

ZOOM R16 £429
RECORDING



When it comes to mixing down your track to stereo, the R16 has a dedicated master track to do it all 'in-house'. EQ and panning is available for each track and rotary encoder, as are two send and return effects – chorus/delay and reverb. Insert effects can also be used at mixdown, either on tracks or as an overall mastering effect.

Now, with the USB connection, audio that has been recorded onto the SD card can be easily transferred to a computer by a simple drag and drop process for mixing using digital audio workstation (DAW) software – the R16 package includes Steinberg's Cubase LE4. Another way to go about things is to use the R16 as you would any audio interface and record directly to the software. As with recording to the SD card, eight-channel simultaneous recording is possible. The eight input channels and two output channels provided in audio interface mode can be used simultaneously. Operation at

Zoom R16 £429



This three-in-one multitrack HD recorder, audio interface and software controller aims to make your sessions a whole lot easier **by Trevor Curwen**

The boom in computer recording hasn't killed off the self-contained hardware multitrack studio, but new models aren't as common as they once were and the latest designs have evolved to enable them to integrate with computers and complement computer recording. The latest of this ilk is the Zoom R16 – a 16-track multitrack recorder, a multi-channel USB audio interface and a control surface for computer software, all rolled into one compact mains or battery-powered package.

Not much bigger than a computer keyboard, the slim plastic body of the R16 houses all of its audio socketry neatly at the back, and sports a tidy and uncluttered control surface.

The R16 is capable of eight tracks of simultaneous recording to removable media in the form of an SD card, and up to 16 recorded tracks can be

played back in 16/24-bit linear wav format at the 44.1kHz sampling rate. Eight input channels are equipped with a combination XLR/jack socket that can take a mic or a line level signal. One channel can be switched to Hi-Z operation to take a signal directly from a guitar or bass while two of the channels are equipped with phantom power – ideal for connecting a stereo pair of condenser mics. If you don't have two condensers, you can still make a stereo recording as the R16 has a pair of mics built-in – great if you get an idea out of the blue and want to quickly hum it into the recorder.

When recording, the R16 has insert effects that can be recorded with the sound. There are various effects optimised for guitar, bass and vocals. Plugging your instrument straight in, you can get amp simulation using 18 different

named guitar amps and six bass amps. A compressor and equaliser effect can be used on eight channels simultaneously.

An onboard metronome helps keep you in time and hands-free recording is available by programming in automatic punch-in and out points. Footswitch operated punch-ins aren't supported, however.



USB connection enables simultaneous 16-track recording with a computer

The Rivals

The R16's three-in-one capability is unique, but there are other options. **Korg's D888** (£574) is an eight-track machine with a 40GB hard drive that's a great location recorder. You can record eight tracks simultaneously in-line with a larger system. Other options with eight-track simultaneous recording are the **BOSS BR-1600CD** (£1,129), **Yamaha AW1600** (£1,291) and the **Tascam 2488neo** (£799).



There's nothing like proper faders for real tactile recording fun

24-bit/96kHz is possible but, if you use the 44.1kHz sampling rate, the internal DSP effects of the R16 can be used on your computer tracks.

Taking the computer experience further, any transport and mixing operations of the DAW software can be controlled with the R16 set to Mackie Control emulation mode, with support for the likes of Logic and Sonar, as well as Cubase.

The final piece of flexibility in the R16 jigsaw is that two R16s can be linked and synchronised via USB allowing 16-track simultaneous recording.

Sounds

The R16 is very easy to use. The front panel has been kept clean and streamlined, with only some essential controls having knobs, buttons or faders. Everything else is accessed via a four-way cursor and data entry wheel, with all functions and parameters shown in the small but clear display.

The channel preamps provide respectable sound quality and if you're plugging in a guitar or bass, the insert effect amp simulations offer a healthy selection of Fender, Marshall, Vox, Mesa/Boogie and Ampeg simulations, and there are some very tasty modulation, pitch and time effects too: a huge variety of sounds on board.

