at all – Roland's rubber-faced duo are more immediate, versatile, flamboyant and, arguably, fun, thanks to their wider array of raw sounds, DSP effects and D Beam controllers – and, of course, they output plenty of MIDI data, too. The Wavedrum, however, is

Ultimately, I have no hesitation in declaring the Wavedrum an absolute must-buy for percussionists, and an instrument that demands to be investigated by everyone else, from producers to DJs. Both on stage and in the studio, it's the most remarkable fusion of acoustic and electronic I've ever seen, heard or had the pleasure of playing. Simply phenomenal. **FM**

Sounds Abound But Don't Get Around

The majority of the Wavedrum's presets are, naturally, of a distinctly percussive nature, but there are also a fair few sounds in there of a melodic or 'FX' bent. All the ethnic essentials – congas, bongos, djembes, timbales, talking drum, tabla, darabuka, etc – are onboard and sounding awesome, but there's also a lot of fun to be had with

D&B Synth, Always A Mystery, When The Clock Strikes 12 and the like. It must be said, though, that as entertaining as they are, some of these more outlandish patches may not prove hugely useful. Due to the lack of MIDI, there's no way to get patches in or out of the Wavedrum. You have 100 User slots, and that's your lot, and no chance of

backing them up. It's not the end of the world, since programming sounds is quite an immediate process, but a memory card slot (or, dare I say, MIDI output) would have been nice.

I should mention the 100 built-in loops, which are there to practice with and range from authentic Latin rhythms to cheesy Pop and Rock riffs.

FutureMusic VERDICT

BUILD [Progress bar: 10/10]

VALUE [Progress bar: 8/10]

EASE OF USE [Progress bar: 7/10]

VERSATILITY [Progress bar: 9/10]

RESULTS [Progress bar: 10/10]

An instrument like no other, the Wavedrum is the future of electronic percussion.

