# Yamaha Reface DX £347

The first new DX-badged synth since 2001's DX200 module is here. Dan 'JD73' Goldman sees what's new...

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## WHAT IS IT?

New four-operator DX synth, with mini-keys, speakers, looper and effects

### CONTACT

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## **HIGHLIGHTS**

- 1 Compact, portable and well built with intuitive editing via the new touch controller
- Sounds great with a glossy, noise-free, modern DX sound
- High-quality effects and handy looper

M synthesis has been experiencing something of a renaissance recently, largely due to the popularity of soft synths such as Native Instruments' FM8, Primal Audio's FM4 and Digital Suburban's Dexed. These authentic sounding, feature rich, backwards compatible soft synths have ensured that FM synthesis has stayed relevant for modern day producers. Save for the MOD7 engine in Korg's Kronos and Nord keeping FM alive in their Lead/ Stage models, the big players (and particularly Yamaha) have largely abandoned FM in favour of samplebased synthesis. It's a real shame, as the only thing really holding back FM synths of old (including the brilliant SY77/99 and FS1R) was the lack of hands-on control. The DX200 module went some way to putting things right but it still required a computer to get the best from it. Fast forward to today and we have the first new DX with a keyboard since 1988's DX11! This is

big news and something folks have

will it address the key deficiencies of old FM, in particular the lack of hands-on control?

The Reface DX is built into the same high-quality enclosure as the other Reface models. This time though, it's a browny colour like the original DX7 but the similarities stop there -

this new DX has more in common with the DX100 and so it features a mini-keyboard (three octaves compared to the DX100's four) and also uses four operators (FM-speak for oscillators). Despite being one octave shorter than the DX100, the quality of the Reface DX's keybed is much nicer. The mechanism is based on a miniaturised Motif keyboard and you can really feel the difference between the Reface keybeds and other manufacturers' mini-key offerings. Like the Reface CP, the DX also has velocity, though no aftertouch. One of my favourite parts of the DX100 was that it could be worn as a keytar and thankfully the Reface DX (and other Refaces) can be worn this way too, using the optional Keytar Kit.

The front panel is very clean looking. From left to right we have a pitch lever (also found on the Reface CS) and, similarly, it's a shame there's no dedicated mod wheel, though it

## FX, Looper And Connectivity

The Reface DX has some great effects onboard, much like its Reface brothers. However, there are two effect units available at once here. surpassing the other models. Effect types include distortion, touch wah, chorus, flanger, phaser, delay and reverb so there's plenty to radically alter the dry tones. Importantly, these effects sound excellent and really enhance the already great-sounding

new DX engine, plus you can tweak the effects in real time using the touch faders to spice up live performances. If only the old DXs had had FX!

There's also a handy basic looper with real-time overdubbing (same as the Reface CS) where you can record up to 2,000 notes (though there's no real-time parameter recording). It can be sync'd to MIDI too and it's a great way to capture ideas on the

fly, which you can then record to your DAW.

Round the back you'll find a full-sized headphone jack and jack outs, an Aux In for jamming along to MP3s, USB for MIDI/updates and a sustain pedal input. Finally, to top things off, you can capture preset sounds and make setlists using the iOS Capture App and then share them via the online SoundMondo community.





responds to modulation commands over MIDI. Next up is the master volume and an octave slider.

Then we hit the unique 'Data Entry' section. One of the achilles heels of the original DX series was the conspicuous lack of real-time, hands-on control over key sound-shaping parameters. To address this, Yamaha have implemented a clever touch panel with four columns that directly correspond to the four parameters columns showing onscreen (parameters shown depend on the mode/function selected). To change a parameter in real time, you simply tap on a red arrow to move levels up or down, slide your finger over the whole column for bigger/faster parameter changes/sweeps, or tap on a

parameters over MIDI via most controllers too.

At the heart of the Reface DX is an eight-note polyphonic (with mono mode) four-operator FM engine. Though the DX7 (and SY77) had six-operator implementations, I've always been able to pull great sounds out of my four-operator DX100 but the Reface DX is an improvement in several ways. Firstly, the sound quality massively surpasses the DX100 with its aliasing and hiss and noise (okay that's part of its charm too) but I often have to gate the DX100 or filter out the tops to make it usable. Instead, we now get pristine FM which sounds wide, rich,

character of a basic sine wave). Much like a modern Moog oscillator with a continuously variable waveform, you can now move from square, through sine, to saw continuously which nicely extends the original four-op DX100 engine. In addition, we can now connect the operators in 12 different ways (algorithms) as opposed to in eight ways on the DX100, allowing lots more tonal variety. In terms of familiar modulation facilities, it's still fairly basic but there's a MIDI syncable LFO with seven waveforms that can be sent to pitch and amp (and applied to all, or individual operators), plus there's a four-stage amp envelope generator and a four-stage pitch envelope generator. I was hoping for a filter too

but, alas, no luck!

Above all though, the basic four-op DX is back with a vengeance and having four parameters onscreen at the same time for

tweaking in an intuitive way is a huge improvement over the old DXs with their basic data entry sliders/ cryptic-screened interfaces. There are four banks of eight (writeable) sounds onboard too, which although stingy, is better than the other Refaces. To top things off, there are some impressive effects (unlike the old DXs) and a basic but handy MIDI-looper. It's genuinely exciting that Yamaha are revisiting FM again and improving it along the way if the Reface DX is anything to go by, the future of FM looks bright! Roll on more new DXs!

The new data entry touch panel invites tweaking and takes the headache out of FM programming

circle for switching functions on and off. In practice, it works very well - it's intuitive and pretty addictive and it really invites tweaking, taking the headache out of FM programming rejoice! The only thing missing is a way to control the touch panel's sensitivity. as it takes a few too many finger sweeps to move from 0-127. All things considered though, it works well, plus you can control the key sound-shaping

full and shiny with no noise. It reminds me more of my SY77 in terms of sonic quality than the DX100 (which is undoubtedly a great thing) and it can make all those classic DX sounds, though unfortunately there's no backwards compatibility with older models' sounds.

The other big change is we now have continuous feedback on the operators (feedback changes the tone/

VOICE SELECT / EDIT 

## FutureMusic VERDICT

EASE OF USE VERSATILITY

It's well built, portable, has an improved four-op engine with FX and it sounds suitably DX-y!

## **SPECS**

37 Mini-key keyboard with 2 x 3 watt speakers Battery life approx 5 hours (6 x AAs) MIDI over USB and via included breakout cable Engine: 4-Operator, 12 Algorithm FM 32 writeable memories

Effects: Distortion/Wah/ Chorus/Flanger/Phaser/ Delay/Reverb (2 units) 8-note polyphony

Phrase Looper Full Dot LCD (128 x 64 dots)

1/Os: AUX IN (minijack), L/R Jack outputs, Sustain Pedal Dimensions:

530 x 175 x 60mm Weight:

1.9kg

## **ALTERNATIVES**

# LI CONTROLLED BY Yamaha DX100

The nearest spec-wise to the Reface DX from Yamaha's original DX range. Four-op FM four-octave mini-keyboard, pitch/mod wheels, preset storage, breath control and it's wearable too!

Nord Lead 3

The Lead 3 is still very sought after, particularly as it has a superb hands-on interface with LED-ring dials for almost every parameter. It also does two-op and four-op FM.



Yamaha SY77

Probably the finest FM keyboard synth created by Yamaha, this six-op beast allows 16-voice AFM, AWM2 sample-synthesis, 45 algorithms and 16 waveforms. All coupled to filters. FX and sequencer.