The built-in microphones yield better results than might be expected given the R16's price tag. We got decent results on both acoustic guitar and vocals, and there's no reason you couldn't capture the sound of a band in full flight – hardly refined, but it's an extremely convenient and well-specced scratch pad nonetheless.

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As an audio interface, the R16 should work flawlessly once you've installed the drivers and set all the preferences correctly in your DAW. We set it up with the bundled Cubase LE4 and it all works well, with a dedicated knob on the R16 helping set how you monitor your playing by adjusting the balance between the direct sound going to the computer and the DAW playback sound. As a control surface, the R16 integrates seamlessly with Cubase – the hardware buttons and faders slickly controlling DAW transport, track record arming/mute/solo and channel volumes, as well as other user-selected features.

Verdict

As a hardware multitracker, the R16 would work perfectly well for musicians or songwriters who want to record songs by building up an arrangement one track at a time, although some might be better served by a model that has onboard drums or similar backing track creation facilities.

But the R16's real strength is in a recording role, and this is due to the fact that it's easily portable and can record up to eight tracks at a time. This makes it a useful portable location recorder if you want to record a full band at a gig or in a rehearsal room, or maybe record just a drummer to create a solid foundation for further overdubs either on the machine itself or by transferring the

audio to a computer. If the R16 did only that it would be worth the asking price, but the additional audio interface and software controller make it an absolute bargain.

The fact is that the R16 is one extremely versatile piece of kit that can be used in a variety of scenarios. Assuming you have a computer, as most of us do these days, the R16 with the Cubase software thrown in gives you access to both hardware and software recording and the ability to exploit the best of both worlds – the simplicity and portability of battery-powered hardware to record anywhere, the ability to record eight tracks at a time directly to your computer and the tactile practicality of using real faders and transport buttons to control your recording software. There's a flexibility of working here that's simply not available in any other single piece of gear in this price range. **G**

The Bottom Line

We like: Multi-function capability; uncluttered but intuitive interface; good range of amp sims

We dislike: Plastic chassis; no footswitchable punch-in

Guitarist says: If you can't decide whether to go for a hardware or software recording set-up, just buy this – it's both!

Zoom R16

PRICE: £429

ORIGIN: China

TYPE: Combined multitracker/audio interface/software controller

RECORDING MEDIA: SD card (16MB-2GB)

AUDIO TRACKS: 16

SIMULTANEOUS RECORDING TRACKS: Eight

MAXIMUM RECORDING TIME: 200 minutes/1GB mono tracks

RECORDING DATA FORMAT: 24-bit, 48/44.1kHz

A/D and D/A CONVERSION: 96kHz 24-bit delta-sigma ADC

CONNECTIONS: Eight XLR/jack combo mic inputs (one with Hi-Z switching), 6.4mm line outputs (L, R), 6.4mm stereo headphone output, USB 2.0 Host and Device sockets

PHANTOM POWER: Yes (two channels only)

EFFECTS: Nine algorithms, seven insert effect modules with 330 patches, two send/return effect modules with 60 patches

OTHER FEATURES: Tuner, metronome

AUDIO INTERFACE: Eight in/two out, 24-bit, 48/44.1/88.2/96 kHz

POWER SUPPLY: Supplied AC adaptor/six AA/LR6 batteries (4.5 hours of power). Audio interface and control surface functions can be operated on USB bus power

DIMENSIONS: 376 (w) x 237.1 (d) x 52.2 (h) mm

WEIGHT (kg/lb): 1.3/2.9

EXTRAS: USB cable, Cubase LE4 software

OPTIONS: None

COMPUTER SYSTEM

REQUIREMENTS: Windows XP SP2 or later, Windows Vista SP1 or later, Intel Pentium 4 1.8GHz or better, 1GB RAM or more. Intel Mac: OS X 10.4.11 or later, Intel Core Duo processor 1.83GHz or better, 1GB RAM or more

Zoom UK

01462 791100

www.zoom.co.jp



Test results

Build quality ★★★★★
Features ★★★★★
Sound ★★★★★
Value for money ★★★★★

GUITARIST RATING ★★★★★